

**15TH ANNUAL REPORT OF THE SECTION 106 PLANNING AGREEMENT
BETWEEN BIRMINGHAM AIRPORT LIMITED AND
SOLIHULL METROPOLITAN BOROUGH COUNCIL**

EXECUTIVE SUMMARY

This report has been written to give an update of the operations at Birmingham Airport Limited (BAL) in relation to the Section 106 Planning Agreement between Solihull Metropolitan Borough Council (SMBC) and the Airport Company, Birmingham Airport Limited (BAL).

This report comes in a new format as it is based on the new Section 106 Agreement which came into force in February 2013. The new Section 106 agreement includes matters not previously reported on such as wake vortex, Historic Environment, Ecology and Landscape, Health, Business Tourism, Corporate Social Responsibility and Carbon Management.

The noise and track keeping system (ANOMS) used at BAL provides the latest technology for tracking aircraft and monitoring noise levels. A remote terminal has been installed for the use of the Airport Monitoring Officer based at Solihull Metropolitan Borough Council.

This report will also give an update on airport developments that have taken place at the Airport during 2013.

Ongoing monitoring has shown that the Airport Company continues to comply with its obligations in the Agreement. Any minor infractions have been reported and dealt with promptly in full consultation with SMBC.

Compiled by Beverley Hill, Airport Monitoring Officer, Solihull Metropolitan Borough Council

ACKNOWLEDGEMENTS

I would like to acknowledge the assistance provided by members of staff at BAL and the Environment Agency

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Glossary of Terms

Numbers in square brackets [] refer to references at the back of the report

Airport Company – Birmingham Airport Limited (BAL), operators of the aerodrome licence and legally bound by the Section 106 Agreement

AMO- Airport Monitoring Officer

airside - area of airport accessible only after proceeding through security checks, customs and passport control

annual limit - the yearly total of **ATMs** allowed during the night time period (2330 to 0600) (**exempt movements** are excluded)

ANITA-Airport and NEC Integrated Transport Access

ANOMS (Airport Noise & Operations Monitoring System) - aircraft noise and tracking monitoring system used by **Birmingham Airport**

apron - areas of airfield used for operations and for the temporary holding of stationary aircraft

ATF (Airport Transport Forum) - BAL led forum to aid the development of a sustainable transport strategy. Set up in accordance with the DEFRA white paper "Developing an integrated transport policy" [1]

ATM (Air Transport Movement) - a landing or take-off of an aircraft engaged in the transport of passengers, cargo or mail on commercial terms

AUN (Automatic Urban Network) - government approved air quality monitoring sites which form part of the National Air Quality Monitoring Network. Specific pollutants are monitored and the results are available on the government's web site [2]

ASAS Airport Surface Access Strategy

BCC - Birmingham City Council

BAL - Birmingham Airport Limited

CDA - Continuous Descent Approach

Centro - passenger transport executive for the West Midlands

Chapter 2 aircraft - older, noisier aircraft, such as the BAC1-11 and the Boeing 737-200 series (banned in the UK from end of March 2002) as defined in Annex 16 to the convention on International Civil Aviation [3]

Chapter 3 aircraft - quieter, more modern aircraft

dB (decibel) - measure of sound that uses a logarithmic scale from 0 (threshold of hearing) to 140 (threshold of pain)

dB(A) (A-weighted decibel) - refinement of the decibel rating that matches more closely the way the human ear responds to different noise levels

DEFRA - Department for Environment and Rural Affairs

DfT - Department for Transport

EA - Environment Agency

EPAQS - Expert Panel on Air Quality Standards which reports to *Defra* and advises on health based targets for air pollutants

EPNdB (Effective Perceived Noise Decibel) - Allows not only for human sensitivity to different sound frequencies, but also takes account of the “perceived noisiness” of whistles, whines, etc. and the duration of a complete aircraft flyover.

exempt movements - *ATMs* may be exempt from night flying restrictions due to the following circumstances:

- aircraft diversions that have been brought about by changes in weather conditions at the original destination airport or an in-flight emergency
- aircraft on medical evacuation or mercy flights where there is danger to life or health, human or animal
- any take-off or landing in an emergency consistent with preventing danger to life or health
- delays to aircraft resulting from widespread and prolonged disruption to air traffic
- delays to aircraft that are likely to lead to serious congestion at the Airport or suffering to passengers or animals

full aircraft engine ground running - engine running on the ground at 80 - 100% of engine power.

IATA - International Air Transport Association

LAeq - measure which averages out noise levels that fluctuate over a given time period, it is the average sound intensity expressed in **decibels**

LAeq(16 hour) - average sound intensity over a specified time period, e.g. daytime

landside - area of airport accessible to all visitors i.e. accessible before proceeding through security checks, customs and passport control

modal share - proportion of journeys to the airport by a particular type of transport (car, bus, train etc) and by category of user (passenger, employee etc)

morning shoulder period - 0600 to 0700 hours (0600 - 0800 on Sundays)

Multi-modal interchange - purpose-built area designed to allow easy exchange for passengers between different modes of transport e.g. bus, train, car

NAQS (National Air Quality Strategy) - Government initiative aimed at controlling air pollution.

NEC - National Exhibition Centre, Birmingham

night period - for the purposes of the night flying policy, 2330 to 0600

NMT - noise monitoring terminal. BAL has 7 fixed NMTs located in the local community and on the airfield.

noise contour - line on map connecting points where the same level of noise would be expected. The 2002 63dBA_{eq} contour has been used to decide which properties are eligible for inclusion in the **Sound Insulation Scheme**.

NPR (Noise Preferential Route) - NPRs cover the first 3000 feet altitude of the **Standard Instrument Departure (SID)** routes (note: this applies only to Departing flights)

passenger transport modal share - the proportion of journeys to the Airport by public transport (bus, coach, rail)

quota - the yearly limit on the total of **quota counts** for all **ATMs** at the Airport in the **night period**

quota count - the amount of the **quota** assigned to one take-off or landing by an aircraft, as detailed in the noise classification for that aircraft type (see table 8)

S106 - A legally enforceable contract between SMBC and BAL [4]. The term Section 106 refers to a section of the Town and Country Planning Act 1990 [5]

SID (Standard Instrument Departure) - standard instructions that aircraft pilots are required to observe on take-off over a particular en-route navigational beacon, produced by the CAA and published in UK AIP

SIS – Sound Insulation Scheme

SMBC - Solihull Metropolitan Borough Council

SSSI - Site of Special Scientific Interest

start of roll - position of an aircraft just before its take-off run begins

INTRODUCTION

In 1995, responding to increasing demand for air travel, the Airport Company applied for permission to expand its passenger terminal facilities. Permission was granted through the Planning Department and conditions were set out in a Section 106 Planning Agreement between Solihull MBC and Birmingham Airport regarding the development of the site. Conditions were also included to minimise the impact on local residents and the environment. The original Section 106 Agreement was later amended in 2004.

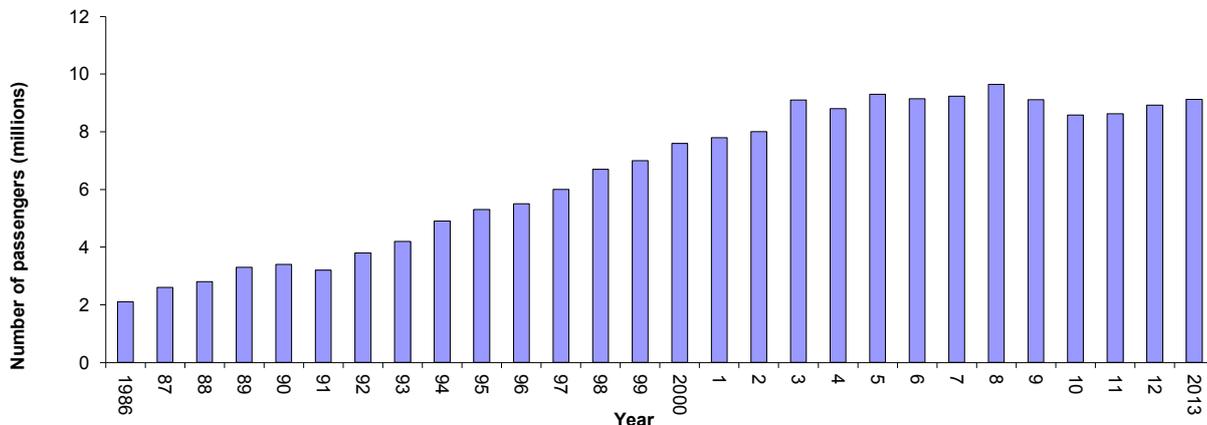
A new Section 106 Planning Agreement came into force on February 18 2013 (the official commencement of the runway extension development). The new 106 Agreement will report on subjects not currently reported on such as wake vortex, carbon management, and Historic, Environment, Ecology and Landscape Management Plan. The previous Section 106 Agreement is now superseded.

This document, the 15th Annual Report of the Section106 Planning Agreement, is laid out under the schedule headings as found in the new Section 106 Agreement.

As far as practicable, the reporting period for this document has been aligned to the calendar year, with the report covering data from 2013. This enables comparison of environmental performance year on year. Figure 1 shows the growth in passenger numbers at the airport since 1986.

December 2013 showed an increase of 8% against the same period for the previous year and showed the fastest growth of passengers in the month for the UK. Overall the total number of passengers is 2.3% up on the previous year.

Figure 1. Increase in passenger numbers at Birmingham Airport 1986-2013



AIRPORT MONITORING

The role of the Airport Monitoring Officer (AMO) is to audit all aspects of the Section 106 Agreement. With the new Section 106 Agreement certain aspects will be more closely monitored by other Departments within Solihull MBC and feedback given to the Airport Monitoring Officer.

The AMO also acts as a point of contact for airport complaints, which are investigated in the context of the Section 106 Agreement. If the subject of the complaint is found to be within the restrictions applied to airport operations by the S106 Agreement, no further action is taken, and the complainant is informed of the situation. However if the subject of the complaint is found to breach any of the Section 106 Agreement Schedules, the matter is taken up with the Airport Company. To date there has never been such a breach.

In the first instance any environmental complaint relating to the Airport Company should be directed to the Government and Industry Affairs Team at the Airport who can be contacted in the following ways:

- By calling the Environmental Helpline on 0121 767 7433.
- By emailing EnvironmentTeam@birminghamairport.co.uk
- By visiting the noise section of the website www.birminghamairport.co.uk
- By writing to Government and Industry Affairs Team, Diamond House, Birmingham Airport, B26 3QJ

There are also outreach sessions in areas local to the Airport with staff from the Airport providing information on all aspects of operation at Birmingham Airport. Details of these sessions are available on the Airports website.

In the event of continued dissatisfaction, the Airport Monitoring Officer should be contacted. For more information about the work of the AMO, the Section 106 Planning Agreement, general enquiries, or further help regarding a complaint, please contact Beverley Hill on 0121 704 6908 (Direct Line) or email beverleyhill@solihull.gov.uk

Table 1 Work schedule of AMO

Schedule of Section 106	Proposed Work	Frequency
Land Use and Planning	Attend consultation meetings	When held
Noise Control	Paper checks on Ground Runs	4 per annum
	Noise readings and sightings - tracked back to ANOMS	4 per annum
	Complaints audit	2 per annum
Night Flying	Noise monitoring	As required
	Paper checks	4 per annum

Air Quality		
	Complaints audit	2 per annum
Air Traffic	Observations on track keeping	4 per annum
Community and Environment	Check amounts transferred from fines	1 per annum

1. DECISION NOTICE

Schedule one of the Section 106 Agreement details the planned airport development and the conditions attached to the permission after it was granted by Solihull MBC.

The decision notice sets out the proposal for the runway extension and associated infrastructure and gives the conditions relating to the granting of the decision.

It is divided into 16 Schedules which set out the Obligations agreed between Solihull MBC and Birmingham Airport and which this report is based on.

Full details of the decision notice can be found on the Birmingham Airport Website.

2. LAND USE AND PLANNING

Schedule 2 of the Section 106 Agreement is similar to the Obligations from the previous Section 106 Agreement and relates to developments at the Airport site.

Runway Extension

Planning permission was granted in 2009 to extend the runway at Birmingham Airport in a bid to compete for long-haul flights. After Planning permission was granted Solihull MBC issued a Notice of Planning Approval (with 26 Planning Conditions) and the Section 106 Planning Agreement (with 16 Schedules of Planning Obligations). These are both available on the Airport Company's website.

By extending the existing runway by 405 metres, aircraft will be able to take off from Birmingham with more fuel and fly direct to destinations currently out of reach, such as China, South America, South Africa and the West Coast of the USA.

The initial part of the development involved the groundwork for the re-alignment of part of the A45. Construction work on this went according to plan and was completed in the summer of 2013. Once the new road was fully operational the old redundant section of the A45 was closed. Whilst carrying out the re-alignment groundwork some ecological elements identified in the initial report required further actions, which have now been successfully completed. Further details regarding the ecology of the site are discussed in Schedule 10.

The second phase of the Runway Extension is concerned with the actual extension to the runway itself, total runway resurfacing, building of a new parallel taxiway, new approach lights and an 800 m drainage culvert. This phase of the work is well underway and the Runway Extension is expected to be finished and be fully operational by April 2014.

The first flight which will use the extended runway is one of the twice weekly flights from Biman Airlines which will fly from Birmingham Airport to Dhaka in Bangladesh.

Monarch Hangar

Monarch currently has hangars at London Gatwick, Luton and Manchester airports and a new, state-of-the-art Monarch Hangar opened in November 2013 at Birmingham Airport. The hangar will initially create 150 engineering jobs with a possible further 150 at a later point.

The hangar is 110,000 sq ft (10,200 sq m) and has been built to accommodate the servicing requirements of the new Boeing 787 Dreamliner

aircraft and is the only hangar in the country sufficiently large enough for this. The hangar is large enough to fit up to ten narrow bodied aircraft inside and is the approximate size of four full sized football pitches.

In the first month of opening the hangar had seven different types of aircraft scheduled in for maintenance and has been very busy since its opening.

Watchman radar

The new primary radar at Birmingham Airport, the Watchman radar, is fully operational and replaces the outdated radar system which was approaching the end of its operational life. As part of the improvement scheme the radar has been repositioned within the airport's Long Stay car park to minimise any impact on local communities.

The tower is 36 metres high and the system can detect the range and direction of aircraft within a 60 mile radius and is one of the worlds most advanced radar systems.

Air Traffic Control Tower

The Air Traffic Control Tower is now complete and in full operational use. It has been fitted out with the Air Traffic Control specialist avionics and state of the art radar and navigation technology installation carried out by NATS with support from a number of specialist suppliers.

The new tower at 33 metres will allow operators to view to both ends of the runway extension. This replaces the older tower which was based at the Elmdon Airport site.

The Air Traffic Control Tower won the 'Project of the Year' and was also awarded a further award for the best 'Regeneration' scheme at the 2013 Royal Institute of Chartered Surveyors (RICS) West Midlands Awards.

Solihull Local Plan

The Solihull Local Plan (SLP), 'Shaping a Sustainable Future', was adopted by the Council on 3rd December 2013. The SLP contains policies regarding economic growth, housing, transport, environment and design to guide development management. In addition, the SLP contains site allocations for housing and employment land, as well as local policies on minerals and resource management.

The Solihull Local Plan replaces the saved policies of the Solihull Unitary Development Plan (2006) and is now the Council's statutory development plan. It is a material consideration and the starting point for planning decisions.

Further information can be found at www.solihull.gov.uk/ldf, or email psp@solihull.gov.uk.

National Aviation Policy

In December 2013 the Airport Commission produces an interim report which gave recommendations for the best use of short and medium term capacity and a shortlist of long term options for further consideration in 2014.

It concluded that further studies for new runways will be carried out at Gatwick and Heathrow and also a further study on the Isle of Grain option. A detailed assessment of these will be carried out before a public consultation will take place towards the end of 2014.

Birmingham Airport was not shortlisted but the Davies Commission made key points which supported the future growth of Birmingham Airport. The Airport was the only airport outside the South-East that was recognised as a potential long term solution to future capacity issues.

Background details on the Governments Draft Aviation Policy Framework and Birmingham Airport's submission documents can be found on the internet at www.balancedaviationdebate.com/research.

3. SURFACE TRANSPORT

Schedule 3 of the Section 106 Agreement relates to monitoring the mode of surface access used by all Airport users to access the Airport and contains 27 conditions.

Conditions 7 to 10 relate to the setting up of a Tunnel Design and Safety Group and how the group will be formed and the Group's remit. Provision was made in the Planning application for a tunnel over a section of the A45 but the Airport Company do not intend to carry out this work for many years and therefore the conditions relating to the forming of The Tunnel Design and Safety Group is currently not required.

The Airport Company published an Airport Surface Access Strategy in 2007(ASAS) which together with the new 'Airport Master Plan 'Towards 2030', sets out a framework for the development of the surface access for the Airport to 2030 and looks at all forms of transport used by both visitors to Birmingham Airport and staff.

In 2012, Birmingham Airport's Travel Plan was launched. This includes a range of measures to influence passengers, employees and visitors accessing the Airport site. It focuses on all modes of travel and the primary objective is to ensure that the Airport is accessible for all uses. This will be reviewed every two years and will work to meet the modal share targets set out within the S106 agreement. Further details regarding the travel plan are outlined below.

Condition 1 of Schedule 3 states:

"The Airport Company shall use **all reasonable endeavours** to achieve a Public Transport Modal Share for passengers and employees respectively of 25% by 31st December 2012, of 31% by 31st December 2022 or 20.9 million passengers per annum whichever event occurs later and of 37% by 31st December 2030 or 27.2 million passengers per annum whichever event occurs later" This remains unchanged from the previous Section 106 Agreement and these figures are reported to Solihull MBC.

Modal Share

Condition 2 states that the Airport Company shall continue to monitor the number of trips for passengers and employees and the number of vehicle trips per passenger and supply details to Solihull MBC.

All passenger modal share figures are taken from the Civil Aviation Authority survey which covers a period of 12 months. Figures for 2013 cannot be calculated until the final version of the survey undertaken by the CAA is received. As this will not be for some time these figures are not included in this report

The Section 106 sets separate Public Transport Modal Share targets for passengers and employees. The Public Transport Mode Share now includes all modes other than private car and taxi.

The Public Transport Mode Share for passengers now include those people arriving at the Airport on buses from off-site car parks and those passengers arriving on courtesy buses from hotels.

The definition of the Public Transport Mode Share for employees is unchanged for years prior to 2012. 2012 figures onwards include car sharing as a sustainable mode and therefore will be included in the Public Transport Modal Share figures.

Table 2 and Table 3 show the Public Transport Modal Shares for 2005 – 2012, based on these definitions.

The ASAS also introduces a new target which relates to the ratio between total vehicle trips (inbound and outbound) and total passengers. The ASAS sets a 2012 target for this ratio of 1.08. Table 4 shows the value of this ratio for 2005 – 2011.

Table 2 Passenger Mode Shares and 2012 Targets

Passenger Mode Shares %	2005	2006	2007	2008	2009	2010	2011	2012	2012 Target
A. Car	58.5	57.1	58.3	56.2	55.4	54	53	50	55
B. Taxi	20.7	21.2	21.3	19.5	17.8	21	18	18	20
C. Off-site Car Park or Hotel Bus	9.1	7.5	7.0	8.6	7.7	7	6	5	9
D. Rail	9.1	11.7	10.7	13.2	15.1	15	19	23	12
E. Coach	0.8	1.0	1.1	0.9	0.8	1	2	2	2
F. Local Bus	0.7	0.6	1.0	0.8	1.1	2	2	2	1
G. Cycle									
H. Other	1.1	0.9	0.6	0.8	2.1	1	1		1
Public Transport (non-car/non-taxi, C-H)	20.8	21.7	20.4	24.3	26.8	26	30	32	25

Employee Modal Shares %	2003-5	2004-6	2005-7	2006-8	2009*	2010	2011	2012	2012 Target
A. Car	77.4	74.0	72.6	72.7	73.0	76	71	67	73
B. Car Share								2	
C. Taxi	2.3	2.7	3.7	4.2	2.4	2	2	2	2
D. Off-site Car Park or Hotel Bus	0	0	0	0	0				0
E. Rail/Air-Rail Link	4.5	5.3	4.7	4.7	5.2	7	7	9	6
F. Coach									
G. Local Bus (& Coach)	13.4	15.0	15.2	14.9	17.0	11	17	17	16
H. Cycle	0.7	0.7	0.7	0.5	1.2	2	1	1	2

I. Other	1.7	2.2	3.1	3.0	1.2	2	2	2	1
Public Transport (non-car/non-taxi, B and D-H)	20.3	23.2	23.6	23.0	23.4	22	27	31	25

Table 3 Employee Mode Shares and 2012 Targets

Table 4 Vehicle/Passenger Ratio and Target

Vehicle Trips per Passenger	2005	2006	2007	2008	2009	2010	2011	2012 Target
Total Vehicle Trips (millions)	10.81	10.74	10.60	10.80	9.61	9.39	8.8	
Total Passengers	9.39	9.15	9.18	9.63	9.10	8.57	8.6	
Vehicle Trips per Passenger	1.15	1.17	1.16	1.12	1.06	1.10	1.03	1.08

Note: Vehicle trips include all those on Airport Way and entering or leaving the Long Stay and Staff Car Parks

Surveys

Information on modal shares is obtained through a series of surveys carried out at the Airport over the year. For passengers, the Airport Company previously conducted the surveys continuously in the departure lounges and landside areas of the Terminal buildings, but in 2010 the Civil Aviation Authority undertook the passenger surveys and will do so in future years. The reports can be viewed on the CAA website.

For employees, the Airport Company previously conducted interview surveys of employees at the Airport, but in 2010 the surveys were based on the annual Airport Employment Survey returns. In 2009, the Airport Company's Survey Programme was reduced, compared with previous years, as the Airport Company had to respond with fewer resources to the economic situation, the impact on air transport and a decline in traffic.

Employee data is now collected through the Annual Employment Survey and via individual organisations who are engaged with the Airport Travel Plan.

There is continuous monitoring of road traffic on Airport Way and the number of vehicles entering the public and staff car parks.

Recent Trends

Passenger and employee modal share has shown a significant decline in car use and a subsequent rise in public transport. Rail use has increased to 23% in 2012, from 15% in 2010. Local bus patronage has stayed at 2% in 2010, 2011 and 2012.

ANITA Scheme

Condition 3 of Schedule 3 states that the Airport Company should investigate the cause and extent of transport barriers faced by residents of North Solihull

which may hinder employment opportunities at Birmingham Airport. This has been looked at as part of the ANITA project and there is now an extended bus service which connects the North of Solihull with Birmingham Airport and onto Birmingham City centre. This service the 97A, runs 7 days a week. It runs between Birmingham City Centre and Birmingham Airport, calling at the NEC and Chelmsley Wood.

The ANITA scheme –Airport and NEC Integrated Transport Access Scheme- was an £11m scheme to improve the road system around Birmingham International Station, Birmingham Airport and The NEC and was funded by the Department for Transport. The scheme has improved transport links between the North and South of Solihull and with the increased and improved bus services has opened up job opportunities for the communities at Birmingham Airport and further afield.

The project provided a new interchange at Birmingham International rail station, improved links between trains and buses. It links with Skyrail and the National Exhibition Centre.

As part of the scheme new bus shelters were created and traffic information signs along the scheme's route to ensure that drivers get up to the minute data in the vicinity and can plan any forward journeys with more ease. The traffic management signs will also help improve traffic flow in the area, especially around the times when there are large events at the NEC.

People will also be able to plan their journeys more easily, thanks to new passenger signs which give detailed information about the public transport services, for example, when the next bus is due to arrive.

The ANITA scheme has also improved walking and cycling facilities and Birmingham Airport will continue to work with the NEC, Solihull MBC, Centro and National Express to improve connectivity to and from Birmingham Airport.

The Airport Company continues to work closely with Centro, Network Rail and the Train Operating Companies

Virgin Trains will continue to run the West Coast Main Line until 2017.

High Speed Rail

The Government has given the go ahead for phase 1 of the high speed rail link from London to Birmingham. Phase 1 will include a station at Birmingham City Centre and an interchange station to the East of the M42, the NEC and Birmingham Airport. Passengers will connect to the airport using a rapid transit people mover but the provision of this will not be the responsibility of Birmingham Airport.

HS2 will help deliver an improved national transport network and provide additional capacity at the Airport along with local economic growth and regeneration. The link will reduce travelling times to the Airport from London to less than 40 minutes.

A consultation on the formal Environmental Statement for Phase 1 has been launched. This sets out any likely environmental impacts along the route and measures to manage and reduce them. The consultation will run until 27 February and the responses will then be forwarded to an independent analysis company who will then report to HS2. The Secretary of State will make the final decision towards the end of 2014.

Phase 2 has also been announced linking Leeds and Manchester to Phase 1. A public consultation process ran from July 2013 to January 2014 on the proposed route for phase 2.

Details of the HS2 proposals can be found at the DfT website (www.dft.gov.uk) and currently the completion date is expected to be 2026.

Public Transport Information

The Airport Company continues to review the range and quality of public transport information available at the Airport, and is considering how such information can be provided as real time information and through electronic media such as mobile phones.

As part of the ANITA scheme, Real Time Information displays were installed in the Multi Modal Interchange and in the Baggage Reclaim Areas. There will also be information regarding Motorways, Rail and Bus services.

A touch screen facility was installed on the first floor of the Multi Modal Interchange, which provides information on Airport onward travel information.

For passengers arriving at Birmingham Airport travel information will also be advertised on the luggage carousel information displays.

The Airport Company is working with Centro regarding surface access information and signage and how this can be improved.

Cycling

Schedule 3 contains a number of conditions to help promote cycling for staff and visitors to the Airport. The Airport Company continued to promote cycling as a convenient and healthy way for journeys to work for the 40% of staff living within five miles of the Airport. There are a number of lockers available for staff use. A salary sacrifice scheme was launched in September 2013 to encourage staff to cycle to work and a car share scheme is hoped to be introduced in Spring 2014.

The ANITA scheme also included improvements to cycle routes for both pedestrians and cyclists

Birmingham Airport has contributed £50,000 to the Marston Green/Sheldon Country Park cycle route. Solihull MBC will commission a scheme with Birmingham City Council to complete the cycle route.

A cycle route will be provided along the diverted A45 Coventry Road between the Clock Junction and the Damson Parkway Junction. This route is almost completed and will link into the Damson Parkway/Coventry Road/Goodway Road cycle route.

Work is also on going with Sustrans to develop safer and more pleasant routes to the Airport for cyclists.

A £2.6 million project to create a series of cycle routes connecting North Solihull with key employment sites in the area is almost complete with only signage left to finish the project and this is planned for early in 2014.

The 13 km cycle friendly route will enable people to cycle to and from work more easily and will link into cycle improvements created through the recently completed Airport and NEC Integrated Transport Access Scheme. The North Solihull Strategic Cycle Network scheme was supported by £1.3 million from the European Regional Development Fund and match funded by Solihull Council. The route is part of a package of activities to develop and improve the North Solihull area.

As part of the project, grants will be made available for businesses located in the North of Solihull to assist in improving cycle facilities for staff with the aim to make cycling more accessible and attractive as a way getting to work. Full details of the Scheme and updates are available from Solihull Council web site.

The new network will connect with existing routes near the NEC to provide the first continuous cycle link between Castle Bromwich and Solihull town centre.

Other Developments

Red Routes have been implemented on all landside roads at the Passenger Terminal Site to prevent traffic stopping anywhere apart from the designated areas, to manage traffic flow through the Passenger Terminal Site and to maintain safety for all users.

The Airport Company has continued to operate a Through Salary scheme which offers a 25% discount on annual bus and rail tickets for Airport Company staff. In addition all staff employed at the Airport can avail of reduced bus, rail and metro tickets via the Centro and Travel West Midlands direct debit schemes.

The bussing operation at Birmingham Airport will now be operated in house by a subsidiary of the Airport Company after the current contract came to an end in October. This will provide land and airside bus operations in car parks and on the airfield.

Public Transport Project Spending

The Airport Company continues to invest in transport connectivity and access to the site by sustainable modes and includes £500,000 on the 97 route in 2013. Additional investment will be made to schemes improving accessibility subject to an agreed business case.

Car Parking

Condition 20 of Schedule 3 states that the Airport Company shall provide future passenger and visitor car parking at a rate less than the proportional increase in passenger throughput so as to achieve a reduction in the ratio of car parking provision to total annual throughput. Car parking provision in Long

Stay Car Park 1 will change over the coming year with the on-going alterations.

Condition 21 states that the Airport Company shall provide future staff car parking at a rate less than the proportional increase in employment so as to achieve a reduction in the ratio of staff car parking provision to number of staff employed. As a result of the bussing operation being bought in house the number of staff employed by Birmingham Airport Limited increased over the year.

Users of the Airport are encouraged to use public transport when accessing the Airport site. Off-site parking is specifically excluded from the Section 106 Planning Agreement. Table 5 shows how passenger parking provision has changed relative to passenger numbers over the period.

Table 5. Increase in parking provision compared to passenger numbers 1995-2013

Year	Parking Spaces	Passenger Numbers (m)
1995	7010	5.33
1998	8195	6.70
2000	8195	7.60
2001	10603	7.80
2002	10626	8.00
2003	11060	9.10
2004	11855	8.80
2005	11855	9.40
2006	11480	9.15
2007	11586	9.23
2008	11124	9.63
2009	12816	9.11
2012	12697	8.9
2013	12062	9.1

Conditions 22 to 26 of Schedule 3 relate to establishing a car park levy and how the levy shall be spent. The levy is based on the number of vehicles using the car parks over a 12 month period and means the Airport Company will pay an amount of money based on the number of cars using the car parks at the Airport Site. This number is provided by the car park operators and will be reported to Solihull MBC. An amount will also be paid by the Airport Company by way of a levy on staff car parking.

The levy will fund public transport initiatives, infrastructure projects and other activities which contribute to the increase in the Public Transport Modal Share targets. A Travel Plan Monitoring Group will give advice on how the car park levy shall be allocated.

Travel Plan

Part of condition 13 and conditions 14-18 of Schedule 3 relate to appointing a travel plan co-ordinator and setting up an Employers Transport Forum and a Travel Plan Monitoring Group

The remit of the Travel Plan Co-ordinator is set out in condition 14 of Schedule 3. The co-ordinator will liaise with on site employers to promote the increased use of public transport, support the Employers Transport Forum, collate and distribute information regarding sustainable travel and to liaise with the NEC on travel plan matters. The Travel Plan was launched in 2012. The main aims are to reduce the volume of car traffic generated by the Airport and meet the targets set out in the Airport Surface Access Strategy. The plan also aims to promote the use of public transport and sustainable transport.

There are over 140 organisations operating on site and the travel plan coordinator will work to engage with these companies to develop their own travel plans

The Employers Transport Forum will be made up of members from the Airport Company, Solihull MBC and the NEC along with employers on the Airport site. The aim of the forum is to promote the use of public transport and to make reasonable endeavours to achieve the Public Modal Transport Share.

The Travel Plan Monitoring Group will meet quarterly and be made up of members from the Airport Company, Solihull MBC, Centro, Highways Agency, Birmingham City Council, NEC, Employers Transport Forum and other members who are identified by the group. The aim of the group is to help the Airport Company achieve its Public Transport Modal Share targets and sustainable transport objectives. It will monitor the role of the Travel Plan co-ordinator and the role of the Employers Transport Forum and consider the funding of any initiatives identified by the Group and will report annually to Solihull MBC.

4. NOISE CONTROL

There are a number of Obligations which relate to noise as set out in Schedule 4 of the Section 106 Agreement. Some of the conditions are as follows:

- a Sound Insulation Scheme that is to be paid for and organised by the Airport Company for the benefit of residents living close to the airport. Birmingham Airport will make a budget of £200,000 available annually to the Scheme for the purpose of insulating eligible properties.
- The Airport Company shall maintain the Schools Environmental Improvement Programme subject to a minimum allocation of £50,000 in any 12 month period and report to Solihull MBC on the schools which have benefited from the scheme.
- The Airport Company shall maintain the use of the noise and track keeping equipment and provide the agreed data to Solihull MBC.
- To record noise and track keeping complaints and report these to Solihull MBC.
- To set a daytime noise limit of 90 dB(A) for departures
- To start a feasibility study into the provision of an engine ground running facility and submit the report to Solihull MBC

Each of these obligations is explained in more detail below.

Birmingham Airport has various mitigation measures in place to ensure that aircraft both on the ground and in the air operate in the quietest manner possible. These measures include a Night Flying Policy, daytime and night time noise violation levels, Continuous Descent approaches, single engine taxiing, and a restriction on Engine Ground Running

Sound Insulation Scheme

Birmingham Airport has operated a Sound Insulation Scheme since 1978. The scheme provides sound-proof glazing to domestic properties in the areas most affected by aircraft noise. The scheme is open to over 7,600 properties in areas around the airport and over 90% of these properties have already benefited from the scheme with the installation of double glazing to reduce the impact of aircraft noise in their homes.

To be eligible for the scheme the property needs to be within the 63 dBA noise contour. These contours are produced by the Civil Aviation Authority (CAA) using aircraft track and traffic movement data for Birmingham Airport and the scheme itself is administered by the Airport's Government & Industry Affairs Department. A map of the contours can be found in the appendices of

this document and full details of the Scheme are available on the Birmingham Airport website.

The second phase of the Sound Insulation Scheme provided repeat grants to properties closest to the airport. These grants of up to £3000 are used as a one off opportunity for householders to improve the noise climate in their homes by installing High Specification Double Glazing. This special glazing helps to reduce the noise levels within the property and has a 'C' energy efficiency rating which helps to contain and conserve heat within the property

Over the past 30 years the Airport has invested over £12 million to insulate more than 7,000 properties with high specification double glazing, secondary glazing, ventilator units and loft insulation.

There were 33 properties insulated in 2013 under the Sound Insulation Scheme with a mixture of privately owned and council owned properties.

Noise and Track Keeping System

Birmingham Airport uses a sophisticated noise monitoring system called ANOMS–Airport Noise and Monitoring System. This integrates secondary radar data with noise data captured at 6 permanent noise monitors in the local community.

All complaints to Birmingham Airport are logged and entered onto a management facility which is incorporated into the Airport Noise and Operations Monitoring System (ANOMS) and responded to within 5 working. Complaints are reported to Solihull MBC via the Environmental Monitoring Working Group.

ANOMS allows its users to view all information relating to complaints including flights, noise and the location of complaints. Actual flight tracks can be viewed in 2 D and 3 D tracking and the height of the aircraft can be determined and the tracking of aircraft can then be printed out if required.

The Airport Monitoring Officer based at Solihull Council also has ANOMS on a dedicated terminal.

Engine Ground Running

FULL POWER AIRCRAFT ENGINE GROUND RUNNING

Engine ground running is an essential safety aspect of aircraft maintenance. However Birmingham Airport is aware that it has a noise impact on local communities and as such engine ground noise generates specific complaints. The number of full engine ground runs and complaints slightly decreased in 2013.

During the night-time there is a ban on full power engine ground running. In the morning shoulder period (0600-0700), Birmingham Airport and Solihull MBC have agreed a noise-limiting scheme, which is reviewed every two years.

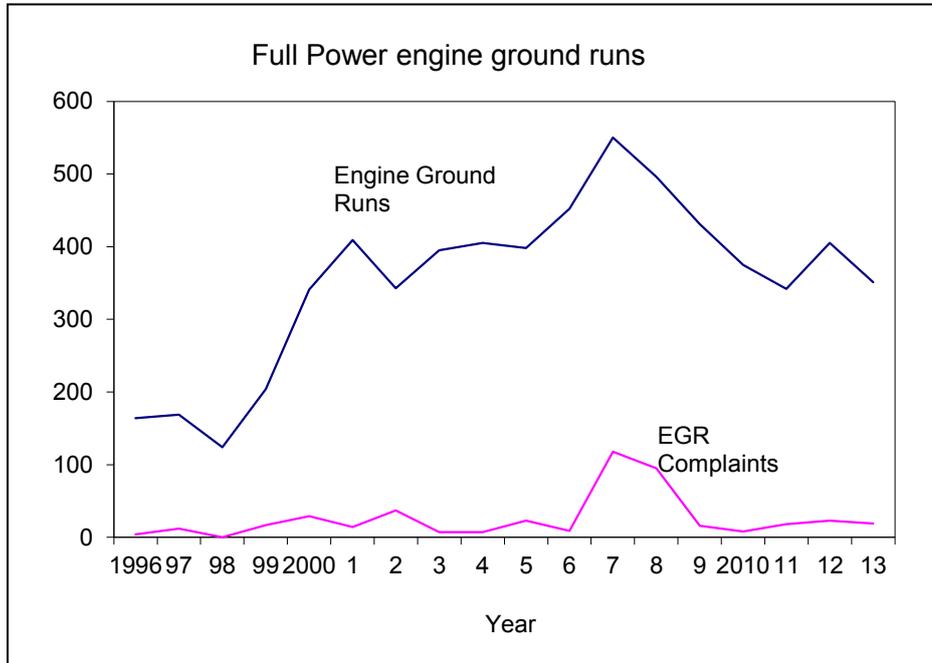


Figure 2. Total number of Engine Ground Runs (full power) 1996-2013

Full power engine ground runs are only permitted after an application form has been sent to and approved by the Airfield Duty Manager (ADM) who then notifies the Environment Team. The number of full power engine ground runs that are approved are reported to SMBC and other interested parties in the quarterly environment monitoring report. Figure 4 shows the total number of full power engine ground runs that occurred between 1996 and 2013. Full power engine ground runs are only permitted at specific locations, with Taxiway Echo being the preferred location with Taxiway Lima as the secondary option which is closer to Elmdon.

IDLE POWER AIRCRAFT ENGINE GROUND RUNNING

In November 2009 SMBC Planning Committee approved Idle Engine Ground Running on all Aircraft Stands (with exception of the 80's stands) during the night period

AIRCRAFT ENGINE GROUND RUNNING IN THE MORNING SHOULDER PERIOD

All full power and idle engine ground runs occurring in the morning shoulder period are monitored by the Environment Team.

Since October 26 1999, the Airport Company has been operating under an obligation under the previous Section 106 Agreement to consider restrictions on engine ground running between 0600 and 0700. At that time it was felt that the airport's restrictions on ground running were sufficient. Following a noise monitoring exercise a year later, Solihull MBC's noise consultant recommended the introduction of a quarterly noise level limit, set at 79dB LA_{eq} calculated for a 1 hour period. Since this level was introduced it has not been exceeded.

There was a review of the engine ground running in the Morning Shoulder Period in 2009 and as specific complaints about this are rare it was decided that the current scheme should remain in place. This has been formally agreed by SMBC's Planning Committee.

NOISE RESTRICTIONS OUTSIDE THE NIGHT PERIOD

Currently, a departing aircraft which exceeds 90 dB(A) at either of the centre Noise Monitors between 0601 and 2329 is liable for a surcharge, plus an additional £150 per decibel over the limit and the resulting fines are added to the Community Trust Fund (see Schedule 9 for details of the fund and grants awarded in 2013). There is a tolerance of 0.4 dB(A) which applies and some aircraft are exempt such as medical evacuations.

There was one aircraft which exceeded 90 dB(A) in 2013 but this was within the tolerance limit so was not surcharged.

Daytime Noise limit

In 2013 Birmingham Airport reduced its daytime noise limit from 92 dB(A) to 90 dB(A) which was an obligation under the new Section 106 Agreement. This applies to departing aircraft only as measured at noise monitoring terminal (NMT) 1 or 2 which are located 6.5 km from the 'start of roll' roll (where an aircraft applies full thrust for the first time as it starts its take-off). NMT 1 is located at Bucklands End, Hodge Hill and NMT 2 is at Eastcote Lane, Barston.

Feasibility study into Engine Ground Running

As part of the new Section 106 Agreement Birmingham Airport will look at undertaking a feasibility study into the siting of an Engine Ground Running Facility.

The feasibility study will assess the current regime along with future activities and undertake noise and air emission assessments of any potential locations. An assessment of operational considerations on other airport activities will be included and current enclosure technology will be studied.

An initial report concluded that Taxiway Echo is not sustainable in the longer term. It restricts aircraft to run into the wind, puts pressure on the taxiway

system and raises issues with jet blast and ingestion of debris into the engine. It is also not appropriate for wide bodied aircraft in the short term. Even though the engine test itself may only take a few minutes the aircraft could be in place for an hour or so.

The report looked at 6 possible locations but two of these were ruled out at an early stage. The remaining four locations will be examined in depth. They all face into the prevailing wind and a trial will be undertaken in 2014 after a detailed assessment of each site has been done. It is hoped to study 50 engine ground runs over the 12 month period. The noise will be measured at the nearest residential property and compared to the background noise level. Complaints will also be monitored carefully when the trials are taking place.

Noise Action Plan

Under the terms of the Environmental Noise (England) Regulations 2006, DEFRA requires all airport operators to produce an Airport Noise Action Plan.

Birmingham Airport produced a Noise Action Plan in 2011. This sets out how they will manage noise from aircraft operations and where possible to reduce the impact of noise on surrounding communities. A review of the plan took place in 2012. A progress report provided details of the actions and concluded that all are being successfully implemented. The Noise Action Plan and progress reports are available on the Birmingham Airport web site.

Areas covered by the Action Plan include noise from arriving and departing aircraft, and noise from ground operations such as engine testing and taxiing aircraft. The inclusion of ground noise is not a requirement of the Regulations but Birmingham Airport have included these aspects as they are aware that ground noise may affect nearby residents and want to do what they can to mitigate this.

This Noise Action Plan was produced following a full public consultation including engagement with the Airport Consultative Committee, Local Authorities, NATS and airlines.

Full details are available in the Noise Action Plan and a summary of the main points are detailed below.

Birmingham Airport operates various mitigation measures to ensure that aircraft operations both on the ground and in the air operate in the quietest manner possible. These measures include a Night Flying Policy, a daytime and night time noise violation level, Continuous Descent approaches, single engine taxiing, and a restriction on Engine Ground Running.

The Airport operates a number of ways to keep local communities informed of what is taking place at the Airport which helps to understand any noise issues. This is undertaken through newsletters, an outreach facility to local communities, community impact alerts, and a new dedicated twitter feed. The

Airport Consultative Committee is also represented by a wide range of Airport users and local groups. These include local Councillors, Parish Councillors, local Residents Associations as well as members from the Airport Company and Air Traffic Control.

Noise contours

One way in which the Airport determines local noise impacts is through the use of noise contours which are a measure of noise represented on the ground as a line which is represented by differing noise level bandings. Birmingham Airport reviews its noise contours every two years and then produces new noise contours.

The most recent noise contours, created in 2012 as part of the review of the Noise Action Plan, have shown a decrease in the area, population and number of households within all noise contour levels and at all time periods. The L_{den} 55dB and L_{night} 50dB noise contour are designated for consideration in the Noise Action Plan. There was been a decrease in L_{den} 55dB noise contour, with a decrease in area of 10%, 8% less population and 13% less households for this noise contour. Similarly, for the L_{night} 50dB contour there has been a decrease of 3.3% in area, 2.4% population and 7.7% of households.

Continuous Descent Approaches

The new Section 106 Agreement requires the Airport to have a Continuous Descent Approach (CDA) Policy and this is discussed further in Schedule 8 of this report.

In a CDA an aircraft descends towards the airport from its cruising height in a continuous, approach with minimum thrust – rather than via the conventional series of stepped descents. As there are no “levelling-off” procedures, which require the thrust to maintain level flight, less fuel is consumed. It also leads to reduced noise. Implementation of CDAs has been brought forward prior to the new requirement and monitoring has shown that the airport is regularly achieving over 95% of arriving aircraft implementing CDAs.

Reduced Engine Taxi

Birmingham has already included the provision for reduced engine taxiing in the UK Air Pilot entry for the Airport, making it the first UK airport to do so. This leads to a reduction in ground noise and reduces emissions and lowers the fuel consumption of the aircraft.

95% of fuel used by aircraft is when the aircraft is in the air, the remainder being used when taxiing to and from the runway. One way to reduce this is by single engine taxiing or reduced engine taxiing. This is where the plane taxis to or from the runway using only one of the engines to push the aircraft forward.

Noise concerns

Table 6 shows the number of noise concerns received by the Airport Company's Environment Team since the Section 106 Planning Agreement came into force in 1996. The Airport Company is required under Clause 9 of Schedule 4 to keep a record of all noise-related complaints and provide written details to SMBC annually. The Airport Company goes beyond this obligation and records all complaints by type and number.

Table 6. Noise concerns since 1996 at Birmingham Airport

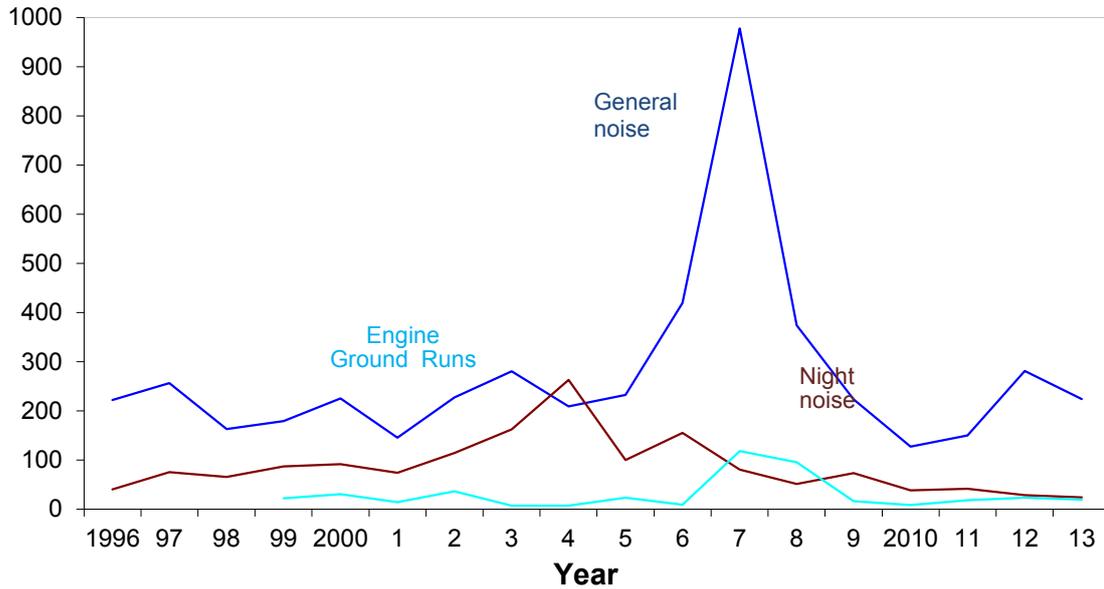
Year	General Noise	Night	Ground Noise
1996	222	40	Not recorded separately
1997	256	75	Not recorded separately
1998	163	65	Not recorded separately
1999	179	87	22
2000	225	91	30
2001	145	74	14
2002	227	114	36
2003	280	162	7
2004	209	263	7
2005	232	100	23
2006	419	157	9
2007	978	80	118
2008	374	51	95
2009	223	73	16
2010	127	38	8
2011	150	41	18
2012	284	28	23
2013	224	24	19

The Airport also has a portable noise monitor which can be left for extended periods at different locations. In 2013 the portable noise monitor was installed at Barston.

Although the number of general noise complaints were lower than last year the majority of these complaints were received between July and September. There was good weather at this time and people may have been more aware than normal due to the Airspace Change proposal. Ground Noise and Night noise have also shown a decrease since last year.

The Airport Company's Government and Industry Affairs Team produces an Annual Complaints Report, which seeks, as far as possible, to identify trends.

Figure 3. Birmingham Airport noise concerns 1996-2013



The graph above shows a decrease in night noise concerns in 2013 compared to 2012, and overall the graph shows a downward trend over recent years.

Air Traffic

The Airport Company shall (subject to the approval of the Civil Aviation Authority) implement any appropriate changes to its airspace as soon as practicable following the completion of the CAP 725 process. Further details of this are included in Schedule 8.

Community Benefits

The Airport Company will increase its funding of the Community Trust Fund, from £50,000 per annum to £75,000 per annum. The Fund will continue to be topped up with all income from surcharges arising from any daytime and night time noise violations. Details of the fund are shown in Schedule 9.

5. NIGHT FLYING

BAL is bound by the S106 to *"have and maintain a Night Flying Policy which restricts the use of the airport by aircraft taking off or landing during the Night Period and the Shoulder Periods"*.

The Night Flying Schedule, which has driven the creation of the Night Flying Policy (NFP), is a complex multi-clause part of the contract between Solihull MBC and the Airport Company but the main points can be summarised as follows.

- The NFP shall be reviewed every three years.
- The NFP shall incorporate a quota system and an annual limit
- All ATMs will be subject to a quota count. The exception to this are exempt movements and aircraft which perform below 74 db(A) L_Amax as measured by ANOMS at monitoring points 1, 2, 3, 4 and 6
- The airport Company will impose surcharges on aircraft breaching an agreed noise level on departure. An aircraft will be considered to be violating the level if it records above the limit of 85 dB(A) L_Amax during the Night Period at noise monitoring terminals 1 and 2.

Birmingham Airport's existing Night Flying Policy is amongst the most stringent in the UK and was designed to minimise community disturbance through a range of measures. A summary of the Night Flying Policy restrictions is detailed below.

CURRENT NIGHT FLYING POLICY

The Airport Company undertook a full review of the Night Flying Policy in 2011, including a public consultation. The review was presented to the Airport Working Party and a new Night Flying Policy was agreed in January 2012. It was agreed that the Airport would report to the Airport Working Party on progress after a year. The update was provided to Solihull MBC in 2013. The current policy was deemed to be working successfully and it was decided that no further changes need to be done at present.

The provisions of the current Night Flying Policy are:

- Night Annual Limit for ATMs set at 5% of total ATMs (2330 to 0600), calculated based on the maximum Annual Limit for ATMs over the preceding 5 years
- Annual Noise Quota Count Limit of 4,000 (2330 to 0600);
- Aircraft with a Quota Count value of 4 or more are prohibited to operate during the Night Period (2330 to 0600);
- The Night Noise Violation Level, where departing aircraft registering 85 dB(A), or more, are fined a full runway charge (2330 -0600);
- Taxiway Tango is not used between the hours 2300 and 0600 as a taxiway except in exceptional circumstances.

QUOTA USAGE FOR PREVIOUS NIGHT FLYING POLICY YEARS

The Quota Count Limit is based on measurements of the perceived noisiness of aircraft which takes into account the type of noise (tonality) made by the aircraft in question, i.e. propeller noise, a low drone, high-pitched whistle or roaring sound or a combination of all of them.

Aircraft noisiness is measured in EPNdB (effective perceived noise in decibels). EPNdB values are clustered together into groups of 3 decibel increases for the purposes of producing a simple quota count. A rise of 3 EPNdB equates to a two-fold increase in noise energy. This is why the quota count doubles with increasing noisiness of the aircraft.

Table 7. Relationship between EPNdB and aircraft quota count

Noise Classification	Quota Count
<84 EPNdB	Exempt
84 – 86.9 EPNdB	0.25
87 – 89.9 EPNdB	0.5
90 – 92.9 EPNdB	1
93 – 95.9 EPNdB	2
96 – 98.9 EPNdB	4
99 – 101.9 EPNdB	8
Greater than 101.9 EPNdB	16

Ref: NATS/CAA Supplements to the United Kingdom AIP SUP: 040/2012 [6]

Table 8 gives a breakdown of the quota usage for the Night Flying Policy year (October – October). There is also provision in the Night Flying Policy that the quota can be reclaimed for aircraft registering less than 74dB(A) at the Noise Monitoring Terminals.

Table 8. Quota utilisation 1997-2013

Year	Season	Night ATM Limit	Unused ATMs %	Night Quota Count	Unused Quota Count %
1997-98	Total	4200	27	5500	No data
1998-99	Total	4200	14	5500	64
1999-00	Summer	4180	31	4000	
	Winter	1320	50		
	Total	5500	34		53
2000-01	Summer	4484	36	4000	
	Winter	1416	62		
	Total	5900	42		54
2001-02	Summer	4727	41	4000	
	Winter	1493	61		
	Total	6220	42		54
2002-03	Summer	1427	38	4000	
	Winter	4519	22		
	Total	5946	26		45
2003-04	Summer	4574	28	4000	
	Winter	1444	20		
	Total	6018	26		46
2004-05	Summer	4435	23	4000	
	Winter	1401	62		
	Total	5836	32		51
2005-06	Summer	4102	20	4000	
	Winter	1295	20		
	Total	5397	20		54
2006-07	Summer	4319	22	4000	
	Winter	1364	34		
	Total	5683	25		50
2007-08	Summer	4128	14	4000	
	Winter	1303	27		
	Total	5431	18		57
2008-09	Summer	3969	24	4000	
	Winter	1253	31		
	Total	5222	26		50
2009-10	Summer	3884	5	4000	
	Winter	1227	0.7		
	Total	5111	4		57
2010-11	Summer	4319	12	4000	
	Winter	1364	14		
	Total	5683	13		61
2011-12	Total	5683	42	4000	63
2012-13	Total	5431	40	4000	67

NUMBER OF VIOLATIONS

Aircraft exceeding night noise limit will be subject to a surcharge, currently a full runway charge (up to £4000). The limit changed from 87 dB(A) to 85 dB(A) for departures only on 1st February 2012 in line with the new Night Flying Policy. During 2013 there were 2 violations of the Night Flying Policy. The details are shown in Table 9.

Table 9. Night Flying Policy violations for 2012-2013

Date/Time	Airline	Flight	Aircraft Type	Noise Level	Surcharge
3/2/2013	Private Charter	MTL1 303	AN26	88.3	Yes
24/10/2013	Air Blue	ABQ2 27	A343	85.7	Yes

Since the Section 106 Planning Agreement was implemented in 1996, night noise infringements have decreased consistently. The number of night flights has remained relatively stable and the phasing out of noisier aircraft and the night flying policy surcharge have brought about a reduction in excessively noisy night flights.

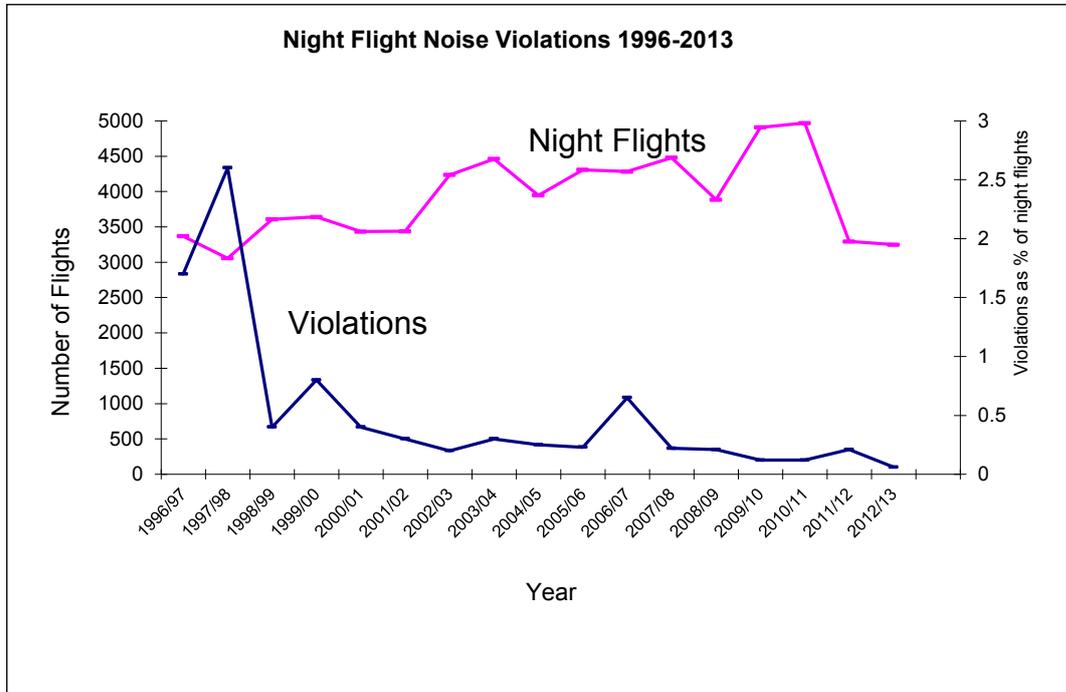
The table below details the night noise picture at Birmingham Airport since 1996 with an additional year 1990/91 included for comparison.

Table 10. Night-time noise violations

Year	Total Night Flights	Total Noise Quota	Total Infringements	Infringements (% of night flights)
1990/91	4767	n/a	n/a	n/a
1996/97	3369	n/a	57	1.7
1997/98	3056	n/a	79	2.6
1998/99	3608	2002.5	13	0.4
1999/00	3640	1936	29	0.8
2000/01	3434	1832.5	15	0.4
2001/02	3439	1854.5	9	0.3
2002/03	4234	2166	9	0.2
2003/04	4460	2161.5	15	0.3
2004/05	3947	1957	10	0.25
2005/06	4307	2172.5	10	0.23
2006/07	4283	2174.5	28	0.65
2007/08	4479	2281.5	10	0.22
2008/09	3886	2010	8	0.21
2009/10	4907	1704.5	6	0.12
2010/11	4968	1556	6	0.12
2011/12	3294	1480.3	7	0.21
2012/13	3248	1338.5	2	0.06

The graph below shows the night noise infringements as a percentage of total night flights at BAL since the introduction of the night flying policy in 1996.

Figure 4. Night Noise Violations compared to number of night flights



6. WAKE VORTEX

Schedule 6 states that the Airport Company 'shall maintain a Wake Vortex Protection Scheme and make an annual budget to be used for the purpose of protecting eligible residential properties from aircraft wake vortices'.

Wake vortices are circulating currents which form behind an aircraft as it passes through the air. All aircraft create these but they usually break up before they reach ground level. Under certain weather conditions these vortices sometimes reach ground level.

When an aircraft is close to landing it is possible for these vortices to make contact with the roofs of properties close to the airport. They can, very occasionally, cause the movement and slippage of roof tiles. This is known as Aircraft Wake Vortex damage. It does not occur very often and at Birmingham Airport less than 0.005% of flights cause this damage and only properties with pitched roofs are affected.

Once damage is reported to the Airport an assessor will attend and determine if damage was caused by vortices. Wake Vortex damage is easily recognizable by the assessors as the damage cause is very distinct and different to that caused by wind or storm damage. If the assessor confirms wake vortex damage then the roof will come under the vortex protection scheme.

The vortex proof roof is strengthened by fixing down new modern tiles with special metal clips and is carried out by a contractor appointed by the Airport Company.

Under the Civil Aviation Act 1982 it is the airline responsible and not the Airport who are liable for the damage. However due to the fact that this identification is not always possible the Airport have introduced the Vortex Protection Scheme.

Under the previous Section 106 Agreement the Airport carried out all of these repairs in the essence of being a good neighbour but this now forms a condition of the current Section 106 Agreement and the Airport makes available £100, 00 per annum to be used to protect eligible properties

Every house which has been damaged by a vortex strike, or is damaged in the future, is eligible for vortex protection.

In 2013 there were a total of 4 houses confirmed as having had damage caused by wake vortex and one house where it was determined to be general wear and tear and not caused by aircraft.

7. AIR QUALITY

Schedule 7 states that the Airport Company shall maintain the air quality monitoring station (AQM) and the diffusion tube monitoring facilities and only make changes after agreement with Solihull MBC. Complaints relating to air quality should also be recorded and supplied to Solihull MBC.

The Environment Act 1995 introduced local air quality management (LAQM) which requires local authorities to review and assess air quality in their areas against the national air quality objectives. Where any objective is unlikely to be met the local authority must designate an air quality management area (AQMA) on either the whole of the Borough or on a section. To date Solihull MBC has not declared any Air Quality Management areas in the Borough of Solihull

AIR QUALITY MONITORING DATA

Birmingham Airport has carried out air quality monitoring since 1995. There is an Air Quality Monitoring Station (AQMS) on site at the airport which provides continuous monitoring of particulate matter (PM10), carbon monoxide (CO), ozone (O3), sulphur dioxide (SO2) and various oxides of nitrogen (NOx) with hydrocarbons measured via diffusion tubes. The AQMS is located on the airfield to the East of the runway.

The AQMS is operated by Airport staff and is calibrated on every two weeks. Independent checks are carried out twice a year by Ricardo-AEA who collect the data which is later validated before an annual ratified report is produced.

In 2013 data for all monitored pollutants was above the Defra target of 90%. Any data capture rate above 75% is deemed representative of the full annual period.

A copy of the air quality report is available on the Birmingham airport web site. Live data is also available through the website at www.airqualityengland.co.uk but this is not validated data.

The monitoring is intended to provide information on current air quality in the area and the levels of pollution to which any neighbouring communities may be exposed.

National Air Quality Objectives

The National Air Quality Strategy was produced to determine the ambient air quality in the UK. To meet this aim the Strategy outlined recommended maximum levels of certain pollutants to be obtained nationally. The maximum levels were devised by the expert panel on Air Quality Standards (EPAQS) and were based on medical and scientific evidence.

The strategy gives concentrations of each pollutant over a given time period that are considered to be acceptable. Table 11 shows the pollutants and their concentrations.

Table 11 Objectives in the Air Quality Standards Regulations (2010)

Pollutant	Air Quality Objective		To be achieved by
	Concentration	Measured As	
Benzene (England and Wales)	5.00 µg m ⁻³	Annual mean	31 December 2010
Carbon monoxide (CO) (England, Wales and N. Ireland)	10.0 mg m ⁻³	Maximum daily running 8-hour mean	31 December 2003
Nitrogen dioxide (NO2)	200 µg m ⁻³ not to be exceeded more than 18 times a year	1-hour mean	31 December 2005
Particles (PM10) (gravimetric) (All authorities)	50 µg m ⁻³ , not to be exceeded more than 35 times a year	24 hour running mean	31 December 2004
	40 µg m ⁻³	Annual mean	31 December 2004
Sulphur dioxide (SO2)	266 µg m ⁻³ , not to be exceeded more than 35 times a year	15-minute mean	31 December 2005
	350 µg m ⁻³ , 1 not to be exceeded more than 24 times a year	1-hour mean	31 December 2004
	125 µg m ⁻³ , not to be exceeded more than 3 times a year	24-hour mean	31 December 2004
Ozone (O3)*	100 µg m ⁻³ not to be exceeded more than 10 times a year	8 hourly running or hourly mean*	31 December 2005

* not included as part of the LAQM regime

To enable a comparison of pollutant concentrations at Birmingham Airport with other nearby sites table 12 shows the results for sites within Birmingham. There are currently no monitoring sites in the Solihull area apart from data

captured at Birmingham Airport. Solihull MBC no longer has an Air Quality Monitoring Station.

Table 12. Comparison results for Birmingham Airport and Local monitoring sites in 2013

	Birmingham Airport	Birmingham Tyburn Roadside	Birmingham Tyburn	Birmingham Acocks Green
Annual Mean				
PM ₁₀ (µg m ⁻³)	19 *	19	18	-
NO ₂ (µg m ⁻³)	24	45	30	35
O ₃ (µg m ⁻³)	47	32	42	46
SO ₂ (µg m ⁻³)	1	-	2	-
CO (mg m ⁻³)	0.2	-	-	-

The report published by Ricardo-AEA shows that in 2013 all of the Air Quality Strategy Objectives for the protection of human health were met at the site during 2013, with the exception of ozone which is not included in the regime.

Of the pollutants monitored, only ozone did not meet the applicable Air Quality Strategy (AQS) objective. Ozone is a trans boundary air quality issue and Ozone measured here could originate outside of the United Kingdom. Therefore air quality levels recorded at the Airport Company's Air Quality Monitoring Station are not an indicator of levels generated locally. Ozone is classed as a secondary pollutant, being formed through a complex series of chemical reactions at low level, involving nitrogen dioxide and hydrocarbon compounds, and in the presence of energy in the form of sunlight.

AIR QUALITY COMPLAINTS

Schedule 7, Clause 6 of the Section 106 Planning Agreement requires the Airport Company to record and report the number of concerns raised by the public relating to air quality, on an annual basis.

Table 13. Concerns relating to air quality since 2000

	Year													
Year	2000	01	02	03	04	05	06	07	08	09	10	11	12	13
Total	12	16	13	5	11	20	9	15	6	3	5	3	13	1

In 2013 there was only 1 concern reported concerning Air Quality.

Prior to 2000, air quality concerns were included in a general category, 'pollution'. Air quality does not constitute a major area of concern for complainants at BAL.

The Airport Company Environment Unit also investigates what are loosely termed 'oily deposits'. Samples are taken to Birmingham City Laboratories for independent analysis. Since 1996, 45 such investigations have been carried out, none of which has been found to be attributable to aircraft. There were none reported in 2013.

Laboratory results have indicated that the deposits ranged from natural algae growth in ponds, through pollen coating on windows to bird excreta containing the remains of consumed blackberries.

All complaints relating to oily deposits, odour and general health concerns are logged and included in the total air quality concerns.

Odour Study

A new obligation within Schedule 7 states that Birmingham Airport will investigate the feasibility of undertaking an Odour Study and to report the findings to Solihull MBC.

History has shown a low level of complaints relating to odour at Birmingham Airport. There have been only 5 complaints received over 5 years which makes it hard to analyse in depth or to determine any possible trends. Any odours are generally of a short term and sporadic nature which makes it difficult to undertake a programme of sniff testing.

Odours associated to airports are generally associated with kerosene. This is a mixture of hydrocarbons which are dispersed into the air. The limits for these hydrocarbons are very low and often below the limits of detection instruments currently have. The human nose is much more sensitive and can detect odours too low in concentration for them to be measured by equipment currently on the market.

A similar study undertaken at London City Airport in 2010 concluded that the odours may not be related to aviation fuel as such but possibly with organic hydrocarbons sometimes called burnt hydrocarbons. These are believed to be most likely to form during aircraft taxiing when the engines are hot.

There is a range of technology for the use in odour study but results have been inconclusive and after studying reports carried out at other airports it would seem that current technology needs to progress to accurately monitor aviation odour.

A study in the year 2000 by the University of Birmingham showed that there was no significant effect on general or respiratory health attributable to activities at the airport to people who live nearby.

The Airport Company will continue to record complaints received and keep up to date with progress in the science. It will also continue with proactive measures to reduce odours.

8. AIR TRAFFIC

Schedule 8 of the Section 106 Agreement states that, subject to Civil Aviation Authority approval, the Airport Company shall implement any appropriate changes to its airspace as soon as is practicable following the completion of the CAP 725 Process. This contains detailed guidance on the various stages of any airspace change process and is issued by the Civil Aviation Authority who will ultimately approve any changes.

Condition 2 states that the Airport Company shall monitor the performance of departing aircraft flying Noise Preferential Routes and publish these details.

Condition 3 states that the Airport Company shall seek to achieve and maintain an annual Track Keeping Target of 97% for departures

Condition 4 states that the Airport Company shall use all reasonable endeavours to have a Continuous Descent Approach Policy for arrivals.

Birmingham Airport will seek to achieve a track keeping target of 97%-currently it is 95%. This is for departures only.

Runway Use

Birmingham Airport has one runway which operates in two modes (Runway 15 and Runway 33) and the direction of operation is dependent upon meteorological conditions. The numbers 15 and 33 refer to the points on a compass to which the direction of the runway is oriented.

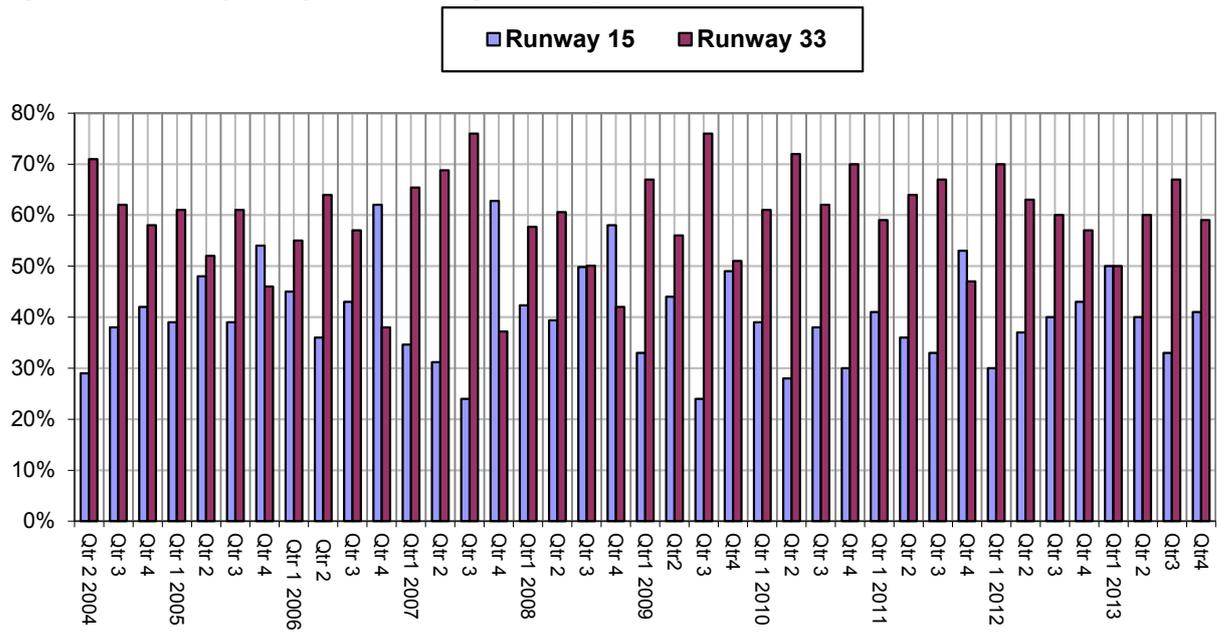
When an aircraft is departing there are set routes they are required to follow. However, on arrival aircraft have no set routes until they are established on the Instrument Landing System.

Aircraft on arrival can approach the runway “visually” by using the Instrument Landing System (ILS), or by using the Non-Directional Beacon (NDB). The majority of aircraft use the ILS for the final approach to the runway.

Although not a specific requirement of the Section 106 Agreement, the pattern of air traffic using the runway does have an impact on how local people are affected by airport operations. Wind direction and meteorological conditions determine runway usage.

The use of a NPR is mandatory until an altitude of 3000 feet is reached unless otherwise directed by Air Traffic Control who controls the use of the runway.

Figure 5. Runway usage at Birmingham Airport



Noise Preferential Routes

Departing Aircraft follow Standard Instrument Departures which are essentially lines on maps, and to enable aircraft to follow this line whilst flying aircraft fly in a corridor known as the Noise Preferential Route (NPR)

The NPRs are for departing aircraft only and are currently 3km wide corridors (1.5 km either side of the Standard Instrument Departure (SID). There are five NPRs that are 3 km wide for aircraft departing from Birmingham Airport; three to the north and two to the south. If an aircraft deviates from these NPRs at an altitude less than 3000 feet, then it is considered to be off track. Smaller aircraft less than 5700kg (such as executive jets) are exempt from adhering to NPRs. All aircraft perform slightly differently and weather conditions can cause slight variations in their flight path which is why aircraft can fly anywhere within the NPR.

Arriving aircraft do not have a specified route to follow before the final approach, where they join the Instrument Landing System. The NPRs are designed to take departing aircraft over the least populated areas wherever practicable and are designed so they can be flown by any aircraft operating from the Airport.

The departing aircraft use standard instrument departure (SID) procedures when taking off. The direction of aircraft on departure and arrival depends on the wind direction. When the wind is from a northerly direction aircraft will take off over the north-west and arrive from the south-east

There are many cases where an aircraft can be off track for legitimate reasons, i.e. meteorological conditions or to maintain separation distance for safety reasons. All off-track aircraft are identified and the airline notified of their airlines performance.

Please see below for details of the Airspace Change Proposal.

Track Keeping

In 2006 BAL launched 'Operation Pathfinder'. This is a scheme to encourage better track keeping performance amongst those airlines, which operate, from Birmingham. BIAL has set a voluntary target of 95% of aircraft 'on-track'. The ANOMS system allows the Airport Company to closely monitor the track keeping of departing aircraft and the Airport holds biannual meetings with the airlines to discuss any track keeping issues. During 2013 over 99% of aircraft were "on-track." There is an annual ceremony to present awards to Airlines who have achieved high targets.

Currently, there is no provision to surcharge operators whose aircraft are off track. Surcharging currently relates solely to daytime and night-time noise levels. While the Civil Aviation Act 2006 does allow airports to surcharge airlines based on track keeping performance, the track keeping programme in place at Birmingham Airport has seen continual improvements in performance without the need for fiscal penalties.

Continuous Descent Approach

The Continuous Descent Approaches (CDA's) started at Birmingham Airport in 2009 after a successful trial with airlines and Air Traffic Control which were launched at Birmingham Airport in 2009 are considered to be the best practice in the UK in terms of performance.

CDA allows aircraft to descend on less power making a smooth approach without the need to level which traditionally has been the standard approach so helping emissions and also creates less noise. CDAs require significantly less thrust, which leads to reduced air emissions and noise. There is also less fuel used.

With this type of approach aircraft stay higher for longer and descend at a steady rate instead of the previously used stepped approach. Air Traffic Controllers issue pilots with their distance to touchdown and the pilots will calculate and perform a continuous rate of descent. The benefits of a CDA is that less thrust is needed from the engines so there is less fuel used, less noise created and emissions are reduced

Aircraft are collectively achieving over 90% compliance with the CDA procedure and this will be built into the Operation Pathfinder Programme with the aim to further improve compliance and reduce noise impact.

When the Continuous Descent Approaches were started they were conducted from 4000 ft to landing for every ILS approach. This has now changed to 6000 feet. It was expected that initially performance levels would decrease but reports have shown that performance is currently showing a 96% improvement in performance levels,

Continuous Climb Departures are now being considered. At present most departing aircraft from the Airport are given a continuous climb up to 6000 feet. This will change to 8000 feet. This will help lower aircraft fuel consumption and lower the CO₂ emissions as the highest levels of fuel burn and CO₂ emissions are generated by an aircraft climbing to 10,000 feet. Air Traffic controllers are encouraged to transfer aircraft to the next controlling agency early to help facilitate climbs past the 10,000 feet level.

Birmingham Airport has a programme help airlines reduce CO₂ emissions and by using a combination of initiatives such as continuous descent approaches, continuous taxi and reduced engine taxi, the Airport can help airlines reduce their of CO₂ emissions . These are discussed in Schedule 16.

Airspace Change Proposal

In 2012 Birmingham Airport undertook a three month consultation process on the redesign of its flight paths.

In order for the full length of the runway extension to be used the navigation aids used to support instrument approaches will have to be relocated to reflect the new landing threshold of the extended runway, which is located 391 meters to the south-east of its present position.

There have been 2 public consultations, one for a new arrivals procedure on Runway 33 and one for new departure procedures for Runway 15. A summary of both are below but full details of the proposals are available on Birmingham Airport website.

To ensure that everyone in the affected communities were aware of the process an Airspace Change Focus Groups (ACFG) was set up. This was comprised of individuals from communities which may be affected along with local Authorities and Environmental Groups. In addition to the Focus Groups a Road show travelled to each affected community to enable the local communities to get information on the new routes.

New routes are subject to legal requirements set out by the Civil Aviation Authority (CAA). Any new routes are ultimately regulated by the Civil Aviation Authority and the consultation process is detailed in a CAA document- Guidance on the Application of the Airspace Change Process (CAP 725).

The new routes have been designed to be safe and flyable for all aircraft and to affect the least practicable number of households whilst meeting the CAAs requirements.

Departures from Runway 15

Due to the runway extension a new Departure End of Runway (DER) will exist. Civil Aviation Authority regulations mean that new Standard Instrument Departure (SID) Procedures and Noise Preferential Routes (NPRs) for Runway 15 will need to be introduced.

Aircraft on departure are required to follow SIDs which are a set of instructions designed to provide safe routes from the Airport to the UK airways system and are generally referred to as 'flight paths'

The NPRs are currently 3km wide and the proposal sees this being reduced to 2Km which is due to the advance in technologies which mean that aircraft can fly a route much more precisely than before. The NPR's are flown until an aircraft reaches 3000 feet by which time the aircraft can leave the NPR. There are currently two proposals being consulted on, known as Option 5 and Option 6. Option 5 is the preferred route favoured by Birmingham Airport. A trial of both routes will start when the runway opens in April 2014 for approximately 6 months alternating one route with the other. Details of the two trials will be used by Birmingham Airport to determine what impacts there may be on the local communities

The new routes have been designed to be safe and flyable for all aircraft and to affect the least practicable number of households whilst meeting the CAAs requirements.

NUMBER OF ATMs

Although not required by the Section 106 Agreement, the annual number of Air Transport Movements (ATMs) is a useful indicator of the level of operation at BAL. The total air traffic movements include cargo, passenger and private/executive movements.

Table 14. Total air traffic movements at BAL 1996-2013

Year	Total Aircraft Movements
1996	96,266
1997	100,726
1998	108,852
1999	118,431
2000	126,633
2001	125,209
2002	125,083
2003	128,740
2004	120,799

2005	123,192
2006	119,532
2007	114,717
2008	112,470
2009	101,627
2010	96,668
2011	93,974
2012	91,841
2013	Still to get

9. COMMUNITY BENEFITS

This Schedule of the Section 106 Agreement states that the Airport Company should continue to administer a Community Trust Fund (CTF). The Airport Company also provides sponsorship and education facilities to local areas.

Community Trust Fund

The Community Trust Fund is a registered charity run by Trustees and was established in 1998. The purpose of the CTF is to invest in a range of local projects, which benefit the community and environment. The trustees comprise two representatives of Solihull MBC, two from Birmingham City Council, three from the Airport Consultative Committee and two from the Airport Company and all administration costs are met by BAL.

The income raised consists of an annual £75,000 investment from the Airport Company, and the revenue raised from the surcharges imposed for violations of the daytime noise limit and that given in the night flying policy. Since the inception of the Community Trust Fund in 1998 over £1.1million has been awarded to projects which have benefitted the local community.

In 2013 The Community Trust Fund awards amounted to a total spend of £68,607. This sum has been distributed among the projects listed in table 18. Any revenue in the CTF that has not been spent in previous years is carried over to the next financial year.

Birmingham Airport has also supported local school on specific projects, for example a Customer Service project in Arden School, Knowle.

Flight School

Flight School, which opened in 2012, still remains very popular with both students and teachers. It is a dedicated unit for exclusive use by primary and secondary students and has been made possible through a partnership between Birmingham Airport, education and business partners.

It is a self contained unit and provides an insight to the airport and how it works. There is no charge to use the facilities but visits must be pre booked and are available to groups throughout the region. A range of education materials is supplied along with computers, whiteboards and web based resources. The facilities can cater for children from nursery age to post 16.

Community Events

Members of staff from Birmingham Airport have a number of community drop-in sessions across local areas which provide feedback on all aspects of the airport and answers any queries that residents may have. A schedule of the events for 2013-2014 can be viewed on Birmingham Airport website. They are held on weekdays and at weekends to give everyone a chance to attend.

Local residents can subscribe to a Twitter feed or an email newsletter which gives details of any issues that may affect local communities

Birmingham Airport also gave to a number of charities including its nominated charity, Acorns Children's Hospice, for which it has now raised over £35,000.

Table 15. Annual Community Trust Fund awards 1998-2013

Year	Total Awarded (£)
1998	98,156
1999	83,993
2000	153,139
2001	103,751
2002	97,670
2003	90,212
2004	72,868
2005	65,444
2006	51,175
2007	53,027
2008	67,349
2009	49,994
2010	52,40
2011	54,067
2012	55,165
2013	68,607

The following table indicates the monies awarded for the 2013

Table 16. Community Trust Fund awards for the financial year 2013

George Fentham School PTA	Hampton in Arden	£1,092.00	Outdoor classroom equipment
Elmdon Netball Club	Elmdon	£504.00	Storage lockers
St Peter's Bickenhill	Bickenhill	£1,565.00	Sound insulation for stained window
Easy as 1-2-3	Sheldon	£936.00	Art display stand
147 th Birmingham Brownies	Bromford/Hodge Hill	£1,100.00	IT equipment
Colebourne Court Social Fund	Stechford	£ 900.00	Electronic equipment
Hampton Players	Hampton in Arden	£1,248.00	Lighting and sound

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			equipment
St Clement's Church	Castle Bromwich	£2,625.06	resurfacing
Newhall Allotments Association	Sutton Coldfield	1,500.00 C	Storage container
8 th Solihull Scout Group	Elmdon	£1,080.00	Camping equipment
Kingshurst Evangelical Church	Kingshurst	£3,000.00 C	Refurbishment work
Castle Vale Parents/Carers Forum	Castle Vale	£658.42	Gardening equip
St Alphege Pre-School	Solihull	£ 800.00	Creation of outdoor classroom
Friends of Damson Parks	Elmdon Heath	£2,500.00 C	New footpath
Marston Green Lawn Tennis Club	Marston Green	£1,000.00	Roofing works
Castle Vale Allotments Association	Castle Vale	£750.00	Training room
Water Orton & District Tennis Club	Water Orton	£1,500.00	Changing room renovation
Northern Star Community Arts	Chelmsley Wood	£1,000.00	Art materials
Cockshut Hill Technology College	Yardley	£1,800.00	Seated planters
Kingshurst Sporting FC	Kingshurst	£2,000.00 C	Protective netting
Solihull Carers Centre	Solihull	£2,000.00	carpets
Daybreak Trust	Elmdon	£1,000.00	Kennel refurbishment
Sutton Coldfield Cricket Club	Sutton Coldfield	£1,672.80	Wicket covers
Friends of Rectory Park	Sutton Coldfield	£3,000.00	Ground works
Solihull Canoe Club	Solihull	£1,000.00	New kayak
Heronfield Animal Rescue	Knowle	£3,000.00	Building replacement
Guardian Angels School	Shard End	£3,000.00	Environmental facility
Marston Green Bowling Club	Marston Green	£2,000.00	Sprinkler system
Yardley Baptist Church	Yardley	£3,000.00	Improving access
Firs Primary School	Castle Bromwich	£2,500.00	Outdoor play structure
Bradford Arms Bowling Club	Castle Bromwich	£2,000.00	Replacement mower
Ward End Bowling Club	Ward End	£3,000.00	Disabled access improvement
Entraide	Chelmsley Wood	£2,000.00	laptops
231 st Birmingham Brownies	Hodge Hill	£1,000.00	Activity break

Plantsbrook Nature Reserve	Sutton Coldfield	£2,588.00	Pond dipping platform
Marston Green Baptist Church	Marston Green	£3,000.00	Wheelchair access
CTC Kingshurst Academy	Kingshurst	£3,000.00	Wildlife pond/groundwork
The Barston Association	Barston	£2,000	New gazebos

10. Historic Environment, Ecology and Landscape

This is a new addition to the Section 106 Agreement. Obligations in the Section 106 Agreement sets out work that the Airport Company needed to undertake prior to the Runway Extension being used and to prepare a mitigation plan for the Development as identified in the Environmental Statement which was submitted with the Planning Application. This is known as the Historic, Environment, Ecology and Landscape Management Plan (HEELMP).

A Steering Group has been established to advise on the Historic Environment Ecology and Landscape Management Plan with final agreement on the plan to be agreed with Solihull MBC. A draft report has been produced and amended in November 2013. An addendum was submitted for comment in February 2014 so the final version is currently pending. Once the HEELMP has been agreed it is expected that all work will be carried out as per the conditions in Schedule 10.

The Steering Group is made up by members from Birmingham Airport, Solihull MBC, Natural England and Warwickshire Wildlife Trust and the group will advise upon the preparation of the HEELMP to ensure a detailed package of mitigation and measures to compensate for the effects arising from the Runway Extension on the historic environment resource, ecological resource and the landscape and visual resource.

The Steering Group is made up of members from Birmingham Airport, Solihull MBC, Natural England and Warwickshire Wildlife Trust and the group will advise upon the set out measures to compensate for the effects arising from the Runway Extension on ecological issues.

The Section 106 Agreement outlines a number of items which are to be included in the Historic Environment, Ecology and Landscape Management Plan and some of these are shown below.

- A proposed management regime for the existing and new hedgerows along with measures to be taken to control hedgerow heights.
- Provision for the conservation of the Bickenhill Conservation area

- A Clerk of Works to be appointed who will supervise works identified in the plan. Staff in the Ecology and Landscape section at Solihull MBC will also monitor aspects of Schedule 10 of the Section 106 Agreement.
- Details of the proposed treatment and height management regime falling within the Obstacle Limitation Area.
- Details of the management plan for the Castle Hills Site is to be based on a site survey and will contain a timetable for implementation of the management plan.
- Details of the schemes known as MG4 and MG5 Grassland Creation Schemes. The details will include the purpose, aims and objectives of the scheme, review of the sites ecological potential and constraints and long term management of the sites.
- Details of any areas to be cleared of scrub and the proposed management regime.
- The proposed implementation and on-going management plan for the realigned watercourses and ditches
- A management plan for dealing with invasive species on the site in particular Japanese knotweed.
- Details of the mitigation strategies for Protected Species e.g. white-clawed crayfish, badgers and bats.
- Proposed mitigation for the loss of Barn Owl roost, loss of breeding habitat for birds until landscape matures and loss of important hedgerows until the newly created landscape matures.
- Talks are on going with the Civil Aviation Authority to retain the tree tagged as 5007 with minimal intervention. This tree was highlighted in the Environment Statement which accompanied the Planning Documents.
- It is now proposed that 42.5 ha of MG5 Grassland will be delivered as part of the scheme rather than 41ha as originally proposed. The creation and on-going management of these areas has been detailed within the latest version of the HEELMP.
- There has been a deed of variation to the S106 Agreement to allow for off-setting provision for the MG4 grassland.

- Barn Owl and kestrel nest boxes and bat roosting boxes have been erected as detailed within the HEELMP.

The plan will be reviewed and monitored on a regular basis

The Airport Company shall use all reasonable endeavours to replant the trees. Schedule 16 contains conditions regarding a budget to be made available for tree planting and woodland creation schemes

Not all conditions in Schedule 10 have yet been discharged but it is anticipated they will be early in 2014.

11. Health

Schedule 11 relates to Health Management matters and is a new Schedule in the Section 106 Agreement.

Obligations in this Schedule relate to setting up a Health Forum which is to be formed to discuss specific issues relating to health issues arising from the Airport and its use and to guide health conscious decision making within the Airport Company,

The Forum will consist of at least 6 members and shall include people from the Airport Company, Solihull Health Authority, Solihull MBC, Birmingham City Council and the Airport Consultative Committee.

A brief has been issued to a Consultant to scope out draft objectives and the first meeting of the Forum is set for Spring 2014 after the opening of the Runway Extension.

12. Business Tourism

Schedule 12 is a new inclusion in the Section 106 Agreement and the conditions it contains relate to promoting and supporting business tourism in Solihull and to help produce a business tourism strategy with Solihull MBC..

The aim of the strategy is to market Solihull as a business tourism destination and to encourage visitors to the region and meet to the visitors needs.

A Solihull Tourism forum has been set up and will meet on a regular basis. The forum includes representatives of Solihull MBC, the Airport Company, the NEC, Solihull Chamber of Commerce, Solihull College, Solihull BID, local hotels and other parties. Further focus groups may be created to take key topics forward.

At the latest meeting items discussed were planned Solihull BID events for 2014, overview details of the new complex opening at the NEC, route development at Birmingham Airport and the Visitor Economy Strategy.

13. Corporate Social Responsibility

Condition 1 to 3 of this schedule states that the Airport Company shall continue and maintain its support to Corporate Social Responsibility in Solihull, keep under review its strategy for its programme of Corporate Social Responsibility, to engage with Solihull MBC to develop the Councils Corporate Social Responsibility agenda and to report annually on its CSR programme and commitments.

Currently progress and commitments relating to Corporate Social Responsibility are reported to Solihull MBC through the ACC committee.

Birmingham Airport currently has a number of initiatives which form part of its corporate social responsibility such as the work done with schools, grants and employee engagement.

A Community Relations Strategy has been launched ahead of the opening of the runway extension as part of a wider CSR strategy. This covers Investment, Engagement, Communication, Education and Employment. This report will be submitted formally to Solihull MBC in Spring 2014.

The Strategy sets objectives 'to enable Birmingham Airport to make a practical contribution to the social and economic wellbeing of the communities it serves' and 'to promote mutual trust and understanding with its key local stakeholders'.

Birmingham Airport continues to make awards through the Community Trust Fund to benefit local community organisations. The flight school based at Birmingham Airport, which is free to use, is open to all schools to further their knowledge of the Airport and Birmingham Airport also supports individual schools for specific projects. Further details of the Community Trust Fund and the flight school are shown in schedule 9 of this report

Condition 4 of this Schedule asks that The Airport Company shall so far as is allowed by law make reasonable endeavours to procure local contractors, sub contractors and services. An analysis of spending for the financial year shows that 34% of the Airports trading partners have either a B or CV postcode and that they account for 31.5% of the spend.

Condition 5 states that 'The Airport Company shall so far as is allowed by law use reasonable endeavours to procure local contractors, sub contractors and services for the purpose of carrying out the construction of the Runway Extension. (I am awaiting details of this from bcc and smbc)

14. Employment

Schedule 14 of the Section 106 Agreement states that the Airport Company 'shall prepare and submit a Site Employment and Training Strategy for the airport ' When the Strategy has been accepted it will be reviewed every three years.

Birmingham Airport will work closely with Solihull MBC, business forums and major employers in the area along with other parties, such as Job Centre Plus, and Solihull College to develop the Training Strategy as Birmingham Airport want to ensure that employment on site is accessible to local communities and hopes to be able to reduce unemployment in the area.

It will be an equal opportunity based strategy, and respond to issues of unemployment in the West Midlands but with a focus on East Birmingham and the North of the Solihull Borough and help supply on site training, work experience and graduate placement schemes.

Birmingham Airport will pay an annual amount Solihull MBC for a period of eight years to 'contribute to the development and delivery of employment initiatives by the Council to enable residents to take advantage of employment opportunities at the Airport'. Solihull MBC will report to Birmingham Airport annually detailing on how the money has been spent.

The Airport will report annually to Solihull MBC on its employment action plans and targets

15. Monitoring

Schedule 15 of the Section 106 Agreement Schedule 15 relates to monitoring. Birmingham Airport will pay an annual amount to monitor the performance of the obligations within the Section 106 Agreement and to produce this annual report.

16. Carbon management

This is a new schedule which forms part of the Section 106 Agreement although energy and waste figures have been reported to Solihull MBC for some time through the Environmental Working Group.

Birmingham Airport has produced a draft Carbon Management Plan which will go to the Airport Working Party for consideration then to Solihull Planning Committee for final approval. The plan will then be reviewed every three years.

A further condition states that when the runway extension is brought into use 'the Airport Company shall make available an annual budget of £10,000 (for a period of 20 years) for the purposes of tree planting and woodland creation schemes in Birmingham or Solihull to be agreed with the Council'. This is to help off-set carbon dioxide emissions.

Carbon Management Plan

Birmingham Airport produced a Climate Change Adaptation Plan in 2011 which looks at the impact the Airport operations has. The CO₂ emissions at Birmingham Airport are currently reported to SMBC through the Airport Environmental Working Group and details will now be included in the annual Section 106 report. The Climate Adaptation Plan can be downloaded from the Birmingham Airport website.

The Carbon Management Plan will include a review of Climate Change issues and legislation, a baseline carbon footprint and an action plan of future initiatives to measure and mitigate its carbon impact.

Carbon Foot printing is a tool which measures the amount of carbon dioxide (CO₂) and other greenhouse gases (GHGs) that are produced directly and indirectly as a result of an organisation's operations. Once a figure is known Birmingham Airport can understand the impact and identify any opportunities to reduce its emissions.

In 2012/13 the Carbon Footprint of the Airport was calculated to be 168,543 tonnes of CO₂. The amount is calculated using guidance issued by DEFRA and information was externally reviewed in July 2013 and included verification of methodologies and figures. The Airport is investing in smart metres to allow automatic monitoring across the site.

There are three areas included in this figure. Scope 1 is an amount of 6019 tonnes, Scope 2 is 19,001 tonnes and Scope 3 is 143.524 tonnes.

The Airport will first control and reduce those emissions for which they are directly responsible and which the Airport owns and controls such as gas and diesel consumption and refrigerants included in Scope 1. Fleet vehicles are also included in this.

Scope 2 covers emissions from purchased electricity. This includes tenants within the terminal itself and all buildings where the Airport Company has control over the power supply.

Scope 3 covers aspects out of the Airport Company's direct control such as emissions from people travelling to the airport by surface transport, aircraft landing and take off cycle, waste management and water use and treatment. The largest in this section is the landing and take off cycle which accounts for 74% of this section of emissions.

The Airport has already undertaken a number of initiatives to reduce emissions and improve environmental performance. These include Operation Pathfinder, Continuous descent approach, Continuous Climb Departures and Single Engine Taxiing amongst other things.

200 solar panels have been installed on the roof of the terminal building. These save 22 tonnes of carbon dioxide each year and generate 40,000 kWh a year which is sufficient to power 12 average sized houses.

The panels capture the sun's energy and this is converted to electricity and the panels operate even on cloudy days. This renewable energy is the first zero carbon installation at the site and forms part of the plan to reduce the carbon footprint.

Operation Pathfinder

When aircraft depart the airport they have noise preferential routes, currently 3km wide, which aircraft should fly until they reach a height of 3000 feet. Operation Pathfinder was created in 2005 to recognise airlines that performed well and exceeded the target set by Birmingham Airport. Regular meetings with airlines, air traffic and operational staff are held to encourage airlines to achieve the target of 95 % and to share best practices. An annual awards ceremony is attended by Airlines who have achieved their targets.

The scheme now covers other items such as the use of fixed electrical ground power (FEGP) which have a lower carbon intensity compared to aircraft onboard motors

Continuous Descent Approach (CDA)

Continuous Descent Approaches were launched at Birmingham International Airport in 2009, following a very successful trial with the Airlines and ATC. Prior to the trial, airlines were achieving just over 50% compliance with the CDA profile; aircraft are now collectively achieving over 90% compliance with the CDA procedure

CDA allows aircraft to descend on less power making a smooth approach without the need to level out which traditionally has been the standard

approach so helping emissions and also creates less noise. When the CDA were started they were conducted from 4000 ft to landing for every ILS approach. This has now changed to 6000 feet. It was expected that initially performance levels would decrease but reports have shown that performance is currently showing a 96% improvement in performance levels,

A CDA approach cannot always be flown due to airspace constraints or overriding safety requirements.

Continuous Climb Departures

This is where aircraft operate a steady continuous climb on departure reducing both noise impact and fuel consumption.

At present most departing aircraft from the Airport are given a continuous climb up to 6000 feet. This will change to 8000 feet. This will help lower aircraft fuel consumption and lower the CO₂ emissions as the highest levels of fuel burn and CO₂ emissions are generated by an aircraft climbing to 10,000 feet. Air Traffic controllers are encouraged to transfer aircraft to the next controlling agency early to help facilitate climbs past the 10,000 feet level.

Single engine taxiing

Single engine taxiing is encouraged where possible which again reduces CO₂ emissions.

Shutting down an engine while taxiing can reduce emissions considerably and reduce fuel burn and costs to Airlines. It also highlights good environmental practice.

The Airport is investing in smart metres to allow automatic monitoring across the site. The results from this monitoring will be reviewed to see where any reductions can be made and also to monitor useage.

Waste Management

Waste recycling does not form part of the Section 106 Agreement but is reported to Solihull MBC and is included here for information on what Birmingham Airport does towards recycling.

Waste at the Airport is created from passengers to the Airport in the manner of food waste, newspapers, cans and plastic and glass bottles. Other types of waste such as cardboard, metals, pallets, office paper etc is produced as business waste.

Steps are taken to ensure that waste is reduced to a minimum and that it is recycled where possible. Food waste is sent to an anaerobic waste facility and other waste is sent to a materials recycling facility where the recyclable materials are hand picked.

CONCLUSION

2013 has seen an increase of 2.3 % in passenger numbers since last year and although it is still a challenging time this is an encouraging sign.

Work is well underway with the Runway Extension which will be finished in Spring 2014 despite the wettest winter for many years which hampered the earthworks involved in the Runway Extension.

By extending the existing runway by 405 metres, aircraft will be able to take off from Birmingham with more fuel and fly direct to destinations currently out of reach, such as China, South America, South Africa and the West Coast of the USA. This will improve the local economy and open up new opportunities for export

Due to the Runway Extension a new Section 106 Agreement has come into force and some of the conditions included in the Agreement are monitored by Departments within Solihull MBC and not necessarily by the Airport Monitoring Officer. Some of the conditions within the Agreement do not have to be complied with within the date limits in this report and therefore these will be reported when they are required

2013 has also seen the new Monarch hangar at Birmingham Airport, a new Watchman Radar installed and the new Air-traffic Control Tower fully operational.

2013 sees Birmingham International Airport complying with all Obligations within the Section 106 Planning Agreement that have to be met.

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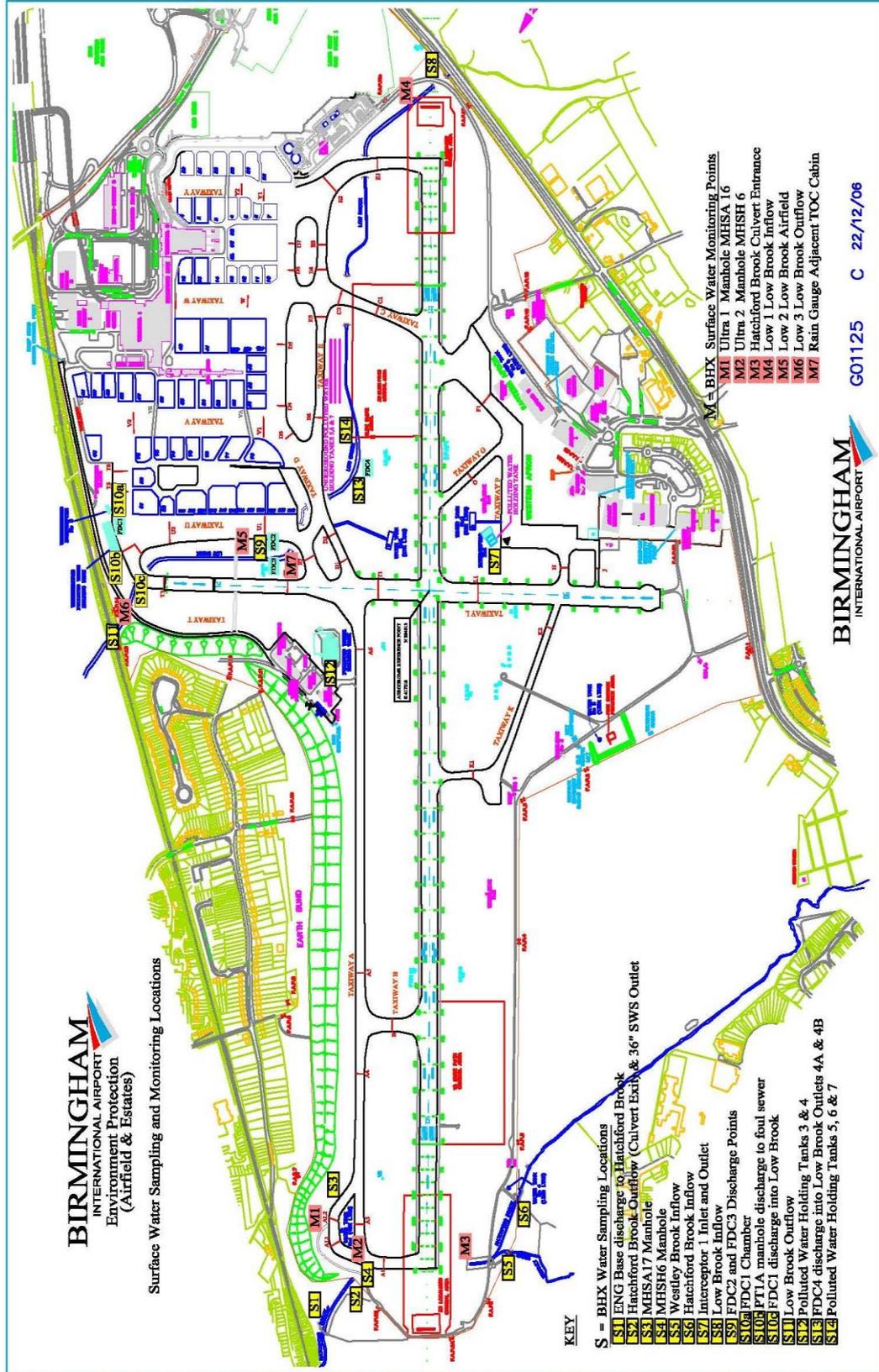
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Map 1

Map 2- Sound Insulation Scheme Boundary



Sound Insulation Scheme Boundary

