Building on a sound foundation

Stansted Noise Strategy and Action Plan 2010-2015

London Stansted
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"Stansted was the first major UK airport to achieve the ISO14001 environmental accreditation"

Foreword

Stansted Airport is one of the UK's principal international gateways for trade, tourism and travel and is a key driver for economic development in the East of England. In 2009, the Airport served over 19 million passengers making Stansted the third busiest airport in the UK.

In 2009, the Airport offered passenger flights to over 140 destinations in over 30 countries served by 20 different airlines – and airlines continue to be established. The Airport also handled approximately 185,000 tonnes of cargo during 2009 and we look forward to supporting the 2012 Olympics as one of the key international gateways for London.

However, we are only too aware that with growth comes responsibility. Living near to an airport like Stansted has its advantages – for example employment opportunities and great transport links – but the Airport can also disadvantage some people living in the local community, particularly when it comes to aircraft noise.

Stansted Airport was the first major UK airport to hold the ISO14001 environmental accreditation. Our pro-active work on monitoring and mitigating noise is an essential element of this accreditation. We have monitored, reported on and managed noise issues since the early 1990's and have well established procedures and practises. In many cases Stansted Airport Limited (STAL) has gone beyond the requirements of best practise and legal requirement. For example Stansted Airport is the only London Airport to fine airlines which fly "persistently" off track; the airport also strives to maximise the use of Fixed Electrical Ground Power units for parked aircraft to minimise ground noise from the airport.

Our results show the success we have achieved, since 2005 we have reduced the number of noise complaints received by over 15,000 per year.

In developing this next stage of our Noise Strategy – The Noise Action Plan, we have actively consulted stakeholders and the community over a 16 week period and have listened to the responses submitted. We have carefully analysed the consultation feedback and where possible addressed areas of concern. This has resulted in over 20 new actions that London Stansted is committed to introduce over the lifetime of this five-year plan.

We will continue to manage aircraft noise in a pro-active way and we will take further appropriate actions to reduce and mitigate aircraft noise.

Nick Barton
Managing Director, London Stansted Airport.

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"Stansted Airport fines airlines who persistently fly off track"

Introduction

Airports bring a wide range of economic, social and environmental effects, both positive and negative. Airports are important economic generators, providing jobs, encouraging inward investment and boosting local tourism.

However, there are also some negative effects for those communities that exist around airports. Noise remains a significant issue for people living or working close to airports or under flight paths.

Managing and where possible reducing this noise is a long standing commitment within Stansted Airport Limited's (STAL) corporate responsibility agenda. This is critical to maintaining Stansted Airport's permission to grow. In 1993, Stansted Airport became a designated airport empowering the Government to introduce noise controls to mitigate the effect of aircraft landing or taking off. Our commitment and approach is further endorsed by the achievement in 2005 of the ISO14001 environmental accreditation, which includes the management of air and ground noise. We have maintained this accreditation to date.

Following the European Union Environmental Noise Directive 2002/49/EU and The Environmental Noise (England) Regulations 2006 (as amended), airports with over 50,000 movements per year are required to produce Noise Action Plans. The Airport operator is the competent authority for drawing up the Action Plan. For Stansted Airport, the authority is Stansted Airport Limited (STAL).

Government guidance states that Noise Action Plans are designed to assess existing noise control measures and take appropriate action to improve upon these where appropriate. This includes noise from departing and arriving aircraft at the Airport, and will include further noise reduction measures if necessary.

Stansted Airport has developed its Noise Strategy to take into account this new requirement and has developed the Noise Action Plan accordingly. To assist readers, a full glossary of terms is contained within Appendix B.

The Stansted Noise Action Plan

In 2009, STAL developed and consulted upon its draft Noise Action Plan in line with the European Directive and the published regulations. Following consultation with a range of stakeholders and the local community we have published this Noise Strategy and Action Plan. It sets out how we will manage and where possible reduce the impact of noise from aircraft at Stansted Airport over a five year period from the date of UK Government approval.

The Plan includes actions which relate to developing the Airport within its current planning permission and in line with the guidance provided by DEFRA. It makes reference to:

- Noise created by aircraft approaching, taking off from the Airport, taxiing aircraft and engine testing carried out within the Airport perimeter.
- The necessary dB Lden noise contours 2006, published for Stansted Airport by DEFRA
- Responses received from the consultation of our draft Plan.

STAL has extended the scope of this Plan by setting actions which seek to address the impacts of aircraft noise in areas beyond the specified contours. Noise created by ground based transportation is covered by our Airport Surface Access Strategy.

The Stansted Airport Surface Access Strategy (ASAS)

STAL manages the impacts of vehicular traffic through its Airport Surface Access Strategy. This aims to reduce the proportion of car borne traffic and increase the proportion of air passengers and employees who use public transport. The first ASAS was published in 1999, with the latest Strategy being published in 2008.

Stansted Airport has achieved a leading position with the highest proportion of passengers travelling by public transport of any major UK airport and is in the top quartile of UK companies who have measured and reduced the number of staff vehicles arriving per hundred employees.

The Strategy is intended to:

- Set out a clear framework for the development of surface access to support the Airport development to 2015 for the Generation 1 Development
- Contribute significantly towards our corporate sustainability and climate change agenda's
- Provide the framework to set challenging targets for surface access
- Contribute to, and influence, regional and local development frameworks.

Through this Strategy of reducing the proportion of private vehicles using the Airport we expect the impacts of vehicular borne noise to be mitigated. However, noise relating to surface transport is mainly dealt with separately under government legislation and does not fall within the responsibility of airport operators. For information, please see **noisemapping.defra.gov.uk**

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"Stansted Airport is the UK's third largest airport. In 2009, over 19 million passengers used the airport"

Stansted Airport

Stansted Airport is the third largest international airport in the UK primarily serving London, the East of England and the South East. In 2009, it handled over 19 mppa.

It covers an area of 957 hectares and is located approximately 65 kilometres north-east of London, and 50 kilometres south-east of Cambridge. Land surrounding the Airport is predominantly arable agricultural land, interspersed with dwellings and farmhouses.

Towns in the vicinity of the Airport include Bishop's Stortford, located 3.5 kilometres to the west and Great Dunmow approximately 8 kilometres to the east. Nearby villages include Stansted Mountfitchet, Molehill Green, Bamber's Green, Takeley, Takeley Street, Birchanger, Burton End, Tye Green and Gaunt's End.

The Airport has one operational runway and a single main terminal building located to the south of the runway. To the north of the runway, a number of general aviation companies operate from their own facilities.

The main runway is known as '04/22' (based upon compass bearings). It is 3,048m in length and is equipped with a Category 3b instrument landing system. In 2009, over 90 different aircraft types served the Airport with the overwhelming types being twin engine, medium sized, narrow bodied aircraft such as the Boeing 737-800 and the Airbus A319.

Stansted's development

Stansted Airport's origins date back to the Second World War when the Airport was built to provide an airfield base for the United States Army.

The modern airport includes the iconic terminal building opened in 1991, having been granted planning permission in 1985. The permission granted was an initial phase of 8 million passengers per annum (mppa), a second permission of 15 mppa and a third permission of 25 mppa.

In October 2008, the Secretary of State approved the Generation 1 planning application for growth up to 35 mppa along with a series of conditions and obligations. These conditions restrict passenger numbers up to 35 mppa, air transport movements to 264,000 and the area within the 57dB LAeq noise contour to 33.9 square kilometres.

Airport use

In 2009, the Airport handled, on average, approximately 400 flights per day in the winter period and 500 flights per day in the summer period – these being evenly split between departures and arrivals.

In 2009, there were 20 scheduled and charter passenger airlines flying to over 140 destinations. The total Air Traffic Movements (ATM's) for 2009 were 156,242.

The Airport serves a catchment area of over 12 million people in the East of England, London and the wider South East. Over 3 million business passengers use Stansted Airport each year. In 2009, over 199 companies and agencies were located on-airport; employing over 10,800 people, 81% of whom live in Essex and Hertfordshire.

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"At Stansted we have already introduced differential charges to incentivise the use of quieter and cleaner aircraft"

The regulation of aircraft noise in the UK

There are four main tiers of regulation which govern aircraft noise in the UK: International, European, National and local.

The following diagram summarises the tiers of aircraft noise regulation affecting operations at Stansted.

International regulation

The International Civil Aviation Organisation, (ICAO), is a specialised agency of the United Nations, created with the signing in Chicago, on 7 December 1944, of the Convention on International Civil Aviation. It aims to develop the principles and techniques of international civil air navigation and foster the planning and development of international air transport.

One of ICAO's chief activities is the establishment of international standards, recommended practices and procedures regarding the technical fields of aviation, including aircraft noise. After a standard is adopted, it is put into effect by each ICAO member state in its country.

ICAO has set progressively tighter certification standards for noise emissions from civil aircraft, known as chapters. The chapters set maximum acceptable noise levels for different aircraft during landing and take-off. For example aircraft falling within chapter 2 have been banned from operating within the EU since 1st April 2002, unless they are granted specific exemptions. The vast majority of civil aircraft now operating fall within Chapters 3 and 4, which are quieter than the previous Chapter 2 aircraft.

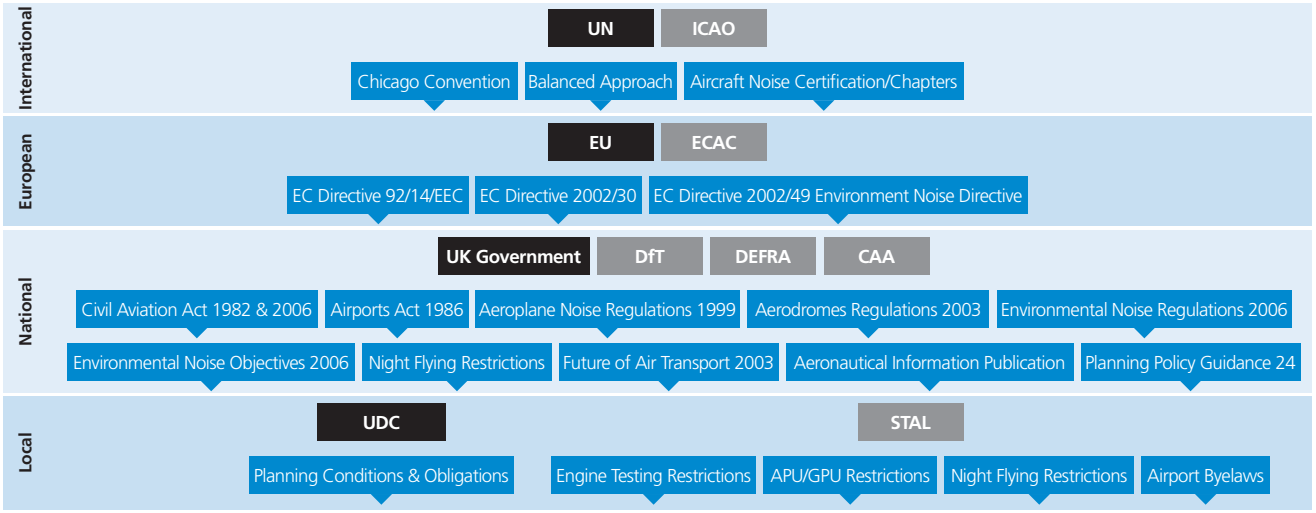
All new aircraft manufactured from 2006 onwards must meet the requirements of Chapter 4. The standard for Chapter 4 has been set at 10dB below that of Chapter 3. Further details regarding these standards can be found at **www.dft.gov.uk** and **www.caa.co.uk**

ICAO also requires member states to adopt a "balanced approach" to aircraft noise management. This balanced approach considers:

- Reducing aircraft noise at source
- Land planning use
- Changes to operational procedures
- Restrictions on the use of the noisiest aircraft.

This approach has been adopted through the various strategies in this Action Plan. Further details of the ICAO "Balanced Approach" can be found at **www.icao.int/env/noise.htm**

Stansted Airport Aircraft Noise Regulations



European regulation

The European Union (EU), through the European Civil Aviation Conference (ECAC), is working towards a common aviation policy in Europe. The EU has issued various directives relating to the management and control of environmental issues and is increasingly assuming responsibility for the regulation of aircraft noise standards. Member States are obliged to comply with the requirements of the directives and incorporate them into national legislation.

The relevant directives for aircraft noise management are:

EC Directive 92/14/EEC – This directive banned Chapter 2 aircraft from landing in the EU from 1st April 2002.

EC Directive 2002/30 – This directive has:

- Introduced discretionary powers to restrict the operation of marginally compliant Chapter 3 aircraft, where circumstances support this measure
- Requires the publication of environmental noise objectives for the Airport
- Requires the adoption of a balanced approach to noise management, including the four elements agreed by ICAO.

EC Directive 2002/49 ("Environment Noise Directive") – This directive requires Member States to create noise maps from all transport sources in urban areas by 2007 and to adopt action plans to manage noise by 2008. The directive also aims to harmonise methods for measuring noise across the EU. This has required us to produce this Action Plan.

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National regulation

The current UK Government is committed to publishing an aviation policy scoping document in March 2011 followed by a draft aviation policy framework in March 2012. This plan will be reviewed in light of any policy changes. Current national regulations for aircraft noise control achieve this in various ways:

The Future of Air Transport White Paper

In December 2003, The Future of Air Transport White Paper set out a strategic framework for the development of UK airport capacity over the next 30 years. It outlined several new policies for airports to control, mitigate and compensate for aircraft noise. These policies are reflected in this Action Plan.

Acts of Parliament and regulations

The UK government ratify Acts of Parliament and regulations which address aircraft noise. The relevant legislation is detailed below:

The Civil Aviation Acts 1982 and 2006 – the 1982 Act gave the UK government powers to introduce noise controls to limit or mitigate the effect of noise and vibration from aircraft landing or taking off at designated airports, defined as Heathrow, Gatwick and Stansted, (Stansted from 1993). These powers were widened by the 2006 Act, which permits an airport authority to charge aircraft operators for the noise and emissions generated close to the Airport. These powers are regulated on behalf of the UK government by the Department for Transport, (DfT). At Stansted we have introduced differential charges to incentivise the use of quieter and cleaner aircraft. These are available at **www.stanstedairport.com** in a document entitled "conditions of use".

Airports Act 1986 – This Act gives power to the Secretary of State to make orders if it appears that the existing runway capacity of the Airport is not fully utilised for a substantial proportion of the time during which it is available. It includes powers to limit the number of occasions on which aircraft may land or take off at an airport and schemes to allocate airport capacity.

The Environmental Noise (England) Regulations 2006 (as amended) – These regulations turn EU directive 2002/49 (Environment Noise Directive) into UK law. They place a duty on the Secretary of State to produce strategic noise maps following which airport operators must produce Noise Action Plans. Once prepared and adopted, the noise action plans must be reviewed and, if necessary, revised, at least every five years and whenever a major development occurs affecting the noise situation.

The Aerodromes (Noise Restrictions) (Rules and Procedures) Regulations 2003 – These regulations turn EU Directive 2002/30 into UK law. They apply to major airport operators with over 50,000 civil jet aircraft movements a year and reflect the adoption of the ICAO balanced approach to managing aircraft noise. Additionally, the regulations define procedures which airports should follow when considering operating restrictions based on aircraft noise.

Aeroplane Noise Regulations 1999 – These regulations define the noise certificate requirements for both propeller and jet aeroplanes registered in the UK. It ensures that no aircraft can land or take off in the UK without a valid noise certificate. The regulations are based on the noise certification standards and limits issued by ICAO, (eg. Chapter 3 and 4 aircraft). They also provide a list of aircraft that are exempt from the ICAO noise certification.

Aircraft Night Noise Regulations – Following a lengthy consultation, the DfT has implemented three specific noise abatement objectives for the current night flight regime for designated airports which run from 2006 to 2012:

- Minimise sleep disturbance resulting from overflight of the noisiest types of aircraft
- Mitigate the effects of noise, in particular sleep disturbance. This will be done by encouraging the Airport to adopt night

[1] Planning Policy Guidance 24: Planning and Noise published September 1994

The regulation of aircraft noise in the UK continued

noise related criteria in order to determine which residents of domestic or noise sensitive premises should be offered insulation schemes

- To limit the 6.5 hour 48dBA Leq contour (for the winter and summer seasons combined) to 38km^2 by 2011-2012.

Aeronautical Information Package (UK AIP)
This provides specific controls for managing aircraft noise at each UK airport, formed as a result of the Acts and regulations discussed. These controls cover aspects such as Continuous Descent Approaches (CDAs), Noise Preferential Routes (NPR's), noise abatement procedures and night flight restrictions. A copy of the UK AIP for Stansted Airport detailing the Noise Abatement Procedures can be found at **www.nats-uk.ead-it.com/aip/current/ad/EGSS/EG_AD_2_EGSS_en.pdf**

Planning policy
Government policy for aircraft noise also includes land use and planning policies. These are set out in planning policy guidance (PPG) note 24[1], which gives advice to local authorities on how the planning system can be used to minimise the adverse effects of aircraft noise. It outlines the main considerations which local authorities should take into account when determining planning applications.

Environmental noise objectives
In June 2006, the Secretary of State published long term statutory environmental noise objectives for Heathrow, Gatwick and Stansted airports.

Long term statutory noise objectives for Stansted Airport are:

- Progressively to encourage the use of quieter aircraft at night while allowing overall growth of the Airport as envisaged by the 2003 Future of Air Transport White Paper
- To limit the overall noise from aircraft during the night quota period close to existing levels while permitting expansion of the Airport's overall traffic in line with 2003 White Paper objectives, and
- To meet noise-abatement objectives as adopted from time to time.

ANASE
ANASE stands for Attitudes to Noise from Aviation Sources in England. It is a social study commissioned by the DfT in 2002 aimed at reassessing people's attitudes to aircraft noise, reassessing Leq as a measure of annoyance and to determine the financial value of noise. The final report was published in 2007, together with the comments of peer reviewers and is available at **www.dft.gov.uk**

The Government has concluded that the ANASE findings are not robust enough to change its policy and recognises that more work is required following the ANASE report and will decide if and how to use the report in the future. STAL supports the Government's view of ANASE being an important step forward in understanding people's attitudes towards aviation noise. The report's findings have been reflected upon whilst formulating our Noise Action Plan.

Local regulation – airport planning conditions and obligations

As well as government legislation, additional noise-related controls are introduced by local planning authorities as part of the planning system. At Stansted Airport these conditions and obligations include restrictions of use of Auxilary Power Units (APU's), Ground Power Unit's (GPU's), the ground running of aircraft engines and the maximum noise contour size.

These are:

Air noise conditions
The planning permission for the G1 development includes conditions which limit the Airport to 35 mppa and limits on the number of passenger air transport movements, cargo air transport movements and non air transport movements of 243,500, 20,500 and 10,000 respectively. The G1 planning permission also limits the area enclosed by the 57dB(A) Leq16hr (07:00-23:00) noise contour to 33.9 sqkm.

Ground noise obligations

1. From the Implementation Date to issue and maintain the continuance of Director's Notices to the effect that:

1.1 The use of Air Start units, Ground Power Units, Air Conditioning units or any other items of ground servicing equipment which does not conform to current EU standards for noise suppression (85 decibels dBA at 7 metres) is prohibited on any apron area at Stansted

1.2 Ground Power Units must not be used at Stansted when there is serviceable FEGP available on stand

1.3 To use all reasonable endeavours to have FEGP available for use at all times where it is installed

1.4 Except in the circumstances set out in this paragraph APUs are not to be used where Fixed Electrical Ground Power (FEGP) is adequately provided and serviceable. The restrictions will be relaxed where:

1.4.1 The outside air temperature is below +5°C or above +20°C and FEGP is unserviceable or not installed on the stand

1.4.2 Systems that cannot be powered by FEGP require to be powered up for maintenance purposes, subject to prior permission being obtained from STAL

1.4.3 An aircraft has to be positioned on a stand equipped with FEGP, in such a manner as to make use of the FEGP system impractical (typically small cargo aircraft parked side-on or nose-out on stand)

1.4.4 An aircraft type is not compatible with the FEGP system at Stansted, or has a temporary technical fault preventing the use of FEGP

1.4.5 An aircraft has night-stopped at Stansted (minimum ground time of 2hrs) and is operating its first departure of the day and APU's can be run for a maximum of 45 minutes before departure subject to prior permission by STAL

1.4.6 Where the captain of an aircraft believes that genuine hardship to passengers will result unless the APU is run, then he/she may do so provided that STAL is contacted before starting.

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"In 2006, the prevalence of westerly winds meant that 66% of aircraft arrivals were from the east and 66% departed to the west"

In developing the Noise Action Plan, the Department for Environment, Food and Rural Affairs (DEFRA) provided airports with an 'Action Planning Data Pack'. This data is subject to Crown Copyright 2009. The contents of the Action Planning Data Pack were detailed in the "Guidance for airport operators to produce action plans under the terms of the Environmental Noise (England) Regulations 2006 (as amended)".

This was designed to provide a description of the current noise impact of the Airport on its surroundings.

We have shown the results of the 2006 noise mapping, which includes the estimated number of people and dwellings exposed above various noise levels from aircraft using Stansted Airport. We have included data from Lday, Levening, Lnight, Lden and Leq noise maps in Tables 1-5. We have considered this data as well as our current noise mitigation measures in formulating our Noise Action Plan.

2006 noise data

For safety reasons aircraft must takeoff and land into the wind. In 2006, the prevalence of westerly winds mean that approximately 66% of aircraft arrivals come from the east, and approximately 66% of departures are to the west.

Additionally, departing aircraft must remain within the Noise Preferential Routes (NPR) (3 at either end of the runway) (Appendix D) until they have reached a minimum altitude to be vectored by Air Traffic Control (ATC), or as instructed otherwise. The effect of the wind direction and NPR's is seen in the shape of the noise contour maps (Appendix C).

The Lden 55dB contour map (Appendix C) shows that the noise contour extends further to the northeast to include Thaxted and Great Sampford, due to the prevalence of westerly operations during 2006. It also extends south west of the Airport, to the western edge of Sawbridgeworth but not including Harlow. The widening of the contour around Little Hallingbury shows the bias towards the southwesterly departure operations along the Dover (DVR) and Clacton (CLN) routes. The 60dB Lden contour is considerably smaller,

Results of noise mapping

Table 1: Estimated total number of people and dwellings above various noise levels, Lden

Noise level (dB)	Area (km²)	Number of dwellings	Number of people
≥ 55	73.3	3,850	9,400
≥ 60	28.4	850	2,100
≥ 65	10.1	150	400
≥ 70	3.5	<50	<100
≥ 75	1.2	0	0

extending from Thaxted to just before Sawbridgeworth. The 65 and 70dB Lden contours show similar reductions in size, with the 75dB Lden contour falling predominantly within the Airport Boundary.

The Lnight contour map (Appendix C) shows a similar pattern of shaping to that of the Lden map. The dB bands are grouped differently to reflect the different timescale. The 48dB contour, like the 55Lden, extends from the southwest of Sawbridgeworth to the north east including Thaxted, but not Great Sampford. The 57dB contour extends southwest just past the M11 to Broxted in the north east. The 66dB contour is contained almost entirely within the Airport Boundary. Again the shape of these contours is affected by the south westerly operations.

The number of dwellings and population above various noise levels is shown in Tables 1-5. This data has been rounded to the nearest 50, except when the number of dwellings is greater than zero but less than 50, in which case the total has been shown as "< 50". The associated population has been rounded to the nearest 100, except when the associated population is greater than zero but less than 100, in which case the total has been shown as "<100".

Table 2: Estimated total number of people and dwellings above various noise levels, Lday

Noise level (dB)	Area (km²)	Number of dwellings	Number of people
≥ 54	50.4	2,300	5,800
≥ 57	28.4	750	1,900
≥ 60	15.6	350	900
≥ 63	8.2	100	300
≥ 66	4.3	< 50	<100
≥ 69	2.2	< 50	<100
≥ 72	1.2	0	0

Table 3: Estimated total number of people and dwellings above various noise levels, Levening

Noise level (dB)	Area (km²)	Number of Dwellings	Number of people
≥ 54	48.6	2,200	5,300
≥ 57	27.3	700	1,800
≥ 60	14.9	300	800
≥ 63	7.8	100	300
≥ 66	4.1	<50	<100
≥ 69	2.1	<50	<100
≥ 72	1.2	0	0

Table 4: Estimated total number of people and dwellings above various noise levels, LAeq, 16

Noise level (dB)	Area (km²)	Number of dwellings	Number of people
≥ 54	50.0	2,350	5,700
≥ 57	28.2	750	1,900
≥ 60	15.4	350	900
≥ 63	8.1	100	300
≥ 66	4.2	<50	<100
≥ 69	2.2	<50	<100
≥ 72	1.2	0	0

Table 5: Estimated total number of people and dwellings above various noise levels, Lnight

Noise level (dB)	Area (km²)	Number of dwellings	Number of people
≥ 48	57.5	2,800	6,800
≥ 51	32.8	1,300	3,100
≥ 54	18.1	450	1,200
≥ 57	9.6	150	300
≥ 60	5.0	<50	<100
≥ 63	2.6	<50	<100
≥ 66	1.4	0	0

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"Stansted Airport has a full range of noise mitigation measures in place, however we are not complacent about finding new ways to improve our performance"

Stansted Airport's Noise Strategy

As a designated airport, the Government sets the policy framework which influences how STAL responds to aircraft noise issues.

Noise that the Airport generates comes from a number of sources. In managing noise at the Airport, it is important to understand who is responsible for generating the noise and who can influence that noise. A summary is shown in Table 6.

Managing and where possible, reducing noise is a long standing commitment within STAL's corporate responsibility agenda. Stansted Airport has been a designated airport since 1993 with noise levels set by the Government.

Stansted Airport Limited sets noise targets each year to work towards our goal and these are published in our corporate responsibility report, together with performance information against key noise indicators. Locally we also have a number of planning conditions and obligations which impose restrictions to control a range of air and ground noise impacts.

Our commitment and approach is further endorsed by the achievement in 2005 of the ISO14001 environmental accreditation, which includes the management of air noise and we have consistently maintained this in subsequent years.

The Strategy and Action Plan within this document relates to the growth of the Airport to 35 mppa. In order to deliver our Noise Strategy and Action Plan we will continue to work collaboratively with airlines, air traffic controllers and local authorities.

Table 6: Noise sources at Stansted Airport

Noise source	Noise source owner	Influence role
Airside Vehicles	Drivers of vehicles	STAL
Landside Vehicles	Passengers, Passenger Transport Companies, Freight and Logistic transport companies.	STAL
Building Infrastructure	STAL and other airport building owners.	STAL
Aircraft Engines	Engine Manufacturers	Airlines, CAA, STAL
Aircraft Airframe	Aircraft Manufacturers	Airlines, CAA, STAL
APU's	APU Manufacturers	Airlines, STAL
GPU's	GPU Manufacturers	Ground Handling Companies, STAL

Noise source	Noise source owner	Influence role
Aircraft Engine Testing	Airlines	STAL
Construction Activities	Construction Company	STAL
Approach	Aircraft and engine Manufacturers	Airlines, CAA, NATS, STAL
Landing	Aircraft and engine Manufacturers	Airlines, CAA, STAL
Taxi	Engine Manufacturers	NATS, STAL
Take Off	Aircraft and engine Manufacturers	Airlines, CAA, NATS, STAL
Climb Out	Aircraft and engine Manufacturers	Airlines, CAA, NATS, STAL

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At Stansted Airport, we believe from the evidence of benchmarking studies and our long standing status as a designated airport, that we have a full and comprehensive range of noise management measures already in place. Our current expenditure on noise related activities is shown in Appendix H. However, we are not complacent about finding new ways to mitigate noise or to enhance our existing measures.

Our Noise Strategy and Action Plan will address nine key themes over the next five years. These are:

1. Control of noise generated from departing aircraft
2. Control of noise generated from arriving aircraft
3. Control of aircraft noise generated by ground operations
4. Night noise restrictions
5. Mitigation schemes
6. Monitoring and reporting
7. Policy and planning
8. Continuous improvement
9. Communication

For each theme we have reviewed our current Strategy and activities and set out how these will be developed through this Noise Action Plan.

5.1 Control of noise generated by departing aircraft

Our Strategy and activities that we currently undertake are:

Departure track procedures
Noise preferential routing "Track Keeping"
Aircraft departing from Stansted Airport are required to follow specific paths called noise preferential routes (NPRs) up to an altitude of 4,000ft, unless directed otherwise by air traffic control (ATC). NPRs were designed to avoid overflight of built-up areas where possible. They lead from the take-off runway to the main UK air traffic routes, and form the first part of the Standard Instrument Departure routes (SIDs).

At Stansted Airport there are three NPR's at each end of the runway namely Clacton (CLN), Dover (DVR) and Buzad (BZD). Associated with each NPR is a swathe of air space extending 1.5km each side of the nominal NPR centre line, within which aircraft are considered to be flying on track. This takes account of various factors that affect track-keeping including tolerances in navigational equipment, type and weight of aircraft, and weather conditions.

After reaching 4,000ft at any point along an NPR, an aircraft may be turned off the route by ATC onto a more direct heading – a practice known as 'vectoring'. ATC may also vector aircraft from NPRs below 4,000ft for safety reasons, including certain weather conditions, for example to avoid storms. ATC may vector Aircraft on the BZD departure routes at 3,000ft above sea level (QNH) during the hours of 06:00-23:30, outside of these times the 4,000ft restriction applies.

Stansted Airport's Noise Strategy continued

Changes in the NPR structure are rare and stability is regarded as important, so that people may know where aircraft noise will be experienced. The frequency with which any particular NPR is used will vary, and is an operational decision for ATC. These take into account the final destination of individual flights. A map illustrating the current NPRs is provided in Appendix D.

Stansted Airport has an existing target of 95% of all departing aircraft to remain within each designated NPR. To encourage greater adherence to the NPR's and to avoid the over-flight of sensitive areas we fine aircraft that fly "persistently" outside the NPR's, and direct all funds to the Stansted Airport Community Fund. The surcharge level in 2009 was £500 per infringement and in 2008 we collected and distributed £5,000. This approach will be developed further within our Action Plan.

"1000ft rule"
Within the UK AIP, after take-off of an aircraft it states that it shall be operated in such a way that it is at a height of not less than 1,000ft above aerodrome level (aal) at 6.5km from the point an aircraft starts its take off roll. We will continue to work with airlines to achieve this.

Departure noise limits
At Stansted Airport we have eight fixed noise monitors which are located at either end of the runway (4 at each end). The location of the monitors also takes account of the noise preferential routes.

There are specific noise limits applied at these fixed noise monitors for departing aircraft. During the night quota period (23:30-06:00) the departure noise limit is 87dBA Lmax (maximum noise limit measured in decibels).

During the remainder of the night period (23:00-23:30 and 06:00-07:00) the noise limit is 89dBA Lmax. These night flying time limits are consistent with the DfT night restrictions regime. There is also a daytime noise limit of 94dBA Lmax.

Relating the noise limits to a reference distance 6.5km from start-of-roll encourages aircraft operators to gain height as quickly as possible and then reduce engine power and noise at the earliest opportunity.

STAL fines airlines whose aircraft breach the noise limits, and the money is given to local community projects through the Stansted Airport Community Fund. The surcharge level in 2009 was £500 per infringement up to 3dB and £1,000 beyond this. In the future it is our intention to increase the fine levels.

In addition to the current activities we plan to introduce three new activities in our Action Plan which cover further monitoring of the areas as documented in section 2.21 - NOISE ABATEMENT PROCEDURES of the UK AIP."

Action plan summary

- We will continue to work with Airlines and NATS to ensure that all six departure Noise Preferential Routes exceed a 95% on-track performance target until they have achieved the minimum vectoring height of 4,000ft (3,000ft BZD routes 06:00-23:30)
- We will continue to fine aircraft that fly persistently outside the Noise Preferential Routes and increase this charge by the end of 2011
- We will introduce a tiered fining level starting at £1,000 per infringement, up to 3dB over the 94dB daytime limit. For Infringements that exceed this 3dB threshold we will add £250 per dB
- We will set up our noise and track keeping system to monitor overflights of Bishop's Stortford, St Elizabeths Hospice, Sawbridgeworth and Stansted Mountfitchet
- We will continue to monitor aircraft that do not meet the 1,000ft criteria as described in the UKAIP EGSS AD 2.21 Noise Abatement Procedures (3(1)) and work with airlines through the NTKWG to reduce the number of infringements
- In order to help clarify the trade-off between noise and emissions on departure, we will lobby through ANMAC to clarify guidance for aircraft operators regarding use of Noise Abatement Departure Procedures (NADP) at Stansted Airport
- We will work with NATS and the CAA to establish SLA's to respond to suggestions for improved flight procedures.

5

5.2 Control of noise generated from arriving aircraft

Nationally, there are no arrivals noise limits. A report which considered the feasibility of setting noise limits for arriving aircraft, '*Noise from Arriving Aircraft: Final Report of the ANMAC Technical Working Group*', was published in 1999. In light of the findings, the then Aviation Minister decided against imposing operational noise limits for arriving aircraft.

However, Stansted Airport undertakes the following activities to limit the impact of arriving aircraft and the resultant noise:

Arrival track procedures

Continuous Descent Approach (CDA)

The continuous descent approach is the way in which aircraft reduce their height when preparing to land at Stansted to minimise noise impacts.

The following is an extract from the UK AIP instructing pilots to use Continuous Descent Approach (CDA) wherever possible. "Where the aircraft is approaching the aerodrome to land it shall commensurate with its ATC clearance minimise noise disturbance by the use of continuous descent and low power, low drag operating procedures (referred to in Detailed Procedures for descent clearance in AD 2-EGSS-1-13 of the UK AIP 2.21). Where the use of the procedures is not practicable, the aircraft shall maintain as high an altitude as possible."

Stansted Airport Limited monitors and reports CDA's for all arriving aircraft on Runway 22 (Westerly) approach in the following way:

'For monitoring purposes, a descent will be deemed to have been continuous provided that no segment of level flight longer than 2.5 nm occurs below 6,000ft QNH and 'level flight' is interpreted as any segment of flight having a height change of not more than 50ft over a track distance of 2 nm or more, as recorded in the Airport Noise and Track Keeping System'.

Stansted Airport has an agreed target with the National Air Traffic Service (NATS) that 90% of all arriving aircraft on Runway 22 will operate within the CDA criteria.

The CDA compliance levels are regularly reported back to the Airports' Noise and Track Keeping Working Group and Stansted Airport Consultative Committee (STACC) as well as the Flight Operations Committee (FOC), which includes airline and ATC representatives.

At present we only measure CDA's on the Runway 22 approach (Westerly), but as part of our Action Plan we will investigate how we can introduce a target for compliance on the Runway 04 (Easterly). Currently this is not possible due to air space restrictions.

In addition to these activities already in place, in response to consultation feedback we will also engage with the local community and DfT to seek opportunities to introduce minimum heights over sensitive areas near the Airport.

Joining point

There is a point at which aircraft intercept the instrument landing system and this is known as the Joining Point. This has minimum height and distance requirements depending on the time of day.

Between 23:30 and 06:00 hours (local time), other than relevant propeller driven aircraft, no aircraft shall descend below 3,000ft (QNH) until it is established on final approach and is less than 10 Nautical Miles from touchdown.

No propeller driven aircraft which exceeds 5700kg shall descend below 3,000ft (QNH), between 23:30 and 06:00 hours (local time), until it is established on final approach or thereafter fly below the approach path indicated by the PAPI (precision approach path indicator).

Stansted Airport's Noise Strategy continued

Action plan summary

- We will continue to monitor and report the adherence to Continuous Descent Approach procedures as detailed in UKAIP *EGSS AD 2.21 Noise Abatement Procedures* to meet our target of 90%
- We will continue to produce monthly reports to NATS detailing the adherence to the Joining Point criteria for daytime operations as set out in the Stansted UKAIP
- We will continue to work with Airlines and NATS to encourage CDA's to Runway 04 where operationally feasible, especially during the night period
- We will work with the NTKWG to introduce Continuous Descent Approaches to Runway 04, with a target to achieve this before 2012. We will report progress through the Stansted Airport Consultative Committee
- We will work with Local Communities and DfT regulators to seek opportunities for minimum heights over sensitive areas near the Airport.

5.3 Control of aircraft noise generated by ground operations

At Stansted Airport we have a range of measures to control ground noise. These control measures are set out in documents at the Airport called Directors Notices (DN's). These include:

- Control of Ground Noise for Fixed Wing Aircraft Engines
- Control of Ground Noise for Rotary Wing Aircraft
- APU/GPU Restrictions of Use

These DN's stipulate what areas of the Airport, and during what times these activities can take place. These include the ground running of rotary and fixed wing aircraft engines, the testing of aircraft engines on stands, the use of Auxiliary Power Units (APU) and the use of Ground Power Units (GPU). These details are recorded, monitored and used when investigating any complaints. A Directors Notice enables STAL to take an enforceable course of action if the requirements set out are breached and this is set by the Airport Bylaws.

Fixed Electrical Ground Power (FEGP)
Fixed Electrical Ground Power, (FEGP), is provided at all pier served stands at Stansted Airport. The benefit of FEGP is that it allows the pilot of an aircraft to turn off the Auxiliary Power Unit, (APU), which is a small engine at the back of the aircraft, therefore reducing ground noise and emissions.

A survey of FEGP usage at Stansted was undertaken in 2005 which showed that not all aircraft were turning off their APU's, whilst attached to the FEGP system. We sought feedback from pilots and ground crews as to why APU's are continually run rather than FEGP. The results were very useful highlighting issues of serviceability and sensitivity of the power supply to aircraft. However, it also highlighted a number of misconceptions and communication issues which were hindering a resolution to the problem.

Since then, STAL has run training sessions with both airlines and ground handling agents to build confidence in our FEGP system. We have investigated how other airports, such as Munich and Copenhagen have achieved 100% FEGP reliability.

In 2007, STAL was invited to Boeing in Seattle to discuss plans to modify the FEGP socket on new generation 737 aircraft. This is the first time an airport has been invited to take part in a Boeing retro fit re-design workshop. The workshop has resulted in a modification to ensure the connection does not fail after attachment.

Limiting the use of reverse thrust
When an aircraft lands at Stansted, in order to slow the aircraft down, the engines can use reverse thrust. To minimise disturbance in areas adjacent to the aerodrome, commanders of aircraft are requested to avoid the excessive use of reverse thrust after landing, consistent with the safe operation of the aircraft, between 23:30 and 06:00 (local time).

Action plan summary

- We will review and update our APU usage strategy annually and implement any changes necessary to increase its use
- We will continue to monitor adherence and review the effectiveness of our stringent ground noise operational controls, as detailed in our Directors Notices
- We will review our stand planning procedures by the end of 2011 and every two years thereafter to identify opportunities to prioritise stand allocation to minimise ground noise
- We will work with airlines to achieve 50% of all arriving aircraft using reduced engine taxi-in procedures by 2015
- We will work with airlines to achieve 90% of all aircraft turnarounds using FEGP's rather than APU's by 2015.

5.4 Night Noise Restrictions

Current night restrictions regime
The current night restrictions regime was introduced in 2006/7 following extensive consultation. The restrictions are set by the DfT and are detailed in a statutory notice published each season in the supplement to the UK AIP.

Night period and night quota period
The 'night period' is 23:30-06:00 hours (local time) during which period the noisiest types of aircraft classified with a Quota Count/8 (QC) and QC/16 may not be scheduled to land or take-off. Aircraft classified in QC group 4 are also subject to a mandatory scheduling ban in the night quota period. From 23:30 to 06:00 the ('night quota period') aircraft movements are restricted by a movement limit with noise quotas as a supplementary measure. These are set for each season.

The quota count system
Aircraft are assigned quota count (QC) classifications as follows:

Certified noise level (EPNdB)	Quota count
More than 101.9	QC/16
99 – 101.9	QC/8
96 – 98.9	QC/4
93 – 95.9	QC/2
90 – 92.9	QC/1
87 – 89.9	QC/0.5
84 – 86.9	QC/0.25

Aircraft are classified separately for take-off and landing. Schedules showing the QC classification of individual aircraft are published twice a year by the CAA.

Exempt aircraft
Jet aircraft and propeller aircraft are exempt from the movements limits and noise quotas if their noise certification data are less than 84 EPNdB. (Effective Perceived Noise measured in Decibels)

Movement limits and noise quotas at Stansted
The movements limits and noise quotas for current and future years/seasons are:

	Movement limit	Quota limit
Summer 2009	7,000	4,800
Winter 2009	5,000	3,390
Summer 2010	7,000	4,750
Winter 2010	5,000	3,350
Summer 2011	7,000	4,700
Winter 2011	5,000	3,310
Summer 2012	7,000	4,650

The summer season is the period of British Summer Time in any one year as fixed by or under the Summer Time Act 1972 (as amended by Statutory Instrument (S.I) 2002/262, the definition of British Summer Time). The winter season is the period between the end of British Summer Time in one year and the start of British Summer Time in the next. The change to British Summer Time occurs at 01:00 Greenwich Mean Time (Universal Co-ordinated Time).

End of season flexibility
Within each season there is a degree of flexibility. This flexibility margin is 10%; ie. up to 10% of the current season's movements limit may be carried over if sufficient amount of the limit is unused and up to 10% of the next season's movements limit may be anticipated in the event of an overrun.

Any excess overrun is penalised in the following season at double the amount of the excess. The same arrangements apply to the noise quotas.

This system is currently in place until 2012 when the DfT will issue updated guidance.

Permitted operations
To summarise our permitted operations, these are:

- Any aircraft which has a QC value of 4, 8, or 16 may not be scheduled to take off or land during the night quota period;
- Any aircraft which has a QC value of 8 or 16 may not be scheduled to take off or land during the night period;
- Any aircraft which has a QC value of 8 or 16 may not take off in the night period, except in the period 23:00 hours to 23:30 hours in circumstances where:
  (a) it was scheduled to take off prior to 23:00 hours;
  (b) the take-off was delayed for reasons beyond the control of the aircraft operator; and
  (c) the Airport authority has not given notice to the aircraft operator precluding take-off.

Dispensations
The Secretary of State has the power to specify circumstances in which movements may be disregarded from the night restrictions by the Airport managers and the power to authorise that specific flights should be disregarded. The Airport companies may disregard night movements in the following exceptional circumstances:

- Delays to aircraft which are likely to lead to serious congestion at the aerodrome or serious hardship or suffering to passengers or animals
- Delays to aircraft resulting from widespread and prolonged disruption of air traffic.

Monitoring of night noise
Stansted Airport provides night noise information to its Airport Consultative Committee, via the NTKWG, and on a weekly basis to the Department for Transport on movements, noise quotas, details of any dispensations or exemptions granted, and reports on any movements by QC/8 and QC/16 aircraft during the night period. In addition, under section 78(4) of the Civil Aviation Act 1982 all dispensations granted by the Airports have to be reported to the Department for Transport (DfT) in writing within a maximum of one week from when the dispensed flight took place.

With in our Action Plan we have set out that we will increase fine levels for persistent off track departures and noise infringements.

Action plan summary

- We will continue to fine aircraft that fly persistently outside the Noise Preferential Routes during the night period and increase this to £1,000 by the end of 2011
- We will continue to fine aircraft that exceed the night time departure noise limit and introduce a tiered fining level starting at £1,000 per infringement, up to 3dB over this limit. For Infringements that exceed this 3dB threshold we will add £1,000 per dB
- We will continue to produce monthly reports to NATS detailing the adherence to the Joining Point criteria, as set out in the Stansted UK AIP for night operations
- We will continue to administer the DfT night restrictions regime and ensure that the number of operations and Noise Quota remains within the limits prescribed.

5.5 Mitigation schemes[2]

The principal mitigation measure for aircraft noise impacts is the provision of acoustic insulation for properties. All of STAL's current noise insulation schemes are provided to meet the expectations of the Air Transport White Paper. This includes:

- Offer households subject to high levels of noise (69dBA Leq or more) assistance with the costs of relocating; and
- Offer acoustic insulation (applied to residential properties) to other noise-sensitive buildings, such as schools and hospitals, exposed to medium to high levels of noise (63dBA Leq or more).

Of the 1,044 qualifying properties for noise insulation, 517 properties (c.50%) have taken up the scheme and STAL has provided in excess of £1.4 million of noise insulation since 2004.

Wake Vortex
Wake Vortex are circulating currents of air caused by moving aircraft. They are created by all aircraft, whilst most are broken up by the natural flow of air before they reach the ground, occasionally they can reach building roof level. In some cases this can cause movement or slippage to tiles if the property is in extremely close proximity to the Airport Boundary and near the end of the runways. These occurrences are very rare at Stansted Airport. We have procedures in place to assess and rectify any damage that may have been caused by Stansted Operations.

Action plan summary

- We will continue to implement our Residential Noise Insulation Scheme in line with our current planning obligations
- We will undertake a review and update our wake vortex policy by end of 2011
- We will continue to direct all money raised by noise and track infringements to the Stansted Airport Community Trust on an annual basis.

[2] The current UK Government is committed to publishing an aviation policy scoping document in March 2011 followed by a draft aviation policy framework in March 2012. These schemes will be reviewed in light of any policy changes.

5.6 Monitoring and reporting

Noise and track monitoring
Most large airports have noise and track keeping systems (NTK), which take radar data from air traffic control radars and combine it with flight information such as call sign, tail number, type and destination.

At Stansted Airport the Noise and Track Keeping (NTK) system captures data from both fixed and mobile noise monitors around the Airport, and matches this to operational data. Our NTK system is called Airport Noise and Operations Monitoring System (ANOMS). In 2006, BAA invested in this completely new Noise and Track Keeping computer system for Stansted. This provides state of the art technology and is part of BAA's continuing commitment to managing aircraft noise and track keeping.

Data from ANOMS is used by the CAA to produce noise contours for Stansted from their ANCON noise modelling system.

In order to respond to community concerns Stansted has a number of mobile community noise monitors. The NTKWG advises where these are best deployed in response to community concerns for an agreed period. These monitors capture all noise in the vicinity and by analysing the actual tracks of Stansted's aircraft for that same period, we can identify the noise that relates to a Stansted aircraft movement and noise that does not. When the end of the three month period is reached we share the results and engage an independent consultant to compile a report on the findings. These mobile noise monitor reports are given to the relevant Council for each area, as well as the local MP, and are available on our website. We have a rolling program of sites where the monitors are placed and this enables us to establish trends in noise levels.

WebTrak
In 2007, Stansted Airport's Flight Evaluation Unit launched WebTrak, a new online service that allows people to track a specific flight arriving or departing from Stansted within a 30mile radius of the Airport. WebTrak forms part of an £1.8 million investment by BAA to upgrade its noise and track keeping systems. The website helps people who want to know more about aircraft noise and track keeping issues in their local communities.

The site includes several features including the ability to make a noise enquiry or complaint online and users are provided with information about aircraft noise in their local communities. A map showing the geographical distribution of noise complaints is shown in Appendix F.

Reporting
Stansted Airport provides noise information to its Airport Consultative Committee, via the NTKWG, and on a weekly basis information to the Department for Transport on movements, noise quotas, details of any dispensations or exemptions granted, and reports on any movements by QC/8 and QC/16 aircraft during the night period. In addition, under section 78(4) of the Civil Aviation Act 1982 all dispensations granted by the Airports have to be reported to the Department for Transport (DfT) in writing within a maximum of one week from when the dispensed flight took place.

Action plan summary

- We will continue to record and investigate all complaints relating to aircraft operations
- During 2011 we will set service level response targets for the handling of complaints and enquiries and will report against these targets
- We will continue to work with the NTKWG to develop our community noise monitoring program to help gain a greater understanding of the impacts and to facilitate solutions to local community noise concerns where feasible
- We will publish our progress against the Action Plan on an annual basis in our Corporate Responsibility Report.

Stansted Airport's Noise Strategy continued

5.7 Policy and planning

STAL has quarterly meetings with the Local Planning Authorities which are in close proximity to the Airport. Other developments in surrounding Counties and Districts are discussed where they may be affected by the Airport and aircraft noise. If it is then felt relevant both the Airport Safeguarding Team and STAL will respond to any planning application to highlight noise and other airport related issues.

Action plan summary

- We will engage with the local planning authorities to ensure awareness of aircraft operations is considered in the development of sensitive land use, via the quarterly Local Authority liaison meeting
- We will commission forecast Leq contours for Air Noise annually in line with our current planning regulations
- We will review the annual Leq contours as produced by the DfT with Uttlesford District Council and agree upon actions arising
- We will run an annual aerodrome safeguarding course for Local Planning Officer's from 2011
- We will work with the Government through ANMAC to clarify guidance on the definition of quiet areas in rural areas as related to Stansted Airport. This will include clarification around Areas of Outstanding Natural Beauty and "Tranquil" areas.

5.8 Continuous improvement

Stansted Airport has a track record of continually reviewing, improving and introducing new activities to mitigate the impact of noise. Some recent examples of this have been:

Single Engine Taxi
A coalition of aviation representatives, including Stansted Airport and easyJet launched a new initiative (known as Single Engine Taxi) in October 2009 to cut aircraft noise, emissions and improve local air quality at airports. This new Departures Code of Practice promotes how aircraft can taxi to and from the runway with less than all engines operating, leading to significant reductions in ground noise, CO_2 and NOx emissions, depending on aircraft type and operator techniques.

Stansted Airport and easyJet have instigated the trialling of this new technique and are now working together to determine how other airlines might best use the recommendations made in this code of practice.

Fixed Electrical Ground Power
In Section 6.3 we have detailed how STAL has been at the forefront of improving the use of FEGP to reduce ground noise at the Airport. In 2009, RyanAir purchased new planes which have the improved FEGP sockets which were developed with Boeing.

Airport Noise Monitoring Advisory Committee (ANMAC)
STAL is an active member of this group which is chaired by the DfT. It is an advisory and research group who's activities include improving noise monitoring and management.

Annual noise audit – July 2009
Each year Stansted flight Evaluation Unit is audited by our Local Planning Authority Uttlesford District Council. Following the audit in July 2009 the Council published its findings and recognised Stansted's FEU to be "well run and properly responsive to complaints".

The audit also praised the Airport's interactive noise website finding it *"comprehensive and easy to use, in particular the internet based WebTrak system has provided a readily accessible way in which the local community can investigate their concerns"*.

Action plan summary

- We will continue to work with NATS and all stakeholders to implement new technologies as they become available
- We will continue to work with NATS, Director of Air Space Policy (DAP) and airlines to implement new navigation technologies as they become available
- We will prioritise airlines operating Chapter 4 aircraft when introducing new business to Stansted Airport by the end of 2010
- We will consult with our airline partners during 2011 on the voluntary phase out of Chapter 3 high aircraft at Stansted Airport by 2015
- We will review the landing fee differential at least every 3 years commencing in 2010
- We will establish and report a Stansted airline league table for noise and emissions based on compliance with noise abatement techniques, by the end of 2012
- In conjunction with Sustainable Aviation we will continue to seek to achieve the ACARE goal of 50% reduction in perceived external noise by 2020 based on new aircraft of 2020 (relative to equivalent new aircraft in 2000)
- Together with our partners in Sustainable Aviation we will develop a best practice guide for departures by the end of 2010 eg. Single Engine Taxiing
- We will update our procedures and policy documentation for monitoring aircraft operations and managing enquiries by the end of 2010
- We will request an annual audit of our noise management system by Uttlesford District Council
- We will continue to present issues and facilitate debate with ANMAC and will implement any initiatives as agreed through that forum.

5

5.9 Communication

Following the publication of this Strategy and Noise Action Plan, we will continue to keep communities and other stakeholders informed as to the progress being made. We are committed to reporting publicly on our performance against the Action Plan and the effectiveness of our actions to address community concerns. We will do this annually in our Corporate Responsibility Report.

Stakeholder communication and engagement
STAL has a number of ways in which it communicates its activities and noise information to stakeholders and the local community.

Stansted Airport Consultative Committee (STACC)
This committee meets quarterly to advise Stansted Airport Limited on:

- Any matters which it may refer to the Committee
- To consider any question in connection with the problems of the Airport as they affect the users and communities and organisations represented
- To make suggestions to the Managing Director on any matter connected with the administration of the Airport, which could further the interests of passengers, the local community and organisations represented
- To stimulate the interest of the local population in the achievements of the Airport.

This committee is made up of representatives of Stansted Airport, including the Managing Director, Head of Environment representatives from the Department for Transport, Local Councillors, County Councillors and local interest groups.

More information on this committee can be found at **http://www.stacc.info**

Noise and Track Keeping Working Group (NTKWG)
Members of the NTKWG are appointed by STAL, taking into account recommendations from STACC. The Group meets at least once prior to any STACC meeting. The membership of the NTKWG includes representatives from STAL, airlines, NATS, DfT and STACC.

The objectives of this group are as follows:

- To review the noise and track keeping output of the STAL Flight Evaluation Unit so as to ensure the considerations of the local community are taken into account
- To identify specific areas of concern so as to enable improved performance to be sought in particular elements of noise and track keeping
- To oversee the implementation of operational enhancements to the existing Noise and Track Keeping System (NTK)
- To ensure that the various elements of the system are used in a co-ordinated way to achieve the best overall benefit for the community
- To ensure the Groups activities remain within the overall framework of Noise management as determined by the DfT
- To improve the general understanding of noise and track keeping issues between the community, airlines and the Airport
- To provide the full committee of STACC with an overview of the activities of the NTKWG together with a statistical analysis of aircraft noise and track keeping.

This meeting is held at Stansted Airport quarterly.

Stansted Airport's Noise Strategy continued

Flight Operations Committee (FOC)
This committee meets quarterly and is chaired by the Head of Airside Operations from STAL, with representatives from Airlines, Ground Handling Agents, NATS and the Flight Evaluation Unit. The purpose is to discuss and resolve any operational issues that may arise and includes a Flight Evaluation Unit Report.

Mobile noise monitor briefings
Periodically we will conduct briefings to local communities where there has been a request for a Mobile Noise Monitor. This briefing will include a report on the data gathered from the Mobile Noise Monitor.

Property Pack
Stansted Airport Limited has also produced a "Property Pack" designed to help people who were considering coming to live near Stansted Airport or who wished to relocate locally. A recent review of the pack with Estate Agents has shown that they no longer require this information.

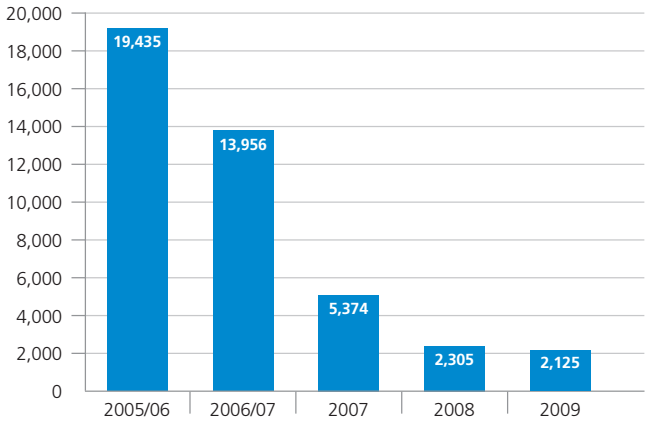
Noise and environment seminar
Historically, London Stansted has held noise seminars to inform the local community, politicians and business partners about current developments and future plans within the aviation industry on noise, the environment, research and technology.

These events were an opportunity to update everyone about our work across the community to help better understand noise, and how the team at Stansted works to keep the intrusion to a minimum.

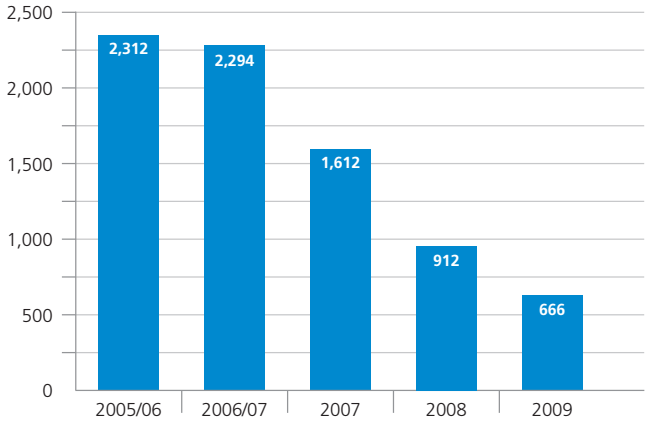
Noise telephone line
This line is available to the general public to enquire and report noise 'events'.

Since 2006, there has been a dramatic decrease in the number of enquiries and the number of individuals making multiple calls.

Number of enquiries



Number of individuals making enquiries



Ad-hoc engagements
STAL continues to engage stakeholders to promote better understanding of environmental issues eg. FEGP usage.

Action plan summary

- We will review annually the benefit of London Stansted hosting a combined noise and environment seminar
- We will continue to seek feedback through the NTKWG on our noise management performance and take action to address any significant issues raised
- We will seek to establish a "best practice" forum to facilitate the sharing of aircraft noise management techniques between other airports
- We will continue to offer a range of contact options for complaints and enquires regarding aircraft noise including email, website and telephone contact options
- We will continue to provide public access to flight track information via our internet based WebTrak system
- We will invite local residents and complainants into the Airport to see first-hand the work of the FEU, explain our noise mitigation schemes and demonstrate our NTK system where we perceive there to be a benefit
- We will continue to record and investigate all complaints relating to aircraft operations and publish statistics
- We will annually review our communication material to ensure relevance and ease of understanding, based on feedback from the NTKWG and other stakeholder events.

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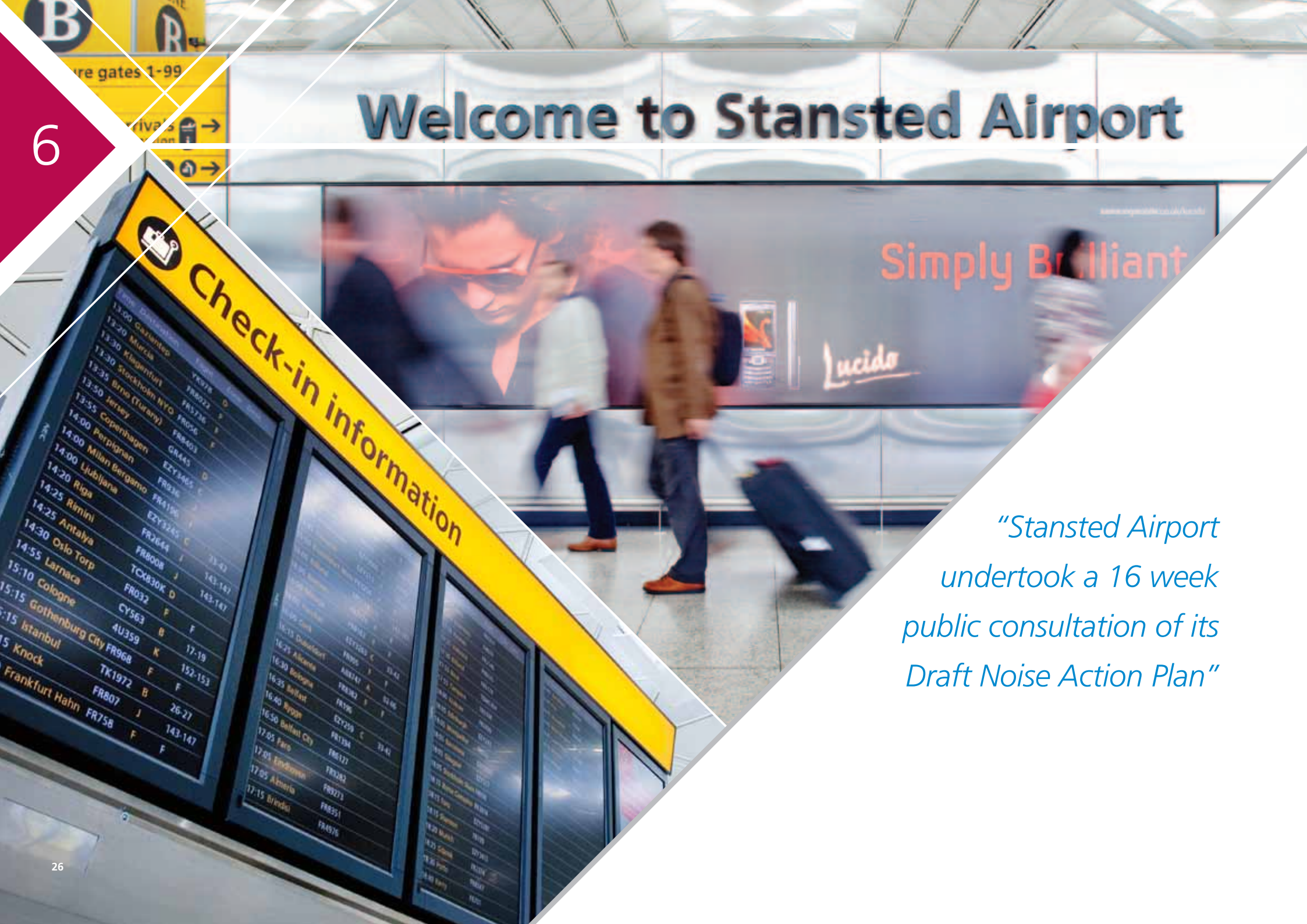

"Stansted Airport undertook a 16 week public consultation of its Draft Noise Action Plan"

The Noise Action Plan

The Noise Action Plan for Stansted is the next stage in the development of our Noise Strategy. STAL has introduced many measures to mitigate noise impact since 1999 which have been reviewed in previous sections. A number of these have already gone beyond the Statutory requirements.

The development of Noise Action Plan has enabled us to review our progress and consider how we may now further develop a number of these measures and introduce new activities.

Development of the plan

In 2009, STAL developed and consulted upon its draft Noise Action Plan in line with the European Directive and the published regulations.

Prior to the Draft Noise Action Plan being submitted for Public Consultation, a draft version of this document and our communications plan was sent to various stakeholders, Airlines, members of the Stansted Airport Consultative Committee (STACC), members of the Noise and Track Keeping Working Group (NTKWG), Local Councillors and Air Traffic Control, requesting their views.

The responses received were collated and where appropriate changes were incorporated into the Noise Action Plan. Much of the feedback made reference to the detailed nature of this plan, the industry terms used and acronyms used. We have addressed these issues with references, and a glossary of terms in Appendix B.

We have also produced a non-technical summary of this Noise Action Plan.

Public consultation

The Stansted Airport 16 week public consultation into its draft Noise Action Plan took place between Friday 12th June to Friday 2nd October 2009. The consultation period was subsequently extended by a few days to allow some Parish Councils to submit their responses following Parish Council meetings. The consultation process was managed by GfK NOP, an independent research organisation. The public were able to respond to the consultation via an online survey accessed via the Airport's website, via hard copy questionnaire or via "white mail" sent direct to GfK NOP.

Promoting the consultation

Stansted Airport used various channels of communication to ensure the public consultation was well advertised in the local and regional community, namely:

- Postcards were sent to about 4,500 local residents who live within the 55dBA Lden noise contour around the Airport
- Letters were sent to 31 noise sensitive buildings within the 55dBA Lden noise contour. This included chapels, churches, clinics, day-care centres, dental surgeries, higher education buildings, hospitals, pre-school education, primary schools, schools and surgeries
- Letters were sent to approximately 700 members of the local community who have had cause to complain about aircraft noise at Stansted since January 2008
- Regional TV and local radio interviews were conducted to cover the launch and importance of the consultation
- Three waves of press advertisements were run in local and regional newspapers before, during and towards the end of the consultation period
- Home page links to the consultation were shown on the Stansted Airport main web site (**www.stanstedairport.com**) and Stansted's dedicated Noise web site (**www.stanstedairport.com/noise**) along with a non-technical summary of the proposed actions
- A dedicated hotline was provided to allow members of the public to request hard copies of the consultation material or to ask questions about the draft Noise Action Plan. This generated 139 requests for consultation paperwork.

Getting out into the community

STAL hosted eight public road shows in local towns during the consultation period. The events provided an opportunity for the local public to discuss the draft Noise Action Plan and learn more about how Stansted Airport manages aircraft noise (Table 7):

When	Where	Attendees (approx.)
5 Aug 09	The Priory, Ware, Herts	60
13 Aug 09	Charis Centre, Bishop's Stortford, Herts	10
20 Aug 09	Foakes Hall, Great Dunmow, Essex	30
26 Aug 09	Town Hall, Sudbury, Suffolk	40
3 Sept 09	Latton Bush Centre, Harlow, Essex	10
8 Sept 09	Town Hall, Saffron Walden, Essex	50
17 Sept 09	Arts Centre, Haverhill, Suffolk	10
23 Sept 09	Town Hall, Braintree, Essex	20

Table 7: Location of consultation events

These sessions were advertised in local and regional newspapers. Press releases were also issued in the week prior to each public road show session.

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Wider communications

Before and during the consultation, the Airport also proactively engaged with:

- Stansted's Noise and Track-keeping Working Group
- The Stansted Airport Consultative Committee
- Stansted's Flight Operations Committee
- Environmental Health Officers for Uttlesford, Braintree, East Herts, Herts County and Essex County councils
- Over 9,000 subscribers to Stansted's "Meaning Business" e-newsletter
- Known anti-airport lobby groups
- Letters written to MPs, MEPs CEOs & Clerks of Town Councils.

Consultation findings

Who responded?

Stansted Airport received more responses to the public consultation than any other BAA airport. The breakdown on method of response for Stansted Airport is shown in Table 8.

Airport	Total	Online survey	Postal survey	White mail
Stansted	410	247	156	7

Table 8: Breakdown of method of response

Respondents were asked, as part of the survey, how much of the draft Noise Action plan they had read or looked at. Over three-quarters of respondents said they had looked at all or most of it (77%) whilst only a small minority (1%) responded that they had looked at hardly any or none of the Plan.

A full breakdown of responses by respondent type and method of completion is shown in Table 9. In Appendix I a full list of respondents who wished their names to be known are shown.

Generic responses

GfK NOP made specific comment in their report that some 170 respondents used generic language.

Key themes arising

The frequency of responses that mentioned key themes arising from the response to the Stansted consultation are listed in the Table 10; detailed responses to the five questions asked as part of the consultation are shown in Appendix G.

Top key themes:

- Draft plan does not go far enough/fails to address the problem
- Performance indicators proposed are not sufficient/too vague
- Draft plan offers nothing new
- Draft plan does not do enough to address night time noise
- Draft plan does not fulfil the END requirements
- Fines/penalties are inadequate
- Proposed actions need to be quicker/immediate/ time frame is too long.

Respondent type	Total	Online survey	Postal survey	White mail*
Local resident/individual	352	221	130	1
A private sector organisation	7	3	3	1
Interest or Pressure Group	9	3	4	2
Local Government	33	16	14	3
Other public sector organisation	2	1	1	0
Voluntary sector or Charity	3	2	1	0
Other	4	1	3	0
TOTAL	**410**	**247**	**156**	**7**

Table 9 Stansted Airport – summary of responses

The Noise Action Plan continued

Sufficiency of plan (overall)	
Plan does not go far enough/fails to address the problem	81%
Performance indicators used are not sufficient/too vague	56%
Plan offers nothing new	50%
Plan does not fulfil the END requirements	45%
There are no penalties if the goals in the plan are not met	41%
Plan does not cover a large enough area	37%
Plan should include helicopter noise	31%
Plan does not address the actual effects on local residents	23%
Plan does not recognise that the number of aircraft movements is what matters	12%
Plan does not meet the WHO guidelines to community noise	11%
Plan is based on inaccurate assumptions/data	
Contours are averages/Average noise is not a good measure/does not represent actual disturbance	14%
Criticisms of specific areas of the plan	
Does not do enough to address night time noise	49%
Fines/penalties are inadequate	44%
Action needs to be quicker/immediate/time frame is too long	42%
Arrivals noise issues are not addressed/issues with descent trajectories	12%
Suggested actions	
Off-track planes need addressing/monitoring	34%
Action plan should be enforced by way of sanctions/penalties/airlines should be fined appropriately	16%
Incentives to encourage use of quieter planes	13%
Should restrict night flights/stop night flights	12%
Noise should be monitored over a greater area/measure all areas affected by noise	10%
Criticism of consultation process	
Plan/noise regulation should be determined/monitored by an independent body	45%
Plan is written by BAA/is biased/serves their interests/justifies increases in flights	6%
Other/General comments	
Noise is difficult to live with/disturbs sleep/affects me directly – general comment	28%
Noise abatement should take priority over emissions	26%
It is impossible for members of the public to check any claims made by BAA	13%

Table 10: Frequency of response answers

Our response to key themes

'Draft plan does not go far enough/fails to address the problem'

Feedback would indicate that respondents felt the Airport was planning to do too much monitoring and reporting, and not enough direct action. Also, the proposals that the Airport seeks to explore new initiatives to help tackle aircraft noise appear to be perceived as somewhat loose.

For over a decade, Stansted has been at the forefront of pro-actively monitoring and tackling noise issues, so for us it is very much about building upon the solid foundations we already have in place.

However, in light of the feedback received we have reviewed our actions. This has resulted in over 20 new actions that London Stansted is committed to introduce over the lifetime of this five-year plan. These include tougher penalties for airlines that persistently fly off track and tighter timescales for change.

We believe that the actions in this Action Plan are appropriate considering the challenge the Airport has to operate a safe, successful and realistic operation within the parameters set by Government and regulatory bodies. Stansted Airport will continue to develop this Plan in future years and build on actions that are within our control

'Performance indicators proposed are not sufficient/ too vague'

The Airport has reviewed and where possible enhanced the proposed indicators detailed within the draft Action Plan to provide clearer explanations and to be more specific.

6

'Draft plan offers nothing new'

Stansted's draft Noise Action Plan was not simply about introducing brand new initiatives, but to highlight in one document all measures that the Airport will either continue with, or adopt, over the next five years in order to help better manage aircraft noise in the local community.

The Airport has a very proud record of what it has been able to achieve to-date in helping tackle aircraft noise in the community. This Plan builds upon that sound foundation and recognises that complacency is not an option.

The action plan has in excess of 20 new initiatives including:

- Increasing fine levels for persistently off track flying
- A tiered fining level for noise infringements
- Increased fining levels for night time noise and off track infringements
- Introduction of continuous descent arrivals to runway 04
- Monitoring of no fly zones
- Introduction of new technologies and procedures.

'Draft plan does not do enough to address night time noise'

Stansted Airport operates on a 24 hour basis and is heavily regulated by the Government on night movements and noise quota counts in both Winter and Summer seasons for night time flights between 23:30-06:00.

However, the Airport is also mindful of the inconvenience these operations can sometimes cause local residents, and that is why there will be an improved fining system for aircraft that fly persistently outside the Noise Preferential Routes or exceed Government noise limits during this night time period.

'Draft plan does not fulfil the END requirements'

It is our firm opinion that the Noise Action Plan does meet the Environmental Noise Directive requirements.

Prior to public consultation, the Airport engaged key stakeholders to ensure that there was agreement on the validity of the draft Action Plan. This included members of local government, the NTKWG and NATS.

'Fines/penalties are inadequate'

There will be an improved fining system for aircraft that fly persistently outside the Noise Preferential Routes. Penalties will be harsher during the night shoulder, and night, period in recognition of the need to reduce night noise.

The surcharge level is currently £500 per infringement. The Airport will increase this surcharge during the Night Period 23:00-07:00 to £1,000 per infringement by the end of 2010.

The Airport currently fines all Aircraft that exceed the night time departure noise limit of 87dB(A), and the night "shoulder period" limit of 89dB(A), £500 for each infringement up to 3dB over this limit. Noise infringements over 3dB are currently fined £1,000. We will introduce a new tiered fining level starting at £1,000 per infringement, up to 3dB over this limit. For Infringements that exceed this 3dB threshold we will add £1,000 per dB. As now, all fine monies will be passed to the Stansted Airport Community Fund for distribution into the local community.

'Proposed actions needs to be quicker/immediate/time frame is too long'

The Noise Action Plan covers a five year period. It is neither practical nor achievable to deliver all actions in year one. However, where possible, the Airport has brought forward several actions to now commence in 2010 and 2011.

The Noise Action Plan

The Noise Action Plan for Stansted Airport covers a five year period from the date of UK Government approval.

The Plan includes actions which relate only to development the Airport has planning permission for at the time of publication and in line with the guidance makes reference to:

- Noise created by aircraft approaching, taking off from the Airport, taxiing aircraft and engine testing carried out within the Airport perimeter. By considering the last two areas STAL has gone beyond the legal requirement
- The necessary 2006 dB Lden noise contours 2006, published for Stansted Airport by DEFRA
- Takes into account responses received from the consultation of our draft Plan.

The detailed aspects of each action point are set out in Table 11 and are grouped by the themes set out in Section 6 of this document. Our new actions have been highlighted in bold text.

The Noise Action Plan continued

Action 1 – Departing Aircraft, to minimise the noise impact of aircraft departures	**Timescale**	**Performance indicator**	**Numbers affected** See Tables 1-6 Page 13
We will continue to work with Airlines and NATS to ensure that all six departure Noise Preferential Routes exceed a 95% on-track performance target until they have achieved the minimum vectoring height of 4,000ft (3,000ft BZD routes 06:00-23:30)	Ongoing	Percentage of aircraft within each individual Noise Preferential Route. (2006 baseline: 4,000 ft = 97.19%; 3,000 ft = 99.52%). Actual performance will be reported annually via our Corporate Responsibility Report.	>9400 Lden
We will continue to fine aircraft that fly persistently outside the Noise Preferential Routes. The surcharge level is currently £500 per infringement. We will increase this surcharge level to £750 per infringement during 2011, also see Action 4 Night Noise.	**2011**	**No or Aircraft departure surcharges applied/ year.**	**>9400 Lden**
We currently fine all Aircraft that exceed the daytime departure noise limit of 94dB(A) £500 for each infringement up to 3dB over this limit. Over 3dB infringements are currently fined £1,000. We will introduce a tiered fining level starting at £1,000 per infringement, up to 3dB over this limit. For Infringements that exceed this 3dB threshold we will add £250 per dB also see Action 4 Night Noise.	**2011**	**Implementation of new noise infringements scheme for the Summer 2011 Season and beyond.**	**5800 Lday**
We will setup our noise and track keeping system to monitor overflights of Bishop's Stortford. UKAIP EGSS AD 2.21 (3(9)) Aircraft using this aerodrome shall maintain as high an altitude as practicable, shall avoid flying over Bishop's Stortford. Any Aircraft overflying Bishop's Stortford will be classed as "off track" unless any valid safety reason applies.	**2011**	**Number of departures penetrating Bishop's Stortford "gate" as measured in noise and track keeping System. Report to NATS/FOC/NTKWG.**	**c.35,000** (source: 2001 Census)
In order to help clarify the trade-off between noise and emissions on departure, we will lobby through ANMAC to clarify guidance for aircraft operators regarding use of Noise Abatement Departure Procedures (NADP) at Stansted Airport.	**2010**	**Feedback through NTKWG, STACC, FOC.**	
We will work with NATS and the CAA to establish SLA's to respond to suggestions for improved flight procedures.	**2011**	**Feedback through NTKWG, STACC, FOC.**	
We will setup our noise and track keeping system to monitor overflights of St Elizabeth's Home, UKAIP EGSS AD 2.21 (3(9)) Aircraft using this aerodrome shall maintain as high an altitude as practicable, shall avoid flying over St Elizabeth's Home (*514949N 0000523E) at an altitude of less than 4,000ft (Stansted QNH).	**2011**	**Number of departures penetrating St Elizabeths "gate" as measured in noise and track keeping System. Report to NATS/FOC/NTKWG.**	**c.100 residents** (source: www.stelizabeths.org.uk)
We will setup our noise and track keeping system to monitor overflights of Sawbridgeworth and Stansted Mountfitchet. UKAIP EGSS AD 2.21 (3(9)) Aircraft using this aerodrome shall maintain as high an altitude as practicable, shall avoid flying over Sawbridgeworth and Stansted Mountfitchet at an altitude of less than 2,500ft.	**2011**	**Number of departures penetrating Sawbridgeworth and Stansted Mountfitchet "gate" as measured in noise and track keeping System. Report to NATS/FOC/NTKWG.**	**c.8,400 and c.5,500 residents respectively** (source: 2001 Census)
We currently monitor and will continue to monitor aircraft that do not meet the 1,000ft criteria as described in the UKAIP EGSS AD 2.21 Noise Abatement Procedures (3(1)). After take-off the aircraft shall be operated in such a way that it is at a height of not less than 1,000ft AAL (above airfield level) at 6.5km from start of roll as measured along the departure track of the aircraft. This is to ensure departing aircraft achieve at least that climb gradient in order to reduce the impact on the ground.	Ongoing	Number of Aircraft departing that do not meet the 1,000ft criteria. This will be reported through the FOC and NTKWG. (2006 baseline: No data available). Actual performance will be reported annually via our Corporate Responsibility Report.	>9400 Lden

Table 11: Noise Action Plan

Action 2 – Arriving Aircraft, to minimise the noise impact of aircraft arrivals	**Timescale**	**Performance indicator**	**Numbers affected** See Tables 1-6 Page 13
We will continue to promote, monitor, seek to improve and report on adherence to the Arrival Noise Abatement procedures detailed in the Stansted UKAIP. We will continue to monitor and report the adherence to Continuous Descent Approach procedures as detailed in UKAIP EGSS AD 2.21 Noise Abatement Procedures, where the aircraft is approaching the aerodrome to land on Runway 22 it shall commensurate descent with its ATC clearance minimise noise disturbance by the use of continuous descent and low power, low drag operating procedures This is to avoid prolonged periods of level flight and keep aircraft as high as possible for as long as possible.	Ongoing	Percentage of aircraft within each individual Noise Preferential Route.	>9400 Lden
We will continue to produce monthly reports to NATS detailing the adherence to the Joining Point criteria for daytime operations as set out in the Stansted UKAIP.	Ongoing	Monthly reports provided to NATS.	>9400 Lden
We will work with Local Communities to influence NATS to introduce Continuous Descent Approaches to Runway 04.	**2012**	**Introduction of CDA criteria to Runway 04.**	**>9400 Lden**
We will continue to work with Airlines and NATS to encourage CDA's to Runway 04 where operationally feasible, especially during the night period.	2010-2012	% achievement of CDA by time period.	>9400 Lden
We will report on our progress to achieve CDA's to Runway 04 through the Stansted Airport Consultative Committee (STACC).	**Quarterly**	**Introduction of CDA's to Runway 04.**	**>9400 Lden**
We will work with Local Communities and regulators to seek opportunities for minimum heights over particular sensitive areas near the Airport.	**2012**	**Percentage of CDA achievement. Percentage meeting ILS joining point criteria.**	**>9400 Lden**

Action 3 – Ground Noise, to minimise the noise impact of aircraft ground movements and engine running	**Timescale**	**Performance indicator**	**Numbers affected** See Tables 1-6 Page 13
We will review and update our APU usage strategy annually and implement any changes necessary.	**2010/ Annually**	**Report compliance with APU controls/ restrictions.**	**<100 Lden**
We will continue to monitor adherence and review the effectiveness of our stringent ground noise operational controls, as detailed in our Directors Notices. The current controls are set out below, 1. Control of Ground Noise for Fixed Wing Aircraft Engines 2. Control of Ground Noise for Rotary Wing Aircraft 3. APU/GPU Restrictions of Use.	Annually	Number of non compliant engine tests (number, location, duration) and APU non-compliance. (2006 baseline: No data available). Actual performance will be reported annually via our Corporate Responsibility Report.	900 Lday 900 Lday 400 Lden
We will undertake a review in 2011 of our stand planning procedures to identify any opportunities to prioritise stand allocation so as to minimise ground noise impacts. A subsequent review will be undertaken every 2 years afterwards.	**2011, 2013, 2015**	**Number of aircraft on ground noise sensitive stands during noise sensitive periods.**	**400 Lden**
We will work with airlines and NATS to achieve 50% of arriving aircraft using reduced engine taxi-in procedures by 2015.	**2015**	**Increase in single engine taxi-in to 50%.**	**400 Lden**
We will work with our Airlines to achieve 90% of all Aircraft Turnarounds using FEGP's rather than APU's by 2015.	**2015**	**90% FEGP useage during aircraft Turnaround. (2006 baseline: No data available). Actual performance will be reported annually via our Corporate Responsibility Report from 2011 onwards.**	**400 Lden**

Table 11: Noise Action Plan continued

The Noise Action Plan continued

Action 4 – Night Noise, to minimise the noise impact of aircraft operations during the Night Period 23:00-07:00	**Timescale**	**Performance indicator**	**Numbers affected** See Tables 1-6 Page 13
We will continue to fine aircraft that fly persistently outside the Noise Preferential Routes. The surcharge level is currently £500 per infringement. We will increase this surcharge during the Night Period 23:00-07:00 to £1,000 per infringement in 2011.	**2011**	**No or Aircraft departure surcharges applied/year.**	**6800 Lnight**
We currently fine all Aircraft that exceed the night time departure noise limit of 87dB(A), and the night "shoulder period" limit of 89dB(A), £500 for each infringement up to 3dB over this limit. Over 3dB infringements are currently fined £1,000. We will introduce a tiered fining level starting at £1,000 per infringement, up to 3dB over this limit. For Infringements that exceed this 3dB threshold we will add £1,000 per dB.	**2011**	**Implementation of new noise infringements scheme for the Summer 2011 Season and beyond.**	**6800 Lnight**
We will continue to produce monthly reports to NATS detailing the adherence to the Joining Point criteria as set out in the Stansted UKAIP for Night operations.	Ongoing	Monthly reports provided to NATS against our targets of 93% joining the ILS outside 10 nm and 98% joining above 3,000ft QNH. (2006 baseline: No data available).	
We will continue to administer the DfT night restrictions regime and ensure that the number of operations and noise quota remains within the limits prescribed.	Ongoing	Publish Usage report each season, report Weekly to DfT and ACL, and report useage through the NTKWG.	6800 Lnight

Action 5 – Mitigation Schemes, to help mitigate the noise impact of aircraft operations	**Timescale**	**Performance indicator**	**Numbers affected** See Tables 1-6 Page 13
We will continue to implement our Residential Noise Insulation Scheme in line with our current planning obligations.	Ongoing	Number of applications received vs number processed.	
We will undertake a review and update our wake vortex policy.	**2011 for review, ongoing**	**Number of properties subjected to vortex strikes.**	**<100 Lden**
We will annually direct all money raised by noise and track infringements to the Stansted Airport Community Trust.	2010-2015	Number of infringements and fines raised published in FEU/CR report.	

Table 11: Noise Action Plan continued

Action 6 – Monitoring and Reporting, to report against our commitments to managing noise	**Timescale**	**Performance indicator**	**Numbers affected** See Tables 1-6 Page 13
We will continue to record and investigate all complaints relating to aircraft operations and publish statistics in line with agreed complaints handling policy.	Quarterly/ Annually	Number of callers, contacts and events by month. Quarterly via STACC and annually via Corporate Responsibility Report.	
From 2011 we will set service level response targets for the handling of complaints and enquiries and will report against these targets.	**From 2011**	**Agree targets through NTKWG and report quarterly to this forum and annually in the CR Report. (2006 baseline: No data available).**	
Through our work with NTKWG we will continue our community noise monitoring program to help gain greater understanding of the impacts in communities affected by Stansted operations.	Ongoing	Number of community noise reports.	
We will publish our progress against the Action Plan on an annual basis.	**2011, 2012, 2013, 2014, 2015**	**Annual Monitoring Report, no of actions complete, Report through NTKWG, STACC and our Corporate Responsibility Report.**	

Action 7 – Policy and Planning, Influencing planning policy to minimise the number of noise sensitive properties around our airport	**Timescale**	**Performance indicator**	**Numbers affected** See Tables 1-6 Page 13
We will engage with the local planning authorities to ensure awareness of aircraft operations is considered in land use development, via the quarterly Local Authority liaison meeting.	Ongoing	Number of interactions with LPA.	
We will commission forecast 57 dB(A) Leq contours in line with our current planning regulations.	Annually	Submission of contours on time.	
We will review the annual Leq contours as produced by the DfT with Uttlesford District Council and agree upon actions arising.	2010, annually	Actions from Meeting.	
We will offer an annual course on aerodrome safe guarding for Local Authority Planning Officers from 2011.	**2011**	**Annual Course, number of attendees.**	
We will work with the Government through ANMAC to clarify the definition of quiet areas in rural areas as related to Stansted Airport. This will include clarification around Areas of Outstanding Natural Beauty and "Tranquil" areas.	**2011**	**Feedback through NTKWG, STACC, FOC.**	

Table 11: Noise Action Plan continued

The Noise Action Plan continued

Action 8 – Continuous Improvement, to further improve our understanding of noise through a collaborative approach with our airline partners and stakeholders to introduce new technologies	**Timescale**	**Performance indicator**	**Numbers affected** See Tables 1-6 Page 13
We will continue to work with NATS and all stakeholders to implement new technologies as they become available, eg. Collaborative Decision Making (CDM).	2015	Introduction of CDM and other best practices.	>9400 Lden
We will continue to work with NATS, DAP and all stakeholders to implement new technologies as they become available, eg. RNAV and PRNAV, (Precision Area Navigation). We aim to have a PRNAV departure solution on all 6 departure routes by 2015.	2015	Increase in percentage of Aircraft flying "on" track upon any changes in departure procedures, deliver PRNAV departures on all 6 departure routes.	>9400 Lden
We will prioritise airlines operating Chapter 4 aircraft when introducing new business to Stansted Airport by the end of 2010 by offering a 40% discount in airport landing charges compared to that of a Chapter 3 High aircraft.	2010	Track the annual percentage of Chapter 4 operations Annual Contours.	>9400 Lden
We will consult with our airline partners during 2011 on the voluntary phase out of Chapter 3 high aircraft at Stansted Airport by 2015.	**2011, 2015**	**Track the annual percentage of Chapter 3 High operations against the 2009 benchmark of 0.09% of total ATMs. (2006 baseline: No data available). Actual performance will be reported annually via our Corporate Responsibility Report from 2011 onwards.**	**>9400 Lden**
We will review the landing fee differential at least every 3 years commencing in 2010, in order to create incentives for operators to use the quietest possible aircraft within their fleet. This is to encourage the use of quieter aircraft. Eg. similar size aircraft within different noise categories are charged different fees.	2010, 2013	Conditions of use documents changes in charging. Track percentage within different charging categories.	>9400 Lden
We will establish and report a Stansted Airline league table for noise and emissions based on compliance with noise abatement techniques by 2012.	**2012**	**League table of ranking from amalgamation of agreed indicators.**	**>9400 Lden**
In conjunction with our partners in Sustainable Aviation we will continue to seek through advances in technology, (based on new aircraft in 2020 relative to equivalent new aircraft in 2000) to achieve the ACARE goal of 50% reduction in perceived external noise by 2020 based on new aircraft of 2020 relative to equivalent new aircraft in 2000.	Ongoing	Measured reduction in perceived external noise.	>9400 Lden
Together with our partners in Sustainable Aviation we will develop a best practice guide for departures eg. Single Engine Taxiing. We will report our progress against this.	2010	Publication of DCOP, Number of documents circulated.	
We will annually review our communication material to ensure relevance and ease of understanding.	Annually	Feedback from Communication Material published/ issued.	
We will update our procedures and policy documentation for monitoring aircraft operations and managing enquiries following the installation of the ANOMS NTK system by the end of 2010.	Annually	Current Procedures manual.	
We will implement a change program for our noise management structure that enables us to enhance the quality of the service provided by the FEU by the end of 2010.	**2010**	**Feedback through NTKWG and FOC.**	
We will request an annual audit of our noise management system.	Ongoing	Feedback from audit.	
We will continue to present issues and facilitate debate with ANMAC and will implement any initiatives as agreed through that forum.	Ongoing	Minutes of ANMAC. Feedback to STACC.	

Table 11: Noise Action Plan continued

The Noise Action Plan continued

Action 9 – Effective Communication, to provide meaningful communication to stakeholders, community representatives and the public	**Timescale**	**Performance indicator**	**Numbers affected** See Tables 1-6 Page 13
We will review annually the benefit of London Stansted hosting a combined noise and environment seminar.	Annually	No's in attendance and feedback from Noise and Environment Seminar.	>9400 Lden
We will continue to work through the NTKWG to facilitate solutions to local community noise concerns where feasible.	Quarterly	Key messages from NTKWG.	>9400 Lden
We will continue to seek feedback through the NTKWG on our noise management performance and take action to address any significant issues raised.	Quarterly	Key messages for STACC.	>9400 Lden
We will seek to establish a "best practice" forum to facilitate the sharing of aircraft noise management techniques between other airports.	**2012**	**FEU Quarterly Reports and papers delivered on time.**	
We will continue to offer a range of contact options for complaints and enquires regarding aircraft noise including email, website and telephone contact options.	Ongoing	Number of contacts by contact method.	
We will continue to provide public access to flight track information (delayed by 24 hours) via WebTrak.	Ongoing	% availability of WebTrak.	
We will invite local residents and complainants into the Airport to see first-hand the work of the FEU, explain our noise mitigation schemes and demonstrate our NTK system where we perceive there to be a benefit.	Ongoing	No of Invitees to the Flight Evaluation Unit.	
We will undertake to review and amend as appropriate the Directors Notices relating to noise management.	Annually	Number of Directors Notices reviewed/amended.	
We will annually review our communication material to ensure relevance and ease of understanding, based on feedback from the NTKWG and other stakeholder events.	Annually	Feedback from Communication Material published/issued.	

Table 11: Noise Action Plan continued

7

Performance indicators for the Action Plan

"We will use performance indicators to monitor the progress of our Noise Action Plan to ensure maximum benefits are achieved"

We will use a set of performance indicators (Table 12) to monitor our progress against each action point, to ensure that the work we are undertaking is resulting in the maximum benefit in terms of managing noise impacts. We have included figures for 2006 (where available) against our key performance indicators, in order to set a baseline for the future.

Our performance against these indicators will be regularly reviewed internally through our environmental governance structure. During the five-year period of this Action Plan, we may add to or amend the range of performance indicators to respond to improvements which enable us to better manage the Airport noise impacts.

We will publish our performance against the key performance indicators in our annual Corporate Responsibility Report.

Reference number	Key performance indicator	2006 baseline
KP1	Percentage of Chapter 4 (or equivalent) Aircraft	75%
KP2	Population inside the 55dBA Lden contour (km^2)	9400
KP3	Population inside the 48dB Lnight contour	6800
KP4	Area inside the 57dB Leq16 hour daytime summer contour to not exceed 33.9 (km^2)	28.2
KP5	Number of infringements of the Daytime departure noise limit	9
KP6	Number of infringements of the Night time departure noise limit	24
KP7	Percentage of aircraft achieving a CDA (24 hour period) on Runway 22	82.82%
KP8	Percentage of aircraft on track (all routes)	98.10%
KP9	Number of individuals making noise related complaints (April 2006 – March 2007)	2294
KP10	Percent of noise related enquiries responded to within 5 working days	N/A

Table 12: Key Performance Indicators

Appendices

Appendix A

Consultation questionnaire

We would welcome your comments on our proposals and invite your views on the following questions. The responses we receive will be used to influence the detail of the final action plan. Responses to this consultation document do not indicate endorsement of present or future airport operations.

1. To what extent do you think that Stansted Airport Limited's noise strategies outlined in this draft noise action plan are targeting the most important problems in relation to aircraft noise?

2. To what extent do you think that the draft noise action plan provides a suitable framework to manage aircraft noise?

3. The draft noise action plan proposes a number of performance indicators to measure progress in implementing the action plan. To what extent do you think that these performance indicators are sufficient?

4. Stansted Airport's long-term goal is to be in the top fifth of airport companies for best practice in international airport noise management on comparable sites. To what extent do you think that this goal is sufficiently challenging?

5. Do you have any other comments on Stansted Airport's draft Noise Action Plan?

6. Are you happy to have you details recorded/reported

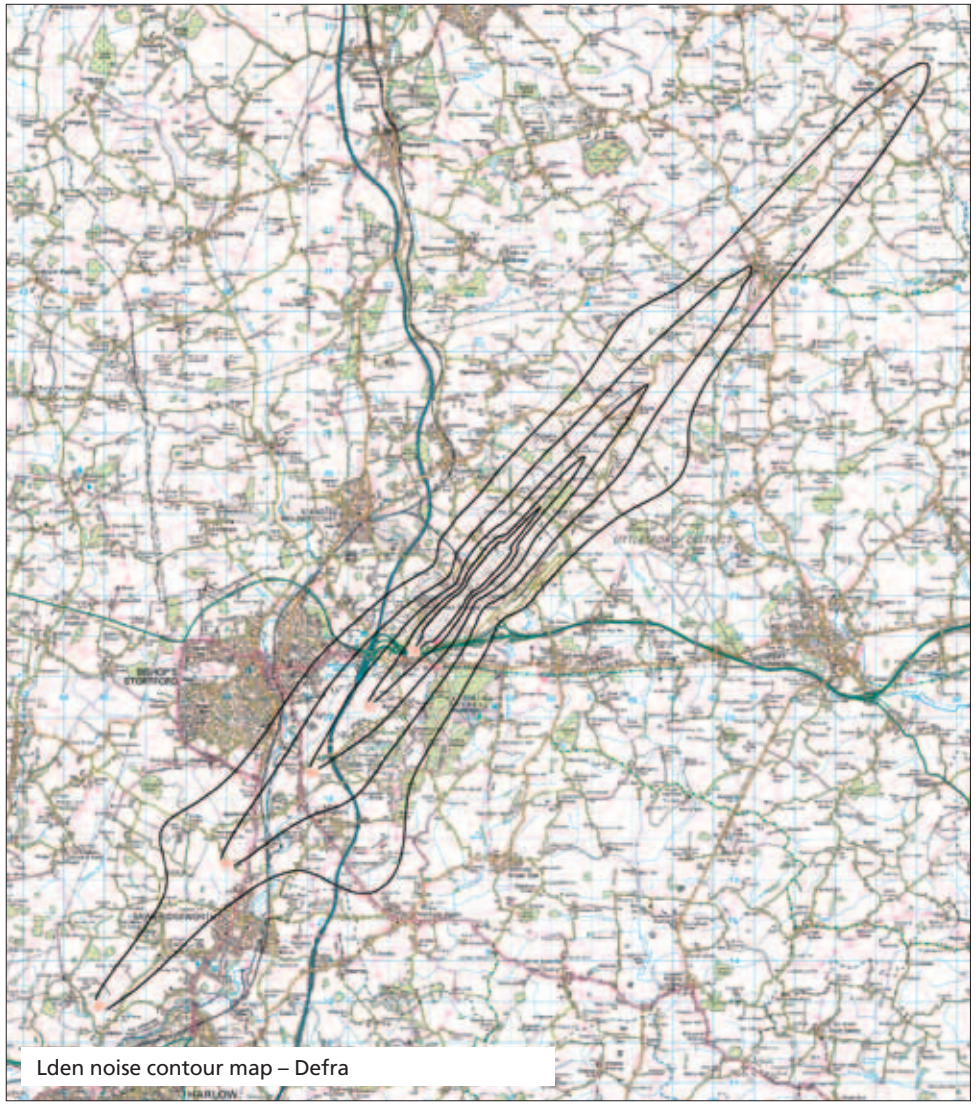
Appendix B

Glossary of terms

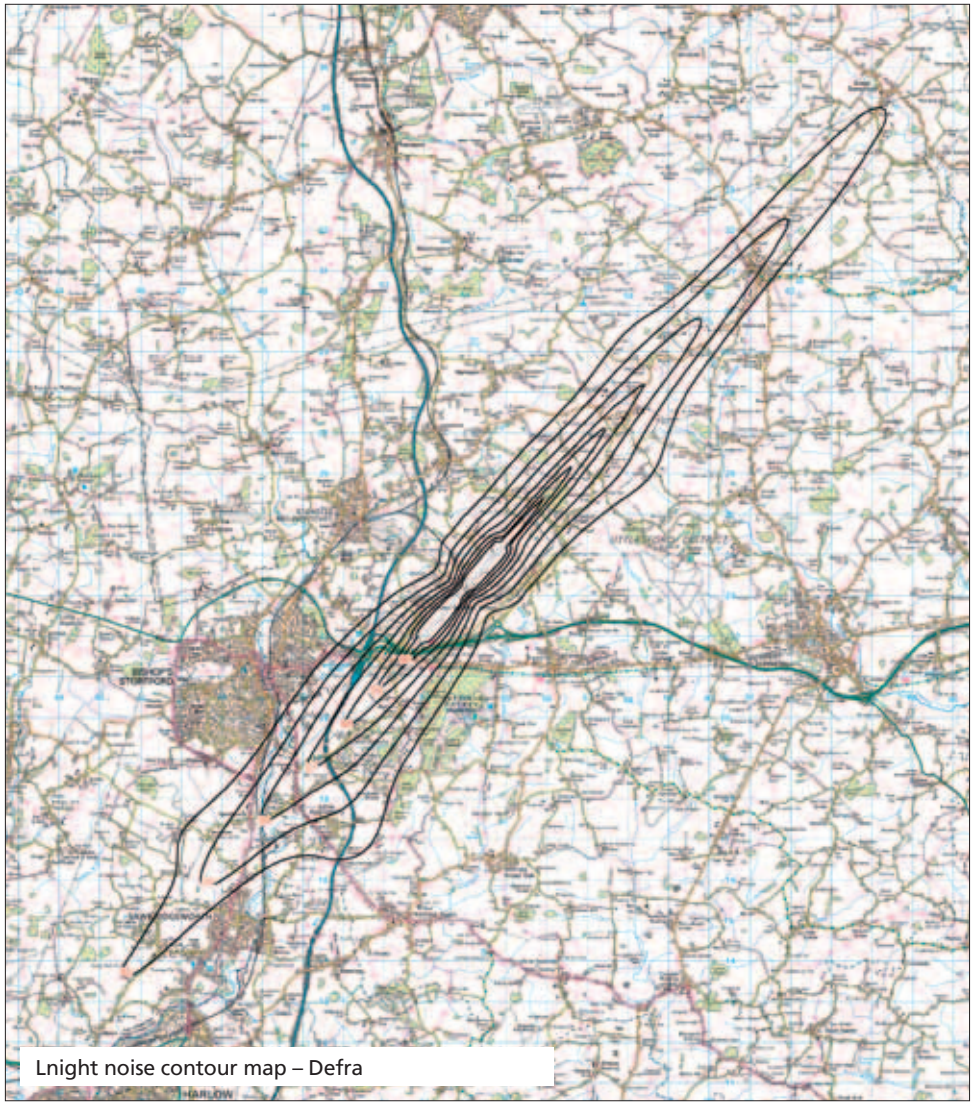
AAL	Above Aerodrome level
AIP	Aeronautical Information Publication
ACARE	Advisory Council for Aeronautical Research in Europe. ACARE's focus on its environmental targets include a 50% reduction in CO_2, a 50% reduction in perceived noise and an 80% reduction in NOx by 2020 relative to year-2000 aircraft.
ACOP	Arrivals Code of Practice
ANASE	Attitudes to Noise from Aviation Sources in England
ANMAC	Aircraft Noise Monitoring Advisory Committee. The committee is chaired by the Department for Transport and comprises, among others, representatives of the airlines, Heathrow, Gatwick and Stansted airports and airport consultative committees.
ANOMS	Airport Noise Operations Monitoring System, Stansted Airport's specific NTK system
APU	Auxiliary Power Unit. A power unit located on the aircraft to provide power to essential systems whilst on the Ground.
ATC	Air Traffic Control
ATM	Air Transport Movement
ATWP	Air Transport White Paper
CAA	Civil Aviation Authority
CDA	Continuous Descent Approach
CDM	Collaborative Decision Making, reduction in ground noise, engine running and holding times by sharing data from ground handlers, airlines, slot coordination and Air traffic Control.
dB(A)	A unit of sound pressure level, adjusted in accordance with the A weighting scale, which takes into account the increased sensitivity of the human ear at some frequencies
Decibel (dB)	The decibel (dB) is a logarithmic unit of measurement that expresses the magnitude of a physical quantity relative to a specified or implied reference level. Its logarithmic nature allows very large or very small ratios to be represented by a convenient number. Being a ratio, it is a dimensionless unit. Decibels are used for a wide variety of measurements including acoustics, and for audible sound A-weighted decibels (dBA) are commonly used.
DCOP	Departure Code of Practice
DEFRA	Department for Environment Food and Rural Affairs (UK Government).
DfT	Department for Transport (UK Government).
DN	Directors Notice, local rules and regulations of Stansted Airport
END	Environment Noise Directive
ERCD	Environmental Research and Consultancy Department of the Civil Aviation Authority.
FEGP	Fixed Electrical Ground Power
FEU	Flight Evaluation Unit
FOC	Flight Operations Committee
G1	Stansted Generation 1 Development
GPU	Ground Power Unit
ICAO	International Civil Aviation Organization.
ILS	Instrument Landing System.
LAeq,16h	The A-weighted average sound level over the 16 hour period of 07:00-23:00
Lday	The A-weighted average sound level over the 12 hour day period of 07:00-19:00 hours.
Lden	The day, evening, night level, Lden is a logarithmic composite of the Lday, Levening, and Lnight levels but with 5dB(A) being added to the Levening value and 10dB(A) being added to the Lnight value
Leq	Equivalent sound level of aircraft noise in dBA, often called equivalent continuous sound level. For conventional historical contours this is based on the daily average movements that take place in the 16 hour period (07:00-23:00 LT) during the 92 day period 16 June to 15 September inclusive.
Levening	The A-weighted average sound level over the 4 hour evening period of 1900-2300 hours.
Lmax	Maximum A-weighted sound level
LPA	Local Planning Authority
Lnight	The A-weighted average sound level over the 8 hour night period of 23:00-07:00 hours.
NATS	Formerly known as National Air Traffic Services Ltd. NATS is licensed to provide en-route air traffic control for the UK and the Eastern part of the North Atlantic, and also provides air traffic control services at several major UK airports, including Heathrow, Gatwick and Stansted.
Noise Bands	Areas with similar noise exposure in 5dB(A) ranges according to the key shown with the maps
Noise Contour	Map contour line indicating noise exposure in dB for the area that it encloses.
NPR	Noise Preferential Route.
NTK	Noise and Track Keeping monitoring system. The NTK system associates radar data from air traffic control radar with related data from both fixed (permanent) and mobile noise monitors at prescribed positions on the ground.
NTKWG	Noise and Track Keeping Working Group
PNdB	Perceived Noise Level, measured in PNdB. Its measurement involves analyses of the frequency spectra of noise events as well as the maximum level.
PPG	Planning Policy Guidance
QC	Quota Count – the basis of the London airports Night Restrictions regime
QFE	Atmospheric pressure at aerodrome level (or at runway threshold) (ie. the altimeter reads zero feet on the ground)
QNH	Altimeter sub scale setting to obtain airfield elevation when on the ground (ie. the altimeter reads the aircrafts altitude Above Mean Sea Level)
RNAV/ PRNAV	Area Navigation/Precision Area Navigation using GPS coordinates
SEL	Sound Exposure Level. The level generated by a single aircraft at the monitoring point. This normalised to a 1 second burst of sound and takes account of the duration of the sound as well as its intensity.
SID	Standard Instrument Departure route
SoS	Secretary of State
STACC	Stansted Airport Consultative Committee
STAL	Stansted Airport Limited
Sustainable Aviation	A UK aviation industry initiative aiming to set out a long term strategy for the industry to address its sustainability issues.

Appendix C

Environment noise directive noise contour maps



Lden noise contour map – Defra



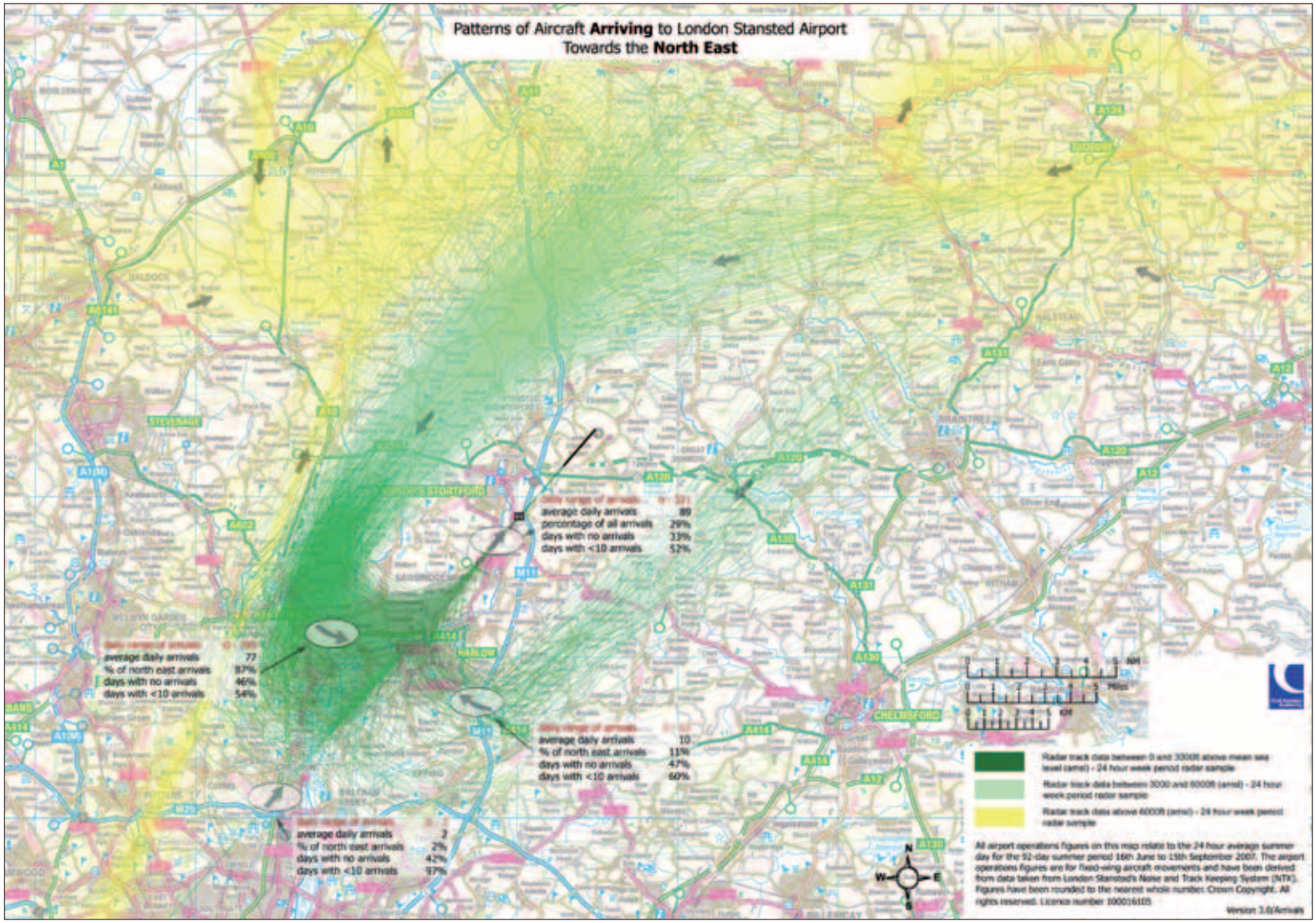
Lnight noise contour map – Defra

Appendix D

Noise preferential route maps

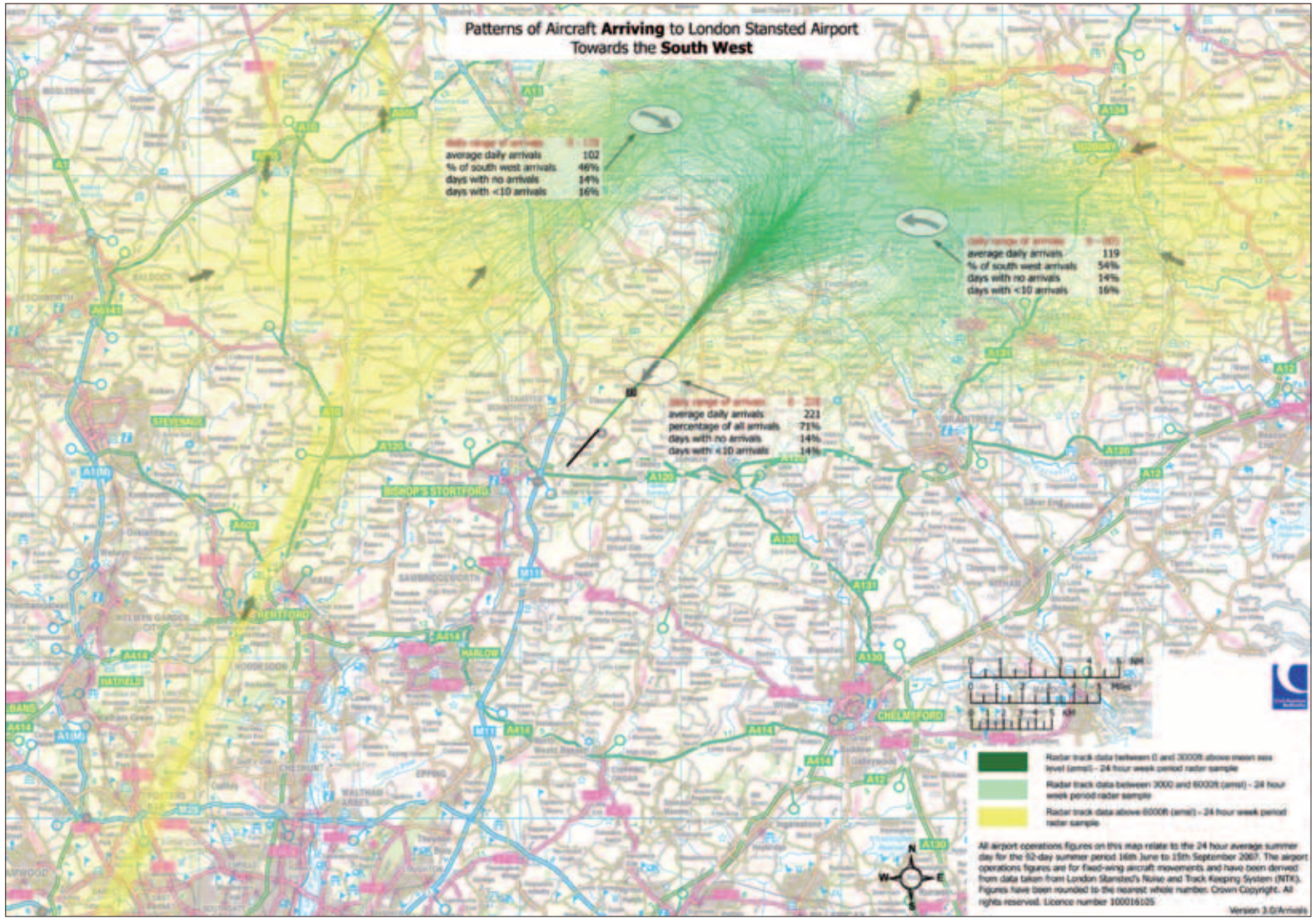
Appendix E

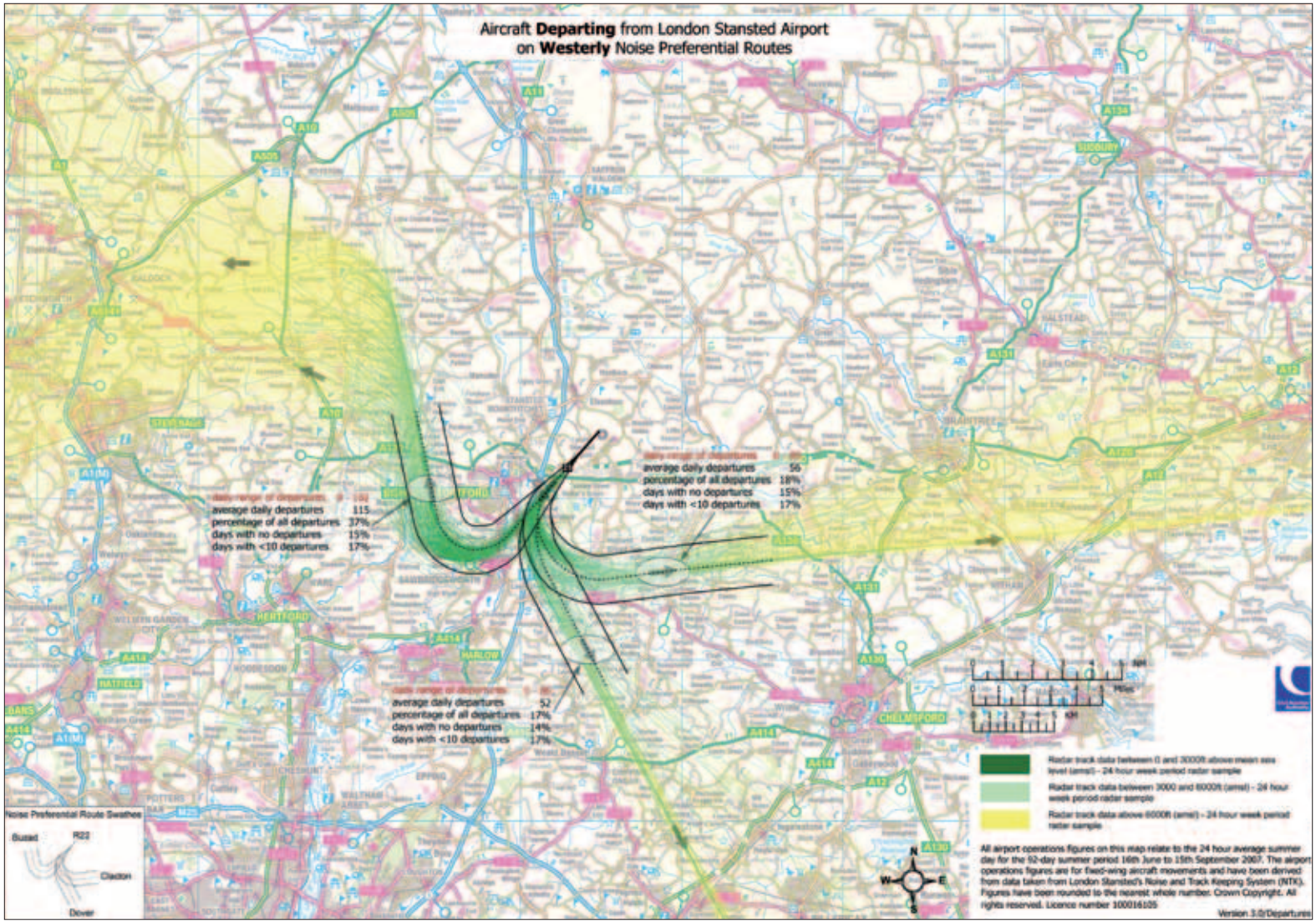
London Stansted Airport arrival & departure maps (2007)



Appendix E

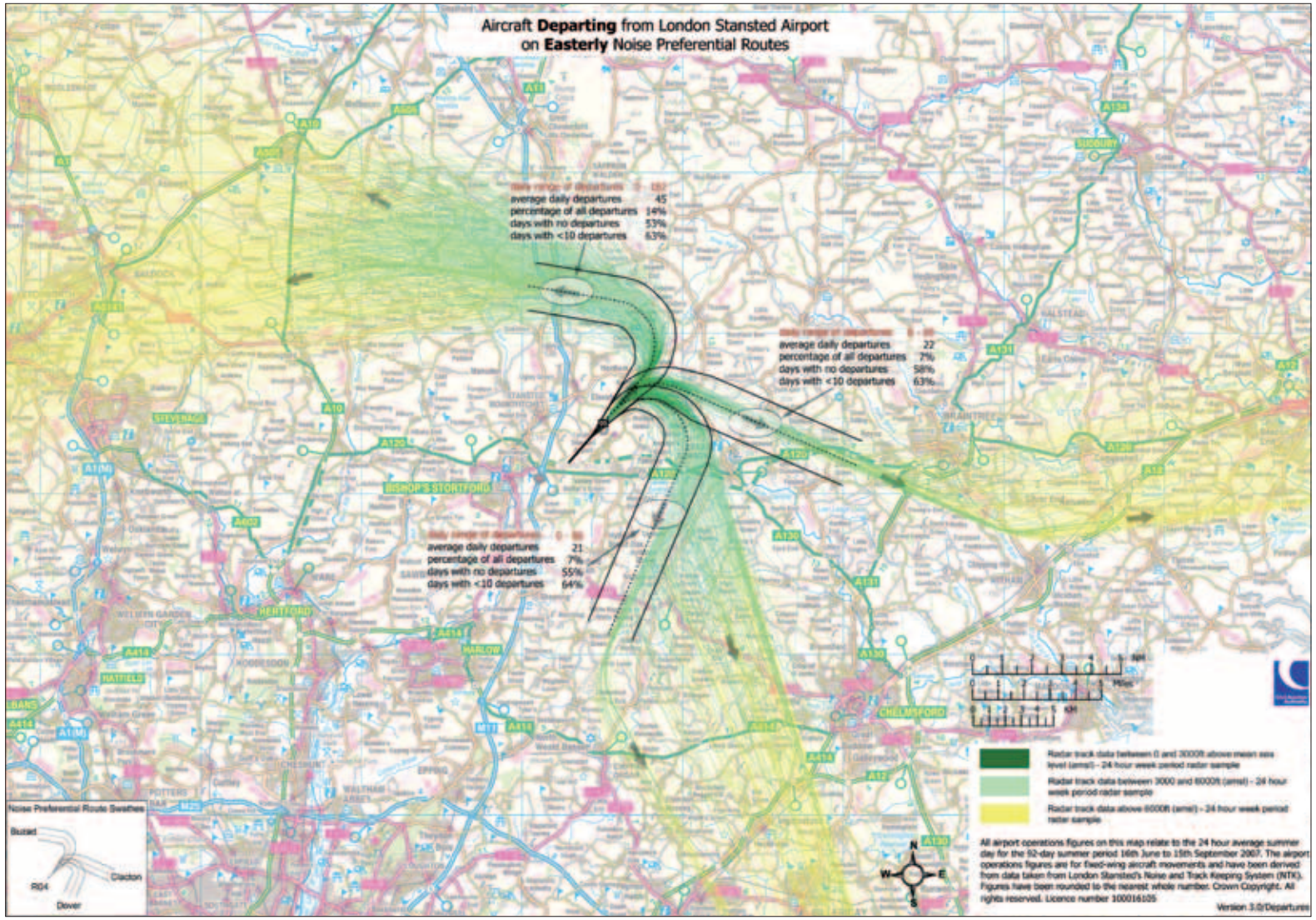
London Stansted Airport arrival & departure maps (2007) cont.




Aircraft **Departing** from London Stansted Airport
on **Westerly** Noise Preferential Routes
average daily departures 115
percentage of all departures 37%
days with no departures 15%
days with <10 departures 17%
average daily departures 56
percentage of all departures 18%
days with no departures 15%
days with <10 departures 17%
average daily departures 52
percentage of all departures 17%
days with no departures 14%
days with <10 departures 17%
Noise Preferential Route Swathes
Radar track data between 0 and 3000ft above mean sea level (amsl) - 24 hour week period radar sample
Radar track data between 3000 and 6000ft (amsl) - 24 hour week period radar sample
Radar track data above 6000ft (amsl) - 24 hour week period radar sample
All airport operations figures on this map relate to the 24 hour average summer day for the 92-day summer period 16th June to 15th September 2007. The airport operations figures are for fixed-wing aircraft movements and have been derived from data taken from London Stansted's Noise and Track Keeping System (NTK). Figures have been rounded to the nearest whole number. Crown Copyright. All rights reserved. Licence number 100016105
Version 3.0/Departures

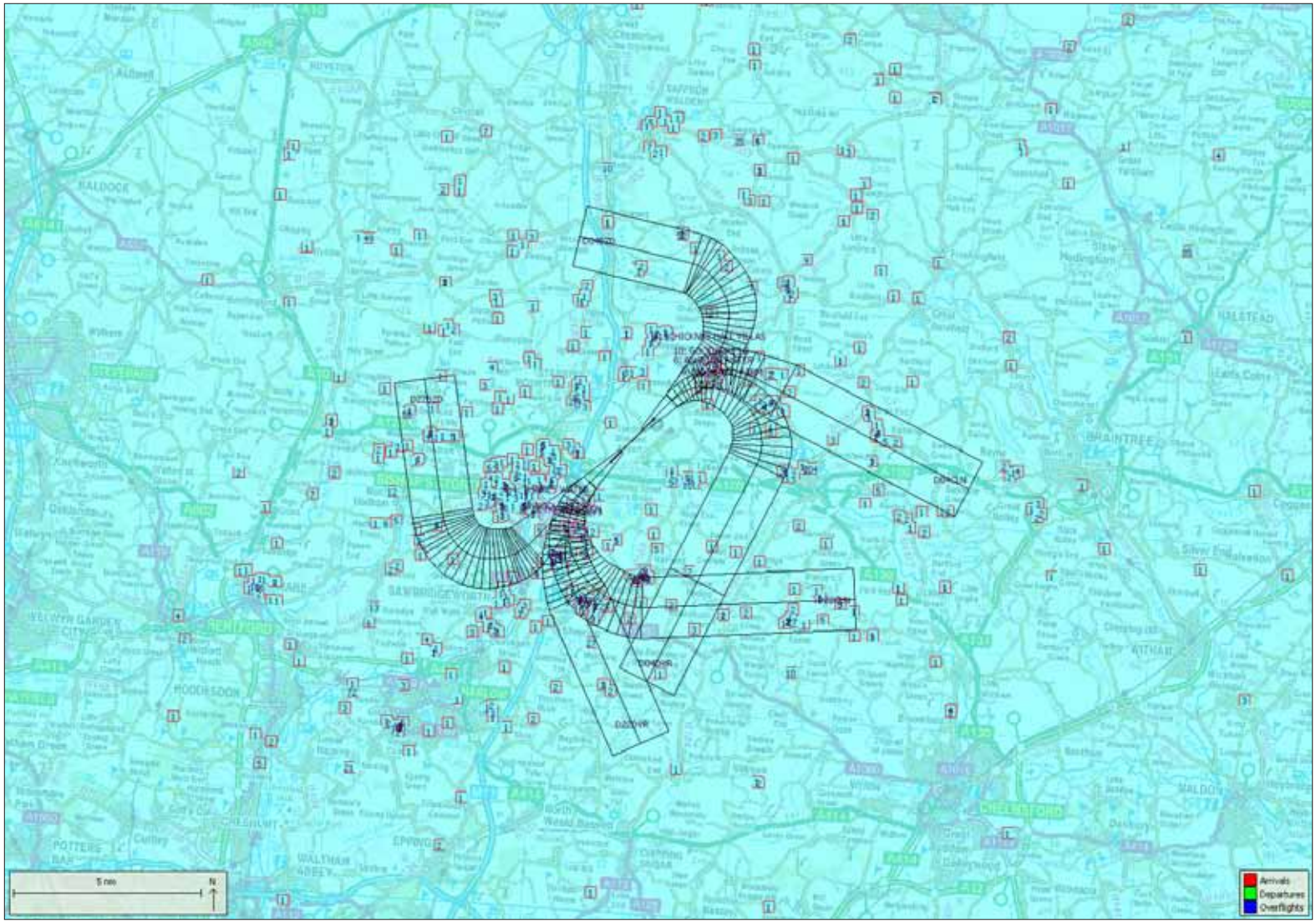
Appendix E

London Stansted Airport arrival & departure maps (2007) cont.



Appendix F

Geographical distribution of noise complaints (2009)



Appendix G

Summary of consultation responses

Q1 To what extent do you think that BAA Stansted's noise strategies outlined in the draft noise action plan are targeting the most important problems in relation to aircraft noise?

Findings

Only a small minority of respondents thought that BAA Stansted's noise strategies outlined in the draft noise action plan were "completely" targeting the most important problems in relation to aircraft noise (3%).

Responses given by over half of respondents (56%) when asked "Why is that?" centred around the insufficiency of the plan, in that it ***didn't go far enough*** or that it ***failed to address the problem***.

"The plan is very short on specific actions to be taken to reduce noise, relying on 'monitoring', 'promoting', and 'seek' types of actions which are not firm quantifiable commitments."
(Local resident/individual)

More specifically, respondents thought that the plan ***didn't do enough to address night time noise*** (43%) and that the ***fines or penalties proposed were inadequate*** for aircraft breaching noise limits (41%).

"The plan needs to go further in specific, quantifiable actions to reduce noise, particularly at night, and for helicopters."
(Numerous mentions)

"The strategy says little about reducing night flight noise and frequency, which is when the noise impact is most acutely felt."
(Local resident/individual)

"Fines for noisy and off-track aircraft should be much higher than at present to stimulate better practices."
(Numerous mentions)

These concerns were reflected in some of the solutions, for example, ***restricting night flights*** (7%) and providing ***incentives for the use of quieter planes*** (12%).

"Specific action measures to reduce the number of flights, particularly at night are needed. There should be a ban on all night flying between 12.30 pm and 5.50am."
(Local resident/individual)

"It would be good to see incentives to airlines for the introduction of substantially less noisy aircrafts."
(Local resident/individual)

"It is imperative that measures are included to cover helicopter noise, which is becoming an increasing irritant in rural areas. Minimum heights and lower speeds should be introduced for helicopters to reduce noise and downbeat shockwaves."
(Local Government)

In addition, six per cent commented that issues with ***arrivals noise and descent trajectories*** were not suitably addressed by the noise action plan.

A quarter of respondents (24%) considered that ***noise abatement should take priority over emissions***.

Eighteen per cent made general comments relating to the fact that noise affects them directly, is difficult to live with and ***disturbs their sleep***.

Q2 To what extent do you think that the draft noise action plan provides a suitable framework to manage aircraft noise?

Findings

One in seven respondents felt that to some extent the draft noise action plan provided a suitable framework to manage aircraft noise, with a small minority (3%) saying "completely" and around a tenth (12%) saying "partially".

Like Q1, when asked "Why is that?" around half of all respondents thought that the plan ***didn't go far enough or failed to address the problem*** (53%) and a similar proportion considered that it ***offered nothing new*** (49%).

"This draft plan mainly refers to measures that already exist. I regard these measures as totally inadequate."
(Local resident/individual)

"It doesn't go far enough! The language isn't strong enough, talking to airlines is unlikely to make little progress. Hit them hard financially or ban them from the Airport if they break the rules."
(Local resident/individual)

"The plan does not offer any additional actions to reduce noise over those that are already in place. More quantifiable targets and time scales are needed to make the plan effective. Comparisons of 'before' and 'after' implementation of the plan need to be added."
(Numerous mentions)

Concerns of numerous respondents appeared to be related to ***how the plan was to be enforced or regulated***.

Around two-fifths of respondents were concerned that there was ***no mention of penalties if the goals in the plan are not met*** (39%) and a similar proportion thought that the ***plan/noise regulation should be determined or monitored by an independent body*** (43%).

"There should be quantifiable sanctions if BAA fails to meet the targets. There needs to be an independent overseer (rather than BAA or DfT) to represent the interests of the local community and ensure harmful noise exposure is addressed as set out in the Environmental Noise Directive."
(Numerous mentions)

"There is insufficient independent regulation and the plan has insufficiently new, radical initiatives to make a difference."
(Local resident/individual)

Almost a third of respondents (29%) made the point that ***action needs to be quicker/ immediate*** or that ***the time frame is too long***.

"The plans are not ongoing. They should have targets and timescales, with sanctions if these are not met."
(Local resident/individual)

There were also some criticisms that the plan ***did not provide a suitable framework because it didn't address the actual effects on local residents*** (mentioned by nine per cent of respondents). This perception has perhaps arisen in relation to the data or assumptions on which the plan is based, as some respondents thought that ***the plan is based on inaccurate predictions*** (7%) and that ***contours are averages and average noise is not a good measure*** as they do not represent actual disturbance (9%).

"It fails to use impact on public as the key criterion: Time averaged noise levels do not reflect the actual disruption caused by peak noise. Summer noise is far more disruptive to most residents as windows are open. Night time noise is simply unacceptable."
(Local resident/individual)

Q3 The draft noise action plan proposes a number of performance indicators to measure progress in implementing the action plan. To what extent do you think that these performance indicators are sufficient?

Findings

Only a minority of respondents thought that the proposed performance indicators were sufficient, with a very small proportion saying "completely" sufficient (3%), and around one in ten (9%) saying they were "fairly sufficient".

The majority of respondents thought the performance indicators weren't sufficient, with seven in ten (69%) saying "not very sufficient" and just under a fifth (18%) saying "not at all sufficient".

Again, one of the main criticisms of the plan was that it ***did not go far enough or that it failed to address the problem*** (60%). Specific comments in relation to the performance indicators used were that they are ***insufficient and too vague*** (56%).

"The performance indicators used are limited, vague and give too much room for inaction. It is not good enough to simply "review" or "track" issues when the Environmental Noise Directive requires noise to be reduced, especially if flight numbers at Stansted increase."
(Numerous mentions)

Around one in ten respondents (11%) thought that the performance indicators in the plan were insufficient as they ***did not contribute to addressing the actual effects on local residents***.

"The performance indicators proposed by BAA for aircraft movements only record what happens (eg. track the number of noise infringements). There are no indicators proposed that actually establish noise reduction targets and measure progress. Estimates of the reduction of the number of people affected (annoyed, sleep disturbed, or other) are not provided."
(Numerous mentions)

"The indicators provided are reactive rather than proactive. Estimates of the reduction of the number of people affected are not provided, therefore, this base level strategy appears to be skewed from the start."
(Local Government)

Further comments relating to the proposed indicators were that ***the time frame appeared to be too long*** (11% of respondents).

"There is a lack of definite timescales."
(Numerous mentions)

Q4 As part of its objective to limit and where possible reduce the impacts of aircraft noise, Stansted has set a benchmark goal to be in the top fifth of airport companies for best practice in international airport noise management on comparable sites. To what extent do you think that this goal is sufficiently challenging?

Findings

Less than one in ten respondents felt that Stansted Airport's goal to be in the top fifth of airport companies for best practice in international noise management on comparable sites presented a challenge. Just one per cent thought it was "too challenging" and six per cent thought it "sufficiently challenging".

Around one in seven respondents thought this goal was "not very challenging" whilst the majority, three-quarters (75%) considered it "not at all challenging".

Over half of all respondents (56%) expressed concern that the ***top fifth goal set by Stansted would not in itself reduce noise*** and that this should be ***the sole objective of the Noise Action Plan***.

"This objective/benchmark goal does not in itself reduce noise. The Environmental Noise Directive is there to 'avoid, prevent or reduce noise' and these should be the sole objective of the Action Plan."
(Numerous mentions)

Other comments centred upon comprehension and verification of the goal set by Stansted, as some respondents were ***unsure what the comparison group was*** or ***how the claim compared with what other sites do*** (12%), or said it was ***impossible for members of the public to check any claims made by BAA*** (12%).

"Are you saying you will be in the top 5 for rurally located airports? What is best practise for these and how does it compare to best practice for an airport like Heathrow? "
(Local resident/ individual)

"Without knowledge of 'comparable sites', I have no standard by which to make a judgement"
(Local resident/ individual)

"International benchmarking is a vague and imprecise concept and it would be virtually impossible for members of the public to check any such claims made by the Airport operator."
(Numerous mentions)

Q5 Do you have any other comments on Stansted Airport's draft noise action plan?

NOTE: White mail responses which did not respond to the specific consultation questions have also been included here.

Findings

Numerous criticisms centred upon the plan being insufficient, namely in that it ***didn't go far enough*** or that it ***failed to address the problem*** (19%)

"Not very comprehensive. Does not address the problem which really affects local people. Bit of a PR stunt you are not going to do anything to really reduce noise if it affects your business in any way."
(Local resident/ individual)

"It is vague, unchallenging and pays little attention to the local mainly rural nature of the area closest to the Airport"
(Local resident/ individual)

Other comments about the insufficiency of the plan (each mentioned by fewer than ten per cent of respondents) were that ***the proposals were window dressing and the plan was too loose to be of value*** (9%)

"It does not show much real concern for the people suffering from aircraft noise. Window dressing comes to mind."
(Local resident/ individual)

Almost one in ten said that it ***didn't address the actual effects on local residents*** (9%), that it didn't do enough to address ***night time noise*** (5%) or that ***arrivals noise issues and issues with descent trajectories were not addressed*** (5%)

"I would like to see BAA pushing NATS to make CDA a high priority for arrivals over Hertford, Ware, Hoddesden and Harlow irrespective of expansion plans. Flights should stick to their allocated times much better and not be allowed to overrun the 23:30 deadline without paying severe penalty fines."
(Local resident/ individual)

Appendix H

Current expenditure on noise management

Type	Description	Approximate annual cost
Staff costs	Comms Team, Airside Team, FEU, Strategy Environment Team – salary and training.	£150,000
Computer and equipment costs	Renewal, calibration, repair, Software licences, support development.	£300,000
Publications and communications	Seminars, documents, website.	£20,000
Fines	Departure noise limits and off track departures, (to be paid to Stansted Community Trust).	£5,000
Noise insulation and mitigation schemes	Insulation, relocation, community buildings, and wake vortex.	£200,000
Research and benchmarking, forecasting	Future contours, support for omega, Sustainable Aviation etc, studies for benchmarking.	£20,000
Audit and consultancy	Community monitor schemes, Ground noise surveys etc.	£10,000

Appendix I

List of respondents

Local Government

Broxted Parish Council
Great Bardfield & Finchingfield Parish Councils
Epping Town Council
Little Hadham Parish Council
Gosfield Parish Council
Great Waltham Parish Council
Much Hadham Parish Council
Eastwick & Gilston Parish Council
Moreton, Bobbingworth & the Lavers Parish Council
Henham Parish Council
Great Canfield Parish Council
Elmdon & Wenden Lofts Parish Council
Cambridgeshire County Council
Epping Forest District Council
Takeley Parish Council
Essex County Council
Rayne Parish Council
Roydon Parish Council
Thorley Parish Council
Uttlesford District Council
Hertford Town Council
Gestingthorpe Parish Council
Great Munden Parish Council
Braintree District Council
Stansted Mountfitchet Parish Council
Black Notley Parish Council
Little Hallingbury Parish Council
Great Hallingbury Parish Council
Elsenham Parish Council
Birchanger Parish Council
Markyate Parish Council
East Herts Council
Herts County Council

Private sector organisation

Jet2.com
Thomsom Airways
British Airways PLC
Third Rail Film facilities
ESP Innovation Ltd
UPS

Consultative Committee

STACC

Interest or pressure group

(including local residents associations)

The Wormley Society
Saffron Walden & District Friends of the Earth
The Roydon Society
The Stour & Orwell Society
Dedham Vale Society
SOSAG (Save Our Silence Action Group)
Stop Stansted Expansion
Environmental protection UK

Other public sector organisation

Braintree & Witham Constituences Liberal Democrats
Dedham Vale AONB & Stour Valley Project

Voluntary sector or Charity

Hertfordshire & North Middlesex Area
Campaign to Protect Rural Essex
National Trust

Local residents/individuals

MR P Smith	Henham
Mr John Goebel	Henham
Mrs J Peachey	Bishop's Stortford
A Hancock	Broxted
R.N. Morgan	Thaxted
Tim	Cornard Tye
Mr and Mrs Barrett	Broxted
Peter McLennan	Wicken Bonhunt
Mrs C Matthews	Capel St Mary
Peter Lemer	Great Hallingbury
Mr. Ivan Lawton-Smith	Linton
Peter Jurd	Bishop's Stortford
Gary Mason	Steeple Bumpstead
Mrs E G Cope	Roydon
Mrs C Prentice	Great Cornard
Tim Pitt	Water Street, Lavenham
Steven Ramsay	Bishop's Stortford
Geoffrey Mouser	Bishop's Stortford
L Trevitt	Hatfield Broad Oak
Mr Colin Harker	Bishop's Stortford
Sarah Pallett	Bishop's Stortford
William Clarkson	Bishop's Stortford
Peter Howes	Bishop's Stortford
Lee Munden	Harlow
Ms JA Burke	West Wratting
Nigel Pay	SG11
Mr Tony Leek	Hundon
H Williams	Little Hadham
Jane Clarke	Ashdon
Peter Austen	Wintle
Dr Martin Adams	Much Hadham
David Brookes	Albury
Kevin Pugh	Bishop's Stortford
Mr Braden Howarth	Stebbing
Ian Ball	Ware
Phillip Haywood	Anstey
Alan Jenkins	Gilston
Paul Chater	Henham
John Pretious	Bishop's Stortford
Catherine Mry Hobbs	Thorpe Morieux
Philip Shock	Ware
Anthony Hudson	Debden
Mr Frank Knowles	Clavering
N Townsend	Broxbourne
Graham L B Pitt OBE	Old Harlow
Mr & Mrs Crawford	Great Cornard
Mr R A Halford	Bishop's Stortford
Jan Metcalf	Broxbourne
Gareth Jones	Wimbish
Ashley Cooper	Gestingthorpe
Tim Rossiter	Sawbridgeworth
Frederick Chilton	Fryerning
Mrs Heather Banks	Hoddesdon
Tina Smith	Cornard Tye
E.G.Miller	Finchingfield
Prof. Gordon Edge	Great Chesterford
Tim Holway	Widford
A Furze	Much Hadham
A. Mine	Elsenham
Clarkson	CM23
Trevor Ellis-Callow	Henham
Kevin Latham	Bishop's Stortford
Simon Daw	Castle Hedingham
Patrick Pawsey	Ovington
Geoffrey Pickering	Bishop's Stortford
Malcolm Sowter	Matching Green
Jill Demonti	Bishop's Stortford
D.G.Perry	Saffron Walden
James R Briggs	Radwinter
John Kneller Eborn	Milden
Thierry Lloyd-Rossi	Dunmow
Matthew Kosin	Sawbridgeworth
Joanne Stone	Saffron Walden
Clive Durham	Hatfield Broad Oak
MR J Nicholas	Saffron Walden
M P Dawson	Lamarsh
Tim Main	Gosfield
Mrs H M Salvidge	Elsenham
Steve Gibbons	Great Maplestead
Jonathan Fox	Stansted Mountfitchet
Richard Legge	Thaxted
Helen Payne	Ware
Frank Bengtsen	Manuden
Keith Vines	Saffron Walden
Michael Furlong	Saffron Walden
R W Turner	Nazeing
Prof. D. M. Smith	Hatfield Broad Oak
Mrs Susan Smith	Hatfield Broad Oak
A J Brooks	Stebbing
John Rowland	Great Easton
Mrs Lindsay Potter	Saffron Walden
L Holt	Brick End
John A. Thain	Takeley
Philip Jeffery	Henham
Ann Woods	Withersfield
Mrs. Marjorie J. Lewis	Hereford
Dr Albert Gerhard	Radwinter
N P Evans	Old Harlow
M Bailey	Good Easter
Mrs Linda Peake	Henham
Christopher Barrett	Dunmow
Mr & Mrs J Hutley	Bishop's Stortford
Mr & Mrs D Wookcock	CM24
Danny Spurling	Broxted
M Window	Little Hallingbury
P L Fulcher	Bulmer
Paul Osgood	Green Tye
Carolyn Sperling	Broxted
Mrs Christine Rixon	Bishop's Stortford
Nadia Capy-Osgood	Green Tye
Suzanne Walker	Radwinter
J M Brazill	Holbrook
Ernest Effer	Saffron Walden
Mr. J Hosgood	Thundridge
Peter Riding	Saffron Walden
David Lowe	Great Dunmow
Mr & Mrs De Gerdon	Henham
Lady Hammett	Henham
Professor J E Banatvala	Henham
Mrs Roshan Banatvala	Henham
R W Amey-Cummings	Henham
Sylvia Nicholson	Henham
Mr & Mrs R Crook	Henham
John Pryor	Little Hallingbury
Mr C W Wade	Sawbridgeworth
Raymond Franklin	Elsenham
Ms Tricia Street	Standon
Alan Johnson	Newport
E R Gillespie	Henham
Mrs Isobel Brooks	Henham
Mr Roderick Denis Bird	Sewards End
Richard Marshall	Henham
Chris Stenhouse	Henham
DR & JJ Bishop	Henham
Malcolm Robinson	Henham
Gordon Dawes	Ware
Robert Jones	Hatfield Heath
C Withey	Milden
J H Plant	Henham
A F Eaton	Henham
EMP Hughes	Henham
FDS Chapman	Colchester
Allan Wilton	Hatfield Heath
Mark Stephens	Much Hadham
M Hixon & J Burke	Hatfield Heath
Ms A Kurton	Harlow
Mr C J Sewell	Sible Hedingham
R K Brett	Henham
P M Smith	Great Easton
Mr P Stuart-Robinson	Henham
Andrew Ttoffali	Henham
Gerald Kaye	Henham
Shirley Wilcock	Henham
Mr J S Brannon	Henham
J C H Cunningham	Henham
Simon Bambridge	Henham
Elizabeth M Crook	Shalford
Peter Chester	Hatfield Heath
Paul Askew	Bishop's Stortford
JBS & Mrs PA Sams	Gt Canfield
Brian Clifton	Great Canfield
Mrs Irene Jones	Broxted
Pamea Bird	Sewards End
Julia Witting	Stanstead Abbotts
A Willis, BA(Hons), MA	Little Hallingbury
Richard Golden	Henham
David Reynolds	Henham
N J Baker	Woodend Green
Stephen Bolter	Gestingthorpe
Sue Landon	Braughing
H E Godwin	Birchanger
Mrs C Downes	Henham
Miss Nicola Wilkinson	Roydon
SAC Young	Saffron Walden
John Devoti	Great Hallingbury
Phyllis Clark	Broxted
Mrs Pat Bruce	Pleshey
Mr W C Jackson	Henham
Mrs R Pick	Henham
Mrs A J Savage	Henham
Ian Bruce	Pleshey
Ruth Bonino	Henham
Roland Bee	Thorpe Morieux
Mr & Mrs A Sapsford	Puckeridge
Miss Linda Storey	Bishop's Stortford
Mrs Carol Foulser	Matching Green
Mrs S Meyer	Little Hallingbury
Christopher Swain	Henham
Frances Griffiths	Thaxted
Ken McDonald	Stansted Mountfitchet
Mrs Mione Goldspink	Bishop's Stortford
Mr M F Peachey	Takeley
Mrs M Baker	Henham
Mrs P L Oldfield	Birchhanger
Mr Peter Schwier	Great Maplestead
Mr J G Smith	Henham
Peter Rowe	Bulmer
Mr & Mrs B Howe	CO10

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