
# NOISE ACTION PLAN 2019-2023

## SUPPLEMENTARY INFORMATION

stanstedairport.com

MAG London Stansted Airport

# CONTENTS






MAG
London Stansted
Airport
swissport

# GLOSSARY OF TERMS

| | |
|---|---|
| **AAL** | Above Aerodrome level |
| **A-CDM** | Airport Collaborative Decision Making |
| **ACP** | Airspace Change Proposal. This process is regulated under CAP1616 |
| **AIP** | Aeronautical Information Publication |
| **ANMAC** | Aircraft Noise Management 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 |
| **ANMAC TWG** | A subcommittee that provides technical information to ANMAC |
| **ANOMS** | Airport Noise Operations Monitoring System, Stansted Airport's NTK system |
| **APF** | Aviation Policy Framework |
| **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 |
| **CAA** | Civil Aviation Authority |
| **CCO** | Continuous Climb Operation |
| **CDA / CDO** | Continuous Descent Approach / Continuous Descent Operation |
| **DAP** | Directorate of Airspace Policy. The CAAs Airspace Regulator |
| **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 |
| **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 |
| **EIG** | Environmental Issues Group – sub group of the Stansted Airport Consultative Committee |
| **END** | Environment Noise Directive |
| **EPNdB** | Effective Perceived Noise measured in Decibels |
| **ERCD** | Environmental Research and Consultancy Department of the Civil Aviation Authority |
| **FEGP** | Fixed Electrical Ground Power |
| **FEU** | Flight Evaluation Unit |
| **FOC** | Flight Operations Committee |
| **GBAS** | Ground Based Augmentation System |
| **GPU** | Ground Power Unit |
| **ICAO** | International Civil Aviation Organisation |
| **ICCAN** | Independent Commission on Civil Aviation Noise |
| **ILS** | Instrument Landing System – London Stansted has a Category 3B system at each end of the runway allowing equipped aircraft to land in lower visibility |
| **LAeq 16-hour** | The A-weighted average sound level over the 16-hour period of 07:00 to 23:00 |
| **Lday** | The A-weighted average sound level over the 12-hour day period of 07:00 to 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 |
| **LAeq** | Equivalent sound level of aircraft noise in dB(A), 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 to 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 19:00 to 23:00 hours. |

| | |
|---|---|
| **Lmax** | Maximum A-weighted sound level |
| **Lnight** | The A-weighted average sound level over the 8-hour night period of 23:00 to 07:00 hours. |
| **LP/LD** | Low Power / Low Drag |
| **LTMA** | London Terminal Manoeuvring Area |
| **LOAEL** | Lowest observed adverse effect level (in this plan this relates to aircraft noise). This is the level above which adverse effects on health and quality of life can be detected |
| **MAG** | Manchester Airports Group |
| **NAP** | Noise Action Plan |
| **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 |
| **NM** | Nautical Mile |
| **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 |
| **PBN** | Performance Based Navigation |
| **QC** | Quota Count – the basis of the London airports Night Restrictions regime |
| **RNP1** | Required Navigational Performance of 1 Nautical Mile |
| **SEL** | Sound Exposure Level. The level generated by a single aircraft at the monitoring point. This is 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 |
| **SOAEL** | The Significant Observed Adverse Effect Level. This is the level above which significant adverse effects on health and quality of life occur |
| **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 |
| **UDC** | Uttlesford District Council |
| **VFR** | Visual Flight Rules |


MAG
London Stansted
Airport
jet2.com
Friendly Low Fares
jet2
Jet2 Reus
HW

# APPENDIX A

## DETAILS OF PREVIOUS NOISE ACTION PLAN CONSULTATIONS

## FIRST NOISE ACTION PLAN 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 55dB(A) $L_{den}$ noise contour around the Airport
- Letters were sent to 31 noise sensitive buildings within the 55dB(A) $L_{den}$ 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):

| 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 |

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

## SECOND ROUND CONSULTATION

As recommended by the Government, we presented our revised Noise Action Plan to our Airport Consultative Committee though the EIG as the plan was only two years old.

# APPENDIX B

## CONSULTATION QUESTIONNAIRE

Please see the Draft Noise Action Plan Consultation 2018 questionnaire online.

If you have any further queries about this questionnaire or consultation please contacts us:
Email: **noiseactionplanSTN@stanstedairport.com**

To return the questionnaire please use one of the following:
Email: **noiseactionplanSTN@stanstedairport.com**

Post:
Community Relations
London Stansted Airport
Enterprise House
Bassingbourn Road
Stansted CM24 1QW

# DRAFT NOISE ACTION PLAN CONSULTATION 2018 QUESTIONNAIRE

We would appreciate it if you could take a few minutes to complete this questionnaire, giving us your views on our Draft Noise Action Plan

Name

Organisation (if applicable):

Address:

Postcode: Email:

Telephone:

1. Are there further actions we should be taking to control the noise impact for those living in the highest noise contours? In which area(s) do we need to take any further action?

| | | | |
|---|---|---|---|
| a. Departing aircraft | Yes ☐ | No ☐ | Unsure ☐ |
| b. Arriving aircraft | Yes ☐ | No ☐ | Unsure ☐ |
| c. Night Noise | Yes ☐ | No ☐ | Unsure ☐ |
| d. Mitigation schemes | Yes ☐ | No ☐ | Unsure ☐ |
| e. Monitoring and reporting | Yes ☐ | No ☐ | Unsure ☐ |
| f. Communication | Yes ☐ | No ☐ | Unsure ☐ |

FOR ALL AREAS WHERE YOU THINK FURTHER ACTION IS REQUIRED
Why do you think further action is required in this particular area?

What further action would you like us to consider?



2. Generally, are there any further actions we should be taking to control the noise Impact from departing/arriving aircraft? In which area(s) do we need to take any further action?

| | | | |
|---|---|---|---|
| a. Departing aircraft | Yes ☐ | No ☐ | Unsure ☐ |
| b. Arriving aircraft | Yes ☐ | No ☐ | Unsure ☐ |
| c. Night Noise | Yes ☐ | No ☐ | Unsure ☐ |
| d. Mitigation schemes | Yes ☐ | No ☐ | Unsure ☐ |
| e. Monitoring and reporting | Yes ☐ | No ☐ | Unsure ☐ |
| f. Communication | Yes ☐ | No ☐ | Unsure ☐ |

FOR ALL AREAS WHERE YOU THINK FURTHER ACTION IS REQUIRED
Why do you think further action is required in this particular area?

What further action would you like us to consider?

3. To what extent do you agree that this Draft Noise Action Plan provides a suitable framework for the ongoing management of aircraft noise?

Agree strongly ☐ Agree ☐ Neither agree nor disagree ☐ Do not agree at all ☐

Why is that?

4. Do you have any other comments or suggestions on this Draft Noise Action Plan? Please give details

☐ Please tick this box, If you do not wish to be Identified in our schedule of responses.

☐ Please tick this box, If you would like us to acknowledge receipt of your responses.

Thank you for taking part in the London Stansted Airport Draft Noise Action Plan consultation

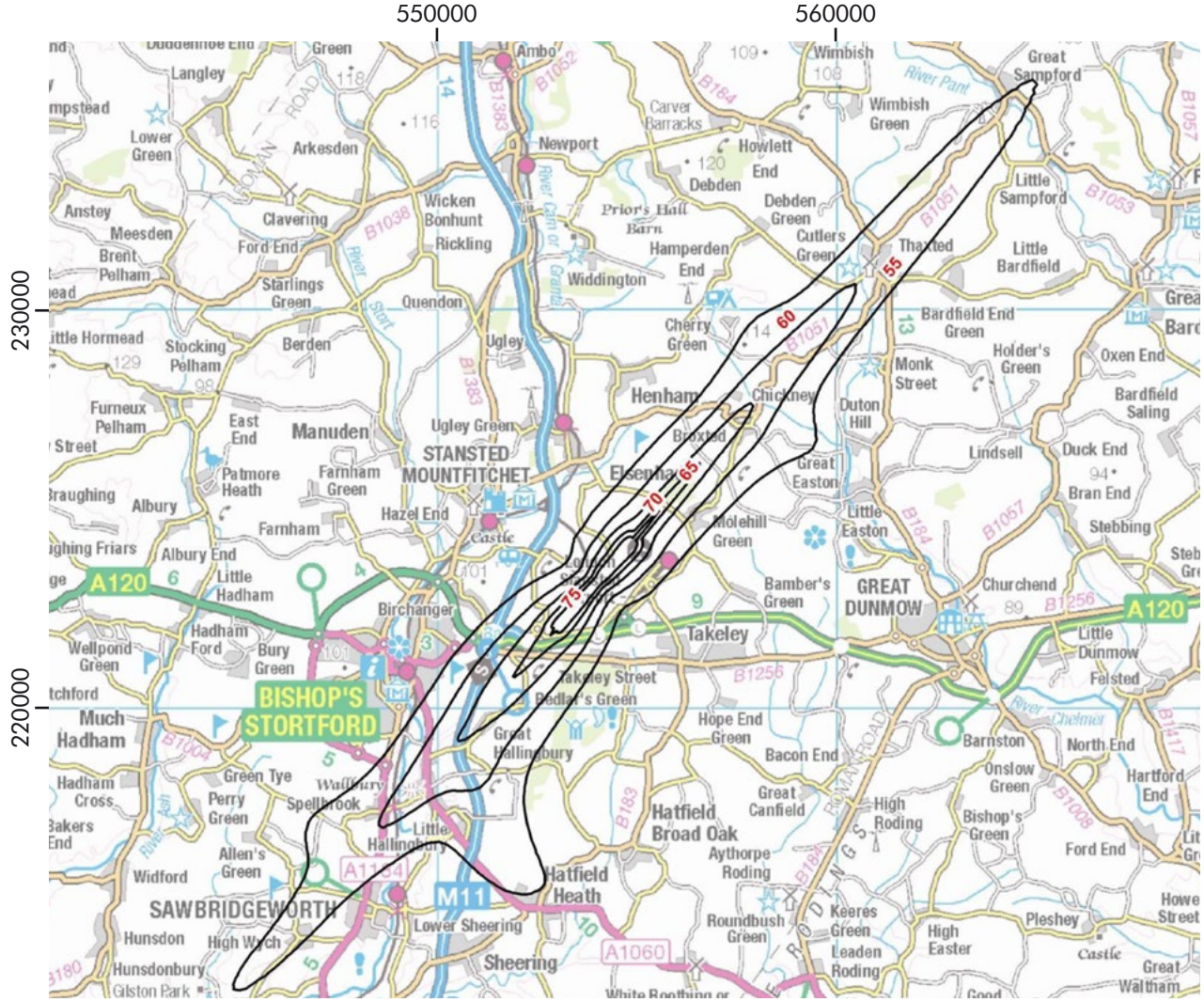
stanstedairport.com

# APPENDIX C

## ENVIRONMENT NOISE REGULATIONS
## DEFRA NOISE MAPS – 2016


MAG
London Stansted
Airport

## WEIGHTED 24-HOUR CONTOUR ($L_{den}$)




Department for Environment Food & Rural Affairs

**The Environmental Noise (England) Regulations 2006 (as amended)**

London Stansted Airport (EGCC)

$L_{den}$

Year – 2016

– 60 – Noise level Contour (dB)

Agglomeration

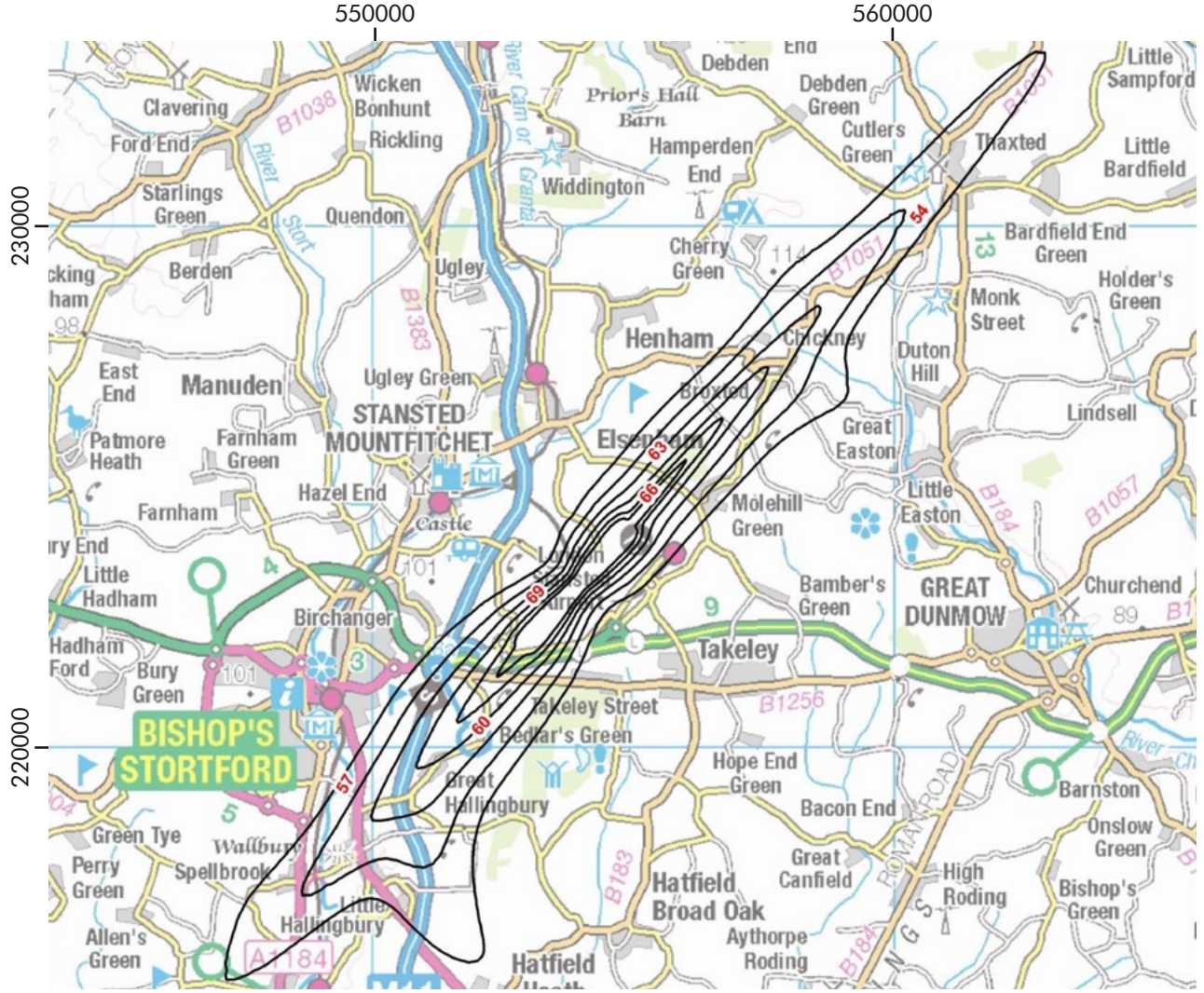
0 1.25 2.5 5

Km

## WEIGHTED 24-HOUR CONTOUR ($L_{den}$)

| NOISE LEVEL (DB) | 2006 DATA | | | 2011 DATA | | | 2016 DATA | | | CHANGES FROM PREVIOUS YEARS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24-hour $L_{den}$ | | | | | | | | | | |
| | Area of Contour ($km^2$) | Number of Homes | Number of People | Area of Contour ($km^2$) | Number of Homes | Number of People | Area of Contour ($km^2$) | Number of Homes | Number of People | Number of people in 2016 vs 2011 | Number of people in 2016 vs 2006 |
| 55 or more | 73.3 | 3850 | 9400 | 57.5 | 2950 | 7400 | 64.4 | 3650 | 8700 | 1300 | -700 |
| 60 or more | 28.4 | 850 | 2100 | 21.3 | 500 | 1400 | 23.1 | 650 | 1600 | 200 | -500 |
| 65 or more | 10.1 | 150 | 400 | 7.4 | 100 | 300 | 7.9 | 100 | 300 | 0 | -100 |
| 70 or more | 3.5 | <50 | <100 | 2.5 | <50 | <100 | 2.6 | <50 | <100 | 0 | 0 |
| 75 or more | 1.2 | 0 | 0 | 1.0 | 0 | 0 | 1.0 | 0 | 0 | 0 | 0 |

## DAYTIME (07:00 TO 19:00) CONTOUR ($L_{day}$)




Department for Environment Food & Rural Affairs

**The Environmental Noise (England) Regulations 2006 (as amended)**

London Stansted Airport (EGCC)

$L_{day}$

Year – 2016

– 60 – Noise level Contour (dB)

Agglomeration

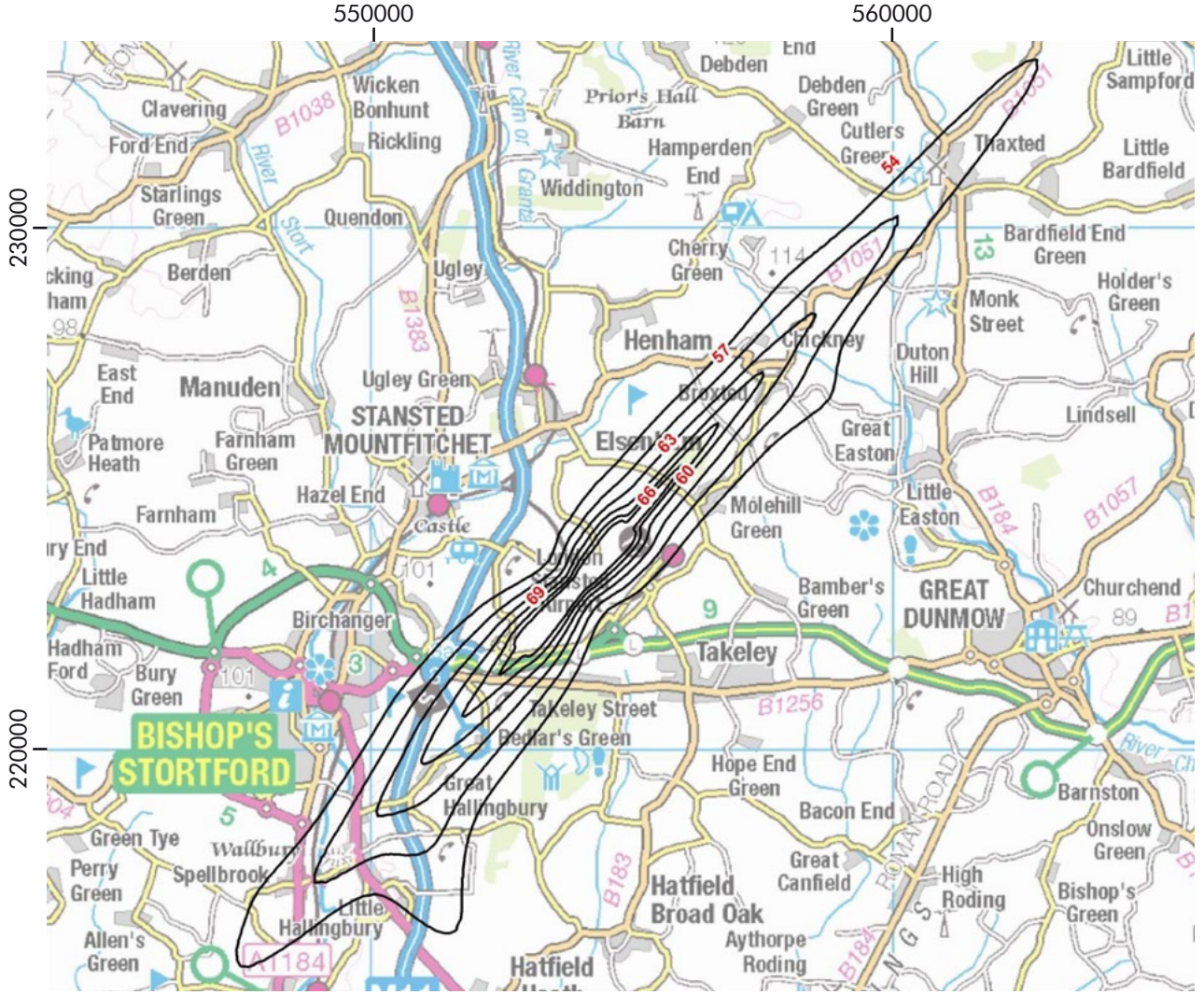
0 1 2 4
Km

## DAYTIME (07:00 TO 19:00) CONTOUR ($L_{day}$)

| NOISE LEVEL (DB) | 2006 DATA | | | 2011 DATA | | | 2016 DATA | | | CHANGES FROM PREVIOUS YEARS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Daytime (07:00 to 19:00) $L_{day}$ | | | | | | | | | | |
| | Area of Contour (km²) | Number of Homes | Number of People | Area of Contour (km²) | Number of Homes | Number of People | Area of Contour (km²) | Number of Homes | Number of People | Number of people in 2016 vs 2011 | Number of people in 2016 vs 2006 |
| 54 or more | 50.4 | 2300 | 5800 | 36.8 | 1800 | 4500 | 43.5 | 2250 | 5300 | 800 | -500 |
| 57 or more | 28.4 | 750 | 1900 | 19.7 | 500 | 1300 | 23.2 | 650 | 1600 | 300 | -300 |
| 60 or more | 15.6 | 350 | 900 | 10.2 | 150 | 400 | 12.4 | 250 | 600 | 200 | -300 |
| 63 or more | 8.2 | 100 | 300 | 5.4 | <50 | 100 | 6.5 | 50 | 200 | 100 | -100 |
| 66 or more | 4.3 | <50 | <100 | 2.7 | <50 | <100 | 3.3 | <50 | <100 | 0 | 0 |
| 69 or more | 2.2 | <50 | <100 | 1.5 | 0 | 0 | 1.7 | 0 | 0 | 0 | -100 |

Source: DEFRA Noise Mapping data 2006, 2011 and 2016

## EVENING TIME CONTOUR ($L_{evening}$)




Department for Environment Food & Rural Affairs

**The Environmental Noise (England) Regulations 2006 (as amended)**

London Stansted Airport (EGCC)

$L_{evening}$

Year – 2016

– 60 – Noise level Contour (dB)

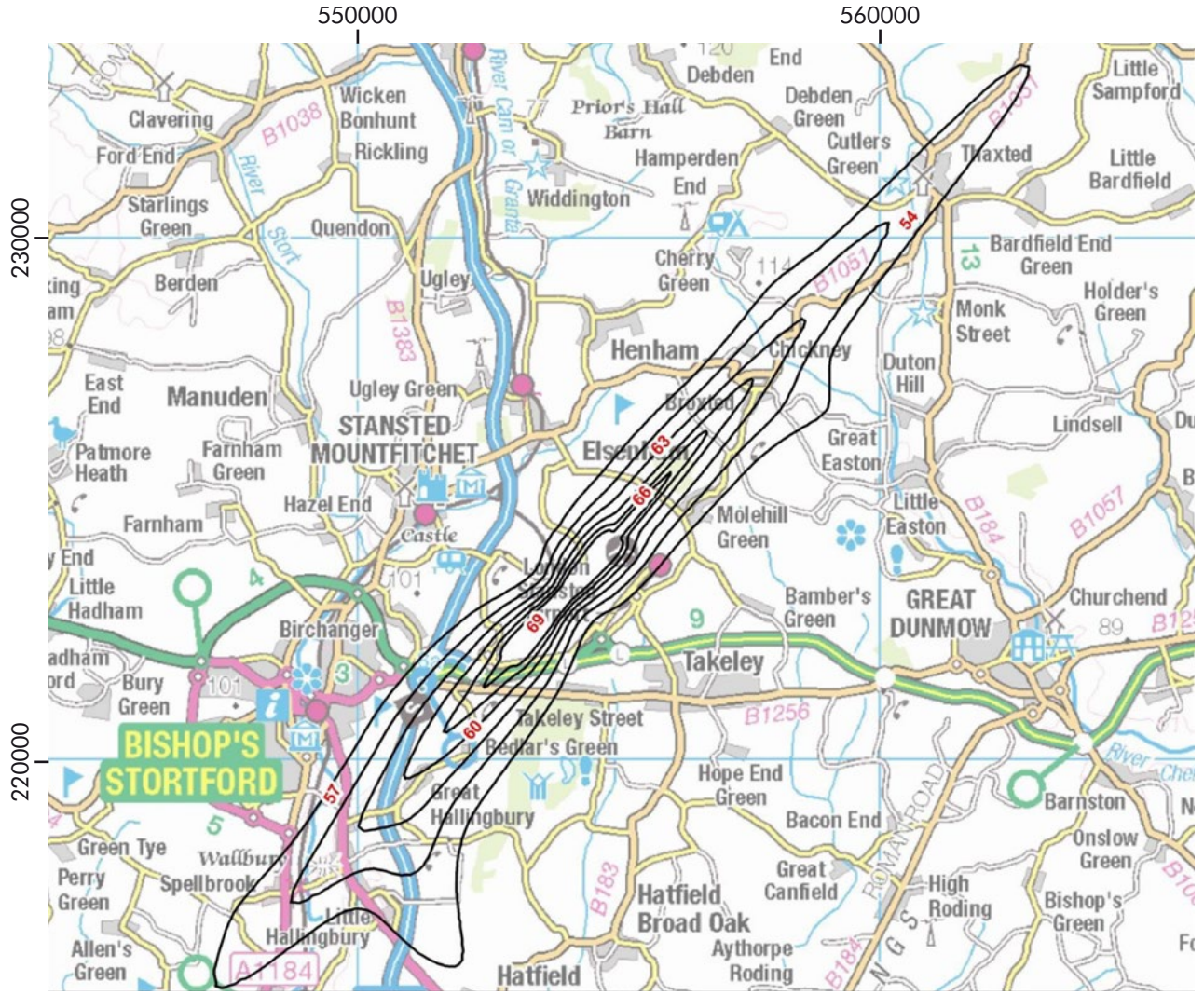
Agglomeration

0 1 2 4
Km

## EVENING TIME CONTOUR ($L_{evening}$)

| NOISE LEVEL (DB) | 2006 DATA | | | 2011 DATA | | | 2016 DATA | | | CHANGES FROM PREVIOUS YEARS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Evening (19:00 to 23:00) $L_{evening}$ | | | | | | | | | | |
| | Area of Contour ($km^2$) | Number of Homes | Number of People | Area of Contour ($km^2$) | Number of Homes | Number of People | Area of Contour ($km^2$) | Number of Homes | Number of People | Number of people in 2016 vs 2011 | Number of people in 2016 vs 2006 |
| 54 or more | 48.6 | 2200 | 5300 | 35.9 | 1700 | 4100 | 40.2 | 2100 | 4900 | 800 | -400 |
| 57 or more | 27.3 | 700 | 1800 | 19.3 | 450 | 1200 | 21.6 | 550 | 1400 | 200 | -400 |
| 60 or more | 14.9 | 300 | 800 | 9.8 | 150 | 300 | 11.5 | 200 | 500 | 200 | -300 |
| 63 or more | 7.8 | 100 | 300 | 5.2 | <50 | <100 | 6.0 | 50 | 100 | 0 | -200 |
| 66 or more | 4.1 | <50 | <100 | 2.7 | <50 | <100 | 3.1 | <50 | <100 | 0 | 0 |
| 69 or more | 2.1 | <50 | <100 | 1.5 | 0 | 0 | 1.6 | 0 | 0 | 0 | -100 |

## 16-HOUR DAY CONTOUR ($L_{Aeq}$)




Department for Environment Food & Rural Affairs

**The Environmental Noise (England) Regulations 2006 (as amended)**

London Stansted Airport (EGCC)

$L_{Aeq, 16}$

Year – 2016

– 60 – Noise level Contour (dB)

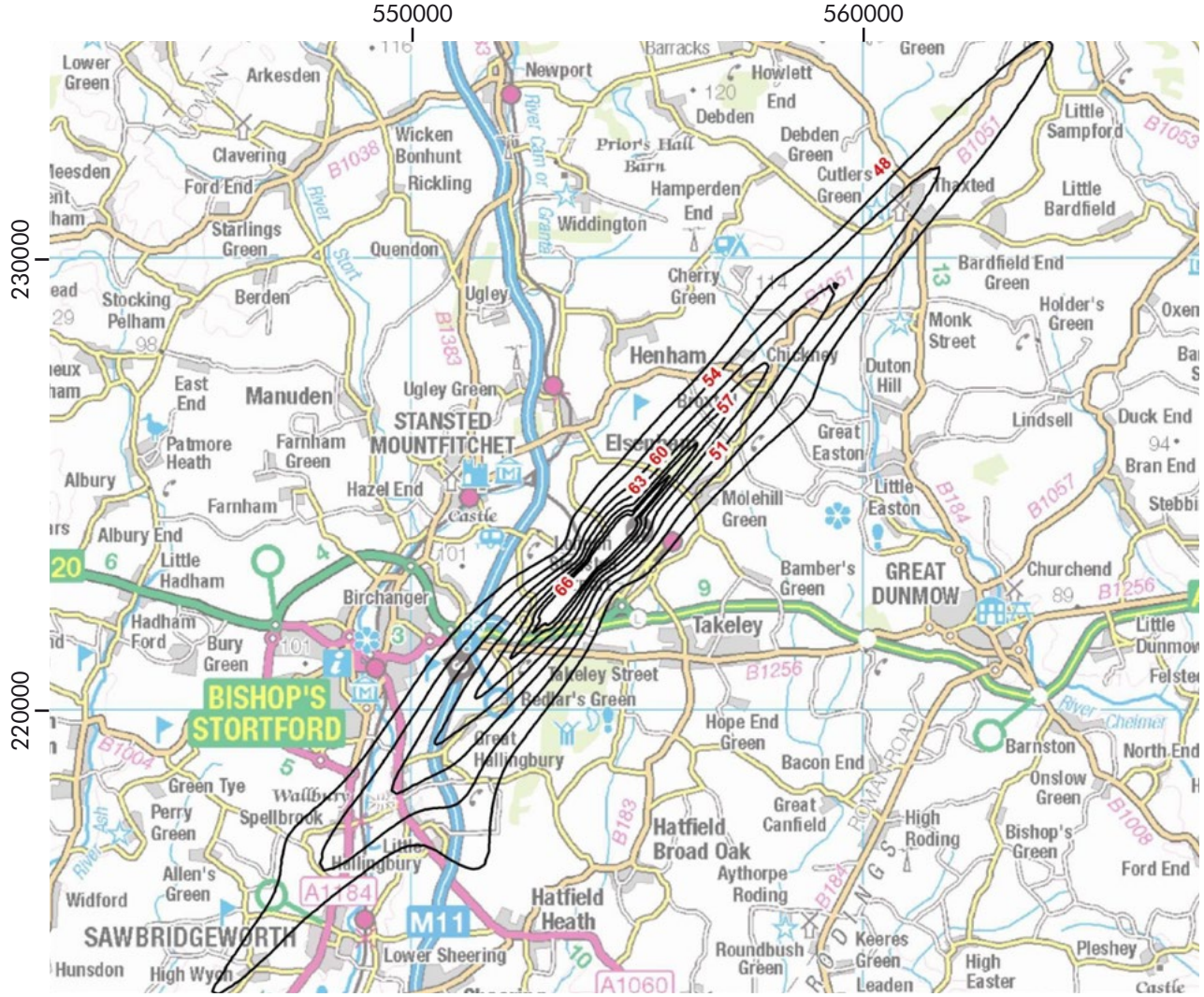
Agglomeration

0 1 2 4
Km

## 16-HOUR DAY CONTOUR ($L_{Aeq}$)

| NOISE LEVEL (DB) | 2006 DATA | | | 2011 DATA | | | 2016 DATA | | | CHANGES FROM PREVIOUS YEARS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16-hour day (07:00 to 23:00) $L_{Aeq}$ | | | | | | | | | | |
| | Area of Contour ($km^2$) | Number of Homes | Number of People | Area of Contour ($km^2$) | Number of Homes | Number of People | Area of Contour ($km^2$) | Number of Homes | Number of People | Number of people in 2016 vs 2011 | Number of people in 2016 vs 2006 |
| 54 or more | 50.0 | 2350 | 5700 | 36.5 | 1800 | 4400 | 42.7 | 2200 | 5200 | 800 | -500 |
| 57 or more | 28.2 | 750 | 1900 | 19.6 | 500 | 1300 | 22.8 | 600 | 1500 | 200 | -400 |
| 60 or more | 15.4 | 350 | 900 | 10.0 | 150 | 400 | 12.2 | 250 | 600 | 200 | -300 |
| 63 or more | 8.1 | 100 | 300 | 5.4 | <50 | 100 | 6.3 | 50 | 200 | 100 | -100 |
| 66 or more | 4.2 | <50 | <100 | 2.7 | <50 | <100 | 3.2 | <50 | <100 | 0 | 0 |
| 69 or more | 2.2 | <50 | <100 | 1.5 | 0 | 0 | 1.7 | 0 | 0 | 0 | -100 |

## NIGHT TIME CONTOUR ($L_{night}$)




Department for Environment Food & Rural Affairs

**The Environmental Noise (England) Regulations 2006 (as amended)**

London Stansted Airport (EGCC)

$L_{night}$

Year – 2016

– 60 – Noise level Contour (dB)

Agglomeration

0 1 2 4
Km

## NIGHT TIME CONTOUR ($L_{night}$)

| NOISE LEVEL (DB) | 2006 DATA | | | 2011 DATA | | | 2016 DATA | | | CHANGES FROM PREVIOUS YEARS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Night time (23:00 to 07:00) $L_{night}$ | | | | | | | | | | |
| | Area of Contour ($km^2$) | Number of Homes | Number of People | Area of Contour ($km^2$) | Number of Homes | Number of People | Area of Contour ($km^2$) | Number of Homes | Number of People | Number of people in 2016 vs 2011 | Number of people in 2016 vs 2006 |
| 48 or more | 57.5 | 2800 | 6800 | 48.0 | 2400 | 5900 | 50.2 | 2700 | 6300 | 400 | -500 |
| 51 or more | 32.8 | 1300 | 3100 | 26.6 | 700 | 1800 | 27.5 | 1300 | 3000 | 1200 | -100 |
| 54 or more | 18.1 | 450 | 1200 | 14.5 | 300 | 700 | 14.5 | 350 | 800 | 100 | -400 |
| 57 or more | 9.6 | 150 | 300 | 7.8 | 100 | 300 | 7.5 | 100 | 200 | -100 | -100 |
| 60 or more | 5.0 | <50 | <100 | 4.0 | <50 | <100 | 3.9 | <50 | <100 | 0 | 0 |
| 63 or more | 2.6 | <50 | <100 | 2.1 | 0 | 0 | 2.0 | 0 | 0 | 0 | -100 |
| 66 or more | 1.4 | 0 | 0 | 1.2 | 0 | 0 | 1.1 | 0 | 0 | 0 | 0 |

# APPENDIX D

## PERFORMANCE AGAINST 2013-2018 NOISE ACTION PLAN

The table below shows our performance against the 2013-2018 Noise Action plan. Performance is rated green for complete, amber for some progress made and red for limited or no progress made.

## PERFORMANCE RATING KEY

- Target has been met
- Progress made but target not fully met
- Limited progress made

## DEPARTING AIRCRAFT

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| 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 to 23:30). | In 2017 the overall airport track keeping was 99.43%. Each SID was measured individually, with all above 95%. Though still more than 95%, the lowest performing route was the 04 Detling, but this was only used infrequently (under 450 times that year). Of the other 5 departure routes, one was over 97% and the other 4 in excess of 99% compliant. Data is shared monthly with our airline partners and we proactively pursue instances of poor performance with individual operators. | |
| 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 and review in 2016. | This action has been fully implemented and we will review the fining levels further during the next Noise Action Plan. | |
| 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. | This action has been fully implemented and we will review the fining levels further during the next Noise Action Plan. | |

## DEPARTING AIRCRAFT continued

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| 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. | This action has been fully implemented and data is reported quarterly to our NTKWG in our FEU report. This report is also published on the airport website. | |
| 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. | The ANMAC Technical Working Group (TWG) had been tasked on behalf of the DfT to investigate departure noise mitigation, including NADP. Stansted has been fully engaged in this process and the report will be published soon as a formal CAA CAP document. | |
| We will work with NATS and the CAA to establish Service Level Agreements to respond to suggestions for improved flight procedures. | During our projects for introducing PBN and revised helicopter routing, NATS, the CAA, as well as Stansted Airport, adhered to defined timescales for implementation. The PBN project was part of the old (CAP725) airspace change process and the PBN replication of conventional SIDs guidance. | |
| 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. | This action has been fully implemented and data is reported quarterly to our NTKWG in our FEU report. This report is also published on the airport website. | |
| 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. | This action has been fully implemented and data is reported quarterly to our NTKWG in our FEU report. This report is also published on the airport website. | |

## DEPARTING AIRCRAFT continued

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| 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)). | This action has been fully implemented and data is reported quarterly to our NTKWG in our FEU report. This report is also published on the airport website. | |
| We will review Stansted's departure noise limits through the Government advisory committee, ANMAC. | The ANMAC TWG had been tasked on behalf of the DfT to investigate departure noise mitigation, including departure noise limits. Stansted has been fully engaged in this process and the report will soon be published as a CAA CAP document. We believe there is scope to reduce our day and night departure noise limits and will commit to this in our revised Noise Action Plan. | |

## ARRIVING AIRCRAFT

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| 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. | This action continues to be fully implemented and data is reported quarterly to our NTKWG in our FEU report. This report is also published on the airport website. | |
| 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. | Reports are provided to NATS on a monthly basis detailing performance against the published day time AIP joining point criteria. | |
| We will work with local communities to influence NATS to introduce Continuous Descent Approaches to Runway 04. | This can only be fully achieved through a redesign of airspace, removing the constraints that prevent CDA to runway 04. This has featured as the highest priority in our requirements of the LAMP team and this view has been reinforced by our NTKWG. | |

## ARRIVING AIRCRAFT continued

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will continue to work with Airlines and NATS to encourage CDA's to Runway 04 where operationally feasible, especially during the night period. | CDA to runway 04 is monitored and reported to NATS monthly. The reporting is by arrival route and NATS have recently agreed to set a target of 65% for 04 CDAs during the core night period 23:30 to 06:00. | |
| We will report on our progress to achieve CDA's to Runway 04 through the Stansted Airport Consultative Committee (STACC). | Members of STACC / EIG attend the NTKWG and are updated on our progress. | |
| We will work with local communities and regulators to seek opportunities for minimum heights over particular sensitive areas near the Airport. | Where community concerns arise, we investigate the heights and noise of aircraft operations in that area using our NTK system. We work with NATS to highlight community concerns and affect change where we can and report our findings to NATS and our NTKWG. | |

## GROUND NOISE

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will review and update our APU usage strategy annually and implement any changes necessary. | This action continues to be fully implemented and enforced through our DNs. Our operational team proactively monitor APU usage. In 2015 we undertook a study into APU usage at the airport, which was shared with NTKWG, EIG and published on the airport website. | |
| We will continue to monitor adherence and review the effectiveness of our stringent ground noise operational controls, as detailed in our Directors Notices. | This action continues to be fully implemented and enforced through our DNs. Our operational team proactively monitor all aspects of ground noise through APU/GPU usage and engine testing of rotary and fixed wing aircraft. | |
| 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 two years afterwards. | Stand planning procedures are monitored on a 24/7 basis by our operational team to provide the most efficient option(s) for our operators reducing ground taxi and holding for stands where appropriate. | |

## GROUND NOISE continued

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will work with airlines and NATS to achieve 50% of arriving aircraft using reduced engine taxi-in procedures by 2015. | A recent survey of our main operators revealed that reduced engine taxi is predominantly used for runway 22 arrivals. There are operational restrictions for some airframes, especially with departure. Runway 22 arrivals account for over 70% of all arrivals and our operators are achieving near 100% compliance when on this runway. | |
| We will work with our Airlines to achieve 90% of all Aircraft Turnarounds using FEGP's rather than APU's by 2015. | In 2015 the airport undertook a study with our operators who utilise minimum ground time during a 'turnaround'. This study reveals that this target was met and is published on the airports website. | |

## NIGHT NOISE

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| 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. | This action has been fully implemented and we will review the fining levels further during the next five years. | |
| 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. | This action has been fully implemented and we will review the fining levels further during the next five years. The largest fine levied since the implementation of the tiered fining structure has been £5,000. | |

## NIGHT NOISE continued

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| 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. | Reports are provided to NATS on a monthly basis detailing performance against the published night time AIP joining point criteria. | |
| 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. | This action continues to be fully implemented and we provide weekly reporting to the DfT and quarterly reporting to the NTKWG and STACC. | |
| We will review Stansted's departure noise limits through the Government advisory committee, ANMAC. | The ANMAC TWG had been tasked on behalf of the DfT to investigate departure noise mitigation, including departure noise limits. Stansted has been fully engaged in this process and the report will soon be published as a CAA CAP document. We believe there is scope to lower our departure noise limits and are committed to this in our revised NAP. | |

## MITIGATION SCHEMES

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will continue to implement our Residential Noise Insulation Scheme in line with our current planning obligations. | This commitment has been maintained throughout this noise action plan. | |
| We will undertake a review and update our wake vortex policy | This commitment has been maintained throughout this noise action plan and a copy of our wake vortex policy can be found on the airport website. | |
| We will annually direct all money raised by noise and track infringements to the Stansted Airport Community Trust. | This commitment has been maintained throughout this noise action plan. | |

## MONITORING AND REPORTING

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will continue to record and investigate all complaints relating to aircraft operations and publish statistics in line with agreed complaints handling policy. | All complaints are recorded and investigated our NTK system. We publish an annual complaints analysis report on the airport website after sharing it with our NTKWG. | |
| From 2011 we will set service level response targets for the handling of complaints and enquiries and will report against these targets. | Initially targets were set, agreed and reported on through the NTKWG. We continue to monitor our complaint and enquiry response times. Recently, this has been negatively impacted due to the volume of enquiries received since the introduction of flight paths changes associated with LAMP Phase 1A. | |
| 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. | The airport undertakes a community monitoring exercise annually and the location is determined by the NTKWG. In recent years this has extended to 2 locations per year. The NTKWG has developed a plan for future years to focus monitoring on those areas that are more likely to experience changes as a result of airspace development. | |
| We will publish our progress against the Action Plan on an annual basis. | We publish details of initiatives undertaken and as part of this noise action plan in our annual company reports. | |

## POLICY AND PLANNING

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| 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. | The airport planning and safeguarding teams are fully engaged with the planning process, highlighting areas of new developments where we believe aircraft noise should be considered. | |
| We will commission forecast 57dB(A) $L_{eq}$ contours in line with our current planning regulations. | Forecast contours are produced and submitted to Uttlesford District Council annually. | |

## POLICY AND PLANNING continued

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will review the annual $L_{eq}$ contours as produced by the DfT with Uttlesford District Council and agree upon actions arising. | This is undertaken through our regular planning liaison. | |
| 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. | The CAA has legal duties to regard Areas of Outstanding Natural Beauty and is now clearly stated in the new CAP1616. | |

## CONTINUOUS IMPROVEMENT

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will continue to work with NATS and all stakeholders to implement new technologies as they become available, eg. Collaborative Decision Making (CDM). | The A-CDM project commenced in 2017 and we expect it to become fully operational in 2019. | |
| 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. | We have introduced PRNAV (specifically RNP1) to two of our departure routes so far. RNP1 exceeds the performance of RNAV and has proven very successful at London Stansted. | |
| We will consult with our airline partners during 2011 on the voluntary phase out of Chapter 3 high aircraft at Stansted Airport by 2015. | All operators were contacted with this request by letter. A number of responses were received. Although not completely phased out, the number of Chapter 3 High operations continues to decline. | |

## CONTINUOUS IMPROVEMENT continued

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will review the landing fee differential at least every three 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 | To encourage the operation of quieter aircraft, we have maintained a 40% differential between Chapter 4 or equivalent aircraft and Chapter 3 high as shown in our conditions of use. | |
| We will establish and report a Stansted Airline league table for noise and emissions based on compliance with noise abatement techniques by 2012. | A noise abatement compliance report has been developed and this is published annually on the airport website as well as sharing it with our operators through the Flight Operations Committee and with our NTKWG. The report is based on published AIP noise abatement procedures. | |
| 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. | A number of new aircraft already introduced at London Stansted such as the Boeing 747-8F, Boeing 787 Dreamliner and the Airbus NEO are considerably quieter than the aircraft they replaced. This trend will continue with the introduction of the new Boeing MAX series aircraft from 2019. | |
| 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. | Stansted Airport has worked with Sustainable Aviation in the development and publication of the Departures Code of Practice. | |
| We will annually review our communication material to ensure relevance and ease of understanding. | We review our material based on feedback received. | |

## CONTINUOUS IMPROVEMENT continued

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| 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. | This action was completed and our policy document(s) are maintained and updated to permit the required operational analysis . | |
| 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. | This action was completed within the stated timescale. | |
| We will request an annual audit of our noise management system. | Our Noise Management System is subject to an annual third party audit as part of our CSR reporting. Additionally, a periodic audit is undertaken as required as part of our certification to the environmental management standard ISO14001. | |
| We will continue to present issues and facilitate debate with ANMAC and will implement any initiatives as agreed through that forum. | London Stansted attends both ANMAC and ANMC TWG along with the technical representative from the airport consultative committee. | |

## EFFECTIVE COMMUNICATION

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will review annually the benefit of London Stansted hosting a combined noise and environment seminar. | Since the acquisition of London Stansted by MAG, London Stansted has now embraced the MAG Corporate Social Responsibility agenda. This now extends to holding a series of community outreach sessions each year which give local communities the opportunity to engage with the airport on environmental topics. | |
| We will continue to work through the NTKWG to facilitate solutions to local community noise concerns where feasible. | The NTKWG meets quarterly and the membership now includes Environmental Health Officers from our surrounding councils, NATS, DfT, STACC and community representation. Issues raised are discussed and addressed where feasible. | |

## EFFECTIVE COMMUNICATION continued

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will continue to seek feedback through the NTKWG on our noise management performance and take action to address any significant issues raised. | Through our quarterly NTKWG meetings we seek feedback into our reporting and analysis. This continues to evolve and quarterly reporting is adapted as required to facilitate greater transparency of the airport operation. | |
| We will seek to establish a "best practice" forum to facilitate the sharing of aircraft noise management techniques between other airports. | London Stansted is fully engaged with Sustainable Aviation and we see this as the most appropriate forum for sharing ideas and best practice. At the time of publication, MAG chairs Sustainable Aviation and its members include airports, engine and manufacturers, Air Traffic Control and academics with a special interest in aviation. | |
| We will continue to offer a range of contact options for complaints and enquires regarding aircraft noise including email, website and telephone contact options. | All contact methods have been maintained. | |
| We will continue to provide public access to flight track information (delayed by 24-hours) via WebTrak. | WebTrak continues to be made available and we will look to further improve this service during our next Noise Action Plan. | |
| 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 continue to invite local residents to the airport where we believe we can better explain the management of noise at the airport. | |
| We will undertake to review and amend as appropriate the Director's Notices relating to noise management. | Our Director's Notices are reviewed periodically and amended as appropriate. Usually there are three-four DN's issued per year including , night noise, engine testing, APU / FEGP usage, departure noise surcharges and track keeping surcharges. | |
| We will annually review our communication material to ensure relevance and ease of understanding, based on feedback from the NTKWG and other stakeholder events. | We review our material based on feedback received. | |

## EFFECTIVE COMMUNICATION continued

| ACTION | PROGRESS | PERFORMANCE RATING |
|---|---|---|
| We will work with our Consultative Committee to establish ideas for revised metrics to better describe noise impacts. | Feedback from the EIG suggested that the provision of improved metrics to better describe noise impacts. The EIG commissioned external specialists to report on what other metrics were available. This has resulted in the publication of 'Number Above' contours. | |
| We will engage with our local communities and consultative committee as the London Airspace Management Project evolves. | The first phase of the London Airspace Management Programme was approved by the CAA and implemented in February 2016. Future phases will develop over the next five years of the NAP cycle. The new airspace modernization process (CAP1616) requires engagement early in the airspace change proposal. Airspace modernisation has not been completed in the UK and is urgently needed to take advantage of environmental benefits, reduce delays and improve operational environmental performance. | |

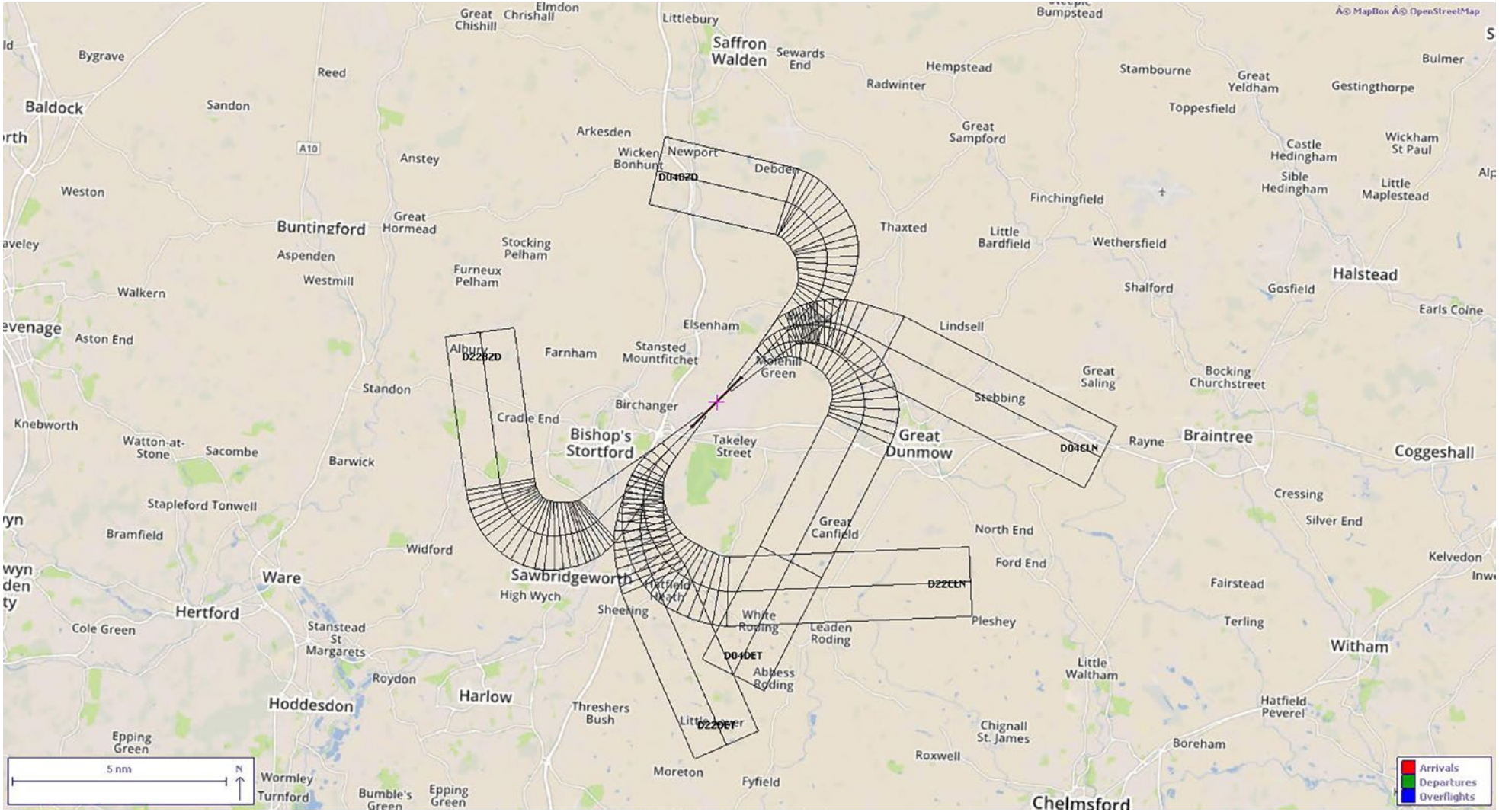
## EFFECTIVE COMMUNICATION continued

| REFERENCE NUMBER | KEY PERFORMANCE INDICATOR | 2006 | 2011 | 2016 |
|---|---|---|---|---|
| KP1 | Percentage of Chapter 4 (or equivalent) Aircraft | 75% | 94% | 97% |
| KP2 | Population inside the 55dB(A) $L_{den}$ contour | 9400 | 7400 | 8700 |
| KP3 | Population inside the 48dB $L_{night}$ contour | 6800 | 5900 | 6300 |
| KP4 | Area inside the 57dB $L_{eq}$16-hour daytime summer contour to not exceed 33.9 ($km^2$) | 28.2 | 21.2 | 24.8 |
| KP5 | Number of infringements of the Daytime departure noise limit | 9 | 2 | 1 |
| KP6 | Number of infringements of the Night time departure noise limit | 24 | 22 | 0 |
| KP7 | Percentage of aircraft achieving a CDA (24-hour period) on Runway 22 | 83% | 94% | 94% |
| KP8 | Percentage of aircraft on track (all routes) | 98% | 99% | 99% |
| KP9 | Number of individuals making noise related complaints | 2294 | 368 | 670 |
| KP10 | Percent of noise related enquiries responded to within 8 working days | N/A | 87% | 37%* |

* In 2016 we saw a significant increase in the enquiries to the airport relating to the introduction of changes in the way flights were used as part of the first phase of LAMP. As a result, our response to these enquiries was temporarily impacted. We now have additional resource in place, performance will be closely monitored and we expect this to improve.

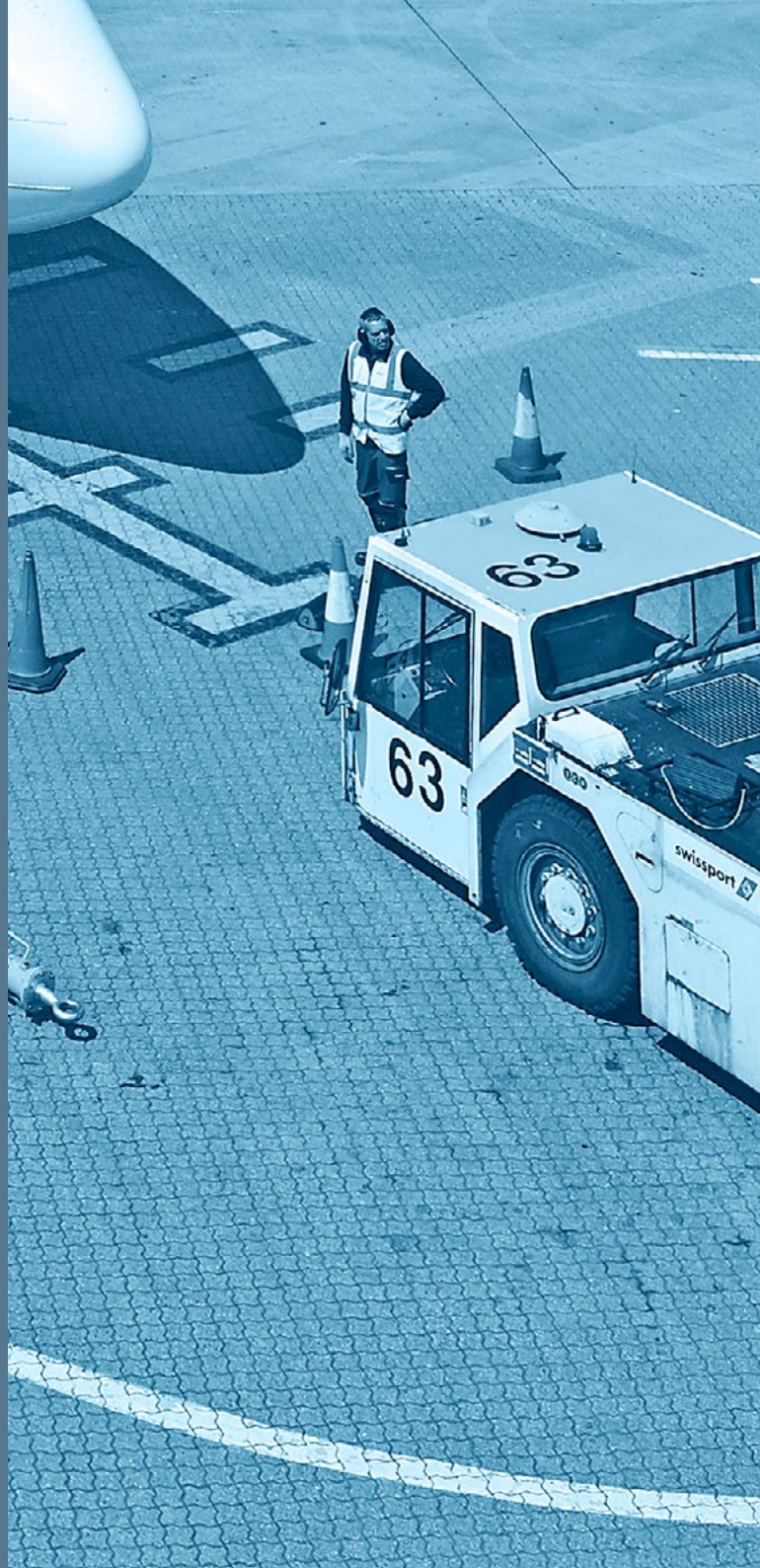
# APPENDIX E

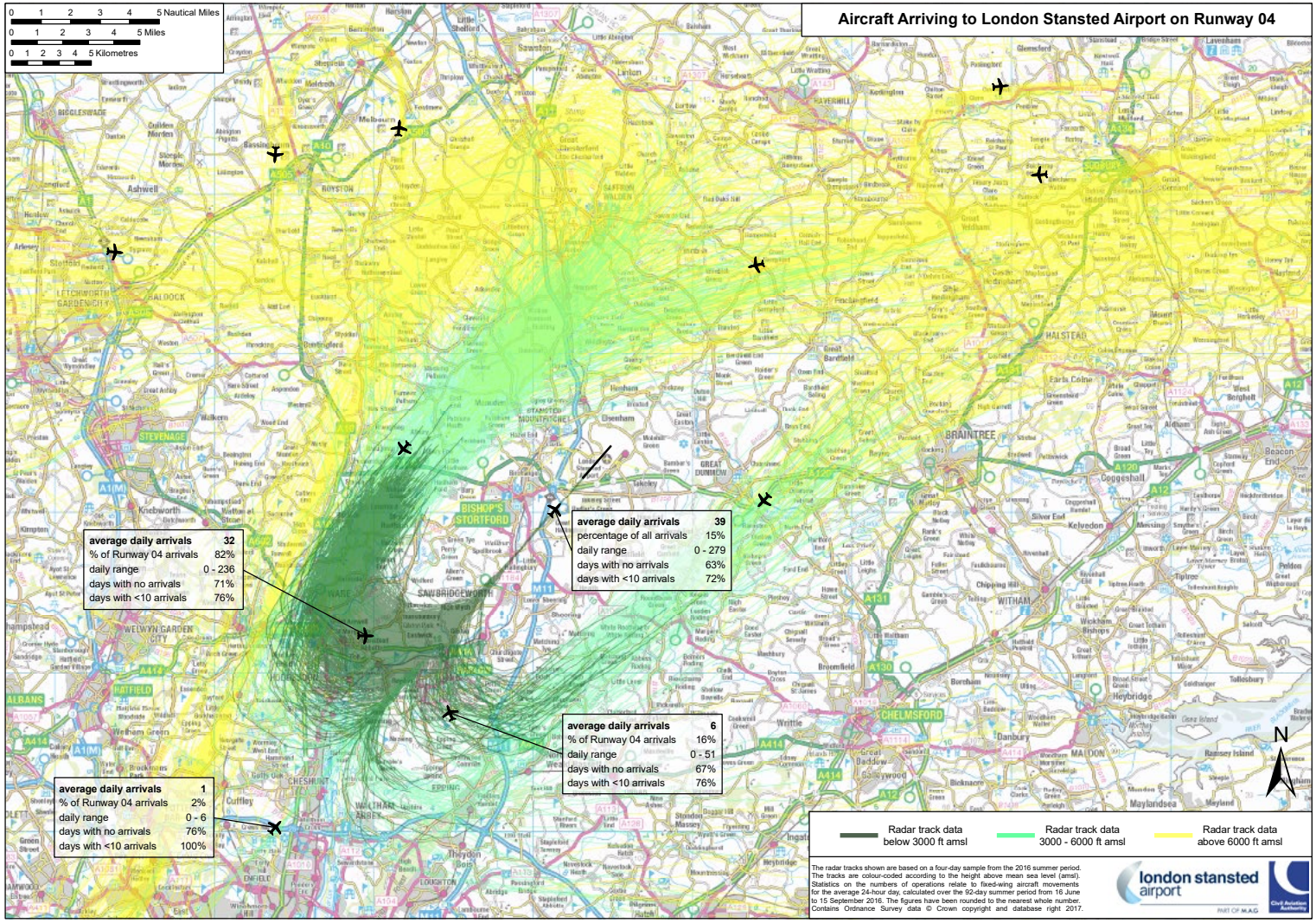
## NOISE PREFERENTIAL ROUTE MAP FOR DEPARTING AIRCRAFT

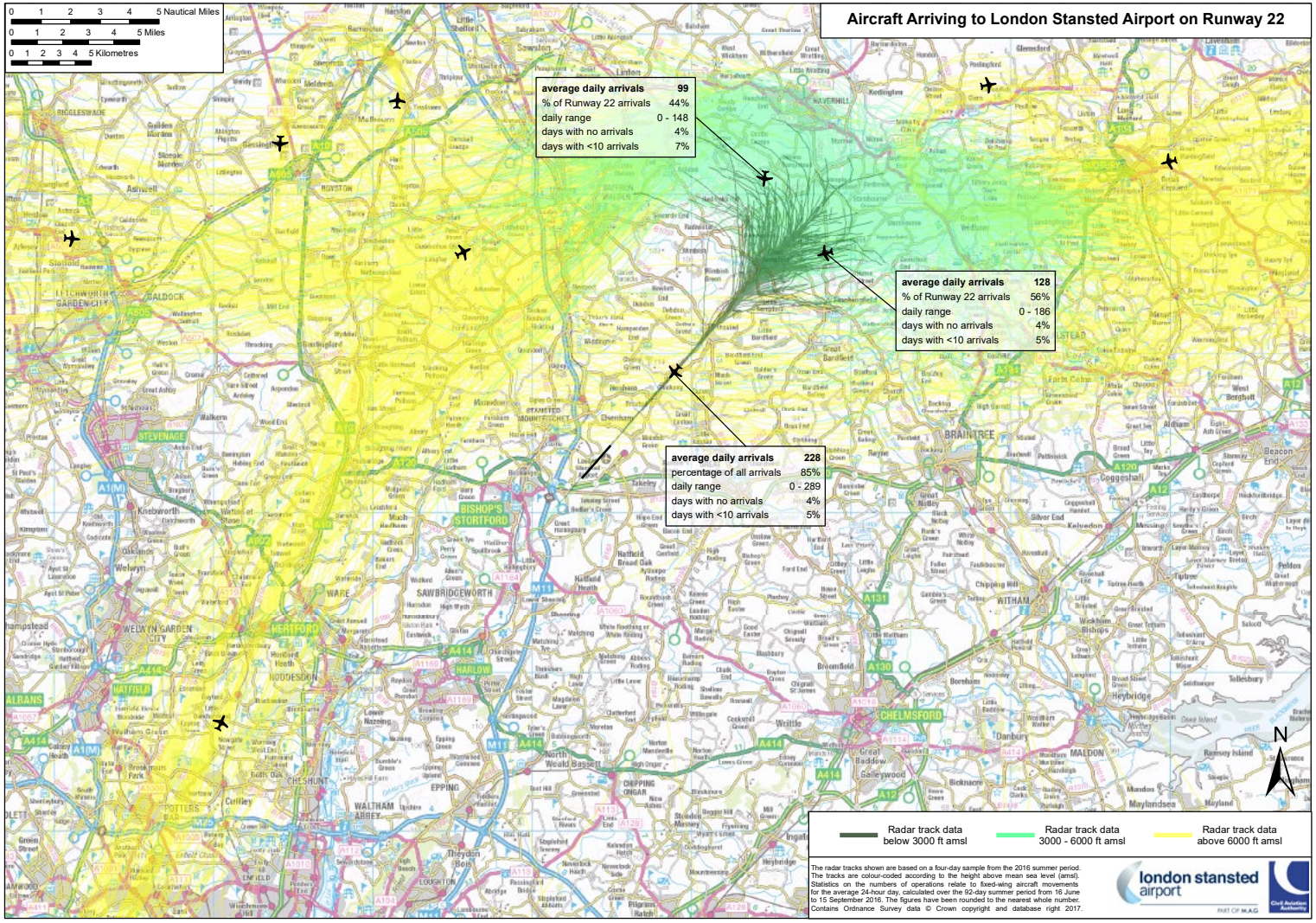

Great Chishill
Elmdon
Chrishall
Littlebury
Saffron Walden
Sewards End
Bumpstead
Bygrave
Reed
Hempstead
Radwinter
Stambourne
Great Yeldham
Bulmer
Gestingthorpe
Baldock
Sandon
Toppesfield
Arkesden
Great Sampford
Castle Hedingham
Wickham St Paul
A10
Anstey
Wicken Bonhunt
Newport
Debden
D040ZD
Sible Hedingham
Little Maplestead
Weston
Finchingfield
Buntingford
Great Hormead
Thaxted
Little Bardfield
Wethersfield
Stocking Pelham
Aspenden
Furneux Pelham
Westmill
Halstead
Walkern
Shalford
Gosfield
Earls Colne
Aston End
Elsenham
Lindsell
Albury
D22BZD
Farnham
Stansted Mountfitchet
Molehill Green
Great Saling
Bocking Churchstreet
Standon
Stebbing
Birchanger
Knebworth
Cradle End
Bishop's Stortford
Takeley Street
Great Dunmow
D041LN
Rayne
Braintree
Watton-at-Stone
Sacombe
Barwick
Coggeshall
Cressing
Stapleford Tonwell
Silver End
Bramfield
Great Canfield
North End
Widford
Ford End
Kelvedon
Ware
Sawbridgeworth
D22CLN
Fairstead
High Wych
Hertford
Sheering
White Roding
Pleshey
Terling
Cole Green
Leaden Roding
Stanstead St Margarets
D04DET
Witham
Abbess Roding
Roydon
Little Waltham
Harlow
Hatfield Peverel
Hoddesdon
Threshers Bush
Little Laver
D22DET
Chignall St. James
Epping Green
Boreham
Roxwell
Moreton
Fyfield
Wormley
Turnford
Bumble's Green
Epping Green
Chelmsford
5 nm
N
Arrivals
Departures
Overflights

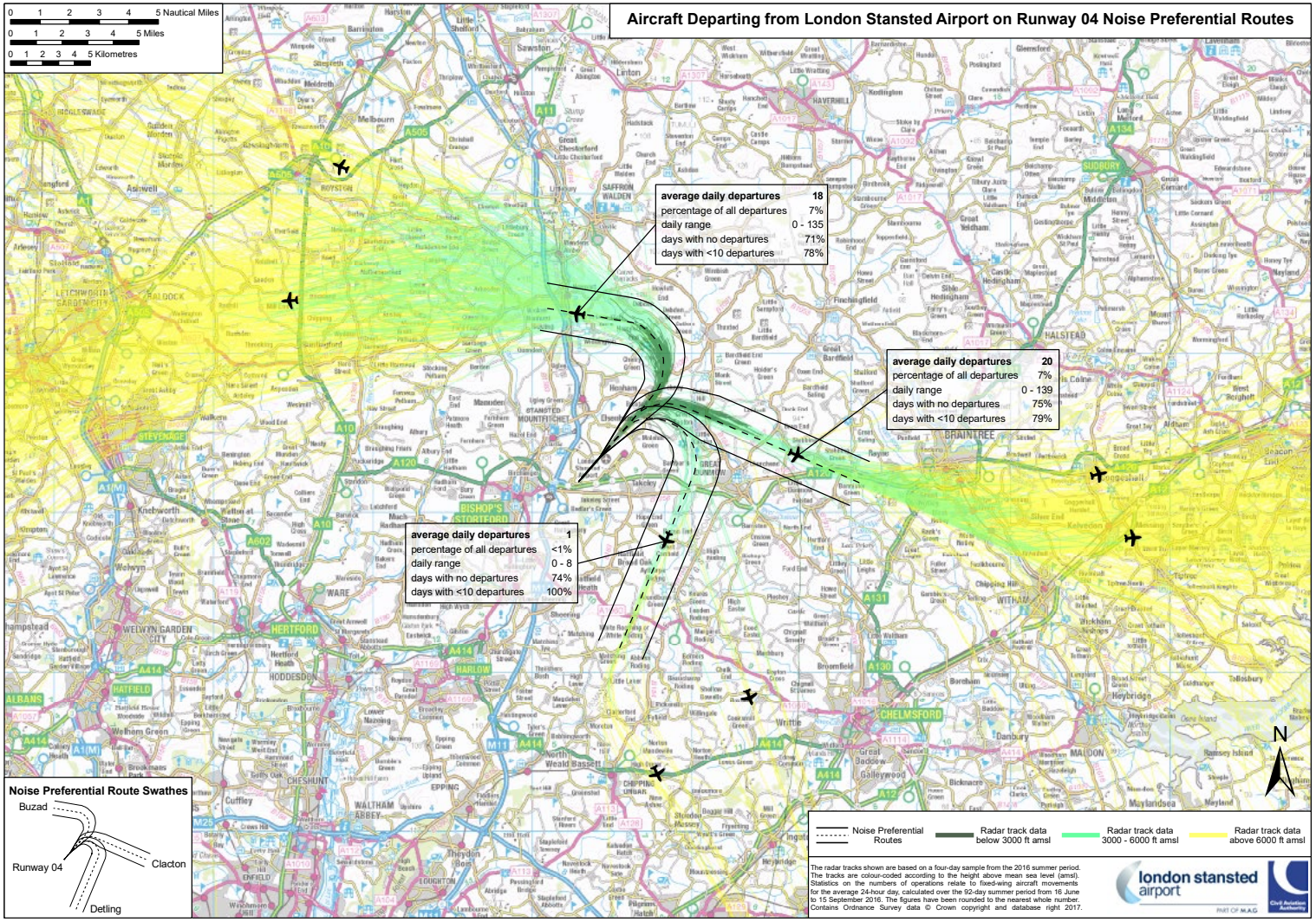
# APPENDIX F

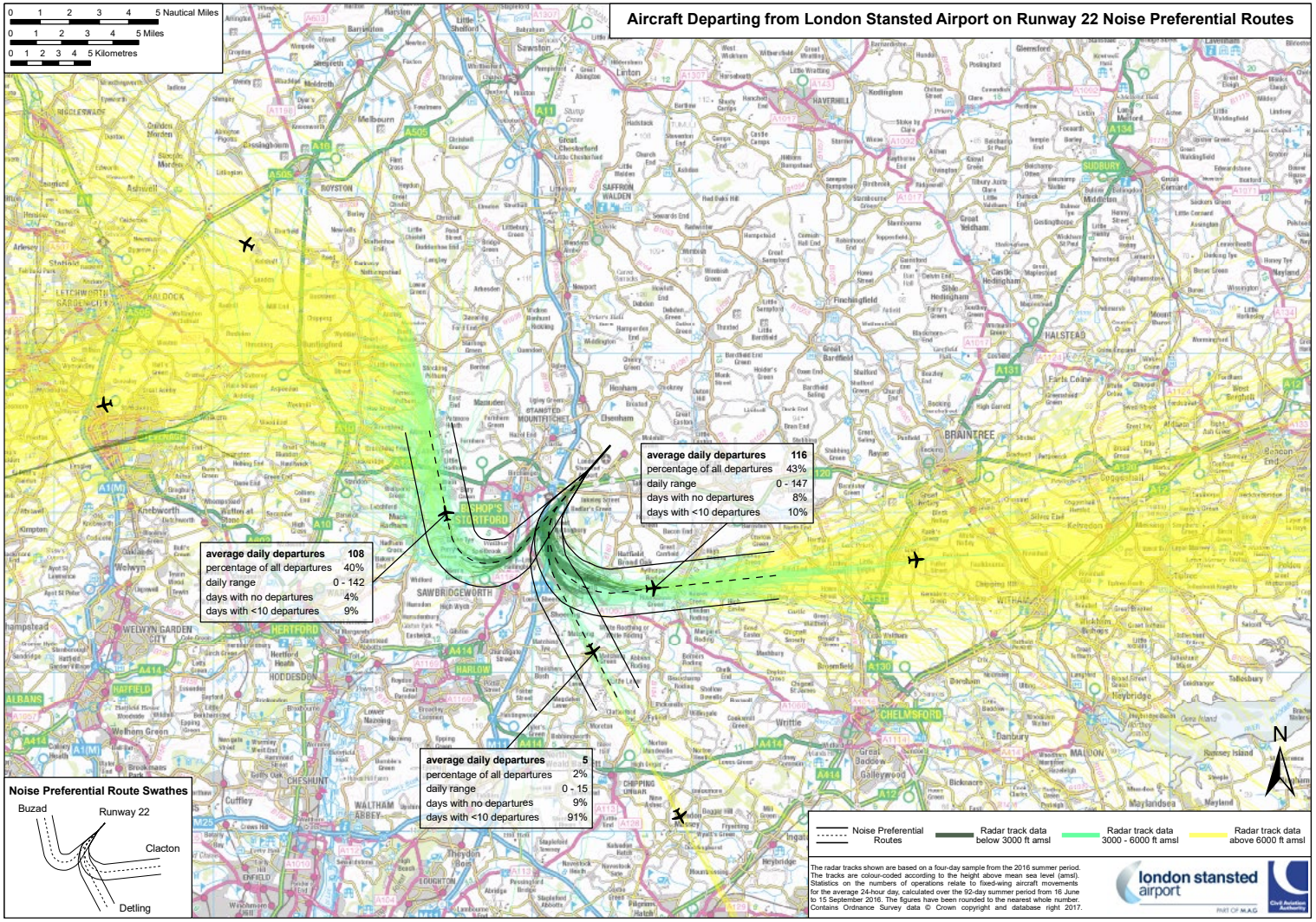
## ARRIVAL AND DEPARTURE MAPS (2016)




Aircraft Arriving to London Stansted Airport on Runway 04
0 1 2 3 4 5 Nautical Miles
0 1 2 3 4 5 Miles
0 1 2 3 4 5 Kilometres
average daily arrivals 32
% of Runway 04 arrivals 82%
daily range 0 - 236
days with no arrivals 71%
days with <10 arrivals 76%
average daily arrivals 39
percentage of all arrivals 15%
daily range 0 - 279
days with no arrivals 63%
days with <10 arrivals 72%
average daily arrivals 6
% of Runway 04 arrivals 16%
daily range 0 - 51
days with no arrivals 67%
days with <10 arrivals 76%
average daily arrivals 1
% of Runway 04 arrivals 2%
daily range 0 - 6
days with no arrivals 76%
days with <10 arrivals 100%
N
Radar track data below 3000 ft amsl
Radar track data 3000 - 6000 ft amsl
Radar track data above 6000 ft amsl
The radar tracks shown are based on a four-day sample from the 2016 summer period. The tracks are colour-coded according to the height above mean sea level (amsl). Statistics on the numbers of operations relate to fixed-wing aircraft movements for the average 24-hour day, calculated over the 92-day summer period from 16 June to 15 September 2016. The figures have been rounded to the nearest whole number. Contains Ordnance Survey data © Crown copyright and database right 2017.
london stansted airport
PART OF MAG
Civil Aviation Authority


Aircraft Arriving to London Stansted Airport on Runway 22
0 1 2 3 4 5 Nautical Miles
0 1 2 3 4 5 Miles
0 1 2 3 4 5 Kilometres
average daily arrivals 99
% of Runway 22 arrivals 44%
daily range 0 - 148
days with no arrivals 4%
days with <10 arrivals 7%
average daily arrivals 128
% of Runway 22 arrivals 56%
daily range 0 - 186
days with no arrivals 4%
days with <10 arrivals 5%
average daily arrivals 228
percentage of all arrivals 85%
daily range 0 - 289
days with no arrivals 4%
days with <10 arrivals 5%
N
Radar track data below 3000 ft amsl
Radar track data 3000 - 6000 ft amsl
Radar track data above 6000 ft amsl
The radar tracks shown are based on a four-day sample from the 2016 summer period. The tracks are colour-coded according to the height above mean sea level (amsl). Statistics on the numbers of operations relate to fixed-wing aircraft movements for the average 24-hour day, calculated over the 92-day summer period from 16 June to 15 September 2016. The figures have been rounded to the nearest whole number.
Contains Ordnance Survey data © Crown copyright and database right 2017.
london stansted airport
PART OF M.A.G
Civil Aviation Authority


Aircraft Departing from London Stansted Airport on Runway 04 Noise Preferential Routes
0 1 2 3 4 5 Nautical Miles
0 1 2 3 4 5 Miles
0 1 2 3 4 5 Kilometres
average daily departures 18
percentage of all departures 7%
daily range 0 - 135
days with no departures 71%
days with <10 departures 78%
average daily departures 20
percentage of all departures 7%
daily range 0 - 139
days with no departures 75%
days with <10 departures 79%
average daily departures 1
percentage of all departures <1%
daily range 0 - 8
days with no departures 74%
days with <10 departures 100%
Noise Preferential Route Swathes
Buzad
Runway 04
Clacton
Detling
N
Noise Preferential Routes
Radar track data below 3000 ft amsl
Radar track data 3000 - 6000 ft amsl
Radar track data above 6000 ft amsl
The radar tracks shown are based on a four-day sample from the 2016 summer period. The tracks are colour-coded according to the height above mean sea level (amsl). Statistics on the numbers of operations relate to fixed-wing aircraft movements for the average 24-hour day, calculated over the 92-day summer period from 16 June to 15 September 2016. The figures have been rounded to the nearest whole number.
Contains Ordnance Survey data © Crown copyright and database right 2017.
london stansted airport

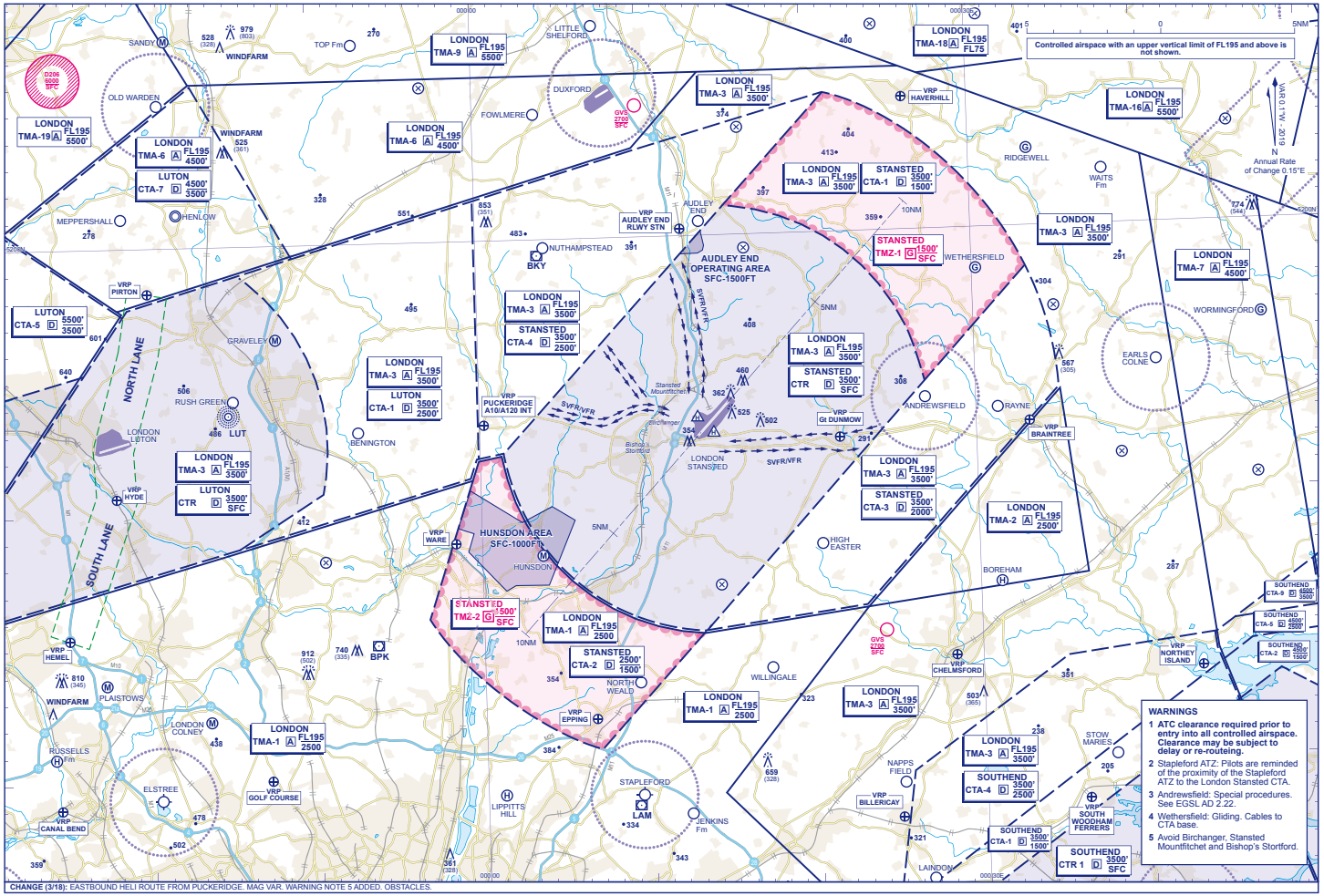

Aircraft Departing from London Stansted Airport on Runway 22 Noise Preferential Routes
0 1 2 3 4 5 Nautical Miles
0 1 2 3 4 5 Miles
0 1 2 3 4 5 Kilometres
average daily departures 108
percentage of all departures 40%
daily range 0 - 142
days with no departures 4%
days with <10 departures 9%
average daily departures 116
percentage of all departures 43%
daily range 0 - 147
days with no departures 8%
days with <10 departures 10%
average daily departures 5
percentage of all departures 2%
daily range 0 - 15
days with no departures 9%
days with <10 departures 91%
Noise Preferential Route Swathes
Buzad
Runway 22
Clacton
Detling
Noise Preferential Routes
Radar track data below 3000 ft amsl
Radar track data 3000 - 6000 ft amsl
Radar track data above 6000 ft amsl
N
The radar tracks shown are based on a four-day sample from the 2016 summer period. The tracks are colour-coded according to the height above mean sea level (amsl). Statistics on the numbers of operations relate to fixed-wing aircraft movements for the average 24-hour day, calculated over the 92-day summer period from 16 June to 15 September 2016. The figures have been rounded to the nearest whole number.
Contains Ordnance Survey data © Crown copyright and database right 2017.
london stansted airport
PART OF M.A.G
Civil Aviation Authority


MAG
London Stansted
Airport
MOOLIN JEST OK!

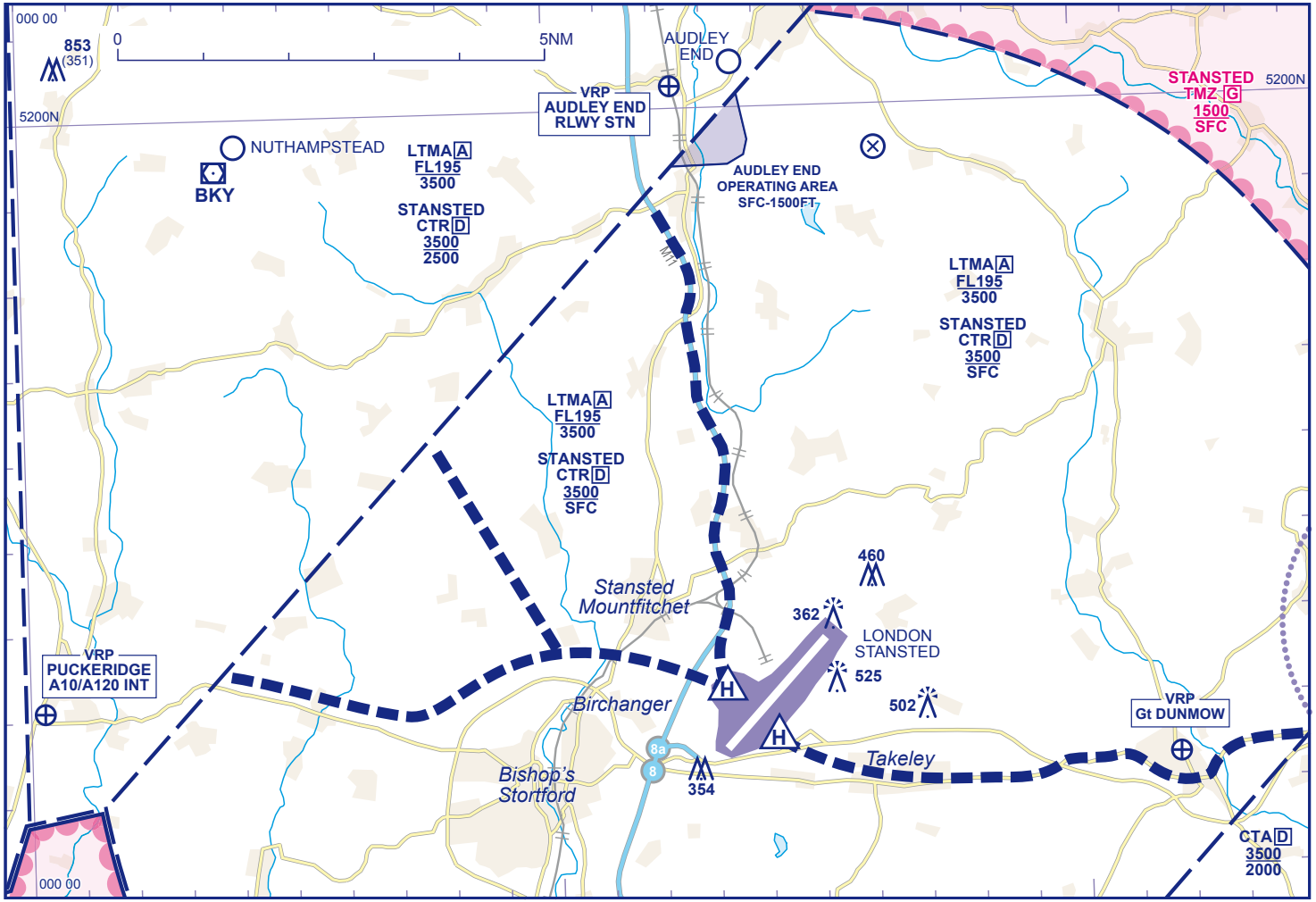
# APPENDIX G

## VISUAL FLIGHT RULES CHARTS

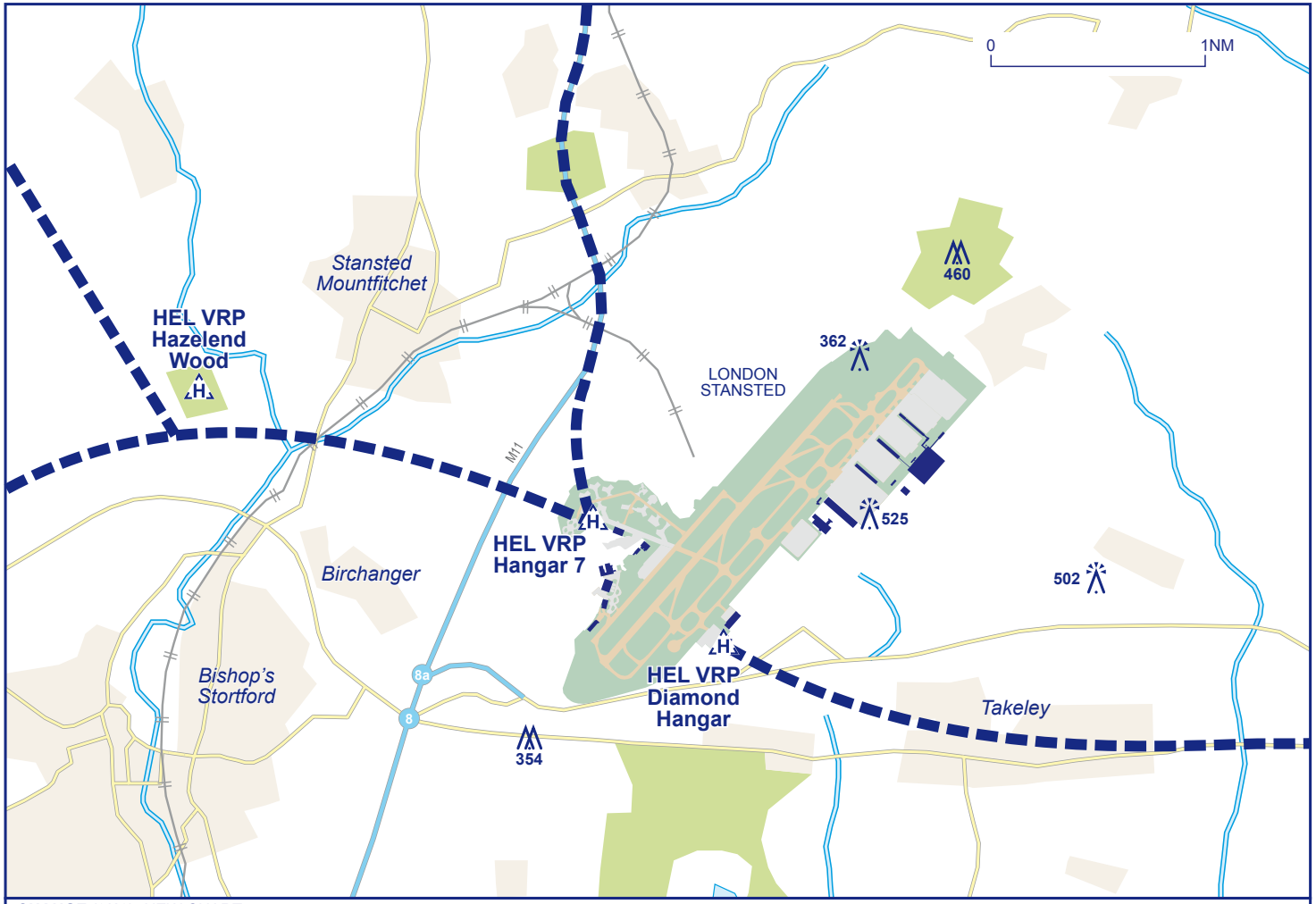
# CONTROL ZONE AND CONTROL AREA CHART
# – ENTRY/EXIT LANES AND VIPS – TRANSPONDER MANDATORY ZONES



## HELICOPTER VFR ARRIVAL/DEPARTURE ROUTES



## DETAILED MAP OF FINAL/INITIAL STAGES




**CHANGE (3/18):** NEW CHART.

AERO INFO DATE 19 DEC 17

# APPENDIX H

## SUMMARY OF ACTIONS 2019-2023

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP1: low power/low drag**<br>Aircraft approaching the airport are expected to keep noise disturbance to a minimum by using a low power/ low drag procedure.<br>We will undertake a survey with our operators and share the results with our Noise and Track Keeping Working Group and EIG. We anticipate this being completed in 2020.<br>This will include reviewing operating instructions following the outcome of the Sustainable Aviation 'Low Noise Arrival' work. | Arrivals | **New** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, data analysis and reporting on the action.<br>**Benefit:** Improvements in arrival noise performance. | Results of survey with aircraft operators shared with NTKWG and EIG. |
| **NAP2: Continuous Descent Approach (Runway 22)**<br>All aircraft approaching the airport on runway 22 are expected to use continuous descent procedures. In line with commitments made in the Sustainable Aviation Noise Road Map, we will work with our service partners to improve CDA at Stansted Airport.<br>Our target for continuous descent approach procedures on a 24-hour basis for runway 22 will be to achieve better than 94% CDA during the lifetime of this Noise Action Plan. | Arrivals | **Retained** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, data analysis and reporting on the action.<br>**Benefit:** Improvements in arrival noise performance. | % of aircraft complying with CDA criteria by published time period. |
| **NAP3: Continuous Descent Approach (Runway 04)**<br>We will promote and seek the introduction of CDA to runway 04 as soon as practicably possible as changes to airspace constraints permit. We will continue to promote CDA to runway 04 which can only be delivered through airspace changes as part of any future LAMP programme. | Arrivals | **Retained** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, NATS management and reporting on the action.<br>**Benefit:** Improvements in arrival noise performance and increase in heights of aircraft on arrival. | % of aircraft complying with CDA criteria by published time period. |

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP4 – ILS approach – daytime**<br>Aircraft using the instrument landing system must not descend below 2.000 feet before joining the glide path.<br>We will report ILS Joining Point compliance to NATS on monthly basis and share results with our NTKWG. | Arrivals | **Retained** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost**: Management Time, data analysis and reporting on the action.<br>**Benefit**: Improvements in arrival noise performance. | % aircraft meeting ILS Joining Point Criteria. |
| **NAP5 – Steeper approaches**<br>We will explore options for GBAS technology and the ability to facilitate a steeper approach angle above 3° | Arrivals | **New** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost**: Management Time, GBAS equipment.<br>**Benefit**: Improvements in arrival noise performance . | Introduction of steeper approaches as GBAS technology evolves. |
| **NAP6: Reduced-engine taxiing**<br>We will consult with our airline partners to better understand the capabilities of new aircraft / engine types for reduced engine taxi. | Ground Noise | **Modified** | Communities within the 70dB $L_{den}$ contour, 100 people. | **Cost**: Management Time, data analysis and reporting on the action.<br>**Benefit**: Reduction in ground noise and emissions. | % aircraft utilising reduced engine taxi. |
| **NAP7: APU use**<br>We will continue to monitor the use of FEGP and the non-essential use of auxiliary power units and will maintain and update our DN detailing the use of APUs / FEGP as appropriate. We will undertake survey in 2021 and share the results with our NTKWG and EIG. | Ground Noise | **Retained** | Communities within the 70dB $L_{den}$ contour, 100 people. | **Cost**: Management Time, data analysis and reporting on the action.<br>**Benefit**: Reduction in ground noise and emissions. | % aircraft utilising FEGP. |
| **NAP8: Engine testing**<br>We will maintain and update our suite of DNs controlling the ground noise associated with Fixed Wing and Rotary Wing Aircraft as appropriate. | Ground Noise | **Retained** | Communities within 65dB $L_{den}$ contour, 300 people. | **Cost**: Management Time, data analysis and reporting on the action.<br>**Benefit**: reduction in ground noise and emissions. | Number of non compliant engine tests. |

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP9: 'off-track' departures**<br>We have a target of 95% of track keeping compliance for each individual SID.<br>We have an overall track keeping target of 99% and will maintain this throughout this plan.<br>We will report quarterly to our NTKWG the number of 'off-track' departures and the overall track keeping performance. | Departures | **Modified** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, data analysis, airline engagement and reporting on the action.<br>**Benefit:** Improvements in track keeping against NPR and noise reduction for local communities. | Percentage of aircraft within each individual Noise Preferential Route. |
| **NAP10: 'off-track' surcharge**<br>We have a system of financial penalties for flights where airlines flagrantly or persistently fail to keep on the NPRs. The surcharges are as follows: During the day – £750 per occasion and during the night – £1,000 per occasion.<br>We are committed to reviewing these penalty levels during this plan. | Departures | **Retained** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, data processing, airline engagement<br>**Benefit:** Improvements in track keeping against NPR, reduction in noise for local communities. | No of off track surcharges and implementation of revised penalty scheme. |
| **NAP11: Departure Noise Limit**<br>We will seek approval from the UK Government to lower the daytime departure noise limit in 2019. | Departures | **New** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, Government engagement, AIP coordination and submission, reporting on the action.<br>**Benefit:** Control of noisier aircraft operating. | Introduction of lower daytime departure noise limit. |
| **NAP12: Departure Noise Limit – surcharge**<br>We will review our departure noise limit surcharge following any reduction in the departure noise limit. | Departures | **Modified** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, data processing.<br>**Benefit:** Control of noisier aircraft operating. | Implementation of revised penalty scheme. |

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP13: AIP Noise Abatement Compliance**<br>We will continue to report the overflight of the AIP stated 'no- fly' zones as detailed in the AIP, including Sawbridgeworth, Stansted Mountfitchet, St Elizabeth's and Bishops Stortford and report quarterly to our NTKWG. | Arrivals and Departures | **Retained** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, data processing, NATS and airline engagement.<br>**Benefit:** Improvements in track keeping against NPR, reduction in noise for AIP listed communities. | No of infringements of AIP no fly Zones. |
| **NAP14: 1,000ft Rule**<br>We will continue to report the compliance against the 1,000ft monitoring criteria in our quarterly NTKWG reports.<br>We will review through ANMAC TWG if there is a more appropriate measure to adopt as a Noise Abatement Procedure. | Departures | **Retained** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, Government engagement.<br>**Benefit:** Implementation of more appropriate measure to control, monitor and reduce departure noise. | No of infringements of 1,000ft rule.<br>Implementation of any revised metric. |
| **NAP15: Continuous Climb Operations**<br>We seek permission from Government to add monitoring criteria to the UK AIP and report against this criteria by departure route in 2019. | Departures | **New** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, Government engagement, AIP submission and reporting on the action.<br>**Benefit:** Noise reduction of improved climb performance due to less aircraft being stop climbed. | Publication of monitoring criteria. |
| **NAP16: Implementing PBN**<br>In consultation with key stakeholders and our local communities we will seek to implement PBN on our remaining departure routes. | Departures | **New** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, regulator time, ACP process, simulator testing consultation and procedure design.<br>**Benefit:** Potential reduction in the number of people directly overflown by departing aircraft. | Successful ACP process to publish further PBN routes. |

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP17: Reporting PBN**<br>We will continue to report against our agreed +/- 500m swathe and report quarterly to our NTKWG.<br>We will apply the same reporting metric to any newly implemented PBN departure routes. | Departures | **New** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, data processing and reporting, airline engagement.<br>**Benefit:** Improvements in track keeping against reduced NPR, reduction in noise and direct overflight for some communities. | % of aircraft complying with revised swathe. |
| **NAP18: Night noise movements and quota**<br>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. We will report data quarterly to our NTKWG. | Arrivals and Departures | **Retained** | Communities within and beyond the 48dB $L_{night}$ contour, ≥6,300 people. | **Cost:** Management Time, data processing and reporting, airline engagement.<br>**Benefit:** Control of aircraft operating at night, controlling and limiting night noise. | Compliance with DfT regime and reporting to DfT, ACL, NTKWG and STACC. |
| **NAP19: QC2 operations**<br>We will not permit any scheduled QC2 operations that do not hold historic rights to the slot during the core night period. | Arrivals and Departures | **New** | Communities within and beyond the 48dB $L_{night}$ contour, ≥6,300 people. | **Cost:** Management Time, data processing and reporting, airline engagement.<br>**Benefit:** Control of aircraft operating at night, controlling and limiting night noise. | No of QC 2 operations reported by operational season. |
| **NAP20: Departure noise limit**<br>We will seek approval from the UK Government to lower the night time departure noise limit in 2019. | Departures | **New** | Communities within and beyond the 48dB $L_{night}$ contour, ≥6,300 people. | **Cost:** Management Time, Government engagement, AIP submission and reporting on the action.<br>**Benefit:** Control of aircraft operating at night, controlling and limiting night noise. | Introduction of lower night time departure noise limit. |

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP21: Departure noise limit – simplify**<br>We will seek approval from the UK Government to replace the current departure noise system with a limit for daytime and night time departures in 2019. | Departures | **New** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time, Government engagement, AIP submission and reporting on the action.<br>**Benefit:** Providing simpler and more transparent system for local communities and operators. | Publication of simplified departure noise limits. |
| **NAP22: Night noise surcharge**<br>Once we have implemented our revised noise limits and associated time periods, we will review our night noise limit surcharge. | Departures | **Retained** | Communities within and beyond the 48dB $L_{night}$ contour, ≥6,300 people. | **Cost:** Management Time, data processing.<br>**Benefit:** Control of noisier aircraft operating. | Implementation of revised noise penalty scheme. |
| **NAP23 – ILS approach – night time**<br>Aircraft using the instrument landing system must not descend below 3,000 feet before joining the glide path or join within 10nm of touchdown.<br>We will continue report ILS Joining Point night time compliance to NATS on monthly basis and report to our NTKWG. | Arrivals | **Retained** | Communities within and beyond the 48dB $L_{night}$ contour, ≥6,300 people. | **Cost:** Management Time, data analysis and reporting on the action.<br>**Benefit:** Improvements in arrival noise performance. | Monthly reports provided to NATS and NTKWG against our joining point of the ILS outside 10 nm above 3,000ft QNH. |
| **NAP24: continuous descent approach (Runway 04)**<br>We recently agreed a 65% target for runway 04 core night (23:30 – 06:00) CDA's with NATS through our NTKWG.<br>We will publish results on a quarterly basis against our 04 CDA criteria and report them to NATS and the NTKWG. | Arrivals | **New** | Communities within and beyond the 48dB $L_{night}$ contour, ≥6,300 people. | **Cost:** Management Time, data analysis and reporting on the action.<br>**Benefit:** Improvements in arrival noise performance at night. | % of aircraft complying with CDA criteria to runway 04 by published time period. |

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP25: Local Authority Engagement**<br>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. | Arrivals and Departures, Community Awareness | **Retained** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Management Time.<br>**Benefit:** Awareness of the airport operation and potential impacts for any proposed developments. | Actions arising from local authority engagement. |
| **NAP26: Forecast noise contours**<br>We will commission forecast LAeq contours for air noise annually in line with our current planning regulations. | Arrivals and Departures, Community Awareness | **Retained** | Communities within and beyond the 57dB $L_{Aeq}$ contour, ≥1,500 people. | **Cost:** Management Time, contour production.<br>**Benefit:** Awareness of the airport operation and tracking trends in noise performance. | Submission of predictive noise contours to local authority. |
| **NAP27: Annual noise contours**<br>We will review the annual LAeq contours as produced by the DfT with Uttlesford District Council and agree upon actions arising. | Arrivals and Departures, Community Awareness | **Retained** | Communities within and beyond the 57dB $L_{Aeq}$ contour, ≥1,500 people. | **Cost:** Management Time, contour production.<br>**Benefit:** Awareness of the airport operation and tracking long term trends in noise performance. | Actions arising from local authority engagement. |
| **NAP28: Sound insulation grant scheme**<br>We will continue to provide financial assistance for insulation to those most impacted by aircraft noise, our Residential Noise Insulation Scheme will be consistent with any obligations we have agreed with Uttlesford District Council. | Community Noise Mitigation | **Retained** | Communities defined within published Sound Insulation Grant Scheme. | **Cost:** Management and funding of the SIG Scheme.<br>**Benefit:** Ongoing noise insulation for properties most affected by aircraft noise. | No of properties that have benefitted from the Sound Insulation Grant Scheme. |
| **NAP29: Vortex damage repair scheme**<br>We will continue to provide a vortex-damage repair scheme to repair roofs that have been damaged by vortexes caused by aircraft. | Community Trust and awareness | **Retained** | Communities within 70dB $L_{den}$ contour, 100 people. | **Cost:** Management and funding of the Wake Vortex Scheme.<br>**Benefit:** Expedited repair of property affected by aircraft operations. | Number of properties subjected to vortex strikes. |
| **NAP30: Community trust fund**<br>We will donate all the money we raise as a result of our environmental penalties to the Stansted Airport Community Trust Fund. | Community Trust and awareness | **Retained** | Not Applicable. | **Cost:** Staff time supporting community trust fund and projects.<br>**Benefit:** Funds directed to local community projects. | Amount off-track and noise surcharges directed to community trust fund. |

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP31: Helicopter VFR routes**<br>We will monitor the effectiveness of our new helicopter routeing and report periodically to the NTKWG. | Local Community Noise | **New** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Staff time , data analysis and reporting, operator engagement.<br>**Benefit:** Reduction in overflight of local communities by helicopter operations, reducing noise disturbance. | No of helicopter complaints from effected communities and monitoring of compliance. |
| **NAP32: Differential landing charge**<br>We incentivise Chapter 4 aircraft when introducing new business to Stansted Airport by offering a 40% discount in airport landing charges compared to that of a Chapter 3 High aircraft and review this figure periodically. | Arrivals, Departures and Ground Noise | **Retained** | Communities within and beyond the 55dB $L_{den}$ contour, ≥8,700 people. | **Cost:** Airline fleet replacement.<br>**Benefit:** Increased use of the quietest certified aircraft at Stansted. | Tracking of % of Chapter 4 or equivalent aircraft. |
| **NAP33: Airline league table**<br>We will continue to produce an airline league table based on noise abatement criteria and publish this on an annual basis. We will consult with our NTKWG and refine the report and metrics as necessary. | Arrivals and Departures | **Modified** | Not Applicable | **Cost:** Staff costs for data collection, reporting and trend analysis.<br>**Benefit:** Continuous improvement in noise abatement. | Tracking of % of Chapter 4 or equivalent aircraft. |
| **NAP34: Independent audit**<br>There will be an annual audit of noise management system by independent auditors. | Community Trust and awareness | **Retained** | Not Applicable | **Cost:** Staff costs for data collection and supporting the action.<br>**Benefit:** Continuous improvement, transparency and quality assurance of our noise management process. | Feedback from annual audit. |
| **NAP35: ANMAC**<br>In partnership with our NTKWG and EIG we will continue to present issues and facilitate debate with ANMAC and will implement any initiatives as agreed through that forum. | Arrivals, Departures and Ground Noise | **Retained** | Not Applicable | **Cost:** Staff costs for data collection and supporting the action.<br>**Benefit:** Continuous improvement and adoption of latest noise abatement measures. | Feedback from issues presented at ANMAC. |

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP36: Data reporting**<br>We will continue to produce a detailed quarterly FEU report and publish it on our website.<br>We will adapt the report as requested by the members of NTKWG and include additional information as appropriate. | Community Trust and awareness | **New** | Not Applicable. | **Cost:** Staff costs for data collection and supporting the action.<br>**Benefit:** Continuous improvement, quality and transparency. | Publication of quarterly report and inclusion of additional data. |
| **NAP37: Noise contours**<br>We will continue to publish annual 'Number Above' contours within our suite of annual noise contours. | Arrivals and Departures, Community Awareness | **Retained** | Not Applicable. | **Cost:** Management Time, contour production.<br>**Benefit:** Awareness of the airport operation and tracking trends in noise performance. | Publication of annual 'number above' contour. |
| **NAP38: Arrival and departure maps**<br>We will continue to publish detailed arrival and departure maps on a biannual basis. | Community Trust and awareness | **Retained** | Not Applicable. | **Cost:** Production of maps from ERCD.<br>**Benefit:** Transparency of the Stansted operation for local communities and any potential new residents. | Publication of arrival and departure maps. |
| **NAP39: Community noise monitoring**<br>We will maintain our community noise monitoring program and continue to seek feedback as to appropriate locations for future monitoring. | Community Trust and awareness | **Retained** | Not Applicable. | **Cost:** Management Time, monitoring equipment and calibration, 3rd party company.<br>**Benefit:** Noise reporting targeted at affected communities, tracking trends and changes over time. | Number of and publication of community monitoring reports. |
| **NAP40: Recording and investigating complaints**<br>We will continue to record and investigate all complaints relating to aircraft operations and publish statistics in line with agreed complaints handling policy. | Community Trust and awareness | **Retained** | Not Applicable. | **Cost:** Staff costs associated with complaint handling.<br>**Benefit:** Collection and analysis of complaints to support trend analysis and operational improvements. | Quarterly data to NTKWG and publication of annual complaints report. |

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP41: Responding to complaints**<br>Regularly report on our complaints response times, aiming to respond to at least 90% of complaints within eight working days. | Community Trust and awareness | **Retained** | Not Applicable | **Cost:** Staff costs associated with complaint handling.<br>**Benefit:** Timely review, investigation and response to noise complaints. | % of complaints responded to within published timescale. |
| **NAP42: Complaints Process**<br>We will continue to offer a range of contact options for complaints and enquiries regarding aircraft noise including email, website and telephone contact options. | Community Trust and awareness | **Retained** | Not Applicable | **Cost:** Staff costs associated with complaint handling.<br>**Benefit:** Collection and analysis of complaint data to support trend analysis and operational improvements. | Published number of contacts by contact method in annual noise complaints report. |
| **NAP43: Complaints and enquiries**<br>We will continue to invite local residents and complainants to the airport to demonstrate our noise and track keeping system and explain our noise mitigation schemes, where we perceive there to be a benefit. | Community Trust and awareness | **Retained** | Not Applicable | **Cost:** Staff costs associated with complaint and data handling.<br>**Benefit:** Transparency of our operation and processes for noise and track monitoring, reporting and complaint handling. | No of invitees to the Flight Evaluation Unit. |
| **NAP44: Complaints and enquiries**<br>We will continue to publish an annual noise complaints report and seek feedback through the NTKWG to develop the report and its contents. | Community Trust and awareness | **Retained** | Not Applicable | **Cost:** Staff costs associated with complaint data reporting.<br>**Benefit:** Transparency of our processes for noise complaint handling and trend analysis for operational improvements. | Publication of annual complaints report. |
| **NAP45: Flight tracking information**<br>We will continue to provide public access to flight track tracking information via WebTrak and will reduce the current 24-hour delay to bring this closer to real time. | Community Trust and awareness | **Modified** | Not Applicable | **Cost:** Noise and track keeping system development.<br>**Benefit:** Provision and transparency of our operation. | Public access to WebTrak and improvement in data availability / time delay. |

| NAP ACTION | IMPACT AREA | STATUS | NUMBERS AFFECTED | EXPECTED COST AND BENEFIT | PERFORMANCE INDICATOR |
|---|---|---|---|---|---|
| **NAP46: Flight tracking development**<br>We will explore opportunities to introduce additional online tools to benefit local residents understanding of our operation. | Community Trust and awareness | **New** | Not Applicable | **Cost:** Noise and track keeping system development.<br>**Benefit:** Improved transparency of our operation and improved latency to our online tools. | Implementation and availability of additional online tools. |
| **NAP47: Engagement with stakeholder groups**<br>We will continue to routinely work with our NTKWG and EIG to develop and facilitate solutions to community concerns where possible. | Community Trust and awareness | **Retained** | Not Applicable | **Cost:** Staff to support the ongoing activity.<br>**Benefit:** To facilitate dialogue and understanding of any issues arising and drive continuous improvement of the Stansted operation. | Feedback and actions arising from meetings. |
| **NAP48: Feedback from stakeholder groups**<br>We will continue to seek feedback on our noise management performance from the NTKWG and EIG. | Community Trust and awareness | **Retained** | Not Applicable | **Cost:** Staff to support the ongoing activity.<br>**Benefit:** Continual improvement of the Stansted operation and noise management performance. | Feedback and actions arising from meetings. |
| **NAP49: Review and develop our communications materials**<br>We will annually review our communication materials and website to ensure ease of understanding and continue to develop the information available to local residents. | Community Trust and awareness | **Retained** | Not Applicable | **Cost:** Staff to support the ongoing data reporting and assurance.<br>**Benefit:** Continuous improvement to better facilitate our communication and transparency of the Stansted operation. | Feedback and revision from communication material published/issued. |
| **NAP50: Reporting on our progress**<br>We will continue to publish our progress against this Noise Action Plan on an annual basis through our CSR report. | Community Trust and awareness | **Retained** | Not Applicable | **Cost:** Staff to support the ongoing data reporting and assurance.<br>**Benefit:** To provide community assurance as to the commitments within this Noise Action . | Publication of annual CSR report. |
| | | | | | |

# APPENDIX I

## CURRENT EXPENDITURE ON NOISE MANAGEMENT

| | | |
|---|---|---|
| Staff costs | CSR Team, Flight Evaluation, noise complaint handling and community relations– salary and training. | £200,000 |
| Computer and equipment costs | Renewal, calibration, repair, Software licenses, support development. | £200,000 |
| Publications and communications | Community engagement programme. | £40,000 |
| Community fund | Annual Airport funding. | £50,000 |
| Noise insulation and mitigation schemes | Insulation, relocation, community buildings, and wake vortex. | £100,000 |
| Research and benchmarking, forecasting | Noise contours, support for Sustainable Aviation etc, studies for benchmarking. | £50,000 |
| Total estimated annual investment | | £640,000 |