

# Noise monitor positions at Heathrow, Gatwick and Stansted Airports

**CAP 1149** 



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## Revision history

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Updated to include noise monitor positions used by ERCD for model validation in 2024. Minor editorial changes have also been incorporated.

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Updated to include noise monitor positions used by ERCD for model validation in 2019. Minor editorial changes have also been incorporated.

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Updated to include noise monitor positions used by ERCD for model validation in 2018. Minor editorial changes have also been incorporated.

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Updated to include noise monitor positions used by ERCD for model validation in 2017. Minor editorial changes have also been incorporated.

Edition 3 December 2016

Updated to include noise monitor positions used by ERCD for model validation in 2016. Minor editorial changes have also been incorporated.

Edition 2 December 2015

Updated to include noise monitor positions used by ERCD for model validation in 2014 and 2015. Minor editorial changes have also been incorporated.

Edition 1 March 2014

#### Chapter 1

#### Introduction

The amount of aircraft noise experienced by people living around Heathrow, Gatwick and Stansted airports during the summer of each year is estimated by the Environmental Research and Consultancy Department (ERCD) of the Civil Aviation Authority. The noise exposure contours are generated by the UK Civil Aircraft Noise Contour model (ANCON), which calculates the emissions and propagation of noise from arriving and departing aircraft.

To validate the computer model, ERCD routinely collects and analyses noise measurements from the Noise and Track Keeping (NTK) systems installed at each airport. ERCD obtains data from the airports' NTK systems via a link to the remote servers. At present there are 12 fixed (permanent) noise monitor sites at Heathrow, 5 at Gatwick and 8 at Stansted. ERCD may also utilise available data from other suitably positioned mobile noise monitors to supplement measurements from the fixed sites for model validation.

For the production of the standard average summer day L<sub>Aeq,16h</sub> noise contours, there is no requirement to have noise data at any great distance outside those contours, so generally noise measurements tend to be restricted to locations within and just beyond the 54 dB contours.<sup>1</sup> However, mobile monitors are, on occasions, deployed at more distant locations to measure the noise of specific operations, for example to study departure noise along a specified route.

This report describes the airport noise monitor positions used by ERCD for model validation between 2007 and 2024. It should be noted that this document does not provide information on every airport noise monitor; only those locations deemed suitable for model validation are described. Future editions of this report will be published to describe new monitor positions as they become known. The techniques used to acquire the noise data are described separately in ERCD Report 0406 (Ref 1).

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The L<sub>Aeq,16h</sub> daytime noise contours are generally plotted from 54 to 72 dB in 3 dB steps. The <u>Survey of Noise Attitudes</u> 2014 found that the degree of annoyance (based on % of respondents highly annoyed) previously occurring at 57 dB, now occurs at 54 dB.

#### Chapter 2

## Fixed monitor positions

The locations of the fixed sites are shown in Figures 1, 2 and 3 respectively for Heathrow, Gatwick and Stansted. Also illustrated for reference in each figure are the Noise Preferential Routes (NPRs). The standard modal split 54 dB L<sub>Aeq,16h</sub> contours for each airport are also shown (Refs 2, 3 and 4).

Although sited principally to monitor departure noise, some of the fixed monitors are located close to the extended runway centrelines and can also be used to measure noise from aircraft landing in the opposite direction.<sup>2</sup>

The layout of the runways and locations of the thresholds at each airport are shown in Figures 4 to 6. For each fixed monitor, the distance from the nominal start-of-roll (SOR) position on the relevant runway and, where applicable, the distance to the touchdown position, is provided for Heathrow, Gatwick and Stansted in Tables 1, 2 and 3, respectively (all distances are approximate).<sup>3</sup>

At Heathrow, fixed sites B and 6 provide suitable noise data for arrivals at 2.8 km and 3.7 km to touchdown, respectively. Likewise, sites 1 and 6 at Gatwick provide data for arrivals at 3.6 km and 5.0 km to touchdown. At Stansted, site 5 provides noise data for arrivals at 4.6 km to touchdown.

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The noise limits and positional adjustments that apply at the fixed monitors are set out in the Section 78 Notices for each airport and published in the UK Aeronautical Information Publication (AD 2-EGLL-1, AD 2-EGKK-1 and AD 2-EGSS-1).

For modelling purposes, the start-of-roll position is assumed to be 150 metres in from the start of the runway (i.e. from the 'end of concrete') and the touchdown position is assumed to be approximately 300 metres in from the runway threshold.

#### Chapter 3

## Mobile monitor positions

#### Heathrow

The locations of the mobile sites used at Heathrow are shown in Figure 1. The corresponding track distances from the relevant start-of-roll and touchdown positions are provided in Table 4 (all distances are approximate).

In 2024, departure measurements were acquired between 9.6 and 24.6 km from SOR, and between 6.8 and 23.0 km to touchdown for arrivals. In previous years, departure noise measurements were acquired between 3.9 and 26.1 km from SOR, and between 1.1 and 23.0 km to touchdown for arrivals. By comparison, the 2023 54 dB contour extended up to 15 km and 18 km for departures and arrivals respectively.

#### Gatwick

The locations of the mobile sites used at Gatwick are shown in Figure 2. The corresponding track distances from the relevant start-of-roll and touchdown positions are provided in Table 5 (all distances are approximate).

In 2024, departure measurements were acquired between 14.5 and 19.8 km from SOR, and between 12.9 and 23.8 km to touchdown for arrivals. In previous years, departure noise measurements were acquired between 8.2 and 30.0 km from SOR, and between 11.3 and 40.2 km to touchdown for arrivals. By comparison, the 2023 54 dB contour extended up to 15 km and 13 km for departures and arrivals respectively.

#### Stansted

The locations of the mobile sites used at Stansted are shown in Figure 3. The corresponding track distances from the relevant start-of-roll and touchdown positions are provided in Table 6 (all distances are approximate).

In 2024, departure measurements were acquired at 16.6 km from SOR. In previous years, departure noise measurements were acquired between 3.8 and 22.2 km from SOR, and between 1.3 and 35.0 km to touchdown for arrivals (Note that in some years, there were no suitably positioned mobile monitors at Stansted). By comparison, the 2023 54 dB contour extended up to 11 km and 13 km for departures and arrivals respectively.

#### APPENDIX A

### References

- 1. Techniques used by ERCD for the Measurement and Analysis of Aircraft Noise and Radar Data, ERCD Report 0406, Civil Aviation Authority, January 2005
- 2. Heathrow Airport 2023 Summer and Noise Action Plan Contours, ERCD Report 2401, Civil Aviation Authority, September 2024
- Noise Exposure Contours for Gatwick Airport 2023, ERCD Report 2402, Civil Aviation Authority, October 2024
- 4. Noise Exposure Contours for Stansted Airport 2023, ERCD Report 2403, Civil Aviation Authority, June 2024

#### APPENDIX B

## **Tables**

Table 1 Fixed noise monitor sites at Heathrow

Site	Distance from start-of-roll (km)		Distance to touchdown (km)
	Rwy 27L/R	Rwy 09L/R	Rwy 09L/R
(6) Thames Water, Wraysbury	6.6	-	3.7
(A) Colnbrook	6.3	-	-
(B) Poyle	6.0	-	2.8
(C) Horton	6.6	-	-
(D) Coppermill	6.8	-	-
(E) Wraysbury Reservoir (South)	7.2	-	-
(F) Hounslow West	-	6.4	-
(G) Hounslow Cavalry Barracks	-	6.5	-
(H) Hounslow Heath	-	6.4	-
(I) East Feltham	-	6.6	-
(J) Hounslow Cavalry Barracks (North)	-	6.6	-
(K) Hobbledown <sup>4</sup>	_	6.3	-

<sup>&</sup>lt;sup>4</sup> Site K was previously known as Hounslow Heath Golf Course.

Table 2 Fixed noise monitor sites at Gatwick

Site	Distance from start-of-roll (km)  Rwy Rwy 26L/R 08L/R		from start- touchdown			
			Rwy 26L/R	Rwy 08L/R		
(1) Russ Hill	6.2	-	-	3.6		
(3) Orltons	6.9	-	-	-		
(5) Oaklands Park Farm	6.7	-	-	-		
(4) Moat House	-	6.7	-	-		
(6) Bellwood	-	6.8	5.0	-		

Table 3 Fixed noise monitor sites at Stansted

Site	Distance from start-of- roll (km)	Distance to touchdown (km)	
	Rwy 22	Rwy 04	Rwy 04
(3) Howe Green School, Great Hallingbury	6.6	-	-
(4) Thames Water, Bishop's Stortford	6.5	-	-
(5) Woolcott Restaurant, Great Hallingbury	6.9	-	4.6
(6) Morley, Woodside Green	6.6	-	-
(8) Anglian Water, Broxted	-	6.5	-
(9) Moor End Farm, Broxted	-	6.6	-
(10) Goodacres, Broxted	-	6.7	-
(11) Chickney Hall Villas, Broxted	-	7.2	-

Table 4 Mobile noise monitor sites at Heathrow

Year	Site	Distance from start- of-roll (km)		Distance to touchdown (km)	
		Rwy 27L/R	Rwy 09L/R	Rwy 27L/R	Rwy 09L/R
2007	(71) Whitton	-	8.9	-	-
	(76) Eton	12.5	-	-	-
	(77) Cliveden	21.0	-	-	-
	(78) Windsor	13.9	-	-	-
	(87) Longford	4.4	-	-	1.4
2008	(63) Touchen End	21.1	-	-	17.5
	(67) Old Windsor	10.7	-	-	-
	(69) Richmond	-	-	8.5	-
	(88) Stanwell Moor	4.3	-	-	-
	(89) Hatton Cross	-	4.3	1.1	-
	(90) Richmond Park	-	14.8	-	-
	(91) Shepperton	18.3	15.8	-	-
	(92) Chiswick	-	-	12.4	-
	(93) Heath Road, Hounslow	-	-	5.8	-
	(94) Eton Wick	13.8	-	-	-
	(95) Beaconsfield	25.6	-	-	-
2009	(56) Berkeley School	-	7.0	-	-
	(76) Eton	12.5	-	-	-
	(77) Cliveden	21.0	-	-	-
	(89) Hatton Cross	-	4.3	1.1	-
	(96) Whitton	-	9.0	-	-
2010	(56) Berkeley School	-	7.0	-	-
	(69) Richmond	-	-	8.5	-
	(73) Thorpe Lea School	11.5	-	-	-
	(92) Chiswick	-	-	12.4	-
	(100) Burnham	18.2	-	-	-
	(101) Datchet	9.0	-	-	-
	(102) Old Windsor	9.9	-	-	6.8
2011	(56) Berkeley School	-	7.0	-	-
	(105) Chertsey Lane	12.8	16.5	-	-
	(106) Burhill Golf Club	22.5	20.0	-	-
	(107) Holyport	-	-	-	17.0
	(108) Barnes	-	-	14.2	-

Table 4 Mobile noise monitor sites at Heathrow (continued)

Year	Site	Distance from start- of-roll (km)		from start- touchdown		
		Rwy 27L/R	Rwy 09L/R	Rwy 27L/R	Rwy 09L/R	
2012	(56) Berkeley School	-	7.0	-	-	
	(69) Richmond	-	-	8.5	-	
	(109) Longford	3.9	-	-	-	
	(110) Isleworth	-	-	6.8	-	
2013	(56) Berkeley School	-	7.0	-	-	
	(69) Richmond	-	-	8.5	-	
	(76) Eton	12.5	-	-	-	
	(102) Old Windsor	9.9	-	-	6.8	
	(108) Barnes	-	-	14.2	-	
	(109) Longford	3.9	-	-	-	
	(116) Feltham	-	7.5	-	-	
2014	(108) Barnes	-	-	14.2	-	
	(109) Longford	3.9	-	-	-	
	(116) Feltham	-	7.5	-	-	
	(119) Teddington	-	12.3	-	-	
	(120) Windsor Great Park	12.9	23.5	-	-	
2015	(127) Windlesham	24.3	-	-	-	
	(128) Englefield Green	11.9	-	-	-	
	(129) Isleworth	-	-	6.8	-	
	(130) Richmond	-	-	8.5	-	
	(131) Roehampton	-	-	13.2	-	
	(132) Twickenham	-	11.1	-	-	
	(133) Teddington	-	12.3	-	-	
2016	(129) Isleworth	-	-	6.8	-	
	(130) Richmond	-	-	8.5	-	
	(131) Roehampton	-	-	13.2	-	
	(132) Twickenham	-	11.1	-	-	
	(133) Teddington	-	12.3	-	-	
	(134) North Ascot	19.7	-	-	-	
	(135) Kempton Park	-	11.0	-	-	

Table 4 Mobile noise monitor sites at Heathrow (continued)

Year	Site	Distance from start- of-roll (km)		Distance to touchdown (km)	
		Rwy	Rwy	Rwy	Rwy
		27L/R	09L/R	27L/R	09L/R
2017	(129) Isleworth	-	-	6.8	-
	(130) Richmond	-	-	8.5	-
	(131) Roehampton	-	-	13.2	-
	(132) Twickenham	-	11.1	-	-
	(133) Teddington	-	12.3	-	-
	(134) North Ascot	19.7	-	-	-
	(135) Kempton Park	-	11.0	-	-
	(136) Church Road, Ham	-	13.5	-	-
	(137) Hatton	-	4.8	1.7	-
	(138) Feltham	-	7.5	-	-
	(139) Hanworth Road	-	7.9	-	-
	(140) Lincoln Avenue	-	9.6	-	-
	(141) Richmond Park North	-	14.0	-	-
	(142) Richmond Park Centre	-	14.3	-	-
	(143) Richmond Park South	-	14.9	-	-
	(144) Fulwell Park	-	9.5	-	-
	(145) Whitton	-	8.8	-	-
	(146) Kingston Vale	-	16.4	-	-
	(500) Bird Hills	21.6	-	-	-
	(501) Burnham	18.8	-	-	-

Table 4 Mobile noise monitor sites at Heathrow (continued)

Year	Site	Distance from start- of-roll (km)		from start- touchdo		
		Rwy	Rwy	Rwy	Rwy	
		27L/R	09L/R	27L/R	09L/R	
2018	(129) Isleworth	-	-	6.8	-	
	(130) Richmond	-	-	8.5	-	
	(131) Roehampton	-	-	13.2	-	
	(132) Twickenham	-	11.1	-	-	
	(133) Teddington	-	12.3	-	-	
	(136) Church Road, Ham	-	13.5	-	-	
	(137) Hatton	-	4.8	1.7	-	
	(138) Feltham	-	7.5	-	-	
	(139) Hanworth Road	-	7.9	-	-	
	(140) Lincoln Avenue	-	9.6	-	-	
	(141) Richmond Park North	-	14.0	-	-	
	(142) Richmond Park Centre	-	14.3	-	-	
	(143) Richmond Park South	-	14.9	-	-	
	(144) Fulwell Park	-	9.5	-	-	
	(145) Whitton	-	8.8	-	-	
	(146) Kingston Vale	-	16.4	-	-	
	(500) Bird Hills	21.6	-	-	-	
	(501) Burnham	18.8	-	-	-	
	(502) Sunninghill	19.6	-	-	-	
	(503) Air Force Memorial	10.5	-	-	-	
	(504) Fifield	-	-	-	14.5	
	(505) Hanwell	-	11.6	-	-	
	(506) Chertsey Lane	14.2	20.1	-	-	
	(507) White Waltham	24.1	-	-	20.6	
	(508) Central Windsor	-	-	-	10.8	
	(509) Cobham	25.8	23.8	-	-	
	(510) East Molesey	-	14.6	-	-	
	(511) Camberwell	-	-	23.0	-	
	(512) Hedsor Golf Club	24.6	-	-	-	
	(513) Eton Road Datchet	10.9	-	-	-	
	(514) Hanger Hill, Ealing	-	15.6	-	-	

Table 4 Mobile noise monitor sites at Heathrow (continued)

Year	Site	Distance from start- of-roll (km)		m start- touchdown	
		Rwy	Rwy	Rwy	Rwy
		27L/R	09L/R	27L/R	09L/R
2019	(129) Isleworth	-	-	6.8	-
	(130) Richmond	-	-	8.5	-
	(131) Roehampton	-	-	13.2	-
	(137) Hatton	-	4.8	1.7	-
	(138) Feltham	-	7.5	-	-
	(139) Hanworth Road	-	7.9	-	-
	(140) Lincoln Avenue	-	9.6	-	-
	(142) Richmond Park Centre	-	14.3	-	-
	(144) Fulwell Park	-	9.5	-	-
	(146) Kingston Vale	-	16.4	-	-
	(500) Bird Hills	21.6	-	-	-
	(501) Burnham	18.8	-	-	-
	(503) Air Force Memorial	10.5	-	-	-
	(504) Fifield	-	-	-	14.5
	(505) Hanwell	-	11.6	-	-
	(506) Chertsey Lane	14.2	20.1	-	-
	(507) White Waltham	24.1	-	-	20.6
	(508) Central Windsor	-	-	-	10.8
	(510) East Molesey	-	14.6	-	-
	(511) Camberwell	-	-	23.0	-
	(512) Hedsor Golf Club	24.6	-	-	-
	(513) Eton Road Datchet	10.9	-	-	-
	(514) Hanger Hill, Ealing	-	15.6	-	-
	(516) Barnes	-	-	14.2	-
	(517) Lightwater	23.1	-	-	-

Table 4 Mobile noise monitor sites at Heathrow (continued)

Year	Site	Distance from start- of-roll (km)		Distance to touchdown (km)	
		Rwy	Rwy	Rwy	Rwy
		27L/R	09L/R	27L/R	09L/R
2020	(56) Berkeley School	-	7.0	-	-
	(130) Richmond	-	-	8.5	-
	(131) Roehampton	-	-	13.2	-
	(132) Twickenham	-	11.1	-	-
	(137) Hatton	-	4.8	1.7	-
	(138) Feltham	-	7.5	-	-
	(139) Hanworth Road	-	7.9	-	-
	(140) Lincoln Avenue	-	9.6	-	-
	(142) Richmond Park Centre	-	14.3	-	-
	(143) Richmond Park South	-	14.9	-	-
	(144) Fulwell Park	-	9.5	-	-
	(146) Kingston Vale	-	16.4	-	-
	(500) Bird Hills	21.6	-	-	18.7
	(501) Burnham	18.8	-	-	-
	(503) Air Force Memorial	10.5	-	-	-
	(504) Fifield	-	-	-	14.5
	(505) Hanwell	-	11.6	-	-
	(506) Chertsey Lane	14.2	20.1	-	-
	(507) White Waltham	24.1	-	-	20.6
	(508) Central Windsor	-	-	-	10.8
	(511) Camberwell	-	-	23.0	-
	(513) Eton Road Datchet	10.9	-	-	-
	(514) Hanger Hill, Ealing	-	15.6	-	-
	(516) Barnes	-	-	14.2	-
	(701) Wentworth Club	18.0	-	-	-

Table 4 Mobile noise monitor sites at Heathrow (continued)

Year	Site	Distance from start- of-roll (km)		Distance to touchdown (km)	
		Rwy	Rwy	Rwy	Rwy
		27L/R	09L/R	27L/R	09L/R
2021	(56) Berkeley School	-	7.0	-	-
	(129) Isleworth	-	-	6.8	-
	(130) Richmond	-	-	8.5	-
	(131) Roehampton	-	-	13.2	-
	(132) Twickenham	-	11.1	-	-
	(133) Teddington	-	12.3	-	-
	(140) Lincoln Avenue	-	9.6	-	-
	(500) Bird Hills	21.6	-	-	18.7
	(501) Burnham	18.8	-	-	-
	(502) Sunninghill	19.6	-	-	-
	(503) Air Force Memorial	10.5	-	-	-
	(504) Fifield	-	-	-	14.5
	(505) Hanwell	-	11.6	-	-
	(506) Chertsey Lane	14.2	20.1	-	-
	(507) White Waltham	24.1	-	-	20.6
	(508) Central Windsor	-	-	-	10.8
	(509) Cobham	25.8	23.8	-	-
	(510) East Molesey	-	14.6	-	-
	(511) Camberwell	-	-	23.0	-
	(512) Hedsor Golf Club	24.6	-	-	-
	(513) Eton Road Datchet	10.9	-	-	-
	(514) Hanger Hill, Ealing	-	15.6	-	-
	(516) Barnes	-	-	14.2	-

Table 4 Mobile noise monitor sites at Heathrow (continued)

Year	Site	Distance from Distance to start-of-roll (km) (km)			
		Rwy	Rwy	Rwy	Rwy
		27L/R	09L/R	27L/R	09L/R
2022	(129) Isleworth	-	-	6.8	-
	(130) Richmond	-	-	8.5	-
	(131) Roehampton	-	-	13.2	-
	(132) Twickenham	-	11.1	-	-
	(133) Teddington	-	12.3	-	-
	(140) Lincoln Avenue	-	9.6	-	-
	(500) Bird Hills	21.6	-	-	18.7
	(501) Burnham	18.8	-	-	-
	(502) Sunninghill	19.6	-	-	-
	(503) Air Force Memorial	10.5	20.9	-	-
	(504) Fifield	-	-	-	14.5
	(505) Hanwell	-	11.6	-	-
	(506) Chertsey Lane	14.2	20.1	-	-
	(507) White Waltham	24.1	-	-	20.6
	(508) Central Windsor	-	-	-	10.8
	(509) Cobham	-	23.8	-	-
	(510) East Molesey	-	14.6	-	-
	(511) Camberwell	-	-	23.0	-
	(512) Hedsor Golf Club	24.6	-	-	-
	(513) Eton Road Datchet	10.9	-	-	-
	(514) Hanger Hill, Ealing	-	15.6	-	-
	(516) Barnes	-	-	14.2	-
	(703) Wentworth Club	18.4	26.1	-	-

Table 4 Mobile noise monitor sites at Heathrow (continued)

Year	Site	Distance from start-of-roll (km)		Distance to touchdown (km)	
		Rwy	Rwy	Rwy	Rwy
		27L/R	09L/R	27L/R	09L/R
2023	(129) Isleworth	-	-	6.8	-
	(130) Richmond	-	-	8.5	-
	(131) Roehampton	-	-	13.2	-
	(132) Twickenham	-	11.1	-	-
	(133) Teddington	-	12.3	-	-
	(140) Lincoln Avenue	-	9.6	-	-
	(500) Bird Hills	21.6	-	-	18.7
	(501) Burnham	18.8	-	-	-
	(502) Sunninghill	19.6	-	-	-
	(503) Air Force Memorial	10.5	20.9	-	-
	(504) Fifield	-	-	-	14.5
	(505) Hanwell	-	11.6	-	-
	(506) Chertsey Lane	14.2	20.1	-	-
	(507) White Waltham	24.1	-	-	20.6
	(508) Central Windsor	-	-	-	10.8
	(509) Cobham	24.6	23.8	-	-
	(510) East Molesey	-	14.6	-	-
	(511) Camberwell	-	-	23.0	-
	(512) Hedsor Golf Club	24.6	-	-	-
	(513) Eton Road Datchet	10.9	-	-	-
	(514) Hanger Hill, Ealing	-	15.6	-	-
	(515) Cranford School	-	5.4	-	-
	(516) Barnes	-	-	14.2	-
	(703) Wentworth Club	18.4	-	-	-

Table 4 Mobile noise monitor sites at Heathrow (continued)

Year	Site	Distance from start-of-roll (km)		Distance to touchdown (km)	
		Rwy	Rwy	Rwy	Rwy
		27L/R	09L/R	27L/R	09L/R
2024	(129) Isleworth	-	-	6.8	-
	(130) Richmond	-	-	8.5	-
	(131) Roehampton	-	-	13.2	-
	(132) Twickenham	-	11.1	-	-
	(133) Teddington	-	12.3	-	-
	(140) Lincoln Avenue	-	9.6	-	-
	(500) Bird Hills	21.6	-	-	18.7
	(501) Burnham	18.8	-	-	-
	(502) Sunninghill	19.6	-	-	-
	(503) Air Force Memorial	10.5	20.9	-	-
	(504) Fifield	-	-	-	14.5
	(505) Hanwell	-	11.6	-	-
	(506) Chertsey Lane	14.2	20.1	-	-
	(508) Central Windsor	-	-	-	10.8
	(509) Cobham	24.6	23.8	-	-
	(510) East Molesey	-	14.6	-	-
	(511) Camberwell	-	-	23.0	-
	(512) Hedsor Golf Club	24.6	-	-	-
	(513) Eton Road Datchet	10.9	-	-	-
	(514) Hanger Hill, Ealing	-	15.6	-	-
	(516) Barnes	-	-	14.2	-
	(703) Wentworth Club	18.4	-	-	-

Table 5 Mobile noise monitor sites at Gatwick

Year	Site	from st	Distance from start- of-roll (km)		ce to lown
		Rwy	Rwy	Rwy	Rwy
		26L/R	08L/R	26L/R	08L/R
2007	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(21) Horley	24.2	-	-	-
	(25) Rusper	8.2	-	-	-
	(44) Capel	10.9	-	-	-
	(54) Hever	-	21.8	19.5	-
2008	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(21) Horley	24.2	-	-	-
	(25) Rusper	8.2	-	-	-
	(44) Capel	10.9	-	-	-
	(54) Hever	-	21.8	19.5	-
2009	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(21) Horley	24.2	-	-	-
	(25) Rusper	8.2	-	-	-
	(44) Capel	10.9	-	-	-
2010	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(25) Rusper	8.2	-	-	-
	(63) Slinfold Lodge	22.4	-	-	20.6
2011	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(25) Rusper	8.2	-	-	-
	(65) Meath Green	24.0	-	-	-
	(66) Felbridge	-	12.5	-	-
	(67) Hever	-	22.2	20.0	-
	(68) Leigh	19.5	-	-	-

Table 5 Mobile noise monitor sites at Gatwick (continued)

Year	Site	Distance from start- of-roll (km)		Distance to touchdown (km)	
		Rwy	Rwy	Rwy	Rwy
		26L/R	08L/R	26L/R	08L/R
2012	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(25) Rusper	8.2	-	-	-
	(68) Leigh	19.5	-	-	-
	(70) Rudgwick	21.4	-	-	19.2
	(71) Blindley Heath	-	12.1	-	_
2013	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(25) Rusper	8.2	-	-	-
	(74) Hever Castle	-	23.1	21.0	-
	(75) Billingshurst	28.9	-	-	-
	(76) Bidborough	-	30.0	29.6	-
2014	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(25) Rusper	8.2	-	-	-
	(74) Hever Castle	-	23.1	21.0	-
	(75) Billingshurst	28.9	-	-	-
	(76) Bidborough	-	30.0	29.6	-
	(77) Warnham	14.6	-	-	-
	(78) Cowden	-	19.8	-	-
2015	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(74) Hever Castle	-	23.1	21.0	-
	(76) Bidborough	-	30.0	29.6	-
	(78) Cowden	-	19.8	-	-
	(79) South Holmwood	15.9	-	-	-
2016	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(78) Cowden	-	19.8	-	-
	(79) South Holmwood	15.9	-	-	-
	(80) Slinfold	22.0	-	-	-
	(81) Irons Bottom	21.0	27.8	-	-

Table 5 Mobile noise monitor sites at Gatwick (continued)

Year	Site	Distance from start- of-roll (km)		Distance to touchdown (km)	
		Rwy	Rwy	Rwy	Rwy
		26L/R	08L/R	26L/R	08L/R
2017	(18) Lingfield	-	13.7	11.3	-
	(19) Oakwood Hill	15.2	-	-	12.9
	(78) Cowden	-	19.8	18.2	-
	(79) South Holmwood	15.9	-	-	-
	(82) East Grinstead	-	13.6	-	-
	(83) Penshurst	-	28.7	27.6	-
2018	(18) Lingfield	-	13.7	11.3	-
2010	(19) Oakwood Hill	15.2	-	-	12.9
	(78) Cowden	-	19.8	18.2	-
	(79) South Holmwood	15.9	-	-	-
2019	(118) Lingfield	-	13.7	11.3	-
2013	(174) Hever Castle	-	-	21.0	-
	(178) Cowden	-	19.8	18.2	-
	(188) Newdigate	16.3	-	-	-
	(191) Alfold	-	-	-	25.1
	(193) Ruckmans	15.2	-	-	12.9
	(197) Chiddingstone	-	-	23.8	-
2020	(118) Lingfield	-	13.7	11.3	-
	(174) Hever Castle	-	-	21.0	-
	(178) Cowden	-	19.8	18.2	-
	(193) Ruckmans	15.2	-	-	12.9
	(197) Chiddingstone	-	-	23.8	-
2021	(118) Lingfield	-	13.7	11.3	-
	(174) Hever Castle	-	-	21.0	-
	(178) Cowden	-	19.8	18.2	-
	(179) South Holmwood	15.9	-	-	-
	(190) Rusthall	-	-	31.2	-
	(193) Ruckmans	15.2	-	-	12.9
	(197) Chiddingstone	-	-	23.8	-

Table 5 Mobile noise monitor sites at Gatwick (continued)

Year	Site	Distance from start-of-roll (km)		Distance to touchdown (km)	
		Rwy 26L	Rwy 08R	Rwy 26L	Rwy 08R
2022	(118) Lingfield	-	13.7	11.3	-
	(174) Hever Castle	-	-	21.0	-
	(178) Cowden	-	19.8	18.2	-
	(190) Rusthall	-	-	31.2	-
	(193) Ruckmans	15.2	-	-	12.9
	(196) Kingsfold	12.3	-	-	-
	(197) Chiddingstone	-	26.0	23.8	-
	(500) Penshurst Place	-	-	27.6	-
	(501) Fordcombe	-	-	28.4	-
	(502) Crowborough	-	-	40.2	-
	(504) Dunsfold	-	-	-	25.6
2023	(174) Hever Castle	-	-	21.0	-
	(178) Cowden	-	19.8	-	-
	(193) Ruckmans	15.2	-	-	12.9
	(201) Lingfield Racecourse	-	14.5	-	-
2024	(178) Cowden	-	19.8	-	-
	(188) Newdigate	16.3	-	-	-
	(193) Ruckmans	15.2	-	-	12.9
	(197) Chiddingstone	-	-	23.8	-
	(201) Lingfield Racecourse	-	14.5	-	-

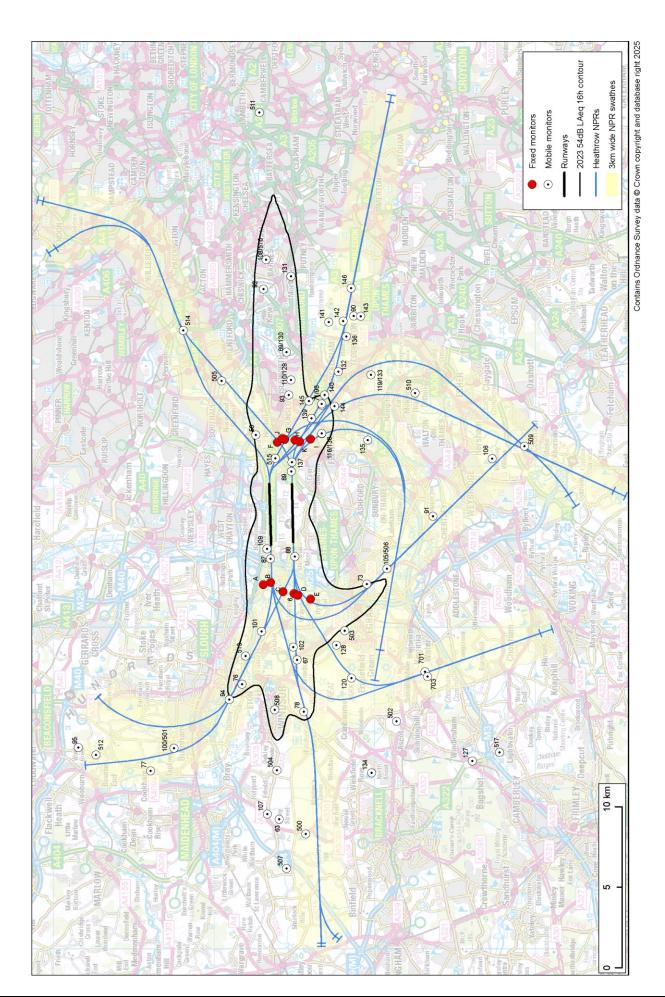
Table 6 Mobile noise monitor sites at Stansted

Year	Site	Distance from start- of-roll (km)		Distance to touchdown (km)	
		Rwy	Rwy	Rwy	Rwy
		22	4	22	4
2007	(59) Jarvis Nursery	3.8	-	-	1.3
	(60) Sayer Park Farm	-	-	-	11.3
	(61) Brick End	-	5.4	2.9	-
	(62) Parsonage Farm	-	-	16.2	-
	(63) Harlow Road	-	-	-	17.5
2009	(62) Parsonage Farm	-	-	16.2	-
	(66) Sawbridgeworth	10.0	-	-	-
	(67) Needham Green	14.6	19.8	-	-
	(68) Thaxted	-	-	8.6	-
	(69) Broxted	-	7.5	4.9	-
	(70) Great Hallingbury	4.7	-	-	-
2010	(20) Thorley Street	7.9	-	-	-
	(71) Hatfield Heath	10.9	-	-	-
	(72) Hatfield Broad Oak	11.9	-	-	-
2011	(68) Thaxted	-	-	8.6	-
2013	(66) Sawbridgeworth	10.0	-	-	-
	(68) Thaxted	-	-	8.6	-
2014	(71) Hatfield Heath	10.9	-	-	-
2015	(101) Thaxted	-	-	10.7	-
2016	(102) Bartholomew Green	-	22.2	-	-
	(104) High Easter	20.6	-	-	-
2017	(108) Debden	-	12.6	-	-
2018	(110) Stebbing	-	16.0	-	-
2019	(111) Harlow	-	-	-	16.7
2022	(113) Spellbrook	9.2	-	-	6.9
2023	(114) Patmore Heath	20.6	-	-	35.0
2024	(115) Much Hadham	16.6	-	-	-

#### APPENDIX C

# **Figures**

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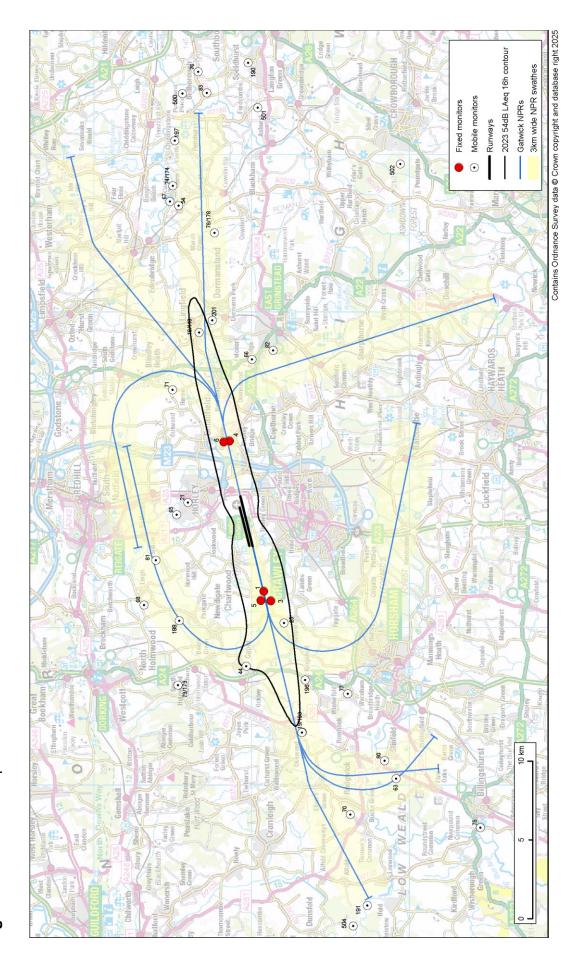
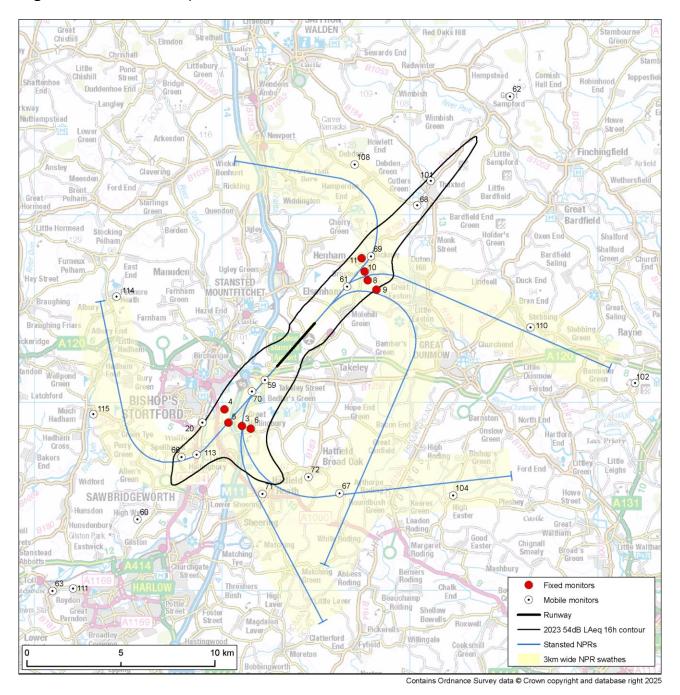
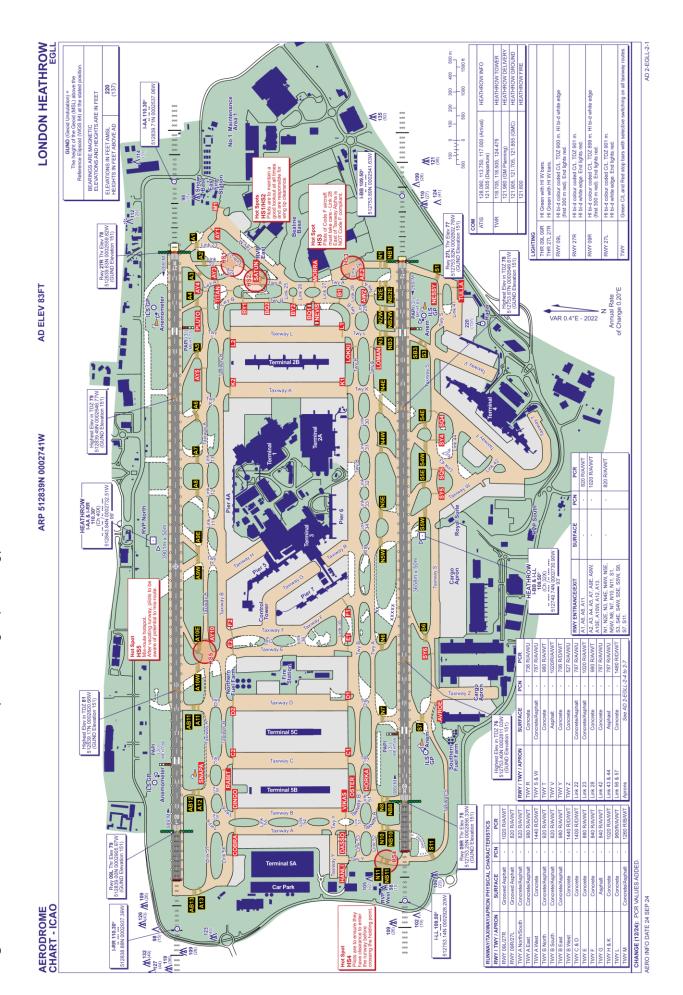
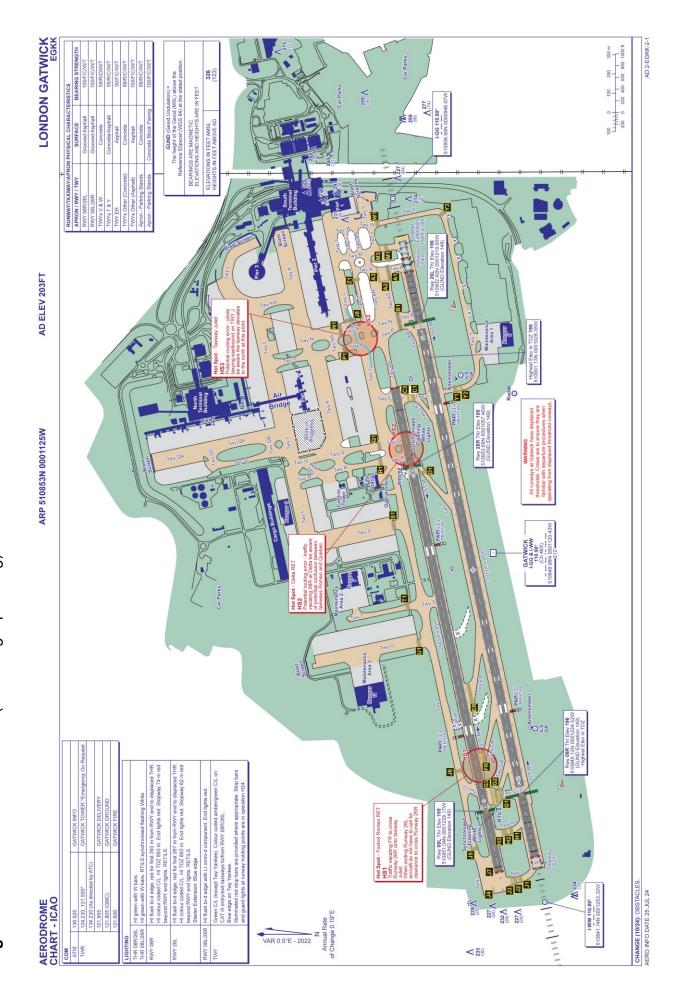
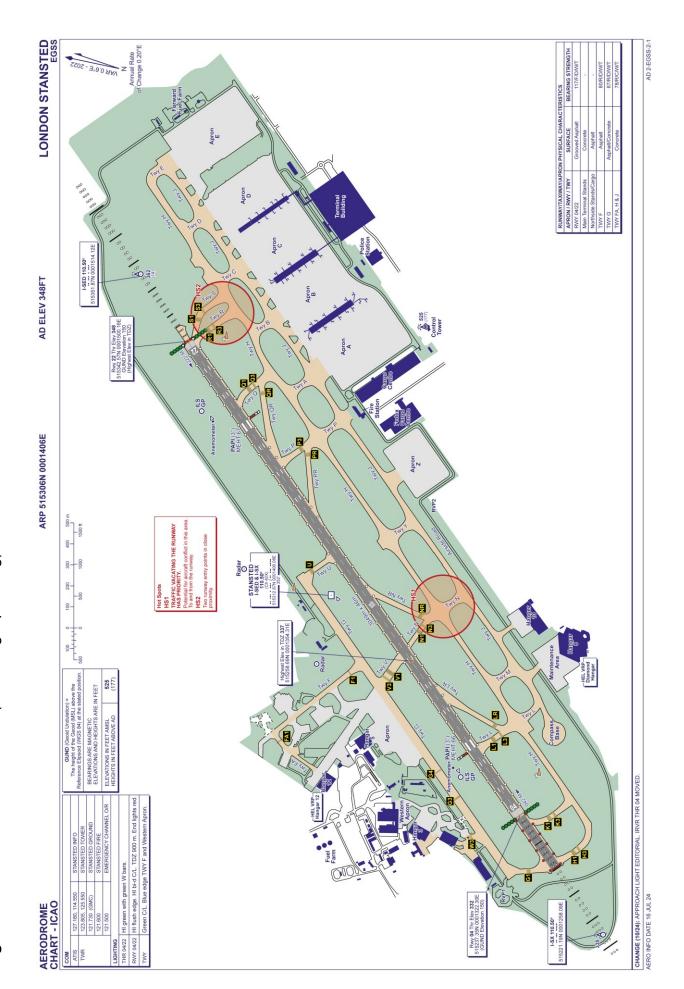


Figure 3 Noise monitor positions at Stansted









#### APPENDIX D

## Glossary

dB Decibel units describing sound level or changes of sound level.

dBA Units of sound level on the A-weighted scale, which incorporate

Units of sound level on the A-weighted scale, which incorporates a frequency weighting approximating the characteristics of human hearing. If the noise metric is A-weighted, and clearly shown with a subscript 'A'

(L<sub>Aeq</sub>), the 'A' can be omitted from the unit (dB).

L<sub>Aeq</sub> 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 within the 16-hour period (0700-2300 local time) over the 92-day summer period from

16 June to 15 September inclusive.

NTK Noise and Track Keeping monitoring system. The NTK system

associates air traffic control radar data with related data from both fixed (permanent) and mobile noise monitors at prescribed positions on the

ground.

NPR Noise Preferential Route. The preferred route for aircraft to fly in order to

minimise their noise profile on the ground in the immediate vicinity of the

airport.

SID Standard Instrument Departure. A designated instrument flight rule (IFR)

departure route linking the aerodrome or a specified runway of the

aerodrome with a specified significant point, normally on a designated air

traffic service route, at which the en-route phase of a flight commences.

SOR Start-of-roll. The position on a runway where aircraft commence their

take-off runs.

Threshold The beginning of that portion of the runway usable for landing.