



Department
for Environment
Food & Rural Affairs

Airport Noise Action Planning Data Pack 2022

Birmingham International Airport (EGBB)

Date: February 2023

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We work closely with our 33 agencies and arm's length bodies on our ambition to make our air purer, our water cleaner, our land greener and our food more sustainable. Our mission is to restore and enhance the environment for the next generation, and to leave the environment in a better state than we found it.



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Introduction

- 1.1 The Environmental Noise (England) Regulations 2006 require that strategic noise maps be produced for the main sources of environmental noise (major roads, major railways, and major airports) and for agglomerations in England. Strategic noise mapping of the airports in scope of the Regulations was completed in 2022, showing the situation in 2021.
- 1.2 The Regulations subsequently require that noise action plans be produced or, if a noise action plan already exists, revised based on the results of the recent noise mapping. The Regulations designate the Airport Operator as the Competent Authority to produce a noise action plan for their airport. Due to Covid travel restrictions, however, the noise mapping for 2021 is likely to show a highly anomalous situation for most airports. As a result, Airport Operators have been given the choice to supplement the results of the recent noise mapping with information from a more representative period when drawing up Noise Action Plans. In addition to the 2021 mapping data this airport has therefore made the decision to draw on information from 2019.
- 1.3 The Secretary of State has issued guidance for airport operators on the issues that should be addressed when preparing their noise action plan. The Regulations require that Action Plans include “a summary of the results of the noise mapping, including an evaluation of the estimated number of people exposed to noise”. This document provides the necessary information to assist airport operators in meeting this requirement.
- 1.4 Based upon the strategic mapping results for this airport for 2021 and 2019 estimated population and dwelling exposure statistics for various noise level indicators are presented in Section 2. Supporting information on the population and dwelling assessment methodology that has been applied is presented in Section 3.
- 1.5 Noise level contour maps for various noise level indicators are presented in Appendix A.

2 Population and Dwelling Exposure Statistics Tables

2.1 The estimated total number of people and dwellings exposed above various noise levels in 2021 derived from the strategic mapping of noise from aircraft using this airport are shown in the tables below.

2.2 Population and dwelling counts have been rounded as follows:

- The number of dwellings has been rounded to the nearest 50, except when the number of dwellings is greater than zero but less than 50, in which case the total has been shown as “< 50”.
- The associated population has been rounded to the nearest 100, except when the associated population is greater than zero but less than 100, in which case the total has been shown as “< 100”.

Table 1: Estimated total number of people and dwellings above various noise levels, L_{den}

Noise Level (dB)	Number of Dwellings	Number of People
≥ 55	9,850	23,200
≥ 60	1,850	4,100
≥ 65	<50	100
≥ 70	0	0
≥ 75	0	0

**Table 2: Estimated total number of people and dwellings
above various noise levels, L_{day}**

Noise Level (dB)	Number of Dwellings	Number of People
≥ 54	6,650	15,400
≥ 57	2,300	5,200
≥ 60	400	900
≥ 63	<50	<100
≥ 66	0	0
≥ 69	0	0

Table 3: Estimated total number of people and dwellings above various noise levels, L_{evening}

Noise Level (dB)	Number of Dwellings	Number of People
≥ 54	3,350	7,800
≥ 57	850	1,800
≥ 60	<50	<100
≥ 63	0	0
≥ 66	0	0
≥ 69	0	0

Table 4: Estimated total number of people and dwellings above various noise levels, $L_{\text{Aeq, 16h}}$

Noise Level (dB)	Number of Dwellings	Number of People
≥ 54	5,900	13,600
≥ 57	1,950	4,400
≥ 60	250	600
≥ 63	<50	<100
≥ 66	0	0
≥ 69	0	0

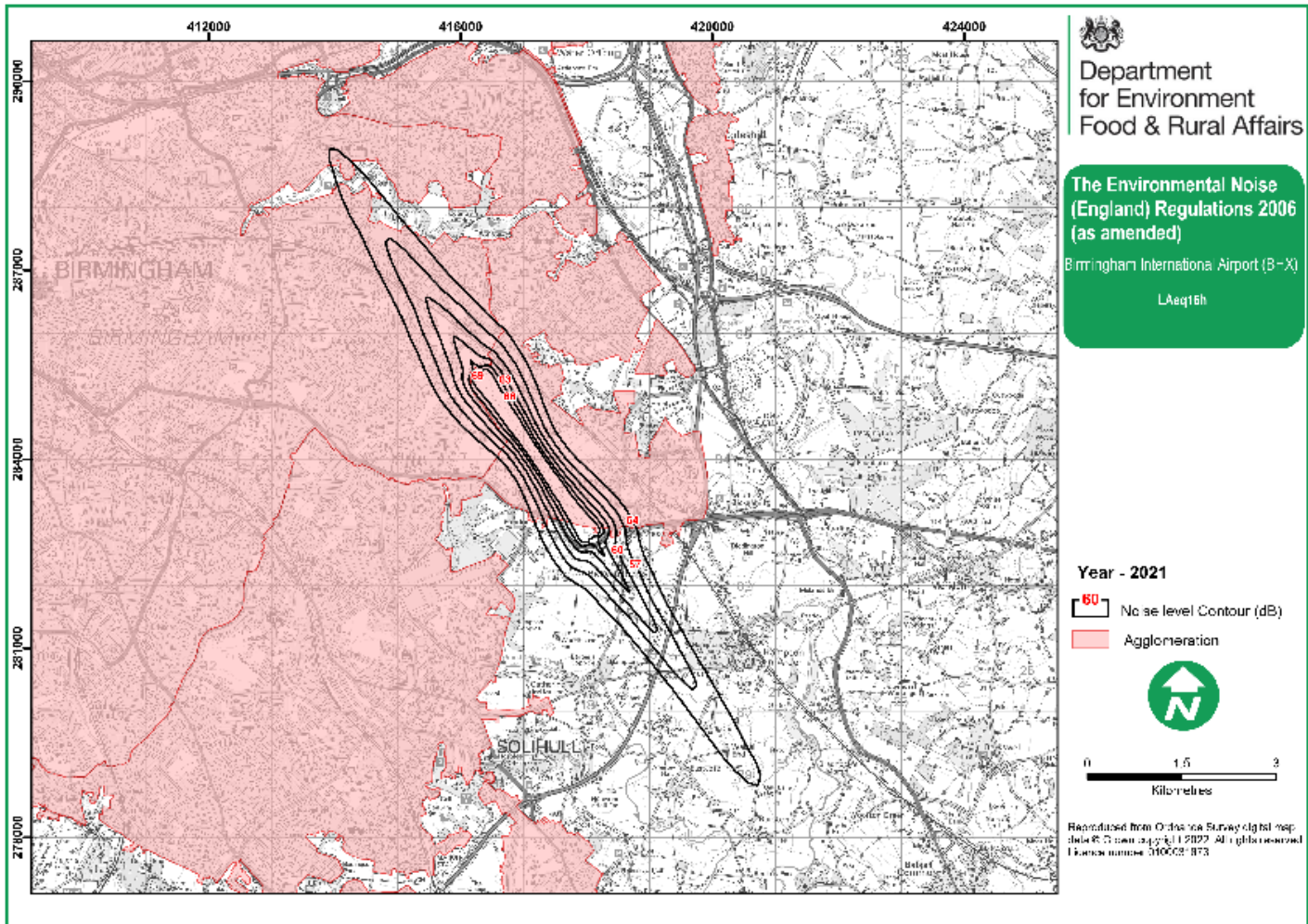
Table 5: Estimated total number of people and dwellings above various noise levels, L_{night}

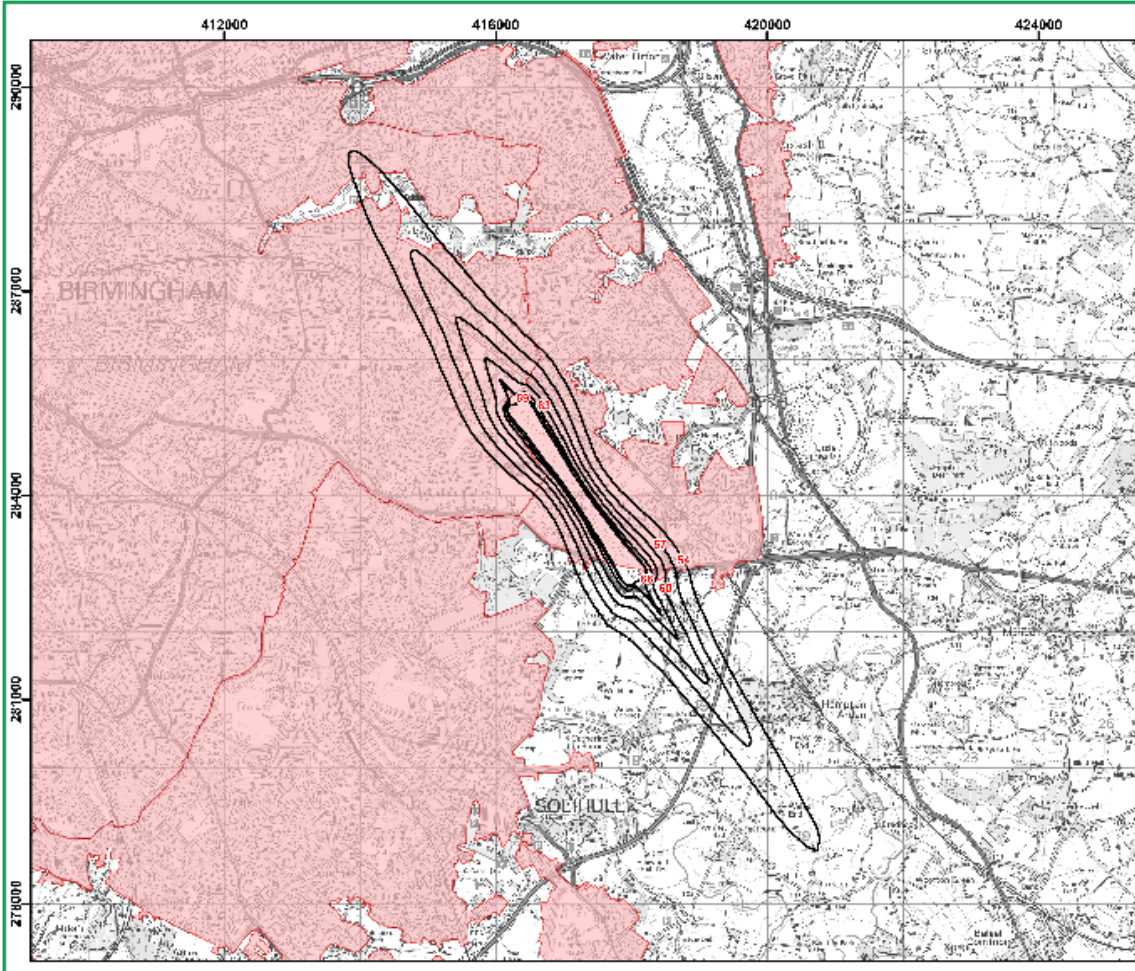
Noise Level (dB)	Number of Dwellings	Number of People
≥ 48	7,750	17,600
≥ 51	2600	5,900
≥ 54	450	1,000
≥ 57	<50	<100
≥ 60	0	0
≥ 63	0	0
≥ 66	0	0


3 Methodology for Calculation of Population and Dwelling Exposure statistics

- 3.1 In order to derive the statistics presented in Section 2, analysis has been undertaken to count the population and number of dwellings within the specified noise contours. This assessment was carried out utilising a strategic residential population location dataset. The following paragraphs summarise the method used in constructing this dataset.
- 3.2 Residential dwellings and buildings containing residential dwellings were identified through the 2015 (OS) AddressBase Premium and Topography layer respectively. An average population per residential dwelling was calculated for each discrete dwelling utilising population data attained from the mid-year population estimates from the Office of National Statistics (ONS), June 2015.
- 3.3 The total number of residential dwellings and the total associated population were calculated for each residential building polygon, taking into account building polygons with multiple dwellings. Examples of building polygons containing multiple dwellings located within a single polygon include tower blocks and apartments.




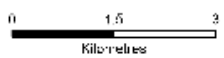
Appendix A - Noise Contour Maps for 2021

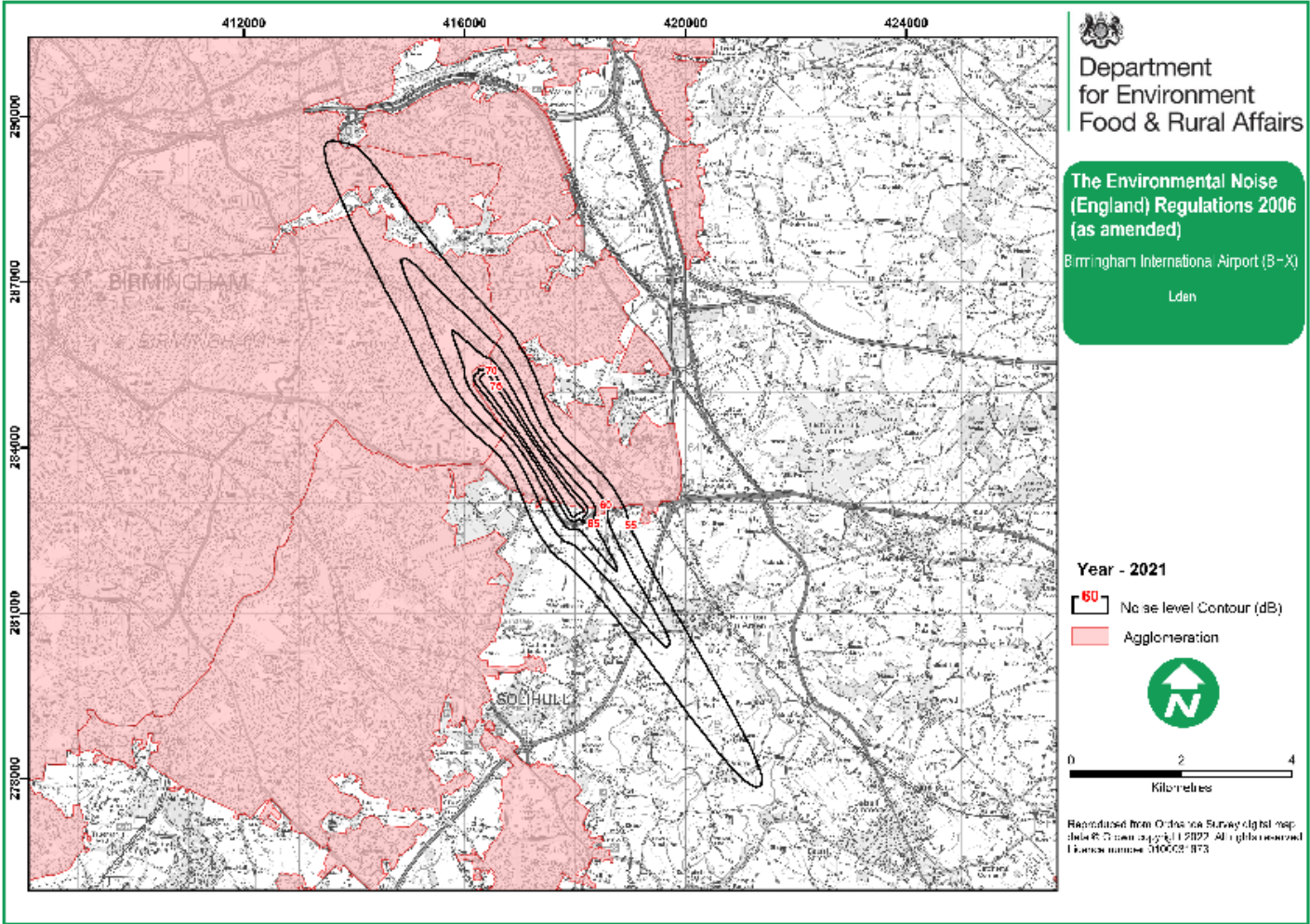


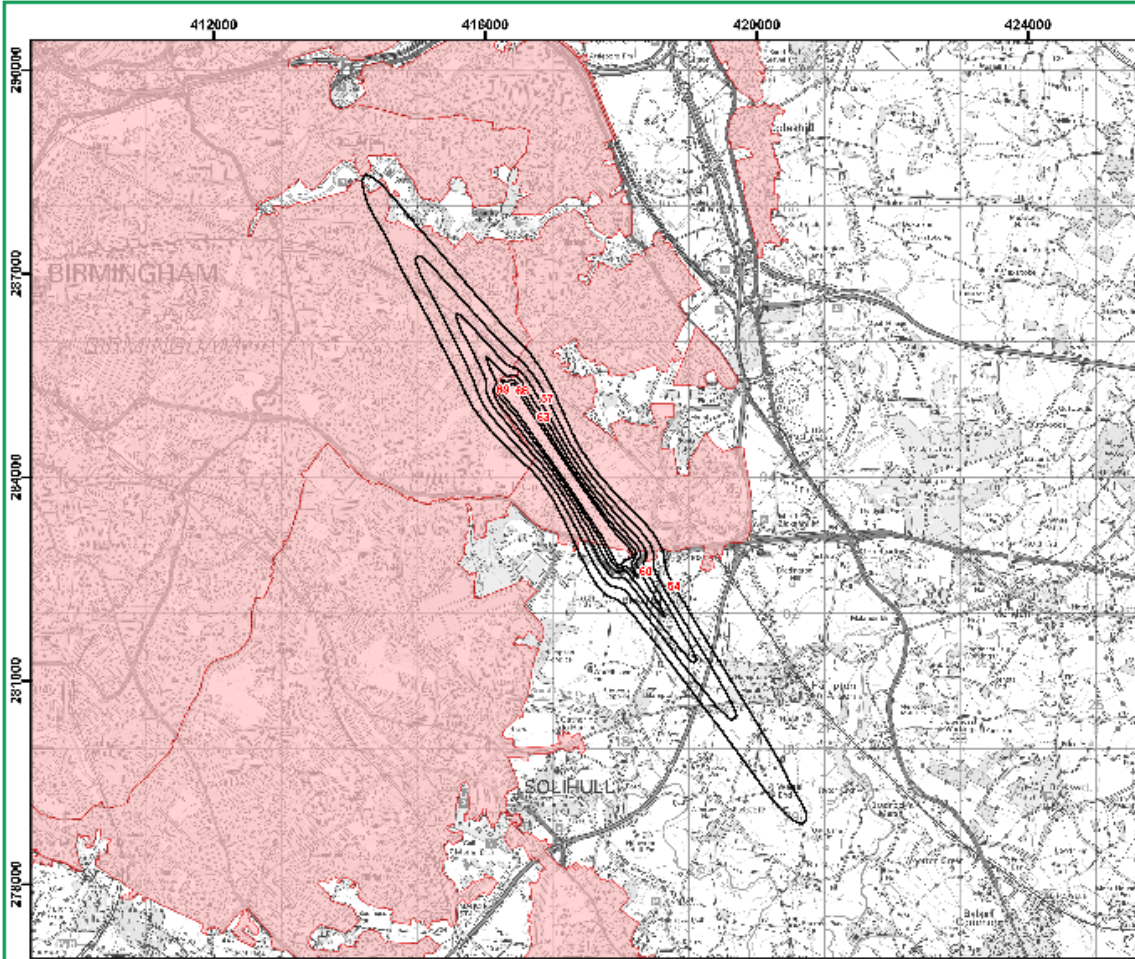



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 Lday

Year - 2021
 Noise level Contour (dB)
 Agglomeration


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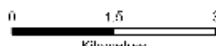



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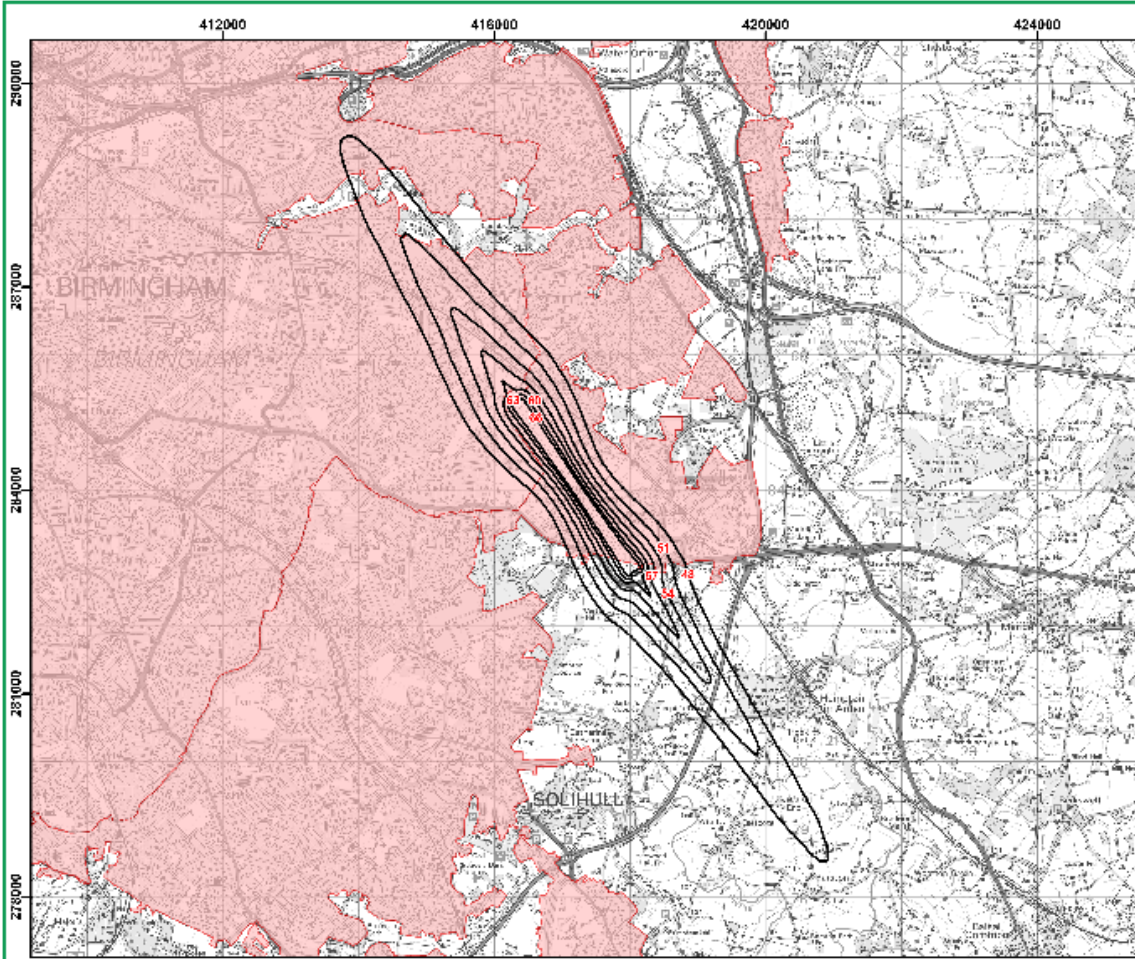
**The Environmental Noise
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 Birmingham International Airport (B-X)
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Year - 2021

 Noise level Contour (dB)
 Agglomeration





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Year - 2021
 Noise level Contour (dB)
 Agglomeration



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 Kilometres

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4 Population and Dwelling Exposure Statistics Tables for 2019

4.1 The estimated total number of people and dwellings exposed above various noise levels in 2019 derived from the strategic mapping of noise from aircraft using this airport are shown in the tables below.

4.2 Population and dwelling counts have been rounded as follows:

- The number of dwellings has been rounded to the nearest 50, except when the number of dwellings is greater than zero but less than 50, in which case the total has been shown as “< 50”.
- The associated population has been rounded to the nearest 100, except when the associated population is greater than zero but less than 100, in which case the total has been shown as “< 100”.

Table 1: Estimated total number of people and dwellings above various noise levels, L_{den}

Noise Level (dB)	Number of Dwellings	Number of People
≥ 55	18,900	45,500
≥ 60	6,350	15,000
≥ 65	850	1,900
≥ 70	0	0
≥ 75	0	0

**Table 2: Estimated total number of people and dwellings
above various noise levels, L_{day}**

Noise Level (dB)	Number of Dwellings	Number of People
≥ 54	15,650	37,800
≥ 57	8,000	19,000
≥ 60	2,800	6,600
≥ 63	750	1,700
≥ 66	<50	<100
≥ 69	0	0

Table 3: Estimated total number of people and dwellings above various noise levels, L_{evening}

Noise Level (dB)	Number of Dwellings	Number of People
≥ 54	12,100	29,300
≥ 57	5,700	13,500
≥ 60	1,700	4,000
≥ 63	500	1,000
≥ 66	<50	<100
≥ 69	0	0

Table 4: Estimated total number of people and dwellings above various noise levels, $L_{\text{Aeq, 16h}}$

Noise Level (dB)	Number of Dwellings	Number of People
≥ 54	14,750	35,600
≥ 57	7,450	17,700
≥ 60	2,550	5,900
≥ 63	700	1500
≥ 66	<50	<100
≥ 69	0	0

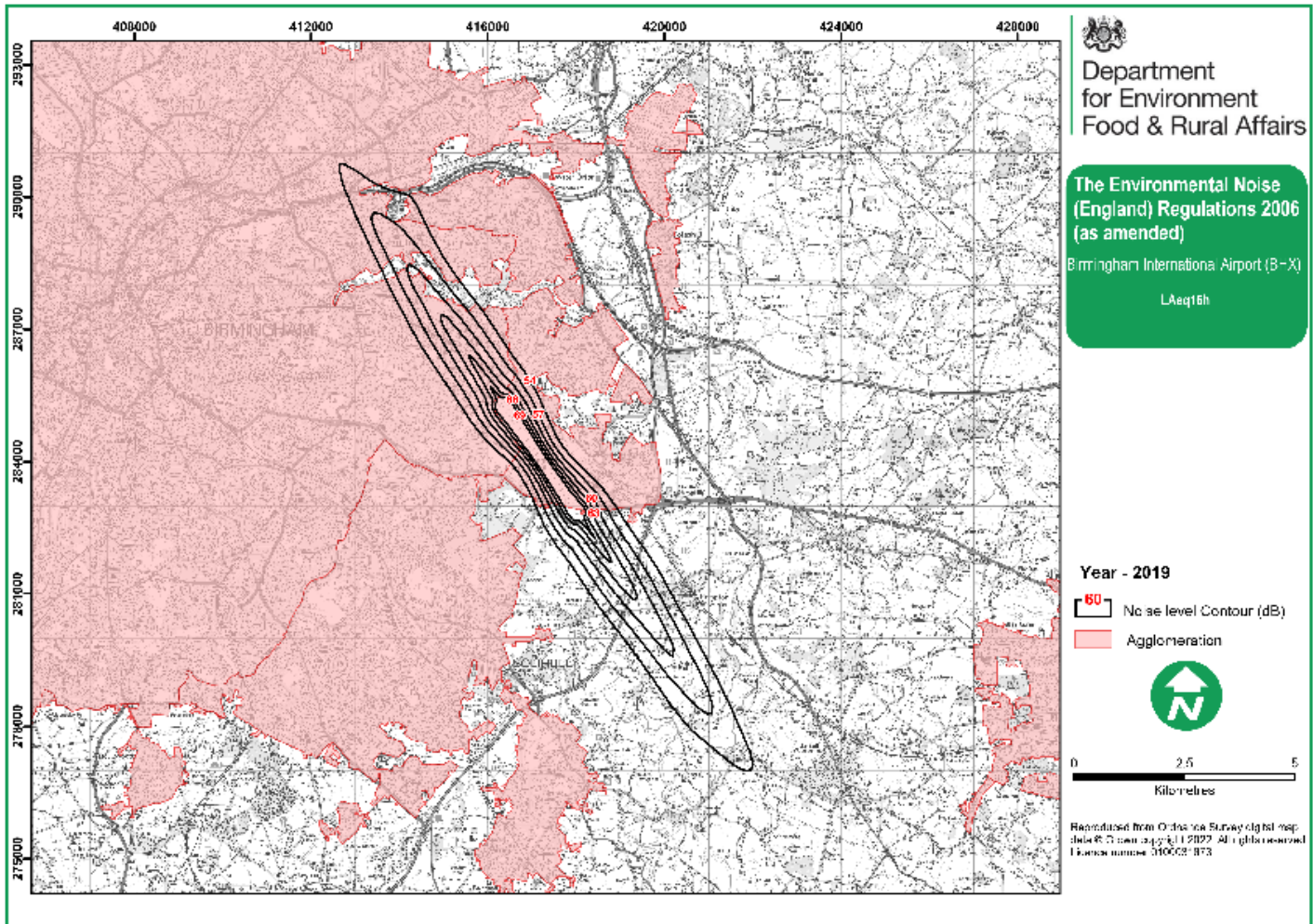
Table 5: Estimated total number of people and dwellings above various noise levels, L_{night}

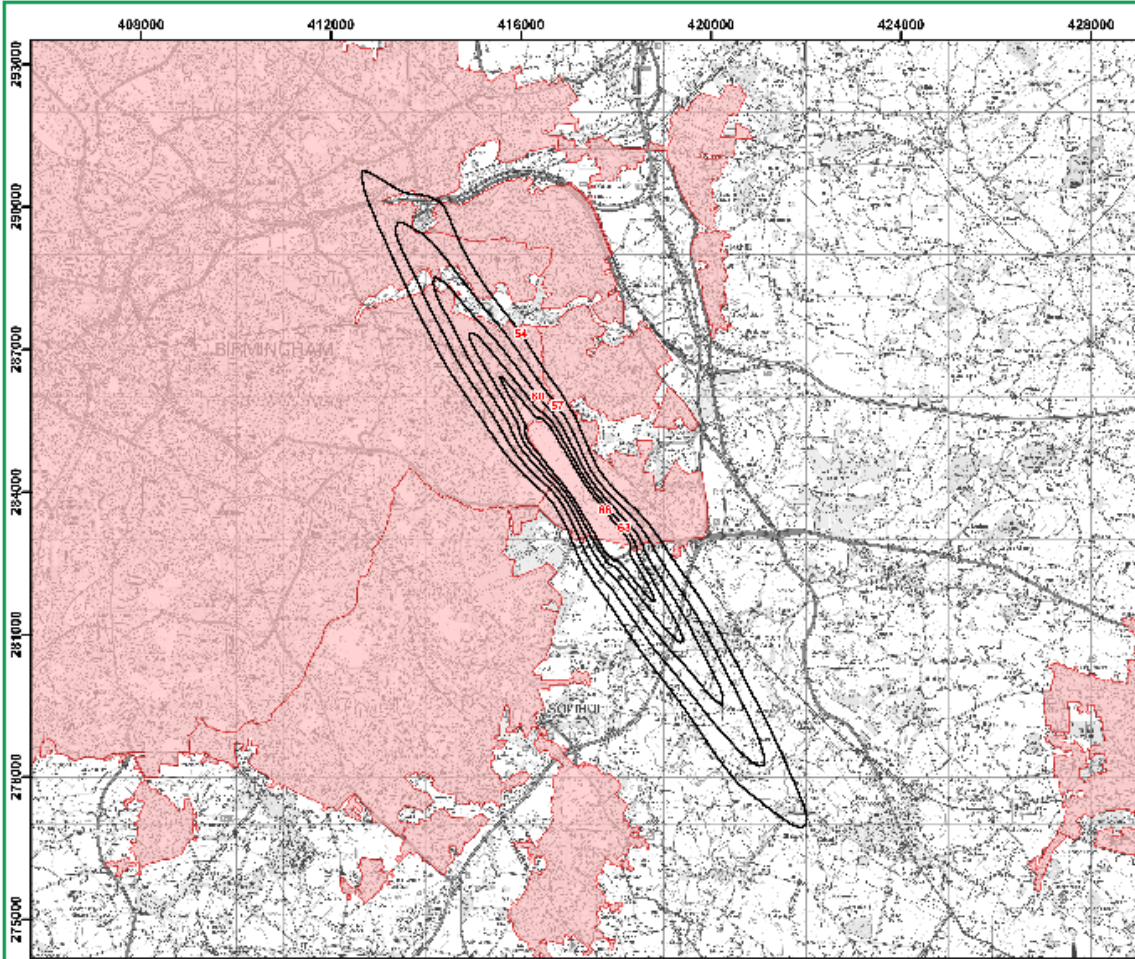
Noise Level (dB)	Number of Dwellings	Number of People
≥ 48	13,550	32,900
≥ 51	6,850	16,300
≥ 54	2,300	5,400
≥ 57	750	1,600
≥ 60	<50	<100
≥ 63	0	0
≥ 66	0	0

5 Methodology for Calculation of Population and Dwelling Exposure statistics

- 5.1 In order to derive the statistics presented in Section 2, analysis has been undertaken to count the population and number of dwellings within the specified noise contours. This assessment was carried out utilising a strategic residential population location dataset. The following paragraphs summarise the method used in constructing this dataset.
- 5.2 Residential dwellings and buildings containing residential dwellings were identified through the 2015 (OS) AddressBase Premium and Topography layer respectively. An average population per residential dwelling was calculated for each discrete dwelling utilising population data attained from the mid-year population estimates from the Office of National Statistics (ONS), June 2015.
- 5.3 The total number of residential dwellings and the total associated population were calculated for each residential building polygon, taking into account building polygons with multiple dwellings. Examples of building polygons containing multiple dwellings located within a single polygon include tower blocks and apartments.




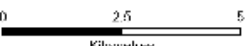
Appendix B - Noise Contour Maps for 2019



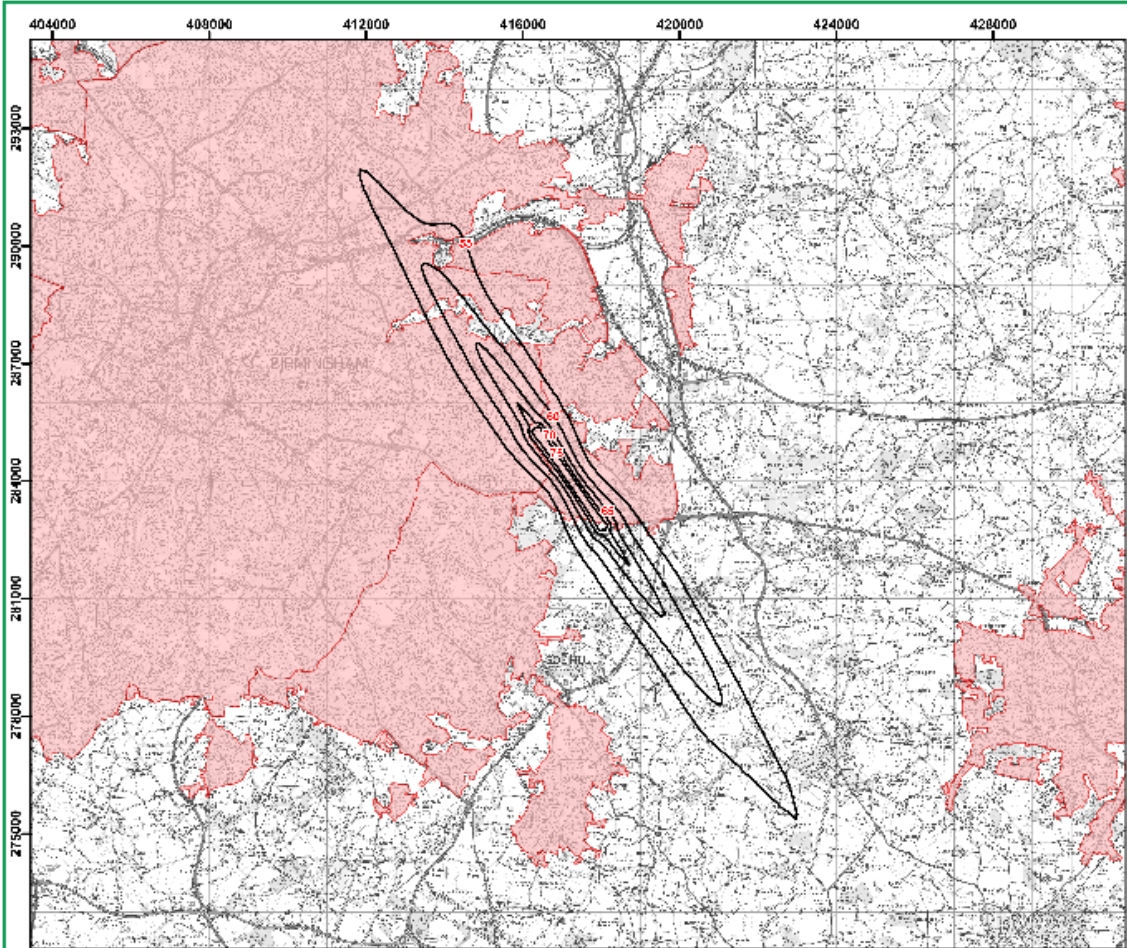



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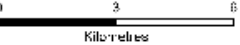


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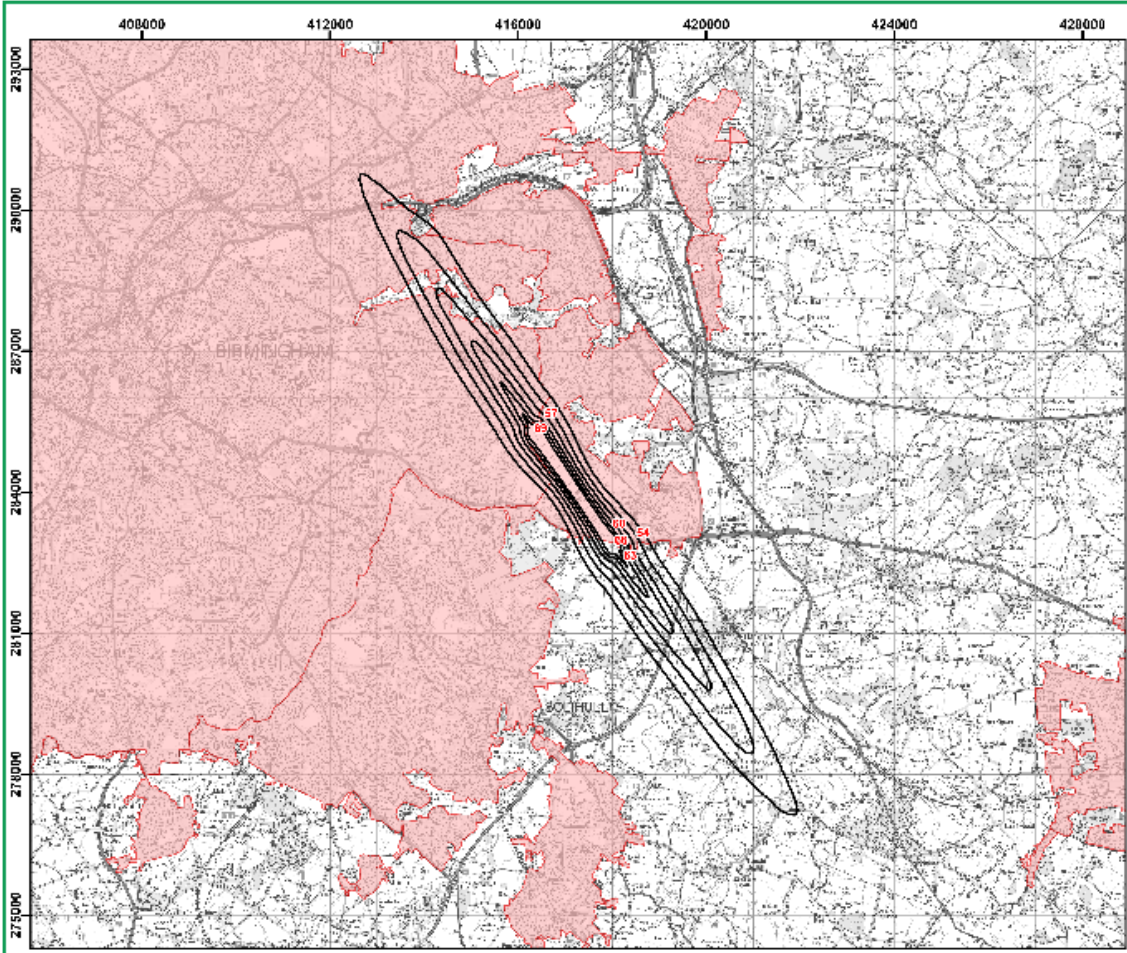
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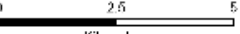


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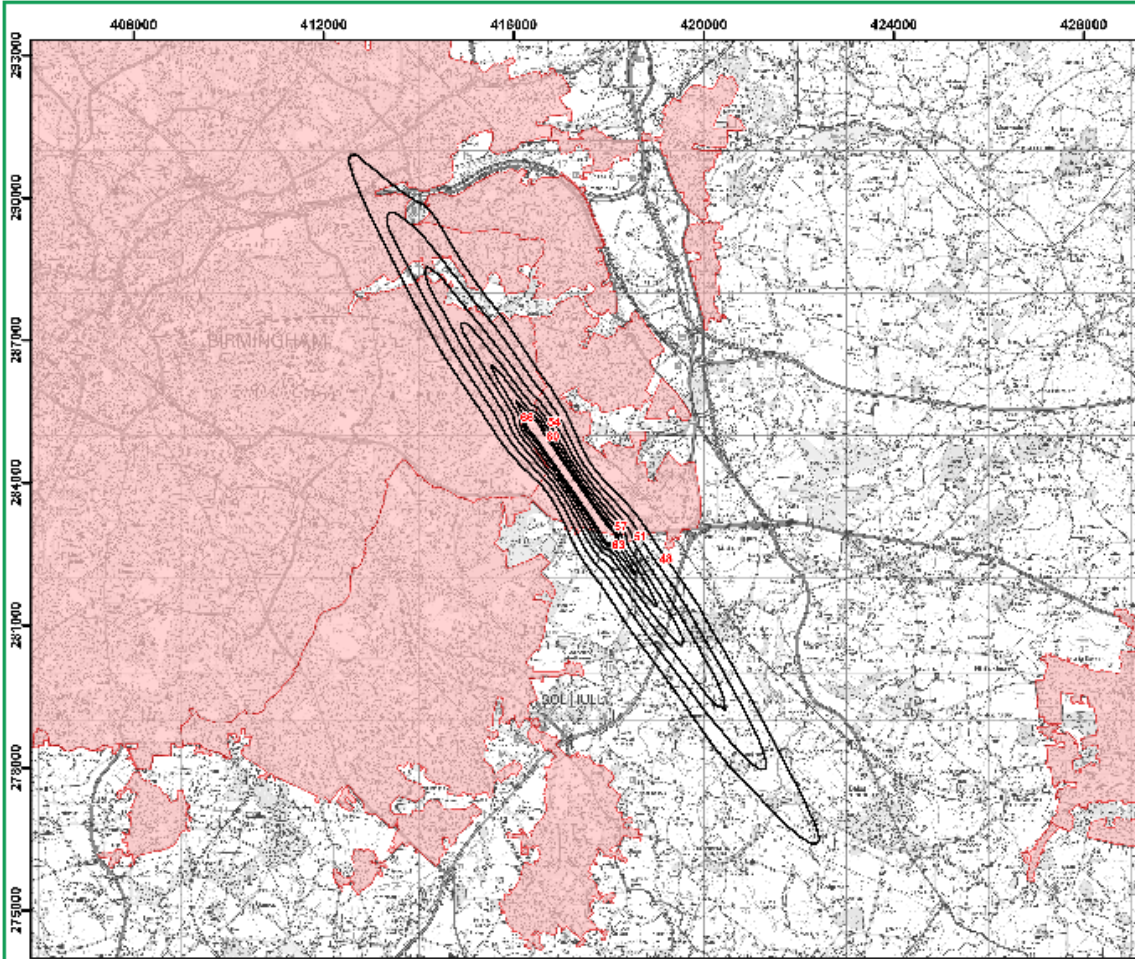
Year - 2019

 Noise level Contour (dB)
 Agglomeration






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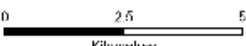
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