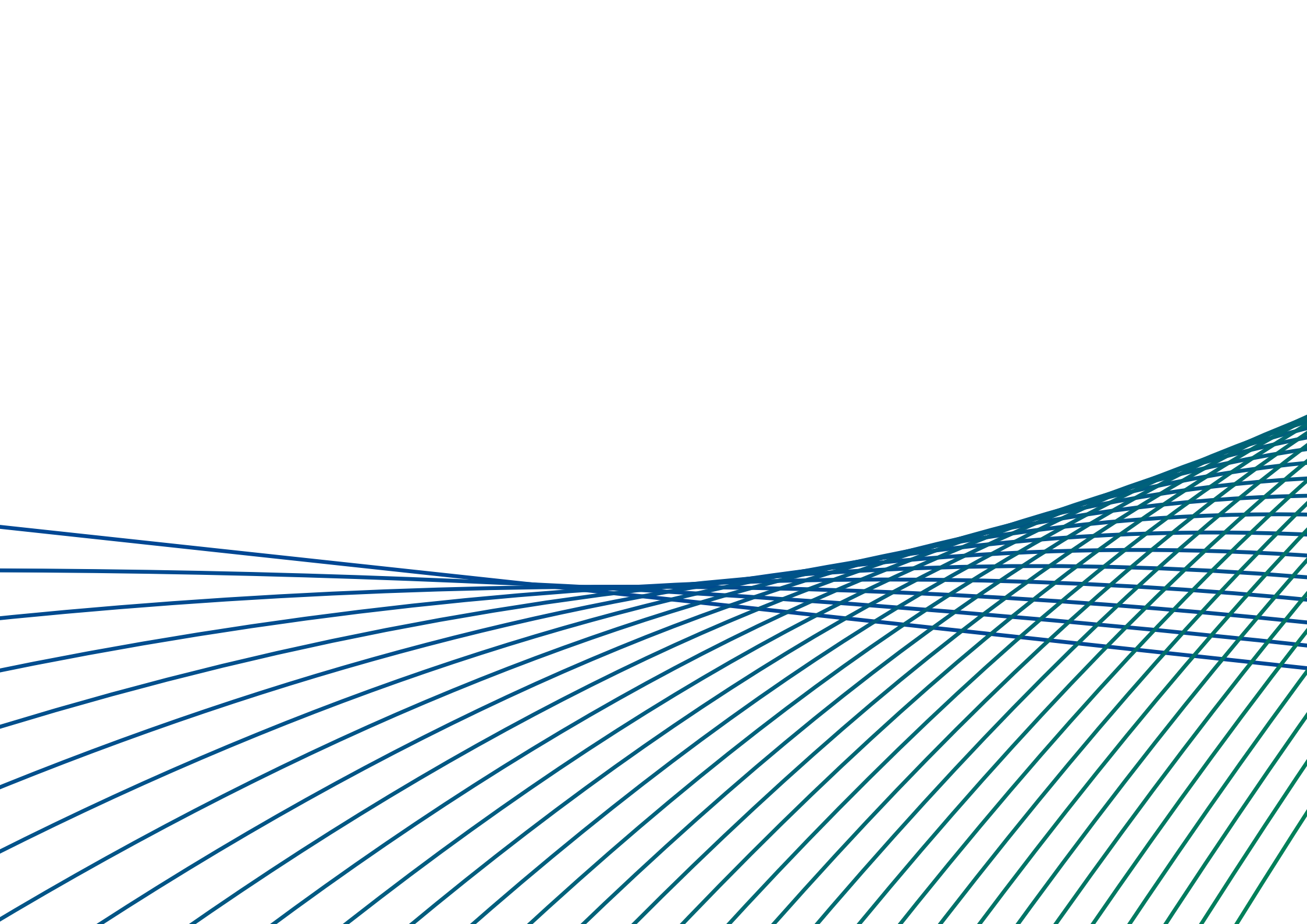
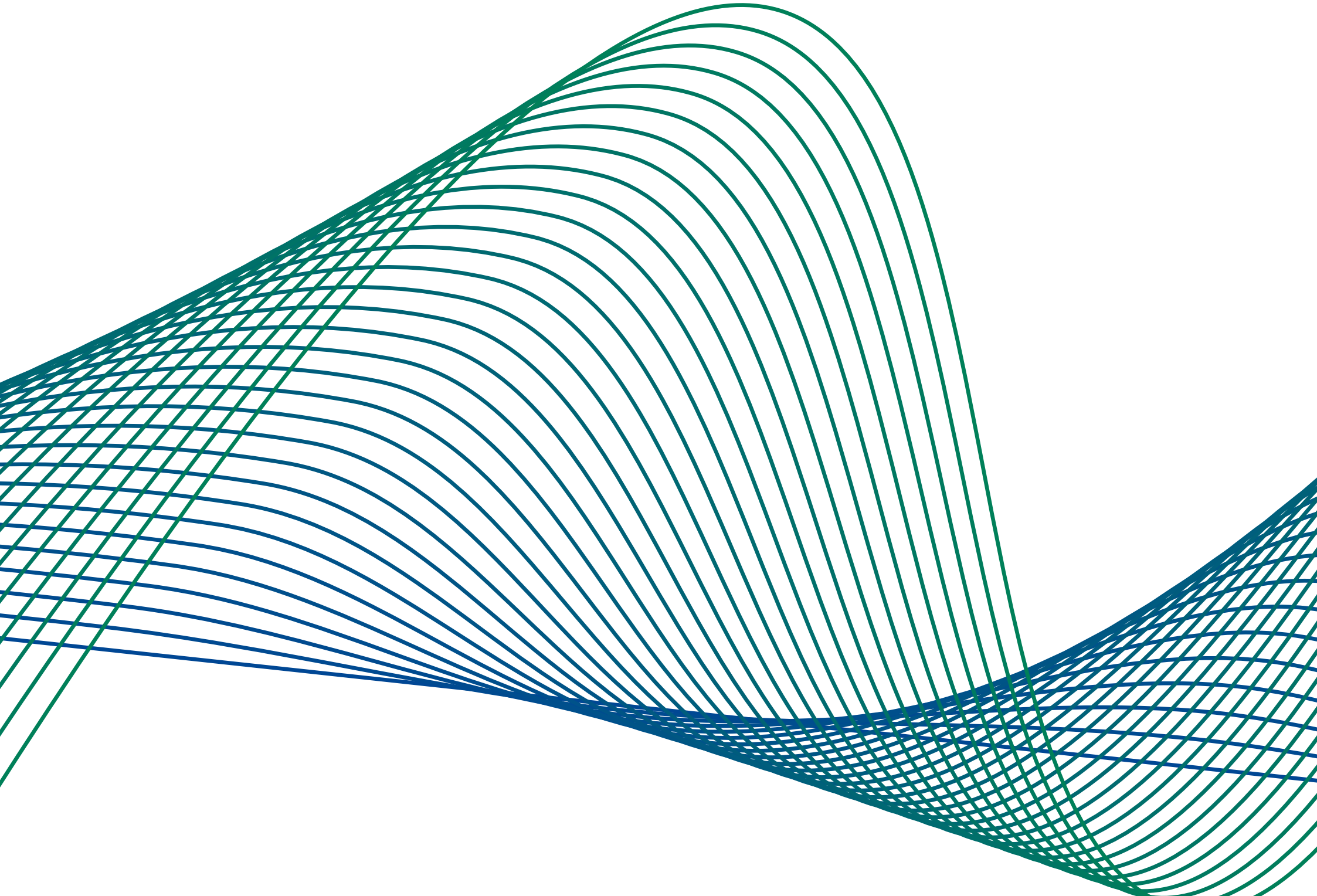
Newcastle International
Your Airport

Noise Action Plan
2024 - 2028






Eurowings
STOP

Contents


KLM
KLM cityhopper
PH-EXC
A1 07
A2 07 CAT II/III
Loganair

Forword

Newcastle International Airport has always been committed to ensure we are a responsible neighbour within the community we form part of. We are aware that the Airport emits noise from our operations and, as a result, we have produced Noise Action Plans over the last 12 years to highlight our commitment to mitigating these noise impacts to those affected. Within this most recent edition we are continuing to commit to a two-way discussion with local communities affected by noise whilst also better understanding the Airport's noise profile.

Over recent years, the Airport has grown its operations, with passenger numbers expected to exceed 5 million in 2024. This growth has created more jobs and acted as a catalyst to contribute more than £1bn in GVA to the regional economy. Thanks to our strong portfolio of airlines, travellers are able to choose from over 80 direct destinations to fly worldwide.

However, it is also important to recognise that the growth of the Airport must be delivered in a sustainable manner. Our increased operations must be balanced with actions to reduce our environmental impacts in the region. We are aware that aircraft noise remains an issue for some living in local communities surrounding the Airport. Our teams work closely with our airlines, the Government and these local communities to manage and reduce the effects of aircraft noise.

This draft Noise Action Plan (NAP) sets out our proposals to address the issues of aviation noise and the impacts on those affected.

How Newcastle International Airport manages noise is a critical element of our ongoing commitment to the communities surrounding the Airport. The success of the Noise Action Plan will only be possible with the support of our key partners in the local community. Therefore, I invite you to engage with this consultation and let us know your thoughts on the actions proposed.

Our five week consultation closes on 7 January 2025. We welcome you to share your views on the contents of the Noise Action Plan and how we can manage noise around your Airport.

Nick Jones, CEO

1. Introduction

Noise is an important challenge which NIAL takes very seriously. The Airport understands the importance of addressing issues of noise whilst growing in a sustainable manner.

This document has been produced to update the Newcastle International Airport Limited (NIAL) noise management programme for the period 2024 – 2028. Its purpose is to review and update the actions identified within the previous Noise Action Plan (NAP) 2019.

Whilst this review has been requested by the Department for Environment, Food and Rural Affairs (DEFRA), it should be highlighted that the NAP is annually reassessed, and updates are provided to the Airport Consultative Committee and its Noise Sub Committee when required. If any operational changes impact on the Plan, they will be considered, and the NAP revised. The NAP provides a strategic framework for improvement however, we will continually embrace any new actions identified during the five-year plan period.

The structure of the NAP follows the International Civil Aviation Organisation (ICAO), 'Balanced Approach'. ICAO is a specialised agency of the United Nations, created to promote the safe and orderly development of international civil aviation throughout the world.

It sets standards and regulations necessary for aviation safety, security, efficiency and regularity, as well as for aviation environmental protection. The Balanced Approach aims to address noise management in an environmentally responsive and economically responsible way, and encompasses four key principal elements;

- Reduction of noise at source;
- Land-use planning and management;
- Noise abatement procedures; and
- Operating restrictions.

In addition to the points above, an important factor for consideration in the NAP is working alongside local communities. The Airport considers itself a responsible neighbour within the community and will continue to strive to improve relationships with our neighbours. As a result of this, we have dedicated actions directly related to community engagement within the plan.

A full breakdown of actions is detailed in section 8 of this document.

2.

About Newcastle International Airport

NIAL is the North East's global gateway and is the main airport for the region. The Airport has welcomed visitors and connected businesses and holidaymakers to the world for the last 89 years.

The Airport's ownership structure consists of the seven Local Authorities in the surrounding area and Infrabridge, 51% and 49% shareholdings respectively.

NIAL is currently the 11th busiest airport in the UK, serving 4.9 million passengers in 2023, approximately 93% of pre-pandemic levels. The Airport has a broad portfolio of 15 airline partners operating to over 80 direct destinations including scheduled services to hub airports such as Paris, Amsterdam, Frankfurt, Dubai and Heathrow, all vital for business and leisure connectivity for the region. The Airport's post pandemic recovery has been strong with leisure demand for holidays recovering particularly well, driven by aircraft investment.

As well as commercial operations, NIAL is designated as a 'Co-opted Military emergency airfield' and are required to accept aircraft requiring assistance. Military aircraft also use the Airport for 'practice diversions' to develop pilot familiarisation. Air Traffic Control meets regularly with the Ministry of Defence and any concerns relating to community complaints are communicated during these discussions.

2.1 Location

NIAL is situated approximately six miles North West of Newcastle City centre on the edge of the Tyne and Wear conurbation. The Airport passenger catchment area is large, ranging from Scotland to Yorkshire. However, the core catchment area of North East England has a population of approximately 2.675 million in accordance with the 2019 census.

2.2 Annual Movements

The movements at the Airport are making a strong recovery year on year since the pandemic. Despite lower movements, the Airport processes similar passenger number figures to that of 2019. This is due to the increase in aircraft size operating at the airport.

Year	Commercial	Others*	Total
2017	43,046	16,371	59,417
2018	40,977	14,688	55,665
2019	39,041	12,990	52,031
2020	11,297	8,263	19,560
2021	12,096	10,914	23,010
2022	30,721	11,816	42,537
2023	34,919	11,153	46,072

NB: The 'others*' column includes Flying Club, Test and Training aircraft including military.

2.3 Runway Usage

NIAL operates from a single runway aligned south-west to north-east. The runway can be used in either direction and is designated 25 or 07 depending on wind direction. Runway 25 is the predominant runway of use and compromises approximately 70% of operation.

3.

Airport Masterplan

NIAL have an adopted Masterplan which has been in place since 2018. The Masterplan provides passenger forecasts projecting ambitious growth up to 2035. The purpose of the Masterplan is to ensure that adequate land is safeguarded to meet the ambitious growth of the Airport. Land included within the Masterplan is then allocated within local authority development plans to ensure inappropriate development does not limit Airport growth.

The following development proposals form part of the existing Masterplan:

- The development of a 16MW Solar Farm to the south-east of the runway, over 3 further phases
- Safeguarding of land for a possible 700m runway extension to the eastern end of the runway;
- Additional aircraft stands and apron;
- Improvements within the terminal utilising technology to maximise the use of space currently available;
- Up to an extra 7,400 car parking spaces, based on current patterns of travel to the Airport; and
- Allocation of 63ha of land for offices and warehouses to the south of the runway.

Guidance advises that the Masterplan should be reviewed every five years. At the time of writing, the Airport has begun a review of the published Masterplan to forecast growth and development up to 2040. The upcoming Masterplan will set out the development requirements in order to become a Net Zero Airport by 2035. Updated passenger forecasts have also been provided up to 2040. The forecasts are based upon the higher end of the forecasting range. The Masterplan is set to be released for consultation in 2025.

As part of the Masterplan review, updated noise contours have been produced to assess predicted possible noise impacts for 2030, 2035 & 2040. These contours consider the introduction of quieter aircraft over the next fifteen years alongside the growth in passenger numbers predicted.

The updated noise contours are included within the Noise Action Plan and are available in Appendix C.

4.

Current Noise Climate

4.1 Noise Monitoring

NIAL operates the Envirosuite noise and track keeping system, 'NoiseDesk'. The NoiseDesk system continuously monitors noise levels through noise monitors installed within local communities and displays reliable flight track keeping data to monitor aircraft compliance. Information from the system is shared with complainants to aid NIAL responses and shared with airlines to monitor performance.

Noise monitors are installed at the following locations:

- Dinnington First School;
- Ponteland Primary School;
- Woolsington (Middle Drive);
- North Gosforth Academy; and
- Heddon on the Wall library.

A community-facing platform of NoiseDesk, 'Web Trak', can be accessed via the Airport's website:
https://www.newcastleairport.com/about-your-airport/environment/
It provides opportunities for members of the public to review flight tracks of aircraft and monitor noise levels within their community.

4.2 Noise Complaints

Communities who are impacted by noise from the Airport's operations can contact the airport directly. Noise complaints are received through a number of different methods, including a dedicated email address (noise@newcastleinternational.co.uk) and telephone line 0191 214 3569, both of which are managed by our Environmental and Sustainability Advisor. Each complaint is investigated using the NoiseDesk system and through liaison with Air Traffic Services. We aim to respond to all complaints within 10 working days.

If the complaint cannot be resolved through correspondence, the complainant is invited to the Airport to discuss their concerns with Airport Management. Also, as part of the NoiseDesk system, a mobile noise monitor can be located within individual properties, to measure noise levels.

A summary of noise complaints are presented at the six-monthly Airline Safety Committee, the quarterly Airport Consultative Committee and it's Noise Sub-Committee. The table below summarises the number of complaints received and complainants in the years 2018 to 2023.

4.3 Noise complaints summary

Year	Number of Complaints	Number of Complainants
2018	110	60
2019	282	45
2020	30	18
2021	44	24
2022	1,509	121
2023	1,300	75

As the table above demonstrates, there has been an increase in noise complaints from 2018 to 2023, with a reduction in 2020 and 2021, as a result of travel restrictions during the COVID-19 pandemic. In 2022, the Airport recovered strongly from the pandemic which saw a significant uplift in aircraft movements following a two-year period of sustained quiet which communities became used to. The reintroduction of a close to peak flight schedule in a relatively short period of time was a huge contrast and led to a number of complaints received querying operational procedures, the scheduling of aircraft and whether the flight paths had changed. The impact of the COVID-19 pandemic has also resulted in changes to the way people live their lives, for example, many more people working from home and some people have moved house at a time which may not have been representative of the normal environment. In addition, air traffic across Europe was significantly impacted during 2022 and especially throughout the summer period because of strikes, cancellations, staff shortages and the war in Ukraine causing their airspace to shut down.

These impacts materialised into a number of delayed arrivals during the night-time period (23:00 – 05:59) at the Airport.

Of all noise complaints received during 2023, 98% were received from communities to the South-West of the Airport situated along the Standard Instrument Departure (SID) routes GIRLI 3X and GIRLI 1Y: Heddon-on-the-Wall, Clara Vale and Throckley among others. Furthermore, in 2023, six individual complainants recorded 83% of the complaints received. The Noise Sub-Committee was established in late 2019, however meetings had to be postponed during the COVID-19 pandemic and they resumed in 2022. The Noise Sub-Committee meets quarterly and advises on proposed actions for managing noise to the Airport Consultative Committee for their approval.

In 2023, the number of complainants has followed a similar trend to 2022 with the majority of complaints received from repeat or historic complainants. New complainants are often a result of sustained changes in the predominant wind direction, causing more aircraft to depart and arrive on Runway 07 rather than Runway 25. As stated in section 2.3, Runway 25 is the predominant runway of use with approximately 70% of operation (aircraft departing and arriving to the west). The top three complainants in 2023 made up 52.9% of all complainants.

In 2024 compalints have reduced further since 2023.

4.4 Noise Complaints Summary

Air Traffic Services (ATS)are operated by NIAL. Members of ATS work closely with the Environmental and Sustainability Team, and have contributed to the NAP process. The team is conscious of the role it plays in minimising the impact of aircraft on the local communities.

This role has included;

- Ensuring Noise abatement procedures are included in the Aeronautical Information Publication (AIP), which is used as a reference tool by airlines
- ATS encourage and actively monitor the use of Continuous Descent Approaches (CDAs).

4.5 Noise Abatement Proceedures

As part of the Aeronautical Information Publication (AIP), ATS have in place well established noise abatement procedures. Integral to the procedures is a requirement that 'every operator of aircraft using the aerodrome shall ensure at all times that aircraft are operated in a manner calculated to cause the least disturbance in areas surrounding the aerodrome'.

See below the Noise abatement procedures;

(a) Every operator of aircraft using the aerodrome shall ensure at all times that aircraft are operated in a manner calculated to cause the least disturbance practicable in areas surrounding the aerodrome.

(b) Continuous Descent Approaches - Subject to ATS instructions, inbound jet aircraft are to maintain as high an altitude as practicable and adopt a low power, low drag continuous descent profile, when appropriate. Turbo-jet and turbo-prop aircraft are expected to apply continuous descent, low power, low drag approach techniques at all times. ATS will provide pilots an estimate of the track distance to run to touchdown as soon as possible after first call on the approach frequency and thereafter on request.

(c) Aircraft approaching without assistance from radar or Instrument Landing System shall follow a descent path which will result in the aircraft not being at any time lower than the approach path which would be followed by aircraft using the ILS glide path.

(d) Aircraft must not join the final approach track to either runway at a range of less than 7 nm and at a height of less than 1700 ft QFE (2000 ft QNH), except when instructed by ATS, unless they are propeller driven aircraft with an MTWA of between 5700 kg and 12000 kg when restriction shall be to join the final approach to either runway at not less than 3.5 nm and not less than 1000 ft QFE (1300 ft QNH). Aircraft whose MTWA is less than 5,700 kg must not join the final approach track to either runway at a height of less than 1000 ft QFE (1300 ft QNH).

(e) To minimise disturbance in areas adjacent to the aerodrome, Captains are requested to avoid the use of reverse thrust after landing, consistent

with safe operation of the aircraft, especially between 23:00-07:00 (22:00-06:00).

(f) The Noise Preferential Routings (NPRs) specified in the following table are compatible with ATS requirements and the tracks are to be flown by all departing jet aircraft and by all other departing aircraft of more than 5700 kg MTWA unless authorised by ATS or unless deviations are required in the interest of safety. The NPRs are incorporated into the Standard Instrument Departure (SIDs) and Omnidirectional departures.

Take- off runway	Direction of turn	Intended track (°M)	Procedure
07	Left Turn	Between 069° and 250° and LH circuit	Climb straight ahead to FL 80. (Circuit level as directed by ATS.)
	Right Turn	GIRLI P18ERKIT N110RH circuit	Climb straight ahead to 3.5 DME NEW (3 DME I-NC) and turn right heading 190° climbing to FL 80 (Circuit level as directed by ATS).
25	Straight ahead or Right Turn	Between 251° and 070° and RH circuit	Climb straight ahead to FL 80 (Circuit level as directed by ATS).
	Left Turn	GIRLI P18ERKIT N110LH circuit	Climb straight ahead to 1.5 DME NEW (1 DME I-NWC) and turn left heading 210° climbing to FL 80. (Circuit level as directed by ATS.)
	Left turn (CURROCK ACTIVE)	GIRLI P18ERKIT N110LH circuit	Climb straight ahead to 1.5 DME NEW (1 DME I-NWC) and turn left heading 180° climb to FL 80.

(g) Ground Running by aircraft is prohibited between 23:00 – 06:00 (22:00 – 05:00), unless the aircraft operator can show that overriding operational requirements exist. At other times ground running is to be kept to the minimum consistent with operational needs and shall be authorised by ATS.

(h) General Aviation to avoid flying over built up areas.

The noise abatement procedures are reviewed on a regular basis, by both the Environmental and Sustainability Advisor and ATS.

4.6 Aircraft Routing

An Airspace Change Proposal (ACP) consultation was carried out in 2014 for the approval of three Standard Instrument Departure routes. In 2016, the CAA approved the routes and they have now been implemented with improved path accuracy and provide known environments for aircraft routings. In 2019, the CAA commenced a Post Implementation Review (PIR) of their decision to approve the three SID routes and concluded that they are content with the routes meeting the intent of the ACP. They offered one formal recommendation during the PIR which was “NIAL should brief Dash 8 operators that fly GIRLI 3X SID, to avoid overflight of Heddon-on-the-Wall.” Dash 8 aircraft are turboprop-powered regional airlines. Dash 8 aircraft no longer operates from the airport.

An ACP was carried out for Standard Terminal Arrival Routes (STARs) in 2017. The design of each STAR mirrored the current arrival patterns and did not introduce aircraft into new communities. NIAL received approval from the CAA in February 2019.

5.

Legislative and Policy Requirements

5.1 International Regulation

In 2001 the International Civil Aviation Organisation (ICAO) endorsed the 'Balanced Approach', this approach states that noise problems at an airport should be analysed using the following four elements;

- Reduction at source;
- Land use planning and management;
- Noise abatement operational procedures; and
- Aircraft operating procedures.

As earlier stated, the NAP has been devised around the above four elements.

The World Health Organisation (WHO) have recently produced Environmental Noise Guidelines for the European Regions. The WHO considers environmental noise as an important public health issue, featuring among the top environmental risks to health. Noise has impacts on human health and well-being and is a growing concern among both the general public and policy-makers in Europe. To reduce health effects, the report recommends that policy-makers implement suitable measures to reduce noise exposure from aircraft in the population exposed to high levels.

5.2 European Regulation

The EU aims to have a common European aviation policy through the European Civil Aviation Conference (ECAC). Member States are obliged to comply with EU directives and incorporate them into national legislation.

The following regulations are most relevant to aircraft noise ;

- EC Directive 92/14/EEC replaced by Directive 2006/93/EC on the limitation of the operation of aeroplanes covered by Part II, Chapter 3, Volume 1 of Annex 16 to the Convention on International Civil Aviation, second edition (1988). This directive banned Chapter 2 aircraft from landing in the EU from 1st April 2002.
- Regulation (EU) No.598/2014 of the European Parliament and of the Council of 16th April 2014 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at union airports within a Balanced Approach and repealing Directive 2020/30/EC.
- EC Directive 2002/49 relating to the Assessment and Management of Environmental Noise, commonly referred to as the Environmental Noise Directive or END.
- Directive 2014/52/EU amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, extends the environmental impact assessment requirements to also consider effects of human health.

5.3 National Regulation

The Environment Protection Act 1990 (as amended) specifically exempts aircraft noise from the general noise nuisance controls which exist under that legislation.

The Civil Aviation Authority Acts of 1982, 2006 and 2012 and associated regulations grant the Secretary of State for Transport the power to limit and mitigate the effects of aircraft noise at the 'designated' airports.

The Airports Act 1996 gives the Secretary of State powers to limit the number of occasions on which aircraft may land or take-off at an airport, and to develop schemes to allocate airport capacity.

Controls at airports include, nighttime restrictions, noise preferential routes and landing/take off procedures. There are no controls applied at NIAL.

The requirements of the END are transposed in the Environmental Noise (England) Regulations 2006 as amended. The END applies to airports within excess of 50,000 movements (take-off or a landing). In England, 15 airports have been identified to comply with the Directive.

The Airports (Noise-related Operating Restrictions) (England and Wales) Regulations 2018 turn EU Directive 298/2014 (ICAO Balanced Approach) into UK law. They apply to major airport operators with over 50,000 civil jet aircraft movements a year and reflect the adoption of the ICAO Balanced Approach to managing aircraft noise.

5.4 Local Regulation

Whilst Local Authorities (LAs) deal with noise issues, as defined under the Environmental Protection Act as 'nuisance', they do not have any direct powers relating to aircraft noise. As an airport operator, NIAL works closely with local Environmental Health Officers to manage any local issues.

LAs do have a number of mechanisms to encourage a reduction in noise impacts. As part of the planning process, LAs can enforce Section 106 legal agreements with any planning approval granted. There are no limits in place at the Airport in terms of aircraft movements, so the Airport can operate on a 24hr basis.

5.4.1 Local Planning considerations

ICAO supports the use of land use planning as one of three key strands of a balanced approach to aircraft noise management.

The Airport works closely with local planning authorities close to the airfield and flightpaths, principally Newcastle City Council, Northumberland County Council, and North Tyneside Council, to ensure that the current and future operations of the Airport are fully considered in new developments within the vicinity of the Airport.

The Airport also actively advises both developers and local planning authorities in the development management process. We will continue to seek onsite noise monitoring over a prolonged period for all developments proposed within or close to our contours, to fully understand the present noise environment on the site.

We are also proactive in making sure that future residents of new developments are aware of the presence of the Airport and the nature of operations before they purchase a property. Where developments are granted permission close to the airfield and our flight paths, we consistently request that an informative note is added to the decision notice.

This work supports the Government's aim as set out in the Aviation Policy Framework (2013) (APF) – to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise.

5.5 National Policy Statement for England

The Noise Policy Statement for England (NPSE) sets out the overarching and long term vision for Government noise policy, to promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development. This long term vision is supported by the following aims;

- Avoid significant adverse impacts on health and quality of life;
- Mitigate and minimise adverse impacts on health and quality of life: and
- Where possible, contribute to improvement of health and quality of life.

Reference is made to the World Health Organisation concepts within the Noise Policy Statement for England, these are as follows:

NOEL – No Observed Effect Level: This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to noise.

LOAEL – Lowest Observed Adverse Effect Level: This is the level above which adverse effects on health and quality of life can be observed.

SOAEL – Significant Observed Adverse Effect Level: This is the level above which significant adverse effects on health and quality of life can be observed.

5.6 Aviation Policy Framework

The UK Aviation Policy Framework sets out that aviation needs to grow to support the economy whilst respecting the environment and quality of life. With respect to noise, the overall objective is to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise. The APF identifies the 57dB LAeq 16 hour contour as the average level of daytime aircraft noise that marks the onset of significant community annoyance.

The APF sets out the requirements that the Government expects in terms of noise insulation and compensation as follows;

- Assistance in the costs of moving for households exposed to levels of 69 dBLAeq,16hr or more;
- Provision of acoustic insulation or alternative mitigation measures to noise sensitive buildings, such as schools and hospitals, exposed to levels of noise of 63 dBLAeq,16hr;
- Financial assistance towards noise insulation to residential properties which experience an increase in noise of 3dB or more as a result of development which leaves them expose to levels of noise of 63 dBLAeq,16hr.

5.7 Flightpath to the Future

'Flightpath to the Future' is a strategic framework for delivering a successful future for the UK's aviation sector over the next 10 years. The framework focuses on the recovery from the Covid-19 Pandemic and commits to "building back better and greener to ensure the UK delivers one of the strongest, most modern and most sustainable aviation sectors in the world." As part of the framework, the Government will look at tackling the localised impacts of aviation, including noise. The Government has committed to produce a clearer noise policy framework alongside measures to incentivise best operational practice to reduce noise.

6.

Noise Mapping results

6.1 Noise Mapping

Noise contours provide an indication of the average noise exposure within a particular area around the Airport. If changes to Government policy in relation to the onset of community annoyance from aviation noise are adopted, NIAL will review the impact of current and potential future operations.

The Regulations require noise contour maps to be produced every five years. The last noise contour maps for the Airport were undertaken in 2016 and informed the last NAP. The Regulations stipulate that noise contour maps were required for 2021, despite the travel impact from the Covid-19 Pandemic and the results must be included in the revised NAP. As such, the Environmental Research and Consultancy Department (ERCD) completed the 2021 noise maps, which can be seen in Appendix A. The NIAL 2021 noise maps, do not impact on any such densely populates areas. The local communities surrounding NIAL are predominantly small villages and rural areas, however as neighbours these areas are important to the Airport.

In addition to the 2021 noise contour maps, NIAL has produced baseline noise contours for 2022. These maps have been used to supplement the 2021 noise maps as these were unrepresentative of the Airport's full operations as a result of the Covid-19 pandemic. The additional noise contour maps provide a more representative view of noise exposure from NIAL. These noise contour maps have been produced by ERCD using aircraft movements for an average summer's day (mid-June to mid-September). Separate maps are produced for the 16-hour day (07:00 to 23:00) and 8-hour night (23:00 to 07:00).

The contours are presented in terms of the 'A-weighted equivalent continuous noise level' (LAeq). The A-weighting is designed to represent the human ear's response to sound. The 2022 noise contour maps can be seen in Appendix B. The 2021 noise contour maps and the 2022 noise contour maps cannot be directly compared due to the difference in time frames and volume of aircraft movements they each represent.

Noise contour maps indicate legislative noise thresholds, and we acknowledge that noise is a subjective experience and that populations not contained within the identified metrics might hear or feel disturbed by the Airport's operations.

6.1.1 Noise Mapping Requirements

The noise mapping requirement under the Environmental Noise (England) Regulations 2006 (as amended) directive (The Regulations), states that noise must be displayed as annual average values for an annual (365 day) period. As detailed under the regulations, noise levels must be shown for the following time periods;

Lday	07:00 – 19:00
Levening	19:00 – 23:00
LAeq,16hr	07:00 – 23:00
L night L den	23:00 – 07:00

The following tables highlight the time periods mentioned above.

6.1.2 Breakdown of aircraft movements

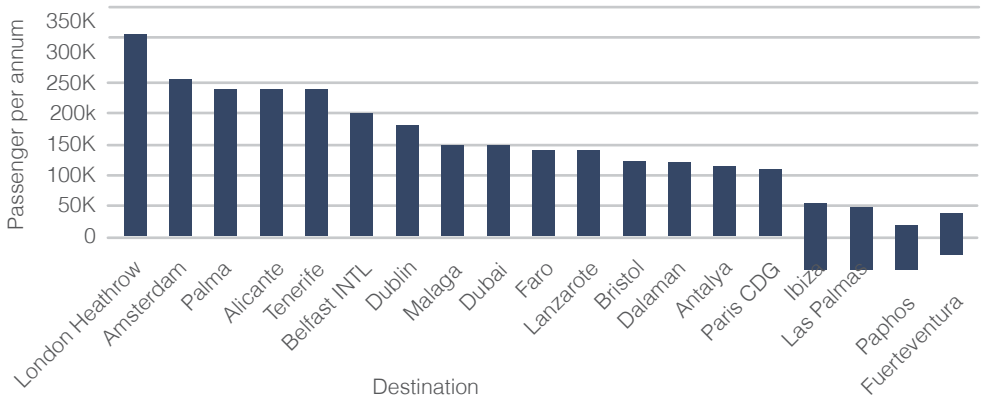
See below a breakdown of the 140 commercial aircraft movements for Friday 12th August 2022. This information demonstrates the spilt of aircraft movements on a 'typical' busy summer day in 2022.

Time	Duration	Departures	Arrivals
Lday	(07.00 – 19.00)	55	47
Levening	(19.00 – 23.00)	5	8
Lnight	(23.00 – 07.00)	11	14
Leq16hr	(07.00 – 23.00)	60	55
Lden	(00.00 – 24.00)	71	69

*NB General aviation and helicopter activity has not been included in the figures above.

It is worth highlighting that out of the 11 departures between 23:00 – 07:00, 10 of those were between 06:00 – 07:00. As a regional airport, it is critical to provide connectivity to key destinations during these hours, including London Heathrow, Amsterdam and Paris. It is also critical to utilise as much capacity of aircraft as possible.The following graph illustrates this, highlighting that the Heathrow and Amsterdam routes carried the highest passenger numbers in 2022.

Figure 2. Passengers carried by the top 20 destinations during 2022



6.2 Summary of 2021 noise mapping results

The noise mapping process provides a snapshot of the noise impact for the year 2021 annual period (365-day). The contour footprints have been assessed against households and population contained within each contour. The highest contour level to include dwellings was >60dB(A), the table below details the number of dwellings within the >60dB(A) contour level.

6.2.1 Dwellings contained within the >60dB(A)

Contour	Dwellings
Lday	0
Levening	0
L den	<100
LAeq,16hr	0
Lnight	0

The following tables provide further detail on the individual metrics;

6.2.2 Estimated total number of people and dwellings above various noise levels, Lden

Noise Level dB(A)	Number of dwellings	Number of People
>55	500	900
>60	<100	<100
>65	0	0
>70	0	0
>75	0	0

6.2.3 Estimated total number of people and dwellings above various noise levels, L_{day}

Noise Level dB(A)	Number of dwellings	Number of People
>54	<100	<100
>57	0	0
>60	0	0
>63	0	0
>66	0	0
>69	0	0

6.2.4 Estimated total number of people and dwellings above various noise levels, $L_{evening}$

Noise Level dB(A)	Number of dwellings	Number of People
>54	0	0
>57	0	0
>60	0	0
>63	0	0
>66	0	0
>69	0	0

6.2.5 Estimated total number of people and dwellings above various noise levels, L_{Aeq16h}

Noise Level dB(A)	Number of dwellings	Number of People
>54	<100	<100
>57	0	0
>60	0	0
>63	0	0
>66	0	0
>69	0	0

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

Noise Level dB(A)	Number of dwellings	Number of People
>48	300	500
>51	<100	<100
>54	0	0
>60	0	0
>66	0	0
>66	0	0

6.3 Summary of 2022 baseline noise mapping results

The noise levels highlighted in 2022 provide a more representative baseline of the noise impacts from NIAL. Noise levels are displayed from 54dB during the day and 48dB at night. Each threshold then rises by 3dB up to a maximum of 69dB. The highest contour level to include dwellings remains at >60dB (A).

The following tables provide further detail on the individual metrics for the summer peak period in 2022;

6.3.1 Estimated total number of people and dwellings above various noise levels, Average Summer Day $L_{Aeq, 16hr}$ (actual modal split 67%W/33%E)

Noise Level dB(A)	Number of dwellings	Number of People
>54	1,600	3,300
>57	600	1,300
>60	<100	<100
>63	0	0
>66	0	0
>69	0	0
>72	0	0

6.3.2 Estimated total number of people and dwellings above various noise levels, Average Summer Night LAeq, 8h (actual modal split 82%W/18%E)

Noise Level dB(A)	Number of dwellings	Number of People
>48	5,400	12,000
>51	2,000	4,100
>54	1,100	2,300
>57	<100	<100
>60	<100	<100
>63	0	0
>66	0	0
>69	0	0
>72	0	0

6.3.3. Estimated total number of people and dwellings above various noise levels, Average Summer Day LAeq, 16h (standard modal split 68%W/32%E)

Noise Level dB(A)	Number of dwellings	Number of People
>54	1,600	3,300
>57	600	1,200
>60	<100	<100
>63	0	0
>66	0	0
>69	0	0
>72	0	0

6.3.4 Estimated total number of people and dwellings above various noise levels, Average Summer Night LAeq, 8h (standard modal split 78%W/22%E)

Noise Level dB(A)	Number of dwellings	Number of People
>48	5,500	12,000
>51	2,100	4,300
>54	1,100	2,300
>57	<100	<100
>60	<100	<100
>63	0	0
>66	0	0
>69	0	0
>72	0	0

6.4 Action areas

Whilst the noise mapping process is a useful tool to identify areas affected by noise levels, it is not the only information to be considered for improvement work. It is recognised that the numbers above are modelled and in reality, the tolerance of residents might vary between communities. Therefore, we work with individual communities to resolve their concerns, irrelevant of their position in the noise mapping process through the function of our aforementioned Noise-Sub Committee and Airport Consultative Committee.

6.5 Future Populations Exposed to Noise Estimates

In order to assess the current and future noise impacts, a noise contour modelling exercise was undertaken by the Environmental Research and Consultancy Department (ERCD) of the Civil Aviation Authority (CAA), using the internationally recognised ANCON-II noise model. Noise modelling is based on how many aircraft we believe will be operating from the Airport in future years. This takes account of the future number and types of aircraft, destinations, and flight paths based on our noise and monitoring tracking system.

The proposed long term noise contour maps have been developed through support from NIAL employees. Future growth forecasts have been provided for each of the years 2030, 2035 and 2040. A peak day schedule has been developed including the likely airlines and aircrafts operating within the Airport. It should be noted that a high-level growth forecast has been predicted. Additional maps have also been created for 2035 and 2040. These take into account the possibility of a potential runway extension, if required.

Long term noise contour maps are used to assess planning applications. The noise contour maps can assess predicted future levels of aviation noise within specific areas. As a statutory consultee to planning applications, the Airport can object to planning proposals based on residential dwellings being susceptible to inappropriate levels of aircraft noise. The Airport can either outright object to dwellings being located in areas susceptible to inappropriate levels of aircraft noise or can request that dwellings in certain areas do not benefit from outdoor amenity areas. Future residential dwelling proposals in close proximity to areas of inappropriate noise will also be required to demonstrate mitigation in the form of additional insulation and improved glazing on properties.

A noise contour map is a map which shows contour lines indicating noise exposure in dB for the area that it encloses. The contour footprints have been assessed against households and population contained within each contour. Population estimates have been created based on census data to provide an estimate of how many people will be affected by noise in the future. The noise contours indicate that the potential increase in airport operations could result in a larger population being exposed to aircraft noise (in terms of the 54 dBLAeq 16h and 63 dBLAeq 16h contours during the day and the 48 dBLAeq 8h, and 54 dBLAeq 8h at night). The potential extension of the runway would result in a different pattern of exposure owing to the changing nature of aircraft operations, which we have modelled from 2035.

6.6 Airspace Policy Framework (2017) change in guidance

In 2016, when the previous long term noise contours were prepared, we highlighted contours from 54 dB (LAeq, 16 hr) during the day and 48 dB (Lnight) at night. This was considered the baseline where adverse effects of annoyance would occur based on government policy at the time. The Government has since consulted on the Airspace Policy Framework (2017) which indicated that human thresholds from aviation noise has decreased and the Framework recommended that changes should be made to where adverse effects of annoyance occur.

The Framework indicated that adverse effects of annoyance can be seen to occur down to 51dB (LAeq, 16 hr) during the day, with 45 dB (Lnight) being considered for night-time. These lower noise levels should now be considered as the level above which adverse effects on health and quality of life can be detected (LOAEL).

The Airport believes that our noise contour maps should accurately reflect the latest Government data and as a result our most recent contour map highlights these lower noise levels of 51dB (LAeq 16 hr) during the day

and 45dB at night.
Despite the lower levels of noise now being displayed on contour maps, consideration has been made to newer and quieter aircraft which will continue to replace louder aircraft over future years. Aircraft such as the Airbus A320 NEO 7 and Boeing Max models are consistently quieter than their previous iterations. By 2040, it is likely that such aircraft will form the majorityof the total fleet mixes of most airlines. As a result, despite a lower dB contour being displayed, the noise impacts are largely similar to the higher level of noise highlighted on previous contour maps.

The tables over leaf highlight the estimated Increase in population exposed to noise over the masterplan period with and without a runway extension for potential future peak day operations.

6.5.1 Newcastle 2030 average summer day LAeq,16h revised fleet contours (standard modal split 68%W / 32%E) - estimated areas, populations and households

Table 1
Newcastle 2030 average summer day $L_{Aeq, 16h}$ revised fleet contours (standard modal split 68%W/32%E) - estimated areas, populations and households.

$L_{Aeq, 16h}$ (dB)	Area (km^2)	Population	Housholds
>51	20.6	6,600	3,100
>54	12.2	3,300	1,600
>57	7.1	1,200	600
>60	3.8	<100	<100
>63	2.0	0	0
>66	1.1	0	0
>69	0.7	0	0
>72	0.5	0	0

6.5.2 Newcastle 2030 average summer night LAeq,8h revised fleet contours (standard modal split 78%W / 22%E) - estimated areas, populations and households

Table 2
Newcastle 2030 average summer night $L_{Aeq, 8h}$ revised fleet contours (standard modal split 78%W/22%E) - estimated areas, populations and households.

$L_{Aeq, 8h}$ (dB)	Area (km^2)	Population	Housholds
>45	48.6	24,600	11,400
>48	28.2	10,200	4,700
>51	16.4	3,900	1,900
>54	9.9	2,300	1,100
>57	5.6	<100	<100
>60	2.9	0	0
>63	1.5	0	0
>66	0.9	0	0
>69	0.5	0	0
>72	0.3	0	0

6.5.3 Newcastle 2035 average summer day LAeq,16h revised fleet contours (standard modal split 68%W / 32%E) - estimated areas, populations and households

Table 3
Newcastle 2035 average summer day $L_{Aeq,\ 16h}$ revised fleet contours (standard modal split 68%W/32%E) - estimated areas, populations and households.

$L_{Aeq,\ 16h}$ (dB)	Area (km^2)	Population	Housholds
>51	19.0	5,500	2,600
>54	11.2	3,100	1,500
>57	6.4	500	300
>60	3.3	<100	<100
>63	1.7	0	0
>66	1.0	0	0
>69	0.6	0	0
>72	0.4	0	0

6.5.4 Newcastle 2035 average summer night LAeq,8h revised fleet contours (standard modal split 78%W / 22%E) - estimated areas, populations and households

Table 4
Newcastle 2035 average summer night $L_{Aeq,\ 8h}$ revised fleet contours (standard modal split 78%W/22%E) - estimated areas, populations and households.

$L_{Aeq,\ 8h}$ (dB)	Area (km^2)	Population	Housholds
>45	39.0	18,600	8,600
>48	22.9	8,200	3,800
>51	13.5	3,400	1,700
>54	8.0	2,200	1,100
>57	4.2	<100	<100
>60	2.2	0	0
>63	1.2	0	0
>66	0.7	0	0
>69	0.4	0	0
>72	0.2	0	0

6.5.5 Newcastle 2035 average summer day LAeq,16h revised fleet contours (standard modal split 68%W / 32%E) with runway extension - estimated areas, populations and households

Table 5
Newcastle 2035 average summer day $L_{Aeq, 16h}$ revised fleet contours (standard modal split 68%W/32%E) - estimated areas, populations and households.

$L_{Aeq, 16h}$ (dB)	Area (km²)	Population	Housholds
>51	18.9	6,100	2,900
>54	11.1	3,100	1,500
>57	6.4	900	500
>60	3.4	0	0
>63	1.9	0	0
>66	1.1	0	0
>69	0.7	0	0
>72	0.4	0	0

6.5.6 Newcastle 2035 average summer night LAeq,8h revised fleet contours (standard modal split 78%W / 22%E) with runway extension - estimated areas, populations and households

Table 6
Newcastle 2035 average summer night $L_{Aeq, 8h}$ revised fleet contours (standard modal split 78%W/22%E) - estimated areas, populations and households.

$L_{Aeq, 8h}$ (dB)	Area (km²)	Population	Housholds
>45	39.1	19,400	9,000
>48	22.8	8,800	4,100
>51	13.5	3,500	1,800
>54	7.9	2,200	1,100
>57	4.3	200	100
>60	2.3	0	0
>63	1.3	0	0
>66	0.7	0	0
>69	0.5	0	0
>72	0.2	0	0

6.5.7 Newcastle 2040 average summer day LAeq,16h revised fleet contours (standard modal split 68%W / 32%E) - estimated areas, populations and households

Table 7
Newcastle 2040 average summer day $L_{Aeq,\ 16h}$ revised fleet contours (standard modal split 68%W/32%E) - estimated areas, populations and households.

$L_{Aeq,\ 16h}$ (dB)	Area (km^2)	Population	Housholds
>51	21.6	6,800	3,200
>54	12.7	3,300	1,600
>55	10.7	3,000	1,400
>57	7.4	900	500
>60	3.9	<100	<100
>63	2.0	0	0
>66	1.1	0	0
>69	0.7	0	0
>72	0.4	0	0

6.5.8 Newcastle 2040 average summer night LAeq,8h revised fleet contours (standard modal split 78%W / 22%E) - estimated areas, populations and households

Table 8
Newcastle 2040 average summer night $L_{Aeq,\ 8h}$ revised fleet contours (standard modal split 78%W/22%E) - estimated areas, populations and households.

$L_{Aeq,\ 8h}$ (dB)	Area (km^2)	Population	Housholds
>45	50.1	30,200	14,100
>48	29.7	12,100	5,600
>51	17.4	4,800	2,300
>54	10.5	2,900	1,400
>57	6.0	600	300
>60	3.2	<100	<100
>63	1.8	0	0
>66	1.0	0	0
>69	0.6	0	0
>72	0.4	0	0

6.5.9 Newcastle 2040 average summer day LAeq,16h revised fleet contours (standard modal split 68%W / 32%E) with runway extension - estimated areas, populations and households

Table 9
Newcastle 2040 average summer day $L_{Aeq, 16h}$ revised fleet contours (standard modal split 68%W/32%E) **with runway extension** - estimated areas, populations and households.

$L_{Aeq, 16h}$ (dB)	Area (km^2)	Population	Housholds
>51	21.4	7,600	3,600
>54	12.6	3,300	1,600
>55	10.6	3,300	1,500
>57	7.3	1,800	900
>60	3.9	<100	<100
>63	2.1	0	0
>66	1.3	0	0
>69	0.8	0	0
>72	0.5	0	0

6.5.10 Newcastle 2040 average summer night LAeq,8h revised fleet contours (standard modal split 78%W / 22%E) with runway extension - estimated areas, populations and households

Table 10
Newcastle 2040 average summer night $L_{Aeq, 8h}$ revised fleet contours (standard modal split 78%W/22%E) **with runway extension** - estimated areas, populations and households.

$L_{Aeq, 8h}$ (dB)	Area (km^2)	Population	Housholds
>45	50.3	30,700	14,300
>48	29.5	12,200	5,700
>51	17.4	5,400	2,600
>54	10.4	2,900	1,500
>57	6.0	900	500
>60	3.3	0	0
>63	1.9	0	0
>66	1.2	0	0
>69	0.7	0	0
>72	0.5	0	0

7

Consultation process

In line with the guidance Defra have provided, NIAL's Consultative Committee and Noise Sub-Committee have been involved in the revision of this NAP. Representatives of the following organisations have been consulted;

- Brunswick Parish Council
- Dinnington Parish Council
- Aircraft Noise Action Group
- North Tyneside Council
- Newcastle City Council
- Woolsington Residents Association
- Sunderland City Council
- Hazlerigg Parish Council
- North East England Chamber of Commerce
- Northumberland County Council
- Ponteland Town Council
- Darras Hall Estate
- Woodlands Park Residents Association
- Sunderland City Council
- Gateshead Council
- Heddon-on-the-Wall Parish Council

Members of the organisations listed above were notified of the upcoming discussions on the NAP and to welcome their initial feedback. Hard copies of the draft NAP have been prepared and are able to access at local libraries. All consultation responses received will form part of the adopted Noise Action Plan.

A copy of the Draft NAP was circulated to the above organisations for further comment on 25th November 2024. Guidance provided by Defra states that Airports should consider other consultations which could place a burden on consultee resources and this consultation process for the NAP has been designed with this in mind.

8.

Noise action plan

8.1 Reduction of noise at source

Action	Impact	Timescale	Performance indicator	Action status
We are supporters of the Sustainable Aviation strategy and will continue to support future aerospace technology noise reduction targets.	All communities impacted by aircraft noise. Based on the LAeq16h +1,200 people (2022 Average Summer Day) within and beyond the 57dB contour.	Ongoing	Contribution to the Annual report on performance against key indicators.	Ongoing action
Aircraft operating between the hours of 22:00 and 06:00 local will be charged the following: • Aircraft deemed to be Chapter 3 will be subject to a surcharge of 50% of the runway fee. • Aircraft failing to meet the requirements of Chapter 3 will be subject to a surcharge of 200% of the runway fee.	All communities impacted by aircraft noise. Communities within and beyond 48dBLAeq, 8h (2022 Average Summer Night) contour.	Ongoing	Complete annual review.	New action
We will liaise with our airline partners to phase out older aircraft (Chapter 3) and replace their fleet with newer, more efficient and quieter aircraft. Chapter 3: This classification refers to older subsonic jet aircraft that comply with ICAO's noise standards from 1977	All communities impacted by aircraft noise.	Ongoing	% of Chapter 3 aircraft operating at the Airport. Complete annual review.	New action


BOEING 777-300ER
Emirates
الإمارات
www.emirates.com
PR

8.2 Land use planning and management

Action	Impact	Timescale	Performance indicator	Action status
We will continue to engage closely with Local Planning Authorities and make representations to Local Authority Development Plans and on planning applications to ensure that any new developments are delivered in an appropriate manner with respect to potential noise impacts. We will promote and encourage the adoption of the principles advocated by the Professional Practice Guidance: Planning & Noise – New Residential Development[1] .	New communities in noise impacted areas. We are unable to estimate the number of people impacted, as new development plans are not guaranteed.	Ongoing	Number of representations made on Local Authority Development Plans and on planning applications	Ongoing action
Policy relating to noise insulation and compensation do not affect us as we do not have any residential properties within the 63dBLAeq,16h contour. However, we will review our noise insulation and compensation schemes in line with any future developments in aviation noise policy, and any best practice guidance issued by the CAA Environmental and Sustainability Panel.	Communities most impacted by aircraft noise. There are no households currently impacted by this action, however, should the limits change we will review accordingly.	Review completed within 3 months of any policy change or best practice guidance issued by ICCAN.	Completed review and publishing of plans to revise noise insulation policy if necessary.	Ongoing action.
We will lobby the Government on their land use planning regulations and policies to prevent new developments being permitted closer to airports as a result of noise exposure contours reducing. In addition, we will lobby the Government to identify a formal mechanism during the property conveyancing process for future occupiers when purchasing their home to identify noise contours or flight paths.	Communities most impacted by aircraft noise.	Ongoing	New Government Noise Policy to address these points and update land-use planning policy and guidance.	New action

1 http://www.ioa.org.uk/publications/propg

8.3 Noise abatement operational procedures

Action	Impact	Timescale	Performance indicator	Action status
We will continue to monitor aircraft undertaking Continuous Descent Approaches (CDAs). The use of CDAs reduces both noise and air emissions.	Communities under arrival flight paths. Based on the LAeq16h +1,200 people (2022 Average Summer Day) within and beyond the 57dB contour	Ongoing	Targets set and adherence reported to the Airline Technical Committee (ATC) and Airport Consultative Committee (ACC).	Ongoing action.
We will review the potential merits of other quieter procedures within the Sustainable Aviation roadmap with the ATS.	All communities impacted by aircraft noise. Based on the LAeq16h +1,200 people (2022 Average Summer Day) within and beyond the 57dB contour	Ongoing	Completed workshops held with ATS on: steeper approaches, displaced thresholds, low power low drag, managed approach speeds, reduced landing flap and delayed deployment of landing gear.	Ongoing action.
We will continue to undertake a strategic review with NATS Enroute Ltd (NERL) on the operation and efficiency of P18 – the shared airspace between Newcastle and Manchester airports. The efficient use of this airspace facilitates, amongst other things, the use of CDA. Operating is shared between both Newcastle and Manchester airport.	All communities impacted by aircraft noise and particularly those under arrival flight paths. Based on the LAeq16h+1,200 people (2022 Average Summer Day) within and beyond the 57dB contour	Ongoing.	Update of actions to the Airline Technical Committee (ATC). Processes included in the NCL/NERL interface agreement.	Ongoing action.

Action	Impact	Timescale	Performance indicator	Action status
We have established policies on training flights, general aviation and helicopter activities in our Aeronautical Information Publication (AIP) and Southside Manual. The rules for these operations are stringent and have been developed to minimise noise impacts on communities. We will continue to monitor the effectiveness of and adherence to these policies.	Communities impacted by training flights, general aviation and helicopter activities. Based on the LAeq16h +1,200 people (2022 Average Summer Day) within and beyond the 57dB contour	Ongoing	Policies have been published in the AIP and Southside manual.	Ongoing action.
We will continue to communicate noise and environmental issues through the Airline Technical Committee. The Committee is fully engaged on environmental issues and track compliance information is regularly communicated to them.	Awareness. This action is not quantifiable.	Quarterly.	Production of minutes.	Ongoing action.

Action	Impact	Timescale	Performance indicator	Action status
We will review any best practice guidance issued by the CAA Environmental and Sustainability Panel and reach a position on each, potentially including an update to our noise mitigation strategy where necessary.	All communities impacted by aircraft noise. Based on the LAeq16h +1,200 (2022 Average Summer Day) within and beyond the 57dB contour.	Each publication from ICCAN to be reviewed within 3 months of publication and a position reached on each	Number of publications reviewed and positions reached	Updated action
In consideration of a strategic review of our local and national airspace, any future proposed airspace change will only be undertaken following the latest guidance from the Civil Aviation Authority and the UK government . .	All communities impacted by aircraft noise. Based on the LAeq16h +1,200 people (2022 Average Summer Day) within and beyond the 57dB contour	Ongoing	Adherence to CAA and UK government guidance in future airspace change proposals	Updated action.

Action	Impact	Timescale	Performance indicator	Action status
We will explore the possibility of establishing a preferential runway policy for when the predominant wind direction is neutral to lower noise impact on our local communities.	All communities impacted by aircraft noise and particularly those under arrival flight paths. Based on the LAeq16h +1,200 people (2022 Average Summer Day) within and beyond the 57dB contour.	Review to be completed within 6 months	Completion of review and dissemination	New action.
We will continue to apply ground engine testing restrictions which prohibit testing between 2300 and 0600, unless overriding operational requirements exist	Ground noise – communities within close proximity to the airport 100 or less people, as identified in the LAeq, 8h (2022 Average Summer Night) as the closest residents impacts by night-time noise levels.	Ongoing	Number and timing of ground engine test runs	Ongoing action.

[2]CAP1616: Airspace Design: Guidance on the regulatory process for changing airspace design including community engagement requirements, Civil Aviation Authority, 2017
[3]Air Navigation Guidance 2017: Guidance to the CAA on its environmental objectives when carrying out its air navigation functions, and to the CAA and wider industry on airspace and noise management, UK Government, 2017

8.4 Operating restrictions

Action	Impact	Timescale	Performance indicator	Action status
Our Noise Action Plan has been developed in line with the ICAO Balanced Approach and EU Regulation 598, which require operating restrictions to be considered only after other measures of the Balanced Approach have been exhausted and only where it is cost effective to do so. We will continually review the effectiveness of our mitigation measures in the context of the Balanced Approach to ensure that mitigation is considered in a consistent way with a view to addressing noise impacts in the most cost-effective way.	All communities impacted by aircraft noise. Based on the LAeq16h +1,200 people (2022 Average Summer Day) within and beyond the 57dB contour.	Ongoing	Tracking of Noise Action Plan and mitigation measures	Ongoing action.

8.5 Working with local communities

Action	Impact	Timescale	Performance indicator	Action status
We will review our overall engagement strategy and including, but not limited to, membership and terms of reference of the Airport Consultative Committee and the feasibility of creating a community noise forum as a subcommittee of the ACC.	Community engagement. This action is not quantifiable.	Review and complete new engagement strategy and implement within 12 months	Completed review and implementation of engagement strategy	Completed action
In collaboration with the ACC we will consider carrying out an annual attitudes survey.	Community engagement. This action is not quantifiable.	Annually reviewed	Completed survey and information fed back to the ACC	Ongoing action
We will continue to operate our Noise and Track Keeping system and use the noise monitors to manage the impacts of noise. Since the last NAP, we have made the Noise and Track Keeping information publically available on our website through WebTrak. We will continue to encourage members of the public to investigate aircraft movements and noise levels using this platform.	Community engagement and monitoring information. This action is not quantifiable.	Ongoing	Visits to WebTrak website	Updated and ongoing action
In the interest of openness and transparency we will create, and publish on our website, airport operational diagrams. These will provide clearly understandable information on where aircraft are flying, and the number of aircraft flying, on a typical day on westerly and easterly operations.	Community engagement. This action is not quantifiable.	Operational diagrams to be published within 12 months	Publication of operational diagrams	Completed action

Action	Impact	Timescale	Performance indicator	Action status
We will continue to engage with local schools to encourage the use of noise monitoring data within their studies.	Education. This action is not quantifiable.	Ongoing	Visits to local schools to demonstrate WebTrak system	Ongoing action
We will continue to engage with local Parish Councils.	Community Trust. This action is not quantifiable.	Ongoing	Attendance at Parish Council meetings to demonstrate WebTrak system	Ongoing action
We will continue to report noise complaints to the Airport Consultative Committee.	Community engagement. This action is not quantifiable.	Quarterly	Production of minutes on the NIAL website.	Ongoing action
We will continue to provide a dedicated noise monitoring telephone line and email address.	Community engagement. This action is not quantifiable.	Ongoing	Number of registered complaints.	Ongoing action
We will review the handling of noise complaints, in particular with regard to investigations, outcome and anticipated response times.	Community engagement This action is not quantifiable.	Ongoing	Number of registered complaints and response time for complaints. Review of procedure annually.	Ongoing and updated action.
Continue to arrange the Noise Sub Committee, which is a sub-forum to the ACC which meets quarterly prior to the ACC to discuss noise matters. Any discussion points will be brought to the ACC for their deliberation.	Community engagement This action is not quantifiable.	Ongoing	Successful running of quarterly meetings.	New action.

Conclusion

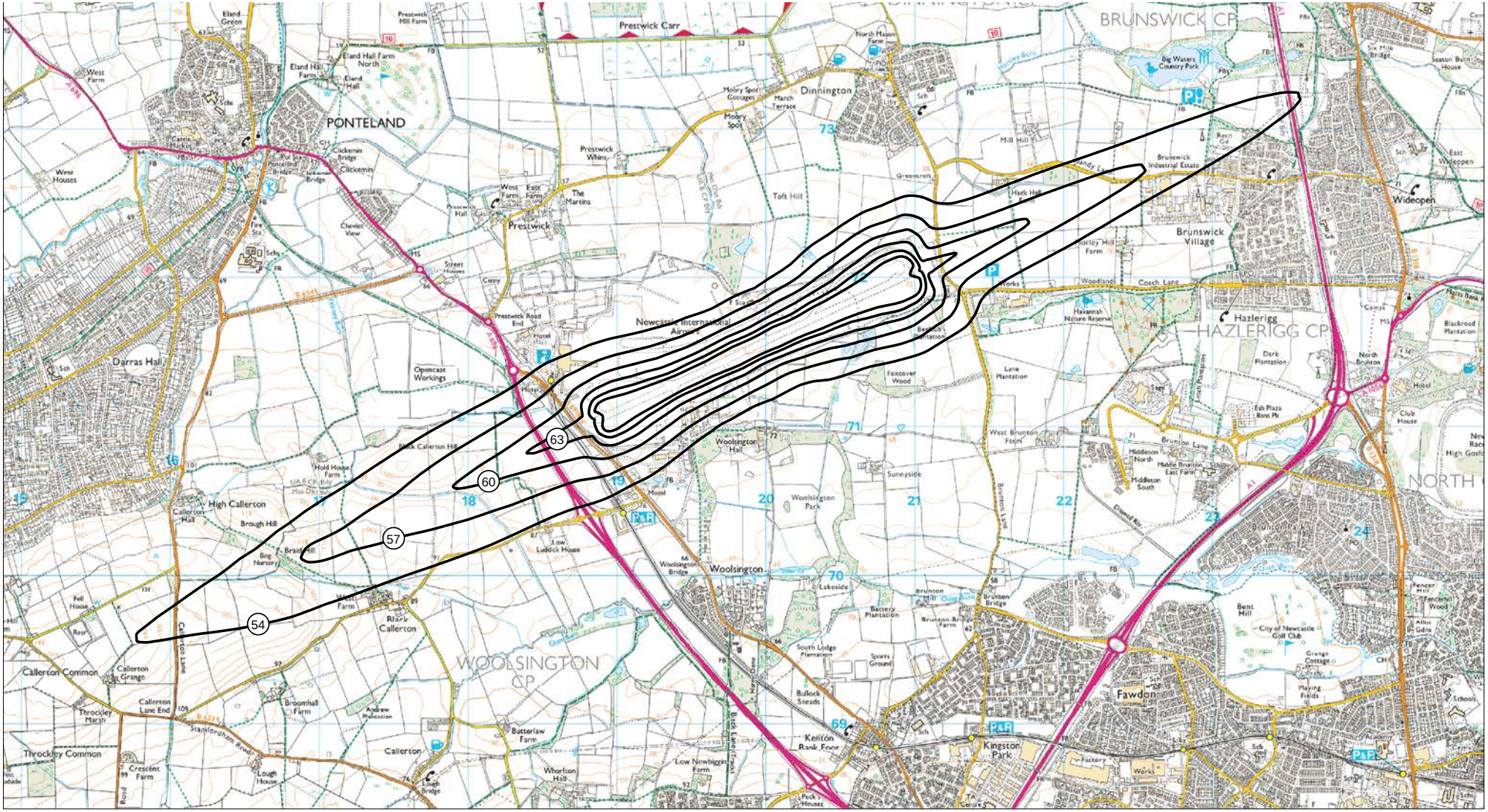
The Airport Noise Action Plan outlined a comprehensive and proactive approach to managing and mitigating the impact of airport noise on surrounding communities. By implementing a combination of technological upgrades, land-use planning, and community engagement, the plan will reduce the impacts of aviation noise whilst supporting the continued growth and efficiency of airport operations.

In terms of the long term noise contours, whilst additional contours are now displayed at a lower level to previous iterations, the impacts to communities surrounding the Airport has not been increased due to the advancements in aviation technology.

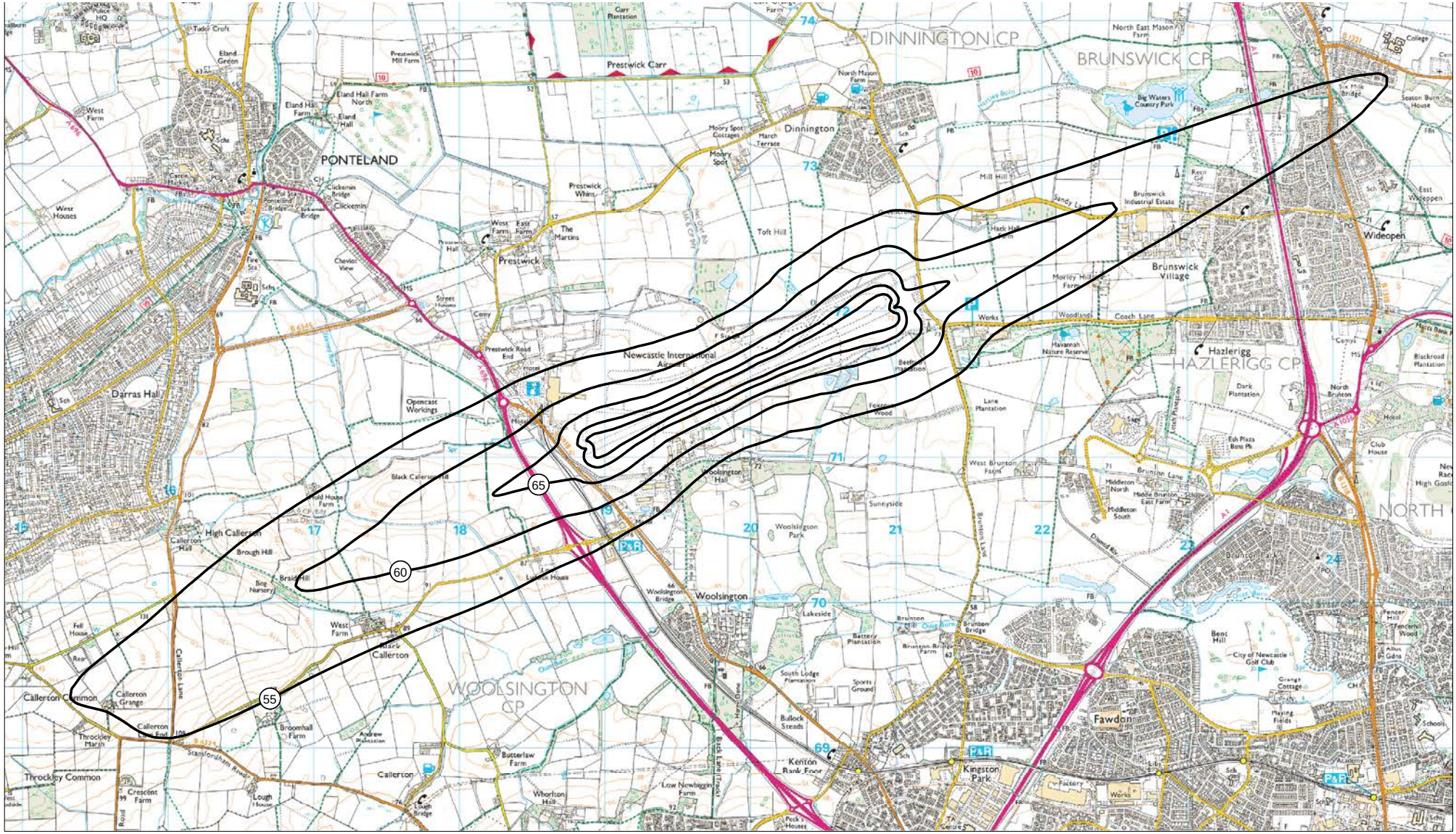
We welcome your feedback on the content of the Noise Action Plan. Please provide all responses before the consultation period closes on 7 January 2025.


EUROWINGS

APPENDIX A 2021 Noise Contour Maps



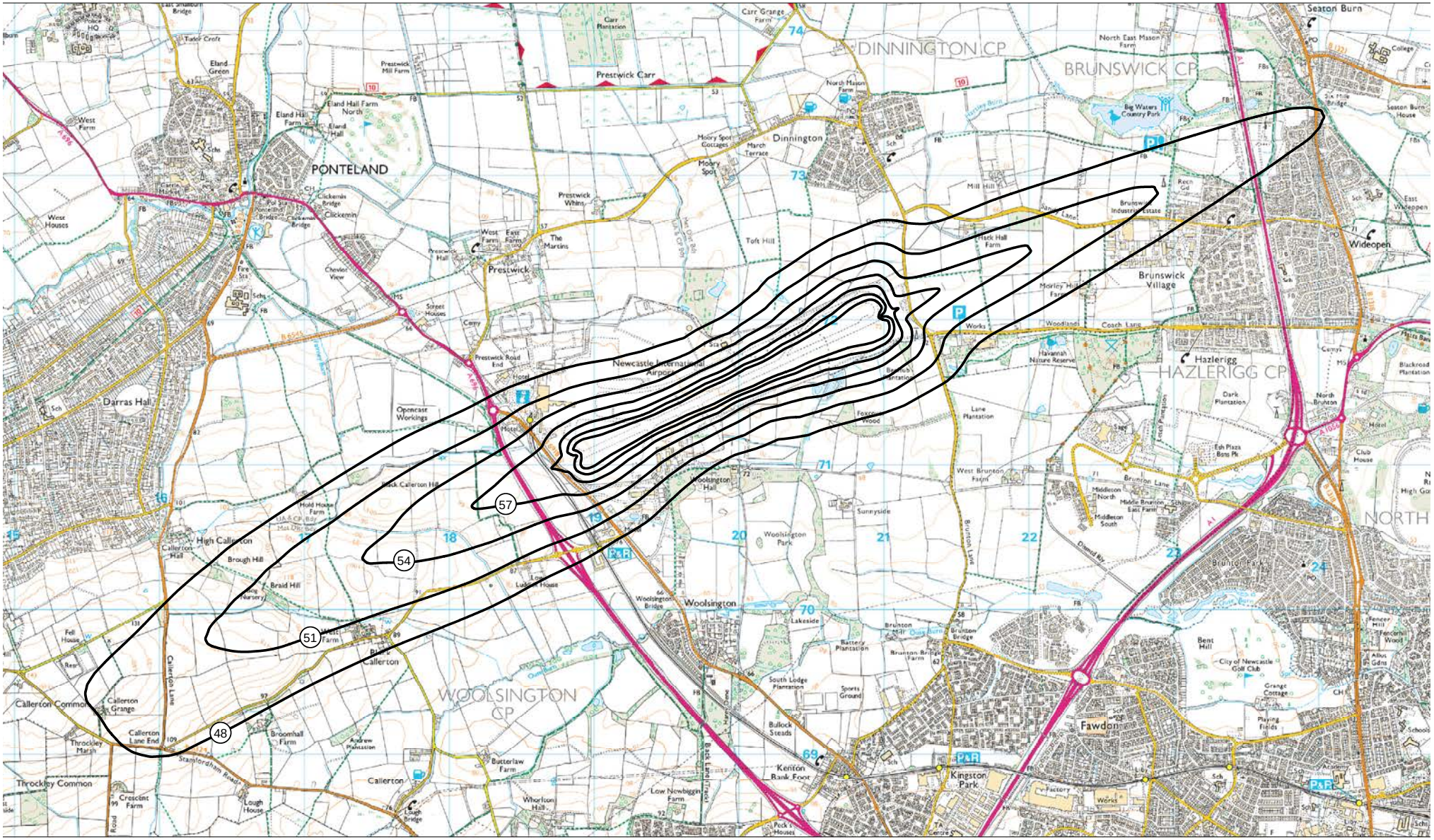
NEWCASTLE INTERNATIONAL AIRPORT
2021 L_{day} 54-69 dB Contours
Actual Runway Modal Split 68% W / 32% E



NEWCASTLE INTERNATIONAL AIRPORT

2021 L_{den} 55-75 dB Contours

Actual Runway Modal Split 68% W / 32% E

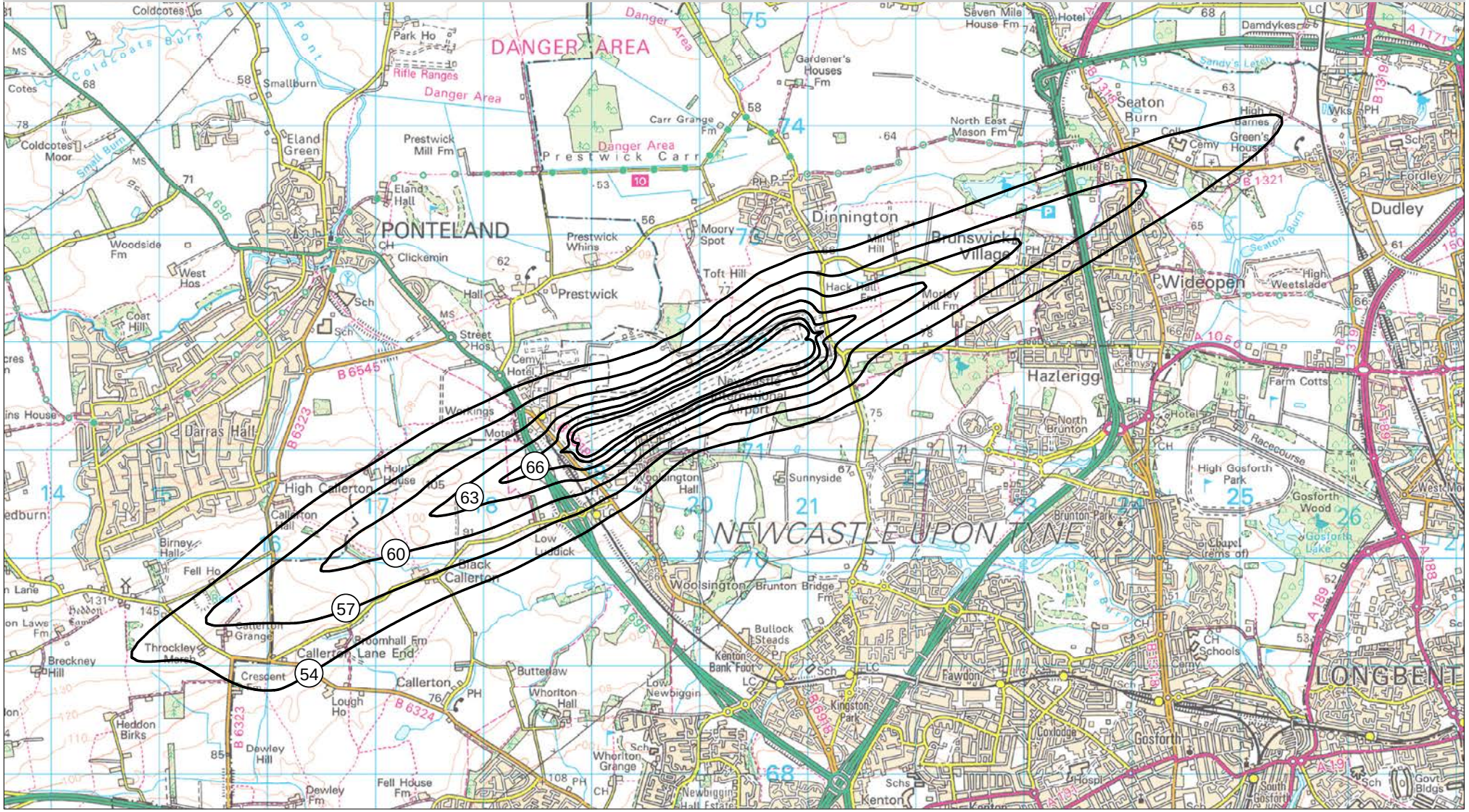


NEWCASTLE INTERNATIONAL AIRPORT

2021 L_{night} 48-66 dB Contours

Actual Runway Modal Split 74% W / 26% E

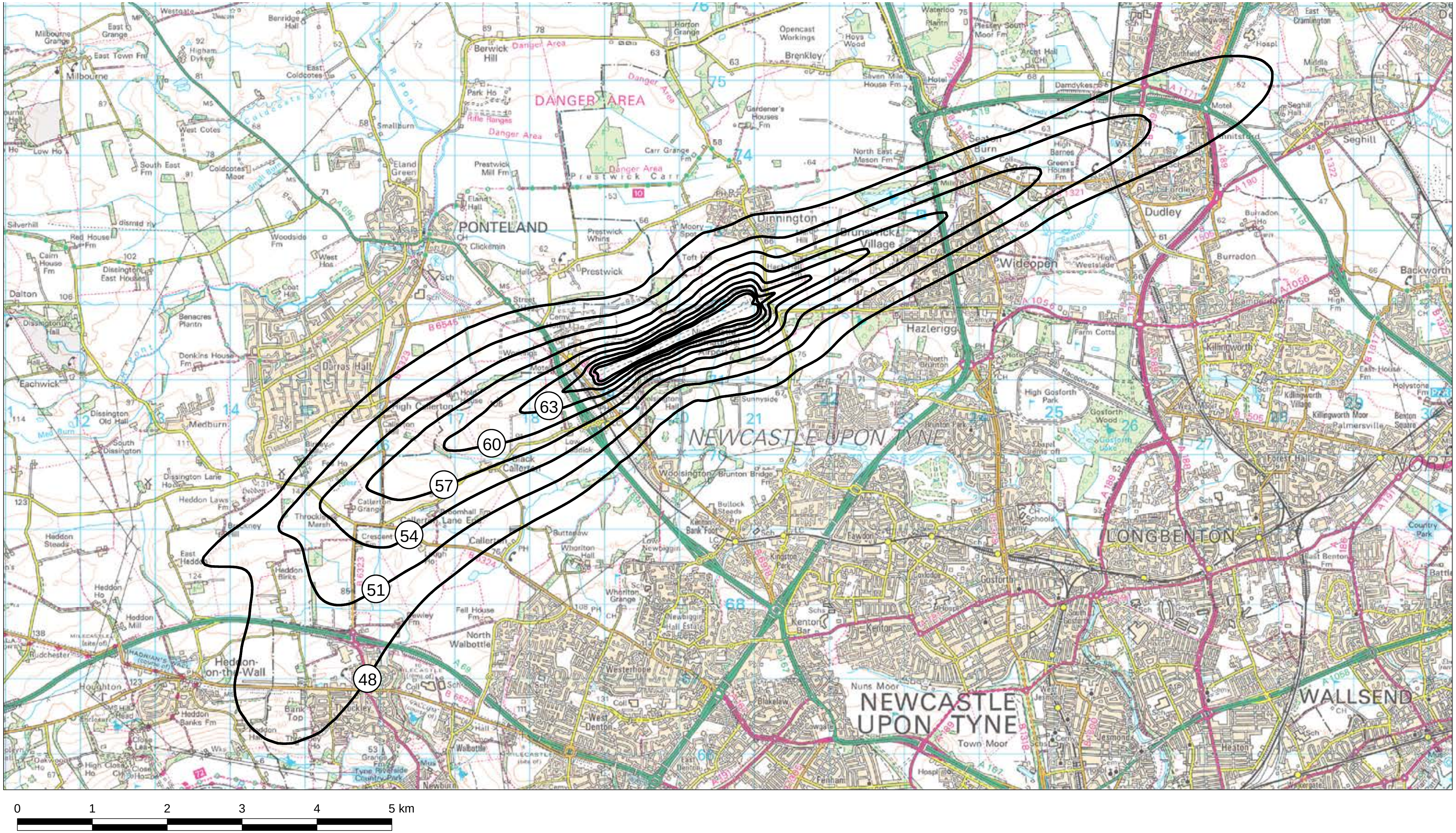
APPENDIX B 2022 Noise Contour Maps



NEWCASTLE INTERNATIONAL AIRPORT

2022 Average Summer Day $L_{Aeq,16h}$ 54-72 dB Contours

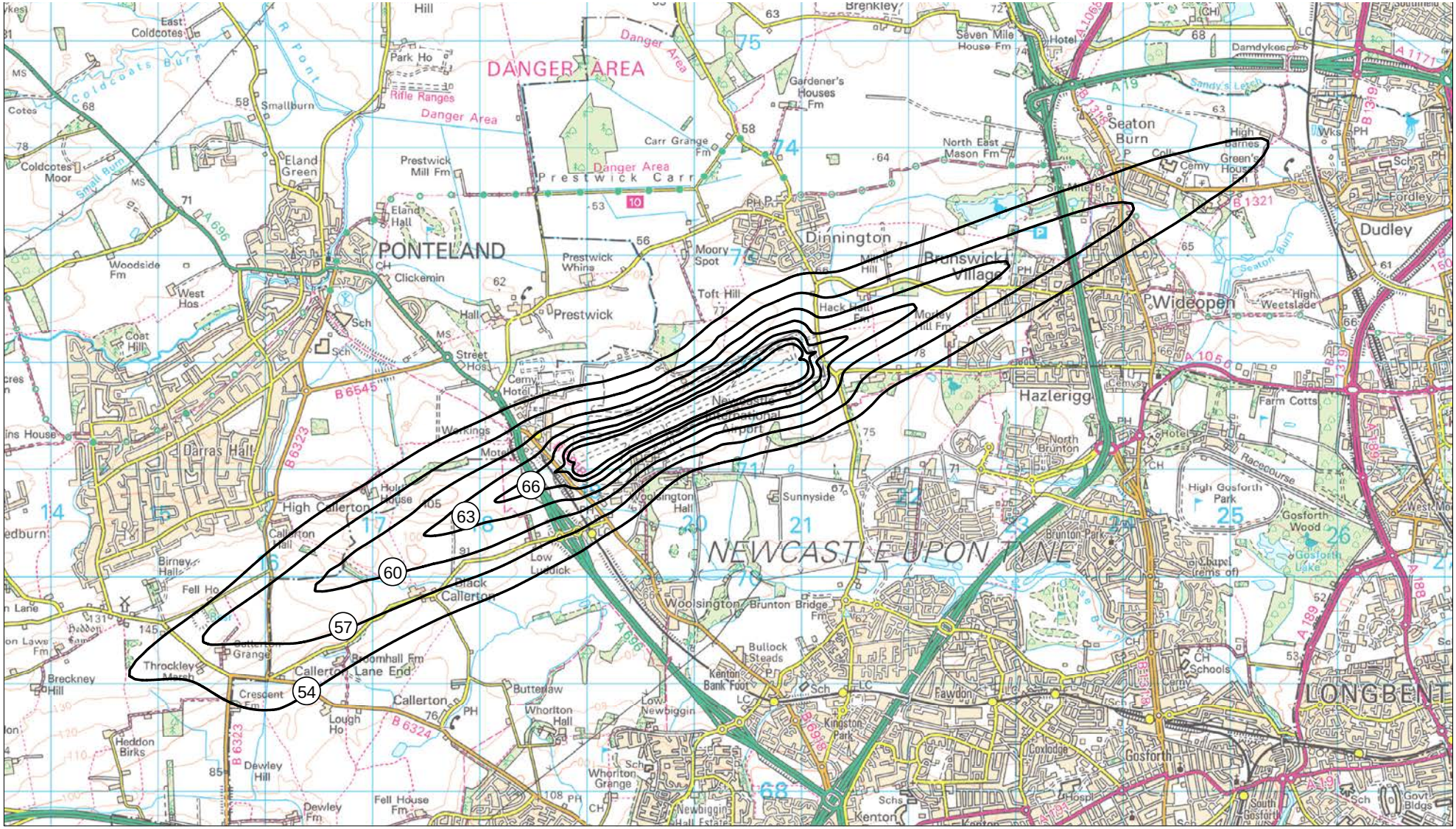
Actual Runway Modal Split 67%W / 33%E



NEWCASTLE INTERNATIONAL AIRPORT

2022 Average Summer Night $L_{Aeq,8h}$ 48-72 dB Contours

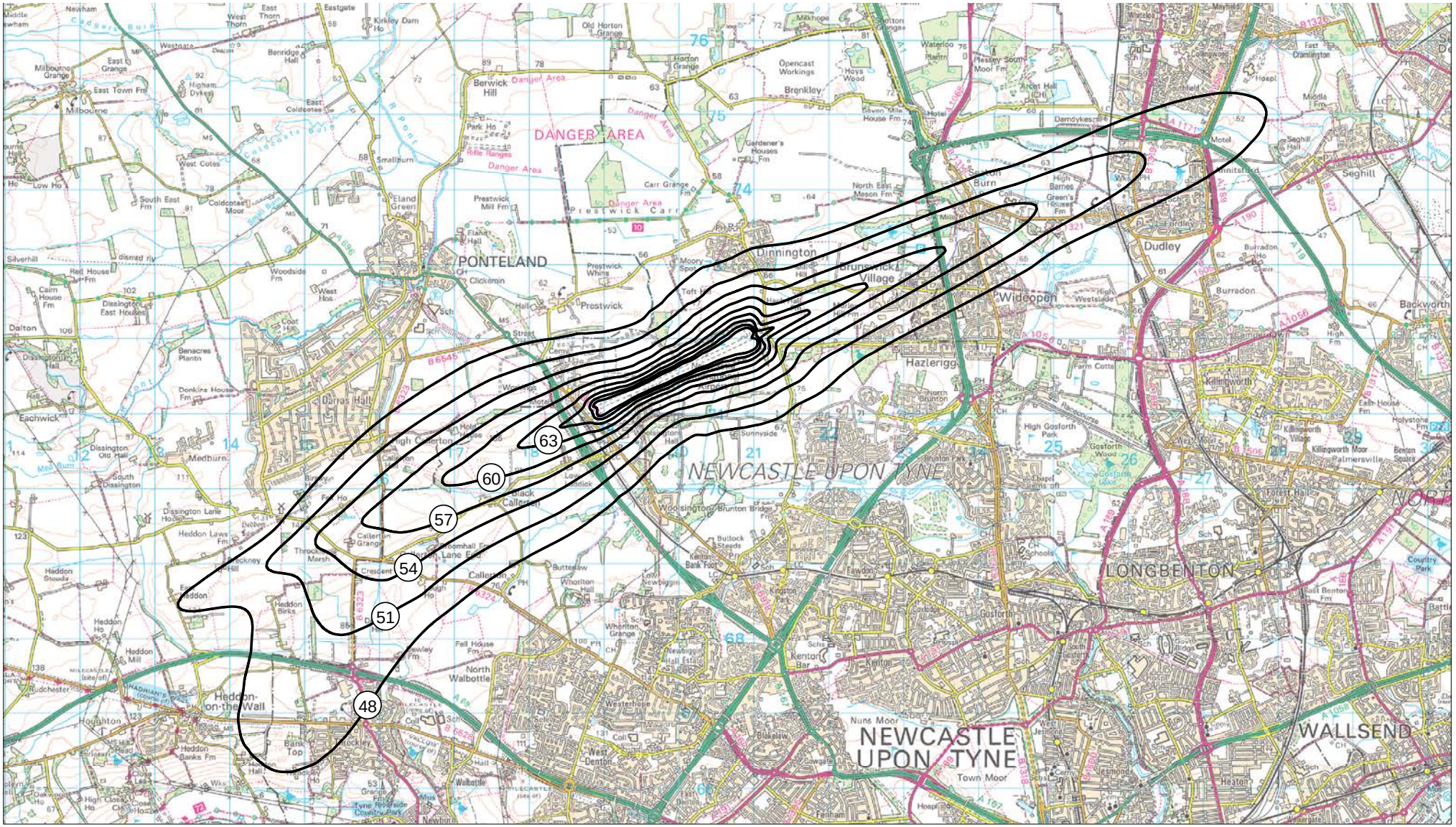
Actual Runway Modal Split 82%W / 18%E



NEWCASTLE INTERNATIONAL AIRPORT

2022 Average Summer Day $L_{Aeq,16h}$ 54-72 dB Contours

Standard Runway Modal Split 68%W / 32%E

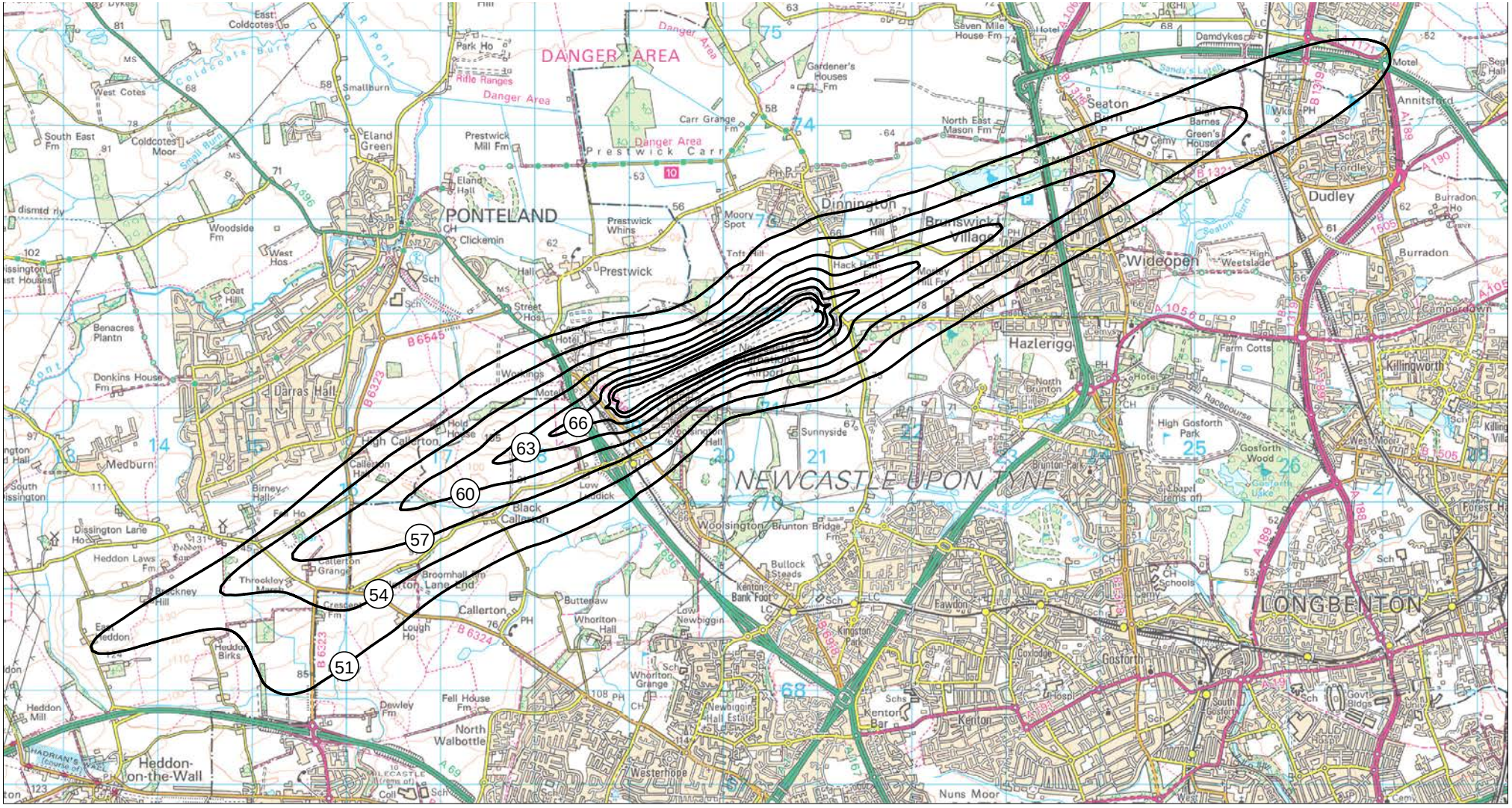


NEWCASTLE INTERNATIONAL AIRPORT

2022 Average Summer Night $L_{Aeq,8h}$ 48-72 dB Contours

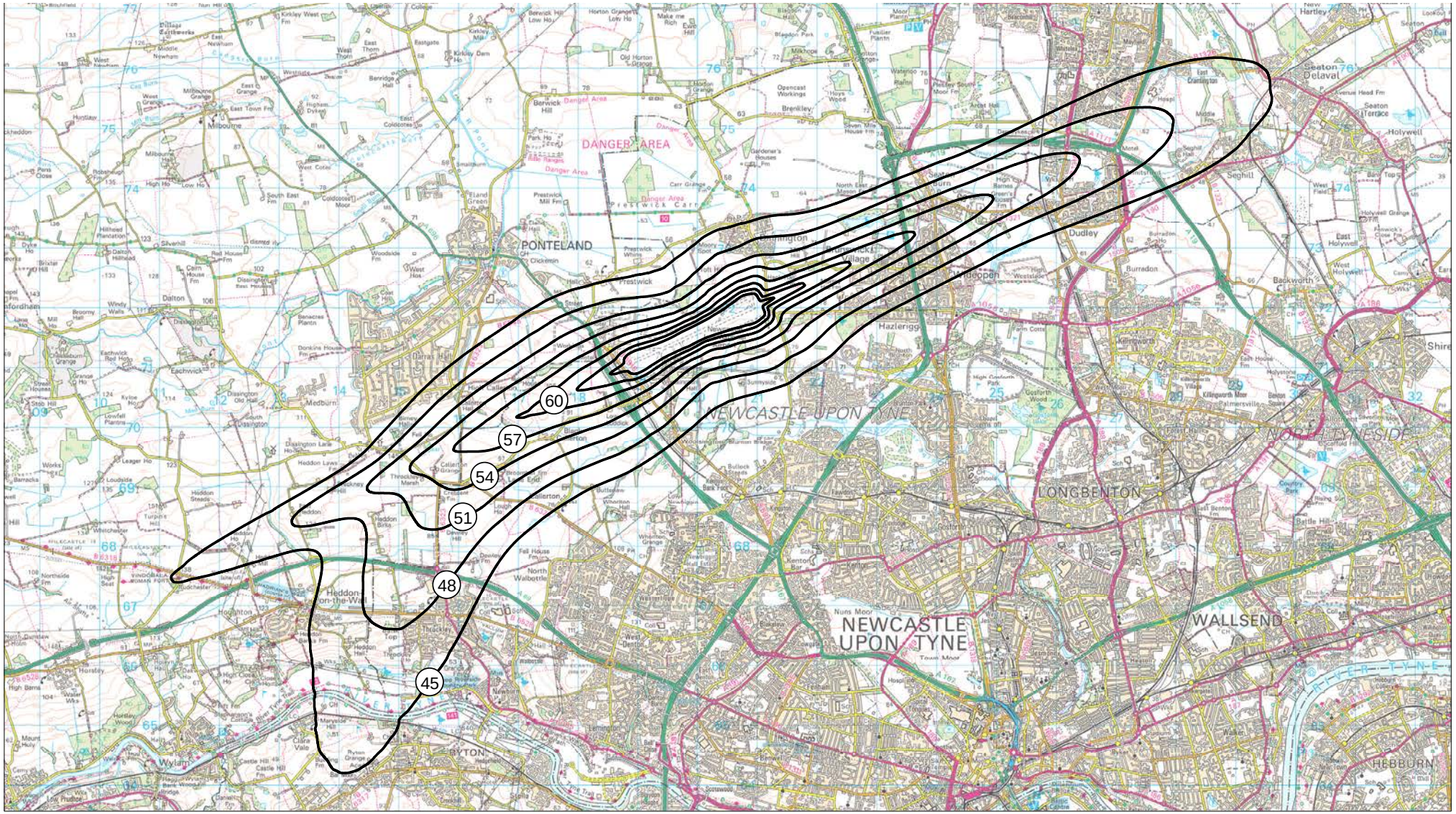
Standard Runway Modal Split 78%W / 22%E

APPENDIX C Long Term Noise Contour Maps



NEWCASTLE INTERNATIONAL AIRPORT

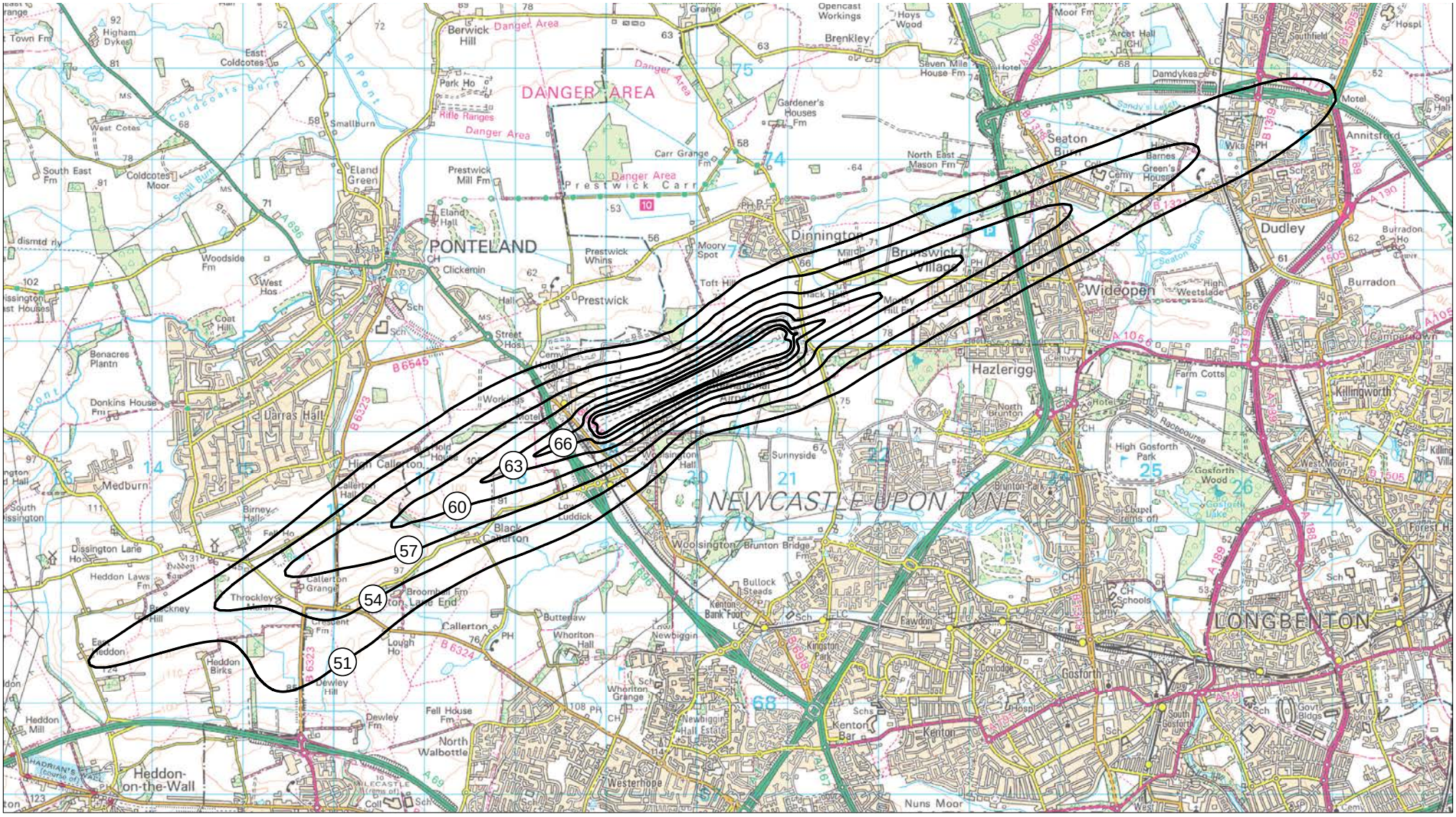
2030 Peak Summer Day 51-72 dB $L_{Aeq,16h}$ Contours (REVISED FLEET)



NEWCASTLE INTERNATIONAL AIRPORT

2030 Peak Summer Night 45-66 dB $L_{Aeq,8h}$ Contours (REVISED FLEET)

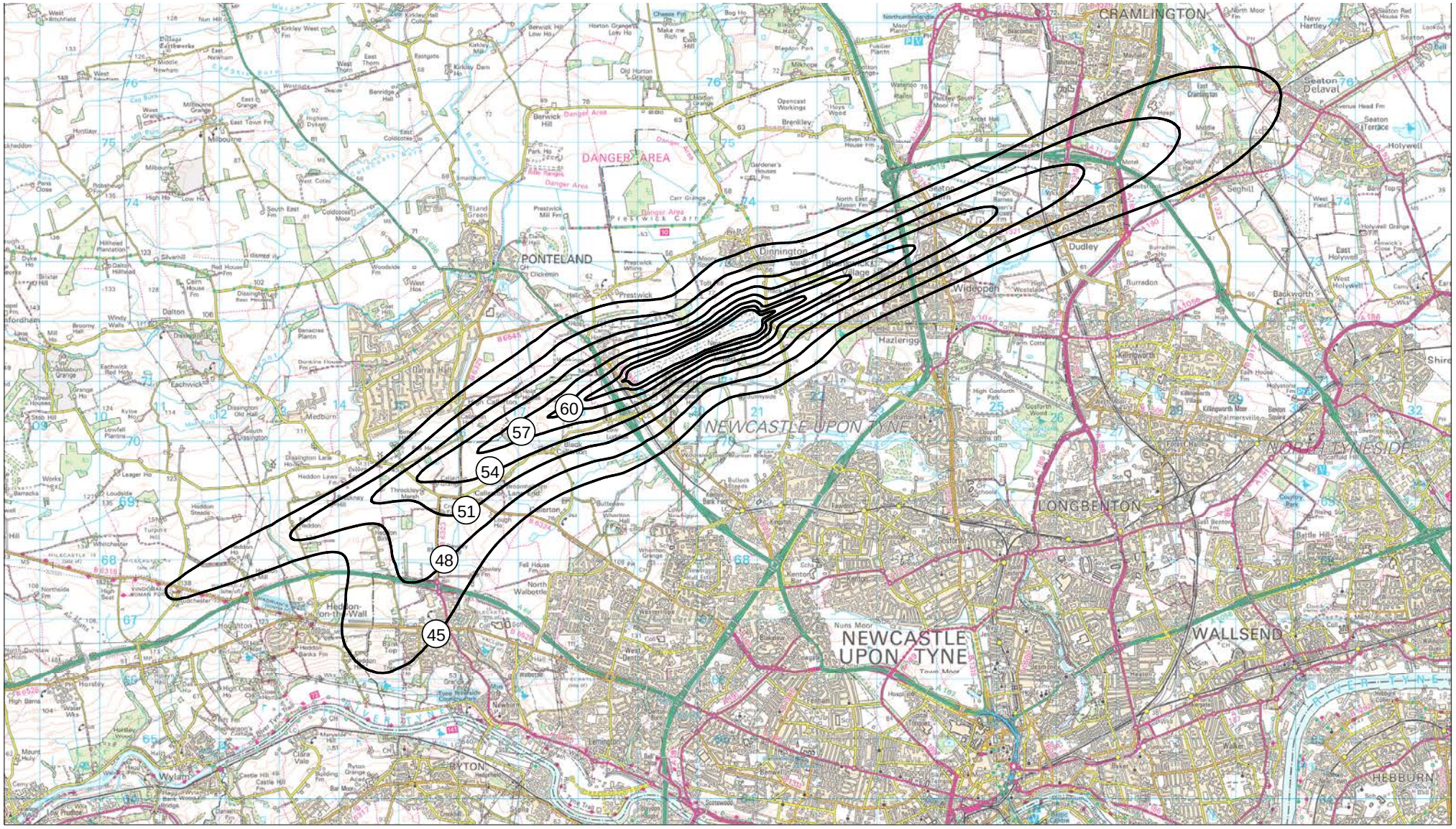
Standard Runway Modal Split 78%W / 22%E



NEWCASTLE INTERNATIONAL AIRPORT

2035 Peak Summer Day 51-72 dB $L_{Aeq,16h}$ Contours (REVISED FLEET)

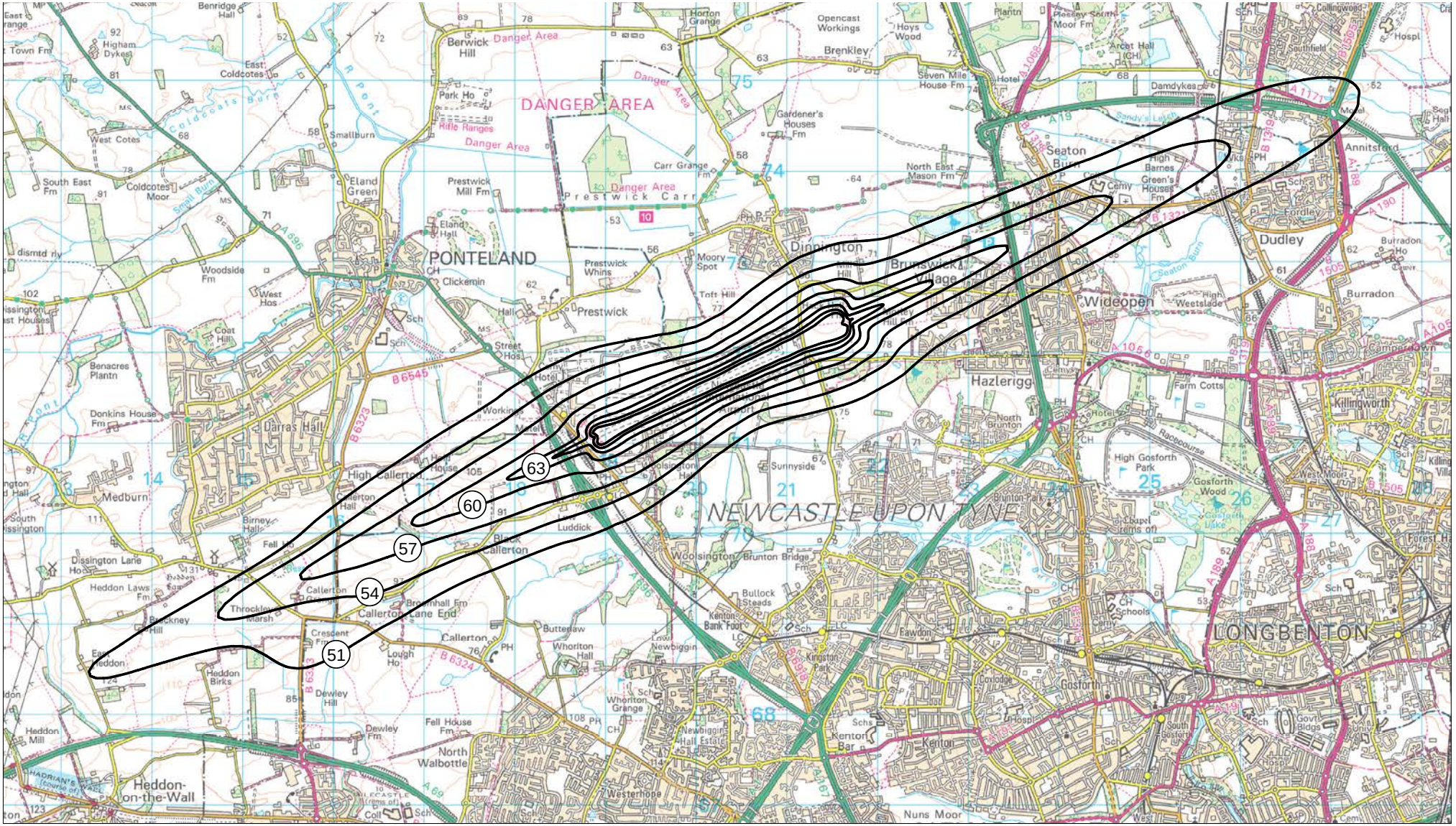
Standard Runway Modal Split 68%W / 32%E



NEWCASTLE INTERNATIONAL AIRPORT

2035 Peak Summer Night 45-66 dB $L_{Aeq,8h}$ Contours (REVISED FLEET)

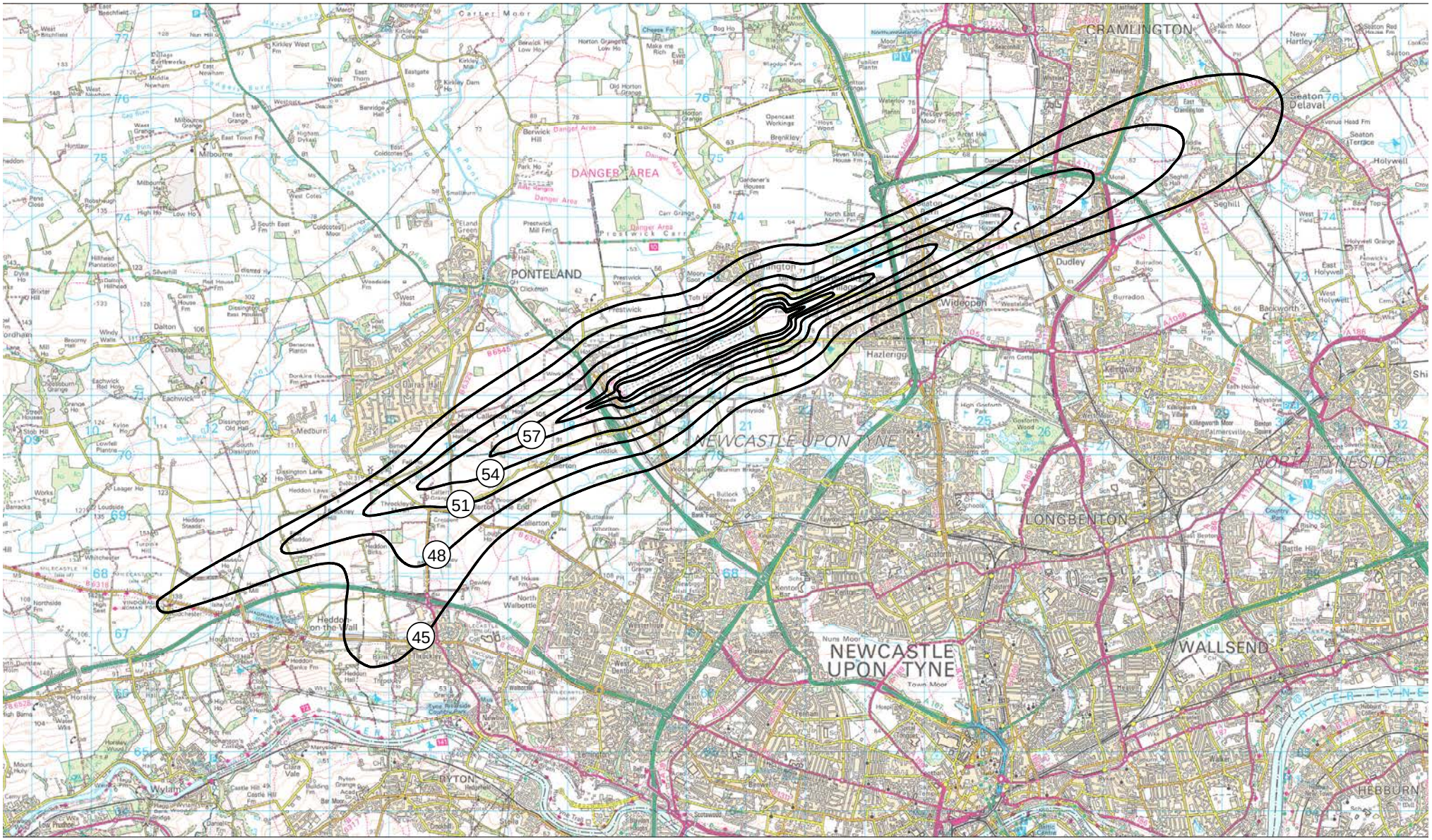
Standard Runway Modal Split 78%W / 22%E



NEWCASTLE INTERNATIONAL AIRPORT

2035 Peak Summer Day 51-72 dB $L_{Aeq,16h}$ Contours with Runway Extension (REVISED FLEET)

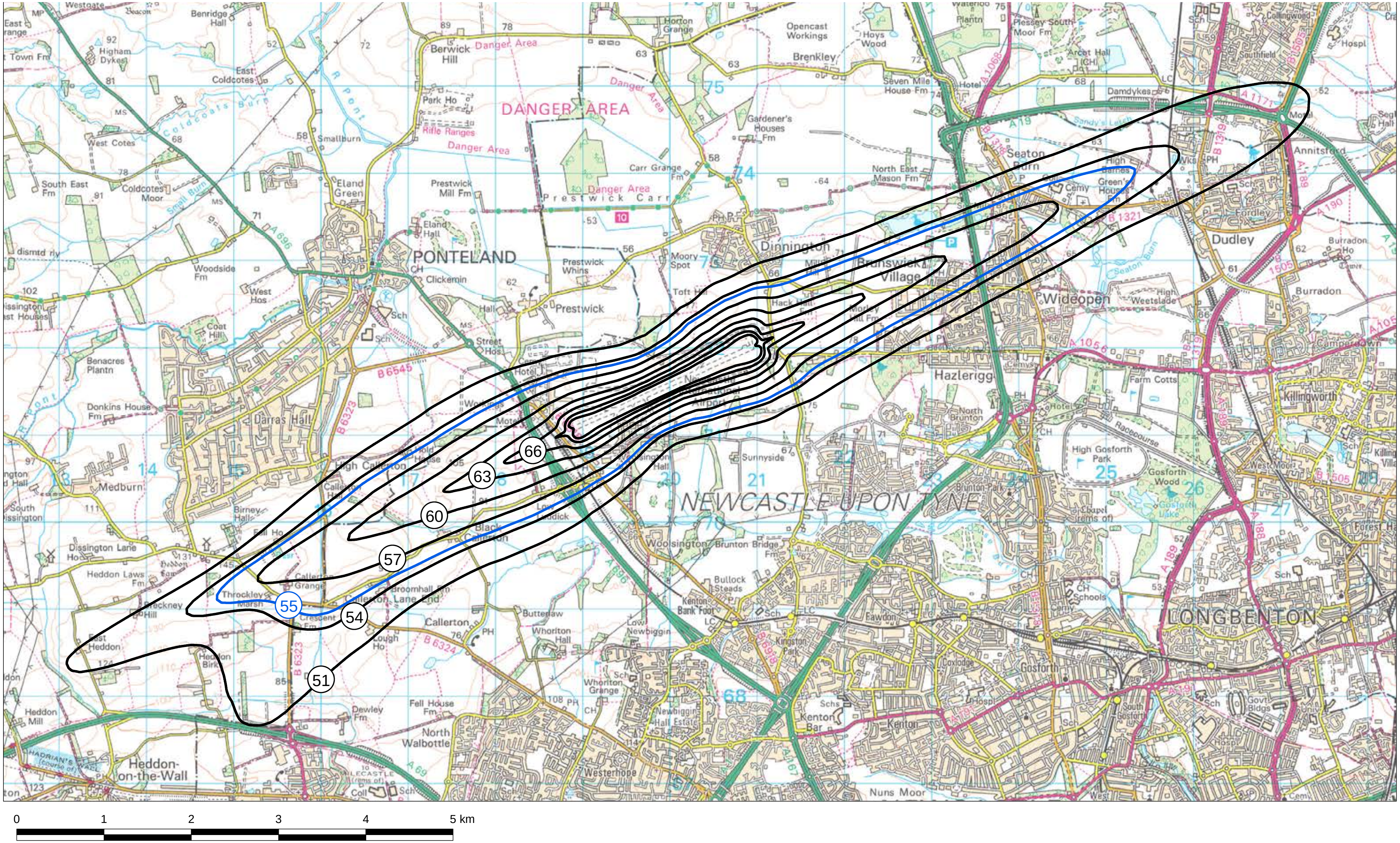
Standard Runway Modal Split 68%W / 32%E



NEWCASTLE INTERNATIONAL AIRPORT

2035 Peak Summer Night 45-66 dB $L_{Aeq,8h}$ Contours with Runway Extension (REVISED FLEET)

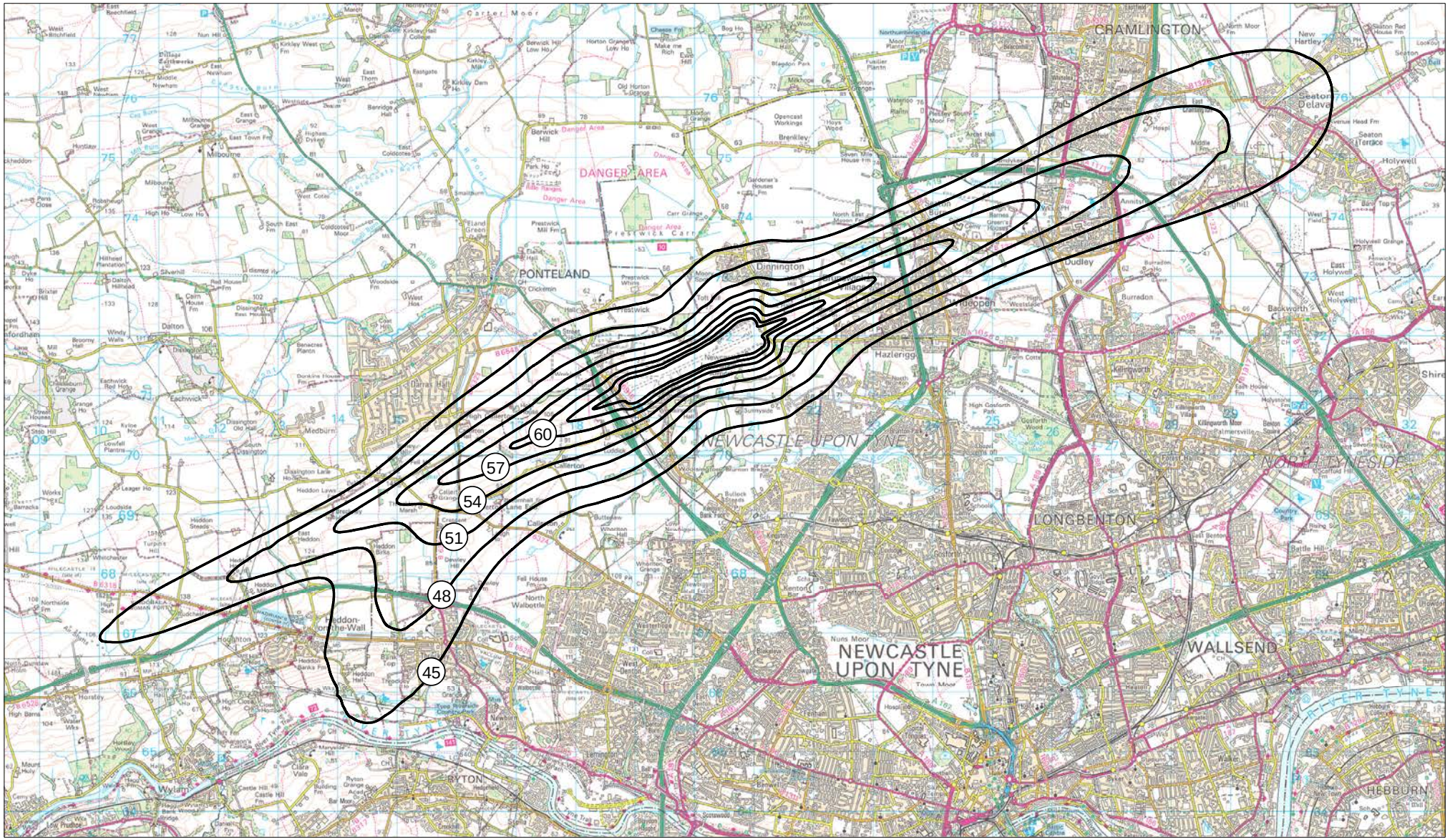
Standard Runway Modal Split 78%W / 22%E



NEWCASTLE INTERNATIONAL AIRPORT

2040 Peak Summer Day 51-72 dB $L_{Aeq,16h}$ Contours (REVISED FLEET)

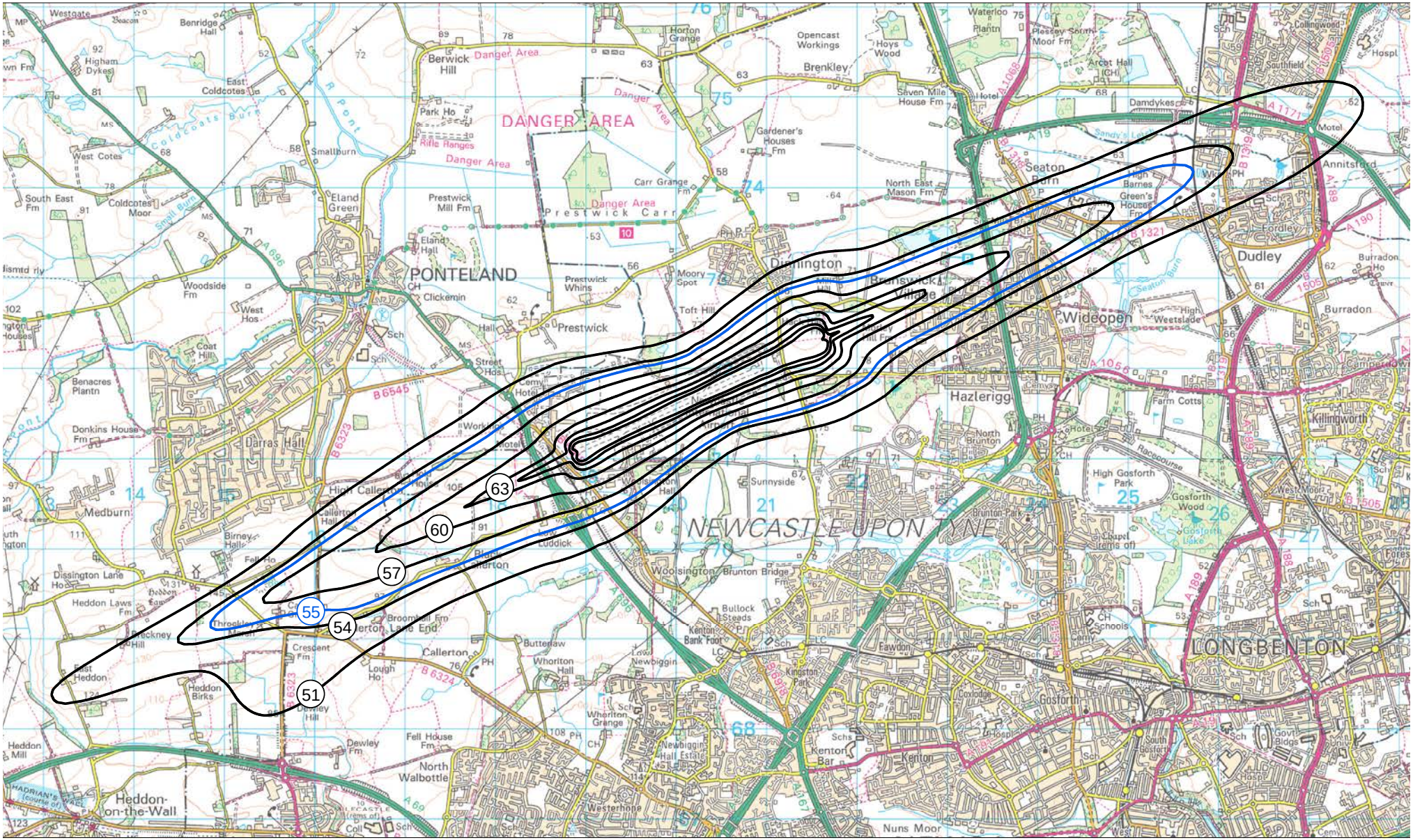
Standard Runway Modal Split 68%W / 32%E



NEWCASTLE INTERNATIONAL AIRPORT

2040 Peak Summer Night 45-66 dB $L_{Aeq,8h}$ Contours (REVISED FLEET)

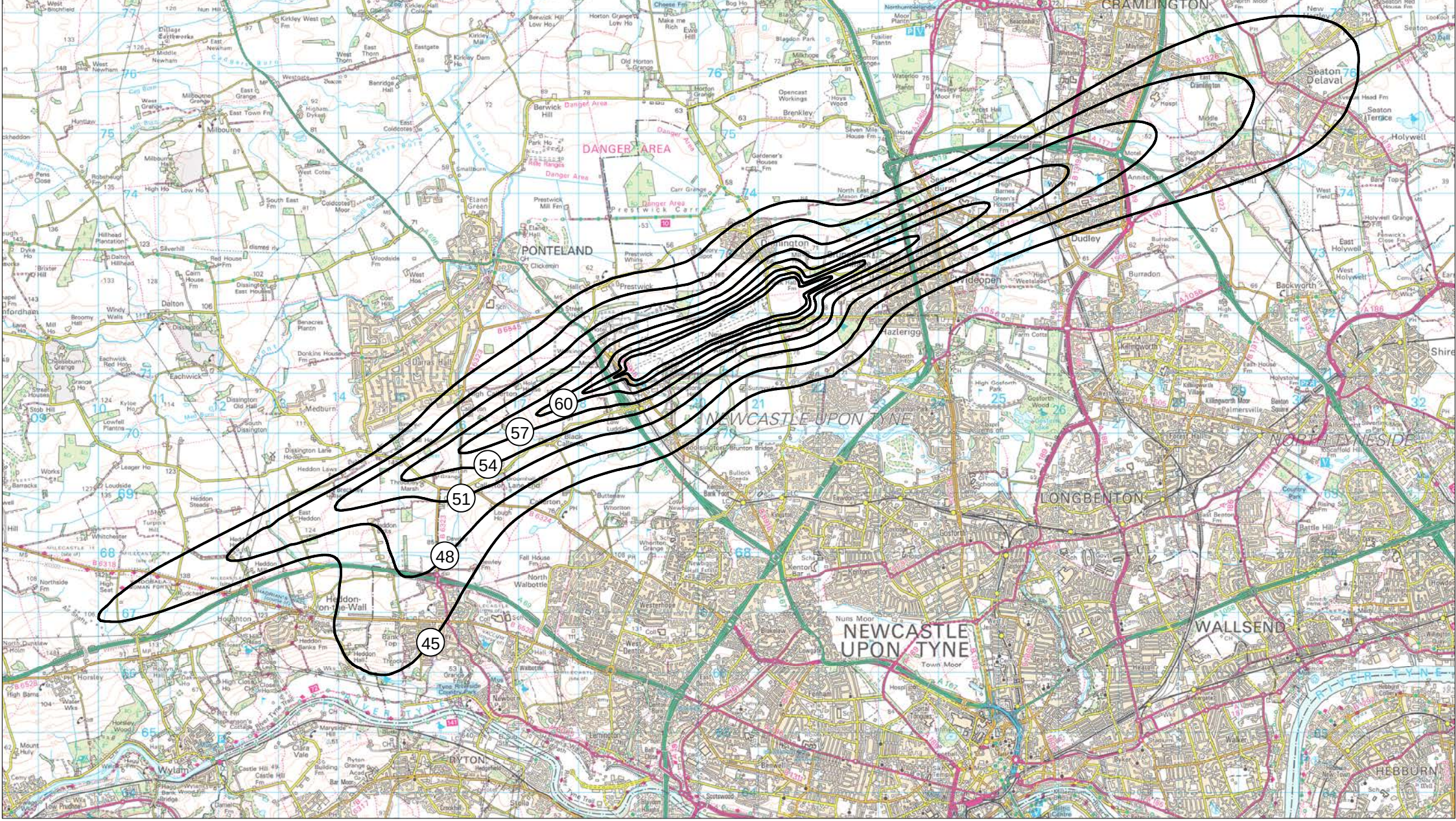
Standard Runway Modal Split 78%W / 22%E



NEWCASTLE INTERNATIONAL AIRPORT

2040 Peak Summer Day 51-72 dB $L_{Aeq,16h}$ Contours with Runway Extension (REVISED FLEET)

Standard Runway Modal Split 68%W / 32%E



0 1 2 3 4 5 6 7 km

NEWCASTLE INTERNATIONAL AIRPORT

2040 Peak Summer Night 45-66 dB $L_{Aeq,8h}$ Contours with Runway Extension (REVISED FLEET)

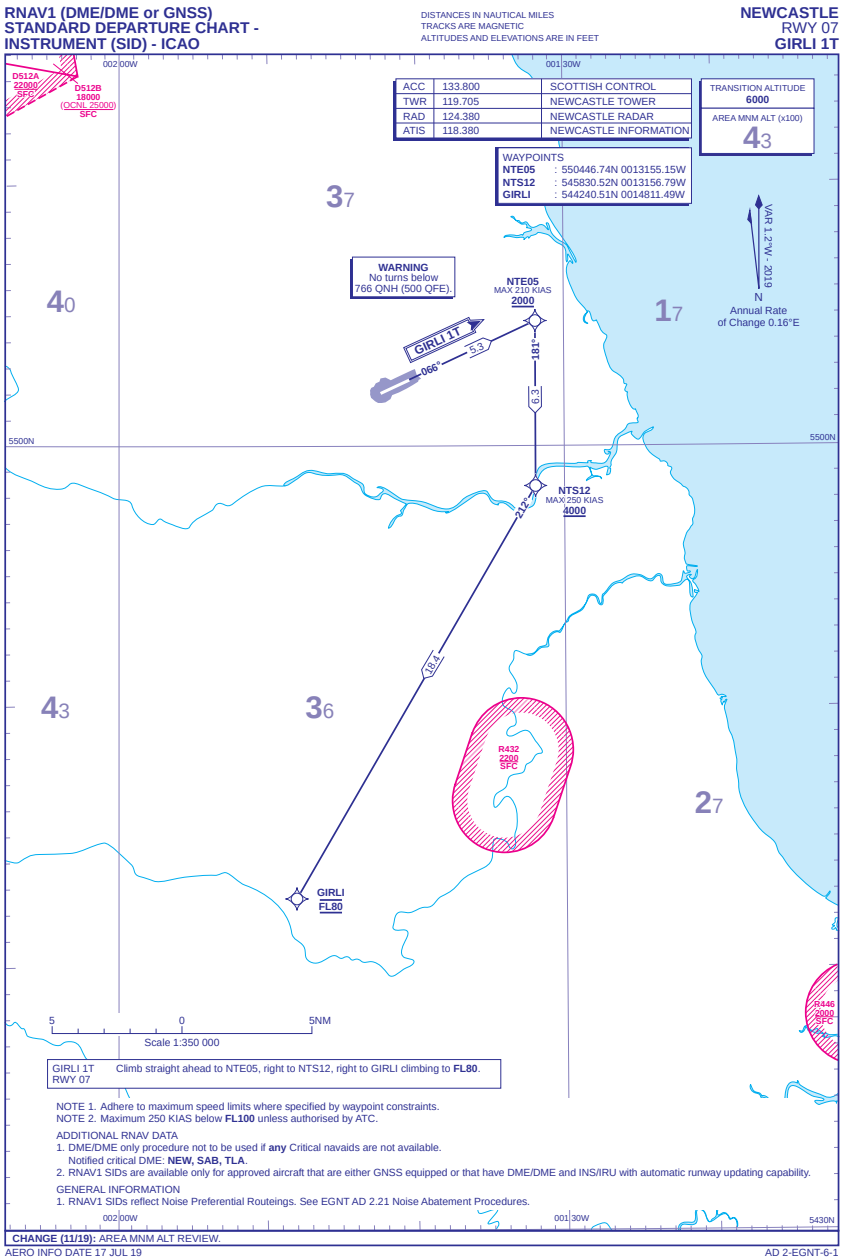
Standard Runway Modal Split 78%W / 22%E


SAMSON

APPENDIX D Financial Information

Task	Approximate annual cost
Noise and Track keeping system: • Noise Desk annual subscription • WebTrak annual subscription • Annual maintenance of the noise monitors	£45,000

APPENDIX E Standard Instrument Departure Routes

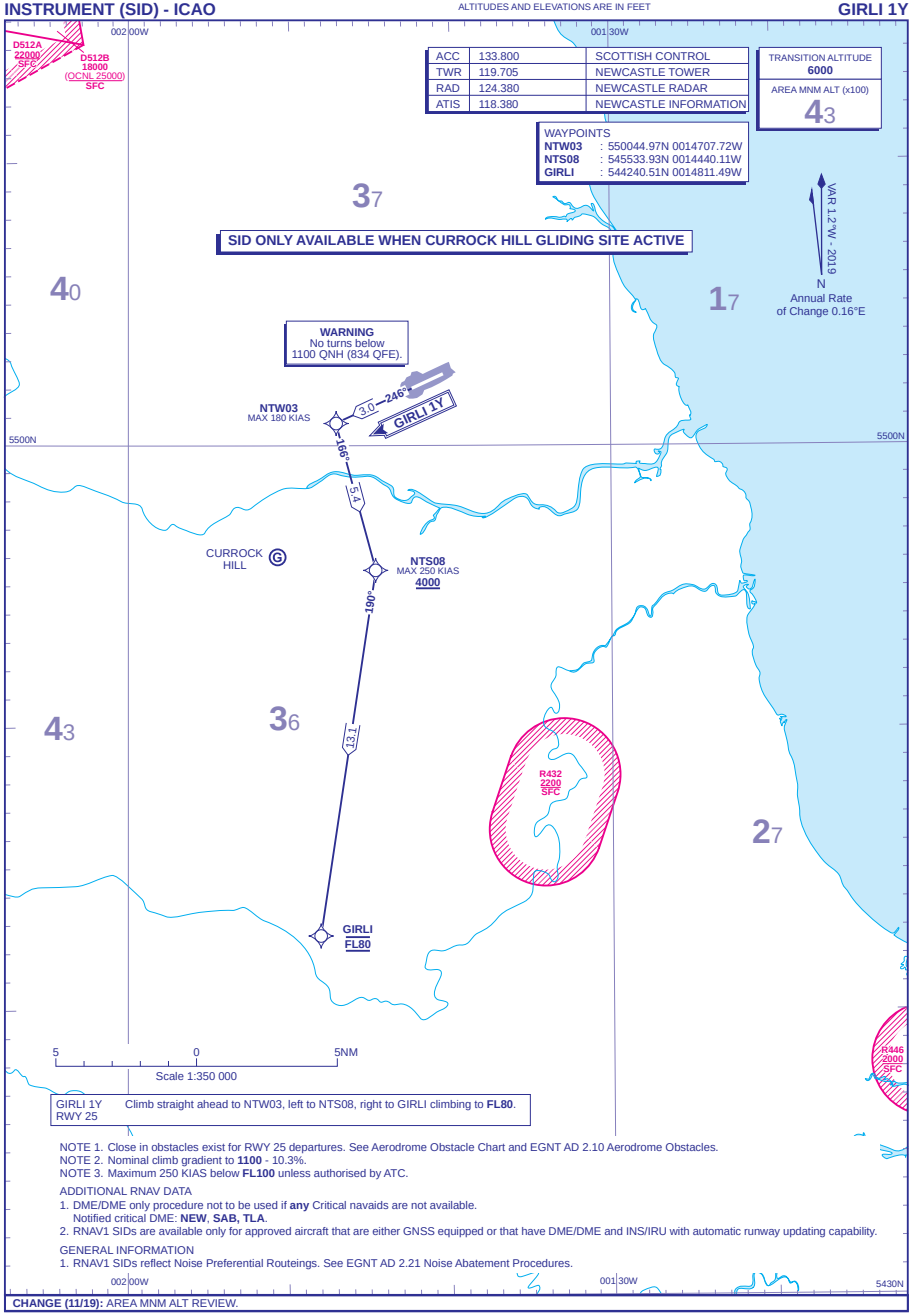


Runway 07 Standard Instrument Departure Route: GIRLI 1T

RNAV1 (DME/DME or GNSS) STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DISTANCES IN NAUTICAL MILES
TRACKS ARE MAGNETIC
ALTITUDES AND ELEVATIONS ARE IN FEET

NEWCASTLE
RWY 25
GIRLI 1Y



NOTE 1. Close in obstacles exist for RWY 25 departures. See Aerodrome Obstacle Chart and EGNT AD 2.10 Aerodrome Obstacles.
NOTE 2. Nominal climb gradient to **1100** - 10.3%.
NOTE 3. Maximum 250 KIAS below **FL100** unless authorised by ATC.

ADDITIONAL RNAV DATA
1. DME/DME only procedure not to be used if **any** Critical navaids are not available.
Notified critical DME: **NEW**, **SAB, TLA**.
2. RNAV1 SIDs are available only for approved aircraft that are either GNSS equipped or that have DME/DME and INS/IRU with automatic runway updating capability.

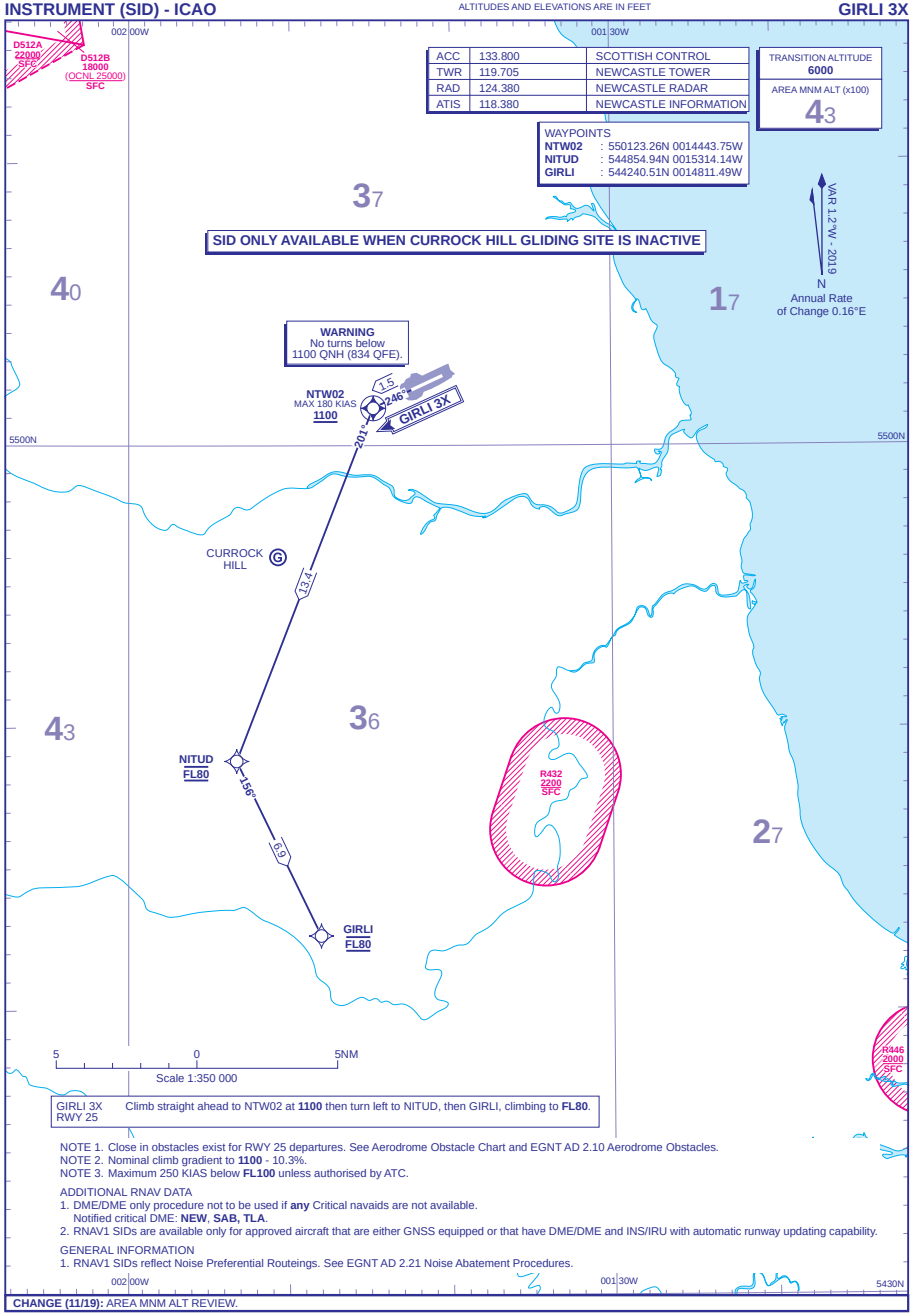
GENERAL INFORMATION
1. RNAV1 SIDs reflect Noise Preferential Routeings. See EGNT AD 2.21 Noise Abatement Procedures.

CHANGE (11/19): AREA MNM ALT REVIEW.

RNAV1 (DME/DME or GNSS) STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DISTANCES IN NAUTICAL MILES
TRACKS ARE MAGNETIC
ALTITUDES AND ELEVATIONS ARE IN FEET

NEWCASTLE
RWY 25
GIRLI 3X



NOTE 1. Close in obstacles exist for RWY 25 departures. See Aerodrome Obstacle Chart and EGNT AD 2.10 Aerodrome Obstacles.
NOTE 2. Nominal climb gradient to **1100** - 10.3%.
NOTE 3. Maximum 250 KIAS below **FL100** unless authorised by ATC.

ADDITIONAL RNAV DATA
1. DME/DME only procedure not to be used if **any** Critical navaids are not available.
Notified critical DME: **NEW**, **SAB, TLA**.
2. RNAV1 SIDs are available only for approved aircraft that are either GNSS equipped or that have DME/DME and INS/IRU with automatic runway updating capability.

GENERAL INFORMATION
1. RNAV1 SIDs reflect Noise Preferential Routeings. See EGNT AD 2.21 Noise Abatement Procedures.

CHANGE (11/19): AREA MNM ALT REVIEW.

Runway 25 Standard Instrument Departure Route: GIRLI 3X

APPENDIX F Standard Terminal Arrival Routes

APPENDIX G Summary of aspects referred to schedule 4 of the Regulations

The following summary highlights the following elelments in Annex V and where they are covered in Newcastle International Airport's Noise Action Plan:

- A description of the agglomeration, the major roads, the major railways or major airports and other noise sources taken into account.

  The main other sources of noise surrounding the Airport that were taken into account are road noise from the A1 (further afield) and the A696. Another source would be the car parks across the Airport site and the metro line that runs from the Airport to Newcastle Central Station via Woolsington and Kingston Park.

- The authority responsible.

  Refer to point 5.4.1, Local Planning Considerations.

- The legal context.

  Refer to paragraph 5.5, National Noise Policy.

- Any limit values in place in accordance with Article 5.

  Limits are set out in 5.5.2 Aviation Policy Framework.

- A summary of the results of the noise mapping.

  See Appendix A, 2021 Noise Contour Maps.

- An evaluation of the estimated number of people exposed to noise, identification of problems and situations that need to be improved.

  Highlighted in section 6.5, Future Populations Noise Exposure Estimates.

- A record of the public consultations organised in accordance with Article 8(7).

  Consultation responses are discussed in Appendix F, including multiple Councils and the Aircraft Noise Action Group.

- Any noise-reduction measures already in force and any projects in preparation.

  Noise reduction measures already in force are those covered in section 8; reduction of noise at the source, land-use planning and management, noise abatement operational procedures, operating restrictions and working with local communities.

- Actions which the competent authorities intend to take in the next five years, including any measures to preserve quiet areas.

  Discussed in paragraphs 5.3, 5.4, 5.4.1. National regulation, local regulation, local planning considerations.

- Long-term strategy.

  The long-term strategy for mitigating noise would be actions explained in section 8, reduction of noise at the point of source, planning and land use management etc.

- Financial information (if available): budgets, cost-effectiveness assessment, cost-benefit assessment.

  Not available.

- Provisions envisaged for evaluating the implementation and the results of the action plan.

  Reviewed regularly by the Airport's Board, the Corporate Social Responsibility Committee and the Airport Consultative Committee.

Glossary of Terms

Term	Description
Agglomeration	Major Continuous Urban Area as set out within the Regulations
Airline Technical Committee	Representatives from Newcastle International Airport Ltd and based airlines (Jet2/Ryanair and TUI) meet twice a year.
Aeronautical Information Publication (AIP)	Publication which is updated every 28 days, containing information essential to air navigation.
Airport Consultative Committee	Community focussed group, with representatives from the local Parish Councils, Local Authorities and other key organisations.
ANAG	Aircraft Noise Action Group
ATS	Air Traffic Services
CAA	Civil Aviation Authority
CDA	Continuous Descent Approach
dB	Decibel
DEFRA	Department for Environment Food and Rural Affairs
DfT	Department for Transport
END	Environmental Noise Directive (2002/49/EC)
ERCD	Environmental Research and Consultancy Department
FEGP	Fixed Electrical Ground Power
First Round Agglomeration	An agglomeration but having a population in excess of 250,000 persons

Term	Description
ILS	Instrument Landing System
NIAL	Newcastle International Airport Limited
LOAEL	The Lowest Observed Adverse Effect Level (LOAEL) is the level of aviation noise above which adverse effects on health and quality of life can be detected. In the UK, the LOAEL for aviation noise is 51 decibels LAeq,16h on an average summer's day and 45 decibels LAeq,8hr on an average summer's night
LAeq,T	The A-weighted equivalent continuous sound pressure level which is a notional continuous level that, at a given position and over the defined time period, T, contains the same sound energy as the actual fluctuating sound that occurred at the given position over the same period, T.
LAeq,16hr	The LAeq,16hr over the period 0700 – 2300, local time (for strategic noise mapping this is an annual average)
Lday,	The Lday over the period 0700 – 1900, local time (for strategic noise mapping this is an annual average)
L den	The day, evening and night level is a logarithmic composite of the Lday ,L evening L night levels but with 5 dB(A) weighting added to the L evening value and 10 dB(A) added to the L night value.
Levening	The Levening over the period 1900 – 2300, local time (for strategic noise mapping this is an annual average)
L night	The Lnight over the period 2300 - 0700, local time (for strategic noise mapping this is an annual average)
PRNAV	Precision navigation
SID	Standard Instrument Departure route
SOAEL	SOAEL, or Significant Observed Adverse Effect Level, is a term used to describe the level of aircraft noise at which significant adverse effects on health and quality of life occur


BOEING 777-300ER
PE
Emirates
25
25R


الإمارات
Emirates
www.emirates.com