



Newcastle International Airport Noise Action Plan

Draft for consultation
July 2009

Newcastle International
Your Airport



www.newcastleinternational.co.uk

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1.0 Foreword by Newcastle International Airport CEO

Newcastle International Airport plays a vital role in the North East region, handling approximately five million passengers a year. The airport boasts a choice of over 80 destinations worldwide, including our first ever long - haul scheduled service to Dubai from Newcastle, which started in September 2007. As well as offering exciting destinations, the airport provides employment for 3,000 people and contributes over £400m per year to the regional economy.

Whilst maintaining the goal to be the most welcoming Airport in the UK, we also strive to be a good neighbour and manage environmental impacts on the local communities. We have a dedicated member of staff to deal with environmental issues and this has resulted in a number of local environmental initiatives, including noise management. The airport noise complaints service provides communities with the assurance that each complaint is investigated and action is taken.

We welcome the opportunity to produce this Noise Action Plan, as it allows us to demonstrate the good work we are doing and identify new challenges, which will ensure continual improvement. It also encourages engagement with all parties concerned on this topic, including airlines, air traffic control, local communities and senior airport management.

If you have any comments or suggestions to make on the Action Plan we would appreciate your input. Please direct your views to:

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DAVID LAWS, CEO

2.0 Introduction

This Noise Action Plan has been produced to comply with the Environmental Noise Directive 2002/49/EC. The key aim of the plan is to manage and reduce environmental noise where necessary, and preserve environmental noise quality where it is good. The document sets out a number of actions to achieve this aim over a five year period.

The Action Plan is supported by the production of noise maps, which identify areas exposed to differing levels of noise exposure. Maps are produced through a modelling process and provide a tool to establish the key areas subjected to noise exposure.

The plan will be fully adopted in November 2009, following a consultation period from 1st July 2009 until 21st October 2009.

3.0 Summary of Newcastle International Airport

Newcastle International Airport Limited (NIAL) is the main airport serving the North East of England with a population of over 3 million people. Over the past ten years the Airport has witnessed sustained growth in all sectors. Following the establishment of a Public Private Partnership in 2000 (between Copenhagen Airports and the seven Local Authorities) Newcastle International Airport Limited (NIAL) became one of the fastest growing regional airports in the UK in 2005 with passenger figures at 5 million per year.

Budget, Charter and Scheduled airlines (easyJet, Thomas Cook and British Airways) are well established at the Airport and routes have grown to meet the continuing demand, further expansion is expected after we emerge from the recession. In September 2007 NIAL welcomed Emirates Airlines to operate the first scheduled long haul route from Newcastle to Dubai.

As well as commercial operations, NIAL is designated as a 'Co-opted Military emergency airfield' and as such is required to accept aircraft requesting assistance. Military aircraft also use the Airport for 'practice diversions' to develop pilot familiarisation.

However, as with all UK Airports, 2009 has witnessed a decline in passenger numbers due to the current economic climate. Also, the demise of Excel Airways resulted in routes being removed from the timetable at the Airport. Due to these factors, the current Masterplan (2006 – 2016) is being reviewed to reflect the changes within the Aviation Industry. As part of this review process, the environmental appraisal will also be re-visited to assess the future noise impact and mitigation measures.

3.1 Annual Movements

As described above the growth at NIAL is demonstrated in the movements table below;

3.1.1 Annual Movements 2000-2006

Year	Total	Others*	Commercial
2000	82,938	40,455	42,380
2001	82,456	37,377	45,010
2002	78,884	34,838	43,882
2003	75,209	32,991	42,116
2004	75,763	26,962	48,717
2005	84,100	25,232	58,868
2006	81,559	24,082	57,477

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

END applies to airports with excess of 50,000 movements (take-off or a landing) in 2006, in the UK 18 Airports have been identified to comply with the Directive.

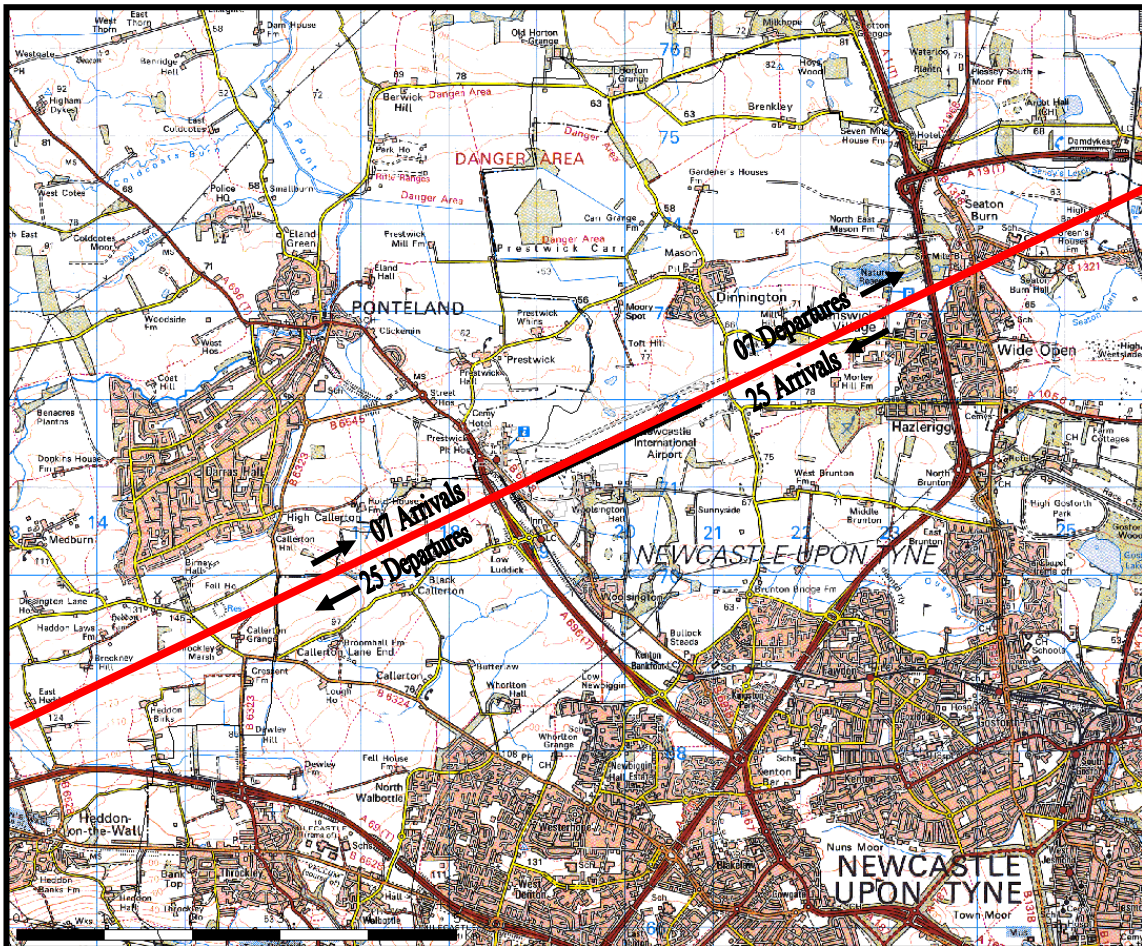
3.2 Location

Newcastle International Airport is situated approximately six miles North West of Newcastle City centre. The airport is situated on the edge of the Tyne and Wear conurbation, which includes Newcastle upon Tyne, Sunderland and Gateshead. Approximately one million people live within this area.

3.3 Runway Usage

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

Plan 1: Runway alignment



3.4 Airport site

The area of land already developed at Newcastle International Airport covers 184 hectares. NIAL owns all of the land within this area, which includes all of the main

activities of the Airport, including the terminal, apron, runway, car parks, freight, maintenance and other ancillary facilities. The runway lies in an approximate south west to north east alignment, with the terminal areas located to the north of the runway at the western end.

This area specifically includes:

- The terminal building and pier, and includes the usual range of check-in facilities, lounges, retail and food outlets, baggage reclaim and supporting offices, stores and plant rooms.
- The main passenger and commercial apron area, including aircraft parking stands and equipment storage areas.
- All short- and long-term car parks, including the administration building. Approximately, 7,000 spaces are provided in total, with courtesy bus provision.
- The air traffic control building, including visual control room (VCR) and a series of small aircraft engineering units.
- The Tyne and Wear Metro (light rail) station and a number of bus stops.
- Petrol filling station.
- Three hotels are also located close to the entrance of the Airport.
- To the south of the runway are aircraft engineering and maintenance facilities, including hangars and offices.

4.0 Legislative requirements

4.1 European Regulation

Environmental Noise Directive 2002/49/EC

Directive 2002/49/EC relates to the assessment and management of environmental noise and is referred to as the Environmental Noise Directive or END.

The aim of the END is to define a common approach across the European Union with the intention of avoiding, preventing or reducing on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise.

As part of this process the first stage identified in the directive was the preparation of noise maps, to inform the public about environmental noise. In line with this requirement, NIAL appointed the Environmental Research and Consultancy Department (ERCD), part of the Civil Aviation Authority (CAA) to produce noise maps for 2006 (see Appendix A). The regulations stipulate that the results of this mapping process form the basis of a 'Noise Action Plan'. This process is to be repeated every five years and the plans to be reviewed and revised where necessary.

In line with the guidance produced a consultation exercise on this draft Action Plan will end on 21st October 2009. A finalised plan will then be submitted to the Secretary of State by the 30th November 2009.

4.2 National Regulation

In December 2003 the UK Government produced 'The future of Air Transport', this White Paper sets out a strategic framework for the development of airport capacity to 2030. The document states the Government's position on air travel and recognises the balance, between people's desire to travel and the need to minimise impacts on local communities.

Included in the paper, are measures which combine to limit and reduce the number of people affected by noise.

To demonstrate limiting noise levels, there is a requirement for all airport operators to offer households subject to high levels of noise (69dBA Leq or more), assistance with the costs of relocating. Acoustic installation must be offered to noise sensitive buildings such as schools, hospitals and residential properties exposed to 63dBA Leq or more. In the immediate conurbation to Newcastle International Airport, there are no dwellings or sensitive buildings in these noise exposure levels, therefore NIAL do not provide any compensation schemes.

In order to put noise exposure into context, the Government has used 57dBAleq as the level of daytime noise, marking the onset of significant community annoyance. However, it is recognised that levels of noise are subjective and vary between individuals.

4.3 Local regulations

Whilst Local Authorities 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 work closely with local Environmental Health Officers to manage any local issues.

However the Local Authority (LA) does have a number of mechanisms to encourage a reduction in noise levels. Planning Policy Guidance Note 24 (Planning and Noise) ensures that inappropriate development is discouraged or prohibited around airports. Also as part of the planning process, the LA can enforce Section 106 legal agreements with any planning approval granted. An example of this can be seen when Newcastle City Council and Castle Morpeth Borough Council instigated a Section 106 agreement, to install a noise and track keeping system as part of the terminal extension planning application.

At this time there are no limits in place at the airport in terms of aircraft movements. The Airport operates on a 24hr basis with approximately 12% operating during the night time hours.

5.0 Noise Mapping results

5.1 Noise Mapping

The noise mapping required under the directive, represent the annual average values, this contrasts with the current UK practice of producing aircraft noise contours for the average summer's day (16 hour, 07.00 - 23.00, Leq). END requires the use of different parameters, Lday, Levening, Lnight, Leq16hr and Lden.

For information purposes, see below a breakdown of the total number of commercial aircraft movements for Saturday 30th May 2009.

5.1.1 Breakdown of aircraft movements

	Departures	Arrivals
Lday (07.00 – 19.00)	46	41
Levening (19.00 – 23.00)	5	14
Lnight 23.00 – 07.00)	14	10
Leq16hr (07.00 – 23.00)	51	55
Lden (00.00 – 24.00)	65	65

*NB Two Royal Mail flights during the night. General aviation and helicopter activity has not been included in the figures above.

The above table identifies peak areas of operations, which includes 27% of arrivals between the hours of 19:00 – 23:00. It is also worth highlighting that out of the 14 departures between 23:00 – 07:00, 11 of those were between 06:00 – 07:00. As a regional airport, it is critical to provide key destinations during these hours, including London Heathrow, Gatwick and Paris.

5.2 Summary of results

Environmental Research and Consultancy Department (ERCD) were instructed to produce Noise maps using the metrics detailed in END. Contours for 2006 were generated for L_{day}, L_{evening}, L_{Aeq,16hr}, L_{night}, L_{den} and from 55 to 75 dB(A). The noise mapping process provides a snap shot of the noise impact for the year 2006.

The highest contour level to include dwellings was >60dB(A), the table below details the number of dwellings within the >60dB(A) contour level.

5.2.1 Dwellings contained within the >60dB(A)

Contour	Dwellings
L _{day}	<50
L _{evening}	<50
L _{den}	700
L _{Aeq,16hr}	<50

The following tables provide further detail on the individual metrics;

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

Noise Level (dB)	Number of dwellings	Number of People
≥ 55	2,800	5,900
≥ 60	700	1,400
≥ 65	0	0

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

Noise Level (dB)	Number of dwellings	Number of People
≥ 54	2,000	4,000
≥ 57	900	1,800
≥ 60	< 50	< 100
≥ 63	0	0

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

Noise Level (dB)	Number of dwellings	Number of People
≥ 54	1,750	3,600
≥ 57	800	1,600
≥ 60	< 50	< 100
≥ 63	0	0

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

Noise Level (dB)	Number of dwellings	Number of People
≥ 54	1,950	3,900
≥ 57	850	1,800
≥ 60	< 50	< 100
≥ 63	0	0

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

Noise Level (dB)	Number of dwellings	Number of People
≥ 48	1,650	3,300
≥ 51	700	1,500
≥ 54	< 50	< 100
≥ 57	0	0

The maps generated by DEFRA to include agglomerations, demonstrate that NIAL activities do not have an impact on the First Round Agglomerations. It is noted that First Round Agglomerations are areas with a population in excess of 250,000 persons. The local communities surrounding NIAL are predominantly small villages and rural areas, however as neighbours these areas are important to the Airport.

6.0 Consultation process

In line with the guidance, Newcastle International Airport Consultative Committee has been involved in the production of this Action Plan. It was decided that a small focus group would meet to discuss and agree the contents of this plan. Representatives from the following local groups attended the focus group meeting;

- Hazlerigg Parish Council
- Heddon on the Wall Parish Council
- Darras Hall Estates Committee

Other key stakeholders have also been involved in the process including Local Authorities and Newcastle Air Traffic Services.

This document is also available on the NIAL website for all members of the public to view, and provide comments.

7.0 Noise action plan

7.1 Air Traffic Management

ACTION	IMPACT	TIMESCALE	PERFORMANCE INDICATOR	NUMBER OF PEOPLE AFFECTED BY THE ACTION
Commence a PRNAV (precision navigation) trial for departure routes. This will improve the accuracy of departure routes.	Departures	2009	Compliance with the departure routes.	1900
Monitor % of aircraft carrying out Continuous Descent Approaches (CDA's). The use of CDA's reduces both noise and air emissions.	Arrivals	2009	Information to be presented to the Airline Technical Committee (ATC).	3900
Continue dialogue with Manchester NATS on the operation and efficiency of P18.	Arrivals & Departures	On going	Update of actions to the Airline Technical Committee (ATC).	N/A
Continue dialogue with Durham Tees Valley (DTV) Airport to improve the routing of aircraft in the vicinity of DTV Airport.	Arrivals	On going	Update of actions to the Airline Technical Committee (ATC).	N/A
Revise visual approach requirements. This will involve an increase in the distance and height at which aircraft can join final approach.	Arrivals	2009	Reduction in noise complaints for arriving aircraft.	N/A
Establish a policy on training flights, to include restriction on the type of	Departure Arrivals	2010	Published policy to airline	N/A

aircraft, timings and alternate routings.				operators.	
Review General Aviation noise abatement procedures, to include holding patterns and training circuits.	Departure Arrivals	2010		Publish updated procedures.	N/A
Produce guidance on helicopter activities.	Departure Arrivals	2009		Publish guidance.	N/A

7.2 Noise policy

ACTION	IMPACT	TIMESCALE	PERFORMANCE INDICATOR	NUMBER OF PEOPLE AFFECTED BY THE ACTION
Review the current noise policy and re-issue.	Community trust	2010	Publish NIAL Noise Policy.	N/A

7.3 Community issues

ACTION	IMPACT	TIMESCALE	PERFORMANCE INDICATOR	NUMBER OF PEOPLE AFFECTED BY THE ACTION
Engage with local schools to encourage the use of noise monitoring data within their studies.	Education	2010 - 2013	Visits to local schools.	N/A
Provide updates on the Noise Action Plan to local Parish Councils.	Community Trust	2010 - 2013	Attendance at Parish Council meetings.	N/A

7.4 Noise exposure levels

ACTION	IMPACT	TIMESCALE	PERFORMANCE INDICATOR	NUMBER OF PEOPLE AFFECTED BY THE ACTION
Investigate a new noise monitoring location to the west of the airfield.	Community trust	2010	Install noise monitor.	N/A

Continue to operate the Noise and Track keeping system.	Community trust and monitoring information.	On going	Production of monthly reports.	N/A
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7.5 Communication

ACTION	IMPACT	TIMESCALE	PERFORMANCE INDICATOR	NUMBER OF PEOPLE AFFECTED BY THE ACTION
Continue to communicate noise and environmental issues through the Airline Technical Committee.	Awareness	Every 6 months	Production of minutes.	N/A
Report noise complaints to the Airport Consultative Committee.	Community Trust	Quarterly	Production of minutes and précis of minutes on the NIAL website.	N/A
Include track keeping information on the internet.	Community and Airline feedback	2009	Dedicated section on the NIAL website to track keeping.	N/A
Continue to provide a dedicated noise monitoring telephone line and email address.	Community Trust	On going	Number of registered complaints.	N/A

7.7 Airfield management

ACTION	IMPACT	TIMESCALE	PERFORMANCE INDICATOR	NUMBER OF PEOPLE AFFECTED BY THE ACTION
Consider the installation of Fixed Electrical Ground Power (FEGP) on future stand development.	Ground noise	On going	Reduction in ground noise.	<100
Continue to apply ground engine testing restrictions (i.e. only when overriding operational requirements exist).	Ground noise	On going	Reduction in ground noise.	1800

7.8 National Policy

ACTION	IMPACT	TIMESCALE	PERFORMANCE INDICATOR	NUMBER OF PEOPLE AFFECTED BY THE ACTION
Support the Sustainable Aviation Strategy as a signatory	Ground noise	On going	Contribution to the Annual report on performance against key indicators.	N/A

Glossary of Terms

Agglomeration	Major Continuous Urban Area as set out within the Regulations
ATC	Air Traffic Control
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 (2003/49/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
NIAL	Newcastle International Airport Limited
P18	Controlled airspace between Newcastle International Airport and Manchester Airport,
PRNAV	Precision navigation
SID	Standard Instrument Departure route



The Environmental Noise (England) Regulations 2008
Newcastle International Airport (ICNNTY)

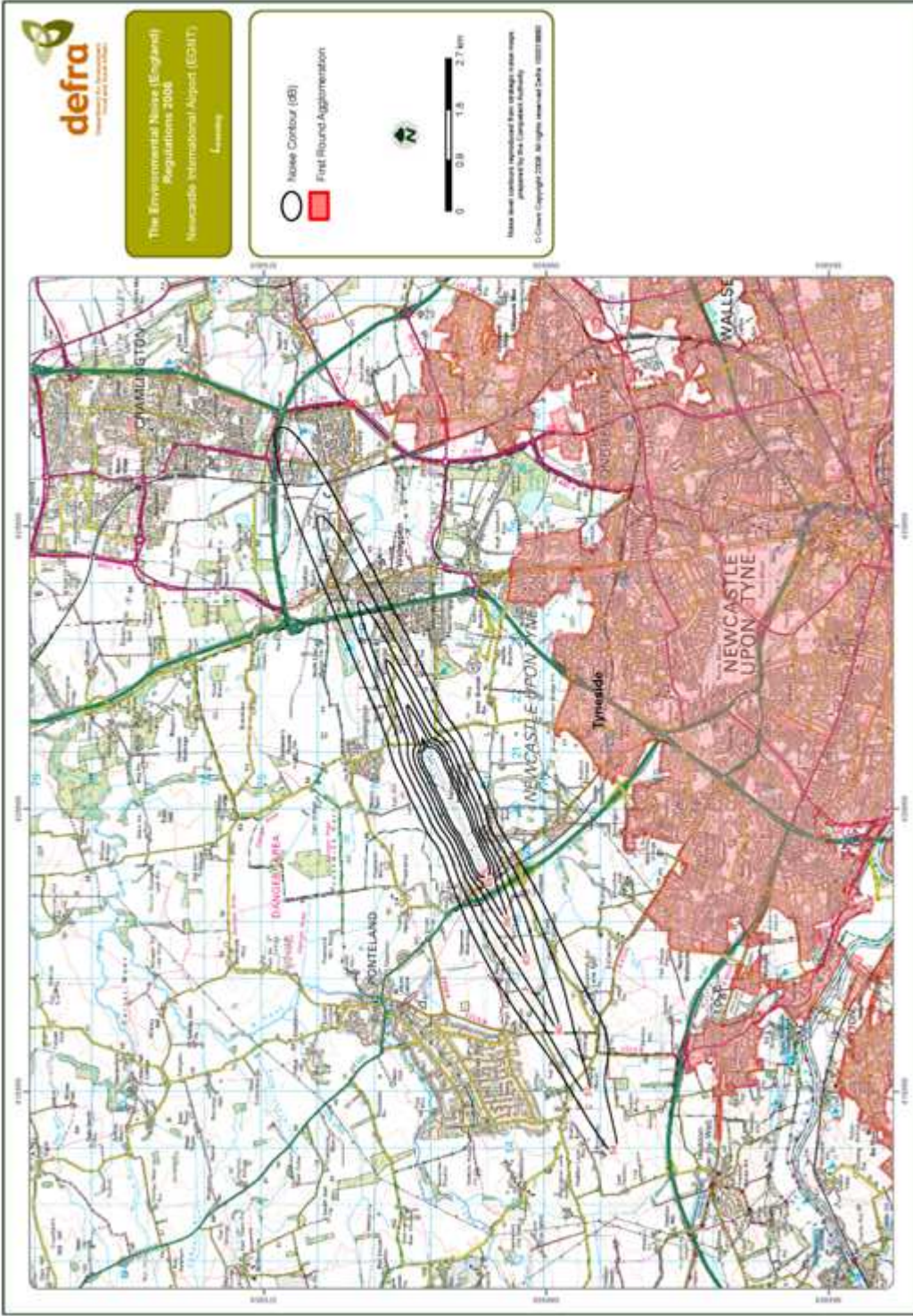
● Noise Contour (dB)
■ First Round Agglomeration

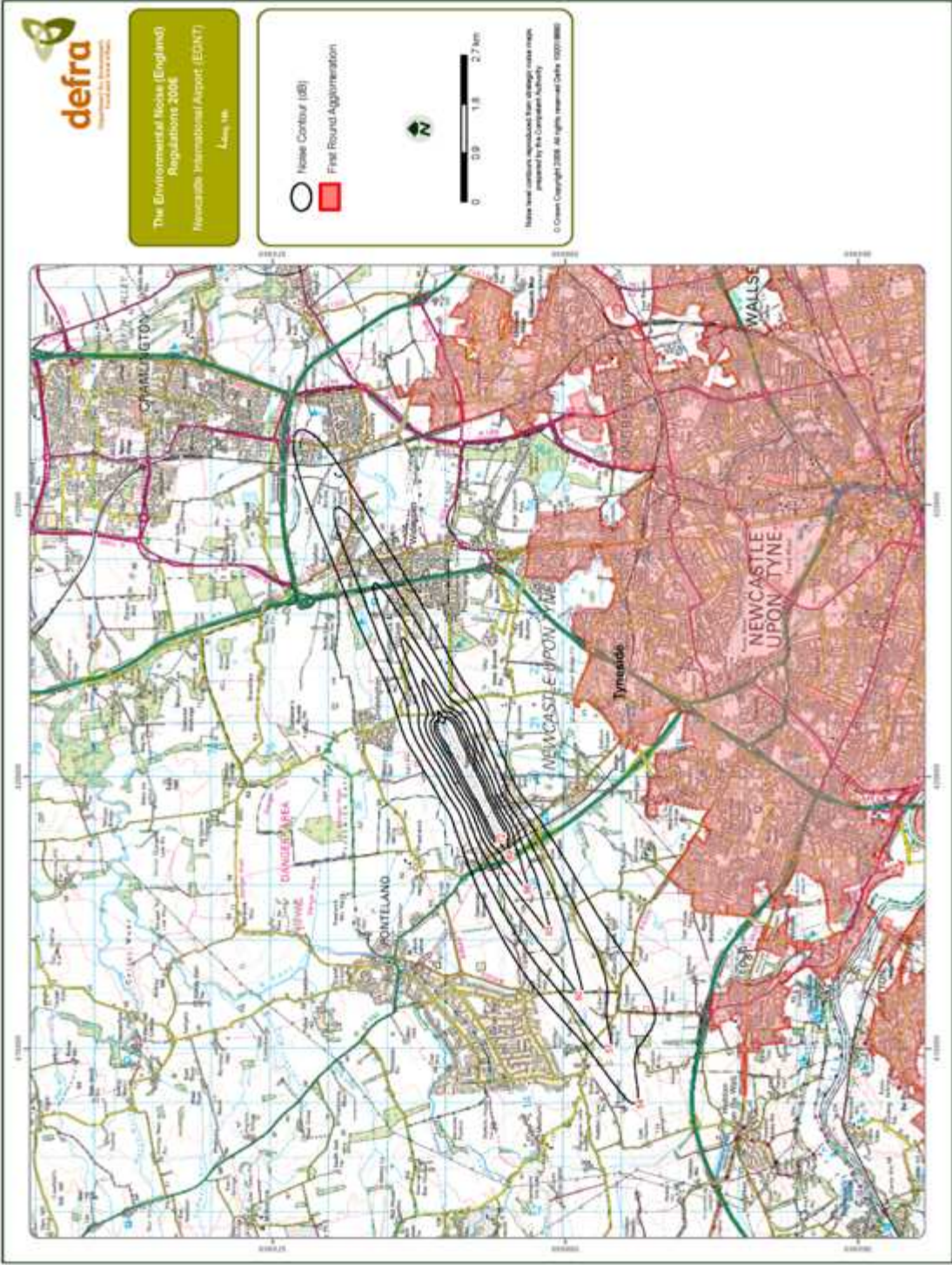
0 0.9 1.8 2.7 km

North arrow

These data, including geographical data, are available in some areas prepared by the Competent Authority.
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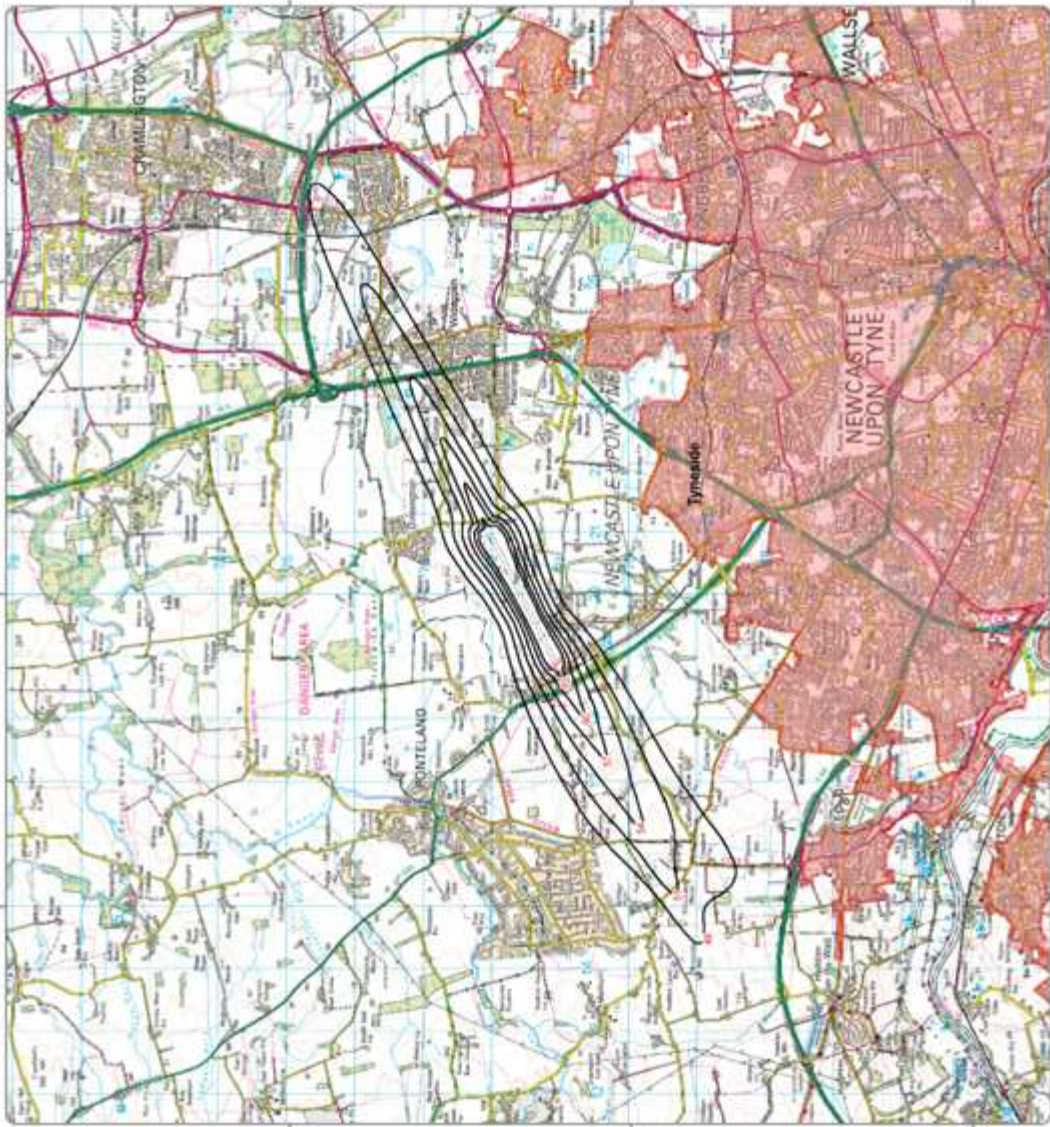


The Environmental Noise (England) Regulations 2008
Newcastle International Airport (ECON1)

- Noise Contour (dB)
- Five Round Approximation



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APPENDIX B Financial Information

Task	Approximate annual cost
Noise and Track keeping system	£56k