# **LONDON CITY AIRPORT**

# 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

01 July 2016

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# **Chief Executive's Foreword**

Welcome to the London City Airport (LCY) Annual Performance Report. The report is a review of airport compliance with our Section 106 (Planning) Agreement with the London Borough of Newham (LBN) during 2015.

The Planning Agreement provides a framework for the delivery of the 2009 planning consent which permits 120,000 flight movements per year at LCY. The agreement sets out almost 200 obligations in areas such as operations, local transport and the environment as well as initiatives to provide benefit to the local community. It also includes provision for financial contributions and the sponsorship of community projects in the airport's locality.

2015 was a record year for London City Airport. Some 4.3m passengers travelled through the airport from January to December - our busiest ever year and an 18% increase on 2014.

It was also an award-winning year, with LCY named 'Best Airport' of its size in Europe at the Airport's Council International Awards, and the UK's most responsible business by the All Party Parliamentary Group for responsible business, recognising our extensive work throughout the local community. Such work in 2015 included 15% of our staff giving 1,192 hours of their time to volunteering projects in the locality; 19 employees walking the Yorkshire Three Peaks to raise £8,500 for our nominated charity Richard House Children's Hospice; and 90 employees taking part in a football tournament raising an additional £1,400.

2015 saw the airport's award winning employment programme, Take Off Into Work, reach a major milestone - helping its 500th person into work since 2009. We also funded a new Community Café at St John's Green and plans are in hand to renovate the Beckton Community Centre to the benefit of 150,000 Newham residents per year. These projects are funded by the £1 million Community Projects Contribution paid by the airport to LBN under the Planning Agreement. We are particularly proud of our environmental achievements in 2015. We were awarded Level 2 Airport Carbon Accreditation by the Airports Council International, becoming one of just five UK airports to reach this landmark. In addition, LCY has also become a zero landfill airport and has increased on-site recycling from 30% to 67% over two years.

Operationally, LCY maintained its position as the most punctual in the South East and one of the most punctual in the UK, with the shortest average delay in the country.

The airport won plaudits from the Civil Aviation Authority, achieving an outstanding score of 93 per cent following an onsite audit, and we transitioned to a new licensing structure under the European Aviation Safety Agency through the course of 2015.

Commercially, the airport continues to go from strength to strength - now flying to 46 destinations. British Airways has added further aircraft to its LCY fleet and announced new routes to Berlin and Hamburg, amongst others. Meanwhile, Flybe celebrated its first year of operations from LCY and announced new routes to Paris Charles De Gaulle and Rennes, while SkyWork returned to LCY to recommence flights to Basel and Bern.

Now to infrastructure. Amidst, record growth in 2015, work began on an £18m project to redevelop the West Pier, which houses 70 per cent of the existing departure gates. The new West Pier will provide a modern, openplan layout, with 600 additional seats and new retail and food & beverage outlets. Works are due to be complete in the West Pier by the end of 2016.

Plans continue for the £300m City Airport Development Programme (CADP), which seeks to make best use of the airport's existing runway to achieve its already permitted number of flight movements. If consented, CADP will allow us to build seven larger aircraft parking stands, a new parallel taxiway and an extended terminal building. In so doing we will be able to offer



more flights in the morning and evening peaks when our passengers most want to travel, and have more of the quieter, more fuel efficient next generation aircraft operate at the airport to link it directly to America, Russia and the Middle East.

CADP is currently subject to a planning appeal. CADP's planning application was submitted three years ago, with the London Borough of Newham resolving to approve the application in February 2015. In March 2015, the Mayor of London, going against the recommendations of his expert advisors, directed Newham to refuse permission on the basis that the proposal did not adequately mitigate and manage its adverse noise impacts. The airport appealed that decision in May 2015 and public inquiries were held between March to May 2016 into that decision and our proposals to compulsory acquire land on which to construct some of the required new infrastructure. We estimate that a decision will be made on the CADP appeal by the Secretaries of State in late Autumn 2016 following receipt of the Inspector's report which will be sent to them on 06 July 2016.

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Declan Collier Chief Executive Officer



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## **1** Introduction

## 1.1 Overview

#### 1.1.1

London City Airport (LCY) is the UK's leading business airport<sup>1</sup> serving 46 destinations across the UK, Europe and USA with connections to the rest of the world through major European hubs. LCY is just two miles east of Canary Wharf, six miles east of the City of London and two miles from the Queen Elizabeth Olympic Park. The airport's location on the doorstep of London's financial districts is considered vital to business and plays an integral part in contributing to the prosperity of the UK's capital city. The airport is a committed member of the local community and actively engages with its neighbours providing:

- extensive environmental programmes to minimise its impact on the surrounding areas;
- significant employment and training opportunities for local residents; and
- support and participation with community partners such as local schools, colleges, charities and businesses.

#### 1.1.2

In 2015 the airport had its busiest ever year handling over 4.3 million passengers. This represented an increase of 18% over 2014. The total number of aircraft movements at the airport increased almost 12% from 75,637 in 2014 to 84,502 in 2015.

## 1.2 Context of Annual Performance Report - The Planning Agreement

#### 1.2.1

On 09 July 2009, the LBN approved LCY's planning application (LBN ref: 07/01510/VAR) for an increase in the total number of permitted aircraft movements at LCY to 120,000 per annum. The framework for the delivery of this planning consent is contained in a "Planning Agreement" (under Section 106 of the Town and Country Planning Act 1990 as amended) between LCY and LBN. This 2009 Agreement supersedes all previous planning agreements.

## 1.2.2

Planning agreements are used as a way of delivering or addressing planning related matters that are necessary to make a development acceptable. The Planning Agreement between LCY and LBN provides a comprehensive regulatory framework for LCY's ongoing operation, including controls such as (but not limited to):

- Noise monitoring and mitigation programmes;
- Air quality monitoring and mitigation programmes;
- Sustainability and environmental strategies;
- Transport and surface access;
- Education, employment and training programmes; and

• Financial contributions by LCY to local community programmes and infrastructure projects.

#### 1.2.3

In the early years under the Planning Agreement much of the work put in place the strategies, systems and processes which, once established, now drive the delivery of the provisions in the Planning Agreement. A number of these strategies have been subject to or are currently undergoing review.

## 1.2.4

The Airport has an excellent overall planning compliance record within the regulatory framework of the Planning Agreement as evidenced in the published Annual Performance Reports (APR) from 2009 through to 2014. Each APR provides a comprehensive report that monitors and records the airport's operational and planning performance throughout the previous calendar year. The most recent 2014 APR, was submitted to LBN in June 2015, further to which LBN wrote to the Airport on 15 July 2015 confirming that all relevant planning obligations were met, and financial contributions paid. This was reported to LBN's Strategic Development Committee on 20 October 2015.

## 1.2.5

In addition, quarterly review meetings are held between the airport and LBN to discuss compliance matters and to ensure that the Airport continues to operate within its legal planning controls and obligations. Quarterly reports detailing the airports' operational statistics and performance of the noise monitoring system are provided to LBN and the London City Airport Consultative Committee and included in the APR. In between quarterly review meetings there is regular dialogue between the airport and LBN, in particular with the Council's Airport Monitoring Officer (AMO).

## **1.3 APR Requirements**

## 1.3.1

The Planning Agreement requires LCY to submit an Annual Performance Report (APR) to LBN by 1 July each year. Each APR provides a comprehensive report that monitors and records LCY's operational performance throughout the previous calendar year, including our compliance with the Planning Agreement. As required under the Planning Agreement, the APR is also published online on the LCACC website along with the LCY website (see section 1.4 below).

1 Civil Aviation Authority

http://www.caa.co.uk/default.aspx?catid=80&pagetype=88&pageid=3& sglid=3

#### 1.3.2

As agreed with LBN and to assist ease of review, the structure of the 2015 APR follows that of the previous APRs for each of the years 2009-2014.

#### 1.3.3

A draft of the 2015 APR was provided to LBN for review in May 2016. A number of comments were received from LBN and, where appropriate, these have been addressed in the APR.

## 1.4 How to Read this Document

#### 1.4.1

To indicate what is required to be reported under the Planning Agreement, references to the relevant section of the Planning Agreement have been included throughout this report and are generally indicated in square brackets in the following way: [Schedule/ Part/ Paragraph – Page]. Corresponding extracts of the Planning Agreement outlining a description of the Planning Agreement requirements (as well as LBN's previous comments on the proposed structure of the APR) are provided in Appendix 2.

## 1.4.2

A glossary of terms used throughout the APR is provided at the end of this document.

## **1.5 Publication of Annual Performance Report**

## 1.5.1

From 31 July 2016, the APR will be available to download from the

LCY website at the following URL: http://www.londoncityairport.com/ aboutandcorporate/page/ourenvironment It will also be made available on the LCY Consultative Committee

(LCACC) website at the following URL: http://www.lcacc.org/

## 1.5.2

We note however that the London City Airport Consultative Committee website is currently experiencing some technical issues and as a result we are unable to upload documents to the website. We are working hard to assist in resolving the issue before August 2016 but until resolved, recent documents relating to Consultative Committee matters and any required uploads to the website are temporarily accessible at the link below. After that documents will be available again from the LCACC URL: http://www.londoncityairport.com/aboutandcorporate/page/consul tationandcommunication

## 1.5.3

Additional information on LCY's ongoing community engagement programme, including initiatives beyond the Planning Agreement, can be found at the following URL:

http://www.londoncityairport.com/aboutandcorporate/page/comm unityprogrammes

## 1.5.4

On 28 July 2016 LBN wrote to LCY in respect of its performance against the Planning Agreement obligations for the period 1 January to 31 December 2015 [8th Schedule / Part 2 – Page 62]. A copy of this letter is provided at Appendix 1.



## **2** Aircraft Movements

## **2.1 Numbers and Types of Aircraft using the Airport** [4th Schedule / Part 7 / 6 – Page 45]

#### 2.1.1

During the 2015 calendar year the airport handled 84,502 total aircraft movements.

#### 2.1.2

Table 2.1 overleaf outlines the numbers and types of aircraft using the airport during the 2015 calendar year.

#### 2.1.3

During the 2015 calendar year the airport handled 89,953 noise factored aircraft movements.

## 2.2 Daily Numbers of Movements Including Noise Category

#### 2.2.1

Details of daily numbers of movements for the 2015 calendar year are provided in Appendix 10.

#### 2.2.2

Condition 8(1)(a) to (j) attached to planning permission 07/01510/VAR restricts the daily number of aircraft movements permitted at the airport and Condition 8(4)(a) and (b) restricts the weekly number of factored movements permitted at the airport.

#### 2.2.3

During the 2015 calendar year, all movements were in compliance with Condition 8 (1) (a) to (j) and Condition 8(4) (a) and (b) which are reproduced in full in Appendix 3.

## Table 2.1 – Numbers and Types of Aircraft Using the Airport (Jan – Dec 2015)

Aircraft Type	AC Code	Nr of Aircraft Movements
Airbus A318	A318	979
ATR-42	AT42	2169
ATR-72	AT72	134
Reechcraft Super King Air 350	R350	15
BAe-146-100	B461	2
BAe-146-200	B462	562
BAe-146-300	B463	170
Brechcraft Super King Air 200	BF20	18
Beechcraft Beechiet 400	BE40	0
Cessna Citation CI2	C25A	90
Cessna Citation CI3	C25B	130
Cessna Citation CI4	C25C	12
Cessna Citation Mustang	C510	182
Cessna Citation Cl1	C525	18
Cessna Citation Bravo	0.550	99
Cessna Citation V	C560	22
Cessna Citation Excel	C56X	1272
Cessna Citation Sovereign	C680	138
Canadair Challenger	CL 60	60
Dornier 328	D328	16//
Dash 8 0/00		1230/
Embraer 135	F135	1/18
Embraer 170	F170	10486
Embraer 190	F190	22736
Embraer Legacy 500	E150	22750
Embraer Phenom 300	E55P	218
Fokker 50	E50	5182
Dassault Falcon 2000	F2TH	111
Dassault Falcon 900	F900	128
Dassault Falcon 10	FA10	0
Dassault Falcon 50	FA50	42
Dassault Falcon 7X	FA7X	643
Bombardier Global Express	GLEX	100
Gulfstream G150	G150	6
Hawker 800	H25B	1098
Dornier 328 let	D3281	182
Learlet 45	1 145	34
Piaggio 180 Avanti	P180	48
Piner PA-31	PA31	6
Avro RI-100	RI1H	5306
Avro RI-85	R185	13305
Saah 2000	SB20	4701
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## 2.3 Times of Flights and Maintenance

#### 2.3.1

Conditions 6(a), 6(b), 6(c) attached to planning permission 07/01510/VAR restrict the times that the airport shall be used for the taking off or landing of aircraft. During the 2015 calendar year, all flights fell within the permitted times as set out in Conditions 6(a), 6(b), 6(c) which are reproduced in full in Appendix 3.

#### 2.3.2

In addition, Conditions 9 and 10 attached to planning permission 07/01510/VAR restrict the number of aircraft movements permitted at the airport in the early morning (0630-0659 hours) period<sup>2</sup>. Conditions 9 and 10 are reproduced in full in Appendix 3. During the 2015 calendar year, all but two of the 84,502 flights at the airport fell within the permitted times as set out in Conditions 9 and 10. The two instances were attributable to early morning take-offs which fell marginally outside the requirements of Condition 10 which requires that there are no more than 2 aircraft movements between 06:30 to 06:45. The two instances are explained in more detail below.

#### 2.3.3

On Saturday 15th August 2015 there were a total of three flights (2 arrivals and 1 departure) during the early morning period of 06:30 to 06:44 and later in the year, on Saturday 3rd October 2015 there were a total of three flights (1 arrival and 2 departures) during the same early morning period. It is noted that no complaints were received from members of the public following either breach.

## 2.3.4

The two instances occurred outside the number of permitted early morning movements by a matter of seconds. A full investigation was carried out by NATS and the airport at the time of each occurrence. Upon investigation it was found that both resulted from human error during poor weather conditions whilst Low Visibility Procedures were in place.

## 2.3.5

NATS made targeted changes to aircraft flight monitoring processes to reduce the risk of reoccurrence, including:

- re-design of daily Air Traffic Control reporting form to make the pre-0645 controls more prominent;
- altered the manning arrangements so that all members of air traffic control staff on shift are present for the entire 0630 to 0700 period; and
- introduced a crosscheck system to ensure that any transgressions that occur are flagged on the same day.

## 2.3.6

The airport had previously taken a number of steps to prevent incidences of this type following three breaches in 2014. These measures included liaising with ATC Services for general London airspace and NATS local airspace control regarding approaching aircraft outside of airport airspace (and communication with the airlines). The combined measures introduced by the airport in 2014 and NATS in 2015 will help minimise the risk of future occurrences in 2016.

## 2.3.7

Condition 5 attached to planning permission 07/01510/VAR and reproduced in full in Appendix 3 restricts the times during which ground running of aeroplane engines for testing or maintenance is permitted. During the 2015 calendar year, all ground running occurred within the permitted times as set out in condition 5.

## 2.3.8

In addition, there were no occasions when aircraft maintenance took place outside of operational hours where noise generated by these works was discernible at the boundaries of the airport site. No complaints were received by LCY in relation to this matter at any time during the year as reported in Section 9 of this APR [3rd Schedule / Part 2 – page 30].

**<sup>2</sup>** These conditions impose a restriction of 6 aircraft movements between 0630 and 0659 hours, of which no more than 2 shall be between 0630 and 0645 hours.

## **3 Noise Monitoring and Management**

## 3.1 Noise Management Scheme

#### (until the Noise Monitoring and Mitigation Strategy (NOMMS) is fully operational) [4th Schedule / Part 7 / 5 – Page 45]

## 3.1.1

During the 2015 calendar year, LCY continued to operate its existing Noise Management Scheme. This scheme requires:

- The combined monitoring of noise and aircraft flight tracks in order to identify any deviations from the standard routes that should be followed by aircraft using the airport and to verify the noise contours.
- A system of incentives and penalties, including financial penalties, in order to:
  - (i) minimise noise disturbance from aircraft using the airport including any aircraft maintenance facility
  - (ii) ensure that track-keeping is maintained by aircraft using the airport
  - (iii) control maximum noise levels of aircraft using the airport.
- The minimising of noise disturbance arising from the operation of any aircraft overhaul facility or from aircraft at the Approved Ground Running Location or generally from any aircraft ground noise source subject to the requirement to ensure the safe operation of aircraft at all times.
- Regular meetings and consultation with the Airport Consultative Committee and such other statutory body or bodies as may be reasonably nominated by the Council, and provision to the Local Authority of all relevant information indicating the efficacy of the Noise Management Scheme.

## 3.1.2

The Noise Management Scheme is supplemented by the Temporary Noise Monitoring Strategy during an interim period until the new NOMMS is fully operational and replaces the existing Noise Management Scheme.

## 3.1.3

Further information on the operation of the Noise Management Scheme in 2015 is set out in a report at Appendix 10.

## 3.1.4

The current system of Penalties and Incentives as reported quarterly to LBN takes a proactive approach in liaising with all airlines operating at LCY with regard to their performance. For example, where penalties have been triggered, the Airport writes to the responsible airline to advise them of particularly noisy departures and seeks an explanation. This is also discussed at the twice yearly Pilots Forum — with performance reviewed with each airline. A table ranking aircraft performance is available in Appendix 10.

## 3.1.5

This proactive approach has proved successful in incentivising airlines to fly their aircraft in a quieter manner at LCY. Despite the continued growth being experienced at LCY in recent years, the number of residual penalties triggered relative to the increased number of flights is extremely small (less than 1%). This continues to decrease. For example, the number of penalties relative to the number of flights in 2013 was 0.28% whilst this reduced to 0.22% in 2015 – this despite an increase of over 10,000 movements over the same period.

## 3.1.6

Financial penalties are not currently raised due to the effectiveness of the dialogue with airlines to improve performance; and the existing noise and track keeping system only accounts for sideline departure noise and needs to be improved to ensure a more equitable scheme should financial penalties or incentives be introduced.

## 3.1.7

A new system of Penalties and Credits is proposed as part of NOMMS. Technical discussions are ongoing with LBN and an agreed programme is in place to submit final details of the NOMMS Implementation Guidelines by September 2016 (see Section 3.3 below). Under the new scheme, and subject to the approval of LBN, an improved and more equitable approach to determining penalties and credits will be used using the two new fixed noise monitors at either end of the runway to monitor departure noise levels.

#### **3.2 Temporary Noise Monitoring Strategy** [4th Schedule / Part 11 / 1 – Page 47]

## 3.2.1

The Temporary Noise Monitoring Strategy (approved by LBN and implemented by LCY in 2009) includes a requirement to provide quarterly reports that record the daily operational status of each noise monitor together with the total monthly correlation rate of noise events to aircraft departures. In 2015 the target minimum correlation rate of 80% was exceeded, with the measured annual correlation rate being 85%. [Para A6.0 in Temporary Noise Strategy]

## 3.2.2

Copies of the four quarterly reports (January to March, April to June, July to September and October to December) that were provided to LBN for the 2015 calendar year are included at Appendix 11 of this report.



## **3.3 Noise Monitoring and Mitigation Strategy** (NOMMS) [4th Schedule / Part 10 / 1 – Page 46]

#### 3.3.1

The airport has satisfied its obligations with respect to NOMMS which require a draft scheme to be prepared and submitted to LBN for approval. The draft NOMMS was submitted to LBN on 8 October 2009 and a letter was subsequently received from LBN on 26 February 2010 confirming the draft NOMMS was acceptable, subject to the full details set out in the Implementation Guidelines being submitted to LBN for approval.

#### 3.3.2

The Implementation Guidelines were submitted for approval in July of 2010 and remain subject to ongoing technical discussion – all but two aspects of the Implementation Guidelines are already being operated by the airport pending final approval from LBN. The outstanding Implementation Guidelines relate to two offsite noise monitors which are required to operate NOMMS as well as the Noise and Track Keeping System which will deliver improved noise and track keeping system as part of the Aircraft Categorisation Review (ACR) - a separate requirement of the Section 106 Agreement (see 3.4 below).

#### 3.3.3

Planning consents and land agreements for the two offsite noise monitors (NMT's) at Lee Valley Park (Tower Hamlets) and St Pauls Church (Thamesmead) were secured during the course of 2015 and early 2016. Both monitors were installed in April 2016. Now that the NMT's are in place new Noise and Track Keeping can become operational and the technical details set out in the Implementation Guidelines can be discharged following dialogue with LBN.The airport will submit the updated NOMMS for LBN approval in Summer 2016.

#### 3.3.4

Until such time that the Implementation Guidelines for NOMMS are approved, the airport will continue to operate under the existing temporary Noise Management Scheme and those new measures that have already been adopted by the airport that are included in the NOMMS Implementation Guidelines.

## 3.4 Aircraft Categorisation Review

[4th Schedule / Part 13 – Page 47]

#### 3.4.1

The airport has satisfied its obligations with respect to the Aircraft Categorisation Review which required a draft scheme to be prepared and submitted to LBN for approval. On 1 July 2010, LCY consulted LBN on the draft Aircraft Categorisation Review (prepared by its noise consultants Bickerdike Allen Partners) which reassessed the methodology, categories, noise reference levels, noise factors and procedures for categorisation with the objective of providing further incentives for aircraft operators using the airport to emit less noise.

## 3.4.2

The draft ACR was originally submitted to LBN for approval on 07 Jan 2011 and has been subject to detailed review and technical discussion since. A number of detailed technical papers and revised drafts have been submitted for discussion over the intervening period. The airport is currently preparing a revised draft scheme to address LBN's comments on the previous draft submitted for approval in October 2014. A series of technical meetings have been ongoing throughout 2015 and early 2016 with Officers from LBN and the GLA to resolve details of the ACR methodology.

## 3.4.3

The airport and LBN are in agreement on the proposed methodology including the replacement of the Noise Factoring System with a system based on noise certification levels and validated noise data for specific aircraft types due to the unique characteristics and glide slope at LCY. The use of Quota Count bands with 1 dB increments has also been agreed.

## 3.4.4

A programme of technical meetings, consultation and submission of the ACR has also been agreed between LBN and the airport. It is anticipated that public consultation on the draft ACR will commence in August 2016 with the final draft being submitted for approval in Autumn 2016 as illustrated on the agreed programme (Table 3.1) below:

Table 3.1 – Delivery of ACR – Indicative Programme					
Milestone	Date	Details			
Working Group Meeting 8	13 July	Technical meeting between LCY and Officers from LBN and GLA			
Working Group Meeting 9	25 July	Technical meeting between LCY and Officers from LBN and GLA Final feedback on ACR			
LCY Consult on draft ACR	Mid Aug	Commence 6 weeks consultation period			
Submit ACR for approval	30 Sept				
Source: LCY					

## **3.5 Annual Aircraft Categorisation**

[Condition 7(4) Planning Permission]

#### 3.5.1

The Annual Aircraft Categorisation Report for 2015 is included at Appendix 12 of this report. This report provides a review of any provisional categorisation for an approved aircraft type having regard to departure noise levels; it provides the basis for provisional categorisation either to be approved or amended.

#### 3.5.2

In 2016 the Embraer Legacy 500 was given provisional noise categorisation by the London Borough of Newham as a Category A aircraft. This was confirmed in writing by LBN in correspondence dated 21st January 2016.

#### 3.5.3

Condition 7 of the 2009 Permission requires all aircraft operating at the airport must operate within five departure Noise categories, ranging from Category E (Noise reference level less than 82.6 PNdB) to Category A (noise reference level 91.6 to 94.5 PNdB).

#### 3.5.4

One aircraft currently operating at the Airport, the RJ100, has measured fractionally above the Category A limit since 2009. Ongoing efforts have succeeded in reducing this technical breach from earlier years, with noise data confirming the aircraft measured 0.1 dB above Category A in 2015, down from 0.4 dB in 2014, and 0.6dB in 2013. At the same time, the number of RJ100 departures at the Airport continued to reduce in 2015 as the RJ100 is phased out of operation. This technical breach is imperceptible to the human ear.

#### 3.5.5

The RJ100 was previously operated by a number of airlines. It has since been replaced by all airlines apart from SWISS who continue to operate the RJ100 on one route only – Geneva. In June 2015 SWISS replaced the RJ100 on the Zurich route with the Embraer 190. SWISS has also confirmed orders for the next generation of quieter aircraft (the CS100) that will replace the RJ100 on the last remaining route (Geneva) when it arrives at the Airport at the end of 2016.

#### 3.5.6

LBN receive bi-monthly noise performance updates from the Airport and have been kept fully informed of the technical breach including the efforts made by the Airport and SWISS to bring the aircraft back into category.

## 3.5.7

Additionally, another aircraft, the Dornier 328 Jet Aircraft operated by SUN-AIR which accounted for an extremely small proportion of departures in 2015 (some 0.2%) measured 2.1 dB over the upper limit of Category A (94.5 PNdB). Prior to 2015 the Dornier 328 Jet Aircraft had not previously flown at the airport since 2012.

#### 3.5.8

Following the routine preparation of the annual categorisation report on 18 April 2016, it was found that the D328J average departure noise level for 2015 was 96.6 PNdB. This measured 2.1 dB over the permitted upper limit of Category A (94.5 PNdB). With immediate effect, the Airport notified SUN-AIR and has been actively working with them to improve performance and bring the aircraft back into category. LBN were also formally notified.

## 3.5.9

Changes to flight departures procedures in May 2016 have been successful in improving the noise performance of the D328J. Both the Airport and airline are confident that these changes will result in the aircraft coming back into category in 2016. The Airport agreed with LBN that if departures continued to exceed the Category A limit up to the end of June 2016 then the Airport would take further action and suspend the airline from operating at LCY until such time that it could demonstrate compliance with Category A. The Airport wrote to LBN on 01 July 2016 to confirm that the D328 is currently 2.1dB below the Category A limit to date in 2016. LBN wrote to the Airport on 05 July to confirm that they are satisfied that the D328 is now operating within category.

## 3.5.10

A full position statement which identifies how this breach came about; the actions being taken by the Airport and SUN-AIR to address it; and a summary of improved noise performance following changes to departure procedures is provided as an annex to the Annual Aircraft Categorisation Report at Appendix 12.

## 3.5.11

LBN have formally written to the Airport to acknowledge our notification of the breach and the steps we are taking to rectify it. The letter states that the breach has been recorded on the public access section of the LBN website. It also requires that the D328 demonstrates by the end of June 2016 that it is likely to fall back into category this year or the Council will consider enforcement action to cease operation of the aircraft. The Airport will continue to monitor the noise performance of the D328J on a daily basis and keep London Borough of Newham fully informed of further progress and performance.

## SOUND INSULATION SCHEME (SIS) AND PURCHASE SCHEME

## 3.6 SIS: Noise Contours

#### **3.6.1**

The airport operates a two tier Sound Insulation Scheme (SIS) offering sound insulation treatment to eligible residential properties within the 57 dB LAeq,16h (Tier 1) and 66 dB LAeq,16h (Tier 2) noise contours. The Tier 1 lower threshold for eligibility is the lowest daytime threshold in the UK. The eligibility contours are reviewed on an annual basis and included within this APR.

#### 3.6.2

The following Noise Contours are presented in Appendix 4 of this report:

- Actual 57 dB (2015 actual contour)
- Actual 66 dB (2015 actual contour)
- Actual 69 dB (2015 actual contour)
- Predicted Reduced 57 dB (2016 best estimate forecast contour)
- Predicted Reduced 66 dB (2016 best estimate forecast contour)
- Predicted 57 dB
- Predicted 66 dB
- 1998 57 dB

## 3.6.3

The primary purpose of the noise contours listed above is to determine the eligibility boundaries for the SIS and/or Purchase Scheme under the terms of the Planning Agreement. Further details on the SIS and Purchase Scheme are provided below.

#### 3.6.4

During 2015, LCY continued to operate the current SIS, which was introduced on 15 December 2011.

#### 3.6.5

LCY holds quarterly meetings with LBN and the Royal Borough of Greenwich (RBG) to discuss the progress of the SIS, given the scale and importance of this particular environmental programme. Officers from the London Borough of Tower Hamlets (LBTH) are also invited to these meetings and are regularly updated on the progress of the scheme. As explained in Section 3.12 below a Neighbouring Authority Agreement has been entered

**3** This figure excludes properties at Proton, Neutron and Elektron towers in LBTH, Switch House and New Providence Wharf. It also excludes Ontario Tower where works have been declined by the developer as not being needed..

into with RBG but LBTH have declined previous attempts to enter into such an agreement.

## 3.6.6

Table 3.2 summarises the progress of the domestic SIS scheme as of 31 December 2015 whilst the paragraphs below provide an overview of the general performance of the scheme.

#### 3.6.7

Since the SIS was introduced at the Airport in 1999, over 3,500 properties have been treated. Under the 2009 SIS, almost 5,700 properties have become eligible for treatment, with over 1,800 homes and community buildings being treated under the Tier 1 SIS. Take up rates for the SIS, including those within LBTH, have typically been around 45%<sup>3</sup>, broadly in line with SIS take up rates at other major UK airports.

#### 3.6.8

However, in London Borough of Tower Hamlets (LBTH), there are a number of high-rise tower blocks that have proved challenging to treat with the Tier 1 standard acoustic vents due to their lightweight wall construction. These include 1,060 properties located in Proton, Neutron and Elektron towers as well as Switch House and New Providence Wharf – when these are considered the total take-up rate falls to around 32%.

#### 3.6.9

In May 2014 the airport, in dialogue with management agencies, resident associations and LBTH, commenced a trial works process to ascertain the most suitable solution for treating high rise tower blocks. Following trial completion in December 2015, a workable secondary glazing solution was identified instead of vents. The solution involves the installation of secondary glazing together with frame mounted acoustically rated trickle vents, to complement the trickle vents within the frames of the primary windows. This solution will ensure that residents receive appropriate mitigation which will effectively insulate from aircraft noise whilst also providing appropriate ventilation.

## 3.6.10

Residents of the eligible tower blocks will be offered works, subject to the necessary approvals from owners/management agencies in 2016.

## 3.6.11

As of 31 December over 32% of all eligible properties have received works under the 2009 SIS. Subject to carrying out works in the tower blocks referred to above these figures are expected to increase significantly. In 2015, excluding the above tower blocks, the number of properties that received works increases to over 44%. A further breakdown of works is provided in Table 3.2 below:

Table 3	Table 3.2 – SIS: 2015 Summary of Progress for Eligible Premises							
APR	Phases	Area	Total nr properties	Actual Eligible	% Notified	% Treated	Number Treated	Total Properties not completed
2009	Phase 1	Britannia Village	352	351	100%	16.8%	59	292
2009	Phase 2	London E16 Canning Town	373	373	100%	61.1%	228	145
2009	Phase 3	Thamesmead SE 28	889	888	100%	60.9%	541	347
2009	Phase 4A	Switch House	60	60	100%	0.0%	0	60
2009	Phase 4A	Proton Tower	144	144	100%	0.0%	0	144
2009	Phase 4A	Neutron Tower	144	144	100%	0.0%	0	144
2009	Phase 4A	Electron Tower	149	149	100%	0.0%	0	149
2009	Phase 4B	Tower Hamlets E14	791	789	100%	45.8%	361	428
2009	Phase 5	Barrier Point E16	68	66	100%	33.3%	22	44
2009	Phase 6	E16 North Woolwich	302	295	100%	31.5%	93	202
2009	Phase 7	E16 Canning Town	84	84	100%	58.3%	49	35
2009	Second Tier	E16 North Woolwich	27	27	100%	96.3%	26	1
2011	Phase 8A	Newham (Various )	17	17	100%	50.0%	8	9
2011	Phase 8B	Thamesmead	32	32	100%	59.4%	19	13
2012	Phase A1	Various E16 + E14	63	63	100%	48.0%	30	33
2012	Phase A1	Wards Wharf Approach	176	164	100%	32.0%	52	112
2012	Phase B	North Woolwich E16	44	42	100%	29.0%	12	30
2012	Phase C	Thamesmead SE 28	291	291	100%	60.0%	174	117
2012	Phase A3	Ontario Tower	264	261	100%	0.0%	0	261
2012	Phase A2	New Providence Wharf	559	553	100%	0.0%	0	553
2013	Phase 1	North Woolwich/ Canning Town	76	76	100%	20.0%	15	61
2013	Tier 2	Camel Road E16	3	3	100%	100.0%	3	0
2013	Phase 1	Thamesmead SE 28	279	279	100%	40.0%	112	167
2013	Phase 1	E14	2	2	100%	0.0%	0	2
2014	Phase 1	E16 North Woolwich/ Canning Town	192	99	100%	0.0%	0	99
2014	Phase 1	Wards Wharf Approach	48	48	100%	0.0%	0	48
2014	Phase 1	Thamesmead SE 28	7	7	100%	0.0%	0	7
2014	Phase 1	Robin Hood Gardens	110	110	100%	0.0%	0	110
2014	Phase 1	Biscayne Avenue, Michigan Building	72	72	100%	0.0%	0	72
2014	Phase 1	Blackwall Way	72	72	100%	0.0%	0	72
2014	Phase 1	E14 (commercial property)	1	0	100%	0.0%	0	0
TOTAL			5691	5561	100%	32.4%	1804	3757

Source: LCY

#### 3.6.12

Dwellings categorised as 'not treated' result from a number of factors including: building management refusal, owner refusal or simply no response from sent eligibility letters. In addition properties identified in Table 3.2 as '2014 APR' were still awaiting permissions from all relevant decision makers and therefore were yet to be treated as of December 2015. However 60 of those properties have since been treated (Q1 2016).

#### 3.6.13

It is noted that the specification of the vents that are currently being installed under the SIS do not accord with that required by the Planning Agreement. The new vents are superior to those required under the Planning Agreement and provide improved ventilation. Additionally the vents are a visual improvement in comparison to the previous ones and have led to improved take-up rates since their introduction. LBN is aware of this change and is satisfied that no action is required.

## 3.7 SIS: Further Inspection of Treated Premises

[4th Schedule / Part 1 / 1 – Page 36]

#### 3.7.1

LCY re-inspects properties that were treated through the SIS 10 years or more ago. Appendix 6 of this report provides information relating to residential premises where a period of 10 years or more has expired since sound insulation works were completed by the airport (i.e. treated premises).

#### 3.7.2

There are 6 residential premises identified in the 2015 APR as requiring further inspection.

## 3.8 SIS: First Tier Works

[4th Schedule / Part 2 / 1 – Page 39]

#### 3.8.1

Residential premises and Public Buildings that are newly eligible for First Tier Works under the 2015 APR are listed in Appendix 7 (along with the Eligibility Boundary). In summary, there are a total of 432 new residential premises and three new Public Buildings eligible for First Tier Works. The three additional Public are Royal Docks Community School St. Joachim's School, and Gymboree Play & Music. The procedures involved implementing the First Tier Works are explained further in Appendix 7.

#### **3.9 SIS: Second Tier Works** [4th Schedule / Part 3 / 1 – Page 41]

#### **3.9**.1

Residential premises and Public Buildings that are newly eligible for Second Tier Works under the 2015 APR are listed in Appendix 8 (together with the Eligibility Boundary). In summary there are a total of 49 new residential premises eligible for Second Tier Works. There are no newly eligible Public Buildings. The procedures involved implementing the Second Tier Works are explained further in Appendix 8.

#### **3.10 Publicity for SIS** [4th Schedule / Part 4 – Page 43]

#### 3.10.1

In March 2015 and December 2015 LCY published advertisements for the SIS in the local newspapers listed below.

Table 3.3 – Sound Insulation Scheme: Local Newspaper Advertisements (2015)					
PUBLICATION DATE DATE					
Greenwich Time	20/6/2015	1/12/2015			
Newham Recorder	6/8/2015	2/12/2015			
Greenwich Mercury	1/7/2015	2/12/2015			
The Wharf	2/7/2015	3/12/2015			
East London Advertiser	2/7/2015	3/12/2015			
Newham Mag	Aug 2015	Dec 2015			

## 3.10.2

Copies of the published advertisements are provided in Appendix 9.

## 3.10.3

Written notifications were also sent to all owners/occupiers of newly eligible properties in 2012, 2013, 2014 and 2015.

#### 3.10.4

Details of the SIS are also available on the airport Website at: https://www.londoncityairport.com/aboutandcorporate/page/sound -insulation-scheme

## 3.11 Purchase Scheme [4th Schedule / Part 12 / 3 - Page 47]

#### 3.11.1

LBN approved the Purchase Scheme on 14 June 2011 and it was adopted by LCY on 9 September 2011. The Purchase Scheme applies to residential dwellings exposed to noise levels from aircraft (operating at LCY) above 69 decibels measured over a 16 hour period on an average summer day. Under the scheme, owners/occupiers of such a property can request that the airport purchases the property at a price that reflects its market value.

#### 3.11.2

No dwellings were identified in the 2015 Actual 69 dB contour (see Appendix 4) therefore no dwellings became eligible for the Purchase Scheme during the 2015 calendar year.

## **3.12 Neighbouring Authority Agreements** [4th Schedule / Part 5 / 1 and 2 – Page 44]

#### 3.12.1

The Neighbouring Authority Agreement (NAA) with Greenwich was completed on 19 August 2010.



#### 3.12.2

As reported in the 2013 and 2014 APR's, the NAA with Tower Hamlets has not been completed to date. LCY previously engaged with Tower Hamlets to progress with an NAA but discussions did not result in an NAA being entered into. It should be noted however that the residents of Tower Hamlets are still benefiting under the airport's SIS as they are offered the same amount of protection as other local residents. To date around 360 properties have been treated within Tower Hamlets with a further 110 properties at the Robin Hood Gardens estate being treated in April 2016. Additionally, the 1,060 properties located in the high-rise tower blocks referred to in Section 3.6 will be offered treatment in 2016.

#### 3.12.3

As requested by LBN, the airport has re-engaged with Officers at LBTH with a view to offering to enter into the NAA again and will continue these discussions through 2016.

## 3.13 Noise Insulation Payments Scheme

[4th Schedule / Part 6 / 1 and 2 – Page 44]

#### 3.13.1

In November 2015 LBN approved the Noise Insulation Payments Schemes (NIPS). The purpose of the NIPS is to allow certain developments authorised before 9 July 2009 to benefit early from the Airport's noise insulation schemes. It works by compensating owners and developers for the reasonable incremental costs of supplying and fitting additional noise insulation measures during construction in order to mitigate noise effects associated with the increase in aircraft movements at the airport which was permitted in 2009.

#### 3.13.2

NIPS was implemented by the airport on 28 February 2016 and the airport wrote to all relevant landowners to notify them that the scheme is in place. The approved scheme has been uploaded to the airport website and a copy is included at Appendix 5. Claims for compensation may be made at any time up to and including 28 February 2026. More information can be found at the following link: http://www.londoncityairport.com/

aboutandcorporate/page/noiseandtrackkeepingsystem

## 4 Ground Noise

#### **4.1 Ground Running of Aircraft Engines** [5th Schedule / Part 1 / 2 – Page 49]

#### 4.1.1

The ground running of aircraft engines is required for testing and maintenance purposes. Details of ground running for the 2015 calendar year are included in the Report on the Operation of the Noise Management Scheme at Appendix 10 of this report.

#### **4.2 Exceedences of Ground Running Noise Limit** [5th Schedule / Part 1 / 3 – Page 49]

#### 4.2.1

There were no exceedences of the ground running noise limit for the 2015 calendar year. Details are included in the Report on the Operation of the Noise Management Scheme at Appendix 10 of this report.



## 5 Air Quality

## 5.1 Data from Air Quality Measurement Programme [3rd Schedule / Part 3 / 1(c) – Page 31]

#### 5.1.1

The Air Quality Measurement Programme (AQMP) includes the continued operation of two automatic monitoring stations sited on the roof of the airport's administration building, City Aviation House, and at a location on the north side of Royal Albert Dock, adjacent to the Newham Dockside building. In addition, diffusion tubes located in and around the airport are also operated to enhance monitoring of air quality in and around the airport. The results from these data sources are reported in this section.

#### 5.1.2

Quarterly data from the AQMP were reported to the LCY Consultative Committee (LCACC) and posted on the LCACC website (http://www.lcacc.org) throughout 2015. This data, together with other results for the full 2015 calendar year, is summarised in the Air Quality Measurement Programme: Annual Report 2015 which is included at Appendix 13 to this report. During 2015 there were no recorded exceedences of the statutory air quality objectives set by Government<sup>4</sup> for nitrogen dioxide and fine particulate matter (PM10) at any relevant location.

#### 5.2 Results from any Deposits Study in the Preceding Calendar Year [3rd Schedule / Part 3 / 1(d) (iii) – Page 31]

## 5.2.1

LCY will commission a Deposits Study in the event that the airport receives a complaint regarding black smut deposits or oily

deposits that could be associated with the operation of the airport.

#### 5.2.2

LCY has adopted a protocol that relates to the commissioning of Deposits Studies should a complaint of this nature be received.

#### 5.2.3

No such complaints were received during 2015.

#### **5.3 Air Quality Action Plan** [3rd Schedule / Part 3 / 2(a) – Page 31]

#### 5.3.1

The Air Quality Action Plan (AQAP) was approved by LBN on 22 June 2012 and subsequently implemented by the airport. The AQAP includes a series of 19 Measures for delivery over the lifespan of the AQAP to 2015, with an indicative timescale for implementing each Measure being indicated. The 2012 AQAP expired at the end of 2015. As can be seen from Table 5.1 below, the delivery of the measures set out in the AQAP proved very successful. A review of the AQAP was carried out in July 2015 and reported to LBN with a draft AQAP submitted for review in December 2015. The AQAP will be published in summer 2016 subject to approval from LBN.

**4** The air quality objectives are set out in the Air Quality (England) Regulations 2000 as amended by the Air Quality (England) (Amendment) Regulations 2002, and are available at: http://www.defra.gov.uk/ environment/quality/air/airquality/regulations.htm



## Table 5.1 – Air Quality Action Plan - Progress Summary

Air Quality Measure Indicative Timescale		Action Complete
	millocoulo	Deferred/Ongoing
		Not Complete
1 Establish and implement a new system to routinely record the availability of Fixed Electrical Ground Power (FEGP) on stands 1-10 and log the time taken to effect repairs.	Aug-12	Action Complete. This has continued since 2014 with the FEGP units being covered by a warranty, RAMP services log faults and FM request repairs. FEGP faults during 2015 have been minor. The introduction of FEGP has resulted in fewer emissions occurring, with the reduction of MGPU's being used. As a result, in 2015 only 3 (4.1%) of the 73 FM call outs airside made were related to FEGP – on average, these were rectified in approximately 5 working days. With this in mind FEGP was available for 95% of the time.
<b>2</b> Refurbish FEGP facilities on Stands 1-10.	Dec-12	<b>Action Complete.</b> FEGP has been installed on Stands 1-10 and is operational.
<b>3</b> Install FEGP to Stands 21-24 during any future stage of apron improvements, and in any event by 2013.	Dec-13	Action Deferred. There are logistical and sequencing issues that require these FEGP to be provided on stands 21-24 as part of the CADP build out under which stands 21-24 will be reconfigured and FEGP delivered. If CADP is granted permission, these and all stands will have FEGP installed, if CADP isn't provided for then a timescale will be determined, but no longer than 18 months after the decision has been made.
<b>4</b> Replace or decommission all Mobile Ground Power Units (MGPU) units that do not comply with a minimum of Stage II emissions standards.	Dec-13	Action Complete. All MGPU's that were below the Stage II emissions standard have been decommissioned. The remaining MGPUs are all Stage II compliant and used as contingency for breakdown/operational recovery purposes. In all there are a total of 9 MGPU's remaining. The last 2 MGPU's, used on stands 1-10, will be removed by the end of 2016.
<b>5</b> Conduct an assessment of Aircraft Power Unit (APU) use over a period of 8 hours at selected stands on two separate days during the summer months	Aug-12	Action Complete. The original assessment was completed in September 2013 however the airport has been monitoring APU usage in 2015 via the airports Qlickview online reporting tool. In 2015, there were 730 recorded instances where APU's were required to be used due to various reasons such as acclimatising the aircraft cabin before departing from stand due to high or cold temperatures. The average running time was approx. 10 - 11 minutes. This indicates, as percentage of aircraft on stand i.e. all departures in 2015, that APU usage was only utilised by 1.8% of aircraft whilst on stand.
<b>6</b> The Airport Operations and Safety Unit (AOSU) to maintain a documented record of any observations where mandatory use of FEGP or OSIN 09/04 is contravened.	Aug-12	Action Complete. This was introduced in 2015 and use of FEGP is recorded by Airfield Operations within an online portal. This directly relates to where APU use is also utilised with the absence of MGPU's or FEGP provision due to breakdowns as reported Measure 1.

Air Quality Measure Indicative Timescale		Action Complete
		Deferred/Ongoing
		Not Complete
<b>7</b> Inclusion of APU use as a topic on the agenda of the Pilots Forum and the Flight Ops Governance Meetings. Reference to minimising APU use will be included in an article for the UK Air Pilot publication.	Aug-12	<b>Action Complete.</b> This was detailed at the Pilot Forum's held in April and November 2015. As such, unnecessary APU usage is not common place hence the low levels of use and minimal duration APU's are used as reported in Measure 5.
8 Produce analysis of trends in aircraft ground operational times, and, where significant increases are identified, investigate procedures to reduce times.	Ongoing	Action Ongoing. This is monitored as part of the airports Turnaround Improvement Group. In 2015 a new RAMP services tool known as RATT (Real-time Aircraft Tracking Tool) was introduced, this allows the time stamping of aircraft to be linked with associated services to understand on stand trends including potential delays. Overall the introduction of the RATT has helped with minimising delays with the provision of on stand services such as refuelling and baggage load/off load. It is difficult however to pin point a time improvement solely down to the introduction of RATT at this early stage. The CAA publishes on time performance statistics for 10 UK airports including London City Airport. This indicates how delays to departures are having an effect at the Airport. Efficient Ground Operations, to reduce possible delays, is a prominent driver as to the airports performance in these rankings. London City Airport was ranked the most punctual airport in the UK in 2015 with 88% of flights leaving on time. In addition the Airport achieved the shortest delay average of 7 minutes. In 2016 the airport will also report on ground operational times, for instance the time it takes on average, maximum and minimum timings for aircraft manoeuvring from stand to start of roll (beginning of runway take off). This will enable direct comparisons and formalise improvements made in actual time reductions where possible, meaning as a result fewer ground emissions.
<b>9</b> Requirement for all third party airside vehicle operators to prepare and submit a fleet management strategy.	Dec-12	Action Complete. An airside vehicle fleet policy was published in early 2015, this prescribes requirements for vehicle idling and also need basis of vehicles that operate at LCY. Obtaining a fleet management strategy from third parties has proved to be ineffective hence the need for a policy to be introduced. The airport will report back on this policy implementation and progress achieved in 2016 and reflect further measures as a result in the fourth coming revised Air Quality Action Plan and Strategy.

Air Quality Measure	Indicative Timescale	Action Complete
		Deferred/Ongoing
		Not Complete
<b>10</b> LCY will work with operators at the airport to increase the percentage of LLEZ (London Low Emissions Zone) compliant vehicles year on year, with the target of achieving 100% compliance with the LLEZ by 2015 (unless an exemption is granted by TfL or agreed with LBN).	Ongoing	Action Complete. This is on-going and features as part of the emissions testing occurring on the airfield. This requirement is to be enhanced in the 2016 – 2018 AQAP. It is recognised that the vast majority of LCY's vehicle fleet is electrical, newly leased or doesn't enter on the public highway. As such it is predominantly third party vehicles that have required testing. The airport has assessed the number of vehicles which comply with the LLEZ which operate on airport (including third party vehicles). Overall, 11 vehicles operating at LCY do not meet the LLEZ standard. This is only 7.9% of the total fleet. These include 3 of the 4 fire station trucks (do not use the public highway), 1 catering vehicle and 7 fuel tankers. Due to the cost of these vehicles, they are currently going through a phased fleet renewal.
<b>11</b> LCY will require that all new vehicles issued with an Airside Vehicle Permit (i.e. not renewal applications for existing AVPs) comply with the latest EU emissions standards for road vehicles (Euro Standard) defined as the date by which the Euro Standard comes into force for the registration and sale of new types of vehicles.	Aug-12	<b>Complete.</b> Airside Vehicle Policy amended. This has meant all new vehicles are required to meet Euro 6 standards which were brought in to place in September 2015 for new vehicles. This standard is being applied to all new vehicles requiring a permit. There were no vehicles between September 2015 and December 2015 which required a new permit.
<b>12</b> Routine annual and periodic, random emissions testing for airside vehicles.	Ongoing	Action Complete. Full emissions testing schedule began in 2014 and continued in 2015. An Operations Safety Instruction Notice (OSIN) was sent to all airside companies in 2014. In 2015, staff changes in Airfield Operations resulted in a reduced number of tests being conducted. Of the vehicles tested, 100% passed the emissions test and all are LLEZ compliant. In 2016, the airports Airfield Operations department has undertaken a desk top study of active registrations and checking on the LLEZ website if they comply. Letters will be sent to those companies operating non- compliant vehicles and these will be prioritised for emissions testing. Also routine testing will be undertaken i.e. at least 12 annual tests plus random emissions testing. Once again follow up correspondence based on the results of such testing will be sent to the relevant companies.
<b>13</b> Amend the Airside Driving Policy to make specific reference to vehicle emissions testing and the actions that must be taken in the event of failure.	Aug-12	Action Complete in 2015. Policy commitment On going.

Air Quality Measure Indicativ Timesca		Action Complete
		Deferred/Ongoing
		Not Complete
<b>14</b> Publish a notice in "Taxi" which is published by the London Taxi Drivers Association. This will set out the concerns associated with unnecessary idling, and will seek to encourage taxi drivers to turn off engines wherever practicable.	Aug-12	Action Complete. Not applicable to 2015 due to the Taxi publication no longer being in circulation, however, in 2016 LCY notified taxi drivers concerning idling in the set down and drop off areas on airport. This is being monitored via the Airport Transport Forum.
<b>15</b> During any future infrastructure developments to the airport forecourt take into consideration the potential for redesign of the taxi rank to minimise idling.	Ongoing	<b>Action Complete.</b> Not applicable to 2015 however has featured in design associated to the City Airport Development Programme.
<b>16</b> Continue to lobby the Mayor of London and TfL to provide a direct DLR service between Canary Wharf and LCY stations.	Ongoing	Action Deferred. DLR service improvements have partly addressed this issue. LCY are currently seeking for in-principle support for a new Crossrail Station at Silvertown.
<b>17</b> Publish an article relating to air quality and airport operations at least once per year in the airport staff newsletter "The Chronicle".	Ongoing	Action Complete. 'The Chronicle' has been replaced with Airport Life and an article was published in 2015 both in December and during the Summer.
<b>18</b> Amend the LCY website to promote the measures it is taking to minimise air quality impacts, and include links to the AQMP Annual Report and the AQAP.	Aug-12	Action Complete. Completed in 2012 and the website content was refreshed in 2014. In 2016, further updates are being progressed the LCY website including Environment and Air Quality sections.
<b>19</b> Amend the LCY website to provide advice to passengers to use public transport.	Aug-12	Action Complete. Completed in 2012 and the website content was refreshed in 2014. Further updates have occurred in 2015, all updates can be found at http://www.londoncityairport.com/ aboutandcorporate/page/sustainabletransport

## **6** Sustainability and Biodiversity Strategies

## 6.1 Airport Sustainability Strategy

[3rd Schedule / Part 6 / 1 - Page 34]

#### 6.1.1

The Airport Sustainability Strategy and Airport Sustainability Action Plan was approved by LBN on 22 June 2012 and subsequently implemented by the airport. It includes a series of 35 targets and actions for delivery by 2014, with an indicative timescale for implementing each target/action. Significant progress was made in progressing the actions throughout the lifespan of the Plan to the end of 2014. In 2015, the airport continued to deliver the targets and actions whilst these were subject to review and new actions/targets were being prepared following discussions with LBN. A new strategy will be published concurrently with the new AQAP in summer 2016 subject to LBN approval. Table 6.1 below provides a summary of progress to the end of 2015. Progress was reported to LBN in bimonthly meetings throughout the year.

#### Table 6.1 – Airport Sustainability Strategy – 2015 Progress Summary

Air Quality Measure Indicative Timescale		Action Complete	
		Deferred/Ongoing	
		Not Complete	
<b>Wst 1</b> 75% of waste collections to be on weigh scale vehicles.	Dec-13	Action Complete. Continued in 2015, 100% utilisation.	
<b>Wst 2</b> Introduce a new waste storage hub to promote waste segregation.	Dec-12	Action Complete. Continued to be in place in 2015.	
Wst 3 Increase waste recycling rate to 20%.	Dec-12	Action Complete. Recycling rate of 64% achieved in 2015.	
<b>Wst 4</b> Implement a training programme to ensure that 100% of LCY staff have been trained in waste management.	Ongoing	Action Complete. High level waste management points are detailed in the introduction/refresher training provided to all employees. All individuals with specific duties involving special waste types have been informed of their required duties. More detailed internal briefings have also been conducted to employees via tool box talks and scheduled presentations in 2015 as per the airports Environment Management System. So far all employees have received training with new starters being approached trained as they join, so at the time of reporting not a 100% take up can be achieved.	
<b>Wst 5</b> Conduct a feasibility study to explore opportunities for Energy from Waste and/or Anaerobic Digestion.	Dec-12	Action Complete. All LCY waste which cannot be recycled goes to an appropriate Energy from Waste facility to recover electricity from the unrecyclable waste.	
<b>Ene 1</b> Implement a training programme to ensure that 100% of LCY staff have been trained in energy efficiency.	Ongoing	Action Complete High level energy efficiency awareness provided in introduction/refresher training. More detailed internal briefings have been conducted to employees via tool box talks and scheduled presentations in 2015 as per the airports Environment Management System.	

Air Quality Measure	Indicative Timescale	Action Complete
		Deferred/Ongoing
		Not Complete
<b>Ene 2</b> Implement a programme to install sub metering on high energy use areas.	Ongoing	Action Complete. In 2014 metering was installed on main distribution boards in the terminal building and large pieces of equipment such as air handling units. In 2015, LCY captured this data as a way to analyse energy use trends i.e. out of hours shut off's etc. This led to a site wide energy audit in 2016 as a means to tackle out of hour's energy usage.
<b>Ene 3</b> Implement a programme of energy efficiency measures to be agreed in 2013 cost plan.	Dec-13	Action Complete. This was initiated in 2013; Projects included LED lighting replacement in the West Pier, East Pier, and International Arrivals, Domestic Arrivals and Central Search and the installation of variable speed drives on the largest air handling units in the main terminal. All associated projects have been completed.
<b>Ene 4</b> Energy use per passenger reduced by 5% relative to 2010 baseline.	Dec-13	Action Complete. London City Airport has achieved a 12.7% reduction per passenger comparing 2010 to 2013. However, comparing 2012 versus 2015 (2012 is the airports baseline year as per the Airports Council International) the Carbon Accreditation Scheme has seen 34% reduction per passenger.
<b>Ene 5</b> Publish a carbon management policy at the airport.	Dec-13	Action Complete.
<b>Ene 6</b> Entry into the ACI Europe Airport Carbon Accreditation Level 1.	Dec-12	Action Complete. London City Airport has now been awarded Stage 3: Optimisation in 2016.
<b>Ene 7</b> Implement a programme of studies to identify how our five largest procurement contracts are managing their emissions.	Ongoing	Action Complete. This has been covered in the Stage 3: Optimisation as detailed in Ene 6 above.
<b>Ene 8</b> Establish a timetable to achieving Level 4 of the ACI Scheme 'Neutrality'.	Dec-13	Action Complete. Achieving Stage 4: Carbon Neutrality is the last stage the airport can achieve. Having reviewed options, the airport will seek to determine a timetable for achieving Stage 4 subject to securing planning permission for CADP and delivering the proposed development.
<b>Wat 1</b> Develop procedure for tracking and recording water use at LCY monthly.	Aug-13	<b>Action Complete.</b> Water usage is tracked by the LCY Environment Manager.
<b>Wat 2</b> Implement a programme to install sub metering for high use areas.	Dec-12	Action Complete. In 2014 metering was installed on main distribution boards in the terminal building and large pieces of equipment such as air handling units In 2015, the airport diagnosed the high use areas with sub metering installed where applicable.

Air Quality Measure	Indicative Timescale	Action Complete
		Deferred/Ongoing
		Not Complete
<b>Wat 3</b> Conduct feasibility study for utilising rainwater harvesting.	Dec-13	Action Complete. Not applicable to 2015.
<b>Wat 4</b> Conduct feasibility study for alterative non potable water sources for fire training.	Dec-13	Action Complete.
<b>Com 1</b> Evaluate additional opportunities for recording community benefits.	Ongoing	Action Complete. Additional community benefits delivered by expanded CSR team. Since 2009 £2.7 million has been invested by LCY in employment, education and community initiatives and the effect of that has been far reaching.
<b>Com 2</b> Evaluate opportunities to enhance the community work experience programme in the future.	Aug-12	Action Complete. CSR team has reviewed enhanced the work experience programme at the end of 2014 and rolled out an improved programme in 2015 – with the number of individuals who participated in the work experience increasing over 2014. In 2016 the programme will be extended to teens under 16 years of age.
<b>Bio 1</b> Commence implementation of the agreed Biodiversity Strategy.	May-12	Action Complete. Not applicable to 2015.
<b>Bio 2</b> Undertake feasibility study on the costs and benefits of installing sedum mats (or alternative substrate) on the roof of City Aviation House.	Dec-12	<b>Action Complete.</b> Not applicable to 2015, original study indicated this is not feasible.
<b>Bio 3</b> Undertake an aquatic ecological survey of the King George V Dock, in conjunction with RoDMA.	Dec-12	Action Complete.
<b>Ns 1</b> Implement NOMMS in agreement with LBN.Agreed programme in pace to deliver NOMMS by the end of August 2016. See update at Section 3.3 of this APR for detailed update.	Ongoing	Action Deferred.
<b>AQ 1</b> Deliver all 19 measures identified in AQAP within a three year period.	Jun-15	<b>Part complete/Ongoing.</b> See Table 5.1 of this APR for a detailed update regarding the delivery of all measures.
<b>AQ 2</b> Produce an annual statement on progress and performance against the measures set out in the AQAP with the APR.	Annually	Action Complete. Not applicable to 2015.
<b>AQ 3</b> Review the AQAP every three years.	June 2015	Action Ongoing. The AQAP review commenced with LBN in 2015 with the AQAP (2016 – 2018) to be published in the Summer of 2016.

Air Quality Measure	Indicative Timescale	Action Complete	
		Deferred/Ongoing	
		Not Complete	
<b>Tra 1</b> Undertake a basic review of 2011 Travel Plan commitments, including progress against targets.	Annually	Action Complete. Review against commitments and targets carried out and reported annually as part of each APR since 2011. See Section 8 of this APR for further details relating to surface access performance for 2015.	
<b>Tra 2</b> Undertake a comprehensive review of the Travel Plan and amend targets as necessary to reflect changes at the airport.	Feb-13	<b>Action Complete/Ongoing.</b> Review partially carried out in 2013, following a review of the 2011 Travel Plan, 'Your City Commuter' was published in 2014. Since then the 2015 Transport Objectives have been agreed via the Airport Transport Forum and supplements the 2011 Travel Plan. Delivery ongoing - see Section 8 of this APR for further details.	
<b>Tra 3</b> Extend season ticket loans to an additional 5% of LCY staff.	Dec-13	Action Complete. Available on intranet and on LCY Extras (employee benefits website.	
SC 1 Develop a Sustainable Construction Strategy for future development at the airport.	Dec-12	Action Complete.	
<b>SC 2</b> Ensure all new construction projects at the airport take account of relevant sustainable construction opportunities.	Ongoing	Action Complete/Ongoing.	
<b>SC 3</b> Deliver building projects, which are subject to planning permission, in accordance with recognised BREEAM Standards.	Ongoing	Action Complete/Ongoing.	
<b>EM 1</b> Develop a Sustainability Leadership Panel and publish an Environmental Policy on LCY and LCACC websites.	Dec-12	Action Complete. Sustainability Leadership Panel has been replaced with the Environment Steering Group as per the airports ISO 14001 accredited Environment Management system, Environment Policy is published on the LCY website.	
<b>EM 2</b> Hold quarterly meetings to review monitoring data which will be reported in the APR for waste, energy and emissions and water consumption.	Ongoing	Action Complete. Bi-monthly meetings held with LBN.	
<b>EM 3</b> Undertake a full review of the Airport Sustainability Action Plan and identify new set of targets.	Dec-14	Action Deferred/Ongoing. Action not complete by Dec 2014, due to pending determination of CADP. However, given the ongoing delays to the determination of CADP a review was carried out in 2015 with a view to producing a new action plan with a comprehensive set of targets in the Summer of 2016	



#### **6.2 Airport Biodiversity Strategy** [3rd Schedule / Part 6 / 5 - Page 34]

#### 6.2.1

The Airport Biodiversity Strategy was approved by LBN on 13 April 2012 and subsequently implemented by the airport. It includes a series of 10 Objectives for delivery over the lifespan of the Strategy to 2017, with an indicative timescale for implementing each Objective being indicated.

#### 6.2.2

As documented in previous APR's and with LBN Officers in bimonthly meetings, the delivery of a number of the objectives in the Biodiversity Strategy proved challenging due to limited take up and a lack of focus on projects of greater longevity/community significance. The Airport met with LBN three times in 2015 to discuss bringing forward the review of the Strategy and it was agreed to amend the Strategy and replace the problematic objectives with a single focussed objective whereby an annual contribution of £10,000 towards a community biodiversity project, identified in conjunction with Active Newham<sup>5</sup>, would be paid. The benefitting project was agreed as the East Ham Nature Reserve<sup>6</sup>. The first payment of £10,000 under the replacement objective to cover the 2015/2016 academic year was paid by the airport in March 2016. The second payment will cover the 2016/2017 academic year whilst the final payment will cover the 2017/2018 academic year.

#### 6.2.3

Funding under the objective will be paid in instalments over the three years which the Biodiversity Strategy would have remained in place (2015-2017). The 'Replacement Biodiversity Objective'

was approved by LBN on 06 January 2016 and will be subject to review at the end of 2017 as previously anticipated by the Planning Agreement. The approved objective which replaces objectives 2, 3, 4 and 6 is as follows:

"To raise the awareness amongst local communities about the variety of flora, fauna and wildlife habitats in a local context, and to advance their knowledge about the importance of conserving biodiversity, in conjunction with the East Ham Nature Reserve and Active Newham (or any replacement project as agreed in writing between the Airport and the Council).

This will be done through a programme of engagement with primary schools and community centres around the airport, whereby representatives from Active Newham will run biodiversity workshops at the schools/ centres and the East Ham Nature Reserve (or subsequent project) for groups of local young people. The airport will contribute £10,000 per annum to Active Newham towards the programme over three years, and in turn the opportunity will be offered to 15 primary schools/community centres per academic year (focussed on those schools located within the Airport's 57dB air noise contour) including but not limited to:

- Drew Primary School
- Britannia Village Primary School
- Discovery Primary School
- Royal Docks Learning and Activity Centre
- Winsor Primary School
- Gallions Primary School
- Woodman Community Centre"

#### 6.2.4

Table 6.2 provides a summary of progress in 2015 on the remaining objectives.

**5** Active Newham is a leisure trust with charitable status that has been working in partnership with Newham Council to deliver leisure, sports and volunteering opportunities in Newham since January 2013.

**<sup>6</sup>** the East Ham Nature Reserve is a seven acre wildlife reserve located in the London Borough of Newham.

	Biodiversity Objective	Indicative Timescale	Action Complete
		milosodio	Deferred/Ongoing
			Not Complete
1	To participate as a "Delivery Partner" in the Newham Biodiversity Partnership (NBP).	2012 - 2017	LCY has previously advised LBN that it is willing to participate in the NBP. Not applicable to 2015.
5	To inform LCY staff of the importance of biodiversity as part of a "sustainability awareness" briefing in their initial induction.	2012 - 2017	Biodiversity has been included since 2012 in a sustainability briefing, which will be implemented as part of the airport's environmental management system alongside waste, energy efficiency and water conservation topics.
7	LCY will undertake a feasibility study on the costs and benefits of installing sedum mats (or alternative substrate) on the roof of Aviation House or another suitable building at the Airport, with the objective of providing a microhabitat for BAP priority species such as invertebrates. Such installations would be designed to discourage nesting birds or other species which could create a direct or indirect hazard to aircraft.	4th Quarter 2012	Action completed as detailed in the 2012 APR. Not applicable to 2015.
8	LCY will undertake an aquatic ecological survey of the King George V Docks, in conjunction with RoDMA, to determine whether any enhancements can be made to the bio-chemical quality and ecology of this water body.	4th Quarter 2012	Action Complete – these were completed in both 2012 and 2013. Not applicable to 2015.
9	LCY will undertake a terrestrial ecological survey of the Airport site in order to monitor and record flora and fauna at the site, including the abovementioned micro-habitats (if introduced).	Every 5 years	Action Complete. Not applicable to 2015.
10	LCY will consider any further biodiversity opportunities as and when new buildings or structures are constructed or refurbished.	As required.	Ongoing consideration.

## Table 6.2 – Airport Biodiversity Strategy – 2015 Progress Summary



## 7 Education, Employment and Training

## 7.1 Community Engagement

#### 7.1.1

In 2015, the airport continued to invest considerable resources into the local community delivered by the airport's in-house Corporate and Social Responsibility (CSR) and Human Resources (HR) teams. The activities carried out in 2015 focussed on four key areas:

- recruiting people from the local areas into jobs available at the airport site wherever possible;
- creating pathways into employment through training;
- helping young people in the local area achieve educational excellence; and
- investing in community partnerships and projects.

#### 7.1.2

This was achieved through rolling out a comprehensive primary and secondary education programmes as well as successful employment initiatives such as the award winning Take off Into Work scheme and our Work Experience Programme.

#### 7.1.3

The airport also continued to operate a local recruitment policy that not only ensures that those affected by the environmental impacts of the airport are given an opportunity to share in our business success, but also ensures our employees are reliable and flexible as a result of living close to the workplace.

#### 7.1.4

As reported in the 2014 APR, the airport has now fully satisfied its obligations under the Planning Agreement with respect to the £600,000 Education and Training Contribution, with the balancing payment made to LBN in July 2014. As a result, a number of direct funding education and training related obligations fell away for various education initiatives including the University Prize Scheme and City Interview Programme. However, the airport continues to invest heavily in education, employment and training.

#### 7.1.5

Since 2009 we have invested  $\pounds 2.7$  million overall into employment, education and community initiatives and the effect of that has been far reaching.

#### 7.2 Employment Statistics Reporting [6th Schedule / Part 2 / 1(f) – Page 55]

#### 7.2.1

LCY has established robust local recruitment practices to ensure local people are able to access employment at the airport. However, it is recognised that some local residents who would like to work at the airport do not yet have the skills (basic and employability) or experience to do so. In addition, LCY understands it can be difficult for those who have not had previous experience of LCY or any other airport to be aware of the different types of jobs, careers or employers at LCY.

## 7.2.2

In order to achieve LCY's aspiration of being recognised as an exemplar local employer in East London, the airport focuses on two main strands of activity in this area. Firstly, the airport implements recruitment procedures that remove or reduce barriers to employment for local people through running initiatives like the award winning Take Off Into Work scheme<sup>7</sup>. Secondly, the airport invests in an extensive community engagement programme to ensure local people are aware of jobs available and have access to skills coaching to enable them to gain employment.

## 7.2.3

In accordance with the requirements of the Planning Agreement, LCY and all on-site employers collect data that records where employees live each year. A report is then compiled which includes details of the percentage of people living in the local labour catchment area and in particular those living in Newham. In 2015 LCY's in-house HR team also collected data on where all new recruits lived, targeting Newham and local based residents for employment.

## 7.2.4

In this respect, the Planning Agreement requires LCY to use reasonable endeavours to ensure that at least 70% of full time equivalent jobs at the Airport are filled by residents of the "Local Area"<sup>8</sup> including at least 35% filled by residents of the Newham. As at 31 December 2015 there were:

- 40 employers operating on-site at LCY; a complete list of these is included at Appendix 14 of this report. This is a slight reduction from 44 employers in 2014 but is attributable to four contractors (employing 10 people) who were onsite in in 2014 but who have since completed their respective projects.
- 2,099 employees on-site equating to 1,830 full time equivalent (FTE) jobs<sup>9</sup>. This represents an increase of 6% in the total number of employees onsite in 2014.
- Over 27% of the on-site employees lived in Newham with 62% living in the Local Area<sup>10</sup>. These figures represent a slight decrease of 2 percentage points on 2014 but the Airport has no control over where employees choose to live once employed at the Airport.

#### 7.2.5

A substantive number of other contractors and sub-contractors work at LCY on a regular basis but are not based on-site and are therefore not included in the figures reported above. These organisations include cargo agents, construction companies, taxi drivers, IT communications, sign-writers, advertising installers and maintenance and others.

#### 7.2.6

The Planning Agreement also requires LCY to use reasonable endeavours to ensure that at least 70% of employees are residents within the "Local Area" and at least 35% are residents within the London Borough of Newham. London City Airport Limited (airport owner/ operator) is the largest on-site employer. The total number of employees at London City Airport Limited in December 2015 was 592, an increase of 5% on 2014. 24% of our employees resided in the London Borough of Newham (a 1 percentage point reduction from 2014) whilst over 63% reside in the Local Area – consistent with 2014.

## 7.2.7

27% of new LCY recruits in 2015 were from Newham with 68% from the Local Area. These figures are down from 38% and 73% in 2014. The airport's HR team has worked closely with Newham Workplace to identify the reason for the reduction of new recruits from Newham in 2015. This review found that there was a reduction in suitable applicants coming forward either through Workplace or directly via the airports in-house recruitment system. Newham candidates generally fell down on three fronts:

- 1. no driver's licence required for airside positions;
- 2. failure of entry level tests basic English comprehension poor; and
- 3. poor interview performance many candidates poorly prepared.

## 7.2.8

It was agreed that both LCY and Workplace will work collaboratively to identify and action targeted measures to address each of these three issues to improve the calibre of applicants and to ensure that residents receive improved training in 2016 and are better prepared for jobs at the Airport. These targeted measures will include:

7 http://www.dragonawards.org.uk/blog/general/dragonstakeoff/

**8** The "Local Area" is defined by the 2009 Section 106 Agreement to include the 11 East London Boroughs of Newham, Tower Hamlets, Greenwich, Bexley, Lewisham, Southwark, Barking & Dagenham, Havering, Redbridge, Waltham Forest and Hackney, as well as Epping Forest District Council.

**9** 65 employees were onsite secondees and/or based at LCY for more than 16 hours per week

**10** 177 of these on-site employees were not required to provide address information to the airport as they are employed by control authorities such as the Metropolitan Police, Special Branch, UK Border Agency and Department for Transport. These employees are not included in the percentages.

- 1. Newham Workplace to work with LCY to identify a strategy to increasing the number of residents securing drivers licenses/lessons;
- LCY will consider the introduction of video interviewing and situational judgement tests to supplement the aptitude test (these will still require English comprehension and a reasonable standard of education);
- 3. Newham Workplace will review process for preparing candidates for LCY specific interviews and arrange group interview sessions and/or pre-screening sessions with potential candidates who register; and
- 4. The airport and Workplace will work collaboratively to make candidates aware of Workplace and encourage them to use this service. LCY has already added a filter question on the online application form which asks if the candidate is registered with Newham Workplace, allowing the capture of this data to share with Workplace.

## 7.2.9

Quarterly meetings will be held throughout 2016 to review performance.

## 7.2.10

Additionally, LCY is launching a 'Volunteer Host' programme in summer 2016 where 6 Newham residents will spend 4 hours per week working as hosts in the terminal gaining experience "front of house" in the airport operation and interacting with our passengers. This programme is being targeted at students and semi-retired individuals and is progressed in conjunction with Active Newham. It is hoped that the programme will open up further opportunities for these Newham residents at the Airport.

## 7.2.11

It is also proposed to recruit 2 Newham graduates in our Operations team in the summer of 2016.

## 7.2.12

In accordance with the Planning Agreement, we continue to use reasonable endeavours to ensure that jobs at the airport are accessible to local people and to support them to demonstrate the skills and knowledge required to be successful in a job application [6th Schedule / Part 2 / 1(a) – Page 55]. These endeavours are delivered by the LCY CSR Team with on-site partners and employee volunteers, and include:

- Maintaining a website for job opportunities;
- Links with local employment organisations such as Newham Workplace, Skillsmatch Tower Hamlets and Greenwich Local Labour & Business;
- Ongoing engagement with Local Authorities;
- A basic skills test developed by adult education experts at the University of East London;

- Attending careers fairs;
- Delivering presentations to job seekers;
- Mock Interviews;
- Work Placements;
- Distribution of the "Airport Careers" booklet to local organisations and online;
- Delivery of employment-related education programmes in schools, colleges and universities; and
- Delivery of the employment programme 'Take off into Work'.

#### 7.2.13

The programmes and processes rolled out in 2015 to ensure that jobs available on-site were accessible to local people are discussed below.

## WEBSITE INFORMATION

#### 7.2.14

As reported in the 2014 APR, LCY changed the approach to the way vacancies are advertised. The majority of recruitment needs are now managed in-house by a Recruitment Manager within the HR department. LCY has developed a careers website http://www.londoncityairport.com/aboutandcorporate/page/career s where applicants can apply online, upload CVs and also register their interest in working in particular areas of the business, even if there are no current vacancies at that specific time.

#### 7.2.15

Applicants can register and upload their CV online noting the area(s) within LCY where they may wish to work and then once a job matching those criteria becomes available, LCY job alerts are sent automatically direct to the applicant. Vacancies are also advertised 24 hours a day 7 days a week on this online system giving significantly improved visibility of job opportunities to locals. Notifications of job opportunities are also directly advertised through Newham Workplace.

## LINKS WITH LOCAL EMPLOYMENT ORGANISATIONS

#### 7.2.16

All entry level job vacancies for LCY are provided to Newham Workplace/East London Business Alliance (Newham), Skillsmatch (Tower Hamlets) and Greenwich Local Labour and Business (GLLaB, Greenwich) for advertisement to local jobseekers. In addition, these vacancies are provided to Anchor House, Fight 4 Peace, Royal Docks Learning and Activity Centre and Community Links (Newham). Where recruitment for more than one position is initiated simultaneously, LCY advertise such vacancies through a local employment agency (e.g. Newham Workplace and/or others), notify local recruitment centres of such vacancies and advertise through the LCY website.

## LCY SELECTION TEST

#### 7.2.17

In 2011 LCY partnered up with the University of East London (UEL) to develop three new LCY Selection Tests to assist with its recruitment process, which were also used for candidates in 2013. The tests consist of seven main questions relevant to the basic skills required for employment in an entry level role at LCY. The questions in the test are based on basic literacy, arithmetic and European geography. LCY has worked with UEL to develop these tests to ensure that job applicants are tested at a level relevant to the job for which they are applying and that the question structure and standard are aligned with national qualification framework. This test allows LCY to ensure that job applicants will be able to successfully complete the regulated training necessary for roles based on-site at LCY.

## INTERNAL RECRUITMENT

## 7.2.18

To allow local staff who have achieved employment at LCY to progress, all job roles are advertised internally. Implementation of this policy has encouraged many LCY employees to progress through the company to more senior positions, this includes local residents of Newham.

#### 7.3 Employers' Forum [6th Schedule / Part 2 / 1(b) – Page 55]

## 7.3.1

The Planning Agreement requires LCY to hold the Employers' Forum twice per calendar year. Instead of solely holding a meeting with employers, in 2015 it was decided to improve the outreach of the forum and hold an LCY Jobs Fair in summer 2015 which was extremely well attended by onsite concessionaires and airlines. The Jobs Fair proved to be a great success with over 1,000 local people attending. This allowed onsite employers to meet local jobseekers and potential employees from Newham whilst providing locals with the opportunity to learn about different aspect of the Airport and the range of jobs that are available. Due to the success of the 2015 Jobs Fair another one is proposed for summer 2016. A second Employer's Forum meeting was scheduled to be held in December 2015 but due to unforeseen circumstances this had to be postponed. The re-scheduled meeting took place in February 2016. Two more meetings are scheduled this year.



## 7.4 Staff Participation

[6th Schedule / Part 2 / 1(g) – Page 56]

## 7.4.1

LCY and its on-site partners are keen to engage in local community projects and initiatives and LCY works with on-site companies to facilitate their community engagement.

## 7.4.2

In 2015, LCY continued to engage staff and on-site companies in community projects and initiatives via:

- LCY's inaugural volunteers fortnight;
- LCY's Staff Committee;
- LCY Consultative Committee;
- LCY Site Email Distribution;
- On-site posters;
- "Airport Life" Staff Newsletter, distributed to all staff monthly;
- Richard House fundraising events;
- LCYTV, which is displayed on plasma screens in all staff break areas; and
- A weekly all staff e-bulletin.

#### 7.4.3

LCY actively encourages employee volunteering from its own staff and other companies based on-site to help assist with these programmes. All employee volunteering opportunities are advertised by the CSR team by email, internal communications and via the Community Ambassadors.

#### 7.4.4

The airport's workforce is committed to the local area and good causes and this helps foster strong and positive relationships with the community surrounding the Airport. In 2015, 82 LCY staff volunteered 1,192 hours of their time to local community initiatives raising funds for the Airport's chosen charity, Richard House Hospice. The total raised to date stands at £800,000 with fund raising initiatives in 2015 including: walking the Yorkshire Three Peaks challenge (£8,500); a staff football tournament (£1,400); and donation boxes and lost property sales (£12,000).

#### 7.4.5

LCY also sponsors good causes in the locality with £55,000 given in 2015 to a variety of areas including NASSA Wheelchair Basketball Team, the Royal Docks Community Charter and the Barking Folk Festival. LCY keeps in touch with the local community via bi-monthly electronic bulletins, through the London City Airport Consultative Committee and via a year end "Delivering for our Community Report"

## TAKE OFF INTO WORK (TOIW)

#### 7.4.6

2015 was another excellent year for Take Off Into Work with 69 people taking part in the programme.

## 7.4.7

The programme is delivered in partnership with Newham Workplace and the East London Business Alliance (ELBA). Since commencing in 2009 over 500 people have been employed on-site through TOIW. In partnership with Newham Workplace who fund TOIW, the airport continued to provide employment opportunities to local residents through TOIW in 2015.

## **AIRPORT CAREERS**

## 7.4.8

An airport careers booklet is available at

www.londoncityairport.com/careers. Additionally, new careers videos were developed by the HR team through 2015. Both profile the range of opportunities on-site with insight from our employees and have been used at a variety of Jobs Fairs and Careers Events in the local area. Airport staff took part in careers and jobs fairs – engaging with over 2,500 local jobseekers and young people throughout the year.

## 7.5 Airport Job Policy [6th Schedule / Part 2 / 1(d) – Page 55]

## 7.5.1

The Airport Job Policy sets out LCY's approach and policies with respect to filling job vacancies. The airport consults LBN on this document annually as part of the APR process. The 2015 Airport Recruitment Policy can be found at Appendix 16.

#### 7.6 Training Programmes [6th Schedule / Part 2 / 1(e) – Page 55]

## 7.6.1

LCY has a comprehensive training offer available to its employees and is committed to investing in its staff through a wide range of learning and development activities. Training is provided for health and safety, job specific skills and in the general competencies which provide employees with the ability to do their jobs and develop key transferable skills. The general competencies programme is based on the key 'core-skills' required for the long term success of the business and included training in many areas throughout 2015.

## 7.7 2015 Education Programme Updates

[9th Schedule / Part 3 / (a) (b) (c) - Page 67]

## EDUCATION EXCELLENCE

#### 7.7.1

LCY's Educational Excellence Programme delivers projects to all age groups from primary to adult education. Since 2011, over 6,500 students have engaged with the airport through educational tours and careers days; for example in 2015 2,422 primary school students from 43 primary schools and groups visited for an educational tour as part of 91 tours delivered in total. At the other end of the education spectrum, LCY delivered aviation career lectures to 112 University students.

#### 7.7.2

Secondary education is also focused on Year 6 – 9 students with LCY having developed an Enterprise and Aviation Enterprise module to make airport operations and commercial management relevant to schools and the national curriculum. The airport also joined in partnership with Enabling Enterprise, London's Ambassador for Training and Enterprise and other businesses from around the Royal Docks (ExCel, British Airways, ABP, Silvertown Partnership and the Royal Docks Management Authority) to work alongside 100 secondary school students at the Royal Docks Industry day in 2015. The students undertook to create a marketing campaign pitching the Royal Docks as a world class business destination

#### 7.7.3

In 2015 we worked with all the schools listed below:

#### Newham

- Britannia Village Primary School
- Scott Wilkie Primary School
- Hallsville Primary School
- Royal Docks Community Secondary School
- Rokeby Secondary School
- NewVIc Sixth Form College
- Newham College of Further Education
- University of East London
- Oasis Silvertown
- Newham Collegiate Sixth Form Centre
- Kingsford Community School
- Tollgate Primary
- Cleves School
- Curwin Primary School
- Ravenscroft Primary School
- Local home-schooled group
- Manor Park Primary School

- West Ham Church School
- Cumberland School
- Salisbury Primary School

#### Greenwich

- St Alfege with St Peter's Primary School
- Plumcroft Primary School
- St. Matthews Academy
- Alexander McLeod Primary

#### **Tower Hamlets**

- Woolmore Primary School Wellington Primary School
- Marion Richardson Primary School St Johns C of E Primary School
- Mayflower Primary School
- St Paul's Whitechapel

#### 7.7.4

The list below summarises the projects delivered in the areas of education and employment in 2015.

#### **Primary Education**

- Tours of the Terminal, for reception and Year 6 pupils saw 32 primary and nurseries visit LCY, which engaged 2412 students.
- West Ham Schools Partnership which engaged with 5 Newham schools in 2014, will work with another 35 throughout 2015 & 2016.
- Delivery of a Carbon Challenge to BV Primary.
- Your Royal Docks art competition
- Tower Project Careers Insight visit
- Work Week Workshops delivered in partnership with 15billionEBP.
- Enabling Enterprise Challenge Days

#### **Secondary Education**

- Delivery of LCY Enterprise Module which was developed with Oasis Silvertown for years 7 and 8 pupils.
- Delivery of the LCY Aviation Enterprise Programme to students from Royal Docks Community School, Rokeby School and Kingsford Community School. Continuous Improvement Workshops delivered to students from Newham Collegiate Sixth Form
- LCY participated in various career awareness initiatives including BOSS days and careers insight visits in Newham, Greenwich, Redbridge, Tower Hamlets and Havering. In 2015 LCY engaged with over 3,500 students.
- The airport hosted a Royal Docks Industry Day for 100 year 6-9 students from schools across East London. This was delivered in partnership with other local businesses.
#### **Further & Higher Education**

- Work experience provided to 51 students
- 6 students participating in the LCY University Prize Scheme
- Worked with the Newvic College on specialised sessions for students
- Developed an Innovation Workshop which focussed on STEM which was taught exclusively in the Newham Collegiate 6th Form.
- The airport delivered an Employers Aware Programme to a group of Greenwich Community College students
- The airport delivered an aviation careers based lecture at the University of East London, Stratford Campus
- LCY worked with the office of Stephen Timms MP to support a "politics school" for local 16-18 year olds.

### 7.8 Primary Education

#### [9th Schedule / Part 3 / (a) – Page 67]

#### 7.8.1

The airport is committed to engaging as many local primary schools as possible and to do this in a meaningful way whilst fitting with national curriculum priorities. The Your Royal docks programme which was developed in partnership with the Museum of London Docklands, and an assortment of local teachers, was made available online for any teacher to download and teach in school. Following the successful 2014 launch of the programme, we ran and hosted a Your Royal Docks art competition in summer 2015.

# 7.9 Secondary Education

[9th Schedule / Part 3 / (b) – Page 67]

#### **7.9.1**

In 2015, LCY started working on developing a number of new resources for local secondary schools which would make the operations of the airport relevant to schools and the national curriculum. In that theme, LCY developed an enterprise module in partnership with Oasis Silvertown for Year 7 pupils, an Aviation Enterprise programme for year 9 students which focuses on the works of the airports Commercial team and a STEM focussed workshop with the Newham Sixth Form collegiate. All programmes were successfully delivered to a variety of students in Newham and other local boroughs.

# BUILDING OPPORTUNITIES AND SKILLS SEMINARS (BOSS DAYS)

#### 7.9.2

LCY continued to volunteer at BOSS days in 2015. In total, 580 students benefitted from sessions at the following three schools:

- Cumberland
- Eastlea
- Rokeby

#### 7.9.3

In addition to traditional BOSS days, LCY also offered tailored job preparation courses to a number of other schools and students in the local area. Over 800 local students were engaged by LCY in 2015.

#### 7.9.4

Continued investment in educational initiatives remains a key objective for the airport and in 2016 it will:

- Work with Enabling Enterprise to launch a "Create an Airport" one day workshop, which will be delivered to c.250 students in Newham, Waltham Forest and Barking & Dagenham;
- Launch a Russell Group University visits programme for 14/15 year olds across East London Boroughs;
- Continue to deliver the Enterprise and Aviation Enterprise modules, workshops and delivering the primary schools visits programme across East London.

### 7.10 Work Experience [6th Schedule / Part 2 / 1(h) – Page 56]

#### 7.10.1

The Work Experience programme at LCY is administered by the Newham Education Business Partnership (NEBP).

#### 7.10.2

In 2015, the programme was reconfigured to offer meaningful 5 day placements in particular departments. 51 students were awarded places and enjoyed experiences in Customer Service, Finance, Continuous Improvement, Aelia Tax and Duty Free, Health and Safety and the Jet Centre.

#### 7.10.3

22 students came from Newham, 8 were from Tower Hamlets, 9 from Greenwich, 7 from Barking and Dagenham, 3 from Bexley, 1 from Havering and 1 from Redbridge.

# 7.11 Higher Education

[9th Schedule / Part 3 / (c) – Page 67]

# UNIVERSITY PRIZE SCHEME (UPS)

#### 7.11.1

The LCY University Prize Scheme (UPS) provides £2,000 per year for three years to students from Newham, Tower Hamlets and Greenwich. As mentioned the airport has now completed the five year enrolment under the UPS that was directly funded under the Education and Training Contribution. No enrolment therefore took place in 2015. However, 2015 saw 3 students graduating from the scheme. LCY will continue to fund until graduation of the six students who remain on the programme.

#### 7.11.2

LCY also partnered with a new Higher education initiative called Gradbridge in 2015 and sponsored 2 places on the programme for local graduates. In 2016 this partnership will be expanded and the airport will fund 20 places for graduates from Newham and other adjoining Boroughs<sup>11</sup>.

# 7.12 Benefit in Kind

[Sixth Schedule / Part 2 / 2 – Page 56]

#### 7.12.1

The Planning Agreement includes an obligation for LCY to provide a benefit in kind equivalent to a minimum of £50,000 in respect of its obligations to use reasonable endeavours to employ residents from the Local Area and Newham, to recruit through a local employment agency, to hold meetings of the Employers' Forum and to operate a work experience programme at the airport.

#### 7.12.2

In 2015 LCY provided such benefits in kind towards employment initiatives aimed at local people. This included LCY's costs for the work experience programme, the Take Off Into Work programme and other education and training costs.

#### 7.13 Community Communications & Awards in 2015

#### 7.13.1

The culmination of all of the above initiatives led to LCY receiving the All-Party Parliamentary Corporate Responsibility Group's Business Champion award in 2015. LCY was nominated by the Airport's local MP and businesses from across the UK were considered. The award was given to LCY in recognition of its "investment in the local community; its commitment to providing pathways into work for unemployed residents; its work with schools and universities; and its work with West Ham Football Club to promote healthy life styles, among other issues..." LCY is justifiably proud of its strong commitment to the local community.

#### 7.13.2

In 2015, the airport continued to communicate with local stakeholders via a bi-monthly e-bulletin and through their @LCYLOCAL twitter handle. 2015 also saw the funding of a new Community Café at St John's Green and plans are in hand to renovate the Beckton Community Centre to the benefit of 150,000 Newham residents per year. These projects are funded by the £1 million Community Projects Contribution paid by the airport to London Borough of Newham under the Planning Agreement.

#### 7.14 Community Report

#### 7.14.1

The airport's 2015 Community Report entitled "Delivering for our Community" can be viewed here: http://www.londoncityairport.com/aboutandcorporate/csrnews

**11** Gradbridge is a programme that develops soft skills for recent college and university graduates to make them "job ready" and is supported by many of the leading UK and Global businesses.

# 8 Surface Access

# 8.1 Surface Access Strategy

[6th Schedule / Part 1 / (1) – Page 53]

## 8.1.1

The Airport Transport Forum (ATF) is the airport's primary mechanism for the development and delivery of the Airport Surface Access Strategy (ASAS). It involves key local and transport stakeholders who work collaboratively to define and deliver the ASAS and its supporting objectives. In 2015 the group met in July and was scheduled to meet again in December, but this second session was postponed until February 2016. A further session took place in June 2016 with a further one planned for November. The Terms of Reference for the ATF can be found on the airport's website: http://www.londoncityairport.com/ aboutandcorporate/page/sustainabletransport

#### 8.1.2

Through the ATF, a draft ASAS "Connecting the Airport" was developed in consultation with key stakeholders in 2013. This established new 10 year strategic priorities aligned with the airport's forecast growth through the proposed City Airport Development Programme (CADP).

#### 8.1.3

It was agreed, through the ATF, that the document would remain in draft form, supplementing and updating the 2005 ASAS document, until a decision has been made on the CADP planning application at which point the document will be finalised. Pending the determination of CADP, LCY continue to deliver against the draft ASAS – a copy can be found on the airport's website at:

http://www.londoncityairport.com/ aboutandcorporate/page/sustainabletransport

## 8.1.4

At the July 2015 session the ATF adopted a new set of 'Transport Objectives' that guide the group's activities under the ASAS in the interim period pending the determination of CADP. It was felt that this interim approach was necessary due to the ongoing draft status of the ASAS and the need to refresh and refocus the actions within the Travel Plan 2011 and Your City Commuter 2013.

## 8.1.5

As with the draft ASAS, the 'Transport Objectives 2015' supplement the Travel Plan 2011. The 26 objectives contained within focus on current surface access issues and help guide the work of the ATF through the Working Groups. To cover this transitional period, delivery in 2015 encompassed the actions from both the Travel Plan 2011 and the Transport Objectives 2015. Both documents can be found on the airport's website: http://www.londoncityairport.com/ aboutandcorporate/page/sustainabletransport

## 8.1.6

The July 2015 ATF meeting also saw the establishment of a series of Working Groups. These are time and task orientated projects that bring together ATF members to address, investigate or tackle actions to help deliver the Transport Objectives 2015. In 2015 four working groups were set up. Table 8.1 summarises the focus of each of the 2015 groups and the actions identified for delivery in 2016:



# Table 8.1 Summary of 2015 ATF Working Groups

Working Group Focus	Actions Identified
Taxi Management	
<ul> <li>The aims of the Working Group</li> <li>There are three aims to this activity: <ol> <li>To monitor reported nuisance complaints from local residents regarding minicab operations;</li> <li>To assess the impact of these operations: and</li> <li>To recommend what appropriate steps of redress should be taken.</li> </ol> </li> </ul>	<ol> <li>LCY to contact all minicab operators;</li> <li>LBN &amp; LCY to monitor complaints;</li> <li>LBN &amp; LCY to meet annually to review complaints agree next steps; and</li> <li>The ATF will have two distinct roles; firstly, to discuss complaints received, and if required re-examine the issue. Secondly, the group should discuss the longer term implications that products such as Uber will have on minicab operating practices.</li> </ol>
Cycling and Walking	
<ol> <li>The aims of the Working Group         <ol> <li>To identify planned and proposed cycling and walking improvements across Newham and The Royal Docks and to gauge their likely impact on travel choices;</li> <li>To ensure that the airport's approach is aligned to this;</li> <li>To enable the airport and the ATF to make recommendations about future provision on-airport and locally.</li> </ol> </li> </ol>	<ol> <li>Join TfL's Cycling Workplaces scheme, and access equipment and training;</li> <li>Promote TfL's &amp; LBN's cycle training;</li> <li>Once infrastructure in place purchase pool bikes to enable staff to trial cycling;</li> <li>Maintain a full understanding of LBN's cycle strategy (via the ATF) and ensure airport integration as new routes develop;</li> <li>Promote TfL/GLA's street level design guidance in future development; and</li> <li>As cycling and walking demand grows LCY, via the ATF, to work with LBN and TfL to provide additional infrastructure</li> </ol>
Information Provision	
The aims of the Working Group; To identify improvements that will make transport information more accessible to air passengers before, during and to/from their journey to the airport. This includes the airport's website, provision within the terminals and across the local transport network (DLR and Tube).	<ol> <li>Update strategy pages on LCY.com;</li> <li>Fit info screens in Baggage Reclaim;</li> <li>Provide Info Desk with travel leaflet;</li> <li>Promote improved 'which platform' information at Canning Town;</li> <li>Add LCY to Tube 'in carriage' maps;</li> <li>High-quality travel info on LCY.com;</li> <li>Look at 'best practice' pax info model and share with airlines;</li> <li>ATF input to transport messaging on new passenger info screens;</li> <li>DLR &amp; TfL to consult LCY on passenger travel information issues; and</li> <li>Consider installing additional flight information panels across the network.</li> </ol>

Working Group Focus	Actions Identified
Low Carbon Infrastructure	
<ul> <li>The aims of the Working Group;</li> <li>To complete a high-level review of the low carbon transport aspirations and strategies of LBN, TfL and the GLA and use that to inform the LCY approach to the issue. This will be an interactive and collaborative project that brings together members of the ATF to provide their thoughts and expertise.</li> <li>Specifically the following aspects will be considered;</li> <li>1: Longer term aspirations of each organisation to support the use of low carbon forms of vehicular transport</li> <li>2: Relevant monitoring processes for each organisation</li> <li>3: Funding streams that may bring forward low carbon solutions</li> <li>4: The ATF to understand low carbon requirements that may be placed on the airport over the coming years</li> </ul>	<ol> <li>LCY to meet TfL to discuss rapid charging programme;</li> <li>Subject to TfL requirements identify locations suitable for installation of rapid and standard charging points;</li> <li>If suitable locations can be found (subject to power supply and longevity of site) progress within installation;</li> <li>TfL to provide a contact for their LO City programme;</li> <li>TfL &amp; LBN to report on inductive charging technology on the route 69 bus;</li> <li>TfL, GLA and LBN to actively include LCY in future discussions regarding the provision of charging points;</li> <li>LCY to include a section within the revised ASAS focussing on electric vehicles and infrastructure;</li> <li>As London's charging network grows actively promote electric vehicle use by airport staff and passengers.</li> </ol>

### 8.1.7

Each 2015 Working Group identified a series of actions for progression by both LCY and by the other members of the ATF. Some of these were short-term actions that will be taken forward in 2016 while others are for longer-term consideration. For example the Cycling and Walking Working Group highlighted the need to provide additional cycle storage in 2016, with a longer term action for TfL and LBN to work to deliver cycle infrastructure upgrades.

#### 8.1.8

The actions proposed by each of the four Working Groups were agreed by the ATF in February 2016. Following the success of the 2015 Working Groups new Working Groups have been set up in 2016. Table 8.2 lists the agreed 2016 Working Groups.

Working Group	Focus	Likely Members
Crossrail	To consider how the airport should best connect with Crossrail in both the short (via Custom House) and longer term (via a dedicated station)	LCY, Crossrail operator, LBN, TfL, DLR
Bus Route Changes	To gauge the impact of proposed bus route changes and develop a Forum response to TfL's consultation on this matter	LCY, TfL, LBN
Surface Access Best Practice Review	To identify best practice among transport strategies and travel plans to inform the development of both post-CADP determination	LCY, TfL, LBN, GLA

### Table 8.2 Planned Working Group Programme 2016

# 8.2 Surface Access Performance

#### 8.2.1

London City Airport is well connected to both private and public transport networks. The local road network, on-site parking provision, minicab and chauffeur services provide easy access to airport users at any time they wish to travel. Passengers and staff that choose to travel by public transport can take advantage of direct access to the DLR network, local bus services, black taxis or local cycling and walking networks. From the DLR the wider London transport network can be accessed providing onward journey options to destinations across the City and beyond. The DLR is the dominant mode of transport for air passengers, being used by 62% of travellers in 2015 - an increase of 1% over 2014.

### 8.2.2

Surveys are used to monitor and measure the way in which passengers and staff travel to and from the airport. Quarterly satisfaction surveys, undertaken in the departure lounge, gauge how passengers travel, while staff surveys are undertaken less frequently due to their intensive nature. The latest staff travel data was gathered through a survey in 2013, the results of which were used to inform the consultation process undertaken in the same year that led to the development of the draft ASAS. In 2016 the airport will undertake a further travel survey to identify any changes in travel behaviour since 2013.

### 8.2.3

The draft ASAS includes targets aimed at maintaining the airport's excellent surface access performance which sees a higher percentage of passengers using public transport than any other UK airport. With 69% of passengers travelling by public transport in 2015 LCY compares favourably against the latest figures available for other airports; London Heathrow - 26% (2014), London Gatwick - 43% (2015), London Stansted - 51% (2014), and Manchester Airport - 15% (2014). The 2023 targets for public transport use established in the draft ASAS are:

- Over 70% of passengers travelling by public transport; and
- Less than 40% of staff travelling by single occupancy car.

### 8.2.4

Table 8.3 shows that a total of 69% of passengers travelled by public transport in 2015<sup>12</sup> - 1% below the 2023 target, yet far ahead of other UK airports. While the percentage of passengers travelling by DLR continued to increase in 2015 (up 1% on 2014).

#### 8.2.5

Those travelling by Black Taxi reduced by 4%, contributing to an overall decrease in the use of public transport by 2%. This slight decrease appears to be attributable to increased use of Minicab and Uber as a modal choice for the first time. This slight decline

in public transport use is a concern to LCY and was discussed by the ATF in June 2016. The ATF identified a number of potential causes including the industrial action seen across much of London's transport network in 2015. It was agreed that further analysis is required by both LCY and the ATF. This will include the use of the passenger survey and other mechanisms to identify why there has been a slight shift in passenger choice, the causes, and future actions required to ensure that the draft ASAS target of 70% is achieved by 2023.

Table 8.3 – 2015 Passen	ger Surface Acce	ss Statistics
Mode	2014	2015
DLR	61%	62%
Black Taxi	10%	6%
Bus	0%	0%
Total Public Transport	71%	69%*
Minicab	14%	17%
Car (driven away)	6%	7%
Chauffeur	2%	2%
Car Parked	inc in othe car	2%
Uber	n/a	1%
Other Car	4%	1%
Transfer	4%	2%
Total Private Transport	29%	31%

Source: BDRC, independent provider of the Quarterly Passenger Survey

\*Please note the figures are subject to rounding, hence the discrepancies in totals presented

### 8.2.6

Table 8.4 shows that 48% of staff chose to travel to the airport by DLR, bus, on bike or by foot in 2013. It also shows that 41% of staff chose to drive alone, 1% above the 40% target included in the draft ASAS. A new staff survey had been planned for delivery in 2015. However, this was deferred due to delays to the CADP planning process. The intention was to use the data generated as a baseline to measure the performance of the new ASAS and Travel Plans that would have been produced following planning approval. LCY will conduct a new staff travel survey in 2016 to provide a more up-to-date assessment of how staff access the airport.

12 black taxis are included by TfL as a form of public transport



Table 8.4 - Staff Surface Access Statistics (2013)		
Mode	2013	
DLR	18%	
Mini Cab	0%	
Car	41%	
Bus	19%	
Walk	8%	
Cycle	3%	
M'bike	0%	
Other	11%*	

\*Note: 11% of staff indicated that train was their main mode of transport, indicating that they would then travel by DLR or bus for the final leg of their journey. Source: LCY staff travel survey

#### **8.3 Transport Objectives Progress 2015** [6th Schedule / Part 1 / (1) – Page 53]

#### 8.3.1

During 2015 the airport delivered against the 26 objectives contained within Transport Objectives 2015 while also maintaining delivery of actions in the 2011 Travel Plan that remain relevant. In doing so the airport ensured that historic commitments were met alongside those more current priorities established by the ATF. A detailed overview of performance is provided at Appendix 17, and summarised below.

#### 8.3.2

In addition to the 26 actions in the Transport Objectives 2015 there are a further 44 actions in the Travel Plan 2011. Progress against these actions are recorded as 'Complete' or 'Ongoing'.

#### 8.3.3

Of those 26 actions within the Transport Objectives 2015 six are 'Complete', and 20 are considered to be 'Ongoing'. Of these 20 three have been identified as 'Amber' – these are actions where the anticipated delivery plan for 2015 has been delayed and will now occur in 2016. An example of this is Transport Objective 8 "With TfL and relevant transport operators look at potential ticketing, information and interchange improvements that could benefit passengers and staff". While the initial review took place in 2015, some of the actions it identified, such as the installation of new passenger travel information screens in Baggage Reclaim areas, will be progressed in 2016. Actions in the Travel Plan 2011 that remain relevant are considered 'Ongoing' or 'Complete' as of the end of 2015. Full commentary on both sets of actions can be found in Appendix 17.

# **9 Environmental Complaints/Enquiries**

# 9.1 Report of any Complaint or Action in Summary in Preceding Calendar Year

[3rd Schedule / Part 7 / 2 (c) - Page 35]

#### 9.1.1

The annual incidence of environmental complaints and enquiries to the airport remains very low, at less than one complaint per thousand aircraft movements per year (see Figures 9.3 and 9.4 below).

#### 9.1.2

LCY reports environmental complaints and enquiries to the Airport Consultative Committee as part of the quarterly Airport Environment Report.

#### 9.1.3

A total of 97 complaints regarding LCY's operation were received during 2015, just two more than in 2014 despite an increase in the number of flights of around 9,000 over the same period. In addition, 41 environmental enquiries relating to LCY were received during 2015. Of these 4 complaints/enquires regarding matters unrelated to LCY operations were received during the same period.

#### 9.1.4

Of the 97 LCY complaints received:

- 86 detailed aircraft noise, 29 of these were from one particular individual;
- 2 were related to flight paths;
- 1 was related to aircraft frequency; and
- 4 were related to other factors such as odour and ground noise.

#### 9.1.5

A comparison between complaints and enquiries for 2015 and 2014 is provided in Tables 9.1 and 9.2 below. Tables 9.3 and 9.4 look more specifically at the complaints and enquiries received during the 2015 calendar year whilst comparing against aircraft movements that occurred over the same period.

#### 9.1.6

The amount of complaints in 2015 is comparable to the amount received in 2014. The amount of enquires did rise however this was largely due to ongoing public consultations during LBN's assessment of the CADP proposals and post the LCY consultation with respect to the London Airspace Management Plan (LAMP).

#### 9.1.7

All complaints have been investigated in accordance with LCY's environmental complaints procedure and reported in detail to LBN. All complaints were reported within 15 days of receipt. See Appendix D of Appendix 10 of the APR which includes the reports to the LCACC and the number and subject of complaints.

# Table 9.1 – Environmental Complaints andEnquiries 2015 vs 2014



# Table 9.2 – Environmental Complaints andEnquiries by month 2015 vs 2014



# Table 9.3 –2015 Environmental Complaintsby Category and Air Traffic Movements



# Table 9.4 – 2015 Environmental Enquiries byCategory and Air Traffic Movement



# **10 Financial Contributions**

### 10.1.1

LCY has a number of obligations over the life of the Planning Agreement requiring financial contributions to LBN, the DLR and other local/educational initiatives.

#### 10.1.2

The following contributions, which totalled  $\pounds 121,613.92$  were made to LBN during the 2015 calendar year:

- Annual Monitoring Payment £81,075.95on 1 July 2015 [6th Schedule / Part 6 / 2 – Page 58]
- Parking Contribution £40,537.97paid on 1 July 2015 [6th Schedule / Part 1 / 4 – Page 57]

# **11 Other Matters**

# 11.1 Wake Turbulence Study

[7th Schedule / Part 1 – Page 60]

#### 11.1.1

LCY's Wake Turbulence Study was approved by LBN in September 2011 and the claims handling procedure to handle any claims for compensation arising from such damage was subsequently adopted by LCY. The Wake Turbulence Study and claims handling procedure are both available on the LCY website: http://www.londoncityairport.com/ aboutandcorporate/page/waketurbulence

#### 11.1.2

No incidents of damage arising from wake turbulence were reported to LCY in 2015.

#### **11.2 Value Compensation Scheme** [7th Schedule / Part 2 – Page 60]

### 11.2.1

The Value Compensation Scheme (VCS) was approved by Newham and came into effect on 30 November 2015. The purpose of the VCS is to compensate owners for loss in value of undeveloped land which was affected by the change in the public safety zones for London City Airport which occurred on 15 March 2011. Claims for compensation may be made at any time up to and including 30 November 2025.

#### 11.2.2

The Airport wrote to the relevant landowners to notify them of the VCS in February 2016. The approved VCS has been uploaded to the airport's website (http://www.londoncityairport.com/ aboutandcorporate/page/noiseandtrackkeepingsystem). A copy of the scheme is included at Appendix 18.







# **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# GLOSSARY

01 July 2016

London City Airport City Aviation House Royal Docks London E16 2PB Tel: 020 7646 0000 LondonCityAirport.com



# **GLOSSARY**

For guidance only – please see the Section 106 Planning Agreement for the precise legal meaning for some of these terms.

#### 57 dB Contour

The 57 dB LAeq, 16h Average Mode summer day contour

#### 66 dB Contour

The 66 dB LAeq, 16h Average Mode summer day contour

#### 69 dB Contour

The 69 dB LAeq, 16 Average Mode summer day contour

#### Actual 57 dB Contour

The 57 dB Contour based on actual aircraft movements for the summer period (16 June to 15 September) in the calendar year immediately preceding the due date for submission of the Annual Performance Report

#### Actual 66 dB Contour

The 66 dB Contour based on actual aircraft movements for the summer period (16 June to 15 September) in the calendar year immediately preceding the due date for submission of the Annual Performance Report

#### Actual 69 dB Contour

The 69 dB Contour based on actual aircraft movements for the summer period (16 June to 15 September) in the calendar year immediately preceding the due date for submission of the Annual Performance Report

#### **Air Quality Action Plan**

An action plan for the management and mitigation of any air quality impacts affecting the local community within the vicinity of the Airport due to the operation of the Airport (including surface access by transport to and from the Airport) including:

- (a) Volatile Organic Compounds concentrations odours (known locally as "Airport smell"); and
- (b) fallout (known locally as "black smuts, deposits and oily films/patches on ponds"); and
- (c) ambient concentrations of fine particulates (PM<sub>10</sub>) and nitrogen oxides (NO<sub>x</sub>)

#### Air Quality Measurement Programme

A programme to assess the potential air quality impacts of the Airport and to investigate anomalies in any resulting data and in comparison with any other measurements taken by LBN in the vicinity of the Site including:

(a) the continued operation of the monitoring equipment for the purposes of a programme of monitoring of air quality in the vicinity of the Site in a manner which enables comparison of results with other monitoring stations run by the Council for PM<sub>10</sub> and NO<sub>2</sub> pollutants;

- (b) a network of passive diffusion tube samplers for NO<sub>2</sub> at locations in and around the Site including locations at Camel Road/Hartmann Road and Camel Road/Parker Street;
- (c) a monitoring initiative to investigate the effects of individual aircraft types;
- (d) a three month study to measure Volatile Organic Compounds concentrations and odours in and around the Site

#### **Aircraft Categorisation**

The categorisation of aircraft using the Airport according to airborne noise emitted by such aircraft

#### **Aircraft Categorisation Review**

A review of Aircraft Categorisation to reassess the methodology, categories, noise reference levels, noise factors and procedures for categorisation with the objective of providing further incentives for aircraft using the Airport to emit less noise

#### **Aircraft Movement**

The take-off or landing of an aircraft at the Airport other than for training positioning and/or evaluation

#### London City Airport Consultative Committee (LCACC)

The facility for users of the Airport, local authorities and persons concerned with the locality of the Site for consultation with respect to matters that relate to the management or administration of the Airport and affect those parties' interests

#### **Annual Performance Report (APR)**

An annual report to be submitted to the Council by 1 July in each calendar year which shall (to the extent required by the obligations in S106 Planning Agreement) report on the performance of and compliance with the terms of the S106 Planning Agreement in the preceding calendar year and shall include all the annual reporting requirements contained in the S106 Planning Agreement or as agreed with the Council from time to time

#### CADP

City Airport Development Programme

#### **CO**2

Carbon Dioxide

#### dB (Decibel)

A measure of sound pressure level

#### **Deposits Study**

Technical investigation into the incidence and origins of black smuts deposits and oily deposits in the vicinity of the Site

#### **First Tier Works**

The First-Tier Scheme will bring eligible dwellings within the 57 dB LAeq,16h noise contour up to an agreed specified level of sound insulation. Residential premises with existing singleglazing will be offered secondary glazing or a contribution towards the cost of installing double-glazed windows which meet the Airport's sound insulation standards. Residential premises in general will also be offered sound attenuating ventilators to provide background ventilation without the need to open windows.

#### **Further Inspection of Treated Premises**

All properties that have been treated under the Sound Insulation Scheme will be inspected on a ten yearly basis after initial installation of glazing elements, mechanical ventilation and/or modifications to external doors. Provided they have not been altered, rectification works will be carried out as necessary to ensure the sound insulation standard does not decline over time.

#### **Ground Running**

The ground running at any power setting of aircraft engines for testing or maintenance purposes

#### **Ground Running Noise Limit**

The noise level arising from Ground Running which shall not exceed the equivalent of 60dB LAeqT (where T shall be any period of 12 hours) free field as measured outside and at 1 metre from any existing residential premises in the vicinity of the Airport

#### LBN

London Borough of Newham

#### LCY

London City Airport

#### Local Area

The local labour catchment area for the Airport comprising the London Boroughs of Newham, Tower Hamlets, Hackney, Waltham Forest, Redbridge, Lewisham, Southwark, Barking and Dagenham, Greenwich, Bexley, Havering and the area of Epping Forest District Council

#### LAeq

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, contains the same sound energy as the actual fluctuating sound that occurred at the given position over the same time period.

#### **London Public Transport**

Docklands Light Railway, buses, and Transport for London licensed Black Taxis.

#### **Neighbouring Authority Agreements**

Two individual binding agreements to be entered into by the Airport Companies - one with the London Borough of Greenwich and the other with the London Borough of Tower Hamlets - which shall include a commitment by the Airport Companies to comply with the obligations in the S106 Planning Agreement

#### **Noise Contour**

Noise contours connect points that have the same average noise exposure. The contours are generated using computer models, based on the known characteristics of aircraft noise generation and attenuation, and calibrated from noise measurement monitors on the ground.

#### **Noise Factor**

A numerical factor applied to a noise source, dependent on the time, type or level of noise produced.

#### **Noise Insulation Payments Scheme**

A scheme which is intended to accelerate eligibility for the First Tier Works, the Public Buildings First Tier Works, Second Tier Works or the Public Buildings School Second Tier Works as the case may be by compensating landowners and developers for actual construction costs arising from the need for increased insulation against aircraft noise at residential premises and Public Buildings which as a consequence of the Development are situated on land within the Full Use Contours but outside the 1998 57dB Contour and which form part of a development that at the date of this Deed had been granted planning permission but had not been built and that at the time of application for payment under the Noise Insulation Payments Scheme remains capable of being built pursuant to such planning permission or any minor variation or modification to such planning permission resulting in substantially the same development in all material respects.

#### **Noise Management Scheme**

The noise management scheme formulated by the Airport and approved by the Council under the 1998 S106 Planning Agreement in consultation with the LCACC and which is operated continuously by the Airport in order to minimise noise disturbance from aircraft using the Airport including:

- (a) the combined monitoring of noise and track-keeping in order to identify any deviations from the standard routes that should be followed by aircraft using the Airport and to verify the noise contours;
- (b) a system of incentives and penalties which shall include financial penalties (but not in the case of track-keeping infringements) as well as operational penalties in order to:
  - (i) minimise noise disturbance from aircraft using the Airport including any aircraft overhaul facility;
  - (ii) ensure that track-keeping is maintained by aircraft using the Airport;
  - (iii) control maximum noise levels of aircraft using the Airport;
- (c) a scheme to encourage airline operators to use quiet operating procedures when conducting aircraft operations and to observe air and ground noise abatement procedures;
- (d) the minimising of noise disturbance arising from the operation of any aircraft overhaul facility or from aircraft at the Approved Ground Running Location or generally from any aircraft ground noise source subject to the requirement to ensure the safe operation of aircraft at all times;
- (e) regular meetings and consultation with the LCACC and such other statutory body or bodies as may be reasonably nominated by the Council

#### **Noise Monitoring System**

The continuous permanent system for monitoring noise at the Airport

#### NOMMS

A noise monitoring and mitigation strategy which is intended to improve and replace both the Noise Management Scheme and the Noise Monitoring System to provide a more robust system of noise monitoring and mitigation including the measurement and monitoring of ground based sources of noise as well as airborne noise and/or other measures agreed between LCY and the Council from time to time

#### **Planning Permission**

Formal approval sought from a council, often granted with conditions, authorising a proposed development to proceed.

#### **PNdB**

Perceived Noise Level; its measurement involves the analyses of the frequency spectra of noise events as well as the maximum level.

#### Predicted 57 dB Contour

The 57 dB Contour based on forecast Aircraft Movements at the Airport for the summer period (16 June to 15 September) in the calendar year of the due date for submission of the Annual Performance Report

#### **Predicted 66 dB Contour**

The 66 dB Contour based on forecast Aircraft Movements at the Airport for the summer period (16 June to 15 September) in the calendar year of the due date for submission of the Annual Performance Report

#### Predicted Reduced 57 dB Contour

The 57 dB Contour based on forecast Aircraft Movements at the Airport for the summer period (16 June to 15 September) in the calendar year of the due date for submission of the Annual Performance Report but reduced to take into account likely cancellation of flights and other matters affecting numbers of Aircraft Movements by reference to historical data from the preceding five calendar years

#### Predicted Reduced 66 dB Contour

The 66 dB Contour based on forecast Aircraft Movements at the Airport for the summer period (16 June to 15 September) in the calendar year of the due date for submission of the Annual Performance Report but reduced to take into account likely cancellation of flights and other matters affecting numbers of Aircraft Movements by reference to historical data from the preceding five calendar years

#### **Public Buildings**

The following types of public buildings in noise sensitive community use and any other types of public building as agreed between the Airport Companies and the Council: schools (including but not limited to Britannia Village School) colleges doctors' surgeries health centres hospitals nursing homes (including old people's homes) community centres (but not those used only as social clubs) meeting halls village halls churches and other places of religious worship libraries children's and other day centres crèches and nurseries and including any parts of buildings authorised and used for such purposes

#### **Public Safety Zones**

The public safety zones at either end of the runway at the Airport designated as such by the Department for Transport.

#### **Purchase Scheme**

A scheme pursuant to which the Airport Companies shall make a Purchase Offer for residential premises the external façade of which is situated within the Actual 69 dB Contour the terms of which shall (unless the prior written approval of the Council is obtained by the Airport Companies) be substantially in accordance with Part 14 of the Ninth Schedule

#### Section 106 (S106) Planning Agreement

A legal agreement under section 106 of the 1990 Town & Country Planning Act.

#### **Sound Insulation Scheme**

The Sound Insulation Scheme offers the communities living close to the Airport within the Scheme boundaries the opportunity to treat their homes and community buildings against noise. The scheme is split into two tiers depending on the level of aircraft noise. The scheme also includes an obligation to inspect previously treated premises and rectify any damage caused by reasonable wear and tear.

#### **Second Tier Works**

The Second-Tier Scheme will offer eligible properties within the 66 dB LAeq,16h noise contour further treatment to bring the dwellings up to a higher standard of sound insulation. Most residential properties within the Second-Tier Scheme will have already been treated under the First-Tier scheme, and should already have secondary or double glazing as a minimum – the scheme will therefore offer secondary glazing to existing double glazed properties and/or contributions towards replacement high performance acoustic laminated glass, and sound attenuating ventilators.

#### **Temporary Noise Monitoring Strategy**

A temporary strategy to prevent the loss of noise monitoring data collection either through the failure of the Noise Monitoring System or due to external influences such as construction locally of new development or other noisereflective surfaces and to ensure maintenance of the existing noise and track-keeping system until an alternative system is included in the NOMMS and approved by LBN

#### **Travel Plan**

A travel plan aims to promote sustainable travel choices (for example, cycling) as an alternative to single occupancy car journeys that may impact negatively on the environment, congestion and road safety.

#### Value Compensation Scheme

A scheme which is designed to compensate for loss of value in sites which are yet to be developed caused by any extension of the Public Safety Zones for the Airport, solely as a result of the Development.

#### **Volatile Organic Compounds**

A wide range of individual organic compounds of carbon which are of sufficient volatility to exist as vapour in ambient air.

# **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# APPENDIX 1 LBN CORRESPONDENCE

28 July 2016

London City Airport City Aviation House Royal Docks London E16 2PB Tel: 020 7646 0000 LondonCityAirport.com





**Deirdra Armsby** Director of Regeneration and Planning

Investment Team 1<sup>st</sup> Floor, West Wing Newham Dockside 1000 Dockside Road London E16 2QU

Ask for: Dave Whittaker Tel No: 0203 373 7759 Email: dave.whittaker@newham.gov.uk

28<sup>th</sup> July 2016

Dear Tim

**Tim Halley** 

By email:

London City Airport Limited

tim.halley@londoncityairport.com

**City Aviation House** 

London City Airport Hartmann Road

London E16 2PB

### Town and Country Planning Act 1990 (as amended)

London City Airport:

Planning Permission 07/0510/VAR (under Section 73 of the Town and Country Planning Act 1990) to vary conditions 13 and 15 of the outline planning permission N/82/104 dated 23<sup>rd</sup> May 1985 (as previously varied), to allow up to 120,000 total aircraft movements per annum (number of total movements in 2006 was 79,616) with related modifications to the daily and other limits including noise-factored movements. Dated 9<sup>th</sup> July 2009.

#### London City Airport 2015 Annual Performance Report

#### **1.0 Introduction**

1.1 In terms of the main purpose of the Annual Performance Report (APR), the Council can confirm that the vast majority of planning controls - conditions and the S106 Agreement - that were due to be monitored in 2015 have been complied with by the Airport. Further details can be found below.

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#### 1.2 Please note:

- 1) The term 'The Airport' is used throughout to refer to London City Airport Limited.
- 2) I have tried to avoid repetition of information that has been included in the APR, but in some cases I have found this to be helpful.

1.3 I note that the S106 Agreement defines the Annual Performance Report as:

'An annual report to be submitted to the Council by 1 July in each calendar year which shall (to the extent required by the obligations in this Deed) report on the performance of and compliance with the terms of this Deed in the preceding calendar year and shall include all the annual reporting requirements contained in this Deed or as agreed with the Council from time to time.'

#### 2.0 Purpose of This Letter

2.1 It has been customary for the Council to comment formally on the APR by letter, to be included as an Appendix. This is not a requirement of the S106 Agreement, but both the Airport and the Council have found that it is a useful exercise in assisting monitoring and compliance.

2.2 I note that the Council has had the opportunity to make comment on factual issues on informal drafts of the APR prior to formal submission by the Airport.

#### 3.0 Structure of This Letter

3.1 The remainder of this letter comprises four main parts:

Section 4.0 - Compliance With Planning Controls - Airport

Section 5.0 - Compliance - Council

Section 6.0 - Discharge of S106 Agreement Obligations

Section 7.0 - Other Comments on the APR

#### 4.0 Compliance With Planning Controls - Airport

4.1 Although the S106 Agreement only requires the London City Airport Companies to report on compliance with that document, the S106 Agreement is complemented as a means of control by a number of planning conditions, which the Council also monitors. The Council notes, however, that for the avoidance of doubt, this letter therefore comprises an assessment of both, although recognises that some matters are covered by both condition and Agreement.

4.2 Although the period covered by the APR is 2015, the Council recognises that in the interests of continuity the Airport has covered progress on various issues into 2016; this letter does the same.

#### **Overall Compliance**

4.3 As mentioned above, the Council confirms that the vast majority of planning controls - conditions and the S106 Agreement - that were due to be monitored in 2015 have been complied with. The number of breaches recorded by the Council is relatively small – these are summarised below.

#### **Breaches of Planning Control**

4.4 In each case, the breach has been judged as a minor one, and for each, agreement has been reached with the Council regarding actions required to achieve compliance. In summary:

- 1) Breaches recorded prior to 2015: compliance in progress, but not yet complete:
  - a) AVRO RJ100 aircraft noise levels in excess of Category A designation (Planning Condition 7; S106 Agreement: Second Schedule – Paragraph 7)

The number of aircraft operating and the number of flights have been reduced; the noise levels of the remaining aircraft have been reduced; the aircraft is to be replaced by the operator.

 b) Sound Insulation Scheme vent design – change to technical specification (S106 Agreement: Ninth Schedule – Part 5 – Paragraph 7)

This is an improvement on the original design. It was approved in principle by LBN officers but required a Deed of Variation to the S106 Agreement, which was subject to discussion between the Council and the Airport.

NB - 1a) and 1b) have been recorded as single breaches rather than recurring.

- 2) Breaches recorded in 2015: compliance complete in 2015:
  - a) aircraft departure outside designated time slot: August.
     (Planning Condition 10 S106 Agreement: Second Schedule Paragraph 10)
  - b) aircraft departure outside designated time slot: October.

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(Planning Condition 10 - S106 Agreement: Second Schedule – Paragraph 10)

The Airport has put into place a number of measures to try to minimise the chances of this type of breach recurring, as detailed in the 2015 APR. I note that similar issues have occurred in previous years; however, the current measures appear to be sufficient, and at the time of writing the problem has not recurred.

3) Breach occurring in 2015 but not reported and recorded until 2016: compliance complete in 2016:

Dornier 328J aircraft – noise levels in excess of Category 'A' designation. (Planning Condition 7; S106 Agreement: Second Schedule – Paragraph 7)

A means for reducing noise levels was agreed with the Airport. This has been successful and the D328J has returned to its designated category.

4) Breach recorded in 2016 but also affecting 2015: compliance in progress:

Noise Management Scheme (NMS): Penalties and Credits: non-inclusion of financial penalties.

(S106 Agreement: Definitions and Fourth Schedule – Part 7 – Paragraph 4)

The NMS has been operating at the Airport for a number of years, following approval by the Council. The Scheme includes a system of incentives and penalties for the airline companies that are, along with the other parts of the NMS, designed to minimise aircraft noise levels. The S106 Agreement includes a requirement to use financial penalties alongside others; as the APR explains, the Airport were not able to introduce these, and a revised and improved system of Incentives and Penalties is under discussion with the Council.

#### 5.0 Compliance - Council

5.1 The S106 Agreement places certain obligations on the Council, including the Eighth Schedule – Council's Covenants. The Council considers that it complied with all relevant provisions in 2015. The obligations include:

5.2 Part 6 – Community Projects Contribution (CPC) - this requires the Council to report to the Airport and Consultative Committee, if requested, on the uses to which this has been put. To confirm the relevant section of the APR, the Council has allocated the £1M CPC towards:

- 1) the St. John's Green Pavilion project
- 2) Beckton Community Centre renovation project.



Both these projects are underway and are being progressed at the time of writing. Further details are available from the Council if required.

5.3 Part 7 – Airport Monitoring Officer (AMO) – paragraph a) requires that the AMO attends and reports to the Airport Consultative Committee (ACC). Under the Terms of Reference of the ACC, however, the AMO cannot speak at the meetings unless invited. In terms of attendance:

- 1) 13/1/15 AMO in attendance
- 2) 7/4/15 AMO not in attendance (post vacant) no other LBN officer present
- 3) 7/7/15 AMO in attendance
- 4) 6/10/15 AMO not in attendance as Secretary omitted from circulation list other LBN officer present.

#### 6.0 Discharge of S106 Agreement Obligations

6.1 The S106 Agreement requires that the Airport seeks approval from the Council for various matters. The Council can confirm that the following were carried out:

- 1) submission by the Airport to the Council:
  - a) a permanent noise category 'A' for the Bombardier Global 6000 aircraft (through the 2014 APR).
- 2) approval by the Council of the following submissions from the Airport:
  - a) Value Compensation Scheme (submitted prior to 2015)
  - b) Noise Insulation Payment Scheme (submitted prior to 2015)
  - c) a permanent noise category 'A' for the Bombardier Global 6000 aircraft (through the 2014 APR).
- 3) discussions took place on:
  - a) the Aircraft Categorisation Review
  - b) the review of the Air Quality Action Plan.
- 4) submission of financial contributions by the Airport on 1<sup>st</sup> July 2015:
  - a) £81,075.95 Annual Monitoring Payment
  - b) £40,537.97 Parking Contribution

6.2 In the interests of continuity, during 2016 up to the time of writing:

- 1) the Airport submitted the following to the Council:
  - a) an amendment to the approved Biodiversity Strategy

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b) an application for a provisional noise category for the Embraer Legacy 500 aircraft.

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- 2) the Council approved the following submissions from the Airport:
  - a) an amendment to the approved Biodiversity Strategy
  - b) a provisional noise category 'A' for the Embraer Legacy 500 aircraft.
  - c) a permanent noise category 'A' for the Embraer Phenom aircraft (through the 2015 APR).
- 3) discussions took place on:
  - a) the review of the Air Quality Action Plan (continuing)
  - b) the Aircraft Categorisation Review (continuing)
  - c) the Noise Monitoring and Mitigation Strategy.
- 4) Submission of financial contributions from the Airport on 1<sup>st</sup> July 2016 :
  - a) £81,157.03 Annual Monitoring Payment
  - b) £40,578.51 Parking Contribution

6.3 In relation to submissions for permanent categorisation, for clarity, in future there should be reference in the main body of the APR and a separate letter submitted to the Council, in order that these can be published on the Council's website alongside the applications for provisional categorisation. As agreed, you will be submitting the letters for the Global and Phenom aircraft shortly.

#### 7.0 Other Comments on the APR

7.1 Although not compliance issues, there are a number of other comments the Council would like to make on the APR:

#### Education, Employment, and Training

7.2 The Council confirms that the Airport has complied with the S106 Agreement insofar as it has used 'reasonable endeavours' to meet the set targets for employment of Newham and Local residents. As explained in the APR, the Council and the Airport are working together to identify methods to significantly improve employment outcomes for Newham residents.

#### Action Plans and Strategies

7.3 The APR reports on progress on four Strategies and Action Plans. Of the large number of actions – 130 - under consideration, the Council agrees with the assessment of all but eight, where the evidence of progress could be improved, and where it will be working closely with the Airport to address this.



#### Environmental Complaints/Enquiries

7.4 For information, the Council received six complaints directly, all relating to Airport noise levels, and all of which were notified to the Airport. One of these complaints related to the operation of the AVRO RJ100 aircraft, already recorded as a breach of planning control.

I trust that this is helpful. Please let me know if you need anything more at this stage.

Finally, given yesterday's decision by the Secretaries of State, the Council very much looks forward to working with the Airport on the new monitoring arrangements.

Yours sincerely

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Dave Whittaker Airport Monitoring Officer for Deirdra Armsby Director of Regeneration and Planning

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# **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# APPENDIX 2 SUMMARY OF PLANNING AGREEMENT REQUIREMENTS & REFERENCES WITHIN 2015 APR

01 July 2016

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Planning Agreement Reference/ Comments from LBN	Planning Agreement Requirement	Location of Information within 2015 APR, para ref.
Section 1 Introduction	1	
Definitions	"An annual report to be submitted to the Council by 1 July in each calendar year which shall (to the extent required by the obligations in this Deed) report on the performance of and compliance with the terms of this Deed in the preceding calendar year and shall include all the annual reporting requirements contained in this Deed or as agreed with the Council from time to time"	1.2 Annual Performance Report, para 1.2.1
6th Schedule / Part 5 / 1 – Page 58	"In pursuance of any obligation under this Deed to report to the Council on the performance or compliance with the terms of this Deed, the Airport Companies shall provide the Council with the Annual Performance report by 1 July in each calendar year in respect of performance and compliance in the preceding calendar year (January to December) and shall publish the Annual Performance Report on the website for the Airport Consultative Committee by 31 July in each calendar year Provided That for the avoidance of doubt the Airport Companies shall submit the first Annual Performance Report by 1 July 2010 for performance and compliance during the year 2009 and publish such Report on the Airport Consultative Committee website by 31 July 2010."	
6th Schedule / Part 5 / 2 – Page 58	"For the avoidance of doubt any obligation to report to the Council contained in this Deed shall be read and construed as if that obligation was to include such report in the Annual Performance Report regardless of any indication to the contrary as to form or timing of such report."	
Section 2 Aircraft Mov	vements	
4th Schedule / Part 7 / 6 – Page 45	"Report aggregate figures of the numbers and types of aircraft using LCY."	2.1 Numbers and Types of Aircraft using the Airport, paras 2.1.1- 2.2.2
LBN letter dated 26 February 2010	"There will be a need to ensure that noise data is sufficiently detailed so that compliance can be checked. Therefore there would be a need to include daily numbers of movements including class, numbers of late flights etc. (Please continue to liaise with my colleague Robin Whitehouse in this regard)."	2.2 Daily Numbers of Movements including Noise Category, paras 2.2.1-2.2.3
LBN comments received 5 May 2011	Daily flight numbers and associated noise category of aircraft should demonstrate compliance with Condition 8(1)(a) to (j) and Condition 8(4)(a) and (b) of planning permission 07/01510/VAR.	
LBN letter dated 26 February 2010	"It would be useful to include whether or not all flights and maintenance fell within or outside of the allowed times in the Agreement."	2.3 Times of Flights and Maintenance, para 2.3.1-2.3.6
LBN comments received 5 May 2011	Times of flights of should demonstrate compliance with Conditions 6(a), 6(b), 6(c), 9 and 10 of planning permission 07/01510/VAR. The times of ground running for maintenance should demonstrate compliance with Condition 5 of planning permission 07/01510/VAR.	
3rd Schedule / Part 2 – Page 30	Confirmation should also be provided that noise generated by maintenance outside of the permitted hours was not discernible at the boundaries of the Airport site.	

Planning Agreement Reference/ Comments from LBN	Planning Agreement Requirement	Location of Information within 2015 APR, para ref.
Section 3 Noise		
Definitions	"The 57 dB Contour based on actual aircraft movements for the summer period (16 June to 15 September) in the calendar year immediately preceding the due date for submission of the Annual Performance Report."	3.6 SIS: Noise Contours, para 3.6.1
Definitions	"The 66 dB Contour based on actual aircraft movements for the summer period (16 June to 15 September) in the calendar year immediately preceding the due date for submission of the Annual Performance Report."	
Definitions	"The 69 dB Contour based on actual aircraft movements for the summer period (16 June to 15 September) in the calendar year immediately preceding the due date for submission of the Annual Performance Report."	
Definitions	"The 57 dB Contour based on forecast Aircraft Movements at the Airport for the summer period (16 June to 15 September) in the calendar year of the due date for submission of the Annual Performance Report."	
Definitions	"The 66 dB Contour based on forecast Aircraft Movements at the Airport for the summer period (16 June to 15 September) in the calendar year of the due date for submission of the Annual Performance Report."	
Definitions	"The 57 dB Contour based on forecast Aircraft Movements at the Airport for the summer period (16 June to 15 September) in the calendar year of the due date for submission of the Annual Performance Report but reduced to take into account likely cancellation of flights and other matters affecting numbers of Aircraft Movements by reference to historical data from the preceding five calendar years."	
Definitions	"The 66 dB Contour based on forecast Aircraft Movements at the Airport for the summer period (16 June to 15 September) in the calendar year of the due date for submission of the Annual Performance Report but reduced to take into account likely cancellation of flights and other matters affecting numbers of Aircraft Movements by reference to historical data from the preceding five calendar years."	
9th Schedule / Part 1 / 5 – Page 65	"As part of the Annual Performance Report on 1 July each year the Actual 57 dB Contour, the Actual 66 dB Contour and the Actual 69 dB Contour is produced by the Airport Companies in accordance with the INM and submitted to the Council."	
LBN comments received 1 May 2012	Include a very simple table which notes the number of properties that were eligible in the previous year, and how LCY have notified/inspected/treated those properties.	3.6 SIS: Noise Contours, Table 3.1
4th Schedule / Part 1 / 1 - Page 36	"On 1 July each year following the date of this Deed the Airport Companies shall include as part of the Annual Performance Report a list of all residential premises and Public Buildings where a period of 10 years or more has expired since the date on which the glazing elements, mechanical ventilation and modifications to external doors which form part of either the First Tier Works or the Public Buildings First Tier Works or the Second Tier Works or the Public Buildings Second Tier Works were carried out and completed"	3.7 SIS: Further Inspection of Treated Premises, paras 3.7.1- 3.7.2

Planning Agreement Reference/ Comments from LBN	Planning Agreement Requirement	Location of Information within 2015 APR, para ref.
4th Schedule / Part 2 / 1 – Page 39	"In the preparation of each Annual Performance Report the Airport Companies shall determine First Tier Works Eligibility and Public Buildings First Tier Works Eligibility by applying the Eligibility Methodology and shall publish in each Annual Performance Report the boundary within which premises having First Tier Works Eligibility and Public Buildings First Tier Works Eligibility are situated together with the 1998 57 dB Contour, the Actual 57 dB Contour, the Predicted 57 dB Contour and the Predicted Reduced 57 dB Contour."	3.8 SIS: First Tier Works, para 3.8.1
4th Schedule / Part 3 / 1 – Page 41	"In the preparation of each Annual Performance Report the Airport Companies shall determine Second Tier Works Eligibility and Public Buildings Second Tier Works Eligibility by applying the Eligibility Methodology and shall publish in each Annual Performance Report the boundary within which premises having Second Tier Works Eligibility and Public Buildings Second Tier Works Eligibility are situated together with the Actual 66 dB Contour, the Predicted 66 dB Contour and the Predicted Reduced 66 dB Contour."	3.9 SIS: Second Tier Works, para 3.9.1
4th Schedule / Part 4 – Page 43	"The Airport Companies shall advertise at least twice a year starting three months from the date of the first Annual Performance Report in local newspapers which are in circulation within the vicinity of the Site and publish on the Airport Website the availability of the First Tier Works the Public Buildings First Tier Works the Second Tier Works and the Public Buildings Second Tier Works."	3.10 Publicity for SIS, paras 3.10.1-3.10.7
4th Schedule / Part 5 / 1 – Page 44	"The Airport Companies shall use reasonable endeavours to enter into the Neighbouring Authority Agreements within six months of the date of this Deed or such other longer timescale as agreed with the Council and for the avoidance of doubt upon completion of a Neighbouring Authority Agreement the Council shall cease to have any responsibility for the matters contained in that Neighbouring Authority Agreement so far as they relate to properties within the London Borough of Greenwich or the London Borough of Tower Hamlets (as the case may be)."	3.12 Neighbouring Authority Agreements, paras 3.12.1-3.12.2
4th Schedule / Part 7 / 5 – Page 45	"To hold regular meetings and/or discussions with the Council the Airport Consultative Committee and such other statutory bodies as may be reasonably nominated by the Council in order to review the operation of the noise Management Scheme and submit reports of the operation of the Noise Management Scheme to not fewer than two meetings per year of the Airport Consultative Committee."	3.1 Noise Management Scheme, para 3.1.1 – 3.1.3
Para A6.0 in Temporary Noise Strategy	"A record of the daily operational status of each monitor together with the total monthly correlation rate of noise events to aircraft departures for the immediately preceding quarter shall be submitted to LBN."	3.2 Temporary Noise Monitoring Strategy Reporting Requirements, paras 3.2.1-3.2.2
4th Schedule / Part 12 / 3 - Page 47	"The Airport Companies shall identify in the Annual Performance Report on 1 July each year any dwelling with any part of its external elevation which is situated within the Actual 69 dB Contour for the purposes of the Purchase Scheme."	3.11 Purchase Scheme, paras 3.11.1-3.11.2

Planning Agreement Reference/ Comments from LBN	Planning Agreement Requirement	Location of Information within 2015 APR, para ref.
9th Schedule / Part 1 / 4 – Page 65	"Annually on 31 December the provisional categorisation of each approved aircraft type is reviewed (provided that if the provisional categorisation for an aircraft type has been approved in the period between 1 October and 31 December of the year in question then the provisional categorisation of that aircraft type is reviewed on 31 December in the following year) having regard to the departure noise levels recorded at the four monitoring points used for the purposes of the Noise Monitoring System and the Airport companies by 1 July in the following year submit details in writing to the Council of the results of the review whereupon the provisional categorisation of each approved aircraft type is confirmed or amended by the Council with the agreement of the Airport Companies having regard to the monitored values and any such amendment may with the agreement of the Council include the introduction of sub-categorisation into narrower bands provided that noise factors appropriate to any such bands are calculated and applied."	3.5 Annual Aircraft Categorisation, paras 3.5.1-3.5.2
LBN comments received 5 May 2011	Include details of progress on the Noise Insulation Payments Scheme	3.13 Noise Insulation Payments Scheme, para 3.13.1
Section 4 Ground Noise		
5th Schedule / Part 1 / 2 – Page 49	<ul> <li>"Annually on 1 July every year as part of the Annual Performance Report to submit to the Council:</li> <li>(a) written details (in accordance with the format set out in Part 6 of this Schedule) of Ground Running that has taken place during the preceding calendar year (the year to run from 1 January to 31 December each year for this purpose) including details of the number duration and power settings of ground runs and the types of aircraft involved; and</li> <li>(b) written measurements and calculations to show whether the ground Running Noise Limit has been exceeded during the preceding calendar year." [5th Schedule / Part 1 / 2 – Page 49]</li> </ul>	4.1 Ground Running of Aircraft Engines, para 4.1.1
5th Schedule / Part 1 / 3 – Page 49	"In the event that the Ground running Noise Limit has been exceeded contrary to paragraph 1 of this Part to submit annually on 1 July as part of the Annual Performance Report written proposals to the Council for their approval for the carrying out of measures and the time scale for the carrying out of those measures in order to ensure that Ground Running complies with the Ground running Noise Limit and such approved measures shall be carried out in accordance with the approved time scale."	4.2 Exceedences of Ground Running Noise Limit, para 4.2.1
LBN comments received 5 May 2011	Include details of the submission of the Ground Noise Study.	n/a for 2015 APR
Section 5 Air Quality		
3rd Schedule / Part 3 / 1(c) - Page 31	"With effect from the date of this Deed the Airport Companies shall make the data from the Air Quality Measurement Programme available to the Council the Airport Consultative Committee and members of the general public through the Annual Performance Report and at each meeting of the Airport Consultative Committee by reporting on such data for the most recent quarter of the year preceding such meeting for which there is data available."	5.1 Data from Air Quality Measurement Programme, paras 5.1.1-5.1.2

Planning Agreement Reference/ Comments from LBN	Planning Agreement Requirement	Location of Information within 2015 APR, para ref.
LBN comments received 5 May 2011	Include a statement confirming whether monitored levels are in line with government standards.	
3rd Schedule / Part 3 / 1(d) (iii) - Page 31	"Through the Annual Performance Report insofar as this shall include a summary of the results available from any Deposits Study in the preceding calendar year and the number and nature of such complaints in the preceding calendar year." [3rd Schedule / Part 3 / 1(d) (iii), Page 31]	5.2 Results from any Deposits Study in the Preceding Calendar Year, paras 5.2.1-5.2.3
3rd Schedule / Part 3 / 2(a) - Page 31	"The Airport Companies shall submit for the written approval of the Council the Air Quality Action Plan within 12 months of the date of this Deed"	5.3 Air Quality Action Plan, para 5.3.1 and Table 5.1
Section 6 Sustainabili	ty and Biodiversity Strategies	
3rd Schedule / Part 6 / 4 - Page 34	"During the operation of the approved Airport Sustainability Action Plan, the Airport Companies shall report to the Council annually on 1 July as part of the Annual Performance Report on the performance of the Airport Companies during the previous calendar year against the targets in the Airport Sustainability Action Plan."	6.1 Airport Sustainability Strategy and Airport Biodiversity Strategy, paras 6.1.1-6.1.3 and Table 6.1
3rd Schedule / Part 6 / 8 - Page 34	"Report to the Council every two years on 1 July (on those occasions, as part of the Annual Performance Report for that year) on the performance of the Airport Companies against the objectives and measures specified in the Airport Biodiversity Strategy in the preceding two calendar years, the first such report to be made on 1 July following the second anniversary of the receipt of written approval from the Council pursuant to paragraphs 5 and 6 of this Part; and"	6.2 Airport Biodiversity Strategy, paras 6.2.1-6.2.2 and Table 6.2
3rd Schedule / Part 6 / 8 - Page 34	"Every five years on 1 July (on those occasions, as part of the Annual Performance Report for that year) submit to the Council a review of the performance of the Airport Biodiversity Strategy and the first such review shall be submitted on 1 July following the fifth anniversary of the receipt of written approval from the Council pursuant to paragraphs 5 and 6 of this Part; and"	
Section 7 Education, I	Employment and Training	
6th Schedule / Part 2 / 1(a) – Page 55	<ul> <li>"Use reasonable endeavours to ensure that <ul> <li>(i) at least 70% of the full time equivalent jobs at the Airport are filled by residents of the Local Area including at least 35% filled by residents of the London Borough of Newham;</li> <li>(ii) at least 70% of direct employees of LCA are resident in Local Area;</li> <li>(iii) at least 35% of direct employees of LCA are resident in the London Borough of Newham.</li> <li>(iv) Where LCA initiates recruitment simultaneously for more than 1 job vacancy to advertise through local employment agency (e.g. Reed, Docklands Office), to notify vacancies to relevant Recruitment Centre and to advertise such vacancies on the Airport Website."</li> </ul> </li> <li>"To provide the Council and the Airport Consultative Committee with an annual return on 1 July each year with details of the percentage of people living in the Local Area who are employed on the site including the percentage of residents of the London Borough of Newham." [6th Schedule / Part 2 / 1(f) – Page 55]</li> </ul>	7.2 Employment Statistics Reporting, para 7.2.1-7.2.8

Planning Agreement Reference/ Comments from LBN	Planning Agreement Requirement	Location of Information within 2015 APR, para ref.
6th Schedule / Part 2 / 1(b) – Page 55	<ul> <li>"To use reasonable endeavours to encourage employers at the Site to fill their job vacancies with residents of the London Borough of Newham and in so doing: <ul> <li>(i) within six months of the date of this Deed establish a forum for all employers at the Airport which have at least 20 individual members of staff based at the Airport and to hold meetings of that forum at least twice in each calendar year;</li> <li>(ii) so far as practicable ensure all employers at the Airport which have at least 20 individual members of staff recruit locally as far as possible an advertise job vacancies through the Airport Website and the relevant Recruitment Centre."</li> </ul> </li> </ul>	7.3 Employers' Forum, para 7.3.1
6th Schedule / Part 2 / 1(c) – Page 55	"To continue to provide a list of the existing employers at the Site to the Council annually on 1 July each year in order to enable the Council to encourage such employers to fill their job vacancies with residents of the London Borough of Newham."	7.2 Employment Statistics Reporting, para 7.2.4
6th Schedule / Part 2 / 1(d) – Page 55	"To continue to provide the Council annually with details in writing of the policy adopted by LCA to fill any airport job vacancy and LCA shall consult the council about such policy on not fewer than one occasion each year in conjunction with the submission of the annual return pursuant to paragraph 1)f) of this Part"	7.6 Airport Job Policy, para 7.6.1
6th Schedule / Part 2 / "1(e) – Page 55	"To provide the Council with details of programmes initiated by LCA for the training of their own employees as part of the annual return pursuant to paragraph 1(f)."	7.7 Training Programmes, para 7.7.1-7.7.2
6th Schedule / Part 2 / 1(f) – Page 55	"To provide the Council and the Airport Consultative Committee with an annual return on 1 July each year with details of the percentage of people living in the Local Area who are employed on the Site including the percentage of residents of the London Borough of Newham;"	7.2 Employment Statistics Reporting, para 7.2.1-7.2.8
6th Schedule / Part 2 / 1(g) – Page 56	"To use reasonable endeavours to participate in and encourage staff of LCA, other employers at the Airport and their staff to participate in local community projects and initiatives." [6th Schedule / Part 2 / 1(g) – Page 56]	7.4 Staff Participation, para 7.4.1-7.4.3
6th Schedule / Part 2 / 1(h) – Page 56	"Within 12 months of the date of this Deed to implement a work experience programme at the Airport which shall have the objective of providing one week work experience for a minimum of 40 residents of the London borough of Newham and a minimum total of eight residents of the London Boroughs of Bexley, Barking & Dagenham, Greenwich and Tower Hamlets and further"	7.10 Work Experience, para 7.11.14-7.11.16
Section 8 Surface Acc	ess	
LBN letter dated 26 February 2010	Although there is a separate requirement to under the Travel Plan requirements, it may also be useful to include this with the annual submission on the 1st July 2010. This would ensure all the compliance reports are submitted together.	<ul><li>8.1 Surface Access Performance;</li><li>8.2 Surface Access Strategy and</li><li>8.3 2013 Travel Plan Progress</li></ul>

Planning Agreement Reference/ Comments from LBN	Planning Agreement Requirement	Location of Information within 2015 APR, para ref.
Section 9 Environmen	tal Complaints	
3rd Schedule / Part 7 / 2 (c) - Page 35	"The Airport Companies shall submit a report of any such complaint and any such action: (c) in summary as part of the Annual Performance Report in relation to such complaints and actions in the preceding calendar year."	9.1 Report of any Compliant or Action in Summary in Preceding Calendar Year, paras 9.1.1-9.1.9 Section 11 Other Matters
Section 11 Other Matt	ers	
Clause 8.12 (b) and (c) – Page 21	<ul> <li>"8.12 In the event of any claim being made for judicial review of the Planning Permission to Part 54 Civil Procedures Rules, the following provisions shall have effect:</li> <li>(b) where any investigation study report scheme or strategy is required to be undertaken submitted approved implemented or operated under this Deed: <ul> <li>(i) any time period within which it is required to be undertaken submitted approved implemented or operated (as the case may be) shall be suspended from the date of the claim for judicial review and the unexpired part of such period shall not resume until the date on which the claim has been finally determined Provided That if the unexpired period is less than six months that period shall when it resumes be extended to six months; and</li> <li>(ii) any due date by which it is required to have been undertaken submitted approved implemented or operated (as the case may be) shall be postponed until six months after the date on which the claim has been finally determined."</li> </ul> </li> <li>"(c) if the Annual Performance Report is required under this Deed to be published during the currency of the claim for judicial review or within six months of the claim being finally determined the content of the Annual Performance Report shall be agreed between the Airport Companies and the Council having regard to the provisions of this clause 8.12;"</li> </ul>	N/A for 2015 APR since the JR claim was finally in June 2011 with the airport's 2009 planning permission being upheld.
7th Schedule / Part 1 / 1 - Page 60	"Within 18 months of the date of this Deed the Airport Companies shall undertake and submit to the Council for its approval the Wake Turbulence Study and in any event the Airport Companies shall begin investigation into the extent and frequency (if any) of damage by Wake Turbulence associated with aircraft landing and taking off at the Airport within six months of the date of this Deed."	11.1 Wake Turbulence Study, para 11.1.1-11.1.2
LBN comments received 5 May 2011	Include details of the submission of the Value Compensation Scheme.	11.2 Value Compensation Scheme, para 11.2.1

# **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# APPENDIX 3 DAILY MOVEMENT LIMITS, TIMES OF FLIGHTS AND MAINTENANCE – RELEVANT PLANNING CONDITIONS

01 July 2016

London City Airport City Aviation House Royal Docks London E16 2PB Tel: 020 7646 0000 LondonCityAirport.com



### Extract of relevant planning conditions attached to planning permission 07/01510/VAR for daily movement limits and restricting times of flights and maintenance:

#### (5)

The ground running of aeroplane engines for testing or maintenance purposes shall take place only between the hours of 0630 and 2200 hours from Monday to Friday inclusive and between the hours of 0630 and 1230 hours on Saturdays, 1230 and 2200 hours on Sundays and 0900 and 2200 hours on Bank Holidays and public Holidays (but not at all on Christmas Day) and;

- In such locations and with such orientations of the aircraft as may be agreed in writing with the local planning authority and
- ii) Employing such noise protection measures as may be agreed in writing with the local planning authority.

#### Reason

In the interests of protecting amenity from noise impacts at sensitive parts of the day, in accordance with Policies 4A.20 (Reducing Noise and Enhancing Soundscapes) of the London Plan (Consolidated February 2008) and EQ45 (Pollution) and T29 (London City Airport) of the Unitary Development Plan (adopted June 2001, saved from the 27th of September 2007 in accordance with the direction from the Secretary of State).

#### (6a)

The Airport shall not be used for the taking off or landing or aircraft at any time other than between 0630 and 2200 hours from Monday to Friday inclusive and between 0900 and 2200 hours on Bank Holidays and Public Holidays except:

- a) In the event of an emergency
- b) For the taking off or landing between 2200 and 2230 hours of an aircraft which was scheduled to take off from or land at the Airport before 2200 hours but which has suffered unavoidable operational delays and where that taking off or landing would not result in there being more than 400 aircraft movements at the Airport per calendar year between 2200 and 2330 hours or more than 150 such movements in any consecutive three months.

#### (6b)

The Airport shall not be used for the taking off or landing of aircraft on Saturdays at any time other than between 0630 and 1230 hours except:

- i) In the event of an emergency
- ii) For the taking off or landing between 1230 and 1300 hours on Saturdays of an aircraft that was scheduled to take off or land before 1230 hours but has suffered unavoidable operational delays and where that taking off or landing would not result in there being more than 400 aircraft movements at the airport per calendar year between 1230 and 1300 hours or more than 150 such movements in any consecutive three months.

iii) The taking off or landing or aircraft between 1230 hours and 1800 hours on one Saturday per calendar year for the Airport's charity open day.

#### (6c)

The Airport shall not be used for the taking off or landing of aircraft on Sundays at any time other than between 1230 and 2200 hours except:

- a) In the event of an emergency
- b) For the taking off or landing between 2200 and 2230 hours of an aircraft which was scheduled to take off from or land at the Airport before 2200 hours but which has suffered unavoidable operational early, and where that taking off or landing would not result in there being more than 400 aircraft movements at the Airport per calendar year between 2200 and 2330 hours or more than 150 such movements in any consecutive three months.

### (6d)

For the purposes of sub-paragraph (b) of each condition (6a), (6b), and (6c) the figures of 400 aircraft movements and 150 aircraft movements shall in each case include all aircraft movements by aircraft which have suffered operational delays between the hours specified in each sub-paragraph on Mondays to Fridays, on Saturdays, on Sundays and on Bank and Public Holidays and the expression 'aircraft movements' shall mean the take-off or landing of an aircraft at the Airport, other than those engaged in training or aircraft testing.

#### Reason

In the interests of protecting environmental amenity from noise impacts at sensitive parts of the day and week, in accordance with Policies 4A.20 (Reducing Noise an enhancing Soundscape) of the London Plan (Consolidated February 2008) and EQ45 (Pollution) and T29 (London City Airport) of the Unitary Development Plan (adopted June 2001, saved from the 27th of September 2007 in accordance with the direction from the Secretary of State).

### (8)

(1) The number of aircraft movements at the Airport shall not exceed:

- a) 100 per day on Saturdays and 200 per day on Sundays but not exceeding 280 on any consecutive Saturday and Sunday
- b) 592 per day on weekdays except 1 January, Good Friday, Easter Monday, the May Day holiday, the late May bank holiday, the late August bank holiday, 25 December and 26 December
- c) 132 on 1 January
- d) 164 on Good Friday
- e) 198 on Easter Monday
- f) 248 on the May Day Holiday
- g) 230 on the late May Bank Holiday
- h) 230 on the late August Bank Holiday

- i) 100 on 26 December
- j) 120,000 per calendar year

(2) In the event of there being a bank Holiday or Public Holiday in England which falls upon or proclaimed or declared upon a date or dates not referred to in sub-paragraph (c) to (i) (inclusive) of condition 8(1) then the number of aircraft movements permissible on that date shall not exceed 330 unless the local planning authority agrees in writing but in any event the limit for any particular dates shall not exceed 396 per day.

(3) For the purposes of conditions 8(1), 8(2), and 8(4) the expression 'aircraft movements' shall mean the take-off or landing of an aircraft at the Airport, other than those engaged in training or aircraft testing.

(4) The number of factored movements shall not exceed:

- a) In any one week the number of permitted aircraft movements for that week by more than 25%
- b) 120,000 per calendar year.

(5) For the purpose of condition 8(4) the number of factored movements shall be calculated by multiplying the number of takeoffs and landings by each aircraft by the relevant noise factor for an aircraft of this type under condition 7 and adding together the totals for each aircraft type using the Airport.

(6) If agreed expressly by the local planning authority in writing, the references to factored movements in this condition will be superseded by any relevant new methodology, noise categories, noise reference levels, noise factors and procedures for categorisation agreed with the local planning authority, following completion of the Aircraft Categorisation Review as required by the Section 106 Agreement that accompanies this permission.

#### (9)

Between 0630 and 0659 hours on Mondays to Saturdays (excluding Bank Holidays and Public Holidays when the airport will be closed between these times) the number of aircraft movements shall not exceed 6 on any day.

#### Reason

In the interests of protecting environmental amenity from noise impacts at a sensitive part of the day, in accordance with Policies 4A.20 (Reducing Noise an enhancing Soundscape) of the London Plan (Consolidated February 2008) and EQ45 (Pollution) and T29 (London City Airport) of the Unitary Development Plan (adopted June 2001, saved from the 27th of September 2007 in accordance with the direction from the Secretary of State).

#### (10)

Notwithstanding the restriction on aircraft movements between 0630 and 0659 hours, as set out by Condition 9, the total movements in the period between 0630 and 0645 on Mondays to Saturdays (excluding Bank Holidays and Public Holidays when the airport will be closed between these times), shall not exceed 2 on any day.

#### Reason

In the interests of protecting environmental amenity from noise impacts at a sensitive part of the day, in accordance with Policies 4A.20 (Reducing Noise an enhancing Soundscape) of the London Plan (Consolidated February 2008) and EQ45 (Pollution) and T29 (London City Airport) of the Unitary Development Plan (adopted June 2001, saved from the 27th of September 2007 in accordance with the direction from the Secretary of State).
# APPENDIX 4 NOISE CONTOURS

01 July 2016





#### LEGEND:

Noise Contours

#### REVISIONS

#### Bickerdike Allen Partners Architecture Acoustics Technology

121 Salusbury Road, London, NW6 6RG Email: mail@bickerdikeallen.com T: 0207 www.bickerdikeallen.com F: 0207

T: 0207 625 4411 F: 0207 625 0250

London City Airport

Actual Noise Contours Summer 2015 (57, 66 and 69 dB LAeq,16h) Average Mode

DRAWN: NW	CHECKED: PH
DATE: 27/04/2016	SCALE: 1:35000@A4

FIGURE No:



LEGEND:

Noise Contours

REVIS	IONS		

#### Bickerdike Allen Partners Architecture Acoustics Technology

121 Salusbury Road, London, NW6 6RG Email: mail@bickerdikeallen.com www.bickerdikeallen.com

T: 0207 625 4411 F: 0207 625 0250

London City Airport

Predicted Reduced Noise Contours Summer 2016 (57 and 66 dB LAeq,16h) Average Mode

DRAWN: NW	CHECKED: PH
DATE: 09/06/2016	SCALE: 1:35000@A4

FIGURE No:



LEGEND:

Noise Contours

#### REVISIONS

#### Bickerdike Allen Partners Architecture Acoustics Technology

121 Salusbury Road, London, NW6 6RG Email: mail@bickerdikeallen.com T: 0207 www.bickerdikeallen.com F: 0207

T: 0207 625 4411 F: 0207 625 0250

London City Airport

Predicted Noise Contours Summer 2016 (57 and 66 dB LAeq,16h) Average Mode

DRAWN: NW	CHECKED: PH
DATE: 09/06/2016	SCALE: 1:35000@A4

FIGURE No:



LEGEND:

Noise Contours

RF	VISIONS		

#### Bickerdike Allen Partners Architecture Acoustics Technology

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T: 0207 625 4411 F: 0207 625 0250

London City Airport

#### LAeq,16h Noise Contours '1998 Planning Contours'

RAWN: NW	CHECKED: PH
ATE: 09/06/2016	SCALE: 1:35000@A4

FIGURE No:

# APPENDIX 5 DRAFT NOISE INSULATION PAYMENT SCHEME

01 July 2016



Proposals to allow certain developments under construction to benefit early from the noise insulation schemes operated by London City Airport

#### Introduction

We are holding this consultation to seek your views on a scheme which we are required to put into place to allow certain developments when they are under construction to benefit early from the Airport's noise insulation schemes. This scheme is known as the Noise Insulation Payments Scheme ("NIPS"). A number of defined terms from the Section 106 Agreement relating to noise are used in this consultation. Please refer to the Glossary and Appendices at the end.

#### Background

Planning permission ("the Planning Permission") was granted on 9 July 2009 (reference 07/01510/VAR) by the London Borough of Newham ("the Council") for variation of conditions attached to previous planning permissions for the Airport to allow up to 120,000 total aircraft movements per year (with related modifications to other limits on aircraft movements).

The Planning Permission was subject to an agreement under Section 106 of the Town and Country Planning Act 1990 dated 9 July 2009 ("Section 106 Agreement"). Under the Section 106 Agreement the Airport is required to prepare and consult on the NIPS.

The aim of the NIPS is to compensate landowners and developers for actual construction costs arising from the need for increased insulation against aircraft noise at certain proposed developments consisting of residential premises and public buildings situated on land:

- within the Full Use 57 dB Contour but outside the 1998 57dB Contour; or
- within the Full Use 66 dB Contour.

### **The Noise Insulation Payment Scheme**

#### **Eligible Persons**

A person is eligible to receive a payment under the NIPS if at the date of application under the NIPS and the date of payment by the Airport under the NIPS that person:

- 1 is:
  - the owner of the freehold interest in Eligible Land; or
  - the owner of a leasehold interest in Eligible Land; or
  - the developer under a building agreement or agreement for lease relating to Eligible Land; and
- 2 will incur the increased costs of noise insulation identified below during the construction of an "Eligible Development" on "Eligible Land".

#### **Eligible Land**

Eligible Land is land which at the time of implementation of an Eligible Development on that land is either within the Full Use 57 dB Contour but outside the 1998 57dB Contour or within the Full Use 66 dB Contour.

#### **Eligible Development**

A development is an Eligible Development if:

- 1 the development comprises or includes residential dwellings and/or Public Buildings (the "relevant buildings");
- 2 planning permission was granted for the development before 9 July 2009; and
- 3 construction of relevant buildings forming part of the development has not been commenced at the time that an Eligible Person applies for assistance under the NIPS but the relevant buildings remain capable of construction pursuant to the relevant planning permission both at the time of the application and the time of payment by the Airport under the NIPS.

If the relevant planning permission is varied or modified after 8 July 2009 in a manner which results in planning permission for substantially the same development in all material respects this will not affect the eligibility of the development.

Similarly, eligibility of the development will not be affected if after 8 July 2009:

- the relevant planning permission is extended only by virtue of the substitution of a new time limit for commencement of development (without development having begun under the relevant planning permission) or
- development has begun (but construction of any buildings has not commenced on the Eligible Land) under the relevant planning permission and due to the proximity of the expiry date for submission of reserved matters for approval, a new planning permission is granted for substantially the same development in all material respects.

#### **Benefits of the NIPS**

The Airport will pay to Eligible Persons the costs attributable to the additional noise insulation measures at residential dwellings or Public Buildings forming part of the Eligible Development on Eligible Land, which arise from the need for increased insulation against aircraft noise as a consequence of the permitted increase in aircraft movements. This payment will be calculated as set out below.

Payment under the NIPS will not be made more than once in respect of the same Eligible Development. In addition, payment agreed in respect of an Eligible Development will only be made to a person who is an Eligible Person at the time of payment.

#### **Calculation of Payment under the NIPS**

The payment shall be calculated by reference to the estimated

capital cost (as at the date of the application by the Eligible Person) of providing increased noise insulation (over and above any noise insulation standards required by Building Control, conditions attached to the relevant planning permission or any relevant planning obligation) at residential dwellings and Public Buildings proposed on Eligible Land within an Eligible Development in order to achieve:

- the standard of the First Tier Works or, as the case may be, Public Buildings First Tier Works (if the Eligible Land is within the Full Use 57 dB Contour) or
- the Second Tier Works or, as the case may be Public Buildings Second Tier Works (if the Eligible Land is within the Full Use 66 dB Contour).

The amount of the payment will be dependent upon the number of residential dwellings and Public Buildings on Eligible Land and forming part of an Eligible Development which are affected. The relevant noise insulation costs will be estimated by the Airport's noise consultants but agreed between the Airport and Eligible Persons wherever possible; in the absence of agreement the costs (including the extent of the increased noise insulation required and its specification), will be determined in accordance with the dispute resolution process described below.

#### Timing of payment under the NIPS

Timing of payment will be agreed wherever possible by reference to the proposed construction programme or phasing of the Eligible Development. However, under the NIPS, payment must be linked with both the progress of the Eligible Development and the installation of the necessary noise mitigation measures. [As a guide this could mean, for example, payment being made in four equal instalments as follows:

- Instalment 1 upon satisfactory practical completion of 10% of the aggregate floorspace.
- Instalment 2 upon satisfactory practical completion of 40% of the aggregate floorspace.
- Instalment 3 upon satisfactory practical completion of 70% of the aggregate floorspace.
- Instalment 4 upon satisfactory practical completion of 100% of the aggregate floorspace and the provision of evidence of the sound insulation standard that has been achieved in the Eligible Development.]

In this context the reference to aggregate floorspace means the total aggregate gross [external] floorspace of the residential dwellings and public buildings forming part of the Eligible Development. Satisfactory practical completion means the point in time where the architect for the Eligible Development certifies practical completion of the relevant floorspace and the noise insulation measures for the relevant floorspace have been installed.

Any dispute regarding timing of payments would be determined in accordance with the dispute resolution process (below). However, the principle of payment by instalments linked to progress in construction and installation of noise mitigation measures cannot be questioned.

#### **Procedure under the NIPS**

An application under the NIPS must be made by the delivery to the Legal Affairs Manager of London City Airport Limited at City Aviation House, Royal Docks, London E16 9PX of a written request for assistance under the NIPS, which is accompanied by the following minimum information:

- Name of the applicant
- Nature of the interest held by the applicant
- Address of the site in which the interest is held
- A plan showing the extent of the interest in the relevant site
- A copy of the planning permission and any related S106 agreement for the Eligible Development, together with copies of all drawings approved by the local planning authority and any environmental statement or noise impact assessment or sound insulation assessment, which formed part of the relevant planning application.
- A copy of any sound insulation scheme or design detail which has been developed as a consequence of the planning permission or any related S106 agreement in order to mitigate environmental noise.
- Confirmation of the stage which the Eligible Development has reached, together with any draft or adopted construction programme for the Eligible Development.
- Any plans passed for the purposes of Building Control which show the insulating properties of the proposed building(s).

On receipt of the application the Airport will use reasonable endeavours to adhere to the following procedures and timescales:

- Within three months of receipt of the application the Airport will notify the applicant whether or not the Airport considers that the applicant is an Eligible Person under the NIPS and if so whether there is any further information that the Airport reasonably requires.
- If there is a dispute regarding eligibility this will be resolved in accordance with the dispute resolution process indicated below and the determination of eligibility through that dispute resolution process will prevail.
- If the applicant is an Eligible Person, the Airport and the Airport's noise consultants will meet with the applicant and its consultants within three months of either notification by the Airport that the applicant is an Eligible Person or receipt from the applicant of any further information reasonably requested at the time of notification (whichever is later). The purpose of that meeting will be to discuss and understand the Eligible Development, its design and specification and the timing of its construction.
- Within three months of the meeting between the applicant and the Airport, the Airport and its noise consultants will review the application and all supporting information and will notify the applicant in writing of the amount of the payment that the Airport proposes to make under the NIPS and how it is calculated, together with proposals for the timing of the instalments.

- Within three months of the Airport's notification of payment, the Airport and its noise consultants will meet with the applicant and its consultants in order to discuss the amount of payment, agree the amount to be paid and agree on the timing of the instalments of the payment. Disputes are to be dealt with in accordance with process outlined below.
- Within three months of agreement or determination concerning the aggregate payment and the timing of the instalments under the NIPS in respect of an Eligible Development the Airport will make a final written offer based on the agreed or determined payment and the instalments (including the trigger events for the instalments) and subject also to the following conditions:
  - The offer will be open for acceptance until the expiry of three months following the date of its receipt by the applicant; and
  - (ii) Any payments or instalments specified in the offer will only be made to a person who at the time of the payment or instalment is an Eligible Person (in respect of the Eligible Development which is the subject of the offer); and
  - (iii) The Applicant must account for use of the payments including the provision of as-built drawings showing the required standard of noise insulation measures.

#### **Publicity**

Once the NIPS has been approved by the London Borough of Newham, it will become operational within three months. Within that three month period, the Airport will notify potentially Eligible Persons insofar as it is able to identify them through Land Registry searches. Otherwise, the existence of the NIPS (once adopted) will be publicised by its inclusion in the Annual Performance Report which the Airport is obliged to publish each year under the Section 106 Agreement.

#### Scheme Close

Applications may not be made and will not be accepted by the Airport after [8 July 2019].

Determ ina tion of disputes

In the event of a dispute under the NIPS the matter in dispute will on the application of either the Airport or the applicant be referred to a person acting as expert (the "Expert") being a person with not less than 10 years' recent and relevant experience of the matter in dispute whose identity will be agreed between the Airport and the claimant or in the absence of agreement appointed by or on behalf of the [President for the time being of the Royal Institution of Chartered Surveyors on the application of either party.

The resolution of the dispute will be on the following terms:

- (b) the determination will be final and binding on the parties except where the Expert has made a manifest error;
- (c) the parties will be entitled to make representations and counter-representations in accordance with such timetable as the Expert directs; and
- (d) the Expert's costs will be borne in such proportions as he or

she may direct failing which each party will bear its own costs of the reference and determination and one half each of the Expert's costs

## GLOSSARY

#### 1998 57 dB Contour

The 57 dB Contour included as part of the application for the 1998 Permission shown on the plan attached to this document marked "Plan 1" and based on full use of the 1998 Permission

#### **1998 Permission**

The planning permission granted on 21 July 1998 under reference  $\mathsf{P}/\mathsf{97}/\mathsf{0826}$ 

#### 57 dB Contour

The 57 dB LAeq, 16h Average Mode summer day contour

#### 66 dB Contour

The 66 dB LAeq, 16h Average Mode summer day contour

#### **Annual Performance Report**

An annual report to be submitted to the Council by 1 July in each calendar year which will (to the extent required) report on the compliance with the terms of the Section 106 Agreement in the preceding calendar year

#### **Elevation Treatment Plan**

The plan attached to this document marked "Plan 3"

#### Full Use 57 dB Contour

The 57 dB Contour included with the application for the Planning Permission which is based on the full use of the Planning Permission and is shown on the plan attached to this document marked ("Plan 2")

#### Full Use 66 dB Contour

The 66 dB Contour included with the application for the Planning Permission which is based on full use of the Planning Permission shown on the plan attached to this document marked ("Plan 2")

#### **Full Use Contours**

The Full Use 57 dB Contour and the Full Use 66 dB Contour

#### **Habitable Room**

- (a) a living room;
- (b) a bedroom (but not including a bathroom or en-suite);
- (c) a dining room; and
- (d) if the living room in the relevant premises is less than 14 square metres a kitchen in excess of 7 square metres or if the living room in the relevant premises is 14 square metres or more a kitchen in excess of 11 square metres
- but in any case not including a corridor

#### **Public Buildings**

The following types of public buildings in noise sensitive community use and any other types of public building as agreed between the Airport and the Council: schools (including but not limited to Britannia Village School) colleges doctors' surgeries health centres hospitals nursing homes (including old people's homes) community centres (but not those used only as social clubs) meeting halls village halls churches and other places of religious worship libraries children's and other day centres crèches and nurseries and including any parts of buildings authorised and used for such purposes

#### **First Tier Works**

The noise insulation works described in Appendix 1 to this document which set out the nature of the relevant works normally undertaken by the Airport to certain existing dwellings under the Section 106 Agreement

#### **Public Buildings First Tier Works**

The noise insulation works described in Appendix 2 to this document which set out the nature of the relevant works normally undertaken by the Airport to certain existing Public Buildings under the Section 106 Agreement

#### **Second Tier Works**

the noise insulation works described in Appendix 3 to this document which set out the nature of the relevant works normally undertaken by the Airport to certain existing dwellings under the Section 106 Agreement

#### **Public Buildings Second Tier Works**

the noise insulation works described in Appendix 4 to this document which set out the nature of the relevant works normally undertaken by the Airport to certain existing Public Buildings under the Section 106 Agreement

## **Appendices**

#### Appendix 1 – First Tier Works

First Tier Works mean:

#### **1 Scope of Works**

Subject to the remainder of this Appendix:

- (a) for single-glazed properties, secondary glazing and soundattenuating vents;
- (b) for double-glazed properties, sound-attenuating vents only.

#### 2 Elevations to be treated

Windows and external doors to Habitable Rooms on the following elevations:

- (a) for premises in zones A and C identified on the Elevation Treatment Plan all elevations;
- (b) for premises in zone B identified on the Elevation Treatment Plan only the south east and west facing elevations;
- (c) for premises in zone D identified on the Elevation Treatment Plan only the north east and west facing elevations.

#### **3 Rooms to be treated**

Habitable Rooms.

#### **4 Acoustic standard**

The installation shall produce an average sound reduction not less than 25 dB averaged over 100 to 3150 Hz in accordance with the procedure of British Standard Publication BS EN ISP 140: Part 5.

#### **5 Glazing specification**

- 5.1 An initial survey of the windows to be treated shall be undertaken followed by a schedule of existing defects which is to be agreed by the Airport the Council and the occupiers of the properties. The Airport and the Council shall agree which defects must be remedied to ensure that the noise insulation meets the required acoustic standard and/or so that it can be satisfactorily fixed, and shall also agree how the costs of any such remedial work shall be apportioned.
- 5.2 The Airport shall carry out the works required under paragraph 1(a) of this Part unless the defects referred to in paragraph 5.1 of this Part are so considerable that the Airport are unable to carry out the works effectively in which case they will notify the owner/occupier of the relevant property as well as the Council with a view to the defects being remedied by the owner/occupier following which the works required under paragraph 1(a) of this Part will be undertaken.
- 5.3 The type of secondary glazing units fitted shall relate to the form of the primary windows. The design of secondary units shall be such as to facilitate cleaning of both surfaces of the primary windows from within the treated room.

Secondary units shall be either a side-hung casement type, or horizontally or vertically sliding units. Quotations shall be accompanied by full details of the systems offered.

- 5.4 The secondary system shall generally comprise 4mm float glass within white polyester powder- coated aluminium frames. 6mm float glass and toughened glass shall be used where required by B.S. 6206 for safety reasons. Anodic oxidation shall comply with British Standard 1615.
- 5.5 The minimum air gap between primary and secondary panes is to be 100mm, where this can be accommodated within existing reveals.
  - (a) Where the reveal depth is insufficient to achieve an air gap of 100mm, secondary glazing shall be fitted flush with the inner face of existing walls subject to a minimum of 50mm being achieved.
  - (b) Where a minimum air gap of 50mm cannot be achieved within existing reveals and with the secondary glazing fitted flush with the inner face of existing walls boxing out of the reveals will be necessary. In these cases the reveals shall be boxed out to achieve a minimum reveal depth of 67mm.
  - (c) In all cases where a minimum gap of 100mm cannot be achieved the glass thickness of the secondary pane shall be increased to 6mm.
  - (d) The top and side reveals between primary and secondary windows are to be lined with an approved sound absorbent material treated with a suitable fungicide.
- 5.6 The secondary glazing system is to be mounted on a timber frame with white gloss painted finish. Any gaps between sub-frame and reveal shall be sealed with an approved resilient sealant.
- 5.7 Where it is necessary to remove and refix existing curtain tracks, pelmets etc., this is to be undertaken by the secondary glazing installer.

#### 6 Doors

External doors to habitable rooms will be fitted with weatherstrip seals (approved by the Council) to the thresholds, jambs and heads. Opening fanlights over doors shall be sealed and fixed in a closed position. Glazed doors and fanlights shall not be fitted with secondary glazing where the sealing measures meet the performance required in paragraph 4.

#### 7 Ventilation

- 7.1 Existing air bricks within Habitable Rooms shall be replaced by permanent sound-attenuating passive vents.
- 7.2 In addition to the replacement of existing air bricks by permanent sound attenuating vents, either two permanent sound attenuating vents or one combined mechanical and permanent sound- attenuating vent shall be provided in each room. All vents shall be in accordance with the standards given in the Noise Insulation Regulations. Mechanical vents shall be wired to the domestic supply in compliance with current IEE Regulations. Suitable ducting shall be provided from room to outside air, complete with an external grille.

#### 8 Building and gas regulations

- 8.1 The secondary glazing installer shall be responsible for ensuring that the property meets the ventilation requirements of the current Building and Gas Regulations on completion of sound insulation works. All additional ventilation shall be sound attenuated as provided in paragraph 7.2.
- 8.2 Any requirements for additional ventilation in the future arising from amendments to the building, to its gas appliance or the Regulations, shall be the responsibility of the building owner.

#### 9 Blinds

Free hanging venetian blinds, or similar, are to be supplied and fitted between primary and secondary windows to eligible rooms and elevations. Blinds are to be white, with tilt mechanism. In no case shall it be required that blinds be fitted where following the agreement of the owners of the property it is decided that such installation would be impracticable.

### Appendix 2 – Public Buildings First Tier Works

- 1 The Airport shall firstly carry out a survey of the Public Buildings and shall produce a survey report including information on the existing and future aircraft noise levels, acoustic performance of the existing building envelope, information on legislation and planning conditions relevant to the sound insulation of the building envelope, and any significant defects relating to the sound insulation performance of the building envelope to be agreed by the Airport the Council and the managing companies of the properties.
- 2 The Airport and the Council shall agree what works must be reasonably carried out if any having regard to guidance on internal noise levels in BS 8233:1999 "Sound insulation and noise reduction for Buildings – Code of Practice" or Building Bulletin 93 "Acoustic Design of Schools" or other such guidelines for internal noise levels as may be relevant or issued from time to time modifying extending or replacing those Guidelines. Works will be designed so as to ensure that existing arrangements for ventilation are either maintained or improved in a manner that is reasonably consistent with its designed use.
- 3 The Airport shall carry out the works required under paragraph 2 of this Appendix unless the defects referred to in paragraph 1 of this Appendix are so considerable that the Airport is unable to carry out the works effectively in which case they will notify the owner/occupier of the relevant property as well as the Council with a view to the defects being remedied by the owner/occupier following which the works required under paragraph 2 of this Appendix will be undertaken.
- 4 The Airport and the Council shall agree which defects, where applicable, must be remedied to ensure that the Public Buildings First Tier Works meet the acoustic design standard

determined from the procedure described in paragraph 2 above and shall also agree how the costs of any such remedial work shall be apportioned.

## Appendix 3 – Second Tier Works

#### **1 Second Tier Works**

Second Tier Works means: the works described in this Appendix to improve further the standard of sound insulation specified in the First Tier Works and provision of any necessary acoustic ventilation as specified in the First Tier Works.

#### 2 Eligible rooms

Any Habitable Room is eligible.

#### **3 Elevations to be treated**

All elevations are eligible for Second Tier Works.

#### **4 Glazing specification**

- 4.1 The Second Tier Works contractor shall initially carry out a survey of the windows to be treated and shall produce a survey report including information on current window specification (secondary glazing/thermal double or single), opening type, and any significant defects to the primary and, if applicable, secondary glazing to be agreed by the Airport the Council and the occupiers of the properties. the Airport and the Council shall agree which defects must be remedied to ensure that the Second Tier Works noise insulation meets the required acoustic design standard and/or so that it can be satisfactorily fixed, and shall also agree how the costs of any such remedial work shall be apportioned.
- 4.2 Where reasonably practicable an offer of secondary glazing and sound attenuating ventilators or a contribution towards the cost of installing high acoustic performance double glazing and sound attenuating ventilators will be made for habitable rooms with existing thermal double or single glazing of a satisfactory standard PROVIDED THAT:
  - (a) The type of secondary glazing units fitted shall relate to the form of the primary windows. The design of secondary units shall be such as to facilitate cleaning of both surfaces of the primary windows from within the treated room. Secondary units shall be either a sidehung casement type, or horizontally or vertically sliding units. Quotations shall be accompanied by full details of the systems offered.
  - (b) The installation of the high acoustic performance double glazed windows and sound attenuating ventilators will be carried out by the Second Tier Works contractor.
  - (c) Any contribution payable by the Airport shall be equivalent to the cost of installing secondary glazing and sound attenuating ventilators.
- 4.3 Where it is not reasonably practicable to install secondary glazing over a primary thermal double glazed window within

a habitable room an offer of a contribution towards high acoustic performance replacement double glazed windows and sound attenuating ventilators will be made up to a limit of 25% above the cost of installing secondary glazing and sound attenuating ventilation.

- 4.4 Where a surveyed existing double glazed window within a habitable room is found to have defects as a result of reasonable use the residential building owner will be entitled to either:
  - (a) remedial works to the existing double-glazed window and the provision of a secondary system as described below and sound attenuating ventilators; or
  - (b) a contribution towards the cost of installing high acoustic performance double glazing and sound attenuating ventilators (payable on such installation) equivalent to the cost of the remedial works referred to in paragraph 4.4(a) above.
- 4.5 Where a surveyed secondary glazed window within a Habitable Room with a primary single-glazed window is found to be in satisfactory order an offer of sound attenuating vents will be made if not present and an offer to alter the existing secondary glazed window to achieve an equivalent mean sound reduction index (100 to 3150 Hz) to the secondary glazing specification described in 4.6 and 4.7 below as determined using BS EN ISO 140 Part 1 as set out in 4.7 below.
- 4.6 The secondary system shall generally comprise 4mm float glass within white polyester powder- coated aluminium frames. 6mm float glass and toughened glass shall be used where required by B.S. 6206 for safety reasons. Anodic oxidation shall comply with British Standard 1615.
- 4.7 The minimum air gap between primary and secondary panes is to be 100mm, where this can be accommodated within existing reveals PROVIDED THAT:
  - (a) Where the reveal depth is insufficient to achieve an air gap of 100mm, secondary glazing shall be fitted flush with the inner face of existing walls subject to a minimum of 75mm being achieved.
  - (b) Where a minimum air gap of 75mm cannot be achieved within existing reveals and with the secondary glazing fitted flush with the inner face of existing walls boxing out of the reveals will be necessary. In these cases the reveals shall be boxed out to achieve a minimum reveal depth of 75mm.
  - (c) In all cases where a minimum gap of 100mm cannot be achieved the glass thickness of the secondary pane shall be increased to 6mm.
  - (d) The top and side reveals between primary and secondary windows are to be lined with an approved sound absorbent material treated with a suitable fungicide.
- 4.8 The secondary glazing system is to be mounted on a timber frame with painted finish. Any gaps between sub-frame and reveal shall be sealed with an approved resilient sealant.
- 4.9 The high acoustic performance double glazed unit shall generally comprise 10mm glass /12mm cavity/6.8mm acoustic laminated glass within a UPVC or aluminium

frame. Toughened glass shall be used where required for safety reasons.

- 4.10 The high acoustic performance double glazed unit shall be designed to comply with relevant thermal efficiency requirements of the Building Regulations (Approved Document L).
- 4.11 Where it is necessary to remove and refix existing curtain tracks, pelmets etc., this is to be undertaken by the Second Tier Works contractor.

#### **5** Doors

- 5.1 External doors to Habitable Rooms will be fitted with high acoustic and weather specification seals (approved by the Council) to the thresholds, jambs and heads. Opening fanlights over doors shall be sealed and fixed in a closed position. Glazed doors and fanlights shall be evaluated on an individual case by case basis to ensure sufficient sound insulation provision is achieved.
- 5.2 Fully glazed or patio doors or French windows will be treated as windows for consideration of eligibility.

#### **6 Ventilation**

- 6.1 Second Tier Works will only be carried out with appropriate sound attenuating ventilators.
- 6.2 Existing air bricks within habitable rooms shall be replaced by permanent sound- attenuating vents.
- 6.3 In addition to the replacement of existing air bricks by permanent sound attenuating vents, either two permanent sound attenuating vents or one combined mechanical and permanent sound- attenuating vent shall be provided in each room. All vents shall be in accordance with the standards given in the Noise Insulation Regulations. Mechanical vents shall be wired to the domestic supply in compliance with current IEE Regulations. Suitable ducting shall be provided from room to outside air, complete with an external grille.

#### 7 Loft insulation

- 7.1 Where applicable an offer of installation of loft insulation will be made.
- 7.2 Where no loft insulation is present 250mm thick thermal grade mineral wool insulation will be laid in the loft.
- 7.3 Where existing loft insulation is found to be unsatisfactory further layers of insulation will be added to increase the total thickness of insulation to 250mm.

#### 8 Building, gas and electric regulations

- 8.1 The Second Tier Works installer shall be responsible for ensuring that the property meets the ventilation requirements of the current Building and Gas Regulations on completion of sound insulation works. All additional ventilation shall be sound attenuated as provided in paragraph 6 of this Part.
- 8.2 Any requirements for additional ventilation in the future arising from amendments to the building, to its gas

appliance or the Regulations, shall be the responsibility of the building owner or occupier, as the case may be.

#### 9 Blinds

Free hanging venetian blinds are to be supplied and fitted between primary and secondary windows to eligible rooms. Blinds are to be white, with tilt mechanism. In no case shall it be required that blinds be fitted where following the agreement of the owners of the property it is decided that such installation would be impracticable.

### Appendix 4 – Public Buildings Second Tier Works

- 1 The Airport shall firstly carry out a survey of the Public Buildings and shall produce a survey report including information on the existing and future aircraft noise levels, acoustic performance of the existing building envelope, information on legislation and planning conditions relevant to the sound insulation of the building envelope, and any significant defects relating to the sound insulation performance of the building envelope to be agreed by the Airport the Council and the managing companies of the properties.
- 2 The Airport and the Council shall agree what works must be reasonably carried out if any having regard to guidance on internal noise levels in BS 8233:1999 "Sound insulation and noise reduction for Buildings – Code of Practice" or Building Bulletin 93 "Acoustic Design of Schools" or other such guidelines for internal noise levels as may be relevant or issued from time to time modifying extending or replacing those Guidelines. Works will be designed so as to ensure that existing arrangements for ventilation are either maintained or improved in a manner that is reasonably consistent with its designed use.
- 3 The Airport shall carry out the works required under paragraph 2 of this Appendix unless the defects referred to in paragraph 1 of this Appendix are so considerable that the Airport is unable to carry out the works effectively in which case they will notify the manager of the relevant property as well as the Council with a view to the defects being remedied by the manager following which the works required under paragraph 2 of this Appendix will be undertaken.
- 4 The Airport and the Council shall agree which defects, where applicable, must be remedied to ensure that the Public Buildings Second Tier Works meets the acoustic design standard determined from the procedure described in paragraph 2 above and shall also agree how the costs of any such remedial work shall be apportioned.

# APPENDIX 6 PROPERTIES ELIGIBLE FOR REINSPECTION

01 July 2016



## **PROPERTIES ELIGIBLE FOR REINSPECTION**

House no	Road
2	Rawsthorne Close
4	Rawsthorne Close
6	Rawsthorne Close
7	Rawsthorne Close
9	Rawsthorne Close
11	Rawsthorne Close

# APPENDIX 7 FIRST TIER WORKS ELIGIBILITY

01 July 2016



### This appendix provides a list of residential premises and public buildings that are eligible for First Tier Works as described under Part 5 of the Ninth Schedule of the Section 106 Agreement dated 9 July 2009.

There are a total of 432 newly eligible residential premises. 243 are within the London Borough of Newham, 10 are within the Royal Borough of Greenwich and 209 are within the London Borough of Tower Hamlets.

Subject to the provisions of the Section 106 Agreement, the general scope of works for residential buildings will comprise:-

- for single glazed properties secondary glazing and sound attenuating vents
- for double glazed properties sound attenuating vents only

The works will relate to habitable rooms that have windows on elevations most affected by aircraft noise as described in the Section 106 agreement. The method of determining eligibility for First Tier Works is described below.

# S106 requirement, Fourth Schedule, Part 2, Para 1 states that,

"In the preparation of each Annual Performance Report the Airport Companies shall determine First Tier Works Eligibility and Public Buildings First Tier Works Eligibility by applying the Eligibility Methodology and shall publish in each Annual Performance Report the boundary within which premises having First Tier Works Eligibility and Public Buildings First Tier Works Eligibility are situated together with the 1998 57 dB contour, the Actual 57 dB contour, the Predicted 57 dB contour and the Predicted Reduced 57 dB contour."

This schedule of premises has been created using the following noise contours:

- Actual 2015 57 dB contour
- Predicted 2016 57 dB contour
- Predicted reduced 2016 57 dB contour

The full Eligibility Methodology for First Tier Works is defined in the Ninth Schedule, Part 4, Para 2.

The detailed procedures for informing, obtaining permission and for carrying out the works to those properties that are eligible for First Tier Works are set out in the Section 106 Agreement (Ninth Schedule, Parts 5 and 6).

All owners and occupiers of residential properties and public buildings identified as eligible for First Tier Works in this report are to be informed within 30 days that they are eligible under the scheme. Within 6 months of establishing eligibility, permission to undertake a survey to determine what treatment is required is sought from the owner and occupier (if different). Once permission is granted (and subject to rectification of any defects in existing windows, etc.), the works are carried out within a further 6 months.

A flow diagram indicating the order and time periods in which these procedures are undertaken is provided below. There were 3 Public Buildings newly eligible for First Tier Works.



#### LEGEND:

Noise Contours

-	_		
-	_		-
	-	 	 -

REVISIONS

#### Bickerdike Allen Partners Architecture Acoustics

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T: 0207 525 4411 F: 0207 625 0250.

London City Airport

Residential First Tier Works and Public Buildings First Tier Works Eligibility Boundary

DRAWN: NW	CHECKED: PH
DATE: 09/06/2016	SCALE: 1:35000@A4

FIGURE No:



Ninth Schedule, Parts 5&6 First Tier Works Procedure

Building Name	No.	Sub Building Name	Thoroughfare	PostCode	Building Name	No.	Sub Building Name	Thoroughfare	PostCode
	20		Albert Wak	E16 2NL		101	Flat 421	Blackwall Way	E14 9QX
	42		Appleby Road	E16 1LQ		101	Flat 422	Blackwall Way	E14 9QX
	44		Appleby Road	E16 1LQ		101	Flat 517	Blackwall Way	E14 9QX
	46		Appleby Road	E16 1LQ		101	Flat 518	Blackwall Way	E14 9QX
	48		Appleby Road	E16 1LQ		101	Flat 519	Blackwall Way	E14 9QX
	50		Appleby Road	E16 1LQ		101	Flat 520	Blackwall Way	E14 9QX
	52		Appleby Road	E16 1LQ		101	Flat 521	Blackwall Way	E14 9QX
	54		Appleby Road	E16 1LQ		101	Flat 522	Blackwall Way	E14 9QX
	56		Appleby Road	E16 1LQ		101	Flat 617	Blackwall Way	E14 9QX
	58		Appleby Road	E16 1LQ		101	Flat 618	Blackwall Way	E14 9QX
	60		Appleby Road	EI6 ILQ		101	Flat 619	Blackwall Way	E14 9QX
	62		Appleby Road	EI6 ILQ		101	Flat 620	Blackwall Way	E14 9QX
	64		Appleby Road	EI6 ILQ		101	Flat 621	Blackwall Way	E14 9QX
	33 25		Barge House Road			101		Blackwall Way	E14 9QX
	35		Barge House Road			101		Blackwall Way	E14 9QX
	3/		Barge House Road			101	FIAL / 18	Blackwall Way	E14 9QX
	29		Daseing Close			101	FIAL 719	Diackwall Way	E14 9QA
	3U 21		Baseing Close			101	Fial 720 Fiat 721	Blackwall Way	E14 9QA
	51		Borwick Road	E0 31 3		101	Flat 722	Blackwall Way	F1/ 90X
	56		Berwick Road	E10 3D3		101	Flat 9	Blackwall Way	F1/ 90X
	58		Berwick Road	F16 3DS		101	Flat 123	Blackwall Way	F14 907
	60		Berwick Road	F16 3DS		103	Flat 124	Blackwall Way	F14 9RF
	62		Berwick Road	E16 3DS		103	Flat 125	Blackwall Way	F14 9RF
	64		Berwick Road	F16 3DS		103	Flat 126	Blackwall Way	F14 9RF
	66		Berwick Road	E16 3DS		103	Flat 127	Blackwall Way	E14 9RF
	68		Berwick Road	E16 3DS		103	Flat 128	Blackwall Way	E14 9RF
	101	Flat 10	Blackwall Way	E14 9QX		103	Flat 15	Blackwall Way	E14 9RF
	101	Flat 11	Blackwall Way	E14 9QX		103	Flat 16	Blackwall Way	E14 9RF
	101	Flat 117	Blackwall Way	E14 9QX		103	Flat 17	Blackwall Way	E14 9RF
	101	Flat 118	Blackwall Way	E14 9QX		103	Flat 18	Blackwall Way	E14 9RF
	101	Flat 119	Blackwall Way	E14 9QX		103	Flat 223	Blackwall Way	E14 9RF
	101	Flat 12	Blackwall Way	E14 9QX		103	Flat 224	Blackwall Way	E14 9RF
	101	Flat 120	Blackwall Way	E14 9QX		103	Flat 225	Blackwall Way	E14 9RF
	101	Flat 121	Blackwall Way	E14 9QX		103	Flat 226	Blackwall Way	E14 9RF
	101	Flat 122	Blackwall Way	E14 9QX		103	Flat 227	Blackwall Way	E14 9RF
	101	Flat 13	Blackwall Way	E14 9QX		103	Flat 228	Blackwall Way	E14 9RF
	101	Flat 14	Blackwall Way	E14 9QX		103	Flat 323	Blackwall Way	E14 9RF
	101	Flat 217	Blackwall Way	E14 9QX		103	Flat 324	Blackwall Way	E14 9RF
	101	Flat 218	Blackwall Way	E14 9QX		103	Flat 325	Blackwall Way	E14 9RF
	101	Flat 219	Blackwall Way	E14 9QX		103	Flat 326	Blackwall Way	E14 9RF
	101	Flat 220	Blackwall Way	E14 9QX		103	Flat 327	Blackwall Way	E14 9RF
	101	Flat 221	Blackwall Way	E14 9QX		103	Flat 328	Blackwall Way	E14 9RF
	101	FIAT ZZZ	Blackwall Way	E14 9QX		103	FIAT 423	Blackwall Way	E14 9RF
	101	FIAT 317	Blackwall Way	E14 9QX		103	FIAT 424	Blackwall Way	E14 9RF
	101	FIAL 318	Blackwall Way	E14 9QX		103	FIAL 420	Blackwall Way	
	101 101	Flat 220	Blackwall Way	E14 9QA		103 102	Flat 420 Flat 497	Blackwall Way	E14 9KF E17 ODF
	101	Flat 320	Blackwall Way	E14 JQA		103	Flat 427	Blackwall Way	E14 9N1 E17 ORE
	101	Flat 321	Blackwall Way	F14 9QA		103	Flat 523	Blackwall Way	
	101	Flat 417	Blackwall Way	F14 90X		103	Flat 524	Blackwall Way	F14 9RF
	101	Flat 418	Blackwall Way	F14 90X		103	Flat 525	Blackwall Way	F14 9RF
	101	Flat 419	Blackwall Way	E14 90X		103	Flat 526	Blackwall Way	E14 9RF
	101	Flat 420	Blackwall Way	E14 9QX		103	Flat 527	Blackwall Way	E14 9RF

Building Name	No.	Sub Building Name	Thoroughfare	PostCode	Building Name	No.	Sub Building Name	Thoroughfare	PostCode
	103	Flat 528	Blackwall Way	E14 9RF		57		Cundy Road	E16 3DJ
	103	Flat 623	Blackwall Way	E14 9RF		59		Cundy Road	E16 3DJ
	103	Flat 624	Blackwall Way	E14 9RF		61		Cundy Road	E16 3DJ
	103	Flat 625	Blackwall Way	E14 9RF		63		Cundy Road	E16 3DJ
	103	Flat 626	Blackwall Way	E14 9RF		65		Cundy Road	E16 3DJ
	103	Flat 627	Blackwall Way	E14 9RF		67		Cundy Road	E16 3DJ
	103	Flat 628	Blackwall Way	E14 9RF		69		Cundy Road	E16 3DJ
	126		Blackwall Way	E14 9BA		71		Cundy Road	E16 3DJ
Alberta Co	138	Flat 1	Blackwall Way	E14 9DE		8		Devalls Close	E6 5PL
Alberta Co	138	Flat 10	Blackwall Way	E14 9DE		9		Devalls Close	E6 5PL
Alberta Co	138	Flat 11	Blackwall Way	E14 9DE		10		Devalls Close	E6 5PL
Alberta Co	138	Flat 12	Blackwall Way	E14 9DE		28		Devalls Close	E6 5PL
Alberta Co	138	Flat 13	Blackwall Way	E14 9DE		29		Devalls Close	E6 5PL
Alberta Co	138	Flat 14	Blackwall Way	E14 9DE		30		Devalls Close	E6 5PL
Alberta Co	138	Flat 15	Blackwall Way	E14 9DE		21		Elbury Drive	E16 3AE
Alberta Co	138	Flat 16	Blackwall Way	E14 9DE		23		Elbury Drive	E16 3AE
Alberta Co	138	Flat 17	Blackwall Way	E14 9DE		25		Elbury Drive	E16 3AE
Alberta Co	138	Flat 2	Blackwall Way	E14 9DE		27		Elbury Drive	E16 3AE
Alberta Co	138	Flat 3	Blackwall Way	E14 9DE		29		Elbury Drive	E16 3AE
Alberta Co	138	Flat 4	Blackwall Way	E14 9DE		31		Elbury Drive	E16 3AE
Alberta Co	138	Flat 5	Blackwall Way	E14 9DE		33		Elbury Drive	E16 3AE
Alberta Co	138	Flat 6	Blackwall Way	E14 9DE		35		Elbury Drive	E16 3AE
Alberta Co	138	Flat 7	Blackwall Way	E14 9DE		37		Elbury Drive	E16 3AE
Alberta Co	138	Flat 8	Blackwall Way	E14 9DE		20		Epstein Road	SE28 8EJ
Alberta Co	138	Flat 9	Blackwall Way	E14 9DE		5		Fendt Close	E16 1LB
	140		Blackwall Way	E14 9DE		6		Fendt Close	E16 1LB
Alberta Co	144	Flat 1	Blackwall Way	E14 9DE		7		Fendt Close	E16 1LB
Alberta Co	144	Flat 10	Blackwall Way	E14 9DE		8		Fendt Close	E16 1LB
Alberta Co	144	Flat 11	Blackwall Way	E14 9DE		9		Fendt Close	E16 1LB
Alberta Co	144	Flat 12	Blackwall Way	E14 9DE		10		Fendt Close	E16 1LB
Alberta Co	144	Flat 13	Blackwall Way	E14 9DE		11		Fendt Close	E16 1LB
Alberta Co	144	Flat 14	Blackwall Way	E14 9DE		12		Fendt Close	E16 1LB
Alberta Co	144	Flat 15	Blackwall Way	E14 9DE		13		Fendt Close	E16 1LB
Alberta Co	144	Flat 2	Blackwall Way	E14 9DE		14		Fendt Close	E16 1LB
Alberta Co	144	Flat 3	Blackwall Way	E14 9DE		15		Fendt Close	E16 1LB
Alberta Co	144	Flat 4	Blackwall Way	E14 9DE		16		Fendt Close	E16 1LB
Alberta Co	144	Flat 5	Blackwall Way	E14 9DE		1/		Fendt Close	E16 1LB
Alberta Co	144	Flat 6	Blackwall Way	EI4 9DE		18		Fendt Close	EI6 ILB
Alberta Co	144	Flat /	Blackwall Way	EI4 9DE		19		Fendt Close	EI6 ILB
Alberta Co	144	Flat 8	Blackwall Way	E14 9DE		20		Fendt Close	EI6 ILB
Alberta Co	144	Flat 9	Blackwall Way	EI4 9DE		21		Fendt Close	EI6 ILB
	146		Blackwall Way	E14 9DE		22		Fendt Close	EI6 ILB
	23		Coolfin Road	EI6 3AW		23		Fendt Close	EI6 ILB
	35		Cundy Road	EI6 3DJ		24		Fendt Close	EI6 ILB
	37		Cundy Road	EI6 3DJ		25		Fendt Close	EI6 ILB
	39		Cundy Road	EI6 3DJ		26		Fendt Close	EI6 ILB
	41		Cundy Road	EI6 3DJ		27		Fendt Close	EI6 ILB
	43		Cundy Road	EI6 3DJ		28		Fendt Close	EI6 ILB
	45 47		Cundy Road	EI6 JDJ		29		Fendt Close	
	4/					3U 21		Ferrut Close	
	49 51					31 20		Ferrut Close	
	51 52					32 250		Ferruit Glose	
	03 55					209		Fishguard Way	
	22		Gundy Koad	EID 3DJ		201		risnguard Way	EID ZRY

Building Name	No.	Sub Building Name	Thoroughfare	PostCode	Building Name	No.	Sub Building Name	Thoroughfare	PostCode
	263		Fishguard Way	E16 2RY		2		Hampstead Close	SE28 8EL
	265		Fishguard Way	E16 2RY		3		Hampstead Close	SE28 8EL
	267		Fishguard Way	E16 2RY		1		Mackrow Walk	E14 0EN
	269		Fishguard Way	E16 2RY		2		Mackrow Walk	E14 0EN
	271		Fishguard Way	E16 2RY		3		Mackrow Walk	E14 0EN
	273		Fishguard Way	E16 2RY		4		Mackrow Walk	E14 0EN
	275		Fishguard Way	E16 2RY		5		Mackrow Walk	E14 0EN
	277		Fishguard Way	E16 2RY		6		Mackrow Walk	E14 0EN
	279		Fishguard Way	E16 2RY		7		Mackrow Walk	E14 0EN
	281		Fishguard Way	E16 2RY		8		Mackrow Walk	E14 0EN
	283		Fishguard Way	E16 2RY		9		Mackrow Walk	E14 0EN
	285		Fishguard Way	E16 2RY		10		Mackrow Walk	E14 0EN
	287		Fishguard Way	E16 2RY		11		Mackrow Walk	E14 0EN
	289		Fishguard Way	E16 2RY		17		Merbury Road	SE28 OHS
	291		Fishguard Way	E16 2RY		19		Merbury Road	SE28 OHS
	293		Fishguard Way	E16 2RY		21		Merbury Road	SE28 OHS
	295		Fishguard Way	E16 2RY		23		Merbury Road	SE28 OHS
	297		Fishguard Way	E16 2RY		25		Merbury Road	SE28 OHS
	299		Fishguard Way	E16 2RY		27		Merbury Road	SE28 OHS
	301		Fishguard Way	E16 2RY		31		Monk Drive	E16 1LE
	303		Fishguard Way	E16 2RY		33		Monk Drive	E16 1LE
	305		Fishguard Way	E16 2RY		35		Monk Drive	E16 1LE
	307		Fishguard Way	E16 2RY		37		Monk Drive	E16 1LE
	309		Fishguard Way	E16 2RY		47		Murray Square	E16 3AH
	311		Fishguard Way	E16 2RY		49		Murray Square	E16 3AH
	313		Fishguard Way	E16 2RY		51		Murray Square	E16 3AH
	315		Fishguard Way	E16 2RY		7		Province Square	E14 9DW
	317		Fishguard Way	E16 2RY	Streamlig	9		Province Square	E14 9DW
	319		Fishguard Way	E16 2RY	Streamlig	9		Province Square	E14 9DW
	321		Fishguard Way	E16 2RY	Streamlig	9		Province Square	E14 9DW
	323		Fishguard Way	E16 2RY	Streamlig	9	Flat 1001	Province Square	E14 9DW
	325		Fishguard Way	E16 2RY	Streamlig	9	Flat 1002	Province Square	E14 9DW
	327		Fishguard Way	E16 2RY	Streamlig	9	Flat 1003	Province Square	E14 9DW
	329		Fishguard Way	E16 2RY	Streamlig	9	Flat 1004	Province Square	E14 9DW
	331		Fishguard Way	E16 2RY	Streamlig	9	Flat 101	Province Square	E14 9DW
	333		Fishguard Way	E16 2RY	Streamlig	9	Flat 102	Province Square	E14 9DW
	335		Fishguard Way	E16 2RY	Streamlig	9	Flat 103	Province Square	E14 9DW
	337		Fishguard Way	E16 2RY	Streamlig	9	Flat 104	Province Square	E14 9DW
	1		Fletcher Close	E6 6FT	Streamlig	9	Flat 1101	Province Square	E14 9DW
	2		Fletcher Close	E6 6FT	Streamlig	9	Flat 1102	Province Square	E14 9DW
	6		Fletcher Close	E6 6FT	Streamlig	9	Flat 1103	Province Square	E14 9DW
	13		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1104	Province Square	E14 9DW
	14		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1201	Province Square	E14 9DW
	15		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1202	Province Square	E14 9DW
	16		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1203	Province Square	E14 9DW
	17		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1204	Province Square	E14 9DW
	18		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1301	Province Square	E14 9DW
	19		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1302	Province Square	E14 9DW
	20		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1303	Province Square	E14 9DW
	21		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1304	Province Square	E14 9DW
	22		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1401	Province Square	E14 9DW
	23		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1402	Province Square	E14 9DW
	24		Gaselee Street	E14 9QZ	Streamlig	9	Flat 1403	Province Square	E14 9DW
	1		Hampstead Close	SE28 8EL	Streamlig	9	Flat 1404	Province Square	E14 9DW

Building Name	No.	Sub Building Name	Thoroughfare	PostCode	Building Name	No.	Sub Building Name	Thoroughfare	PostCode
Streamlig	9	Flat 1501	Province Square	E14 9DW	Streamlig	9	Flat 602	Province Square	E14 9DW
Streamlig	9	Flat 1502	Province Square	E14 9DW	Streamlig	9	Flat 603	Province Square	E14 9DW
Streamlig	9	Flat 1503	Province Square	E14 9DW	Streamlig	9	Flat 604	Province Square	E14 9DW
Streamlig	9	Flat 1504	Province Square	E14 9DW	Streamlig	9	Flat 701	Province Square	E14 9DW
Streamlig	9	Flat 1603	Province Square	E14 9DW	Streamlig	9	Flat 702	Province Square	E14 9DW
Streamlig	9	Flat 1604	Province Square	E14 9DW	Streamlig	9	Flat 703	Province Square	E14 9DW
Streamlig	9	Flat 1605	Province Square	E14 9DW	Streamlig	9	Flat 704	Province Square	E14 9DW
Streamlig	9	Flat 1701	Province Square	E14 9DW	Streamlig	9	Flat 801	Province Square	E14 9DW
Streamlig	9	Flat 1702	Province Square	E14 9DW	Streamlig	9	Flat 802	Province Square	E14 9DW
Streamlig	9	Flat 1703	Province Square	E14 9DW	Streamlig	9	Flat 803	Province Square	E14 9DW
Streamlig	9	Flat 1704	Province Square	E14 9DW	Streamlig	9	Flat 804	Province Square	E14 9DW
Streamlig	9	Flat 1705	Province Square	E14 9DW	Streamlig	9	Flat 901	Province Square	E14 9DW
Streamlig	9	Flat 1801	Province Square	E14 9DW	Streamlig	9	Flat 902	Province Square	E14 9DW
Streamlig	9	Flat 1802	Province Square	E14 9DW	Streamlig	9	Flat 903	Province Square	E14 9DW
Streamlig	9	Flat 1803	Province Square	E14 9DW	Streamlig	9	Flat 904	Province Square	E14 9DW
Streamlig	9	Flat 1804	Province Square	E14 9DW		2		Sheldrake Close	E16 2FY
Streamlig	9	Flat 1805	Province Square	E14 9DW		4		Sheldrake Close	E16 2FY
Streamlig	9	Flat 1901	Province Square	E14 9DW		6		Sheldrake Close	E16 2FY
Streamlig	9	Flat 1902	Province Square	EI4 9DW		10		Sheldrake Close	E16 2FY
Streamlig	9	Flat 1903	Province Square	EI4 9DW		12		Sheldrake Close	E16 2FY
Streamlig	9	Flat 1904	Province Square	EI4 9DW		40		Tarling Road	EI6 IHP
Streamlig	9	Flat 1905	Province Square	EI4 9DW		19		Irader Road	
Streamlig	9	Flat 2001	Province Square	EI4 9DW		20		Irader Road	
Streaming	9	Flat 2002	Province Square	E14 9DW		21		Irader Road	
Streamlig	9	Flat 2003	Province Square	E14 9DW		29		Irader Road	
Streamlia	9	FIAL 2004	Province Square	E14 9DW		3U 21		Trader Road	
Streamlig	9	FIAL ZUI	Province Square	E14 9DW		31 22		Trader Road	
Streamlig	9	FIAL ZUZ	Province Square	E14 9DW		JZ 105		Mard Wharf Approad	
Streamlig	9	Fial 203 Flat 204	Province Square	E14 9DW		100		Ward Wharf Approach	h E 16 2EQ
Stroomlig	9	Flat 204	Province Square	E14 9DW F1/ QDW		100		Ward Wharf Approach	h E 16 2EQ
Streamlig	g	Flat 2101	Province Square	E14 JDW		107		Ward Wharf Approach	h E 16 2EQ
Streamlig	g	Flat 2102	Province Square	F1/1 9DW		189		Ward Wharf Approact	h F16 2EQ
Streamlig	g	Flat 2103	Province Square	F1/ 9DW		190		Ward Wharf Approach	h F16 2EQ
Streamlig	9	Flat 2204	Province Square	F14 9DW		192		Ward Wharf Approach	h F16 2EQ
Streamlig	9	Flat 2201	Province Square	F14 9DW		194		Ward Wharf Approach	h F16 2EQ
Streamlig	9	Flat 2202	Province Square	F14 9DW		195		Ward Wharf Approach	h F16 2EQ
Streamlig	9	Flat 2204	Province Square	F14 9DW		197		Ward Wharf Approac	h F16 2FQ
Streamlig	9	Flat 2301	Province Square	E14 9DW		198		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 2302	Province Square	E14 9DW		199		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 301	Province Square	E14 9DW		200		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 302	Province Square	E14 9DW		201		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 303	Province Square	E14 9DW		202		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 304	Province Square	E14 9DW		203		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 401	Province Square	E14 9DW		204		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 402	Province Square	E14 9DW		205		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 403	Province Square	E14 9DW		206		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 404	Province Square	E14 9DW		207		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 501	Province Square	E14 9DW		208		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 502	Province Square	E14 9DW		209		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 503	Province Square	E14 9DW		210		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 504	Province Square	E14 9DW		211		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 505	Province Square	E14 9DW		212		Ward Wharf Approac	h E16 2EQ
Streamlig	9	Flat 601	Province Square	E14 9DW		213		Ward Wharf Approac	h E16 2EQ

# APPENDIX 8 SECOND TIER WORKS ELIGIBILITY

01 July 2016



# In 2015 there were 49 newly eligible residential premises, all within the London Borough of Newham.

Subject to the provisions of the Section 106 Agreement, the general scope of works will comprise:-

- for single and double glazed properties secondary glazing and sound attenuating vents or;
- a contribution towards high acoustic performance replacement double glazed windows and sound attenuating vents, up to a limit of 25% above the cost of installing secondary glazing and sound attenuating vents

The works will relate to eligible habitable rooms as described in the Section 106 agreement. The method of determining eligibility for Second Tier Works is described below.

## S106 requirement, Fourth Schedule, Part 3, Para 1 states that,

"In the preparation of each Annual Performance Report the Airport Companies shall determine Second Tier Works Eligibility and Public Buildings Second Tier Works Eligibility by applying the Eligibility Methodology and shall publish in each Annual Performance Report the boundary within which premises having Second Tier Works Eligibility and Public Buildings Second Tier Works Eligibility are situated together with the Actual 66 dB contour, the Predicted 66 dB contour and the Predicted Reduced 66 dB contour." This schedule of premises has been created using the following noise contours:

- Actual 2015 66 dB contour
- Predicted 2016 66 dB contour
- Predicted reduced 2016 66 dB contour

The full Eligibility Methodology for Second Tier Works is defined in the Ninth Schedule, Part 4, Para 3.

The detailed procedures for informing, obtaining permission and for carrying out the works to those properties that are eligible for Second Tier Works are set out in the Section 106 Agreement (Ninth Schedule, Parts 15 and 16).

All owners and occupiers of properties identified as eligible for Second Tier Works in this report are to be informed within 30 days that they are eligible under the scheme. Within 6 months of establishing eligibility, permission to undertake a survey to determine what treatment is required is sought from the owner and occupier (if different). Once permission is granted (and subject to rectification of any defects in existing windows, etc.), the works are carried out within a further 6 months. There were no new Public Buildings eligible for Second Tier Works.



LEGEND:

Noise Contours

-		
-		

#### REVISIONS

#### Bickerdike Allen Partners Architecture Acoustics Technology

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London City Airport

Residential Second Tier Works and Public Buildings Second Tier Works Eligibility Boundary

DRAWN: NW	CHECKED: PH		
DATE: 09/06/2016	SCALE: 1:35000@A4		
FIGURE No:			

Building Name	No.	Sub Building Name	Thoroughfare	PostCode
	37		CAMEL ROAD	E16 2DE
	39		CAMEL ROAD	E16 2DE
	2		DREW ROAD	E16 2DF
	4		DREW ROAD	E16 2DF
	6		DREW ROAD	E16 2DF
	8		DREW ROAD	E16 2DF
	10		DREW ROAD	E16 2DF
	12		DREW ROAD	E16 2DF
	14		DREW ROAD	E16 2DF
	16		DREW ROAD	E16 2DF
	18		DREW ROAD	E16 2DF
	20		DREW ROAD	E16 2DF
	22		DREW ROAD	E16 2DF
	24		DREW ROAD	E16 2DF
	26		DREW ROAD	E16 2DF
	28		DREW ROAD	E16 2DF
	30		DREW ROAD	E16 2DF
	32		DREW ROAD	E16 2DF
	34		DREW ROAD	E16 2DF
	36		DREW ROAD	E16 2DF
	38		DREW ROAD	E16 2DF
	40		DREW ROAD	E16 2DF
	42		DREW ROAD	E16 2DF
	44		DREW ROAD	E16 2DF
	46		DREW ROAD	E16 2DF
	48		DREW ROAD	E16 2DF
	50		DREW ROAD	E16 2DF
	52		DREW ROAD	E16 2DF
	54		DREW ROAD	E16 2DF
	56		DREW ROAD	E16 2DF
	58		DREW ROAD	E16 2DF
	60			E16 2DF
	62			
	64 CC			
	66			
	00 70			E10 2DF
	70			E16 2DF
	72 74			F16 2DF
	76		DREW ROAD	E16 2DF
	, 3 78		DREW ROAD	E16 2DF
	80		DREW ROAD	E16 2DF
	82		DREW ROAD	E16 2DF
	84		DREW ROAD	E16 2DF
	86		DREW ROAD	E16 2DF

88	DREW ROAD	E16 2DF
90	DREW ROAD	E16 2DF
92	DREW ROAD	E16 2DF
94	DREW ROAD	E16 2DF

# APPENDIX 9 SOUND INSULATION SCHEME 2015 ADVERTISEMENTS

01 July 2016



### Sound Insulation Scheme Advertisements July 2015

#### East End Life - 06/07/2015



Off benefits and back into work "These are all families where kids are back in school and youth crime and anti-social behaviour has been cut, and an adult has now moved off benefits and into work." LOUISE CASEY, DIRECTOR GENERAL OF THE NATIONAL TROUBLED FAMIL





News in brief Blaze in car wash

Free guided rides TLISTS are invited to tak t in a range of theme

London City Airport

**Sound Insulation Scheme** 

about the Sound I 0203 203 2397 or

# 'Turning around' troubled families

Continued from page 1 The latest figures releas

off these families, all have een officially 'turned around'. een officially 'turned around', leaning children are now reg-larly attending school and arents are back in work and halts and/or children are no mger involved in crime or nti-social behaviour. The council addresses the toblems by assigning a profes-onal to work closely with the muly. alt vork closely win the alty. The worker will then liaise hagencies who are involved th the family, accompany alts to meetings at school out truancy or poor atten-nce, offer support to help ern understand the impor-nce of school and education, well as helping parents write

6 - 12 JULY 2019

Louise Casey, director gener-ed al of the national programme, adult has now m zo said: "These are all families benefits and into w ewhere kids are back in school For details, email and subtlemme and anti-social bradley@towerhamd and your lorme and and social to make you work hands to go Case Study – single parent dad with four children, agged 70 ro 33. THE family had been involved in a difficial diverse. The father had went could be table had be given give give give bad after his had. The children were having a ightmost benefits but by we stopped. As the children were benefits but by we stopped. As the children were benefits but by we stopped. As the children were benefits but by we stopped. As the children were benefits but by we stopped. As the children were benefits but by we stopped. As the children were benefits but by we stopped. As the children were benefits but by we stopped. As the children were benefits but by we stopped. As the children were benefits but by we stopped. As the children were made in a stopped and the stopped and the employability akils and itousing Options identified the father found a part tangle is and the family. The but by the stopped and the stopped the stopped and the family were be baded in the stopped and the family were baded and the family out by a stopped and the family there the father found a part tangle is and the law were baded in the stopped and the family were baded and the stopped and the family were the father found a part tangle is a distribution the father found a part tangle is a distribution the father found a part tangle is a distribution the father found a part tangle is a distribution the father found a part tangle is and the father were the father found a part tangle is and the share bits when the father father tangle were the stopped and the father were the father found a part tangle is and the share bits when the father father tangle were the stopped and the father bits were the father father tangle were the stopped and the father bits were the stopped and the father bits were the father father tangle were the stopped and the father bits were the stopped and the stopped and the stopped and the stopped and th

### Greenwich Mercury - 01/07/2015



#### The Wharf - 02/07/2015



#### Greenwich Time - 30/06/2015



### Sound Insulation Scheme Advertisements December 2015

#### East London Advertiser - 03/12/2015



#### Newham Recorder - 02/12/2015



#### The Wharf 03/12/2015



#### Greenwich Time - 16/12/2015



## Sound Insulation Scheme Advertisements December 2015

Lewisham Mercury - 02/12/2015



#### Tower Hamlets News - 30/11/2015



#### Newham Magazine - December 2015



# APPENDIX 10 REPORT ON OPERATION OF NOISE MANAGEMENT SCHEME

01 July 2016



Bickerdike Allen Partners Architecture Acoustics Technology

## LONDON CITY AIRPORT NOISE MANAGEMENT SCHEME REPORT 2015

Report to

Gary Hodgetts Director Technical Operations City Aviation House London City Airport The Royal Docks London E16 2PB

A1125.119-R01.16-NW 30 June 2016

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Partners (members) Philippa Gavey, Giles Greenhalgh, Peter Henson, Roger Jowett

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	Appendix D:	Meetings with Airport Consultative Committee						
	Appendix E:	Numbers of Aircraft Operating at LCY						
	Appendix F:	NTK Status Reports						
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### 1.0 INTRODUCTION

In Part 7(1) of the Fourth Schedule of the Section 106 Agreement dated 9<sup>th</sup> July 2009, it states that the Airport and the London Borough of Newham (LBN) are:

"to continue to operate the Noise Management Scheme until the NOMMS has been fully implemented and ensure that the equipment for the combined noise monitoring and track keeping system is properly maintained at all times;"

In accordance with this requirement, the Noise Management Scheme remains in operation currently and this document reports the progress of the relevant requirements as set out in the Section 106 Agreement which require the airport to:-

- ensure that fixed electrical ground power supplies are used at the airport for conditioning the aircraft prior to engine start-up and for the starting of aircraft engines and that auxiliary power units are not used at the Airport unless their use is demonstrated to the Council to be operationally necessary and unless the Council have given their prior approval in writing to such use;
- continue to operate a ground engine running scheme in respect of routine daily aircraft operations (separate from ground running) as part of the Noise Management Scheme including the measures to be taken to persuade the operators of aircraft at the Airport to comply with such ground engine running scheme in order to mitigate as far as practicable the emissions from aircraft engines;
- operate a system of incentives and/or penalties for airlines as part of the Noise Management Scheme at their own expense;
- hold regular meetings and/or discussions with the Council, the Airport Consultative Committee and such other statutory bodies as may be reasonably nominated by the Council in order to review the operation of the Noise Management Scheme and submit reports of the operation of the Noise Management Scheme to not fewer than two meetings per year of the Airport Consultative Committee;
- maintain good and sufficient records at all times of the numbers and types of aircraft that in any one day either take off or land at the airport and the following shall apply:
  - (a) the aggregate figures from such records relating to the immediately preceding quarter year shall be submitted to the Council within 30 days of the following dates: 1 January, 1 April, 1 July and 1 October;

- (b) a summary of the aggregate figures for the immediately preceding quarter year shall be published on the Airport Website or the website of the Airport Consultative Committee within 30 days of the following dates: 1 January, 1 April, 1 July and 1 October; and
- (c) all such records shall be available for inspection at all reasonable hours by persons authorised by the Council who have been notified to and approved by LCA in writing.

The airport is also required under the terms of the Temporary Noise Monitoring Strategy, which has been approved by LBN, to provide on a quarterly basis the daily operations status of each noise monitor and the monthly correlation rate of noise events to aircraft departures.

### 2.0 AUXILLARY POWER UNIT USAGE

A number of aircraft using the airport require from time to time the use of their onboard auxiliary power units (APUs). The needs for usage of these power units as opposed to portable ground power units or the airport's fixed electrical power are varied.

The obvious need is to condition the aircraft cabin when temperatures become uncomfortable as fixed electrical power cannot normally be used for that purpose. In this case, the airport policy is that the maximum running time for an APU should not exceed 10 minutes prior to departure. Permitted use of the APU is contained in the airport's UK AIP.

The other need arises when there is an incompatibility between aircraft systems and the fixed electrical power supply. The need to maintain the same source of supply to avoid interference with aircrafts' on board computer systems has been raised by users. There is also the rare occurrence where for technical reasons the airport's fixed electrical supply is not available.

The airport has fixed electrical ground power (FEGP) at Stands 1-10 and 15. As previously advised in the APR and in discussions with London Borough of Newham (LBN), Stands 21-24 will be upgraded as part of the City Airport Development Programme (CADP).

London City Airport currently has 9 mobile diesel ground power units (GPU) in operation. These service Stands 12-14 and 21-24 and other stands where necessary. Results from noise testing has shown that all units comply with the noise criteria set for mobile ground servicing equipment detailed within the IATA 910 - *Airport Handling Manual*<sup>1</sup>.

Appendix A sets out details of the aircraft that require use of their auxiliary power units (APU) to supplement the fixed ground power that is provided by the airport when an aircraft is on a stand on the apron.

### 3.0 GROUND RUNNING OF ENGINES

### 3.1 General

The Airport will seek to ensure as far as reasonably practicable that every aircraft operator adopts the operating practice which generates the least amount of noise from aircraft taxiing, manoeuvring or holding on stand, at the runway, and prior to take off, subject to the requirement of ensuring the safe operation of the aircraft at all times. This should involve the minimum power settings necessary and, in the case of propeller aircraft, pitch settings should as far as possible be those which produce the least propeller noise.

An EFPS<sup>2</sup> system is installed at London City Airport which provides the ability to monitor the time that aircraft operate engines on the ground, from engine start-up until the time of departure and following the time of landing until engine shut-down. The time of any engine ground running on the apron for maintenances is also monitored. Any excessive or unnecessary operation of aircraft engines will be investigated by the airport. Information will be required from both ATC<sup>3</sup> and the airline responsible in order that a report can be generated.

<sup>3</sup> ATC – Air Traffic Control

<sup>&</sup>lt;sup>1</sup> The standard is set that at a distance of 4.6 m, measured from the perimeter for the equipment, noise levels should be less than 85 dB.

<sup>&</sup>lt;sup>2</sup> EFPS – Electronic Flight Process Strips

### 3.2 Ground Running

The ground running of engines is required for testing and maintenance purposes. The airport is required to ensure that the noise level arising from aircraft ground running does not exceed the Ground Running Noise Limit of 60 dB  $L_{Aeq,12h}^4$ .

Under the 2009 planning permission, ground running is permitted only between the hours of 06.30 and 22.00 hours Monday to Friday, and between the hours of 06.30 and 12.30 on Saturdays, 12.30 and 22.00 hours on Sundays and between 09.00 hours and 22.00 hours on Bank Holidays and Public Holidays (excepting Christmas Day) in locations and orientations agreed with the local planning authority, and employing such noise protection measures as may be agreed with the local planning authority.

Written details of the ground running over the preceding calendar year (1 January to 31 December) are submitted to the Council on an annual basis (in this Annual Performance Report), and include details of the number, duration and power settings of ground runs and the aircraft involved as well as measurements and calculations to demonstrate compliance with the Ground Running Noise Limit<sup>5</sup>.

Appendix B of this report sets out the official record of ground running of engines for test and maintenance for the year 2015 (Table 1), the summary of high power running for the same period (Table 2), and the prediction of ground running noise for comparison with the Ground Running Noise Limit (Table 3). In 2015 LCY's ground running noise level was 55.6 dB L<sub>Aeq,12h</sub> which is 4.4 dB below the Ground Running Noise Limit of 60 dB L<sub>Aeq,12h</sub>.

### 4.0 PENALTIES AND INCENTIVES

The airport operates a system of penalties and/or incentives to control noise from departing aircraft at the airport. The system the airport operates uses measured noise data from the airport's Noise and Track Keeping (NTK) system to identify "noisy" and "quiet" aircraft departures to which penalty and credit points are assigned respectively where appropriate. The incidence of 'noisy' or 'quiet' events are then reported to the relevant airline accordingly.

<sup>&</sup>lt;sup>4</sup> Section 106 Agreement dated 9 July 2009 Fifth Schedule/Part 1/1

<sup>&</sup>lt;sup>5</sup> Section 106 Agreement dated 9 July 2009 Fifth Schedule/Part 2/2

The system works as follows:

The Mean Individual Departure Noise Level (MIDNL)<sup>6</sup> for each event is compared with the Mean Standard Annual Departure Noise Level (MSADNL)<sup>7</sup> for the relevant aircraft type established in the previous year of operations to determine a "noisy" departure and a "quiet" departure. Where an individual departure by an aircraft produces an MIDNL at least 4 dB greater than the MSADNL for the aircraft type, a noisy departure classification is given. Where an individual departure by an aircraft type produces an MIDNL at least 5 dB less than the MSADNL for the aircraft type produces an MIDNL at least 5 dB less than the MSADNL for the aircraft type, a quiet departure classification is given. The limits stated above are based on studies carried out by Bickerdike Allen Partners (BAP) and implemented following consultation with the Council.

The current system of Penalties and Incentives as reported quarterly to LBN takes a proactive approach in liaising with all airlines operating at the airport with regard to their performance. For example, where penalties have been triggered, the airport writes to the airline responsible to advise them of the particularly noisy departure and seek an explanation. Penalties and credits are also discussed at the twice yearly Pilots Forum, with performance reviewed with each airline. Each year the airport publishes a table of aircraft performance in the APR.

This proactive approach has proved successful in incentivising airlines to fly their aircraft in a quieter manner at the airport. Despite the continued growth being experienced at the airport in recent years, the number of residual penalties triggered relative to the increased number of flights is extremely small (less than 1%). This continues to decrease. For example, the number of penalties relative to the number of flights in 2013 was 0.28% whilst this reduced to 0.22% in 2015 – this despite an increase of over 10,000 movements over the same period.

Financial penalties are not currently raised due to the effectiveness of the dialogue with airlines to improve performance; and the existing NTK system only accounts for sideline departure noise and needs to be improved to ensure a more equitable scheme should financial penalties or incentives be introduced.

<sup>&</sup>lt;sup>6</sup> MIDNL – The average of the corrected measured noise levels obtained at a pair of microphones at the end of the runway over which a particular aircraft departs. Corrections are applied to account for the fact that three out of four microphones cannot be located at the required position of 300m sideline and 2000m from start of roll, and for local reflection effects.

<sup>&</sup>lt;sup>7</sup> MSADNL –The arithmetic average of all the MIDNL's for a given aircraft type obtained at both gateway pairs of monitors during the 12 months of the annual categorisation year excluding those departures for which a noisy or quiet classification was given during that year.

A new system of Penalties and Credits is proposed as part of NOMMS. Technical discussions are ongoing with LBN and an agreed programme is in place to submit final details of the NOMMS Implementation Guidelines by Autumn 2016. Under the new scheme, and subject to the approval of LBN, an improved and more equitable approach to determining penalties and credits will be used using the two new fixed noise monitors at either end of the runway to monitor departure noise levels.

On a quarterly basis, the airport is required to report to the local authority the number of penalty and credit points established with respect to each airline's operations. Appendix C of this report sets out the number of penalties and credits identified per month during the year of 2015.

### 5.0 MEETINGS WITH COUNCIL/AIRPORT CONSULTATIVE COMMITTEE

The airport holds regular quarterly meetings with the London City Airport Consultative Committee (LCACC). The body of the committee is made up of representatives from the Council, public bodies, the airport and airport users, representatives for residents of local and neighbouring communities and non-voting attendees (present to provide advice to members as required, i.e. Metropolitan Police, Department for Transport).

The meetings are open and the committee's agendas and minutes are widely circulated and available on the airport's website<sup>8</sup>. The meetings include reports on developments at the airport including changes in routes, flight and passenger numbers. There is a standing item on environmental issues including complaints, enquiries, noise monitoring and management and other requirements of the planning permission and Section 106 Agreement.

Appendix D of this report provides the sections of the meeting minutes from 2015 relevant to the noise management scheme, namely a summary of the operation of the NTK system over each quarterly period and any developments or changes to the scheme.

### 6.0 NUMBERS AND TYPES OF AIRCRAFT OPERATING AT LCY

The number and types of aircraft which operate at LCY are restricted under the current planning conditions and Section 106 Agreement with the Council.

All aircraft operating at LCY are required to be categorised by their departure noise levels into one of five noise categories. Only aircraft which have been approved by the Council and have

<sup>&</sup>lt;sup>8</sup> http://www.londoncityairport.com/aboutandcorporate/page/consultationandcommunication

been categorised in this manner, provisionally or otherwise, are permitted to land or depart the airport (excepting emergencies).

The 2009 planning permission allows up to 120,000 total aircraft movements per annum, including both scheduled and general aviation aircraft. The planning permission also contains specific limits on daily and weekly movements, as well as limits on the numbers of noise factored movements.

Details of annual aircraft movements and noise factored movements by aircraft type are presented in the airport's annual categorisation report along with details of noise measurements over the preceding year. These can be found in Appendix 12 of the APR.

Under the Section 106 Agreement, the airport is also required to record the numbers and types of aircraft that use the airport daily and submit aggregate figures to the Council on a quarterly basis. The daily records for the number of aircraft movements and noise factored movements in 2015 are presented in Appendix E, where they are compared with the relevant daily, weekly and annual limits.

Appendix E also presents the number of aircraft movements that took place each day during the restricted early morning periods of 06:30 to 06:44 hours and 06:30 to 06:59 hours, during the last operating period (late evening) of weekdays and Sundays from 22:00 to 22:30 hours and on Saturdays from 12:30 to 13:00 hours.

The data shows that throughout 2015, LCA has operated within its planning consent with regard to the number of daily and annual aircraft movements, including those during late evening periods, as well as weekly and annual noise factored movements.

There were two occasions on which the permitted number of early morning movements was exceeded.

- 15/08/2015 exceeded by 1 in the period 06:30 to 06:44
- 03/10/2015 exceeded by 1 in the period 06:30 to 06:44

Both of these instances are breaches of condition 10 of the 2009 planning permission. These breaches and the actions taken by the airport are explained in detail in Section 2.3 of the APR.

### 7.0 NTK STATUS REPORTS

Under paragraph A6.0 of the approved Temporary Noise Monitoring Strategy, London City Airport is required to provide quarterly reports of the NTK system to the local authority. Each report is required to record the daily operational status of each Noise Monitoring Terminal (NMT) together with the total monthly correlation rate of noise events to aircraft departures over a specified quarter year period.

Table 1 of Appendix F of this report details the daily operational status of each monitor between  $1^{st}$  January 2015 and the  $31^{st}$  December 2015. Table 2 sets out the monthly correlation rate of noise events to aircraft departures for the same twelve month period, and Table 3 gives a summary of the NTK operational status for each quarter.

The noise monitoring system remained in continuous operation throughout the twelve month period between 1<sup>st</sup> January 2015 and 31<sup>st</sup> December 2015. Each noise monitoring terminal was in operation every day with the following exceptions:

- NMT1 was not operational on 4<sup>th</sup> February due to a failure of the power supply.
- NMT2 was not operational for small parts of September, October, and December, and much of November. This was due to a fault in the fuel cell which required replacing.

Despite these issues, the target correlation rate (80%) was met for 2015. A total of 35,732 aircraft departures were recorded, and an average correlation rate of noise events to aircraft departures of 85% was achieved. This is 9% lower than 2014, however now that the issues with NMT2 have been resolved this is expected to rise again in 2016.

Nick Williams for Bickerdike Allen Partners

Peter Henson Partner

APPENDIX A

Auxiliary Power Unit Usage

### LONDON CITY AIRPORT: A.P.U. USAGE REQUEST LIST

### SCHEDULED AIRCRAFT

AIRCRAFT	A.P.U. USAGE REQUIRED? (✓)
BAe 146	✓
RJ Series	✓
Airbus A318	✓
Embraer 135	✓
Embraer 170	✓
Embraer 190	✓
ATR 42	✓
ATR 72	✓
DHC 8-100	✓
DHC 8-300	✓
DHC 8-400	✓
Fokker 50	
Dornier 328	✓
Dornier 328 Jet	✓
Saab 2000	✓

### **GENERAL AVIATION AIRCRAFT**

AIRCRAFT	A.P.U. USAGE REQUIRED? (✓)
BE20 Beechcraft 200	
BE9L Beechcraft 900	
BE58 PA Beechcraft Baron	
C90/C90A (Beechcraft)	
B300 Beechcraft	
Hawker 800 XP	✓
Beech 400 A	
C551 (Citation II)	
C560 (Citation V)	

AIRCRAFT	A.P.U. USAGE REQUIRED? (✔)
C525 CJ1 (Citation Jet 1)	
C525 CJ2 (Citation Jet 2)	
C525 CJ3 (Citation Jet 3)	
C550 (Citation Bravo)	
C56X (Citation Excel)	✓
C560 (Citation Sovereign)	✓
FA900B	✓
FA10 (Falcon 10)	
FA50 (Falcon 50)	✓
F2TH (Falcon 2000EX)	✓
F900EX (Falcon 900EX)	✓
Falcon 7X	✓
Gulfstream 150 (G150)	✓
Bombardier Challenger 604/5	✓
Learjet 40/45	✓
PA34 (Seneca)	
PA31 (Navajo)	
P68C (Partenavia 68)	
P180 (Piaggio Avanti)	
Global 5000/6000	✓
Embraer Phenom 300	

APPENDIX B

Ground Running of Engines



MONTH	DATE	LOCATION	A/C ORIENTATION	TYPE OF RUN /	A/C TYPE	REG	START TIME	STOP TIME	DURATION
	02/04/2045	Chan d 24	-	POWER SET	1210	CELINIA	11.12	11.22	(hh:mm)
JANUARY	03/01/2015	Stand 24	N VV	Ground Idle	A318	GEUNA	11:12	11:32	00:20
JANUARY	04/01/2015	27 Hold	IN VV	High Power	A318	GEUNA	14:18	14:30	00:12
JANUARY	05/01/2015	Abeam Stand 24	W	High Power	A318	GEUNA	15:10	15:28	00:18
JANUARY	07/01/2015	JC Chanal 24	E	Ground Idle	FZIH		17:51	18:01	00:10
JANUARY	13/01/2015	Stand 24	NW	Ground Idle	DH8D	GJEDW	15:22	15:25	00:03
JANUARY	18/01/2015	Stand 10	NW	Ground Idle	E170	GLCYE	12:42	12:49	00:07
JANUARY	18/01/2015	Stand 4	NW	Low Power	B463	DAWBA	20:17	20:21	00:04
JANUARY	25/01/2015	Abeam Stand 24	W	High Power	E170	GLCYF	13:04	13:18	00:14
JANUARY	30/01/2015	Stand 5	NW	Ground Idle	AT42	GISLF	09:30	09:34	00:04
JANUARY	30/01/2015	Stand 14	NW	Ground Idle	AT42	GISLF	10:53	10:57	00:04
JANUARY	30/01/2015	Stand 14	NW	Ground Idle	AT42	GISLF	17:46	17:56	00:10
JANUARY	30/01/2015	Stand 14	NW	Ground Idle	AT42	GISLF	18:25	18:28	00:03
55001100V	01/02/2015	a. 17			5400	0.044	12.11	10.00	00.00
FEBRUARY	01/02/2015	Stand /	NVV	Ground Idle	E190	GLCYIM	13:14	13:20	00:06
FEBRUARY	01/02/2015	Stand 14	IN VV	Ground Idle	A142	GISLF	13:48	13:55	00:07
FEBRUARY	01/02/2015	Abeam Stand 24	W	High Power	A142	GISLF	14:38	15:13	00:35
FEBRUARY	01/02/2015	Stand 21	NW	Ground Idle	DH8D	GJEDW	17:54	17:57	00:03
FEBRUARY	02/02/2015	Stand 21	NW	Ground Idle	DH8D	GJEDM	10:34	10:38	00:04
FEBRUARY	04/02/2015	Stand 14	NW	Low Power	F50	OOVLM	09:41	09:49	80:00
FEBRUARY	05/02/2015	Stand 21	NW	Ground Idle	RJ85	EIRJT	21:37	21:42	00:05
FEBRUARY	06/02/2015	Delta	W	High Power	RJ85	EIRJT	07:17	07:25	00:08
FEBRUARY	07/02/2015	Stand 24	NW	Ground Idle	A318	GEUNB	10:42	10:53	00:11
FEBRUARY	09/02/2015	Stand 10	NW	Ground Idle	RJ85	EIRJU	10:10	10:15	00:05
FEBRUARY	12/02/2015	JC	S	Ground Idle	C56X	CSDXR	19:49	19:52	00:03
FEBRUARY	15/02/2015	Abeam Stand 12	E	Ground Idle	E170	GLCYD	13:00	13:08	00:08
FEBRUARY	19/02/2015	Stand 24	E	High Power	E190	GLCYP	11:30	11:42	00:12
FEBRUARY	20/02/2015	Stand 10	NW	Ground Idle	E190	GLCYM	14:35	14:46	00:11
FEBRUARY	22/02/2015	Abeam Stand 24	W	High Power	E170	GLCYH	13:05	13:25	00:20
FEBRUARY	25/02/2015	Stand 6	NW	Ground Idle	E190	GLCYM	06:46	06:53	00:07
FEBRUARY	26/02/2015	Stand 24	NW	Ground Idle	A318	GEUNA	18:14	18:23	00:09
MARCH	01/03/2015	Stand 24	W	High Power	E170	GLCYD	12:59	13:19	00:20
MARCH	04/03/2015	Stand 4	NW	Low Power	DH8D	LXLGN	09:52	09:59	00:07
MARCH	04/03/2015	Stand 8	S	Low Power	C56X	CSDXS	19:58	20:04	00:06
MARCH	05/03/2015	Stand 9	NW	Low Power	E190	GLCYU	06:33	06:39	00:06
MARCH	08/03/2015	Stand 24	W	High Power	E170	GLCYG	12:52	13:04	00:12
MARCH	13/03/2015	Delta	W	High Power	E190	GLCYT	13:39	13:50	00:11
MARCH	15/03/2015	Stand 21	NW	Low Power	E170	GLCYF	12:52	13:01	00:09
MARCH	16/03/2015	Stand 21	NW	Ground Idle	DH8D	GFLBD	12:49	12:53	00:04
MARCH	17/03/2015	Stand 23	NW	Ground Idle	E170	GLCYG	12:05	12:19	00:14
MARCH	19/03/2015	JC	S	Ground Idle	C56X	CSDXR	14:39	14:55	00:16
MARCH	19/03/2015	JC	S	Ground Idle	C56X	CSDXR	-	-	-
MARCH	22/03/2015	Stand 2	NW	Ground Idle	E190	GLCYS	12:52	12:57	00:05
MARCH	24/03/2015	Stand 10	NW	Ground Idle	DH8D	LXLGG	19:28	19:36	00:08
MARCH	29/03/2015	Stand 9	NW	Ground Idle	E190	GLCYL	12:35	12:41	00:06



молтн	DATE	LOCATION	A/C ORIENTATION	TYPE OF RUN / POWER SET	A/C TYPE	REG	START TIME	STOP TIME	DURATION (hh:mm)
APRIL	04/04/2015	Stand 24	W	High Power	E190	GLCYP	10:17	10:42	00:25
APRIL	04/04/2015	Stand 24	W	High Power	E190	GLCYP	12:00	12:09	00:09
APRIL	07/04/2015	Stand 1	NW	Low Power	RJ85	EIRJU	14:31	14:34	00:03
APRIL	11/04/2015	Stand 21	NW	Low Power	DH8D	GFLBD	10:26	10:30	00:04
APRIL	13/04/2015	Stand 24	W	High Power	E170	GLCYI	20:07	20:15	00:08
APRIL	14/04/2015	JC	E	Ground Idle	FA7X	MCELT	17:06	17:20	00:14
APRIL	14/04/2015	Stand 9	NW	Ground Idle	E190	GLCYU	20:43	20:47	00:04
APRIL	15/04/2015	Stand 6	NW	Ground Idle	RJ85	EIRJE	15:40	15:43	00:03
APRIL	15/04/2015	Rwy 09	E	High Power	SB20	GLGNP	21:25	21:27	00:02
APRIL	16/04/2015	Stand 6	NW	Ground Idle	E190	GLCYL	18:20	18:26	00:06
APRIL	17/04/2015	Stand 10	NW	Ground Idle	E190	GLCYU	14:49	14:53	00:04
APRIL	17/04/2015	Stand 24	W	High Power	RJ1H	HBIYU	16:50	17:13	00:23
APRIL	23/04/2015	Abeam Stand 12	W	Low Power	E170	GLCYD	15:31	15:38	00:07
APRIL	26/04/2015	Stand 22	NW	Low Power	E190	GLCYU	13:02	13:08	00:06
APRIL	27/04/2015	Stand 10	NW	Low Power	E170	GLCYI	13:37	13:42	00:05
APRIL	29/04/2015	Stand 2	NW	Ground Idle	RJ85	EIRJF	10:17	10:20	00:03
MAY	03/05/2015	Stand 24	W	High Power	E170	GLCYD	16:49	17:01	00:12
MAY	10/05/2015	Abeam Stand 24	W	High Power	E190	GLCYN	14:36	14:55	00:19
MAY	10/05/2015	Stand 23/24	W	High Power	E190	GLCYN	17:28	17:42	00:14
MAY	13/05/2015	Stand 12	NW	Motor Run	SB20	GCDKA	15:17	15:31	00:14
MAY	15/05/2015	JC	-	Ground Idle	-	OOFPE	-	-	-
MAY	17/05/2015	Stand 2	NW	Ground Idle	E170	GLCYG	12:36	12:46	00:10
MAY	22/05/2015	Stand 1	NW	Ground Idle	RJ1H	SWR47F	12:18	12:21	00:03
MAY	24/05/2015	Stand 7	NW	Ground Idle	E190	GLCYR	12:48	12:55	00:07
MAY	31/05/2015	Stand 8	NW	Ground Idle	RJ85	EIRJZ	20:31	20:34	00:03
JUNE	01/06/2015	Stand 6	NW	Ground Idle	RJ85	EIRJU	08:39	08:43	00:04
JUNE	03/06/2015	Stand 6	NW	Ground Idle	RJ85	EIRJY	15:18	15:23	00:05
JUNE	07/06/2015	Stand 8	NW	Ground Idle	E190	GLCYR	12:55	13:00	00:05
JUNE	08/06/2015	Stand 24	NW	Ground Idle	A318	GEUNB	14:17	14:24	00:07
JUNE	10/06/2015	Stand 23	NW	Low Power	RJ85	EIRJD	10:06	10:09	00:03
JUNE	10/06/2015	Stand 13	NW	Low Power	RJ85	EIRJD	15:55	15:59	00:04
JUNE	10/06/2015	Stand 23	W	High Power	RJ85	EIRJD	16:43	16:52	00:09
JUNE	10/06/2015	Stand 23	W	High Power	RJ85	EIRJD	16:55	17:03	00:08
JUNE	11/06/2015	Stand 1	NW	Low Power	E190	GLCYR	12:48	12:55	00:07
JUNE	13/06/2015	Stand 10	NW	Low Power	E190	GLCYL	13:25	13:31	00:06
JUNE	21/06/2015	Stand 3	NW	Low Power	E190	GLCYS	12:40	12:46	00:06
					i i				



MONTH	DATE	LOCATION	A/C ORIENTATION	TYPE OF RUN / POWER SET	A/C TYPE	REG	START TIME	STOP TIME	DURATION (hh:mm)
JULY	02/07/2015	Stand 21	NW	Ground Idle	DH8D	GJEDT	09:56	10:00	00:04
JULY	02/07/2015	Stand 23/24	W	High Power	AT42	GHUET	11:24	11:49	00:25
JULY	03/07/2015	Stand 21	NW	Ground Idle	RJ1H	HBIXW	09:16	09:27	00:11
JULY	05/07/2015	Stand 8	NW	Ground Idle	E170	GLCYH	13:40	13:51	00:11
JULY	12/07/2015	Stand 10	NW	Ground Idle	E190	GLCYP	12:33	12:40	00:07
JULY	13/07/2015	Stand 23	NW	Ground Idle	E170	GLCYE	14:33	14:40	00:07
JULY	19/07/2015	JC	E	Ground Idle	C510	MMHDH	12:32	12:41	00:09
JULY	19/07/2015	Stand 4	NW	Ground Idle	RJ85	EIRJT	16:24	16:30	00:06
JULY	24/07/2015	Stand 3	NW	Ground Idle	RJ85	EIRJU	16:24	16:34	00:10
JULY	25/07/2015	Stand 24	W	Ground Idle	E190	GLCYO	10:09	10:15	00:06
JULY	25/07/2015	Stand 24	W	High Power	E190	GLCYO	10:15	10:29	00:14
JULY	25/07/2015	Stand 24	W	Ground Idle	E190	GLCYO	10:29	10:34	00:05
JULY	25/07/2015	Stand 24	W	Ground Idle	E190	GLCYO	11:01	11:06	00:05
JULY	25/07/2015	Stand 24	W	High Power	E190	GLCYO	11:06	11:17	00:11
JULY	25/07/2015	Stand 24	W	Ground Idle	E190	GLCYO	11:17	11:21	00:04
JULY	26/07/2015	Stand 8	NW	High Power	RJ85	EIRJE	15:42	15:48	00:06
AUGUST	01/08/2015	Stand 7	NW	Ground Idle	RJ85	EIRJE	06:53	07:09	00:16
AUGUST	01/08/2015	Abeam Stand 24	W	High Power	RJ85	EIRJE	07:28	07:49	00:21
AUGUST	01/08/2015	Abeam Stand 13	E	Ground Idle	E170	GLCYF	08:38	08:44	00:06
AUGUST	03/08/2015	Stand 1	NW	Ground Idle	DH8D	GJEDP	10:43	10:45	00:02
AUGUST	03/08/2015	Stand 1	NW	Ground Idle	DH8D	GJEDP	15:34	15:36	00:02
AUGUST	06/08/2015	Stand 24	W	High Power	E170	GLCYI	14:38	15:06	00:28
AUGUST	08/08/2015	Stand 24	NW	Ground Idle	E170	GLCYI	06:59	07:06	00:07
AUGUST	11/08/2015	Stand 22	NW	Ground Idle	E190	GLCYP	06:38	06:44	00:06
AUGUST	11/08/2015	Stand 4	NW	Ground Idle	E170	GLCYG	16:29	16:33	00:04
AUGUST	15/08/2015	Stand 24	NW	Ground Idle	A318	GEUNA	10:13	10:21	00:08
AUGUST	15/08/2015	Stand 24	NW	Ground Idle	A318	GEUNA	10:25	10:30	00:05
AUGUST	20/08/2015	Stand 10	NW	Ground Idle	E190	GLCYP	06:35	06:43	00:08
AUGUST	21/08/2015	Stand 2	NW	Ground Idle	E190	GLCYT	06:58	07:04	00:06
AUGUST	22/08/2015	Abeam Stand 14	W	Ground Idle	E170	GLCYD	08:41	08:47	00:06
AUGUST	26/08/2015	Stand 10	NW	Ground Idle	RJ85	EIRJH	17:28	17:32	00:04
AUGUST	30/08/2015	Stand 21	NW	Ground Idle	E170	GLCYI	13:25	13:38	00:13
AUGUST	30/08/2015	Abeam Stand 24	W	High Power	RJ85	EIRJE	18:05	18:24	00:19
AUGUST	31/08/2015	Stand 10	NW	Ground Idle	E190	GLCYP	10:39	10:49	00:10
AUGUST	31/08/2015	Stand 10	NW	Ground Idle	E190	GLCYP	14:08	14:14	00:06
0507514050	04/00/2045	<u>a</u> , 10			5.05	515.04	10.11		00.40
SEPTEMBER	04/09/2015	Stand 9	NW	Ground Idle	RJ85	EIRJW	10:11	10:24	00:13
SEPTEMBER	04/09/2015	Stand 9	N VV	Ground Idle	KJ85	EIRJW	14:07	14:20	00:13
SEPTEMBER	04/09/2015	Stand 9	N VV	Ground Idle	KJ85	EIRJW	17:03	17:15	00:12
SEPTEMBER	04/09/2015	Stand 9	IN VV	Ground Idle	KJ85	EIRJW	19:02	19:13	00:11
SEPTEMBER	07/09/2015	Stand 24		Ground Idle	A516		12:20	12.42	00.08
SEPTEMBER	07/09/2015	Stand 22		Ground Idle	E190 A210	CELIND	15.50	15.45	00.13
SEPTEMBER	08/09/2015	Stand 24		Ground Idle	A516	GEUIND	09.05	09.06	00.05
SEPTEMBER	09/09/2015	Stand 10		Ground Idle	E190	GLCTK	11.49	11.50	00.06
SEPTEMBER	16/00/2015	Stand 1		Ground Idle	E190	CELLEC	11.40	11.52	00.04
	10/03/2015			Ground Idla			16.21	16.26	00.08
	10/03/2015	JL Stand 21		Ground Idla	UDU0U UDICD	GELDC	21.21	21.22	00.05
	10/03/2015	Stand 12		Ground Idla		GLENIM	21.27 10·44	21.33 10·E1	00.00
	24/09/2015			Ground Idlo	C26V		12.44	13.24	00.10
	23/03/2015	JL Stand 6		Ground Idla	E100	GLCVD	12.22	13.33	00.22
	20/00/2015	Stand 2		Ground Idla	510E		12.10	12.52	00.08
JEF I LIVIDEN	23/03/2013	Janu J	INVV		1/100	TIDITO	12.40	12.32	00.04



MONTH	DATE	LOCATION	A/C ORIENTATION	TYPE OF RUN / POWER SET	A/C TYPE	REG	START TIME	STOP TIME	DURATION (hh:mm)
OCTOBER	01/10/2015	Stand 10	NW	Ground Idle	E190	GLCYJ	11:01	11:11	00:10
OCTOBER	01/10/2015	Stand 7	NW	Ground Idle	E190	EIRNE	19:17	19:29	00:12
OCTOBER	05/10/2015	Stand 21	NW	Ground Idle	DH8D	GFLBE	21:24	21:31	00:07
OCTOBER	06/10/2015	Stand 24	NW	Ground Idle	A318	GEUNA	13:19	13:28	00:09
OCTOBER	07/10/2015	Stand 23	NW	Ground Idle	DH8D	GJECE	21:47	21:55	00:08
OCTOBER	08/10/2015	Stand 23	NW	Ground Idle	DH8D	GJECE	08:06	08:11	00:05
OCTOBER	10/10/2015	Stand 24	W	High Power	E170	GLCYF	10:30	10:43	00:13
OCTOBER	11/10/2015	Stand 24	W	High Power	E170	GLCYF	12:46	13:01	00:15
OCTOBER	12/10/2015	Stand 4	NW	Ground Idle	RJ1H	EIRJF	12:50	12:56	00:06
OCTOBER	13/10/2015	Stand 13	NW	Ground Idle	RJ85	EIRJU	13:16	13:19	00:03
OCTOBER	15/10/2015	Stand 22	NW	Ground Idle	E170	GLCYG	14:56	15:04	00:08
OCTOBER	15/10/2015	Yankee	E E	Ground Idle	E170	GLCYG	20:12	20:15	00:03
OCTOBER	18/10/2015	Stand 24	W	High Power	E1/0	GLCYD	12:51	13:14	00:23
OCTOBER	19/10/2015	Stand 12	N	Ground Idle	DH8D	GJEDR	09:44	09:48	00:04
OCTOBER	21/10/2015	JC Altra Chand 12	5	Ground Idle	C56X	CSDXY	12:16	12:21	00:05
OCTOBER	2//10/2015	Abeam Stand 12	E	Ground Idle	E1/0	GLCYH	21:18	21:32	00:14
OCTOBER	30/10/2015	Stand 7	INVV	Ground Idle	KJ85	EIRJR	13:20	13:25	00:05
OCTOBER	31/10/2015	JC	E	Ground Idle	FA/X	CA2701	11:07	11:10	00:03
NOVEMBER	01/11/2015	JC	E	Ground Idle	FA7X	HBJST	12:39	12:53	00:14
NOVEMBER	01/11/2015	JC	E	Ground Idle	FA7X	HBJST	13:32	13:38	00:06
NOVEMBER	01/11/2015	Stand 22	NW	Ground Idle	E170	GLCYF	14:40	14:53	00:13
NOVEMBER	09/11/2015	Stand 24	W	High Power	RJ85	EIRJH	11:12	11:17	00:05
NOVEMBER	11/11/2015	Stand 5	NW	Ground Idle	E170	GLCYH	13:04	13:08	00:04
NOVEMBER	13/11/2015	Stand 21	NW	Ground Idle	DH8D	GJEDU	13:07	13:11	00:04
NOVEMBER	18/11/2015	Stand 13	NW	Ground Idle	B462	GJEDV	12:56	13:01	00:05
NOVEMBER	18/11/2015	JC	NW	Ground Idle	E55P	CSPHB	13:54	14:03	00:09
NOVEMBER	18/11/2015	Stand 24	W	High Power	DH8D	GJEDV	14:32	14:41	00:09
NOVEMBER	21/11/2015	JC	E	Ground Idle	F900	XR0567	12:02	12:09	00:07
NOVEMBER	22/11/2015	Abeam Stand 24	W	High Power	E170	GLCYI	13:27	13:45	00:18
NOVEMBER	23/11/2015	Stand 2	NW	Ground Idle	RJ85	EIRJY	14:05	14:10	00:05
NOVEMBER	27/11/2015	Stand 21	NW	Ground Idle	E190	GLCYS	20:24	20:26	00:02
NOVEMBER	29/11/2015	Stand 23	NW	Ground Idle	E190	GLCYT	12:42	12:45	00:03
NOVEMBER	30/11/2015	Stand 24	W	High Power	E190	GLCYJ	12:34	12:49	00:15
NOVEMBER	30/11/2015	Stand 24	W	High Power	E190	GLCYJ	14:56	15:16	00:20
NOVEMBER	30/11/2015	Stand 24	W	High Power	E190	GLCYJ	15:35	15:43	00:08
DECEMPER	01/12/2015	Stand 24	14/	High Dowor	ספעס	IVICE	11.21	11.44	00.12
	01/12/2015	Stand 12		Ground Idlo			11.51	11.44	00.13
	01/12/2015	Stand 12		Ground Idle			12.42	12.45	00.03
DECEMBER	01/12/2013	Stand 13		Ground Idle		LALGE	15.55	15.50	00:03
DECEMBER	01/12/2015	Stand 24	W/	High Power	RISS	FIRIN	11.08	11.21	00:02
DECEMBER	03/12/2015	Stand 24	W/	High Power	F190	GIRNIA	13:06	13.30	00:15
DECEMBER	03/12/2015	Stand 10	NW/	Ground Idle	E190	FIRNA	15:22	15:47	00:24
DECEMBER	03/12/2015	Stand 6	NW	Ground Idle	F190	GLCYS	16:49	16:52	00:03
DECEMBER	06/12/2015	Stand 10	NW	Ground Idle	F190	GLCYS	12:39	12:44	00:05
DECEMBER	07/12/2015	Stand 3	NW	Ground Idle	B462	GSHLA	06:46	06:48	00:02
DECEMBER	08/12/2015	Stand 23/24	W	High Power	E190	GLCYJ	10:29	10:52	00:23
DECEMBER	08/12/2015	Abeam Stand 24	W	High Power	E190	GLCYJ	12:01	12:18	00:17
DECEMBER	08/12/2015	Abeam Stand 24	W	High Power	E190	GLCYJ	12:45	12:58	00:13
DECEMBER	08/12/2015	Stand 24	W	High Power	E170	GLCYD	16:09	16:20	00:11
DECEMBER	10/12/2015	Stand 2	NW	Ground Idle	E170	GLCYI	21:27	21:32	00:05
DECEMBER	11/12/2015	Stand 24	NW	Ground Idle	A318	GEUNB	15:12	15:27	00:15
DECEMBER	17/12/2015	Stand 13	Ν	Ground Idle	SB20	GZDKA	09:49	09:53	00:04
DECEMBER	17/12/2015	Stand 13	N	Ground Idle	SB20	GZDKA	11:05	11:16	00:11
DECEMBER	17/12/2015	Stand 23	NW	Ground Idle	DH8D	GJEDP	12:15	12:31	00:16
DECEMBER	17/12/2015	Stand 23	NW	Ground Idle	DH8D	GJEDP	12:44	12:49	00:05
DECEMBER	20/12/2015	Stand 8	NW	Ground Idle	RJ1H	HBIXU	20:27	20:33	00:06
DECEMBER	22/12/2015	Stand 23	NW	Ground Idle	DH8D	LXLGM	07:36	07:42	00:06
DECEMBER	22/12/2015	Stand 13	NW	Ground Idle	DH8D	LXLGM	12:26	12:31	00:05
DECEMBER	23/12/2015	Stand 24	NW	Ground Idle	E170	GLCYD	13:16	13:26	00:10
DECEMBER	28/12/2015	Stand 22	NW	Ground Idle	SB20	GCDEB	17:58	17:59	00:01
DECEMBER	30/12/2015	Abeam Stand 24	W	High Power	E170	GLCYD	12:02	12:16	00:14
DECEMBER	31/12/2015	Stand 13	NW	Low Power	RJ85	EIRJN	18:43	18:47	00:04

### LONDON CITY AIRPORT

### TABLE 2: SUMMARY OF HIGH POWER GROUND RUNNING JANUARY 2015 - DECEMBER 2015

	MINUTES/MONTH	AIRCRAFT TYPE
JANUARY	44	A318/E170
FEBRUARY	75	AT42/E170/E190/RJ85
MARCH	43	E170/E190
APRIL	67	E170/E190/SB20
MAY	45	E170/E190
JUNE	17	RJ85
JULY	56	AT42/E190/RJ85
AUGUST	68	E190/RJ85
SEPTEMBER	0	n/a
OCTOBER	51	E170
NOVEMBER	75	DH8D/E170/E190/RJ85
DECEMBER	128	DH8D/E170/E190/RJ85
TOTAL	669	-

### LONDON CITY AIRPORT

ENGINE GROUND RUN NOISE 2015 (w.r.t. Ground Running Noise Limit)

TABLE 3 Prediction of Engine Ground Running as Appendix E of Approved Noise Control Scheme

Item (A) Determination of Largest Monthly Duration:

As indicated in Table 2, that occurred in December 2015, specifically -

13 minutes DH8D25 minutes E17077 minutes E19013 minutes RJ85*128 minutes total Ground Running* 

### Item (B) Determination of Average Daily Duration During Worst Case

128 minutes in a month of 31 days4.1 minutes Average Daily Duration

Item (C) Compute Resultant Noise Level at Reference Distance (152 metres)

Resultant Noise Level at 152m

= Reference Noise Level + 10 Log (duration) - 10 Log (12x60)
= 84 + 10 Log (4.1) - 10 Log (12x60)
= 84 + 6.2 - 28.6
= 61.6 dB L<sub>Aeq,12h</sub>

Item (D) Compute Level at Nearest Properties in Newland Street Aircraft at Stand 24. Noise Level at Newland Street

= Resultant Noise Level - 26.7 Log (255/152)
= 61.6 - 6.0
= 55.6 dB L<sub>Aeq,12h</sub>

LCY Ground Running Noise Limit = 60 dB L<sub>Aeq,12h</sub>

### CONCLUSION

In 2015 LCY's Ground Running was 4.4 dB below the Ground Running Noise Limit.

Bickerdike Allen Partners Architecture Acoustics Technology

APPENDIX C

Penalties and Incentives



### **JANUARY 2015**

Aircraft Type	Noisy Events	Quiet Events
BE20	1	0
C560	1	0
C56X	0	3
DH8D	1	0
E170	2	2
E190	0	7
FA7X	1	0
F900	1	0
H25B	4	0
RJ85	1	0

### FEBRUARY 2015

### **Noisy Events Quiet Events** Aircraft Type 1 C25B 0 C525 0 1 C56X 1 1 E170 1 1 E190 2 0 F900 2 0 1 FA50 0 5 0 H25B RJ85 8 0

### **MARCH 2015**

Aircraft Type	Noisy Events	Quiet Events
C560	1	0
C56X	0	1
C680	1	0
CL60	0	1
E170	1	3
E190	1	8
F900	2	1
FA7X	2	0
GLEX	1	0
H25B	3	0
RJ85	1	0

### **APRIL 2015**

Aircraft Type	Noisy Events	Quiet Events
C550	0	1
C56X	0	4
E190	0	3
F900	1	0
FA7X	3	0
H25B	4	0
PA31	3	0
RJ1H	0	0
RJ85	3	0

### MAY 2015

Aircraft Type	Noisy Events	Quiet Events
C550	1	0
C560	1	0
C56X	1	2
E190	1	2
F900	1	0
FA50	1	0
FA7X	1	0
H25B	11	1
RJ1H	0	1
RJ85	4	0

### JUNE 2015

Aircraft Type	Noisy Events	Quiet Events
C525	0	1
C56X	0	3
C680	0	1
E190	0	2
F900	1	0
GLEX	1	0
H25B	6	0
RJ85	1	0

### JULY 2015

Aircraft Type	Noisy Events	Quiet Events
C25B	0	1
C560	1	0
C56X	1	1
E170	2	1
E190	1	0
F900	1	0
FA50	1	0
FA7X	1	0
H25B	15	0
RJ85	2	0

### **AUGUST 2015**

Aircraft Type	Noisy Events	Quiet Events
E170	3	0
E190	1	0
H25B	10	0
RJ85	14	0

### SEPTEMBER 2015

Aircraft Type	Noisy Events	Quiet Events
C550	0	1
C560	1	0
C56X	1	0
E170	0	1
E190	5	0
F2TH	0	1
FA50	1	0
FA7X	2	0
H25B	8	1
RJ85	9	0

## OCTOBER 2015

F

Aircraft Type	Noisy Events	Quiet Events
C25A	0	1
C56X	0	1
D328	1	0
E170	0	1
F2TH	1	0
F900	2	0
FA50	1	0
FA7X	3	0
GLEX	4	0
H25B	8	0

### NOVEMBER 2015

Aircraft Type	Noisy Events	Quiet Events
C56X	1	0
E190	1	0
H25B	8	0
RJ85	1	0

### **DECEMBER 2015**

Aircraft Type	Noisy Events	Quiet Events
C25A	0	1
C56X	1	1
E170	0	2
E190	4	2
F2TH	1	1
FA7X	1	0
H25B	6	0
RJ85	3	0

Airline	Aircraft Type	# Residual Penalties
NetJets	H25B	86
CityJet	RJ85	44
EXXAERO	F900	5
CityJet	E170	4
NetJets	GLEX	4
BA Cityflyer	RJ85	3
Flightline	PA31	3
Shell Aircraft	FA7X	3
A.G. Aviation	FA7X	2
Air Hamburg	C560	2
Japat AG	FA7X	2
Masterjet	GLEX	2
TAG UK	FA7X	2
Transportes Aereos Don Carlos	C560	2
Abelag	F2TH	1
Aero Vision	C550	1
Aero Vision	FA50	1
Aklak Air	F900	1
BADEN	FA7X	1
Bromma Business Jet AB	FA7X	1
Commandement Du Transport Aerien Militaire Francai	FA7X	1
Eurofly	FA50	1
Executive Jet Management	C680	1
Falcon Flying Ops	F900	1
FYG	F900	1
Flybe	DH8D	1
Global Jet Luxembourg	FA50	1

The following table shows the number of residual penalties incurred in 2015, ranked by airline and aircraft type.

Airline	Aircraft Type	# Residual Penalties
Interfreight Forwarding	FA7X	1
Japat AG	F900	1
Masterjet	FA50	1
Masterjet	FA7X	1
Monerrey Air Taxi	F2TH	1
Sundt Air	BE20	1
Sun Air of Scandinavia	D328	1
Swiss International Air Lines	RJ1H	1
Xclusive Jet Charter Limited	C560	1
Xclusive Jet Charter Limited	F900	1
Yolenal Aeronautics	F900	1
Air Hamburg	C25B	0
Air Hamburg	C56X	0
Air Hamburg	C525	0
Air Alsie	F2TH	0
BA Cityflyer	E170	0
BA Cityflyer	E190	0
Bertelsmann	F2TH	0
Cat Aviation	CL60	0
Catreus	C56X	0
Daimler Chrysler Aviation	C52A	0
Daimler Chrysler Aviation	C525	0
EXXAERO	C680	0
Fast Helicopters	FA50	0
Flying Partners	C25B	0
Leadair	C550	0
London Executive Aviation	C56X	0
Lufthansa	E190	0
NetJets	C550	0



Airline	Aircraft Type	# Residual Penalties
NetJets	C56X	0
Unijet	F900	0
VCG	C25A	0
Total		188

APPENDIX D

Meetings with Airport Consultative Committee



### For the period 1<sup>st</sup> January 2015 – 31<sup>st</sup> March 2015 inclusive.

### Noise:

Total Complaints – 18

- Lower number of complaints compared to the previous quarter.
- 17 related to aircraft noise, 2 were non LCY related as one was noise out of LCY operational hours and the other was related to local nuisance beyond the scope of the airport.
- One particular individual logged 28% of the total complaints in this quarter.

Enquiries - 9

- Query over data in the 2013 Annual Performance Report.
- LCY Noise Action Plan request for further information.
- 3 enquiries related to the airports Sound Insulation Scheme.
- 2 enquiries concerning airspace changes, one positive and one for further information.
- 1 enquiry to detail noise is not an issue in the area and pressure group propaganda is becoming an irritant.
- Further request on information concerning reducing the number of flights at LCY.

### **Total Correspondence: 27**

### Noise and Track Keeping System Performance:

System online – 88.6% of the period Offline 11.4% because of

Weather (high winds) interference on:

1, 2, 6, 7, 9, 10, 11, 12, 14, 15, 16, 28, 29 January 2015.

1, 13, 22, 23, 24, 28 February 2015.

1, 2, 3, 4, 13, 26, 28, 29, 30, 31 March 2015.

NMT1 - had a hardware defect which was rectified on site on the same day.

NMT2 had a power fault on 21<sup>st</sup> January - 22<sup>nd</sup> January as the power controller needed to be reset. On 20<sup>th</sup> February power failed and restored on the same day.

### Noise events and aircraft movement's correlation rates:

Arrivals – 85%, Departures – 88%, Overall – 87%



### For the period 1<sup>st</sup> April 2015 – 30<sup>th</sup> June 2015 inclusive.

### Noise:

Total Complaints – 24

- 24 related to aircraft noise and other elements such as low flying aircraft, changing in flight paths due to introduction of LAMP, increased frequency and aircraft vectoring.
- One particular individual logged 40% of the total complaints in this quarter.

### Enquiries – 16

- Three queries concerning the Sound Insulation Scheme;
- Four enquires for low flying aircraft; one was from LCA however 3 were non LCA;
- A query about the reports provided to LCACC;
- A query detailing air quality in the terminal;
- Three queries about Heathrow aircraft and LCA aircraft distances when crossing flight paths;
- A query requesting information on the published date of the airports 2014 Annual Performance Report;
- 1 enquiry addressing a particular flight from a local resident due to being unusually loud.
- Further request on information concerning reducing the number of flights at LCY.
- 1 raised from LBN on behalf of local resident
- A report through about an inflatable shark which could infringe airspace from local.

### **Total Correspondence: 40**

### Noise and Track Keeping System Performance:

System online – 91% of the period Offline 9% because of

Weather (high winds) interference mainly in April and May 2015.

### Noise events and aircraft movement's correlation rates:

Arrivals – 90%, Departures – 91%, Overall – 91%



### For the period 1<sup>st</sup> July 2015 – 30<sup>th</sup> September 2015 inclusive.

### Noise:

Total Complaints – 39

- 35 related to aircraft noise and other elements such as low flying aircraft, changing in flight paths due to introduction of LAMP, increased frequency, ground noise from aircraft engine testing and aircraft spacing in terms of altitude (LHR and LCY).
- One particular individual logged 26% of the total complaints in this quarter.

Enquiries – 9

- Query concerning does LCY fly over the area;
- 2 enquiries concerning aircraft movements at 4:25am non LCY;
- Broken window of small boat in marina non LCY;
- Have flight path changes been approved?;
- Request for a flight timetable as filming in local area;
- Helicopter flights for site seeing, can you control this as they are in your airspace?;
- Have the number of flights increased at LCY?;
- Helicopter use at LCY and does the airport allow night time flying?.

### **Total Correspondence: 48**

### Noise and Track Keeping System Performance:

System online - 96% of the period

Offline 4% because of

Weather (high winds) interference 3, 16, 27, 28 July, 14, 28 and 30 September.

NMT 2 lost power on 05/09, 16/09, 21/09 and 22/09 due to solar and ethanol tank developing a fault.

### Noise events and aircraft movement's correlation rates:

Arrivals – 91%, Departures – 94%, Overall – 93%.



### For the period 1<sup>st</sup> October 2015 – 31st December 2015 inclusive.

### Noise:

Total Complaints – 19

- 16 related to aircraft noise and other elements such as low flying aircraft, possible changes in flight paths.
- 1 complaint was registered due to increased frequency of flights.
- 2 complaints were due to LHR traffic so were non LCY related.
- One particular individual logged 21% of the total complaints in this quarter.

Enquiries – 8

- Query concerning does LCY fly over the area;
- Night time flights Non LCY;
- Individual new to area, LCY flight paths in area?;
- Request a copy of noise contours referred to APR;
- Change in flight paths as reduction in flights in the area? X 2;
- Have flight paths been changed causing concentration of flights in area?;
- Separation of flights concerning altitude and proximity between LHR and LCY;

### **Total Correspondence: 27**

### Noise and Track Keeping System Performance:

System online – 96% of the period Offline 4% because of

Weather (high winds) interference 3, 16, 27, 28 July, 14, 28 and 30 September.

NMT 2 lost power on 05/09, 16/09, 21/09 and 22/09 due to solar and ethanol tank developing a fault.

### Noise events and aircraft movement's correlation rates:

Arrivals – 87%, Departures – 83%, Overall – 85%.

The drop in correlation was due to a faulty fuse at NMT 2 during the November 2015.

APPENDIX E

Numbers of Aircraft Operating at LCY

# $\label{eq:londonlocal} Londonl\,Cityl\,Airport: I\,Recordl\,ofl Dailyl\,andl\,Noisel Factoredl\,Aircraftl\,Movementsl\,2015$

					1		Permitted	Differen	ces (Permitt	ed - Actual)	Early Actual	Movements	(Early Permit	ted - Actual)	Late Actual N	lovements <sup>[2]</sup>
Date	Actual Move	Aircraft ments	Permitte Aircraft N	ed Actual lovements	Hactore Move	iments <sup>[1]</sup>	Factored Movements	Actual M	ovements	Factored Movements	Early M	orning	Early M	orning	Late Evening	Saturday Afternoon
	Day	Weekend	Day	Weekend	Day	Week	Week	Day	Weekend	Week	06:30-06:44	06:30-06:59	06:30-06:44	06:30-06:59	22:00-22:30	12:30-13:00
01/01/2015	95		132		103			37			0	0	1		0	
02/01/2015	166	I	592	I	173	360	1 2 5 5 5	426	I	90 <i>6</i>	0	1	2	5	0	1
03/01/2015	73	175	100	000	76	905	2,200	27	105	060	1	4	1	2		5
04/01/2015	102	C/T	200	087	110			86	CUT						1	
05/01/2015	237	-	592		252			355	-		0	2	2	4	0	
06/01/2015	238		592	1	249			354			1	4	1	2	0	
07/01/2015	255	-	592		267			337	-		1	4	1	2	1	
08/01/2015	250	-	592		261	1,478	4,050	342	-	2,572	2	5	0	1	0	
09/01/2015	241	-	592		250			351	-		0	2	2	4	2	
10/01/2015	65	107	100	U86	66			35	ØØ		1	3	1	3		5
11/01/2015	127	727	200	700	132			73	00		-	-	-		1	-
12/01/2015	293		592	1	309			299	-		0	5	2	1	0	
13/01/2015	265	-	592		273			327	-		1	6	1	0	0	
14/01/2015	279		592	1	290			313	-		1	4	1	2	0	
15/01/2015	287		592	1	299	1,659	4,050	305	-	2,391	1	4	1	2	0	
16/01/2015	273	-	592	1	280			319			1	6	1	0	1	'
17/01/2015	71	200	100	086	73			29	80		2	5	0	1		2
18/01/2015	129	200	200	200	135			71	00		-	-	1	1	0	-
19/01/2015	285		592		296			307	-		2	6	0	0	1	
20/01/2015	304	-	592	-	320			288	-		0	4	2	2	0	-
21/01/2015	317	-	592	-	333			275	-		2	6	0	0	0	-
22/01/2015	312	-	592	-	326	1,788	4,050	280	-	2,262	2	6	0	0	0	-
23/01/2015	295	-	592	-	307			297	-		1	5	1	1	0	
24/01/2015	69	108	100	08C	72			31	87		2	5	0	1		3
25/01/2015	129	υCT	200	200	133			71	02			-	1	1	0	'

2015 Daily Movement Data.xls 28/04/2016

<sup>[1]</sup> Factored Movements have been rounded to the nearest whole number <sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period

01/21/9-3755-r41r3388, L1r25145rdH754/25C1-i, 3tdL31r, 255-rLrdd35y 1A, r , / 3t5p: Re

		:	:				Permitted	Differenc	es (Permitte	ed - Actual)	Early Actual	Movements	(Early Permi	tted - Actual)	Late Actual N	1ovements <sup>12]</sup>
Date	Actual Move	Aircraft ments	Permitte Aircraft M	ed Actual ovements	Factore Mover	a Aircratt nents <sup>[1]</sup>	Factored	Actual Mo	vements	Factored						Saturday
							Movements			Movements	Early <b>N</b>	lorning	Early N	Aorning	Late Evening	Afternoon
	Day	Weekend	Day	Weekend	Day	Week	Week	Day	Weekend	Week	06:30-06:44	06:30-06:59	06:30-06:44	06:30-06:59	22:00-22:30	12:30-13:00
pc D RDp: Re	a: c	_	eNp	_	aRN			ps c	_		R	e	R	R		_
pMD RDp: Re	a: v	_	eNp	_	aRe			bs s	_		R	e	R	R		_
ps D RDp: Re	app	_	eNp	_	aaN			рМ	_			e	d	R	R	_
pND RDp: Re	aRv	_	eNp	_	aaR	Rrsnps	vme:	pM\$	_	dddud	R	^	R	d	R	_
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: vD pDp: Re	aRv	_	eNp	_	apN			p <b>№</b>	_		R	е	R	R		-
: еД рДр: Re	aRN	_	eNp	_	аае	Rrspp	vme:	рМа	_	sdaud	d	~		d	R	-
: с др ф: Ке	pNs	_	eNp	_	aRR			pNv	_			~	d	d	R	-
: MD pDp: Re	Ŵ	2	R: :	. 30	MM			pc	AA			>	d	d	_	a
: s D pDp: Re	Ra:	ہ ب	::d	. crl	RaM			۳	IM		_	-	_	_	R	-
: ND pDp: Re	aR:	_	eNp	_	ape			d sd	_		R	C	R			-
R: D pDp: Re	aRc	_	eNp	_	aa:			pMt	_		R	C	R			-
RRD pDp: Re	aRN	_	eNp	_	aav			рМа	_		d	C				_
RpD pDp: Re	aRM	_	eNp	_	aas	Rrsss c	vme:	p№€	_	prAcv	R	С	R		R	-
RaD pDp: Re	aRR	_	eNp	_	apM			ps R	_		R	d	R	٧	٧	-
RvD pDp: Re	ď	nRc	R: :	. 30	R: :			S	ç		ď	a		a	_	a
ReD pDp: Re	Rpc	сы с	: :d		Rap			Ŵ	2		_	_	_	_		_
RcD pDp: Re	a: c	_	eNp	_	ap:			ps c	_		R	е	Я	R		_
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<sup>[1]</sup> Factored Movements have been rounded to the nearest whole number <sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period

2015 Daily Movement Data.xls 28/04/2016

2015 Daily Movement Data.xls 28/04/2016

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Date pcf: pfp: Re pFf: pfp: Re pef: pfp: Re pDf: pfp: Re ppf: pfp: Re psf: pfp: Re pf: pfp: Re	Actual Move CRD CRD CRD CRD CPM CpM Se	Aircraft Weekend	Permitte Aircraft M eNp eNp eNp eNp eNp eNp	verents Weekend	Factore Mover CCC CFS CFS SM	d Aircraft ments <sup>[1]</sup> Week RrM∕€		Permitted Factored Week Fme:	Permitted Differen Factored Actual M Week Day psD pDF Fme: pDe pNM	Permitted     Differences (Permit Actual Movements       Week     Day     Weekend       week     psD             pSD                   pDF                   pDE                   pe     pM	Permitted         Differences (Permitted - Actual)           Factored         Actual Movements         Factored           Movements         Day         Weekend         Wovements           Week         Day         Weekend         Week           psD         I         psDF         I           pDF         I         prRDe         prRDe           pP         DM         I         prRDe	Permitted         Differences (Permitted - Actual)         Early Actual           Factored         Actual Movements         Factored           Movements         Day         Weekend         Week         06:30-06:44           Model         psD         I         R         R           pDF         I         prRDE         R         R           pDF         I         prRDE         R         R           pDF         I         prRDE         R         R           pDE         I         prRDE         R         P	Permitted         Differences (Permitted - Actual)         Early Actual Movements         Factored           Factored         Actual Movements         Factored         Early Morning           Week         Day         Weekend         Week         06:30-06:44         06:30-06:59           psD         I         R         c         R         D           psD         I         Prifibe         R         D         D           pDF         I         prifibe         R         D         D         Early Morning           psD         I         Fme:         pDF         I         P         D         D         Early Morning         Early Morning         D	Permitted         Differences (Permitted - Actual)         Early Actual Movements         Factored         Factored         Early Morning         Early N           Movements         Day         Weekend         Weekend         Week         06:30-06:44         06:30-06:59         06:30-06:44           Movements         psD         I         R         C         R         R         C         R         P </th <th><math display="block"> \begin{array}{ c c c c } \label{eq:permitted} \hline Permitted \\ \hline Permitted \\ \hline Pactored \\ \hline Pactored \\ \hline Pactored \\ \hline Movements \\ \hline PsD \\ psD \\ psD \\ pDF \\ \hline pDF \\ </math></th> <th>Permitted         Differences (Permitted - Actual)         Early Actual Movements         (Early Permitted - Actual)         Late Actual I           Factored         Actual Movements         Factored         Movements         Early Morning         Early Morning         Early Morning         Late Actual I           Week         Day         Weekend         Weekend         Week         06:30-06:44         06:30-06:59         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:45         22:00-22:30           Prime:         pDF         1         prifDe         R         D         R         C</th>	$ \begin{array}{ c c c c } \label{eq:permitted} \hline Permitted \\ \hline Permitted \\ \hline Pactored \\ \hline Pactored \\ \hline Pactored \\ \hline Movements \\ \hline PsD \\ psD \\ psD \\ pDF \\ \hline pDF \\ $	Permitted         Differences (Permitted - Actual)         Early Actual Movements         (Early Permitted - Actual)         Late Actual I           Factored         Actual Movements         Factored         Movements         Early Morning         Early Morning         Early Morning         Late Actual I           Week         Day         Weekend         Weekend         Week         06:30-06:44         06:30-06:59         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:44         06:30-06:45         22:00-22:30           Prime:         pDF         1         prifDe         R         D         R         C
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# 01/21/9-3755-r41r3957, L1r251.05n dH75d/25C1+i,5t dL31r, 255-rLrdo35y 1A, r , /3i 与: Re

Bickerdike Allen Partners Architecture Acoustics Technology

01/21/9-3755-r41r3388, L1r25145rdH754/25C1-i, 3tdL31r, 255-rLrdd35y 1A, r , / 3t5p: Re

		:		-		4	Permitted	Differenc	es (Permitte	ed - Actual)	Early Actual	Movements	(Early Permi	tted - Actual)	Late Actual N	lovements
Date	Actual Move	Aircraft ments	Permitté Aircraft M	ed Actual ovements	Moven	า Aircrait ients <sup>[1]</sup>	Factored	Actual Mo	vements	Factored						Saturday
											Early N	lorning	Early N	Aorning	Late Evening	Afternoon
	Day	Weekend	Day	Weekend	Day	Week	Week	Day	Weekend	Week	06:30-06:44	06:30-06:59	06:30-06:44	06:30-06:59	22:00-22:30	12:30-13:00
pcf: cfp: Re	cRD	_	eNp	_	ccc			ps D	_		d	D				_
pFf: cfp: Re	cRp	_	eNp	_	cpD			рМ	_		d	D			R	
pef: cfp: Re	c pp	_	eNp	_	ccN			: sd	_		d	D				_
pDf: cfp: Re	cpc	_	eNp	_	cFR	<b>RIMEN</b>	Fme:	pDN	_	prp: p	R	D	R			_
psf: cfp: Re	NNd	-	eNp	_	cRp			pNc	_		R	d	R	F		_
pM: cfp: Re	sM	4ND	R: :	Ma	₽			dd	NA.		R	Ŧ	R	d	_	С
pNf: cfp: Re	RRF		: :d	Min	RRs			M			_	_	_	_		_
c: f: cfp: Re	pNc	_	eNp	_	c: M			NNd	_		R	Ŧ	R	d		_
cRf: cfp: Re	ps M	_	eNp	_	pNc			cRF	_		R	C	R	C		_
: Rf: Ffp: Re	MNd	_	eNp	_	cRp			pNF	_		R	Ŧ	R	d		_
: pf: Ffp: Re	pNs	_	eNp	_	cRM	RreeFN	craße	pNe	_	RINDD	R	Ŧ	R	d	R	_
: cf: Ffp: Re	RDF	_	RDF	_	Rse				_				d	D		_
: Ff: Ffp: Re	ec	Nrd	R: :	Ma	еF			Fs	DED			d	d	F	_	
: ef: Ffp: Re	M		: :d	Mid	MM			RRF			_	-	_	_		_
: Df: Ffp: Re	RNF	_	RNM	_	RNC			RF	_				d	D		_
: sf: Ffp: Re	pNR	_	eNp	_	c: s			c: R	_			F	d	d	R	_
: M: Ffp: Re	ps N	_	eNp	_	dNq			cRc	_			D	d			_
: Nf: Ffp: Re	ddd	-	eNp	_	pcF	Rreac:	craeM	cs:	_	Mdmq	R	С	R	С	R	_
R: f: Ffp: Re	ps N	-	eNp	_	pNe			cRc	_			R	d	е		_
RRf: Ffp: Re	sc	2	R: :	Ma	sF			sd	Mo		R	e	R	R	_	D
Rpf: Ffp: Re	RpN	ہ غ	: :d	2	RcF			sR	IAI C		_	_	_	_		_
Rcf: Ffp: Re	c: s	_	eNp	_	cpM			pM€	_			F	d	d		_
RFf: Ffp: Re	DNp	_	eNp	_	cRe			pND	_			C	d	C		_
Ref: Ffp: Re	NNd	_	eNp	_	cp:			pNc	_		R	D	R			_
RDf: Ffp: Re	dNq	-	eNp	_	cRR	RISIDF	Fme:	c::	_	DMdrid		F	d	d		_
Rsf: Ffp: Re	s sd	-	eNp	_	dNq			cRe	_			C	d	С		_
RM: Ffp: Re	QQ	RNAI	R: :	Wu	පි			сF	an			е	d	R	_	R
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<sup>[1]</sup> Factored Movements have been rounded to the nearest whole number <sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period

2015 Daily Movement Data.xls 28/04/2016

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Rac: ecp: Re	RMt: ecp: Re	Rec: ecp: Re	Rf c: ecp: Re	RDc: ecp: Re	Rpc: ecp: Re	RRc: ecp: Re	R: c: ecp: Re	: Nc: ecp: Re	: sc: ecp: Re	: ac: ecp: Re	: Mt: ecp: Re	: ec: ecp: Re	: f c: ecp: Re	: Dc: ecp: Re	: pc: ecp: Re	: Rc: ecp: Re	D: c: f cp: Re	pNc: f cp: Re	ps c: f cp: Re	pac: f cp: Re	pMt: f cp: Re	pec: f cp: Re	pf c: f cp: Re	pDc: f cp: Re	ppc: f cp: Re	pRc: f cp: Re	p: c: f cp: Re		Date	
RpD	:e	pMN	ps f	DR:	pNa	pNN	Rp:	a:	pNp	D: :	pND	ps N	RN:	R: M	₽N.	paM	D: D	DRR	D: D	s sd	RRN	MM	pas	D: s	pNM	pNN	D: a	Day	Actual Move	
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			f me:							Drtvp:							f me:							f me:				Week	Factored Movements	Permitted
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_	R	_	_	_	_	_	_	q	_	_	_	_	_	_	R	_	_	_	_	_	_	R	_	_	_	_	_	12:30-13:0	Saturday Afternoo	Novements

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01/21/9-3755-r41r3388, L1r251456nd4754/25C1-i, 3tdL31r, 255-rLrd635y1A, r, /35; Re

ovements <sup>[2]</sup>	Saturday Afternoon	12:30-13:00	z		z	z z	z z z	z z z z	z z z z <sub>a</sub>	z z z z <sub>d</sub> z	z z z z <sub>a</sub> z z	z z z z <sub>d</sub> z z z	z z z z <sub>d</sub> z z z z	z z z z <sub>a</sub> z z z z z	z z z z <sub>e</sub> z z z z z z	z z z z <sub>a</sub> z z z z z <sub>a</sub>	z z z z <sub>a</sub> z z z z z <sub>a</sub> z	z z z z <sub>a</sub> z z z z z z <sub>a</sub> z z	z z z z <sub>a</sub> z z z z z z <sub>a</sub> z z z	z z z z <sub>a</sub> z z z z z z z <sub>a</sub> z z z	z z z z <sub>a</sub> z z z z z z z <sub>a</sub> z z z z	z z z z <sub>a</sub> z z z z z z z <sub>a</sub> z z z z	z z z z <sub>a</sub> z z z z z z z z z <sub>a</sub> z z z <sub>a</sub>	z z z z <sub>a</sub> z z z z z z z z z z z <sub>a</sub> z z z <sub>a</sub> z	z z z z <sub>a</sub> z z z z z z z z z z z z z z z z z z z	z z z z <sub>a</sub> z z z z z z z z <sub>a</sub> z z z z z z z z z z z z z z z z z	z z z z <sub>a</sub> z z z z z z z z z z z z z z z z z z z	z z z z <sub>a</sub> z z z z z z z z z z z z z z z z z z z	z z z z <sub>a</sub> z z z z z z z z z z z z z z z z z z z
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d - Actual)	Factored Movements	Week				prana:							Rnace							praae							<b>MMd</b> rd		
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Permitted	Factored Movements	Week				vme:							amel c							vme:							vme:		
4 Aircraft	a Alicrati nents <sup>[1]</sup>	Week				RrMD:							RriwRa							RrhnRe							RITMA		
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<sup>[1]</sup> Factored Movements have been rounded to the nearest whole number <sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period

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	Rpc: F	RRc: F	R: c: F	: Nc: F	: Mt: F	: Fc: F	:fc:F	: ec: F	: s c: F	: ac: F	: pc: F	: Rc: F	a: c: f	pNc: f	pMt:f	pFc: f	pf c: f	pec: f	ps c: f	pac: f	ppc: f	pRc: f	p: c: f	RNc: f	RMt: f	RFc: f	Rf c: f	Rec: f		D	
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01/21/9-3755-r41r335R, L1r251.05n dH75d/25C1+i,5t dL31r, 255-rLrdo35y 1A, r , /3i 与: Re

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<sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period <sup>[1]</sup> Factored Movements have been rounded to the nearest whole number

01/21/9-3755-r41r33333, L1r253.d5nd4754/25C1-i, 3tdL31r, 255-rLrdd35y 1A, r , /3 5p: Re

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<sup>[1]</sup> Factored Movements have been rounded to the nearest whole number <sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period

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## 01/21/93-3755-r41r3357, L1r251.05n dH75d/25C1-i,5t dL31r, 255-rLrdo35y 1A, r , /3i 与: Re

2015 Daily Movement Data.xls 28/04/2016

<sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period <sup>1</sup> Factored Movements have been rounded to the nearest whole number

01/21/9-375-r41r338, L1r25145rdH754/25C1-i, 3tdL31r, 255-rLrd635/1A, r, /35; Re

				-			Permitted	Differenc	ces (Permitte	d - Actual)	Early Actual	Movements	(Early Permi	tted - Actual)	Late Actual N	10vements <sup>[2]</sup>
Date	Actual Move	Aircraft ments	Permitte Aircraft M	ed Actual ovements	Mover	i Aircraπ nents <sup>[1]</sup>	Factored Movements	Actual Mo	vements	Factored Movements	Early N	lorning	Early N	lorning	Late Evening	Saturday Afternoon
•	Day	Weekend	Day	Weekend	Day	Week	Week	Day	Weekend	Week	06:30-06:44	06:30-06:59	06:30-06:44	06:30-06:59	22:00-22:30	12:30-13:00
: cf: Dfp: Re	aRe	_	eDp	-	aN:			pcc	_		d	S			R	_
: M: Dfp: Re	pDe	_	eDp	_	aRs			pDc	_		R	Z	R	d		_
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RNf: Dfp: Re	pDe	_	eDp	_	aRs			pDc	_		R	в	R	a		_
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<sup>[1]</sup> Factored Movements have been rounded to the nearest whole number <sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period

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2015 Daily	: RcRRcp: Re	NRcR: cp: Re	N: cR: cp: Re	pf cR: cp: Re	ps cR: cp: Re	pvcR: cp: Re	pDcR: cp: Re	pecR: cp: Re	pMtR: cp: Re	pNcR: cp: Re	ppcR: cp: Re	pRcR: cp: Re	p: cR: cp: Re	Rf cR: cp: Re	Rs cR: cp: Re	RvcR: cp: Re	RDcR: cp: Re	RecR: cp: Re	RMtR: cp: Re	RNcR: cp: Re	RpcR: cp: Re	RRcR: cp: Re	R: cR: cp: Re	: f cR: cp: Re	: s cR: cp: Re	: vcR: cp: Re	: DcR: cp: Re	: ecR: cp: Re		Date	
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01/21/93-3755-r41r3357, L1r251.05n dH75d/25C1+i,5t dL31r, 255-rLrdo35y 1A, r , / 3i 与: Re

<sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period

Bickerdike Allen Partners Architecture Acoustics Technology

01/21/9-3755-r41r3333, L1r25145rdH754/25C1+i, 3tdL31r, 255-rLrd635y 1A, r , /3 5p: Re

		;		-			Permitted	Differenc	ces (Permitte	d - Actual)	Early Actual	Movements	(Early Permit	tted - Actual)	Late Actual N	1ovements <sup>[2]</sup>
Date	Actual Mové	Aircraft ements	Permitté Aircraft M	ed Actual lovements	Factore Mover	d Aircraft nents <sup>[1]</sup>	Factored Movements	Actual Mo	vements	Factored Movements	Early N	lorning	Early N	lorning	Late Evening	Saturday Afternoon
	Day	Weekend	Дау	Weekend	Day	Week	Week	Day	Weekend	Week	06:30-06:44	06:30-06:59	06:30-06:44	06:30-06:59	22:00-22:30	12:30-13:00
: pcRRcp: Re	fD	-	eNp	_	ef			eff	_				d	S		_
: MtRcp: Re	NNd	_	eNp	-	Nobs			MNd	_		R	R	R	e	R	_
: f cRRcp: Re	NRs	_	eNp	_	M s		•	pvs	_			×	d	Σ		_
: ecRRcp: Re	Nb:	-	eNp	_	M s	Rrsn: M	f me:	dvq	_	prfif v		S	d			_
: s cRRcp: Re	pNv	-	eNp	_	NRV			pNe	_		R	f	R	d		_
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: NcRRcp: Re	NNd	-	eNp	_	MpR			MNd	_		R	f	R	d		_
R: cRRcp: Re	NRs	-	eNp	_	Mff			pvs	_		d	S				_
RRcRRcp: Re	NR:	-	eNp	_	MAE			pDp	_		d	S				_
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RMtRRcp: Re	MNd	-	eNp	-	NRR			NNd	_			Σ	d	Σ	R	_
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Rs cRRcp: Re	Мр	-	eNp	-	Mps			рN:	_		R	f	R	d		_
RvcRRcp: Re	pNs	-	eNp	_	MRN			pNs	_		R	e	R	R		_
RDcRRcp: Re	NW	-	eNp	-	MM			pDM	_		R	Σ	R	Σ		_
RNCRRcp: Re	NRN	-	eNp	-	Mff	RrDs e	f me:	рvМ	_	prRDe	R	e	R	R		_
p: cRRcp: Re	МD	-	eNp	-	N¢N			pDf	_			e	d	R	R	_
pRcRRcp: Re	sD	UNA	R: :	ċ	٧M			Δþ	Ê		R	Σ	R	Σ	_	Μ
ppcRRcp: Re	RM		: :d	л Л	RMN			۲: ۲:	2		_	_	_	_		_
pMtRRcp: Re	pNR	-	eNp	_	MRp			МR	_		R	f	R	d	R	_
pf cRRcp: Re	Мs	-	eNp	_	M¢N			pDs	_		R	f	R	d		_
pecRRcp: Re	hW	-	eNp	-	MpR			pNe	_		R	e	R	R		_
ps cRRcp: Re	MD	-	eNp	_	MM	RrnNe	f me:	pDf	_	prpee	R	e	R	R	d	_
pvcRRcp: Re	рvN	-	eNp	_	hW			MRM	_			f	d	d	d	_
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2015 Daily Movement Data.xls 28/04/2016

<sup>[1]</sup> Factored Movements have been rounded to the nearest whole number <sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period

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# 01/21/93-3755-r41r3357, L1r251.051 dH751/252.1-i, 5t.dL31r, 255-rLrd035y 1A, r, /3i 5p: Re

	pl fRpfp: Re	pMiRpfp: Re	pefRpfp: Re	pFfRpfp: Re	pcfRpfp: Re	ppfRpfp: Re	pRfRpfp: Re	p: fRpfp: Re	Rs fRpfp: Re	RDfRpfp: Re	RI fRpfp: Re	RMIRpfp: Re	RefRpf p: Re	RFfRpf p: Re	RcfRpfp: Re	RpfRpfp: Re	RRfRpfp: Re	R: fRpfp: Re	: sfRpfp: Re	: DfRpf p: Re	: l fRpfp: Re	: MRpfp: Re	: efRpf p: Re	: FfRpfp: Re	: cfRpf p: Re	: pfRpfp: Re	: RfRpf p: Re	c: fRRf p: Re		Date	
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	z	p	z	R	R	q	R	z	R	p	R	q	p	R	N		R		R		R	Z	R	R		q		R	06:30-06:44	Early N	(Early Permi
	Z	F	z	R	q	q	C	z	R	с		R	e	c	N	q	с			R	R	N	q	с		R	R	q	06:30-06:59	Vorning	itted - Actual)
	q	z	z						z							z	p				R		z						22:00-22:30	Late Evening	Late Actual I
	z	R	z	z	z	z	z	z	R	z	z	z	z	z	z	c	z	z	z	z	z	z	d	z	z	Z	z	Z	12:30-13:00	Saturday Afternoon	Vlovements <sup>[2]</sup>

<sup>12</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period

2015 Daily Movement Data.xls 28/04/2016

01/21/9-375-r41r338, L1r25145rdH754/25C1+i, 3tdL31r, 255-rLrd635/1A, r, /3 5p: Re

						:	Permitted	Differenc	es (Permitte	ed - Actual)	Early Actual	Movements	(Early Permit	ted - Actual)	Late Actual N	ovements <sup>[2]</sup>
Date	Actual Move	Aircraft ements	Permitte Aircraft M	ed Actual lovements	Factore Mover	d Aircraft nents <sup>[1]</sup>	Factored Movements	Actual Mo	vements	Factored Movements	Early M	orning	Early Mu	orning	Late Evening	Saturday Afternoon
	Day	Weekend	Дау	Weekend	Day	Week	Week	Day	Weekend	Week	06:30-06:44	06:30-06:59	06:30-06:44	06:30-06:59	22:00-22:30	12:30-13:00
pc IRpIp: Re	RaR	-	:NN	-	Rcs			ReM	_				d	s		_
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<sup>[1]</sup> Factored Movements have been rounded to the nearest whole number <sup>[2]</sup> Permitted Late Movements comprise 400 per year and not more than 150 in any consecutive 3 months for each time period

APPENDIX F

NTK Status Reports

DATE         Events         Events         Events         Events         Fuest         Yes           01/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           02/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           03/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           03/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           05/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           06/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           08/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           10/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           11/01/2015         Yes         Yes         Yes         Yes         Yes           12/01/2015         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes           12	DATE	NMT1	NMT2	NMT3	NMT4	FIDE
01/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           02/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           03/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           04/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           06/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           07/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           09/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           10/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           11/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes	DATE	Events	Events	Events	Events	FID3
02/01/2015         Yes         Yes         Yes         Yes         Yes           03/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           03/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           05/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           06/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           07/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           09/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           10/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           14/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           14/01/2015         Yes         Yes         Yes         Yes         Yes	01/01/2015	Yes	Yes	Yes	Yes	Yes
03/01/2015         Yes         Yes         Yes         Yes         Yes           04/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           05/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           06/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           07/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           09/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           01/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           14/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes	02/01/2015	Yes	Yes	Yes	Yes	Yes
04/01/2015         Yes         Yes         Yes         Yes         Yes           05/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           06/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           07/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           08/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           09/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           10/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           12/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           16/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           17/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           16/01/2015         Yes         Yes         Yes         Yes         Yes         Yes	03/01/2015	Yes	Yes	Yes	Yes	Yes
05/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           06/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           07/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           08/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           09/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           10/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           11/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           12/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           14/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           14/01/2015         Yes         Yes         Yes         Yes         Yes	04/01/2015	Yes	Yes	Yes	Yes	Yes
0.6/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           07/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           08/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           09/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           10/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           11/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           14/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           19/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           19/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           20/01/2015         Yes         Yes         Yes         Yes         Yes <td>05/01/2015</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td>	05/01/2015	Yes	Yes	Yes	Yes	Yes
107/01/2015     Yes     Yes     Yes     Yes     Yes       08/01/2015     Yes     Yes     Yes     Yes     Yes       09/01/2015     Yes     Yes     Yes     Yes     Yes       10/01/2015     Yes     Yes     Yes     Yes     Yes       11/01/2015     Yes     Yes     Yes     Yes     Yes       12/01/2015     Yes     Yes     Yes     Yes     Yes       13/01/2015     Yes     Yes     Yes     Yes     Yes       13/01/2015     Yes     Yes     Yes     Yes     Yes       13/01/2015     Yes     Yes     Yes     Yes     Yes       14/01/2015     Yes     Yes     Yes     Yes     Yes       15/01/2015     Yes     Yes     Yes     Yes     Yes       16/01/2015     Yes     Yes     Yes     Yes     Yes       19/01/2015     Yes     Yes     Yes     Yes     Yes       20/01/2015     Yes     Yes     Yes     Yes     Yes       21/01/2015     Yes     Yes     Yes     Yes     Yes       22/01/2015     Yes     Yes     Yes     Yes     Yes       21/01/2015     Yes     Yes	06/01/2015	Yes	Yes	Yes	Yes	Yes
No.1         Yes         Yes         Yes         Yes         Yes           09/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           10/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           11/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           12/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes           14/01/2015         Yes         Yes         Yes         Yes         Yes           16/01/2015         Yes         Yes         Yes         Yes         Yes           18/01/2015         Yes         Yes         Yes         Yes         Yes           20/01/2015         Yes         Yes         Yes         Yes         Yes           21/01/2015         Yes         Yes         Yes         Yes         Yes           23/01/2015         Yes         Yes         Yes         Yes	07/01/2015	Yes	Yes	Yes	Yes	Yes
10     10     10     10     10       09/01/2015     Yes     Yes     Yes     Yes       10/01/2015     Yes     Yes     Yes     Yes       11/01/2015     Yes     Yes     Yes     Yes       12/01/2015     Yes     Yes     Yes     Yes       13/01/2015     Yes     Yes     Yes     Yes       14/01/2015     Yes     Yes     Yes     Yes       14/01/2015     Yes     Yes     Yes     Yes       15/01/2015     Yes     Yes     Yes     Yes       16/01/2015     Yes     Yes     Yes     Yes       18/01/2015     Yes     Yes     Yes     Yes       18/01/2015     Yes     Yes     Yes     Yes       19/01/2015     Yes     Yes     Yes     Yes       19/01/2015     Yes     Yes     Yes     Yes       20/01/2015     Yes     Yes     Yes     Yes       21/01/2015     Yes     Yes     Yes     Yes       22/01/2015     Yes     Yes     Yes     Yes       23/01/2015     Yes     Yes     Yes     Yes       24/01/2015     Yes     Yes     Yes     Yes       26/01/20	08/01/2015	Yes	Yes	Yes	Yes	Yes
00/01/2015       Yes       Yes       Yes       Yes       Yes         11/01/2015       Yes       Yes       Yes       Yes       Yes         12/01/2015       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes         14/01/2015       Yes       Yes       Yes       Yes       Yes         15/01/2015       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes         17/01/2015       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes         20/01/2015       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes         22/01/2015       Yes       Yes       Yes       Yes       Yes         23/01/2015       Yes       Yes       Yes       Yes       Yes         26/01/2015       Yes       Yes	09/01/2015	Yes	Yes	Yes	Yes	Yes
11/01/2015       Yes       Yes       Yes       Yes       Yes         12/01/2015       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes         14/01/2015       Yes       Yes       Yes       Yes       Yes         15/01/2015       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes         17/01/2015       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes         20/01/2015       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes         22/01/2015       Yes       Yes       Yes       Yes       Yes         23/01/2015       Yes       Yes       Yes       Yes       Yes         24/01/2015       Yes       Yes       Yes       Yes       Yes         26/01/2015       Yes       Yes	10/01/2015	Yes	Yes	Yes	Yes	Yes
12/01/2015       Yes       Yes       Yes       Yes       Yes         12/01/2015       Yes       Yes       Yes       Yes       Yes         14/01/2015       Yes       Yes       Yes       Yes       Yes         14/01/2015       Yes       Yes       Yes       Yes       Yes         15/01/2015       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes         17/01/2015       Yes       Yes       Yes       Yes       Yes         18/01/2015       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes         20/01/2015       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes         22/01/2015       Yes       Yes       Yes       Yes       Yes         23/01/2015       Yes       Yes       Yes       Yes       Yes         26/01/2015       Yes       Yes	11/01/2015	Yes	Yes	Yes	Yes	Yes
13/01/2015       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         14/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         15/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         17/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         20/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         23/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         24/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         26/01/2015       Yes       Yes       Yes       Yes       Yes	12/01/2015	Yes	Yes	Yes	Yes	Yes
12/01/2015       Yes       Yes       Yes       Yes       Yes         14/01/2015       Yes       Yes       Yes       Yes       Yes         15/01/2015       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes         17/01/2015       Yes       Yes       Yes       Yes       Yes         18/01/2015       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes         20/01/2015       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes         22/01/2015       Yes       Yes       Yes       Yes       Yes         23/01/2015       Yes       Yes       Yes       Yes       Yes         24/01/2015       Yes       Yes       Yes       Yes       Yes         26/01/2015       Yes       Yes       Yes       Yes       Yes         27/01/2015       Yes       Yes       Yes       Yes       Yes         28/01/2015       Yes       Yes	13/01/2015	Yes	Yes	Yes	Yes	Yes
14/01/2015       Yes       Yes       Yes       Yes       Yes         15/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         17/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         20/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         22/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         23/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         24/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         26/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         27/01/2015       Yes       Yes       Yes       Yes       Yes	14/01/2015	Vec	Ves	Ves	Vec	Ves
11/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         17/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         18/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         20/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         22/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         23/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         24/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         26/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         28/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         29/01/2015       Yes       Yes       Yes       Yes       Yes </td <td>15/01/2015</td> <td>Voc</td> <td>Vac</td> <td>Voc</td> <td>Vac</td> <td>Voc</td>	15/01/2015	Voc	Vac	Voc	Vac	Voc
10/01/2015       Yes       Yes       Yes       Yes       Yes         17/01/2015       Yes       Yes       Yes       Yes       Yes         18/01/2015       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes         20/01/2015       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes         23/01/2015       Yes       Yes       Yes       Yes       Yes         24/01/2015       Yes       Yes       Yes       Yes       Yes         25/01/2015       Yes       Yes       Yes       Yes       Yes         26/01/2015       Yes       Yes       Yes       Yes       Yes         28/01/2015       Yes       Yes       Yes       Yes       Yes         29/01/2015       Yes       Yes       Yes       Yes       Yes         01/02/2015       Yes       Yes       Yes       Yes       Yes         01/02/2015       Yes       Yes	16/01/2015	Voc	Voc	Voc	Voc	Voc
17/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         18/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         20/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         22/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         23/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         24/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         26/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         27/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         29/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         29/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         20/02/2015       Yes       Yes       Yes       Yes       Yes </td <td>17/01/2015</td> <td>Voc</td> <td>Voc</td> <td>Voc</td> <td>Voc</td> <td>Voc</td>	17/01/2015	Voc	Voc	Voc	Voc	Voc
13/01/2015       Yes	19/01/2015	Voc	Vec	Vec	Voc	Voc
19/01/2015       Yes	18/01/2015	Yes	res	Yes	Yes	Yes
20/01/2015         Yes         Yes <thyes< th="">         Yes         <thyes< th=""> <thyes< td=""><td>19/01/2015</td><td>Yes</td><td>res</td><td>Yes</td><td>Yes</td><td>Yes</td></thyes<></thyes<></thyes<>	19/01/2015	Yes	res	Yes	Yes	Yes
21/01/2015     Yes     Yes     Yes     Yes     Yes       22/01/2015     Yes     Yes     Yes     Yes     Yes       23/01/2015     Yes     Yes     Yes     Yes     Yes       24/01/2015     Yes     Yes     Yes     Yes     Yes       24/01/2015     Yes     Yes     Yes     Yes     Yes       25/01/2015     Yes     Yes     Yes     Yes     Yes       26/01/2015     Yes     Yes     Yes     Yes     Yes       27/01/2015     Yes     Yes     Yes     Yes     Yes       28/01/2015     Yes     Yes     Yes     Yes     Yes       29/01/2015     Yes     Yes     Yes     Yes     Yes       29/01/2015     Yes     Yes     Yes     Yes     Yes       30/01/2015     Yes     Yes     Yes     Yes     Yes       01/02/2015     Yes     Yes     Yes     Yes     Yes       02/02/2015     Yes     Yes     Yes     Yes     Yes       03/02/2015     Yes     Yes     Yes     Yes     Yes       05/02/2015     Yes     Yes     Yes     Yes     Yes       07/02/2015     Yes     Yes<	20/01/2015	Yes	Yes	Yes	Yes	Yes
22/01/2015     Yes     Yes     Yes     Yes     Yes       23/01/2015     Yes     Yes     Yes     Yes     Yes       24/01/2015     Yes     Yes     Yes     Yes     Yes       25/01/2015     Yes     Yes     Yes     Yes     Yes       26/01/2015     Yes     Yes     Yes     Yes     Yes       26/01/2015     Yes     Yes     Yes     Yes     Yes       27/01/2015     Yes     Yes     Yes     Yes     Yes       28/01/2015     Yes     Yes     Yes     Yes     Yes       29/01/2015     Yes     Yes     Yes     Yes     Yes       30/01/2015     Yes     Yes     Yes     Yes     Yes       30/01/2015     Yes     Yes     Yes     Yes     Yes       31/01/2015     Yes     Yes     Yes     Yes     Yes       02/02/2015     Yes     Yes     Yes     Yes     Yes       03/02/2015     Yes     Yes     Yes     Yes     Yes       05/02/2015     Yes     Yes     Yes     Yes     Yes       06/02/2015     Yes     Yes     Yes     Yes     Yes       09/02/2015     Yes     Yes<	21/01/2015	Yes	Yes	Yes	Yes	Yes
23/01/2015         Yes         Yes <thyes< th=""> <thye< td=""><td>22/01/2015</td><td>Yes</td><td>Yes</td><td>Yes</td><td>Yes</td><td>Yes</td></thye<></thyes<>	22/01/2015	Yes	Yes	Yes	Yes	Yes
24/01/2015     Yes     Yes     Yes     Yes     Yes       25/01/2015     Yes     Yes     Yes     Yes     Yes       26/01/2015     Yes     Yes     Yes     Yes     Yes       27/01/2015     Yes     Yes     Yes     Yes     Yes       28/01/2015     Yes     Yes     Yes     Yes     Yes       29/01/2015     Yes     Yes     Yes     Yes     Yes       29/01/2015     Yes     Yes     Yes     Yes     Yes       30/01/2015     Yes     Yes     Yes     Yes     Yes       31/01/2015     Yes     Yes     Yes     Yes     Yes       01/02/2015     Yes     Yes     Yes     Yes     Yes       03/02/2015     Yes     Yes     Yes     Yes     Yes       03/02/2015     Yes     Yes     Yes     Yes     Yes       04/02/2015     No     Yes     Yes     Yes     Yes       05/02/2015     Yes     Yes     Yes     Yes     Yes       06/02/2015     Yes     Yes     Yes     Yes     Yes       09/02/2015     Yes     Yes     Yes     Yes     Yes       10/02/2015     Yes     Yes </td <td>23/01/2015</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td>	23/01/2015	Yes	Yes	Yes	Yes	Yes
25/01/2015         Yes         Yes         Yes         Yes         Yes         Yes         Yes           26/01/2015         Yes         Yes         Yes         Yes         Yes         Yes         Yes           27/01/2015         Yes         Yes         Yes         Yes         Yes         Yes         Yes           28/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           29/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           29/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           30/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           31/01/2015         Yes         Yes         Yes         Yes         Yes         Yes           01/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           03/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           05/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           06/02/2015         Yes         Yes	24/01/2015	Yes	Yes	Yes	Yes	Yes
26/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         27/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         28/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         29/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         30/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         30/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         31/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         01/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         02/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         03/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         04/02/2015       No       Yes       Yes       Yes       Yes       Yes         05/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes <td>25/01/2015</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td>	25/01/2015	Yes	Yes	Yes	Yes	Yes
27/01/2015     Yes     Yes     Yes     Yes     Yes     Yes       28/01/2015     Yes     Yes     Yes     Yes     Yes     Yes       29/01/2015     Yes     Yes     Yes     Yes     Yes     Yes       30/01/2015     Yes     Yes     Yes     Yes     Yes     Yes       31/01/2015     Yes     Yes     Yes     Yes     Yes       01/02/2015     Yes     Yes     Yes     Yes     Yes       01/02/2015     Yes     Yes     Yes     Yes     Yes       02/02/2015     Yes     Yes     Yes     Yes     Yes       03/02/2015     Yes     Yes     Yes     Yes     Yes       04/02/2015     No     Yes     Yes     Yes     Yes       05/02/2015     Yes     Yes     Yes     Yes     Yes       06/02/2015     Yes     Yes     Yes     Yes     Yes       07/02/2015     Yes     Yes     Yes     Yes     Yes       09/02/2015     Yes     Yes     Yes     Yes     Yes       10/02/2015     Yes     Yes     Yes     Yes     Yes       11/02/2015     Yes     Yes     Yes     Yes     Yes	26/01/2015	Yes	Yes	Yes	Yes	Yes
28/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         29/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         30/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         31/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         01/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         02/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         03/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         04/02/2015       No       Yes       Yes       Yes       Yes       Yes         05/02/2015       No       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         08/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         09/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         11/02/2015       Yes       Yes       Yes       Yes       Yes <td>27/01/2015</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td>	27/01/2015	Yes	Yes	Yes	Yes	Yes
29/01/2015     Yes     Yes     Yes     Yes     Yes       30/01/2015     Yes     Yes     Yes     Yes     Yes       31/01/2015     Yes     Yes     Yes     Yes     Yes       01/02/2015     Yes     Yes     Yes     Yes     Yes       02/02/2015     Yes     Yes     Yes     Yes     Yes       03/02/2015     Yes     Yes     Yes     Yes     Yes       04/02/2015     No     Yes     Yes     Yes     Yes       05/02/2015     No     Yes     Yes     Yes     Yes       06/02/2015     Yes     Yes     Yes     Yes     Yes       06/02/2015     Yes     Yes     Yes     Yes     Yes       07/02/2015     Yes     Yes     Yes     Yes     Yes       08/02/2015     Yes     Yes     Yes     Yes     Yes       09/02/2015     Yes     Yes     Yes     Yes     Yes       10/02/2015     Yes     Yes     Yes     Yes     Yes       11/02/2015     Yes     Yes     Yes     Yes     Yes       13/02/2015     Yes     Yes     Yes     Yes     Yes       14/02/2015     Yes     Yes <td>28/01/2015</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td>	28/01/2015	Yes	Yes	Yes	Yes	Yes
30/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         31/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         01/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         02/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         03/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         04/02/2015       No       Yes       Yes       Yes       Yes       Yes         05/02/2015       No       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         07/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         09/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         10/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         11/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         13/02/2015       Yes       Yes       Yes       Yes       Yes <td>29/01/2015</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td>	29/01/2015	Yes	Yes	Yes	Yes	Yes
31/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         01/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         02/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         03/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         04/02/2015       No       Yes       Yes       Yes       Yes       Yes       Yes         05/02/2015       No       Yes       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         07/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         09/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         10/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         12/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         13/02/2015       Yes       Yes	30/01/2015	Yes	Yes	Yes	Yes	Yes
01/02/2015       Yes       Yes       Yes       Yes       Yes         02/02/2015       Yes       Yes       Yes       Yes       Yes       Yes         03/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         04/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         05/02/2015       No       Yes       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         07/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         08/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         09/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         11/02/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         13/02/2015       Yes       Yes       Yes       Yes       Yes	31/01/2015	Yes	Yes	Yes	Yes	Yes
02/02/2015       Yes       Yes       Yes       Yes       Yes         03/02/2015       Yes       Yes       Yes       Yes       Yes         04/02/2015       No       Yes       Yes       Yes       Yes         05/02/2015       No       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes         07/02/2015       Yes       Yes       Yes       Yes       Yes         08/02/2015       Yes       Yes       Yes       Yes       Yes         09/02/2015       Yes       Yes       Yes       Yes       Yes         10/02/2015       Yes       Yes       Yes       Yes       Yes         11/02/2015       Yes       Yes       Yes       Yes       Yes         13/02/2015       Yes       Yes       Yes       Yes       Yes         14/02/2015       Yes       Yes       Yes       Yes       Yes         15/02/2015       Yes       Yes	01/02/2015	Yes	Yes	Yes	Yes	Yes
03/02/2015       Yes       Yes       Yes       Yes       Yes         04/02/2015       No       Yes       Yes       Yes       Yes         05/02/2015       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes         07/02/2015       Yes       Yes       Yes       Yes       Yes         08/02/2015       Yes       Yes       Yes       Yes       Yes         09/02/2015       Yes       Yes       Yes       Yes       Yes         10/02/2015       Yes       Yes       Yes       Yes       Yes         11/02/2015       Yes       Yes       Yes       Yes       Yes         12/02/2015       Yes       Yes       Yes       Yes       Yes         13/02/2015       Yes       Yes       Yes       Yes       Yes         14/02/2015       Yes       Yes       Yes       Yes       Yes         15/02/2015       Yes       Yes       Yes       Yes       Yes	02/02/2015	Yes	Yes	Yes	Yes	Yes
04/02/2015       No       Yes       Yes       Yes       Yes         05/02/2015       Yes       Yes       Yes       Yes       Yes         06/02/2015       Yes       Yes       Yes       Yes       Yes         07/02/2015       Yes       Yes       Yes       Yes       Yes         08/02/2015       Yes       Yes       Yes       Yes       Yes         09/02/2015       Yes       Yes       Yes       Yes       Yes         09/02/2015       Yes       Yes       Yes       Yes       Yes         10/02/2015       Yes       Yes       Yes       Yes       Yes         11/02/2015       Yes       Yes       Yes       Yes       Yes         12/02/2015       Yes       Yes       Yes       Yes       Yes         13/02/2015       Yes       Yes       Yes       Yes       Yes         14/02/2015       Yes       Yes       Yes       Yes       Yes         15/02/2015       Yes       Yes       Yes       Yes       Yes	03/02/2015	Yes	Yes	Yes	Yes	Yes
05/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           06/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           07/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           08/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           09/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           09/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           10/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           11/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           12/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           14/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           15/02/2015         Yes         Yes         Yes         Yes         Yes	04/02/2015	No	Yes	Yes	Yes	Yes
06/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           07/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           08/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           09/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           10/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           11/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           12/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           14/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           15/02/2015         Yes         Yes         Yes         Yes         Yes         Yes	05/02/2015	Yes	Yes	Yes	Yes	Yes
07/02/2015         Yes	06/02/2015	Yes	Yes	Yes	Yes	Yes
08/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           09/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           10/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           11/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           12/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           13/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           14/02/2015         Yes         Yes         Yes         Yes         Yes         Yes           15/02/2015         Yes         Yes         Yes         Yes         Yes         Yes	07/02/2015	Yes	Yes	Yes	Yes	Yes
09/02/2015         Yes	08/02/2015	Yes	Yes	Yes	Yes	Yes
10/02/2015YesYesYesYesYes11/02/2015YesYesYesYesYes12/02/2015YesYesYesYesYes13/02/2015YesYesYesYesYes14/02/2015YesYesYesYesYes15/02/2015YesYesYesYesYes	09/02/2015	Yes	Yes	Yes	Yes	Yes
11/02/2015YesYesYesYesYes12/02/2015YesYesYesYesYes13/02/2015YesYesYesYesYes14/02/2015YesYesYesYesYes15/02/2015YesYesYesYesYes	10/02/2015	Yes	Yes	Yes	Yes	Yes
12/02/2015YesYesYesYesYes13/02/2015YesYesYesYesYes14/02/2015YesYesYesYesYes15/02/2015YesYesYesYesYes	11/02/2015	Yes	Yes	Yes	Yes	Yes
13/02/2015YesYesYesYesYes14/02/2015YesYesYesYesYes15/02/2015YesYesYesYesYes	12/02/2015	Yes	Yes	Yes	Yes	Yes
14/02/2015         Yes         Yes         Yes         Yes         Yes           15/02/2015         Yes         Yes         Yes         Yes         Yes	13/02/2015	Yes	Yes	Yes	Yes	Yes
15/02/2015 Yes Yes Yes Yes Yes	14/02/2015	Yes	Yes	Yes	Yes	Yes
	15/02/2015	Yes	Yes	Yes	Yes	Yes

DATE	NMT1	NMT2	NMT3	NMT4	EIDC
DATE	Events	Events	Events	Events	FID3
16/02/2015	Yes	Yes	Yes	Yes	Yes
17/02/2015	Yes	Yes	Yes	Yes	Yes
18/02/2015	Yes	Yes	Yes	Yes	Yes
19/02/2015	Yes	Yes	Yes	Yes	Yes
20/02/2015	Yes	Yes	Yes	Yes	Yes
21/02/2015	Yes	Yes	Yes	Yes	Yes
22/02/2015	Yes	Yes	Yes	Yes	Yes
23/02/2015	Yes	Yes	Yes	Yes	Yes
24/02/2015	Yes	Yes	Yes	Yes	Yes
25/02/2015	Yes	Yes	Yes	Yes	Yes
26/02/2015	Yes	Yes	Yes	Yes	Yes
27/02/2015	Yes	Yes	Yes	Yes	Yes
28/02/2015	Yes	Yes	Yes	Yes	Yes
01/03/2015	Ves	Ves	Ves	Vec	Ves
01/03/2015	Voc	Voc	Voc	Ves	Voc
02/03/2015	Vos	Voc	Vos	Voc	Voc
03/03/2013	Voc	Vec	Vec	Voc	Voc
04/03/2013	Voc	Vec	Vec	Voc	Voc
05/03/2015	Yes	Yes	Yes	Yes	Yes
06/03/2015	Yes	Yes	Yes	Yes	Yes
07/03/2015	Yes	res	res	Yes	Yes
08/03/2015	Yes	Yes	Yes	Yes	Yes
09/03/2015	Yes	Yes	Yes	Yes	Yes
10/03/2015	Yes	Yes	Yes	Yes	Yes
11/03/2015	Yes	Yes	Yes	Yes	Yes
12/03/2015	Yes	Yes	Yes	Yes	Yes
13/03/2015	Yes	Yes	Yes	Yes	Yes
14/03/2015	Yes	Yes	Yes	Yes	Yes
15/03/2015	Yes	Yes	Yes	Yes	Yes
16/03/2015	Yes	Yes	Yes	Yes	Yes
17/03/2015	Yes	Yes	Yes	Yes	Yes
18/03/2015	Yes	Yes	Yes	Yes	Yes
19/03/2015	Yes	Yes	Yes	Yes	Yes
20/03/2015	Yes	Yes	Yes	Yes	Yes
21/03/2015	Yes	Yes	Yes	Yes	Yes
22/03/2015	Yes	Yes	Yes	Yes	Yes
23/03/2015	Yes	Yes	Yes	Yes	Yes
24/03/2015	Yes	Yes	Yes	Yes	Yes
25/03/2015	Yes	Yes	Yes	Yes	Yes
26/03/2015	Yes	Yes	Yes	Yes	Yes
27/03/2015	Yes	Yes	Yes	Yes	Yes
28/03/2015	Yes	Yes	Yes	Yes	Yes
29/03/2015	Yes	Yes	Yes	Yes	Yes
30/03/2015	Yes	Yes	Yes	Yes	Yes
31/03/2015	Yes	Yes	Yes	Yes	Yes
01/04/2015	Yes	Yes	Yes	Yes	Yes
02/04/2015	Yes	Yes	Yes	Yes	Yes
, , ===					

DATE	NMT1	NMT2	NMT3	NMT4	EIDC
DATE	Events	Events	Events	Events	FIDS
16/1//0125	Yes	Yes	Yes	Yes	Yes
1//1//0125	Yes	Yes	Yes	Yes	Yes
15/1//0125	Yes	Yes	Yes	Yes	Yes
17/1//0125	Yes	Yes	Yes	Yes	Yes
17/1//0125	Yes	Yes	Yes	Yes	Yes
19/1//0125	Yes	Yes	Yes	Yes	Yes
14/1//0125	Yes	Yes	Yes	Yes	Yes
21/1//0125	Yes	Yes	Yes	Yes	Yes
22/1//0125	Yes	Yes	Yes	Yes	Yes
20/1//0125	Yes	Yes	Yes	Yes	Yes
26/1//0125	Yes	Yes	Yes	Yes	Yes
2//1//0125	Yes	Yes	Yes	Yes	Yes
25/1//0125	Yes	Yes	Yes	Yes	Yes
27/1//0125	Yes	Yes	Yes	Yes	Yes
27/1//0125	Ves	Ves	Ves	Vec	Ves
29/1//0125	Ves	Ves	Ves	Vec	Ves
24/1//0125	Ves	Ves	Ves	Vec	Ves
01/1//0125	Vac	Vac	Voc	Vac	Voc
01/1/0125 02/1/0125	Vos	Voc	Voc	Voc	Voc
02/1/0125	Vac	Vas	Ves	Vas	Vos
06/1//0125	Vos	Voc	Voc	Voc	Voc
0//1//0125	Voc	Voc	Voc	Voc	Voc
0//1//0125	Vos	Vos	Voc	Voc	Voc
07/1//0125	Voc	Voc	Voc	Voc	Voc
07/1//0125	Voc	Voc	Voc	Voc	Voc
07/1/0123	Voc	Vec	Voc	Voc	Voc
09/1//0125	Vec	Vec	Vec	Vec	Voc
04/1//0125	Yes	Vec	Yes	Yes	Vec
01/1//0125	Yes	Yes	Yes	Yes	Yes
12/15/0125	Yes	Yes	Yes	Yes	Yes
10/15/0125	Yes	Yes	Yes	Yes	Yes
16/15/0125	Yes	Yes	Yes	Yes	Yes
1//15/0125	Yes	Yes	Yes	Yes	Yes
15/15/0125	Yes	Yes	Yes	Yes	Yes
1//15/0125	Yes	Yes	Yes	Yes	Yes
1//15/0125	Yes	Yes	Yes	Yes	Yes
19/15/0125	Yes	Yes	Yes	Yes	Yes
14/15/0125	Yes	Yes	Yes	Yes	Yes
21/15/0125	Yes	Yes	Yes	Yes	Yes
22/15/0125	Yes	Yes	Yes	Yes	Yes
20/15/0125	Yes	Yes	Yes	Yes	Yes
26/15/0125	Yes	Yes	Yes	Yes	Yes
2//15/0125	Yes	Yes	Yes	Yes	Yes
25/15/0125	Yes	Yes	Yes	Yes	Yes
27/15/0125	Yes	Yes	Yes	Yes	Yes
27/15/0125	Yes	Yes	Yes	Yes	Yes
29/15/0125	Yes	Yes	Yes	Yes	Yes

DATE	NMT1	NMT2	NMT3	NMT4	EIDC
DATE	Events	Events	Events	Events	FID3
16//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2///0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
21//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
22//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2s//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
27//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
20//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
28//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
29//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
23//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
26//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
s///0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
s1//0/2/10	5Ve	5Ye	5Ye	5Ve	5Ye
/1//8/2/10	576	570	576	576	570
$\frac{1}{2}$	576	570	570	570	570
$\frac{2}{2}$	570	510	570	570	570
/3//0/2/10	5Vo	5Te	EVo	5Te EVo	5Te
////0/2/10	51e EVo	EVo	EVo	EVo	EVo
/0//8/2/10	Sie	Sre	Sie	Sie	Sre
/ 8// 8/2/ 10	5Ye	5re	5re	5Ye	5Ye
/9//8/2/10	5Ye	5Ye	5Ye	5Ye	516
/ 3// 8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/6//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1///8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
11//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
12//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1s//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
17//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
10//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
18//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
19//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
13//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
16//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2///8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
21//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
22//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2s//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
27//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
20//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
28//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
29//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
23//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
26//8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
s///8/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/1//9/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/2//9/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/s//9/2/10	5Ye	5Ye	5Ye	5Ye	5Ye

DATE	NMT1	NMT2	NMT3	NMT4	EIDC
DATE	Events	Events	Events	Events	FIDS
16/1//0125	Yes	Yes	Yes	Yes	Yes
15/1//0125	Yes	Yes	Yes	Yes	Yes
17/1//0125	Yes	Yes	Yes	Yes	Yes
1//1//0125	Yes	Yes	Yes	Yes	Yes
17/1//0125	Yes	Yes	Yes	Yes	Yes
13/1//0125	Yes	Yes	Yes	Yes	Yes
21/1//0125	Yes	Yes	Yes	Yes	Yes
22/1//0125	Yes	Yes	Yes	Yes	Yes
20/1//0125	Yes	Yes	Yes	Yes	Yes
24/1//0125	Yes	Yes	Yes	Yes	Yes
26/1//0125	Yes	Yes	Yes	Yes	Yes
25/1//0125	Yes	Yes	Yes	Yes	Yes
27/1//0125	Yes	Yes	Yes	Yes	Yes
2//1//0125	Yes	Yes	Yes	Yes	Yes
27/1//0125	Yes	Yes	Yes	Yes	Yes
23/1//0125	Yes	Yes	Yes	Yes	Yes
01/1//0125	Yes	Yes	Yes	Yes	Yes
02/1//0125	Yes	Yes	Yes	Yes	Yes
00/1//0125	Vec	Ves	Ves	Vec	Ves
04/1//0125	Ves	Ves	Ves	Vec	Ves
06/1//0125	Vac	Vas	Voc	Vac	Vos
05/1//0125	Voc	Voc	Voc	Voc	Voc
07/1//0125	Vas	Vec	Ves	Vas	Vos
0//1//0125	Vos	Vos	Voc	Voc	Voc
07/1//0125	Vos	Vos	Voc	Voc	Voc
07/1/0125 02/1/0125	Voc	Voc	Voc	Voc	Voc
03/1//0123 41/1//0125	Voc	Voc	Voc	Voc	Voc
41/1//0125	Voc	Vec	Voc	Voc	Voc
42/1//0125	Vec	Vec	Yes	Yes	Vec
12/17/0125	Yes	Yes	Yes	Yes	Yes
10/17/0125	Yes	Yes	Yes	Yes	Yes
14/1//0125	Yes	Yes	Yes	Yes	Yes
16/1//0125	Yes	Yes	Yes	Yes	Yes
15/1//0125	Yes	Yes	Yes	Yes	Yes
1//1//0125	Yes	Yes	Yes	Yes	Yes
1//1//0125	Yes	Yes	Yes	Yes	Yes
1//1//0125	Yes	Yes	Yes	Yes	Yes
13/17/0125	Yes	Yes	Yes	Yes	Yes
21/17/0125	Yes	Yes	Yes	Yes	Yes
22/17/0125	Yes	Yes	Yes	Yes	Yes
20/17/0125	Yes	Yes	Yes	Yes	Yes
24/17/0125	Yes	Yes	Yes	Yes	Yes
26/17/0125	Yes	Yes	Yes	Yes	Yes
25/17/0125	Yes	Yes	Yes	Yes	Yes
27/17/0125	Yes	Yes	Yes	Yes	Yes
2//17/0125	Yes	Yes	Yes	Yes	Yes
27/17/0125	Yes	Yes	Yes	Yes	Yes

DATE	NMT1	NMT2	NMT3	NMT4	EIDS
DATE	Events	Events	Events	Events	FID3
01/25/e20s	346	346	346	346	346
e2/25/e20s	346	346	346	346	346
e0/25/e20s	346	346	346	346	346
ee/25/e20s	346	346	346	346	346
e3/25/e20s	346	346	346	346	346
e7/25/e20s	346	346	346	346	346
es/25/e20s	346	346	346	346	346
e8/25/e20s	346	346	346	346	346
e9/25/e20s	346	346	346	346	346
e5/25/e20s	346	346	346	346	346
e1/25/e20s	346	346	346	346	346
32/25/e20s	346	346	346	346	346
30/25/e20s	346	346	346	346	346
20/21/e20s	346	346	346	346	346
2e/21/e20s	346	346	346	346	346
23/21/e20s	346	346	346	346	346
27/21/e20s	346	346	346	346	346
2;/21/e20s	346	No	346	346	346
23/21/c205	346	3/6	3/6	3/6	346
20/21/c205	346	346	346	346	346
25/21/c205	346	3/6	3/6	3/6	346
23/21/C203	346	346	346	346	346
02/21/e20s	346	346	346	346	346
00/21/e20s	346	346	346	346	346
00/21/2203	346	3/6	3/6	346	346
$\frac{02}{21} \frac{203}{205}$	346	346	346	346	346
03/21/2203 07/21/220s	346	346	346	346	340
07/21/c203	346	346	346	346	346
03/21/2203	246	No.	246	246	240
00/21/203	246	246	246	246	240
05/21/2203	340	340	340	340	340
03/21/2203 01/21/20c	240	240	240	240	240
$\frac{01}{21}\frac{21}{200}$	240	240	240	240	240
$e_2/21/e_{203}$	240	540 No	240	240	240
$e_{0/21/e_{205}}$	240	No	240	240	240
$\frac{22}{21}$	240	246	240	240	240
e3/21/e20s	240	240	240	240	240
e//21/e20s	540 246	240	240	540 246	540 246
$e_{3/21/e_{203}}$	540 246	240	240	540 246	540 246
CO/21/C2US	540 246	540 246	540 246	240	540 346
eg/21/e205	540 246	340 246	340 246	340 246	540 246
es/21/e2Us	340	340	340	340	340
e1/21/e2Us	340	340	340	340	340
32/21/82US	340	340	340	340	340
20/02/e20s	346	346	340	340	346
2e/02/e20s	346	346	346	346	346
23/02/e20s	346	346	346	346	346

DATE	NMT1	NMT2	NMT3	NMT4	EIDC
DATE	Events	Events	Events	Events	FIDS
01/20/502Y	es 3	es 3	es 3	es 3	es 3
0Y/20/502Y	es 3	46	es 3	es 3	es 3
03/20/502Y	es 3	46	es 3	es 3	es 3
08/20/502Y	es 3	es 3	es 3	es 3	es 3
08/20/502Y	es 3	es 3	es 3	es 3	es 3
0N/20/502Y	es 3	es 3	es 3	es 3	es 3
20/20/502Y	es 3	es 3	es 3	es 3	es 3
22/20/502Y	es 3	es 3	es 3	es 3	es 3
25/20/502Y	es 3	es 3	es 3	es 3	es 3
20/20/502Y	es 3	es 3	es 3	es 3	es 3
21/20/502Y	es 3	es 3	es 3	es 3	es 3
2Y/20/502Y	es 3	es 3	es 3	es 3	es 3
23/20/502Y	es 3	es 3	es 3	es 3	es 3
28/20/502Y	es 3	es 3	es 3	es3	es3
28/20/502Y	es 3	es 3	es 3	es 3	es 3
2N/20/502Y	es 3	es 3	es 3	es 3	es 3
50/20/502Y	es 3	es 3	es 3	es 3	es 3
52/20/502Y	es 3	es 3	es 3	es 3	es 3
55/20/502Y	es 3	es 3	es 3	es 3	es 3
50/20/5021	es 3	es 3	es 3	es 3	es 3
51/20/502Y	es 3	es 3	es 3	es 3	es 3
5Y/20/502Y	es 3	es 3	es 3	es 3	es 3
53/20/502Y	es 3	es 3	es 3	es 3	es 3
58/20/502Y	es 3	es 3	es 3	es 3	es 3
58/20/502Y	es 3	es 3	es 3	es 3	es 3
5N/20/502Y	es 3	es 3	es 3	es 3	es 3
00/20/5021	es 3	es 3	es 3	es 3	es 3
$n^{2}/20/5021$	es 3	es 3	es 3	es 3	es 3
02/20/5021	es 3	es 3	es 3	633	es 3
05/22/5021	c3 J	633	633	633	633
03/22/3021	es 3	653	63.3	es 3	C3 J
00/22/5021	63.5	630	63.5	63.2	63.2
01/22/5021	63.5	630	63.5	63.2	63.2
01/22/3021	65.5	63.5	63.5	63.5	C3 J
03/22/3021		052	052	es 5	
08/22/3021	es 5	655	63.5	es 5	es 5
06/22/5021	es 5	255	255	es 5	es 5
01¥22/5021	es 5	255	es 5	es 5	655
20/22/5021	es 3	es 3	es 3	es 3	es 3
22/22/5028	es 3	es 3	es 3	es 3	es 3
25/22/5U2Y	es 3	es 3	es 3	es 3	es 3
20/22/5028	es 3	es 3	es 3	es 3	es 3
21/22/502Y	es 3	es 3	es 3	es 3	es 3
21/22/502Y	es 3	es 3	es 3	es 3	es 3
23/22/502Y	es 3	es 3	es 3	es 3	es 3
28/22/502Y	es 3	es 3	es 3	es 3	es 3
28/22/502Y	es 3	es 3	es 3	es 3	es 3

DATE	NMT1	NMT2	NMT3	NMT4	
DATE	Events	Events	Events	Events	FIDS
16/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
/0/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
/1/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
///11//012	5Ye	5Ye	5Ye	5Ye	5Ye
/s/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
/7/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
/2/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
/8/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
/9/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
/3/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
/6/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
s0/11//012	5Ye	5Ye	5Ye	5Ye	5Ye
01/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
0//1///012	5Ye	5Ye	5Ye	5Ye	5Ye
0s/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
07/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
02/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
08/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
09/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
03/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
06/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
10/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
11/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
1//1///012	5Ye	5Ye	5Ye	5Ye	5Ye
1s/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
17/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
12/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
18/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
19/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
13/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
16/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
/0/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
/1/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
///1///012	5Ye	5Ye	5Ye	5Ye	5Ye
/s/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
/7/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
/2/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
/8/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
/9/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
/3/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
/6/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
s0/1///012	5Ye	5Ye	5Ye	5Ye	5Ye
s1/1///012	5Ye	5Ye	5Ye	5Ye	5Ye



A summary of the correlation rate for each month from 1<sup>st</sup> January 2015 up to and including the 31<sup>st</sup> December 2015 is given in Table 2 below. In order to calculate the rate of correlation, the number of departures correlated has been compared against the number of operations at London City Airport during the same period. It has been assumed that the number of departures constitute 50% of the total number of operations.

Month	No. Operations	No. Correlated (dep)	Correlation Rate
January	6774	2858	84%
February	7056	3018	86%
March	7812	3370	86%
April	6893	3172	92%
May	6866	2917	85%
June	7208	3285	91%
July	7308	3358	92%
August	6224	3036	98%
September	7410	3244	88%
October	7553	3645	97%
November	6917	1182	34%
December	6481	2647	82%
Total	84502	35732	85%

Table 2 – 2015 Monthly summary of correlation rate

Quarter	Operational Summary
January – March	During the quarterly period from 1 <sup>st</sup> January 2015 to 31 <sup>st</sup> March 2015, FIDS was received for all days and the NMTs were fully operational, with the exception of an issue with NMT 1 on 4 <sup>th</sup> February. A total of 9,246 departure events were successfully recorded and a correlation rate of 84% or above achieved.
April – June	During the quarterly period from 1 <sup>st</sup> April 2015 to 30 <sup>th</sup> June 2015, FIDS was received for all days and the NMTs were fully operational. A total of 9,374 departure events were successfully recorded and a correlation rate of 85% or above achieved.
July – September	During the quarterly period from 1 <sup>st</sup> July 2015 to 30 <sup>th</sup> September 2015, FIDS was received for all days NMTs 1, 3 and 4 were fully operational. Due to a failure of the power supply, NMT 2 was not operational for 4 days during September. The cause of this problem has since been identified and resolved. Despite this, a total of 9,638 departure events were successfully recorded and a correlation rate of 88% or above achieved.
October – November	During the quarterly period from 1 <sup>st</sup> October 2015 to 31 <sup>st</sup> December 2015, FIDS was received for all days and NMTs 1, 3 and 4 were fully operational. Due to a failure of the power supply, NMT2 was not fully operational for 7 days during October. This had a limited effect on the correlation rate as departures were using runway 09 for the majority of this period and therefore were recorded at NMT3 and NMT4. The cause of this problem has since been identified and resolved. Due to a separate failure of the power supply, NMT 2 was not fully operational for 25 days during November and 3 days during December. The cause of this problem has since been identified and resolved. The reason for the extended downtime was that the fuel cell developed a permanent yet unexpected fault and, because this is a unique piece of equipment associated to the noise monitoring systems, a replacement was needed to be installed which had a 3-4 week delivery time. All necessary parts are now located with a local supplier which will avoid this issue reoccurring in the future. A total of 7,474 departure events were successfully recorded. A correlation rate of 82% or above was achieved in October and December, however due to the problems with NMT2 the correlation rate was only 34% for November. This has a limited effect on the overall annual average correlation rate which, from January to December 2015 is 85%.

Table 3 – 2015 Quarterly operations summary

Quarter	Operational Summary
January – March	During the quarterly period from 1 <sup>st</sup> January 2015 to 31 <sup>st</sup> March 2015, FIDS was received for all days and the NMTs were fully operational, with the exception of an issue with NMT 1 on 4 <sup>th</sup> February. A total of 9,246 departure events were successfully recorded and a correlation rate of 84% or above achieved.
April – June	During the quarterly period from 1 <sup>st</sup> April 2015 to 30 <sup>th</sup> June 2015, FIDS was received for all days and the NMTs were fully operational. A total of 9,374 departure events were successfully recorded and a correlation rate of 85% or above achieved.
July – September	During the quarterly period from 1 <sup>st</sup> July 2015 to 30 <sup>th</sup> September 2015, FIDS was received for all days NMTs 1, 3 and 4 were fully operational. Due to a failure of the power supply, NMT 2 was not operational for 4 days during September. The cause of this problem has since been identified and resolved. Despite this, a total of 9,638 departure events were successfully recorded and a correlation rate of 88% or above achieved.
October – November	During the quarterly period from 1 <sup>st</sup> October 2015 to 31 <sup>st</sup> December 2015, FIDS was received for all days and NMTs 1, 3 and 4 were fully operational. Due to a failure of the power supply, NMT2 was not fully operational for 7 days during October. This had a limited effect on the correlation rate as departures were using runway 09 for the majority of this period and therefore were recorded at NMT3 and NMT4. The cause of this problem has since been identified and resolved. Due to a separate failure of the power supply, NMT 2 was not fully operational for 25 days during November and 3 days during December. The cause of this problem has since been identified and resolved. The reason for the extended downtime was that the fuel cell developed a permanent yet unexpected fault and, because this is a unique piece of equipment associated to the noise monitoring systems, a replacement was needed to be installed which had a 3-4 week delivery time. All necessary parts are now located with a local supplier which will avoid this issue reoccurring in the future. A total of 7,474 departure events were successfully recorded. A correlation rate of 82% or above was achieved in October and December, however due to the problems with NMT2 the correlation rate was only 34% for November. This has a limited effect on the overall annual average correlation rate which, from January to December 2015 is 85%.

Table 3 – 2015 Quarterly operations summary

## **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

## APPENDIX 11 TEMPORARY NOISE MONITORING STRATEGY REPORTS

01 July 2016

London City Airport City Aviation House Royal Docks London E16 2PB Tel: 020 7646 0000 LondonCityAirport.com



## LONDON CITY AIRPORT NOISE & TRACK KEEPING STATUS REPORT JANUARY 2015 – MARCH 2015

Report to

Mr Gary Hodgetts Director Operations Policy & Planning London City Airport City Aviation House The Royal Docks London E16 2PB

A1125.121-R23-NW 28 April 2015

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3.0	Correlation Rate	3
4.0	Summary	4

Appendix A: NMT status by date

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### 1.0 INTRODUCTION

Under paragraph A6.0 of the approved Temporary Noise Monitoring Strategy, London City Airport is required to provide quarterly reports of the Noise and Track Keeping system to the London Borough of Newham.

This report details the operational status of each monitor and the monthly correlation rate of noise events to aircraft departures for the quarterly period 1<sup>st</sup> January 2015 to 31<sup>st</sup> March 2015.

### 2.0 NMT STATUS

A summary of the status of each Noise Monitoring Terminal (NMT) is given in Table 1 below. A detailed summary is given in Appendix A showing whether both noise events and Flight Information and Display System (FIDS) have been obtained on a daily basis.

During this quarterly period, all of the NMTs were fully operational, and data received for each day, with the exception of NMT 1 on  $4^{th}$  February. This was due to a failure of the power supply.

NMT	Calibration	Data	
1	OK Data received for all days except 4 <sup>th</sup> Febr		
2	ОК	Data received for all days except	
3	ОК	Data received for all days	
4	ОК	Data received for all days	

Table 1: Summary of NMT status

### 3.0 CORRELATION RATE

A summary of the correlation rate for each month is given in Table 2 below. In order to calculate the rate of correlation, the number of departures correlated has been compared against the number of operations at London City Airport<sup>1</sup> during the same period. It has been assumed that the number of departures constitute fifty percent of the total number of operations.

<sup>&</sup>lt;sup>1</sup> Number of monthly operations supplied by Airport2020 Client Flight Information Database

Month	No. Operations	No. Correlated Departures	Correlation Rate
January	6774	2858	84%
February	7056	3018	86%
March	7812	3370	86%

### Table 2: Summary of correlation rate

The correlation rates in all three months were affected by a significant amount of recorded noise events being marked as invalid due to high winds.

### 4.0 SUMMARY

During the quarterly period from 1<sup>st</sup> January 2015 to 31<sup>st</sup> March 2015, FIDS was received for all days and the NMTs were fully operational, with the exception of an issue with NMT 1 on 4<sup>th</sup> February. A total of 9,246 departure events were successfully recorded and a correlation rate of 84% or above achieved.

Nick Williams for Bickerdike Allen Partners Peter Henson Partner

### APPENDIX A

### NMT STATUS BY DATE

DATE         Events         Events         Events         Events         Fuests           01/01/2015         Yes         Yes         Yes         Yes         Yes           02/01/2015         Yes         Yes         Yes         Yes         Yes           03/01/2015         Yes         Yes         Yes         Yes         Yes           04/01/2015         Yes         Yes         Yes         Yes         Yes           05/01/2015         Yes         Yes         Yes         Yes         Yes           06/01/2015         Yes         Yes         Yes         Yes         Yes           06/01/2015         Yes         Yes         Yes         Yes         Yes           08/01/2015         Yes         Yes         Yes         Yes         Yes           09/01/2015         Yes         Yes         Yes         Yes         Yes           10/01/2015         Yes         Yes         Yes         Yes         Yes           11/01/2015         Yes         Yes         Yes         Yes         Yes           13/01/2015         Yes         Yes         Yes         Yes         Yes           16/01/2015         Yes	FIDE
01/01/2015       Yes       Yes       Yes       Yes       Yes         02/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         03/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         04/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         05/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         06/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         06/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         07/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         09/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         10/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         12/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         14/01/2015       Yes       Yes       Yes       Yes       Yes	
02/01/2015       Yes       Yes       Yes       Yes       Yes         03/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         04/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         05/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         06/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         06/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         07/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         08/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         09/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         10/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         11/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes       Yes </td <td></td>	
03/01/2015       Yes       Yes       Yes       Yes       Yes         04/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         05/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         06/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         06/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         07/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         08/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         09/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         10/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         12/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         15/01/2015       Yes       Yes       Yes       Yes       Yes	
04/01/2015       Yes       Yes       Yes       Yes       Yes         05/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         06/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         06/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         07/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         08/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         09/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         10/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         11/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         15/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes </td <td></td>	
05/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         06/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         07/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         08/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         09/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         09/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         10/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         11/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         12/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         18/01/2015       Yes       Yes       Yes	
06/01/2015       Yes       Yes       Yes       Yes       Yes         07/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         08/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         09/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         10/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         11/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         12/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         14/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         18/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes	
07/01/2015       Yes       Yes       Yes       Yes       Yes         08/01/2015       Yes       Yes       Yes       Yes       Yes       Yes         09/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         10/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         10/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         11/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         12/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         13/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         14/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         15/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         17/01/2015       Yes       Yes       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes	
08/01/2015YesYesYesYesYes08/01/2015YesYesYesYesYes10/01/2015YesYesYesYesYes11/01/2015YesYesYesYesYes12/01/2015YesYesYesYesYes13/01/2015YesYesYesYesYes14/01/2015YesYesYesYesYes15/01/2015YesYesYesYesYes15/01/2015YesYesYesYesYes16/01/2015YesYesYesYesYes16/01/2015YesYesYesYesYes17/01/2015YesYesYesYesYes18/01/2015YesYesYesYesYes19/01/2015YesYesYesYesYes20/01/2015YesYesYesYesYes21/01/2015YesYesYesYesYes22/01/2015YesYesYesYesYes	
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14/01/2015       Yes       Yes       Yes       Yes       Yes         15/01/2015       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes         16/01/2015       Yes       Yes       Yes       Yes       Yes         17/01/2015       Yes       Yes       Yes       Yes       Yes         18/01/2015       Yes       Yes       Yes       Yes       Yes         19/01/2015       Yes       Yes       Yes       Yes       Yes         20/01/2015       Yes       Yes       Yes       Yes       Yes         21/01/2015       Yes       Yes       Yes       Yes       Yes	
15/01/2015YesYesYesYesYes16/01/2015YesYesYesYesYes17/01/2015YesYesYesYesYes18/01/2015YesYesYesYesYes19/01/2015YesYesYesYesYes20/01/2015YesYesYesYesYes21/01/2015YesYesYesYesYes22/01/2015YesYesYesYesYes23/01/2015YesYesYesYesYes	
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20/01/2015YesYesYesYesYes21/01/2015YesYesYesYesYes22/01/2015YesYesYesYesYes	
21/01/2015 Yes Yes Yes Yes Yes Yes	
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25/01/2015 Yes Yes Yes Yes Yes	
26/01/2015 Yes Yes Yes Yes Yes	
27/01/2015 Yes Yes Yes Yes Yes	
28/01/2015 Yes Yes Yes Yes Yes	
29/01/2015 Yes Yes Yes Yes Yes	
30/01/2015 Yes Yes Yes Yes Yes	
31/01/2015 Yes Yes Yes Yes Yes	
01/02/2015 Yes Yes Yes Yes Yes	
02/02/2015 Yes Yes Yes Yes Yes	
03/02/2015 Yes Yes Yes Yes Yes	
04/02/2015 No Yes Yes Yes Yes	
05/02/2015 Yes Yes Yes Yes Yes	
06/02/2015 Yes Yes Yes Yes Yes	
07/02/2015 Yes Yes Yes Yes Yes	
08/02/2015 Yes Yes Yes Yes Yes	
09/02/2015 Yes Yes Yes Yes Yes	
10/02/2015 Yes Yes Yes Yes Yes	
11/02/2015 Yes Yes Yes Yes Yes	
12/02/2015 Yes Yes Yes Yes Yes	
13/02/2015 Yes Yes Yes Yes Yes	
14/02/2015 Yes Yes Yes Yes Yes	
15/02/2015 Yes Yes Yes Yes Yes	

DATE	NMT1	NMT2	NMT3	NMT4	
DATE	Events	Events	Events	Events	FIDS
16/02/2015	Yes	Yes	Yes	Yes	Yes
17/02/2015	Yes	Yes	Yes	Yes	Yes
18/02/2015	Yes	Yes	Yes	Yes	Yes
19/02/2015	Yes	Yes	Yes	Yes	Yes
20/02/2015	Yes	Yes	Yes	Yes	Yes
21/02/2015	Yes	Yes	Yes	Yes	Yes
22/02/2015	Yes	Yes	Yes	Yes	Yes
23/02/2015	Yes	Yes	Yes	Yes	Yes
24/02/2015	Yes	Yes	Yes	Yes	Yes
25/02/2015	Yes	Yes	Yes	Yes	Yes
26/02/2015	Yes	Yes	Yes	Yes	Yes
27/02/2015	Yes	Yes	Yes	Yes	Yes
28/02/2015	Yes	Yes	Yes	Yes	Yes
01/03/2015	Yes	Yes	Yes	Yes	Yes
02/03/2015	Yes	Yes	Yes	Yes	Yes
03/03/2015	Yes	Yes	Yes	Yes	Yes
04/03/2015	Yes	Yes	Yes	Yes	Yes
05/03/2015	Yes	Yes	Yes	Yes	Yes
06/03/2015	Yes	Yes	Yes	Yes	Yes
07/03/2015	Yes	Yes	Yes	Yes	Yes
08/03/2015	Yes	Yes	Yes	Yes	Yes
09/03/2015	Yes	Yes	Yes	Yes	Yes
10/03/2015	Yes	Yes	Yes	Yes	Yes
11/03/2015	Yes	Yes	Yes	Yes	Yes
12/03/2015	Yes	Yes	Yes	Yes	Yes
13/03/2015	Yes	Yes	Yes	Yes	Yes
14/03/2015	Yes	Yes	Yes	Yes	Yes
15/03/2015	Yes	Yes	Yes	Yes	Yes
16/03/2015	Yes	Yes	Yes	Yes	Yes
17/03/2015	Yes	Yes	Yes	Yes	Yes
18/03/2015	Yes	Yes	Yes	Yes	Yes
19/03/2015	Yes	Yes	Yes	Yes	Yes
20/03/2015	Yes	Yes	Yes	Yes	Yes
21/03/2015	Yes	Yes	Yes	Yes	Yes
22/03/2015	Yes	Yes	Yes	Yes	Yes
23/03/2015	Yes	Yes	Yes	Yes	Yes
24/03/2015	Yes	Yes	Yes	Yes	Yes
25/03/2015	Yes	Yes	Yes	Yes	Yes
26/03/2015	Yes	Yes	Yes	Yes	Yes
27/03/2015	Yes	Yes	Yes	Yes	Yes
28/03/2015	Yes	Yes	Yes	Yes	Yes
29/03/2015	Yes	Yes	Yes	Yes	Yes
30/03/2015	Yes	Yes	Yes	Yes	Yes
31/03/2015	Yes	Yes	Yes	Yes	Yes

DATE	NMT1	NMT2	NMT3	NMT4	
DATE	Events	Events	Events	Events	FIDS
16/02/2015	Yes	Yes	Yes	Yes	Yes
17/02/2015	Yes	Yes	Yes	Yes	Yes
18/02/2015	Yes	Yes	Yes	Yes	Yes
19/02/2015	Yes	Yes	Yes	Yes	Yes
20/02/2015	Yes	Yes	Yes	Yes	Yes
21/02/2015	Yes	Yes	Yes	Yes	Yes
22/02/2015	Yes	Yes	Yes	Yes	Yes
23/02/2015	Yes	Yes	Yes	Yes	Yes
24/02/2015	Yes	Yes	Yes	Yes	Yes
25/02/2015	Yes	Yes	Yes	Yes	Yes
26/02/2015	Yes	Yes	Yes	Yes	Yes
27/02/2015	Yes	Yes	Yes	Yes	Yes
28/02/2015	Yes	Yes	Yes	Yes	Yes
01/03/2015	Yes	Yes	Yes	Yes	Yes
02/03/2015	Yes	Yes	Yes	Yes	Yes
03/03/2015	Yes	Yes	Yes	Yes	Yes
04/03/2015	Yes	Yes	Yes	Yes	Yes
05/03/2015	Yes	Yes	Yes	Yes	Yes
06/03/2015	Yes	Yes	Yes	Yes	Yes
07/03/2015	Yes	Yes	Yes	Yes	Yes
08/03/2015	Yes	Yes	Yes	Yes	Yes
09/03/2015	Yes	Yes	Yes	Yes	Yes
10/03/2015	Yes	Yes	Yes	Yes	Yes
11/03/2015	Yes	Yes	Yes	Yes	Yes
12/03/2015	Yes	Yes	Yes	Yes	Yes
13/03/2015	Yes	Yes	Yes	Yes	Yes
14/03/2015	Yes	Yes	Yes	Yes	Yes
15/03/2015	Yes	Yes	Yes	Yes	Yes
16/03/2015	Yes	Yes	Yes	Yes	Yes
17/03/2015	Yes	Yes	Yes	Yes	Yes
18/03/2015	Yes	Yes	Yes	Yes	Yes
19/03/2015	Yes	Yes	Yes	Yes	Yes
20/03/2015	Yes	Yes	Yes	Yes	Yes
21/03/2015	Yes	Yes	Yes	Yes	Yes
22/03/2015	Yes	Yes	Yes	Yes	Yes
23/03/2015	Yes	Yes	Yes	Yes	Yes
24/03/2015	Yes	Yes	Yes	Yes	Yes
25/03/2015	Yes	Yes	Yes	Yes	Yes
26/03/2015	Yes	Yes	Yes	Yes	Yes
27/03/2015	Yes	Yes	Yes	Yes	Yes
28/03/2015	Yes	Yes	Yes	Yes	Yes
29/03/2015	Yes	Yes	Yes	Yes	Yes
30/03/2015	Yes	Yes	Yes	Yes	Yes
31/03/2015	Yes	Yes	Yes	Yes	Yes

DATE	NMT1	NMT2	NMT3	NMT4	
DATE	Events	Events	Events	Events	FIDS
16/02/2015	Yes	Yes	Yes	Yes	Yes
17/02/2015	Yes	Yes	Yes	Yes	Yes
18/02/2015	Yes	Yes	Yes	Yes	Yes
19/02/2015	Yes	Yes	Yes	Yes	Yes
20/02/2015	Yes	Yes	Yes	Yes	Yes
21/02/2015	Yes	Yes	Yes	Yes	Yes
22/02/2015	Yes	Yes	Yes	Yes	Yes
23/02/2015	Yes	Yes	Yes	Yes	Yes
24/02/2015	Yes	Yes	Yes	Yes	Yes
25/02/2015	Yes	Yes	Yes	Yes	Yes
26/02/2015	Yes	Yes	Yes	Yes	Yes
27/02/2015	Yes	Yes	Yes	Yes	Yes
28/02/2015	Yes	Yes	Yes	Yes	Yes
01/03/2015	Yes	Yes	Yes	Yes	Yes
02/03/2015	Yes	Yes	Yes	Yes	Yes
03/03/2015	Yes	Yes	Yes	Yes	Yes
04/03/2015	Yes	Yes	Yes	Yes	Yes
05/03/2015	Yes	Yes	Yes	Yes	Yes
06/03/2015	Yes	Yes	Yes	Yes	Yes
07/03/2015	Yes	Yes	Yes	Yes	Yes
08/03/2015	Yes	Yes	Yes	Yes	Yes
09/03/2015	Yes	Yes	Yes	Yes	Yes
10/03/2015	Yes	Yes	Yes	Yes	Yes
11/03/2015	Yes	Yes	Yes	Yes	Yes
12/03/2015	Yes	Yes	Yes	Yes	Yes
13/03/2015	Yes	Yes	Yes	Yes	Yes
14/03/2015	Yes	Yes	Yes	Yes	Yes
15/03/2015	Yes	Yes	Yes	Yes	Yes
16/03/2015	Yes	Yes	Yes	Yes	Yes
17/03/2015	Yes	Yes	Yes	Yes	Yes
18/03/2015	Yes	Yes	Yes	Yes	Yes
19/03/2015	Yes	Yes	Yes	Yes	Yes
20/03/2015	Yes	Yes	Yes	Yes	Yes
21/03/2015	Yes	Yes	Yes	Yes	Yes
22/03/2015	Yes	Yes	Yes	Yes	Yes
23/03/2015	Yes	Yes	Yes	Yes	Yes
24/03/2015	Yes	Yes	Yes	Yes	Yes
25/03/2015	Yes	Yes	Yes	Yes	Yes
26/03/2015	Yes	Yes	Yes	Yes	Yes
27/03/2015	Yes	Yes	Yes	Yes	Yes
28/03/2015	Yes	Yes	Yes	Yes	Yes
29/03/2015	Yes	Yes	Yes	Yes	Yes
30/03/2015	Yes	Yes	Yes	Yes	Yes
31/03/2015	Yes	Yes	Yes	Yes	Yes

## LONDON CITY AIRPORT NOISE & TRACK KEEPING STATUS REPORT APRIL 2015 – JUNE 2015

Report to

Mr Gary Hodgetts Director Operations Policy & Planning London City Airport City Aviation House The Royal Docks London E16 2PB

A1125.121-R24-NW 16 July 2015

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Cont	ents	Page No.
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2.0	NMT Status	3
3.0	Correlation Rate	3
4.0	Summary	4

Appendix A: NMT status by date

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### 1.0 INTRODUCTION

Under paragraph A6.0 of the approved Temporary Noise Monitoring Strategy, London City Airport is required to provide quarterly reports of the Noise and Track Keeping system to the London Borough of Newham.

This report details the operational status of each monitor and the monthly correlation rate of noise events to aircraft departures for the quarterly period 1<sup>st</sup> April 2015 to 30<sup>th</sup> June 2015.

### 2.0 NMT STATUS

A summary of the status of each Noise Monitoring Terminal (NMT) is given in Table 1 below. A detailed summary is given in Appendix A showing whether both noise events and Flight Information and Display System (FIDS) have been obtained on a daily basis.

During this quarterly period, all of the NMTs were fully operational, and data received for each day.

NMT	Calibration	Data		
1	ОК	Data received for all days		
2	ОК	Data received for all days		
3	ОК	Data received for all days		
4	ОК	Data received for all days		

Table 1: Summary of NMT status

### 3.0 CORRELATION RATE

A summary of the correlation rate for each month is given in Table 2 below. In order to calculate the rate of correlation, the number of departures correlated has been compared against the number of operations at London City Airport<sup>1</sup> during the same period. It has been assumed that the number of departures constitute fifty percent of the total number of operations.

<sup>&</sup>lt;sup>1</sup> Number of monthly operations supplied by Airport2020 Client Flight Information Database

Month	No. Operations	No. Correlated Departures	Correlation Rate
April	6893	3172	92%
May	6866	2917	85%
June	7208	3285	91%

### Table 2: Summary of correlation rate

The correlation rates in all three months, in particular May, were affected by a significant amount of recorded noise events being marked as invalid due to high winds.

### 4.0 SUMMARY

During the quarterly period from 1<sup>st</sup> April 2015 to 30<sup>th</sup> June 2015, FIDS was received for all days and the NMTs were fully operational. A total of 9,374 departure events were successfully recorded and a correlation rate of 85% or above achieved.

Nick Williams for Bickerdike Allen Partners Peter Henson Partner

### APPENDIX A

### NMT STATUS BY DATE
DATE	NMT1	NMT2	NMT3	NMT4	
DATE	Events	Events	Events	Events	FIDS
16/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
10/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
1s/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
1//1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
12/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
17/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
17/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
19/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
14/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
61/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
66/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
60/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
6s/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
6//1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
62/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
67/1//0162	576	576	576	576	576
67/1//0162	5Ve	5Ye	5Ye	5Ye	5Ye
69/1//0162	5Ve	5Ye	5Ye	5Ve	5Ye
64/1//0162	576	576	576	576	576
01/1//0162	570	570	570	570	570
06/1//0162	570	570	570	570	570
00/1//0162	570	570	570	570	570
00/1/0102	570	570	510	570	570
0/1/0102	EVo	5Te	5Te	5Te	5Te
0//1//0102	570	510	510	570	510
02/1/0102	51e EVo	5Te	5Te	5Te	5Te
07/1//0102	5Te EVo	EVo	5Te	5Vo	5Te
00/1//0102	EVo	EVo	EVo	EVo	EVo
03/1/0102 04/1/0162	5Te EVo	5Te	5Te	5Te	5Te
$\frac{04}{1} \frac{1}{0102}$	EVo	EVo	EVo	EVo	EVo
S 1/ 1/ /0102		5Te	5Te	5Te	
10/12/0102	Sie	Sie	Sre	Ste	Sie
10/12/0162	5Ye	5re	5re	516	5re
15/12/0162	5Ye	5re	5re	5re	5re
1//12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
12/12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
17/12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
1//12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
19/12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
14/12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
61/12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
66/12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
60/12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
6s/12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
6//12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
62/12/0162	5Ye	5Ye	5Ye	5Ye	5Ye
67/12/0162	5Ye	5Ye	5Ye	5Ye	5Ye

DATE	NMT1	NMT2	NMT3	NMT4	FIDC
DATE	Events	Events	Events	Events	FIDS
16//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1s//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
18//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2///0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
21//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
22//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
27//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
29//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
20//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
23//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
26//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2s//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
28//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
7///0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
71//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/1//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/2//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/7//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/9//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/0//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/3//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/6//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/s//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/8//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1///3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
11//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
12//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
17//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
19//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
10//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
13//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
16//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1s//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
18//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2///3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
21//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
22//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
27//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
29//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
20//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
23//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
26//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2s//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
28//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
7///3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye

DATE	NMT1	NMT2	NMT3	NMT4	
DATE	Events	Events	Events	Events	FIDS
16//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1s//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
18//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2///0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
21//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
22//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
27//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
29//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
20//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
23//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
26//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2s//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
28//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
7///0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
71//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/1//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/2//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/7//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/9//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/0//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/3//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/6//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/s//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/8//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1///3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
11//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
12//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
17//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
19//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
10//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
13//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
16//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1s//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
18//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2///3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
21//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
22//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
27//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
29//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
20//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
23//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
26//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2s//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
28//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
////3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye

DATE	NMT1	NMT2	NMT3	NMT4	FIDC
DATE	Events	Events	Events	Events	FIDS
16//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1s//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
18//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2///0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
21//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
22//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
27//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
29//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
20//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
23//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
26//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2s//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
28//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
7///0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
71//0/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/1//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/2//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/7//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/9//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/0//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/3//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/6//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/s//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
/8//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1///3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
11//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
12//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
17//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
19//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
10//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
13//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
16//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
1s//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
18//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2///3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
21//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
22//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
27//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
29//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
20//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
23//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
26//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
2s//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
28//3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye
7///3/2/10	5Ye	5Ye	5Ye	5Ye	5Ye

# LONDON CITY AIRPORT NOISE & TRACK KEEPING STATUS REPORT JULY 2015 – SEPTEMBER 2015

Report to

Mr Gary Hodgetts Director Operations Policy & Planning London City Airport City Aviation House The Royal Docks London E16 2PB

A1125.121-R25-NW 29 October 2015

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Appendix A: NMT status by date

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#### 1.0 INTRODUCTION

Under paragraph A6.0 of the approved Temporary Noise Monitoring Strategy, London City Airport is required to provide quarterly reports of the Noise and Track Keeping system to the London Borough of Newham.

This report details the operational status of each monitor and the monthly correlation rate of noise events to aircraft departures for the quarterly period 1<sup>st</sup> July 2015 to 30<sup>th</sup> September 2015.

#### 2.0 NMT STATUS

A summary of the status of each Noise Monitoring Terminal (NMT) is given in Table 1 below. A detailed summary is given in Appendix A showing whether both noise events and Flight Information and Display System (FIDS) have been obtained on a daily basis.

During this quarterly period, NMTs 1, 3 and 4 were fully operational, and data received for each day. Due to a failure of the power supply, NMT2 was not operational on the 5<sup>th</sup>, 16<sup>th</sup>, 21<sup>st</sup> and 22<sup>nd</sup> September. The cause of this problem has since been identified and resolved.

NMT	Calibration	Data	
1	ОК	Data received for all days	
2	ОК	Data received for all days except 5 <sup>th</sup> , 16 <sup>th</sup> , 21 <sup>st</sup> and 22 <sup>nd</sup> September	
3	ОК	Data received for all days	
4	ОК	Data received for all days	

Table 1: Summary of NMT status

#### 3.0 CORRELATION RATE

A summary of the correlation rate for each month is given in Table 2 below. In order to calculate the rate of correlation, the number of departures correlated has been compared against the number of operations at London City Airport<sup>1</sup> during the same period. It has been assumed that the number of departures constitute fifty percent of the total number of operations.

<sup>&</sup>lt;sup>1</sup> Number of monthly operations supplied by Airport2020 Client Flight Information Database

Month	No. Operations	No. Correlated Departures	Correlation Rate
July	7308	3358	92%
August	6224	3036	98%
September	7410	3244	88%

Table 2: Summary of correlation rate

#### 4.0 SUMMARY

During the quarterly period from 1<sup>st</sup> July 2015 to 30<sup>th</sup> September 2015, FIDS was received for all days NMTs 1, 3 and 4 were fully operational. Due to a failure of the power supply, NMT 2 was not operational for 4 days during September. The cause of this problem has since been identified and resolved. Despite this, a total of 9,638 departure events were successfully recorded and a correlation rate of 88% or above achieved.

Nick Williams for Bickerdike Allen Partners

Peter Henson Partner

# APPENDIX A

## NMT STATUS BY DATE

DATE	NMT1	NMT2	NMT3	NMT4	
DATE	Events	Events	Events	Events	FIDS
16/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
10/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
1s/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
17/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
12/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
18/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
1//1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
19/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
14/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
61/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
66/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
60/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
6s/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
67/1//0162	5Ye	5Ye	5Ye	5Ye	5Ye
62/1//0162	5Ye	5Ye	5Ve	5Ye	57e
68/1//0162	576	576	576	576	570
6//1//0162	576	576	576	576	576
69/1//0162	576	576	576	576	570
64/1//0162	576	576	576	576	576
01/1//0162	570	570	570	576	570
06/1//0162	570	570	570	576	570
00/1//0162	570	570	570	576	570
00/1/0102	570	570	510	570	570
03/1/0102	5Te EVo	5Te	5Te	5Te	5Te
07/1//0102	576	510	510	570	570
02/1//0102	5Te EVo	EVo	5Te	5Te	5Te
0//1//0162	5Te EVo	EVo	5Te	5Te	5Te
0/1/0102	EVo	EVo	EVo	5Te	EVo
03/1/0102 04/1/0162	5Te EVo	5Te	5Te	STe	5Te
04/1/0102 c1/1/0162	EVo	EVo	EVo	5Te	EVo
s1/1//0162	5Te	5Te	5Te	STE	5Te
S 6/ 1/ /0162	516	Sie	Sre	Ste	510
16/19/0162	5Ye	5re	5re	Sre	5re
10/19/0162	516	Sie	Sre	Ste	510
13/19/0162	5Ye	5re	5re	Sie	5re
17/19/0162	5Ye	5Ye	5Ye	5Ye	5Ye
12/19/0162	5Ye	5re	5re	Sie	5re
18/19/0162	5Ye	5Ye	5Ye	5Ye	5Ye
1//19/0162	5Ye	5Ye	5Ye	SYe	5Ye
19/19/0162	5Ye	5Ye	5Ye	5Ye	5Ye
14/19/0162	5Ye	5Ye	5Ye	5Ye	5Ye
61/19/0162	5Ye	5Ye	5Ye	5Ye	5Ye
66/19/0162	5Ye	5Ye	5Ye	5Ye	5Ye
60/19/0162	5Ye	5Ye	5Ye	5Ye	5Ye
65/19/0162	5Ye	5Ye	5Ye	5Ye	5Ye
6//19/0162	5Ye	5Ye	5Ye	5Ye	5Ye
62/19/0162	5Ye	5Ye	5Ye	5Ye	5Ye

DATE	NMT1	NMT2	NMT3	NMT4	
DATE	Events	Events	Events	Events	FIDS
0125Y2s503	46s	46s	46s	46s	46s
0725Y2s503	46s	46s	46s	46s	46s
0Y25Y2s503	46s	46s	46s	46s	46s
0825Y2s503	46s	46s	46s	46s	46s
s 525Y2s 503	46s	46s	46s	46s	46s
s 025Y2s 503	46s	46s	46s	46s	46s
s s 25 Y 2s 503	46s	46s	46s	46s	465
s 325Y2s 503	465	465	465	465	465
s 925 Y 2s 503	465	465	46s	46s	465
s 325 Y 2s 503	465	465	46s	46s	465
s 125 Y 2s 503	465	465	46s	465	465
s 725V2 503	405 //6c	405	-105 //6c	405 46s	405 //6c
s V 25 V 2s 503	403	403	403 16c	403	403 16c
s 825V2c 503	403	403	403	403	403
2525125303	403	403	403	403 46c	403
3525125505	405	405	405	405	405
3025 f 25 503	405	405	405	405	405
5025825503	405	405	405	405	405
58 258 25 503	465	465	465	46S	465
5325825503	46S	46S	465	46S	46S
592582s503	46s	46s	46s	46s	46s
532582s503	46s	No	46s	46s	46s
512582s 503	46s	46s	46s	46s	46s
572582s503	46s	46s	46s	46s	46s
5Y2582s503	46s	46s	46s	46s	46s
582582s 503	46s	46s	46s	46s	46s
052582s 503	46s	46s	46s	46s	46s
002582s 503	46s	46s	46s	46s	46s
0s 2582s 503	46s	46s	46s	46s	46s
032582s 503	46s	46s	46s	46s	46s
092582s 503	46s	46s	46s	46s	46s
032582s 503	46s	46s	46s	46s	46s
012582s 503	46s	No	46s	46s	46s
072582s 503	46s	46s	46s	46s	46s
0Y2582s503	46s	46s	46s	46s	46s
082582s 503	46s	46s	46s	46s	46s
s 52582s 503	46s	46s	46s	46s	46s
s 02582s 503	46s	No	46s	46s	46s
s s 2582s 503	46s	No	46s	46s	46s
s 32582s 503	46s	46s	46s	46s	46s
s 92582s 503	46s	46s	46s	46s	46s
s 32582s 503	46s	46s	46s	46s	46s
s 12582s 503	46s	46s	46s	46s	46s
s 72582s 503	46s	46s	46s	46s	46s
s Y 2582s 503	46s	46s	46s	46s	46s
s 82582s 503	46s	46s	46s	46s	465
352582s 503	46s	46s	46s	46s	46s

# LONDON CITY AIRPORT NOISE & TRACK KEEPING STATUS REPORT OCTOBER 2015 – DECEMBER 2015

Report to

Mr Gary Hodgetts Director Operations Policy & Planning London City Airport City Aviation House The Royal Docks London E16 2PB

A1125.121-R26-NW 28 January 2016

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Appendix A: NMT status by date

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#### 1.0 INTRODUCTION

Under paragraph A6.0 of the approved Temporary Noise Monitoring Strategy, London City Airport is required to provide quarterly reports of the Noise and Track Keeping system to the London Borough of Newham.

This report details the operational status of each monitor and the monthly correlation rate of noise events to aircraft departures for the quarterly period 1<sup>st</sup> October 2015 to 31<sup>st</sup> December 2015.

#### 2.0 NMT STATUS

A summary of the status of each Noise Monitoring Terminal (NMT) is given in Table 1 below. A detailed summary is given in Appendix A showing whether both noise events and Flight Information and Display System (FIDS) have been obtained on a daily basis.

During this quarterly period, NMTs 1, 3 and 4 were fully operational, and data received for each day. Due to a failure of the power supply, NMT2 was not operational for parts of  $1^{st} - 7^{th}$  October. The cause of this problem was then identified and resolved. A separate failure of the power supply also caused NMT2 to be unavailable for parts of  $4^{th}$  November –  $3^{rd}$  December.

NMT	Calibration Data	
1	ОК	Data received for all days
2	ОК	Data received for all days except significant parts of 1 <sup>st</sup> – 7 <sup>th</sup> October, 4 <sup>th</sup> , 5 <sup>th</sup> , 8 <sup>th</sup> – 30 <sup>th</sup> November, and 1 <sup>st</sup> – 3 <sup>rd</sup> December
3	ОК	Data received for all days
4	ОК	Data received for all days

Table 1: Summary of NMT status

#### 3.0 CORRELATION RATE

A summary of the correlation rate for each month is given in Table 2 below. In order to calculate the rate of correlation, the number of departures correlated has been compared against the number of operations at London City Airport<sup>1</sup> during the same period. It has been assumed that the number of departures constitute fifty percent of the total number of operations.

<sup>&</sup>lt;sup>1</sup> Number of monthly operations supplied by Airport2020 Client Flight Information Database

Month	No. Operations	No. Correlated Departures	Correlation Rate
October	7553	3645	97%
November	6917	1182	34%
December	6481	2647	82%

Table 2: Summary of correlation rate

#### 4.0 SUMMARY

During the quarterly period from 1<sup>st</sup> October 2015 to 31<sup>st</sup> December 2015, FIDS was received for all days and NMTs 1, 3 and 4 were fully operational.

Due to a failure of the power supply, NMT2 was not fully operational for 7 days during October. This had a limited effect on the correlation rate as departures were using runway 09 for the majority of this period and therefore were recorded at NMT3 and NMT4. The cause of this problem has since been identified and resolved.

Due to a separate failure of the power supply, NMT 2 was not fully operational for 25 days during November and 3 days during December. The cause of this problem has since been identified and resolved. The reason for the extended downtime was that the fuel cell developed a permanent yet unexpected fault and, because this is a unique piece of equipment associated to the noise monitoring systems, a replacement was needed to be installed which had a 3-4 week delivery time. All necessary parts are now located with a local supplier which will avoid this issue reoccurring in the future.

A total of 7,474 departure events were successfully recorded. A correlation rate of 82% or above was achieved in October and December, however due to the problems with NMT2 the correlation rate was only 34% for November. This has a limited effect on the overall annual average correlation rate which, from January to December 2015, is 85%.

Nick Williams for Bickerdike Allen Partners Peter Henson Partner

# APPENDIX A

## NMT STATUS BY DATE

DATE	NMT1	NMT2	NMT3	NMT4	EIDC
DATE	Events	Events	Events	Events	FID3
01/10/2015	Yes	Yes	Yes	Yes	Yes
02/10/2015	Yes	Yes	Yes	Yes	Yes
03/10/2015	Yes	Yes	Yes	Yes	Yes
04/10/2015	Yes	Yes	Yes	Yes	Yes
05/10/2015	Yes	No	Yes	Yes	Yes
06/10/2015	Yes	No	Yes	Yes	Yes
07/10/2015	Yes	Yes	Yes	Yes	Yes
08/10/2015	Yes	Yes	Yes	Yes	Yes
09/10/2015	Yes	Yes	Yes	Yes	Yes
10/10/2015	Yes	Yes	Yes	Yes	Yes
11/10/2015	Yes	Yes	Yes	Yes	Yes
12/10/2015	Yes	Yes	Yes	Yes	Yes
13/10/2015	Yes	Yes	Yes	Yes	Yes
14/10/2015	Vec	Ves	Ves	Vec	Ves
15/10/2015	Vac	Vac	Vac	Vac	Voc
16/10/2015	Voc	Voc	Voc	Vos	Voc
17/10/2015	Vac	Vas	Vas	Vac	Vos
18/10/2015	Voc	Voc	Voc	Vos	Voc
10/10/2015	Voc	Voc	Voc	Voc	Voc
19/10/2015	Voc	Voc	Voc	Voc	Voc
20/10/2015	Vec	Vec	Vec	Vec	Voc
21/10/2015	Yes	Vec	Vec	Yes	Vec
22/10/2015	Vec	Vec	Vec	Vec	Voc
23/10/2015	Yes	Vec	Vec	Yes	Vec
24/10/2015	Yes	Yes	Yes	Yes	Yes
25/10/2015	Yes	Vec	Vec	Yes	Vec
20/10/2015	Yes	Yes	Yes	Yes	Yes
27/10/2015	Yes	Yes	Yes	Yes	Yes
28/10/2015	Yes	Yes	Yes	Yes	Yes
29/10/2015	Yes	Yes	Yes	Yes	Yes
30/10/2015	Yes	Yes	Yes	Yes	Yes
31/10/2015	Yes	Yes	Yes	Yes	Yes
01/11/2015	Yes	Yes	Yes	Yes	Yes
02/11/2015	Yes	Yes	Yes	Yes	Yes
03/11/2015	Yes	Yes	Yes	Yes	Yes
04/11/2015	Yes	Yes	Yes	Yes	Yes
05/11/2015	Yes	Yes	Yes	Yes	Yes
06/11/2015	Yes	Yes	Yes	Yes	Yes
0//11/2015	Yes	Yes	Yes	Yes	Yes
08/11/2015	Yes	Yes	Yes	Yes	Yes
09/11/2015	Yes	Yes	Yes	Yes	Yes
10/11/2015	Yes	Yes	Yes	Yes	Yes
11/11/2015	Yes	Yes	Yes	Yes	Yes
12/11/2015	Yes	Yes	Yes	Yes	Yes
13/11/2015	Yes	Yes	Yes	Yes	Yes
14/11/2015	Yes	Yes	Yes	Yes	Yes
15/11/2015	Yes	Yes	Yes	Yes	Yes

DATE	NMT1	NMT2	NMT3	NMT4	
DATE	Events	Events	Events	Events	FID3
16/11/2015	Yes	Yes	Yes	Yes	Yes
17/11/2015	Yes	Yes	Yes	Yes	Yes
18/11/2015	Yes	Yes	Yes	Yes	Yes
19/11/2015	Yes	Yes	Yes	Yes	Yes
20/11/2015	Yes	Yes	Yes	Yes	Yes
21/11/2015	Yes	Yes	Yes	Yes	Yes
22/11/2015	Yes	Yes	Yes	Yes	Yes
23/11/2015	Yes	Yes	Yes	Yes	Yes
24/11/2015	Yes	Yes	Yes	Yes	Yes
25/11/2015	Yes	Yes	Yes	Yes	Yes
26/11/2015	Yes	Yes	Yes	Yes	Yes
27/11/2015	Yes	Yes	Yes	Yes	Yes
28/11/2015	Yes	Yes	Yes	Yes	Yes
29/11/2015	Yes	Yes	Yes	Yes	Yes
30/11/2015	Vac	Vac	Vac	Vas	Voc
01/12/2015	Vos	Voc	Voc	Voc	Vec
01/12/2015	Vac	Vas	Vas	Vas	Voc
02/12/2015	Vos	Voc	Voc	Voc	Vec
03/12/2015	Voc	Voc	Voc	Voc	Voc
04/12/2013	Voc	Voc	Voc	Voc	Voc
05/12/2015	Vec	Vec	Vec	Voc	Voc
00/12/2015	Vec	Vec	Vec	Vec	Vec
07/12/2015	Vec	Vec	Vec	Vec	Vec
00/12/2015	Vec	Vec	Vec	Vec	Vec
10/12/2015	Vec	Vec	Vec	Voc	Voc
10/12/2015	Vec	Vec	Vec	Vec	Vec
11/12/2015	Yes	Yes	Yes	Yes	Yes
12/12/2015	Yes	Yes	Yes	Yes	Yes
13/12/2015	Yes	Yes	Yes	Yes	Yes
14/12/2015	Yes	Yes	Yes	Yes	Yes
15/12/2015	Yes	Yes	Yes	Yes	Yes
16/12/2015	Yes	Yes	Yes	Yes	Yes
1//12/2015	Yes	Yes	Yes	Yes	Yes
18/12/2015	Yes	Yes	Yes	Yes	Yes
19/12/2015	Yes	Yes	Yes	Yes	Yes
20/12/2015	Yes	Yes	Yes	Yes	Yes
21/12/2015	Yes	Yes	Yes	Yes	Yes
22/12/2015	Yes	Yes	Yes	Yes	Yes
23/12/2015	Yes	Yes	Yes	Yes	Yes
24/12/2015	Yes	Yes	Yes	Yes	Yes
25/12/2015	Yes	Yes	Yes	Yes	Yes
26/12/2015	Yes	Yes	Yes	Yes	Yes
27/12/2015	Yes	Yes	Yes	Yes	Yes
28/12/2015	Yes	Yes	Yes	Yes	Yes
29/12/2015	Yes	Yes	Yes	Yes	Yes
30/12/2015	Yes	Yes	Yes	Yes	Yes
31/12/2015	Yes	Yes	Yes	Yes	Yes

# **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# APPENDIX 12 ANNUAL NOISE CATEGORISATION REPORT

01 July 2016

London City Airport City Aviation House Royal Docks London E16 2PB Tel: 020 7646 0000 LondonCityAirport.com



# LONDON CITY AIRPORT ANNUAL CATEGORISATION REPORT 2015 NOISE MONITORING

Report to

Gary Hodgetts Director Technical Operations City Aviation House London City Airport The Royal Docks London E16 2PB

A1125.57-R01.16-PH/NW 30 June 2016

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Appendix A: Mean Annual Departure Noise Levels

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#### 1.0 INTRODUCTION

In accordance with London City Airport's planning obligations, aircraft operating at London City Airport are required to be categorised by their departure noise level into one of five noise categories. This aircraft categorisation process is set out in detail in Condition 7 of the planning permission dated 9<sup>th</sup> July 2009.

The categorisation procedure requires that, before any aircraft is permitted to operate at London City Airport, a provisional noise categorisation for that aircraft type must be approved in writing by the local planning authority. Annually, a review of the categorisation is undertaken of each approved aircraft type having regard to the departure noise levels recorded using the airport's noise monitoring system. This report records the results of this review.

The airport's noise monitoring system records the departure events of aircraft over the categorisation year (January to December inclusive), the results of which are used to undertake the annual review of the categorisation of aircraft.

This report records the results of a review of the categorisation of those aircraft using the airport that received categorisation over the period 1<sup>st</sup> January 2015 up to and including 31<sup>st</sup> December 2015. The review is based on the results obtained from noise monitoring in the period 1<sup>st</sup> January 2015 up to and including 31<sup>st</sup> December 2015.

In Appendix A, this report includes a list of those aircraft that have already received confirmation of their categorisation to operate at London City Airport, together with their associated mean annual departure noise level (MADNL) recorded over the period 1<sup>st</sup> January 2015 up to and including 31<sup>st</sup> December 2015.

Information is also provided on the number of aircraft movements and noise factored movements that have taken place at the airport over the period 1<sup>st</sup> January 2015 up to and including 31<sup>st</sup> December 2015.

#### 2.0 PLANNING REQUIREMENTS

The planning requirements concerning the categorisation of aircraft at London City Airport are set out in Condition 7(4) of the planning permission dated 9<sup>th</sup> July 2009.

It has been previously agreed that general aviation interim categorisation is simplified due to the small numbers of similar GA type aircraft. This was formally approved on the 19<sup>th</sup> November 1998 as planning application number P/98/0998, and places "General Aviation:

*Executive Turbo-Fan Aircraft*" in Category A and *"General Aviation: Non-Jet Aircraft*" in Category B, according to the noise exposure categories (NECs) discussed in Section 2.1 below.

#### 2.1 Noise Categories

Condition 7(2) to the planning permission of 9<sup>th</sup> July 2009 states that:

"Aircraft types using the airport shall be placed in categories and allocated noise factors as set out below:

Category	Noise Reference Level (PNdB)	Noise Factor
А	91.6 - 94.5	1.26
В	88.6 - 91.5	0.63
С	85.6 - 88.5	0.31
D	82.6 - 85.5	0.16
E	less than 82.6	0.08

"where the noise reference level is the departure noise level at the four noise categorisation locations shown on Plan P1 that accompanies this permission, expressed in PNdB..."

Figure 1 shows the noise categorisation points (NCPs) which are defined as being 2000 metres from the start-of-roll and 300 metres sideline from the extended centre line of the runway.

The noise reference level is determined using the mean annual departure noise levels (MADNLs) measured by the noise monitoring system. The noise factors are multiplying factors to the actual number of aircraft movements and are used to obtain the number of factored movements at the airport. The permitted numbers of actual and factored movements at the airport are detailed below.

#### 2.2 Number of Aircraft Movements

Condition 8 of the planning permission of 9<sup>th</sup> July 2009 details the number of movements that are permitted at the airport:

- "(1) The number of aircraft movements at the airport shall not exceed:
- (a) 100 per day on Saturdays and 200 per day on Sundays but not exceeding 280 on any consecutive Saturday and Sunday
- (b) 592 per day on weekdays except 1 January, Good Friday, Easter Monday, the May Day holiday, the late May bank holiday, the late August bank holiday, 25 December and 26 December

- (c) 132 on 1 January
- (d) 164 on Good Friday
- (e) 198 on Easter Monday
- (f) 248 on the May Day Holiday
- (g) 230 on the late May Bank Holiday
- (h) 230 on the late August Bank Holiday
- (i) 100 on 26 December
- (j) 120,000 per calendar year
- (2) In the event of there being a Bank Holiday or Public Holiday in England which falls upon or is proclaimed or declared upon a date or dates not referred to in sub-paragraph (c) to (i) (inclusive) of condition 8(1) then the number of aircraft movements permissible on that date shall not exceed 330 unless the local planning authority otherwise agrees in writing but in any event the limit for any particular date or dates shall not exceed 396 per day."

In addition, condition 8(4) adds a requirement concerning the number of factored movements as stated below:

- *"(4) The number of factored movements shall not exceed:*
- (a) In any one week the number of permitted aircraft movements for that week by more than 25%
- (b) 120,000 per calendar year."

Condition 8(5) defines a factored movement as stated below:

"(5) For the purpose of condition 8(4) the number of factored movements shall be calculated by multiplying the number of take-offs and landings by each aircraft by the relevant noise factor for an aircraft of this type under condition 7 and adding together the total for each aircraft type using the airport."

#### 3.0 NOISE MONITORING

#### 3.1 The Noise Monitoring System

A precision Brüel & Kjær (B&K) noise monitoring system was first installed in March 1992 consisting of four permanent noise monitoring terminals arranged in two gateway pairs. The four noise monitoring terminals (NMTs) were located as close as possible to the four noise categorisation points (NCPs), taking account of local site constraints. Correction factors were developed to account for any difference in position between the NMT and NCP.

This system was upgraded by B&K in 2000 and a flight track monitoring system added. In September 2013, the B&K noise and flight track monitoring system was replaced by Topsonic Systemhaus GmbH. The Topsonic system uses Norsonic noise monitoring equipment. No changes to the masts were made so measurements continue to be made at precisely the same positions as before.

The NMTs send data to a central computer each day for long-term storage and analysis. The analysis determines which noise events should be correlated with aircraft movements by referring to radar data (previously the flight information display system, FIDS, prior to 2000). The system records the aircraft movements for each day.

The categorisation procedure is based around the measurement of noise from departing aircraft at the four noise categorisation points, two at each end of the runway. As an aircraft flies through a gateway pair of noise monitors, the departure noise level is measured in dB(A) at each noise monitoring terminal. Corrections are applied to the measured noise level to take account of the noise monitors not being located exactly at the noise categorisation points and also for converting from the noise units of dB(A) into PNdB<sup>1</sup>. Finally, the mean departure noise level is determined from the average of the resulting gateway pair corrected noise measurements.

This noise control regime described above has been in operation for approximately 20 years. During this time, a large amount of data has been obtained concerning the departure noise characteristics of aircraft in operation at the airport. As a result, it has been possible to categorise each aircraft type operating at the airport.

<sup>&</sup>lt;sup>1</sup> dB(A) is the unit of the A-weighted Sound Level. PNdB is the unit of the Perceived Noise Level. The latter is considered to better represent the subjective noise of an aircraft noise event by taking into account the presence of any discrete tones.

For the existing noise monitoring system to operate efficiently, it is necessary to maintain the four noise monitors in operation and, as far as possible, to ensure that the landscape around each monitor is relatively clear of any large objects (such as buildings). Significant development has taken place around the airport over the years, particularly in close proximity to some of the noise monitoring terminals. This led to the need to relocate some of the noise monitors from their original positions (e.g. NMT 1 and NMT 3) to ensure more accurate noise monitoring. The current locations of the four noise monitoring terminals are shown in Figures 2 and 3.

During the calendar year of 2015, the noise and flight track monitoring system has been in operation every day. Each noise monitoring terminal was in operation every day with the following exceptions:

- NMT1 was not operational on 4<sup>th</sup> February due to a failure of the power supply.
- NMT2 was not operational for small parts of September, October, and December, and much of November. This was due to a fault in the fuel cell which required replacing.

The measurement of data achieved a correlation of 85% of all aircraft departures from the airport during 2015. This is above the target correlation rate (80%) set out in the Temporary Noise Monitoring Strategy.

#### 4.0 RESULTS

#### 4.1 Noise Levels

The following correction factors have been determined from previous studies<sup>2</sup> and are applied to account for the NMT to NCP relationship and any associated reflection effects, see below:

NMT	NMT – NCP and reflection effect correction factors
1 (NW)	-6.1
2 (SW)	-4.6
3 (NE)	-6.4
4 (SE)	-1.7

Confirmation of categorisation is sought for the Embraer Phenom 300, for which provisional categorisation was approved in November 2014. Table 4.1 below sets out the agreed

<sup>&</sup>lt;sup>2</sup> NMT Correction Factor Assessment Report, Bickerdike Allen Partners, Report A1125-111-R01-PH, 9<sup>th</sup> July 2008.

provisional categorisation together with the measured departure noise level during 2015 and the categorisation for which confirmation is sought.

Aircraft Type	Date of Provisional	Measured	2015 Approved	Noise Category
	Categorisation on	Noise Level	Provisional	– Confirmation
	Approval	(PNdB)	Noise Category	Sought
Embraer 300	10/11/2014	89.9	А	А

#### Table 4.1: 2014 Provisional Categorisation

Table 4.1 indicates that for 2015 (90 recorded departures) this aircraft's mean annual noise level was below the lower noise limit of Noise Exposure Category A of 91.6 PNdB. Turbo-fan aircraft are categorised universally as Category A, therefore the Airport seeks confirmation of Category A for the Embraer Phenom 300.

A full list of aircraft types and their associated mean annual departure noise level recorded over the period 1<sup>st</sup> January 2015 up to and including 31<sup>st</sup> December 2015 is included in Appendix A.

#### 4.2 Aircraft Performance

The noise levels presented in Appendix A indicate that whilst some aircraft are operating below their categorisation, such as the Embraer 135 and various turbo-fan executive aircraft, two are operating above their category; the RJ-100 and the Dornier 328 Jet.

The RJ-100 aircraft has operated outside of category since 2009, and did so again in 2015 by 0.1 dB. This represents a 0.2 dB improvement on the previous year. This improvement is due to the ongoing work that the airport and the operator of the RJ-100, Swiss International, are doing to bring the aircraft back within category. The RJ-100 has successfully operated within Category A in the past and the annual average has reduced every year since 2012. The performance of the RJ-100 has been provided on a bi-monthly basis to the London Borough of Newham accordingly.

At the same time, the number of RJ-100 departures at the airport continued to reduce in 2015 as it is phased out of operation. The RJ-100 was historically operated by a number of airlines. It has since been replaced by all airlines apart from Swiss International who continue to operate it on one route only, to Geneva. In June 2015, Swiss International replaced the RJ-100 on the Zurich route with the Embraer 190. Swiss International have also confirmed orders for the next generation of quieter aircraft (the Bombardier CS-100) that will replace the RJ-100 on the last remaining route (Geneva) when it arrives at the airport at the end of 2016.

Additionally, another aircraft, the Dornier 328 Jet, measured 2.1 dB over the upper limit of Category A. This aircraft was categorised at the airport in 2008 as a Category A aircraft. This followed some demonstration flights which provided evidence that the aircraft was capable of operating at LCA within Category A. The aircraft has operated only very occasionally since then. In 2015, the aircraft again operated rarely except for a period between June and September when 174 movements occurred. The aircraft is operated by Sun-air and the movements were undertaken by a single aircraft.

As soon as this 2015 exceedence became evident, the airport contacted Sun-air to notify them and to work with them to urgently bring the aircraft back into category. LBN Officers were also informed of the breach.

Sun-air immediately carried out a number of alternative take-off procedures in April 2016 to test the reduction in departure noise levels and bring the aircraft back into category. These alternative flight procedures have resulted in a reduction in noise level and Sun-air are confident that they will be successful in bringing the aircraft back into category in 2016. In the event that the alternative flight procedures do not bring the aircraft back into category in 2016, this aircraft will be banned from any further operations at airport. This ban would remain in place until the aircraft operator is able to demonstrate that it is capable of operating the aircraft within the airport's noise limits taking account of all expected operational conditions.

As of the end of June 2016, the aircraft has measured an average of 2.1 dB below the Category A limit in 2016 to date and therefore no further action is required. However, performance continues to be monitored and LBN are being provided with weekly updates.

Turbo-fan executive aircraft are categorised universally as Category A, and the turbo-prop executive aircraft are categorised universally as Category B. Appendix A indicates that most turbo-fan executive aircraft operated below Category A this year.

#### 4.3 Number of Actual and Factored Aircraft Movements

Table 4.2 shows the number of actual and factored aircraft movements in the period 1<sup>st</sup> January 2015 to 31<sup>st</sup> December 2015 inclusive.

Aircraft Type	Number of Aircraft Movements	Noise Factor	Number of Factored Movements *
Airbus A318	979	1.26	1234
BAe 146	734	1.26	925
RJ85	13305	1.26	16764
RJ1H	5306	1.26	6686
Dornier 328 Jet	182	1.26	229
Embraer 135	148	1.26	186
Embraer 170	10486	1.26	13212
Embraer 190	22736	1.26	28647
Embraer 300	218	1.26	275
Dash 8-400	12304	0.63	7752
Fokker 50	5182	0.63	3265
Dornier 328	1644	0.63	1036
ATR 42	2169	0.63	1366
ATR 72	134	0.63	84
Saab 2000	4701	0.63	2962
General Aviation: Turbo-Fan Aircraft	4187	1.26	5276
General Aviation: Non-Jet Aircraft	87	0.63	55
TOTAL:	84502		89953

\* Computed to the nearest whole number

#### Table 4.2: Aircraft Movement Numbers

The analysis indicates that the Airport is currently operating within the annual limits on aircraft movements and factored movements contained in condition 8 of the planning permission dated 9<sup>th</sup> July 2009.

#### 5.0 CONCLUSIONS

This report presents mean annual departure noise levels of categorised aircraft based on data measured by the noise monitoring system during the period 1<sup>st</sup> January 2015 to 31<sup>st</sup> December 2015. Confirmation of the categorisation of the Bombardier Global 6000 and Embraer Phenom 300 as Category A aircraft has been sought.

Two aircraft have operated out of category in 2015; the RJ-100 and the Dornier 328 Jet. The airport is working closely with the airlines involved to bring these aircraft back into category. All other aircraft operated within or below their noise category in 2015.

This report also presents movement numbers for aircraft operating at London City Airport during the period 1<sup>st</sup> January 2015 up to and including 31<sup>st</sup> December 2015. During this period, the airport was operating within the annual limits on aircraft movements and factored movements contained in the planning conditions that apply to the Airport.

Nick Williams for Bickerdike Allen Partners Peter Henson Partner



0

**NW** Position



0

•

SE Position

SW Position



Figure 2 – Noise monitoring locations, west of runway

A1125.57-R01.16-PH/NW 30 June 2016



Figure 3 – Noise monitoring locations, east of runway

A1125.57-R01.16-PH/NW 30 June 2016



### APPENDIX A

## MEAN ANNUAL DEPARTURE NOISE LEVELS

Aircraft Type	Measured Noise Level (PNdB)	Noise Category
Airbus A318	92.7	А
ATR 42	90.1	В
ATR 72	90.9	В
BAe 146-100	*	А
BAe 146-200	93.0	А
BAe 146-300	93.6	А
Bombardier Global 6000	91.5	A <sup>1</sup>
Canadair CL60	88.9	А
Cessna Citation C25A	88.8	А
Cessna Citation C25B	87.9	А
Cessna Citation C25C	*	А
Cessna Citation C510	87.1	А
Cessna Citation C525	*	А
Cessna Citation C550	87.1	А
Cessna Citation C560	*	А
Cessna Citation C56X	86.9	А
Cessna Citation C680	88.8	А
Dassault Falcon 10	*	А
Dassault Falcon 2000EX	85.8	А
Dassault Falcon 50	91.0	А
Dassault Falcon 900	87.6	А
Dassault Falcon 7X	85.9	А
Dornier 328	87.7	В
Dornier 328 Jet	96.6	А
Dash 8-400	89.6	В
Embraer 135	89.8	А
Embraer 170	92.9	А

Aircraft Type	Measured Noise Level (PNdB)	Noise Category
Embraer 190	94.3	А
Embraer 300	89.9	A <sup>1</sup>
Fokker 50	90.5	В
Gulfstream G150	*	А
Learjet 40	*	А
Learjet 45	86.6	А
Piaggio 180	90.3	В
Piper Navajo 31	*	В
Raytheon Beechcraft 350	*	В
Raytheon Beechcraft 200	*	В
Raytheon Beechjet 400	*	А
Raytheon Beechcraft 58	*	В
Raytheon Hawker 800XP	89.4	А
RJ-85	93.2	А
RJ-100	94.6	А
Saab 2000	89.0	В

<sup>1</sup> Provisional Categorisation approved. Confirmation of Categorisation is being sought by the airport.

\*Insufficient numbers recorded (i.e. fewer than 10 departures).

#### Table A1 – Mean Annual Departure Noise Levels 2015
# **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# APPENDIX 13 DATA FROM AIR QUALITY MEASUREMENT PROGRAMME

01 July 2016

London City Airport City Aviation House Royal Docks London E16 2PB Tel: 020 7646 0000 LondonCityAirport.com





# London City Airport Air Quality Measurement Programme:

Annual Report 2015

April 2016



Experts in air quality management & assessment



### Document Control

Client	London City Airport	Principal Contac	Gary Hodgetts

Job Number	J2210
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### Document Status and Review Schedule

Report No.	Date	Status	Reviewed by
2210/7/F1	18 <sup>th</sup> April 2016	Final Report	Prof. Duncan Laxen

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### Executive Summary

This document represents the 2015 Annual Report for the Air Quality Measurement Programme (AQMP) that is operated by Air Quality Consultants Ltd. on behalf of London City Airport. This programme measures concentrations of nitrogen dioxide ( $NO_2$ ) and fine particles (the so called  $PM_{10}$  fraction, i.e. particles that are less than 10 micrometres in diameter).

Monitoring is carried out at two automatic monitoring stations. One is situated on the roof of City Aviation House (LCA-CAH) whilst the other is to the north of Royal Albert Dock, adjacent to the Newham Dockside building (LCA-ND). These automatic sites are supplemented by a network of passive monitoring devices (nitrogen dioxide diffusion tubes) located at a further 18 sites in and around the Airport boundary.

The Government has set a number of air quality objectives to protect human health. These are based on monitoring carried out over the period of a calendar year.

In some cases, these objectives refer to average concentrations of pollutants measured over the calendar year (the "annual mean"); in other cases they refer to the number of hours or days on which a specified pollutant concentration should not be exceeded (for example, no more than 35 days in each calendar year on which  $PM_{10}$  concentrations exceed 50 µg/m<sup>3</sup>, and no more than 18 hours in each calendar year on which nitrogen dioxide concentrations exceed 200 µg/m<sup>3</sup>).

In addition to the objectives, the Government has established a set of descriptors for the 1-hour mean concentrations of nitrogen dioxide and 24-hour mean concentrations of  $PM_{10}$ . Air quality is defined by these descriptors as being Low, Moderate, High and Very High.

Pollution concentrations measured in and around the Airport are associated with a wide range of sources at the local, regional, national and international scales. On occasions when pollution levels rise, these higher levels are often observed across the whole of London as a "regional pollution episode". To assist with the interpretation of the results, pollution levels measured at other London monitoring sites are included in this report.

### Nitrogen Dioxide

The 2015 annual mean nitrogen dioxide concentration measured at the automatic station on the roof of City Aviation House was 29.6  $\mu$ g/m<sup>3</sup> (microgrammes per cubic metre); a slightly lower concentration, 25.8  $\mu$ g/m<sup>3</sup>, was measured at the Newham Dockside site. The annual mean objective (40  $\mu$ g/m<sup>3</sup>) was not exceeded at either site in 2015.

There were no exceedences of the 1-hour mean objective value (200  $\mu$ g/m<sup>3</sup>) at either site, the objective was therefore achieved. At both sites, all of the 1-hour mean concentrations fell into the "Low" pollution band.



Annual mean concentrations of nitrogen dioxide at other background and roadside sites elsewhere in London over this period ranged from 19.6 to 45.1  $\mu$ g/m<sup>3</sup>. The 1-hour mean concentrations over the monitoring period show similar patterns at all seven monitoring sites. There was a good correlation between observed peaks at the Airport sites and other London sites, suggesting that these occurrences were principally due to regional sources and changing weather conditions that affect the dispersion and dilution of pollutant emissions.

The annual mean nitrogen dioxide concentrations measured at the diffusion tube sites ranged from 21 to  $34 \ \mu g/m^3$  compared with the objective value of 40  $\mu g/m^3$ . There were no measured exceedences of the air quality objective. As measured concentrations are well below 60  $\mu g/m^3$ , it is highly unlikely that the 1-hour mean objective was exceeded.

### Fine Particles 1()PM

The annual mean  $PM_{10}$  concentration measured at the automatic station on the roof of City Aviation House was 20.3 µg/m<sup>3</sup>. This compares with the objective value of 40 µg/m<sup>3</sup>. There were three recorded exceedences of the 24-hour mean objective (compared with the 35 exceedences allowed in a calendar year). The majority of the 24-hour mean concentrations were classified as "Low" (99.2%), with 24-hour mean concentrations classified as "Moderate" for the remaining 0.8% of the time. There were no 24-hour mean concentrations within the 'High and 'Very High' pollution bands.

24-hour mean concentrations of  $PM_{10}$  at other background sites in London over this period showed a similar pattern to those seen at the Airport site. There was a good correlation between observed peaks at the Airport site and other London sites, suggesting that these occurrences were principally due to regional sources and changing weather conditions that affect the dispersion and dilution of pollutant emissions.



### 1 Introduction

- 1.1 This document represents the 2015 Annual Report for the Air Quality Measurement Programme, operated on behalf of London City Airport (LCA).
- 1.2 Approval to expand Airport operations to 120,000 noise-factored aircraft movements per annum was granted in July 2009. A legal agreement between London City Airport and the London Borough of Newham associated with this planning approval sets out a number of obligations, one of which relates to an Air Quality Measurement Programme (AQMP).
- 1.3 The AQMP, as defined within the legal agreement, comprises an automatic air quality monitoring station situated on the roof of City Aviation House, and a network of nitrogen dioxide diffusion tubes, situated in and around the Airport site. In addition, London City Airport commissioned a second automatic air quality monitoring station at a site adjacent to the Newham Dockside building in September 2008. The operation of this additional site falls outside the AQMP, but the data are included in this Annual Report for the sake of completeness.
- 1.4 The monitoring programme is managed by Air Quality Consultants Ltd. (AQC) on behalf of London City Airport. Service support for the automatic monitoring stations is provided by Enviro Technology Services plc, with Ricardo Energy & Environment providing independent audit checks.
- 1.5 Chapter 2 of this Report sets out the various standards and guidelines against which air pollution concentrations should be compared. Chapter 3 describes the monitoring methodology and provides a summary of the measured concentrations in 2015 with respect to these criteria, and compares the measured concentrations with other local monitoring sites. Chapter 4 then provides some analysis of the monitoring data with respect to trends and source contributions.



### 2 Assessment Criteria

2.1 The Government has established a set of air quality standards and objectives to protect human health. The 'standards' are set as concentrations below which effects are unlikely even in sensitive population groups, or below which risks to public health would be exceedingly small. They are based purely upon the scientific and medical evidence of the effects of an individual pollutant. The 'objectives' set out the extent to which the Government expects the standards to be achieved by a certain date. They take account of economic efficiency, practicability, technical feasibility and timescale. The objectives for use by local authorities are prescribed within the Air Quality Regulations, 2000 (Stationery Office, 2000) and the Air Quality (England) (Amendment) Regulations 2002 (Stationery Office, 2002). The relevant objectives for this report are provided in Table 1.

Pollutant	Time Period	Objective / Value
Nitrogen	1-hour mean	200 $\mu\text{g/m}^3$ not to be exceeded more than 18 times a year
Dioxide	Annual mean	40 μg/m <sup>3</sup>
Fine Particl $(PM_{10})^{a}$	24-hour mean	50 $\mu\text{g/m}^3$ not to be exceeded more than 35 times a year $^{\text{b}}$
	Annual mean	40 μg/m <sup>3</sup>

Table1: Relevant Air Quality Objectives

<sup>a</sup> Measured by the gravimetric method.

 $^{\rm b}$  Equivalent to a 90th percentile of 24-hour mean concentrations of 50  $\mu\text{g/m}^3.$ 

- 2.2 The objectives for nitrogen dioxide and  $PM_{10}$  were to have been achieved by 2005 and 2004 respectively, and continue to apply in all future years thereafter.
- 2.3 The European Union has also set limit values for both nitrogen dioxide and PM<sub>10</sub>. Achievement of these values is a national obligation rather than a local one, and compliance can only be determined by the national monitoring network operated by Defra. The limit values for nitrogen dioxide are the same levels as the UK objectives, and were to be achieved by 2010 (Stationery Office, 2007). The limit values for PM<sub>10</sub> are also the same level as the UK statutory objectives, and were to be achieved by 2005.
- 2.4 In addition to the objectives, Defra has established a set of descriptors for the 1-hour mean values for nitrogen dioxide, classifying the concentrations in an index from 1 to 10 and thus labelling the levels as Low, Moderate, High and Very High (Defra, 2011). The banding is referred to as the Daily Air Quality Index (DAQI). The DAQI criteria are set out in Table 2.

Band	Index	Nitrogen Dioxide 1-hour Mean <i>µ</i> g/m³)	PM <sub>10</sub> 24-hour mean (µg/m³) <sup>ª</sup>
Very High	10	601 or more	101 or more
	9	535 – 600	92 – 100
High	8	468 – 534	84 – 91
	7	401 – 467	76 – 83
	6	335 – 400	67 – 75
Moderate	5	268 – 334	59 – 66
	4	201–267	51 – 58
	3	135 – 200	34 – 50
Low	2	68 – 134	17 – 33
	1	0 - 67	0 – 16

### Table 2: DAQI Bandings $(\frac{3}{\mu})g/m$

<sup>a</sup> Reference equivalent. 24-hour values are midnight to midnight.



### 3 Monitoring Methodology and Results

### Automatic Monitoring Stations

- 3.1 Monitoring was carried out at two automatic stations as follows:
  - City Aviation House (LCA-CAH): nitrogen dioxide and PM<sub>10</sub>
  - Newham Dockside (LCA-ND): nitrogen dioxide
- 3.2 The locations of the two automatic sites are shown in Figure 1.
- 3.3 The LCA-CAH automatic monitoring station measures PM<sub>10</sub> using a Rupprecht and Patashnick TEOM 1400 Particulate Monitor, whilst both automatic stations measure nitrogen dioxide using M200E TAPI chemiluminescence analysers. The data are stored as 15-minute mean concentrations. Before further processing and ratification the raw PM<sub>10</sub> concentrations have been adjusted to a "reference-equivalent" concentration using the Volatile Correction Model (VCM) as recommended by Defra (2009). This adjusts the TEOM data using the "purge" concentration measured by an FDMS analyser, assuming this represents the volatile component that has been lost. A "VCM web portal" has been established that allows this correction to be derived from the mean of up to three nearby FDMS analysers in the national network.
- 3.4 Independent site audits, conducted by Ricardo Energy & Environment, confirmed that both automatic monitoring stations were operating above the minimum standards set for the national networks operated by Government. Audits were carried out on 2<sup>nd</sup> March 2015, 27<sup>th</sup> August 2015 and 29<sup>th</sup> February 2016 and have been taken into account in producing the fully ratified dataset.
- 3.5 Ratification of the data has been based on calibration factors determined from the calibration reports, along with visual examination of the data and comparison with monitoring data from nearby national network background sites (Bexley, Bloomsbury and Eltham) (Defra, 2015). Any erroneous data have been flagged and removed from subsequent analysis. 1-hour, 24-hour, and annual mean concentrations have then been calculated.
- 3.6 Pollution concentrations measured at both automatic Airport monitoring stations are associated with a wide range of sources at the local, regional, national and international scales. On occasions when pollution levels rise, these higher levels are often observed across the whole of London as a "regional pollution episode". To assist with the interpretation of the results, comparable data have been obtained from the national Air Quality Archive (Defra, 2015) for three background sites, Bexley, Bloomsbury and Eltham, and from the Air Quality England website (AQE, 2015) for two sites within the London Borough of Newham at Wren Close, Canning Town (background) and Cam Road, Stratford (roadside).





Figurel: Automatic Monitoring Locations (re@ Coloutes Opyright 2016. All rights reserved. Licence number 100020449



### Nitrogen Dioxide

3.7 The 2015 nitrogen dioxide results for the LCA-CAH and LCA-ND automatic monitoring stations are summarised in Table 3. Data capture<sup>1</sup> for LCA-CAH and LCA-ND was 93.5% and 87.4%, respectively. The annual mean concentration did not exceed the objective of 40 μg/m<sup>3</sup> at either site. The 1-hour mean objective was also not exceeded and there were no 1-hour mean concentrations above the objective value (200 μg/m<sup>3</sup>) recorded at either site.

Table of Mittedgen bionitage parata bananal, tot hom and hom Mb, hors	Table	3:	Nitrogen	Dioxide)	DMatta	Summary	for	LCA-CAH	and	LCA-ND,	<sup>a</sup> 2015
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Netria	LCA -CAH	LCA -ND	Objectives
Metric	NO 2	NO 2	Objectives
Maximum 1-Hour Mean	196 µg/m³	149 µg/m³	-
No. Hour Mean > 20pg/m <sup>3</sup>	0	0	200 µg/m <sup>3</sup> ; no more than 18 exceedences
Annual Mean	29.6 µg/m³	25.8 µg/m <sup>3</sup>	40 μg/m <sup>3</sup>
Data Capture	93.5%	87.4%	-

<sup>a</sup> Nitrogen oxides concentrations are provided in Appendix 1.

3.8 Table 4 shows the distribution of the 1-hour mean values into the different pollution bands (DAQI). At both sites, all measured 1-hour mean nitrogen dioxide concentrations fell into the 'Low' pollution band during 2015.

Table	4:	DAOI	Bandings	for	Nitrogen	D2i0ob5ide
TUDIC	- •	DIIQI	Danariigb	TOT	MILCI OGCII	presentation

Band	Index	LCA -CAH	LCA -ND
Very Higħ	10		
	9		
High <sup>a</sup>	8		
	7		
	6		
Moderate <sup>a</sup>	5		
	4		
	3	5	1
Low <sup>a</sup>	2	450	280
	1	7732	7379

Number of 1-hour values

3.9 Nitrogen dioxide concentrations for five monitoring sites across London in 2015 are summarised in Table 5. These sites range from central London (Bloomsbury) to outer London (Bexley). The

<sup>&</sup>lt;sup>1</sup> It is inevitable that a small amount of data will be "lost" in each year due to routine downtime for calibrations and site servicing.



measured annual mean concentrations at London City Airport (29.6  $\mu$ g/m<sup>3</sup> at LCA-CAH and 25.8  $\mu$ g/m<sup>3</sup> at LCA-ND) were lower than those at Canning Town, Bloomsbury and Stratford (30.6  $\mu$ g/m<sup>3</sup>, 45.1  $\mu$ g/m<sup>3</sup> and 36.9  $\mu$ g/m<sup>3</sup> respectively), and higher than those measured at Eltham and Bexley (19.6  $\mu$ g/m<sup>3</sup> and 20.9  $\mu$ g/m<sup>3</sup>, respectively). This is broadly consistent with the location of London City Airport between the areas of high concentrations in central London and lower concentrations towards the outskirts. The maximum 1-hour mean concentrations recorded at both sites at London City Airport were the same as those recorded at all of the monitoring sites, in that there were no exceedences of the 1-hour mean objective.

		Roadside Site			
Metric	Bexley	Bloomsbury	Eltham	Canning Town	Stratford
Max.1-hrMean ( $\mu$ g/m <sup>3</sup> )	91.2	135.0	97.9	158.7	133.9
No.1-hr>200 μg/m³	0	0	0	0	0
AnnualMean ( $\mu$ g/m <sup>3</sup> )	20.9	45.1	19.6	30.6	36.9
Data Capture (%)	79.3	92.8	99.0	94.1	99.0

Table 5: Nitrogen Dioxide Diada Summary for London Monitoring, 230ittes

Includes provisional data. Nitrogen oxides concentrations are provided in Appendix 1.

### Particulate Matter PM<sub>10</sub>

3.10 The 2015 PM<sub>10</sub> results for the LCA-CAH automatic monitoring station are summarised in Table 6. Data capture was 99.9%. The recorded annual mean concentration (20.3  $\mu$ g/m<sup>3</sup>) was well below the objective of 40  $\mu$ g/m<sup>3</sup>. There were three measured exceedences of the 24-hour mean objective value of 50  $\mu$ g/m<sup>3</sup> compared with the 35 exceedences that are allowed. In addition, the 90<sup>th</sup> percentile of 24-hour mean concentrations (30.9  $\mu$ g/m<sup>3</sup>) was well below 50  $\mu$ g/m<sup>3</sup>.

Metric	TEOM, VCM - corrected	PM 10 Objectives					
	PM 10						
Maximum 24-hour Mean	65.8 μg/m <sup>3</sup>	-					
No. 24Hour Means >50 $\mu$ g/m <sup>3</sup>	3	50 µg/m <sup>3</sup> ; no more than 35 exceedences					
90 <sup>th</sup> Percentile	30.9 µg/m <sup>3</sup>	50 μg/m³					
AnnualMean	20.3 µg/m <sup>3</sup>	40 µg/m <sup>3</sup>					
Data Capture	99.9%	-					

Table 6PM 10 Data Summary for LCA-CAH, 2015

3.11 Table 7 shows the distribution of the 24-hour mean values into the different pollution bands (DAQI). The majority of 24-hour measured PM<sub>10</sub> concentrations fell into the 'Low' pollution band (99.2%) during 2015; there were three, 24-hour mean concentrations within the 'Moderate' pollution band (0.8%). There were no 'High' or 'Very High' events.



Band	Index	LCA -CAH
Very Higĥ	10	
	9	
High <sup>a</sup>	8	
	7	
	6	
Moderate <sup>a</sup>	5	3
	4	
	3	25
Low <sup>a</sup>	2	213
	1	123

Table 7: DAQI Bandings for,2015

<sup>a</sup> Number of 24-hour mean values.

3.12 PM<sub>10</sub> concentrations for six sites across London in 2015 are summarised in Table 8. These sites range from central London (Bloomsbury and Eltham) to outer London (Bexley), with two in east London (Stratford). The measured annual mean concentration at London City Airport (20.3 μg/m<sup>3</sup>) was lower than that at the sites in east London (Stratford 24.6 μg/m<sup>3</sup> and Canning Town 21.5 μg/m<sup>3</sup>) and higher than that measured at Bexley (17.8 μg/m<sup>3</sup> using VCM-corrected TEOM, 15.0 μg/m<sup>3</sup> using FDMS), Bloomsbury (19.7 μg/m<sup>3</sup>) and Eltham (16.1 μg/m<sup>3</sup>). The number of 24-hour mean exceedences of 50 μg/m<sup>3</sup> was the same as that measured at Eltham and Bexley (TEOM), lower than that measured at Stratford, Canning Town and Bloomsbury, and higher than that measured at Bexley (FDMS).

		Roadside Sit				
	Bexley (TEOM)	Bexley (FDMS)	Bloomsbury (FDMS)	Eltham (FDMS)	Canning Town (FDMS)	Stratford (FDMS)
Maximum 24-hr mean (µg/m³)	66.9	67.5	72.8	68.1	69.9	77.3
AnnualMean (µg/m³)	17.8	15.0	19.7	16.1	21.5	24.6
No. 24nr mean >50 µg/ẳ	3	2	6	3	5	13
90 <sup>th</sup> Percentile	30.1	27.9	33.6	26.4	32.6	36.5
Data Captur∉)	94.1	90.1	72.1	97.2	71.7	99.1

Table 8 MM  $_{10}$  Data Summary of Background London Monitoring Sites, 2015

<sup>a</sup> All values are reference equivalent. All data, except where stated, are reported as VCM-corrected TEOM concentrations.



### Nitrogen Dioxide Diffusion Tube Network

- 3.13 London City Airport also operates a network of passive diffusion tube samplers for nitrogen dioxide. The intent of this network is to establish the wider spatial pattern of nitrogen dioxide concentrations in the area surrounding the Airport. The locations of the monitoring sites are shown in Figure 2, and are described in Table 9; grid references and the monthly mean data are provided in Appendix 3. The diffusion tubes are exposed for approximately 4-week intervals. They are supplied and analysed by Gradko International Ltd., and are prepared using the 20% TEA in water method.
- 3.14 The diffusion tubes record monthly mean concentrations, which have been averaged to give the annual mean. The results cannot therefore be directly compared with the 1-hour mean objective. However, measurements across the UK have shown that the 1-hour mean nitrogen dioxide objective is unlikely to be exceeded where the annual mean concentration is below 60  $\mu$ g/m<sup>3</sup> (Defra, 2009).

Location	Site ID
Lamp post at top of Parker Street, adjacent to housing	LCA 01
Lamp post on Camel Road, adjacent to nearest property on Hartmann Street	LCA 02
Lamp post on access road in Silvertown Quay. Approx. 36 metres from kerbside of main road	LCA 03
Lamp post at waterfront to east end of Newham Dockside	LCA 04
Lamp post on Straight Road, at kerbside	LCA 05
Lamp post on pedestrian walkway adjacent to nearest housing at Gallions Way	LCA 06
Landing Lights	LCA 07
Lamp post on Brixham Street	LCA 08
City Aviation House (triplicate tubes)	LCA 09
Jet Centre – airside	LCA 10
Lamp post at waterfront, eastern end of the University of East London	LCA 11
ILS, to north of runway and south of Royal Albert Dock	LCA 12
Lamp post at north west corner of Newham Dockside	LCA 13
Lamp post on waterfront at western end of Newham Dockside	LCA 14
Lamp post at kerbside (approx 1 m) of Royal Albert Way	LCA 15
Waterfront, approx 180 m east of Newham Dockside	LCA 16
Newham Dockside analyser (duplicate – as of August 2015)	LCA 18
Waterfront, approximately 460m east of Newham Dockside	LCA 19

Table 9: Description of Diffusion Tube Monitoring Sites

 LCA-17 was discontinued in January 2012 as the lamppost on which diffusion tubes were deployed was removed.



- 3.15 It is important to note that not all of these monitoring sites represent relevant public exposure for annual mean concentrations of nitrogen dioxide; thus the objectives are not strictly applicable at all of these sites. For instance, the sites at Landing Lights (LCA 07), the Jet Centre (LCA 10) and the ILS (LCA 12) are located on land that is not generally accessible by the public, or is owned by the Airport. The sites at LCA 04 (at the waterfront of Newham Dockside), LCA 11 (at the waterfront of the University of East London) and LCA 13, 14, 15 and 16 (in the vicinity of Newham Dockside and Royal Albert Way) would also not represent relevant exposure for annual mean concentrations according to the criteria defined in LAQM.TG(09)<sup>2</sup>, but are relevant for the 1-hour mean objective. Site LCA 03 is located within an area of land allocated for redevelopment at Silvertown Quay, but public access is currently prohibited. These sites have been included in the study to better understand the spatial pattern of nitrogen dioxide concentrations around the Airport.
- 3.16 Diffusion tubes are known to show systematic bias in relation to automatic (reference) monitors. For this reason, a co-location study has been carried out, with triplicate tubes exposed alongside the inlet to the automatic monitor at LCA-CAH, and duplicate tubes exposed in close proximity to the inlet of the LCA-ND automatic monitor (from August 2015). Comparison of the matched period results shows that the diffusion tubes were over-reading by an average of 16.6%. An adjustment factor of 0.858 has therefore been applied to all diffusion tube results to ensure that they give the best representation of true concentrations (see Appendix 3). The results from the triplicate tubes at LCA-CAH and the duplicate tubes at LCA-ND indicate overall "good" precision (±5.4% and ±10.1%) in 2015, see Appendix 4 (Defra, 2009).
- 3.17 The bias-adjusted results are summarised in Table 10, and are also shown in Figure 3. The results show that the annual mean objective of 40 µg/m<sup>3</sup> was achieved at all diffusion tube monitoring locations during 2015. All measured annual mean nitrogen dioxide concentrations were well below 60 µg/m<sup>3</sup>, and it is thus unlikely that the 1-hour mean objective was exceeded at any location.

<sup>&</sup>lt;sup>2</sup> Defra Technical Guidance Note LAQM.TG(09) suggests that in the case of the annual mean objective, a relevant location might be where a member of the public would be exposed for a cumulative period of 6 months in a year.

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Figure 2: Diffusion Tube Monitoring Locations (Malawen Computing) 1016. All rights reserved. Licence number 100020449.

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Site ID	Adjusted Valu(qug/m³) <sup>ab</sup>
LCA 01	29.1
LCA 02	31.3
LCA 03	29.3
LCA 04	30.6
LCA 05	27.8
LCA 06	31.2
LCA 07	31.4
LCA 08	21.1
LCA 09	28.8
LCA 10	34.0
LCA 11	31.3
LCA 12	28.5
LCA 13	28.4
LCA 14	31.1
LCA 15	26.5
LCA 16	32.4
LCA 18	26.4
LCA 19	30.5

### Table 10: Diffusion Tube Data Summary for London City Airport, 2015 (Adjusted for Bi

<sup>a</sup> Data have been adjusted using a local bias adjustment factor for 2015 of 0.858. The co-location studies are carried out at LCA-CAH using triplicate tubes and at LCA-ND with a single tube located at the automatic monitors. Diffusion tubes were exposed for the period between 9<sup>th</sup> January 2015 to 13<sup>th</sup> January 2016.



### 4 Data Analyses

4.1 This chapter provides analyses of the data, including time series, trends and source contributions.

### Time Series

- 4.2 The measured 1-hour mean nitrogen dioxide concentrations at LCA-CAH and LCA-ND, and at Bexley, Bloomsbury, Eltham, Canning Town (Wren Close) and Stratford (Cam Road), are shown as a time series in Figures 4 and 5 respectively.
- 4.3 The concentrations over the monitoring period show similar patterns at all seven monitoring sites. The concurrence of periods with elevated concentrations at all sites suggests that these episodes were due to regional changes in concentrations. Figure 4 shows two brief, elevated pollution periods (on 27<sup>th</sup> February and 1<sup>st</sup> July) at LCA-CAH and one brief, elevated pollution period at LCA-ND (on 29<sup>th</sup> April); these are likely to be local pollution sources at the individual sites, as there is no concurrent periods at the other monitoring sites across London or at the other LCA site.
- 4.4 The measured daily mean PM<sub>10</sub> concentrations at LCA-CAH and at the two Bexley monitors, Bloomsbury, Eltham, Canning Town (Wren Close) and Stratford (Cam Road), are shown in Figures 6 and 7 respectively. Once again, the analysis suggests that periods of high pollution were principally due to regional changes in concentrations.





Figure 4: 1-Hour Mean Nitrogen Dioxide Concentrations at London City Airport, 2015



Figure 5: 1-Hour Mean Nitrogen Dioxide Concentrations at London Monitoring Sites, 2015





Figure 6: Daily Mean PM<sub>10</sub> Concentrations at London City Airport (LCA-CAH), 2015



Figure 7: Daily Mean PM<sub>0</sub> Concentrations at London Monitoring Sites, 2015



### Trends in Pollutant Concentrations

- 4.5 The automatic station at the LCA-CAH site has been in operation since September 2006 and that at LCA-ND since September 2008. It is therefore appropriate to examine whether there are any trends in the measured pollutant concentrations over time.
- 4.6 Figure 8 shows the trends in measured annual mean nitrogen dioxide concentrations at LCA-CAH and LCA-ND (NO<sub>2</sub> only<sup>3</sup>) and at the five other monitoring locations identified for the regional evaluation of pollution episodes (Bexley, Bloomsbury, Eltham, Canning Town and Stratford). From a visual examination of Figure 8, there appears to be a downward trend at all sites, but to varying degrees and less so at some monitoring sites than others.
- 4.7 Because of the interest in trends, a more detailed analysis has been carried out, focusing on monitoring sites in the east London area. The results of the detailed analysis are provided in Appendix 5. In summary, there is a statistically significant downward trend at most east-London monitoring sites for both nitrogen dioxide and nitrogen oxides (NOx), including LCA-CAH and LCA-ND.
- 4.8 The trends in annual mean PM<sub>10</sub> concentrations are shown in Figure 9, for the LCA-CAH site and two other monitoring locations, for which nine years data are available. There is no clear trend between 2007 and 2015, with concentrations remaining largely unchanged over this period.

<sup>&</sup>lt;sup>3</sup> For the period 2009 to 2015 only.





Figure 8: Annual Mean Nitrogen Dioxide Concentrations, 2007 – 2015 (µg/m<sup>3</sup>)



### Figure 9: Annual Mean PM<sub>10</sub> Concentrations, 2007 – 2015 ( $\mu$ g/m3) <sup>a</sup>

<sup>a</sup> The Canning Town TEOM was decommissioned in 2013, and re-commissioned again in 2014.



### Bivariate Pollution Roses

- 4.9 Pollution roses are a useful technique for exploring the influence of different sources of air pollution at a monitoring site. Bivariate pollution roses have been prepared using the "Openair" software<sup>4</sup>. These bivariate roses process average pollution concentration data by both wind direction and wind speed. They provide a powerful tool in identifying source contributions to measured concentrations at monitoring sites. The concentrations are shown by colour shading, with the distance from the centre point representing increasing wind speed.
- 4.10 It is known from both modelling studies and the analysis of empirical data that emissions from different source types behave differently in low and high wind speed conditions. For emissions from ground-level sources (such as road traffic), concentrations are highest during low wind speeds, and decrease rapidly with increasing wind speed (due to greater dilution and dispersion). In contrast, emissions released from elevated (e.g. chimney) sources, give rise to higher concentrations at higher wind speeds, as the plume is more likely to come down to ground close to the source. Emissions from the buoyant plumes of jet aircraft engines tend to behave in a similar manner to elevated sources. Carslaw *et al* (2006) showed how these bivariate plots could be used to identify the contribution of aircraft emissions to measured concentrations at Heathrow Airport.
- 4.11 Figure 10 shows bivariate pollution roses for NOx concentrations in 2015 at the LCA-CAH and LCA-ND sites, using wind data from the meteorological station at London City Airport. During low wind speeds, dispersion is reduced and concentrations from ground-level sources are higher. The pattern at both monitoring sites is that the highest NOx concentrations occur during low wind speeds (i.e. towards the centre of the rose), indicating that the highest concentrations are associated with ground-level source releases (the wind-speed scale runs from 0 to 20 m/s, with the concentration scale running from 0 to around 100 μg/m<sup>3</sup>). These higher concentrations are not associated with any particular wind direction. There is also some indication that emissions from the apron area are making a small contribution at both sites, with these contributions being associated with moderate wind speeds (especially to the northwest for LCA-CAH and less so to the south and west for LCA-ND). The association with higher wind speeds is suggestive of emissions from an elevated buoyant source reflecting emissions from aircraft engines.

www.openair-project.org/about\_us.php





Figure 10: Bivariate Pollution Roses at LCA-CAH and LCA-ND Sitesµg2m15 (NO © Crown Copyright 2016. All rights reserved. Licence number 100020339.



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### 6 Glossary

Exceedence	A period of time where the concentration of a pollutant is greater than the appropriate air quality objective.
FDMS	Filter Dynamics Monitoring System.
LAQN	London Air Quality Network.
LCA-CAH	London City Airport – City Aviation House monitoring site.
LCA-ND	London City Airport – Newham Dockside monitoring site
$\mu$ g/m <sup>3</sup>	Microgrammes per cubic metre.
NO 2	Nitrogen dioxide.
NO <sub>x</sub>	Nitrogen oxides (taken to be $NO_2 + NO$ ).
NO	Nitric oxide.
Objectives	A nationally defined set of health-based concentrations for nine pollutants, seven of which are incorporated in Regulations, setting out the extent to which the standards should be achieved by a defined date, taking into account costs, benefits, feasibility and practicality. There are also vegetation-based objectives for sulphur dioxide and nitrogen oxides.
PM 10	Small airborne particles, more specifically particulate matter less than 10 micrometers in aerodynamic diameter.
Standards	A nationally defined set of concentrations for nine pollutants below which health effects do not occur or are minimal.
TEA	Triethanolamine – absorbent for nitrogen dioxide used in diffusion tubes.
TEOM	Tapered Element Oscillating Microbalance.
VCM	Volatile Correction Model.



### A1 Appendix 4 Nitrogen Oxides Results

A1.1 Nitrogen oxides (NO<sub>x</sub>) concentrations, which are essentially the sum of nitrogen dioxide and nitric oxide, are presented in Table A1.1 for the automatic monitoring stations at London City Airport and for five sites across London in Table A1.2.

Table A1.1: Nitrogen Oxides) (Data Summary for LCA-CAH and DATA- 2015

Site	LCA -CAH	LCA -ND
Maximum 1-Hour Mean	517 μg/m <sup>3</sup>	678 μg/m³
AnnualMean	43.6 μg/m <sup>3</sup>	42.6 µg/m³
Data Capture	93.5%	87.5%

Table	A1.2:	Nitrogen	Oxides) D(atta	Summary	for	London	Monitoring	,SiOtles
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Site	Bexley	Bloomsbury	Eltham	Canning Town	Stratford
Maximum 1-Hour Mean( $\mu$ g/m <sup>3</sup> )	446	480.4	584	738	692
Annual Mean(µg/m³)	30.3	74.8	27.3	43.7	64.1
Data Capture %	79.3	98.5	99.0	95.9	99.0



# A2 Appendix 2 Diffusion Tube Data

Raw monthly average diffusion tube data, along with the location details and monitoring periods, are presented in Table A2.1. A2.1

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	Data	Ipture	( %)	92%	92%	%00.	%00.	%00.	75%	92%	83%	92%	%00.	%00.	%00.	%00.	%00.	92%	%00.	%00.	%00.	12% <sup>a</sup>	%00.	%00
	sted	al Ca		-		-	-	-					-	-	-	-	-		-	-	-	×	-	-
	Unadju	Annué	Mear	33.9	36.4	34.2	35.7	32.4	36.4	36.7	24.6	34.2	33.2	33.7	39.7	36.5	33.2	33.1	36.2	30.9	37.8	31.4	30.5	35.6
	10/12/51	to	13/01/16		32.3	33.6	43.4	36.2	34.0	41.9	27.6	34.9	34.7	31.2	34.5	38.5	39.4	32.4	41.8	27.1	51.3	28.7	36.9	47.8
	06/11/51	to	10/12/15	30.5	29.9	27.4	31.4	27.9	27.8	41.3	27.8	25.4	27.4	28.4	29.7	43.2	36.1	30.3	30.6	20.4	38.7	31.6	30.7	40.5
	01/10/15	to	06/11/15	39.2	35.6	31.8	40.6	33.3	36.1	25.0	22.7	36.8	35.9	34.2	42.6	37.2	40.9	26.9	37.8	13.2	33.0	33.8	25.5	35.6
n ;	08/09/15	to	01/10/15	40.6	43.5	44.0	43.2	35.3	40.7	40.4	27.6	39.5	40.3	40.1	45.4	34.5	33.5	34.9	43.4	39.1	39.4	32.6	28.8	41.8
T	07/08/15	to	08/09/15	36.3	37.5	31.9	33.3	44.2	33.8	34.4	7.7	33.9	31.3	35.1	42.3	37.3	29.9	33.9	31.2	36.7	34.9	30.3	29.4	36.9
	07/07/15	to	07/08/15	26.4	34.9	29.0	32.6	28.4	1	,	,	27.7	30.2	30.3	38.7	32.4	32.4	ı	32.1	30.5	34.4	,	26.3	30.0
	04/06/15	to	07/07/15	29.7	35.7	30.8	29.5	27.5	1	30.3	16.7	28.7	30.6	28.6	34.4	28.3	27.3	29.2	28.8	29.7	30.3		26.4	28.2
	07/05/15	₽	04/06/15	25.4	35.9	24.5	28.8	23.9	I	33.7	22.8	28.4	26.7	23.8	35.8	28.0	23.7	27.6	26.3	28.4	26.7	,	26.4	26.7
	08/04/15	to	07/05/15	34.4		37.0	33.3	28.9	37.9	35.3	26.1	,	31.2	29.3	38.5	34.2	30.5	26.9	27.8	30.2	36.2	,	30.7	31.2
	27/02/15	to	08/04/15	31.1	34.4	33.4	31.1	30.9	32.0	34.3	31.0	38.6	32.8	36.1	41.0	36.0	27.6	29.2	45.4	33.8	35.4	ı	29.9	32.2
1	30/01/15	to	27/02/15	40.9	39.9	47.5	43.8	35.5	41.2	42.6	36.3	41.8	39.6	44.1	43.6	39.5	37.1	46.6	47.5	45.8	40.1	ı	35.4	37.7
	09/011/5	to	30/01/15	38.3	41.3	39.6	36.9	37.2	44.3	44.0		40.7	37.2	43.3	49.5	49.0	39.9	46.6	42.3	35.8	53.3	ı	39.2	38.1
		Grid ref		154, 180288	965, 180299	589, 180373	271, 180708	347, 180914	712, 180868	362, 180460	120, 180133		532, 180196		758, 180428	549, 180693	192, 180561	280, 180769	070, 180712	316, 180862	451, 180712	70707 604		728, 180705
·		9		1 5421	02 5419	3 5415	14 5422	5428	06 5437	7 5436	18 5431		9 5425		10 5417	11 5435	12 5421	13 5422	14 5420	15 5423	1.6 5424	0		19 5427
		Site		LCA (		LCA (		LCA 1	۲ ۲	- FCA	LCA 1													

– not available a Duplicate tube added on  $7^{th}$  August 2015



### A3 Appendix 3 Bias Adjustment Factor for Diffusion Tube

- A3.1 Diffusion tubes are known to exhibit bias when compared to results from automatic analysers. Therefore diffusion tube results need to be adjusted to account for this bias. One of the main factors influencing diffusion tube performance is thought to be the laboratory that supplies and analyses the tubes. The diffusion tubes exposed at London City Airport are supplied and analysed by Gradko International Ltd. (20% TEA in water).
- A3.2 In order to determine the bias exhibited by these tubes, studies are carried out using triplicate tubes co-located at LCA-CAH and a single tube at LCA-ND. All diffusion tube data presented in this report have been adjusted using the overall factor calculated from the data presented in Table A3.1, with the optimum relationship defined using orthogonal regression.

Table A3.1: Results of Diffusion Tube and Continuous Monitor Co-location $^{\mathrm{a}}$ Studie	tion <sup>°</sup> Studies i	in
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	Diffusion Tube	Automatic	Adjustment Facto
LCA -CAH	30.8	29.5	0.878
LCA -ND	33.6	25.6	0.837
	0.858		

<sup>a</sup> Diffusion tubes were exposed for the period between 9<sup>th</sup> January 2015 to 13<sup>th</sup> January 2016. The automatic monitoring data correspond to this period.

- <sup>b</sup> The overall factor has been determined using orthogonal regression.
- A3.3 Table A3.2 presents the bias adjustment factors applied to the data for the last nine years.

Table A3:2revious Bias Adjustment Factors

Year	Factor
2007	0.764
2008	0.786
2009	0.717
2010	0.801
2011	0.738
2012	0.744
2013	0.771
2014	0.832
2015	0.858



### A4 Appendix 4 Diffusion Tube Precision

- A4.1 Diffusion tube precision describes the ability of a measurement to be consistently reproduced, i.e. how similar the results of duplicate or triplicate tubes are to each other. It is an indication of how carefully the tubes have been handled in either the laboratory and/or the field. Tube precision is separated into two categories 'Good' or 'Poor' as follows: tubes are considered to have 'Good' precision where the coefficient of variation (CV) of duplicate or triplicate diffusion tubes for eight or more periods during the year is less than 20%, and the average CV of all monitoring periods is less than 10%. Tubes are considered to have 'Poor' precision where the CV of four or more periods is greater than 20% and/or the average CV is greater than 10%.
- A4.2 Table A4.1 shows that for each of the twelve periods of monitoring at LCA-CAH there was 'Good' precision, with the average precision of <10% and none of the periods having a CV >20%. Overall, therefore, the precision of the diffusion tubes is 'Good', which is consistent with the performance of 20% TEA in water tubes supplied by Gradko International in other co-location studies (Defra, 2015).

Period	Start Dat	End Date	Tube 1	Tube 2	Tube 3	Mean	Standard Deviatior	CV	Tube Precision
1	09/01/15	30/01/15	40.7	37.2	43.3	40	3.1	8	Good
2	30/01/15	27/02/15	41.8	39.6	44.1	42	2.2	5	Good
3	27/02/15	08/04/15	38.6	32.8	36.1	36	2.9	8	Good
4	08/04/15	07/05/15	-	31.2	29.3	30	1.3	4	Good
5	07/05/15	04/06/15	28.4	26.7	23.8	26	2.4	9	Good
6	04/06/15	07/07/15	28.7	30.6	28.6	29	1.1	4	Good
7	07/07/15	07/08/15	27.7	30.2	30.3	29	1.5	5	Good
8	07/08/15	08/09/15	33.9	31.3	35.1	33	1.9	6	Good
9	08/09/15	01/10/15	39.5	40.3	40.1	40	0.4	1	Good
10	01/10/15	06/11/15	36.8	35.9	34.2	36	1.3	4	Good
11	06/11/15	10/12/15	25.4	27.4	28.4	27	1.5	6	Good
12	10/12/15	13/01/16	34.9	34.7	31.2	34	2.1	6	Good
Average CV						5	_		

Table A41: Precision of Triplicate Diffusion Tubes, LCA-CAH



A4.3 Table A4.2 shows that for four of the five periods<sup>5</sup> of monitoring at LCA-ND there was 'Good' precision; one of the periods having a CV 20%. The average precision across the five months was 10%. Overall, the precision of the diffusion tubes is 'Good', which is consistent with the performance of 20% TEA in water tubes supplied by Gradko International in other co-location studies (Defra, 2015).

Period	Start Dat	End Date	Tube 1	Tube 2	Mean	Standard Deviation	CV	Tube Precisior
1	09/01/15	30/01/15						
2	30/01/15	27/02/15						
3	27/02/15	08/04/15						
4	08/04/15	07/05/15						
5	07/05/15	04/06/15						
6	04/06/15	07/07/15						
7	07/07/15	07/08/15						
8	07/08/15	08/09/15	30.3	29.4	30	0.6	2	Good
9	08/09/15	01/10/15	32.6	28.8	31	2.7	9	Good
10	01/10/15	06/11/15	33.8	25.5	30	5.9	20	Poor Precisio
11	06/11/15	10/12/15	31.6	30.7	31	0.7	2	Good
12	10/12/15	13/01/16	28.7	36.9	33	5.8	18	Good
Average CV						10	-	

Table A4.2: Precision of Duplicate Diffusion MDbes, LCA-

<sup>&</sup>lt;sup>5</sup> A second diffusion tube monitoring site was co-located with the LCA-ND analyser in August 2015.



### A5 Appendix 5 Detailed Trend Analysis

### Nitrogen Dioxide

- A5.1 Figure A.5.1 shows the smooth-trend analyses of 1-hour mean nitrogen dioxide concentrations for LCA-CAH, LCA-ND and seven other, nearby monitoring sites (Greenwich Burrage Grove, Greenwich Millennium Village, Greenwich Eltham, Greenwich Woolwich Flyover, Newham Cam Road, Newham Wren Close and Tower Hamlets Blackwall)<sup>6</sup>, over the period 2007 to 2015.
- A5.2 A Theil-Sen analysis has been applied to the data to identify statistically significant trends and slopes, and the results are described in Table A.5.1. There is a statistically significant downward trend in nitrogen dioxide concentrations at LCA-CAH, LCA-ND and five monitoring sites (Greenwich Burrage Grove, Greenwich Eltham, Newham Cam Road, Newham Wren Close and Tower Hamlets Blackwall). There is no statistically significant trend at two of the other monitoring sites presented.

Monitoring Site	Thei-Sen Analysis <sup>a</sup>	Statistically Significant		
CityAviation Hous(ELCA-CAH)	-0.88 [-1.49, -0.37]	Yes		
Newham Dockside (LCAND) <sup>b</sup>	-2.16 [-3.03, -1.2]	Yes		
Greenwich Burrage Grove	-2.47 [-3.1, -1.83]	Yes		
Greenwich Millennium Vill	-0.38 [-1.1, 0.43]	No		
Greenwich Eltham	-0.91 [-1.42, -0.38]	Yes		
Greenwich Woolwich Flyove	-0.94 [-1.61, 0.01]	No		
Newham Cam Road	-2.36 [-3.19, -1.63]	Yes		
Newham Wren Close	-1.31 [-2.12, -0.6]	Yes		
Tower Hamlets Blackwall	-1.6 [-2.34, -0.9]	Yes		

Table A5: Theil-Sen Analysis, Nitrogen Dioxide Concentrations at City Aviation House Newham Dockside and Other Monitoring Sites, 2007 to 2015

<sup>a</sup> The first value is the slope. The number in brackets is the upper and lower 95<sup>th</sup> percentile confidence interval.

<sup>b</sup> Analysis carried out for 2009 to 2015.

<sup>&</sup>lt;sup>6</sup> The Poplar site at Tower Hamlets was decommissioned in July 2013 data. As the data for the period 2007 to 2013 was statistically not significant, it has been removed from this analysis.

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Village, Greenwich Eltham, Greenwich Woolwich Flyover, Newham Cam Road, Newham Wren Close, Tower Hamlets Blackwall) Monitoring Sites, 2000715 (Left to Right: City Aviation House, Newham Dockside, Greenwich Burrage Grove, Greenwich Millennium Figure A.5.1: Smooth Trend Analysis, Hourly Nitrogen Dioxide ConcentAntadoisnaHoustey Newham Dockside and Other





LCA Air Quality Measurement Programme – Annual Report 2015



### Nitrogen Oxides (NO<sub>x</sub>)

- A5.3 Figure A.5.2 shows the smooth trend analysis of 1-hour mean NO<sub>x</sub> concentrations for LCA-CAH, LCA-ND and other monitoring sites (Greenwich Burrage Grove, Greenwich Millennium Village, Greenwich Eltham, Greenwich Woolwich Flyover, Newham Cam Road, Newham Wren Close, Tower Hamlets Blackwall) for the period 2007 to 2015.
- A5.4 The Theil-Sen analysis, shown in Table A.5.2, indicates a statistically significant downward trend in NOx concentrations at six monitoring sites (Greenwich Burrage Grove, Greenwich Eltham, Greenwich Woolwich Flyover, Newham Cam Road, Newham Wren Close and Tower Hamlets Blackwall).

## Table A5.2: Theil-Sen Analysis, NOx Concentrations at City Aviation House and Other London Monitoring Sites, 2007 to 2015.

Monitoring Site	Theil-Sen Analysis <sup>a</sup>	Statistically Significant Trend?
City Aviation House (LCA-CAH)	-1.97 [-3.66, -0.69]	Yes
Newham Dockside (LCA-ND) <sup>b</sup>	-7.58 [-9.7, -5.01]	Yes
Greenwich Burrage Grove	-6.24 [-8.17, -4.2]	Yes
Greenwich Millennium Village	-1.32 [-3.61, 0.78]	No
Greenwich Eltham	-1.35 [-2.39, -0.44]	Yes
Greenwich Woolwich Flyover	-5.16 [-8.54, -1.48]	Yes
Newham Cam Road	-5.78 [-8.26, -3.81]	Yes
Newham Wren Close	-2.39 [-4.33, -0.67]	Yes
Tower Hamlets Blackwall	-5.39 [-8.84, -2.66]	Yes

The first value is the slope. The value in brackets is the upper and lower 95<sup>th</sup> percentile confidence interval.

<sup>b</sup> Analysis carried out for 2009 to 2015
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Eltham, Greenwich Woolwich Flyover, Newham Cam Road, Newham Wren Close, Tower Hamlets Blackwall) Sites, 20072015 (Left to Right: Aviation House, Newham Dockside, Greenwich Burrage Grove, Greenwich Millennium Village, Green Figure A.5.3 Smooth Trend Analysis, MounConcentrations at City Aviation House, Newham Dockside and Other London Monitoring





## **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# APPENDIX 14 LIST OF ON-SITE EMPLOYERS DEC 2015

01 July 2016

London City Airport City Aviation House Royal Docks London E16 2PB Tel: 020 7646 0000 LondonCityAirport.com



### **COMPANIES ON-SITE AT LONDON CITY AIRPORT**

BUSINESS	COMPANY NAME
Contractor	AA Lovegrove
Retail	Aelia
Airline	Alitalia
Operations	ASIG / ASIG BBA / ASIG Ltd
Retail	Avis
Airline	BA Cityflyer
Contractor	Blackjack
Operations	BP Installations
Retail	Caffé Nero
Airline	City Jet
Contractor	ESP
Retail	Europcar
Operations	Execair
Retail	Hertz
Operations	London City Airport
Airline	Lufthansa
Contractor	NATS
Airline	Netjets
Operations	Newrest
Contractor	PJ August Decorator
Retail	Pret a Manager
Operations	SECURITAS
Retail	Shinecorp
	Sky Handling
Retail	SSP / SSP UK
Airline	Swiss
Retail	Travelex UK / Travelex Worldwide
Retail	WH Smiths
Catering	Doco
Catering	Eurest
Retail	Airportr ?? SPELLING
Retail	Airport Chauffeurs London
Retail	Boots
Operations	Flight Care
Airline	FlyBe
Operations	GSF
Retail	Links of London
Operation s	Menzies
Retail	Tumi
Contractor	OFJ Connections

## **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# APPENDIX 15 TAKE OFF INTO WORK STATISTICS 2015

14 July 2016

London City Airport City Aviation House Royal Docks London E16 2PB Tel: 020 7646 0000 LondonCityAirport.com



### **Take Off Into Work Statistics**

# 68 - Total number of people that have started training on the TOIW programme in 2015.

Company	Direct Recruitment in 2015
LCY	7
SSP	4
Café Nero	6
Sky Handling Partner	5
Aelia	6
Travelex	6
Europcar	5
WhSmith	4
Newrest	2
BA	1
Airport Chauffeurs London	2
Total:	48

## **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# APPENDIX 16 LONDON CITY AIRPORT LIMITED 2015-16 RECRUITMENT POLICY

01 July 2016

London City Airport City Aviation House Royal Docks London E16 2PB Tel: 020 7646 0000 LondonCityAirport.com



#### **`1. Applications**

- 1.1. London City Airport advertise all vacancies on their dedicated career's page on www.londoncityairport.com/careers
- 1.2. Jill Pearman, Recruitment Manager (Tel 020 7646 0011) manages this careers page and posts all vacancies.
- 1.3. It is a core value of London City Airport to ensure that:
  - All applicants are dealt with in a courteous, respectful, fair and diplomatic way
  - All applicants are properly informed at all stages of the progress of their application.
- 1.4. In some limited specific instances, vacancies of a specialist nature may be advertised on both the LCY website and via specific aviation or other recruitment agencies and job boards. In this instance, advertising and procedure will remain the same as that for all other vacancies to ensure consistency.
- 1.5. Notwithstanding the above, where recruitment for more than one position is initiated simultaneously, London City Airport will advertise such vacancies through a local employment agency (e.g. Newham Workplace and/or others), notify local recruitment centres of such vacancies and advertise through the LCY website.
- 1.6. London City Airport works in partnership with the Local Authority (via Newham Workplace) to deliver into-work training for unemployed Newham residents. In some instances, candidates from this training programme may be recruited directly by London City Airport Limited (Jill Pearman /Anthony Angol<sup>1</sup>) from Newham Workplace.
- 1.7. London City Airport endeavours to employ people living in the vicinity of the airport to share its economic and social benefits. Specifically, the airport has agreed targets with the Local Authority to endeavour to employ:
  - 70% of its employees from the "local area"<sup>2</sup>
  - including 35% from the London Borough of Newham.
- 1.8. A standard online application form is used to assist in filling all vacancies as a way of obtaining the same information from each candidate.
- 1.9. Applicants will have the opportunity to register their interest in specific areas of the business and upload their CVs to our website. We will hold this information on our data base for completed application forms) that is not retained must be disposed of securely (i.e. shredded).

 $1 \ {\rm Anthony} \ {\rm Angol} - {\rm Community} \ {\rm Relations} \ {\rm Executive}, \ {\rm London} \ {\rm City} \ {\rm Airport} \ {\rm Limited}$ 

**2** The "local area" is defined by the London Borough of Newham as the 11 East London Boroughs of Newham, Tower Hamlets, Hackney, Waltham Forest, Redbridge, Barking & Dagenham, Having, Bexley, Greenwich, Lewisham and Southwark.

1.10. All documentation relating to selection of new staff (e.g. completed application forms) that is not retained must be disposed of securely (i.e. shredded).

#### 2. Selection

- 2.1. A candidate will not be appointed without first being interviewed by persons with the authority to select.
- 2.2. The purpose of the interview is to:
  - Assess the skills and knowledge of the applicant
  - Assess the attitude of the applicant
  - Identify the strengths and weaknesses not apparent from the application form
  - Probe details or inconsistencies submitted by the applicant
  - Establish suitability for employment
  - Give information about the job and working conditions.
- 2.3. All interviewers are trained in Recruitment and Selection Skills and Employment Law to be aware of legal requirements and the Company's equal opportunities policy.
- 2.4. All interviews are conducted by two or more authorised people.
- 2.5. All interviewers are senior to the vacant position.
- 2.6. All interviews are conducted in private and in a place without distractions. Where appropriate, the candidate is shown the environment in which he/she will work if successful.
- 2.7. Interviews reflect Company philosophy, observe legal requirements, are conducted courteously and give full details of terms and conditions of employment and benefits.
- 2.8. Written records are kept of all short-listing decisions in case of query at a later stage.
- 2.9. Written records are kept of all interviews conducted using a standard 'Interview Assessment Form'.
- 2.10. Successful applicants will receive a standard offer of appointment letter. This is arranged by Jill Pearman.

#### 3. Equal opportunities policy

- 3.1. The recruitment policy will aim to select the most suitable person for the job in respect of experience and qualifications and the Company will comply with its equal opportunities policy in this regard.
- 3.2. All recruitment publicity positively encourages applications from suitably qualified, experienced people and avoids any stereotyping of roles.
- 3.3. Vacancies are advertised in a variety of ways to ensure that a fair cross section of potential applicants have access to the advertisement, including via:

- Local Authority "one stop shops" including Newham Workplace.
- All Job Centre Plus outlets, via their electronic system, Newham College (CIPS) and Anchor House Homeless Charity (entry level roles only).
- 3.4. All vacancies are advertised on London City Airport's website (www.londoncityairport.com/careers).
- 3.5. The application form only includes those questions that are necessary at the initial stages of selection. All questions on the application form are relevant and non-discriminatory
- 3.6. At interview, questions or assumptions about a candidate's personal and domestic circumstances or plans will only be asked where necessary with regard to the role. Where the requirements of the job affect the candidate's personal life (e.g. shift work, unsociable hours or travel) this will be discussed objectively.

#### 4. Selection criteria

- 4.1. Only those qualifications and skills that are important to the job are criteria for selection. These include, but are not limited to, education and professional qualifications, experience and physical abilities. However, such formal academic or professional qualification requirements may be waived if candidates can demonstrate their suitability for the job by other means including previous experience and a willingness to undergo further training.
- 4.2. All applicants will receive with the application form:
  - an outline job description
  - a person specification, detailing essential and desirable characteristics
- 4.3. All applicants short-listed for interview will receive interview details in writing via an email to the address supplied by the applicant when applying online.
- 4.4. All candidates who are not short-listed receive a standard rejection letter immediately after the short-listing process has been completed with details of employability skills programmes available locally.
- 4.5. In the event that two candidates, after interview, equally meet the person specification, the candidate living closer to the airport will normally be given priority.
- 4.6. Positions will only be filled with suitable candidates. Unsuitable candidates will not be appointed.
- 4.7. All unsuccessful short-listed candidates will receive Notification informing them of the result of their assessment / interview within 7 working days.
- 4.8. All unsuccessful internal applicants will have a debriefing interview where the reasons for their non appointment will be explained and, where appropriate, general guidance will be given on areas for improvement.

#### 5. Selection tests

- 5.1. Selection tests are used to ensure that applicants have the skills and aptitude requirements for the job.
- 5.2. All such tests are valid, reliable and free from gender or race bias and are non-discriminatory. Tests are developed in conjunction with education professionals to ensure a level of suitability to the role applied for.

#### 6. Other criteria

- 6.1. Any requirements in relation to age, ability, experience and qualifications will be applied for the particular vacancy in a non-discriminatory way.
- 6.2. All concessionaires/service partners at London City Airport have a contractual obligation to London City Airport to use all reasonable endeavours to recruit locally.
- 6.3. London City Airport has an Employers' Forum in which supports on-site partners with a range of issues, one of which is local recruitment.

## **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# APPENDIX 17 TRANSPORT OBJECTIVES 2015

01 July 2016

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### Offering the Right Services

	Objective	Actions completed to date	Status 2015
1	Engage with TfL, DLR Ltd & Keolis Amey Docklands to share relevant data (data to be agreed at initial meeting) and consider any future service enhancements	<ul> <li>Frequent meetings have been held with TfL during the period,</li> <li>Meetings with DLR Ltd have also taken place,</li> <li>While KeolisAmey Docklands attended the ATF we have not met them independently in 2015.</li> </ul>	Ongoing
2	With Forum partners explore the opportunity to trial additional transport interventions from key staff residency locations or at key shift start times, and consider ongoing revenue implications	<ul> <li>2015 was on identifying the interventions that may be required,</li> <li>TfL presentation at ATF re. options for changing local bus connections,</li> <li>Airport employer sessions showed that early morning connections continue to be an issue,</li> <li>Also highlighted lack of connections from SE London,</li> <li>2016: Staff travel survey in June will provide further information,</li> <li>2016: Further engagement with TfL to review gaps in local bus provision.</li> </ul>	Ongoing
3	Monitor and manage car parking provision to reflect the Travel Action Plan aspirations, and changing passenger and staff travel requirements	<ul> <li>Passenger travel choices monitored through quarterly passenger survey,</li> <li>Results reviewed annually through the ATF and APR,</li> <li>2015 figures showed a slight fall in the number of passengers parking,</li> <li>2016: within the finalisation of the ASAS greater detail will be included regarding parking.</li> </ul>	Ongoing
4	Consider the value of including transport specific questions within the quarterly Passenger Survey, and if considered beneficial, develop a suitable implementation plan	<ul> <li>Additional questions included within the September passenger survey,</li> <li>Gauged feedback on travel info available before and during their journey, and the simplicity of interchange points,</li> <li>2016: the same questions, and others, will be included in 2016 surveys.</li> </ul>	Ongoing
5	Review the proposed Taxi Management Plan and current programme of activity to ensure that impacts on the local community (including nuisance) are minimised where practicable	<ul> <li>Taxi management plan produced following CADP determination,</li> <li>ATF Taxi Working Group reviewed complaints from the local community,</li> <li>Local people kept incident diaries but none were completed,</li> <li>LCY wrote to all operators requesting improved behaviour</li> <li>No further action deemed necessary by LBN,</li> <li>2016: LBN approve resident parking zone that will solve these issues.</li> </ul>	Ongoing

### Improving integrated journeys

	Objective	Actions completed in 2015	Status 2015
6	Review the travel information provided on the LCY website and identify any enhancements	<ul> <li>ATF Information Working Group reviewed LCY website,</li> <li>Identified that transport info was good, but that strategy pages needed updating,</li> <li>2016: strategy pages updated following ATF approval of the Working Group actions in Feb 2016.</li> </ul>	Complete
7	Maintain dialogue with airlines about relevant transport issues from both a strategic and operational perspective	<ul> <li>Quarterly email system introduced to inform airport companies, including airlines,</li> <li>Emails were sent in autumn and winter and continue into 2016,</li> <li>Operational updates are provided by LCY Terminal and Communications teams regarding issues such as service disruption.</li> </ul>	Ongoing
8	With TfL and relevant transport operators look at potential ticketing, information and interchange improvements that could benefit passengers and staff	<ul> <li>ATF Information Working Group identified issues that would benefit the passenger journey,</li> <li>List of actions developed, including; new information screens in Baggage Reclaim, improvements to wayfinding at Canning Town, and to make LCY more visible on key Tube lines,</li> <li>2016: actions were approved by the ATF in February and will be delivered throughout the year.</li> </ul>	Ongoing
9	Work with transport operators to offer airport staff trial journeys on public transport and gather feedback on their experience through travel diaries	<ul> <li>The trial period was increased two weeks to make it more appealing,</li> <li>One member of staff volunteered in 2015, their feedback showing that multi-change journeys can be both more costly and lengthier than by car,</li> <li>2016: engaging the Staff Committee in spring saw four more sign up, while comms led messaging in June saw eight more volunteers request to take part. The outputs will be reviewed and used to inform future delivery.</li> </ul>	Ongoing
10	Monitor on-airport cycle provision and if required consider providing additional cycle storage facilities	<ul> <li>ATF Cycling and Walking Group met in August,</li> <li>The group identified a series of actions to be progressed by LCY, LBN and TfL which were agreed at the Feb ATF session,</li> <li>Increasing cycle storage was a primary need. Locations were identified and discussed with the Staff Committee Group.</li> <li>Project costs were identified and included within 2016 budget,</li> <li>2016: LCY project team are taking forward these proposals for delivery by end of Summer 2016.</li> </ul>	Ongoing
11	Work with local stakeholders to map planned local cycling and walking schemes and identify aspects relevant to airport users	<ul> <li>ATF Cycling &amp; Walking Group met in August, with follow on information shared via email,</li> <li>The group identified future cycling plans of LBN and TfL and put in place an ongoing process that ensures off- airport plans are shared with LCY via the ATF so that airport infrastructure can be provided as required.</li> </ul>	Complete
12	With local bus operators and TfL share relevant data, discuss route planning and look for any opportunities for improvement	<ul> <li>TfL's bus division presented at the July ATF meeting regarding their planned changes for local bus routes in 2016,</li> <li>Further dialogue with TfL presented an early-2016 timeline for future consultation,</li> <li>2016: Meeting with TfL in February confirmed that consultation on new routes will occur in Summer/Autumn 2016. An ATF Bus Working Group has been established in response.</li> </ul>	

### Offering low carbon alternatives

	Objective	Actions completed in 2015	Status 2015
13	Gauge the low-carbon aspirations of partners such as London Borough of Newham, TfL and the GLA and identify areas of alignment with the airport's sustainability action plan	<ul> <li>ATF Low Carbon Working Group was due to meet in November 2015 but it was not possible to bring the group together at that date,</li> <li>2016: The session was held in February 2016 and identified the priorities of the GLA, TfL and LBN on for the next 5-10 years and identified actions for all parties to take forward,</li> <li>2016: These were agreed at the ATF in February, and subsequent discussions with GLA/TfL are ongoing regarding provision of vehicle charging points.</li> </ul>	Ongoing
14	In line with the airport's approach to carbon management calculate the carbon impacts of staff, passenger and company travel	• 2015 carbon foot-printing assessment included scope 3 emissions, and as such calculated the impact of journeys to and from the airport.	Ongoing
15	Review the leading car-share packages that are publicly available and gauge their suitability for an airport environment	<ul> <li>This action is programmed for 2016,</li> <li>2016: a staff travel survey and follow- on engagement with airport employers and employees will gauge demand and likely impact of an incentive driven car-share scheme.</li> </ul>	Ongoing
16	Consider ways to reduce reliance on the car among airport staff	<ul> <li>This action is programmed for 2016,</li> <li>Initial discussion with TfL in 2015 considered innovative ways of changing travel habits,</li> <li>2016: a staff travel survey and follow- on engagement with airport employers and employees will look to identify possible initiatives.</li> </ul>	Ongoing

### A collaborative approach

	Objective	Actions completed in 2015	Status 2015
17	Engage airport companies and staff to encourage sustainable travel behaviours	<ul> <li>Quarterly travel plan updates were introduced to maintain dialogue with airport companies,</li> <li>These were sent out in Autumn and Winter and helped establish follow-on dialogue with Menzies and WHSmith,</li> <li>Airport staff are engaged directly through the Staff Committee sessions.</li> </ul>	Ongoing
18	Through the airport's Staff Committee engage airport staff on key transport issues	<ul> <li>Staff travel is an agenda item at the monthly Staff Committee sessions, giving staff an opportunity to raise any travel issues that are then fed back to the Travel Co- ordinator,</li> <li>The Travel Co-ordinator also attends sessions to proactively engage staff on certain issues,</li> <li>Three sessions were attended – firstly to secure input towards the new travel leaflet, secondly to identify locations for additional cycle storage facilities, and thirdly on the mechanism to deliver the staff public transport trial.</li> </ul>	Ongoing
19	Organise at least two meetings of the Airport Transport Forum prior to the determination of CADP	<ul> <li>The ATF met in July.</li> <li>The ATF was due to meet in December but was postponed to Feb 2016, due to member availability.</li> <li>2016: The ATF met in June and is scheduled to meet again in November.</li> </ul>	Complete
20	Engage with local transport groups as required, this could include the London Chamber of Commerce, the Canary Wharf Transport Forum, or the Stratford Transport Infrastructure Group (or other such Stratford representation)	<ul> <li>The London Chamber of Commerce attend the ATF</li> <li>Rachel Ness attended the Canary Wharf Transport Forum</li> <li>The STIG forum has not been engaged in 2015 following feedback from LBN that it may not be relevant to the airport.</li> </ul>	Ongoing
21	With the London Borough of Newham consider the creation of an 'Easit' style commuter network scheme that brings businesses together to collaboratively address local travel issues	<ul> <li>This action is programmed for 2016,</li> <li>It will be considered within the ATF Working Group that will look at best practice across ASAS and Travel Plan development.</li> </ul>	Ongoing

### Monitoring and Reporting

	Objective	Actions completed in 2015	Status 2015
22	Through the passenger survey monitor passenger travel habits	<ul> <li>Passenger survey is undertaken quarterly,</li> <li>Specific questions regarding travel choices of passengers are asked,</li> <li>Additional questions were included within the Autumn survey to gain feedback on available transport information, and ticketing &amp; wayfinding during their journey to, from and through the airport,</li> <li>This flagged a need to consider information accessed prior to travel, and the wayfinding available at key interchange points like Canning Town,</li> <li>Stats are reviewed annually and presented at the ATF and in the APR.</li> </ul>	Ongoing
23	Consider the development of informal KPI's to monitor staff travel habits	<ul> <li>This action is programmed for 2016,</li> <li>Initial discussions were had with TfL regarding innovative KPI's,</li> <li>2016: This action will be included within the ATF Surface Access Working Group.</li> </ul>	Ongoing
24	Monitor staff and passenger parking requirements	<ul> <li>Quarterly passenger surveys are used to monitor travel choices,</li> <li>Staff surveys are undertaken less frequently (2009, 2011 and 2013),</li> <li>This data is considered by the ATF on an annual basis,</li> <li>2016: an employee survey was scheduled for 2015 following determination of CADP. This was postponed but survey will be undertaken in 2016, while questions will be included in the passenger survey to identify what encourages use of public transport.</li> </ul>	Complete
25	Through the Airport Transport Forum share relevant transport data with key stakeholders, including progress against the action plan	<ul> <li>Data showing trends in passenger and staff mode share performance was presented and discussed at the July ATF meeting.</li> <li>This provided a breakdown by mode for both passengers and staff, and compares performance over a number of years.</li> </ul>	Ongoing
26	Report progress within the airport's Annual Performance Report	• The APR includes summary details of activity undertaken within the year alongside current passenger and staff mode share values.	Complete

#### **Review of the Travel Plan 2011 Actions**

Action Ref	Objective	Actions completed in 2015	Status 2015
1.7	Produce & maintain Airport Surface Access Strategy	<ul> <li>A draft ASAS was published in December 2013, developed in consultation with key stakeholders and the Airports Transport Forum. The intention was to finalise and publish following determination of the CADP planning application.</li> <li>Agreement was reached with the ATF in July 2015 that the ASAS would remain in draft form until the planning appeal process has been completed in 2016.</li> </ul>	Ongoing
1.7	Deliver an Airport Transport Forum	<ul> <li>The ATF met once in 2015, in July.</li> <li>A second session was planned for December 2015 but has been postponed until January 2016 to ensure all members are available.</li> </ul>	Ongoing
1.13	£50,000 paid by LCY towards a road capacity study of the local road network and impact the Airport has upon it	N/A	Ongoing
1.13	£190,000 index linked Road Capacity Contribution	N/A	Ongoing
2.37 & 3.8	Passenger survey last mode of transport results - closely monitor	<ul> <li>Quarterly Passenger Surveys are undertaken that include the mode of transport used to travel to/from the airport.</li> <li>The September survey included additional questions aimed at gathering passenger feedback on the quality of services to the airport, the information available, etc</li> </ul>	Ongoing
Table 3.1	Restrict number of staff driving to the site by single occupancy car to existing (2009) levels	<ul> <li>The snapshot staff travel survey in 2013 suggests that 41% of staff travel primarily by car. This is lower than the 2009 baseline of 59%.</li> <li>The draft ASAS included a new staff target to reduce single car occupancy use among airport staff to below 40%.</li> </ul>	Ongoing
3.6	Promote non-car modes of transport to passengers/encourage public transport	<ul> <li>The airport's website includes all available public transport options and provides links to sources of further information.</li> <li>Information is also available on-airport; at the information desk and within the airport's forecourt and DLR station.</li> </ul>	Ongoing
3.6	Monitor car park charges at LCY	• Car Park charges are reviewed by LCY on an annual basis.	Ongoing
3.6	Car park charges considered against the backdrop of local parking arrangements	• Complaints regarding minicabs parking in local streets as opposed to parking on-airport were investigated with LBN. This looked to gauge the impact of their operations on the community through resident diaries. LBN will be implementing a residents parking zone that will effectively remove these issues.	Ongoing
3.7	£2.5m contribution to DLR improvements	N/A	Ongoing

Action Ref	Objective	Actions completed in 2015	Status 2015
3.7	Encourage airlines to promote the DLR on board flights	<ul> <li>Quarterly email system introduced to inform airport companies, including airlines,</li> <li>Emails were sent in autumn and winter and continue into 2016,</li> <li>Operational updates are provided by LCY Terminal and Communications teams regarding issues such as service disruption.</li> </ul>	Ongoing
3.9	Provide parking subsidies for pax with disabilities	<ul> <li>Dedicated parking spaces are provided in locations close to the terminal.</li> <li>Discounted rates are offered to passengers with disabilities.</li> </ul>	Ongoing
3.11	Increase taxi occupancy	• Taxi-share schemes were considered during the development of the draft ASAS and through the CADP transport discussions, but were not considered as a priority by any stakeholders.	Complete
3.12 & 5.22	Consider taxi sharing scheme & monitor demand	<ul> <li>Taxi-sharing has not been included as an action within the draft ASAS or the Interim Travel Action Plan as it has not been highlighted as a priority issue.</li> <li>Surveys of taxi users have also previously shown a low interest in taxi-sharing services.</li> </ul>	Complete
3.12	Discuss taxi sharing results with LBN & ATF & Public Carriage Office	• As above.	Complete
3.13	Monitor taxi occupancy rates	• After gauging stakeholder views during the development of the draft ASAS and Interim TAP, and those of passengers during the 2013 taxi survey, taxi-sharing schemes are not considered a core part of the airport's transport offer.	Complete
4.2	Appoint a Travel Plan Coordinator	• An external consultant has been managing the airport's travel plan in 2015.	Ongoing
4.3	Train the Travel Plan Coordinator, attend conferences etc.	• The travel co-ordinator is fully conversant in travel planning processes.	Complete
4.4	TPC responsible for providing info regarding the Travel Plan to other companies onsite	<ul> <li>Relevant information is shared through the Airport's Staff Committee meeting.</li> <li>Quarterly emails to airport companies have also been introduced.</li> <li>Meetings with airport companies are also maintained.</li> </ul>	Ongoing
4.5	Travel Plan Champion each organisation onsite	<ul><li>A database of key contacts is maintained.</li><li>This list was refreshed during 2015.</li></ul>	Ongoing
4.5	New or renewed lease arrangements include a clause requiring that tenants liaise with the Travel Plan Coordinator, adhere to the Travel Plan & participate in & promote travel surveys	<ul> <li>Concessionaires are required to support the Travel Plan process and liaise with the Travel Plan Coordinator.</li> <li>They are also required to support and promote the employee survey process.</li> </ul>	Ongoing

Action Ref	Objective	Actions completed in 2015	Status 2015
4.7	Comprehensive & robust Staff Travel Survey	<ul> <li>No action programmed for 2015 – as a survey was intended to be completed post-CADP to give a baseline dataset that would monitor performance of the ASAS and Travel Plans.</li> <li>A survey has been programmed for Summer 2016.</li> </ul>	Deferred/ Ongoing
4.8	<ul> <li>TPC responsible for:</li> <li>promotion of sustainable transport measures to employees</li> <li>liaison and cooperation with the local planning, highways authorities &amp; local public transport operators</li> <li>liaison &amp; cooperation with other Travel Plan Coordinators located into the area in order to coordinate efforts, measures and initiatives</li> <li>overseeing the Travel Plan Champions of other companies onsite at the Airport</li> <li>promotion of the objectives &amp; benefits of the Travel Plan</li> <li>organisation &amp; undertaking of the required travel surveys</li> <li>maintenance of all necessary systems, data &amp; paperwork, including a car share scheme (if deemed appropriate)</li> <li>acting as the point of contact for information &amp; exchange of ideas</li> <li>establish a working group from members of the ATF, including staff member each of the employers onsite &amp; LPA, highway authority &amp; local transport ops to review Travel Plan</li> <li>monitor achievements &amp; performance of TP</li> <li>report back to senior management of LCY, ATF working group &amp; ATF</li> </ul>	All relevant activities have been maintained and delivered in 2015, including; management of the ATF and its Working Groups liaison with LBN, TfL and other partners on a range of transport issues management and analysis of passenger travel choices data ensuring that performance is recorded and communicated annually through the APR and ATF promotion of transport initiatives to airport employees through the Staff Committee sessions and through direct engagement with airport companies	Ongoing
4.1	Market the TP	<ul> <li>The range of travel choices are promoted to staff through a range of mechanisms – online, via the staff committee, and through the airport's employee benefits programmes.</li> <li>Public transport free trials have been launched in 2015 that enable staff to try public transport free for two weeks. Staff use a travel diary to provide feedback which will be used to promote the benefits of public transport to other airport employees.</li> </ul>	Ongoing

Action Ref	Objective	Actions completed in 2015	Status 2015
5.6	Emphasise the enviro & health benefits of walking & cycling to work	• Health benefits are not seen as a key message for airport employees — instead they focus on ease of access, cost, etc	Ongoing
5.7	Consider walking & cycling clubs for staff - for commuting & leisure	• The airport's Staff Committee is used as the mechanism for gathering and sharing employee opinion on public transport issues.	Ongoing
5.8	Discounts for employees with local cycle shops	• LCY maintain the Cycle to Work scheme for its own employees, and through the Travel Plan promote this initiative to other airport employers.	Ongoing
5.8	Cycle maintenance workshops with local cycle shops	• The Cycling and Walking Working Group identified a number of opportunities to offer maintenance and training programmes to staff. These will be actioned in 2016	Ongoing
5.9	Interest free loan for purchase of a cycle & safety equipment	• The Cycle to Work scheme enables employees to purchase safety equipment such as helmets as part of the process.	Ongoing
5.10	Encourage employers onsite to make arrangements for their staff to shower if cycle/walk to work	<ul> <li>Showers are offered in a number of locations around the airport that staff can make use of.</li> <li>It is the responsibility of individual companies to offer facilities for their own staff.</li> <li>The airport will continue to monitor cycle usage and if levels increase will look at what facilities need to be provided.</li> </ul>	Ongoing
5.11	Cycle routes & other cycling info provided on notice boards & in induction packs	<ul> <li>Feedback gathered from the Staff Committee this year and previously shows that there is a low level of demand for this information currently.</li> <li>As routes across Newham develop, and as the airport provides additional facilities we will create additional platforms to promote cycling.</li> </ul>	Ongoing
5.12	Consider improvements to surface access for pedestrians & cyclists & discuss with local authorities	• An output of the Cycling and Walking Working Group was greater clarity around planned developments across Newham.	Ongoing
5.14	Contact numbers & web details for transport providers Inc. bus timetables & maps etc, will be displayed on staff notice boards	• The travel section of the airport website provides information about available services. Links to operator websites and other sources of further information are also provided.	Ongoing
5.15	Season ticket Ioan - LCY & other employers	• Season ticket loans are promoted to LCY staff. Other airport companies are encouraged to offer similar services.	Ongoing
5.16	Investigate starting public transport earlier with the operators	• This is highlighted as a key issue by airport employees and employers. It forms a strategic priority within the ASAS and is discussed with stakeholders wherever appropriate.	Ongoing
5.21	£20,000 bus service improvement contribution	N/A	Complete

Action Ref	Objective	Actions completed in 2015	Status 2015
5.24	Set up an informal car share database for all LCY employees	<ul> <li>Feedback from airport staff has identified no real interest in structured car-sharing – with only a few staff car- sharing with colleagues on a private basis.</li> <li>Interest in car-sharing continues to be assessed through staff survey, the Staff Committee and direct with employers.</li> </ul>	Ongoing
5.25	Provide subsidised taxi or public transport for stranded employee	• If employee feedback suggested that an organised car- sharing scheme would be required the opportunity to offer alternative routes home for stranded staff would be considered as part of the scheme development.	Ongoing
5.26	Include in induction pack information on public transport services close to employees home & encourage non- car modes	<ul> <li>We have sought input from airport employees on the travel information they require.</li> <li>A leaflet has been developed in 2015 and will be printed and circulated in 2016.</li> </ul>	Ongoing
5.27	<ul> <li>All employees &amp; employers receive packs containing:</li> <li>Summarised version of Travel Plan</li> <li>Timetables &amp; route maps for public transport</li> <li>Contact numbers &amp; website details for transport providers</li> <li>Local taxi company details</li> <li>Cycling &amp; walking maps for local area</li> <li>Web details for community travel sites &amp; community forum sites</li> </ul>	<ul> <li>There is no such product in place currently as employee feedback suggested it was unnecessary.</li> <li>The new staff travel leaflet will include this information and will be provided to travel plan contacts to circulate to their employees on a regular basis from 2016.</li> </ul>	Ongoing
5.28	Public transport information will be displayed prominently in airport & added to staff areas	<ul> <li>Information is provided at key locations for air passengers. The ATF Information Working Group identified that new screens in Baggage Reclaim would improve the provision (to be installed 2016)</li> <li>Staff messaging focuses on online information, and now printed material with the new leaflet printed in 2016.</li> </ul>	Ongoing
6.5	Report results of staff & passenger monitoring to LBN	• Performance stats are included in the APR	Ongoing
6.6	Review TP targets & measures in 2011 & 2012	<ul> <li>A full review was not carried out in 2012 – a review was carried out in 2013.</li> <li>All TP targets have been reviewed and revised and included within the draft ASAS. Draft action plans for passengers and staff were initially developed that are now covered by the Transport Objectives 2015.</li> </ul>	Complete
6.7	Full comprehensive review of the TP in 2013	<ul> <li>Review partially carried out in 2013, following a review of the 2011 Travel Plan, 'Your City Commuter' was published in 2014.</li> <li>Following previous work to review TP actions 2015 saw the development of Transport Objectives 2015. This included 26 actions that guide the airport's activity through until CADP has been determined.</li> </ul>	Complete

### Airport Transport Forum Working Group Outcomes

The content below reflects those issues investigated and subsequent actions arising from the four working groups maintained during 2015. The content was included in a series of Recommendation Papers circulated to the ATF in February 2016.

#### WORKING GROUP: CYCLING AND WALKING (AUGUST - October 2015) Recommendations report January 2016

#### 1. Background

The Airport Transport Forum (ATF) brings together key stakeholders to progress relevant surface access issues — either on a strategic level through offering guidance to the airport's Surface Access Strategies, Transport Objectives and Travel Plans, or practically through collaboration on specific initiatives. These initiatives are chosen by the ATF from the Transport Objectives and are delivered through a Working Group format where relevant partners from the ATF work together to address that specific issue. A project scope is agreed at the outset and the group then works towards the anticipated solution — this could be a report, a series of actions or recommendations, or something relevant to that issue. Once this output has been agreed by the ATF the airport and its partners will take it forward to completion.

#### 2. Project aim

There are three aims to this activity;

- 1. To identify planned and proposed cycling and walking improvements across Newham and The Royal Docks and to gauge their likely impact on travel choices
- 2. To ensure that the airport's approach is aligned to this, and
- 3. To enable the airport and the ATF to make recommendations about future provision on- airport and locally.

#### **3 Cycling and walking current position**

Through an initial workshop and subsequent correspondence between TfL, LBN and LCY the following key issues and considerations were identified;

#### TfL

#### Summary of priorities

The following points were identified for consideration by TfL;

- 1. TfL/GLA's 'Local transport design guidance' to be considered where appropriate.
- 2. Cycle Workplaces scheme offers employers access to equipment and training.
- 3. Supportive of cycle route network development across Newham.
- 4. Interested in how the airport can support growth in leisure

cycling/walking (via Lea Way, etc).

- 5. Promoting Workplace Cycle Challenge to London businesses.
- 6. Forthcoming changes to the bus network and the potential impact on walking.
- 7. Working in partnership with GLA and LBN to develop Royal Docks OAPF which supports increased use of sustainable modes (via improved local connections) across the area and beyond into the wider borough and other boroughs.

#### Modal data

- 600,000 cycle journeys are made across London daily
- 19% of Londoners cycle (72% of which cycle at least once a week)

#### Future aspirations - Modal

- 400% increase in cycling on 2001 levels by 2026 (GLA)
- 40% reduction in KSI's by 2020 (GLA)

#### **Future aspirations - General**

- Improved connectivity between routes & destinations
- LCY to engage in CW and CC schemes above
- Explore the leisure value of LCY

Data source:All data above provided by TfL, where it comes from a source (such as GLA) it is detailed

#### London Borough of Newham

#### **Summary of priorities**

The Council's key objectives as set out in their Sustainable Communities Strategy and Local Implementation Plan. These are;

- 1. Provision of improved walking, cycling and public transport linkages between neighbourhoods this includes;
  - improved permeability through existing residential areas by opening up new waking and cycling routes.
  - better cycle facilities and more secure cycle parking will be provided to allow for local trips to be made by cycle.
  - wayfinding and other footway improvements to ensure more walking trips are made for local journeys.
  - the appointment of a Councillor as Cycling Champion for the borough and the proposal to hold a Cycling Summit.
  - production of local maps will ensure improved walking and cycling routes are understood.
- 2. The promotion of sustainable travel patterns throughout the Borough, this includes;
  - better cycling facilities and parking to encourage greater number of cycling trips
  - ongoing support for wider cycle initiatives in London and working with TfL to secure an extension to the cycle hire schemes post 2012
  - walking schemes, including footway and wayfinding improvements
  - working with NHS Newham and other healthcare partners to inform of the health benefits of active travel behaviour

#### Modal data

Current cycle to work mode share of only 1.2%. Low quality of existing infrastructure and lack of nearby employment opportunities cited as reasons. Even fewer people walk to work for the same reasons.

#### **Future aspirations**

With expected increases in residents and employment opportunities in the Docks, and with a programme to increase the quality of walking and cycling network, LBN expect mode share to rise in future years towards a target of 5% cycle trips by 2023.

Data source: All data above provided by LBN

#### **London City Airport**

#### **Summary of priorities**

- 1. Staff residency: 29% of staff live in Newham, 64% are from the local area.
- 2. Cycle provision: 30 cycle stands provided under DLR ramp, 24 secure staff spaces.
- 3. Future cycle provision: CADP estimates future capacity requirement of 70 spaces.
- 4. Staff showers are provided in a number of locations.
- 5. The airport wants to encourage more staff to travel by bike or foot, while considering how best to encourage other airport users to do the same.

#### Modal data

Fewer than 1% of airport passengers cycle or walk Airport staff: currently 2% cycle (approx 40 staff) and 7% walk (approx 130 staff)

#### **Future aspirations**

- 1. Increase numbers of staff cycling to 4% (approx 110 staff)
- 2. Increase numbers of staff walking to 9% (approx 250 staff)
- 3. Provide additional cycling storage capacity on-airport
- 4. Improve connectivity between the airport and future cycle network
- 5. Promote cycling and walking to staff (raise awareness, offer training, etc)

Data source: All data is LCY generated. The forecast increases are extracted from the Transport Assessments conducted as part of the CADP.

## 4. Programmed cycling and walking improvements

LBN intend to transform the walking and cycling infrastructure in the Royal Docks over the coming years. The programme set out below will provide a high quality, dense and accessible network of walking and cycling routes.

#### Local Walking and Cycling Connectivity Schemes

A year-on-year programme of walking and cycling connectivity improvements has been underway in the Royal Docks since 201415. A number of smaller connectivity schemes have been delivered, such as the Connaught Bridge route, the ExCeL car park connection, a number of dock edge route improvements, widening of the Drew Road walking/cycling route, North Woolwich Road twoway cycle track implementation, etc. This investment has totalled in excess of £300k per annum and will continue in future years.

#### Wayfinding and Mapping

At present, the Docks are not easily navigable and routes to destinations are not obvious, due to the severance caused by large industrial sites, bodies of water and transport infrastructure. A Legible London wayfinding programme is therefore proposed to introduce easily understood mapping and wayfinding into the Royals, to encourage more trips on foot and by bike to local destinations.

#### **Royal Docks Cycle Hire Scheme**

The Council is committed to the introduction of a cycle hire scheme in the Royal Docks to supplement the emerging leisure visitation associated with the LeaWay and Royal Victoria Dock as well as for the ExCeL centre and the surrounding hotel developments. It is unlikely that the Santander (TfL) cycle hire scheme will be extended into this area in the medium term, so other options are being pursued, which allows for specific Royals branding to be added to the hire bicycles. Brompton bicycle docks are being investigated and appear to offer a higher quality option than the Santander cycle scheme.

#### LeaWay Walking and Cycle Route

The LeaWay is a high quality cycle and walking route running down the River Lea from the Queen Elizabeth Olympic Park to Canning Town and then along Silvertown Way to Royal Victoria Dock. This first phase is in delivery now, with completion expected by late 2016. Phase two will follow, which will extend the route further eastwards along North Woolwich Road as far as the Airport roundabout in 2017-18. Phase 3 will involve the addition of 3 further bridge connections to Tower Hamlets across the River Lea, providing a high quality cycle link to Canary Wharf in 2019-23.

#### **Enterprise Zone Investment**

The designation of the Royal Docks as an Enterprise Zone allows for the leverage of additional new investment into the area, and an extensive package of public realm and connectivity improvements (>£30m) are proposed alongside significant public transport and highway investment to support the full build out of the Enterprise Zone. A total transport investment package of around £280m has been identified, with substantial new walking and cycling connectivity across the Royals proposed. The objective is to convert the Royal Docks into a place which looks and feels like any other piece of the city, by tackling the large impermeable former industrial sites and creating new walking and cycling routes across and through these large areas. This is a longer term project (to 2023) and will be delivered in parallel with the advancement of development sites - so the initial focus will be on the walking and cycling connectivity to and through the Silvertown Quays and ABP sites, with the wider network to be in-filled as further development comes forward. There is therefore an ongoing commitment to deliver high quality public realm, wayfinding and segregated cycle networks through the Royal Docks in future years.

#### 5. Recommendations & Actions

In considering the aspirations of the three organisations involved, alongside the improvement programme currently being implemented by LBN, the following recommendations have been identified for consideration and subsequent implementation by the airport and the ATF. They have been split into short term and longer term opportunities to reflect actions that can be followed up on immediately;

Short Term Opportunities		Owner	Tmeframe	LCY Costs
1	Join TfL's Cycling Workplaces scheme. Use equipment provided to enhance secure cycle storage facilities provided on-airport (to consolidate existing cages in Western End Car Park, and provide new facility in CAH location)	LCY	Join February,install from March	Circa £30k
2	Promote TfL's and LBN's free to access cycle training, seminars and bike repair sessions to airport staff	LCY	From March	Nil
3	Once infrastructure and training regimes are in place purchase pool bikes to enable staff to trial cycling to/from work, and promote cycling across the airport	LCY	From April	£2-3k
Long	er Term Opportunities	Owner	Tmeframe	LCY Costs
4	Maintain a full understanding of LBN's planned programme of cycle improvements — through regular updates at the ATF	LB	Ongoing	Nil
5	As the local route network develops enhance airport campus access points as required	LCY	Dates tbc	TBC
6	Promote TfL/GLA's street level design guidance in future airport development	LCY	Ongoing	TBC
7	If following the improvements outlined above cycling and walking does increase across the borough LCY, via the ATF, will work with LBN and TfL to provide additional airport-user related infrastructure (airport staff, passenger and commuter)	LCY & ATF	Dates tbc	TBC

#### 6. Monitoring progress

Progress against the actions above will be monitored at the ATF via either a verbal or written update.

#### 7. Timings

It is recommended that LCY progress actions 1-3 immediately in early 2016, and consider actions 4-7 on an ongoing basis via the ATF. This recommendation will be presented to the ATF in February 2016 and if agreement reached actions 1-3 will be progressed to delivery.

#### WORKING GROUP: INFORMATION (OCTOBER – November 2015) Recommendations Report January 2016

#### 1. Background

The Airport Transport Forum (ATF) brings together key stakeholders to progress relevant surface access issues — either on a strategic level through offering guidance to the airport's Surface Access Strategies, Transport Objectives and Travel Plans, or practically through collaboration on specific initiatives. These initiatives are chosen by the ATF from the Transport Objectives and are delivered through a Working Group format where relevant partners from the ATF work together to address that specific issue. A project scope is agreed at the outset and the group then works towards the anticipated solution — this could be a report, a series of actions or recommendations, or something relevant to that issue. Once this output has been agreed by the ATF the airport and its partners will take it forward to completion.

### 2. Project aim

To identify improvements that will make transport information more accessible to air passengers before, during and to/from their journey to the airport. This includes the airport's website, provision within the terminals and across the local transport network (DLR and Tube).

#### 3. Output of review process

The information contained below was identified through a workshops session and subsequent dialogue between TfL, LBN, DLR and LCY.

#### The Airport's Website

#### **Summary information**

Two elements of the airport's website have been reviewed. This includes the 'transport strategy' and 'travel information' pages.

#### Review

Good

- Transport is given a strategic context by the airport
- Up to date and plenty of links provide the traveller with access to accurate information

To improve

• Strategic content needs updating with more info on the ASAS, ATF, and current interim TAP position

#### **Opportunities Short-term**

1. Update the strategy pages to provide a wider overview of LCY's approach

#### **Opportunities Long-term**

1. Maintain relationship with TfL and others through the ATF to ensure that best practice is adopted

#### **On-airport Provision**

#### **Summary information**

The airport is creating a new intelligent information system that will cover both arrivals and departures routes. Through a network of screens direct and focussed messaging will be presented to passengers throughout their airport journey.

#### Review

Good

- New screens being installed throughout the terminal
- Detailed information presented at Baggage Reclaim
- Information desk provides information to passengers To improve

- Baggage Reclaim information is not overly engaging
- Information desk require a simple info source to provide to passengers
- There is an opportunity for the ATF to input to the development of the messages displayed within the terminal

#### **Opportunities Short-term**

- 1. Update Baggage Reclaim sites with screens that can in future be linked to the wider intelligent system
- 2. Produce with new travel leaflet

#### **Opportunities Long-term**

1. Via the ATF provide input to Customer Experience team regarding the transport messaging used on the screen system

#### **The Local Transport Network**

#### **Summary information**

Generally an excellent level of information presented to all users of public transport. The group have identified a number of small improvements that would enhance air passengers on their journey to the airport, as well as other public transport users

#### Review

Good

- Information panels presented at key locations
- Wayfinding clear at most locations
- Mix of messages presented both technical and softer messaging that is more accessible to passengers

To improve

- Small and complicated nature of 'which platform' information at Canning Town
- Lack of 'change at Canning Town' signage on Jubilee Line

#### **Opportunities Short-term**

- 1. ATF to provide input to DLR screen messaging at Canning Town (this has been simplified but could it be clearer, and could it benefit from extra screens?)
- 2. Work with TfL / Tube to add LCY to Jubilee Line map within the carriage

#### **Opportunities Long-term**

- 1. DLR and TfL to maintain a consistent approach to consulting LCY on passenger travel information issues
- 2. Consider the installation of additional flight information panels across the network

#### 4. Actions & Recommendations

Extracting the relevant information from the table above the following actions and owners have been identified;

Shor	t Term Opportunities	Owner	Tmeframe	LCY Costs
1	Update the strategy pages of the LCY website to provide a wider overview of LCY's approach	LCY	Feb 2016	Nil
2	Update Baggage Reclaim information sites with screens that can be linked to wider system	LCY	Feb-Mar 2016	£25k
3	Provide Terminal Information Desk with new travel leaflet	LCY	Feb 2016	£5k quarterly
4	Consider ways of improving the 'which platform' screen information at Canning Town	DLR Itd	June 2016	TBC
5	Add LCY to Jubilee Line map within the carriage	TfL	June 2106	TBC
Long	ger Term Opportunities	Owner	Tmeframe	LCY Costs
6	Maintain a relationship with TfL and operators including DLR to ensure that the passenger information provided on the LCY website is of a high standard.	LCY	Annual review with TfL	TBC
7	Consider how a 'best practice' passenger information model can be created that can then be shared with the airport's airlines	LCY	July 2016	TBC
8	Via the ATF provide input to transport messaging that Tbc will be used on the airport's new passenger information screen system	ATF	TBC	TBC
9	DLR and TfL to maintain a consistent approach to consulting LCY on passenger travel information issues	DLR Ltd & Tfl	Ongoing	TBC
10	Consider the installation of additional flight information panels	ATF	Sept 2016	TBC

#### 5. Monitoring progress

Progress against the actions above will be monitored at the ATF via either a verbal or written update.

#### 6. Timings

This paper will be submitted to the ATF for consideration at the February 2016 meeting. It is recommended that actions 1-5 are progressed on an ongoing basis from February 2016. And that actions 6-10 are progressed at the relevant time.

#### WORKING GROUP: LOCAL MINICAB OPERATIONS AND THEIR IMPACT RECOMMENDATIONS REPORT MARCH 2016

#### 1. Background

The Airport Transport Forum (ATF) brings together key stakeholders to progress relevant surface access issues — either on a strategic level through offering guidance to the airport's Surface Access Strategies, Transport Objectives and Travel Plans, or practically through collaboration on specific initiatives. These initiatives are chosen by the ATF from the Transport Objectives and are delivered through a Working Group format where relevant partners from the ATF work together to address that specific issue. A project scope is agreed at the outset and the group then works towards the anticipated solution – this could be a report, a series of actions or recommendations, or something relevant to that issue. Once this output has been agreed by the ATF the airport and its partners will take it forward to completion.

#### 2. Project aim

There are three aims to this activity;

- 1) To monitor reported nuisance complaints from local residents regarding minicab operations
- 2) To assess the impact of these operations, and,
- 3) To recommend what appropriate steps of redress should be taken.

## 3. The impact of minicab operations - current position

A number of complaints have been received by both the airport and by the London Borough of Newham that indicate that the antisocial behaviour of minicab drivers are causing disturbance to local residents. These minicab drivers are parking in local streets while awaiting a fare, or potential fare, from an airport user. The nature of the complaints includes leaving engines running, playing loud music, littering, etc.

#### 4. Assessing the situation

To quantify and better assess the level of nuisance local residents

were asked to keep track of when incidents occurred. These would identify particular issues, locations or times, and enable the group to fully assess the issue and develop the relevant remediation.

Led by the London Borough of Newham residents were asked to complete these questionnaires. However, at the end of this period none were returned.

It was also noted that residents were generally resistant towards LBN increasing their ability to move vehicles on by creating a controlled parking zone.

#### 5. Recommendations & Actions

In considering the results presented by local residents the airport and London Borough of Newham decided that due to the low level of complaints recorded through the questionnaires and the lack of interest in a controlled parking system meant that no immediate action should be taken.

It was agreed that the airport contact all minicab operators highlighting the importance of good behaviour and the need to maintain good relationships with the local community. In response to this Addison Lee attended the airport to speak to their drivers about this issue.

At the same time the London Borough of Newham and the airport will continue to; monitor the situation, meet and engage with local residents and record the number of complaints, and to act if these indicators require further action to be taken.

Action	s	Owner	Tmeframe	LCY Costs
1	LCY to write to all minicab operators reminding them of the need to act as good neighbours	LCY	Ongoing	Nil
2	LBN and LCY continue to monitor the number of focus of complaints.	LBN/LCY	Ongoing	Nil
3	Convene an annual meeting to review complaints received and decide upon next steps.	LBN	Annually	Nil
4	The ATF should have two distinct roles in this issue. Firstly to discuss complaints received, and if required re-examine the issue. Secondly, the group should discuss the longer term implications that products such as Uber will have on minicab operating practices.	LCY	ATF sessions	TBC

#### 6. Monitoring progress

Progress against the actions above will be monitored at the ATF via either a verbal or written update.

#### 7. Timings

It is recommended that LCY progress action 1 immediately. Action 2 should be progressed on an ongoing basis to maintain a watching brief on the situation. Action 3 will be driven by LBN and the frequency of complaints that receive. Action 4 will be progressed through the inclusion of local minicab operations as a standard agenda item at future ATF sessions.

#### WORKING GROUP: LOW CARBON TRANSPORT INFRASTRUCTURE

#### **Recommendations Report February 2016**

#### 1. Background

The Airport Transport Forum (ATF) brings together key stakeholders to progress relevant surface access issues — either on a strategic level through offering guidance to the airport's Surface Access Strategies, Transport Objectives and Travel Plans, or in this instance, practically through collaboration on specific initiatives. These initiatives are chosen by the ATF from the Transport Objectives and are delivered through a Working Group format where relevant partners from the ATF work together to address that specific issue. A project scope is agreed at the outset and the group then works towards the anticipated solution — this could be a report, a series of actions or recommendations, or something relevant to that issue. Once this output has been agreed by the ATF the airport and its partners will take it forward to completion.

#### 2. Project aim

To complete a high-level review of the low carbon transport aspirations and strategies of LBN, TfL and the GLA and use that to inform the LCY approach to the issue. This will not be a 'technical' piece of work, instead it will be an interactive and collaborative project that brings together members of the ATF to provide their thoughts and expertise on this issue. Specifically the following aspects will be considered;

- Aspect 1: Longer term aspirations of each organisation to support the use of low carbon forms of vehicular transport (cycling and walking are not covered in this exercise)
- Aspect 2: Relevant monitoring processes adopted across each organisation
- Aspect 3: Suitable funding streams that may exist to bring forward low carbon solutions
- Aspect 4: A suggested approach for the ATF to understand the low carbon requirements that may be placed on the airport over the coming years

#### 3. Output of review process

#### Introduction:

A workshop session was held with representatives of the GLA, TfL, LBN and LCY on the 2nd February 2016. Initial discussion focussed around the airport's surface access strategy and the role of the ATF, including how the outputs of the session are taken forward by the ATF. Following that the group discussed the low carbon transport ambitions of each organisation — the key points of which are captured below.

#### **General summary;**

Issues of air quality are seen as important by all parties, and as such the need to reduce emissions associated with public transport and ground vehicle movements is key. This is reflected in the current mayoral priorities, but also seen as a key issue for the leading mayoral candidates. In a wider sense if air quality and carbon reduction targets are to be met there needs to be a significant change in transport provision and travel behaviours. The subsequent delivery plans set by the GLA and TfL are ambitious but reflect the need to be bold if this shift in behaviour is to be achieved.

The airport has a role to play as a transport hub. With around 30% of passengers accessing the airport by black taxi (10%), minicab (14%) and private car (6%) there's an opportunity for the airport to support the GLA's and TfL's aspirations. From a practical sense the airport offers a location that many black taxi's can access easily as part of their daily activities — either those operators that remain in the Newham area, or those drivers that pick up a fare from the airport in the early morning on their way into the City. Offering a combination of standard charging points for use by passengers and staff, alongside rapid charging points for commercial vehicles could make the airport a key point in the London charging network. Furthermore, the provision of charging infrastructure for black taxi or other private hire vehicles will ensure that the airport continues to provide the range of transport connections that air passengers require.

#### Aspect 1: Longer term aspirations;

#### **GLA & TfL**

Both organisations have made a strong commitment to support the development of low carbon technology;

- By 2018 all new black taxis will be zero emission capable (including hybrid options)
- By 2020 all new minicabs (including chauffeur services) will need to be zero emission capable
- By 2020 all single deck buses will be electric (work continues to explore hydrogen as a fuel source)
- By 2018 there will be 150 rapid charging points, 90 will be provided for taxis
- By 2020 this will have increased to 300
- The expectation is that 50% of the taxi fleet will be electric by 2020

#### London Borough of Newham

A controlled parking zone is likely to be introduced across the Borough in 2016 (subject to member approval). Included within this scheme will be the provision of additional electric vehicle charging points (current commitment is that these will be within a 10 minute walk of all residents, as well as charging points for Car Clubs.

The Council have received feedback from residents that states they cannot purchase an electric vehicle due to the lack of charging points.

#### **London City Airport**

The airport has a defined approach to reducing its air quality and carbon emissions through action plans for both issues (click here to view both action plans on the LCY website). Alongside this the draft airport surface access strategy (ASAS) provides an overview of how LCY want to encourage passengers and staff to travel sustainably. This document is currently in draft form until the City Airport Development Programme has been determined (a planning inquiry begins in spring 2016) at which point the ASAS will be revised and a new longer term approach to surface transport will be agreed.

In this context LCY are keen to understand how the priorities of partners, such as TfL, GLA and LBN, can be considered and included within this new strategy document. By gaining a clear understanding of the timings of interventions as set out above the airport can plan to provide infrastructure, or the space for infrastructure, that supports the capital's low carbon aspirations.

#### **Monitoring and measuring**

As much of the focus was on longer term planning issues the monitoring and measuring of success was not covered. Instead this aspect will be discussed at a later date (see actions below).

#### **Funding streams**

At this stage it appears that funding for the infrastructure will be provided by government or by the providers themselves. Further discussion with TfL will clarify whether installation costs are to be included or covered by the land owner (subsequent discussions with TfL indicate that the current scheme includes all installation costs and may cover a recharge arrangement relating to the loss of parking spaces).

#### An approach for the ATF

It is suggested that the ATF support the development of additional low carbon infrastructure at City Airport. In the short term this will mean gaining a deeper understanding of what TfL are looking to deliver, and the cost and space requirements associated with it. In the longer term this means giving consideration to how low carbon transport can be best included within the updated ASAS and associated travel plans. It was noted that politically, developing a robust and potentially innovative stance on this issue would create a point of difference for City Airport, and demonstrate to the new mayor that the aviation industry is taking positive steps to address local air quality issues.

#### Other points for consideration

#### **Low Emission Buses**

The vehicles utilised on the two routes currently serving the airport are midway through their lifecycle and so are unlikely to be upgraded to electric vehicles in the near future. The route is also served by double-deckers which are not in the scope for electrification. To note GLA and TfL are considering whether hydrogen buses may be more suitable. Also flagged was the current trial of inductive charging technology on the route 69 from Canning Town to Walthamstow.

#### **Freight and Fleet Services**

TfL highlighted the LO City programme that encourages freight and fleet vehicles to electrify. Contact details will be provided to have a follow up conversation on this, and explore what this could mean for the airport in terms of both deliveries but also airside vehicles.

#### **Emergency Services**

Airports have traditionally stayed away from discussions regarding electric or alternative fuelled emergency service vehicles. It was interesting to hear that the Fire Service are considering a number of different options and it would be good for the ATF to hear more about this in time.

#### 4. Actions & Recommendations

Extracting the relevant information from above following actions and owners have been identified;

Short-term Opportunities		Owner	Tmeframe	LCY Costs
1	LCY to meet TfL to discuss rapid charging programme	LCY	Feb 2016	Nil
2	Subject to TfL requirements identify locations suitable for installation of rapid and standard charging points	TfL	March 2016	Nil
3	If suitable locations can be found (locations subject to adequate power supply and the airport land use plan as per CADP) progress within installation	LCY/TfL	2106/17	Nil
4	TfL to provide a contact for their LO City programme	TfL	March 2016	TBC
5	TfL and LBN to provide further update on the trial of inductive charging technology on the route 69 bus	TfL/LBN	Ongoing	
Longer-term Activities				
6	TfL, GLA and LBN to actively include LCY in future discussions regarding the provision of charging points – both standard and rapid	TfL/GLA/LBN	Ongoing	
7	LCY to include a section within the revised ASAS focussing on electric vehicles and infrastructure	LCY	2016/17	
8	As London's charging network grows actively promote electric vehicle use by airport staff and passengers	LCY	2018	

#### 5. Monitoring progress

Progress against the actions above will be monitored at the ATF via either a verbal or written update.

#### 6. Timings

This paper will be submitted to the ATF for consideration at the February 2016 meeting. It is recommended that all actions are developed on an ongoing basis.

## **LONDON CITY AIRPORT** 2015 SECTION 106 ANNUAL PERFORMANCE REPORT

# APPENDIX 18 VALUE COMPENSATION SCHEME

14 July 2016

London City Airport City Aviation House Royal Docks London E16 2PB Tel: 020 7646 0000 LondonCityAirport.com



### **LONDON CITY AIRPORT - VALUE COMPENSATION SCHEME**

Provision for a voluntary compensation scheme to compensate for loss of value of undeveloped sites which may be affected by the possible expansion of Public Safety Zones at London City Airport

#### Introduction

We are required to put into place a scheme to compensate for the loss of value that may be caused to undeveloped sites affected by any expansion of the Public Safety Zones ("PSZs") (from the "base case" PSZs which existed on 9 July 2009) due to the increase in annual aircraft movements at the Airport to 120,000, which was granted planning permission by London Borough of Newham on 9 July 2009. This compensation scheme is known as the Value Compensation Scheme ("VCS").

#### **Background**

Planning permission ("the Planning Permission") was granted on 9 July 2009 (reference 07/01510/VAR) by the London Borough of Newham for variation of conditions attached to previous planning permissions for the Airport to allow up to 120,000 total aircraft movements per year (with related modifications to other limits on aircraft movements).

The Planning Permission was subject to an agreement under Section 106 Town and Country Planning Act 1990 dated 9 July 2009 ("Section 106 Agreement"). Under the Section 106 Agreement the Airport is required to prepare and consult on a Value Compensation Scheme to compensate for value that may be lost at sites that are yet to be developed in the vicinity of the Airport and which could be affected by any expansion of the PSZs of the Airport, as a result of the Planning Permission.

In the normal course of events, PSZs around airports are reviewed periodically and also following a material change in circumstances such as (in this case) a permitted increase in aircraft movements.

The body responsible for implementing Department for Transport (DfT) policy on PSZs is the Civil Aviation Authority (CAA). Air travel is a low risk means of transport but as a precaution the CAA delineates PSZs at each end of a runway in order to control the number of people on the ground, in the vicinity of airports, who could be at risk of death or injury in the event of an aircraft accident on take-off or landing. The way this is achieved is to restrict new development within PSZs. The basic policy objective of the DfT (set out in DfT Circular01/2010) is that there should be no increase in the number of people living working or congregating in PSZs and that, over time, the number should be reduced as circumstances allow. However, unimplemented planning permissions in PSZs do not need to be revoked or modified: paragraph 15, DfT Circular 01/2010.

PSZs are based on an objective assessment of the risk to an individual on the ground in the vicinity of an airport from an aircraft accident over the course of a year. They comprise an outer

boundary which is the 1 in 100,000 risk contour and an inner zone, based on the 1 in 10,000 risk contour. Most existing developments within PSZs can remain there, but some types of new development are not permitted. To place the level of risk in context, the risk of fatality from all types of road accidents is about 1 in 16,800 each year<sup>1</sup> and the risk of being killed accidentally in the home from all causes is about 1 in 13,000 per year<sup>2</sup>.

Further information on PSZs and the DfT's policy is can be found in DfT Circular 01/2010, available on the DfT's website.

The Airport understands that the CAA has started to undertake a comprehensive review of PSZs at London City Airport and is expected to reach a conclusion by the end of 2010. However, work undertaken during the course of the planning application indicated that there existed a possibility that the PSZs could extend further than they exist today and if that were to happen, the potential value of undeveloped sites in the vicinity of the Airport could be adversely affected. The purpose of the VCS is to compensate for any adverse effect of this nature arising from the publication of the first revision of the PSZs which takes into account the planning permission granted on 9 July 2009.

To understand the VCS it is important to appreciate the full extent of the PSZs which were current at the Airport at the time of the planning permission being granted (9 July 2009). Those PSZs are shown on the attached plans. The VCS is intended only to compensate eligible sites outside the existing PSZs if they are affected by any revision of the PSZs by DfT.

#### **The Value Compensation Scheme**

#### **1 Eligible Sites**

The only sites which are eligible for the VCS are those sites which were undeveloped as at 9 July 2009 and over which any increased PSZ extends for the first time as a result of the Planning Permission. The physical extent of each site will be the land within the extension of the PSZ and any other adjoining land in which the same interest is held by the same owner at the time of the planning permission. This means that assembly of land after 9 July 2009 will be disregarded for the purposes of identifying the Eligible Site. (The potential of that site to form part of a larger, assembled development site may however be relevant to the valuation process as described below.)

Sites which were undeveloped will be deemed to include:

- Undeveloped sites without planning permission;
- Undeveloped sites with the benefit of planning permission that remained unimplemented (as at 9 July 2009);

 $1 \; \text{Reducing risks}, \, \text{protecting people}, \, \text{HSE's decision-making process}, \, \text{HSE}, \, 2001$ 

2 Working for a Safer World: 23rd Annual Report of the Home and Leisure Accident Surveillance System - 1999 data

- Sites with derelict or cleared buildings and structures (ie previously developed or "brownfield" land) without any lawful planning use;
- Sites with only temporary use or temporary buildings which are required as a matter of law to cease or to be removed at the end of a temporary period.

#### **2 Eligible Interests**

Any estate, right, or interest in an Eligible Site (as well as any charge over an Eligible Site), if in each case it existed on 9 July 2009, will be eligible for compensation under the VCS including:

- a freehold interest; and
- a leasehold interest.

#### **3 Eligible Claimants**

A claimant will only be considered for compensation under the VCS if:

- (a) on the date of publication of the revised PSZ he/she/it was the owner of an Eligible Interest in an Eligible Site and has either retained the Eligible Interest or in the event of the claimant having transferred that Eligible Interest, retained all rights to claim compensation under the VCS; or
- (b) he/she/it is a person to whom an Eligible Interest in an Eligible Site has been transferred and to whom the entitlement to claim (under the preceding paragraph (a)) has been assigned.

A claimant must be able to demonstrate eligibility in accordance with these criteria at the date of claim under the VCS and the date of payment of any compensation by the Airport. In both cases, however, a claim will not be accepted if a claim has already been made either by the same claimant or by any other claimant in respect of the same Eligible Interest and (a) the previous claim is still under consideration by the Airport or (b) compensation in relation to such claim has been accepted or paid or is the subject of an offer open to acceptance or (c) if such a claim was made under the VCS at any point in the preceding two years and compensation was offered by the Airport but not accepted by the claimant. The overriding principle is that the Airport will only pay compensation once in relation to each Eligible Interest.

#### **4 Scheme Start and Close**

Claims under the VCS cannot be made until the VCS is operational. The expectation is that this will be the later of 8 July 2010 and the date on which the first revision of the PSZs for the Airport is published taking into account the effects of the increased aircraft movements. However, this is subject to the time taken to secure approval of the VCS by Newham.

The VCS will close on 8 July 2019. This is the deadline for receipt of any claims. If a claim is received by the Airport after this date, then neither the Airport nor its related companies will be

obliged to consider the claim or to accept liability to pay compensation under the VCS.

#### **5** Publicity

The existence of the VCS (once adopted) and its closing date will be publicised by its inclusion in the annual performance report which the Airport is obliged to publish every year under the Section 106 Agreement and (within three months of the start of the VCS) through written notification of the owners of Eligible Interests in Eligible Sites, insofar as the Airport is able to identify them through Land Registry searches.

#### **6** Procedure

The claim will be made under the VCS by the delivery to the Legal Affairs Manager of London City Airport Limited at City Aviation House, Royal Docks, London E16 9PX of a written request for compensation which includes the following minimum information requirements:

- Name of claimant;
- Nature of interest held;
- When the interest was acquired;
- If the interest was acquired after publication of the revised PSZs, evidence of assignment of the entitlement to claim under the VCS in accordance with the above requirements
- Address of the site in which the interest is held; Plan showing the extent of the interest in the relevant site;
- Details of the estimated loss of value of the claimant's interest as a result of the expansion of the PSZs at the Airport due to the planning permission granted on 9 July 2009.

From receipt of the claim the Airport will use reasonable endeavours to adhere to the following procedures and timescales:

- within three months of receipt of the claim the Airport will notify the claimant whether or not the Airport considers the claimant, its interest and the site to be eligible for the VCS;
- if there is a dispute regarding eligibility, this will be resolved in accordance with the dispute resolution process indicated below and the determination of eligibility through that dispute resolution process will prevail;
- if the claimant, its interest and the relevant site are eligible under the VCS, the Airport will procure that a valuation of the relevant interest is undertaken within three months of notifying the claimant of his/her/its eligibility or eligibility being determined through the dispute resolution process. This valuation will be undertaken by an RICS (Royal Institution of Chartered Surveyors) qualified valuer, who will at the Airport's cost visit the site to undertake the valuation described below. If the valuer requires a survey to be undertaken before

arriving at a valuation, then the Airport will pay the costs of that survey as well;

- Within 30 days of receiving the final valuation report, the Airport will send a copy to the claimant together with its offer of compensation; any offer of compensation made by the Airport will be subject to the following terms and conditions: (a) the offer will be open for acceptance until the earlier of the following dates - the expiry of three months from the date of receipt of the offer by the claimant or the date on which the Airport makes a further offer of compensation following agreement between the parties on the amount of compensation as described below or the date on which a dispute concerning the amount of compensation is referred to an expert in accordance with the dispute resolution process referred to below; (b) the claimant agrees that the offer is in full and final settlement of any claim that the claimant may have (against the Airport or LBN or any other body) in respect of the diminution in value of an Eligible Interest which results from the extension of the PSZs due to the 2009 planning permission; (c) the claimant undertakes that (notwithstanding its acceptance of the offer in full and final settlement) in the event of receiving compensation under any other entitlement for the same loss of value (due to the extension of the PSZs), within 30 days of receiving such compensation to pay this compensation to the Airport, up to the value of any payment received from the Airport with interest calculated at the Bank of England base rate from the date of payment.
- The compensation payable and to be offered by the Airport under the VCS will be the difference between the value of the Eligible Interest assessed with and without the extended Public Safety Zones (in accordance with the valuation principles indicated below). If there is a dispute regarding the amount of compensation following the receipt of the Airport's offer, the claimant and the Airport will meet to discuss compensation and failing agreement between the parties, the dispute may be referred by either party in accordance with the dispute resolution process indicated below. The amount of compensation which is arrived at following that dispute resolution will prevail and within 30 days of the Airport receiving written notice of the compensation determined by the expert the Airport will make an offer to the claimant to pay that compensation on the terms and conditions referred to above (except that there will be no further provision for disputes regarding the amount of compensation).
- If an offer of compensation including its terms and conditions is accepted in writing by the claimant, payment will be made within three months of the date of receipt by the Airport of that written acceptance.

#### **7 Valuation Principles**

Valuations under the VCS will be conducted in accordance with the RICS' Valuation Standards (Red Book) but subject also to the following principles:

- Actions taken in order to enhance compensation potentially payable under the VCS (such as the creation of additional interests in land) will be disregarded.
- The VCS will be based on the difference in value of the eligible interest in the eligible site shown in two valuations. Both valuations will assess the market value of the interest as at the date of claim (unless an Eligible Claimant has transferred its Eligible Interest without assigning the entitlement to claim - see below) but the first valuation will assume that the Planning Permission had not been granted and that therefore the PSZ was not extended beyond its extent prior to the grant of the Planning Permission - all other valuation assumptions shall be the same and in addition, in the first valuation the valuer shall be entitled to assume that if the PSZ had not been extended other adjacent and nearby sites to the valuation site may have been developed at the time of valuation to the extent that this may affect the valuation of the site being valued.
- If an Eligible Claimant has transferred its Eligible Interest without assigning the entitlement to claim the date for the two valuations will be the date of transfer, not the claim; the second valuation (which takes into account the revised PSZ) will be the higher of the purchase price paid at the time of transfer and the valuation conducted under the VCS.
- In undertaking the VCS valuations, regard shall be had to the effect of the PSZ extension on the eligible site as a whole. In other words, any loss of potential development floor space caused by the PSZ extension across part of the site could have beneficial or adverse knock on effects within the remainder of the site and these should be taken into account in the valuations.
- The market value shall take account of all factors that may impact on a willing seller and a willing buyer in the open market at the date of claim. This includes the future development potential of the site and the desirability in valuation terms of implementing planning permissions extant on 9 July 2009.

#### 8 Aggregate Claim made before 8 July 2011

An aggregate claim is one which is made by the owners of all Eligible Interests in one Eligible Site. Until 8 July 2011, the Airport will consider an aggregate claim in respect of any Eligible Site from all Eligible Claimants in respect of all Eligible Interests provided that those claimants jointly agree and request a capital sum from the Airport which will represent the sum of the payments which would otherwise be due under the VCS in respect of all such interests. Whether or not the Airport pays compensation pursuant to an aggregate claim of this nature will be in its absolute discretion and the amount of compensation will be subject to the prior approval of Newham. If an aggregate claim is not accepted or withdrawn (by one or more claimants) before payment is made, then the relevant Eligible Claimants will be entitled to claim individually.

#### 9 Claimant's Costs

In the event that a claim is made under the VCS which results in compensation being paid in respect of that claim which is at least 50% of the amount claimed, the Airport will cover all of the claimant's reasonable and proper legal and valuation costs incurred in making the claim and in entering into any agreement to record the compensation payable.

#### **10 Interest**

Interest will be payable on compensation calculated at the Bank of England base rate from time to time from the date of claim until date of payment.

#### **11 Dispute Resolution**

In the event of a dispute under the VCS the matter in dispute will on the application of either the Airport or the claimant be referred to a person acting as expert (the "Expert") being a person with not less than 10 years' recent and relevant experience of the matter in dispute whose identity will be agreed between the Airport and the claimant or in the absence of agreement appointed by or on behalf of the President for the time being of the Royal Institution of Chartered Surveyors on the application of either party.

The resolution of the dispute will be on the following terms:

- (a) the determination will be final and binding on the parties except where the Expert has made a manifest error:
- (b) the parties will be entitled to make representations and counter-representations in accordance with such timetable as the Expert directs; and
- (c) the Expert's costs will be borne in such proportions as he or she may direct failing which each party will bear its own costs of the reference and determination and one half each of the Expert's costs.














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