

Introduction

London City Airport Limited (the Applicant) is applying for permission from the London Borough of Newham to vary conditions attached to the planning permission, first granted in 1985 and varied subsequently as the Airport has grown over the past 20 years. This is in order that the Airport can continue to develop in a managed way over the next few years, ensuring that the environmental impacts of its operations remain within acceptable limits.

This document is a Non-Technical Summary of the Environmental Statement submitted with the planning application (the Application). It has been further updated (in both December 2007 and April 2008) to incorporate a summary of additional information submitted to the Council to supplement the original Environmental Statement (ES). It is intended to be understood by professional and laypersons alike, so that they can gain an understanding of the main components of the Proposals in the Application and the likely significance of environmental effects which would occur were permission to be granted. The Environmental Statement was prepared following the completion of an Environmental Impact Assessment (EIA) by RPS and other expert consultants, on behalf of the Applicant.

The Council requested further information on 20 November 2007 following its consideration and consultation on the planning application and ES. This request was issued in accordance with Regulation 19 of the EIA Regulations 1999, which requires that further information should be publicised and consulted upon in the same manner as the original ES. The points raised in the Council's first Regulation 19 letter related mainly to matters of clarification on the original assessment work as well as requesting further data and figures on noise, air quality and transportation effects. This information has now been provided in full in a document entitled the 'Environmental Statement Addendum' (ES Addendum). This is referred to as the First ES Addendum in the text below.

A second Regulation 19 request for further information was issued by the Council on 7

March 2008. This asked the Applicant to provide additional information in relation to the projected changes to the Public Safety Zones (PSZs) to accommodate the proposed increase in aircraft movements, and any consequent effects on the development potential of neighbouring sites, including a full assessment of the economic implications of the projected PSZs on the regional and national economy. In addition, the Council requested an assessment of the implications ('cumulative effects') of future noise levels arising from the expansion of the Airport on the development of three Opportunity Areas identified in the London Plan (Consolidated with Amendments since 2004), as well as the three spatial options for the future development of Newham identified in the Council's "Core Strategy - Issues and Options" (February 2008). Finally, clarification was also sought regarding proposals for waste management at the Airport. This information has been provided in full in a document entitled the 'Environmental Statement Second Addendum' (hereafter referred to as the Second ES Addendum).

The additional text provided in this Non-Technical Summary (shown in blue and green) provides an overview of the further information included in the First and Second ES Addendums respectively. Any necessary editorial changes to the original text, as a consequence of recent policy changes or announcements, or changes to correct a number of minor inaccuracies in the original version are shown as being scored through with replacement text in blue and green.

This Application falls under section 73 of the Town and Country Planning Act 1990 (as amended) and, if granted, the variation of conditions will facilitate the projected growth of the Airport to around 2010. By this time, there are expected to be 120,000 aircraft movements per year accommodating some 3.9 million passengers, the majority of whom will be travelling for business reasons in line with the Airport's existing customer profile. The growth of the Airport will also continue to serve the travel, employment and other community-based needs of local residents and workers within Newham and neighbouring Boroughs.

With consent, the expansion in the Airport's business over the next three years is estimated to generate around 960 additional direct, indirect and induced jobs and an additional income of some £39 million per year into the local economy. Taking account of the projected PSZs (which may be overestimated), the net effect of the proposal is an increase of 481 full time equivalent (FTE) jobs and the net additional income would be £26 million per annum to the local economy. This alternative assessment of net employment and income assumes that the development aspirations at four sites in proximity to the Airport would be curtailed to some degree by the potential change to the PSZs. However, this outcome, in terms of theoretical 'foregone' or 'displaced' jobs, does not take account of the uncertainty over whether such developments would ultimately obtain planning permission, nor that existing jobs might be displaced or lost from these four sites. The criteria applied to this revised assessment are explained below together with an explanation of why the projected PSZs are likely to overestimate risk.

There are also forecast to be substantial, less readily quantifiable, benefits to the local and wider London economy. These beneficial effects need to be balanced against some predicted increases in noise close to the Airport (both airborne and on the ground), changes to traffic on local roads, and other local effects which are a consequence of the general intensification of activity at the Airport.

The potential impact of the proposals on the regeneration potential of permitted and allocated sites in and around the Royal Docks area has also been considered and a separate Regeneration Statement prepared and appended to the Environmental Statement. This has been supplemented by a more detailed economic evaluation of any effects that the projected PSZs might have on neighbouring sites, including both those with planning consents to develop and those without.

The growth aspirations of London City Airport are in accordance with national policy as expressed in the Government's

Air Transport White Paper and its more recent Progress Report, whereby airports are urged to make maximum use of their existing runways and infrastructure in order to accommodate future demand without the need to build new runways. In October 2007, the Department for Transport published, "Towards a Sustainable Transport System - Supporting Growth in a Low Carbon World". This document reaffirms the Government's approach to aviation, that is, to make the most of existing airports through a process of improvement and modernisation, including making more use of existing runways and building extra terminal capacity (paragraph 3.40). The paper also emphasises that the UK is taking a strong lead in promoting the inclusion of aviation in the European Union Emissions Trading Scheme (EU ETS), which would ensure that any growth in emissions would have to be matched by a corresponding reduction from elsewhere within the trading scheme (i.e. other industries). The longer-term aspirations of the Airport are for it to continue to develop, in a phased manner, up until 2030 as set out in a Master Plan that was published for consultation in March 2006, and finalised in November 2006.

This 'Interim Application' as it has been termed, is intended to allow for an initial phase of growth in aircraft movements and involves no new built infrastructure beyond that already existing or approved. The Application is in accordance with, although not dependent upon, the Master Plan proposals. The future, long term physical growth of London City Airport will be the subject of separate planning applications accompanied by environmental and other assessments, so that the planning authorities can judge those proposals on their own merits.

Nature of the Interim Application

The Applicant proposes to increase the number of overall aircraft movements from approximately 80,000 (scheduled and general aviation flights) to 120,000 by 2010, an increase of some 50% on the 2006 level of activity. However, most of these new flights are likely to be concentrated in the existing morning and

late afternoon peak periods, rather than creating a significant increase in activity throughout the day. In this respect, the pattern of movements will remain much as today.

The existing limits allow for 73,000 Air Transport Movements (ATMs) per year, as defined by the existing planning permission, plus an unregulated number of general aviation movements, mostly comprising corporate jets from the corporate aviation building (known as the "Jet Centre"). The commercial airline and corporate aviation businesses have grown progressively over the past four years (See Figure 1). Corporate aviation refers to the ownership and operation of aircraft by individuals and companies in conducting their business and therefore not for public hire.

In 2006, there were approximately 13,700 aircraft movements from the Jet Centre, 62% of which were not classified under the ATM definition. The new limit of 120,000 per year will therefore bring all aircraft under a single total movement cap.

The Application also proposes to vary other planning restrictions including a related increase in the number of daily and weekly movements, and on bank holidays and other occasions. However, the hours of operation will not change, such that the 24 hour 'no-flight' period at weekends will be preserved and flights will not be allowed after 10.30pm or before 6.30am

on other days, barring exceptional circumstances.

The Airport is also presently subject to a planning condition that limits the number of 'noise-factored' movements to 73,000 per year. This system works on the basis of allocating each aircraft type a 'noise factor' of A, B, C, D or E depending on its departure noise profile. So, for example, an A-rated aircraft counts as 1.26 movements whereas a B-rated aircraft counts as 0.63 movements. Further clarification of this noise categorisation system and how it would continue to apply to future aircraft wishing to use the Airport has been provided in the First ES Addendum.

Because of the type of aircraft that used the Airport when the system was first introduced (including a much greater proportion of smaller turbo-prop aircraft which are quieter on take-off but noisier on arrival), the annual noise-factored total tended to be lower than the ATM value.

However, this ratio has changed in recent years and in 2006 there were approximately 71,000 ATMs and 72,200 noise-factored movements, reflecting the increasing numbers of modern turbo-fan/regional jets using the Airport. To accommodate this trend, a new limit of 135,000 noise-factored movements per year is being sought as part of the application.

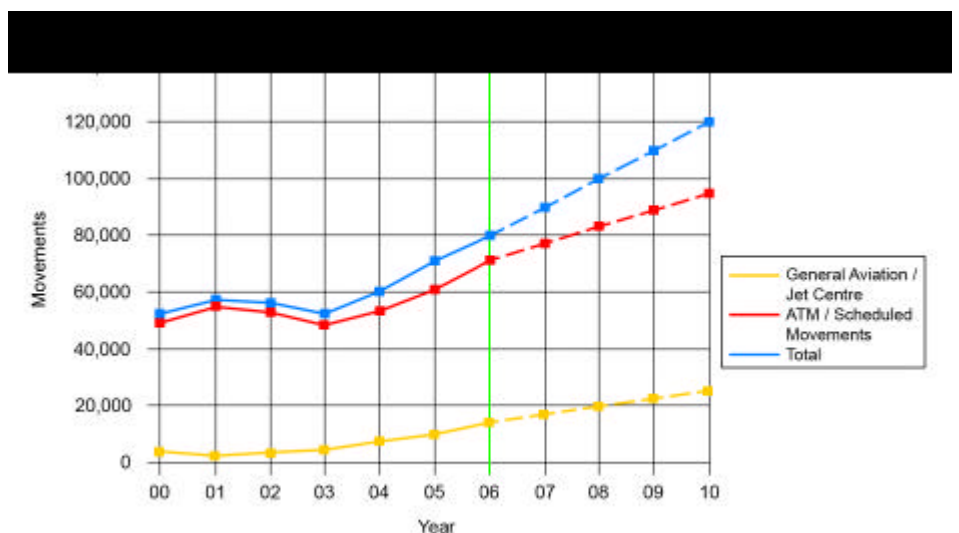


Figure 1: Growth of London City Airport 2000-2010

Environmental Impact Assessment (EIA)

To identify the likely environmental effects of the proposals and to determine, where appropriate, the ways of avoiding, reducing, compensating or enhancing such effects (collectively known as 'mitigation measures'), an EIA study has been completed. A comprehensive Environmental Statement has been prepared which reports on the results of this process, in accordance with the Town and Country Planning (Environmental Impacts Assessment) (England and Wales) Regulations 1999. [The First and Second ES Addendums provides further information in order to clarify and expand upon the assessment findings, as well as identify. It also proposes additional mitigation measures and enhancements to current environmental controls, that the Airport is committed to introduce in conjunction with this application.](#)

The EIA considered both adverse and beneficial effects of the proposals, considering a range of topics such as: surface transport and access; noise from airborne, ground and traffic sources; air quality effects; socio-economics; and waste.

Certain topics, which are commonly considered in EIA studies of development applications, were deemed not to be relevant in this instance, principally because the Application does not include any building or physical works to the Airport. Also, because the Application relates to a continuation of existing operations at the Airport, albeit with an increase in the intensity of activity, many of the environmental and other management controls in place at the Airport already provide mitigation and so do not need to be re-examined. The effectiveness of such existing controls is borne-out by the good relationship the Airport has with the local community and regulatory authorities and the consistently low number of complaints received. The proposed coverage of the Environmental Statement was set out in a Scoping Report submitted to the London Borough of Newham in April 2007. A draft Scoping Opinion was then issued by LBN on 21

June 2007. This 'opinion' has been taken into account in the final preparation of the Environmental Statement and in other reports submitted with the Application, namely:

- Sustainability Appraisal and Carbon Analysis Report ([further updated to include an executive summary and additional information on energy, water, waste and other sustainability issues](#))
- Planning Statement
- Regeneration Statement (appended to the Environmental Statement)
- Health Impact Assessment

In addition to the [First ES Addendum](#), other documents ~~have now been~~ were prepared by the Applicant and its advisors to respond to a number of further (non-EIA) matters that ~~have been~~ were raised on the Interim Application by the Council, statutory consultation bodies, the public and other interested Third Parties. These include:

- [Design and Access Statement \(DAS\)](#) - although the Application does not include any operational development, a DAS has been prepared by RPS.
- [Policy and Operational Supplement](#) - prepared by RPS to address the remaining matters raised by the Council in its [first regulation 19 letter](#), and by consultees, with regards to flight paths, airspace capacity and reorganisation, general and business aviation, the impact of the proposals on other airports in the South East, carbon dioxide emissions, incremental development and the Olympics.

These documents can be viewed at the London Borough of Newham Council Offices, together with the full Environmental Statement [or on the Council's website: <http://newham.gov.uk>](#)

The following issues were not considered relevant to the EIA, or to the above additional studies:

- Townscape and Visual Effects
- Archaeology and Cultural Heritage
- Ecology and Nature Conservation

- Flood Risk, Water Quality and Ground Conditions
- Microclimate (Wind and Daylight/Sunlight)
- Vibration

Therefore, the above issues have been scoped-out of the EIA and an account is given of the rationale for their exclusion in a chapter of the Environmental Statement entitled "Non-significant Issues". The issues of energy and carbon dioxide emissions, whilst not considered to be *significant effects* in the context of the Application and the EIA Regulations, are nonetheless considered in detail in the Sustainability Appraisal and Carbon Analysis Report - the Airport shares the view of the Council that these are important concerns and is committed to developing a Carbon Management Strategy that will seek to manage greenhouse gas emissions that can be directly and indirectly influenced by ~~the Airport~~ it.

As part of the pre-planning consultation undertaken by the Applicant, meetings were held with various organisations including the LB Newham, Transport for London, the Government Office for London and other bodies. LB Newham also consulted various statutory authorities such as the Environment Agency, Natural England, London Thames Gateway Development Corporation, and the neighbouring boroughs of Greenwich and Tower Hamlets with regards to the proposed scope of the EIA. Their responses are included and addressed in the Environmental Statement. [Additional consultations by the Airport, Newham Council and the neighbouring Boroughs have been ongoing since the Application was submitted in August 2007. Many of the queries and issues raised during the consultation period to-date were incorporated into the Council's Regulation 19 letter, and thereby are answered within the First and Second ES Addendums. These and other representations will be considered in the Council's determination of the application.](#)

The Site

London City Airport is located in the Royal Docks, between King George V Dock to the south and Albert Dock to the north. The Airport is approximately 9.5km (6 miles) east of the City of London, approximately 3.2 km (2 miles) east of Canary Wharf and approximately 800m (1/2 mile) from the ExCeL Exhibition and Conference Centre. The site is 48.5 hectares in size and includes a single runway, the 'apron' area (where aircraft park to embark and disembark passengers), a main passenger terminal, the Jet Centre, and other operational buildings. The runway is surrounded by the water of the Royal Albert Dock and the King George V Dock. See Figure 2 below.

In 2005, the Airport was connected to London's public transport rail system via a dedicated Docklands Light Railway (DLR) station which links directly into the Airport's main passenger terminal.

The Airport is also easily accessible by road, being located 1.6km (1 mile) from the A13, 4.8km (3 miles) from the North Circular (A406) and 24.1km (15 miles) from the M25. The Docklands Highway network links the Airport to Canary Wharf, Tower Hill and the centre of London. This transport network is illustrated in Figure 3.

Current Operations

London City Airport serves a primarily business travel market, providing services to both domestic and European destinations. The Airport has grown progressively since its opening in 1987 and 12 airlines now operate services to over 30 destinations, catering for approximately 2.38 million passengers per annum (mppa) in 2006.

The Airport, due to its unique location, is a popular airport for European and domestic business travellers because of its ease of access, particularly to the City and Canary Wharf, and simplicity of use; being fast, efficient and friendly. The Airport's main passenger terminal provides facilities for scheduled airline services, whilst the Jet Centre provides a dedicated service for corporate aviation passengers.

The Applicant is committed to improving its already good environmental record and ensuring that the future growth of the Airport is delivered in a sustainable manner. A variety of measures to manage, minimise and report on

the environmental impact of its operations already exist at the Airport as listed in the box opposite below: Additional measures, both new and existing, have been added to this table.

- Maintaining restrictions on flights outside the daytime period and for an uninterrupted 24 hour period at weekends.
- Operation of a Noise Monitoring and Flight Track Keeping System.
- Maintaining a steeper glide slope approach (5.5 degrees) for all aircraft.
- Minimising aircraft idle and taxiing times in conjunction with National Air Traffic Services (NATS).
- Continuous monitoring of air quality within the Airport site and the placement of air quality monitoring 'nitrogen dioxide diffusion tubes' at key locations around the Airport, including residential areas.
- The results of this monitoring programme are reported to the Council on a quarterly basis, and in the future will be published in an annual report made available to the public.
- Using electric vehicles and Fixed Electrical Ground Power (FEGP), thereby minimising the use of on-board Auxiliary Power Units (APUs).
- Encouraging aircraft operators to adopt quiet operating practices and to observe published noise abatement procedures.
- Maintaining a Sound Insulation Grant Scheme using a stringent eligibility criterion of 57 dB Laeq 16h - a lower limit than at any other UK airport and in the future improving the scheme further by considering as a condition of the planning permission, introduce a two tier scheme to further protect those most affected by noise.
- Implementation of an enhanced waste recycling scheme Waste Management Plan (with the objective of recycling 10% waste by the end of 2007 and a further 10% in 2008 and ongoing targets thereafter), to be incorporated into a formal Environmental Management System (EMS) to be finalised in 2008. This will follow the principles of the 'Waste Hierarchy' with efforts focussed firstly on preventing and reducing waste at source, then options to reuse and recycle waste, rather than it going to landfill.
- Various water conservation measures including water-less urinals and sensor-driven taps systems, both airside and landside, to include annual targets be incorporated into the EMS.
- A noise and environmental impact complaint handling system.
- Maintaining an Airport Consultative Committee.
- Various local training, education, recruitment/ job placements, community and charitable initiatives run by the Airport.
- Preparation and distribution of a Community & Environment Report (2007) regularly.
- To properly implement a 'penalties and credits' system to reward or penalise airline operators dependent on their level of performance against the Airport's Standard Operating Procedures.
- To introduce an enhanced environmental noise reporting system, including periodic community environmental reports.
- Upgrading/extending the height of the existing 4m high blast barrier to the west of the existing terminal pier, to further reduce ground noise effects of aircraft on Stands 12 to 14 on locations close to the Airport apron, and in particular existing residences at Camel Road.
- To pilot an innovative monitoring programme to measure odours within and around the Airport, and if successful to implement such monitoring on a routine basis.

Interim Application - The Proposals
Context to the Application

In 2003, the Government published its Air Transport White Paper (ATWP) - 'The Future of Air Transport'. The White Paper sets out a strategic framework for the development of airport capacity in the UK over the next 25 years to 2030. The ATWP clarifies the need for new runway capacity in South East England and urges airports to make maximum use of existing runway capacity. These Government objectives were reiterated most recently in the ATWP Progress Report of December 2006 drafted after taking full account of the Stern Report, and in its more recent consultation paper "Towards a Sustainable Transport System". The latter document draws upon Sir Rod Eddington's Transport Study (December 2006) that confirmed the vital link between transport, including air transport, and the economy.

In 2003, London City Airport Limited obtained planning consent for various 'operational improvements' including the construction of a runway hold (now built), an eastern apron extension for new aircraft stands (currently under construction), and an 8,750 sq m floor area extension to the Airport terminal building. The new stands are due to be completed in the next twelve months with the terminal building extension to follow.

In 2006, London City Airport handled 2.38 million passengers per annum (mppa). London City Airport Limited has determined that, without replacing the existing movement limits, the further growth of the Airport will effectively be checked and the Airport will be unable to handle more than 2.5 mppa by 2010. Even accounting for the possibility of off-setting some development potential of four sites that fall partially within the projected PSZs, the consequence of this 'without consent' scenario would be £30 £26 million less income to the area and 960 481 fewer full time equivalent (FTE) jobs compared to the Proposals in the Application, and the displacement of passengers (and possibly airline operators) to other airports. This displacement of passengers and business would have secondary impacts in terms of increased journey times, less sustainable surface travel patterns and the possibility that new companies would be discouraged from locating in the Royals and other regeneration

areas, as well as Canary Wharf and the City. The Applicant has forecast that if planning permission were to be granted to increase the overall number of aircraft movements to 120,000, the Airport will be able to accommodate approximately 3.9 mppa by 2010. The environmental and socio-economic effects of this growth, measured for the 2010 'principal assessment year' and compared to the 'without consent' (or 'Base Case') scenario, have been reported in the Environmental Statement and are summarised Table 1.



Figure 2: Current Site Configuration/ Land Uses



Figure 3: Transport Network

Baseline Conditions and Assessment Scenarios

2006 'Current Situation'

The 2006 calendar year has been adopted as the 'Current Situation' as this provides a validated set of data for aircraft movements and passenger throughput over a 12 month period, as shown in Table 1.

Scheduled Movements	GA/Jet Centre	Total Movements	Classified Air Transport Movements (ATMs)	Noise Factored Movements	Total Passengers (Pax)
65,860	13,756**	79,616	71,016	72,247	2,377,318

Table 1: Summary of Aircraft Movements During 2006*

*Please note that in the ES these figures may be rounded up for ease of interpretation.

**5156 (or 38%) of these movements were designated ATMs

2010 'Base Case' (Without Consent)

The 2010 Base Case (Without Consent) has been used to demonstrate the predicted growth of the Airport in the event that the Interim Application is not ~~agreed~~ approved.

It is projected that the current limit of 73,000 noise factored movements and/or the equivalent ATM limit would be reached by the end of 2007 or early 2008. Only a very small increase (approximately 5%) in passenger numbers is expected by 2010 within the constraints of the current planning conditions. Further, limited enhancements would only be possible through improving scheduling efficiency and increasing the 'load factor' on aircraft, but the Airport itself cannot directly dictate either of these improvements.

ATMS/ Scheduled Movements	GA/Jet Centre**	Total Movements	Classified Air Transport Movements (ATMs)	Noise Factored Movements	Average Load factor (%)	Total Passengers (Pax)
66,000	14,000	80,000	71,000	73,000	58%	2,500,000*

Table 2 - Summary of Aircraft Movements in 2010 (Without Consent)

*assumes 1.6 Pax per GA movement = 20,800

**includes approximately 40% classified as ATMs.

The 2010 Base Case (Without Consent) is summarised in Table 2.

2010 Scheme (With Consent)

The 2010 Scheme (With Consent) has been used to demonstrate the predicted growth of the Airport by the year 2010 on the basis that all the proposed variations to the existing planning conditions are granted.

Elevating the limit of aircraft movements to 120,000 would accommodate the continued growth and allow the Airport to handle approximately 3.9 mppa by the year 2010. This 120,000 total movements would be likely to comprise of the order of 95,000 scheduled airline movements and 25,000 Jet Centre movements - this fleet mix forms the 'Primary Assessment Case' in the EIA.

Scheduled Movements	GA/Jet Centre	Total Movements	Noise Factored Movements	Average Load factor (%)	Total Passengers (Pax)
95,000	25,000	120,000	135,000	55%	3,900,000

Table 3 - Summary of Aircraft Movements in 2010 'With Consent'

The 2010 (With Consent) assessment case is summarised in Table 3.

Sensitivity Testing

Although the Primary Assessment Case outlined above gives the most likely mix of aircraft by 2010, the total cap of 120,000 allows for different outcomes. In other words, the business demand from either the commercial airlines or the Jet Centre could exceed expectations. The EIA has therefore considered two further scenarios within a range that might be considered plausible, although unlikely. These are presented as 'sensitivity tests' in order to determine whether the impacts associated with such scenarios would be materially different from the Primary Assessment Case of 95,000 scheduled movements with 25,000 GA/ Jet Centre movements.

The two additional 2010 (With Consent) scenarios are as follows:

- 85,000 scheduled airline movements and 35,000 GA/Jet Centre movements, delivering approximately 3.5mppa; and
- 105,000 scheduled airline movements and 15,000 GA/Jet Centre movements, delivering approximately 4.3mppa.

The ES concludes that the environmental effects of these two scenarios would not be significantly different from the Primary Assessment Case.

The following sections provide a summary of the EIA findings for the main assessment topics and includes additional findings from the further work reported in the [First and Second ES Addendums](#).

Surface Transport and Access

The ES has considered the potential effects of the proposed increase in aircraft movements, and the corresponding increase in passenger numbers travelling to and from the Airport, on the surface transport system to the year 2010. The Proposals have also been assessed against relevant national, regional and local transport policies. It was concluded that the proposal



London City Airport DLR

meets the transport objectives of relevant policies in terms of accessibility, transport effects, sustainability measures and design.

London City Airport is currently accessible by all modes of transport, and in particular, by public transport modes. Approximately 65-79% of the passengers arriving and departing from the Airport travel via the DLR, taxis and buses, whilst the remaining passengers use private, rented and chauffeur-driven vehicles. The Surface Transport and Access assessment has evaluated the increase in passengers travelling to and from the Airport in 2010, and has determined the likely impacts of this increase on all modes of surface transport, in both the 'with' and 'without' consent scenarios.

The assessment highlights that the current capacity of the DLR to accommodate the predicted increase in passenger numbers is sufficient and would equate to ~~is~~ less than a 6% increase of the capacity of a 2 car train based on the existing service frequency of 8 trains per hour. This increase in passengers would not change the character or performance of the current services. ~~in total DLR passenger numbers. Furthermore, the extension of the DLR to Woolwich Arsenal by 2009 will provide additional capacity and improve access to the Airport, particularly for passengers travelling from the south-east.~~

It has been demonstrated that the Interim Application proposals do not require or rely on a three-car service operating on the DLR. The Transport Assessment forecasts an additional demand for travel on the DLR to be 15 people per train (8 per carriage) in the morning peak period as a result of the uplift in passengers passing through the Airport. This will not noticeably change the experience of travelling by the DLR and will not result in any significant change in convenience for passengers.

Furthermore, the extension of the DLR to Woolwich Arsenal by 2009 will provide additional capacity by increasing the number of trains from the present level of 8 trains per hour to 15 per hour and this extension will improve access to the Airport, particularly for passengers travelling from the south-east. This may increase the proportion of passengers using the DLR, from 44% at present to up to 60%. The ES Addendum reports on the findings of a 'sensitivity test'

applying an uplift of 20% more aircraft passengers departing and arriving at the Airport in the morning peak, with 60% using the DLR. In this scenario, there will be an average of 10 additional person trips per train, with the 15 trains an hour service. Such an increased patronage will again make no noticeable difference to the performance or convenience of the DLR.

Under the application proposals, the peak period taxi usage will remain high, encouraged by a proposed 'Taxi Share' scheme to increase taxi occupancy and efficiency, to be introduced at the Airport as part of its Travel Plan. The proportion of passengers using private cars will reduce, but from an already low base.

The Proposal has also been assessed in terms of its impact on road traffic, although no extra car parking is required or proposed. It was found that the Proposals are likely to have only a minor impact on the local road network as additional traffic resulting from the increased passengers travelling to and from the Airport is predicted to be generally less than 5% on all roads serving the Airport.

The two closest road junctions to the Airport were also tested using standard computer modelling programs and both were found to have spare capacity. No significant queues or delays were predicted to arise from the Proposals, and the impacts here can therefore be considered negligible. As no built works or changes to existing facilities are required to accommodate the increase in aircraft movements, there will be no effects from construction vehicles on the local road network as a result of the Proposals.

A study of the potential increase in service vehicles at the Airport has shown that there will be an insignificant change in such vehicles, either on the wider highway network or within the Airport site itself.

The Applicant proposes to implement an update to its Travel Plan (a further draft of which has been discussed and agreed in principle with the Officers of the Council and is included and appendix to the [First ES Addendum](#)). ~~is included in the ES) building upon its~~ The Travel Plan builds on the Airport's surface Access Strategy of 2005, with the objective of increasing the proportion of staff

and passengers using non single occupancy private car transport, using public transport and improving the efficiency of all travel. Specific measures to achieve this aim include the introduction of a 'car share' scheme for employees and a managed 'taxi share' scheme.

Air, Ground and Road Traffic Noise

The ES has considered the likely effects of air noise, ground noise and road traffic noise as a result of the proposed increase in aircraft movements.

Air Noise

'Air noise' generally refers to the noise produced by aircraft that are either airborne or on the runway during take-off or after landing. The impact of air noise has been assessed using noise contours which represent levels of noise exposure radiating outwards from the Airport, expressed as dB LAeq,T values. This measure is an index of aircraft noise exposure and refers to equivalent continuous sound pressure level. It averages noise impacts and the frequency of flights to present an overall picture of airport noise over the day. A set of further noise contours has been prepared showing different modes of operation of the Airport (all day westerly and easterly single modes). The air noise modelling input data and assumptions have been clarified and the noise contours representing the 'average mode' have been reproduced on a faded background for greater clarity.

The assessment has been carried out having regard to relevant national, regional and local noise policies, particularly Planning Policy Guidance 24: Planning and Noise (PPG 24). PPG24 defines four Noise Exposure Categories (NEC) that range from A to D and indicate to what extent noise should be considered in the granting of planning permission for new residential developments. This guidance is equally useful in assessing changes in the noise environment on existing housing, as is the case in this instance. A further assessment has been undertaken of the influence of air noise on three Opportunity Areas identified in the London Plan as well as the three spatial options identified in the "Council's Draft Core Strategy - Issues and Options

Report". This has demonstrated that the increase in air noise would not preclude or inhibit development in any of these areas. This is discussed further below (see Cumulative Effects section).

The guidance contained in PPG 24 suggests that daytime air noise should be taken into account when it exceeds 57 dB LAeq,16h, which is regarded as the onset of significant community annoyance. As such, air noise impacts have been assessed by identifying the relative changes to the area, and associated population numbers, within this lower contour (i.e. 57dB LAeq 16h). These population counts have been further clarified by including future developments around the Airport, as well as assessing the population numbers within different contours under single modes of operation and with different aircraft mixes (for the two 'sensitivity tests' referred to above). In addition, air noise impacts have been considered in terms of the 'perceptibility' and significance of changes in air noise exposure around the Airport. In line with guidance provided in PPG 24 states that a change of 1 to 3 dB(A) is considered the minimum perceptible noise level under normal conditions.

The assessment identified that with the Proposals, noise contours would increase in area by approximately 50%. The number of residential dwellings within the 57 dB contour would increase from approximately 3,300 in 2006 to 6,600 (11,300 with proposed developments) in 2010. Dwelling numbers within the 63 dB contour are predicted to increase from approximately 400 to 700 (or 3,100 with proposed developments). This is the level that most airports start their noise insulation schemes. Taking account of both existing and proposed developments around LCY, the number of residential dwellings within the 57 dB and the 63 dB contours in 2010 with the Proposals, as compared to without the Proposals, increases by around 50%. No dwellings become exposed to noise levels of 69 dB or more under the Proposals. The assessment concluded that overall, the increase in noise would be between 1 dB and just under 3 dB. The impact of this change is considered to be minor, although a greater number of people will fall within the 57 dB LAeq,16h contour, the noise level regarded as the onset of significant community annoyance.

The Environmental Statement followed current Government guidance in adopting the noise contour band of 57 dB LAeq,16h as the threshold for the onset of significant community annoyance. However, as requested by LB Newham, the results of the recent ANASE study and the relevance of this study to the Airport has been considered. The ANASE study suggests that the onset of community annoyance is occurring at lower levels of exposure to aircraft noise (just over 50 dB LAeq,16h). It was concluded that the change in noise level expected as a result of the Application, even when assessed under ANASE, is unlikely to give rise to any significant impact.

Further information has been included in the First ES Addendum regarding the number of hourly departures and arrivals at the Airport, and the corresponding hourly noise levels, together with the calculation of 'single event levels' of noise for both average and single mode operations. This additional data includes predictions of noise levels at a selection of receptor locations, including those identified in the ES and others requested by the Council in its first Regulation 19 letter.

Taking the current situation, it can be seen that, in general terms, worst case hourly ground noise levels are between 3 dB to 5 dB higher than the average mode values. In the future however, little change is expected in the worst hour values over now. This is because the worst case hourly throughput of traffic is not expected to increase markedly over what occurs now, instead the overall daily throughput will increase.

To mitigate these impacts, London City Airport Limited will continue to implement its Sound Insulation Grant Scheme (SIGS) and provide treatment to dwellings that fall within the 57 dB LAeq,16h noise contour, such that internal noise levels are reduced by not less than 25 dB. The SIGS scheme will be further improved and consideration given to the adoption of a two-tier scheme will be introduced, whereby residents most affected by noise from the Airport would be offered sound insulation treatment of a higher performance to that currently offered.



Aircraft taxiing at London City Airport

Ground Noise

Ground noise encompasses the noise produced during the ground operations of aircraft at the Airport, such as taxiing, manoeuvring and running engines. Ground noise generation at the Airport is heard in the context of off-airport ambient noise sources, such as road traffic, industrial activities and the DLR.

The proposed increase in aircraft movements will have a corresponding increase in airside activity on the ground. A detailed ground noise assessment was therefore undertaken to assess this effect. [The modelling methodology for this assessment has been clarified in the First ES Addendum. In addition, 'worst hour' single mode noise data predictions are provided for a range of sensitive receptor locations.](#)

At present, residential dwellings surrounding the Airport are well protected from any significant effects of ground noise by a barrier formed by the Airport terminal and pier structure as well as the DLR. Blast screens, recently erected between the western end of the pier and the Jet Centre, also assist in reducing the effects of ground noise on surrounding dwellings.

The noise assessment found that the increase in ground operations of aircraft at the Airport would result in slight increases in ground noise for [most](#) locations in close proximity to the Airport. The impact of these changes is predicted to be [negligible or minor at worst](#) and, for residential dwellings, ground noise levels will [generally](#) remain within recommended noise criteria. As is the case currently, ground noise levels along the northern edge of the Royal Albert Dock will continue to be relatively high in view of its close proximity to the Airport and the absence of any dedicated noise barriers. Noise levels at these locations will be acceptable both for existing dwellings and for future residential development, subject to suitable mitigation.

Road Traffic Noise

The Proposals will affect existing road traffic noise conditions on local roads as a result of a greater number of staff and passengers travelling to and from the Airport, as well as a general intensification of service vehicle traffic.

A detailed assessment of this noise source has been undertaken, having given consideration to PPG 24 guidance regarding daytime road traffic noise and using conventional noise modelling techniques. [In addition, road traffic noise has been predicted at a variety of residential and other sensitive receptors and hourly road traffic data along Royal Albert Way has also been included in the First ES Addendum.](#)

No road alterations are required as part of the Proposals and, therefore, it is considered that any changes in road traffic noise would only occur as a result of changes to the vehicle flows along the existing local road network.

The assessment concluded that, given the relatively low levels of additional traffic likely to be attracted to the road network as a result of the Proposals (see Surface Transport and Access section above), the commensurate increase in road traffic noise levels would be very small (less than 1 dB), which represents a negligible impact. [This has been reconfirmed by the additional work referred to above.](#)

Air Quality

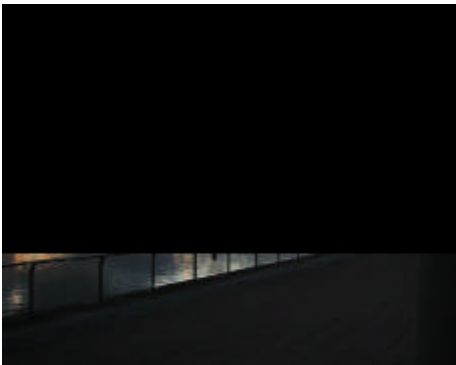
The Environmental Statement has considered the potential air quality effects on the environment as a result of the proposed increase in overall aircraft movements. These effects have also been considered having regard to relevant national, regional and local planning policies, in particular, the Government's Air Quality Strategy (AQS) planning Policy Statement 23: Planning and Pollution Control (PPS 23).

London City Airport lies outside of, but adjacent to, an Air Quality Management Area (AQMA) that has been designated by the London Borough of Newham. Developments within AQMAs require particular attention to be paid to any potential air quality impacts.

The assessment focused on two pollutants with respect to potential human health effects, namely nitrogen dioxide (NO₂) and fine particles (PM₁₀), as these pollutants are of the greatest concern. Consideration was also given to the potential effects of odour nuisance.



Air Quality Monitoring Equipment at London City Airport



Nitrogen dioxide diffusion tube

The assessment found that the Proposals would increase oxides of nitrogen (NO_x) and PM₁₀ pollutant emissions by a small amount, both from increased road traffic flows on the local road network and due to a general intensification of airside operations. These two sources are considered below:

Emissions from Airport Operations

Emissions of NO_x and PM₁₀ pollutants may arise from a number of airport sources including:

- Aircraft on stand, taxiing to and from the runway, and during takeoff and landing;
- Airside vehicle movements e.g. baggage handling and catering; and
- Stationary sources e.g. boiler plant

The potential impacts of airport sources are related to the scale of operations defined in terms of annual passenger throughput. The Airport's operational capacity with the proposals will remain below 5 mppa, the figure set by the Government (DEFRA) as being the point above which such direct airport emissions could have an adverse effect on local air quality and therefore need to be assessed in detail. Given that the Airport's future operations will continue to fall below this threshold criterion the [Environmental Statement](#) concluded that impacts associated with airport operations would be insignificant.

~~Despite not crossing these thresholds, LCY already constantly monitors air quality and reports these results quarterly to the London Borough of Newham.~~

Emissions from Road Traffic

The impacts of changed traffic flows on the local road network, including Airport car parks, were assessed using an advanced air quality dispersion model widely used in the UK for the assessment of road traffic impacts.

With the Proposals, the predicted concentrations of NO₂ and PM₁₀ will increase by a small amount due to the increased traffic flows on the local road network. Therefore, the assessment considered the likely air quality effects on 'sensitive receptors' (agreed with Environmental Health at London Borough of Newham). These sensitive receptors were

selected to be representative of locations where any air quality effects from road traffic would be expected to be the greatest. The assessment found that predicted concentrations of both NO₂ and PM₁₀ would be below the National Air Quality Strategy objectives at all sensitive receptors. The air quality impact is therefore predicted to be very small, even at the 'worst-case' receptor location.

However, in order to validate the above assumption regarding airport emissions, and in response to the request from the Council, a detailed dispersion modelling exercise has subsequently been undertaken to quantify aircraft sources of emissions and further assess the contribution of nitrogen oxides (NO_x) and particulate matter (PM₁₀) from different airport sources. A number of additional receptor locations were included in this exercise, at the request of the Council.

The results of this additional work serve to confirm the original air quality assessment findings, demonstrating that the combined impacts of road traffic and airport emissions will be very small, constituting a 'moderate adverse' impact at the worst-case receptor locations and 'negligible' impacts elsewhere. Predicted incremental changes in nitrogen dioxide are all less than 5% with the scheme in 2010 and generally less than 1%. For PM₁₀, all impacts are predicted to be 'negligible'.

Having assessed this further information alongside that contained in the original ES, the [First ES Addendum](#) demonstrated that the proposal would not result in unacceptable impacts on local air quality.

LCY constantly monitors air quality and reports these results quarterly to the London Borough of Newham. This monitoring programme will continue into the future.

Odour Nuisance

Odours associated with airport operations originate from incomplete combustion of the kerosene fuels that are used in the gas turbine engines of aircraft. Such odours are generally associated with the operation of aircraft idling at stands or taxiing to and from the runways where engines are operating at low power.

Airport odours present no health risk and are not generally considered offensive at low concentrations, but can become unpleasant as the exposure increases.

The assessment of odour effects has considered the complaints received by the Airport management and the Council. London City Airport Limited investigates all complaints related to odour nuisance and, where possible, takes action to prevent future recurrence. The complaints records show that the management and response to odour nuisance has been successful and very few substantiated complaints are received each year. The screens recently installed at the west end of the Airport are designed to assist in the dispersal of both emissions and odour.

It is considered that the proposed increase in aircraft movements is unlikely to result in a higher frequency of complaints received. However, the First ES Addendum includes further information on how an odour monitoring system will be trialled and, if successful, be implemented at the Airport.

Socio-economics

The likely socio-economic effects of the proposed increase in aircraft movements were assessed as part of the EIA. A 'core study area' was defined, comprised the following local authorities - Barking and Dagenham, Bexley, Greenwich, Hackney, Havering, Lewisham, Newham, Redbridge, Southwark, Tower Hamlets, and Waltham Forest. The core study area represents the area that could be expected to experience the greatest direct economic impact from the Proposals.

The core study area has an average rate of unemployment of 3.8% compared with 3% for London as a whole. In 2004, seven of the eleven local authorities within the area were listed within the top 50 most deprived districts in England. In addition, the study area (in 2005) had a lower percentage of qualified people of working age in all areas (from NVQ Level 1 to 4) when compared with London as a whole, and a higher percentage of people with no qualifications at all.

In 2006, the Airport related employment in the core study area was estimated at 1,501

direct jobs, 284 indirect jobs and 185 induced jobs, which amounts to a total of 1,970 full time equivalent (FTE) jobs. The income generated from this employment was estimated as approximately £59.3m in the core study area.

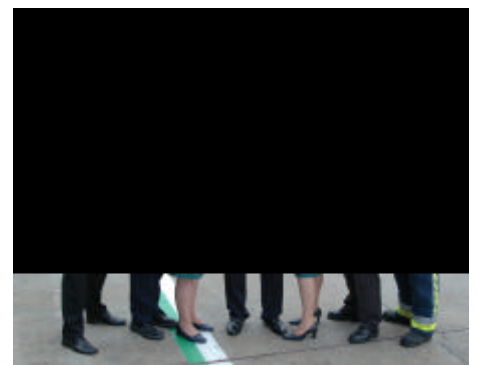
In the event that the proposal was not agreed, Airport activity would support an additional 62 jobs over current levels. Acceptance of the proposal would increase this number by a further 957 jobs. In that case, by 2010, the Airport would support 2277 direct jobs, 430 indirect jobs and 282 induced jobs - a total of 2989 FTE positions. The associated income has been estimated as £103.8m. Therefore, the employment and economic impact of the Proposals is considered to be substantial and beneficial. At the request of the Council, further studies have been carried out to assess the possible effects that the projected PSZs would have on employment and income estimates.

PSZs are areas at either end of an airport's runway where certain restrictions are placed on the development and use of the land. The PSZs extend to an area where there is a notional 1 in 100,000 risk of fatality based on an individual residing in a particular location 24 hours a day, every day of the year. This compares to the risk of an individual being killed in a road accident of 1 in 16,800 and someone being killed accidentally in the home is significantly higher at approximately 1 in 13,000. Therefore, this risk is extremely small, underlined by the fact that the Government will allow any proposed developments within the PSZs, which already have planning permission, to be built without modification.

The new PSZs will be determined by the National Air Traffic Services (NATS) on behalf of the Department for Transport only after planning permission for the proposed increase in flights has been granted. However, LCY has commissioned consultants to prepare the 'projected PSZs' for the Interim Application. This modeling work used a best interpretation of the NATS model, which applies data accumulated from airports world-wide, and does not specifically take account of the limitations placed on the type of aircraft and procedures operating from the relatively short runway at LCY. Therefore, the model will tend to

overestimate risk, and the corresponding extent of the projected PSZs.

By evaluating the difference between the existing and projected PSZs, it has been concluded that the Application could have a material effect on the future development potential of a proportion of four 'allocated' sites. However, it is important to note that none of these sites have planning permission or have been subject to planning applications to bring forward such longer-term development aspirations. These are the Landmark Site, Thames Wharf, Dock Road Industrial Site, and the Olympics Relocations site. LCY's consultants, York Aviation, have estimated that, were these sites to be developed as indicated in the Council's Planning Policy documents, 476 'Full Time Equivalent' (FTE) jobs could potentially be forgone or displaced as a result of the possible extension of the PSZs, equating to some £13m of Gross Value Added (GVA) income. However, the development aspirations for these sites would, in any case, be subject to detailed consideration through the planning process whereupon existing environmental, financial or other constraints may lessen or alter their development potential. In this regard, the associated 'lost' jobs should be considered to be no more than theoretical at this stage and would also need to be offset against the displacement of existing employers occupying the land (for which no data is available at this time). In addition, it may also be possible to rearrange the layout of these sites, to maximize employment outside of the PSZs and to design compatible land uses (car parking, storage and public open space etc.) within the PSZs.



Employment opportunities at London City Airport

Waste

Notwithstanding the above, the likely effects of the projected PSZs on employment values will be more than offset by the economic and employment benefits of the Application.

Overall, it is projected that the net benefit of LCYs proposed increase in flights would be 481 (FTE) jobs supporting a GVA income of £26m, which remains a substantial and beneficial effect.

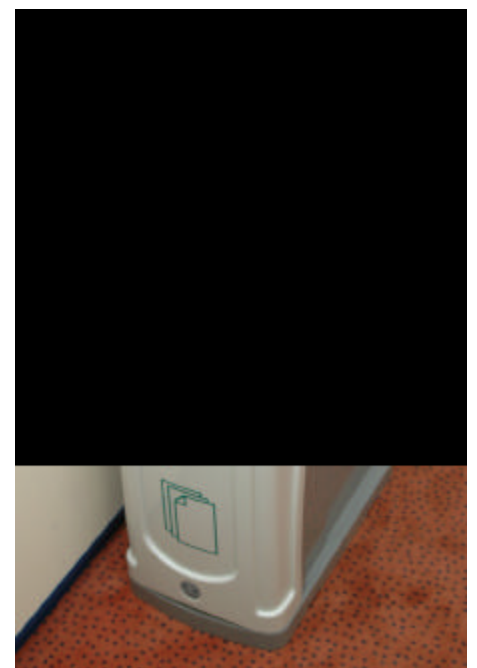
As well as the direct, indirect and induced employment benefits, economic benefits were also assessed in terms of the 'global connectivity' that the Airport provides to the whole of London, and the way in which this connectivity acts as a magnet for a wide range of economic and social activities. This effect is generally referred to as the 'catalytic impact' of an airport and it should be noted that the projected PSZs will have no detrimental effect on such catalytic benefits of the Application. It was concluded that that the growth of the Airport has particularly contributed to the regeneration in the Docklands and the establishment of the strong business and financial services cluster at Canary Wharf, and that further growth will continue to support this wider impact. This effect is also considered in detail in the Regeneration Statement, appended to the Environmental Statement.

In response to the request from the Council, a comparative study of other Airport PSZs has indicated that projected PSZs at the Airport are unlikely to adversely affect house prices, or the ability or cost to home owners to obtain mortgages or insure their properties.

The ability of London City Airport to contribute to wider economic development was also evaluated by considering the implications of the Airport not being able to expand to meet increasing demands for travel as a result of population and employment growth in the core study area. This is measured in terms of the additional journey time costs imposed on displaced air travellers who would have to access alternative airports. These potential 'journey time penalties' were calculated and it was found that the cumulative annual journey time penalties between 2008 and 2010 would equate to a Net Present Value of £87m.

The ES assessed the likely environmental effects associated with additional waste generated from the proposed increase in aircraft movements at the Airport. These effects have also been considered in the context of relevant national, regional and local planning policies, in particular the Government's National Strategy for Waste (Waste Strategy 2007).

With the Proposals, total waste is estimated to be approximately 1700 tonnes, which is an increase of 570 tonnes from the current wastes generated and approximately 530 more than the 2010 Base Case. Given that passenger throughput at the Airport is forecast to increase from 2.38 mppa to 3.9 mppa by 2010, the overall amount of waste produced per passenger is predicted to reduce to 0.436kg/passenger. The impact of this additional waste generated by the Proposals is considered to be negligible. Waste generated at the Airport is to be managed within the context of the Waste Hierarchy. Existing reduction and recycling initiatives at the Airport (introduced in 2007) have already succeeded in significantly reducing the proportion of waste going to landfill. The Applicant will identify further ways to reduce, re-use and recycle waste generated through the preparation and implementation of a Waste Management Plan under the EMS to be finalised in 2008.



Recycling facilities at London City Airport

Summary of Mitigation and Residual Effects

The Environmental Statement has identified the existing and future mitigation and enhancement measures that London City Airport Limited, as the Applicant, proposes to implement in order to address the environmental effects resulting from the Application. The likely residual effects and the significance of such effects have also been determined.

Overall, the Proposals in the Application have been demonstrated to have generally negligible or minor adverse environmental effects, which can be largely controlled by the application of, and where necessary improvement to, existing monitoring and management systems at the Airport. This should be considered relative to the substantial beneficial effect the Proposals will have in the local and wider economy of Newham, Docklands, the City of London and elsewhere.

Cumulative Effects

An assessment has been undertaken of the likely cumulative effects of the Proposals with other permitted or allocated development schemes on identified sensitive receptors located within the vicinity of the Airport. It has been concluded that, overall, the potential for combined effects is low and that any such will be negligible or minor adverse at worst. A full consideration of the potential impacts of the proposals on the future regeneration of the wider area is provided in the Regeneration Statement appended to the Environmental Statement.

Additional information is also included in the Second ES Addendum which addresses the potential noise effects of the Proposal on the published regeneration aspirations in the areas surrounding the Airport and further afield. Three Opportunity Areas identified in the London Plan (Consolidated with Amendments since 2004) and three spatial options identified in the Council's "Core Strategy - Issues and Options" (February 2008) have been considered.

It has been concluded that that the Proposal would, in itself, be unlikely to preclude or inhibit residential development in any part of the Opportunity Areas or Spatial Options due to predicted increases in air noise. In 2010, the increase in air noise for the local community will be between 1 dB, a negligible amount, and just under 3 dB. The impact of this increase will generally be minor.

Further Information

The full ~~ES~~ Environmental Statement, First and Second ES Addendums is available for inspection at the planning office of the London Borough of Newham. The address of this office is:

Development Control Service
London Borough of Newham Council
Environmental Management Services
Town Hall Annexe
330-354 Barking Road
East Ham, London
E6 2RT

Additional copies of this Non-Technical Summary can be obtained by writing to:

RPS
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Or by visiting: www.londoncityairport.com