

life. It is a tragedy that people like her, who have worked hard all their lives to obtain a home, should now be made to suffer, and it is a national disgrace that the simple needs of people are brushed aside for the sake of commerce (Documents A4/20; A7/1083).

The Case for Mr H J and Mrs E D Taylor

11.21.1 Mr H J Taylor, of 72 Gerda Road, New Eltham, is a former company director who has retired due to ill health. He has been chairman of various groups and committees and is Chairman of the New Eltham and Motingham Action Association. Gerda Road has become a commuters carpark and, because of the extension of the M20 and the increase in traffic, a rat run. Fumes are so bad that windows have to be kept closed. The expansion of LCY will result in further overflying and additional pollution from aircraft and from cars. LCY and ELRC have blighted the area and devalued property with the result that properties fall into disrepair and young families do not move into the area. It is clear that the government is prepared to blight property and destroy the environment in the interests of commercial profits (Documents A7/985; G29).

The Case for Mr A J Johnson BEng CEng MCIBSE FACI

11.22.1 Mr A J Johnson, of 5 Rayleas Close, Shooters Hill, is an Environmental Engineer, a discipline which is concerned with the comfort of people and their productivity at work and leisure. He has lived in the area for 38 years and has grown to appreciate and love its open spaces and its degree of quiet in a generally noisy and congested city. He has contributed to the work of several groups in the area and ten years ago he bought his present house in a quiet cul-de-sac rather than move to other areas which were attractive but suffered from aircraft noise.

11.22.2 When Stolport was first proposed, people in the Shooters Hill area were under the impression that they would not be overflowed, that only the very quietest propellor driven aircraft would be used, and that the steep approach and landing would minimise noise. When the airport was built people became used to seeing the Dash 7 and it was evident that although the aircraft's noise was not intrusive when heard in busy areas, it was intrusive in the quieter areas. Aircraft then began to overfly Plumstead Common and Shooters Hill with increasing frequency and at low levels causing noise nuisance and fears about safety. The MORI opinion polls show that objectors to the proposals increased between 1988 and 1989.

11.22.3 At present the noise levels from aircraft overhead and taxiing, taking off and landing at the airport are intrusive. The noise dose of the BAe 146 is 8 times that of the Dash 7, and the expansion proposals would significantly increase disturbance. No noise controls are proposed in areas away from the airport and no consideration has been given to the effect of aircraft over South East London.

11.22.4 Most major cities in the developed world have accepted that airports should not be sited in built up areas because of the implications for noise, safety, and pollution, and London should not be an exception. A wharf between 2 docks in a built up area is clearly not an appropriate place for an airport, let alone an expanded airport. Buildings would have to be altered to accommodate the lower glidepath proposed, the take-off to the east would require a 27° turn to avoid the ELRC Bridge, and future development in Docklands and Thamesmead would be constrained. The benefits of quicker check in times would be eroded if the airport becomes busy, and the benefits of

leisure flights for local people once or twice a year would be outweighed by the disruption caused for the remainder of the year. The expansion proposals would not act as a catalyst for economic growth. One of the locational factors for business is easy access to attractive housing, and the proposals would reduce the attractiveness of housing in the area.

11.22.5 The expansion is needed to revive a flagging enterprise which in accordance with normal business criteria should have been recognised as a failure and closed down. The profits the airport and airlines now seek would be made at the expense of people living in the surrounding area. It is fundamentally unjust and politically unacceptable that several thousand people should be asked to accept a degradation in their environment and standard of living so that a few people can get some transient or personal benefit. If that is to occur some means should be found to make the polluter pay and recompense those who suffer (Document A7/542; C41).

The Case for Mr C J Johnson

11.23.1 Mr C J Johnson, of 4 Robson House, Red Lion Lane, Shooters Hill, has been a resident of Woolwich for all of his 37 years. He opposes the proposed variation of the conditions under which LCY operates. There is no need for LCY; other London airports, in particular Stansted, can easily provide the services. Modern telecommunication systems, which are already being used to link offices, reduce the need for business travel. LCY has lost money and is in danger of closing and the Secretary of State is being asked to rescue the company. That is not a good reason for retaining or expanding an airport.

11.23.2 In his report following the 1983 Inquiry, the Inspector noted the alarming increase in the number of flights requested during the course of the inquiry, and concluded that only the use of short take off and landing type aircraft would be reasonable at this location, and that the upper level of noise and frequency should not be breached. The restrictions placed on the operations of the Stolport took full account of the needs of the area and the restricted capacity of Docklands. Within a few months, despite this clear decision by the Secretary of State, the use of jets was being proposed. The incremental expansion approach is typical of airport authorities and is particularly difficult for planning authorities to resist as each step is relatively small. If the present proposals had been presented to the 1983 Inquiry they would have been dismissed.

11.23.3 The expansion would be harmful to safety. LCY is within an area which will be heavily built up and statistics show that most aircraft accidents occur close to airports. With so many houses, schools and factories overflowed nearby, any accidents would cause massive casualties.

11.23.4 Contrary to the initial forecasts, LCY has provided little employment and few jobs for local people. The employment rate for the site is very low, local jobs are poorly paid, and the land could be put to better use in providing many more jobs in light industry.

11.23.5 South East London is bombarded by aircraft noise day and night, mainly from Heathrow traffic. The BAe 146 is much noisier than the relatively quiet Dash 7, and the introduction of that aircraft and an increase in the number and hours of flights would be intolerable. Pollution would also be increased. The Dash 7 could continue to operate for many years and if LCA now want to operate larger aircraft they should wait for a suitably quiet one to be developed. If the proposals are implemented the lives of hundreds of

thousands of people in Woolwich, Plumstead, Greenwich and all South East London will be ruined by the noise of low flying aircraft (Documents A7/1353: C35).

The Case for Ms S Field

11.24.1 Ms S Field, of 63 Broad Walk, Kidbrooke, has campaigned across Kidbrooke on environmental issues for the past 18 months. Although LCY is only operating at half capacity, there are frequent flights of Dash 7s at 1500 ft over Kidbrooke, and the low altitude appears to be a greater irritant than the noise. The area is already subjected to traffic and very considerable aircraft noise, and the magnitude and frequency of the noise is unacceptable. Residents have invested their savings in their homes and in the improvement of their environment, and these should not be devalued by additional noise. A door to door survey of 231 people in 48 streets indicated that about 1 in 4 of those canvassed were annoyed by overhead aircraft movements and, after a little education, a further 1 in 4 concluded that action should be taken to prevent any increase in aircraft movements.

11.24.2 The country has paid a terrible price by repeatedly choosing the pursuit of wealth rather than the conservation of the environment. The environment should now be given the highest priority and the economy should be restrained in the interests of preserving the environment. It is inappropriate to build new airports or to extend existing ones, and the time has come to correct national behaviour with regard to car and plane trips. Business travel is costly and stressful; it could be reduced if everyone agreed to use the available technology such as video conferencing (Document C33/2). This is in its infancy but national and international companies have installed video conference studios in their offices, there are public studios run by British Telecom, and studios around the world (Document C33).

The Case for Miss L Bristow OBE

11.25.1 Miss L Bristow OBE, of 87 Blackheath Park, is a retired civil servant who worked as a principal in the Treasury and a senior principal in the Ministry of Transport, and represents the views of 50 residents of Cator Estate, Blackheath. Few private individuals have the time or the resolve to appear at Public Inquiries, but that does not mean that they are not concerned about their environment, and some have little faith in the impartiality of Government decision makers. The Department of the Environment should give evidence at public inquiries which involve environmental issues and where individuals do not have the resources to contend with other Government Departments and large companies.

11.25.2 LCY was built in the full knowledge that the conditions of the planning permission might effect the viability of the airport. LCA now want to expand as they claim that LCY is not viable, exactly as objectors at the 1983 Inquiry warned. Commercial gain is not a sufficient reason to justify LCY; if the airport cannot operate viably under the conditions imposed on the planning permission, the airport should close, allowing the land to be put to better use such as housing. Little reliance can now be placed on LCA's assurances or on the information that they have given. They claim that they do not wish to expand beyond their present proposals but that is what they said previously and in 5 years time they will inevitably want bigger aircraft and more flights.

11.25.3 The proposed management system would be very difficult to enforce with various types of aircraft involved and constant monitoring required. It would also be difficult for third parties to ensure that any conditions were being complied with. If the expansion is permitted it is essential that adequate safeguarding conditions are imposed.

11.25.4 The proposed expansion would increase noise to an unacceptable level. The airways are already congested and the expansion would increase the risk of accidents in the densely populated areas of East and South East London. The expansion is not needed as other airports provide better services, and the Channel Tunnel will reduce the demand for air travel. The expanded airport would only benefit a minority of travellers at the cost of disturbing the peace of the vastly greater number who live in the surrounding area.

11.25.5 A city centre is no place for an airport. Nothing will make it acceptable and if piecemeal expansion is permitted now, further expansion will inevitably be sought. There is growing public awareness of the price exacted in environmental damage caused by most forms of transport, and priority should be given to those that are less polluting (Documents A7/112; C16).

The Case for Mr S T Yates

11.26.1 Mr S T Yates, of 27c Kechill Gardens, Hayes, is National Accounts Manager for British Telecommunications Plc, and is Vice-Chair of People Against the River Crossing. In 1983 LBN resolved to object to the then proposed Stolport on the grounds that it would prevent the proper economic development and creation of jobs in Newham's Docklands; it would lead to unacceptable levels of noise and loss of amenity in the local environment; it would increase the separation of North Woolwich from the rest of the Borough; once established it would be impossible to prevent its expansion; and it is inappropriate on safety grounds for a built up area like Newham. Those grounds of objection were correct at the time and are equally relevant today. Objectors at the 1983 Inquiry were concerned that if the Stolport failed to attract sufficient customers there would be fewer jobs and no catalytic effect, and that there would be strong pressure to expand the airport in an attempt to improve its doubtful viability. That is exactly what has occurred.

11.26.2 In his decision letter granting permission for the Stolport in 1985, the Secretary of State accepted that noise was a major issue, that it was essential that those living or working in the area should not be subject to unacceptable noise levels, and that stringent conditions had to be imposed to ensure that noise levels were kept as low as possible. That decision was based on the special characteristics of the Dash 7 which contributed to its quietness and which had been emphasised by the applicants (Document B3 para.6.4). The aircraft that would now use LCY do not have those characteristics, would not comply with those conditions, and are noisier.

11.26.3 At the 1983 Inquiry it was stated by the Department of Transport that a PSZ 600m long, which was below the standard length, would be entirely adequate for Stol aircraft, and much was made of the proposed microwave landing system. Objectors have not seen plans which fully show the PSZs, RESAs, starter strips and runways which would be required for the proposed expansion. In the absence of such plans, objectors have examined the CAA's regulations for Aerodrome Licences and consider that the standard PSZ cannot be provided and that the expansion cannot be accommodated within the site. The aircraft now proposed are very different, the microwave landing system is no longer proposed, and this raises many safety issues. There is an added danger

in that LCY is surrounded by water which attracts many birds and that jet and turbo-fan jet engines are much more vulnerable to bird strike than piston or turbo-prop engines. In 1983 it was reported that no turbo-prop aircraft had been involved in a crash with loss of life due to bird strike over the previous 20 years but there had been 2 major accidents involving executive jet aircraft caused by birds in 1973 and 1975, and that one such crash had been recorded annually worldwide over the previous 10 years.

11.26.4 The proposed expansion is not needed. London's air transport planning is based on Heathrow, Gatwick, and now Stansted as the 3 major airports, with Biggin Hill also being developed, and additional transport links are planned for Heathrow and Stansted. At the time of the previous inquiry much was made of the savings in journey times to LCY in comparison to the other airports but at that time Stansted was not part of the equation and the M25 was then only proposed. The GLC commented that Stolport would not be needed if Stansted were developed, and the TGWU were concerned that Stolport would represent a needless and wasteful duplication of resources in view of the enormous investment being planned at other London airports. The expansion of Stansted will negate the need for the expansion of LCY, and the opening of the Channel Tunnel will offer advantages over flying. Telecommunications continue to be improved and Video Conferencing is reducing business trips. This is already offered from the UK to 100 centres worldwide and many businesses have their own systems. Mr Yates has experience of this as he is actively involved, through his assistants, in promoting such services.

11.26.5 At the last inquiry it was stated on behalf of the applicants that they would be either fools or knaves if they were to later ask for a bigger and better airport, but that is exactly what they have done. Contrary to the applicants assertion, the Stolport has encroached on the local community and their way of life, and the proposals represent a stupid and callous disregard for the environment of the people of London (Documents A7/1108; C40).

The Case for Mr J P A Gwizdala

11.27.1 Mr J P A Gwizdala, of 3 Riverview Heights, Eglinton Hill, served for 9 years in Her Majesty's Armed Forces, reaching the rank of Captain, and was subsequently employed by the PLA. At present aircraft overfly Shooters Hill and Greenwich at low level. The proposed expansion of LCY would increase disturbance to residents and increase the likelihood of accidents. The expansion would also prevent the construction of the ELRC cable-stayed bridge which would provide an elegant welcome to the Port of London. The design now proposed by DTp would result in a bridge which would be regarded as an amorphous mass and totally devoid of any character (Document C/43).

The Case for Ms J Atkinson DipAD MA(RCA)

11.28.1 Ms J Atkinson, of 91A Marmadon Road, Plumstead, is a committee member of PARC, an illustrator/designer and a teacher in art and design. At present Dash 7 aircraft overfly Plumstead, which is surprisingly peaceful. The proposed expansion and the introduction of noisier aircraft would create a distinctive noise nuisance; the BAe 146 demonstration flights were not particularly quiet.

11.28.2 It is dangerous to site an airport close to the centre of a major city and to residential areas, and there are grave risks of accidents or terrorist attacks. According to Time Out magazine, air traffic jams, staff shortages, poor maintenance and ageing aircraft have led to an alarming

increase in near-collisions and narrowly avoided disasters: there were seventeen accidents involving aircraft in the skies above London and at the 5 civil airports serving the capital in the last two years, although fortunately none involved fatalities.

11.28.3 The expansion would have a damaging effect on the regeneration of Docklands as the proximity of jets would be likely to put off businesses thinking of relocating there. LCY is a white elephant; it has not attracted sufficient business travellers to be profitable and it is unlikely to be any more successful if the proposed expansion is implemented. LCA emphasise that the airport is uncrowded and that there are no queues, but if the airport were to attract more passengers it would soon become congested.

11.28.4 The original ELRC bridge design has been replaced by a box girder design in order to keep options open for the future use of the airport. The new box girder design is dull and uninspiring whereas the original ELRC bridge design was graceful and was strongly supported even by those who otherwise objected to ELRC. The superior original design should not be abandoned (Documents A7/20; C46).

WRITTEN REPRESENTATIONS OBJECTING TO THE PROPOSALS

11.29.1 In all some 175 written representations were received objecting to the proposals (part Document A7), including 1 from a MEP, 3 from local authorities, some 40 from societies, 1 from a school, 4 from prospective developers, 2 from businesses, and some 60 from private individuals. The grounds of objection are generally similar to those raised at the inquiry, and the most frequently cited, in order of ranking, are that the proposals would increase noise, would harm safety, would increase pollution, would affect the design of the proposed ELRC Bridge and effect other buildings, would negate the concept of a Stolport, would devalue property, would increase traffic congestion, and that the proposals are not needed.

11.29.2 MPs and MEPs: Mr Alf Lomas MEP objects on the grounds that the proposals are against the interests and wishes of residents (Document A7/1317). Mr John Cartwright JP MP, while not objecting, is concerned that local interests should be safeguarded (Document A7/1315).

11.29.3 Local Authorities: The London Borough of Barking and Dagenham Council object on the grounds of increased noise levels in existing and proposed residential areas (Document A7/1105). The London Borough of Bexley Council have no objection to application 1 but object to application 2 in respect of the proposed hours of operation and the introduction of the BAe 146; if the application is permitted, conditions are suggested in order to minimise the effects of noise (Document A7/261). The London Borough of Greenwich Council object on the grounds of increased noise levels particularly over Thamesmead where part of the area will be within the 35-40 NNI contours, increased pollution levels and odour nuisance over Greenwich, increased overflying of Greenwich and Thamesmead, and the lack of adequate control mechanisms open to the Council who should have been party to the Section 52 Agreement and the preceding negotiations (Documents A7/474; 1372).

11.29.4 Petitions: Petitions of objection include those from Irene Heath - 102 signatures (Document A7/462), L E Martin - 12 signatures (Document A7/657), Waterfield School - 15 signatures (Document A7/1294), Residents of Germans Place and Pallet Way - 7 signatures (Document A7/1402), and V Pinkava - 4 signatures (Document A7/1457).

11.29.5 Prospective Developers: The Unex Group are part of the Developers Group and own the Harland and Wolff site at Gallions Point where residential development is planned. They support the principle of expansion for business flights but not for holiday charter use. In particular they object to the proposed increase in ATMs and hours of operation at weekends because the interests of future residents would be affected (Document A7/670). Bailey & Garner, who act on behalf of East London Housing Association Ltd, ASRA Greater London Housing Association Ltd, and Family Housing Association Ltd in connection with residential development to the south of LCY, object on the grounds of the reduction in the quality of the environment (Document A7/498). The East London Housing Association object because of the effect on the environment of their future developments in E16 (Document A7/63). The Family Housing Association object as their housing stock and their developments at Royal Victoria Dock North and to the south of LCY and would be affected (Document A7/673).

11.29.6 Private Individuals: Of the private individuals, some 9 stated that they live under the flightpath, and some 4 had observed the test flights of the BAe 146. In the area surrounding the airport to the north of the Thames, some 16 live in E6, 1 in E13, 1 in E14, 1 in E15, and 16 in E16 closest to the airport. To the south of the river some 8 live in SE2, 8 in SE3, 2 in SE7, 28 in SE9, 3 in SE10, 2 in SE13, 28 in SE18, and 2 in SE28.

11.29.7 In addition there are some 936 objections lodged in respect of the concurrent Highways Inquiries on standard forms organised by the Friends of the Earth (Document A7/1410). The grounds of objection include, inter alia, that the bridge design is ugly and that the ELRC Bridge would allow jets to operate from Stolport, thus bringing further environmental problems not envisaged at the previous inquiry.

CONCLUSIONS

The numbers in parentheses refer to paragraphs in the report which are the source of factual matters.

The Site and Surrounding Area

12.1 London City Airport (LCY), the applications site, is situated some 6 miles to the east of the City of London within the Royal Docks near the north bank of the River Thames. The airport is some 38 ha in extent and includes a runway pavement with 2 overlying runways on a former wharf between the Royal Albert and King George V Docks, a terminal building, and vehicle circulation and parking areas (3.1.2).

12.2 North Woolwich and East Silvertown, residential and industrial areas, lie to the south of the airport on the narrow strip of land between the airport/King George V Dock and the River Thames. The residential areas, include medium and high rise flats and terraced houses, Storey Street and Drew Road Primary Schools, local shops, and community facilities (3.6). West Silvertown to the south of the Royal Victoria Dock is flanked by industrial development and includes high rise flats and streets of terraced houses on either side of North Woolwich Road, with local shops and community facilities (3.7).

12.3 To the west of the airport a number of tall mill buildings, one of which is occupied, adjoin the southern side of Royal Victoria Dock and the Pontoon Dock to its south. Except for these, some new road infrastructure to the south, and some warehouse buildings on the north side of the dock, the area around the dock has largely been cleared. Canning Town to the north of the Royal Victoria Dock is mainly residential with some mixed commercial development. The north side of the Royal Albert Dock is flanked by former warehouses in poor condition, some of which are in use. The mainly residential areas of Custom House and Beckton lie to the north, the latter including large areas of modern housing, and industrial development to the east (3.8). To the east of the airport beyond Woolwich Manor Way, the area surrounding Royal Albert Dock Basin has been largely cleared, as has the area to the north east. A clubhouse for water based recreation adjoins the east end of King George V Dock (3.9). There are a large number of sites in the wider area surrounding the airport where development is envisaged (Document B107) (3.7-11).

12.4 The airport is approximately 1 mile south of the A13 Trunk Road which is a principal route to the City of London to the west and to the A406 North Circular Road, the M25 and M11 to the east. The route of the proposed East London River Crossing Bridge lies approximately 3/4 mile to the east. The airport is served by rail (Silvertown and City Airport Station to the south west), by Riverbus with a connecting dedicated bus service between the Riverbus jetty and the airport, and directly by bus routes (3.5). There is very considerable roadbuilding in the wider area surrounding the airport, and the Docklands Light Railway extension to Beckton is under construction to the north of the Royal Albert Dock (3.74-76).

12.5 Greenwich and Woolwich adjoin the south bank of the River Thames, with extensive residential areas to the south on higher ground. Thamesmead, on the south bank of the River Thames, lies directly east of the airport runway; its centre is some 2 miles from the airport boundary, and the Thamesmead bank of the Thames directly to the east of the airport is undeveloped and is just under 1 mile distant (3.11).

Background

12.6 The Royal Docks were closed for general cargo handling at the end of 1981. An outline planning application for the development of an aerodrome on the application site for use by short take off and landing type aircraft to be known as "STOLport" was called in for decision by the Secretary of State, and following a public local in 1983 the Secretary of State granted outline planning permission for the aerodrome in 1985 subject to a number of conditions. The conditions include in summary:

(* indicates the conditions proposed to be modified in Application No.2):

- * (4) limiting the runway length to no more than 762m;
- * (5) a requirement for the provision of displaced runway thresholds;
- (6) limiting the use of the STOLport to fixed-wing aircraft except in emergency;
- (7) prohibiting club or recreational flying;
- (8) prohibiting the use of the site and buildings for any use other than required in connection with the provision of air services;
- (9) requiring the provision and maintenance of a perimeter fence and noise barriers;
- (10) limiting the hours of the ground running of aeroplane engines for testing and maintenance purposes to between 0630 and 2200 hours Monday to Saturday, and between 0900 and 2200 hours on Sundays, Bank Holidays and Public Holidays, and requiring agreement to be obtained for the locations of ground running of aeroplane engines and the provision of noise protection measures;
- * (11) prohibiting aeroplanes taking off and landing except between 0630 and 2200 hours Monday to Saturday, and between 0900 and 2200 hours on Sundays, Bank Holidays and Public Holidays;
- * (12) limiting the types of aeroplanes using the Stolport to those that comply with prescribed noise levels;
- * (13) limiting the number of Air Traffic Movements (ATMs) to 120 per day Mondays to Fridays, 40 per day on Saturdays, Sundays, Bank Holidays and Public Holidays, and a total of 30,160 per year, with each ATM of certain types of aircraft counting as 3.63 movements; and
- (14) limiting pile driving during construction to between 0800 and 1900 hours Monday to Saturday ^(4.1-2).

12.7 Public Local Inquiries were held between 10 September 1985 and 23 December 1986 into proposals by the Secretary of State for Transport, and applications to the Secretary of State for the Environment in respect of 3 certificates, to make a number of Orders concerning the East London River Crossing (ELRC). The Orders included a proposal for a cable stayed bridge. In the closing days of the Inquiries, Eurocity Express and the Air Transport Users Committee submitted objections concerning the height of the proposed bridge and the effect this would have on the future development of LCY; the Inspector forwarded these to the Secretaries of State without comment. Letters outlining the consequences to LCY of a high bridge were submitted to the Minister of State at the Department of Transport by British Aerospace in December 1986 and by John Mowlem and Company PLC in September 1987 ^(4.3).

12.8 In their decision letter of 28 July 1988 the Secretaries of State stated that they were mindful that the proposed bridge would permanently inhibit the future development of the airport, and concluded that the design of the bridge should be reviewed. They confirmed the Orders but deferred a decision on those parts of the Draft Orders which related to the design of the bridge and its approaches. The Secretary of State for Transport commissioned a study into whether there was an alternative bridge design which would be practicable, acceptable, within the broad order of costs of the Department's proposed bridge, would satisfy the objectives of the scheme, and keep open

options for the future use of the airport. The box girder bridge now proposed by the Department of Transport at the concurrent inquiries follows from that study (5.1).

12.9 LCY was constructed between April 1986 and October 1987, and opened on 26 October 1987, with aircraft utilising a 7½° glidepath. London City Airway Limited (formerly Eurocity Express and now part of British Midland Airways) and Brymon Airways began operations with 2 aircraft each to Paris and Brussels. The Paris route was suspended in December 1987 by the CAA on the grounds of alleged lack of safety to the aircraft when flying in uncontrolled airspace. Following an inquiry, arrangements were made for access to controlled airspace and the full services were re-opened in February 1988. In the second year of operations Dash 7 services were extended to Paris, Brussels and Amsterdam, with flights to the Channel Islands. In the third year Flexair introduced a Dornier 228 service to Rotterdam, and Air France, operating in partnership with Brymon's Paris operation, introduced Dash 7 services to Lille, Strasbourg and Nantes. By March 1990 annual ATMs had reached some 14,000, and weekly throughput had reached a level of some 6,300 passengers (4.5).

The Proposals

12.10 In Application No 1 (Plan A) it is proposed to increase the runway length from 1030m to 1199m and construct starter strips of 186m at the eastern end and 75m at the western end. The starter strips are required to enable aircraft to clear structures to the west and proposed structures to the east. Nav aids would be relocated and runway approach lighting would be installed. The implementation of these proposals would require the variation of existing Condition 4 and the deletion of existing Condition 5 (5.2). These proposals would enable LCY to be used by aircraft other than the present Dash 7 and Dornier 228. Candidate aircraft include the 4 engine British Aerospace 146 turbofan, and twin engine turboprop aircraft such as the Boeing Canada Dash 8, the Fokker 50, and the Avions de Transport Regional ATR42. In order to allow the new aircraft to operate into LCY, the glidepath would have to be decreased from the present 7½° to 5½° (5.1).

12.11 In Application No 2 (Plan B) in addition to the variation of existing Conditions 4 and 5 (see above), it is proposed to vary existing Conditions 11, 12 and 13 in order to increase the permitted amount of ATMs and hours of operation. Proposed Condition 11 would have the following effect on hours of operation:

- (1) allow aircraft to take off and land commencing at 0630 hours Mondays to Saturdays and 0900 hours on Sundays as at present;
- (2) on any day allow aircraft to land up to 1 hour later (2300 hours) than at present (2200 hours);
- (3) on any day allow aircraft that were scheduled or planned to take-off before 2200 hours but have suffered unavoidable operational delays, to take-off up to 1 hour later (2300 hours) than at present (2200 hours); and
- (4) Bank Holidays and Public Holidays would be treated as a weekday and not be subject to the existing limitation which prevents aircraft taking off or landing before 0900 hours (5.2, 5.3).

12.12 The noise control system now proposed in Condition 12, in summary, is based on the categorisation of aircraft according to their noise level on take-off measured at 4 points and averaged over the year. The categories provide a Noise Factor for aircraft. The air transport movement of each aircraft multiplied by the appropriate Noise Factor determines the number of factored ATMs used in Condition 13 to limit the yearly and weekly number of

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ATMs. The NNI contours resulting from the operation of LCY in accordance with the proposed noise control system are predicted not to exceed those indicated in Document C9/28. The NNI contours resulting from the operation of LCY in accordance with the present permission and noise control system are predicted not to exceed those indicated in Document C9/27 (5.1-2,42).

12.13 Proposed Condition 13 would have the following effect on the number of air transport movements:

- (1) increase the daily limit from Monday to Friday from 120 to 130 ATMs;
- (2) increase the limit on Saturdays and Sundays from 40 to 80 ATMs per day with a maximum of 140 ATMs on any consecutive Saturday and Sunday instead of the present 80 ATMs;
- (3) Bank and Public Holidays would be treated as a weekday, i.e. the daily limit would increase from 40 to 130 ATMs;
- (4) increase the yearly limit from 30,160 to 36,500 ATMs. In respect of the yearly limit the factors set out in condition 12 would apply to determine the total number of movements, and neither the number of ATMs nor the number of factored ATMs would exceed 36,500 per year. In addition it is proposed that the total number of factored ATMs in any one week would not exceed the permitted number of ATMs by more than 15% (5.5).

Policies and Plans

12.14 Airports Policy, the 1985 White Paper Cmnd 9542, refers to the vital importance of civil aviation to the national economy, to the beneficial consequences of airport development, and to Government commitment to mitigating the effects of aircraft noise. Policy objectives include, inter alia, to foster a strong and competitive British airline industry; to minimise the impact of airports on the environment generally, and to ensure that land use planning and conservation policies take fully into account both the development needs arising from airports and the environmental consequences; to make the best use of existing facilities and provide new capacity only when economically justified; and to encourage enterprise and efficiency in the operation of major airports by providing for the introduction of private capital. LCY is referred to as a Stolport designed for short take off and landing aeroplanes conveniently located to serve business passengers travelling to and from the City and Central London which is expected to provide scheduled services to a number of domestic and European destinations, with passenger throughput projected to build up to about one million passengers per year within 6 years. Reference is also made to LCY's important and welcome contribution to capacity by providing the City with fast commercial air connections to other business centres (6.1-2).

12.15 National policies seek to regenerate inner city areas such as London Docklands. LCY is within the area of the London Docklands Development Corporation (LDDC). In accordance with Section 136 of the Local Government Planning and Land Act 1980, the object of an urban development corporation is to secure the regeneration of its area. This is to be achieved by bringing land and buildings into use, encouraging the development of existing and new industry and commerce, creating an attractive environment and ensuring that housing and social facilities are available to encourage people to live and work in the area (6.3).

12.16 Regional Guidance for the South East, PPG 9, includes objectives aimed at improving the attractions of London for people and firms and improving some of the transport links in London and the rest of the region, fostering economic growth, and revitalising the less prosperous eastern part of the

region and the older urban areas through investment aimed at facilitating and encouraging the involvement of the private sector (6.4).

12.17 The Strategic Planning Guidance for London of July 1989 includes, inter alia, objectives relating to economic growth and the importance of London's continuing prosperity; the older urban areas; transport systems; residential districts and housing; the environment; and Metropolitan Open Land (6.5). Reference is made to the importance of maintaining and strengthening London's international competitiveness, to the substantial growth envisaged in the business sector particularly in and around the City of London and Docklands, to increasing interest in business and housing developments in East London. It notes that development pressures have for many years been stronger in West than East London but policies aimed at improving the attractiveness of East London can help redress the imbalance (6.6). London City Airport is referred to as making an increasing contribution to air services from London, particularly for business travellers and mention is made of improvements to access for both LCY and Heathrow (6.7).

12.18 The statutory development plan for the area in which LCY is located is the Greater London Development Plan approved in 1976 (GLDP) and the Initial Development Plan for Greater London (IDP). In the Initial Development Plan East Ham Town Map 1966 and West Ham Town Map 1968 the site is within an area allocated primarily for Port of London Authority use and for water transport (6.8). The Secretary of State considered the IDP was of little relevance when he granted permission for LCY in 1985 (6.8). The site has not been used for water transport purposes for at least a decade (6.8) and in my view the IDP now has no relevance to the present proposals.

12.19 The general strategy of the GLDP is to maintain London's position as the capital of the nation, the centre for international trade and one of the world's great cities, to foster the commercial and industrial prosperity of London, and to create a physical environment and a social and economic framework which will conserve and improve standards of life in London. The requirements of the individual Londoner are set out and include a home set in an acceptable environment, a choice of jobs, and the opportunity to participate in creating an environment which will attain the requirements of civilized living, including satisfactory standards of daylighting, safety, quietness, privacy and neighbourliness (6.9). The plan includes policies aimed at providing favourable conditions for prosperous employment. Beckton/Canning Town within Newham are listed in Table 3 as preferred locations for industry. Reference is made to studies of the docklands with a view to redevelopment and the intention to plan new developments for new life and new work in the obsolescent docklands areas (6.10).

12.20 Paragraph 12.5 of the GLDP deals with aircraft noise and states that ideally new residential development should not take place in areas where the residents would be exposed to significant levels of aircraft noise in their homes or their gardens and that regard will be had to the guidance published by the Department of the Environment on planning and noise and in particular to Circular 10/73 (6.11). Reference is made to the development of short take off and landing air services provided that the environmental effects are taken fully into account (6.11).

12.21 The People's Plan, the statutory local plan for the London Borough of Greenwich, adopted in April 1989, includes Thamesmead. Thamesmead land near the east bank of the River Thames to the east of LCY is proposed for housing, Metropolitan Open Land (Tripcock Park), and community open space (Riverside Promenade) (6.12).

12.22 The London Borough of Newham Council (LBN) is the plan making authority for the area of the appeal site. LBN published the deposit version of the South Docklands Local Plan in September 1985 (Document B36). The plan was not proceeded with further and is in abeyance pending the preparation of the Unitary Development Plan for Newham. The applications site is shown as a Stolport on the Proposals Map (5.14).

12.23 LDDC is the development control authority for London Docklands. LDDC published 2 non statutory plans for the Royal Docks Area. The Draft Development Framework for the Royals Docks Area was published in 1985. The Plan refers to the proposed Stolport as providing a renewed international role for the Royals, to the Public Safety Zones and to the 40 NNI boundary which is stated as marking the threshold within which housing is not encouraged (6.15).

12.24 The Royal Victoria Dock (South) and Thames Barrier Lands Interim Master Plan and Development Framework Public Consultation Document was published in July 1989. The Plan states that the Royals can play a major part in the economic growth of the East Thames Corridor which will also benefit from European Links (Channel Tunnel, London City Airport) and that they have the potential to become a major urban development with a new identity as 'the Water City of the 21st century'. The Plan refers to development that has been carried out including some 4,000 homes, community facilities, district shopping and retail warehousing at Beckton since 1981, and to the established London City Airport. Proposals for the area referred to include airport related business use and housing to the south of King George V Dock; a major regional shopping centre, business park, marina and leisure facilities and housing on the north side of King George V Dock; the Londondome, a major regional facility to provide a 23,000 seat multi-use arena and up to 20,000 sq metres of exhibition space together with a mixed development of housing, retail, leisure and hotels on the north side of the Royal Albert Dock; and adjoining the Master Plan Area to the west, the Thames Wharf and Limmo sites which lie within the Isle of Dogs Enterprise Zone and where proposals are being reviewed for development schemes including housing, offices, business use and industry. The Interim Master Plan indicates a wide mix of uses to the south of Royal Victoria Dock (8.16).

Economic Benefits of the Proposals

12.25 At present LCY provides some 473 jobs; some 56% of employees live within a 5 mile radius of the airport. The applicants envisage that the expanded airport, with a throughput of some 1.5M passengers per year, may lead to the creation of an additional 225 jobs, about 25 more than would be the case if the airport were fully expanded under the existing permission. There would be additional Taxi employment and additional use of public transport and the River Bus (7.27). I consider that the provision of this employment, while not an overriding factor, is nevertheless an important consideration in an area of relatively high unemployment (11.9.1).

12.26 The London Planning Advisory Committee, the Docklands Consultative Committee (11.1.4:11.6.3) and others have argued that there is no hard evidence to suggest that an expanded airport would aid the regeneration of the Royal Docks area or have an important catalytic effect in attracting new development and employment, and that no businesses have been attracted to the area because of the airport. In my view that is not surprising as LCY has been in operation for a relatively short period, and the number of ATMs has only reached less than half the permitted level. Airports Policy refers to the beneficial consequences of airport development (6.1), and airports worldwide have acted as focuses for growth (10.6.4). LDDC (8.20), potential developers (11.6.1:11.6.1:10.11.6), MPs and MEPs (10.11.12) and many

businesses and individuals (10.10.2,10.11.1) have emphasised the positive effects that the airport would have on the regeneration of the Royal Docks. I consider that in the longer term there is every reason to suppose that a successful airport would play an important role in attracting business and employment to the Royal Docks and revitalising the less prosperous eastern part of the region.

12.27 LCY mainly serves the business traveller (7.82) and access to the airport is being improved (7.74-76). The airport provides quick check in facilities and does not suffer from the congestion experienced at other airports (10.4.2) although I accept that these advantages could be eroded to some extent if the airport is successful and attracts more passengers (11.10.3,11.28.2). I also accept that the extension of services at Stansted Airport and access improvements to that airport and Heathrow would reduce the accessibility advantages of LCY, and links to the continent will be greatly improved with the completion of the Channel Tunnel (11.1.8,11.10.3,11.16.5). It has also been argued that improvements to telecommunications could reduce the need for business travel (11.24.2,11.28.4). Despite all these factors and the relatively small size of LCY in relation to the the principal London airports (11.8.13), LCY is seen as an advantage by commerce and industry and the proposals are supported by the Bank of England (10.2), the CBI (10.3), and many organisations and businesses (10.11.1). In addition to its local regenerative effect, I consider that LCY is of importance to the business community of East London and the City and would assist to some degree in maintaining and strengthening London's international competitiveness and thus the economy of the country as a whole.

12.28 The applicants contend that LCY is at present running at a loss, would continue to do so under the present operating conditions, and would be likely to close unless the proposed expansion is permitted (7.15-16). Although I have not seen the financial appraisals on which that contention is based, I have no reason to doubt that large losses are being incurred, some £9.1M between 1987 and 1989 according to reports and accounts of the company (10.2.2), and special provision of £33M was made against the airport investment and anticipated further loss in January 1990 (7.15). The Docklands Consultative Committee argue both that LCY could be profitable under the present constraints and that even if the airport were to expand doubts about its viability would remain (11.6.17-19), but they have conceded that LCY would not produce an acceptable return on even the written down value of its fixed assets (7.16). Production of the Dash 7 has ceased, it has disadvantages and is expensive to operate (7.20), and although it could continue in service for a considerable time (11.5.16), the evidence of the airlines suggests that expansion of LCY under the present operating regime is unlikely and that its long term future is bleak (10.2.7,10.8.6). In my view the profitability of an individual company is not a land use planning matter but I consider that unless some expansion is permitted the airport is likely to close and the benefits that it could provide to Docklands and the wider economy would be lost.

Visual Considerations

12.29 LCY is situated in the flat area of Docklands and is not visible from a wide area (7.56). LDDC consider that the physical works proposed would not have a significant impact on the wider area (6.16). In my view the physical changes proposed - the increase in runway pavement from 1,030m to 1,199m and the construction of starter strips, would appear as relatively minor additions that would hardly be noticeable in the context of airport, and the relocation of navigational aids and the installation of runway lighting would be equally inoffensive.

Traffic

12.30 Traffic figures have been broadly agreed with LDDC and LBN and incorporate changes to the infrastructure, improvements to the roads and public transport services, and the effect of known development in the area (7.73). The figures for the existing and future generated 2 way vehicle movements are:

	per day	peak hour
at present	1200	200
full operation of present consent (year 2001)	5650	400-440
full operation of proposals (year 2001)	8160	600-650

12.31 The local road network in the Royal Docks area is being upgraded and the work will be complete within the next 2 - 3 years. Road traffic from the airport would be less than 9% of the total flows on the roads closest to the airport, the additional traffic generated by the proposals would increase traffic by some 4% on Connaught Road which provides access to the airport, and far less on other roads (7.74). The effect of the LCY proposals on the highway network south of the Thames would be so small as to be virtually unmeasurable (7.75). I consider that the increase in road traffic generated by the proposals would be relatively small and well within the capacity of the road network, and agree with the LDDC, whose transport planners have assessed the traffic and transport implications of the proposals, that the generated traffic would not have an undue impact on the area (8.16).

12.32 There is sufficient space within the airport to cope with the additional vehicle circulation. Present car parking provision of 460 spaces is more than double the demand. The applicants' expert witness stated that there could be a requirement for 530 spaces if the present permission were fully implemented, and up to 720 spaces in the case of the expansion proposals. Additional parking is not proposed but could be accommodated to the east of the airport on land under the applicants control, or by other means (7.77). Although there was no evidence to suggest that a lack of sufficient parking provision would lead to problems, the airport is adjoined by residential areas and I consider that problems would arise if travellers or airport staff parked their cars on residential roads nearby. This potential problem is capable of resolution and I address the matter in paragraph 12.66 below.

Safety

12.33 There is widespread and understandable concern about safety in view of the location of the airport in a built up populated area, and the CAA statistics that indicate that some 60% of accidents to jet aircraft worldwide occurred on take-off/initial climb and approach/landing with consequently greater risks in areas close to the runway and in particular in the funnel zones at each end (11.26.3). In addition there are relatively large number of waterfowl including larger birds such as geese in the vicinity of the airport and on the aircraft flightpaths, there is no bird scaring or control beyond the airport boundary (11.9.4; 11.17.5), and the lower glideslope would increase the probability of birdstrike (11.17.4). Although turbofan engines as fitted to the BAe 146 are not as susceptible to bird strike damage as pure jet engines (7.66), they are more susceptible to such damage than engines which drive propellers.

12.34 The CAA are the statutory body concerned with the safety of aircraft operations: LCY would be required, as at present, to comply with their licensing requirements (7.59, 7.62). Major exercises have been held in the past involving all the emergency services, and the London Fire and Civil Defence Authority confirm that they are satisfied that if the proposed expansion is permitted, adequate services would be provided to deal with accidents occurring within or outside the airport (7.67). The CAA were fully consulted during the preparation of the proposals (7.59); they have confirmed that the proposals are likely to meet their licensing requirements, that the size of the Public Safety Zones (PSZs) (where development that would attract great concentrations of people would be precluded (7.65)) was carefully considered and would not require extension, and that the necessary Runway End Safety Areas (RESAS) would be accommodated (7.64). Airport operations would continue to be within controlled airspace and the airport would continue to use the Instrument Landing System (ILS) which is the worldwide system for achieving landings in poor visibility. At the earlier inquiry it was stated that the highly accurate MLS system would be used but the CAA confirm that it is unlikely to come into general use before 1998. The incidence of poor visibility due to fog postulated at the previous inquiry has been less than expected (7.68).

12.35 There has been a decrease in the number of birds using the bird flightpaths over the airport, bird strikes in the 3 years of operation have been below the average for airports in the UK and less than envisaged at the original LCY inquiry, and there has been no damage to aircraft or risk to the safety of flights. Heathrow Airport has large bird populations in its vicinity and these have not resulted in any accident fatalities. LCY has followed CAA guidance published in CAP 384 and the CAA confirm that bird control was satisfactory at the latest inspection by the Aviation Bird Unit, and would be increased if necessary (7.65).

12.36 The increase in ATMs would increase the risk of accidents. Based on worldwide statistics, the CAA suggest a small increase in the risk of third party fatalities within 60-3,000m of the runway ends due to landing or take-off accidents, from about 1 in 85 years for the permitted annual ATMs to about 1 in 70 years for the proposals. Outside the approach and take off funnels the risks would be much less (7.72). I heard no convincing evidence to suggest that twin engined aircraft would be less safe than four engined aircraft. When LCY was permitted it was known that the area surrounding the airport would be extensively developed (8.4) and in my view the increased risk of accidents due to the increase in ATMs, the type and number of aircraft engines, and the lower glide slope would not be so great as to warrant refusal. The Assessor concurs with this conclusion.

Physical Effect on Existing and Proposed Development and Uses

12.37 Planning Authorities have a statutory duty to consult the CAA in respect of applications for development within PSZs, and in respect of development as described in the LONDON/City Safeguarding Map i.e for buildings and structures which would exceed the height limits shown on the Map, for development likely to attract birds, and for development connected with aviation use. The LONDON/City Safeguarding Map was drawn up with the possibility of expansion in mind and would not have to be altered to take account of the expansion proposals (7.57). The CAA have confirmed that there would be no additional controls on development likely to attract birds (7.55). Changes to safeguarding would be local to the take off cones only; in the cones a 1:25 Obstacle Free Surface (or Operational Surface) would be required

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in order to allow fully laden aircraft to achieve obstacle clearance in the event of an engine failure (7.56:8.18). The likely composite licensing and operational safeguarding surfaces are indicated on Document C9/9.

12.38 Planning applications for development within the PSZs are considered by the CAA on an individual basis and a recommendation is made to the local planning authority. All development is discouraged in the inner zones (the first 300m nearest the runway at LCY). Long term car parks, outdoor recreation or water sports, including car parks and changing rooms to support such leisure activities, may be considered acceptable in the outer zones provided that there are no great concentrations of people (7.64). The existing PSZs, which encompass land beyond the airport boundary, would not be extended (7.65) and I have no reason to suppose that the proposals would result in any additional curtailment of development or activity, including the present recreational use of the docks, within the zones.

12.39 Five existing mill buildings to the west of LCY would penetrate the Obstacle Free Surface and the proposals could not be implemented without a reduction in their height. The CWS Silo, the Dalgety-Spillers Grain Hopper, and the Premier Mill building between the CWS and Millenium Mills would have to be reduced in height or demolished. These buildings are not in use and are not proposed for retention in the Interim Master Plan and Development Framework for the Royal Victoria Dock (South). The CWS Mill is vacant but is proposed for retention in the Interim Master Plan. Its roof levels would have to be slightly altered but the necessary minor alterations would not effect its refurbishment and reuse. The Millenium Mill, which is used for storage and the transfer of food goods, would have to be slightly reduced in height, but that would not affect its use. The buildings are not listed and are not in a conservation area, the LDDC have agreed to the demolition or alterations (7.58:8.16), and I consider that their demolition or alteration would not be objectionable.

12.40 The main tower of Canary Wharf is at present under construction some 4.5km to the west of LCY. The planned height of the tower has been reduced to ensure that it would not inhibit the expansion of LCY. The building will penetrate the 1:20 surface but following detailed discussion, the CAA have confirmed that there would be no conflict with the the proposed expansion of the airport. No other existing buildings would be affected (7.59).

12.41 There are numerous proposals for the development of sites around LCY, some of which have planning permission (Document B107) (7.50:8.7-11). The Royal Albert Dock Development Company, former prospective developers of a shopping centre proposed on Site 12 to the east of the airport, were concerned that the height of their development could have been affected. They now consider that the proposed starter strip would be acceptable and fully support the proposals (10.5.2). There have been no objections from the LDDC or from prospective developers on the grounds that their development may be affected by possible height restrictions (8.16:10.21.6), and in my view the height of future developments on the sites surrounding the airport are unlikely to be unduly hindered by the proposed composite safeguarding surfaces.

12.42 At present no ships are allowed in the Albert or King George V Dock during LCY operational hours. If a ship has to be transitted from the Thames through the lock entrance of the King George V Dock to the Victoria Dock that would be done at night outside operational hours as at present (7.61). I consider that the proposals would not significantly affect the movement of shipping.

12.43 The proposed expansion of the airport could be affected by some of the designs for the proposed ELRC Bridge. At present aircraft taking off to the east from runway 10 climb straight ahead. As the ELRC Bridge now proposed by the Department of Transport and perhaps other proposed development to the east of the airport would become accountable obstacles and may restrict the allowable take-off weight of aircraft, in the future aircraft would carry out a 2.5° turn to the right immediately after take-off, sufficient to move the obstacle accountable area away from the bridge (7.70). Subject to that manoeuvre, the design of the box girder bridge now proposed in the Draft A406 London North Circular Trunk Road (East London River Crossing) (A13 to A2) No.2 Bridge Order 19.. does not conflict with any of the criteria relevant to the licensing or the commercial operation of the airport. The alternative bridge design suggested by Stanhope Properties PLC - the Calatrava Bridge - would be no higher than the proposed box girder bridge and would similarly not affect LCY operations (7.52).

12.44 The applicants contend that the Calatrava Bridge would be more likely to degrade the quality of the ILS beam than the proposed box girder bridge and if that occurred the decision heights for approaching aircraft would be raised from about 380 ft to 490 ft, and the airport would be unavailable for use on an increased number of occasions when the cloud base was below the decision height (7.53). However, the effect of various bridge designs on navigation aids is uncertain, and other relatively large buildings may be constructed to the east of the airport which may have a similar effect on nav aids (7.53). In my view even if the quality of the ILS beam were degraded, the effect on LCY's operations would not be so great as to warrant unduly influencing the choice of a particular design for the ELRC bridge.

12.45 If the original cable-stayed bridge design included in the Draft A406 London North Circular Trunk Road (East London River Crossing) etc. Order were implemented, the height of the suspension towers would prevent aircraft operating out of LCY on a 5½° degree glideslope and would thus prevent the proposed expansion of LCY. LCA have formally objected to that design at the concurrent ELRC inquiries (7.52). The cable-stayed bridge design was widely regarded as being of considerable merit and was commended by the Inspector following the 1985-6 inquiries (7.3), and there have been many objections on the grounds that the future expansion of LCY has resulted in the proposal for an aesthetically inferior box girder bridge (ii.7.4.11.11.5.11.29.1). At the concurrent Highways Inquiries, at which I acted as Assessor, there were more than 6,000 objections to the design of the proposed box girder bridge, and the Calatrava Bridge design was preferred. In my view although visually inferior to the cable-stayed bridge design, the proposed box girder bridge would be a distinctive and impressive structure within the inherent limitations imposed by the type of construction. I consider that the designs of both the box girder bridge and the Calatrava Bridge indicate that bridges of high visual quality could be constructed without inhibiting the future expansion of the airport.

Air and Water Pollution

12.46 The subject of pollution was examined at the 1983 inquiry but objectors such as the Greater London Council and the London Borough of Newham Council accepted that pollution would not be a problem, and the subject was not mentioned in the conclusions of the Inspector or in Secretary of State's decision letter. Pollution has been given greater attention in recent years and Government Policy is directed towards its greater control (7.51).

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12.47 There would be an increase in pollution both as a result of operations by different types of aircraft and the proposed 21% increase in ATMs. Based on a mix of aircraft types, the annual quantity of the mass emissions from aircraft of the principal pollutants, carbon monoxide and oxides of nitrogen, would increase substantially from 52.18 to 126.3 tonnes and 14.15 to 46.33 tonnes respectively. Annual emissions of unburnt hydrocarbons would not increase significantly, from 19 to 20.66 tonnes (7.52:11.6.9;11.6.9:11.10.6). There would also be an increase in benzene emissions (11.6.9:11.10.6).

12.48 LCY is situated in a populated area and objectors expressed grave concern about the harmful effects of the additional pollution on health (11.6.9:11.10.6;11.29.2). Although any pollution is undesirable, the expert evidence suggests that concentrations of unburnt hydrocarbons would be likely to be reduced, and the emissions of carbon monoxide and oxides of nitrogen would be rapidly dispersed by the aircraft engines. The concentrations of carbon monoxide in the air beyond the apron area would be unlikely to be significantly greater than at present, and the emissions of oxides of nitrogen predominantly occur as an aircraft takes off and are rapidly dispersed along the runway and the climb path. Levels of some 1.4 ppm of carbon monoxide are predicted at the edge of the apron and airport buildings compared with long term occupational exposure standards published by the Health and Safety Executive of 50 ppm. Incidents of odour would be unlikely to increase and changes in air quality from emissions of additional road traffic would probably not be measurable on the road network outside the airport (7.52). Leaded and unleaded petrol contains about 2-3% benzene, and people are exposed to it whenever they fill their cars or stand in a petrol station forecourt. Aviation fuel contains some 0.02% benzene and concentrations from aircraft operations would be very low, probably of the order of less than 10ppm. The aircraft that would operate from LCY do not have the facility to dump fuel (7.53).

12.49 The surface areas of the existing airport drain into interceptors. The proposed paved areas would be constructed with storm water drainage systems similar to the existing system and connected to it. Surface water contaminated with fuel or de-icing agents would continue to be prevented from draining into the adjoining dock (7.54). I consider that the proposals would not increase the potential for water pollution.

12.50 LDDC confirm that the data indicates that the proposals would not result in a significant increase in pollution and that no objections have been raised by the London Borough of Newham Council, the statutory environmental health authority (8.16). I concur with that view and consider that the proposals would not result in unacceptable increases to the levels or concentrations of pollutants in the vicinity of the airport.

Noise

12.51 The NNI contours that would result if LCY were fully implemented in accordance with the present permission are indicated in Document C9/27. The proposals would result in an expansion of the NNI contours as indicated in Document C9/28 (7.42). LCY has the advantage of being located on a former wharf and much of the area within the envisaged 35 NNI 'low annoyance' contour is water or airport land. Circular 10/73 advises that no major residential development should be allowed in areas exposed to more than 39 NNI and land envisaged for new housing lies outside the 40 NNI contour for the expanded airport (7.42).

12.52 The exposure level of existing housing immediately to the south of the airport would increase by about 5 NNI above the present permitted level and that increase would be discernable. Some existing housing and the Drew Road School, which are at present within the permitted 35 NNI contour, would be within the 40 NNI contour. Provision has been made in the Section 52 Agreement for sound insulation for those additionally affected and for those who may be additionally affected in the future including Storey Street School; those within the 35 NNI contour, including the Drew Road School, have already been insulated ^(7.43). There have been relatively few objections from local residents, and several support the proposals ^(6.13:10.11.7:11.29.6).

12.53 The surrounding development sites shown on Document B107 would experience increases in noise levels. Parts of 5 sites would experience levels above 40 NNI but none would be above 50 NNI ^(7.44). The Royal Albert Dock and Albert Basin Scheme encompasses a site of some 85ha (Sites 11-14). Outline planning consent was granted in August 1988 for a phased development including a 139,000 sq m regional shopping centre with up to 9,000 car parking spaces initially, a leisure and marina development of up to 55,760 sq m, and B1 business space of 232,000 sq m in the form of 3 business villages on the north side of the dock (Sites 11-13), and 360 residential units and a recreation and tennis centre at Gallions Point (Site 14) ^(6.8). Noise levels are forecast to reach 42NNI in parts of the areas closest to the runway north of Royal Albert Dock (Site 11) and the Royal Albert Dock Basin (Site 12); those sites have permission for B1 business and retail uses respectively and such uses would not conflict with the advice in Circular 10/73. The highest levels, up to 48NNI, are forecast in the Royal Albert Dock Basin where a marina and leisure development is envisaged (Site 13). The former developers of these sites, the Royal Albert Dock Development Company and Stanhope Properties PLC, fully support the proposed expansion of LCY ^(10.5.1).

12.54 The Gallions Point site (Site 14) is the subject of a planning application for a mixed development of 800 residential units, 4,645 sq m retail/restaurant use, 4,645 sq m commercial use, a 200 bedroom motel, 12 live/work units, doctors' and dentists' surgeries, riverside walkways and open space ^(6.5). That site would be beyond the predicted 35 NNI contour. Unex Group, the owners, support the principle of expansion for business flights but not for holiday charter use. In particular they object to the proposed increase in ATMs and hours of operation at weekends on the grounds that the interests of future residents would be affected ^(11.29.5).

12.55 Areas of potential new development to the north and south of the Royal Victoria Dock would experience noise levels above 35 NNI and a relatively small area to the south of Royal Victoria Dock east of the Pontoon Dock would experience noise levels above 40NNI. The Royal Victoria Dock (North) Scheme on the north side of the dock (Site 22) encompasses a site of some 57 ha. Outline planning consent was granted in October 1988 for a phased development including 1,747 residential units, 26,000 sq m of retail leisure and community floorspace, 210,000 sq m of business accommodation and the Londondome. Detailed planning approval was granted in January 1990 for the first phase of the Londondome development - an indoor arena seating 20,000 people, a 24,000 sq m exhibition centre, and 4,500 car parking spaces ^(8.9). The Royal Victoria Dock Development Partnership, prospective master developers, strongly support the proposals ^(10.5.1).

12.56 The Royal Victoria Dock (South) Scheme encompasses a site of some 50 ha (Site 25). LDDC, who strongly support the proposed expansion of LCY, envisage that development sites of some 4 - 5 ha will be marketed in phases over the next 10 years, and sites have been identified for residential, retail, leisure, commercial and amenity uses ^(8.10). The relatively small area to the east of the Pontoon Dock that would experience noise levels above

40NN1 is shown in the Interim Master Plan as being for mainly mixed B1 business use and a landscaped carpark and would not conflict with the criteria of Circular 10/73 (7.33).

12.57 Future aircraft ground noise would be unlikely to be significantly greater than at present. The area closest to the apron is protected by soundproofing of properties to the north of Drew Road, and by the long high noise barrier produced by the terminal buildings and the noise barrier connecting the main building with the Customs House and Airport Fire Station to the west. Road traffic noise level L10(18hour)dB(A) would increase by less than 2 on the airport access road and less than 1 on other roads, and the increase would be imperceptible (7.45). I consider that aircraft ground noise would not give rise to any significant additional disturbance compared with the full implementation of the existing permission, and that the additional volume of road traffic would not create any noise problems.

12.58 Many objectors consider that LCY has had a blighting effect on development in the Royal Docks and that the proposed expansion would further discourage potential developers. In my view the evidence does not support that contention. With the exception of some Housing Associations who have objected (11.28.5), developers and potential developers of sites in the immediate vicinity of LCY and in the wider area of Docklands support the proposals and the presence of an expanded airport is seen as a positive advantage.

12.59 Near LCY the typical perceived noise levels 300m from the aircraft path are:

Aircraft	Situation/ Typical perceived Noise Level (PNdB)			
	Taxi	Manoeuvre	Depart	Land
Dash 7	77	81	85	85
and as proposed would be:				
BAe 146	71	77	92	84
Twin Turbo-prop (all)	76	63-83		
ATR 42			93	84
Dash 8			90	86
Fokker 50 (7.34)			88	83

The BAe 146 and some of the the twin turbo-prop aircraft are generally no noisier in landing, taxiing or manoeuvring than the Dash 7 but are up to twice as noisy on take off.

12.60 I consider that the most serious consequence of the proposals in terms of its effect on people who live and work in the area at present or who may do so in the future would be the increase in noise caused by the operation of aircraft that are noisier on take-off, by the proposed increase in operating hours, by the proposed increase in ATMs on weekends and Public and Bank Holidays, and to a lesser extent by the reduction in glide slope (7.36). The yearly and weekday increase in the number of aircraft movements would not in themselves give rise to serious additional disturbance. The yearly increase in aircraft movements proposed would increase the Noise and Number Index (NNI) at any given point by 1.3 which would not be discernable to the average person (7.35;7.82). The peak ATMs that the airport can accommodate, a maximum of some 14 per hour, would not change (7.35), and a maximum increase in 10 movements over the operating day would not be readily discernable.

12.61 The reduction in glideslope from 7½° to 5½° would reduce the height of landing aircraft in the final approach and the increase of 4 PNdB would be perceptible (7.38; Document 895). However, some aircraft are suggested to produce some 3dB less landing noise on a lower glideslope; if this occurs in practice there would be little difference in noise levels between the 2

glideslopes. Beyond the final approach the increase in landing noise due to the lower glideslope would not in my view be significant. Departure noise would be significantly increased (Document 88-).

12.62 Aircraft noise that may be acceptable in a busy location such as a town centre becomes very intrusive when heard in a quieter environment or at otherwise quiet times (11.18.2). LDDC earlier considered that there should be no increase in weekend flights and no scheduled flights after 2200 hours in the interests of surrounding residents and development sites (8.15), and there are a large number of people living in the area surrounding the airport and more housing is planned. At present residents know that aircraft do not operate into or out of LCY after 2200 hours and not before 0900 hours on Sundays, and Bank and Public Holidays. In my view the proposals for unrestricted landings and some departures until 2300 hours would be unacceptably intrusive, but in order to accommodate delayed aircraft an absolute limit of 2230 hours would not be unreasonable provided that a limit is placed on such movements. Additional movements on weekends and Bank and Public Holidays when residents wish to enjoy their leisure activities would also be unacceptable. The airport mainly serves business travellers (7.20) and while the benefits to those travellers and the economy of the UK in my view warrants the additional noise that people in the area would have to suffer, the additional use of the airport for leisure travel cannot be supported. Many Bank and Public Holidays in the UK do not coincide with those on the continent and I accept that there are business travellers who wish to travel on those days. However, I consider that the convenience of additional flights for those who wish to travel on Bank and Public Holidays does not outweigh the harm that would be caused to residents who would in any event suffer from increased noise on those days due to the departure of noisier aircraft.

12.63 The predicted 35NNI contour to the east of LCY reaches the south bank of the Thames at Thamesmead (7.47). Although noise on the riverbank and Tripcock Park to the east would be increased, the area within the 35 NNI contour is very small and I consider that planned residential and recreational uses (6.13) would not be unduly affected. Waterfield School is directly under the approach flightpath and would experience some increase in noise levels but the school is not directly under the departure flightpath would be unlikely to be seriously affected by the noise of departing aircraft (7.48; Document 812-). Although the expansion proposals are opposed by the London Borough of Greenwich (11.29.3), they are supported by the Board of Thamesmead Town and Thamesmead Advisory Forum (10.11.11.11.1).

12.64 Many air routes traverse south east London, and residential areas south of the Thames suffer from approach flights to Heathrow, helicopters, and air traffic from Biggin Hill; LCY aircraft form a small proportion of that traffic. Aircraft approaching LCY runway 10 sometimes overfly residential areas south of the Thames at heights no lower than 1,500 feet above the runway level, and would continue to do so in the future, but approaches to runway 28 and departures from both runways do not normally overfly those areas, and would not normally do so in the future. Landings on runway 10 occur some 30% of the time when the wind is generally from the east (7.47-7.48). With a proposed maximum increase of 10 ATMs per day on weekdays, the maximum weekday increase over those areas would be 5 landing approaches per day and I consider that the additional disturbance to areas such as Blackheath and Eltham would be negligible. However, the proposed weekend and Bank and Public Holiday ATM increases and the extension of operating hours could be disturbing in these relatively quiet residential areas.

Conditions

12.65 The applicants and local planning authority have agreed conditions that they consider appropriate (Document B103) and a Section 52 Agreement has been sealed by the PLA, John Mowlem and Company PLC, LCA, LDDC and LBN (Document B79). The applicants accept that the matters covered in the Section 52 Agreement could, if considered appropriate, be incorporated as conditions. The Agreement includes, inter alia, provisions restricting the use of the airport by reference to Noise Reference Levels and Noise Factors (para.4 & First Schedule); regulating the hours of operation (para.5); the location for ground running of engines and noise protection measures (para.6); training and test flying (para.7); the use of the airport (para.8); type of aircraft (para.9); prohibiting club and recreational flying and aircraft other than fixed wing (para.10); the provision of starter strips (para.11); prohibiting the submission of planning applications for or the construction of a taxiway or an extension to the runway (paras.12 & 13); servicing and membership of the Joint Consultative Committee (para.14 & Second Schedule); the provision of noise barriers and noise insulation and ventilation works to properties beyond the airport (paras.15, 16 & Third Schedule); the provision of ground power units (para.17); the provision of a four point noise monitoring system and a Noise Management Scheme (para.18 & Fourth Schedule); the maintenance of records (para.19); provisions to ensure that if there is conflict between conditions imposed by the Secretary of State and the terms of the Agreement, the conditions shall prevail (para.23); and provisions for arbitration (para.24 & Fifth Schedule) ^(7.75).

12.66 In respect of Application No 1, I consider that the condition preventing pile driving noise in the evenings and Sundays would be reasonable and appropriate. Condition 3 requires the provision of 460 carparking spaces as at present but for the reasons set out in paragraph 12.32 above I consider that level of provision may prove inadequate in the long term. Although the applicants contend that there is no justification for imposing a more onerous condition than required by the local planning authority ^(7.79), they have drafted a condition (Document B118) that would provide for a phased scheme of additional parking when passenger throughput reaches 700,000 per year. In my view such a condition is necessary.

12.67 In Application No 2 the conditions now proposed are the result of long negotiations with LDDC, LBN and the Developers' Group and now meet the earlier concerns of those parties ^(7.80). From the evidence of the applicants and the airlines it is clear that they consider the most important aspects of the proposals to be the operation of different types of aircraft and the increase in ATMs ^(7.80-83;10.7.8;10.8.6-7). The applicants claim that other aspects of the proposed operating regime are also vital to their interests, but for the reasons set out in paragraph 12.62 above I consider that the number of ATMs on weekends and Public and Bank holidays should not be increased, that ATMs on Bank and Public Holidays should not commence before 0900 hours, and that a limit of 2230 hours be placed on both incoming and outgoing flights that were scheduled to take off or land before 2200 hours and have suffered unavoidable delays. Air traffic control problems are becoming worse and the additional operations beyond 2200 hours are mainly required to avoid aircraft being unable to fly because of delays, to allow flexibility in the use of aircraft and to position aircraft at the end and beginning of the day ^(10.8.7). In my view it would be prudent to place a limit on such delayed departures of 400 ATMs per year and 150 ATMs in any consecutive 3 months, as suggested by the applicants ^(7.85), and a similar limit on arrivals.

12.68 The noise monitoring and categorisation scheme as set out in proposed Condition 12 has been agreed with the LDDC, LBN, CAA (7.38) and is supported by developers (7.39); in my view it would be satisfactory. The noisiest phase of operations would be monitored (7.39) and there would be no need to have additional noise monitoring points at Thamesmead or elsewhere. The principal mechanism for controlling maximum noise events would be the operation of the noise management scheme (7.41) which is to be agreed with LDDC and LBN in accordance with the provisions of the Section 52 agreement. Although objectors contend that the details of that scheme should be agreed before the proposals are permitted, I consider that agreement on the scheme may be left to the Section 52 parties.

12.69 The Section 52 Agreement and the conditions I have suggested would ensure that the effects of the additional noise resulting from the proposals would not be excessive, and the conditions I have suggested are in my view reasonable and necessary if the proposed development is to be permitted. I consider that the other numerous conditions suggested by objectors would not be necessary.

Overall Conclusions

12.70 The expansion of the airport would be of benefit to the economy of east London and the City. It would assist in the regeneration of Docklands and in redressing the imbalance between west and east London. To that extent the proposals accord with policies and plans for the area. There are however disadvantages, most notably the increase in noise levels and the effect on the design of ELRC. The increase in noise would be most significant in residential areas in the vicinity of the airport but would be unlikely to deter the redevelopment of sites in the Royal Docks or the implementation of proposals in Thamesmead to the east. The visually superior cable stayed bridge originally proposed for ELRC would be prevented but other bridge proposals, while somewhat inferior, could nevertheless be of high visual quality. I agree with the DCC and others that the Royal Docks is not an appropriate location for an airport that provides a wide range of services to the general public, but on balance I consider that if the airport continued to cater mainly for the business sector and its operations were strictly controlled, the disadvantages of the proposed expansion would be outweighed by the benefits.

Recommendation

12.71 I recommend that the applications be allowed and planning permissions be granted subject to the standard conditions relating to the duration of the permissions, and subject to the conditions and limitations I have indicated in my conclusions at paragraphs 12.66-12.68 above.

I have the honour to be
Sir
Your obedient Servant

M Astrinsky