

**CABINET – 2<sup>nd</sup> MAY 2006**

**NOTTINGHAM EAST MIDLANDS AIRPORT  
MASTER PLAN**

**REPORT OF THE DIRECTOR OF COMMUNITY SERVICES**

**PART A**

**Purpose of Report**

1. To respond to the consultation by Nottingham East Midlands Airport (NEMA) on its Master Plan.

**Recommendations**

2. It is RECOMMENDED that:

The comments set out in paragraphs 38 to 106 in Part B of this report be forwarded to Nottingham East Midlands Airport as the County Council's observations on the Master Plan.

**Reasons for recommendations**

3. To ensure that the County Council makes an appropriate input to the Nottingham East Midlands Airport Master Plan so that issues of importance for the County Council are clearly expressed and influence the shape and content of the final Master Plan.

**Timetable for decisions**

4. The consultation period runs until 14<sup>th</sup> May 2006.

**Policy framework and previous decisions**

5. The Government's White Paper, *The Future of Air Transport* (2003) expects airport operators to prepare Master Plans which sets out the airport's vision of how the White Paper is to be implemented. In doing that the Nottingham East Midlands Airport has produced a Draft Master Plan and have consulted widely upon its content. The Master Plan is not a statutory development plan document but is intended to inform the development plan process.

**Resource implications**

6. None

**Circulation under Sensitive Issues Procedure**

A copy of this report has been circulated to all Members through the Members' information service.

**Officer to Contact**

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## PART B

### Background

7. The Airport Master Plan is a document that airport operators are recommend to produce by the aviation White Paper *The Future of Air Transport* (Cm 6046, December 2003). Its purpose is to explain how airports are to take forward the strategic policy framework for their airports as set out in the White Paper. Each Master Plan should set out proposals for the development of airports to 2015 or 2016 in some detail with less detailed plans for the remaining period to 2030.
8. The White Paper states that:

*"Airport operators are recommended to maintain a Master Plan document detailing development proposals. An airport Master Plan does not have development plan status, but the level of detail contained within it is essential to inform the content of the Local Development Framework. We will expect airport operators to produce Master Plans or, where appropriate, to update existing Master Plans to take account of the conclusions on future development set out in this White Paper." (paragraphs 12.7, 12.8).*
9. The Government has also produced *Guidance on the Preparation of Master Plans* (Department of Transport, December 2003) which details the purpose of Master Plans and how they are to be prepared. Appendix 1 is an extract from the guidance explaining the purpose of Master Plans. In essence their purpose is to:
  - a. set out the airport's plans for infrastructure development
  - b. inform strategic and local development plans
  - c. let stakeholders know what is planned
  - d. set out a programme for development at the airport
  - e. provide a means of checking the delivery of the White Paper objectives
  - f. demonstrate the costs and benefits of airport growth
  - g. assess social and environment impacts and set out how impacts could be mitigated
10. In all, 30 airports are expected to produce Master Plans.
11. The NEMA Master Plan was published for consultation on 10<sup>th</sup> February 2006. The consultation period runs until 14<sup>th</sup> May 2006. It is a large documents containing over 190 pages. The content of the Master Plan sets out:
  - a. the current operations at NEMA
  - b. the regulatory and planning framework within which it operates
  - c. demand forecasts for air travel and operations
  - d. facility requirements
  - e. development strategy
  - f. managing the impact
  - g. surface access

12. In line with Government guidelines, the Master Plan sets out more detail over the next 10 years up to 2016 and less for the years beyond to 2030. The Master Plan will be subject to a 5 yearly review where it is envisaged that details will be rolled forward.
13. For the County Council the key issue revolves around the impact of the growth of the airport in terms of the social and economic benefits that it can bring to the county and region balanced against the extent to which the environmental impacts can be satisfactorily controlled.

#### **Facilities required to cater for expected growth**

14. In order to cater for anticipated growth the Master Plan sets out the need to rationalise land uses within the existing airport site and these are:
  - a. Passenger terminal - extension and enhancement;
  - b. runway extension;
  - c. cargo zone expansion;
  - d. new aircraft maintenance zone;
  - e. additional car parking areas and transport measures;
15. These plans relate to medium term requirements to achieve 2016 forecasts. In order to achieve the anticipated forecasts for 2030, both in cargo and passenger services, then land beyond the current airport boundaries will be required, including provision for a second runway.

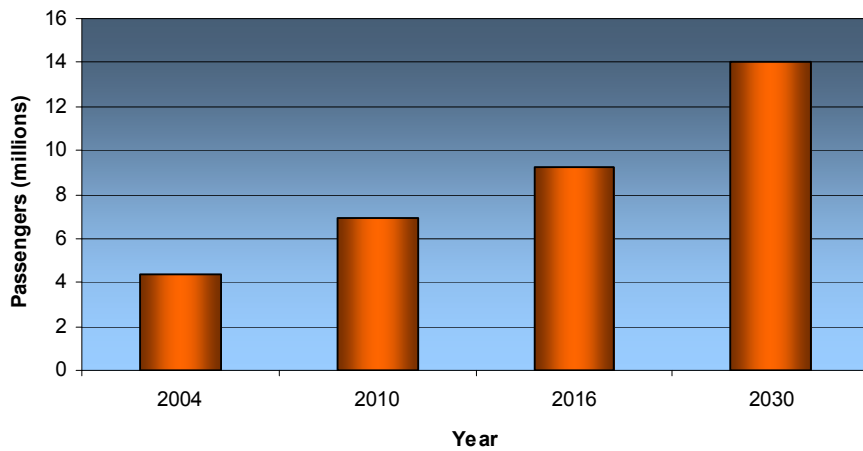
#### **Forecast growth**

16. In summary the airport is forecast to grow over the next 25 years both in terms of passenger travel and cargo business. That growth will also have an economic impact in terms of jobs, investment, need for housing and surface traffic generation.

#### Aviation growth

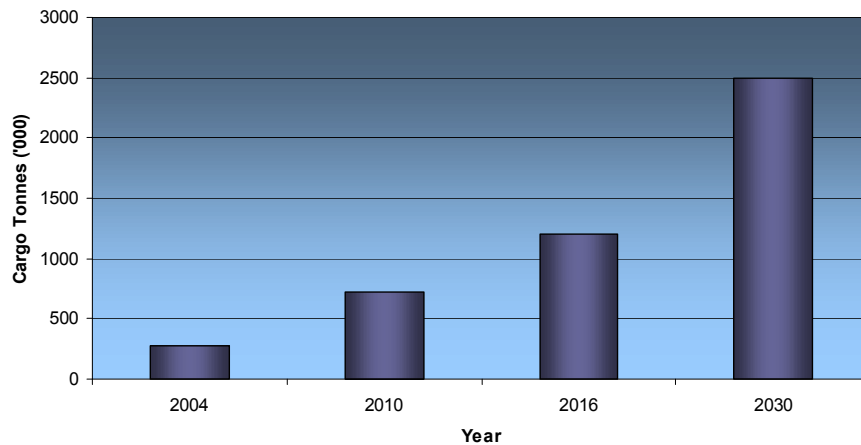
17. The Master Plan predicts that passenger number will increase from around 4.4 million passengers per annum currently to 14 million by 2030. This is a rise of 320%. In the medium term, passenger numbers are expected to rise to 9.2 million (210%) by 2016.

Figure 1 Growth in Passenger Numbers



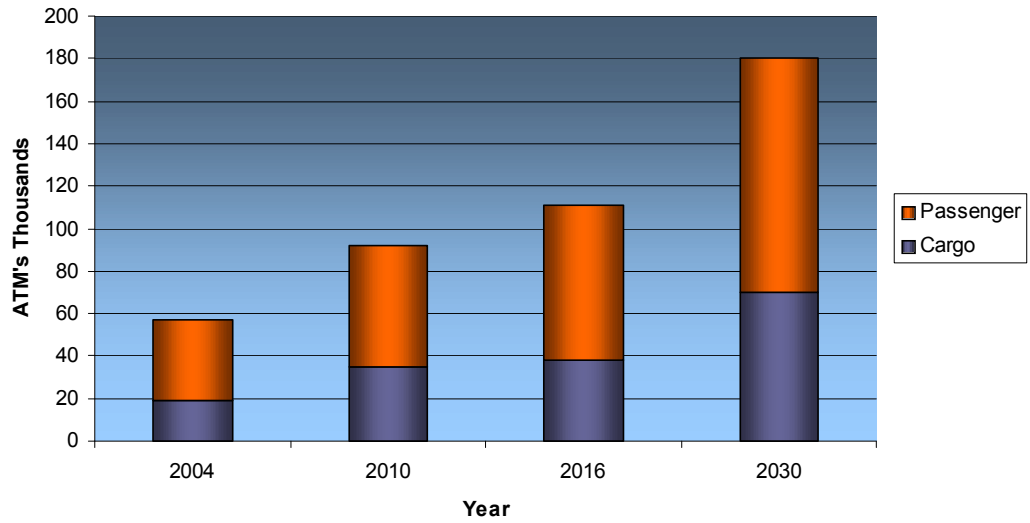
18. Cargo business is expected to rise from handling 279,000 tonnes per year in 2004 to 2.5 million per year by 2030. In the medium term it is expected to rise by 432% to 1.2 million tonnes per year by 2016.

Figure 2 Growth in Cargo business



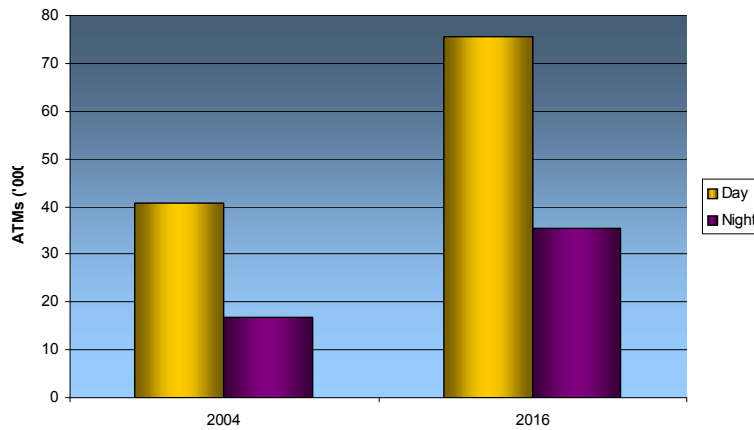
19. The implications for aircraft transport movements (ATMs) are shown in Figure 3 below. This indicates that passenger ATMs will increase from 38,700 ATMs per year to 110,000 ATMs by 2030, a rise of 285%. Cargo ATM's currently account for 18,700 ATMs per year and are predicted to rise to 70,000 ATMs per year, a rise of 374%. However, in the medium term passenger ATMs are expected to rise to 72,800 per year by 2016 whilst cargo ATM's are expected to rise to 38,100.

**Figure 3 Passenger and Cargo ATM Growth**



20. The day and night time split of ATMs are shown in Figure 4 below. Most cargo flight occur at night time.

**Figure 4 Day and Night ATM**



**Jobs**

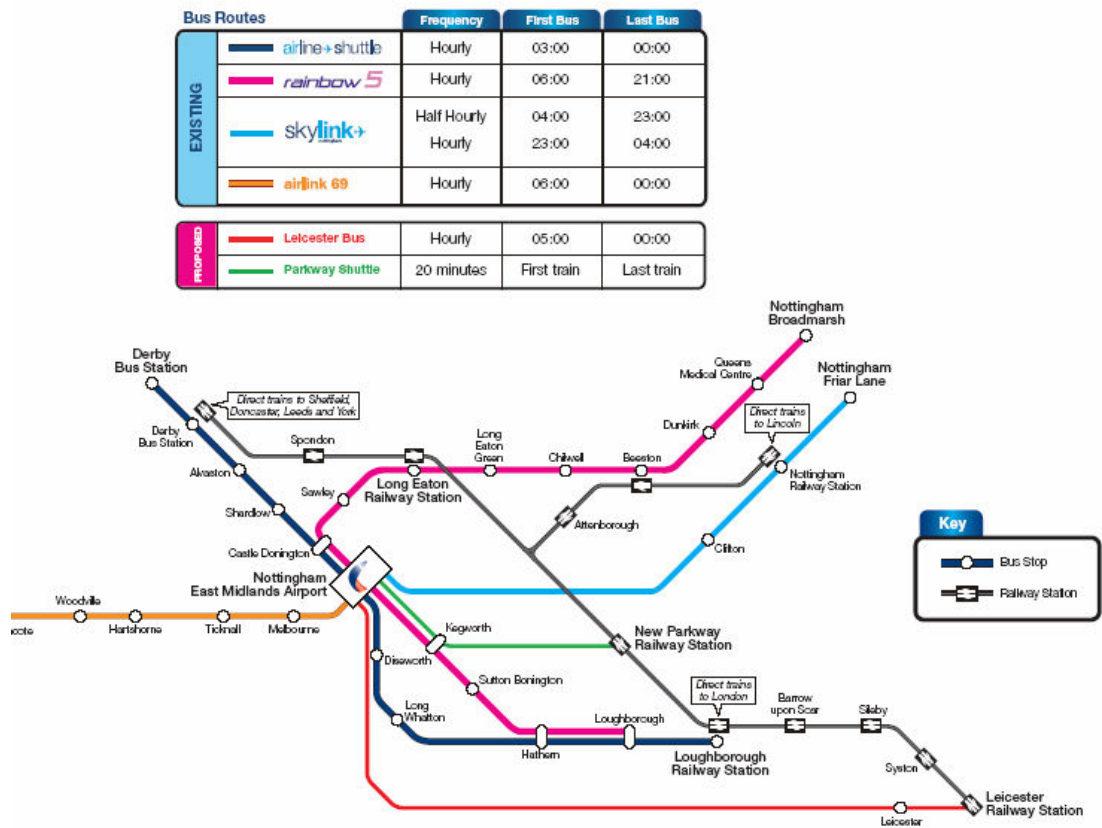
21. The Master Plan states that there are 6,500 jobs currently directly related to activities at the airport. It is estimated that in 2001 operations at the airport supported some 9,100 full time equivalent (fte) jobs within the region. It is anticipated that direct jobs will reach 14,300 by 2015 and 22,400 by 2030. Total jobs supported by airport activities are forecast to reach 23,100 in 2015 and 35,900 by 2030. Annual regional income generated by airport related employment would rise from £198 million to £1.3bn by 2030.

## Housing

22. The Master Plan anticipates that the growth in employment from NEMA's expansion could generate an additional demand for housing of between 5,500 and 9,200 dwellings by 2030 in its catchment area. This suggests an additional demand of about 2,200 to 4,000 dwellings by 2016.

## Traffic and Access

23. Given the number of anticipated jobs, freight and passengers that are likely to be access the airport it is important that facilities are made available in terms of accessibility, car parking and public transport and other means of travel.
24. To help cope with this increased demand, NEMA propose an 84% increase in car parking for passengers (7,500 to 13,800) and a 109% increase in car parking for staff (3,300 to 6,100). NEMA proposes targets for 2016 involving 10% of passengers arriving by means other than a car and 30% of employees arriving by means other than single car occupancy. To achieve this, the plan proposes:
  - a. A shuttle bus service from the new parkway station, with through ticketing;
  - b. Improving bus services to Leicester, Loughborough, Derby and Nottingham by 'pump priming';
  - c. Development of demand responsive transport (DRT) services for the Ashby/Coalville, Leicester estates and Kegworth areas, particularly for the benefit of shift workers;
  - d. Introducing a car share and taxi preference scheme;
  - e. Providing better access and information for cycling, and promoting cycling and walking for intra-site travel;
  - f. Informed information and marketing of alternative travel modes;
  - g. Growth in car parking provision to be less than the growth in employment and passengers;
  - h. A series of highways improvements to cope with predicted total rush hour traffic from the airport of 3350 and 4700 in the morning and evening peaks respectively;
  - i. Examination of opportunities to transfer freight from road to rail.
25. The figure below shows the existing and proposed bus routes to and from the airport and the rail lines.



## Environmental impacts and their mitigation

26. The environmental impacts that the Master Plan identifies are:

- air quality
- climate change
- aircraft noise
- waste management
- surface water
- landscape and habitat
- aircraft vortices

27. For the County Council the key impacts are those relating to **air quality, climate change and noise**.

### Air Quality

28. The Master Plan summarises the existing and predicted emissions to air as shown in Table 1.

29. The principal sources of emission into the air are from:

- a. transport of passengers and staff to and from the Airport site;
- b. operation of aircraft, particularly taxiing and manoeuvring;
- c. operation of a large vehicle fleet servicing the aircraft;
- d. heating of airport buildings.

Table 1 Summary of airport emissions (tonnes per annum)

	NO <sub>x</sub> <sup>1</sup>		PM <sub>10</sub> <sup>2</sup>		VOC <sup>3</sup>	
	2004	2016	2004	2016	2004	2016
Aircraft	712	1589	0	0	31	28
Airside vehicles	18	15	2	2	4	4
APU's	20	29	0	0	2	4
Explicit Roads	1305	1001	42	30	139	122
Estimated Other roads	2046	2372	109	121	466	494
Other	22	23	28	28	86	283

30. The plan recognises that local road traffic is the major contributory source of emissions both at the Airport and in the surrounding environment. Growth at the airport will increase emissions into the air. However, independent assessment has concluded that local air quality will continue to be within the Government's guideline values, established to protect health, up to 2016. Beyond 2016 there is less certainty. The plan concludes that no dwellings would be exposed to levels of air quality in excess of the Air Quality Strategy limits unless a second runway was constructed.
31. NEMA plans to continue to bear down on the emission of polluting materials by:
- a. random testing of vehicles for emissions. Any vehicle that fails an emissions test is withdrawn from service;
  - b. increasing the number of battery powered vehicles on site and pursuing the use of electric and other alternatively powered vehicles;
  - c. reducing emissions from vehicles accessing the Airport by promoting public transport, walking and cycling;
  - d. exploring ways to reduce emissions from taxiing and manoeuvring aircraft.

### Climate change

32. The most significant impact of airport operations on climate change is the emission of carbon dioxide (CO<sub>2</sub>), resulting from the operation of vehicles in and around the site, aircraft taxiing, manoeuvring and parking, the heating of buildings and the use of electricity for lighting and heating. The Airport's operations currently give rise to approximately 1,100 tonnes of carbon each year. The strategy for reducing the level of CO<sub>2</sub> emissions is to continue to invest in renewable energy and to work actively with renewable energy suppliers to find innovative ways of working. In the financial year 2005/06, 10%

<sup>1</sup> A generic term for the various oxides of nitrogen produced during high temperature combustion

<sup>2</sup> Particulates or particles smaller than, or equal to 10 microns in diameter

<sup>3</sup> Volatile Organic Compound. Organic chemical compounds that have high enough vapour pressures under normal conditions to significantly vaporise and enter the atmosphere

of the electricity consumed by the Airport will be generated from renewable sources.

33. The Master Plan states that it will seek to capitalise on opportunities to make use of renewable fuels on the Airport site. The proposal is to continue to meet or exceed the Government's target that 10% of electricity should be generated from renewable sources by 2010.

#### Noise

34. One of the key issues in the Master Plan is the impact of noise. The amount of growth predicted means that there will be an increase in noise, particularly at night time.
35. The Plan recognises that as a matter of national policy it has to bear down on night noise and ensure that there are stringent controls in place. NEMA states that it is committed to ensuring that, despite the expected growth in traffic, night noise associated with the Airport remains below 1996 levels for a further ten years, until at least 2016. NEMA will work with Airlines to follow the internationally-accepted principles for minimising the impact of aircraft noise, which requires airports to adopt a hierarchy of measures: to minimise noise at source; make use of land use planning where this is insufficient; adopt operational practices that minimise noise; and as an ultimate resort restrict the operation of noisier aircraft types.
36. NEMA therefore proposes to implement a comprehensive package of measures to address this sensitive issue. This package will include:
  - a. Setting a target that, by 2012, all aircraft scheduled to operate at night will comply with the very quietest standards (Chapter 4);
  - b. Extending the current night noise contour target by five years to at least 2016;
  - c. Extending the current night ban on the noisiest scheduled aircraft to include ad hoc operations with a five-fold increase in the penalties for any operations that for unavoidable reasons slip into the night period;
  - d. Introducing a Night Environmental Surcharge which will be used to benefit those communities directly exposed to night disturbance from operations at NEMA;
  - e. Improving and extending mitigation measures and compensation packages, including a substantial increase in the basic Sound Insulation Grant and grants of up to £10,000 for the most severely affected;
  - f. Recognising the impact of single events and amending the Grant Scheme to include these;
  - g. Providing a five-fold increase in the Airport's annual contribution to the Community Fund to supplement the noise fines paid into it;
  - h. Making best use of technology (PRNAV) available for further improvements to concentrate flights over fewer dwellings, including commencing a trial in 2006;

- i. The use of operational techniques to reduce noise, including continuous descent approaches by landing aircraft;
  - j. Making the track-keeping performance of arriving and departing aircraft available to public scrutiny via the Airport website in 2006.
37. A list of the noise mitigation measures is set out in Appendix 3.

### **County Council's Response to the Master Plan**

38. The airport Master Plan is clearly an important document that sets out how the airport will develop into the future in line with the government's air transport white paper. It looks ahead to 2030 although there is little detail in the draft Master Plan on the scale and location of future airport development beyond 2016. It is appreciated such detail will be worked up in future reviews of the Master Plan. However, as the current draft Master Plan covers the period to 2030, it is felt that further details should be included at this stage, so a clearer indication of likely future development of the airport can be given to local authorities, businesses and communities.
39. Whilst the Master Plan contains many details in terms of operational and physical development, the County Council should primarily be concerned with the key strategic issues that the Master Plan raises.

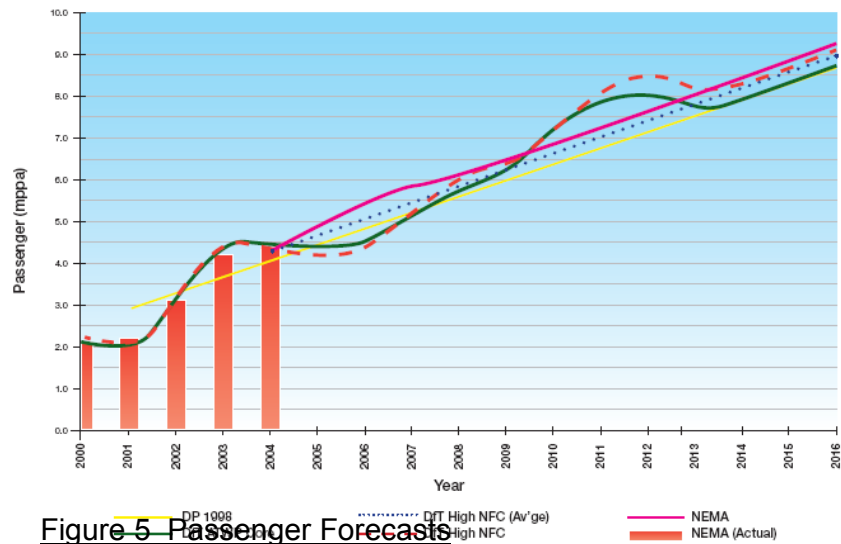
### Strategic Policy context

40. The starting point is to consider the strategic policy context within which the Master Plan sits and assess the extent to which it fits into the wider regional and sub regional policy objectives. The guidance on Master Plan preparation states that one of the purposes of Master Plans is to enable future development of the airport to be given due consideration in local and regional planning processes.
41. The key strategic policy documents are the Regional Economic Strategy (RES), the Regional Spatial Strategy (RSS), the Regional Freight Strategy (RFS) and the Leicestershire, Leicester and Rutland Structure Plan (LLRSP). Extracts from the most relevant sections are set out in the Appendix 2 to this report. In addition, the RES is currently under review and is likely to be finalised in the summer of 2006. The RSS review refers to the policy on NEMA needing to inform and be informed by the NEMA Master Plan. The recognition of this relationship is important, particularly as the draft Regional Plan when it is produced in September 2006 should provide a clear steer for the development of NEMA to 2026, which will almost cover the duration of the Master Plan which.

42. The key objectives from these strategies and policy documents as they affect the development at the airport can be summarised as follows:
- a. delivering a competitive region and ensuring sustainable communities is a key aspiration of regional economic policy;
  - b. the airport, in that context, is seen as a national and regional asset;
  - c. seeking to increase the contribution of the airport to the economic agenda is seen as regionally important;
  - d. airport growth will need to be accompanied by improved surface access, particularly by public transport;
  - e. improved surface access will enable workers from the more disadvantaged areas of the region to access employment and training opportunities at the airport;
  - f. however, it is recognised that growth in the airport must minimise its impact on the environment;
  - g. the assessment of the environmental impacts should be rigorous and should include consideration of noise, air quality, water quality, human health, landscape, biodiversity, natural resources and cultural assets, together with social and economic effects;
  - h. a comprehensive package of measures to help reduce and mitigate the environmental costs associated with forecast growth will be required;
  - i. the implications of airport growth will be subject to an evaluation of the potential benefits to the Leicestershire and East Midlands economy against the environmental harm associated with the expansion of air transport.
43. The Master Plan in implementing the white paper forecasts is in principle delivering the economic aspirations of the region in terms of providing a social desire to fly which brings with it direct and indirect economic benefits. The airport has already seen a significant growth in passenger traffic as Figure 5 below shows. This is set to double by 2016, reaching over 9 million and then projected to reach 14 million by 2030.
44. The continued development of cargo business will also bring direct and indirect economic benefits. Cargo tonnage is forecast to increase fourfold by 2016 to 1.2 million tonnes per annum and then double again by 2030. Recent increases in cargo business (see Figure 6) has not seen the same dramatic rise as in passenger numbers and whilst the Master Plan predicts growth at a much faster rate than in the past in line with government forecasts it remains to be seen whether such increases will materialise.

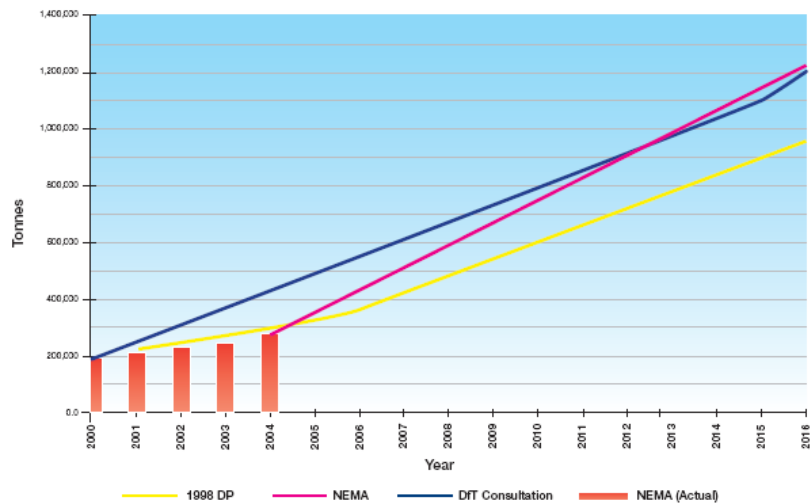
45. The Master Plan does not show the details of these comparators beyond 2016 and it would have been helpful to see the forecast data extend to the 2030 time horizon of the Master Plan.

**Comparison of Forecasts 2000 to 2016**



**Figure 5 Passenger Forecasts**

**Comparison of Forecasts 2000 to 2016**



**Figure 6 Cargo ATM Forecasts**

Economic impact

46. The economic impact of these increases in terms of jobs and income are summarised in paragraph 21 above. Whilst that shows the overall job and income creation it does not detail where within the region those jobs and spending are likely to be. The basis of the data is derived

from a study commissioned by EMDA<sup>4</sup>. This shows that of the regional total, Derbyshire will be the largest beneficiary with 47% of the regional employment and 50% of regional income, followed by Nottinghamshire with 26% of employment and 26% of income and Leicestershire with 21% of employment and 23% of income.

47. According to the draft RES Employment growth in the East Midlands is likely to be 0.4% per year in the period 2004-2014, which is, again, in line with the UK average. This represents an absolute increase of around 63,000 jobs. If the Master Plan forecasts are correct then the growth of activities at NEMA is likely to contribute some 9,400 jobs to that total, representing around 15%, which is a significant contribution
48. However, the Master Plan needs to define who the beneficiaries are: is it the airlines, the airport, businesses, passengers or the surrounding communities? The wider accessibility benefits in terms of attracting and retaining a broader range of economic activities are of importance to the sub-regional economy and its competitiveness.
49. The Master Plan must emphasise that although direct benefits such as job creation and growth in freight are important, the most important economic impact of the airport's expansion is the accessibility that it brings to business and to the attraction of inbound tourists. The wider benefits are only partly captured by benefits to the users of air transport or by the industry itself to the extent that accessibility is vital to the regions competitiveness and economic growth.
50. Section 2.3 of the Master Plan on page 18, Generating Wealth, seems to be too brief. In 2.3.1 Cargo, the document refers to 4,700 people being employed within the express delivery industry within the East Midlands. It is unclear as to whether the reference to the express delivery industry includes all cargo and freight activity. If not, this section should include information about the numbers employed within the cargo and freight industry in the East Midlands and across the airport site.
51. The Cargo section in 2.3 should also include information about the number of businesses that generate this employment, the economic and industrial sectors they support and how many have direct links with the airport's cargo and freight function. There also needs to be further information about the geographical location of these businesses in relation to the airport.
52. The Employment section in 2.3 refers to 6,500 people currently employed by 100 companies located across the airport site. This section needs to include further information about these companies including their industrial sectors, the number of SME's and what percentage of these businesses are involved in freight, cargo or any other airport related business activities. The employment forecasts should also provide forecasts about the types of jobs that the expansion would generate and within which sectors.

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<sup>4</sup> EMDA/NEMA – East Midlands International Airport Economic Development Strategy – Revised Draft December 2003

53. The reference to where this employment demand will be met should include the Counties of Leicestershire, Derbyshire and the Nottinghamshire as well as the cities as referred to above.
54. The investment part of Section 2.3 should give an indication of the sectors and the types of businesses that the airport expansion may attract to generate the additional jobs. More detailed information and forecasts will enable the neighbouring planning authorities and emda to ensure that there the quantity and quality of employment sites and the related infrastructure is available within the region to attract this investment. The region has a strong aerospace cluster and the Master Plan needs to include measures which encourage research and development in the aircraft manufacturing sector which could have further spin-off benefits within the region.
55. In terms of international trade, the Master Plan should make reference to the potential for increasing long haul flights and the number of destinations. Specific reference should be made to the growing economies of India and China which Leicestershire and the region have prioritised as targets for international trade and inward investment.
56. Tourism makes a significant contribution to the regional economy and the airport's expansion plans will no doubt increase the overseas visitors and spend in the East Midlands. It is important to note that the increase in outbound flights and destinations will have a significant impact on the economy. The increase in business and holiday passengers will increase demand for taxi's, food and drink, other retail, accommodation etc. This will also contribute to generating job opportunities and local economic growth.

#### Housing and employment land

57. The draft Master Plan refers to indirect impacts from the growth of the airport in terms of additional housing demand in the airport catchment of 2,200 to 4,000 dwellings up to 2016 and a further 3,300 to 5,200 dwellings to 2030. Emda will be producing 'policy on' job projections at the end of March 2006 which will inform the amount of employment land in the Regional Plan review process, and it is understood that these job projections should pick up the likely implications for job growth at the airport. In addition, new ODPM household projections have recently been issued. The household projections take account of current and likely trends in migration and household formation which may pick up all or most of the projected increase referred to in the draft Master Plan. This will be looked at more closely as part of the Regional Plan review process when the detailed data on the ODPM household projections emerge. The Airport's acceptance that new housing should be located away from the Airport and particularly within the main urban areas is supported.
58. The Master Plan encourages all development that does not need to be at the airport, including any further development of the Pegasus

Business Park, to locate in or on the edge of urban areas. This is supported and is in line with regional and sub-regional policies.

#### Surface access

59. The draft Master Plan sets out the strategy for growth to 2030, but the identified highway and transportation proposals are only really pertinent to the more medium term of 2016. Predicting growth both at the Airport and on the adjoining road network beyond 2016 to the year 2030 is difficult. On this basis, the intention to review the Master Plan every 5 years to ensure that it is relevant and appropriate to changes in circumstances is supported.
60. The Master Plan states that a planning application is to be submitted in the summer to extend the terminal facility to accommodate 9.3 million passengers per annum by the year 2016. The Airports Consultant (Arup) is preparing a technical transport assessment in support of the terminal enhancement.
61. The major operational highway constraint in this area is the strategic motorway and trunk road network (M1, A42, A453, A50 and junctions 23A and 24) which is very heavily congested at peak times. This has an influence on the local County road network as drivers seek to use other more minor routes through Castle Donington, Kegworth and Diseworth. However, motorway widening in the period 2010 – 2014 will very significantly improve the future road capacity in this area within the Master Plan period.

#### *Road improvements*

62. The Arup study is likely to recommend the following local improvement to the A453:
  - a. dualling of the A453 between junction 23A and the next Pegasus Business Park roundabout; and
  - b. additional lanes provided to the traffic signals at the main Airport entrance.
63. At this stage, it is very difficult to comment on the extent and nature of the improvements put forward, since this will depend on an examination of the detailed technical appraisal, which has not yet been formally submitted. However, it is recommended that the feasibility of extending the suggested dualling beyond the Pegasus Business Park roundabout as far as the main Airport entrance should be examined. There is also concern about the level of personal injury accidents at the main airport access and it is recommended that an assessment is made of a possible roundabout arrangement.
64. Improvements to the A453 to the west of the Airport entrance have not been identified by the Arup study, but there could be justification for local safety improvements e.g. at the junctions to Diseworth. A contribution to traffic management/speed constraint measures on the

road through Castle Donington village is also likely to be considered appropriate.

#### *Sustainable Transport Targets*

65. The draft strategy asserts that 26% of employees currently use a mode of transport other than being the single occupant of a car but admits to “statistical uncertainty” over this proportion. The Master Plan proposes that by 2016 this proportion should be increased to 30%. This is a very modest target for increase and will make little difference to traffic generation by the airport.
66. The number of passengers currently travelling to the Airport other than by car or taxi is very small. There is scope to significantly increase this by capitalising on the proposed East Midlands Parkway Railway Station. When this new rail connection is available, it is proposed that a shuttle bus service is provided to the Airport on a 20 minute frequency. In recognition of this and the financial support for additional sky link bus services, the Master Plan proposes a target of 10% of passengers accessing the Airport by 2016 using means other than by car. Given the currently negligible level of access other than by car, meeting this target would be a significant improvement.
67. Overall, however, there must be some question as to whether the targets for sustainable travel are ambitious enough, and indeed it is noticeable that NEMA propose very little direct funding of sustainable travel initiatives, relying instead on funding from other parties. It would be appropriate, in commenting on the Master Plan, to commend their ideas but to say they should take them much further, investing to produce significant reduction in proportion of single occupancy cars to the airport compared with what otherwise would be the case.

#### Noise

68. One of the key impacts of airport development is noise and the Master Plan devotes a significant part to dealing with issues surrounding noise and its mitigation.
69. The Master Plan accepts that noise will increase as a consequence of the growth, particularly at night time. It is also aware that the government’s air transport white paper states that airports will need to bear down and noise and that stringent controls will need to be applied.
70. In terms of air traffic movements (ATMs) these are forecast to almost double by 2016. Day flights are set to increase by about 86% whilst night flights are set to increase by 110%, from 16,800 to 35,300.
71. Mitigating aircraft noise can be approached in five main ways by controlling:
  - a. **What type** of aircraft used - e.g. the use of the quietest aircraft;
  - b. **How** aircraft are flown – e.g. continuous decent approach (CDA)

- c. **Where** aircraft fly – e.g. avoiding built up areas and using noise preferential routes;
  - d. **When** aircraft fly – e.g. avoid quieter background noise period such as night time
  - e. **How many** aircraft fly – e.g. less aircraft means less potential for noise.
72. If noise is unavoidable then compensation measures can be used such as sound insulation.
73. The Master Plan clearly states that noise will increase. Whilst some of the mitigation measures that are being promoted can be supported it is the lack of an overall objective with respect to noise that is disappointing.

*What type of aircraft?*

74. The Master Plan specifies that in terms of **what types** of aircraft are to be used, then there will be a progressive introduction of quieter aircraft types to ensure that by 2012 100% of all aircraft scheduled to operate at night comply with the requirements of 'Chapter 4'.
75. The noise impact of the operation of the airport has been reduced over the past decade due to the cessation of operations by noisy aircraft. This would, in part, have happened in any event due to the national phasing out of aircraft certificated to Chapter 2 of Annex 16 to the International Convention on Civil Aviation. Financial incentives and encouragement of airlines by NEMA may have had an effect in causing a greater improvement in aircraft noise levels than would have occurred in any event.
76. The current certification standard is Chapter 3. NEMA intends that all aircraft will meet the requirements of Chapter 4 (agreed by ICAO in 2001). In fact, many aircraft currently flying would meet Chapter 4 requirements. The strict difference between the noise levels required by Chapter 3 and those of Chapter 2 is quite small, and advances in aircraft engine design caused many new aircraft to be much better than Chapter 3 requirements. Chapter 4 was introduced to capture this benefit. NEMA's policy on Chapter 4 may not have as large an effect as it may appear to have.
77. In 1998 the airport produced a Development Policy (known as DP98) as guide to developments at the airport. When considering the impact of aircraft noise at night, the DP98 considered the 57 decibel (57dB LAEQ,8h) night noise contour and concluded that in 1996 this contour encompassed an area of 14.6 sq km. The DP98 also concluded that projected growth in aircraft activity would result in progressive increases in the size of the night noise contours such that by 2006 this noise contour would expand to an area of 20 sq km.
78. In order to update DP98, an independent assessment of the impact of noise at night has been undertaken. This work demonstrated that the projections made in DP98 were very pessimistic. Improvements in

noise amelioration, particularly the introduction of quieter aircraft types, have actually reduced the impact of noise at night and in 2004 the 57 decibel night noise contour was assessed to encompass an area of 7.4 sq km. However when considering the impact of future levels of aircraft activity it is assessed that this noise contour will grow so that by 2016 it will encompass an area of 14.4 sq km. The airport's current Ten Point Plan gave an undertaking that the night noise contour would not be extended beyond the 1996 level until at least 2011. The Master Plan increases that date to 2016. In other words the Master Plan undertakes to ensure that the night noise contours do not exceed 1996 levels until at least 2016.

79. It has to be said that there is nothing special about the 1996 contour level in that it only marks a point in time at which the noise contour was measured. The consequence of the change in aircraft types has been a significant fall in the size of the noise contours in 2004. If that is the case then the airport should be looking to keep the noise climate at today's level and be seeking to continue to improve the noise climate in a demonstrable way by finding ways to accommodate growth in aircraft activity. It should not be letting it creep back to a level of 10 years ago. This does not appear to be "bearing down on noise" as advocated by the white paper but is rather 'propping it up'.

*How will they be flown?*

80. In terms of **how** aircraft are flown, the introduction of continuous descent approaches (CDA) is a welcome feature in principle. The Master Plan points out that this can have the effect of reducing approach noise by up to 5 dB. However, the method of modelling aircraft used by NEMA, the Integrated Noise Model, while capable of accepting any approach profile, appears to be currently coded using interception of a simple 3° glide slope from level flight at a point distant from the airport. Even with CDA, it may be that within the extent of the contours, the approach is the 3° glide slope and the 5 dB benefit refers to areas outside the contours.
81. The size of the noise contour being the principal indicator used, it does not appear that the benefit of CDA can be seen from the contours.

*Where will they fly?*

82. **Where** aircraft fly can help if populated areas are avoided and in principle controlling flights through navigation techniques that use noise preferential routes is to be welcomed. However, the use of noise routing to avoid over-flying populated areas may have its greatest effect outside the contours, but to the extent that it affects the position of the departure part of the contours, merely totalling the area of the contours does not serve to monitor the effectiveness of the measure in terms of number of people affected.

*When will they fly?*

83. One of the striking features of operations at the airport is the cargo element and the fact that most of this occurs at night. There is little in the Master Plan (other than an environmental night surcharge) that would fundamentally reduce the number of flights at night. In fact the Master Plan clearly states that there will be more night flying in the future. Without better controls this would be unacceptable.

*How many will fly?*

84. Ultimately, it is the overall number of aircraft flown that will dictate the noise climate. The overriding feature of the Master Plan is the absence of any proposal to limit aircraft numbers, either in absolute terms or by the use of the noise quota count system as occurs at the three designated airports, Heathrow, Gatwick and Stansted (and at several non-designated airports such as Birmingham). By contrast, there are clear statements that the noise impact will increase. The only constraint is the policy to limit the size of the night noise contour, but the area proposed is much larger than will be reached for many years.
85. Rupert Taylor (noise consultant commissioned by the County Council) produced a proposed new noise policy which was centred around more detailed monitoring of noise impact in terms of “people nights” exposure (i.e. a total obtained by summing the number of nights for which residents are exposed to noise above the sleep disturbance thresholds of 90 SEL or 55 dB LAeq 8h). A proposed system of limiting the number as a replacement for the quota system absent due to the non-designation of the airport was included. The draft policy was presented to NEMA, but no consideration of it is reported.

*Compensation measures*

86. While having no significant limits on aircraft numbers or noise quota, the Master Plan is proposing a significant increase in the sound insulation grants scheme and is also proposing to introduce a property purchase scheme. Whether the proposed increase in the levels of grants is adequate will depend on a review of the costs incurred, particularly where it is necessary to include roof insulation as well as secondary glazing and ventilators. Such a review is not reported in the draft Master Plan.
87. The measures, whilst welcome, do not directly address the need to do more to reduce the occurrence of noise in the first instance. The number of houses where the occupants are likely to suffer significant levels of sleep deprivation is forecast to rise from 600 to 1,800 by 2016. This may result in a serious problem of blight and abandonment around the Airport. The Master Plan should indicate the numbers of dwellings where the different levels of mitigation are anticipated.

### Air Quality

88. Detailed assessment of air quality issues would be a matter for the District Council's environmental health service. The designation by the District Council of Air Quality Management Areas (AQMAs) along the M1 and in Kegworth is not mentioned in the Master Plan. These AQMAs have been declared because potential exceedences of the annual mean NO<sub>2</sub> objective have been identified at relevant locations (residential properties). Both of these locations will be influenced by any increases in emissions due to the predicted growth in aircraft activity and associated increases in traffic, on the M1 and the A6 through Kegworth.
89. The UK Air Quality objectives are mentioned in the Master Plan. However, the values (for pollutants other than NO<sub>2</sub>) and the years they need to be achieved are not presented. Short-term objectives for NO<sub>2</sub> (1-hour) and PM<sub>10</sub> (24-hour) are not mentioned
90. Road traffic surveys undertaken to investigate East Midlands Airport surface access contribution have not been detailed in the Master Plan. Road traffic travelling to and from the airport can have a significant impact upon NO<sub>2</sub> concentrations. It would therefore be useful to have a monitoring site at a relevant location (residential location) alongside the A453 to the south of the airport. Also the predicted growth in VOCs is attributed to the "Other" category and given the size and scale of the increase this figure needs to be better explained.
91. The mitigation measures in the Master Plan are welcomed but there needs to be further details on implementation and enforcement.

### Climate Change

92. The description of the current position lists the Airport's principal sources of carbon dioxide. This list includes aircraft taxiing, manoeuvring and parking. However, it does not mention landing and take-off, which can be a significant source of carbon dioxide.
93. Reference is made to an initial carbon dioxide emissions inventory, focussed on consumption of gas, electricity and oil. This will not take into account emissions from aircraft and surface traffic, which are likely to be the dominant sources.
94. Whilst the efforts of the airport to limit CO<sub>2</sub> emissions from the airport site are welcomed, the major source of emissions will remain and increasingly be emissions from the aircraft and traffic using the airport. The Glossary reference to CO<sub>2</sub> being "thought" to contribute to global warming is incorrect in the light of overwhelming scientific evidence of a direct causal relationship between the increase in CO<sub>2</sub> and global warming. The absence of any clear government or international policy on managing the impact of air transport on climate change means that it is very difficult (and frustrating) for the County Council to respond within any meaningful context. What is clear is that we need to

produce less CO<sub>2</sub> but the plans for expansion of the airport at the scale proposed will increase it

95. The UK aviation sector contributed about 5.5 per cent of the UK's carbon dioxide emissions in 2000, and as a result of radiative forcing (RF) 11 per cent of the total UK climate change impact. The future growth in air transport could mean that the aviation sector contributes between 33-35 per cent of the total UK climate change impact by 2050, assuming all other sectors meet the targets set out in the Energy White Paper<sup>5</sup>. The Master Plan needs to be more explicit what impact the future growth will have on carbon emissions.

#### Other matters

96. Little has been said in the Master Plan about the potential increase in long haul flights. This may have the potential for immigration and for the County Council as the host authority to consider the implication of asylum seekers on **social care and children's services**.
97. Also, no mention is made of long term security and **policing of the airport**. The police authority currently provide the service but with the forecast growth there will be a growing drain on the tax payer in Leicestershire. This matter needs to be addressed in the Master Plan.

#### **Summary and Conclusions**

98. The requirement for airports to produce Master Plans is a welcome initiative. It will form an important mechanism for engaging with the community and stakeholders affected by developments at the airport. It will also be part of the Local Development Framework and will inform and be informed by the LDF requirements. The LDF will provide the formal statutory basis for how development at the airport will progress and how decisions on development that may be affected by the airport will be dealt with. However, ultimately the final decision on the content and implementation of the Master Plan rests with the airport and there is no independent assessment or final arbiter as to how the Master Plan should or will tackle the issues it raises. This is regrettable.
99. The Master Covers a period up to 2030 but details beyond 2016 are less developed. The Master Plan will be formally reviewed every five years but it would be helpful if an annual report could be produced and published showing progress of developments and monitoring of targets which could indicate triggers that would instigate an earlier review than five years. In particular, the issue of a second runway is firmly on the agenda as a review item.
100. It is clear that the growth in the airport as set out in the Master Plan will bring economic and social benefits in terms of jobs, income, business benefit and meeting the demand to fly, not only to Leicestershire but also to the region as a whole. Compared to surrounding counties, Leicestershire is likely to benefit less economically than the others but nevertheless it could make a contribution to Leicestershire's economy.

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<sup>5</sup> HM Government - The UK Government Sustainable Development Strategy – March 2005  
p85

The Master Plan needs to be more explicit about what benefits it will deliver to Leicestershire.

101. In terms of housing and employment land the Master Plan recognises that future employment related activities are best located away from the airport in more appropriate locations and this is supported. Housing demands can be accommodated through the development process.
102. Growth at the airport will have an effect on the County's roads, particularly as the major national road network becomes congested although this is likely to be partially addressed by M1 widening proposals. The appropriateness of the improvements to the A453 and traffic signals at the airport are hard to judge in the absence of detailed technical matters but the principle of those types of improvements will be necessary to be looked at as part of future development at the airport. The targets for sustainable transport are modest, and the airport will need to do more to reduce reliance on the car and provide more investment for public transport.
103. The impact of noise from airport activities continues to be an issue of major concern. It is considered that the Master Plan has not gone far enough with the improvements it is proposing on noise and it falls far short of making a measurable difference in reducing noise over time. The Master Plan does not "bare down on noise" sufficiently as advocated in the Government's white paper. It relies on the fact that noise will increase but not at the rate as previously predicted and therefore there is "spare capacity" to allow noise to rise to a previous (and arbitrary) level.
104. As the east midlands region sets its sights on a prosperous and modern future, the Master Plan's noise levels are proposed to be at levels of 10 years ago which means that by 2016 the noise level aspiration will be 20 years out of date. This does not appear to be a sustainable position for a forward looking and important enterprise like the airport. The airport has failed to adequately justify why it considers this to be an acceptable way forward. The airport needs to clearly display its corporate social responsibility by being more proactive in positively demonstrating a noise climate that is progressively improving. Aiming for noise levels based on past circumstance is a retrograde step and does not portray the airport as a modern forward looking business.
105. The County Council and its partners have given the airport an opportunity to take on board a proposal which measures how many people would be affected by noise now and in the future so that there could be measurable progress in managing noise impacts. It is unacceptable that those measures have not been reflected in the Master Plan.
106. The County Council urges the airport to take on board the Taylor noise plan when it finalises its Master Plan.

## **Equal Opportunities Implications**

None discernible.

## **Background Papers**

Nottingham East Midlands Draft Master Plan.

## **Appendices**

Appendix 1	Extract – Guidance on Preparation on Master Plans
Appendix 2	Summary of Strategic Planning Policies
Annex A	Extract from East Midlands Regional Economic Strategy
Annex B	Extract from Revised Draft RES
Annex C	Extract from East Midlands Regional Spatial Strategy
Annex D	Extract from East Midland Regional Freight Strategy
Annex E	Extract from Leicestershire, Leicester & Rutland Structure Plan
Appendix 3	List of Noise Mitigation Measures from Draft Master Plan

## **APPENDIX 1**

### **EXTRACT FROM MASTER PLAN GUIDANCE**

#### **The purpose of Master Plans**

7. The Air Transport White Paper set out for the first time in nearly twenty years a comprehensive view of future airport requirements in the UK. This was provided in the context of a framework of broader policy, which seeks to balance airport growth against the need to minimise impacts on those who live nearby and on the natural environment. Master Plans provide a mechanism for airport operators to explain how they propose to take forward this strategic framework in the form of airport-specific proposals, designed to help inform the regional and local planning processes and facilitate engagement with a wide range of stakeholders.
8. Master Plans will not have any statutory basis unless they are subject to the relevant plan-making provisions in the Planning and Compulsory Purchase Act 2004 . The absence of an approved Master Plan should therefore not be relied upon by local planning authorities as grounds for refusal to consider planning applications. But the Government envisages that a Master Plan should provide a clear statement of intent on the part of an airport operator that will enable future development of the airport to be given due consideration in local and regional planning processes.
9. It will normally be for airport operators to take the lead in preparing a Master Plan, and to describe how they expect their airport to develop over time. If, however, a Master Plan is to be fully integrated into a Local Development Framework, likely to be in the form of an Area Action Plan, the airport operator should work closely with the local planning authority from an early stage, as the latter body will need to take ownership of the process and take it through the appropriate stages set out in the 2004 Act.
10. The Government believes that the preparation of airport Master Plans will offer a range of wider potential benefits in addition to their value in informing the planning process:-
  - they will provide an indication of an airport operator's plans for infrastructure development in the light of the high-level strategic policy framework for each airport in the White Paper, and therefore bring greater clarity and certainty for all those affected or with an interest;
  - they will inform long-term resource planning for local and regional players, particularly in the preparation of strategies and local plans;
  - they will make a useful tool for communicating to a range of stakeholders, including airlines, funding institutions, local authority and other local interests, to allow them to make well informed investment decisions;

- they will help airport operators to make clear at an early stage the key milestones of their development project such as the submission of a planning application, construction and opening;
  - they will provide a consistent and publicly recognised vehicle for the Government, Devolved Administrations and their agencies to assess progress being made in delivering the White Paper at each airport;
  - they will demonstrate the range of costs and benefits of airport growth; and
  - they will enable airport operators and others to assess local social and environmental impacts (including those arising from landtake and habitat loss) and provide an opportunity to develop preliminary proposals on how those impacts could be mitigated.
11. Many airport operators already produce Master Plans. However, the approach set out in each is different. Some bring together comprehensive evidence sets on specific proposals for development, whereas others provide a more general statement on operational issues with little underpinning analysis.
12. The Government feels that airport operators should use their Master Plans to explain their plans for development. In doing so they should reflect the broad scope of the White Paper and the balanced, evidence-based and open approach to airport planning which it advocates. In order for the document to be in step with the different requirements of the regional and local planning processes in England and the devolved areas of the UK, the substantive document including supporting evidence should be ready by the end of 2005. This should enable Master Plans to inform the preparation of Local Development Frameworks.
13. Airport Master Plans will be an important reference source in the planning and development process for individual airports and those affected by them. This guidance therefore indicates how Master Plans should be developed to build on White Paper conclusions. It sets out the core issues that Master Plans should cover and those that are optional. It establishes some underlying principles that reflect the needs of wider stakeholder interests. But importantly, it also recognises the flexibility that will be needed to reflect the circumstances of different airports.

Web link to Guidance on Master Plans:

[http://www.dft.gov.uk/stellent/groups/dft\\_aviation/documents/page/dft\\_aviation\\_031530.hcsp](http://www.dft.gov.uk/stellent/groups/dft_aviation/documents/page/dft_aviation_031530.hcsp)

## **APPENDIX 2**

### **SUMMARY OF STRATEGIC POLICY BACKGROUND**

#### **Regional Economic Strategy (RES)**

The Regional Economic Strategy (RES), Destination 2010, was published in March 2003 by the East Midlands Development Agency (EMDA). It is intended to be the blueprint for economic development over the next 7 years.

The RES has two aspirations – to deliver a competitive region and at the same time to ensure that the region has sustainable communities. Whilst the RES seeks to increase the contribution of East Midlands Airport to the economic agenda it also recognises that any economic development must minimise its impact on the environment. A good environment in the region is a key to economic success. (**Annex A** – Extract of relevant airport related policies)

#### **Revision to Regional Economic Strategy (RES)**

A revision to the RES is currently being prepared. A draft strategy has recently been the subject of consultation and, subject to ministerial approval, should be published in the summer of 2006. The draft RES views the east midlands airport as a national and regional economic asset. However, the growth of NEMA will require improvements to surface access, especially by public transport, to maximize the benefits of that growth. In particular improvements that enable workers from the more disadvantaged areas of the region to access employment and training opportunities at NEMA. Improving surface access to the airport, especially by public transport, will remain a key regional priority. The development of Parkway Station is a priority to provide a rail link to the airport, and a long-term regional aspiration is for a fixed public transport link to NEMA.

Whilst working to maximise the benefits of the expansion of NEMA, there also needs to be a comprehensive package of measures to help reduce and mitigate the environmental costs associated with this forecast growth. (**Annex B** – Extract of relevant airport related policies)

#### **Regional Spatial Strategy (RSS)**

The Regional Spatial Strategy (RSS) was issued by the Government Office for the East Midlands (GOEM) in March 2005. It is part of the statutory development plan. The main role of RSS is to provide a strategy within which local authorities' planning documents and local transport plans can be prepared. It may also be material to decisions on individual planning applications and appeals.

The RSS has 10 core objectives. It seeks to balance the promotion and improvement to economic prosperity, employment opportunities and regional competitiveness whilst at the same time seeking to ensure the protection and where possible enhancement of the quality of the environment and to achieve effective protection of the environment by avoiding significant harm and securing adequate mitigation where appropriate. In that context, it views

NEMA as a key national and regional asset in terms of both passenger and freight movements. The RSS states that Development Plans should provide for the further operational expansion of NEMA within its boundaries subject to rigorous assessment of the full range of impacts. This should include consideration of noise, air quality, water quality, human health, landscape, biodiversity, natural resources and cultural assets, together with social and economic effects. (**Annex C** – Extract of relevant airport related policies)

### **Regional Freight Strategy (RFS)**

The Regional Freight Strategy (RFS) was published in July 2005 and forms an integral part of the RSS. It states that air freight is of considerable importance in the Region, principally through the role of NEMA as a successful cargo hub. It recognises that the growth of airfreight at NEMA is not without environmental impacts and that the Airport and other stakeholders need to be vigilant in minimising these impacts.

It therefore seeks to achieve a balance between capturing the benefits air freight brings whilst promoting mitigation through sustainable operation. It sees these issues being addressed through the Airport's Master Plan. It specifically identifies Leicestershire County Council as a partner in assessing and introducing measures which will achieve a sustainable approach to existing and future airport operations by implementing agreed actions that will reduce the environmental impact of air pollutants from all flights and noise from night time flights. (**Annex D** – Extract of relevant airport related policies)

### **Leicestershire, Leicester and Rutland Structure Plan (LLRSP)**

The Leicestershire, Leicester and Rutland Structure Plan (LLRSP) was adopted in March 2005 and remains part of the development for the time being. Its policy on NEMA is that provision will be made for the operational needs of the Airport and for improved surface access to the Airport, subject to an evaluation of the potential benefits of any such development to the Leicestershire and East Midlands economy against the environmental harm associated with the expansion of air transport. (**Annex E** – Extract of relevant airport related policies)

## ANNEX A

### EXTRACT FROM THE EAST MIDLANDS REGIONAL ECONOMIC STRATEGY (MARCH 2003)

#### Site provision and development – the challenges

**Three Core Cities** - There is a shortage of sites in the core urban areas caused by competition between the office sector and housing demand. Complementary roles need to be developed for Derby, Leicester, Nottingham, in particular to include linkages to East Midlands Airport, Loughborough, research and technology sectors and universities.

...anticipated growth in relation to the expansion of freight and passenger activity at East Midlands Airport will require appropriate site provision to support business development in established urban areas, and to facilitate operational growth at the airport itself.

**Key activities** - Increase the contribution of East Midlands Airport to the economic agenda through business development related to airport activity

#### Transport – the challenges

Accessibility to both employment opportunities and the markets they serve, is fundamentally important to the economic prosperity of the region, and its competitiveness within Europe and worldwide....

...Accessibility to regional airports with a portfolio of key European destinations is another aspect of connectivity that will support the economic growth potential of the region. The Government's review of air transport provision will shape air service provision over the next 30 years. The review has served to highlight the operational growth potential of East Midlands Airport (EMA) and its contribution to economic growth, both as a national freight hub and as a regional passenger airport. Growth at EMA will require significant investment in rail access to the airport, particularly connecting to the three cities of Derby, Leicester and Nottingham.

The region's economy will also benefit from linkages to outlying airports such as Manchester, Birmingham and London Stansted.

More emphasis is needed on integrating transport and considering all alternatives before constructing new roads. The Government encourages making better use of existing roads, and promoting the use of other modes of transport.

Priority should be given to establishing opportunities for rail-based inter-modal facilities, to move freight from road to rail transport, particularly with respect to the Markham Employment Growth Zone, in Chesterfield, Derbyshire, in Lincolnshire, Corby, and to serve East Midlands Airport.

**Key Activities - Secure the necessary surface access improvements to serve the forecast growth at East Midlands Airport by assessing the viability of public transport improvements directly to the airport through an *Airport Action Group*.**

**Urban Regeneration – the challenges**

Creating the right complementary mix within and between the cities will maximise the region's competitiveness potential. The three core cities of Derby, Leicester and Nottingham offer an impressive combined market force. It is important that the benefits of this combined critical mass can be exploited for the region's growth prospects; major opportunities relating to road, rail and airport infrastructure are likely to be key drivers for further growth.

**Economic Growth and the Environment – the challenges**

The relationship between economic development and the environment is complex. This strand focuses in part on the environmental impact of economic development and also on the development of the environmental economy. All the other strands of this strategy also recognise the importance of minimising adverse environmental consequences of the activities described.

## **ANNEX B**

### **EXTRACT FROM DRAFT REGIONAL ECONOMIC STRATEGY FOR THE EAST MIDLANDS – GOVERNMENT SUBMISSION FOR CONSULTATION JANUARY 2006**

#### **Nottingham East Midlands Airport**

Regional airports impact directly on the economic competitiveness of locations served by them.<sup>6</sup> The region has relatively good air accessibility, well served by Nottingham East Midlands Airport (NEMA) within the region, and a number of others outside the region which are used by people living and working in the East Midlands, including Robin Hood (Doncaster/Sheffield), Stansted, Coventry and Birmingham International.

NEMA is the second largest international freight hub in the UK (after Heathrow), and the largest for the volume carried on dedicated freight aircraft. NEMA serves as a national express freight hub specialising in the movement of high-value, low-weight items and so serves many growth sectors of the economy including pharmaceuticals, IT, business services, and high-value engineering.<sup>7</sup> The express freight sector moves goods by a wide range of transport modes, with air movements only used to meet the needs of businesses for express deliveries to a wide range of foreign destinations. However, in the context of international trade and competitiveness, the ongoing function and success of NEMA, particularly as a strategic express freight hub, is important as it is one of the region's key economic assets.

In addition to direct employment, the economic benefits of airports include wider catalytic benefits such as support for inward investment, international trade and tourism. Successful regional airports offering a range of business and leisure services can help contribute to efforts to reduce the need to travel and reduce congestion and road mileage by removing the need for East Midlands residents and business to undertake longer surface journeys to access air services.

The Government's Aviation White Paper (December 2003) supports the growth of NEMA with passenger and freight traffic, and acknowledges its national role for freight operations. However, the growth of NEMA will require improvements to surface access, especially by public transport, to maximize the benefits of that growth. In particular improvements that enable workers from the more disadvantaged areas of the region to access employment and training opportunities at NEMA. Improving surface access to the airport, especially by public transport, will remain a key regional priority to help realize these benefits over the longer-term, particularly where improvements help regional workers access employment and training opportunities at airports. The development of Parkway Station is a priority to provide a rail link to the airport, and a long-term regional aspiration is for a fixed public transport link to NEMA.

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<sup>6</sup> J Simmie, Oxford Brookes University, '*Trading Places: Competitive Cities in the Global Economy*', 2000

<sup>7</sup> Oxford Economics, '*Express Freight*', 2005

Whilst working to maximise the benefits of the expansion of NEMA, there also needs to be a comprehensive package of measures to help reduce and mitigate the environmental costs associated with this forecast growth. Connectivity to major international ports in other regions (such as Felixstowe), as well as Boston in the East Midlands, also adds a vital international dimension to the region's accessibility and competitiveness.

## **PRIORITY ACTIONS**

### ***MAXIMISE BENEFITS FROM AIRPORTS***

Realise the economic opportunities, benefits and challenges of airports located in, or impacting on the region. This includes recognising the need to address key environmental issues to help secure long-term sustainable growth and supporting improvements that enable disadvantaged communities to access employment and training opportunities offered by airports.

## **ANNEX C**

### **EXTRACT FROM THE EAST MIDLANDS REGIONAL SPATIAL STRATEGY (MARCH 2005)**

3.5.39 The Sub-area contains the region's only international airport, Nottingham East Midlands Airport (NEMA), which is situated near Castle Donington. NEMA is a key national and regional asset, and is important both as a passenger and freight hub facility. In the past there has been pressure for development in the vicinity of the Airport. However, urbanisation of the area around NEMA would not lead to a sustainable pattern of development, and would in the long term undermine its operational viability. Instead related development should be focussed where possible in surrounding urban areas, in particular the three Principal Urban Areas and the Sub-Regional Centre of Loughborough.

#### **Policy 15 Development in the Three Cities Sub-Area**

Development Plans, Local Development Frameworks, Local Transport Plans and economic development strategies should support the continued regeneration of Derby, Leicester and Nottingham, and maintain and strengthen the economic, commercial and cultural roles of all three cities. This will be achieved by ensuring that provision is made:

- for a mix of housing types;
- for employment land to meet the expansion needs of indigenous manufacturing and distribution uses and to encourage new investment;
- to regenerate deprived inner urban areas and outer estates;
- to enhance the transport links and accessibility both within and between the cities; and
- for retailing, office, residential, entertainment and service uses within central areas, to provide for a mix of uses to support the vitality and viability of the city centres.

Outside Nottingham, Leicester and Derby, employment and housing development should be located within and adjoining settlements. Such development should be in scale with the size of those settlements, in locations that respect environmental constraints and the surrounding countryside, and where there are good public transport linkages.

Development associated with Nottingham East Midlands Airport should be focussed where possible, in surrounding urban areas, in particular the Principal Urban Areas of Derby, Leicester and Nottingham and the Sub-Regional Centre of Loughborough.

#### **Policy 16 A Sub-Regional Spatial Strategy for the Three Cities Sub-area**

The Regional Planning Body, working with the relevant local authorities, emda and other interested bodies should develop a Sub Regional Spatial Strategy for the Three Cities Sub-area as part of the next RSS Review. The Strategy should contain long term policies and proposals that will promote:

- sustainable patterns of development and movement within and between the three Principal Urban Areas and other settlements within the Sub-area and beyond;
- the use of public transport for both local and interurban movements;
- an improvement to the quality of the environment, including the provision of semi-natural green space in urban areas;
- an improvement to the collective economic performance of the sub-area and a reduction in deprivation;
- an approach to optimising the economic benefits of Nottingham East Midlands Airport consistent with sustainable patterns of development and movement; and
- a consideration of the extent of Green Belt designations consistent with PPG2 and Policies 2 and 3

### **Regional Priorities for Air Transport**

4.4.33 The main regional airport is Nottingham East Midlands Airport (NEMA) situated at Castle Donington, between Derby, Leicester and Nottingham. It is a key national and regional asset in terms of both passenger and freight movements. Passenger numbers at NEMA have recently grown significantly to over 4 million passengers per annum (ppa) in 2002/3. This growth is primarily due to the presence of low cost airlines offering additional services. However some parts of the East Midlands look to Manchester, Birmingham, Luton, Stansted or Humberside as their most accessible airport. Furthermore when the new airport near Doncaster begins operating, this will also have an impact on the north of the region. There are also a number of smaller airports within the region that meet local business and general aviation needs.

4.4.34 The Government published its Aviation White Paper *The Future of Air Transport in December 2003*. This provides the national context for future airport development, including at NEMA. Expansion of passenger and freight operations at NEMA is supported in principle, but the impact of development proposals should be rigorously assessed. This should include consideration of noise, air quality, water quality, human health, landscape, biodiversity, natural resources and cultural assets, together with social and economic effects.

4.4.35 The M1 and A453 Multi-Modal Studies made proposals for highway improvements which are robust up to around 8 million ppa at NEMA. These have been accepted in principle by Government, although the lack of public transport linkages to NEMA remains a cause for significant concern. The proposed East Midlands Parkway Station should provide more opportunities for public transport access. However, the development of a fixed public transport link directly to NEMA should be progressed as a priority.

### **Policy 55 Development at Nottingham East Midlands Airport**

Development Plans, future Local Development Frameworks and Local Transport Plans should:

- provide for the further operational expansion of NEMA within its boundaries subject to rigorous assessment of the full range of impacts;

- consider the surface access needs of NEMA as part of the wider transport strategy for the area, paying particular regard to the role of public transport, cycling and walking;
- assess the measures necessary to increase the share of trips to NEMA made by public transport in accordance with agreed targets;
- ensure that transport proposals are compatible with the need to create effective public transport links to NEMA for the long-term;
- identify and safeguard land for improving access to NEMA, particularly by non-car modes, and including a fixed rail link to support expansion in the long-term;
- give particular encouragement to the transfer of freight traffic generated by NEMA from road to rail; and
- seek to ensure that travel plans are brought forward for new development at NEMA.

### EXTRACT FROM EAST MIDLANDS REGIONAL FREIGHT STRATEGY (JULY 2005)

#### 6 THE ROLE OF AIR FREIGHT

6.1 Nottingham East Midlands Airport (NEMA) has developed over recent years to become a major hub for several global logistics “integrators”, and as a result has become the busiest UK airport in terms of tonnage of freight lifted by dedicated cargo (i.e. non-passenger) aircraft. In terms of total freight handled (i.e. including bellyhold freight by passenger aircraft, it is the second largest in the UK after Heathrow. It thus has both a regional and national role. It has been recognised within the Airport’s Economic Development Strategy (February 2004) as a key driver for economic growth and regeneration within the Three Cities Sub-area, and within the Region generally and beyond. The growth of airfreight at NEMA is not without environmental impacts of course, and the Airport and other stakeholders need to be vigilant in minimising these impacts. The Future of Transport White Paper has recognised the particular role of NEMA in terms of airfreight, and has taken this into account in its national long long term planning for air transport, but has also indicated concern over the major contribution to total CO2 emissions from aviation (up to 25% by 2030).

6.2 Current research by NEMA, *emda* and others will identify the characteristics and value to business of NEMA’s express freight operation, to help inform input to NEMA’s Master Plan development proposals. Surface access implications of development at and associated with NEMA will be informed by the emerging Three Cities Land Use Transport Interactive (LUTI) Model.

6.3 Whilst NEMA is predominant in terms of regional air freight, appropriate attention will continue to be given to air freight issues at other airports serving the Region, including the recently opened Robin Hood Airport, near Doncaster.

**KEY POLICY 6: Regional and local partners will work together to support the national role and sustainable growth of NEMA by promoting and supporting appropriate planning policies and guidance within the context of current Government policy.**

**TARGET: Master Plans at NEMA (and other airports of importance to the region) to reflect, as appropriate, the full range of economic and environmental issues.**

6.1 Identify the surface access implications of the freight scenario within the Airport’s Economic Development Strategy through engagement with the East Midlands Logistics Forum, NEMA’s Master Plan activities, the revision of the airport’s Surface Access Strategy and work on the Three Cities Land Use Transportation Model. The Regional Spatial Strategy and Local Transport Plans need to take account of the Master Plan and vice-versa.

6.4 Identify and pursue opportunities for modal shift from air freight to rail where this could be both viable and deliver environmental benefits. Also assess and introduce measures which will achieve a sustainable approach to existing and future airport operations by implementing agreed actions that will reduce the environmental impact of air pollutants from all flights and noise from night time flights.

6.6 Address airfreight requirements and opportunities at other airports serving (or, in the case of new facilities, potentially serving) the Region, and any proposed development thereat, in the context of the “Future of Air Transport” White Paper, and initially by involvement in their Master Plan consultation.

### **ACTION 8.3 Air Transport Planning**

**East Midlands Regional Assembly to support the sustainable development of air freight and associated activity at Nottingham East Midlands Airport, in accordance with the Government’s White Paper, through input to the Airport’s Master Plan, through the development of its Surface Access Strategy and through liaison with *emda* on the implementation of the Airport’s Economic Development Strategy.**

**EXTRACT FROM THE LEICESTERSHIRE, LEICESTER AND  
RUTLAND STRUCTURE PLAN (MARCH 2005)**

**STRATEGY POLICY 16 – JUNCTION 23a/24/24a AREA**

**Beyond the boundaries of the Airport in the vicinity of junctions 23A/24/24A of the M1 further large concentrations of employment development or other travel intensive uses will not be acceptable.**

- 2.46 Nottingham East Midlands Airport (NEMA) is the East Midland's only international airport. It is a key national and regional asset, and is important both as a passenger and freight hub facility. In the past there has been pressure for development in the vicinity of the Airport. However, urbanisation of the area around NEMA would not lead to a sustainable pattern of development, and would in the long term undermine its operational viability. Instead related development should be focussed where possible in surrounding urban areas, in particular Leicester, Nottingham and Derby and the Main Town of Loughborough.
- 2.47 The area around Nottingham East Midlands Airport and M1 junctions 23a, 24 and 24a with the A50, A453, A6 and M42/A42 is strategically important. The area has a high level of road accessibility to the general area and wider region.
- 2.48 The area already suffers from heavy traffic congestion on the main strategic roads, leading to significant problems on local roads as people search for alternatives routes. These problems will undoubtedly worsen as committed employment development in this area, together with growth at the airport and the increase in traffic generally, add further traffic to these already congested routes.
- 2.49 Nottingham East Midlands Airport plays an important role in terms of the future economic development of the Plan Area and the East Midlands Region in terms of both direct employment and the generation of additional economic activity. The Policy seeks to ensure that the operational development of the Airport is not compromised by development which does not have a direct functional link to the Airport. Such development could be incompatible with existing or potential aviation operations. Further guidance on the Airport is given in Accessibility and Transport Policy 13.
- 2.50 RPG 8 is clear that there is no need for any further allocations of land for employment uses, including storage and distribution and business parks, beyond that already allocated. Provision in the Plan area would have no net benefit for the region and could lead to a reduction in employment opportunities within the three cities and other urban areas.

- 2.51 Generous allocations of employment land have already been made in the area around the Airport and M1 junctions 23A to 24A. There are also substantial allocations for a range of business uses in the wider sub-region. This supply is expected to provide for the requirements of existing and new businesses in the foreseeable future.
- 2.52 The area has also proved attractive for B8 uses. A substantial amount of land has already been allocated for a regional storage and distribution centre in this area. Given that a number of locations in the East Midlands region have comparable standards of road and rail access then it is unlikely that the advantages of this area are sufficiently great to attract occupiers that would not otherwise be attracted to the region.
- 2.53 Provision may also be required for other types of airport related uses within about twenty minutes travel time. These uses include businesses with turnover mainly derived from contracts with the Airport operational businesses and specialist manufacturing operations where most of the product is transported by air. However, the existing supply of employment land within a twenty minute travel time is expected to meet this need.
- 2.54 The potential of development at the Airport to increase housing pressures in the locality is a major concern. Housing is not appropriate in the area around NEMA because of its rural location, where only small scale development would be appropriate. Any additional housing requirements arising from development of Airport will need to be provided for in locations in the nearby main urban areas of Derby, Nottingham and to a lesser extent Loughborough which are within the travel to work area of the airport, in accordance with the locational priorities set out in Strategy Policy 2A.

### **ACCESSIBILITY AND TRANSPORT POLICY 13 – AIRPORTS AND GENERAL AVIATION**

**Provision will be made for the operational needs of the East Midlands Airport and for improved surface access to the Airport, subject to an evaluation of the potential benefits of any such development to the Leicestershire and East Midlands economy against the environmental harm associated with the expansion of air transport.**

**The establishment or physical expansion of other commercial airports will not be acceptable.**

**The potential economic and other benefits of proposals for expanded facilities for General Aviation, including leisure and small scale business flying, will be balanced against the likely impact on the local environment of any proposals, including in particular, aircraft noise, access traffic and visual intrusion.**

- 5.1 Nottingham East Midlands Airport (formerly East Midlands Airport) near Castle Donington is the region's principal airport. It has grown substantially in the last decade, with freight traffic increasing by of 35% annually and passenger throughput by an annual rate of almost 10%. This strong

performance is seen as a significant factor in the attractiveness of the region to inward investment, and the Airport and its related activities are a major source of employment. Forecasts suggest that by 2030 passenger growth could increase from 3.2 million to 12 – 14 million and freight from 220,000 tonnes to 2.5 million tonnes per annum.

5.2 The Government's White Paper on Air Transport, published in December 2003 sets out a strategic framework for the development of airport capacity in the United Kingdom over the next 30 years. It recognises both the importance of the airport, particularly for freight traffic, and its potential for further expansion of its freight and passenger operations. It recommends that the airport's projected expansion of passenger and freight should be permitted, but only with strict controls on night noise. However, it does not support a second runway or safeguarding land for one.

5.3 Because the airport is located away from the main urban areas, any expansion should be limited to operational development and improved surface access to the airport only. Operational development is that which is required in direct support of the provision of air travel services to and from the airport (whether for passengers or freight), or is necessary for the movement and maintenance of aircraft at the airport. This embraces:

- Passenger terminals (which may include facilities reasonably necessary for passengers' comfort or the more convenient or expeditious dispatch of their journeys);
- Aircraft hangars;
- Aircraft servicing and maintenance facilities; and
- Supporting infrastructure and offices.

Development which is not "airport operational" includes warehousing, hotels, shops and offices, other than those identified above. Urbanisation of the area around the Airport would not lead to a sustainable pattern of development, and would in the long term undermine its operational viability. Instead, related development should be focussed in the surrounding urban areas.

5.4 The Airport is poorly served by public transport and further expansion will require urgent action to increase and establish fast, frequent and reliable public transport links to Leicester, Loughborough, Nottingham Derby and other urban areas from which employees and passengers originate.

5.5 Any further expansion of operations will need to be assessed by balancing the economic advantages against the environmental disadvantages. A planning application seeking significant expansion will therefore require a comprehensive economic and environmental appraisal to be carried out by the developer.

5.6 There is no evidence that the establishment or expansion of any other commercial airport in the Plan area would contribute to either the economy or the facilities of the region, given the accessibility of both Nottingham East Midlands and Birmingham International Airports. The Aviation White Paper supports this view. Any such proposal will accordingly be resisted.

There are further opportunities within the Plan area for the expansion of activities for leisure and small-scale flying. The policy requires that all such proposals are considered in the light of potential adverse impact on the local environment.

## APPENDIX 3

### SUMMARY OF CURRENT AND PROPOSED NOISE MEASURES CONTAINED IN THE DRAFT MASTER PLAN

Ref	Current Position 2005	Master Plan Additions
1	Discounts for large aircraft to promote operation by day in preference to night	
2	Prohibition of scheduled operations at night by QC8/QC16 aircraft	Propose to extend ban on QC8/QC16 operations to include ad-hoc movements as well as scheduled movements. Any QC8/QC16 movements at night to be subject to increased noise surcharge
3	Chapter 3 : Chapter 4 ratio to be 10:90 by 2011	Progressive introduction of quieter aircraft types to ensure that by 2012 100% of all aircraft scheduled to operate at night comply with the requirements of 'Chapter 4'
4	Noise penalty scheme to fine departing aircraft that are 'unduly' noisy with proceeds being transferred to a Community Fund	Restructuring the Airport's charging regime for both passenger and cargo aircraft to introduce a night environmental surcharge which will be used to benefit those communities directly exposed to night disturbance from operations at NEMA.
5		Refinement of the Noise Penalty Scheme with the objective of ensuring that aircraft operate as quietly as possible
6	Noise abatement departure procedures	
7	Increasing use of Continuous Descent Approach technique for arriving aircraft	
8	Procedures to minimise use of reverse thrust	
9	Regular meetings with Pilots' Liaison Group to develop and share best practice	
10	Stringent noise preferential routings for departing aircraft with 98% compliance by airlines	Making best use of technology (PRNAV) available for further improvements to concentrate flights over fewer dwellings, including

Ref	Current Position 2005	Master Plan Additions
		commencing a trial in 2006.
11	Preferential runway policy to allowing aircraft to land with a tail wind so as to minimise noise to local villages	
12	Instructions to pilots to avoid flying over local villages where possible	
13	Intersection take offs to move the point at which some aircraft begin their take off run further from the village of Kegworth	
14	Prohibition of training flights on Sundays and public holidays	
15	Sound insulation grant scheme to provide grants of up to £2,000 to those within the 55 decibel night noise contour (55dBLAeq,8h)	Enhancing the Sound and Insulation Grants Scheme (SIGS) with the suggested focus upon those areas most heavily impacted and subject to defining detailed rules. The proposed enhancements include:
16		Accepting the principle that those dwellings regularly exposed at night to single aircraft noise events of 90db(A) SEL or greater should be offered a sound insulation grant.
17		Establishing a fund to provide sound insulation grants to sensitive buildings such as schools which would not otherwise qualify for assistance.
18		Increasing the grant award offered to dwellings within the 55 decibel night noise contour (55dBLAeq,8h) to up to £3,000 (backdated for beneficiaries of the current scheme).
19		Increasing the grant award offered to dwellings within the 60 decibel night noise contour (60dBLAeq,8h) to up to £5,000 (backdated for beneficiaries of the current scheme).
20		Increasing the grant award offered to

Ref	Current Position 2005	Master Plan Additions
		dwellings within the 66 decibel night noise contour (66dBLAeq,8h) to up to £10,000 (backdated for beneficiaries of the current scheme). Or alternatively to make the same amount available for relocation
21		The offer to purchase outright any dwelling within the 69 decibel night noise contour (69dBLAeq,8h)
22	Target to ensure that the 57 decibel night noise contour (57dBLAeq,8h) remains at an area of 16 sq km or less up to 2011	Ensuring that the current night noise contour target (not to exceed 16km <sup>2</sup> by 2011) can be extended to 2016,
23	Noise and radar track monitoring including permanent community noise monitoring at the village of Kegworth	Making track keeping information available to public scrutiny via the Airport website.
24	Procedural controls to minimise ground running of engines at night	
25	Use noise monitoring and operational procedures to minimize noise	
26	Reduce noise from ground support equipment, in particular by introducing electrically powered vehicle	
27	Introduce operational measures to minimize ground running of engines	