

CABINET – 14th DECEMBER 2004

**NOTTINGHAM EAST MIDLANDS AIRPORT
PROPOSED CHANGES TO FLIGHT PATHS**

REPORT OF THE DIRECTOR OF COMMUNITY SERVICES

PART A

Purpose of Report

1. To respond to the Phase Two Consultation by Nottingham East Midlands Airport (NEMA) on the proposed changes to controlled airspace.

Recommendations

2. It is RECOMMENDED that:
 - a. NEMA and the CAA are advised of the contents of this report as the County Council's observations on the consultation on proposed changes to controlled air space in Leicestershire;
 - b. The County Council is concerned at the near doubling of controlled airspace over Leicestershire and would find it unacceptable if this led to a greater proportion of Leicestershire residents being adversely affected now and in the future;
 - c. NEMA have not adequately demonstrated the benefits of the proposals in terms of noise impacts, populations to be affected, and numbers of aircraft likely to be using the new routes and their impacts, particularly in relation to arrival traffic from the south, and given that significantly more Leicestershire people will be affected by new arrival routes than currently, the County Council has serious reservations about the benefits of the scheme and as a consequence finds them unacceptable;
 - d. The issues of night time flights and their effects have not been properly dealt with and the County Council will continue to campaign to seek better controls.

Reasons for recommendations

3. The County Council is responding to Phase Two consultation on the proposed changes to air space in and around Nottingham East Midlands Airport. It is concerned that the proposed changes will have a detrimental effect on residents in central and eastern Leicestershire and would urge the CAA and NEMA to seek better controls on the flights in and out of the airport.

Timetable for decisions

4. The consultation period runs until 10th January 2005.

Policy framework and previous decisions

5. Cabinet first considered the NEMA proposals on 8th March 2004 and then subsequently on 1st June 2004. It resolved to raise concerns about the imposition of any extra aircraft noise on Leicestershire residents; that additional night flights would not be acceptable and will therefore campaign for statutory controls on night flying to and from airport; and that it intends to take whatever steps it can to try to ensure a more reasonable balance between the economic benefits brought by the airport and the environmental disbenefits caused by the present lack of control over night flying.

Resource implications

6. Further action to pursue controls over night flying may require funding as will any data collection or use of specialist consultants. Current estimates for part of that work are in the region of £6,000, but the extent of further work is not yet known.
7. The Director of Resources has been consulted on the Resource Implications section of this report.

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

8. Consultation on proposed changes to airspace control was first carried out by NEMA in September 2002 but only came to the attention of the County Council in January 2004 since NEMA had not included the County Council in its original consultation exercise. The County Council subsequently raised concerns about the lack of consultation and about the impact that the proposed changes to flight paths would have on Leicestershire residents.
9. The Civil Aviation Authority (CAA), who are the authority who decide whether or not to allow such changes, agreed to the new flight paths in their decision letter dated 27 July 2004. They said that having taken into account the comments and concerns raised by the County Council and others they concluded that the new flight path arrangements result in a net overall environmental benefit. In particular the new departure route to the south-east is likely to be used for approximately 30% of the total time but is of course dependent on the prevailing wind. The traffic using this route will be made up of high performance aircraft and are expected to be small in number. The changes will also facilitate continuous decent approach profiles, which are important in alleviating disturbance from arriving aircraft. Also, they state that the new holding patterns will be lightly used, specifically only when adverse weather conditions require it.
10. On 26th August 2004, the CAA announced that NEMA, following the amount of interest shown in the proposed changes and the representations made upon them, have decided to consult further on the airspace change proposal and so requested the CAA to postpone the implementation of the new flight paths to the which the CAA have agreed.
11. This current consultation is a consequence of those decisions and NEMA have accepted that the information and how they went about consulting on the proposed changes could have been better and have now produced the current consultation document upon which views are sought.
12. The consultation period runs until 10th January 2005 after which the CAA will expect NEMA to provide them with the results of the consultation. The CAA's original approval still stands and will continue to do so unless, as a consequence of these consultations, NEMA decide to make significant changes to their original proposal to: the lateral or vertical extent of the airspace; departure routes; or the holding patterns., and providing the CAA is satisfied with the consultation process and outcomes, then it is likely the existing approval will continue.

Proposals

13. The consultation document runs to 24 pages, 9 of which are maps. The consultation information sets out some aviation background in terms of the volumes of air traffic currently in the UK and the Midlands in particular. It states that UK airspace is getting busier and that Midlands airspace a very busy part of UK airspace. It explains that airspace is a division of the sky in to a three dimensional patchwork which is call controlled airspace. Other airspace is uncontrolled. The Midlands airspace contains 4 main types of traffic:
 - a. aircraft passing over the UK on long distance flights (normally above 25,000ft;
 - b. domestic flights to and from adjacent regions, normally above 10,500ft
 - c. aircraft flying to and from the Midlands airports (i.e. Birmingham, NEMA & Coventry)
 - d. general aviation, private and military traffic.
14. The reason behind the proposed changes are stated as being driven by the increasing demand during daytime peak periods, particularly traffic to and from the NEMA interacting with other traffic to and from other Midlands and Northern airports. All of this traffic currently passes in opposite directions through a relatively narrow point near Hinckley in Leicestershire. Airspace congestion at night time is not an issue. NEMA also say that these changes are likely to form part of a wider national programme of airspace changes designed to enable UK airspace to handle increasing demand whilst maintaining existing safety levels.
15. The key principles that the airport have in mind in designing the proposals are to:
 - a. ensure safe separation and management of air traffic;
 - b. minimise the environmental impact of air traffic, by reference to the number of people impacted and the height of aircraft over them;
 - c. improve the efficiency of the air traffic control system in order to cope safely with growth in traffic.
16. The proposed changes are in four parts:
 - a. increase in controlled airspace
 - b. change to departure routes
 - c. change to arrival routes
 - d. new holding areas or “stacks”

Increase in controlled airspace

17. The proposals show an increase in controlled airspace in two areas – one to the north of Leicestershire extending to 587 km², none of which falls within Leicestershire, and an area in the central and eastern part of the County extending to 728 km², 680 km² of which falls within Leicestershire. The existing airspace extends to some 1,728 km² of which 700 km² falls within Leicestershire.

Change to departure routes

18. The current easterly departure route to the north, TRENT1, would be moved east and renamed TRENT 2.
19. A new route for easterly departures to the north called POLE would be introduced. POLE will not be used at night.
20. A new easterly departure route to the south called DAVENTRY 2 would be created which is proposed to be used for 2% of departures.

Change to arrival routes

21. Westerly arrivals from the south will follow a route taking them to the east of Leicester instead of west.
22. Westerly arrivals from the north will follow a route to the west of Derby and over southern fringes of Nottingham rather than Derby.
23. Easterly arrivals from the south would follow a route around Leicester to the east and south of Loughborough, instead of to the west of Leicester.
24. Easterly arrivals from the north would follow a route over Derby.
25. The introduction of continuous descent approaches would be made possible by the changes.

New holding areas or “stacks”

26. Aircraft holding areas would be moved from East Leake/Loughborough and Melbourne/Burton/Ashby to new holding areas at Belper/Heanor/Ripley (called ROKUP) and between Market Harborough and Wigston (called PIGOT), and the height would be increased (from 3,000-4,000 feet to 8,000 feet).

Analysis

27. The growth of the airport has brought economic benefit to the county and surrounding area but there has been a cost to that benefit in terms of environmental impact, particularly to those who live closest to it. The

County Council would wish to see the airport enjoy economic prosperity but this has to be done in a sustainable and environmentally acceptable way.

28. The stated objectives behind the proposed changes of improved safety, better management of the growth of air traffic and minimising environmental impact are sound but the question is whether what is being proposed meets those objectives in an acceptable way in terms of the potential impacts that the proposals may have and whether the consultation demonstrates adequately the balance between the benefits and impacts.
29. Whilst the consultation document attempts to explain a complex proposal it lacks some key details which fails to adequately assess the full impact of the proposals. As a consequence there is some difficulty in accepting the claims made by NEMA. A plan summarising the proposals is attached as Appendix 1.
30. This analysis concentrates mainly on the new proposed arrival routes. Except for the new DAVENTRY 2 route, departure routes remain the same. It is a failure of the consultation document that it does not properly map the full extent of the existing and proposed departure routes. As far as DAVENTRY 2 is concerned, the consultation states that it is only to be used for 2% of all departures from the airport. Nevertheless, this could have an adverse impact on those occasions that it occurs and will affect people who have not been previously affected.
31. The amount of controlled airspace (in surface terms) in Leicestershire will almost double from approximately 700 km² to 1,378 km². This in itself raises concerns about the increasing spread of controlled air traffic across a larger part of Leicestershire and what the future may bring as air traffic levels increase. It is conceivable that as air traffic levels grow they spread further over the proposed extended controlled airspace.
32. In terms of the amount of population affected by the proposals, the consultation document claims that overall less people will be adversely affected. As far as the holding areas are concerned this is true and it is generally to be welcomed that the two existing holding areas in Leicestershire will be reduced to one (in the south of the county), will hold aircraft at a higher altitude and that their use has up until now been limited to 17 hours per year. The existing holding areas affected about 48,200 people whilst under the new proposal the holding areas will affect about 12,600 people in Leicestershire. There is no reassurance, however, that they will not be used more intensively as air traffic grows and congestion will need to be dealt with. Nevertheless its location will be in an area that will be new to this activity, inevitably overlapping with the new southern arrival route.

33. However, the general data presented refers to the whole area (i.e. which includes part of Derbyshire and Nottinghamshire) and gives figures in terms of percentage gains and losses. This does not enable an assessment to be made as to how many people could potentially be affected.
34. From the County Council's own analysis of the plans supplied in the consultation documents correlated to the 2001 census, it appears that overall more people in Leicestershire will be affected by the proposed arrivals than is currently the case. In terms of changes to arrival routes, it is estimated that some 124,700 people in Leicestershire are over-flown by the current arrival routes within the existing controlled air space, whereas under the proposed routes some 162,800 people in Leicestershire will be over-flown – that is 38,100 more people. This is an overall increase of about 30%. This analysis is based on the wide arrival bands set out in the consultation document and clearly where the aircraft track within that band is not clear.
35. Balanced against that it is purported that the arrival craft will be flying at a higher altitude. Typically arriving aircraft will operate the continuous descent approach and will fly at heights of over 6,000 feet compared to 3,000 feet on existing approaches. This will have the effect of reducing noise levels from typically bands ranging between 66 to 74 decibels to be within band ranging between 61 to 66 decibels. If this is correct then aircraft along the new routes should be quieter than previously because aircraft will be higher.
36. However, the effects of aircraft noise are dependent on noise levels, their duration and the number of times they occur. How these are measured and presented and how they are perceived are often matters of debate. Even at these levels there is a potential for disturbance at night since human responses to almost all stimuli, not just noise, depends on proportional increases rather than absolute increases.
37. These proposals will introduce controlled airspace to areas of the county that have not previously been subjected to these impacts in areas of the county that are rural in nature and therefore can be assumed to have quieter background noise levels. The introduction of these potential noise impacts would not be acceptable to the residents affected by the new routes, particularly in relation to night time flights.
38. The consultation document also sets out the number of aircraft that will fly along the new routes compared to the old. Unfortunately, these figures are quoted as whole day averages, i.e. taking both day and night time flights over a whole year and then averaging the out per day. Even in the forecast given they do not relate to any stated methodology and can be misleading. This does not reflect the reality of the situation. It is clear that the pattern of activity to and from the airport varies over a year and it would have been helpful if they could have profiled the data to assist consultees in coming to a view. For instance, passenger

traffic peaks in the summer months whereas cargo traffic tends to be fairly constant over the year. In other words there are bound to be times when aircraft activity is particularly busy and the impact of this needs to be assessed on the principle of “worst case scenario”. It is disappointing that NEMA have chosen to present this information in this way given that they have produced better reasoned information in support of their planning application for run way extension.

39. The Environmental Statement (January 2004) submitted as part of their planning application presents data on existing and forecast figures on a typical busy day. The table below demonstrate this.

Table 1: Annual Aircraft Movements Forecasts (000's)

Year	2000	2006	2016
Passenger ATM's	27.2	49.7	84.4
Air Cargo	20.0	31.0	38.1
Other aircraft movements	29.5	29.5	29.5
TOTAL	76.7	110.2	152.0

Table 2: 'Typical' Busy Day and Night Movements

Year	2000	2006	2016
Daily Aircraft Movements	164	276	372
Nightly Aircraft Movements	46	95	119
TOTAL	210	371	491

40. The figures given in the consultation paper are 154 average movements per whole day as existing (2003), and 232 average movements per whole day for the forecast over the next five years. This clearly does not resemble a typical busy day. This does not compare well to the data in the Environmental Statement as set out in the table above.
41. Furthermore, the westerly and easterly arrivals from the south have a common route through eastern Leicestershire from Harborough before they split easterly and westerly in the vicinity of Rearsby/Sileby. Along that common route typical busy days may result in 243¹ movements (62 of which would be at night) in 2006 rising to 322 in 2016 (78 of which would be at night). This is a significant amount of air traffic, albeit at higher altitude, that would track across quiet rural Leicestershire which is substantially higher than the 50 (now) and 72 (future) average figures quoted in the consultation document.

¹ Extrapolated by apportioning Phase Two Consultation Document averages and applied to Typical Busy days data in the Environmental Statement.

42. It must be noted that there is nothing in the consultation paper that addresses the impact on those residents who live closest to the airport. It seems that the proposed changes will do nothing to improve the environmental impact in those locations. Reference is made to the day time and night time contour footprint around the airport but there is nothing in the documents to suggest that the airport will consider reducing its 16 km² 57dB contour to its current value of 8.7 km². This is a matter of concern.

Conclusions

43. The consultation proposals whilst having commendable aims fails to meet some of the previous concerns raised. Controlled airspace over Leicestershire will be nearly doubled and aviation activities will be introduced into areas not previously so affected and there is a concern that this will allow for more air traffic to be accommodated within that space.
44. It appears that significantly more people will be over-flown on the arrival routes in Leicestershire than are currently and whilst there will be some reduction in noise as a consequence of the continuous decent approach there will undoubtedly be disturbance experienced.
45. Reduction in the holding areas are welcome but there is little reassurance that their use will not intensify as air traffic grows.
46. Data on air traffic movements does not adequately reflect what might actually happen on a typical busy day and based on the existing data elsewhere the County Council would be concerned that the amount of air traffic likely to occur on southern approaches has been under represented in the documentation.
47. Finally, little has been set out on the issue of night time traffic which continues to be an issue upon which the County Council would like to see further progress.

Equal Opportunities Implications

None discernible

Background Papers

Report to Cabinet dated 1st June 2004
Air Space Consultation Phase Two – NEMA Document

Appendices

Appendix 1 – Summary Plan of the Proposed Airspace Changes