

CABINET

12 October 2005

SOUTHAMPTON AIRPORT MASTER PLAN CONSULTATION

REPORT OF THE CHIEF EXECUTIVE

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RECENT REFERENCES:

CAB956 – BAA Southampton Airport Preferred Routeing Trial April-Sept 2004 – 13 Oct 2004
CAB1075 – BAA Southampton Airport Noise Re-Routeing Trials - 29 June 2005

EXECUTIVE SUMMARY:

Winchester City Council has been consulted on the British Airport Authority's (BAA's) master plan for Southampton Airport, which outlines the mechanisms by which BAA envisages growth at the airport between now and 2030. BAA expects passenger numbers to double (to 3 Million) in the period to 2015, and double again (to 6 Million) in the subsequent period to 2030.

This report details the features of the master plan, discusses its implications for Winchester District, and makes recommendations regarding the content of the City Council's response to the consultation.

RECOMMENDATIONS:

- 1 That Cabinet note the content and purpose of the Southampton Airport Master Plan consultation, insofar as it affects Winchester District.
- 2 That written representations are made to BAA Southampton by October 31 2005, to the effect that:
 - the council is generally supportive of the economic benefits of growth at the airport, but is concerned at the resulting noise impacts on the residents of the district;

- the council therefore actively encourages BAA and operators from Southampton Airport to continually seek measures to improve current noise performance, and welcomes the recent decision of the operator FlyBE to replace its fleet of BAe146 aircraft with more modern EMBRAER195s;
- noise monitoring should be implemented in the vicinity of the airport with immediate effect, and the results published as soon as possible; and
- BAA Southampton compile and implement a noise quota system for operations at Southampton, which should aim to limit any increases in disturbance above current levels.

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DETAIL:

1 Introduction

- 1.1 Winchester City Council has been consulted on the British Airport Authority's (BAA's) master plan for Southampton Airport, which outlines the mechanisms by which BAA envisages growth at the airport between now and 2030. BAA Southampton have requested comments by 31 October 2005
- 1.2 BAA is the airport operator of Southampton Airport and the Civil Aviation Authority (CAA) is their principal UK regulator in terms of technical and safety standards that must be fulfilled. Eastleigh Borough Council is the planning authority for activities at Southampton Airport.
- 1.3 It should be emphasised that the master plan is separate from the current/recent trials relating to Noise Preferred Routings, of which Councillors may be aware.

2. Timescales

- 2.1 The master plan looks at the development of the airport over two distinct time periods:
- between today and 2015; and
 - from 2015 to 2030.
- 2.2 From **2005 to 2015**, BAA expects passenger numbers to grow from 1.5 million annually to 3 million (a 100% rise over current numbers), with the current 37,400 annual air transport movements (ATMs) rising to 62,000 (a 65% rise over current numbers). An ATM is defined as either an arrival or a departure.
- 2.3 From **2015 to 2030**, BAA expects passenger numbers to grow to 6M (a 400% rise over current numbers), or 96,300 annual air transport movements (a 257% rise over current numbers).
- 2.4 For comparison purposes, in 2000, Luton Airport handled approximately 6M passengers in 54,000 ATMs¹. Luton generally is able to handle larger aircraft than Southampton is intended to do, which explains Luton lower number of ATMs for an equivalent number of passengers. This is primarily due to the shortness of Southampton Airport's main runway, which limits operations to aircraft of up to approximately 150 seats and to European destinations.

¹ DfT (2003) *The Future Development of Air Transport in the United Kingdom: South East (2nd Edition)*

- 2.5 Over both periods, 2005 to 2015 and 2015 to 2030, the percentage increase in passenger numbers is not matched by a similar percentage rise in the number of ATMs. It is therefore clear that the intention is for progressively larger aircraft to be used as passenger numbers increase.
- 2.6 Nevertheless, the net effect for each end of the runway would be that the 2005 average daily figure of 1 aircraft nearly every 20 minutes would increase to 1 every 10-12 minutes in 2015 to 1 every 7-8 minutes by 2030.
- 2.7 There is no intention for additional runway length, although the runway may be moved slightly to the north to allow for an extension to the soft-surfaced run-off area between the southern end of the runway and the M27. This depends on Civil Aviation Authority requirements.
- 2.8 The limiting factor in terms of passenger numbers at almost all UK airports is passenger terminal capacity, particularly in terms of the number of aircraft stands. It is a common misconception that increased airport activity requires additional runways or runway length. Airspace capacity is also not a limiting factor
- 2.9 This terminal and aircraft stand capacity issue is the limiting factor for Southampton.

3. Development at the Airport

- 3.1 The existing layout of the airport is shown at Appendix 1.
- 3.2 The scenario **to 2015** envisages the creation of additional taxiways connecting the existing aprons to the northern end of the runway, together with additional hardstanding to provide 5 additional aircraft stands over the current 13. Additional ancillary (fuel bowser storage), car parking and cargo handling areas are also proposed (Appendix 2).
- 3.3 There would be no additional terminal before 2015, though baggage handling facilities are likely to be increased.
- 3.4 **From 2015 to 2030** the situation is less certain, with two alternative layouts proposed. The passenger numbers would require a progressive doubling of the current number of aircraft stands from 13 to 26.
- 3.5 Both layouts would result in additional areas for car parking between the existing runway and the R. Itchen, inside and along most of the current eastern edge of the facility.
- 3.6 Both layouts include additional terminal building capacity, and the major difference between the two layouts is in the location of this extra terminal capacity.
- 3.7 *Option 1* would result in an extension to the existing terminal with the additional stands split between the current area and that of the 2015 extension. This would displace ancillary activities from their current location to the eastern side of the facility (Appendix 3).
- 3.8 *Option 2* would result in an additional terminal associated with the 2015 extension area, with all the additional stands in this period being provided at the 2015 site. The existing terminal and the western stands are unaffected in this option (Appendix 4).

4. Wider Planning Context

- 4.1 According to BAA, the master plan is in line with, and is a requirement of, the Government's current strategy, as expressed in the 2003 White Paper *'The Future of Air Transport'*. It should be noted that in 2003, BAA believed that the maximum capacity of Southampton would only be 2.5M passengers per annum. The higher potential capacities that feature in the master plan (of up to 6M passengers per annum) derive from BAA's recent acquisition of an area of land to the north east of the current runway. This recent land acquisition is the area on which the expansion described above would occur.
- 4.2 Whether this national strategy is correct, particularly in the light of recent concerns regarding the risk of increased air travel compromising UK greenhouse gas emission targets, is beyond the scope of this paper. It would however appear that the Airports policy generally leans more towards the 'predict and provide' approach to policy rather than the 'plan, monitor and manage' approach advocated by Government for planning policy.
- 4.3 Locally, the emerging Eastleigh Borough Local Plan indicates that the maximum additional area of land that they will permit to be used for airport related development is 4ha (Policy 130.E). The master plan would result in a greater area than this being added to the airport, but this is largely a matter for Eastleigh Borough Council to consider through the planning process. In this context, it should be noted that Eastleigh's emerging Local Plan only covers the period to 2011.

5. Issues for Winchester City Council regarding the Master Plan

- 5.1 The principal issues for WCC to consider are:
- Economic consequences of the airport for the district
 - Aircraft noise for those settlements overflown during landing and take-off
 - Impact of development and associated traffic

Economic Impacts

- 5.2 The entire district is within 1hr travel distance of the airport and forms a major part of the main catchment area served by the airport. The airport was estimated to contribute £86M to the local economy in 2004², although the proportion of this which benefits the Winchester district is unclear. In addition, there is no breakdown readily available to disaggregate this amount by economic sector, and it is therefore not possible to determine, for example, the level of tourist income generated by airport activity.
- 5.3 Should activity rise in line with the predictions in the master plan, this would rise to £140M in 2015 and £260M in 2030³. Again, proportions of this relevant to the Winchester City Council district, and by sector, are unclear from the master plan.
- 5.4 It is clear, however, that the airport is a major contributor to the local and sub-regional economy, even if its direct benefit to Winchester's economy is unclear. It is also likely to be a significant factor in the decisions of businesses to locate to the

² BAA *Southampton Airport Outline Master Plan Consultation Draft July 2005*, para 2.2.1

³ BAA *Southampton Airport Outline Master Plan Consultation Draft July 2005*, para 2.2.1

area, even if they are not directly connected with the airport or aviation. The airport is therefore of great importance to the area

Environmental Impacts

- 5.5 The principal environmental concern for the District is increased noise derived from an increase in the number of over flights.
- 5.6 BAA has no intention of increasing the operational hours of the airport. This means that no more than 10 movements per calendar month (or 100 in any one year) may occur after 11pm or before 6.30am (7.30am on Sundays). In addition, these movements must be in exceptional circumstances. The hours of operation are determined by the current Flight Operations Agreement that exists between BAA Southampton and Eastleigh Borough Council.
- 5.7 The principal concern for WCC residents is noise from southbound aircraft on final approach to the airport, rather than aircraft on departure northbound. Maximum safe rates of climb depend on a variety of factors, including aircraft type and level of fuelling, but generally, above the District, aircraft on departure will be at a greater altitude over any given point on the flight path than they would be on approach.
- 5.8 According to the current CAA flight instructions for Southampton Airport, aircraft should not join the final approach glideslope at an altitude of less than 1700ft above ground level. This point is 5 miles away from the end of the runway, and is approximately above the centre of Twyford. In practice, many aircraft join the glide slope over or to the north of Winchester.
- 5.9 Aircraft on the 3.1° glideslope approach to Southampton Airport, will be approximately at:
- | | |
|---------|---|
| 2690 ft | as they pass over St Giles Hill, Winchester; |
| 2360 ft | as they pass perpendicular to St Catherine's Hill; |
| 1700 ft | as they pass perpendicular to The Bridge, Shawford; |
| 1040 ft | as they cross Kiln Lane, Otterbourne/Colden Common; and |
| 710 ft | as they leave WCC District |
- 5.10 It is widely acknowledged that most observers on the ground (even experienced flight crews) will usually underestimate aircraft altitudes significantly due to insufficient visual reference points beyond the aircraft being viewed.
- 5.11 It is highly unlikely that any noise preference route trials will be able to significantly alter these flight levels. These flight levels are inextricably linked to the physical attributes of the runway at Southampton, particularly its length. Although newer aircraft, such as the EMBRAER 195, are designed so as to be able to descend safely at a rate greater than 3.1°, the short length of the runway at Southampton will continue to prevent steeper approaches. The EMBRAER 195, currently undergoing its noise certification process, will replace FlyBE's entire BAe146s fleet over a 14 month period commencing Aug 2006.
- 5.12 Noise impacts for the District will therefore derive almost exclusively from the numbers and type of aircraft using Southampton Airport.

Noise Contour Mapping

- 5.13 Activity at Southampton Airport is currently below the threshold at which mandatory noise contour mapping is required by EU Directives. The only noise monitoring of which WCC Environmental Health Division is aware is that undertaken by Eastleigh Borough Council.
- 5.14 However, should activity rise in line with that indicated by the master plan, activity will exceed the threshold of the EU Directives. Other, larger, airports which already exceed such thresholds currently undertake such monitoring and therefore procedures and standards for such work are established.
- 5.15 It therefore seems reasonable to request that BAA commence formal noise level monitoring with immediate effect, and publish the results of this monitoring as soon as is reasonably practical. This information would then be an important component for the wider community to judge the impacts of increased activity at the airport over time.
- 5.16 Establishing such a baseline, against which performance can be measured, would be consistent with the approach now required of Local Development Frameworks, and is an approach BAA should be strongly encouraged to adopt.

Aircraft Noise resulting from more frequent and larger aircraft

- 5.17 Since the increased number of ATMs will not be commensurate with the increase in passenger numbers, it is clear from BAAs figures in the Master plan that the size of aircraft using Southampton Airport is expected to rise.
- 5.18 Noise level differences resulting from differing aircraft sizes, each with different engine specifications, are acknowledged in the CAA's rating system. It is acknowledged that technological advances are resulting in reductions to individual aircraft noise. However, other airports, larger than Southampton but under BAA control, currently operate a quota system for noisier aircraft in order to encourage airline operators to use aircraft possessing the best available technologies (BAT) for flights. These systems define a score for each type of aircraft configuration and set maximum 'points totals' for various time periods which may not be exceeded. Airline operators then schedule flights mindful of the quota score per aircraft. Operators are obliged to consider aircraft noise levels when scheduling increases in route capacity, either by larger or more frequent aircraft
- 5.19 It would be reasonable to encourage BAA Southampton to formulate and implement a similar quota system for Southampton airport, so that airline operators are encouraged to use the best technologies currently available. This would improve the noise performance over the current counting & routing system, and allow for meaningful targets to be set relating to noise levels for the future.
- 5.20 The second advantage of such a quota system is that, together with regular monitoring of the airport's noise profile, the impacts arising from the increased numbers of flights over time can be assessed and controlled.

Impact of Development & Associated Traffic

- 5.21 BAA's proposals are likely to result in additional traffic arriving at the airport. However BAA is seeking measures to increase the numbers of people arriving at the airport by public transport. These measures include a proposal, recently approved by Eastleigh Borough Council, for a new wheelchair-accessible bridge over the railway at Southampton Airport Parkway station. This bridge, although outside the land under BAA's control, has been 50% funded by the airport operators and will greatly improve accessibility to the airport from northbound trains. The airport master plan envisages that any additional terminal at Southampton would be served by a shuttle bus service from Southampton Airport Parkway Station.
- 5.22 In addition, BAA is attempting to set parking charges at levels that encourage use of public transport, is seeking to include rail fares to Southampton within air ticket prices and seeking more sustainable methods of staff transportation to the airport.
- 5.23 It is therefore concluded that the main impacts of development, in visual and traffic terms lie outside the District.

6. Conclusion & Recommendations

- 6.1 The impact of increased activity at the airport on Winchester District is mixed. On the one hand, the economy of the District and the wider sub-region benefit from activity at the airport. On the other, residents in the District under flight paths are adversely affected by noise, particularly from the continued use of older, jet powered aircraft such as the BAe146.
- 6.2 Whilst being generally supportive of the economic benefits of growth at the airport, the Council should therefore actively encourage BAA and operators from Southampton Airport to continually seek measures to improve current noise performance. In addition, the Council should continue to encourage BAA and airport operators to reduce the noise footprint of aircraft using Southampton as activity increases. The aim of such measures would be to ensure that the area of land adversely affected by aircraft noise does not increase with increased activity. In this context, FlyBE's decision to replace its entire BAe146 fleet with more modern EMBRAER 195s should be strongly welcomed.
- 6.3 It is accepted that these requested noise constraints may result in a slower rate of growth at the airport than that envisaged by the master plan, but it considered that other factors, such as the UK's taxation and legislative regimes with respect to air travel, are likely to be of greater consequence to the economics of air travel and thus for growth rates.
- 6.4 It is therefore recommended that the Council endorse two noise-related recommendations, namely that:
- **noise monitoring should be implemented in the vicinity of the airport with immediate effect, and the results published as soon as possible; and**
 - **BAA Southampton compile and implement a noise quota system for operations at Southampton, which should aim to limit any increases in disturbance above current levels;**

and respond to BAA's consultation accordingly by 31 October 2005.

OTHER CONSIDERATIONS:

7 CORPORATE STRATEGY (RELEVANCE TO):

7.1 No direct relevance to the corporate strategy, but minor links to the economic and environmental components of the corporate strategy

8 RESOURCE IMPLICATIONS:

8.1 No additional resource implications, but input will be necessary from Strategic Planning and Environmental Health Divisions from time to time. Council input into planning applications at the Airport is likely to be required.

BACKGROUND DOCUMENTS:

BAA Southampton Master Plan Consultation document, July 2005

CAA Operational Procedures for Southampton Airport

APPENDICES:

(NB: To reduce printing costs, colour copies of the appendices are attached for Cabinet Members only, with copies available in the Members' Library and on the Council's Website via the following link: <http://www.winchester.gov.uk/CommitteeMeeting.asp?id=SX9452-A7808602&committee=5103>)

Appendix 1 – Current Layout

Appendix 2 – Part of Layout for 2015, showing changes to current layout

Appendix 3 – 2030 Option 1 Layout

Appendix 4 – 2030 Option 2 Layout