

Chairman's Office

Mr Roy Griffins CB

Director General of Civil Aviation
Department for Transport
Great Minster House
76 Marsham Street
London, SW1P 4DR

16 October 2003

Dear Roy

AIRSPACE AND AERODROME ISSUES – NORTHOLT AND REDHILL

As promised, I enclose a paper dealing with the above issues. If you require further information, please contact John Arscott or Phil Roberts.

Yours sincerely



Sir Roy McNulty CBE
Chairman

Enc.

Civil Aviation Authority

CAA House 45-59 Kingsway London WC2B 6TE www.caa.co.uk
Telephone 020 7453 6002 Fax 020 7453 6011

Product code: 03 RALMS 01833C

AIRSPACE AND AERODROME ISSUES - NORTHOLT AND REDHILL

Northolt

It has been suggested that Northolt might be developed for use for scheduled service operations by civil airlines. A number of significant issues would arise if this proposal were to be adopted. Local agreements currently exist which limit the operation of Northolt. These would need to be rescinded/redrafted. Priority could be given for VIP flights from Northolt but this would be impractical for routine civil operations.

Aerodrome Licensing: As presently configured Northolt would not meet civilian licensing standards in a number of areas, notably Runway Strip infringements, no Runway End Safety Areas (RESA), approach obstacles and obstacles in the Cleared and Graded areas. All of these problems could be overcome but could result in a much shorter runway being available, possibly 340-400 metres would be lost, or other operational restrictions. It is unlikely that the runway could be re-orientated or lengthened in such a congested area of West London.

Interference with Existing Heathrow Configuration: Operations at Northolt are currently limited both for environmental reasons and because of interaction with Heathrow operations. An increase in Northolt operations, particularly during peak traffic periods at Heathrow, would be complex to accommodate and is likely to impact on Heathrow capacity. Northolt arrivals from the national Airways System are initially routed to the same terminal holding patterns as Heathrow traffic. Additionally, because of conflict between northbound departure routes from Northolt with Luton traffic patterns, an increase in Northolt operations is likely to impact on Luton capacity. Quantification of these impacts would need to be subject to detailed analysis and simulation.

Interference with a Developed Heathrow: With the current runway configuration and alignment, it is anticipated that a limited operation could continue at Northolt, albeit with an impact (loss of movements) on a Heathrow New North Runway operation. Quantification of the extent of such impact would need to be subject to detailed analysis and simulation.

In any event, significant alterations will be required to the existing ATS/NPR route structure in order to accommodate a New North Runway at Heathrow. It is probable that departure routes from both runway directions of a New North Runway would have to be designed into the relatively empty airspace in the Northolt area in order to minimise impact on the existing Heathrow runways.

Implications of a Realigned and Lengthened Runway at Northolt: It is considered unlikely that a new, re-orientated and lengthened runway could be developed in such a congested area which would meet the aerodrome licensing requirements.

However, if the aerodrome licensing issues could be overcome then the development of new departure and arrival procedures for the developed Northolt would require modification of departure procedures from Heathrow as currently

configured. Arrival traffic flows to Heathrow may also be affected. The implications of larger aircraft types than are currently operated from Northolt would affect the extent of modifications required to existing Heathrow traffic patterns and procedures.

Similarly, the operational interactions resulting from a realigned Northolt runway together with a developed (New North runway) Heathrow would be complex. Quantification of the impacts of any scenario for a developed Northolt would need to be the subject of detailed analysis and simulation.

Redhill

As the CAA has said throughout, any of the runway options for the South East could work from an airspace point of view, but increasing airspace capacity can only be achieved by allocating priorities within the airspace. Thus Redhill could be a fully utilised runway provided that restrictions are accepted at Gatwick and most likely Heathrow, London City and Biggin Hill. The extent of the restrictions at these airports and at Redhill could only be defined by comprehensive airspace modelling that only NATS or the CAA have the expertise to undertake. The increased airspace capacity needed to support any runway developments in the South East is predicated on the development of suitable ATM tools, the mandating of improved navigation accuracy, the resolution of the conflicting needs of all airspace users and acceptable environmental routings.

Redhill Airport Limited (RAL) have commissioned studies by SERCO (in 2000) to contest the airspace objections raised in the 1994 Public Inquiry, and AHA (in 2002) to contest the Halcrow advice to Government in the development of the SERAS options. Both studies, in the eyes of RAL, contend that there are no overriding airspace issues which would prevent development of Redhill. Thus, if Government is seen to reject the RAL proposal on airspace grounds there could be a legal challenge.

RAL correctly recognise that Gatwick departure routes (NPRs) will need to change. This is in line with CAA advice to DfT that any new runway development, whether at an existing airport or new site, would require changes to existing airspace routes and structures including NPRs.

The SERCO simulation was limited only to Gatwick vs Redhill traffic. It did not evaluate the “knock on” effects of changes to Gatwick SIDs on interaction with Heathrow SIDs, although passing reference is made to the possibility of conflict. Moreover SERCO simulation did not take account of interaction with Biggin Hill IAPs (Instrument Approach Procedures). Biggin Hill Rwy 21 Missed Approach Procedure conflicts with the Gatwick CTA in the vicinity of Redhill, and thus the final approach/departure tracks for Redhill. It is also possible that the approach/departure tracks necessary for Redhill, together with the adaptation of Gatwick and other procedures, may impinge on Farnborough operations to the west.

The AHA Report recognises that significant airspace redesign would be necessary and that RNAV procedures would be required to enable integration of traffic. This is

in line with CAA advice to DfT regarding future airspace structures. The AHA report offers suggestions on access for General Aviation to the increased controlled airspace which would result from an airport development. These would need to be subject to detailed safety analysis given the other hazardous airspace operations in the area (Kenley Gliding Site with cables). The AHA Report suggests mandatory carriage of P-RNAV equipment. However, it is not envisaged that P-RNAV will be mandated in advance of the more stringent mandate expected for RNP RNAV (circa 2010 but likely to slip by some years). P-RNAV does not provide adequate navigation accuracy for closely-spaced independent routes. Eurocontrol studies indicate that RNP 0.3 RNAV will not achieve route spacings equivalent to radar separation.

RAL suggest an airport could be fully operational by 2010. However it is likely that the ATM tools necessary to manage significant traffic growth and new route structures, in particular closely spaced routes and procedures, will not be available within that timescale. RNP-RNAV will not be mandated before 2010 and is likely to slip to 2013/14.

DAP would not rule out the long-term possibility of Redhill as a development site providing certain issues are addressed and, given the development of suitable ATM tools, mandated RNP-RNAV requirements and resolution of airspace user issues. However, these issues would not be capable of resolution in the short term. The ATM impact of development on the LTMA as a whole (including a developed Heathrow), not just the Gatwick/Redhill scenario, must be subject to extensive and detailed simulation to identify specific problem areas and possible resolutions. The SERCO and AHA analyses can only be considered as initial basic studies and further modelling of the relevant airspace in its totality would need to be undertaken and priorities allocated.

DAP
15 October 2003