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Dear Mr Erith

Thank you for your interest in NATS' Terminal Control North (TCN) consultation on proposed changes to airspace.

Your views have been logged as part of the consultation and your comments, alongside other issues raised during the process, will help to form the Consultation Feedback Report. This will be published on the NATS website by 22<sup>nd</sup> July 2008 and submitted to the Civil Aviation Authority (CAA).

#### **Suggested realignment of approach route from the Stansted western hold**

The design of routes requires consideration of a number of factors. In addition to environmental criteria, consideration must be given to the interaction of each route with other routes in the vicinity, and also to international safety requirements for route design. Full consideration of all the issues is required to ensure routes are safe, flyable by all aircraft in all conditions, and that environmental effects have been mitigated as far as possible according to the CAA and government guidance.

Your suggested route alignments will be considered as part of the post consultation review, alongside other suggestions raised during the consultation.

A report on the consultation will be published on the NATS website on 22<sup>nd</sup> July 2008. This will include a list of all the practical suggestions for changes to the proposed designs that have been received during the consultation exercise, including yours. The report will also detail whether these options are feasible, whether they require any further analysis, and what next steps NATS will take.

#### **Understanding traffic spread shown in the route and flight path maps**

The route and flight path map shows the estimated spread of flight paths around each route. These spreads are for future traffic patterns and therefore no actual data exists which can be analysed. The information presented in the documents has been generated by operational experts drawing on knowledge, where applicable, from existing flight data and from computer simulations of future traffic environments. However, because no actual data exists for the future scenarios no definitive statistical analysis of track distribution is possible.

The expert opinion has been used to determine the anticipated spread off traffic, shown on the maps by the extent of the coloured areas. However, for the purposes of these diagrams a further distinction is made between the spread of traffic during 'normal' and 'off peak' periods:

- Normal operations: this is when the airspace is busy because of a high demand from aircraft and the flight paths are generally concentrated over a narrower, more defined swathe.
- Off-Peak: this is when the airspace has less demand placed upon it – at night or other periods during the day when there are fewer aircraft flying; these flight paths are more variable as air traffic control give more direct routes to reduce fuel burn and emissions.

The normal operation generally starts after 6am and ceases around midnight though there may be lulls within this period. As the majority of flights occur during the normal operation period, this grouping of flights also makes up the majority of flights on any given route.

The pair of black lines identifies the area in which the majority of flights occur during normal operations. Majority in this case can be assumed to be in excess of 90%. The coloured areas outside the black lines show the potential spread of flight paths during the off-peak period. The uncoloured areas denote where aircraft are not anticipated to be seen on a regular basis at all. It is important to note that each diagram relates to one route only, and that traffic on other routes may pass through the areas shown at a variety of different heights. Separate route and flight path maps are provided for all routes for which change is proposed, however, there are also numerous routes over each area which are not affected by this proposal for which no maps are provided.

## **Stansted arrivals from the east**

Under the terms of our licence from the CAA, NATS is required to respond to demand for airspace from aircraft operators; this demand is in turn influenced by government policy on air traffic growth as outlined in the 2003 Air Transport White Paper. NATS does not have control over the growth of airports or any increase in the number of aircraft flying.

However, in the preparation of this proposal we have estimated future traffic levels based on historic growth at each airport. This suggests around 120 flights per day in 2009 and 140 per day in 2014 arriving at the airport from the east.

## **Number of flights over the AONB**

The proposal is designed to reduce the proportion of Luton and Stansted arrivals that fly over the Dedham Vale AONB as described in Section 6 of Part E of the consultation document.

However, for the reasons detailed earlier it is not possible to derive reliable detailed statistics of flights that pass over specific geographical areas in the future.

## **Use of holds**

The holds are positioned on specific arrivals routes. Arrivals routes from the North east, east and south east will fly via the eastern hold; this represents 42% of current flights into Stansted. NATS has no reason to assume that this proportion will change in the future; however, NATS has no control over air traffic demand.

On rare occasions, should the western hold become full or there be an overriding safety need, aircraft from the west may 'swap' to the eastern hold (and vice versa). However, with the additional holding capacity afforded by the proposed holds this would be a rare occurrence.

## **Use of controlled airspace and direct routes**

Air traffic control can use the full extent of airspace to ensure safety and efficiency. There are no rules to prevent the use of controlled airspace above Dedham Vale.

Air traffic controllers can give an aircraft a direct flight path to follow at any time. However, in reality, the use of direct flight paths is dependent on how busy the airport and surrounding airspace are at the time.

During normal operations, air traffic control procedures and route definitions dictate how airspace is used. The procedures and route design for TCN will mean that under normal operations (as defined above) aircraft will fly between the black lines shown in Figures E9 and E11 of the consultation document. This means that majority of flights will not fly over the AONB.

However during off peak operations, and occasionally during normal operations, aircraft may fly more direct routes to the airport, which may include overflight of the AONB – hence the AONB and surrounding area is shaded on Figure E9 & E11. However, because there are fewer restrictions during off peak operations any such direct route would involve aircraft staying high for as possible before starting descent towards the airport, and hence all the traffic would be above 7000ft when passing over the AONB.

Note that NATS is also investigating an alternative method that would force aircraft to join the proposed arrival route from the hold to the runway rather than enabling more efficient direct routes.

In terms of noise impact, a direct flight will not follow the normal routes dictated by the route structure and air traffic procedures. Therefore noise from aircraft on direct flight paths is dispersed across the community rather than concentrated over the areas beneath the swathes between the black lines shown in the route and flight path maps, and beneath the red lines shown the path from the hold to the airport. The wider community would therefore benefit if aircraft arriving in off peak periods were to use the proposed route structure instead of using direct flight paths.

On the other hand, allowing direct flight paths in off peak periods to continue as they do today has the benefit of producing less CO<sub>2</sub> emissions. Direct flight paths also provide those beneath the proposed P-RNAV route (such as the villages south of Sudbury), who would be overflown regularly during normal operations, with some respite from aircraft noise during off peak periods.

This proposal has the option to implement either method of arrival during less busy periods, i.e. air traffic controllers can position aircraft on direct flight paths from a number of directions or concentrate them on flight paths close to the published P-RNAV route. Feedback is specifically sought on the issue.

For the reasons above the overly simplistic answer to your question is that aircraft will not be obliged to follow the northerly route as you describe but we believe this proposal will reduce the proportion of over flights that pass over the Dedham Vale AONB.

## **Flight path principles**

NATS is obliged to follow the guidance ("Guidance to the civil aviation authority on environmental objectives relating to the exercise of its air navigation functions", January 2002, Department for Transport, Local Government and the Regions) states "Government policy will continue to focus on minimising over-flight of more densely populated areas below 7000ft." NATS has followed this guidance in the positioning of the routes and holds, the consequence of which is that the positions of the proposed routes are over what are considered tranquil rural areas by their inhabitants.

Yours sincerely

**TCN Consultation Team**