Committee:	**Stansted Airport Advisory Panel**	**Agenda Item**
Date:	**3 September 2014**	**4**
Title:	**Consultation on NATS Departure Route Proposal at Stansted Airport**	
Author:	**Jeremy Pine, Planning Policy / Development Management Liaison Officer (01799 510460)**	**Item for Decision**

Summary

1. This report is about a consultation by NATS and London Stansted Airport to change the daytime use of the Clacton and Dover departure routes from Stansted Airport. The report explains what the proposal is, and how it would differ from the current use of the departure routes. Finally, the report recommends how the Council should respond, and asks the members of the Panel for any revisions or additional comments that they think ought to be made.

Recommendation

2. That the Council responds to the consultation setting out the concerns contained in Paragraphs 29 and 30 of this report with any revisions or additional comments that Panel members wish to include.

Financial Implications

3. There are no financial implications associated with this report.

Background Papers

4. None

Impact

5.

Communication/Consultation	This consultation is being undertaken by NATS and London Stansted Airport, who are the proposal sponsors. As the proposal involves changes to the number of flights using existing departure routes at low levels, the consultation is being undertaken primarily through the Stansted Airport Consultative Committee. It is, however, an open consultation for all interested parties. <u>The consultation runs for 12 weeks from Monday 16th June to Monday 8th September 2014.</u>

	There are co-sponsors of this consultation because London Stansted Airport is responsible for airspace management below 4,000ft and NATS is responsible for the same above 7,000ft. Between 4,000ft – 7,000ft there is a shared interest.
Community Safety	This proposal does not affect Stansted Airport's Public Safety Zones, which were last reviewed by the CAA in April 2012. They are due to be reviewed again around 2019 to ensure that the data underpinning them remains robust.
Equalities	None.
Health and Safety	Government guidance identifies 4,000ft as the altitude below which local noise is the key environmental airspace design objective. Between 4,00ft and 7,000ft the objective is to balance noise and CO^2 emissions, whereas above 7,000ft local noise is not a priority. This consultation focusses on the local environmental impact below 7,000ft. A reduction in the overall area regularly overflown below 7,000ft in the daytime, and therefore populations exposed to potential noise is cited by the proposal sponsors as a benefit.
Human Rights/Legal Implications	It is for the CAA to decide whether any airspace change proposal should be approved. The legal framework is set out in Appendix D of the consultation.
Sustainability	Reduction in aircraft fuel burn and CO^2 emissions are cited by the proposal sponsors as benefits.
Ward-specific impacts	This proposal will affect the wards in the southern part of the District that are currently overflown by departing aircraft from Stansted Airport. All relevant town and parish councils have been notified of this proposal by the District Council, and advised to make their own representations direct to NATS.

Workforce/Workplace	Officers' and Members' time in preparing and considering this report.

Situation

The Departure Route Proposal

6. Aircraft which depart from Stansted Airport for destinations in mainland Europe or beyond take-off, turn and climb on one of four established Noise Preferential Routes (NPRs) up to 4,000ft. The aircraft then head out either east towards Clacton or southeast towards Dover whilst continuing their climb on what is known as a Standard Instrument Departure (SID).

7. This report is about a consultation on a proposal to change the use of Stansted Airport's Clacton and Dover SIDs. It is not a proposal to change the SIDs themselves or to alter the four NPRs. The proposal, which is being promoted by NATS and London Stansted Airport, is to switch most of the daytime traffic (0600-2300) from the Dover SID to the Clacton SID, significantly reducing the number of aircraft on two of the NPRs. This means that aircraft that currently use the Dover SID would initially head out east and then turn south over Clacton to pick up the original Dover SID track east of the Kent coast.

8. A very small number of aircraft (estimated at no more than 2 per day) use the first part of the Dover SID and then continue in a more southerly direction to cross the coast at Lydd. Aircraft using the Dover/Lydd SID will continue to do so, and are not part of this consultation. Night time usage of the SIDs is not proposed to be changed, so that is also not part of this consultation.

9. The proposal sponsors give the following reasons for wanting to make this change. These reasons are considered in more detail later in this report:

   i) Reduction in the number of people regularly overflown during the day,
   ii) Reduced delay for passengers using Stansted Airport and neighbouring airports, and
   iii) Reduced CO^2 emissions and fuel burn

10. NATS points out that airlines may already choose to fly the Clacton route instead of the Dover route, and are expected to do so increasingly in the future to avoid congested London airspace.

11. The proposal is a small part of Phase 1 of a wider programme of airspace modernisation over South East England, which is known as the London Airspace Management Programme (LAMP). NATS advises that Stansted, Luton, Northolt and Heathrow operations are all closely linked because of their alignment and geographical proximity. A major redesign of the airspace serving these airports is not planned until later (LAMP Phase 2) and will be subject to a separate and much wider consultation.

Existing Clacton and Dover departures

12. About 70% of the time aircraft take-off to the southwest (Runway 22), and 30% of the time to the northeast (Runway 04). The runway direction in use is primarily determined by the direction of the wind, and will not be changed by this proposal.

13. Separately, the CAA and London Stansted Airport have published radar track data showing a one week sample of departures for the 2013 summer period. Runway 22 departures on the Dover SID take-off, turn and climb over Tilekiln Green and Great and Little Hallingbury before straightening out and continuing their climb over the western part of Hatfield Heath and beginning to disperse over Matching Green onto wider tracks as directed by Air Traffic Control. Runway 22 departures on the Clacton SID turn more sharply east over Hatfield Heath and south of Hatfield Broad Oak whilst continuing their climb before beginning to disperse over Aythorpe Roding and High Roding.

14. Runway 04 departures on the Clacton SID take-off, turn and climb over Brick End/Broxted and Tilty, after which they straighten out to head between Duton Hill and Great Easton whilst continuing to climb before beginning to disperse over Stebbing Green and the south of Braintree. Runway 04 departures on the Dover SID turn very sharply south to the east of Brick End/Broxted, passing to the west of Little Easton and Great Dunmow whilst continuing their climb and dispersing over The Rodings and The Easters.

15. Aircraft using the Clacton SID have a relatively clear climb to 7,000ft, usually reaching that height southwest of Braintree. Aircraft using the Dover SID do not, as they have to cross Heathrow arrivals in the Brentwood and Billericay area which are heading west at about 8,000ft or above for either a straight-in approach to Heathrow or a hold at Lambourne. Dover SID aircraft are kept below the Heathrow arrivals until they have cleared them, and most do not reach 7,000ft until they cross the River Thames. As a result, aircraft on the Dover SID are below 7,000ft for roughly twice the distance of those on the Clacton SID.

16. About 85% of aircraft on the Clacton SID achieve continuous climb, compared to only 10% on the Dover SID. At night, continuous climb performance on the Dover SID is comparable to Clacton because there are relatively few Heathrow arrivals, meaning that the Dover departures are likely to get a clear climb.

17. Delays on the ground can occur because aircraft on the Dover SID have to cross departure routes from London City. Departures at both airports therefore have to be co-ordinated to ensure clear flightpaths. As both airports become busier, Dover SID delays can be expected to increase.

<u>Effect of Implementing the Departure Route Proposal</u>

18. The first point to make about this proposal is that, if it is implemented, there will be winners and losers because some areas will be overflown more and others less. There is no “win-win” situation for local residents. It will be for the CAA to weigh up the benefits and impacts of the proposal in accordance with Government guidance should the proposal sponsors recommend that it is implemented. A realistic presumption is that the proposal will be implemented because it will help to relieve congestion in the London airspace pending the more detailed LAMP Phase 2.

19. The consultation includes information on the existing average number of flights/day using each SID, and the resulting number should the proposal be implemented. The data is shown in the table below:

SID / Runway	Existing average flights/day	Proposed average flights/day
Clacton 22 + 04	51	109
Dover 22 + 04	58	Negligible (Dover / Lydd)

Source: Compiled from NATS Departure Route Proposal at London Stansted Airport – 2012 figures

20. It should be noted that this data is based on airport throughput in 2012 which, to the end of the year was 17.46 million passengers per annum (mppa). As the airport has planning permission to grow to 35mppa it is realistic to expect that this number could nearly double depending upon the traffic mix that is achieved.

21. The consultation also estimates the number of households and people who live in the areas where overflying by aircraft at less than 4,000ft (i.e. on the NPRs) would either be virtually eliminated or would increase as a result of the proposal. There is no comparable analysis between 4,000ft – 7,000ft. This is because the wider dispersal of aircraft on the Dover SID resulting from congested airspace to the south of the Airport could overstate the benefits compared to the Clacton SID where flights stay more concentrated.

22. The estimation is set out in the following table. The table does not include those residents and households who should experience no change in overflying, such as Brick End (Runway 04 departures) and Great and Little Hallingbury (Runway 22 departures).

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Departure Route	Impact	Population	Households
Dover 04	Virtual elimination of regular daytime flights over *Lt Easton, High Wood (west of Great Dunmow) and Gt Canfield*	780	320
Clacton 04	Increase in regular daytime flights over *Tilty, Duton Hill/Gt Easton and Stebbing*	2,050	800
Dover 22	Virtual elimination of regular daytime flights over *Sheering and Matching Green*	690	290
Clacton 22	Increase in regular daytime flights over the area south of *Hatfield Broad Oak*	350	120

Source: Compiled from the population analysis in NATS Departure Route Proposal at London Stansted Airport

23. The population analysis shows that the proposals would result in 1,470 fewer people being regularly overflown during the day. These are the people who live under the two Dover NPRs. However, 2,400 people under the two Clacton NPRs would experience double the existing level of overflying during the day. In addition, there would be double the existing level of overflying of Gt Easton Primary School, which lies north of the main village under the Clacton 04 NPR centreline. According to the 2013 summer track data, the School is overflown on 43% of all days with a range of 0 - 67 departures/day. If this proposal is implemented the range would increase to 0 – 144 departures/day with the average number of daily departures increasing from 14 to 33. It is acknowledged that the school is not open all the time these overflights occur. A doubling of overflights can still be expected when it is open and this does not take into account further overflying as the airport gets busier and the number of air transport movements increases.

24. The consultation also includes details of how the Leq 16hr contour would be affected by the proposal. The 2 published versions are for 20% and 40% increases in traffic over the 2012 level with overlays to take into account the shift to the Clacton SIDs. In both cases the effect on the contour to the north of the airport is barely perceptible because it is principally defined by Runway 22 arrivals. To the south the contour skews slightly to the east. The conclusion is that the proposal would result in a small reduction in the overall number of people within 57dba in both growth scenarios and a small reduction within 60dba for the 40% growth scenario. As the Panel will be aware Leq is an averaging metric, and it may have been more useful in this instance for the Leq contours to have been supplemented by “Number Above” contours which would show the frequency of individual noise events at given locations.

25. In the consultation document, NATS and London Stansted Airport say (Paragraph 5.1):
"Aircraft operate more efficiently at higher altitudes meaning that less fuel is burned creating fewer CO^2 emissions. When aircraft are at higher altitudes it is also less likely that there would be local impact from noise or visual intrusion. It is therefore in everyone's interest that aircraft can climb continuously to higher altitudes rather than being constrained to follow a "stepped" climb with periods of level flight at lower altitudes".

26. In its Noise Road Map, Sustainable Aviation says of continuous climb operations (Paragraph 4.6.1): *"it is likely that the effects of continuous climbs on noise profiles are small as their effect can be some distance from the airfield and at altitudes where the noise change may not be perceptible. There may nevertheless be localised opportunities where noise benefit can be derived and these should be pursued where appropriate. The greatest manifestation of continuous climbs is likely however to be in their scope for significant reductions in fuel burn and CO^2 emissions".*

27. Computer simulation modelling has been carried out to assess the potential fuel and CO^2 emissions savings that would result from this proposal. The savings are set out in the following table:

	2012 traffic grown by 20%	**2012 traffic grown by 40%**
Average enabled fuel burn saving per departure to the southeast	100-200 kgs	100-200 kgs
Approx flights via Dover that would benefit from revised route via Clacton (rounded to the nearest hundred flights)	20,000	24,400
Annual fuel saving (rounded to nearest hundred metric tonnes)	2,000 – 4,000	2,300 – 4,700
Annual CO^2 emissions saving (rounded to nearest hundred metric tonnes)	6,400 – 12,700	7,400 – 14,900

Source: NATS Departure Route Proposal at London Stansted Airport

28. The fuel and CO^2 emissions savings would come principally from the ability to implement continuous climb on the Clacton SIDs. In 2012, aircraft in the landing and take-off cycle at Stansted Airport emitted about 181,000 tonnes of CO^2. Using the above table, the average emissions saving would be about 0.6% which is very small.

<u>The Council's Response</u>

29. As there is no "win-win" situation for local residents, extreme care must be taken in making a judgement about the merits or otherwise of this proposal. In the Aviation Policy Framework (APF), the Government says that it wants *"to strike a fair balance between the negative impacts of noise (on health, amenity (quality of life) and*

productivity) and the positive economic impacts of flights" (Paragraph 3.3). In Paragraph 3.12, the Government states that its overall policy on aviation noise is *"to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise".* Under this proposal more people would experience more overflying than the number who would experience less, and there is also the effect to consider of increased overflying of Gt Easton Primary School. NATS and London Stansted Airport should therefore be asked to clearly explain to the CAA how this proposal would comply with Government policy in the APF and its guidance on environmental airspace design objectives. If this proposal is to be implemented, there should be a prior examination of whether the use of performance based navigation could reduce the effect on the primary school by either finding an optimal path within the Clacton 04 NPR swathe or by practicing dispersal.

30. There may be wider benefits of this proposal from improved fuel efficiency, reduced CO^2 emissions, reduced passenger delays and reduced congestion in the London airspace. It is not clear, however, how these are to be weighed against Government policy and guidance on mitigating noise impacts below 4,000ft.

Risk Analysis

31.

Risk	Likelihood	Impact	Mitigating actions
That this proposal would result in an overall net reduction in the quality of life for Uttlesford residents through more residents experiencing more overflying than the number who experience less.	2. The final decision on whether to implement the proposal will lie with the CAA based on its assessment of how the proposal meets Government policy and guidance.	2. There will be varied localised impacts for residents depending upon where they live.	Respond to the consultation setting out the Council's views and concerns about the proposal.

1 = Little or no risk or impact
2 = Some risk or impact – action may be necessary.
3 = Significant risk or impact – action required
4 = Near certainty of risk occurring, catastrophic effect or failure of project.