

**NATIONAL AIR TRAFFIC SERVICE (NATS) CONSULTATION:  
PROPOSED CHANGES TO TERMINAL CONTROL NORTH (TCN)  
AIRSPACE OVER CAMBRIDGESHIRE  
(Report by the Head of Environmental & Community Health Services, the  
Head of Planning Services and the Head of Environmental Management)**

**1. INTRODUCTION**

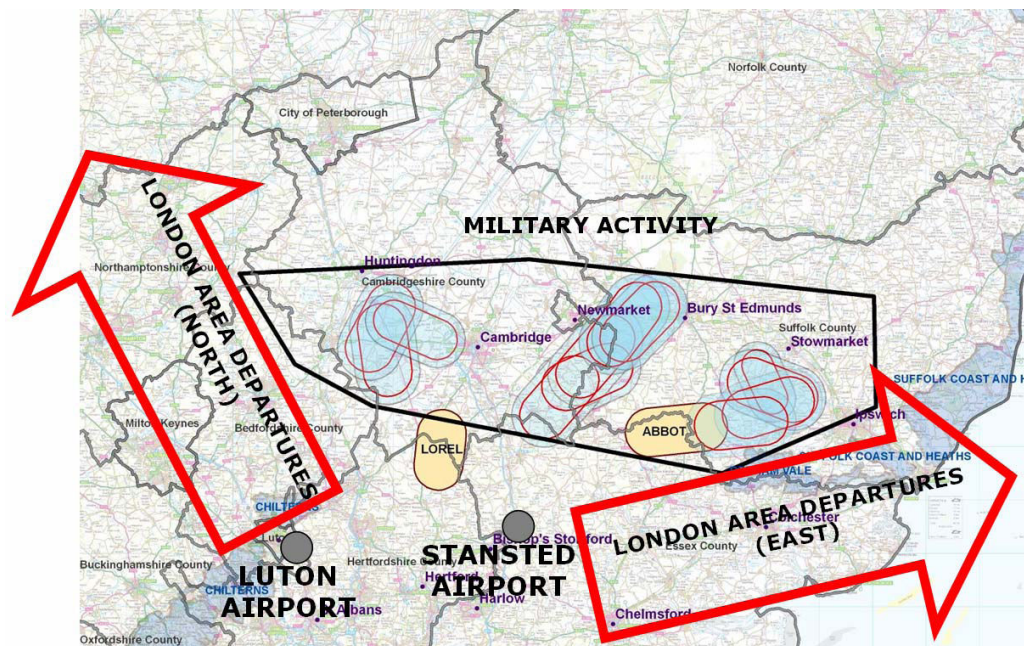
- 1.1 "Terminal Control North" (TCN) is the name given to a very long area of airspace (below 19,500ft) extending from London, roughly in an arc from Reading through Oxford, Milton Keynes, Bedford, Huntingdon, Ely, Thetford and Lowestoft.
- 1.2 The purpose of this report is to brief members on the details of NATS proposals to change the use of TCN, to explain the impact of the proposed changes and importantly to outline how these proposed changes may affect Huntingdonshire residents if implemented.
- 1.3 Proposals for airspace change have to conform to guidance issued by the Civil Aviation Authority (CAA), CAP 725 – Guidance on the Application of the Airspace Change Process.
- 1.4 A draft response to the proposals is attached for consideration by Members and the final date for formal responses is 22 May 2008.

**2. SUPPORTING/BACKGROUND INFORMATION**

- 2.1 Luton and Stansted currently share two holds; one called LOREL in the vicinity of Royston and one called ABBOT in the vicinity of Sudbury. These are shown in annexes 1 and 2.
- 2.2 NATS consultation documents explain that shared holds add more complexity to air traffic control because the queues for Luton and Stansted become intertwined. For example, a Luton arrival may not be able to leave the queue to head for the Luton runway even if the runway is clear because there are queuing Stansted arrivals below it. As a result, the Luton arrival could be delayed from landing for longer than necessary. The same scenario can also apply to Stansted arrivals caught behind queuing Luton traffic. In addition to delaying passengers, increased holding has an adverse environmental effect because aircraft waiting to land burn more fuel, create more emissions and expose communities beneath to more noise. This additional complexity and delay caused by shared holding is only an issue when there are a high number of arrivals into both Luton and Stansted simultaneously. This has not been a regular occurrence to date and when it does happen, air traffic controllers seek to manage the aircraft in such a way as to keep either Luton or Stansted aircraft out of the holds whenever possible.
- 2.3 NATS contend that continued growth in air traffic is making management of Luton and Stansted arrivals in this way unsustainable and, therefore, they say that change is required. In order to provide a solution to this issue, the TCN proposal is to establish new separate 'dedicated' holds for Luton and Stansted airports. They propose to establish 3 new holds to replace the existing 2 holds, with 2 of the new holds serving Stansted

and one serving Luton. The proposed holds are shown at annexes 3 to 5 and annex 3 shows the proposed “Luton Hold” covering an area of airspace to the west of Cambridge, south of Huntingdon and east of St Neots.

2.4 NATS considered a number of hold locations subject to operational constraints, which are listed in the consultation documents. They explain that these constraints limit the range of operationally efficient options available. In addition, they say that there is a need to keep the holds sufficiently separated from one another to maintain the safety of the aircraft holding within them. As a consequence of the limited options identified and their stated requirement to avoid population centres, and the need to keep the holds separated, they only identified three general areas in which the three new holds could feasibly be located:



2.5 The following table was copied from the consultation document and shows the number of people living beneath the proposed hold locations. They also show, for comparison, the number of people living beneath the existing LOREL and ABBOT holds with NATS concluding that, even with an additional hold, the overall population living beneath the holding areas would be reduced by over 20,000 (more than 30%).

<b>Population counts below the current and proposed Holds</b>		
	<b>Holds</b>	<b>Population</b>
<b>Proposed Holds</b>	<b>Luton</b>	<b>14227</b>
	Stansted West	10371
	Stansted East	15371
	Total	39908
<b>Current Holds</b>	Abbot	35645
	<b>Lorel</b>	<b>26470</b>
	Total	62115
<b>Total Difference in populations beneath current and proposed holds</b>		<b>22207</b>

This shows a clear reduction in the potential total population numbers under the proposed new Holds, including the numbers under the Luton

Hold. However, it should be noted that the methodology used only existing populations and no allowance has been made for population growth in Cambridgeshire.

- 2.6 The proposals take account of Government guidance that aircraft stacking at sea is not an option and that centres of population are to be avoided where possible. NATS emphasize that they have no control over the growth of airports or air traffic and will not respond to feedback on this issue. The proposals are based upon a predicted 3-4% overall growth in air traffic per annum and the following table shows a more detailed analysis of the predicted growth rates for Luton.

Period	Growth
2007 – 2009	7.5%
2010 – 2014	5.0%

- 2.7 When the consultation exercise is completed the NATS proposals and consultation responses will be submitted to the Civil Aviation Authority (CAA) who regulates the use of United Kingdom airspace. The CAA will decide if the proposals are acceptable.
- 2.8 Since the Council was consulted on the TCN proposals NATS has launched further proposals for airspace change affecting a small part of the Huntingdonshire area. The new proposals (N601 Extension proposals) are to move the edge of an existing area of controlled airspace by a distance of 9 km in an easterly direction from the north east of Bedford to Sheffield and can be viewed at [www.nats.co.uk/text/134/N601.html](http://www.nats.co.uk/text/134/N601.html) Airspace at a minimum height of 11,500 feet over Kimbolton and surrounding villages to the west of the A1 will be affected by the new proposals and the consultation is directed at environmental and conservation groups, county councils and unitary authorities. The District Council has been copied for information only because of the overlap with the TCN proposals that are the subject of this report. The new proposals will affect the areas that lie under the proposed controlled airspace but are of less significance than the TCN proposals.

### **3. IMPLICATIONS**

- 3.1 The proposed new Luton Hold covers a wide area between Cambridge, Huntingdon and St Neots. Cambourne and Great Gransden are located towards the centre of the hold which is approximately 10km wide and 20km long.
- 3.2 NATS estimate that Luton will handle an average of 10 flights per hour during the day and between 1 and 2 flights at night (2009). Not all flights would be able to fly directly to Luton and delayed aircraft would therefore use the hold until a landing slot becomes available. The hold has a minimum base level of 7000ft and extends upwards to 14,000ft. It can accommodate a maximum of 8 aircraft at peak times. For technical reasons the stack cannot extend any higher than 14,000ft.
- 3.3 The impact of the new proposals has been assessed by consultants employed by NATS with major consideration given to noise, fuel burn and emissions and other environmental factors.

(a) Noise

Noise from the new Luton Hold would affect local residents in the manner indicated in the following table which is reproduced (in part) from the consultation documents:

**Noise – Luton Arrivals**

<b>Aircraft Type</b>	<b>Typical Aircraft Boeing 737 – 700</b>	<b>Noisiest Aircraft A300 - 600</b>
% of movements	26%	<1%
<b>Height (ft)</b>	<b>Noise (Lmax, dB(A))</b>	<b>Noise (Lmax, dB(A))</b>
6000 – 7000	<55 – 60	<55 - 61
7000 and above	Up to 59	Up to 60

L max is a measurement of the peak noise at ground level as an aircraft passes directly overhead. Aircraft not directly overhead will appear quieter and the above figures represent the worst case scenario. 60 dB(A) is likened to the typical noise level that would be observed in a busy general office and is accepted as a reasonable noise comparator.

(b) Fuel Burn and Emissions including Climate Change

According to NATS, the proposed changes to the airspace structure and the supporting operation of the TCN region as a whole will not have a demonstrable effect on fuel burn and emissions, including CO<sub>2</sub> emissions, either positively or negatively. They demonstrate the emissions assessment for 2009 and 2014 using the following table:

	% difference for 2009 traffic demand, new compared with existing	% difference for 2014 traffic demand, new compared with existing
Departures	3% increase	3% increase
Arrivals	4% reduction	4% reduction
Holding	7% reduction	8% reduction
Overall	Neutral	neutral

However, the NATS analysis does not measure the increasing fuel burn and emissions effects resulting from the growth of air traffic and state that they will not respond to issues raised in relation to air traffic growth.

(c) Other Factors

i Local Air Quality

NATS analysis has shown that the proposed changes will have a negligible impact on local air quality.

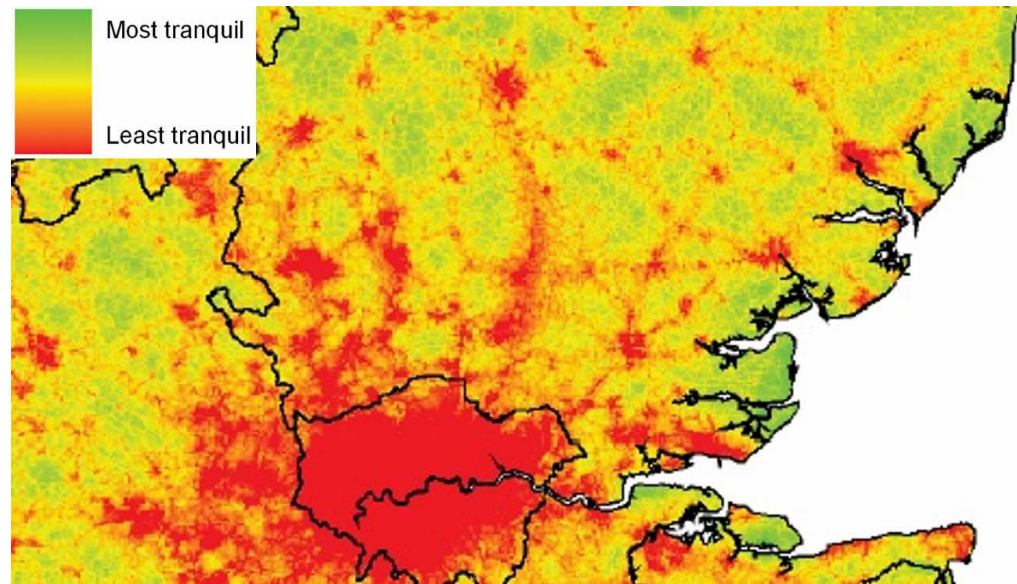
## ii Sites of Ecological Interest and Wildlife Effects

The CAA guidance for airspace change considers that it is unlikely that airspace changes will have a direct impact on animals, livestock, or biodiversity but NATS report that they have considered all nationally designated wildlife sites (SSSIs, NNRs and SACs) and Special Protected Areas (SPAs) in the design process and, wherever feasible within the airspace and safety constraints, overflights of these areas has been avoided at levels below 2,000 feet.

## iii Tranquillity and Visual Intrusion

According to NATS, tranquillity is a term most usually associated with areas of open space or countryside and can be described as a “state of calm or quietude”. The CAA is required to “pursue policies that will help to preserve the tranquillity where this does not increase significantly the environmental burdens on congested areas”. The CAA is on record as recognising that there is no universally accepted metric by which tranquillity can be measured and this view was recognised in the Rural White Paper **OUR COUNTRYSIDE: THE FUTURE “A FAIR DEAL FOR RURAL ENGLAND”**, November 2000, Department for Environment Food and Rural Affairs.

The Campaign for the Protection of Rural England (CPRE) has produced a tranquillity map of England which takes account of aircraft noise, employing a negative weighting factor where air traffic is viewed as having an impact. The following extract of that is reproduced from the NATS consultation documents:



The loss of tranquillity is likely to be a major concern to the residents of villages that will be affected by the NATS proposals to establish new aircraft holding patterns overhead.

- 3.4 Several parishes, including Hilton, Hail Weston, Waresley and Great Gransden have already made contact with the District Council to express their concerns about the effects that the NATS proposals will have on their residents. The issues that they are concerned about are consistent with the matters raised by NATS but extend to impacts on quality of life.

#### **4. CONCLUSION**

- 4.1 The NATS proposals have been assessed in accordance with guidance issued by the Civil Aviation Authority (CAA), CAP 725 – Guidance on the Application of the Airspace Change Process which can be viewed at <http://www.caa.co.uk/docs/33/CAP725.PDF>.
- 4.2 There are concerns among potentially affected villages about the impact of noise from aircraft stacking, about the threat to tranquillity from noise and visual intrusion and about the general detriment to the village environment and well-being of village populations. These can be summarised as objections on the basis of quality of life issues.
- 4.3 The failure to recognise the population growth factor in Cambridgeshire is considered to be a material factor, as is the failure to consider the potential effects from the growth of air traffic.

#### **5. RECOMMENDATION(S)**

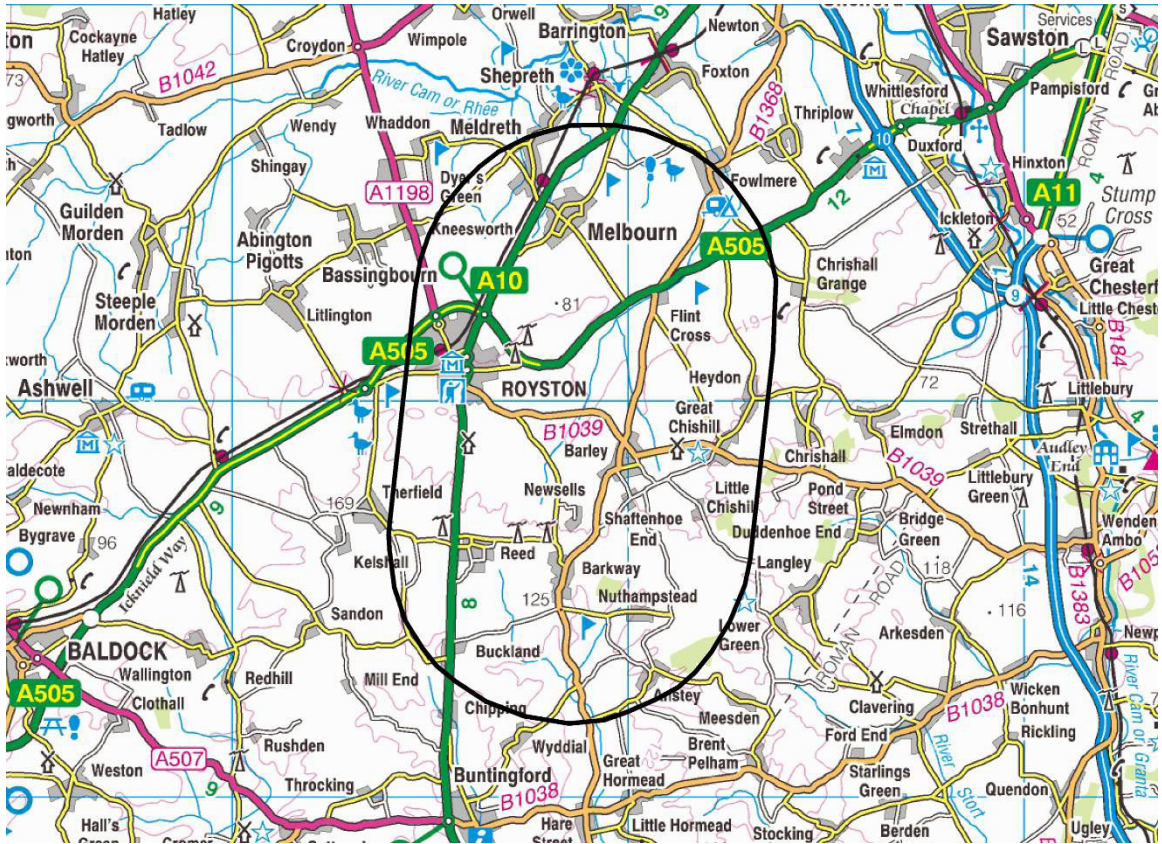
- 5.1 It is RECOMMENDED that the Director of Environmental and Community Services be authorised to respond to the NATS consultation along the lines referred to in paragraphs 4.1 - 4.3 of this report.

#### **BACKGROUND INFORMATION**

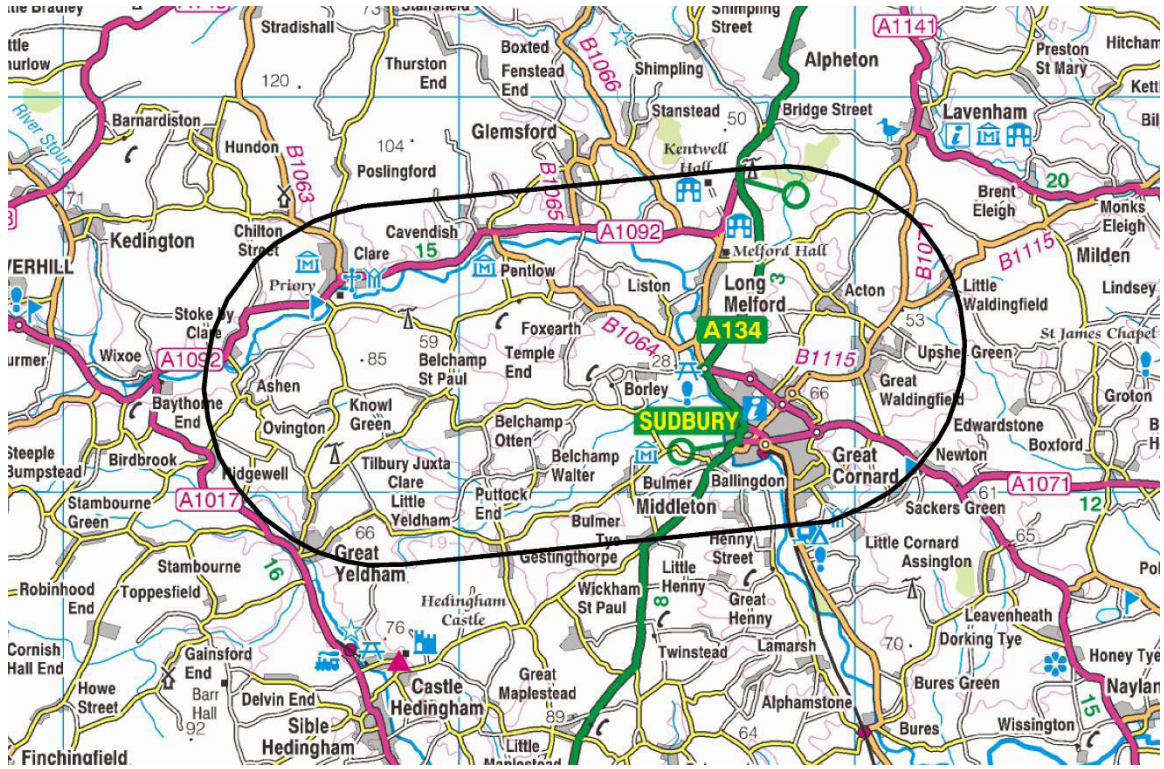
Consultation Document for the Terminal Control North Airspace Change Proposals

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Existing Aircraft Hold Over Royston

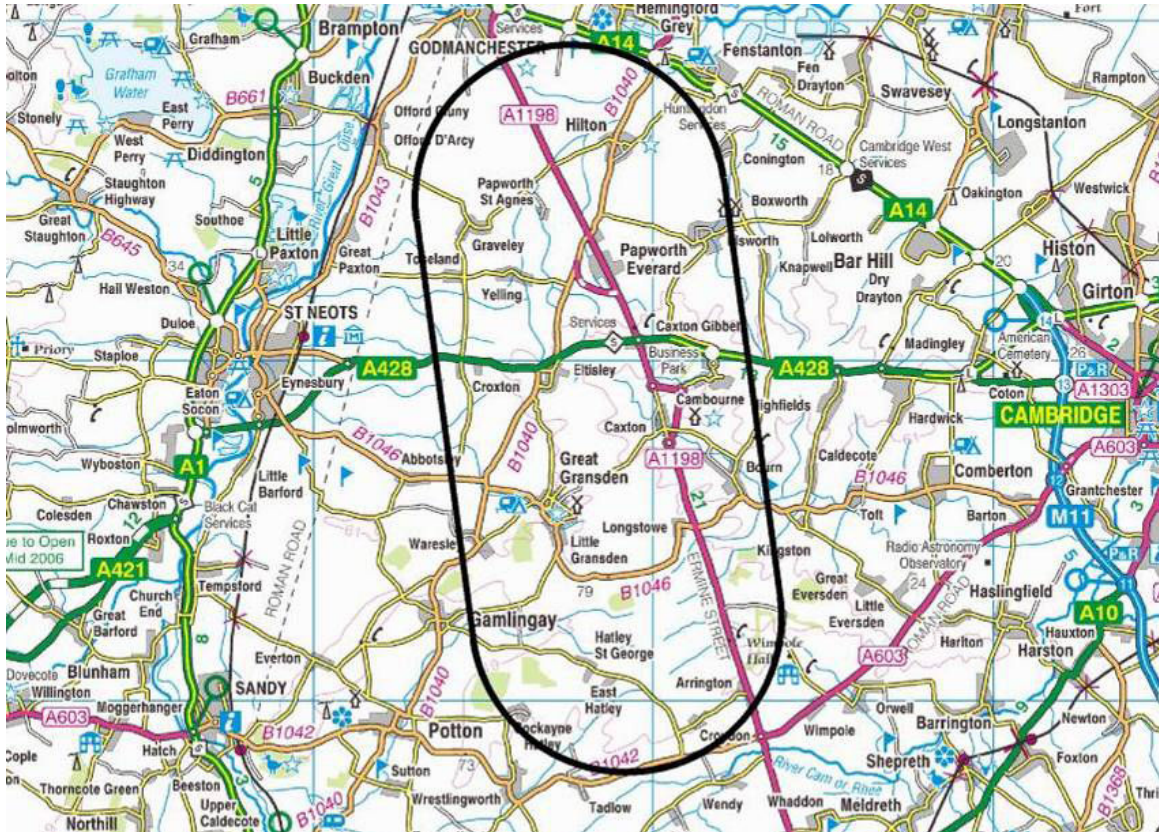


Existing Aircraft Hold Over Sudbury

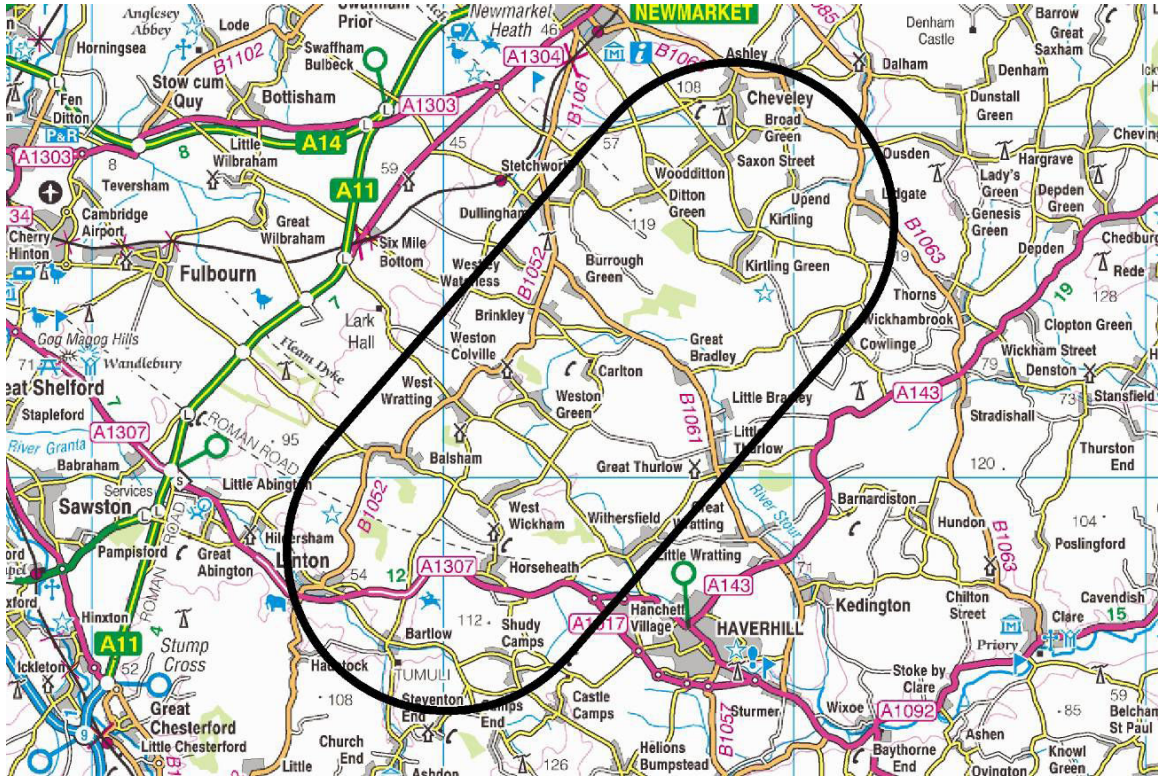




Position of the Proposed Luton Hold



Position of the Proposed Stansted West Hold



Position of the Proposed Stansted East Hold

