

PERFORMANCE BASED NAVIGATION



New innovative technology to reduce the impact of aircraft noise on communities around Stansted Airport

Aircraft noise can sometimes be seen as intrusive and disruptive, particularly for those people that live closest to the airport and its flight paths. London Stansted Airport ('Stansted') has a long-term aim and commitment to manage, and reduce where possible, the number of people affected by noise as a result of aircraft operations.

An opportunity was recently identified to help reduce the number of people affected by aircraft noise in certain areas close to Stansted, by using modern GPS (global positioning system) navigation techniques that are new to UK aviation.

In partnership with the Stansted Airport Consultative Committee, the airport agreed to investigate this in further detail and conducted a trial with a number of industry bodies including the Civil Aviation Authority (CAA), NATS (air traffic control provider) and easyJet.

Our investigation resulted in a trial of modern GPS navigation techniques for departing aircraft which would better enable them to fly two of the existing flight paths more accurately. Keeping to these existing flight paths more accurately means fewer people would be affected by overflying aircraft in the local area.

Results from the trial have been very encouraging in terms of track keeping accuracy, showing that participating aircraft directly overflew 85% fewer people compared to traditional departure procedures. We now wish to share the results of the trial publicly and understand the local community's views on making the process permanent for departing aircraft.

HOW DOES IT WORK?

Departing flights must keep within a 3km corridor when taking off, meaning sometimes departures over-fly some local towns and settlements. However, the new GPS technology helps aircraft to fly a more precise course – in excess of 2km less variation than when using the traditional navigation methods.

As a result, this technology enables a reduction of overflight of a number of local towns and settlements including the Eastons, Great Dunmow, Hatfield Broad Oak, Hatfield Heath and Little Hallingbury.

WHAT ARE THE MAIN CHANGES AND WHO WILL BE AFFECTED?

The new navigation technology helps departing aircraft to keep closer to two of our existing flight paths, reducing the number of people who are overflown by aircraft.

Figures 1 and 2 show the areas of over flying both before (1) and after (2) the trial from 'runway 22 Clacton NPR'. As demonstrated in the second image, the number of people being overflown by aircraft in Hatfield Heath, Hatfield Broad Oak and Little Hallingbury is reduced significantly as a result of the trial.

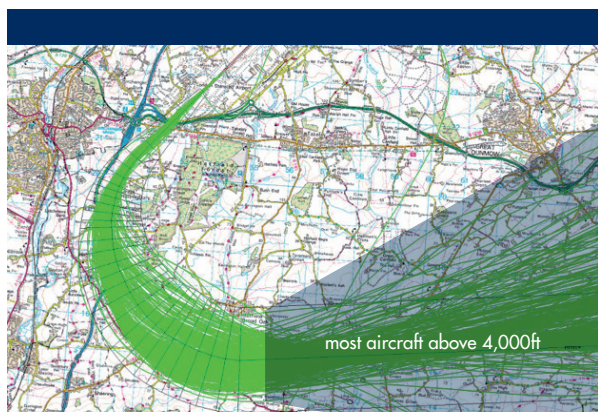


Figure 1: Typical spread of departure tracks across runway 22 Clacton NPR

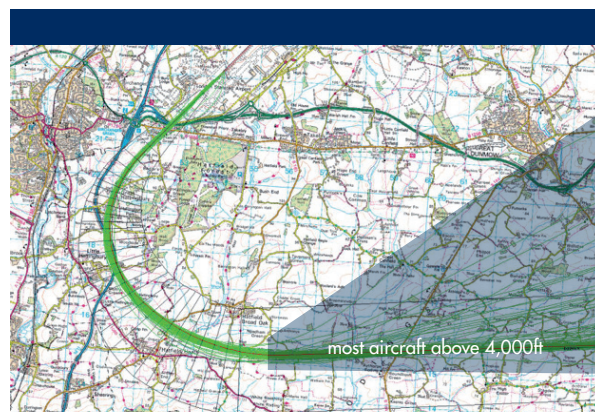
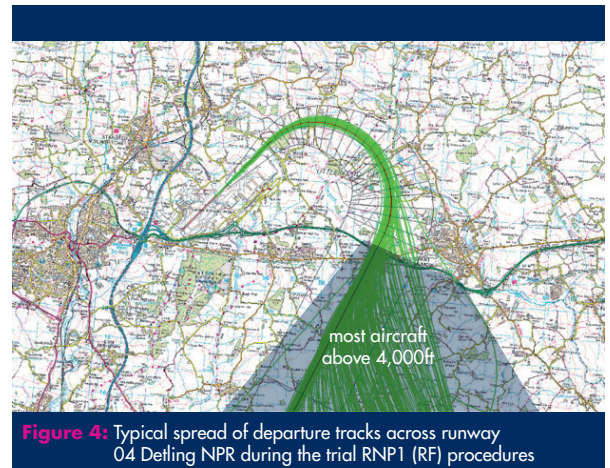
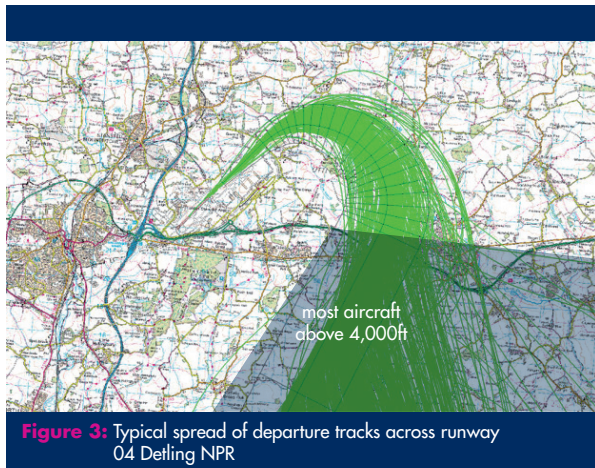


Figure 2: Typical spread of departure tracks across runway 22 Clacton NPR during the trial flying RNP1 (RF) procedures

WHAT ARE THE MAIN CHANGES AND WHO WILL BE AFFECTED? CONT'D

In Figure 4, the new procedures helped to reduce the over flying of Little Easton and Great Easton, with the greatly reduced overflying of Great Dunmow during the trial period (compared to Figure 3).



More details about the trial can be found at stanstedairport.com/consultation

HOW CAN I HAVE MY SAY?

We are seeking the views of our local communities about the permanent adoption of this technology.

As part of your response, please indicate:

- Your name and postcode
- If you are commenting on behalf of an organisation
- Whether or not you support adopting the technology used in the trial
- Please also indicate if you do not wish your name, or any other personal details to be included in the consultation feedback report.

To respond to the consultation, you can send your thoughts to us via email at consultation@stanstedairport.com or write to us at:

Airspace Consultation Team, Airfield Operations, 3rd Floor, Enterprise House, Stansted Airport, CM24 1QW

As all consultation responses will be submitted to the CAA. We are also holding a series of local community outreach events covering all elements of Stansted Airport's operation including local employment, public transport provision and this consultation.

If you would like to come along and speak to a member of the airport team, please drop in on the following dates:

- 22 September 2015 – Foakes Hall, Great Dunmow – 3pm to 7pm
- 24 September 2015 – Rhodes Centre, Bishop's Stortford – 3pm to 7pm
- 07 October 2015 – Hatfield Heath Institute – 3pm to 7pm

TIMELINE

The consultation begins on 1 September 2015 and will close on 27 November 2015 and we invite you to share your views.

At the close of the consultation period, Stansted Airport will collate and review all feedback received, submit a consultation feedback report to the CAA and then submit an airspace change proposal to the CAA with the aim of adopting the trial technology permanently.