

CAP 1886 ANNEX E

CAA Analysis of SurveyMonkey feedback from stakeholders and members of the public

Introduction

1. For the Post Implementation Review (PIR) the change sponsor was required to demonstrate how the actual impacts of the airspace change compare with what was set out in the airspace change proposal and the preferred option on which stakeholders were consulted. The PIR has been undertaken in line with the CAP 725 process with an element of CAP 1616 '[Guidance on the regulatory process for changing airspace design including community engagement requirements](#)' PIR process applied. This specifically included the publication of data received from the change sponsor and the opening of a 28-day feedback window via SurveyMonkey, in which any stakeholder could provide any feedback on the data received and the impact of the change.
2. There was a slightly longer PIR data collection period from July 2016 through to September 2017 because of an issue with some Boeing aircraft not flying the procedure correctly; this was subsequently addressed by a minor modification to the RNAV-1 SID design which was introduced in February 2017. London Luton Airport Operations Limited (LLAOL) hence provided data to the CAA for the two periods of operations at London Luton Airport, firstly between July 2016 and November 2016, then from 2 February 2017 to 30 September 2017.
3. The change sponsor provided data covering the period from July 2016 to November 2016 as follows:
 - Gate analysis
 - Vertical profiles of departures
 - Complaints data submitted to LLAOL
 - Track dispersion plots and track density plots
4. The change sponsor provided data covering the period from February 2017 to September 2017 as follows:
 - Daily track plots
 - Gate analysis
 - Monthly track dispersion plots and track density plots
 - Monthly track dispersion plots by aircraft type
 - Monthly track dispersion plots by airline
 - Monthly vertical profiles of departures
 - Complaints data submitted to LLAOL
 - Meteorological data
 - Community noise reports
5. The Change Sponsor's data analysis and documentation was published on the [CAA website](#) on 30 May 2018 and stakeholders were invited to submit their

own observations through the online SurveyMonkey platform. The feedback survey closed on Monday 2 July 2018.

6. A total of 175 SurveyMonkey responses were received answering 16 questions. Three responses were discounted due to test submissions and duplicate responses.
7. We have reviewed the feedback received, detailed our findings and provided appropriate comment to the feedback cross-referring to the main PIR report where appropriate. Our comments to the relevant feedback are in blue.

Main themes of SurveyMonkey Stakeholder Feedback

8. The following main themes were identified from respondents' feedback:

(1) Technical nature of data provided by change sponsor. Feedback was received that the change sponsor's data was too technical to understand and provide meaningful responses and did not address increased aircraft traffic levels since implementation of the airspace change. The data provision was referred to as insufficient, for example; monitoring conducted in an off-peak period for only 3 months, a lack of comparable noise data pre and post change, a lack of comparable vertical profiles data pre and post the airspace change, insufficient monitoring of noise levels in the Marshalswick and Sandridge areas and no Heathrow flight data provided.

CAA Comments:

The PIR data was provided for the CAA rather than stakeholder review to enable the CAA to conduct the PIR. The data met the CAA requirements as shown on Annex A; the CAA was thus able to conduct the PIR review from this data. The change concerned replication of the conventional SID, and was not an enabler for any increase in traffic levels. Data was collected over two summer periods. Noise monitoring was conducted at Sandridge. There was no CAA requirement for the sponsor to monitor noise levels in the Marshalswick area of St Albans given its close proximity to Sandridge. There was no requirement to provide Heathrow flight data as Heathrow flight paths are not associated with, or connected to this change, and additionally, the Heathrow interactions are unchanged and have no implications for the RNAV-1 SID design.

(2) RNAV concentration and increase in aircraft activity. A common theme was the impact of RNAV concentration of flights down a narrow corridor over more densely populated areas than before and that this had not been

anticipated from the airspace change. This concentration, when coupled with an increased frequency in aircraft activity, had resulted in noise and visual intrusion over areas little affected previously. The frequency of flights on the RNAV Runway 26 BPK route was referred to as being every 3 minutes.

CAA Comments:

The impacts of concentration were anticipated by the CAA in the CAA decision making process as described in the Environmental Assessment report and our 2015 decision. The ACP was not an enabler for an increase in flights. The CAA track analysis (Annex C) and the PIR report determines whether the traffic patterns and impacts are as expected.

(3) Interaction of London Luton operations with other airports' traffic.

Respondents stated that the combined impact of the interaction of Luton departures with Heathrow traffic resulting in Luton departures being unable to reach their optimal altitude quickly enough should have been addressed.

CAA comments:

The impacts of other traffic patterns such as Heathrow flight paths are not a consideration for this change proposal and the PIR review, and in respect of Heathrow traffic patterns, the Heathrow interactions are unchanged. The vertical climb profile of the RNAV-1 SID is unchanged from that of the conventional SID. Climb above the designed vertical profile is normally at the discretion of the air traffic controller and depends on the proximity of other traffic; this issue was not in the scope of the change proposal and is not a matter for the PIR.

(4) Increased noise impact early in the morning and late at night. A common theme was increased noise impact from flights both early in the morning and at night with respondents being woken by the noise of aircraft from just before 6am and flights continuing until midnight and occasionally during the night.

CAA comments:

The impacts for noise in the early morning and late evening/night time is not a matter for the change proposal, nor was this proposal an enabler for increased flights during these periods; this is the responsibility of the appropriate planning authority responsible for the use of London Luton Airport, and does not form part of the airspace change process.

- (5) Impact of increased noise on mental and physical health and wellbeing, including sleep deprivation and impact on family life. Many respondents stated that the increase in aircraft noise had resulted in sleep deprivation with their physical and mental health and wellbeing suffering as a result. Illnesses experienced or exacerbated included anxiety and stress, blood pressure, exhaustion, diabetes and headaches. Some residents stated that they had not been able to get to sleep or had been woken from sleep and expressed concern for potential short or longer-term impacts of sleep deprivation including falling asleep while driving, obesity and dementia. The impact on home life included being unable to hold a conversation with windows open, being disturbed while working from home and an inability to enjoy homes and gardens. Some respondents referred to the effect on their children including disruption to sleep and some residents wished to move home due to the increased noise impact.

CAA Comments:

Aircraft noise impacts are covered in the Environmental Assessment section within the main PIR document. The intention of the change proposal was to replicate the existing conventional SID using RNAV-1 technology. The ACP was not an enabler for any increase in traffic levels. The impacts for noise in the early morning and late evening/night time is not a matter for the change proposal nor was this proposal an enabler for increase flights during this period and does not form part of the airspace change process. Any increase in traffic levels is a result of airport planning approvals and is not a matter for the CAA. This is also addressed in the main PIR document.

- (6) Aircraft vectoring. Impact of continual tactical vectoring of low flying flights to the south and east of the Harpenden Road/Railway Line was a common theme with resulting noise disturbance for areas including Sandridge, Marshalswick and Jersey Farm.

CAA Comments:

The intention of the change proposal was to impose a radar vectoring restriction until departures had crossed the St Albans to Harpenden railway line unless necessary for operational safety reasons (such as weather avoidance or to avoid other traffic). The resultant traffic patterns evident following the change indicates vectoring is occurring more frequently than was expected by the CAA, but the resultant traffic pattern is no worse than before the change in terms of the lateral dispersion and therefore the impact of this is no worse than it was before the change. This is covered in the CAA PIR report and Annex C.

(7) Areas affected. Stakeholders referred to the following areas being affected by a significant increase in noise: Harpenden, St Albans (including Batchwood, New Greens and Marshalswick), Sandridge including Heartwood Forest and Jersey Farm, Southdown, Redbourn, Childwickbury, Hatfield, Hemel Hempstead, Caddington, Wheathampstead and West Essex. Google Earth landscape images are included within this Annex at page 34. Participants' postcodes were plotted on Google Earth with overlays including google maps (Figure 2) and the RNAV-1 Runway 26 Brookmans Park SID overlay (Figure 1).

CAA comments:

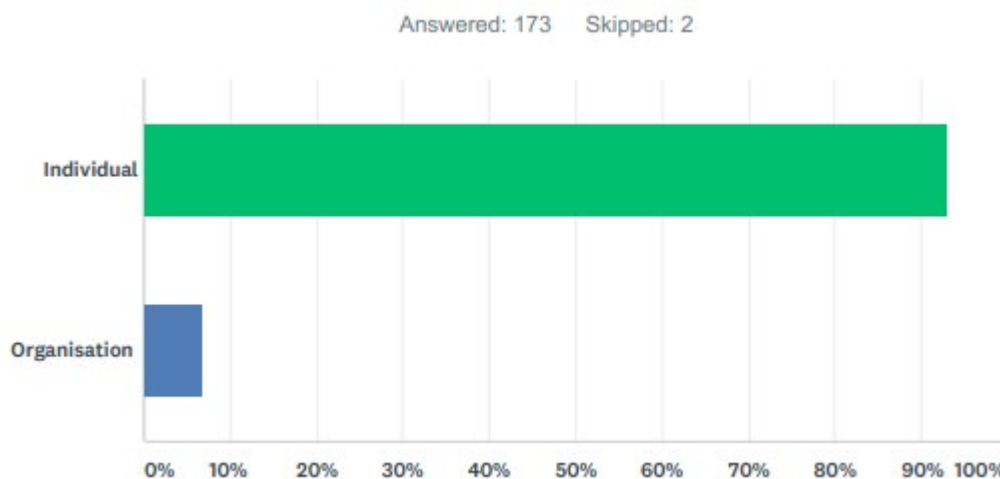
Following a review of the data LLAOL submitted for the purpose of this PIR, the anticipated noise impacts from the introduction of the RNAV-1 SIDs are as the CAA expected. For further details, please refer to the main PIR document.

An analysis of enquiries/complaints received from stakeholders by both LLAOL and the CAA relating to the implementation of this airspace change can be found at pages 46 to 49 of this Post Implementation Review report.

Summary of SurveyMonkey questions and responses

The online survey invited respondents to answer 16 questions. Questions 1 and 2 asked respondents to submit their name, postcode and email address and question 3 asked whether responses were being submitted by individuals or on behalf of organisations. Questions 4 and 13 invited “yes” or “no” answers only. The raw data from questions 5 to 12 and questions 14 to 16 was analysed and the results are presented in this section using graphs and commentary.

Question 3 asked: “Are you completing this feedback survey on behalf of an organisation or as an individual response?”

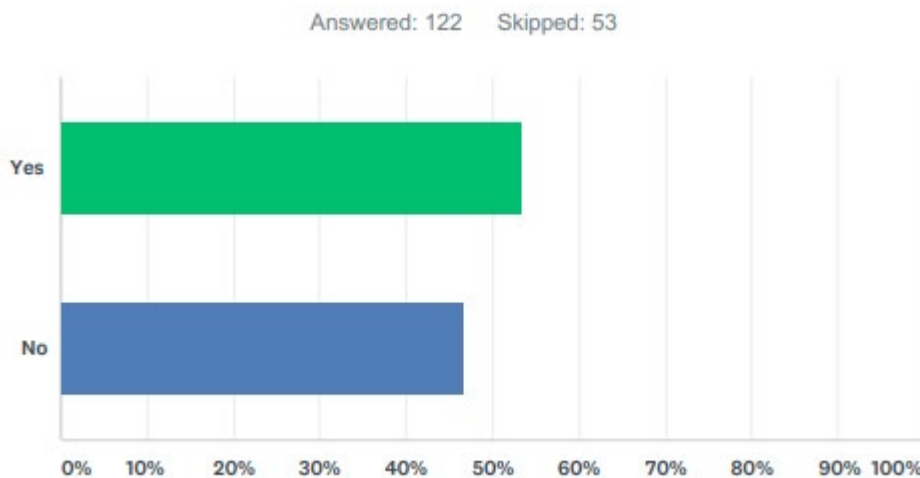


- 173 responders answered this question, with 161 completing the survey as an individual and 12 completing the survey on behalf of an organisation
- 2 skipped this question

3(1) The organisations who responded to the online survey included:

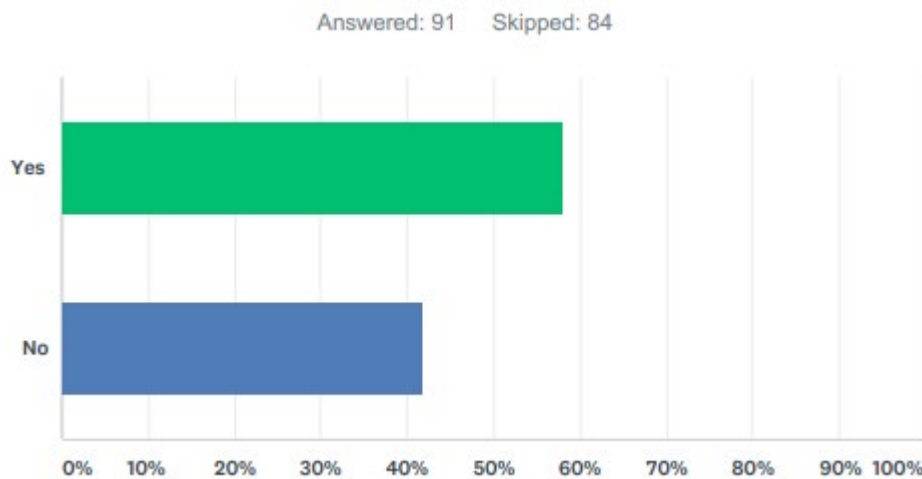
- Luton and District Association for the Control of Aircraft Noise (LADACAN)
- Hertfordshire County Council
- St Albans City and District Council
- Easters and Rodings Action Group
- St Albans Quieter Skies (STAQS)
- People Against Intrusive Noise
- Stop Low Flights from Luton
- Flamstead Parish Council Airport Working Group
- HarpendenSky
- Childwickbury Stud

Question 4 asked “Do you have feedback on the sponsor’s published data?”



- Respondents were invited to answer ‘yes’ or ‘no’ to question 4
- 122 responders answered this question, with 65 answering ‘yes’, going on to provide feedback and 57 answering ‘no’
- 53 skipped this question

Question 5 asked “The data provided meets the requirements outlined in Stage 7 of CAP 725. In your opinion is there missing or incomplete data?”



- 91 responders answered this question
- Of the 91 who responded, 53 answered 'yes' while 38 answered 'no'
- 84 skipped this question
- Those who answered 'yes' were asked to provide 'detail of what is missing'.

The key themes from question 5 are set out below:

5(1) Complaints

- Questions around complaints received by LLOAL by postcode and why the first section of the postcode is only available.

CAA Comment:

For GDPR purposes the change sponsor does not publish full postcodes.

- General distrust in complaints data (in terms of numbers of complaints being inaccurate)

CAA Comments:

The CAA takes into account the number of complaints submitted to LLAOL and the CAA. Our analysis of complaints is covered in the main CAA PIR report and Annex D.

5(2) Noise analysis

- General distrust in the noise data
- Insufficient monitoring of noise levels in the Marshalswick area of St Albans
- Criticisms of Community Noise Report Sandridge. This includes the criticism is aimed at the lack of consideration from the increased traffic levels since implementation. There are also observations that the noise monitoring was

undertaken in an 'off peak' period and was limited to three months of monitoring. There were also comments around the report does not reflect local weather characteristics

- Inadequate noise monitoring in the Sandridge area
- Lack of noise data pre and post change
- Lack of consideration of the impacts of increased noise and pollution
- Detail lacking on weather related impacts on noise

CAA Comments:

The CAA requested a range of noise data, details of which are listed in Annex A. The data submitted by LLAOL was sufficient for the purpose of this PIR.

Noise monitoring was conducted at South Luton and Sandridge as requested by the CAA in the Environmental Assessment document associated with the original ACP submission.

Furthermore, noise monitoring was also carried out by LLAOL at Slip End, Flamstead, Redbourn, Hemel Hempstead and St Albans, with pre and post-implementation data being compared in **table 7** in the main PIR document. Single aircraft event noise measurements in the form of average noise level L_{max} (maximum sound level) noise monitoring data was provided to the CAA. Average noise level L_{max} data is not influenced by changes to movements or noise generated from other departure routes. Further explanation of the noise monitoring conducted by LLAOL for the purpose of this PIR is in the main PIR document.

The intention of the change proposal was to replicate the existing conventional SID using RNAV-1 technology. The ACP did not enable any increase in traffic levels, nor did it enable any increases in traffic operating in the early morning or late evening/night periods. Any increase in traffic levels is a result of airport planning approvals and does not form part of the airspace change process, hence this is not a matter for the CAA. This is also addressed in the main PIR document.

There was no requirement for the monitoring of noise levels in Marshalswick for the purpose of this PIR.

With reference to the feedback concerning pollution, in addition to the assessment of noise, local air quality is covered in the main PIR document.

The use of noise monitoring over a set period of time accounts for the inherent variability of conditions, such as the weather. This variability is subsequently represented in the data recorded by the noise monitors.

Noise data was collected by LLAOL over two summer periods, as requested by the CAA in Annex A.

5(3) Gate analysis

- Lack of direction key for North, South, East and West
- Do not show percentage distribution across altitude bands
- Incomplete and misleading

CAA Comment:

The gate analysis provided by LLAOL meets the CAA requirements as listed in Annex A. A review of the gate analysis is covered in the main PIR report.

5(4) General comments on data set data feedback

- Lack of enough detail on flight altitudes
- Too detailed for general householders
- Lack of detail around population source data
- Not clear about the impacts of RNAV
- No indication around the number of people who are overflowed because of the change
- Comments on impacts of tactical vectoring
- Aircraft not always contained within the SID
- No given definition of what is meant by 'overflowed' communities (lacking in the environmental impact assessment too)
- Data taken from areas which exclude Harpenden
- Does not consider the growth of the airport (traffic)
- Stage 7 of CAP 725 contains very little guidance as to what data is required to be provided as part of the PIR

CAA Comments:

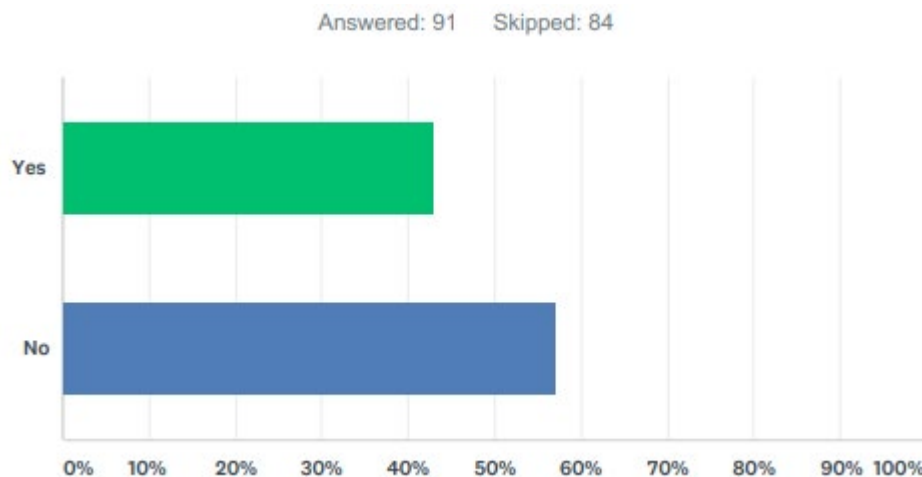
We are content that the data provided was what the CAA requested in order for the CAA to conduct the PIR and determine whether the impacts of the change proposal are what was expected when we made our 2015 airspace change decision. Our PIR report covers these aspects.

The CAA specifically looks at data 12 months after implementation, in this case 15 months following a modification to design. Respondents have been questioning why there are not data sets up to 2018. The last date required by the Sponsor to provide information on the performance of the ACP was September 2017 (following the minor modification referred to in Annex E, paragraph 1). A sizable percentage of the comments are being submitted from today's perspective, which is in relation to traffic growth levels up to 2018.

The PIR data set was intended for the CAA (as a CAP 725 submission there is no requirement on the Sponsor to adapt the way the data is presented for public consumption). The publishing of the data aids transparency because the public have visibility of the exact data sets that the CAA will be conducting

the review on. The purpose of the feedback window is to give the public with the opportunity to provide the CAA with any feedback they wanted the CAA to consider when carrying out this review.

Question 6 asked “Is the data understandable?”



- 91 responders answered this question
- Of the 91 who responded, 39 answered ‘yes’ while 52 answered ‘no’
- 84 skipped this question
- Those who answered ‘no’ were asked to ‘outline what is not understandable’.

The Key themes from question 6 are set out below:

6(1) General comments on data

- Too technical for non-experts and not designed in a way that makes it readily understandable for most people
- Lacks accompanying numerical tables showing increase in air traffic – unable to see the ‘bigger picture’
- Fails to show the change in total noise impact for those communities beneath the centreline
- Insufficient data and analysis limits ability to contribute in an informed way
- Various terms are undefined and references to technical requirements are not explained

CAA Comments:

The data in the PIR was intended for the CAA (as a CAP 725 submission there is no requirement on the Sponsor to adapt the way the data is presented

for public consumption). The publishing of the data aids transparency because the public have visibility of the exact data sets that the CAA will be conducting the review on.

A general theme concerning the increase in traffic is provided by the CAA in the main CAA PIR report.

The impacts of noise are covered in the main CAA PIR report.

In our PIR report, we have attempted to use as much non-technical language as is possible in order to assist understanding of our completed review and analysis.

For future PIR submissions, the guidance in CAP 1616 advises sponsors with detailed requirements for PIR data submission.

6(2) Gate analysis

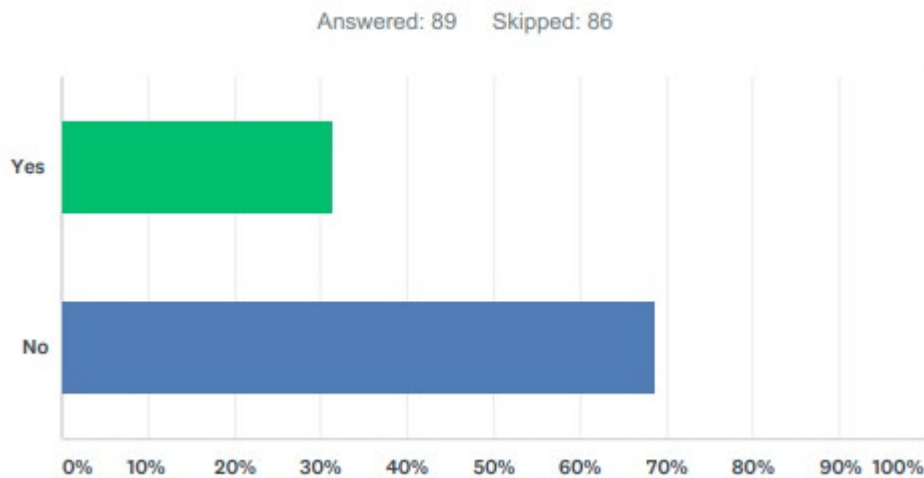
- Lack of direction key for North, South, East and West
- Depiction of the gate is misleading
- No precise location for centre of gate

CAA Comment:

The gate analysis provided by LLAOL meets the CAA requirements as listed in Annex A. A review of the gate analysis is covered in the main PIR report.

Feedback was received that the change sponsor's data was too technical to understand. The data was provided in the format required by the CAA and published following the decision to apply CAP 1616 principles to this Review. In future change sponsors will be required to present their material in a manner that can be understood by all stakeholders in accordance with CAP 1616 requirements.

Question 7 asked “Do you consider the data to be detailed enough?”



- 89 responders answered this question
- Of the 89 who responded, 28 answered ‘yes’ while 61 answered ‘no’
- 86 skipped this question
- Those who answered ‘no’ were asked to ‘outline what elements are not detailed enough’.

The key themes from stakeholder feedback to question 7 were:

6(1) General comments on data

- General distrust in the noise data regarding impact of the routing, noise impacts and the consequences of airport expansion
- Insufficient monitoring of noise levels
- Lack of comparable noise data pre and post change
- Lack of comparable vertical profiles data pre and post change
- Lack of consideration of the impacts of increased noise and pollution
- Comments on impacts of tactical vectoring
- Monthly summaries are not detailed enough to give an accurate picture
- Data is too technical, and lack of translation means it’s not designed for ordinary members of the public
- All data should be up to 30 September 2017 to give an accurate picture of the impact increasing frequency of flights.
- Lack of information regarding population overflow and the frequency of flights for areas under the swathe for aircraft under 7,000ft
- Comments on impacts of tactical vectoring
- No mention of health impacts including sleep deprivation, stress and mental health

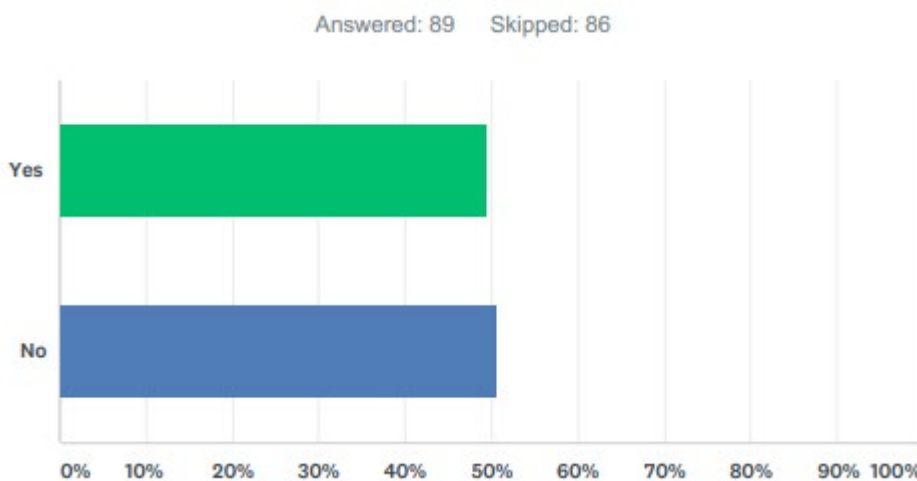
CAA Comments:

The detail provided by LLAOL was sufficient to enable the CAA to determine whether the impacts of the change were as expected in accordance with our decision in 2015.

Airport expansion was not a factor for consideration in the airspace change decision process and the PIR. Although we understand communities are affected by the increase in aircraft movements, this is a planning matter and does not form part of the airspace change process; this is therefore not for the CAA to consider.

Regarding reported impacts on health and wellbeing, an analysis of noise impacts is covered within the main PIR report. The Aviation Policy Framework¹ states that the government decided that 57dB LAeq 16hrs marks the approximate onset of significant community annoyance. LAeq noise contours produced for the change proposals formal submission document showed that there was unlikely to be a significant increase in the number of people or households exposed to levels of noise greater than 57 dB LAeq 16hr, and were therefore not requested for the purposes of this PIR.

Question 8 asked “Do you find the data too detailed / technical?”



- 89 responders answered this question
- Of the 89 who responded, 44 answered ‘yes’ while 45 answered ‘no’
- 86 skipped this question
- Those who answered ‘yes’ were asked to ‘outline what elements are too detailed’.

The key themes from stakeholder feedback to question 8 were:

¹ Secretary of State for Transport. Aviation Policy Framework. March 2013

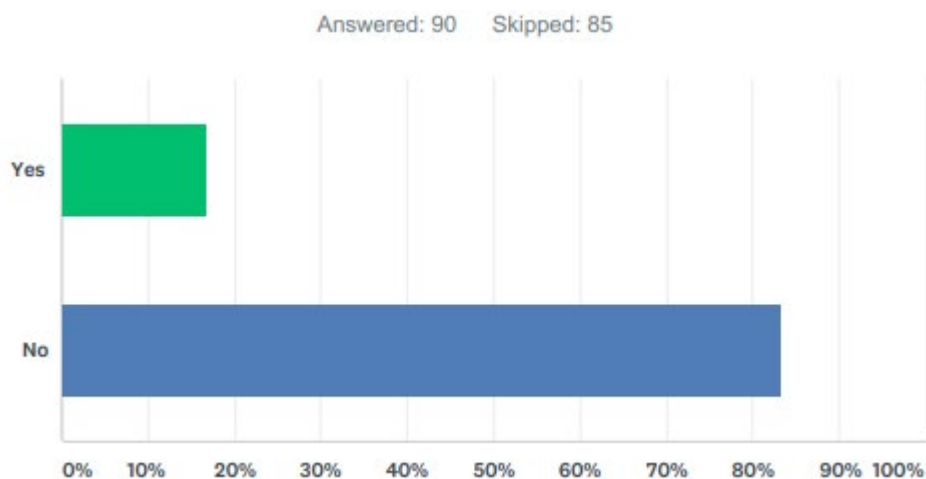
8(1) General comments on data

- Key bits of data (Gate Analysis and Complaint Postcodes) are missing
- Data has been presented in the wrong way – change was principally about noise, but the data presented mainly concerns aircraft tracks (no LAeq contours have been provided)
- Aircraft track data is misleading – position of SID centreline
- Data is too technical, and lack of translation means it's not designed for ordinary members of the public

CAA Comments:

PIR data is invariably detailed and technical and was designed to enable the CAA to conduct the PIR. The data was therefore specifically tailored for the CAA, and at the time of requesting the PIR data, it was the CAA position that the PIR report and the supporting PIR data would be published on the CAA website on completion of the PIR in order to provide transparency of our PIR process. With the introduction of the CAP 1616 process in January 2018, we decided to adopt some principles of the CAP1616 process, hence the CAA decision to publish the data and seek feedback on the data and the impact of the change. We have highlighted lessons learnt from this process which are covered later in this Annex. CAP 1616 covers requirements for future PIR data submission and subsequent publication.

Question 9 asked “Do you think the data adequately portrays the impacts of the airspace change?”



- 90 responders answered this question
- Of the 90 who responded, 15 answered ‘yes’ while 75 answered ‘no’

- 85 skipped this question
- Those who answered 'no' were asked to 'set out which impacts are not adequately portrayed'.

The key themes from stakeholder feedback to question 9 were:

9(1) General comments on data

- The impact of all factors combined (concentration of flights, noise and disturbance over densely populated area)
- Should include Heathrow flight data in analysis
- Average LAeq's are totally inadequate/misleading
- Doubts about completeness/accuracy of noise monitoring data
- No detailed study of noise level by location

CAA Comments:

The CAA requested a range of noise data, details of which are listed in Annex A. The data submitted by LLAOL was sufficient for the purpose of this PIR. The impact of traffic concentration, aircraft noise and disturbance are covered in the main PIR document.

Average LAeq noise contours were not requested for the purpose of this PIR.

The intent of the airspace change was to replicate the conventional SIDs using RNAV-1 technology, therefore the inclusion of Heathrow flight data was not a PIR requirement, because Heathrow flightpath interactions were not changed and have no impact on the Luton RNAV-1 SID design.

9(2) Aircraft Tracks

- Track Dispersion Plots are not accurate
- The number of aircraft seen outside of the NPR swathe
- Better Gate Analysis is required
- Clearer weekly Track Dispersion Plots are needed

CAA Comments:

We have reviewed the track data provided by the sponsor and are content that the data is sufficient to enable the CAA to complete the PIR.

The analysis of track data is covered in the main report and more detailed analysis in Annex C.

9(3) Communities/Residents

- Data does not show comparison of residents/schools overflowed pre/post implementation
- The increased noise impact on communities under/adjacent to RNAV route
- The real impact for people living under the change is not covered

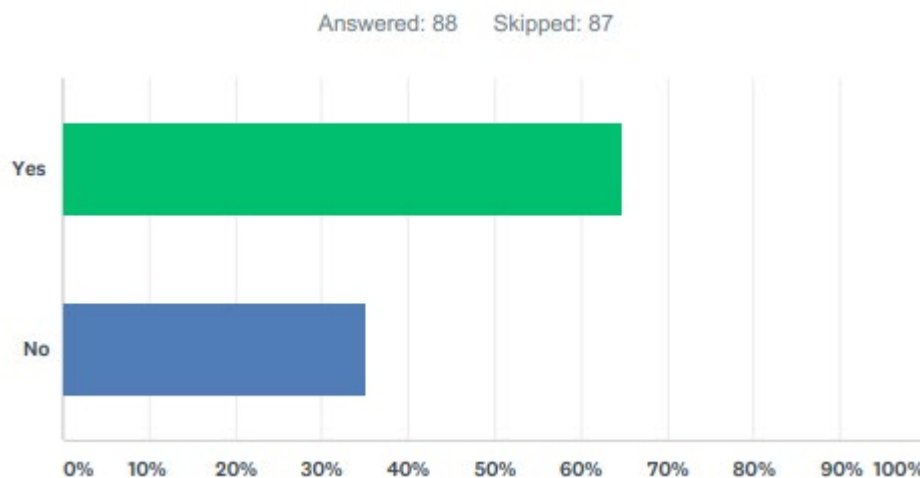
- The negative effects on communities living beyond the end of the NPR

CAA Comments:

The CAA requested a range of noise data, details of which are listed in Annex A. The data submitted by LLAOL was sufficient for the purpose of this PIR. Noise monitoring, gate analysis and aircraft track data covering pre-implementation and post-implementation periods are compared within the main PIR document.

The CAA recognise that the introduction of the RNAV-1 SID has resulted in an increase in the concentration of traffic at certain locations on the SID route. This was anticipated in the change proposal decision and is in-line with Government guidance as detailed further in the Environmental Assessment within the main PIR document.

Question 10 asked “In your opinion, does the data show impacts that were not anticipated in the airspace change proposal?”



- 88 responders answered this question
- Of the 88 who responded, 57 answered ‘yes’ while 31 answered ‘no’
- 87 skipped this question
- Those who answered ‘yes’ were asked ‘which impacts are portrayed but were not anticipated in the proposal’.

The key themes from stakeholder feedback to question 10 were:

10(1) General comments on data

- Data does not demonstrate the dramatic increase in aircraft noise
- Airport expansion - particularly the increase in ATMs to a growing number of eastern and north European destinations causing harm. Traffic forecast by LLAOL have proved inaccurate and not as anticipated
- Travis flight tracking system used by LLAOL is not accurate
- SurveyMonkey is too complicated for individuals to understand
- Night flights at low levels not recorded
- Increase in noise complaints particularly from South Harpenden and St Albans
- ACP consultation was flawed
- Data is inaccurate as aircraft are frequently flying outside the RNAV corridor

CAA comments:

The impacts of aircraft noise are covered in the PIR report.

Airport expansion is not a matter for the CAA to consider – this is a planning authority matter.

There was no requirement to provide specific details on night flights in order to determine whether the impacts are what were expected.

The SurveyMonkey feedback process was aimed at seeking feedback on the PIR data and the impact of the change. Our position regarding the consultation was detailed in the airspace change decision and is not a matter for the PIR.

The PIR report shows traffic data gathered from material published on the LLAOL website.

10(2) Aircraft Tracks

- Some flights below 4,000ft when aircraft are east of the railway line.
- Some flights below 4,000ft when aircraft overfly Hatfield
- Aircraft flying lower than anticipated
- Impact of adjacent airspace in Essex
- Aircraft not flying on the NPR centreline
- Monthly track plots illustrate that aircraft tracks spread to fill the entire 2km swathe
- Some airlines are failing to keep to the flightpath compared with others
- Concerns over aircraft vectoring
- RNAV flight path is being flown much nearer to North St Albans than was portrayed.
- Interaction with other traffic has meant that Luton departures have been unable to reach their optimal altitude quickly enough. Overlapping impact of Heathrow and Luton flights is being treated separately which is inadequate
- No comparable gate analysis pre and post-implementation for Sandridge and Jersey Farm

- Detail lacking on weather related impacts on noise

CAA Comments:

Feedback was received that the change sponsor's data was too technical to understand. The data was provided in the format required by the CAA and published following the decision to apply some CAP 1616 principles to this PIR. In future change sponsors will be required to present their material in a manner that can be understood by all stakeholders in accordance with CAP 1616 requirements.

Our detailed analysis of traffic patterns arising from this change is covered in Annex C on the PIR report.

The interaction of Heathrow flightpaths is not a matter for the airspace change proposal, the decision or the PIR. Heathrow flightpaths have no different impact on the RNAV-1 SID compared to impact on the conventional SID as the designed vertical profile of the RNAV-1 SID is unchanged, and the Heathrow flight path interactions are unchanged. Whilst the Luton departures may be affected by other flightpaths, there is no different impact because of the RNAV-1 SID design and its implementation.

The CAA has made a comparison on gate analysis at Sandridge which is covered in the main PIR report. There was no requirement to have a gate analysis at Jersey Farm given its proximity to Sandridge.

Noise impacts are covered in the Environmental Assessment section within the main PIR document. The use of noise monitoring over a set period of time accounts for the inherent variability of conditions, such as the weather. This variability is subsequently represented in the data recorded by the noise monitors.

10(3) Communities/Residents

- Previously unaffected communities now affected following RNAV implementation
- RNAV concentration has caused significant negative health impacts (sleep deprivation, stress and mental health). Significant detriment to the quality of life of residents who live underneath the route
- The impact of all factors combined (concentration of flights, noise and disturbance over densely populated area)

CAA Comments: A detailed analysis of the implementation of the RNAV-1 SID is detailed within the main PIR document, and this covers any changes to the main core of the traffic pattern.

The CAA recognise that the introduction of the RNAV-1 SID has resulted in an increase in the concentration of traffic at certain locations on the SID route. This was anticipated in the change proposal decision and is in-line with Government guidance as detailed further in the Environmental Assessment within the main PIR document.

Question 11 asked “Please use this comment box to provide any further feedback on the data provided by the sponsor.”

- 63 responders provided further feedback
- 112 skipped this section

The key themes from stakeholder feedback to question 11 were:

11(1) General comments on data and survey

- The survey was too technical and the information hard to follow
- The change has resulted in a detrimental effect on residents’ physical and mental health
- The impact on residents is misrepresented as the data does not take into account the interaction of flight paths from other airports
- The data provided is very poor for noise impact analysis and no data provided on how misleading the traffic projections in the original RNAV consultation and proposal have proved to be
- Feedback window was not long enough and like the ACP consultation was not widely advertised
- It would be beneficial to have LAeq noise contours showing the concentration of noise through the Harpenden/St Albans corridor
- Incomprehensible technical detail used in the survey making it not fit for purpose.
- The data shows Luton Airport flights only and does not deal with the overlap of Heathrow, Stansted and Luton. As a result, the impact on residents is misrepresented.
- The report was confusing as the data used was inconsistent from one chart to the next and did not considered Effective Perceived Noise Level (EPNL).
- The process has been made too difficult for members of the public to take part
- The data does not give an indication of the decibel noise levels to which residents are subjected and the frequency these occur.

CAA Comments:

The data was provided in the format required by the CAA and published following the decision to apply some CAP 1616 principles to this PIR. In future change sponsors will be required to present their material in a manner that can be understood by all stakeholders in accordance with CAP 1616 requirements.

PIR data is invariably detailed and technical and was designed to enable the CAA to conduct the PIR. The data was therefore specifically tailored for the CAA, and at the time of requesting the PIR data, it was the CAA position that the PIR report and the supporting PIR data would be published on the CAA website to provide transparency of our PIR process. With the introduction of the CAP 1616 process in 2018, we decided to adopt some principles of the CAP1616 process, hence the CAA decision to publish the data and seek feedback on the data and the impact of the change. We have highlighted lessons learnt from this process which are covered later in this Annex.

The interaction of other flightpaths is not a matter for the airspace change proposal, the decision or the PIR. Other flightpaths have no different impact on the RNAV-1 SID compared to impact on the conventional SID as the designed vertical profile of the RNAV-1 SID is unchanged. Whilst the Luton departures may be affected by other flightpaths, there is no different impact because of the RNAV-1 SID design and its implementation because the Heathrow flightpaths interactions are unchanged.

Noise impacts are covered in the Environmental Assessment section within the main PIR document. Annex A lists the noise data requested by the CAA for the purpose of this PIR report. Effective Perceived Noise Level (EPNL) data was not requested by the CAA. LAeq noise contours produced for the ACP formal submission document showed that there was unlikely to be a significant increase in the number of people or households exposed to levels of noise greater than 57 dB LAeq 16hr, and were therefore not requested for the purposes of this PIR.

11(2) Aircraft Tracks

- Luton Airport have failed to address the impact of continual vectoring of low flying flights to the south and east of the Harpenden Road/Railway Line
- If aircraft climbed to a higher altitude more quickly, impact over St Albans would be reduced
- There is some dispersal around the long second turn, but then the tracks converge again.
- Aircraft are turning too quickly and flying directly over South Harpenden

CAA Comments:

The intention of the change proposal was to impose a radar vectoring restriction until departures had crossed the St Albans to Harpenden railway line unless necessary for operational safety reasons (such as weather avoidance or to avoid other traffic). The resultant traffic patterns evident following the change indicates vectoring is occurring more frequently than was expected by the CAA, but the resultant traffic pattern is no worse than before the change in terms of the lateral dispersion and therefore the impact of this is no worse than it was before the change. This is covered in the CAA PIR report.

If aircraft were able to climb to a higher altitude more quickly, we would agree that the impact over St Albans would be reduced. However, the climb profile of departing aircraft from London Luton Airport is dependent on other traffic patterns from other airports. The flightpaths in the south east of England are extremely complex and such a change requires significant work by LLAOL in conjunction with the air traffic control service provider NATS to determine whether any changes in vertical profiles are actually feasible, and that any such changes could result in the requirement for a separate airspace change proposal. This is therefore not a matter which the RNAV-1 SID PIR can address as it was not a consideration of the change proposal.

The detailed CAA track analysis in Annex C of the PIR report covers traffic patterns.

11(3) Gate analysis

CAA Comment:

The CAA has reviewed the gate analysis provided by LLAOL; our comments are covered in the main PIR reports

11(4) Communities/Residents

- Blighted by prolonged periods of invasive aircraft noise and insufficient time between last flight of the day and first to get a reasonable amount of sleep.
- Only quiet time 0030 to 0620
- St Albans' residents severely impacted by the increased concentration of planes, the noise, the low flying visual intrusion, the screeching engines as they climb
- Significantly more noise pollution has resulted
- Air quality has not been addressed
- There was a lack on consultation on the initial trials in 2015.

CAA comments:

The impact of noise in the early morning and late evening/night-time is not a matter for the change proposal; additionally, this proposal was not an enabler for changes to traffic operating in these periods; this is the responsibility for the appropriate planning authority responsible for the use of London Luton Airport and does not form part of the airspace change process.

The CAA recognise that the introduction of the RNAV-1 SID has resulted in an increase in the concentration of traffic at certain locations on the SID route. This was anticipated in the change proposal decision and is in-line with Government guidance as detailed further in the Environmental Assessment within the main PIR document.

Both noise and air quality impacts are covered in the Environmental Assessment section within the main PIR document.

It should be noted that LLAOL conducted two trials to gather track data to determine the best option to present for consultation. The results of the trials were presented in the consultation material where LLAOL presented their preferred option. At that time there was no requirement to carry out consultation on the trial as the proposal was conducted in accordance with CAP725, however we do recognise that the position regarding this is now more prescribed in CAP1616.

Question 12 asked “Please use this option to upload any documents that support your feedback.”

- 6 responders uploaded documents in support of their feedback, 169 skipped this section

12(1) Summary of documents uploaded

- PDF copy of London Luton Airport’s RNAV 1 Stakeholder Consultation document dated April 2014
- Hertfordshire County Council statement to support questions 1 to 12 with comments on the data and concern that the ability of communities to respond to the PIR has been compromised, noise impact and a request that any further data be made available as part of the PIR for public scrutiny.
- St Albans District Council Letter of Response to the PIR dated 29 June 2018 stating that; the new routing concentrates noise impacts in a way that was unexpected, residents are still very concerned about the concentration effects, the Council has concerns that there was insufficient data to assess whether the anticipated environmental benefits had been delivered and that the anticipated environmental benefits had not been delivered.
- Additional letter supporting Hertfordshire County Council statement with comments on the sponsor’s data and the complaints data, reference to strong feeling in Sandridge regarding unacceptable worsening of noise, no update on progress of the proposed NPR swathe penalty system and that while concentration has occurred, there remains a considerable spread of aircraft across the whole of swathe so those who were expecting to benefit have not. Impact has been exacerbated by the rate of growth of throughput at the airport.
- CAA PIR Survey Response – Feedback on sponsor data that the gate analysis was very unclear and inadequate, the monthly green flight track diagrams become blurred as too many individual tracks overlay each other and blur into one, a chart of the number of complainants by postcode would have been useful and the granularity of the monthly heat maps could be improved

- PDF copy of London Luton Airport’s RNAV1 Brief dated February 2013 – text regarding the change sponsor’s commitment to “reducing noise disturbance for its local communities” and intention to “improve the tightness of track-keeping” highlighted

CAA Comments:

The St Albans City and District Council feedback was considered and covered in the main PIR report.

The gate analysis was sufficient to enable the CAA to complete the related review of this analysis.

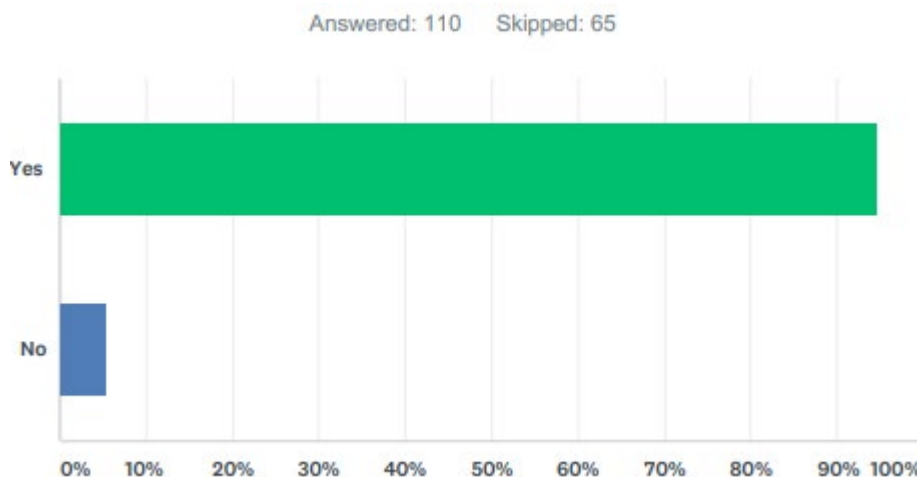
The track dispersion and density plots were of satisfactory quality to enable the CAA to carry out the PIR task.

Number of complainants were shown on the complaints map provided in the PIR data (also at Annex M of the PIR report).

Noise impacts, track-keeping and the NPR swathe penalty system are covered in the Environmental Assessment section within the main PIR document.

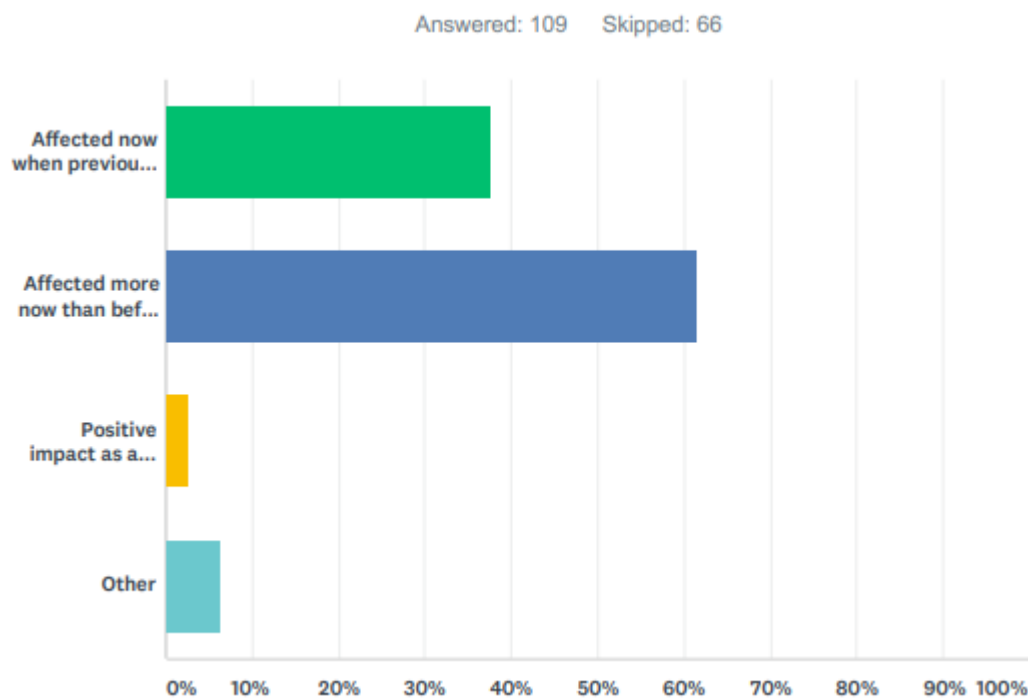
The intention of the change proposal was to replicate the existing conventional SID using RNAV-1 technology. The ACP did not enable any increase in traffic levels at any time of day or night. Any increase in traffic levels is a result of airport planning approvals and does not form part of the airspace change process; this is therefore not a matter for the CAA. This is also addressed in the main PIR document.

Question 13 asked “Do you have any feedback on the impact of the change?” with respondents able to answer “yes” or “no” only.



- 110 responders answered this question
- Of the 110 who responded, 104 answered 'yes' while 6 answered 'no'
- 65 skipped this question

Question 14 asked “Based on the traffic sample data provided which of the following options best reflect your views on the impact of the change? Please note that the period being reviewed are two traffic samples July 2016 – November 2016 and February 2017 – September 2017.”



- 109 responders answered this question,
- 66 skipped this question
- Of the 109 who responded:
 - 41 answered 'affected now when previously unaffected'
 - 67 answered 'affected more now than before the change'
 - 3 answered 'positive impact as a result of the change'
 - 7 answered 'other'

All responders were asked to explain their reasons for their answers.

The key themes from stakeholder feedback to question 14 were:

14(1) Noise impact

CAA Comments:

Noise impacts are covered in the Environmental Assessment section within the main PIR document.

The impacts of other traffic patterns such as Heathrow flight paths are not a consideration for this change proposal and the PIR review, because these interactions are unchanged.

The impact of noise in the early morning and late evening/night-time is not a matter for the change proposal, nor was this proposal an enabler for increased flights during these periods. This is the responsibility for the appropriate planning authority responsible for the use of London Luton Airport and does not form part of the airspace change process.

14(2) General comments on data

- The frequency of overflights is not adequately represented in the data
- No competent noise impact analysis has been provided
- The traffic sample data clearly indicates the impact of the airspace change can only have had a significant detriment on how residents of Sandridge have been affected
- The data does not reflect the real situation of residents in North St Albans, Harpenden and Redbourn who have been heavily affected by the change.
- The data collection is 2 years out of date and flight frequency has changed in that time

CAA Comments:

The intention of the change proposal was to replicate the existing conventional SID using RNAV-1 technology. The ACP did not enable any increase in traffic levels at any time of day or night. Any increase in traffic levels is a result of airport planning approvals and does not form part of the airspace change process; this is therefore not a matter for the CAA. This is also addressed in the main PIR document.

The CAA requested a range of noise data as listed in Annex A. The data received from LLAOL was sufficient for the purposes of the PIR. The data collection period was initially delayed due to the flyability issue with some Boeing operators. Once that issue had been resolved the data collection took place with the amended SID from February to September 2017. This covered an adequate period of operations throughout the seasons to enable the CAA to determine if the impacts were as expected.

Noise impacts, including an analysis of the impacts on North St Albans, Harpenden, Sandridge and Redbourn are covered in the Environmental Assessment section within the main PIR document.

14(3) Aircraft tracks

- All departures on the Match/Detling 26 route are now concentrated on a single narrow track. The noise swathe from that track extends 3 – 4 km either side of the track. As a result, many new and previously unaffected communities now experience unacceptable noise levels.
- Persistent noise impact associated with a narrower track
- Aircraft are flying unacceptably low over South/Central Harpenden
- Flights are now in a corridor over the Childwickbury plateau whereas they were previously dispersed over a wider area and this has destroyed the peace and tranquillity of the environment
- The RNAV ACP has concentrated and magnified noise disturbance creating a noisy runway in the sky next to residents' homes and guaranteeing very significant levels of noise disturbance all the time.
- The centre line appears to be closer to St Albans than Harpenden and this is exaggerated further when the flights head south-easterly after crossing the railway track

CAA Comments:

The impacts from aircraft noise are covered in the Environmental Assessment section within the main PIR document.

The CAA recognise that the introduction of the RNAV-1 SID has resulted in an increase in the concentration of traffic at certain locations on the SID route. This was anticipated in the change proposal decision and is in-line with Government guidance as detailed further in the Environmental Assessment within the main PIR document.

With reference to the data provided, the track plots illustrate that there is a slight reduction in the overflight of Harpenden. Impacts on Harpenden are covered in the main PIR document and Annex C and Annex D.

The main PIR report, Annex C and Annex D cover the impacts on Harpenden, Childwickbury and St Albans.

14(4) Communities/Residents

- The change has had a detrimental effect on a large area of Harpenden, North St Albans including Batchwood where 3 schools are situated, Marshalswick, Jersey Farm and Sandridge

- The change has resulted in poor sleep with concern expressed regarding health problems that can result
- Southdown, Harpenden was previously unaffected when house purchased but flights now criss-cross every 5 – 10 minutes at low level
- Aircraft noise, particularly at night, has increased
- Aircraft noise has increased over the northern boundary of St Albans and the impact, even indoors, is considerable particularly early morning and late evening
- The centreline has been moved and is affecting residents in Hemel Hempstead
- The Rodings area of Essex is affected
- The peace and quiet of the Marshalswick area have been ruined
- Flights are starting earlier and continuing late into the night
- Aircraft are more frequent over Caddington and all do not adhere to the height regulations
- Complaints have risen significantly across the area between South Harpenden and North St Albans.
- Increase in traffic noticed but the majority appears to be at the right place at the right height and not a noise issue
- Disastrous effect on the environment in the areas of Sandridge, Jersey Farm, Marshalswick and North St Albans
- Residents are being totally ignored by the air industry
- Cost to life's efforts due to house devaluation because of noise impact

CAA Comments:

The impacts from aircraft noise are covered in the Environmental Assessment section within the main PIR document and in Annex C and Annex D.

The impact of noise in the early morning and late evening/night-time is not a matter for the change proposal nor was this proposal an enabler for increased flights for these periods. This is the responsibility for the appropriate planning authority responsible for the use of London Luton Airport and does not form part of the airspace change process.

The intention of the change proposal was to replicate the existing conventional SID using RNAV-1 technology. The ACP did not enable any increase in traffic levels. Any increase in traffic levels at any time of day or night is a result of airport planning approvals and does not form part of the airspace change process; this is therefore not a matter for the CAA. This is also addressed in the main PIR document.

The main concentration of traffic has moved away from Hemel Hempstead and overflight is slightly reduced, this is covered in the main PIR report, Annex C and Annex D.

Caddington should not normally be overflowed by departures using the RNAV-1 SID. The traffic sample for August 2017, however, does show aircraft overflying Caddington which may be related to aircraft performing a missed approach to RWY26.

The analysis of complaints is covered in Annex D.

Any impacts to the Rodings areas in Essex are out of scope of the change proposal and PIR.

Change proposals are subject to consultation. Feedback is considered by the CAA when the CAA takes a decision. The impacts of this change are covered in the main PIR report and associated annexes.

Question 15 asked “Please use this comment box to provide any further feedback on the impacts of the change.”

- 59 responders provided further feedback
- 116 skipped this section

The key themes from stakeholder feedback to question 15 were:

15(1) General comments on data

- Interaction with Heathrow traffic has meant that Luton departures have been unable to reach their optimal altitude quickly enough. Combined impact should be considered.
- Airport expansion and an increase in ATMs will result in more frequent vectoring
- CAA should ask the change sponsor to provide more quantified altitude data
- Distrust in noise monitoring conducted by LLOAL
- Absence of comparison of noise complaints by postcode pre and post change
- Sanctions should be in place if noise levels are breached
- Travis flight tracking system is not accurate
- LLAOL did not adequately trail RNAV
- No real opportunity to comment as part of the pre-implementation proposals

CAA Comments:

There is very little change in vertical profiles of the RNAV-1 SID compared with the conventional SID – this is covered in the main PIR report, and is not a result of the RNAV-1 SID design. The interaction of other flightpaths is not a matter for the airspace change proposal, the decision and the PIR. Other flightpaths have no different impact on the RNAV-1 SID compared to impact on the conventional SID as the designed vertical profile of the RNAV-1 SID is unchanged. Whilst the Luton departures may be affected by other flightpaths, there is no different impact because of the RNAV-1 SID design and its implementation. Heathrow interactions are unchanged and therefore these

flights have no impact on the design of the RNAV-1 SID compared with the conventional SID.

Airport expansion and traffic growth is not a matter for this PIR as the change proposal and the CAA 2015 decision had no association with airport expansion. The proposal was not an enabler for increased flights. This is the responsibility of the appropriate planning authority responsible for the use of London Luton Airport, and does not form part of the airspace change process.

Radar vectoring is one of many tools available for air traffic controllers to efficiently integrate departures with other traffic patterns.

The PIR data provided by LLAOL met the requirements of the CAA to enable the CAA to complete the PIR.

A complaints analysis by the CAA is provide in the PIR report at Annex D.

The RNAV-1 SID trial conducted by LLAOL was to enable the sponsor to determine which option they felt most appropriate to submit to the CAA as a change proposal. Trials are not a pre-requisite requirement for the submission of an airspace change proposal, however, the trial data may be helpful to describe where the anticipated flight path of a new SID design may be flown in comparison to any existing flight path before a change proposal is submitted.

Consultation was conducted prior to the submission of the change proposal. It should be noted that the new CAP 1616 airspace change process has been in use since the beginning of 2018, and requires a more phased engagement process with interested stakeholders.

The use of sanctions or penalties in circumstances where set noise levels are breached is a planning authority matter and does not form part of the airspace change process.

15(2) Aircraft Tracks

- Comments on impacts of tactical vectoring
- Aircraft are not flying on the NPR centreline
- Frequency of flights on the RNAV Runway 26 BPK route (every 3 minutes)
- Aircraft should fly over Bedfordshire instead of all flying over Hertfordshire
- Flights often track south after crossing the railway line, flying directly over Sandridge and frequently flying south of Sandridge over Marshalswick and

Jersey Farm causing severe noise disturbance over these densely populated areas of North St Albans

- RNAV centre line should be extended beyond the railway line for a couple of miles (as suggested by LADACAN) to keep the aircraft north of Sandridge.
- RNAV route should be pushed further north over sparsely populated forest areas north of Sandridge
- Experience and data show that flights are being concentrated over densely populated areas of North St Albans

CAA Comments:

The CAA analysis of traffic patterns is discussed in detail in Annex C of the PIR report.

The frequency (any increase) of flights is not a matter for the CAA to consider; this is a matter for the relevant planning authorities when approving any requests for increased operations at an airport.

The comments relating to the re-positioning of the SID north of Sandridge are a matter for the sponsor to consider and is not a matter for this PIR. We understand this is being considered in an ongoing airspace change proposal development being considered by the sponsor.

The impacts from aircraft noise are covered in the Environmental Assessment section within the main PIR document and associated annexes.

We understand the issues raised by LADACAN concerning flight paths north of Sandridge, this has been considered in a separate change proposal currently being conducted in accordance with CAP1616 by LLAOL.

15(3) Communities/Residents

- RNAV concentrated flight paths are unfair to those who live directly underneath the route
- Negative health impacts on adults and children (sleep deprivation, stress and mental health) caused by RNAV concentration. Significant detriment to the quality of life of residents who live underneath the route
- Early morning and late-night flights are particularly disturbing
- Dispersion favoured over concentration meaning that communities share the burden
- No evidence from any community saying they have benefited from the change
- Too much attention is focused on the economic benefits but not upon the negative impacts to local infrastructure and negative impacts for local communities.
- Detrimental impact on air quality pollution
- Some residents feel they can no longer relax and enjoy their garden during summer months

- Aircraft noise is intrusive and invasive

CAA comments:

The impact of noise in the early morning and late evening/night-time is not a matter for the change proposal and is the responsibility for the appropriate planning authority responsible for the use of London Luton Airport. The proposal was not an enabler for increased flights. This is the responsibility of the appropriate planning authority responsible for the use of London Luton Airport, and does not form part of the airspace change process.

The CAA recognise that the introduction of the RNAV-1 SID has resulted in an increase in the concentration of traffic at certain locations on the SID route. This was anticipated in the change proposal decision and is in-line with Government guidance as detailed further in the Environmental Assessment within the main PIR document.

Both aircraft noise and local air quality are covered in the Environmental Assessment section within the main PIR document.

The rationale behind the change proposal was covered in the consultation and airspace change proposal which was approved by the CAA. The airspace change proposals main focus was to address track keeping issues associated with the conventional SID. This PIR determines if the anticipated benefits have been as expected.

Question 16 asked “Please use this option to upload any documents that support your feedback”.

- 6 responders uploaded documents in support of their feedback
- 169 skipped this section

16(1) Summary of documents uploaded

- Submission from an individual explaining how the airspace change has failed to deliver against its objective and that it has not introduced a single measure to remediate the situation
- Letter from Harpenden Sky campaign group dated September 2017 representing over 240 Harpenden residents of the view that the RNAV implementation is significantly flawed and stating that Harpenden and St Albans residents are being adversely affected by noise due to the RNAV routing. The RNAV consultation was mistimed and there was inadequate notification given of the consultation. There was no consideration of wind effect, air traffic height has been reduced which has exacerbated noise

impact, westerly departures are being vectored early, RNAV measurement criteria has changed and there has been a surge in RNAV noise complaints.

- Hertfordshire County Council RNAV 1 BPK – SID – statement to support questions 13 – 16 regarding noise impact from concentration with the impact exacerbated by the rate of growth of throughput at the airport. A request for the CAA to consider government policy in the Department for Transport Air Navigation Guidance 2017.
- Luton PIR comments from a resident of South Harpenden who considers most flights to be in the right place and high enough not to cause a noise issue but asks for go-around procedures to be publicised in the same way as NPR's.
- St Albans District Council response to PIR dated 29 June 2018 stating that; the new routing concentrates noise impacts in a way that was unexpected, residents are still very concerned about the concentration effects, the Council has concerns that there was insufficient data to assess whether the anticipated environmental benefits had been delivered and that the anticipated environmental benefits had not been delivered. The same document was also uploaded in response to question 12 above.
- St Albans is under three London Airport departure flight paths illustration

CAA Comments:

Our PIR report describes whether the anticipated impacts have been achieved.

The inputs from Harpenden Sky, Harpenden County Council, Hertfordshire Council and the St Albans City and District Council have been considered.

Go around procedures are published in instrument approach charts which required aircraft to follow a required procedure in the event of a missed approach.

Other airport flight paths are not in the scope of the change proposal and are not a consideration for the PIR which was to determine whether the impacts were as expected, although we do recognise that communities may be impacted by other flight paths to varying extents.

CAA evaluation of the use of SurveyMonkey software for the LLAOL Post-Implementation Review including lessons learned

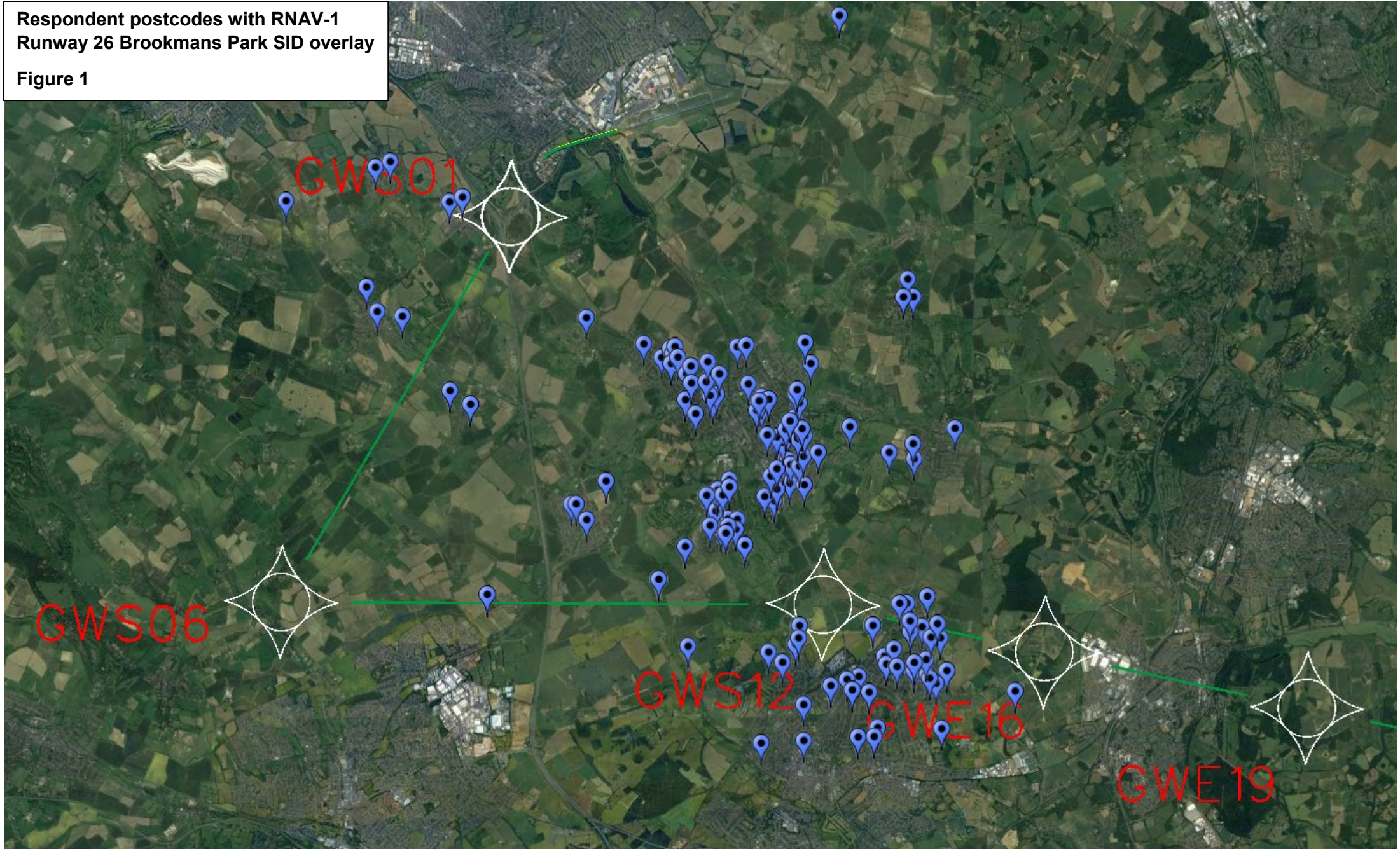
- (1) As outlined in the Executive Summary to this Post-Implementation Review report, London Luton Airport Operations Limited (LLAOL) submitted its airspace change proposal to the CAA in 2014 under CAP 725. On 2 January 2018, the CAA introduced a new process under CAP 1616 for consideration of airspace change proposals. This Post-Implementation Review has been conducted in

accordance with CAP 725 metrics while at the same time adopting some good practice CAP 1616 principles where possible.

- (2) The feedback included that a more user-friendly survey should have been used. The CAP 725 process did not provide an appropriate channel to be assigned for collecting post-implementation review stakeholder feedback. The online survey application SurveyMonkey was adopted for the LLAOL review, however the CAA's own online Airspace Portal which was developed to aid transparency of CAP1616 process will be used to capture feedback for post-implementation reviews in future, within the relevant airspace change proposal. For CAP 725 PIRs the digital platform Citizen Space will be used, which currently captures feedback from all CAA and change sponsor led airspace consultations.
- (3) It was noted when considering the responses submitted via SurveyMonkey that some respondents had entered the same or similar answers for multiple questions. When seeking feedback for future PIRs, stakeholders will be presented with a single free text field along with the ability to email through supporting documents. This will allow stakeholders to provide any feedback they would like the CAA to take into account when carrying out the review.
- (4) Feedback given on the data provided by the change sponsor included that it was too technical, hard to follow or incomprehensible. The data was provided in the format required by the CAA. There was no requirement for the data to be presented in a manner that made it accessible to a non-aviation expert audience. The data was published following the decision to apply good practice principles around transparency and stakeholder engagement from CAP 1616 to the Luton post-implementation review. In future change sponsors will be required to present their material in a manner that can be understood by all stakeholders, aviation and non-aviation alike, in accordance with CAP 1616 engagement requirements. The CAA will also outline in proposal decision documents the content and the format in which the change sponsor's data must be provided for CAP 1616 post-implementation reviews.

Respondent postcodes with RNAV-1
Runway 26 Brookmans Park SID overlay

Figure 1



Respondent postcodes with Google Maps overlay.

Figure 2

