

Report of the CAA's Post Implementation Review of the implementation of RNAV-1 Standard Instrument Departures at Gatwick Airport

Annex 4: PIR Correspondence Assessment

Annex 4 to CAP 1346



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Acronyms

AMSL	Above Mean Sea Level
NATS	The group of companies including NATS (En Route) plc and NATS Services Limited
NPR	Noise Preferential Route
PIR	Post Implementation Review
PRNAV	Precision Area Navigation
RNAV-1	Area Navigation
SIDs	Standard Instrument Departures

The CAA's role

1. The CAA has a function to *'provide a focal point for receiving and responding to aircraft related environmental complaints from the general public'* as stipulated by the (then) Secretary of State for the Environment, Transport and the Regions in The Civil Aviation Authority (Air Navigation) Directions 2001 in exercise of the powers conferred by section 66(1) of the Transport Act 2000.
2. As part of this obligation the CAA received a significant number of comments from members of the public, and several organisations representing them, about the changes to departure arrangements at Gatwick Airport. Such organisations included parish councils, a number of representative organisations consisting of groups of residents and a solicitor writing on behalf of residents.
3. Although the changes to departure arrangements at Gatwick Airport were decided upon in August 2013, and implemented in November 2013, for various reasons the full effect of these changes may not have been felt by members of the public until the summer of 2014. These reasons include:
 1. 'RNAV-1 SIDs' (Area Navigation Standard Instrument Departures i.e. the new routes) were used alongside 'conventional SIDs' (i.e. the previous routes) until May 2014.
 2. The volume of traffic through Gatwick Airport is higher in the summer months.
 3. Any disturbance from aircraft can be more noticeable in the summer when more outdoor activities tend to take place.
4. The comments received by the CAA from the general public were not formally solicited by the CAA albeit, as set out above, the Secretary of State has given the CAA a function to receive such comments. Nevertheless, large numbers were being received into a variety of entry points at the CAA which did not, at that time, have structures designed to track, store and analyse comments of the volume being received.
5. At various public meetings concerning the changes at Gatwick Airport during Autumn 2014, the CAA was made aware that members of the public would be assisted if a specific CAA email account existed to enable them to communicate information and comments, and especially to voice objections and complaints, so that these could be taken into account by the CAA during this post implementation review (PIR). This led to the CAA setting up an email account in November 2014 as a single entry point to receive such material.
6. By setting up this email account the CAA was not engaging in a formal consultation process. This was explained on the CAA's website and in auto-

reply messages¹ to any correspondents who used the dedicated email account. Nevertheless, as the CAA was in receipt of these comments about the changes to departure arrangements at Gatwick Airport - albeit because of its function to receive environmental complaints from the general public - the existence of a significant number of objections and complaints to the changes was an important factor which has been taken into account during this PIR. It is the first time this sort of material has been considered in a PIR, as explained below in paragraph 21.

7. In order to ensure that the CAA could move from data collection to the data analysis phase of the PIR in a suitable time frame the email account remained open marginally longer than originally planned and closed during 6 January 2015. Closure of the email account was explained to members of the general public via the CAA's website and in auto-reply messages to any correspondents who wrote in to the email account. Communications received after the email account closed also received a message advising them of this and that the CAA was on the next steps of the PIR.² Hard copy correspondence received a letter in similar terms.

¹ "Thank you for your e-mail.

The CAA's decision to change the UK's airspace design to introduce RNAV SIDS at Gatwick was taken in August 2013. The change was however implemented in November 2013. After an airspace change the CAA'S published process sets out that there will be a Post Implementation Review (PIR) of the airspace change. The purpose of the PIR is to determine whether the change has resulted in the expected impacts and benefits, or if not to understand why and to determine what action, if any, should be taken.

To consider this the CAA must be provided with relevant data by the airspace change proposer, in this case Gatwick Airport, for a representative period. The relevant data required includes all the information necessary to enable to CAA to assess the expected impacts and benefits in the context of the CAA's statutory obligations when managing the UK's airspace.

Any information contained in your e-mail related to the impact of the specifics of the Gatwick RNAV airspace change implemented in 2013 will be considered together with all the data collected for the purpose of carrying out the review.

A PIR process begins 12 months after an airspace change has been implemented and in this case Gatwick is just commencing the phase of the process under which it must gather together all the relevant data to enable the CAA to review whether the airspace change has had the expected impact and benefits. Any information provided to the CAA relevant to the impact of this airspace change submitted on or before 5 Jan 2015 will form part of the data that is considered as a whole under the PIR.

Mark Swan"

² "Thank you for your email concerning aircraft noise in airspace over your residential area, which you understand to be related to the introduction of new departure profiles supporting Gatwick Airport operations. New airspace structures are introduced in UK airspace through the Airspace Change Proposal process (<http://www.caa.co.uk/default.aspx?catid=2392&pagetype=90&pageid=16976>) and as part of that process a Post Implementation Review (PIR) is carried out by the CAA one year after the change has been implemented (<http://www.caa.co.uk/default.aspx?pageid=9137>).

In respect of the changes to departure arrangements at Gatwick Airport which were decided upon in August 2013 and implemented in November 2013, the PIR is ongoing.

In November 2014 the CAA recognised that many people wanted to provide comments for the CAA to take into account when carrying out that PIR. In order to facilitate both the tracking of those correspondence items, and the ability to properly take their contents into account, in November 2014 the

How the CAA processed the information it received from the general public as part of this PIR

8. The contents of all emails sent to the dedicated email account, as well as other correspondence items received by the CAA up to 6 January 2015 which on their face related to this PIR, have been taken into account by the CAA as follows:
 1. Every letter, e-mail, petition and submission has been read at least twice (before the CAA carried out the processes below).
 2. Sorting them, where possible, into 'postcode districts' to get an impression of where the correspondents were located. The CAA acknowledges that this process of sorting by location leaves some room for human error and subjective judgement was sometimes required in order to decide into which district to place a correspondence item particularly where the correspondent referred to multiple locations. Correspondents who had not provided any information at all about their location, and/or did not provide a full postcode, were not contacted by the CAA in order to request this information, but their correspondence was nevertheless taken into account without the geographic link.
 3. Plotting the location of all correspondents onto ordnance survey maps where a full postcode was provided. By doing this, the CAA got an impression of the location of correspondents relative to:
 - The nominal tracks of the RNAV-1 SIDs on all of the nine routes that changed (see below).³

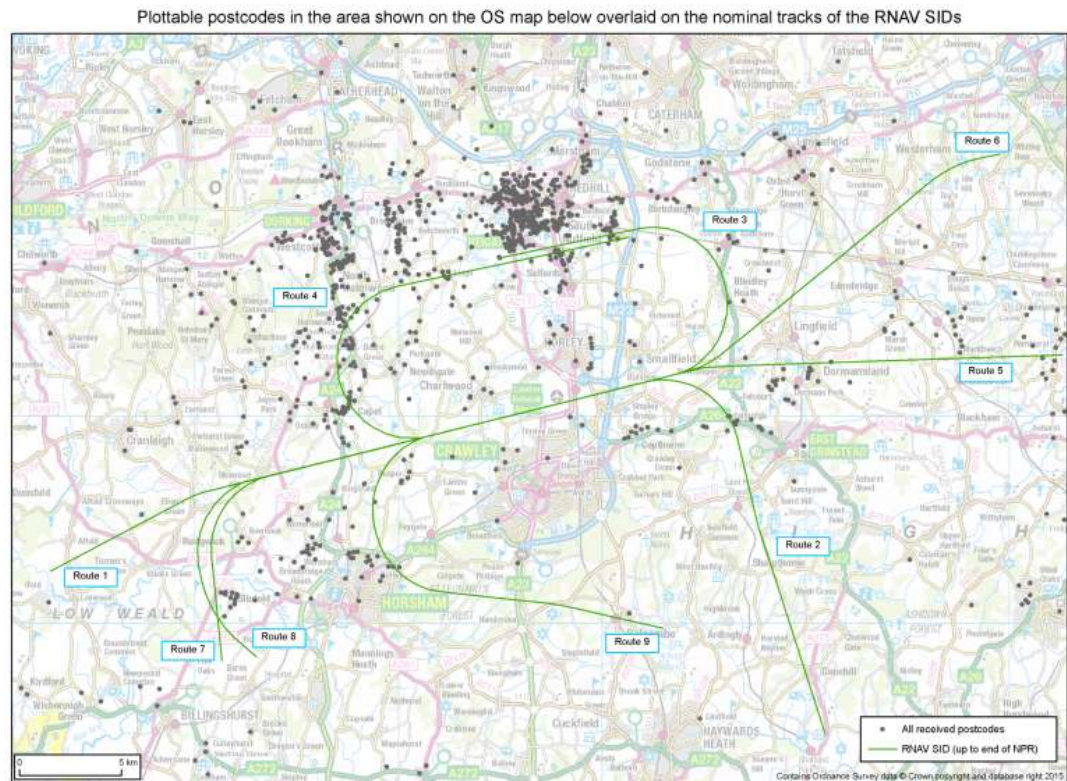
CAA set up a specific e-mail account to receive comments that the CAA knew members of the public wanted to send to the CAA. In order that the CAA could move from the data collection to the data analysis phase of the PIR in a suitable time frame the e-mail account remained open only to 5 January 2015.

The data collection phase of the PIR has now finished and the CAA is in the process of analysing the information and data it has received. The specific e-mail account referred to above can no longer receive e-mails; and post 5 January 2015 PIR comments received, in other CAA general enquiries and complaints e-mail accounts, will be appropriately archived.

The CAA will publish its conclusions and its PIR report on the CAA website once the PIR is complete.”

³ Larger versions of these maps are available at the end of this report.

Figure 1 – The nominal tracks of the RNAV-1 SIDs



- Heat maps of all aircraft departures. One map shows the location of correspondents compared with departures between June – September 2013, and the other map shows the location of correspondents compared with departures between June – September 2014. The dark red areas indicate the greatest concentration of traffic.

Figure 2 – Location of correspondents plotted on Heat map of westerly aircraft departures (June – Sept 2013)

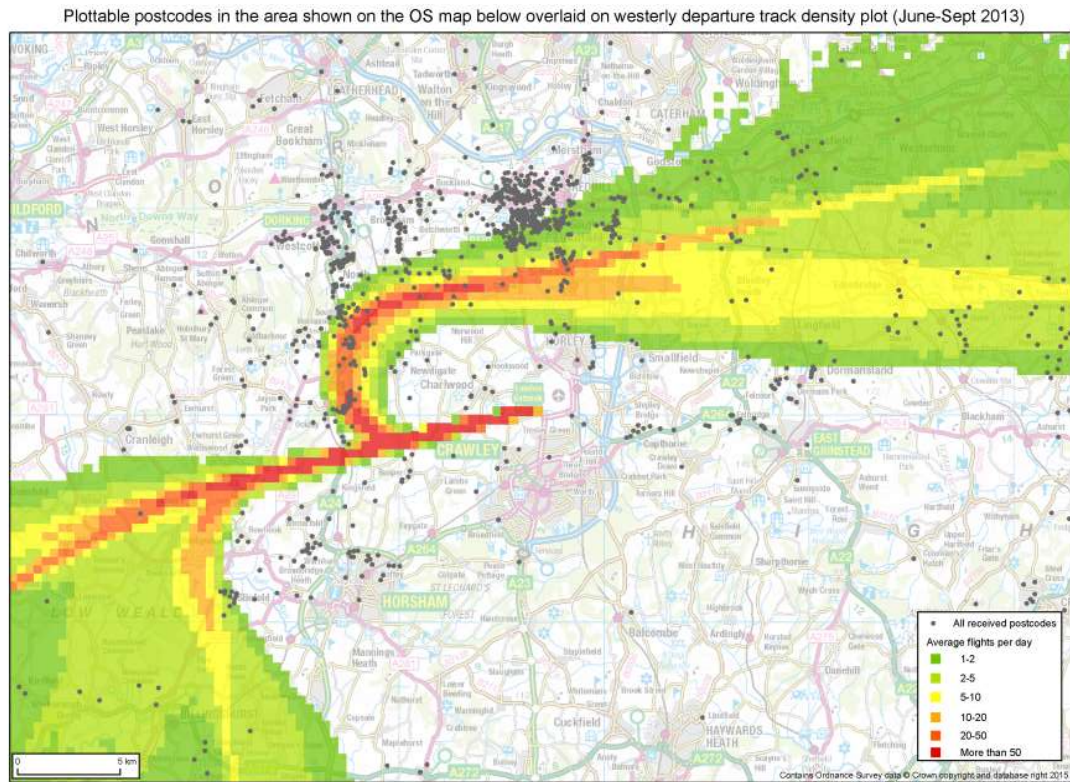


Figure 3 – Location of correspondents plotted on Heat map of westerly aircraft departures (June – Sept 2014)

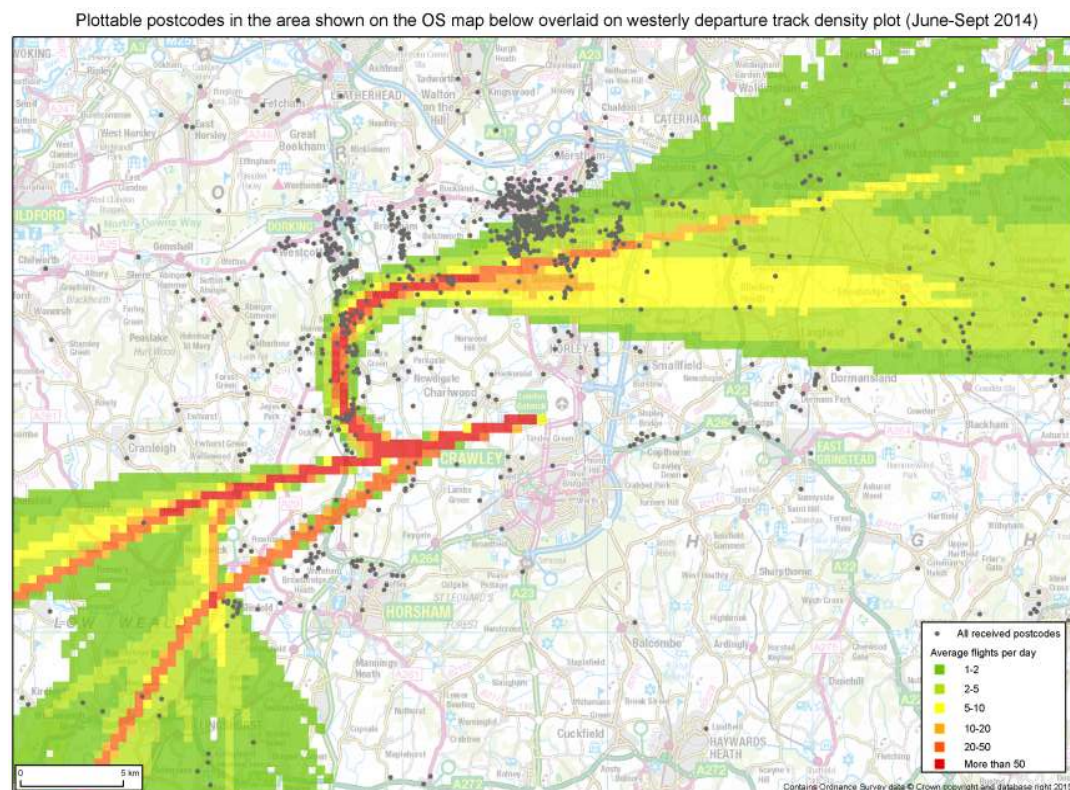


Figure 4 – Location of correspondents plotted on Heat map of easterly aircraft departures (June – Sept 2013)

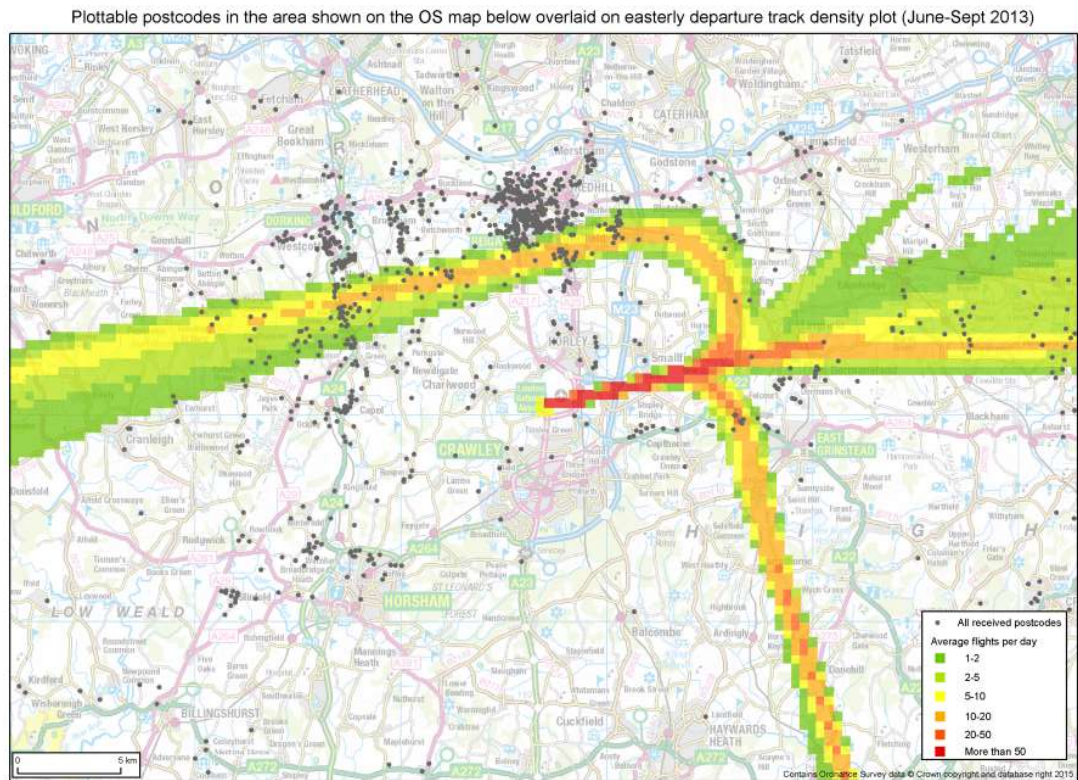
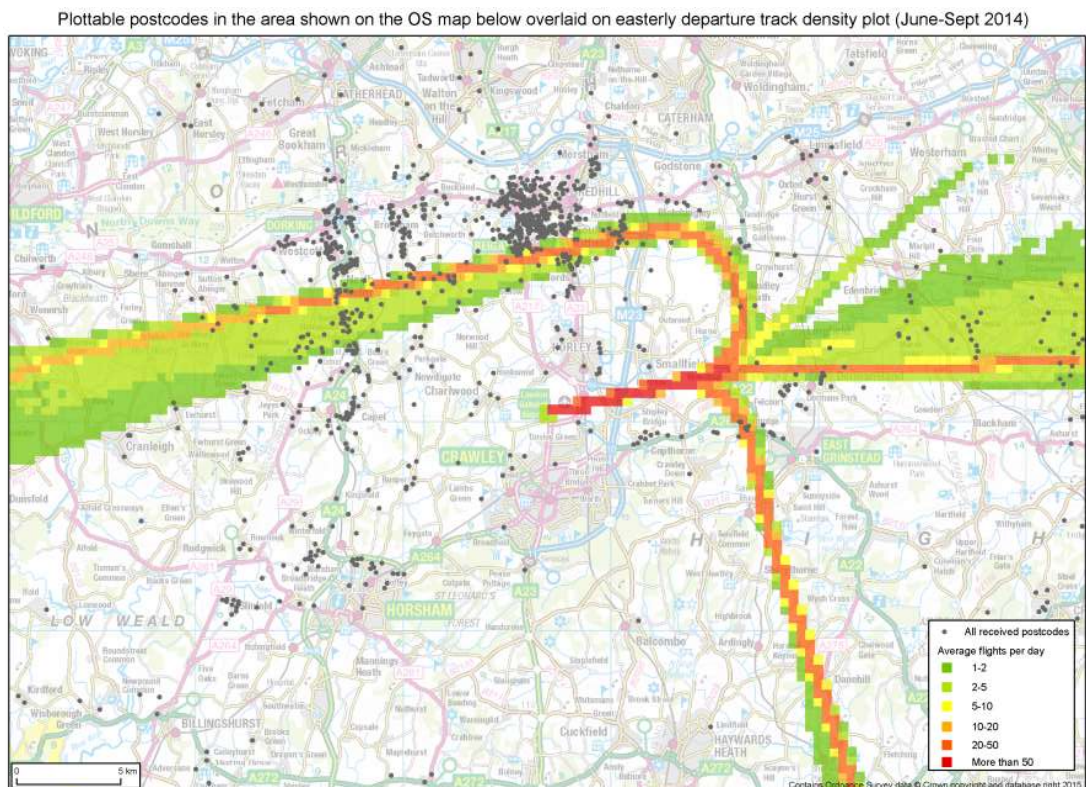
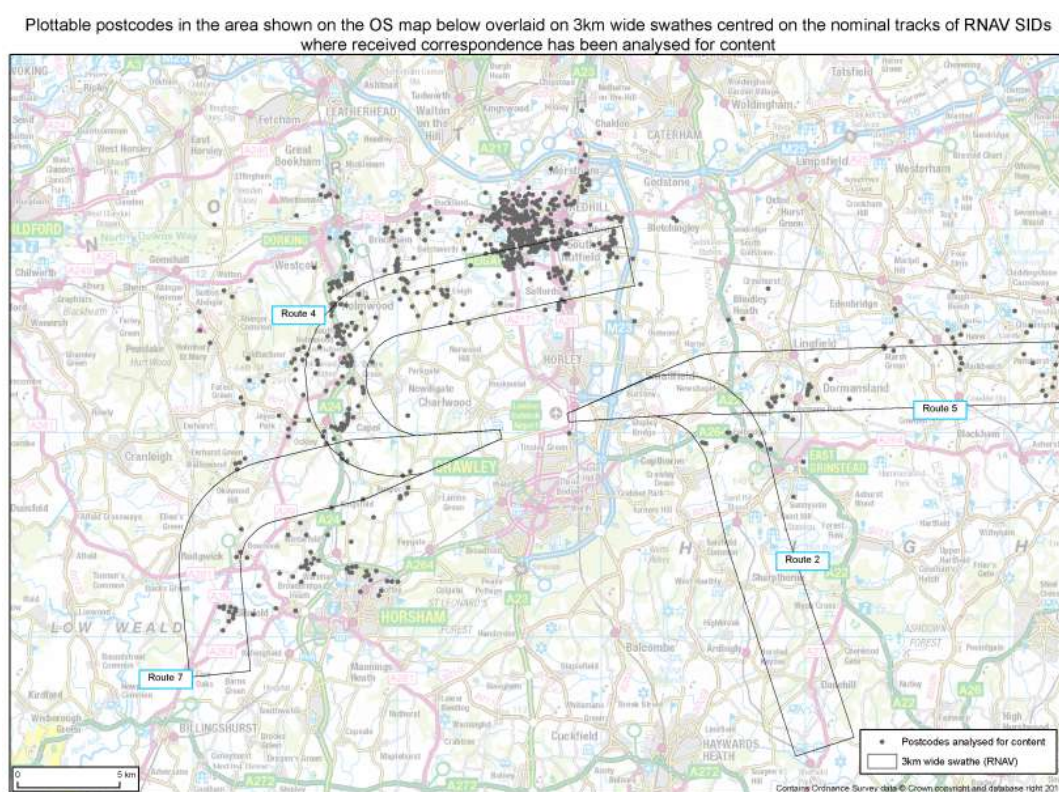


Figure 5 – Location of correspondents plotted on Heat map of easterly aircraft departures (June – Sept 2014)



4. Recording the number of occasions that particular ‘themes’ e.g. flights were too noisy,⁴ are raised within correspondence items which include (i) a full postcode and (ii) that postcode falls within one of the postcode districts which is in a ‘corridor’ under one of four selected routes – namely Routes 2, 4, 5 and 7 (referred to as ‘sorting by theme’).⁵ The themes were identified when the comments were initially read. The postcodes of correspondence items which were ‘sorted by theme’ are plotted on an ordnance survey map, together with the RNAV-1 nominal track centreline 3km swathe in the map below.

Figure 6 – Location of Correspondents that were sorted by correspondence theme for Routes 2, 4, 5 and 7



⁴ See full list at paragraph 13.

⁵ When the CAA began to process the information it had received by way of the correspondence items the CAA calculated that to theme all the correspondence items received would cause unacceptable delays to completion of the PIR data analysis phase. The CAA therefore decided to select four routes and to theme the correspondence items that could be identified (by means of their postcode) as being located under one of the four selected routes. The CAA considered this to be a proportionate means of identifying correspondence from those living near to the tracks of aircraft on the SID that are the subject of this PIR. The CAA selected Routes 2, 4, 5 and 7. The CAA identified a postcode as being under a route if it was within an RNAV-1 nominal track centreline swathe, 3km wide, 1.5 km either side of the RNAV-1 nominal track centreline. (Note these swathes are not the NPR swathes and were constructed by the CAA only for the purpose of this analysis). Consequently 15,483 correspondence items were themed. The map above shows correspondence from outside the swathes was themed. This is because once part of a postcode district was identified as below the identified swathes all correspondence from that postcode district was themed.

What the CAA was told by the general public who sent comments to be taken into account as part of this PIR

9. The excel database created by the CAA in order to analyse the information received by the CAA is attached as the PIR Correspondence database to the PIR report. Whilst the full details of the analysis are best illustrated in that document, this section summarises the ‘headlines’.
10. *Numbers analysis:* The simple fact that individuals felt so strongly about the changes to departure routes at Gatwick Airport that they had taken the time to write to the CAA is a factor that the CAA took into consideration as part of this PIR.
1. There were 17,292 ‘correspondence items’⁶ recorded as having been received by the CAA for consideration as part of this PIR. This included a number of petitions, for example, we received one containing nearly 1,800 signatures. The CAA is aware that there is a risk that some correspondence items were not recorded given that they were received into a variety of entry points at the CAA but the CAA has used its best endeavours to ensure all correspondence has been included in the dataset.
 2. The CAA also identified approximately 3,405 separate sources of correspondence (each household or email address was counted as a separate source). The CAA is aware that this figure possibly overestimates the number of sources. A more accurate ‘numbers analysis’ would only be possible if the process eliminated duplicate comments from the same individual. This in turn would include checking whether a particular individual used multiple email accounts to send their comments to the CAA and/or had submitted correspondence by email and in hard copy by letter or as part of a petition or submission. In view of the large number of comments received,

6

Correspondence Item	The number of correspondence items received by 6 January 2015
Correspondence Source	The number of individuals or organisations that submitted correspondence by 6 January 2015
Postcode District	A location category comprising of the 'post town' and 'outward code' (the characters appearing in the first part of a postcode before the space)
Plottable postcode	Full postcode information provided by a correspondent (e.g. WC2B 6TE)
No location provided	Correspondent has not provided a full or partial postcode nor other indication of location

and having regard to the delay which would have been caused, as well as the limited resources available to the CAA to undertake the task, it was decided that, on balance, it was more advantageous to process the data as received.

11. *Location analysis:* By first identifying, where possible, the location of correspondents we were able to count the number of correspondence items received per postcode district in order get an impression of where the majority of correspondents lived.
1. There were correspondence items recorded as originating from 150 different postcode districts.
 2. The postcode district from which the largest number of correspondence was received was RH2 Reigate. There were 6,538 separate items of correspondence received from approximately 737 sources.
 3. The postcode district with the second largest number of correspondence items was RH5 Dorking with 3,288 correspondence items from 185 sources. The postcode district with the second largest number of correspondence sources was RH3 Betchworth with 269 sources recorded as having sent 2,445 correspondence items.
12. The above figures may not provide the complete analysis as:
1. 374 correspondence items did not provide any location.
 2. Some correspondence items provided multiple postcodes (where identifiable, the correspondent's home address was used to note a location of a correspondent, but it may be that the complaint related to, for instance, noise disturbance at work and therefore was not properly captured by noting the correspondent's home address).
 3. The process of sorting correspondence items into postcode districts was done manually and so there may have been some human errors.
13. *Sorting by theme:* We identified the following types of comments (referred to by the CAA during this process as themes) had been made:

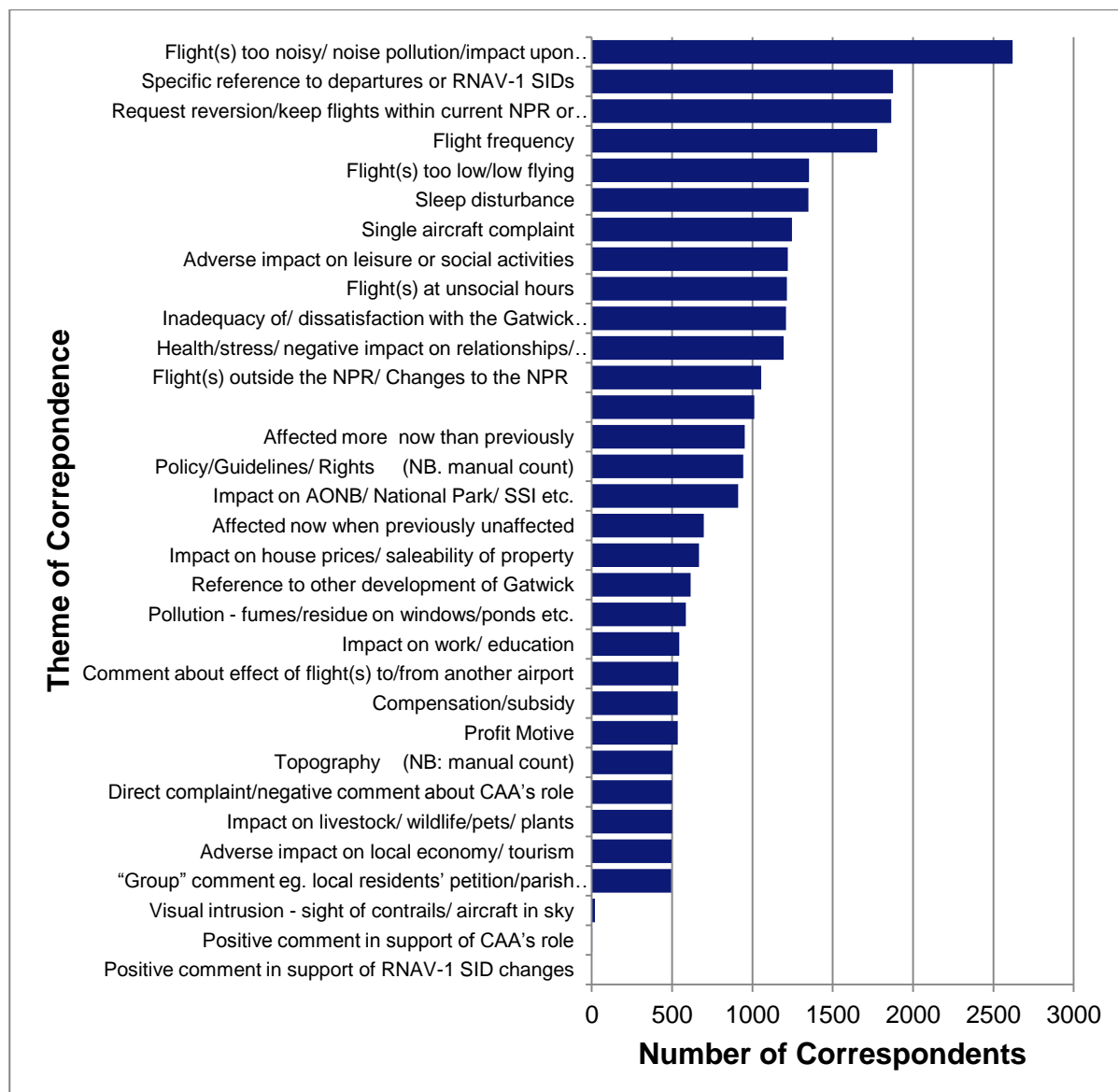
Specific reference to departures or RNAV-1 SIDs	Correspondent makes a specific reference to departures/take-offs etc. or implementation of RNAV-1 (or PRNAV) SIDs at Gatwick either in the title or text of the correspondence item
Adverse impact of flight concentration vs dispersal/respice	Correspondent makes a specific reference to adverse impact of the concentration of flight paths compared to dispersal/respice
Request reversion/keep flights within current NPR or use RNAV-1 for fair dispersal/respice	Correspondent makes a specific request to stop/revert to pre-RNAV-1 routes or to use RNAV-1 for fair dispersal etc.
Affected now when previously unaffected	Correspondent makes a specific reference

	to now being overflown/ beneath a new flight path/etc. subsequent to the change
Affected more now than previously	Correspondent makes a specific reference to experiencing more flights/noise/disturbance than before the change
Flight(s) outside an NPR/Changes to the NPR	Correspondent makes a specific reference to aircraft outside a NPR swathe or changes to NPR
Flight(s) too noisy/noise pollution/impact upon tranquillity	Correspondent makes a specific reference to noise (e.g. noisier, louder, deafening, roaring etc.) or impact upon/loss of tranquillity/tranquil areas
Flight(s) too low/low flying	Correspondent makes a specific reference to aircraft being too low or lower than prior to change
Flight frequency	Correspondent makes a specific reference to increase in frequency/incidence of aircraft disturbance (e.g. constant, incessant, relentless etc.)
Impact on work/education	Correspondent makes a specific reference to negative impact upon education/schools/homework etc. Or disturbance to working environment (either at home or place of employment)
Flight(s) at unsocial hours	Correspondent makes a specific reference to disturbance during unsocial hours (e.g. at night, early morning, weekends etc.)
Sleep disturbance	Correspondent makes a specific reference to interruption/disturbance of sleep
Impact on house prices/saleability of property	Correspondent makes a specific reference to impact on property price/value, blight, saleability/marketing of property etc.
Compensation/subsidy	Correspondent makes a specific reference to payment/claim for compensation/subsidy
Health/stress/negative impact on relationships/emotions	Correspondent makes a specific reference to health, stress, negative impact upon emotions/relationships/wellbeing/quality of life etc.
Adverse impact on leisure or social activities	Correspondent makes specific reference to adverse impact upon social or leisure activities (e.g. enjoyment of their home/garden, walking, cycling, horse riding, fishing etc.)
Adverse impact on local economy/tourism	Correspondent makes specific reference to adverse impact upon local economy, tourism etc.
Visual intrusion - sight of contrails/ aircraft in sky	Correspondent makes specific reference to visual nuisance/sight of aircraft, vapour trails, contrails etc.
Impact on Area of Outstanding Beauty/National Park/Site of Scientific Interest etc.	Correspondent makes specific comment about impact upon Areas of Outstanding Beauty/National Park/Sites of Scientific Interest etc.
Impact on livestock/wildlife/pets/plants	Correspondent makes specific reference to impact/disturbance to livestock, wildlife, pets, plants, biodiversity etc.

Pollution - fumes/residue on windows/ponds etc.	Correspondent makes specific reference to pollution experienced on the ground (e.g. fumes, residue/film on windows, ponds etc.)
Single aircraft complaint	Correspondent is submitting a complaint about an individual flight/aircraft
Comment about effect of flight(s) to/from another airport	Correspondent makes specific reference to flights to/from an airport other than Gatwick Airport
Inadequacy of/dissatisfaction with Gatwick Airport RNAV-1 airspace change proposal consultation	Correspondent makes specific reference to the RNAV-1 SID 1 airspace change proposal (e.g. not consulted/unaware of consultation/would have objected if I had known about the proposed change etc.)
Reference to other development of Gatwick	Correspondent makes general reference to any other development at Gatwick Airport (e.g. additional runway, more flights etc.)
Profit motive	Correspondent makes a specific reference to the change was motivated for profit/reduce airline operator costs etc. to the detriment of those on the ground
Positive comment in support of RNAV-1 SID changes	Correspondent makes specific positive comment supporting RNAV-1 SID (PRNAV) implementation at Gatwick Airport
Positive comment in support of CAA's role	Correspondent makes specific positive comment supporting the CAA's role/oversight of the change
Direct complaint/negative comment about CAA's role	Correspondent makes specific negative comment concerning the CAA's role/oversight of the change
"Group" comment e.g. local residents' petition/parish council/district council/action group	All correspondence items that can be identified as originating from a "Group Source" (e.g. local residents' petition, parish/district council, action/pressure group) are collated using this category. Note: the individual "themes" identified in the correspondence are also recorded under the appropriate "theme" category
Policy/Guidelines/Rights	Correspondent makes a specific reference to Government/CAA policy or guidelines or to Rights/Human Rights etc.
Topography	Correspondent makes a specific reference to the elevation of his/her property/local area

14. The aim of identifying the location of correspondents and 'sorting by theme' was to get an impression of the types of information/comments which correspondents who live under Routes 2, 4, 5 or 7 wanted the CAA to take into account when conducting this PIR.
15. There were 15,483 correspondence items which were sorted by theme (almost 90% of the total received) which originated from approximately 2,512 correspondence sources (almost 74% of the total received).

16. As illustrated by the bar chart below, the most commonly mentioned themes were as follows (in order):
1. Flights were too noisy/caused noise pollution/had a negative impact on tranquil areas.
 2. Specific references to departures or RNAV-1 SIDs.
 3. Requests for reversion to conventional SIDs/requests for keeping flights within the current NPR/requests for use of RNAV-1 to be changed to achieve fair dispersal of flights or respite.
 4. The issue of frequency of flights.

Figure 7 – Theme of Correspondence for Routes 2, 4, 5 and 7

17. Although it was difficult to divide up correspondents depending on which departure route they lived under, as there are areas on the ground which are potentially affected by more than one departure route, an attempt was made to identify any trends by route.⁷

1. The two themes most commonly referred to by residents living under Route 2 were (1) the impact of flight concentration vs dispersal or the need for respite and (2) specific references to departures or RNAV-1 SIDs.

⁷ Separate bar charts by route(s) are within the PIR Correspondence database attached to the CAA's PIR report.

2. The theme most commonly referred to by residents living under Route 4 was that flights were too noisy/caused noise pollution/had a negative impact on tranquil areas.
3. The two themes most commonly referred to by residents living under Route 5 were (1) specific references to departures or RNAV SIDs and (2) the inadequacy/dissatisfaction with the Gatwick RNAV-1 SID airspace change proposal consultation.
4. The two themes most commonly referred to by residents living under Route 7 were (1) specific references to departures or RNAV-1 SIDs and (2) flights were too noisy/caused noise pollution/had a negative impact on tranquil areas.
5. The themes most commonly referred to by residents living under an area overlapped by Routes 2 and 5 were (1) specific references to departures or RNAV-1 SIDs and (2) the impact of flight concentration vs dispersal or the need for respite.
6. The theme most commonly referred to by residents living under an area overlapped by Routes 4 and 7 was requests for reversion to conventional SIDs/requests for keeping flights within the current NPR/requests for use of RNAV-1 to be changed to achieve fair dispersal of flights or respite.

The CAA's consideration of comments from the general public

18. The fact that members of the public communicated information and views - especially to voice objections and complaints - to the CAA, and their content, has been considered as explained above. However, the comments sent to the CAA are not the only means by which members of the public have expressed their views on the changes to departure arrangements at Gatwick Airport. Rather, there have been three separate formal consultations on the issues with which this PIR is concerned or with issues related to departures from Gatwick Airport. This was acknowledged by one organisation who stated in their correspondence to the CAA:

“We refer to the London Airspace Change Gatwick Local Area Consultation of May 2014 ... while this consultation may technically be an exercise which is separate from the PIR, the two exercises cannot, given that the P-RNAV changes and the proposed NPR changes each affect each other, be considered separately.”
19. The first formal consultation on the changes to departure arrangements at Gatwick Airport was carried out by Gatwick when it was developing its airspace change proposal which is the subject of this PIR. Shortly after that NATS, the air traffic control provider responsible for departures from Gatwick Airport, carried out another consultation jointly with Gatwick which included consideration of departure routes under 4000ft AMSL but within the context of planned wider changes to the airspace around London. There was a further formal consultation in May 2014 carried out by Gatwick. That consultation included details relating to specific low altitude options, including Route 4, including noise contours and footprints, population counts for the NPRs, respite options, geographical areas not captured in the initial consultation and potential adaptations of the Department for Transport noise abatement requirements and a change in the width and centring of the NPRs around Gatwick Airport generally.
20. The comments received as part of this PIR were therefore considered by the CAA, bearing in mind that these other formal consultations had taken place.
21. This was the first time that detailed material from members of the public outside formal consultation had been dealt with in this way within a PIR since PIRs had not typically involved consideration of such material. The CAA's consideration of the comments from the public was not intended to be a substitute for the formal consultations. The CAA viewed the material alongside the consultation material

and responses which it considered as part of the usual progress of the airspace change process. This is notwithstanding the fact that:

1. Some of the correspondents wrote to the CAA to express dissatisfaction with those consultations.
2. The first formal consultation took place before the change was implemented and therefore before the impact of the change was known and experienced (as opposed to estimated) whereas these comments were sent once the impact of the change had been felt.

22. As the comments received from the general public were not part of a consultation this means that they were unsolicited. Contributors were not geographically limited: rather, correspondence items have been received from 150 different postcode districts. On the one hand, it can be said that the unsolicited nature of the comments emphasises the strength of opposition some feel against the changes to departure arrangements which have been implemented at Gatwick Airport. On the other hand, because the correspondents are self-selecting there is a real risk that the views of any members of the public who are in support of the changes to departure routes at Gatwick Airport are not adequately represented.

The nature of the comments received from the general public

23. In addition to taking into account the 17,292 correspondence items the CAA has also carefully taken account of all the following factors.
24. *The correspondents may be reporting their subjective experience:* For the most part the correspondence received constituted evidence of a correspondent's subjective, negative experience of noise as well as their perception that the noise is the result of changes to departure arrangements at Gatwick Airport. That said, some information in the correspondence items included attempts to conduct objective analyses such as the Noise Impact Assessment submitted by Rusper Parish Council. The CAA has viewed all of these correspondence items together with objective evidence of aircraft tracks and heights which enables estimation and description in objective terms of the levels of noise experienced as a result of the changes as set out in detail in the CAA's PIR Environmental Analysis report that was prepared as part of this PIR.
25. *The fact that an individual could write in many times:* There was no limit on the number of occasions that an individual could use the dedicated email account, which was set up in November 2014, and indeed two individuals emailed thousands of times each from one email account.⁸ In addition, that same individual may have sent emails from multiple/different email accounts, may have sent emails to other CAA email accounts and may have sent hard copy letters to the CAA. Provided all were received before 6 January 2015 they have been included.
26. The CAA is aware that it was impossible to eliminate the risk of unintentionally counting one person's views many times over, particularly where they wrote in by email and then in hard copy letter and/or used multiple email accounts, but also where emails were sent from one account to the dedicated email account at the CAA and to other CAA email addresses. In addition, an individual may have signed a petition as well as writing separately to the CAA. On the one hand, the fact that an individual may send their views in many times and/or in many different formats to the CAA could again be said to emphasise the strength of opposition they feel against the changes to departure arrangements which have been implemented at Gatwick Airport. However, it cannot be inferred that

⁸ Our analysis shows that 16 correspondent sources submitted more than 50 correspondence items (either an email or a letter). Those 16 correspondence sources submitted 57% (9,817) of the total correspondence items received. Indeed two correspondence sources submitted 38% (6,655) of the total correspondence items received.

another individual, who has only written once to the CAA, therefore does not have equally as strong feelings. The fact that it is not practical to compute the precise number of individuals who have communicated their views to the CAA, and therefore the risk of unintentionally counting one person's views many times over, because of the nature of the comments, are also factors to be considered within this PIR.

27. *Where someone lives:* This can be illustrated by way of example. Even where an individual lives somewhere far outside the area around Gatwick Airport, their comments have not been excluded from the dataset. For instance, two of the signatories to the one of the petitions sent to the CAA have provided postcodes in Porthcawl, Wales and Derby. Nevertheless, they have been counted as correspondents to the PIR but their comment has not been sorted by theme unlike someone who has been identified as living under Routes 2, 4, 5 or 7 at Gatwick Airport.
28. *The difficulty of sorting correspondence items where correspondents are not replying to formal consultation questions:* There are many ways in which the process adopted for recording themes is unavoidably imprecise and so it must be borne in mind that the aim of the task was to get an impression of the types of information/comments correspondents conveyed to the CAA. A more scientific quantitative or qualitative analysis is not possible in light of the nature of the correspondence. This manifests in numerous ways.
1. Determining areas of interest or key 'themes' from correspondence items is, to a degree, subjective. This is because respondents have different views and articulate them in different ways and are not responding within a formal structure.
 2. The risk of unintentionally double counting an individual's view. As described in paragraph 10.2 a more accurate 'numbers analysis' would only be possible if the process eliminated duplicate comments from the same individual. In view of the large number of comments received, and having regard to the delay which would have been caused, it was decided that, on balance, it was more advantageous to process the data as received.
 3. The risk of attributing more weight to any one individual's views has also been accounted for. Any comments from the same email address have only been counted up to and including 50 times. This approach balances the need to avoid skewing the results by any individual view – which is one factor taken into account – with the need to acknowledge that an individual has communicated their views many times over to the CAA, which is a countervailing factor.
29. *The content of correspondence sent to the CAA:* Rather than disregarding comments which did not initially appear to concern issues being considered in

this PIR all correspondence items which seemed potentially relevant to the PIR were included in the dataset. For this reason the themes by which correspondence items were sorted included topics not relevant to this PIR for example the second runway at Gatwick Airport or ADNID trials (see paragraph 31.2 below). The weight given to any comments is dependent upon relevance to the issues that are the subject of the PIR. Nonetheless, those comments not considered by the CAA to be relevant to PIR issues have been taken into account when considering other recommendations (see Chapters 11 and 12 of the PIR report).

30. *The context within which the comments from the general public were received:* Although the changes to departure arrangements at Gatwick Airport were decided upon in August 2013, and implemented in November 2013, the CAA is aware that - notwithstanding the time which had passed since implementation of the changes - many of the comments received from the public were concerned with the perceived impact of these changes which are the subject of the PIR. This is because it was not until the summer of 2014 that the full effects of these changes may have been felt, as explained above in paragraph 3.
31. Nevertheless, there are other potential triggers and drivers for the comments received as follows:
1. There was an unrelated change of arrival procedures carried out by air traffic controllers on westerly arrivals (approaching from the east) at Gatwick Airport in August 2014.
 2. *ADNID Trials:* One of the other potential triggers of the comments from the general public was a trial known as the 'Gatwick ADNID SID trial' which was the second operational procedure in a series of trials contributing to the 'Departure Enhancement Programme' at Gatwick Airport. It comprised several new RNAV-1 SIDs and ran from Monday 17 February 2014 and concluded six months later on Friday 8 August 2014. As well as overlapping in time with the changes to departures at Gatwick Airport the area which was affected by the ADNID SID trial also overlaps with some of the areas affected by the changes to departure arrangements that are the subject of this PIR. In particular Routes 7 and 8 as shown by the plan that identifies the route numbers and the plan that illustrates the tracks of the aircraft when the ADNID trial was ongoing (both below).

Figure 8 – Extract from airspace change proposal showing the nominal track of the Routes and the conventional SIDs

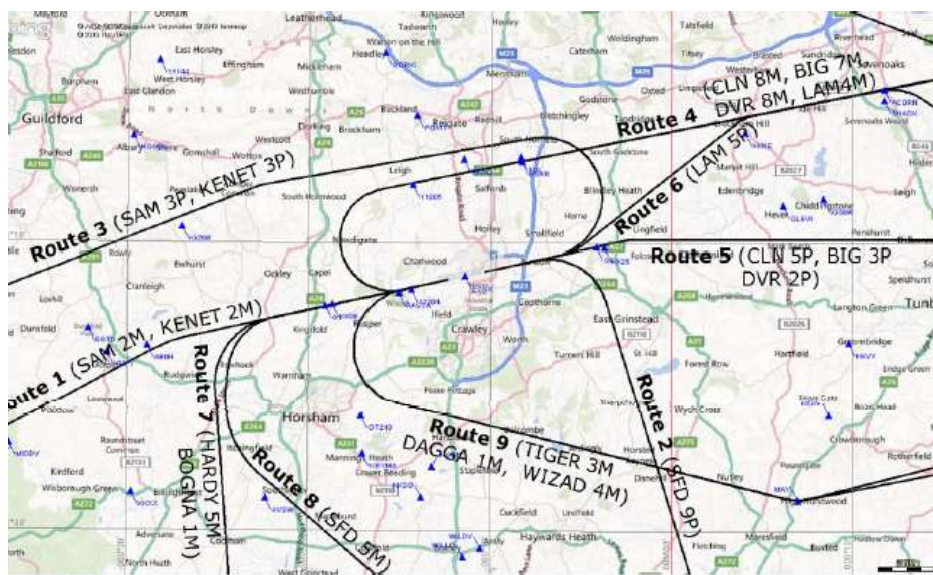


Figure 9 – Departures on the Route 7 SIDs also showing the departures on the ADNID trial on 8 August 2014

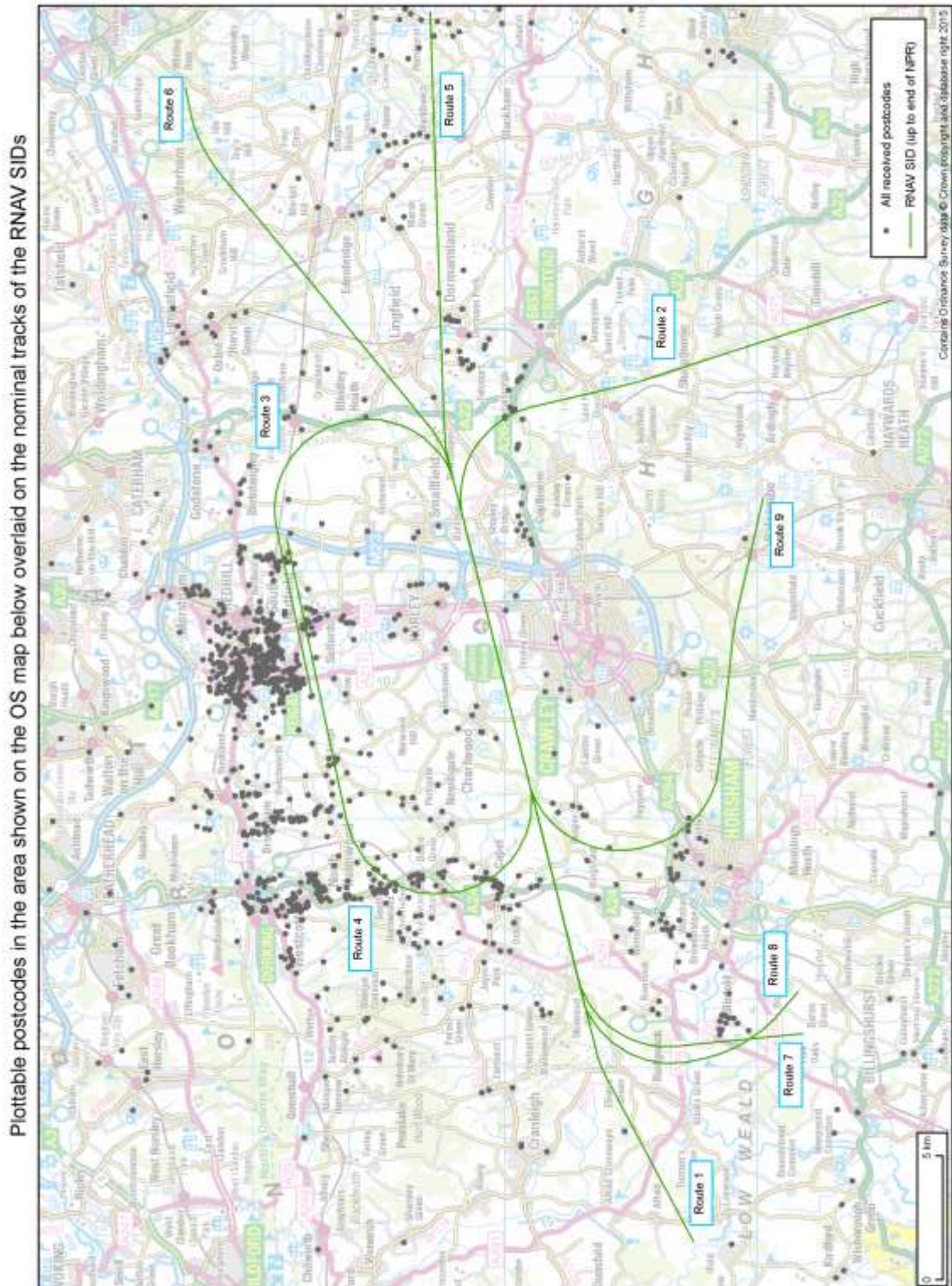


2,944 aircraft operating on ADNID route and 1,054 utilising 26BOGNA (Route 7) on this day during the ADNID trial

32. One correspondence item likened the ADNID trial *“to laboratory testing and residents were the rabbits trapped in cages being tortured with constant noise.”* The fact that some of the comments from the public received by the CAA may have been triggered by the ADNID trial, but cannot necessarily be distinguished in terms of their timing and/or may not be distinguished as concerning the ADNID trial by virtue of the location of the correspondents, is also a factor which is considered by the CAA in this PIR.
33. *Second runway:* We also received correspondence about the proposal for a second runway at Gatwick Airport. This has been the topic of debate, particularly since Gatwick consulted publicly on second runway options in March 2014, and continues to do so today. One correspondence item acknowledged:
- “Gatwick is already the busiest single runway airport in the world, is already implementing strategies to further increase the number of flights on this runway and is vigorously campaigning for a second runway. No wonder there has been a public outcry in response to the RNAV-1 airspace changes!”

Larger versions of the maps included throughout this report

Figure 1 – The nominal tracks of the RNAV-1 SIDs



Plottable postcodes in the area shown on the OS map below overlaid on the nominal tracks of the RNAV SIDs

Figure 2 – Location of correspondents plotted on Heat map of westerly aircraft departures (June – Sept 2013)

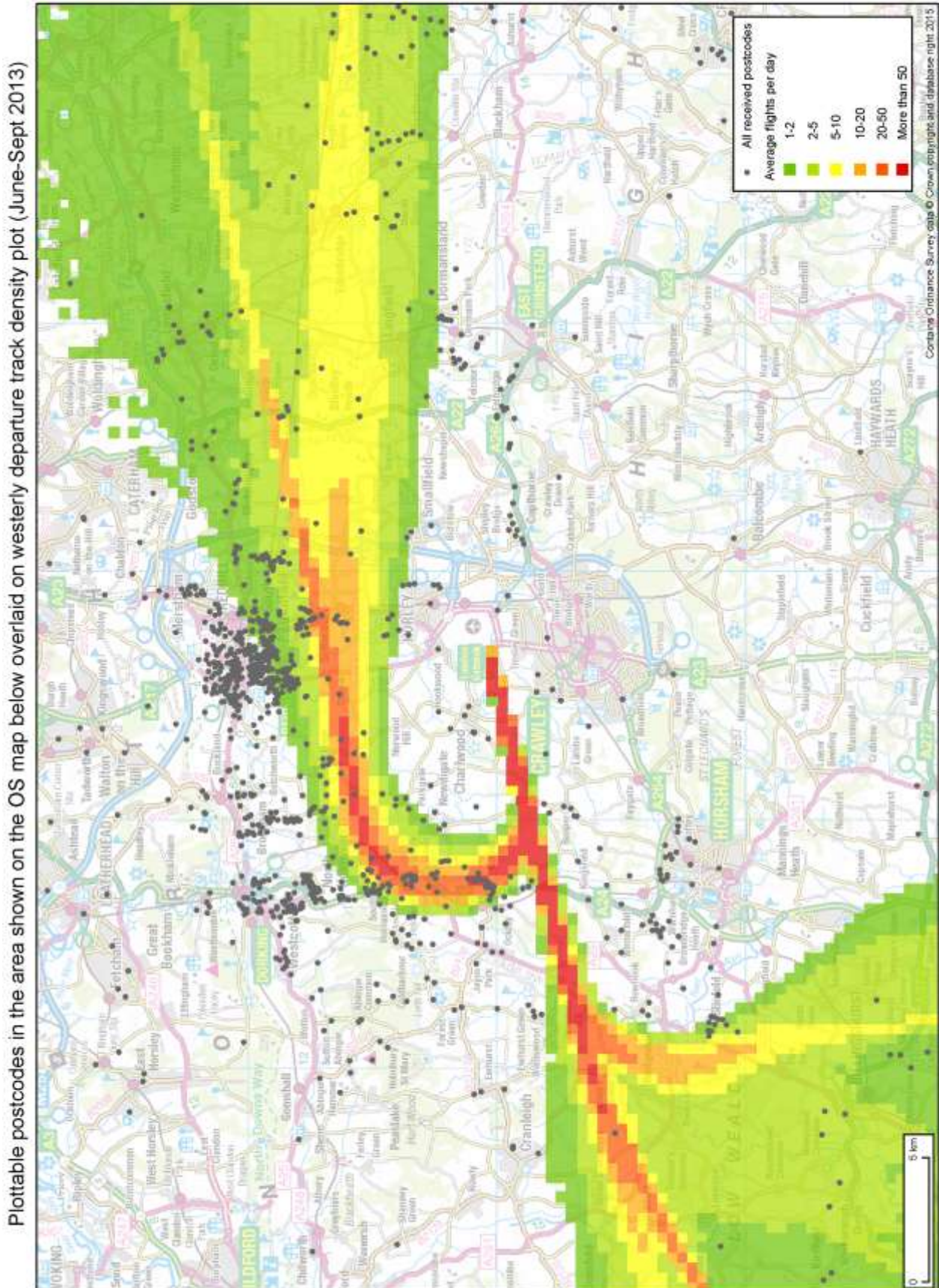


Figure 3 – Location of correspondents plotted on Heat map of westerly aircraft departures (June – Sept 2014)

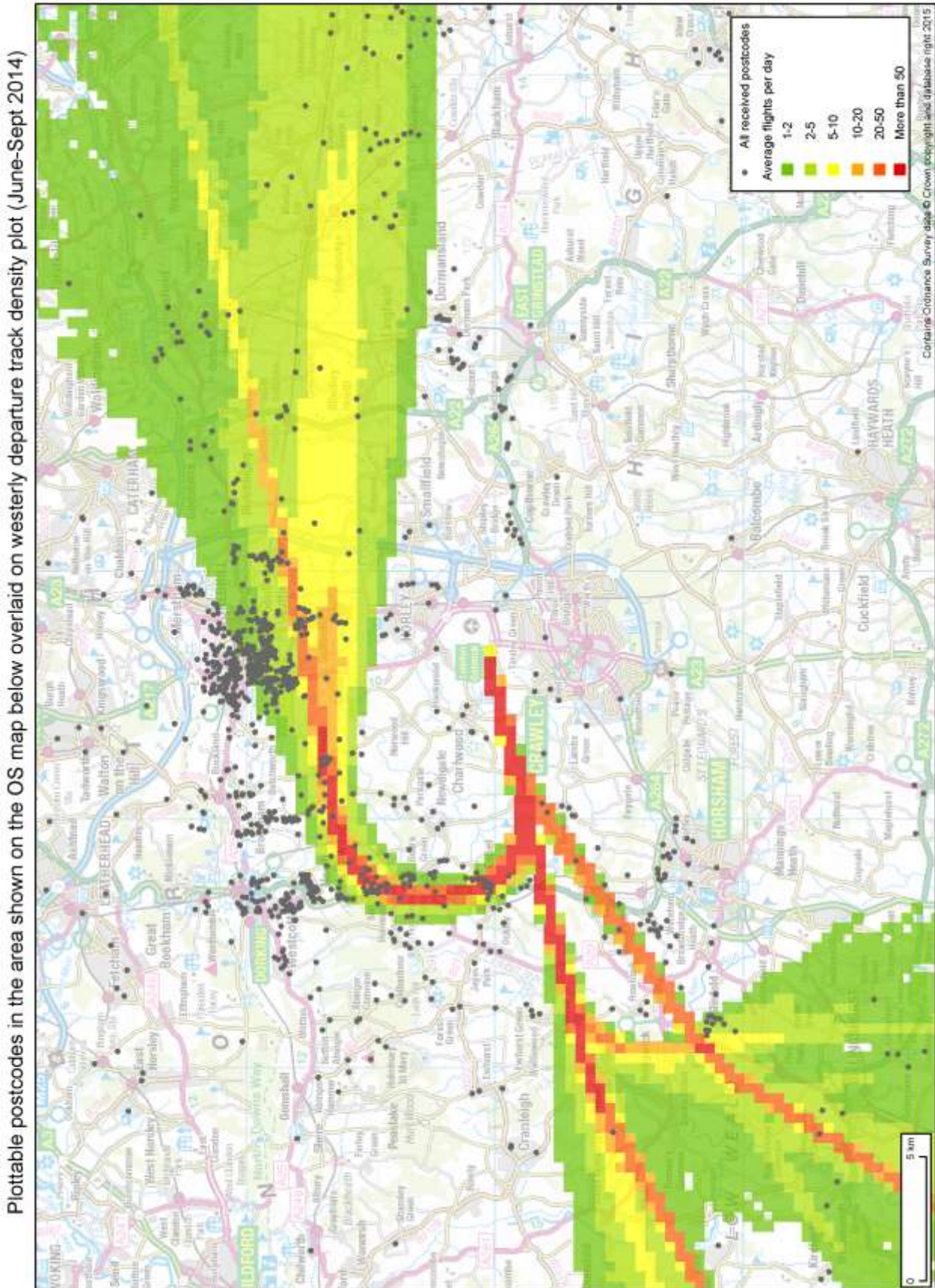


Figure 4 – Location of correspondents plotted on Heat map of easterly aircraft departures (June – Sept 2013)

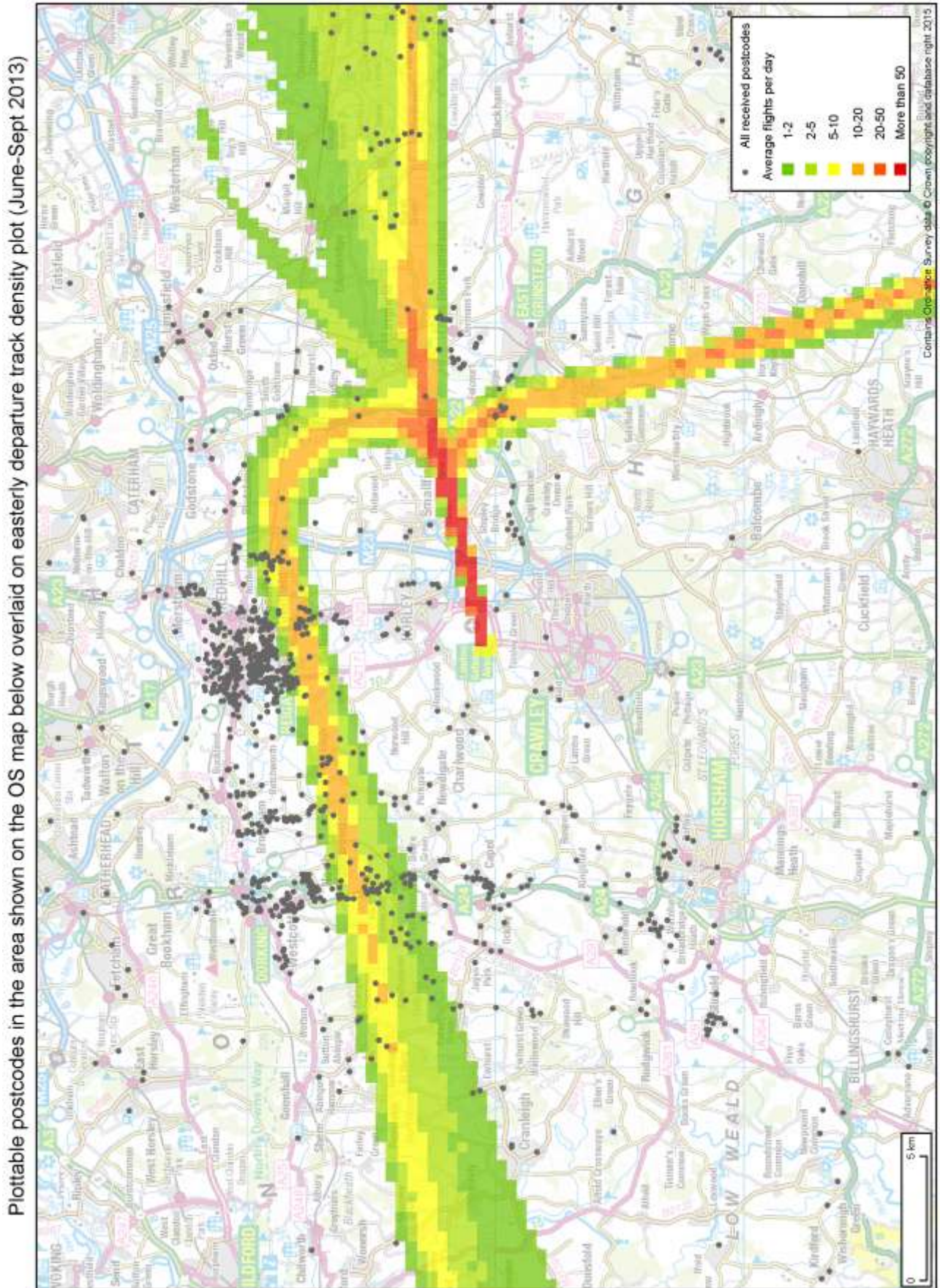


Figure 5 – Location of correspondents plotted on Heat map of easterly aircraft departures (June – Sept 2014)

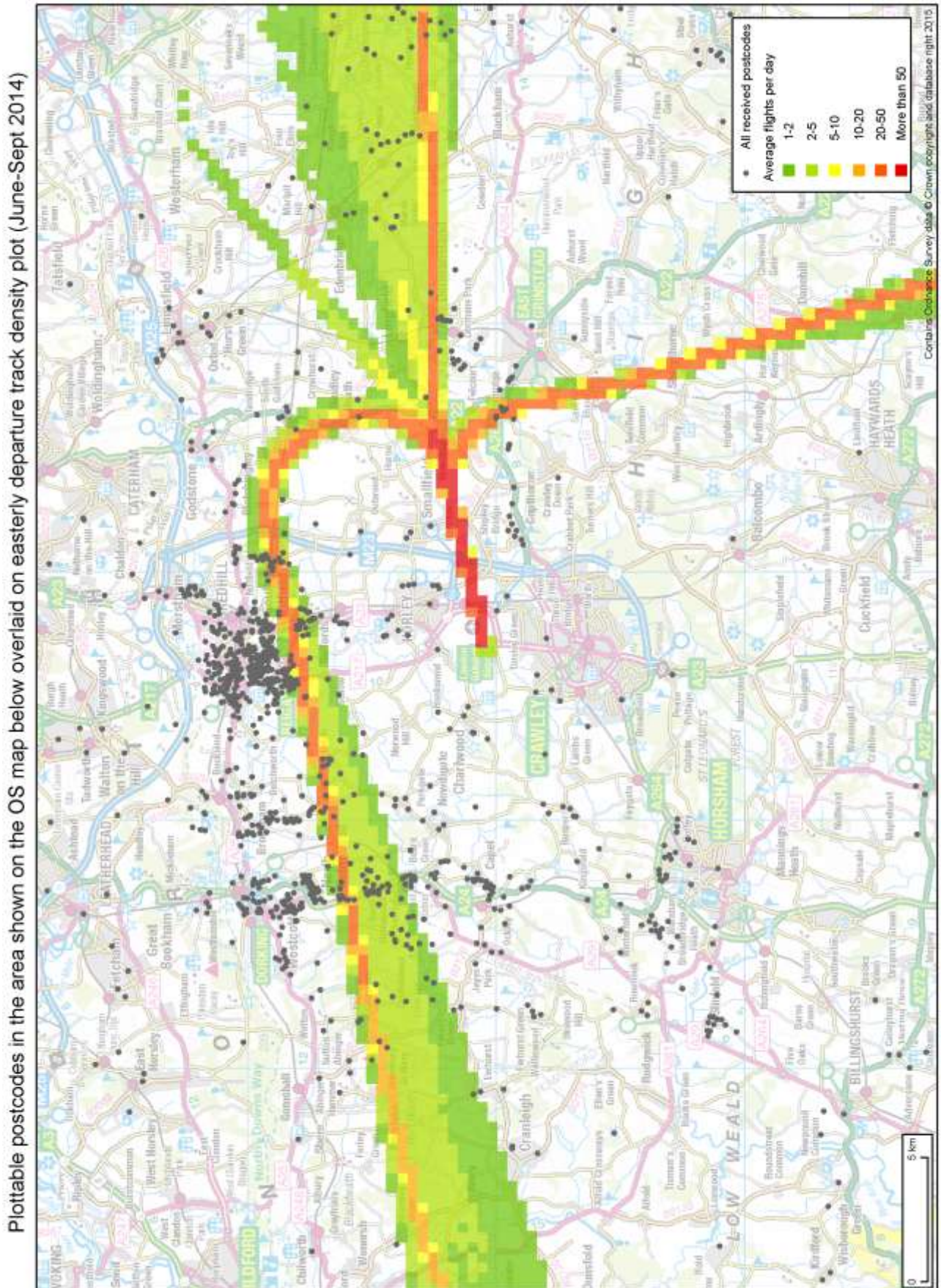


Figure 6 – Location of Correspondents that were sorted by correspondence theme for Routes 2, 4, 5 and 7

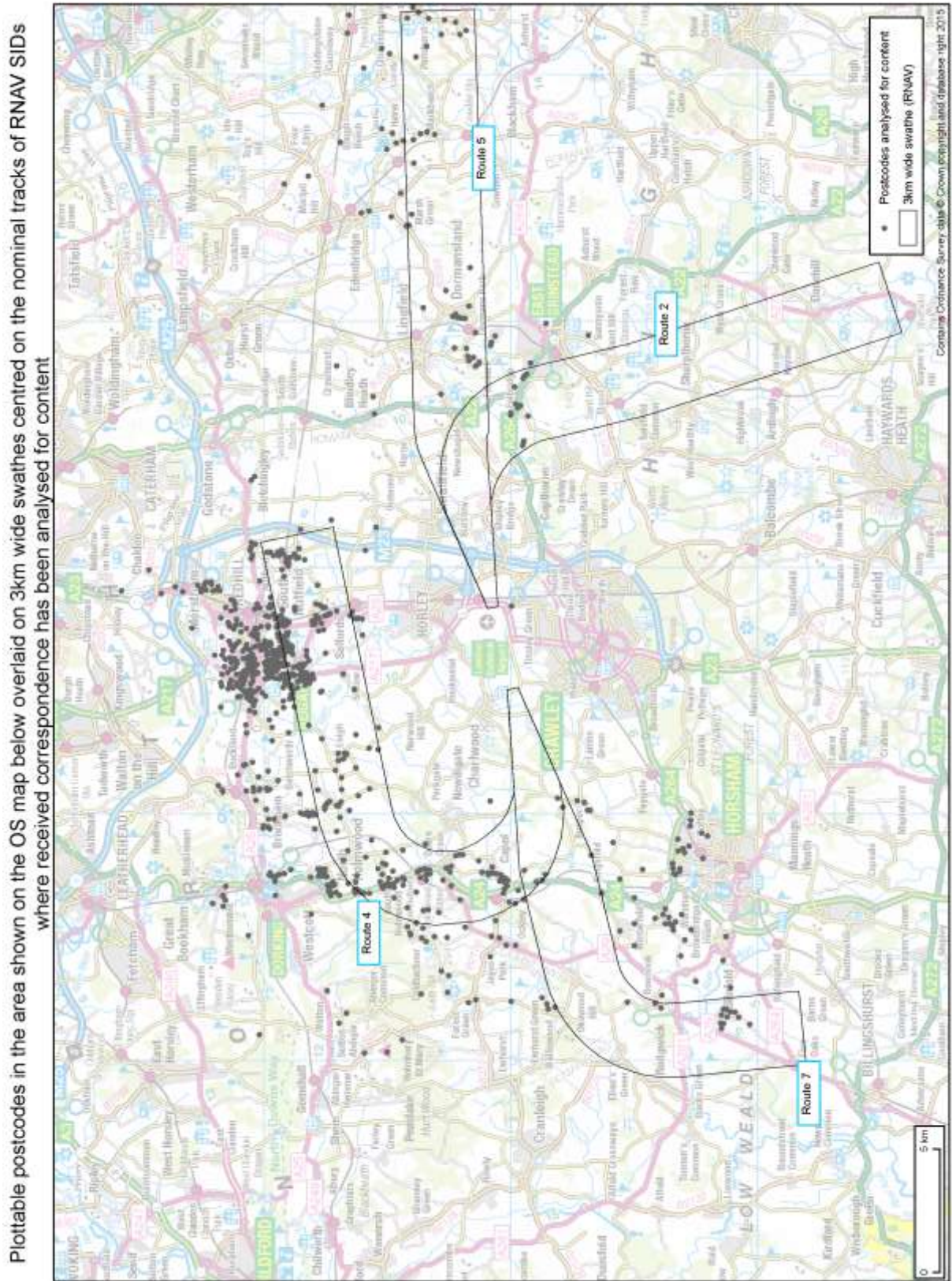


Figure 8 – Extract from airspace change proposal showing the nominal track of the Routes and the conventional SIDs



Figure 9 – Departures on the Route 7 SIDs also showing the departures on the ADNID trial on 8 August 2014

