

Annex D – Complaints Analysis

CAA ANALYSIS OF COMPLAINT DATA FROM NON-AVIATION STAKEHOLDERS

Introduction.

1. This Annex is an analysis of complaint data submitted to London Luton Airport Operations Ltd (LLAOL) and directly to the CAA. This report considers the location of the complaint, the altitude of aircraft as they overfly, or fly close to the complaint location, and the impact of the change on that location. From complaints data received in the period February to September 2017 (relevant to the modified design), we have analysed the impacts of the locations from where the highest number of complaints were submitted to LLAOL. By restricting our analysis to these areas, we have been proportionate in our considerations, prioritising those locations that appear to have generated the greatest response from communities. Complaints directly made to the CAA also correlate with these areas. Combined numbers of complaints are shown later in Table 4.
2. LLAOL has analysed the complaint data by grouping it into postcode locations and showing the number of complaints from each postcode as shown on the complaints map provided to the CAA. The full set of data relating to complaints to LLAOL, is published in the monthly complaints data which is shown on the [CAA website: complaints data](#) , along with a map showing the locations of the complaints: [complaints map](#). This map shows the main concentrations of locations of complaints and is the prime focus for this analysis.

- 2.1 From the complaints map where the highest number of complaints to LLAOL were evident, the following areas in Table 1 were subject to further analysis:

Table 1.

Location	Complaints	Number of Postcodes	Remarks
Flamstead	97	9	
Redbourn	149	12	
South Harpenden	3068	33	
Harpenden	1191	32	
Wheathampstead	186	19	
Sandridge	2107	33	
St Albans East	2036	139	
St Albans West	679	58	

Note: The complaints to LLAOL recorded here are taken from the Complaints Map (PIR report Annex L and M) and are based on areas depicted in the map at Annex M for the purposes of collating complaints from the geographical locations shown on the complaints map; (for this analysis, these locations are distinguished by red coloured hand-drawn shapes and circles by the CAA). The numbers in the small red circles show numbers of complaints to LLAOL, hence we have added up these numbers to show the total number of complaints in these hand-drawn locations. The numbers of complaints in Table 1 (above) and Table 4 (below) do not correlate to the numbers of complaints stated in the main report paragraph 130 which are based on postcode locations.

3. Complaints raised directly to LLAOL and the CAA were reviewed and commented upon in the main report. Feedback received via the survey monkey process is detailed in Annex E.

Analysis process

4. What we did:

- We have reviewed the complaints analysis undertaken by LLAOL.
- We have reviewed the complaints submitted directly to LLAOL.
- We have reviewed the complaints submitted to the CAA by stakeholders raising issues about the change proposal after implementation.
- For those Luton areas with the most complaints, we have compared the location against the traffic patterns (as portrayed on radar track diagrams and density plots) of the departure procedures before and after the change. This approach ensured that our analysis was not only proportionate but that it adequately considered the feedback from the majority of complainants.
- For the purposes of this analysis we have examined the track dispersion, track density plots and altitude band traffic samples from the period of the data collection samples (February – September 2017) as reviewed under this PIR in Annex C against the traffic patterns evident before the change was implemented.
- We have described the traffic patterns in relation to the relevant Luton areas of complaint with the aim of identifying whether or not the complainants identified any effects that were not expected at the time of implementation.

5. General conclusions:

- The impacts of the change are as expected and complainants have not raised any effects that were not expected. The implementation of this change has:
 - reduced direct overflight of Hemel Hempstead, Redbourn, the southern area of St Albans (south of the A1057) and some areas of northern St Albans (north of the A1057), (in the case of St Albans, probably due to radar vectoring);
 - reduced the amount of dispersion up to the St Albans to Harpenden Railway Line;
 - introduced a more concentrated traffic pattern as far as Hatfield and beyond.
- There has been a shift in the main core of the traffic pattern away from the densely populated areas of Hemel Hempstead and the southern extremities of St Albans (as far east as the St Albans to Harpenden railway line), although as a consequential effect, this has shifted the core traffic pattern closer to Redbourn by 0.75Nm (1400m), and slightly closer to Childwickbury, South Harpenden and Harpenden by approximately 300-400m by the time departures cross the A1081 heading east.
- There is no change in the traffic pattern directly over Wheathampstead (note the main core track of the traffic pattern (as it overflies Sandridge) is approximately 3.7km from Wheathampstead).
- There has been a negligible shift of the main core of traffic pattern in the vicinity of the northern area of Flamstead, the northern area of St Albans (east of the St Albans to Harpenden railway line and north of the A1057), Sandridge, Wheathampstead and Hatfield.
- Some locations are exposed to a greater concentration of traffic and therefore have experienced an increase in the number of aircraft flying overhead and consequential noise impacts. However, as a result of this concentration, other locations will have fewer aircraft overhead. This was what was expected in the CAA decision.

6. Complaints data:**Table 2 - Summary of correspondence to LLAOL**

Period	Jul- Nov 2016	Feb – Sep 2017 (See Note)	Total
Number of individual enquiries/ complaints	1782	9722	11,504
Postcode Locations	322	709	1,031

Note: Complaints by postcode mapped by LLAOL as shown on the CAA website: [Complaints mapped by postcode to LLAOL](#)

Table 3 - Summary of correspondence to the CAA from 25 August 2015 to commencement of PIR review analysis (30 March 2019)

Number of enquiries/complaints	491
Number of individual complainants	338

7. Locations for complaints to LLAOL and the CAA

Table 4 below shows main locations of postcode complaints submitted to LLAOL and complaints submitted to the CAA via Form FCS1521 and External correspondence (including MP correspondence). These locations are then detailed in Table 5 to show the impacts on these areas.

Table 4 - Main locations by feedback numbers to LLAOL and the CAA

Luton Area (a)	Number of Enquiries/ complaints (and complainants) to the CAA where more than 5 complainants reside (b)	Number of Enquiries / complaints with postcodes to Luton		Remarks (e)
		Enquiries / Complaints (c)	Postcode Locations (d)	
Flamstead	Less than 5	97	9	
Redbourn	Less than 5	149	12	
South Harpenden	34 (23)	3068	33	
Harpenden	See Note 1.	1191	32	
St Michaels Parish	10 (7)	11	2	
Wheathampstead	8 (8)	186	19	
Sandridge	173 (129)	2107	33	
St Albans	235 (136)	2036 east	139	
St Albans		679 west	58	

Note 1: Complaints from Harpenden and South Harpenden to the CAA were grouped together in our analysis, whereas complaints to LLAOL were distinguishable between Harpenden and South Harpenden.

8. CAA Commentary and Comparison of Correspondents' Location to Aircraft Traffic Patterns

Table 5 shows the main locations where complaints have originated. The typical altitude of departures flying over or close to these areas is highlighted, the proximity of the location in relation to the SID is described, then in columns 4 and 5, we describe the traffic patterns before and after the change (copied from Annex C), together with our conclusion of the associated impact of the change on these locations.

Table 5

Luton area (and number of complaints) (1)	Typical altitude (amsl) of aircraft based on a review of radar track diagrams (2)	Location in respect departure procedures (3)	Description of traffic pattern before the change (4)	Description of traffic pattern after the change and the associated impact (5)
Flamstead Complaints: 97 to LLAOL. Less than 5 to CAA.	July 2015 Slide 7. Between 2,000 and 3,000 feet departures pass west of Flamstead flying a concentrated pattern along the NPR before commencing the turn towards St Albans. Slide 9. Between 3,000 and 4000ft, the majority of departures pass to the west of Flamstead with only a very few aircraft flying over Flamstead. Slide 11. Between 4,000 and 5000ft, the majority of departures pass to the west of Flamstead in a concentrated pattern. Two departures are seen flying directly above Flamstead. Slide 13. Between 5,000 and 6000ft, the majority of departures pass to the west of Flamstead with	Flamstead is located approximately 1.5km to the east of the NPR and lies under the eastern section of the NPR monitoring swathe. After the change, the NPR monitoring swathe has reduced in width to 2km wide, hence, most of Flamstead lies outside the revised swathe.	TRACK DISPERSION DIAGRAM The track dispersion diagrams are the most suitable set of diagrams to show the impact on Flamstead (Flamstead is not shown on the density plots). 2014 Aug departure diagram (Segment 2) Slide 3 After departures cross the M1 J10, the traffic pattern reduces in width, and becomes concentrated along the NPR centreline. Some departures start to commence the left turn towards St Albans/Sandridge before reaching Flamstead resulting in aircraft flying over Flamstead. This could be due to ATC vectoring. From the density plot description: Slide 6 Towards the A5 between Markyate and Flamstead, the traffic pattern is concentrated along the NPR centreline, with departures	TRACK DISPERSION DIAGRAM The track dispersion diagrams are the most suitable set of diagrams to show the impact on Flamstead. (Flamstead is not shown on the density plots). 2017 Mar departure diagram (Segment 2) Slide 4 The traffic pattern is similar to the 2014 conventional sample. After departures cross the M1 J10, the main core is concentrated along the NPR centreline. Some departures start to commence the left turn towards St Albans/Sandridge before reaching Flamstead resulting in aircraft flying over Flamstead. From the density plot description: Slide 7 The traffic pattern is similar to the 2014 conventional SID sample.