

ANNEX L TO ROUTE 4 PIR REPORT DATED APRIL 2017

CAA Analysis of Complaint Data from non-aviation stakeholders

What we did:

- We reviewed the categorisation of complaints by location as undertaken by GAL;
- For those locations with the most correspondents (rather than the number of complaints), we compared the identified location against the traffic patterns (as portrayed on radar track diagrams) displayed by the modified RNAV SID, the original RNAV SID and the original conventional SID. We limited our analysis to those locations that represented 90% of correspondents. The remaining locations represent few correspondents – they are either (a) close to other locations with a greater number of correspondents that we have commented upon, or (b) are in locations that are generally unaffected or will be experiencing an improvement in noise impact since the implementation of the modified RNAV SID. In this way we ensured that our analysis was proportionate but adequately considered the feedback from correspondents.
- We described the traffic patterns in relation to those locations, with the aim of identifying if the number of correspondents and the nature of their complaints identified any effects that would not be expected by a replication of a corrected conventional SID.
- We noted, where relevant, if those locations were likely to be experiencing an increase or decrease in noise levels as a result of the modified RNAV SID.

In considering these complaints, it is important to bear in mind that:

- They have been made against a background of increasing traffic levels at Gatwick Airport;
- All of the locations commented upon are sited beyond Gatwick Airport's 57 dB L_{Aeq} noise contour and therefore any change in noise impact would not be described as "significant";
- Aircraft can be tactically vectored from the SID at 4000ft and above and are therefore no longer required to adhere to the NPR beyond this altitude.

General conclusions:

- As would have been anticipated, the largest numbers of correspondents came from the most populated locations that have experienced an increase in noise levels since the implementation of the modified RNAV SID. A key factor in the increase in noise impact is the displacement of the traffic pattern in Segment 3 of the SID, i.e. the eastbound track after the turn.
- Less populated locations which are similarly affected by the displaced traffic pattern also generated correspondents, albeit on a much smaller scale.
- There were relatively few correspondents from those locations that are likely to be experiencing a decrease in noise impact;
- Some correspondents had expectations of not being overflown or experiencing any aircraft noise at all, or appeared to be complaining about aircraft that were not using Route 4.

GAL's Summary of Correspondence

Number of individual email addresses	1,863
Number of pieces of email feedback	16,964
Feedback via letter	72
Total feedback items	17,036

84 individuals did not provide an address or location

Top 25 locations by feedback numbers – as summarised by GAL (Note: the sections highlighted illustrate 90% of the correspondents came from these locations/)				
Location	Complaints	Individual addresses (email & postal)	Average complaints per address (as calculated by the CAA)	Cumulative % of correspondents (as calculated by the CAA)
Horley	4,858	695	7.0	36%
Newdigate	1,577	248	6.4	49%
Outwood	3,512	201	17.5	59%
Salfords	1,127	158	7.1	67%
Capel	706	116	6.1	73%
Sidlow	541	65	8.3	77%
Meath Green	1,048	47	22.3	79%
Beare Green	89	41	2.2	81%
Norwood Hill	419	39	10.7	83%
Reigate	316	34	9.3	85%
Leigh	425	30	14.2	87%
Redhill	80	23	3.5	88%
Crowhurst	39	18	2.2	89%
South Holmwood	244	15	16.3	89%
Mynthurst	125	15	8.3	90%
Brockham Park	680	9	75.6	91%
Holmwood Common	38	8	4.8	91%
Brockham	799	6	133.2	91%
Betchworth	94	6	15.7	92%
Horsehill, Horley	36	6	6.0	92%
South Godstone	24	6	4.0	92%
Coldharbour	18	6	3.0	93%
Dorking	12	5	2.4	93%
Haywards Heath	4	4	1.0	93%
North Holmwood	5	2	2.5	93%

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

Location (and number of correspondents)	Typical altitude of aircraft based on a review of radar track diagrams	Description of modified RNAV traffic pattern – does the pattern give an indication why the complaints have arisen?
Horley (695)	Most aircraft are above 4000ft by Horley. Aircraft are typically in the range of 5,000-7,000ft.	It is apparent that Horley is overflown more often than during the period of the original RNAV SID or the original conventional SID, principally by aircraft that have clearly been vectored from the SID and are heading eastwards. The concentrated pattern of traffic that remains on the SID has moved to the NPR centreline (i.e. southwards) and is therefore closer to, but not above, Horley. For these two reasons, Horley (particularly the north side of the town) is likely to experience an increase in noise and residents are likely to feel they are overflown more since the implementation of the modified RNAV SID. Horley is affected by an apparent increase in tactically vectored traffic overflying that location. For this location, Note: following advice from GAL that they have engaged with the air traffic service provider (NATS LTC) the number of tactically vectored aircraft that overfly Horley appears to have reduced. This is evident in the data provided by GAL in February 2017 and can be seen in the data provision section of the website.
Newdigate (248)	Most aircraft are below 5000ft at Newdigate, with many of those also below 4000ft. Further details of the altitude of aircraft at this location is provided in the gate analysis at Annex M	Since the implementation of the modified RNAV SID, there is degree of dispersion of traffic at Newdigate that is comparable with the dispersion evident from the original conventional SID. However, Newdigate was clearly overflown less often during the period of the original RNAV SID when traffic displayed a more concentrated pattern around the turn, further away from Newdigate, focused on the outer edge of the NPR monitoring swathe.