



Methodology for determining mean tracks for the Route 4 CAP 1616 baseline

Request to CAA

For determining mean tracks for the baseline / do-nothing option, Gatwick propose to use the actual mean tracks generated in the period 25/02/2021 to 23/06/2021 that have passed the gate abeam the ACORN reporting point as per attached graphic. For the traffic volume and aircraft mix, Gatwick propose to use the actual traffic volumes generated during summer 2019. Gatwick propose that the combination of these two metrics would provide the most appropriate and representative baseline upon which to base a do-nothing / do minimum than the current actual traffic, which is heavily impacted by COVID disruption.

Question: *Does CAA support this approach to determining the baseline / do-nothing option for the purpose of conducting an environmental impact assessment?*

CAA Response

The Gatwick Route 4 RNAV SID was withdrawn from the UK AIP on 25 February 2021, with departures from this date reverting to the re-published Route 4 conventional SID taking into account current design standards and obstacle data. Consequently, there is no pre-pandemic track data for the re-published Route 4 conventional SID.

Gatwick Airport Limited (GAL) began collecting Route 4 track data from 25 February 2021 and by 23 June 2021 had collected around 400 tracks, equivalent to 4% of the 11,000 tracks used in summer 2019 to generate an average summer day RNAV Route 4 mean track centreline.

GAL presented data to show that the uncertainty of the position of the Route 4 mean track and track dispersion around the centreline calculated from smaller samples of the summer day 2019 RNAV Route 4 data result in noise changes of less than 0.1 dB L_{Aeq16h} , compared to using the full summer 2019 period sample of tracks. We agree with the analysis and GAL's proposal that it is acceptable to define a Route 4 Baseline/Do-Nothing mean track and dispersion using this method in this instance.

GAL's analysis has also highlighted that the position of the Conventional Route 4 mean track in 2021 and the dispersion around the mean track is affected by ATC vectoring that has increased as a result of the drop in traffic levels due to Covid-19, that has enabled ATC to vector more departures off the Route 4 SID above 4,000 ft in order to give more efficient tactical headings. As traffic levels recover, the scope to vector traffic off the Route 4 SID will reduce and thus this needs to be taken into account when defining the Route 4 mean track Baseline.

We agree with GAL's approach to isolate vectored flights using the 'gate' at ACORN and to then readjust the number of vectored tracks in the 2021 traffic sample down to 2019

proportions, north and south of Route 4, such that the calculated mean track and dispersion will be representative of vectoring and traffic levels closer to 2019 traffic levels.

Regarding traffic levels for use in assessing Route 4 options (including WebTAG assessment), we further welcome GAL's proposal to use 2019 traffic volumes and the 2019 aircraft fleet mix in their CAP 1616 noise assessment.

Chief Technical Noise Advisor

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