

GAL Response to the Report on the CAA's Decision on the Post Implementation Review of London Gatwick's Airspace Change Proposal – Runway 26 Route 4 RNAV-1 Standard Instrument Departure Procedures (CAP 1912)

Summary

GAL intends to comply with the Route 4 temporary RNAV-1 SID de-notification requirements as set out in CAP1912, the CAA's decision on the Post Implementation Review (PIR) of the Runway 26 Route 4 RNAV-1 Standard Instrument Departure (SID) Procedures Airspace Change Proposal (ACP). GAL will enact the required changes as promptly as is possible in the current circumstance and will advise the CAA of the final withdrawal date from the UK AIP of the Route 4 RNAV-1 SIDs.

Notwithstanding that this decision relates only to the 2016 RNAV-1 SIDs, as separately recommended in CAP1912, GAL will address Route 4 Noise Preferential Route (NPR) definition and alignment with the DfT.

GAL welcomes that the CAA has acknowledged its feedback to CAP1872 and has requested that implementation of these changes is best executed through the AIRAC cycle rather than initially declaring the routes 'not available' through the NOTAM system. This will ensure that the Route 4 SIDs and departure procedure information used by air traffic control, airlines and flight planning operational systems will be consistent.

GAL has acted immediately to engage with the relevant air navigation service providers (ANSPs), ANSL and NATS. However, given the delay in the publication of the decision and due to the impact of COVID-19, the deployment of the required changes is simply not possible in the timescales set out by the CAA. Therefore, this note below sets out the indicative plan, agreed with our ANSPs, to implement the changes required by CAP 1912.

Context

It is important to note that since their introduction, the Route 4 RNAV SIDs at Gatwick have been the basis of organic change to ATC operations and the underlying ATM network. Conversely, the Conventional SIDs have not been developed in the same way and, whilst maintained as compliant routes they have remained unchanged, used only as an alternative solution when airlines are unable to accept an RNAV SID departure due to limits in aircraft capability or performance. This situation presents many issues, in the context of the CAP1912 decision, as the Conventional SIDs are not simple like for like replacements for the RNAV SIDs.

Operational Assessment and Limitations

The request by the CAA for withdrawal of the Route 4 Temporary RNAV (R4TR) SIDs by AIRAC 11/2020 (promulgation on 8th October 2020) is unfeasible due to several important factors, the most prevalent being:

- NATS AIRAC Capacity and Associated Resource:** NATS only perform four NAS (National Airspace System) AIRAC updates per annum. The May 2020 NAS AIRAC drop was postponed, and the content deferred to the September NAS build. As a result, the capacity in the September build is now very limited. On the evidence of our discussions with NATS, given the complexity and heavy load on the September NAS build, the associated timescales to document, test and deploy the R4TR change before the associated deadlines is unachievable. The next available NAS AIRAC 'drop' is planned for December.
NATS have implemented an extensive furlough program due to COVID-19. In addition to this, there is no planned NAS build for October which further increases the risk and potential workload impact at NATS. These factors pose significant challenges to NATS being able to comply with the AIRAC 11/2020 deadline.
- ANSL & GAL Safety work:** There are known, and industry acknowledged, issues¹ with the RNAV overlay coding of the Conventional Route 4 SIDs at Gatwick. The initial ANS safety assessment identified that airline collaboration is required to investigate how Route 4 SIDs would be flown, how to standardise performance across different airlines and to mitigate related safety risks, such as reduced separation due to a following aircraft catching up the one in front. Gaining access to airline subject matter expertise has now become a significant challenge given the COVID-19 impact on airlines.

Implementation

GAL proposes that in addition to and as part of the withdrawal of the Route 4 temporary RNAV SIDs, an assessment of airline performance in the initial turn for Conventional Route 4 SIDs is conducted and resulting mitigations implemented to alleviate performance risks identified by ANSL.

Additionally, GAL proposes to truncate the CLN and DVR Conventional SIDs as part of this process to ensure seamless integration of legacy Conventional SIDs into the London Terminal Manoeuvring Area (TMA), thus avoiding future operational issues and interventions when the traffic levels in the TMA normalise.

We believe that this scope provides the safest, most orderly and long-term efficient means of compliance with R4TR SID removal requirements as outlined within CAP1912.

We estimate that, depending on timely CAA approval of this work, all the necessary SID changes could be implemented by AIRAC 02/2021 (promulgation 25/02/2021).

The proposed truncations (which require no changes to lateral track or vertical profile) are described in more detail below:

CLN SID: The Conventional CLN SIDs, for runways 26 and 08, would be truncated to DET R013/D5 and a new SID created (equivalent position to RNAV SID FRANE), allowing for the full network connectivity and environmental benefits of SID truncation to remain (as per RNAV environment).

¹ Identified risks include performance in the initial turn, deviation from NPR and the associated impacts.

DVR SID: The Conventional DVR SIDs, for runways 26 and 08, would be truncated to a common radius from DVR at the 6,000ft point (DVR D33). This would also result in a minor realignment of the Y312 and Y311 airways, but full network connectivity and environmental benefit would remain (as per the RNAV environment).

LAM SID (optional): There is an opportunity to truncate the LAM Conventional SID at LAM D10, but this is optional and whilst not fundamental to overcome the issues of the withdrawal of the R4TR SIDs would significantly enhance network connectivity. LAM Conventional SID does not create the same traffic integration challenges as the untruncated CLN and DVR SIDs.

Retention of the BIG 2X SID for positioning flights only

GAL proposes that BIG 2X RNAV SID is retained for use by flights which position from Gatwick to Heathrow or Northolt. The aircraft fly a tailored ATC positioning procedure, which is highly specialised and otherwise inherently workload intensive. In pre-COVID operations, the total traffic volume using this route amounted to approximately 8 aircraft per month.


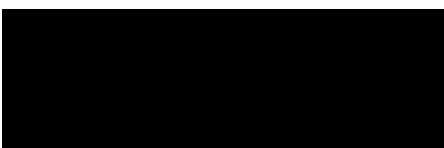
A number of alternatives have been considered but it is estimated that all would require significant additional development work, from ACP to ATC procedure rework, further delaying the implementation deadline.

Conclusion

The ATM systems adaptation, operational safety issues and requirements outlined in the response to the draft CAP1872 by GAL, ANSL and NATS have not been given sufficient recognition by the CAA in CAP1912. Implementation at AIRAC 11/2020 was an option when the original responses to CAP1872 were submitted to the CAA on 3 February 2020. As the consideration of responses and the consequent publication of CAP1912 has taken a further 3 months, the timescales now require further assessment and as such our conclusions are based on this. The impact of COVID-19 has been taken into account and is reflected in the plan set out above.

GAL is acting now to implement the required changes, but this is not achievable by the date proposed in CAP1912. GAL will aim to deliver the necessary changes in line with the plan outlined above but this will be subject to the active support of our ANSPs and airlines. GAL seeks the support of the CAA in retaining, if necessary, the BIG 2X RNAV SID which is to be used only by positioning flights.

Yours sincerely



Regulatory Lead
Gatwick Airport Ltd