

10 October 2015

Stewart Wingate
Chief Executive Officer
Gatwick Airport Limited

By E-Mail : stewart.wingate@gatwickairport.com

Dear Stewart,

**August 2013 Airspace change introducing RNAV SIDs at Gatwick Airport.
Stage 7 CAA ACP process - Conclusions of Post-Implementation Review
Requirements for further action by GAL**

I write further to my letters dated 28 September 2015 and 1 October 2015.

As indicated in my letter dated 1 October 2015 the CAA's PIR conclusions include further requirements relating to the conventional SIDs.

It was a requirement of the original decision that:

- GAL carried out a review of the existing conventional SIDs; and
- GAL submitted a revised proposed design to SARG IFP for approval by 31 January 2014.

This work has not been completed.

It is also an ICAO requirement, as set out in CAP 785, Section 4, paragraph 1.2 that all IFPs are reviewed on a 5-yearly basis. The 5-year review of these conventional SIDs is now overdue.

The work carried out by the CAA when conducting the PIR has hi-lighted the urgency that this work is carried out without delay. One reason for this is that the RNAV SIDs are designed to replicate the nominal track of the conventional SID and any reviews to the design of the conventional SIDs that are necessary must be taken into account when preparing modified designs to Routes 2, 4 and 5 as required by the CAA in its letter dated 28 September 2015.

GAL is therefore required to take the following steps:

1. Route 4

Review the conventional SIDs and submit a revised design to SARG IFP within 3 months.

2. Routes 2 and 5

Review the conventional SIDs and submit a revised design to SARG IFP within 6 months.

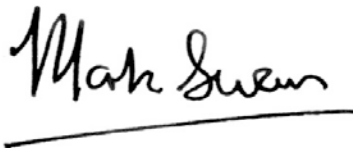
3. Routes 1,3,6,7,8,and 9

Seek the CAA's agreement to withdraw the conventional SIDs (such that they will no longer be published in the AIP) within 6 months or review the conventional SIDs and submit a revised design to SARG IFP within 6 months.

Information on what this review is required to include is set out in the attachment.

As previously advised a detailed report on the PIR will be sent to you and then published in due course.

Yours sincerely

A handwritten signature in black ink that reads "Mark Swan". The signature is written in a cursive style and is underlined with a single horizontal line.

Mark Swan
Group Director Safety and Airspace Regulation

Attachment to CAA letter dated 10 October 2015 containing further requirements for Gatwick resulting from the CAA's PIR of the August 2013 decision to introduce RNAV SIDs at Gatwick

REQUIREMENTS RE CONVENTIONAL SIDs AT GATWICK

Existing Conventional SIDs

During the PIR analysis of both the RNAV 1 and conventional SIDs it has become apparent that the lack of speed constraints other than a generic max 250 KIAS below FL100 on the conventional SIDs is a cause of deviation from the nominal track of the SIDs and from the NPR swathe in the case of Route 4.

Review of existing Conventional SIDs

In the UK the CAA has implemented an ICAO requirement where all IFPs published in the UK AIP are required to be reviewed on a 5 yearly basis. This review is where the procedure design criteria, obstacles data, altitude and speed restriction, magnetic variations data, noise abatement and airspace containment requirements and any other operational requirements are assessed and the outcome incorporated into the design to ensure the IFP continues to be fit for purpose.

Any conventional SIDs which are to be retained by GAL are required to be reviewed in accordance with the above, as the 5 year periodic review is now due on all of the Gatwick conventional SIDs.

Route	SID/ Data used during analysis	Issue	SARG IFP Requirements or Recommendations to meet the CAA PIR requirements specified in letter dated 10 October 2015
Routes 1,3,6,7, & 9	See full document referred to in foot note	GAL has not reviewed the conventional SIDs designs in accordance with the CAP 785 yearly requirement GAL has not completed the review of the conventional SIDs required as a condition of the decision to implement RNAV SIDs at Gatwick in August 2013	Within 6 months (a) the CAA must receive a request for the CAA's agreement to withdraw the conventional SIDs (such that they will no longer be published in the AIP); or (b) GAL is required to review the conventional SIDs and submit a revised design to SARG IFP. GAL is required to review and assess the procedure design criteria, obstacles data, altitude and speed restriction, magnetic variations data, noise abatement and airspace containment requirements and any other operational requirements and the outcome incorporated into the design to ensure the IFP continues to be fit for purpose
Route 2 only	Rwy 08 SFD 08SFD	See issue above for Routes 1,3,6,7 & 9 AND attachment to CAA letter dated 1 October 2015	GAL is required to review and assess the procedure design criteria, obstacles data, altitude and speed restriction, magnetic variations data, noise abatement and airspace containment requirements and any other

Based on extracts from SARG IFP recommendations document v2.10 (1 SEP 15)

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Route	SID/ Data used during analysis	Issue	SARG IFP Requirements or Recommendations to meet the CAA PIR requirements specified in letter dated 10 October 2015
Route 2 only (cont)	Altitude Bands. & Density Ppttx ERCD 08SFD Speed _ Data+ Wind Analysis		operational requirements and the outcome incorporated into the design to ensure the IFP continues to be fit for purpose, and submit a revised design to SARG IFP, within 6 months CAA recommends GAL investigate applying a max 220KIAS speed constraint to SFD D21 and max 250KIAS to SFD D17 as part of its review of the conventional SIDs.
Route 4 only	Rwy 26 LAM/ CLN/ DVR/ BIG 26LAM Altitude Bands. & Density Ppttx ERCD Route 4 Ground Speed analysis+ Wind data v2	See issue above for Routes 1,3,6,7 & 9 AND attachment to CAA letter dated 1 October 2015	GAL is required to review and assess the procedure design criteria, obstacles data, altitude and speed restriction, magnetic variations data, noise abatement and airspace containment requirements and any other operational requirements and the outcome incorporated into the design to ensure the IFP continues to be fit for purpose, and submit a revised design to SARG IFP, within 3 months During the review of the conventional SIDs it is recommended that GAL consider speed constraints (as required) be applied to the SIDs. This is to overcome the fact that the only speed constraint on the conventional SIDs is a maximum 250 KIAS below FL100. In CAA's view this will ensure better track adherence especially before, during and after any turns. Any changes to the RNAV 1 SIDs proposed in the modified RNAV SID designs submitted to CAA in respect of the requirement in CAA's letter dated 28 September 2015 should be based on the revised conventional SID for replication purposes. The SID validation requirements and note regarding CAA liaison with the Approved Procedure Designer engaged by GAL also apply to the CAA's conventional SID requirements

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Route	SID/ Data used during analysis	Issue	SARG IFP Requirements or Recommendations to meet the CAA PIR requirements specified in letter dated 10 October 2015
Route 5 only	Rwy 08 DVR/ CLN/ BIG 08CLN Altitude Bands. & Density Pptx	See issue above for Routes 1,3,6,7 ¹ & 9 AND attachment to CAA letter dated 1 October 2015	GAL is required to review and assess the procedure design criteria, obstacles data, altitude and speed restriction, magnetic variations data, noise abatement and airspace containment requirements and any other operational requirements and the outcome incorporated into the design to ensure the IFP continues to be fit for purpose, and submit a revised design to SARG IFP, within 6 months
Route 8 only	Rwy 26 SFD 26SFD Altitude Bands. & Density Pptx	The concentrations of flight tracks into a narrower swathe can be seen with the RNAV 1 SID as compared to the conventional SIDs. Due to the speed restriction of 220KIAS max up to KKW11 the track to the centre of the NPR between KKW06 and KKW11 is better than on the conventional SID for the same segments. This SID is used for night operations instead of BOGNA SID.	If the CAA has not received a request for the CAA's agreement to withdraw the conventional SIDs (such that they will no longer be published in the AIP) within 6 months, GAL is required to review the conventional SIDs and submit a revised design to SARG IFP within 6 months. GAL is required to review and assess the procedure design criteria, obstacles data, altitude and speed restriction, magnetic variations data, noise abatement and airspace containment requirements and any other operational requirements and the outcome incorporated into the design to ensure the IFP continues to be fit for purpose During the review of the conventional SIDs it is recommended that GAL consider that speed restrictions of max 220KIAS at I-WW D6.8 and SFD D25 be introduced.