



Civil Aviation Authority
INFORMATION NOTICE
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NATS VOR Replacement Programme

This Information Notice contains information that is for guidance and/or awareness.

Recipients are asked to ensure that this Information Notice is copied to all members of their staff who may have an interest in the information (including any 'in-house' or contracted maintenance organisations and relevant outside contractors).

Applicability:	
Aerodromes:	All Aerodrome Operators
Air Traffic:	All ATS
Airspace:	All NATMAC Representatives
Airworthiness:	Not Primarily Affected
Flight Operations:	All AOC Holders and General Aviation Pilots
Licensed/Unlicensed Personnel:	Not Primarily Affected

1 Introduction

- 1.1 NATS has historically operated 46 Doppler VHF Omni Range (DVOR) navigation beacons across the UK to provide an en-route navigation service as either stand alone beacons or, more commonly, co-located with Distance Measuring Equipment (DME) beacons. The age of these facilities means that either replacement or withdrawal has become necessary. In line with the ECAC-wide Navigation Strategy and following the extension of the mandate for the carriage of RNAV equipment to all levels in controlled airspace, the CAA gave approval in principle for the reduction of the VOR infrastructure from 46 to 19 sites. The facilities at the sites identified for retention will gradually be replaced with new equipment and each replacement will result in a period of approximately three months when the facility is unavailable for use.

2 Scope

- 2.1 NATS have identified the first VORs to be replaced under this programme and the work started in April 2014. The replacement of Otringham (OTR), Berry Head (BHD) has been completed and work on Lands End (LND) is currently under way with a target completion date of 31 July 2015. Each replacement is subject to an impact assessment.
- 2.2 The next facility to be replaced is Talla (TLA) with work due to commence on 9 June 2015 and a target date for completion of 9 September 2015. The following points have been identified in the relevant Impact Assessment and should be noted by all airspace users:
 - There are a number of promulgated ATS routes detailed in the UK AIP that are based on the TLA VOR. All of these routes are within airspace where the carriage of RNAV 5 equipment is mandatory and therefore the unavailability of the VOR will only reduce levels of redundancy and will have minimal impact on these routes.

- Edinburgh Airport – The impacts on Edinburgh's operations during the replacement of TLA VOR will be:
 - The loss of track guidance on the TALLA SIDs (AD 2-EGPH-6-2) currently provided by TLA R026 and R347.
 - Loss of track guidance on the RW24 GRICE SID (AD 2-EGPH-6-3) which is based on TLA R353 and R348.
 - The TWEED holding fix (AD 2-EGPH-7-2) is defined by TLA R016.5 D11 which will not be available for the duration of the VOR replacement. The STAR chart (AD 2-EGPH-7-2) has a contingency hold at the EDN NDB to cater for the TLA VOR or DME being unavailable. It should be noted, however, that during the period 3-28 February 2014 when the TLA VOR and DME were not available due to failures and inability to visit the site due to adverse weather, there was little operational impact on the airport. The contingency holds on the EDN NDB were not used, the mitigation implemented at Prestwick centre being to clear aircraft to TARTN on own navigation and the TWEED hold being flown by aircraft overlay coding with ATC radar monitoring.
 - There are a number of Edinburgh VRPs that reference radio fixes from TLA and these will not be available during the replacement of the TLA VOR.

NATS General Manager Edinburgh has agreed that the impacts on the airport operations during the replacement of the TLA VOR can be mitigated by the unit.

- Glasgow Airport – The truncation of the TLA Jet SID at NORBO in 2014 has removed the impact of TLA not being available on Glasgow departures. The impacts on other aspects of Glasgow's operations during the replacement of the TLA VOR will be:
 - LANAK STAR where TLA R304 defines the entry to the hold (the Holding Fix itself being defined by GOW R124 D20). It is proposed that this could be mitigated by the LANAK hold entry being temporarily defined by GOW VOR R124 during the replacement period as this may be of lower impact than aircraft holding at GOW VOR or GLW NDB as depicted on the LANAK STAR chart.
 - If the GOW VOR or DME is unavailable, the LIBBA hold will not be available for the duration of the TLA VOR replacement. It should be noted however that during the extended unavailability of the TLA VOR and DME in February 2014 there were no operational issues experienced as mitigation was provided by Prestwick centre.
 - There are a number of Glasgow VRPs that reference radio fixes from TLA VOR. These will not be available during the replacement of the TLA VOR.

NATS Manager ATC at Glasgow has agreed that the impacts on the airport's operations during the replacement of the TLA VOR can be mitigated by the unit.

- Prestwick Airport – The Manager ATC at Prestwick Airport has confirmed that the unavailability of the TLA VOR and DME during the replacement period will not present an issue to the operation of Prestwick Airport.
- Air Transport Operators – The mitigations required to minimise the impact of the unavailability of the TLA VOR and DME during the replacement period will not implement any novel applications and do not require any additional aircraft capability as:
 - RNAV 5 is mandated within the UK at all en-route levels.
 - There are currently no promulgated RNAV 1 procedures in the area impacted by the TLA VOR replacement.
 - The lower portions of SIDs which have been truncated remain unchanged and are defined by the remaining conventional nav aids.