



# **CAP 1781 DVOR / DME / NDB Rationalisation: Guidance for the use of RNAV Substitution**

Your questions answered

---

## ***1. What is CAP 1781?***

CAP 1781 is the CAA Guidance for the Use of RNAV Substitution and has been produced in support of a programme of airspace modernisation in the UK. NATS has embarked on proposals for significant airspace changes in Scotland, the North of England and the South-East of England, and aerodromes are developing complementary plans providing connectivity with the Network.

Ahead of airports introducing permanent airspace changes utilising PBN, CAP 1781 details a method of mitigation for continued use of conventional instrument flight procedures, in lieu of radiating navigation facilities as well as suggestions of other mitigating actions.

[CAP 1781b](#) is a companion to the guidance outlined in CAP 1781 and contains an Example Safety Approach which may be considered in the application of RNAV Substitution.

## ***2. Are PDRs or SDRs candidates for RNAV Substitution as detailed in CAP 1781?***

No. Preferential Routes (PDR) and Standard Routes (SDR) are not considered as being part of the Instrument Flight Procedures (IFP) family. Therefore, these procedures have not been designed or obstacle assessed using PANS-OPS design criteria nor are they periodically reviewed as per the IFP safeguarding and Periodic Review process and requirements defined by the CAA.

As these procedures are not provided as coded overlay procedures within a generic navigation database, we consider that they are not in scope of RNAV Substitution and the next version of CAP 1781 will be updated to reflect this.

Aerodromes with PDRs and SDRs should investigate all possible and available options including but not limited to reliance on different nav aids or implementation of Omnidirectional Departures or Standard Instrument Departures (SIDs), to ensure their operations will remain safe for aircraft. To implement any new departure procedures, a sponsor would need to go through the airspace change process (as detailed in CAP 1616) to ensure that the best solution for the circumstances is proposed.

**3. Can a SID be replaced by an Omnidirectional Departure to remove a dependency from a ground-based Navaid?**

Yes, an Omnidirectional Departure could be used to replace a SID, if it is an appropriate solution for the circumstances. As SIDs create a connected route between an aerodrome and an ATS route, it is recommended that a sponsor engage with the CAA to discuss the potential implications of replacing a SID with an Omnidirectional Departure. To implement any new departure procedures, a sponsor would need to go through the airspace change process (as detailed in CAP 1616) to ensure that the best solution for the circumstances is proposed.

**4. What is the mechanism to redefine an existing Instrument Flight Procedure using a different conventional navaid?**

Aerodromes will have to contract an [Instrument Flight Procedure Design Service Provider](#), (referred to as [Approved Procedure Design Organisation \[APDO\] in the UK](#)), to assess whether it is feasible to redefine the procedure using a different conventional navigation aid. If there is a negligible impact at the aerodrome, we consider that a Periodic Review (as part of the IFP review process) may be used as the mechanism to amend the procedure.

**5. What happens if an Airspace Change Proposal (ACP) or other mitigating action cannot be completed in time to remove the dependency from the NAVAID that is being removed?**

In the letter to aerodromes affected by the DVOR rationalisation programme, NATS enroute Ltd. (NERL) indicated that they would have removed all enroute dependencies from the affected NAVAIDs by the end of 2022 and that they are willing to engage on potential service extension of these NAVAIDs through appropriate commercial arrangements. NERL highlighted that as many facilities are at, beyond, or reaching, their declared end of life any commercial arrangements outside of replacement would be limited to a 'reasonable endeavours' basis.

**6. Is CAP 1781 an alternative to the Airspace Change Process (CAP 1616)?**

No, CAP 1781 provides guidance to sponsors on what options there are to mitigate the removal of a NAVAID on which they have instrument flight procedures predicated. If a potential solution to remove the dependency from a NAVAID is one that requires a change to the published airspace design, a sponsor will need to either go through the IFP Periodic Review process or the CAP 1616 process to enable this change to be made. This includes proposals for RNAV Substitution which will be scaled as a Level 2C change in the CAP 1616 Airspace Change Process as the proposed change should not change aircraft behaviour or tracks over the ground.

**7. What needs to be considered when looking at dependencies on a NAVAID?**

An Impact Assessment will be required to assess the potential impacts of the removal of the NAVAID. Page 16 of CAP 1781 provides a summary of the materials that will need to be reviewed as part of the Impact Assessment of the removal of the NAVAID.

***8. When is CAP 1926 going to be published?***

This CAP is planned to be published before the end of January 2022 which will detail guidance to operators on the use of RNAV Substitution.

***9. The procedure we are considering for RNAV Substitution passes through a navigation aid scheduled to be decommissioned and not used by any other aerodrome. Can the waypoint be renamed using a 5LNC as part of the RNAV Substitution procedure?***

No, this is outside the scope of CAP1781 and another ACP will be required to amend the 3 letter code to 5LNC with a redesign of the IFPs based on PBN.