

## **DATABASE INTEGRITY CHECKING GUIDELINES (compliance with JAA TGL10)**

For the purposes of precision navigation, TGL10 lays down specific guidelines with regard to the need for integrity checking of the navigation database. The requirements are set out in para. 10.6 and are reproduced in full below.

10.6.1 The navigation database should be obtained from an approved supplier who has complied with EUROCAE ED-76/RTCA DO-200A Standards for Processing Aeronautical Data.

10.6.2 Until such approved suppliers become available, prior to the date of the effective navigation data, as a minimum, the Operator must implement navigation database integrity checks using appropriate software tools or approved manual procedures to verify data relating to waypoints below the minimum applicable obstacle clearance altitude. Such checks are in addition to any checks previously performed by the Aeronautical Information Service, unapproved navigation database suppliers or navigation equipment manufacturers. The integrity checks need to identify any discrepancies between the navigation database and the published charts/procedure. Integrity checks may be performed by an approved third party.

*Note: For the purposes of the check, the term 'minimum obstacle clearance altitude' may be interpreted as the relevant 'Minimum Safe Altitude (MSA)' for the P-RNAV procedure.*

Once a database supplier has been approved in accordance with para. 10.6.1, then the Operator is not compelled to carry out its own database checking in order to demonstrate compliance with TGL10.

However, if a database is purchased from a non-approved supplier, an Operator has to demonstrate compliance using para. 10.6.2. This could become an unmanageable, time-consuming and costly exercise.

EUROCONTROL has recognised that such a burden may be unacceptable for some Operators and has therefore examined the minimum checks necessary to comply with para. 10.6.2 and has developed a process (shown in the flowchart which follows) which could be used as a guide to help Operators demonstrate such compliance.

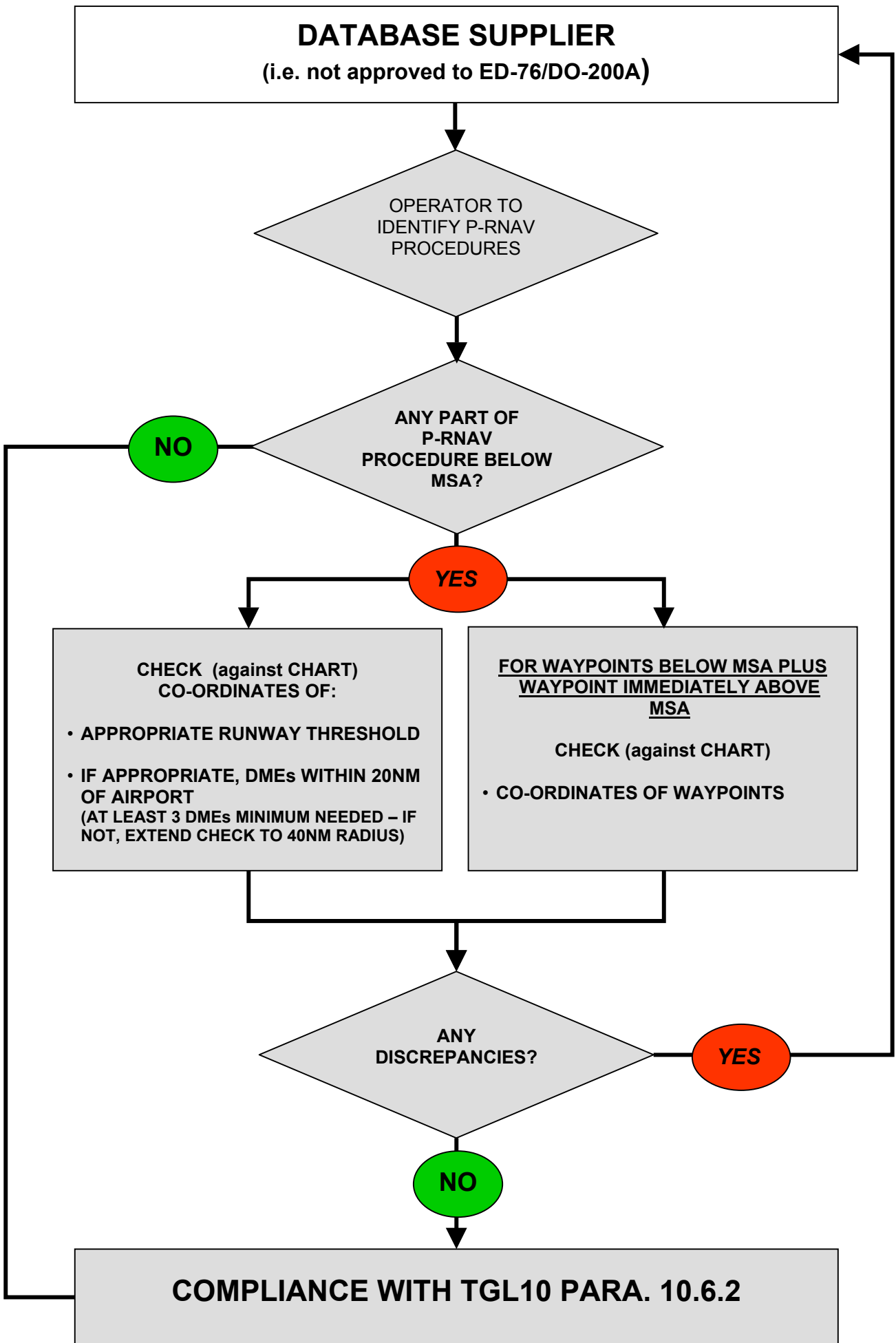
*Note: Operators are reminded that AMC OPS 1.035 to JAR-OPS Quality Systems requires audits to ensure safe operational practices. Such audits should monitor the quality of received data, but need not be carried out as frequently as each 28-day AIRAC cycle. This requirement applies whether or not data is purchased from a supplier approved in accordance with ED-76/DO-200A.*

### **IMPORTANT CAVEATS**

OPERATORS SHOULD NOTE THAT THIS FLOWCHART IS PRODUCED SOLELY AS GUIDANCE WHICH MAY ASSIST WHEN SETTING UP A DATA CHECKING PROCESS.

OPERATORS ARE REMINDED THAT ACCEPTANCE OF ANY OPERATOR'S DATA INTEGRITY CHECKING PROCESS REMAINS UNDER THE FULL JURISDICTION OF THE APPROPRIATE STATE REGULATION AUTHORITY. CONSEQUENTLY, OPERATORS ARE STRONGLY RECOMMENDED TO SEEK GUIDANCE FROM THAT AUTHORITY BEFORE COMMITTING RESOURCES TO THE CHECKING PROCESS.

ATTENTION IS ALSO DRAWN TO TGL10 Para. 10.2 NORMAL PROCEDURES, WHICH DETAILS THE REQUIREMENTS TO BE CARRIED OUT BY OPERATORS AND PILOTS BEFORE A P-RNAV PROCEDURE IS PLANNED OR FLOWN. AGAIN, THE REQUIREMENTS OF PARA. 10.2 APPLY TO ALL SITUATIONS (i.e. WHETHER OR NOT DATA IS PURCHASED FROM A SUPPLIER APPROVED IN ACCORDANCE WITH ED-76/DO-200A).



**DATABASE SUPPLIER**  
(i.e. not approved to ED-76/DO-200A)

OPERATOR TO IDENTIFY P-RNAV PROCEDURES

ANY PART OF P-RNAV PROCEDURE BELOW MSA?

NO

YES

CHECK (against CHART) CO-ORDINATES OF:

- APPROPRIATE RUNWAY THRESHOLD
- IF APPROPRIATE, DMEs WITHIN 20NM OF AIRPORT (AT LEAST 3 DMEs MINIMUM NEEDED - IF NOT, EXTEND CHECK TO 40NM RADIUS)

FOR WAYPOINTS BELOW MSA PLUS WAYPOINT IMMEDIATELY ABOVE MSA

CHECK (against CHART)

- CO-ORDINATES OF WAYPOINTS

ANY DISCREPANCIES?

YES

NO

**COMPLIANCE WITH TGL10 PARA. 10.6.2**