



Barbados Civil Aviation
Department

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AIRWORTHINESS

ADVISORY

CIRCULAR

**VISUAL OMNIDIRECTIONAL RADIAL (VOR)
EQUIPMENT CHECK FOR IFR OPERATIONS**

VISUAL OMNIDIRECTIONAL RADIAL (VOR) EQUIPMENT CHECK FOR IFR OPERATIONS

1. Purpose.....	Page 1
2. References	Page 1
3. Background	Page 1-2
4. VOR EQUIPMENT CHECK FOR IFR OPERATIONS.....	Page 2-3

1. PURPOSE.

This Operations Advisory Circular (OAC) alerts the aviation community to the procedures and the requirement for periodically checking the aircraft VOR equipment for accuracy during IFR operations. The aviation community is advised that this will be a regulatory requirement upon the next revision to the Barbados Civil Aviation Regulations.

2. REFERENCES.

None:

3. BACKGROUND.

During a review of the current Barbados Civil Aviation (Aircraft Operations) Regulations 2007, specifically Part 8, Flight Rules, it was noticed that the requirement for periodically checking the installed aircrafts VOR equipment while operating under Instrument Flight Rules (IFR) was not included. This advisory is to inform those persons operating Barbados registered aircrafts under IFR of the pending revision to the current Barbados regulations as well as providing the procedures for checking the aircraft's equipment for IFR operations.

4. VOR EQUIPMENT CHECK FOR IFR OPERATIONS.

(a) Persons should while operating a Barbados registered civil aircraft under IFR using the VOR system of radio navigation should check that the VOR equipment of that aircraft—

(1) Is maintained, checked, and inspected under an approved procedure; or

(2) Has been operationally checked within the preceding 30 days, and was found to be within the limits of the permissible indicated bearing error set forth in paragraph (b) or (c) of this section.

(b) Except as provided in paragraph (c) of this section, each person conducting a VOR check under paragraph (a) (2) of this section shall—

(1) Use, at the airport of intended departure, an Barbados-operated or approved test signal or a test signal radiated by a certificated and appropriately rated radio repair station or, if outside of Barbados, a test signal operated or approved by an appropriate authority to check the VOR equipment (the maximum permissible indicated bearing error is plus or minus 4 degrees); or

(2) Use, at the airport of intended departure, a point on the airport surface designated as a VOR system checkpoint by the Barbados Director General, or, if outside of Barbados, by an appropriate authority (the maximum permissible bearing error is plus or minus 4 degrees);

(3) If neither a test signal nor a designated checkpoint on the surface is available, use an airborne checkpoint designated by the Director General or, if outside of Barbados, by an appropriate authority (the maximum permissible bearing error is plus or minus 6 degrees); or

(4) If no check signal or point is available, while in flight—

(i) Select a VOR radial that lies along the centerline of an established VOR airway;

(ii) Select a prominent ground point along the selected radial preferably more than 20 nautical miles from the VOR ground facility and maneuver the aircraft directly over the point at a reasonably low altitude; and

(iii) Note the VOR bearing indicated by the receiver when over the ground point (the maximum permissible variation between the published radial and the indicated bearing is 6 degrees).

(c) If dual system VOR (units independent of each other except for the antenna) is installed in the aircraft, the person checking the equipment may check one system against the other in place of the check procedures specified in paragraph (b) of this section. Both systems shall be tuned to the same VOR ground facility and note the indicated bearings to that station. The maximum permissible variation between the two indicated bearings is 4 degrees.

(d) Each person making the VOR operational check, as specified in paragraph (b) or (c) of this section, shall enter the date, place, bearing error, and sign the aircraft log or other record. In addition, if a test signal radiated by a repair station, as specified in paragraph (b) (1) of this section, is used, an entry must be made in the aircraft log or other record by the repair station certificate holder or the certificate holder's representative certifying to the bearing transmitted by the repair station for the check and the date of transmission.