





Federal Aviation Administration

Memorandum

Date: DEC - 8 2008

To: Danny E. Hamilton, Manager, National Flight Procedures Office, AJW-32
Wayne Fetty, United State Air Force Flight Standards Agency (AFFSA)
Walt Perron, United States Army Aeronautical Services Agency (USAASA)

Mark Brown, United States Naval Flight Information Group (NAVFIG)

From:  John W. McGraw, Manager, Flight Technologies and Procedures Division, AFS-400 

Subject: Clarification of Order 8260.3B, United States Standard for Terminal Instrument Procedures (TERPS), Paragraph 1750d

PURPOSE

This memorandum provides policy guidance for instrument procedure developers to clarify the intent of Federal Aviation Administration Order 8260.3B, United States Standard for Terminal Instrument Procedures (TERPS), paragraph 1750d.

BACKGROUND

The following question was raised by AJW Criteria Coordination Committee (CCC) issue 06-CCC-011:

The primary area obstacle clearance in paragraph 1750d(1) says to use the VOR airway criteria but the secondary area simply says "Add 1,000 ft for mountainous areas". 8260.3B, par 1750d(2) for secondary ROC should say the same thing as the primary area.

Subsequent to the last CCC discussion, this question was entered into the Flight Procedure Standards Branch, AFS-420, criteria issues tracking system, ClearQuest®, as issue "Prod 1255". See attachment 1 for the detailed history, discussion, and conclusion included in the resolution to issue "Prod 1255".

POLICY

The following clarification to paragraph 1750d(2)(c) is provided:

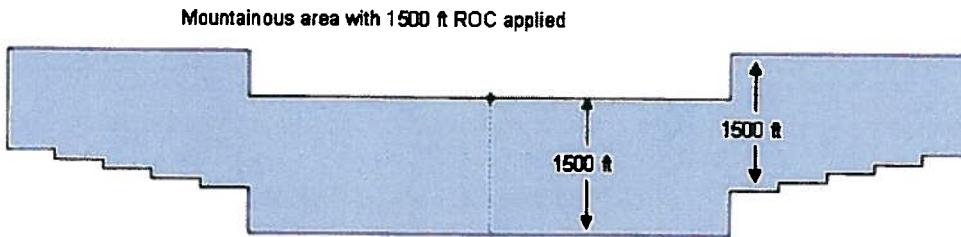
“(c) Obstacle clearance values shown in (a) and (b) above are correct for nonmountainous areas only. For areas designated as mountainous, add the applicable ROC increase. For example, when the mountainous ROC has not been reduced, add 1,000 feet. When

mountainous ROC has been reduced to 1,700/1,500 feet, add 700/500 feet to the (a) and (b) values.”

If you have any questions, please contact Mr. Thomas J. Nichols, Flight Procedure Standards Branch, AFS-420, at (405) 954-4164.

Attachment

Paragraph 1750d.(2)(c) is sufficient for the above application where 2000 ft of ROC is applied to the primary area over mountainous terrain. However, it's inadequate when ROC has been reduced to 1700 ft or 1500 ft since the requirement as written would still require adding a full 1000 ft to the basic secondary clearance. The following figure illustrates this problem when 1500 ft of ROC has been applied in the primary area.



Without any provision to reduce the addition of 1000 ft in the secondary area, the resultant MOCA could be as much as 500 ft greater than required. On the other hand, the criteria for VOR airways do contain provisions to reduce secondary ROC over mountainous terrain when the primary ROC has been reduced to less than 2000 ft:

1721. NOTE: Add an extra 1000 feet in mountainous areas except where MEAs in enroute airspace areas are reduced under the provisions of paragraph 1720. In these cases, where the primary area MOCA has been reduced to 1700 feet, add 700 feet to the secondary obstacle clearance, and where the primary area MOCA has been reduced to 1500 feet, add 500 feet to the secondary area clearance value.

The criteria for VOR secondary areas explicitly details reduced ROC requirements over mountainous areas where the primary ROC has been reduced to either 1700 ft or 1500 ft. Since LF/NDB airways/routes are authorized to reduce the primary ROC under the provisions of paragraph 1720 as well, it follows then that the secondary ROC should be adjusted to accommodate the reduction. The stair-step application of ROC over obstacles that penetrate the secondary plane of LF/NDB airways is slightly different than the application of VOR ROC, but the same principle can easily be applied. This can be done by either adding 700 ft or 500 ft (as appropriate) to the values specified for secondary penetrations in non-mountainous areas.

Conclusion. The intent of the current criteria is to apply an additional 1000 ft of secondary obstacle clearance only when the primary obstacle clearance is 2000 ft.

When primary obstacle clearance in mountainous areas has been reduced to 1700 ft, add 700 ft to the values specified in paragraphs 1750.d.(2) (a) and (b). When primary obstacle clearance in mountainous areas has been reduced to 1500 ft, add 500 ft to the values specified in paragraphs 1750.d.(2) (a) and (b).

FAAO 8260.3B, volume 1, paragraph 1750.d.(2) will be changed in a future revision to accommodate evaluation of LF/NDB airways where the primary obstacle clearance in mountainous terrain has been reduced to less than 2000 ft. This revision however, will require final approval from the US IFPP and may differ from this discussion.

AVN-100 CRITERIA COORDINATION COMMITTEE
HISTORY RECORD
Issue# 06-CCC-011

SUBJECT: NDB ROC in the secondary does not allow mountainous reduction.

BACKGROUND/DISCUSSION: The Primary area Obstacle clearance in, "paragraph 1750d (1)" says to use the VOR airway criteria but the Secondary area simply says, "Add 1000' for mountainous areas". 8260.3B, Par. 1750 d (2) for secondary ROC should say the same thing as the primary area.

RECOMMENDATION: Change the last sentence of 8260.3B, Par. 1750d.(2) (c) to read, " For areas designated as mountainous add 1000 feet, unless reductions as described in paragraph 1720 b (1) and (2) are used.

Submitted by: John Thompson

Branch: AVN-101

INITIAL DISCUSSION (May 8, 2006):

AFS-420 is reviewing this issue to determine if a change is required.

STATUS: OPEN

ACTION: AVN-101, AFS-420

MEETING (Jan 29, 2007):

AFS-420 will adjust criteria and incorporate in 8260.19D, change 21. Will move to tracking list

STATUS: OPEN/Tracking for publication

ACTION: AVN-101, AFS-420

MEETING (August 4, 2008):

AFS-420 (Jack Corman) took a tasker to bring an answer to the item publication status for the next CCC meeting.

STATUS: OPEN/Tracking for publication

ACTION: AFS-420