

AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 10-01 – April 2010

RECOMMENDATION DOCUMENT

FAA Control # 10-01- 229

Subject: Charting Approach Procedures Based On Order 8260.3B (TERPS), Change 20 for Continuous Descent Final Approach (CDFA) Harmonization

Background/Discussion: In 2005, the FAA and the European Joint Aviation Authority (JAA) agreed to impose a visibility penalty on operators who execute a non-precision approach without using a continuous descent final approach (CDFA) technique. This agreement was part of a larger process to harmonize low visibility operating minimums, which included the harmonized Minimum Visibility Values table (table 3-5a) contained in Order 8260.3B (TERPS), Change 20. This CDFA penalty has been implemented in the official journal of the European Union, and is also being incorporated in the European Aviation Safety Agency's Notice of Proposed Amendment 2009-02.

CDFA is a technique for flying the final approach segment of a non-precision instrument approach procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 50 ft above the landing runway threshold or the point where the flare maneuver should begin for the type of aircraft flown. A CDFA technique can be accomplished in many ways (flight path angle, fixed vertical speed, etc.). For all CDFA techniques, the pilot makes a decision to continue to landing or execute a missed at a specific altitude which prevents inadvertent descent below MDA, rather than leveling off at the MDA and flying to the published missed approach point. In this respect, a CDFA flight profile is similar to precision approach flight profile.

OpSpec C052 will require part 121, 125, 129, and 135 operators who do not use CDFA to add a visibility penalty when conducting non-precision approach operations with minima based on criteria in Order 8260.3B (TERPS), Change 20 (or later revision). When executing a non-precision approach without using a CDFA technique, the visibility/RVR minima is increased by 1/8 sm or 700 feet for CAT A and B aircraft, and increased by 1/4 sm or 1300 feet for CAT C and D to aid the visual transition to landing. Operators will need to be able to quickly and easily identify which procedures require the visibility penalty, and the only current charting distinction between Order 8260.3B (TERPS), Change 19, and Order 8260.3B (TERPS), Change 20 is the relatively subtle change from TDZE (touchdown zone elevation) and THRE (threshold elevation).

Recommendations: To assist in the rapid identification of procedures which require a visibility penalty for operators who do not use a CDFA technique, we propose that all procedures with one or more line of straight-in non-precision approach minima based Order 8260.3B (TERPS), Change 20 criteria display a CDFA icon in the chart notes. Circling-only approach procedures do not require this notation. This icon should be similar to the icons used to identify nonstandard takeoff or alternate minima, with a description of the iconography also added to the legend:



If required by OpSpec, MSpec, or LOA, add 1/8 sm or 700 ft to CAT A and B visibility/RVR minimums, and add 1/4 sm or 1300 ft to CAT C and D visibility/RVR minimums. Visibility penalty does not apply when using a continuous descent final approach (CDFA) technique.

Comments: This recommendation will affect all procedures with one or more line of straight-in non-precision approach minima based Order 8260.3B (TERPS), Change 20 criteria. A sample NACO approach charts showing a non-precision approach chart is attached to this recommendation document.

Submitted by: Kel Christianson

Organization: FAA / AFS-400

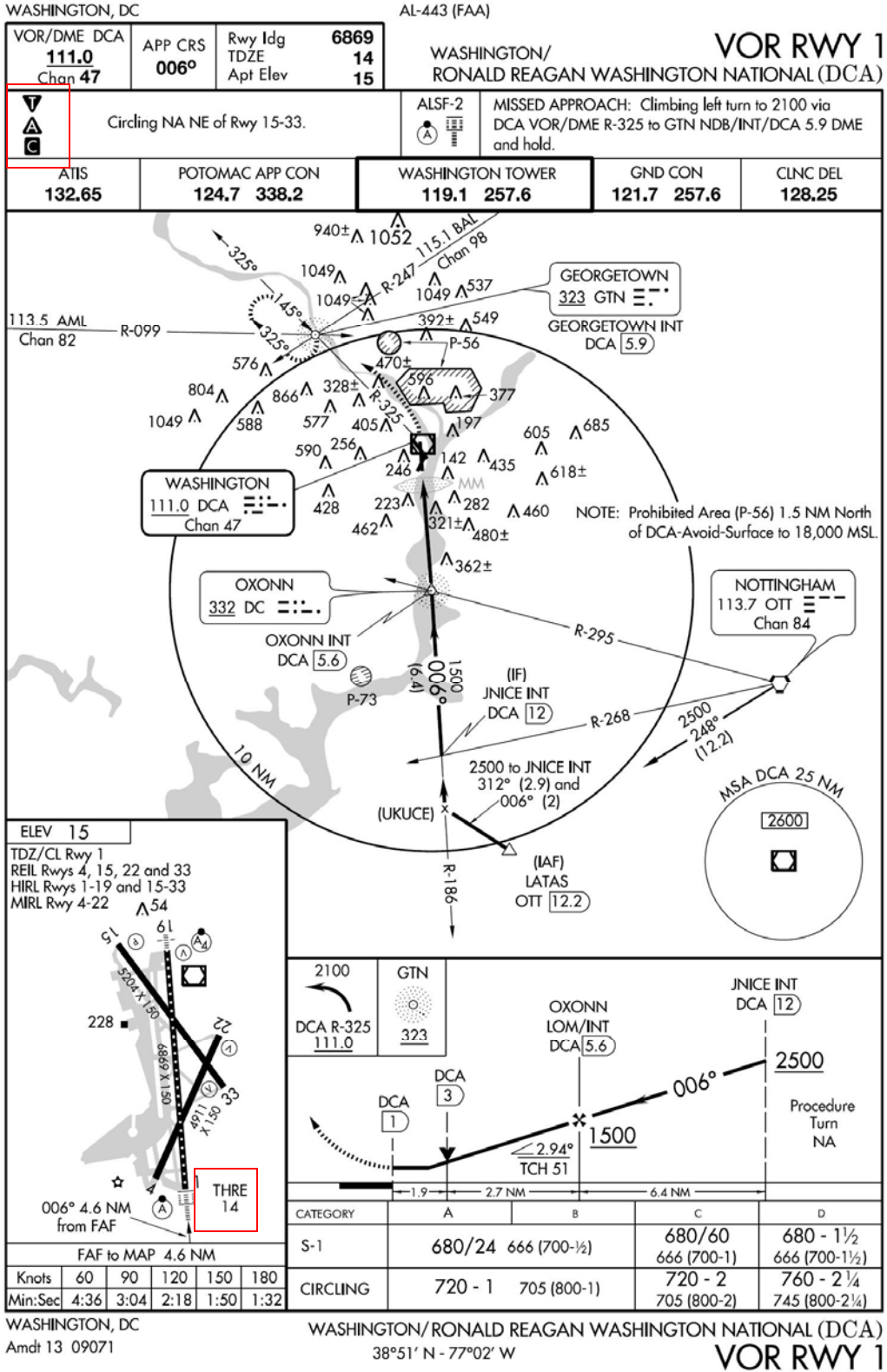
Phone: (202) 385-4702

FAX: (202) 385-4653

E-mail: kel.christianson@faa.gov

Date: April 9, 2010

Sample NACO Chart with CDFA Notation



10-01-229 Charting Approach Procedures Based on Order 8260.3B (TERPS), Change 20 for Continuous Descent Final Approach (CDFA) Harmonization

CDFA is a technique for flying the final approach segment of a non-precision instrument approach procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 50 ft above the landing runway threshold or the point where the flare maneuver should begin for the type of aircraft flown. For all CDFA techniques, the pilot makes a decision to continue to landing or execute a missed at a specific altitude which prevents inadvertent descent below MDA, rather than leveling off at the MDA and flying to the published missed approach point. In this respect, a CDFA flight profile is similar to precision approach flight profile.

OpSpec C052 will require part 121, 125, 129, and 135 operators who do not use the CDFA technique to add a visibility penalty when conducting non-precision approach operations with minima based on criteria in Order 8260.3B (TERPS), Change 20 (or later revision) It is being recommended in order to assist in the rapid identification of procedures which require a visibility penalty for operators who do not use a CDFA technique, that all procedures with one or more line of straight-in non-precision approach minima based on Order 8260.3B (TERPS), Change 20 criteria display a CDFA icon in the chart notes.

Ms. Catherine Majauskas, FAA/AFS-470, discussed the possibility of using the negative C in the chart notes which will help identify the procedures complies with Change 20 or later of the TERPS. Mr. John Moore, FAA/AeroNav, expressed concern if we add a symbol to indicate a change to TERPS then that symbol would stay forever. Mr. Brad Rush, FAA/AeroNav, said yes. Once the note or symbol was applied it would stay forever or until such time as all approaches complied with the new change.

Mr. Ted Thompson, Jeppesen, commented that the basis of this recommendation is technically flawed. TERPS Change 20 procedure design criteria are independent of the Air Carrier OPS SPEC allowing the use of CDFA and the related minimums credit/penalties. In other words, the CDFA technique applies to US non-precision approaches designed to earlier TERPS criteria.

It was noted that the FAA is in the process of developing an Advisory Circular intended to cover CDFA (replacement of HBAT 99-08).

Mr. Rich Boll, NBAA, commented that it's premature to consider a chart indicator before there's a clear understanding of the scope of applicability and

that ACF representatives ought to have the chance to review the document and any new guidance before a decision can be made.

Mr. Tom Schneider, FAA/AFS-420, was asked to follow up concerning the content of the new AC.

Mr. Bruce McGray (AFS-410) and Ms. Catherine Majauskas (AFS-470) have agreed to withdraw this issue. Mr. Bruce McGray will revisit the intent of the recommendation with respect to the appropriate reference documents (HBAT 99-08, OpSpec C052, and the new unpublished Advisory Circular dealing with CDFA). AFS-470 will at the appropriate time resubmit the recommendation based on the new references.

STATUS: CLOSED