

**GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM**  
**Instrument Procedures Subgroup**  
**November 1-3, 1999**  
**HISTORY RECORD**

**FAA Control # 99-02-219.**

**SUBJECT: Application of TERPS Paragraph 289**

**BACKGROUND:** Paragraph 289 of TERPS permits the application of a 7:1 obstacle clearance surface over an obstacle within one mile of a final approach fix (FAF) or final-segment stepdown fix. In all other cases TERPS requires full ROC from the early limit of the fix displacement area. It is ALPA's understanding that this was intended to be a "last option" tool for the procedures designer, to be used only when all other full-ROC options are unavailable, and where a significant operational advantage may be achieved. In DME and RNAV SIAPs, this option should almost never be needed because of the fix displacement options available with along-track-distance fixes. ALPA has seen a trend in AVN-100 to apply paragraph 289 where a slightly different fix placement could have avoided the "slippery slope" of paragraph 289.

**RECOMMENDATION:** AFS-420 be directed to write tight policy guidance to AVN-100, which makes it clear that application of paragraph 289 is a "last resort" design option, and should probably never be necessary with XXX/DME and RNAV SIAP's. The IAPA program should be reviewed, and perhaps rewritten to reflect this policy.

Submitted by: Captain Simon Lawrence, Chairman  
Charting and Instrument Procedures Committee

**AIR LINE PILOTS ASSOCIATION**

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**INITIAL DISCUSSION (Meeting 99-02):** Wally Roberts presented this issue on behalf of ALPA. ALPA is concerned that TERPS paragraph 289 is routinely applied thus providing less than full ROC over obstacles in the final approach segment. He used the LOC RWY 12 at Blacksburg, VA as an example where the MDA is 2460' and a 2919' obstruction is charted inside the FAF. ALPA is requesting that AFS-420 establish policy that application of paragraph 289 should be used as a "last option" in procedure design. He indicated that stepdown fixes could be used vice application of paragraph 289. Dave Eckles, AFS-420, responded that paragraph 289 is not a "last resort measure" but valid TERPS criteria that has been in place and used for many years. Neither the FAA nor the military TERPS courses teach restricted use of this criteria application. **[Editorial note:** Paragraph 289 application begins at the charted FAF altitude, minus ROC (+ adjustments). On an approach with 250' of ROC, an aircraft would have to descend in excess of 1,118 Ft/NM for an obstruction to present problems]. Bill Hammett, AFS-420 (ISI), noted that the development of constant angle descent SIAP's will probably result in increased, rather than decreased, application of paragraph 289 criteria. Wally then presented an

alternative position of charting these obstructions differently and explaining the criteria in the AIM. Dave Eckles accepted the issue for study. **ACTION: AFS-420.**

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**MEETING 00-01:** Dave Eckles, AFS-420, presented a status update paper and briefing on the issue. The TERPS paragraph 289 issue was resolved at the last meeting. In response to the ALPA request for charting obstacles differently when paragraph 289 criteria has been applied, Dave stated that AFS-420 will prepare and submit a 'Requirements Document' to ATA-100 for consideration by the Inter-Agency Air Cartographic Committee (IACC). **ACTION: AFS-420.**

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**MEETING 00-02:** Dave Eckles, AFS-420, presented a status update paper and briefing on the issue. The AIM material is still under development by AFS-420. The status paper noted that AFS-420 had forwarded a memorandum to ATA-100 for consideration by the IACC; however, just prior to the meeting, Dave learned that the memo had not been signed out. He will research the status of the memorandum and AIM material and report at the next meeting. **Editorial note:** *The memorandum to ATA-100 was signed and forwarded on December 8.* AFS-420 to track AIM change. ATA-130 to report IACC response to the memorandum. **ACTION: AFS-420 and ATA-130.**

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**MEETING 01-01:** Dave Eckles, AFS-420, briefed that AIM material on this issue is still under consideration by AFS-420. AFS-420 has also forwarded a chart change proposal to ATA-130 for consideration by the IACC. Pat Fair, ATA-130, briefed that the charting issue is still being addressed internally by ATA-100 and that there is initial resistance to developing a new charting specification for plan view obstacle depiction. **ACTION: AFS-420 and ATA-130.**

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**MEETING 01-02:** Norm LeFevre, AFS-420, briefed that he was unable to get the status of the proposed AIM material. An ATA-130 representative was not available; however other IACC members stated that the chart change proposal has not been presented for IACC consideration. Status unchanged, the issue will be updated at the next meeting. **ACTION: AFS-420 and ATA-130.**

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**MEETING02-01:** Pat Fair, ATA-130, briefed that the IACC responded that different charting of obstacles was too complex to accept. Jim Terpstra, Jeppesen, agreed. Norm LeFevre, AFS-420, briefed that AFS-420 does not believe it appropriate to publish TERPS criteria in the AIM and will not pursue adding an explanation of paragraph 289. The fact that the procedure was developed under TERPS, processed in accordance with current directives, and made available for public comment through the Federal Register should ensure pilot confidence. Norm suggested the issue be closed. The group concurred. **ISSUE CLOSED.**

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