

GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM
Instrument Procedures Group
(Transcribed/Re-Formatted)
HISTORY RECORD

FAA Control # 98-02-213

SUBJECT: Publication of DME Required NoPT routes on non-DME SIAPs.

BACKGROUND/DISCUSSION: There are several SIAPs published by the FAA that do not require DME in the procedure's title, yet DME is required in order to fly certain "NoPT" (straight-in required without an amended ATC clearance) initial approach segments.

ALPA has previously brought this issue to the FAA for resolution. The FAA position is that the pilot flying an aircraft without DME is responsible for inspecting the SIAP prior to commencing an approach and to do one of the following three options when encountering an initial approach segment with DME-only stepdown fixes, and with "NoPT" mandated on the segment:

1. Refuse the instant initial approach segment and request another terminal routing from ATC.
2. Use the instant initial approach segment and request a course reversal from ATC.
3. Cross the FAF at the higher altitude, which would be required without DME, and land straight-in, provided aircraft performance will permit a steep final approach segment.

ALPA believes that the first two options place an unnecessary burden upon the pilot and were never envisioned by the designers of TERPS when considering the NoPT options available to the procedures specialist during procedure design. ALPA believes the third option to be ludicrous and in fundamental conflict with the intent of TERPS design limits and anti-CFIT efforts.

ALPA's recollection of NoPT design provisions in TERPS and related regulatory language was to provide a terminal route that could be flown as "NoPT" by any aircraft equipped to fly the SIAP. The exception in FAR 91.175(j): *"Limitation on procedure turns. In the case of a radar vector to a final approach course or fix, a timed approach from a holding fix, or an approach for which the procedure specifies 'No PT,' no pilot may make a procedure turn unless cleared to do so by ATC."*

It is ALPA's historical understanding that the language of 91.175 was intended to provide the pilot with relief to do a course reversal, with ATC concurrence, even though the procedure placed him in a position, both as to alignment and descent gradient, to go straight-in. In other words, for any procedure to qualify under 91.175(j) it would have to procedurally permit the pilot the opportunity, both as to alignment, and descent gradient, to fly straight-in. The relief provided by the language in 91.175(j) is intended for the pilot who ends up too high because of his own doing.

Note that the two procedures addressed in 91.175(j), other than the NoPT route, are the radar vector to final and timed approaches from a holding pattern. These two procedures, by their design nature, place the aircraft in both an alignment and descent profile compatible with the alignment and descent gradient limitations of TERPS. It is only logical to conclude that

the authors of 91.175(j) had the same in mind for the third procedure--the NoPT terminal route.

ALPA believes that where a terminal route that qualifies for NoPT designation consists of DME- only stepdown fixes, then the SIAP should have DME in its title. We believe the naming convention of TERPS should be amended to reflect this requirement.

A less desirable alternative is to annotate such terminal routes with a "DME required" note. This isn't the desirable solution, however, because it requires diligence on the part of both controllers and pilots in an already overloaded, too complex system. It is far better to publish two procedures at such locations, in our view. It seems the system of procedure design and implementation too often accommodates procedures designers and ATC traffic managers rather than pilots using the system.

Attached are two specific SIAPs for your review. Note that the Winslow procedure has a "DME required" note along the relevant terminal route. This is an interim note that was added by NOTAM at ALPA's request and with considerable dissention within the FAA.

If the FAA position is to prevail that DME-only NoPT terminal routes are satisfactory, efficient, and safe for non-DME-equipped aircraft, then the AIM needs to instruct pilots about their duty to inspect such SIAPs for this possible pitfall, and that the pilot is expected to proceed straight-in unless an amended clearance is obtained for a course reversal. This is the minimum action required of the FAA to maintain the status quo, and is certainly contrary to good human-factors concepts in any case.

RECOMMENDATION: That any SIAP with an NoPT route that requires the use of DME have DME in the title of the SIAP. A less desirable alternative is to annotate such terminal routes with a "DME required" note and provide explanatory information in the AIM, and ATC Handbook. A third, least desirable alternative is to maintain the status quo, as desired by the FAA, but with comprehensive explanatory information to be included in the AIM at the next revision cycle. ALPA, and other interested user groups, should have a say in the construction of such AIM language.

COMMENT: This affects TERPS, 8260.3B, related FAA policies, and the AIM.

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INITIAL DISCUSSION (MEETING 98-02): Wally Roberts, ALPA, led discussion of this issue paper. It is ALPA's concern that publishing a DME required NoPT route on a SIAP without DME in the procedure title should not be allowed. These procedures should be split

and published separately. Jim Terpstra, Jeppesen, stated that a "DME required" note on the NoPT route would cover the situation. It was pointed out during the group discussion that there is always a pilot requirement to review the SIAP he/she is flying and know whether or not a specific route or maneuver can be accomplished. Wally discussed three fixes for the problem: publish two separate SIAP's (one with DME in the title); publish pilot education material in the AIM (preference); or, add appropriate notes on the SIAP chart. The group consensus was that if any action is required, the AIM change option seems best. AFS-420 took the IOU to study the issue and develop an AIM change if deemed necessary. AFS-420 will study and develop AIM change if necessary. **Action: Item Open (AFS-420).**

MEETING 99-01: Time precluded discussion of this issue. AFS-420 is researching the issue to determine if an AIM change is necessary and will report at the next meeting. AFS-420 will report at the next meeting. **Action: Item Open (AFS-420).**

MEETING 99-02: Dave Eckles, AFS-420 presented a status paper on the issue with an AIM change that explains more fully the procedure naming rules, with particular emphasis that, under TERPS, the procedure ID reflects the type equipment required for the final segment. Pilots are reminded of their responsibility to ensure that the aircraft is equipped to fly the entire procedure, including the missed approach. The AIM change will be published in February, 2000. This change, coupled with the pilot preflight requirements under Part 91 warrants closing the issue. Discussion ensued as to the feasibility of adding a "DME REQUIRED" note on the NoPT route. The group was split as to pilot benefit vs. chart clutter. Wally Roberts, ALPA stated that although they brought the issue before the forum, it was not an ALPA high priority issue and deferred to AOPA. Randy Kenagy, AOPA inquired how many non-DME IAP's were published with DME required NoPT routes. He also stated that naming all fixes at NoPT route origins would help. Wally stated he would review the western US TPP booklets to get an idea of the significance of the problem. Bill Hammett, AFS-420 suggested that, since AOPA raised the number issue, perhaps AOPA could review the eastern US TPP booklets. Randy stated they did not have the resources to do so. A preliminary listing of SIAP's that exemplify the issue was received from ALPA prior to publishing the minutes and is included. AFS-420 will review the FAA position again and report at next meeting. **Action: Item Open (ALPA and AFS-420).**

MEETING 00-01: Dave Eckles presented a status update paper and briefing on the issue. At the recommendation of the ACF, AFS-420 prepared an AIM change to paragraph 5-4-5 to explain more fully the procedure naming rules, with particular emphasis that, under TERPS, the procedure ID reflects the type equipment required for the final segment. The change was published on February 24th; however, it did not address the issue as well as expected. AFS-420 will develop revised wording for the paragraph and submit for AIM publication. AFS-420 to prepare a revised AIM entry for publication. **Action: Item Open (AFS-420).**

MEETING 00-02: Dave Eckles presented a status update paper and briefing on the issue. AFS-420 has reviewed the text of AIM paragraph 5-4-5a3 dated 24 February 2000. This paragraph contains revised wording that explains the basis for procedure naming. It also advises the pilot that segments of the procedure other than the final segment may have equipment requirements not reflected in the procedure identification and that the pilot should study the procedure carefully to properly determine whether the aircraft is adequately equipped to conduct the approach procedure. Based on further discussion of the issue and re-evaluation of the associated AIM paragraph, AFS-420 now feels the current wording is adequate and clear and recommends the issue be closed. The group agreed. **Status: Item closed.**