

AERONAUTICAL CHARTING FORUM
Charting Group
ACF 11-01
RECOMMENDATION DOCUMENT

FAA Control # 11-01-242

Subject:

Lack of charting specification for the TERPS requirement to publish a lead bearing or a lead DME when available.

Background/Discussion:

Charting specifications exist to meet the TERPS requirements to publish DME fixes and for lead radials (see IACC 7). There are no definitive charting specifications to meet the TERPS requirement to publish (chart) lead bearings or a lead DME on departure routings with multiple turns more than 90 degrees (FAA Order 8260.3, Vol 4, paragraph 3.8.4).

Recommendations:

1. Formally define the charting specification for a lead DME. Suggest using the current approved DME symbology with appropriate mileage and adding the words "Lead DME" next to the DME symbol.
2. Formally define the charting specification for a lead bearing. Suggest using the current approved specification for lead radials (IACC7, paragraph 3.3.8.2) and substituting "LB" where the current specification states "LR" for lead radial.

Comments: This recommendation affects

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Date: 14 April 2011

MEETING 11-01: Mr. Michael Clayton, USAFFSA, submitted and briefed the issue. Charting specifications exist to meet the TERPS requirements to publish DME fixes and lead radials. There are no definitive charting specifications to meet TERPS requirements to chart lead bearings or a lead DME on departure routes with multiple turns more than 90 degrees (FAA Order 8260.3 Vol. 4, Para 3.8.4). The FAA does not have such procedures, however DoD does have at least one such procedure published.

Mr. Clayton stated that with the establishment of lead bearings/lead DMEs on SIDs and DPs would allow the USAF to satisfy the TERPS requirement.

Mr. Brad Rush, FAA/AJV-3B, noted that the FAA's USIFPP needs to address this issue and provide more guidance regarding the make up and charting of such procedures. Once such guidance has been provided, the IACC will evaluate and as necessary generate an RD to address/modify the specifications.

ACTION: Mr. Brad Rush, FAA/AJV-3B, will take the issue up with the USIFPP and report back to the ACF.

MEETING 11-02: Mr. Brad Rush, FAA/AJV-3B, briefed that the existing criteria provides a means to address situations such as the one in question. Such special situations locations/procedures could be handled on a case by case basis.

Mr. Daniel Lehman, NAVFIG noted that the existing guidance refers to "publishing" and it is not clear that that means on "chart depiction".

Ms. Valerie Watson, FAA/AJV-3B, reminded the group that as far as the fix itself is concerned, any fix specified for charting on the source document will be depicted on the chart. If these fixes require charting, they only need to be documented as such on the - 15. If the bearing is part of the published makeup of the fix, it would also be charted, but specifications would need to be revised to indicate it is a "lead bearing".

Mr. Tom Schneider, FAA/AFS-420, agreed that the issue is appropriately categorized as a criteria issue which warrants review and clarification by the US IFPP. Current criteria allows for the procedure to be designed. In the US, no procedures have been designed using the criteria. However, DoD used the criteria in designing a procedure in Afghanistan.

A decision is forthcoming from the US IFPP.

ACTION: Brad Rush, FAA/AJV-3B, to report back at next ACF.

MEETING 12-01: Mr. Brad Rush, FAA/AJV-3B, briefed that the Lead Bearing/Lead DME issue is before the US IFPP. Mr. Rush stated that most charting organizations have an existing ability to chart lead bearing/lead DME information when specifically requested on the procedure source document.

Mr. Rush anticipates hearing back from the US IFPP in the near future and will report back at the next ACF.

STATUS: OPEN

ACTION: Brad Rush, FAA/AJV-3B, to report back at next ACF.

MEETING 12-02:

Brad Rush, FAA/AJV-3B, briefed the item. Brad stated that the matter had been discussed at the US IFPP and that there was no recommendation to date. Lead radials already exist and can be charted. Though a charting standard for showing a “lead DME” does not exist, there is a standard for showing DME make-up of a fix. If a fix is documented by source, it can be charted.

Valerie Watson, FAA/AJV-3B, reported that she had discussed the matter with NGA. NGA has a few Departures with lead DMEs charted, but only overseas. She mentioned that it had been discussed within the MPOC that NGA has the option to present a specification change proposal if they see fit.

The example of the [DREAM THREE DEPARTURE at Nellis AFB](#) was referred to and discussed.

Jeff Gorman, FAA/AFS-460, commented that the military has been utilizing Lead Bearing/Lead DME for years. Lance Christian, NGA/MSRF, added that the military continues to use and publish procedures utilizing Lead Bearing and Lead DMEs.

Brad, while reviewing the DREAM THREE DEPARTURE noted that a double asterisk was used to note the points where a Lead Bearing/Lead DME was being utilized in the procedure. Currently, the Military is using a DME Boat with the point in space given a 5-letter pronounceable name with two asterisks next to the name.

Lance Christian, NGA/MSRF, added that there is criteria for development of such procedures but nothing in place regarding charting.

Valerie repeated that as there were as yet no civil procedures utilizing the lead DME convention, she recommends that NGA propose a charting standard.

Jeff Waterman, NGA/PV, commented that Lead Bearing/Lead DME only pertain to conventional procedures. Pilots lead the turn in practice. The lead point, whether a named fix or a DME fix, is part of the procedure and therefore should be charted when specified on the source document. He stated that depiction of the make-up should suffice.

Valerie inquired of the FAA Instrument Procedures Group if they anticipated using Lead Bearing/Lead DME in the development of any future FAA Instrument procedures. Tom Schneider replied that the FAA does have the criteria to be able to do so, but there is no way to foretell if the criteria will ever be used.

Valerie suggested that since the FAA currently does not utilize the Lead Bearing specifically in the development of Departures, that the matter be closed. If DoD believes there should be a charting standard, she recommends Lance Christian, NGA, should propose an IACC standard.

STATUS: CLOSED