

GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM 02-01

May 1-2, 2002

Recommendation Document

Subject: LPV Minima Charting

Background/Discussion: The FAA has announced that it will implement a new type of approach using the Wide Area Augmentation System (WAAS). This approach combines the lateral precision of a localizer with the vertical performance of APV-I (Approach Procedure with Vertical Guidance Level-1), and provides a significant operational benefit as compared to APV-1 or LNAV/baro-VNAV approaches. An ICAO GNSS Panel Information Paper that details the entire concept is available, upon request. This paper describes the LPV operational concept and summarizes the estimated benefits from the new LPV approaches. The FAA proposes that this new LPV minima line be charted on the existing RNAV SIAPs. The LPV line will replace the GLS line. The GLS line is not currently being used and it may be as long as 2015 until WAAS or other RNAV systems provide this capability. GLS may be more appropriately used in the near future (2004-2005 time frame) on SIAPs for GNSS-based landing systems, such as FAA's Local Area Augmentation System (LAAS).

Recommendation: That the new LPV minima line be charted on the existing RNAV SIAPs. Other WAAS/LPV specific charting issues (such as the new WAAS channel number) can be implemented when defined in criteria for LPV approaches that will be published by the FAA (AFS-420) later this year (2002).

Comments: This recommendation affects IACC charting specifications.

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02-01 MEETING: Mr. Hank Cabler, FAA AFS-410, presented this new issue. He stated that the FAA proposes to add a new LPV line of minima by replacing the existing GLS line. In addition, other WAAS/LPV information will need to be charted such as the WAAS channel number. See presentations section of these minutes for additional information.

02-02 MEETING: Mr. Dick Powell reported that this will be addressed at the SPIT in Oklahoma City. Ms. Pat Fair stated that the SPIT is working on a process for conveying path point, WAAS identifier, and CRC wrap in an end-to-end delivery of the data. Mr. Jim Terpstra said that the 8260 would be the delivery format to start. He said AVN should move toward sending the data with a CRC wrap. ATA should then disseminate the data to the public wrapped as well. It was stated that September 03 is the effective date for charting 5 airports with LPV, they are Oshkosh

WI, Frederick MD, Leuville VA, Montgomery Airpark MD, and Manassas, VA. It was pointed out that LNAV/VNAV would be flyable first followed by LPV. LNAV/VNAV may only require a review and not a flight check to implement. Ohio University is reviewing airports and those that don't have terrain or coverage issues (95% reliability) won't be flight checked. The remaining airports with reliability issues (remaining 5%) will be flight checked. Those that don't pass will be NOTAMed out. Mr. Steve Bergner asked what would change so that they can fly LNAV/VNAV. Mr. Brad Rush responded that a blanket statement would be issued. Mr. Rush also that those procedures with a remote altimeter are a concern.

03-01 MEETING: It was stated that RD 541 is still being staffed and coordinated with the SPIT. It was also stated that procedure development, chart specifications included IAP legend changes, and AIM guidance have been developed.

04-01 MEETING: Ms. Val Watson, ATA-130 reported that RD541 was signed by the IACC on May 29, 2003 and that AIM guidance has been developed. **CLOSED**
