

AERONAUTICAL CHARTING FORUM
Instrument Procedures Group
Meeting 04-01 – April 26-27, 2004
History Record

FAA Control # 04-01-250

SUBJECT: RNAV and Climb Gradient Missed Approach Procedures

BACKGROUND/DISCUSSION: There are many SIAPs in mountainous areas that have high minimums, not because of obstacle or descent issues along the approach segments, but because of obstacles in the missed approach procedure. Part of this problem lies with using obsolete, hugely wasteful missed approach trapezoids from the “lighted airway” days, and part of the problem is the failure to provide public missed approach procedures with realistic climb gradients that can be easily achieved by today’s vast fleet of corporate turbine aircraft and fractional-owner turbine aircraft fleets. These aircraft represent a significant portion of the serious air commerce of the United States.

RECOMMENDATION: Criteria already exist to provide United States military operations with climb gradient missed approach procedures where reasonable and where an operational advantage will be achieved. The high-performance business aircraft fleets should be given the same operational flexibility. Alternate, **public** (14 CFR, Part 97), missed approach procedures designed to 2 x 1.0 RNP linear containment areas should be developed for every SIAP where missed approach obstacles limit approach minimums. In many cases, offending obstacles could be laterally avoided by taking advantage of RNP/LNAV technology. In other cases, employment of such RNP/LNAV containment areas in conjunction with reasonable climb gradients should be used to achieve the lowest possible minimums. Such climb gradient missed approach procedures must be **public**, rather than specials, because specials are not feasible for an airport used only on occasion. In any case, the concept would be no different than what is provided for climb gradient takeoff minimums today; i.e. “3,000 and 5 or Standard with 400 feet per mile to 11,000.”

COMMENT: This recommendation affects FAAH 8260.3B, 8260.19C, and various internal FAA directives.

SUBMITTED BY: Steve Bergner

ORGANIZATION: National Business Aviation Association

PHONE: 845-583-5152

FAX: 845-583-5769

E-Mail: sbergner1@cs.com

DATE: April 5, 2004

Initial Discussion - Meeting 04-01: New issue presented by Steve Bergner, NBAA. Steve noted that in many cases specifying a climb gradient for the missed approach may provide lower landing minimums. Alternatively, an RNP missed approach design may be able to take

advantage of a less onerous route that will eliminate the need for a climb gradient. He used Rifle, CO as an example. Steve further noted that criteria already exist to provide US military operations with climb gradient missed approach procedures where reasonable and where an operational advantage will be achieved. The high-performance business aircraft fleets are fully capable of these higher gradients and should be given the same operational flexibility. Frank Flood, Air Canada, commented that EUROCONTROL routinely allows 3-5% missed approach climb gradients to gain operational advantages. Vinny Chirasello, AFS-410, noted that SAAAR will provided the desired concept. Steve noted that NBAA cannot live with Special approaches, these procedures must be public under Part 97. Ted Thompson, Jeppesen, noted that developing multiple missed approaches for a single approach would result in the need to code duplicate versions of the same procedure. This would not be feasible and separate procedures with suffixes in the identification would be required. Tom Schneider, AFS-420, commented that his office is studying the feasibility of linear obstacle evaluation areas (OEA) vice trapezoids for RNP procedure design. **ACTION: AFS-420.**
