



# Federal Aviation Administration

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## Memorandum

Date: MAR - 6 2008

To: Thomas C. Accardi, Director, Technical Operations Aviation System Standards,  
AJW-3

From: John W. McGraw, Manager, Flight Technologies and Procedures Division,  
AFS-400 *J. McGraw*

Subject: Publishing Area Navigation (RNAV) Global Positioning System (GPS)  
Minima Rules

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### PURPOSE:

This memorandum provides guidance regarding the lines of minimums to publish on **an** RNAV GPS approach chart.

### DISCUSSION:

Order 8260.54A, The U.S. Standard for Area Navigation (RNAV), provides criteria for the development of Lateral Precision Performance with Vertical Guidance (LPV), lateral navigation (LNAV)/vertical navigation (VNAV), LNAV, **localizer** performance (LP), and circling approach lines of minimums. Federal Aviation Administration (FAA) safety initiatives (providing approaches with vertical guidance), avionics database coding limitations, avionic limitations, approach charting space available, and human factors concerns affect the combinations in which these lines of minimums may be published. The following policy establishes rules that govern the lines of minimums that may appear on **an** RNAV GPS approach chart.

### POLICY

The following rules are considered design STANDARDS. Procedures that do not follow these rules are considered NONSTANDARD construction which requires waiver approval.

## A. STRAIGHT-IN ALIGNED PROCEDURES

Rule #1: Publish vertically guided minimums. Publish LNAV/NNAV minimums and, if at least a 20-foot lower decision altitude or a reduction in runway visual **range/visibility can** be achieved, publish LPV minimums. If the glidepath qualification surface (GQS) is penetrated, this rule does not apply.

Rule #2: Publish an LNAV line of minimums.

Rule #3: Publish an LP line of minimums **ONLY** if vertically guided minimums are **NOT** published, and a minimum descent altitude (MDA) **that** is at least 20 feet lower than LNAV minimums can be achieved.

Rule #4: Publish circling minimums. Circling **MDA** must not be lower than LNAV **MDA**.

## B. NON STRAIGHT-IN ALIGNED PROCEDURES (CIRCLING ONLY)

Rule #1: Evaluate an LNAV final segment.

Rule #2: The circling MDA must not be lower than the LNAV final segment calculated minimum altitude.

## C. HELICOPTER PROCEDURES TO HELIPORTS

Rule #1: Publish an LNAV line of minimums.

Rule #2: Publish an LP line of minimums **ONLY** if vertically guided minimums are **NOT** published, and an MDA that is at least 40 feet lower than LNAV minimums can be achieved.

If you have questions regarding this policy, contact Mr. Jack **Corman**, Program Analyst, Flight Procedure Standards Branch, AFS-420, at (405) 954-4164.

## Minima Line Decision Tree

