

June 26, 2003

Docket Management System
U.S. Department of Transportation
Room PL 401
400 Seventh Street, SW.
Washington, DC 20590

Re: Docket No. FAA-2002-14002. Area Navigation (RNAV) and Miscellaneous
Amendments; Proposed Rule

Dear Sirs:

On behalf of nearly 400,000 members operating over 200,000 general aviation aircraft, which represents three-quarters of the global fleet, the Aircraft Owners and Pilots Association (AOPA) submits the following comments to the Federal Aviation Administration's (FAA) Notice of Proposed Rulemaking (NPRM) *Area Navigation (RNAV) and Miscellaneous Amendments; Partial Reopening of Comment Period*.

AOPA is concerned that this NPRM attempts to comply with the International Civil Aviation Organization (ICAO) harmonization objectives without regard to the negative impacts that some of the changes could have on civil aviation in the United States. There are significant differences between the United States and European operating environments that make harmonization less than an ideal model for future changes to the domestic system. The Most important of these differences is the role and impact of general aviation in the United States. On issues of global harmonization, the FAA should ensure that the NAS reflects the diverse capabilities of the United States general aviation community, as demonstrated here in the United States.

As an ICAO member nation, the United States has a stake in aviation matters within the international community. However, ICAO harmonization should only occur when there is an operational benefit to the users of the United States National Airspace System (NAS). The FAA must meet the challenge of balancing individual state needs against the overall objective of producing a seamless global traffic management system.

With this in mind, AOPA submits the following comments on the proposed definitions to be published in 14 CFR Part 1:

Approach Procedure with Vertical Guidance (APV): The definition as currently written potentially leads the pilot to believe that APV approach types have lower minima than today's non precision approaches when in fact substantial evaluation has determined that in many cases, non precision approaches are still providing the lowest possible ceiling and/or visibility minima.

The definition vaguely discusses the fact that these procedures do not produce instrument approach minimums associated with traditional vertically guided approaches such as an Instrument Landing System (ILS). There should be clear, specific acknowledgement that these procedures are not intended to replace ILS approaches but rather are intended to offer pilots a "VNAV option" in lieu of non-precision approaches without vertical guidance.

Category 1 (CAT I) operation: The definition creates inconsistencies and will generate pilot confusion when used in conjunction with the new proposed "precision approach" definition. For example, if an ILS has approach minimums with a 300 foot DH and $\frac{3}{4}$ mile visibility will it be a CAT I operation? If an APV approach has the *same* minimums (to the same or a different runway) will it then be considered a CAT I operation? AOPA would expect the answer to be YES.

This scenario raises additional questions pertaining to the currency requirements stated in 14 CFR Part 61 for instrument proficiency and training. AOPA would expect the FAA to permit pilots to receive training and proficiency credit when using any approaches that end at a DA/DH, including APV approaches.

Night: AOPA opposes the proposed change to (the definition) of night without clarification of the FAA's intent. AOPA's involvement in various forums and advisory committees has not revealed any plan by the FAA to support this change. Before changing the definition, the FAA should carefully evaluate the operational impacts that will be imposed on the service providing elements of the FAA. How will the FAA disseminate information on "local night" for over 18,000 landing facilities in the NAS? AOPA urges the FAA to delay any changes to this definition until a better understanding of the operational implementation of "local night" would be applied.

Non-precision Approach: AOPA concurs that a non-precision approach is traditionally considered an approach without vertical guidance (glide slope or VNAV functionality). The comments pertaining to the relationship of APV procedures and "precision approaches" create concerns that need to be addressed by the FAA prior to issuing a final rule.

Precision approach: This definition should be revised in such a way to clearly differentiate between an approach procedure with vertical guidance and a precision approach. An ILS and APV procedure could have the same minimums. What differentiates the two operationally? If a pilot flies an APV approach, he should be given the same operational credit as having flown an ILS approach (except for CAT II/ CAT III operations). AOPA proposes that the FAA add “APV” to the list of precision approach types.

Route Segment definition: The FAA should include in the definition, the fact that the “FIX” will be named, charted and available in navigation databases.

AOPA submits the following comments pertaining to the regulatory changes proposed in the Notice for 14CFR Part 91:

91.131: In the preamble of the regulations, AOPA requests that the FAA include IFR certified GPS equipment as an example of a “suitable RNAV system”. Such clarifying language establishes a regulatory approval for the use of this equipment as an option to meet existing mandated equipment requirements in lieu of the equipment (VOR, DME etc.) currently required to operate in certain airspace areas such as Class B airspace and at altitudes of Flight Level 240 and above.

91.175: The change to Paragraph (h) should not solely reference FAA Order 8260.3, but should list all publications where the FAA makes the RVR table available for pilots. At a minimum, the Aeronautical Information Manual (AIM) should be mentioned in the regulation.

The change to Paragraph (k) should include additional clarifying information to ensure that the intent of the regulation is understood: RNAV equipment, to include IFR approved GPS, can be used to identify certain locations on the ILS.

However, AOPA is also concerned that the FAA doesn’t rely on the use of such database derived FIXES as the sole means of identifying the key locations on the ILS. Less than one-third of all general aviation aircraft have the equipment necessary to identify a database derived FIX. Therefore, no such use of a FIX (exclusively without other identification options) should be applied to existing ILS installations. AOPA is strongly opposed to any ILS implementation where RNAV equipment (or the ability to identify a FIX from a database) is a required component for completion of the approach. This virtually mandates the use of GPS for general aviation aircraft desiring to access “non-GPS” procedures.

Lastly, AOPA requests that Paragraph (K) also permit the pilot to use the glide slope and altitude crosscheck as a viable and acceptable means to substitute for an outer marker on an ILS.

91.177: The preamble discussion pertaining to a broad and comprehensive requirement for surveillance and/or communication on published routes is a significant change and severely impacts general aviation operations. Many IFR general aviation operations are conducted outside of radar contact while en route. Many more approach and departure procedures are flown to and from airports in non-radar environments. Non-radar separation procedures enable pilots of general aviation aircraft to enjoy the flexibility and freedom of general aviation. While en route, general aviation aircraft remain at lower altitudes to access useable, safe airspace. AOPA members indicate that with approval to operate at the Minimum Obstruction Clearance Altitude (MOCA) -as enabled by changes to this very section- the use of minimum altitudes along airways will increase. Whether to avoid adverse weather conditions (icing or strong head-winds) or to utilize certain performance characteristics of the aircraft they fly, the use of low-altitude IFR routes will expand with RNAV (GPS) equipage.

Suffice to say, non-radar air traffic control services remain an integral part of general aviation operations. Many of these operations are and will be outside surveillance service levels. Therefore, the FAA should make every effort to accommodate area navigation operations (when either on routes, when on random flight trajectories or when conducting terminal area procedures) outside of radar coverage. The regulatory proposal appears to revoke these capabilities and not expand them. Clarification from the FAA is needed to ensure that the intent of these changes is to support new services to persons operating with new, beneficial equipment.

91.205: AOPA objects to the FAA's proposal to reduce the altitude at which Distance Measuring Equipment (DME) is required. Contrary to the FAA's statements on page 77337 of the Federal Register (Vol 67, No. 242 / Tuesday, December 17, 2002) this proposed change would impose an obligation to change (or supplement) current navigation systems on certain aircraft and the proposed changes *would* impose costs. The FAA fails to disclose the benefit to users of their mandated equipage, and the FAA fails to acknowledge any system efficiency gains or safety enhancements that would accompany such a mandatory equipage requirement at that reduced altitude. In short, the FAA has failed to justify the necessity of this change, other than to briefly mention consistency with ICAO derived airspace designs. AOPA objects to such rationale and reemphasizes the

fact that it appears the United States is following global trends instead of setting them.

AOPA submits the following comments pertaining to the regulatory changes proposed in the Notice for 14CFR Part 93:

97.3: While it would appear that the use of “any NAVAID or FIX to be the reference point” for Minimum Safe Altitudes (MSA) is beneficial, poor selection criteria may increase confusion to pilots if the Fix or NAVAID is not consistent in application. Significant safety issues could develop quickly with poor application of this change. The FAA should simultaneously supplement this change with regulatory guidance that establishes a consistent application of MSA. It should be codified to ensure that there is a regulatory basis driving the selection of the MSA fix or NAVAID.

The proposed change of the term “HAT” to Height Above Threshold creates inconsistencies with other terminology used to discuss instrument approach procedures. The glossary indicates that the touchdown zone is, “*The first 3,000 feet of the runway beginning at the threshold. The area is used for determination of Touchdown Zone Elevation in the development of straight-in landing minimums for instrument approaches.*” The FAA defines “threshold” as, “*The beginning of that portion of the runway usable for landing.*”

AOPA disagrees with the FAA’s assertion that the definition of “HAT” is not operationally significant. Height Above Touchdown provides pilots with much more information about the portion of the runway that a landing will be conducted. The height when only referring to the threshold is misleading because the threshold height may not be the highest point in the “touchdown zone”. General aviation pilots are trained that the “touchdown zone” as defined in the FAA’s Pilot/Controller glossary is substantially larger than the runway threshold and that the highest point in that area provides information about the runway slope characteristics. Therefore AOPA recommends that the current definition of HAT be preserved.

AOPA submits these comments with the understanding that the FAA is striving to support the increasing use of RNAV by all users in all airspace domains under various flight rules. However, the FAA must recognize that the changes may not have the desired impact, or may have an adverse impact not previously realized.

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Sincerely,

A handwritten signature in black ink, appearing to read "Randy Kenagy". The signature is written in a cursive, somewhat stylized font.

Randy Kenagy
Director, Advanced Technology