

“9. This NPRM is not currently consistent with some key FAA criteria (AC120–29A) and the direction key large aircraft manufacturers and operators are evolving future navigation systems or operational capability. If adopted without significant change, any final rule based significantly on this NPRM could unnecessarily restrict and inhibit beneficial and necessary evolution of RNP related systems and applications.”

FAA Response: While stating the NPRM is not consistent with some key FAA criteria per AC120–29A, the commenter does not provide sufficient information to identify the inconsistency. Advisory circulars provide advice on methods to comply with regulatory requirements; therefore, there is no requirement that an SFAR conform to an Advisory Circular. SFAR 97 provides the appropriate and intended regulatory structure for operations in Alaskan airspace that are outside the service volume of ground-based navigational aids. Additionally, as already noted, SFAR 97 does not preclude appropriate evolution and broad inclusion of other appropriately certificated and approved systems, including RNP systems, into the Global NAS.

“10. Numerous areas of analysis or comment in the NPRM preamble are also inappropriate, incorrect, or misleading. Significant revision of the preamble is also needed, before any final rule is issued (e.g., incorrect suppositions about the applicability or flexibility of current rules).”

FAA Response: Insufficient specificity is provided to locate any such unintended anomalies. Specific comments addressing issues of applicability and/or flexibility of current rules have already been addressed above.

As a general comment, Boeing also recommended that this SFAR not be issued independently, but rather that the editing of this SFAR be delegated to the AWO and TAOARC groups. While no reason for such additional editing by specific named groups is offered, providing such an additional period would be unfair to those who commented during the prescribed period. The FAA does not agree with this recommendation and finds the rulemaking provisions of 14 CFR part 11 are applicable to this SFAR and have been followed.

In a separate comment, American Trans Air stated, “The proposed rule uses language, terms and definitions found only in other OPEN proposed rulemaking actions (FAA–2002–14002 and FAA–2003–14449). Request this

action be delayed/postponed until public comments regarding critical language contained in FAA–2002–14002 are resolved. This delay is necessary to allow the Proposed Rule to be reviewed in its proper context and ensure common understanding and terminology with RNAV operations.”

FAA Response: FAA recognizes that language, terms, and definitions used in SFAR 97 also are found in other open rulemaking proposals. Definitions of language and terms used in SFAR 97 are applicable only to this SFAR, as stated in Section 2.

Based on its analysis of comments, the FAA adopts SFAR 97 as proposed.

Reference Material Relevant to SFAR 97

(1) Technical Standard Order (TSO) C145a, Airborne Navigation Sensors Using the Global Positioning System (GPS) Augmented by the Wide Area Augmentation System (WAAS); and (2) TSO C146a, Stand-Alone Airborne Navigation Equipment Using the Global Positioning System (GPS) Augmented by the Wide Area Augmentation System (WAAS). Copies of these TSOs may be obtained from the FAA Internet Web site at <http://www.faa.gov/certification/aircraft/TSOA.htm>.

Related Activity

The FAA is conducting a thorough review of its rules to ensure consistency between the operating rules of 14 CFR and future RNAV operations for the NAS. This review may result in rulemaking that could enable the use of space-based navigation aid sensors for aircraft RNAV systems through all phases of flight (departure, en route, arrival, and approach) to enhance the safety and efficiency of the NAS. The changes anticipated could result in greater flexibility in air traffic routing, instrument approach procedure design, and airspace use than is now possible with a ground-based navigation aid system structure. The improved navigation accuracy and flexibility could enhance both system capacity and overall flight safety, and could promote the “free flight” concept in the NAS by enabling the NAS to move away from reliance on ground-based NAVAIDs. SFAR 97 supports this activity as an early implementation effort. The FAA anticipates that that experience gained through these Alaskan operations may provide a more precise and accurate basis for future policies on airspace design which are now a work in progress.

Contrary Provisions of the Current Regulations

People who conduct operations in Alaska in accordance with SFAR 97 are excepted from certain provisions of the FAA’s regulations. For instance:

14 CFR 71.75. Extent of Federal airways. The extent of Federal airways is currently referenced as a center line that extends from one navigational aid or intersection to another navigational aid or intersection specified for that airway. SFAR 97 allows the Federal airway and other routes published by the FAA to be referenced and defined by one or more fixes that are contained in an RNAV system’s electronic database that is derived from GPS satellites and used by the pilot to accurately fly the Federal airway or other published routes without reference to the ground based navigational aids that define those routes.

14 CFR 91.181. Course to be flown. Section 91.181 defines courses to be flown along Federal airways that are only referenced to station referenced navigational aids or fixes defining that route. SFAR 97 allows courses to be flown on Federal airways and other published routes that are defined by waypoints or fixes contained in a GPS WAAS navigation system that is certified for IFR navigation.

14 CFR 91.205(d)(2). Powered civil aircraft with standard category U.S. airworthiness certificates: Instrument and equipment requirements. Section 91.205(d)(2) states that navigational equipment appropriate to the ground facilities to be used is required for IFR operations and does not include RNAV equipment. Under SFAR 97, operations can be conducted using navigation equipment that is not dependent on navigating only to and from ground-based radio navigation stations.

14 CFR 91.711(c)(1)(ii) and 91.711(e). Special rules for foreign civil aircraft. Section 91.711(c)(1)(ii) requires foreign civil aircraft operating within the United States and conducting IFR operations to be equipped with radio navigational equipment appropriate to the navigational signals to be used and does not accommodate the use of RNAV systems for instrument flight rules operations. Section 91.711(e) states that no person may operate a foreign civil aircraft within the 50 states and the District of Columbia at or above flight level (FL) 240 unless the aircraft is equipped with distance measuring equipment (DME) capable of receiving and indicating distance information from the VORTAC facilities to be used. Although an IFR approved RNAV system provides distance information,