



**U.S. DEPARTMENT OF TRANSPORTATION**  
**FEDERAL AVIATION ADMINISTRATION**  
Air Traffic Organization Policy

**ORDER**  
**JO 7110.313**

**Effective Date:**  
01/25/11

**SUBJ:** Wide Area Multilateration

- 1. Purpose of This Order.** This order prescribes guidance for the provision of air traffic control services using Wide Area Multilateration (WAM) at select ARTCCs.
- 2. Audience.** This order applies to the Air Traffic Organization (ATO) En Route and Oceanic Service Unit.
- 3. Where Can I Find This Order?** The order is available on the MYFAA employee Web site at [https://employees.faa.gov/tools\\_resources/orders\\_notices/](https://employees.faa.gov/tools_resources/orders_notices/) and on the air traffic publications Web site at [http://www.faa.gov/airports\\_airtraffic/air\\_traffic/publications](http://www.faa.gov/airports_airtraffic/air_traffic/publications).
- 4. Cancellation.** The operational/procedural guidance contained in this order is identical to and cancels the following notices:
  - a. Notice N JO 7110.533, Interim Guidance for the Implementation of Wide Area Multilateration (WAM) at Denver Air Route Traffic Control Center (ARTCC), effective July 29, 2010.
  - b. Notice N JO 7110.516, Interim Guidance for the Implementation of Wide Area Multilateration (WAM) at Anchorage Air Route Traffic Control Center (ARTCC), effective January 25, 2010.
- 5. Action.** ARTCC air traffic managers at the facilities identified in Appendix A of this order must ensure that the provisions of this order are briefed to all front-line managers, controllers-in-charge, and operational air traffic controllers prior to the initial operational use of WAM
- 6. Procedures.** WAM has been implemented into ARTCC automation systems on a site by site basis to support radar separation and procedures in areas of limited or no conventional radar coverage. Appendix A of this order identifies those locations where operations using WAM as the source for surveillance information has been authorized.
  - a. All procedures contained in FAA Order JO 7110.65 for the en route domain related to ATC services using secondary radar, to include radar identification, separation, advisories, and phraseology, apply to targets derived from WAM.
  - b. WAM data may not be used in en route automation systems for 3nm separation.
- 7. Special Features.** Appendix A of this order identifies those locations where operations using WAM as the source for surveillance information has been authorized. This appendix will be updated as necessary and available electronically at:  
[https://ksn2.faa.gov/aje/aje3/standards/\\_layouts/viewlsts.aspx?BaseType=1](https://ksn2.faa.gov/aje/aje3/standards/_layouts/viewlsts.aspx?BaseType=1)

**8. Safety Management System.** The provisions of this order do not affect separation standards and do not create or revise any ATC procedures or phraseology. Accordingly, no further safety risk management analysis is warranted.

**9. Distribution.** This order is distributed to the following ATO service units: System Operations Services, En Route and Oceanic, Safety Services; Air Traffic Safety Oversight Service; the William J. Hughes Technical Center; Mike Monroney Aeronautical Center.

**10. Background.** WAM is a new secondary radar system that derives aircraft position through triangulation from a set of geographically dispersed ground sensors that comprise the WAM system. Aircraft transponder replies must be received by a minimum number of ground sensors in the WAM system to derive a position report. The WAM system will have a defined radar coverage area. A minimum number of ground sensors must be operating or the WAM system is considered out of service. A WAM out of service condition is treated in the same manner as a radar outage.



Luis A. Ramirez  
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**Appendix A. Authorized Wide Area Multilateration Areas**

1. Anchorage ARTCC. Juneau Area
2. Denver ARTCC
  - a. Rifle
  - b. Hayden