



**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

Air Traffic Organization Policy

**ORDER  
JO 7110.120**

**Effective Date:**  
August 06, 2015

**SUBJ:** Fused Display Mode (Fusion) using Micro-En Route Automatic Tracking System (Micro-EARTS) at Anchorage Air Route Traffic Control Center (ZAN) for 5 NM Separation.

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- 1. Purpose of This Order.** This order prescribes interim guidance for the use of Fusion which combines ADS-B surveillance data with primary, secondary, and Wide Area Multilateration (WAM) radar data into a single track for each aircraft in the provision of ATC services at ZAN using Micro-EARTS for 5 NM Separation.
- 2. Audience.** This order applies to ZAN using Micro-EARTS.
- 3. Where Can I Find This Order?** This 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 FAA Web site at [http://www.faa.gov/regulations\\_policies/orders\\_notices/](http://www.faa.gov/regulations_policies/orders_notices/).
- 4. Explanation of Policy Changes.** This order provides interim guidance for the use of Fusion display mode at ZAN using Micro-EARTS for 5 NM Separation.
- 5. Responsibilities.** The air traffic manager at ZAN must ensure the provisions of this order are briefed to all front-line managers, controllers-in-charge, and operational air traffic controllers prior to the effective date of this order, or prior to initial operational use of Fusion.
- 6. Procedures.**
  - a.** Fusion may be used to provide ATC services at ZAN using Micro-EARTS.
  - b.** All procedures and requirements contained in FAA Order JO 7110.65 related to ATC services provided to secondary radar targets apply to ATC services provided to Fusion targets.
  - c.** Do not use Fusion targets for 3NM separation under the provisions of paragraph FAA Order JO 7110.65 5-5-4, MINIMA.
  - d.** The term 'TRK' displayed in the Full Data Block (FDB) indicates that the aircraft does not qualify for 5NM separation and a transition to procedural separation must begin while Fusion is enabled.
  - e.** Controllers may display 0-60 track histories and specify the history interval while Fusion is enabled.
  - f.** The Limited Data Block (LDB) Aircraft Identifier (ID) will display Field 1 of the International Civil Aviation Organization (ICAO) address if a valid beacon/4096 code is not received while Fusion is enabled.

- g. The FDB will flash Call Sign Mis-match (displayed as ‘CSMM’) if the aircraft ID in the flight plan does not match the non-blank reported Target ID received in the ADS-B message while Fusion is enabled.
- h. The displayed ADS-B coast indicator in the FDB will be ‘ADB’ while Fusion is enabled.

**7. Distribution.** This Order is distributed to the ATO service units: System Operations Services, Air Traffic Services (ATS), Western ATS North, Safety Directorate, Air Traffic Safety Oversight Service (AOV), William J. Hughes Technical Center and Mike Monroney Aeronautical Center.

**8. Background.** Previous safety cases have been approved to support the use of fused surveillance sources in the Terminal and En Route environments for other ATC automation platforms. Safety Risk Management Document Automatic Dependent Surveillance-Broadcast (ADS-B) Microprocessor En Route Automated Radar Tracking System (Micro-EARTS) Fusion for 5nm Separation in Anchorage Air Route Traffic Control Center (ZAN) (SBS-066-01-20150413, v1.0, April 13, 2015) supports the display of a fused target for 5NM separation in ZAN. Furthermore, this safety case builds on the previous assessment for use of extrapolated surveillance sources in Anchorage on the MEARTS platform, Critical Services: En Route Air Traffic Control with Automatic Dependent Surveillance Broadcast (ADS-B) and the Microprocessor En Route Automated Radar Tracking System (MEARTS) SRMD, (SBS-033-01-20100422, v1.0, April 22, 2010) along with the Safety Risk Management Document for Using WAM Sensors to Support the Provision of En route Services for Juneau Area, (SBS-028-01-20100111, v1.7, January 11, 2010).

**9. Safety Risk Management.** This order prescribes interim guidance for the use of Fusion displayed targets for a 5NM separation at ZAN. With the approval of the Safety Risk Management Document Automatic Dependent Surveillance-Broadcast (ADS-B) Microprocessor En Route Automated Radar Tracking System (Micro-EARTS) Fusion for 5nm Separation in Anchorage Air Route Traffic Control Center (ZAN) (SBS-066-01-20150413, v1.0, April 13, 2015), Fusion is approved for use at ZAN for 5NM separation.

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Date Signed