



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

**ORDER
JO 7210.631**

Effective Date
07/10/2010

SUBJ: Requirements for the Use of Automatic Dependent Surveillance Broadcast (ADS-B) at Anchorage Air Route Traffic Control Center (ARTCC)

1. Purpose of This Order. This order establishes requirements to support the use of ADS-B information at Anchorage ARTCC.

2. Audience. This order applies to the following ATO organizations: the En Route and Oceanic Safety and Operations Support Office (AJE SOS), Anchorage ARTCC (ZAN), and the Western Service Center (WSC).

3. Where Can I Find This Order? This notice is available on the MYFAA employee Web site at https://employees.faa.gov/tools_resources/orders_notices/ and on the air traffic publications Web site at http://www.faa.gov/air_traffic/publications/.

4. Cancellation. This order cancels Notice N JO 7210.717

5. Responsibilities and Procedures.

a. AJE SOS:

(1) Provide national policy, oversight, and guidance regarding air traffic control procedures and requirements for the use of ADS-B information.

(2) Review and take appropriate action on recommendations from WSC regarding local procedures, training, and Micro-EARTS adaptation in support of the operational use of ADS-B.

(3) Determine the risk, establish mitigation plans and determine processes for monitoring the mitigation for any significant discrepancy, error, or other anomaly.

b. WSC:

(1) Review, revise (as appropriate), and forward local procedures and Micro-EARTS adaptation changes to AJE SOS for approval.

(2) Within seven (7) days of receipt, forward to AJE SOS any significant discrepancies, errors, or other anomalies, and appropriate safety management information associated with ADS-B at Anchorage ARTCC.

c. Air Traffic Manager, Anchorage ARTCC:

(1) Ensure that local procedures are developed in accordance with the provisions of this order and incorporated into a facility Standard Operating Procedure (SOP).

(2) Ensure that the ADS-B surveillance service areas are defined in a facility SOP, and are clearly depicted on the controller's display.

(3) Identify Air Traffic requirements for Micro-EARTS adaptation that establishes a clearly defined, delineated and stratified airspace area within which ADS-B targets will be displayed. Expansion/redefinition of ADS-B surveillance service areas shall be in accordance with direction from AJE SOS through the WSC.

(4) Ensure that controller training is developed and provided in accordance with FAA requirements. Also, ensure that controllers receive ADS-B procedures and phraseology training pursuant to this order prior to conducting ADS-B operations.

(5) Designate a facility safety coordinator for the collection and analysis of quality control (QC) information, such as operational errors, operational deviations, pilot deviations, and automation anomalies and pilot/avionics issues.

(6) Ensure that appropriate safety risk management documentation is completed prior to implementation of modified procedures and administration of associated training.

(7) Provide WSC, within 72 hours of occurrence, reports of any significant discrepancies, errors, or other anomalies, and appropriate safety management information associated with ADS-B operations at ZAN.

6. Procedural, Training, and Automation Requirements. The facility shall develop appropriate local procedures, Micro-EARTS adaptation, and training to ensure consistency with the following requirements:

a. Apply 5NM radar separation minima between two ADS-B targets.

b. Apply 5NM radar separation minima between an ADS-B target and a radar target.

c. Apply 5NM radar separation minima between an ADS-B target and a WAM target.

d. Additionally:

(1) If the radar target fails to convert to an ADS-B target, then prior to or upon entering an area of unreliable or unusable radar coverage, discontinue radar separation between the ADS-B and radar targets and take appropriate action to establish nonradar separation between the targets.

(2) In order to apply 5 NM radar separation between an ADS-B target that will transition from the ADS-B surveillance service area and a radar target in the radar environment, the transitioning ADS-B aircraft must be transponder equipped. If the full data block (FDB) for the transitioning aircraft does not automatically associate with the beacon target symbol, discontinue radar separation or take appropriate action to re-identify the aircraft.

(3) For an ADS-B target that will transition from the ADS-B surveillance area into a known area of nonradar surveillance (primary or secondary), nonradar separation must be established prior to that target leaving the ADS-B surveillance area.

e. Standard radar phraseology and procedures as described in FAA Order JO 7110.65 may be applied to ADS-B aircraft within the Anchorage FIR.

f. The following phraseology shall be incorporated into local ADS-B procedures:

(1) To inform an aircraft that its ADS-B transmitter appears to be inoperative or malfunctioning:

PHRASEOLOGY-
(Identification) ADS-B TRANSMITTER APPEARS TO BE
INOPERATIVE/MALFUNCTIONING

(2) To inform an aircraft, when appropriate, to turn off its ADS-B transmitter.

PHRASEOLOGY-
(Identification) STOP ADS-B TRANSMIT

(3) To inform an aircraft, when appropriate, to turn off its ADS-B altitude reporting.

PHRASEOLOGY-
(Identification) STOP ADS-B ALTITUDE TRANSMIT

7. Reporting requirements. Establish requirements in the facility SOP to clarify the processing of safety reports to reflect the following:

a. Quality Control issues. This includes operational errors, operational deviations, pilot deviations and other applicable incidents. These issues shall be routed to the facility safety coordinator who will track these reports and coordinate with WSC. The reporting requirements prescribed in this provision are independent of the requirements contained in FAA Order 7210.56, Air Traffic Quality Assurance. The facility is still responsible for processing air traffic incidents pursuant to these directives.

b. Avionics issues. Avionics issues identified by the controller and forwarded to the supervisor shall be routed to the safety coordinator. The safety coordinator is responsible for report tracking,

coordination with the ZAN Procedures office, coordination with AVS (as necessary), and coordination with WSC.

c. Automation/Adaptation/Procedural issues. Automation, adaptation, and procedural issues identified by the controller and forwarded to the supervisor shall be routed to the safety coordinator and ZAN Procedures office. The safety coordinator is responsible for report tracking, coordination with the ZAN Procedures office, coordination with the Facility Automation Support Team (FAST) as necessary, and coordination with WSC.

8. Distribution. This order is distributed to select offices in Washington headquarters, the Western Service Center, William J. Hughes Technical Center, Mike Monroney Aeronautical Center, and Anchorage ARTCC.

9. Background. In coordination with Aviation Safety (AVS), a revised safety risk mitigation and validation plan was initiated on June 15, 2006. Procedures in support of these operations have been demonstrated and found to meet acceptable safety levels. On May 31, 2007, the office of Air Traffic Safety Oversight Service approved the 5 NM ADS-B to radar separation standard in the Anchorage FIR. The baseline procedures and phraseology contained in this order have been validated and may serve as the foundation for the development of national procedures for use of the ADS-B upon integration into the National Airspace System.

10. Authority to Change This Order. Authority to change this order is restricted to the Director, En Route and Oceanic Safety and Operations Support.

11. Definitions.

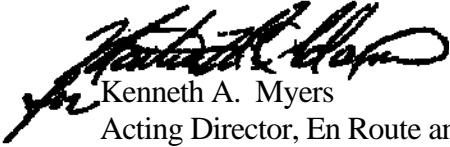
a. Automatic Dependent Surveillance-Broadcast (ADS-B) [ICAO]. ADS-B is a surveillance system that transmits information, such as Global Positioning System (GPS) position, at specified intervals via a digital broadcast, for utilization by any air and/or ground users requiring it.

b. Ground based ADS-B Transmitter/Receiver (GBT). The GBT relays information between ADS-B equipped aircraft and ground systems.

12. Safety Risk Management.

a. In coordination with AVS, this order implements baseline procedures for the use of ADS-B information for a 5 NM separation standard between ADS-B targets and a 5NM separation standard between ADS-B targets and radar targets. Requirements for the development of appropriate procedures, Micro-EARTS automation changes, controller training requirements and safety reporting processes are established by this order. The Surveillance and Broadcast Services Program Office and AJE SOS have completed a safety analysis to establish a 5NM radar separation standard between ADS-B and radar targets within the ZAN FIR. A Safety Risk Management Document (SRMD) on the operational use of ADS-B to radar separation procedures was completed on March 21, 2007. On May 31, 2007, the office of Air Traffic Safety Oversight Service issued a memorandum approving the 5NM ADS-B to radar separation standard in the Anchorage FIR.

b. The provisions of this order are identical to the provisions contained in Notices N JO 7210.668 and N JO 7210.696 which were supported by the May 2007 SRMD. No new safety issues or hazards have been identified during operations conducted under the provisions of the previous notices. Accordingly, ATO En Route Safety and Operations Support concludes that no further safety analysis is warranted.



Kenneth A. Myers
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