

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

N JO 7210.696

Air Traffic Organization Policy

Effective Date:
July 10, 2008

Cancellation Date:
July 09, 2009

SUBJ: REQUIREMENTS FOR THE USE OF AUTOMATIC DEPENDENT SURVEILLANCE BROADCAST (ADS-B) AT ANCHORAGE AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC)

- 1. Purpose of This Notice.** This notice establishes requirements to support the use of ADS-B information at Anchorage ARTCC.
- 2. Audience.** This notice applies to the following ATO organizations: the En Route and Oceanic Safety and Operations Support Office (ATO-E SOS), Anchorage ARTCC (ZAN), and the Western En Route and Oceanic Service Area (WEOSA).
- 3. Where Can I Find This Notice?** This notice is available on MyFAA employee Web site at https://employees.faa.gov/tools_resources/notices_notices/.
- 4. Cancellation.** FAA Notice 7210.668, Requirements for the Use of Automatic Dependent Surveillance Broadcast (ADS-B) at Anchorage Air Route Control Center (ARTCC), effective July 10, 2007, is canceled.
- 5. Responsibilities and Procedures.**
 - a. ATO-E 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 WEOSA 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. WEOSA:**
 - (1) Review, revise (as appropriate), and forward local procedures and Micro-EARTS adaptation changes to ATO-E SOS for approval.

(2) Within seven (7) days of receipt, forward to ATO-E 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 Notice 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 ATO-E SOS through the WEOSA.

(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 notice prior to conducting ADS-B operations.

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

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

(8) Provide WEOSA, 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. 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.

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

d. 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 Assurance 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 WEOSA. The reporting requirements prescribed in this provision are independent of the requirements contained in FAA Order 7210.56, Air Traffic Quality Assurance and Notice JO 7210.663. 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 WEOSA.

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 WEOSA.

8. Distribution. This notice 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 as outlined in N7210.634, Requirements for the Use of Automatic Dependent Surveillance Broadcast at Anchorage Air Route Traffic Control Center (ARTCC), 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 notice have been validated and may serve as the foundation for the development of national procedures for use of ADS-B upon integration into the National Airspace System.

10. Authority to Change This Notice. Authority to change this notice 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. In coordination with AVS, this notice 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 notice. The Surveillance and Broadcast Services Program Office and ATO-E 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 5 NM ADS-B to radar separation standard in the Anchorage FIR.

The provisions of this notice are identical to the provisions contained in Notice N7210.668 which was supported by the May 2007 SRMD. No new safety issues or hazards have been identified during operations conducted under the provisions of Notice N7210.668. Accordingly, ATO En Route Safety and Operations Support concludes that no further safety analysis is warranted.



for Luis A. Ramirez
Director, En Route and Oceanic Safety and
Operations Support

6/27/2008

Date Signed