

# NOTICE

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

N JO 7210.800

**Effective Date:**  
December 19, 2011

**Cancellation Date:**  
December 18, 2012

**SUBJ:** Guidance for the Implementation of FUSION Displays at Houston (I90) Terminal Radar Approach Control (TRACON)

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**1. Purpose of This Notice.** This notice establishes the procedures, requirements, responsibilities, and usage of minimum vectoring altitude charts (MVAC) associated with FUSION displays. These procedures are currently being tested at I90 TRACON and replace Federal Aviation Administration (FAA) Order JO 7210.3, Facility Operation and Administration, Paragraph 3-9-1, Minimum Vectoring Altitude Charts (MVAC) for Facilities Providing Terminal Approach Control Services, and Paragraph 3-9-4a, Emergency Obstruction Video Map (EOVM), for I90 only.

**2. Audience.** This notice applies to the Air Traffic Organization (ATO) Terminal Service Unit at I90 TRACON.

**3. Where Can I Find This Notice?** This notice 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/air\\_traffic/publications/](http://www.faa.gov/air_traffic/publications/).

**4. Procedures.** The following procedures must be used:

**a.** Air traffic managers must determine the location and the method for the display of vectoring altitude charts to provide controllers with the minimum vectoring altitudes as follows:

(1) Where the system is configured to display single-radar sensors, provide:

(a) An MVAC that accommodates the largest separation minima of all available sensors; or

(b) Unique MVACs that accommodate the appropriate separation minima of each available sensor.

(2) Where the system is configured to simultaneously display multiple radar sensors, provide an MVAC that accommodates the largest separation minima of all available sensors.

(3) Where the system is utilizing FUSION:

(a) An MVAC must be developed for the lateral limits of the associated approach control airspace, plus an appropriate buffer outside the lateral approach control airspace boundaries. The MVAC must provide for 3-mile separation minima or more from obstacles, except when applying the provision in paragraph 4a(3)(b). As a minimum, this may be accomplished by using the existing single-sensor MVAC for the predominant radar sensor, and

(b) An MVAC that provides 5NM separation minima from obstacles, for use whenever the FUSION system cannot provide 3NM separation due to degraded status or system limitations.

(4) At locations adding FUSION, if the facility uses existing MVA charts with 3-mile and 5-mile buffers, they do not need to develop additional charts to support FUSION.

**NOTE-**

*Mission Support Services – Aeronautical Products, ATC Products Group, should be contacted if assistance is required. (See FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS), Chapter 10.)*

**b.** An EOVM must be established at all terminal radar facilities that have radar coverage in designated mountainous areas and an available channel in the video mappers. This map is intended to facilitate advisory service to an aircraft in an emergency situation wherein an appropriate terrain/obstacle clearance minimum altitude cannot be maintained.

**NOTE-**

**1.** Designated mountainous areas are identified in 14 CFR Part 95, Subpart B.

**2.** Appropriate terrain/obstacle clearance minimum altitudes may be defined as MIA, MEA, minimum obstruction clearance altitude (MOCA), or MVA.

**3.** The requirements of FAA Order JO 7210.3, paragraph 3-9-4, are for a facility to be able to provide advisory service to an aircraft in an emergency situation in areas of mountainous terrain. I90 does not provide advisory service to aircraft in areas of mountainous terrain and is not subject to the requirements of FAA Order JO 7210.3, paragraph 3-9-4.

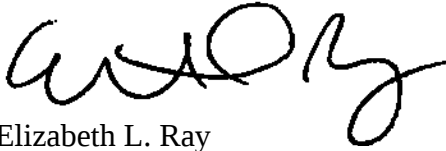
**5. Distribution.** This notice is distributed to the following ATO service units: Terminal, En Route and Oceanic, System Operations, and Mission Support; ATO Safety; the Air Traffic Safety Oversight Service; the William J. Hughes Technical Center; and the Mike Monroney Aeronautical Center.

**6. Background.** FUSION is the combination of all available surveillance sources (airport surveillance radar [ASR], air route surveillance radar [ARSR], ADS-B, etc.) into the display of a single-tracked target for air traffic control separation services. FUSION is the equivalent of the current single-sensor radar display. FUSION performance is characteristic of a single-sensor radar display system. Terminal areas use mono-pulse secondary surveillance radar (ASR-9, Mode S). The performance of this system will be used as the baseline radar system to ensure minimal degradation of current separation operations within the NAS.

ADS-B is a key, enabling technology supporting the implementation of the Next Generation Air Transportation System. The incorporation of ADS-B as a surveillance source requires the incorporation of multiple surveillance sources such as ASR, ARSR, ADS-B, and multilateration into existing and future air traffic control automation systems. It has been determined that FUSION is the best method to accomplish this. The Surveillance and Broadcast Services (SBS) Air Traffic CHI Workgroup was established to ensure functional standardization and usability of multiple surveillance sources integration in both the terminal and en route domains.

**7. Action.** The I90 TRACON air traffic manager must ensure that the provisions of this notice are briefed to all front-line managers, controllers-in-charge, and operational air traffic controllers before the initial operational use of FUSION.

**8. Safety Management System.** The provisions of this notice are based on the FUSION System Safety Risk Management Document (SRMD), Sub-System Hazard/System Hazard Analysis for Standard Automation Replacement System (STARS), prepared by the FAA Surveillance and Broadcast Services Program. This SRMD supports the procedural guidance contained in this notice and has been accepted and approved as required by FAA Order 1100.161, Air Traffic Safety Oversight, and the ATO Safety Management System Manual.



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Air Traffic Organization

12-16-11  
Date Signed