



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
National Policy

ORDER
JO 7110.121A

Effective Date:
March 20, 2019

SUBJ: Precision Runway Monitor-Alternative (PRM-A) Multilateration (MLAT) data for surveillance at Detroit TRACON (D21)

1. Purpose of This Order. This order prescribes guidance for the use of PRM-A MLAT information for conducting ATC services at D21 using the STARS automation platform operating in Fusion Display Mode (FDM).

2. Audience. This order applies to Detroit TRACON (D21) and Detroit ATCT (DTW).

3. Where Can I Find This Order? This order is available on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices/.

4. Cancellation. This order cancels FAA Order JO 7110.121, Precision Runway Monitor-Alternative (PRM-A) Multilateration (MLAT) data for surveillance at Detroit TRACON (D21) dated November 9, 2015.

5. Explanation of Change. This change removes the restriction to the use of Final Monitor Aid (FMA) when operating in Fusion Display Mode (FDM). In March 2018, the restriction on the use of FMA in FDM was removed from the 7110.65 and 7210.3.

6. Procedures.

a. When operating in FDM, PRM-A MLAT data will only be used by STARS within the “keyhole” coverage area and as depicted on the STARS displays.

NOTE- The Keyhole Coverage area is defined as that airspace within 26 miles of the Detroit Metropolitan Wayne County Airport ASR-9 and within 2.8 miles east and abeam of DTW splaying to a point 7 miles east of the centerline of 4L/22R and within 2.6 miles west and abeam DTW airport splaying to a point 5.7 miles west of the centerline of Ry 3R/21L.

b. The use of PRM-A MLAT surveillance data beyond the defined boundaries of the “keyhole” is not authorized.

c. All procedures and requirements contained in FAA Order JO 7110.65 related to terminal separation standards, including the provision of 3NM separation apply.

7. Distribution. This order is distributed to the following ATO service units: Air Traffic Services, Mission Support Services, and Systems Operations; the Office of ATO Safety and Technical Training; the Air Traffic Safety Oversight Service; and the William J. Hughes Technical Center.

8. Background. Detroit TRACON is currently using the STARS system in single sensor mode for air traffic display of targets and aircraft separation services. They also employ a STARS Final Monitoring Aid (FMA) Display that utilizes the MLAT surveillance provided by the Precision Runway Monitor-

Alternative (PRM-A) system to monitor simultaneous independent approaches to their closely spaced parallel runways. MLAT provides highly accurate surveillance reports with a typical update rate of one second. Although the STARS single sensor configuration does not allow for the use of MLAT surveillance to support the display of target position to a controller, MLAT surveillance currently contributes to the system track position used for the STARS safety logic, supporting the logic for both conflict alerts (CA) and minimum safe altitude warnings (MSAW). MLAT technology utilizes signals from Air Traffic Control Radar Beacon System (ATCRBS) (Modes A and C), ADS-B, and/or Mode S equipped aircraft transponder transmissions to calculate aircraft position. It employs a distributed network of transmitters/receivers, placed in strategic locations around the airport and other TRACON airspace locations to collect these transmissions. The ASDE-X system creates highly accurate MLAT track data by triangulating on these transmissions. This MLAT sensor data is sent from ASDE-X to STARS.

9. Safety Management System. The provisions of this order are based on the Standard Terminal Automation Replacement System (STARS) Fusion with Multilateration (MLAT) Safety Risk Management Document (SRMD), Separation Standards Performance Analysis for STARS; and prepared by the FAA Surveillance and Broadcast Services Program. These SRMDs supports the procedural guidance contained in this order. The editorial update being proposed in this revision does not require any additional safety analysis.



Sharon Kurywchak
Acting Director, Air Traffic Procedures
Mission Support Services

3/19/19
Date