

NOTICE

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

N JO 7210.660

Effective Date:
June 1, 2007

Cancellation Date:
February 14, 2008

SUBJ: Safety Logic Systems Procedures for Airport Surface Detection Equipment – Model X (ASDE-X) 5.0.7.2, and Airport Movement Area Safety System (AMASS)

1. Purpose of This Notice. This notice provides the operational procedures for ASDE-X Safety Logic Systems Build 5.0.7.2 and AMASS to be utilized by personnel providing air traffic control (ATC) services to aircraft on the surface movement area.

2. Audience. This notice applies to Terminal and all associated ATC facilities; the William J. Hughes Technical Center; and the Mike Monroney Aeronautical Center.

3. Where Can I Find This Notice? This notice is available on 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/airports_airtraffic/air_traffic/publications.

4. Action. Terminal facility managers shall ensure the provisions of this notice are briefed to all front-line managers, controllers-in-charge (CIC), and air traffic controllers prior to conducting operations involving ASDE/AMASS Safety Logic Systems.

5. Procedures. Change the following paragraphs in Federal Aviation Administration Order 7210.3U, Facility Operation and Administration, Section 9, Safety Logic Systems Supervisor/CIC Procedures:

a. Amend the title of the section to Safety Logic Systems Front-Line Manager/CIC Procedures.

b. Amend Paragraph 11-9-1, System Operation, to read as follows:

11-9-1. SYSTEM OPERATIONS

a. Safety Logic Systems are software enhancements to the ASDE-3 and ASDE-X that predict the path of aircraft landing and/or departing and/or vehicular movements on runways. Visual and aural alerts are activated when the safety logic projects a potential collision.

1. AMASS is a safety logic system enhancement to the ASDE-3.

2. ASDE-X Safety Logic is a system enhancement to ASDE-X.

b. The Safety Logic System shall be operated in a full-core alert runway configuration. (In ASDE -X when rain configuration is selected, it includes full-core alerting capabilities.)

c. When ASDE-3 and/or AMASS is in maintenance mode, AMASS data shall be considered invalid and the system shall be taken offline. The front-line manager/CIC shall validate, upon resumption of normal AMASS operations, that runway configurations and other user settings are adequate for operational use.

NOTE-

Action to change AMASS online/offline status is a Technical Operations function. ASDE-X safety logic will automatically be disabled when the system is in maintenance mode.

d. When a runway becomes unavailable for aircraft operations for an extended period of time, the runway should be entered as, "Closed" in the Safety Logic System. Facility procedures should be developed to address using the Safety Logic System in this capacity.

e. Construction projects in the vicinity of runways may cause nuisance or false alerts. The National Airway Systems Engineering (NASE) group may be able to provide an adaptation to filter the affected areas from Safety Logic System coverage. Facilities shall contact NASE via e-mail at either 9-AMC-ATOW-ASDE-X@faa.gov or 9-AMC-AOS-AMASS@faa.gov, 30 to 45 days before the construction is scheduled to begin to assist in determining whether an adaptation is necessary.

f. ASDE-X false targets may be temporarily track dropped after positive verification has been accomplished via pilot/vehicle operator position report or controller visual observation. When a false target is temporarily dropped, it shall be noted on FAA Form 7230-4, Daily Record of Facility Operation.

REFERENCE

FAAO 7110.65, Identification, Para. 3-6-2

g. The Air Traffic Manager may authorize a real target to be inhibited from safety logic processing when the target will likely generate a nuisance alert.

c. Amend Paragraph 11-9-2, Ensure Status, to read as follows:

11-9-2. ENSURE STATUS

a. The front-line manager/CIC is responsible for ensuring that the Safety Logic System is set for the correct runway configuration.

b. The front-line manager/CIC shall ensure that the operational status of the Safety Logic System is known to all operational personnel.

c. When a status change is made to the Safety Logic System, all personnel assigned an operational position shall be notified verbally.

d. When any status change is made to the Safety Logic System, it shall be noted on FAA Form 7230-4, Daily Record of Facility Operation. Such status shall be shown in the facility SIA. The front-line manager/CIC shall ensure that all outages are carried over on applicable logs.

d. Amend Paragraph 11-9-3, Monitor Alerts and Ensure Corrective Action, to read as follows:

11-9-3. MONITOR ALERTS AND ENSURE CORRECTIVE ACTION

a. The front-line manager/CIC shall ensure that the Safety Logic System is monitored and all alerts are complied with.

b. All Safety Logic System alerts generated shall be documented on FAA Form 7230-4. If unable to determine the origin of an alert, treat the alert as false and notify Technical Operations so corrective action can be taken.

c. The purpose of logging Safety Logic System alerts is to track the reliability and performance of the system. Therefore, the QAR process shall not be used for false or nuisance alerts.

REFERENCE-

Pilot/Controller Glossary Term – Safety Logic System Alerts.

e. Amend Paragraph 11-9-4, Limited Configuration, to read as follows:

11-9-4. RAIN CONFIGURATION

a. Due to the required sensitivity of surface movement radars, numerous false targets may be generated by moderate to extreme precipitation. During these periods, the ASDE-X and AMASS Safety Logic Systems should be operated in rain configuration. Should precipitation of this magnitude occur or be imminent, rain configuration may be applied to avoid the likelihood of false alerts.

b. When the event that led to placing the system into rain configuration is no longer a factor, the Safety Logic System must be reset to a normal configuration.

NOTE-

When AMASS is in rain configuration all safety logic alerts with the exception of arrivals to a closed runway are inhibited and AMASS is not full-core alert status.

f. Amend Paragraph 11-9-5, Watch Checklist, to read as follows:

11-9-5. LIMITED CONFIGURATION

a. Under certain circumstances, there may be a need to operate the Safety Logic System in limited configuration. The limited configuration shall only be used to temporarily inhibit persistent false alerts. The term “persistent false alert” refers to frequent false alerts caused by continuous or repetitive circumstances. False alerts caused by random events or circumstances of short duration are not considered “persistent false alerts.” The determination of "persistent alerts" is at the discretion of each front-line manager/CIC.

b. Due to the required sensitivity of surface movement radars, numerous false targets may be caused by precipitation of moderate or greater intensity. Should precipitation of this magnitude occur or be imminent at locations where ASDE does not have rain configuration availability, limited configuration may be applied to avoid the likelihood of false alerts.

c. When it is necessary to operate the ASDE-X Safety Logic System in limited configuration due to “persistent false alerts,” notify Technical Operations so corrective action can be taken.

d. When an AMASS false alert is received, limited configuration shall only be used until Technical Operations verifies the system is functioning properly and the data necessary to analyze the alert has been obtained. Analysis and resolution of the circumstances surrounding the false alert will be determined by Technical Operations at a later date.

e. When limited configuration is applied, it shall be noted on FAA Form 7230-4, Daily Record of Facility Operation, including the reason for the configuration change. Ensure that all limited configurations are carried over on applicable logs.

NOTE-

- 1. For AMASS, the limited configuration disables all alerts except arrivals to a closed runway and is not considered full-core alert status.
- 2. For ASDE- X, the limited configuration disables all alerts except arrivals to and departures on a closed runway and is not considered full-core alert status.

g. Renumber Paragraph 11-9-5, Watch Checklist, to 11-9-6.

6. Distribution. This notice is distributed to the following Air Traffic Organization service units: Terminal, Safety, and System Operations Services; the service center offices; Air Traffic Safety Oversight; the William J. Hughes Technical Center; the Mike Monroney Aeronautical Center and all air traffic control field facilities.

7. Background. This build incorporates an upgrade to the ASDE radar system to include a rain configuration to be used during periods of moderate to extreme precipitation to avoid the likelihood of false alerts. ASDE-X limited configuration shall only be used to temporarily inhibit alerts caused by continuous or repetitious circumstances, i.e., persistent false alerts due to multipath. When limited configuration is applied, it shall be noted on FAA Form 7230-4, Daily Record of Facility Operation, along with the reason for the configuration change. All limited configurations shall be carried over on applicable logs. False targets may be temporarily dropped after positive identification has been accomplished in accordance with FAAO 7110.65R, paragraph 3-6-2(b). When a false target is temporarily track dropped, the target location and time shall be noted on FAA Form 7230-4 Daily Record of Facility Operation. The Air Traffic Manager may authorize a real target to be inhibited from safety logic processing when the target will likely generate a nuisance alert.

When an AMASS false alert is received, limited mode shall be used only until Technical Operations verifies the system is functioning properly and the data necessary to analyze the alert has been obtained. Analysis and resolution of the circumstances surrounding the false alert will be determined by Technical Operations at a later date. Unless AMASS persistently generates false alerts, it should not be allowed to remain in limited mode pending the outcome of Technical Operations review of the alert data. The determination of "persistent alerts" is at the discretion of each front-line manager/CIC.

8. Implementation. This notice shall be implemented on the effective date and content of this notice will be incorporated into FAAO 7120.3V, effective February 14, 2008.



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6-1-07
Date Signed