NOTICE

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

N JO 7210.905

Effective Date:
January 22, 2018

Cancellation Date:
September 13, 2018

SUBJ: ASR-8/TDX-2000/Common Terminal Digitizer Radar Systems Weather Display

1. Purpose of This Notice. This notice states that all facilities that utilize a digital system that does not concurrently display all levels of precipitation must establish a procedure via facility directive that ensures periodic monitoring of all precipitation level ranges.

2. Audience. This notice applies to the following Air Traffic Organization (ATO) service units: Air Traffic Services and associated air traffic control facilities, Mission Support, System Operations, and Technical Operations.

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

4. Cancellation. This notice is canceled with the publication of FAA Order JO 7210.3AA, Change 2.

5. Explanation of Policy Change. The current recommended radar configuration in ASR-8 terminal facilities that utilize the TDX-2000 weather product is for Linear Polarization (LP) to be used during light or no weather/precipitation in the area and for Circular Polarization (CP) to be used when moderate or greater weather/precipitation is in the area. LP is the preferred configuration. However, due to the limitations of the weather product, it will not display moderate or greater weather/precipitation and can result in the dissemination of inaccurate weather information. This change adds a requirement for terminal facilities using the ASR-8/TDX2000 combination to periodically switch between the two systems in order to monitor all precipitation levels.

6. Procedures/Responsibilities/Action.

3-6-6. TERMINAL DIGITAL RADAR SYSTEM AND DISPLAY SETTINGS

Title thru b2, no change

c. Facilities that utilize a digital system that does not concurrently display all levels of precipitation (ASR-8/TDX2000) must establish a procedure via facility directive that ensures periodic monitoring of all precipitation level ranges during precipitation events.

Re-letter subparagraph c as subparagraph d

No further changes to paragraph.

7. Distribution. This notice is distributed to the following ATO service units: Air Traffic Services, Mission Support Services, System Operations, Safety and Technical Training; the Air Traffic Safety Oversight Service; the William J. Hughes Technical Center; and the Mike Monroney Aeronautical Center.

8. Background. The ASR-8 was designed primarily as aircraft detection equipment for the National Airspace System (NAS). Weather detection is an auxiliary function but it is not certifiable. The ASR-8/TDX-2000 weather product is primarily created using the normal video output of the radar by searching for large areas of radar returns that are too large to be an aircraft. That data is compared to the clear day weather map to determine if it is from a clutter return or not. If not, it undergoes further processing to confirm weather. The different levels of weather are determined by the video magnitude in the areas of weather in the coverage area when compared to the Clear Day (no weather) map in the TDX-2000. It is not as thorough or accurate as Next Generation Radar/Terminal Doppler Weather Radar/Weather System Processor (NEXRAD/TDWR/WSP) weather products. There are two types of radar selections available: Linear Polarization (LP) and Circular Polarization (CP). In LP, the TDX2000 will display up to level 3 precipitation. Higher levels may appear but they are considered unreliable in LP. In CP, the TDX2000 will display levels 3-6 plus some level 2 precipitation. Level 1 may appear but it is considered unreliable in CP. The Common Terminal Digitizer (CTD) is replacing the TDX2000. The CTD weather product has the same limitations as the TDX-2000.

Original signed by Maurice Hoffman

Maurice Hoffman
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12/14/17
Date Signed