NATIONAL WEATHER SERVICE POLICY DIRECTIVE 60-22
NOVEMBER 3, 2023

Information Technology

NATIONAL RADAR TELECOMMUNICATIONS PROGRAM

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SUMMARY OF REVISIONS: This directive supersedes policy directive NWSPD 60-22 "*National Radar Telecommunications Program",* dated December 5, 2019. This is a routine review and update to keep this document current. Minor language and editorial adjustments were made to increase applicability, ensure clear and concise policy guidance, and improve readability.

1. This directive establishes policy for the National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) Radar Telecommunications Program. Timely radar data is needed by NWS field offices/ National Centers to support forecast and warning responsibilities. This radar data is available from a variety of NWS and government agency radars. The NWS National Radar Network (NRN) includes 159 interagency NEXRAD (WSR-88D) radars. Some NWS field offices also receive "complementary" data from other radars such as the Federal Aviation Administration (FAA)-owned Terminal Doppler Weather Radar (TDWR), which is not part of the NRN. All dedicated telecommunications circuits which provide NRN data to NWS field offices constitute the National Radar Telecommunications Program.

2. The NWS will provide field offices and National Centers with access to NRN sites to support forecast and warning responsibilities.

3. The network of government (NWS, Department of Defense (DOD) and FAA) NEXRAD radar sites (Reference 1) are operated and maintained via inter-agency agreements (Reference 2). In those agreements, each agency's responsibilities are defined for the acquisition and maintenance of their associated telecommunications infrastructures.

4. This directive establishes the following NWS authorities and responsibilities:

4.1 The Assistant Administrator for Weather Services is responsible for ensuring compliance with interagency agreements concerning the acquisition and use of telecommunications services for NEXRAD data.

4.2 The Office of Observations (OBS), the Office of Dissemination (DISS) and the National Centers for Environmental Prediction (NCEP) Central Operations (NCO) are responsible for ensuring that telecommunications services supporting NEXRAD radars operate at a high level of the

systems effectiveness. The NCO and Radar Operations Center (ROC) are jointly responsible for automated monitoring of the flow of WSR-88D Radar Level II data from the networked NEXRAD radar sites to Top Tier providers on a 24/7 basis. The ROC is responsible for the life cycle support of the National Level II servers located at the Ashburn, VA Environmental Data Center (EDC) and the ROC, including the operation and maintenance of hardware, software and telecommunications service. DISS, the Integrated Dissemination Program (IDP), and NCO are responsible for maintaining One NWSNet access to WSR-88D Radar Level II data and III products.

4.3 The OBS and DISS portfolios are responsible for the acquisition and management of all telecommunications services needed to deliver radar data from NRN sites to NWS field offices. OBS coordinates with the Defense Information and Technology Contracting Organization, DoD and FAA on the interagency NEXRAD telecommunications network. DISS is responsible for assisting sites and the ROC, as needed, in resolving commercial telecommunications circuit disruptions.

4.4 The WSR-88D Hotline and Engineering Branches at the ROC are responsible for coordinating telecommunications installations and providing real-time (24x7) troubleshooting and restoration support for failures of NEXRAD telecommunications circuits.

4.5 The Advanced Weather Interactive Processing System (AWIPS) Network Control Facility (NCF) is responsible for 24x7 monitoring of the interfaces from AWIPS computer equipment to the NEXRAD telecommunications network and for initiating restorative actions as necessary in coordination with the ROC. The NCF isolates problems between the AWIPS system and the NEXRAD telecommunications network. Responsibility for resolving NEXRAD telecommunications problems resides with the ROC.

4.6 NWS regional and field offices are responsible for reporting trouble of commercial telecommunication outages to the appropriate telecommunications vendor. If not resolved at that level, the problem escalates to the ROC. When recurring outages cannot be resolved at the local/regional/ROC Hotline level, the problem should be escalated to ROC Engineering.

4.7 NWS Electronics System Analysts (ESAs) are responsible for maintaining and troubleshooting all NWS owned telecommunications data links (microwave links, dedicated cable, wireless, fiber optic communications, etc.).

5. The effectiveness of this policy will be accomplished through daily monitoring by the ROC and NCO.

Policy references and glossary of terms are listed in Appendix 1.

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Appendix 1

GLOSSARY OF TERMS AND SUPPORTING INFORMATION

References:

1. NEXRAD WSR-88D Site ID Database: http://www.roc.noaa.gov/WSR88D/Pogram/SiteID.aspx
2. WSR-88D Interagency Memorandum of Agreement (MOA); dated March 2008: http://www.roc.noaa.gov/WSR88D/PublicDocs/MOA.pdf

Glossary of Terms:

- AWIPS – Advanced Weather Interactive Processing System
- DISS – Office of Dissemination
- DoD – Department of Defense
- EDC – Environmental Data Center
- ENPO – Enterprise Network Program Office
- ESA – Electronics System Analyst
- FAA – Federal Aviation Administration
- NCF – Network Control Facility (AWIPS)
- NCO – National Centers for Environmental Prediction Central Operations
- NEXRAD – Next Generation Weather Radar
- NRN – National Radar Network
- OBS – Office of Observations
- ROC – Radar Operations Center (NEXRAD)
- TDWR – Terminal Doppler Weather Radar
- Telco – Telephone Company
- WSR-88D – Doppler Weather Surveillance Radar (Next Generation Weather Radar - NEXRAD)