



THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management

NEW WEATHER RADAR SERVING NORTHWEST NORTH DAKOTA

By Darin Langerud

Northwest North Dakota has a new tool to help identify rain, hail and snow. A weather radar located at the Williston Basin International Airport (XWA) will provide lower atmospheric coverage of storms and precipitation in a region underserved by National Weather Service (NWS) radars located near Minot and Glasgow, Montana. The radar is funded by a Williams County sales tax dedicated to public safety projects; the data is expected to be made available to the public in April.

Beyond the usual capabilities of weather radars, the Williams County radar has dual-polarization (dual-pol) technology, which provides better estimates of rainfall and the ability to identify hail falling from thunderstorms. “The weather radar will provide additional information about severe weather in western North Dakota that our regional forecasters have needed for years,” said Mike Smith, Williams County/Williston Emergency Management Director. “It will be another tool in the toolbox for helping get important weather information to the public and is a complement to the Williams County ALERT system.” The radar’s Doppler capabilities will allow for the measurement of strong winds and improve meteorologists’ ability to warn the public of storms producing strong straight-line winds, or those that have the ability to produce tornadoes.

The State Water Commission (SWC) will play a significant role making the data available for use. Radar images will be sent to the agency in real-time and displayed on the SWC website, along with radars operated by the SWC Atmospheric Resources Division in Bowman and Stanley, making the agency a one-stop shop for weather radar data in western North Dakota. Dual-pol data will also benefit the operations of the North Dakota Cloud Modification Project, which seeds clouds to enhance rainfall and reduce hail damage in Williams, McKenzie, Mountrail and Ward counties.



Photo courtesy of Lindsey Harriman, Williams County Communication & Research Analyst.

“The addition of the new weather radar site at the new XWA airport in Williams County is a huge benefit to everyone who lives, works and travels in northwest North Dakota and northeast Montana,” said David Montgomery, Williams County Commissioner. “The project cost of over one million dollars was paid through a grant from the Williams County Public Safety Sales tax. This project would not have happened without the approval of that sales tax from the voters of Williams County.”

Data from Bowman, Stanley (summer) and Williams County radars are updated every five minutes, around-the-clock, seven days a week. Real-time images can be found on the SWC website at www.swc.nd.gov/arb/radar.

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