

# THE ATMOSPHERIC RESERVOIR

*Examining the Atmosphere and Atmospheric Resource Management*

## ARBCON Has New Precip Mapping Tool

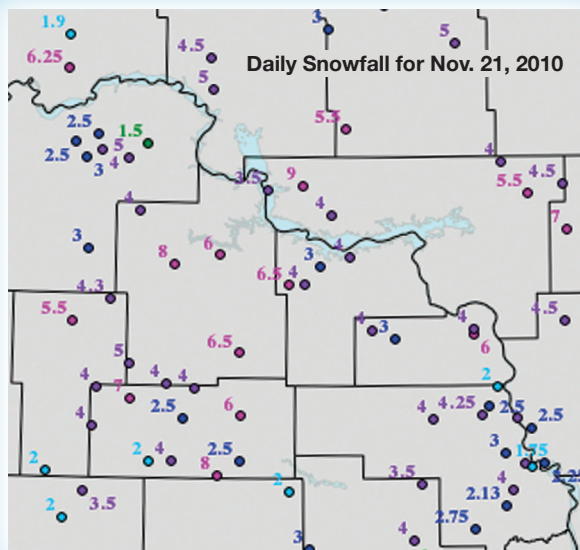
By Daniel Brothers

The North Dakota Atmospheric Resource Board (NDARB) has operated a statewide volunteer rain gauge network since 1977. The ARB Cooperative Observer Network (ARBCON) collects daily rain and hail data from April through September of each year, and in October ARBCON expanded to reporting year-round, including snowfall.

Precipitation data collected from ARBCON is now easier to view thanks to a new mapping tool at [www.swc.nd.gov/precip-Map.html](http://www.swc.nd.gov/precip-Map.html). A person can view a graphical display of daily or multi-day precipitation values, hail observations, and snowpack reports. The map can also be adjusted to show the entire state or zoom in on the four quadrants of the state.

The Daily Precipitation map will show 24-hour accumulated totals of rain and/or the liquid equivalent of daily snowfall. The display shows point values with color coded dots and text, making it easier to distinguish different amounts of precipitation. Since ARBCON has over 700 active observers during the summer months, the map can become cluttered with every point labeled, so a check box is available in the upper left corner to turn labels on or off.

The Precipitation Summary product allows a user to show total precipitation over multiple days. This can be used to see the total precipitation from a two-day event,



a month, a season, or any other time period a user wants, provided that data is available. If a point has missing data for the time period selected it will not be displayed. This will help maintain better accuracy in the data that is displayed.

The daily hail map shows any hail reports received from ARBCON for the date selected. Reports of hail are made based on the size of the largest hailstone observed at that location. The map will display this information with a point that varies in color and size, in addition to a label of the size range of the hail.

ARBCON currently has close to 400 volunteers signed up for winter reporting. Observers are asked to make occasional measurements of the total snowpack in their area. This is a measurement of the water equivalent for the snowpack currently on the ground in an area reasonably free of drifting or clearing due to wind. These reports can be viewed using

the Daily Snowpack selection.

Daily snowfall and snowfall summary maps are the same as the precipitation maps, except the reports are for the depth of new snowfall for the day or time period requested. Most snowpack reports are made on the last day of the month, but reports can be made anytime and are occasionally requested at other times to aid in flood forecasting. While a person can find these reports by looking at each day individually, a product has been created to view them more easily. The Recent

Snowpack product from the dropdown list shows snowpack reports made in the last 30 days.

All data for the new precipitation mapping tool are available immediately after being entered into the ARBCON database, meaning Internet-reported observations are available to the user within 24 hours.

ARBCON is always seeking more volunteers throughout North Dakota. If you want more information on ARBCON or are interested in volunteering go to [www.swc.nd.gov/arb](http://www.swc.nd.gov/arb), or call 1-800-654-5981. You can also e-mail us at [dabrothers@nd.gov](mailto:dabrothers@nd.gov).

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