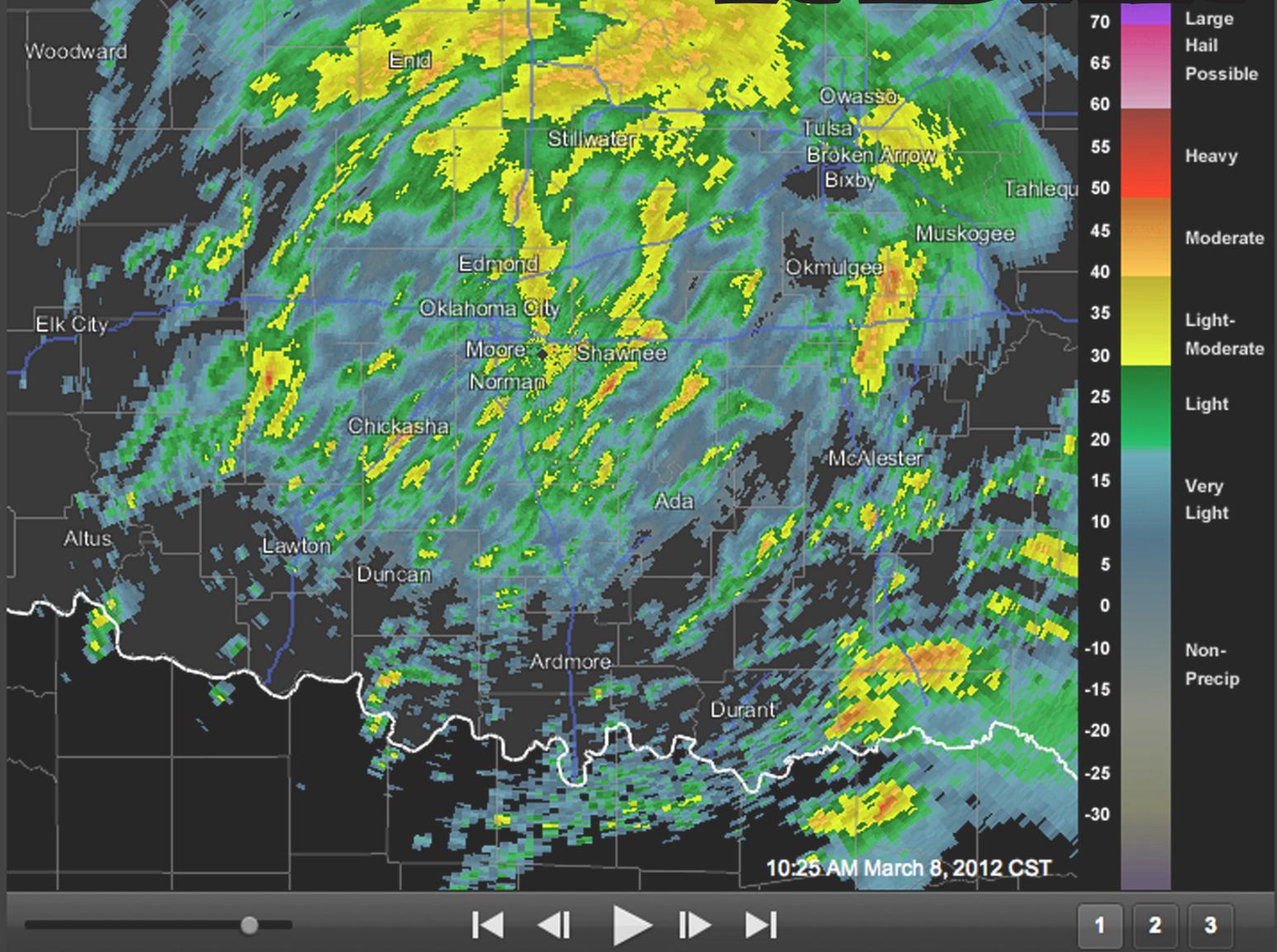


# Reading & interpreting RADAR



**O**klahoma Mesonet allows users to view current weather radar from 15 Doppler radars including national radar and radar from the south-central region of the U.S.

### How does radar work?

The radar transmits a beam of microwave energy into the atmosphere. When the microwave hits a target, energy is reflected back to the radar.

The targets can be precipitation, like raindrops, hailstones, snowflakes or sleet particles. They also can be non-meteorological targets, such as birds, insects or bats.

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*To view radar images, go to <http://mesonet.org>. Click on the Weather tab, and click Radar in the side menu bar. Then you can select a location. Oklahoma and national radar are available to view.*

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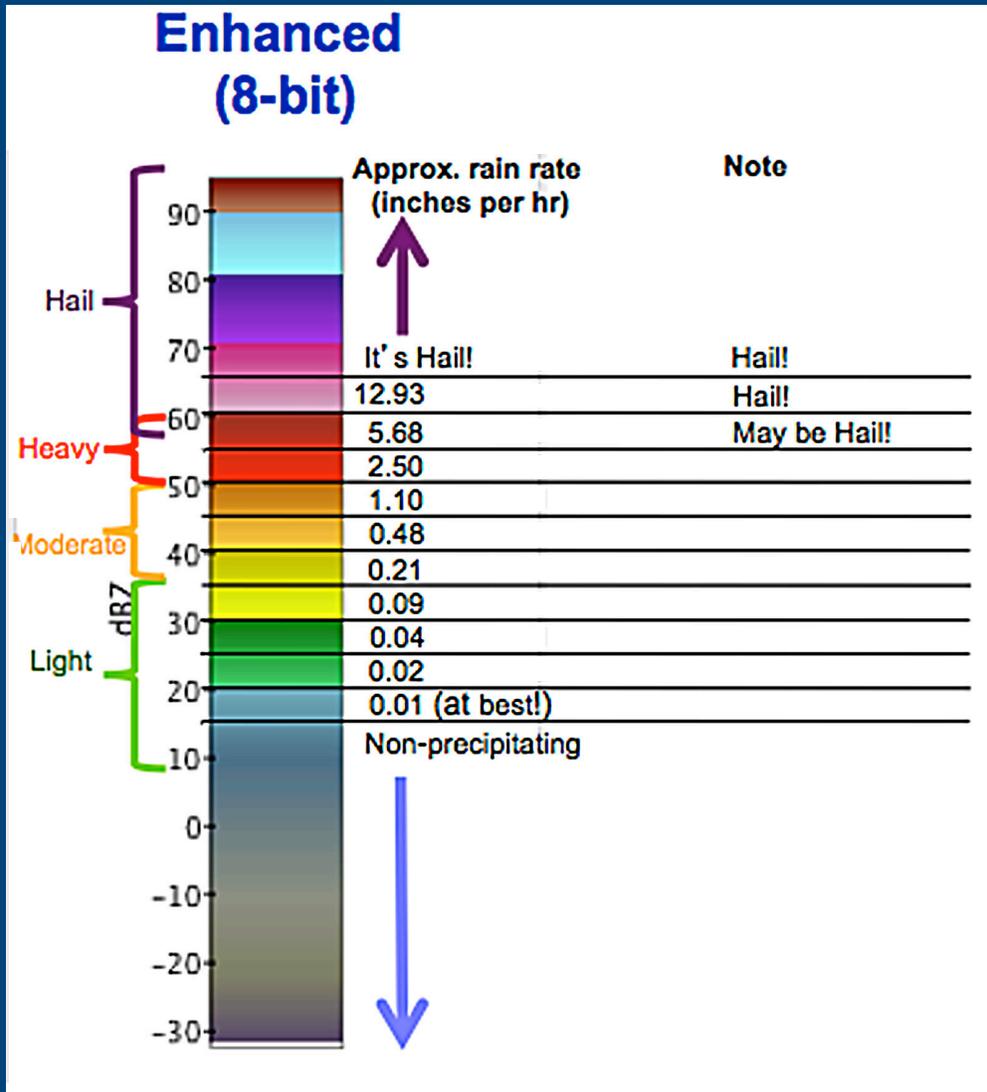
# Radar Reflectivity Scale

## What is reflectivity?

Reflectivity (dBZ) is the measurement used in radar imaging. The larger the reflectivity measurement, the larger the target. Reflectivity is related to the precipitation rate, but can be influenced by several factors. Reflectivity depends on the size distribution of cloud and rain drops. Reflectivity also helps us see cold fronts, dry lines, smoke plumes from fires, and even biological activity such as birds.

## Reading the reflectivity scale

The scale, shown right, ranges from -30 to +90 dBZ. Rain drop sizes make a big impact. One large drop can have the same reflectivity as many small drops. If the color on the scale relates to less than 20 dBZ, it probably isn't raindrops but could be drizzle or snow. If it is more than 55 dBZ, then there is probably hail in the area.



When viewing radar on the Oklahoma Mesonet, several area radars are available. You can view different radars within the state or choose radars from surrounding states. A national radar mosaic is also available at the bottom of the page for you to view. A mosaic combines data from multiple radar units to create national summary views. All radar data is provided by the National Weather Service.

# Our Story

The Oklahoma Mesonet is a world-class network of environmental monitoring stations. The network was designed and implemented by scientists at the University of Oklahoma (OU) and at Oklahoma State University (OSU).

The Oklahoma Mesonet consists of 120 automated stations covering Oklahoma. There is at least one Mesonet station in each of Oklahoma's 77 counties.

At each site, the environment is measured by a set of instruments located on or near a 10-meter-tall tower. The measurements are packaged into "observations" every 5 minutes, then the observations are transmitted to a central facility every 5 minutes, 24 hours per day year-round.

For help with this or other Mesonet products, please call 405-325-3231, or email us at [operator@mesonet.org](mailto:operator@mesonet.org).



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