



THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management



HAIL

Report the largest size stone you see
Compare to common objects

Dime/Penny	0.75 inches
Nickel	0.88 inches
Quarter	1.00 inches
Half Dollar	1.25 inches
Ping Pong Ball	1.50 inches
Golf Ball	1.75 inches
Hen Egg	2.00 inches
Tennis Ball	2.50 inches
Baseball	2.75 inches
Tea Cup	3.00 inches
Grapefruit	4.00 inches
Softball	4.50 inches

All three images courtesy of the National Weather Service (weather.gov).

By Mark D. Schneider

North Dakota's thunderstorm season is underway and you've likely seen SKYWARN window stickers on vehicles around town. The National Weather Service (NWS) began its SKYWARN weather spotter program back in 1965 with the goal of educating the public about how to report severe weather events. According to the website, "SKYWARN is a volunteer program with between 350,000 and 400,000 trained severe weather spotters. In an average year, the United States experiences more than 10,000 severe thunderstorms, 5,000 floods and more than 1,000 tornadoes."

Each NWS office has a Warning Coordination Meteorologist (WCM) who is responsible for teaching SKYWARN workshops and conducting storm damage surveys. Each spring, WCMs usually schedule between 20 to 30 SKYWARN training workshops for locations within their offices' forecast area. These two-hour spotter training workshops provide the public, emergency managers, and even other meteorologists with resources such as weather photos and videos on how to properly identify and report occurrences such as severe hail of one inch diameter or greater, winds of 58 miles per hour (50 knots) or greater, and flooding.

John Paul Martin, WCM for the NWS Forecast Office in Bismarck, commented that, "Even though we have advanced radars that can detect severe weather conditions, we still need ground truth from our spotters to verify the actual conditions that are occurring."

There are a few "tricks of the trade" for reporting severe weather in more remote locations. Most people carry various coins in their vehicles and these can be used to determine hail sizes. (Use the above table to determine hail size)

Any winds causing structural damage should be reported to the NWS. Depending on the type of structure that was damaged and the degree of damage that occurred, meteorologists can accurately estimate windspeeds.

The type of severe weather that causes the most fatalities and is oftentimes overlooked is flooding due to heavy rains. Thunderstorms can easily produce rainfall rates of two inches per hour or more and localized flash flooding is oftentimes the result.

Storm chasers and spotters get very excited whenever they have the opportunity to report funnel clouds and tornadoes. SKYWARN workshops are an excellent learning tool for proper identification of these phenomena. The WCM displays photos and video of both actual and "look alike" funnel clouds and tornadoes. There are many cloud formations that spotters mistake for tornadoes and funnel clouds (especially at night), so proper identification and reporting is of utmost importance.

The NWS has other critical initiatives to assist you in weather preparedness and awareness. The StormReady program is designed to ensure communications are in place between the NWS and local officials so that weather warnings and reports flow easily between the two. The Weather-Ready Nation initiative is designed to ensure you are prepared for, are aware of, and respond appropriately to weather threats.

If you're interested in reporting severe weather to your local NWS office, the Bismarck toll-free reporting number is 1-800-247-0212 and Grand Forks is 1-800-667-1218. In the meantime, keep your "eyes to the sky" and act quickly when threatening weather approaches.