



Storm Reports using Social Media

Show me the weather!





Why do we need spotters?



- Spotter reports become part of a national publication called “Storm Data” which serves as an official source of historical weather events
- Ground truth information is what gets public attention
 - *You may save lives!*
 - *You may be the reason a warning is issued!*



What do you report?

Time, Location, Weather!



- **Snowfall/Rainfall**
- **Freezing Rain/Sleet**
- **Flooding**
- **Hail stones**
- **Thunderstorm wind damage/gusts**
- **Rotating wall clouds**
- **Funnel clouds**
- **Tornadoes/Waterspouts**



Rainfall



- Rainfall: Record rainfall to the nearest one hundredth of an inch e.g. 0.01”
 - *Use a rain gauge!*
 - *What time frame is the measurement for?*
 - 6 hours? 24 hours?





Flooding



- **Flash Floods**: A flood occurring less than 6 hours after heavy rainfall or causative event (e.g. a dam break)
- Rainfall measurements of 1+ inches in an hour → heavy rainfall
- Is there water over the curb or covering the street?
- Is the water stationary or moving?
- Does the water appear deep? i.e. more than 2 ft?



Photo by Melody Bergdahl
Near Lindsey, WI - Sept 23, 2010



Hail stones



- **Hail**: Report hail of any size! Hail ≥ 1 inch generate Severe Thunderstorm Warnings
 - *Use a coin or ball as a reference size*
 - *How long did the hail last? (30 sec? 5 min?)*

Hailstone Size	Measurement
Pea	1/4"
Marble	1/2"
Dime	7/10"
Penny	3/4"
Nickel	7/8"
Quarter	1"
Half dollar	1 1/4"
Golf ball	1 3/4"





Thunderstorm Wind Gusts



- T-Storm Wind Gusts: 40 mph or higher. Gusts ≥ 58 mph requires Severe Thunderstorm Warnings
- Estimate the wind speeds
 - *Is there damage? Where?*



Estimated Wind Speed	Visual Cues
25-31 mph	Large branches in motion
32-38 mph	Whole trees in motion
39-54 mph	Twigs break off, hinders walking
55-72 mph	Large branches broken, damage to chimneys/TV antennas
73-112 mph	Removes shingles, trees uprooted, windows broken
133+ mph	Roofs torn off, weak buildings destroyed, large trees uprooted



Rotating Wall Clouds



- Rotating Wall Clouds: isolated cloud lowering attached to a rain free base
 - *Often exhibit slow, persistent rotation*
 - *Appear on the backside of potentially tornadic thunderstorms, often precede tornadoes*
 - *Change shape, size, and color with time, usually $\frac{1}{2}$ to 3 miles wide*
 - *Estimate where it is located in regards to storm*





Funnel Clouds



- **Funnel Clouds**: Do not come in contact with the ground or create debris!
 - *They are always rotating*
 - Caution: Scud clouds often resemble funnel clouds, make sure the rotation is persistent!
 - *Often found in or near a wall cloud*



Photo by Doug Raffik



Photo by Tyler Melso



June 11, 2004 - 8pm
Boone, Iowa
View: West



Tornadoes

- **Tornadoes**: violently rotating column of air extending from base of a convective cloud to the ground
 - *Look for rotating dirt/debris at ground level to confirm a tornado*
 - What direction is it moving? Estimate its current location
 - *Tornadoes don't touch down, they spin up below cloud base, do not need a condensation funnel for a tornado!*





Waterspouts



- Waterspouts: There are 2 types:
tornadic and fair weather
 - *Fair weather are more common and do not move on land*
 - *Tornadic usually come from the land and a tornadic thunderstorm*
 - *More frequent in Aug, Sept, and Oct when lake waters are warm and air is cooler*
 - *Note the direction it is moving!*





How do you report?



- **Tweet @NWSMKX using #swiwx** (southern Wisconsin Weather)
- **Have confidence in your report!**
 - Unsure? Don't report it
- **Make sure you include:**
 - Time, Location, and what you are seeing!
- **Don't have a twitter?**
 - Submit on our Facebook page! (*US National Weather Service Milwaukee/Sullivan Wisconsin*)
- **Remember, safety comes first! Make sure you are safe before reporting!**



More about twitter



- Take your twitter report to the next level using:
 - #wxreport and #swiwx
 - Turn on geo-tagging through a 3rd party twitter application and for your account
 - If you do not have geo-tagging, to submit the most accurate location use the following format:
 - *WW your location WW your weather report*
 - *If possible use a latitude and longitude!*
 - *If latitude/longitude is not possible, use an address, intersection, city, or even just the zip code*
- Ex without geo-tag: **@NWSMKX #swiwx #wxreport WW N3533 Hardscrabble Rd, Dousman, WI WW 6.0” new snow as of 1pm.**