

## What we are trying to accomplish during the winter season

**Safety first** None of this is worth getting hurt over. Change your observation time if you delay your normal observation for safety reasons.

**Accuracy matters** Pay close attention to each and every value you enter. Decimals need to be in the correct position. Speed of entry and submitting is not at all important. Place the correct value in the correct location. Accuracy matters.

**Morning reporting** The earlier you report, the more people will see it, and will make use of your report. There is a flurry of activity that occurs each and every morning, before 9am-10am, trying to answer the question "How much precipitation did we get?"

**Melted Precip** Precipitation is the quantity of liquid. Convert all snow, sleet, and ice that falls in your gauge to liquid. *We add liquid measurements together.* At the end of any time period, we do ***not*** add 5.1" of snow, 2.1" of sleet, and 4.3" of rain or freezing rain and say 11.5" of precipitation fell. Turn the snow and any other frozen precipitation that fell in your gauge to liquid. To turn the snow into liquid, use your inner cylinder to add a measured quantity of hot tap water to what falls in your outer cylinder and pour out into the inner cylinder and calculate the difference of the hot water added. This melted precipitation figure is what we add to your total precipitation for a week, a month and longer.

**Snow fall** Social and news media direct their energies on broadcasting snow fall forecasts and reports. Simple conversations between people turn into snow fall forecasts and reports. Our network does not focus its energies primarily on snow fall amounts. We measure and report it, to the nearest 0.1". It is helpful to make a snow fall report every day, even if it is zero. We will add snow fall over the winter season. The previous value of melted precipitation is of higher significance to your station's record of reporting.

**Snow depth** We define where the snow is and where the snow is not. To the nearest half inch, please make a snow depth report every day. A ruler in the snow pack, averaged over a few locations, to the nearest half inch is a *significant* help for flood forecasting regardless of how much snow you have.

**Sleet** Ice pellets (sleet) are frozen raindrops. It is treated the same way as snow for the purposes of measurement and reporting. (January 23 2017)

**Freezing Rain** Treated as plain rain, not frozen precipitation. Melt the ice that accumulates on the inside of your rain gauge and report that as precipitation. Make a note of freezing rain in your comments.

**Comments** Text that repeats the amount, mentions the timing or duration of precipitation, summarizes what occurs in the past 24 hours, helps greatly. Your report may be unique in some way. If you can type, please enter a comment in the Observation Notes box.

**Core Measurements** With an empty outer cylinder, find a location where your average snow fall is, turn the empty outer cylinder upside down and cut a core in the snow. Follow the same steps for Melted Precip, using a measured quantity of hot tap water within the inner cylinder

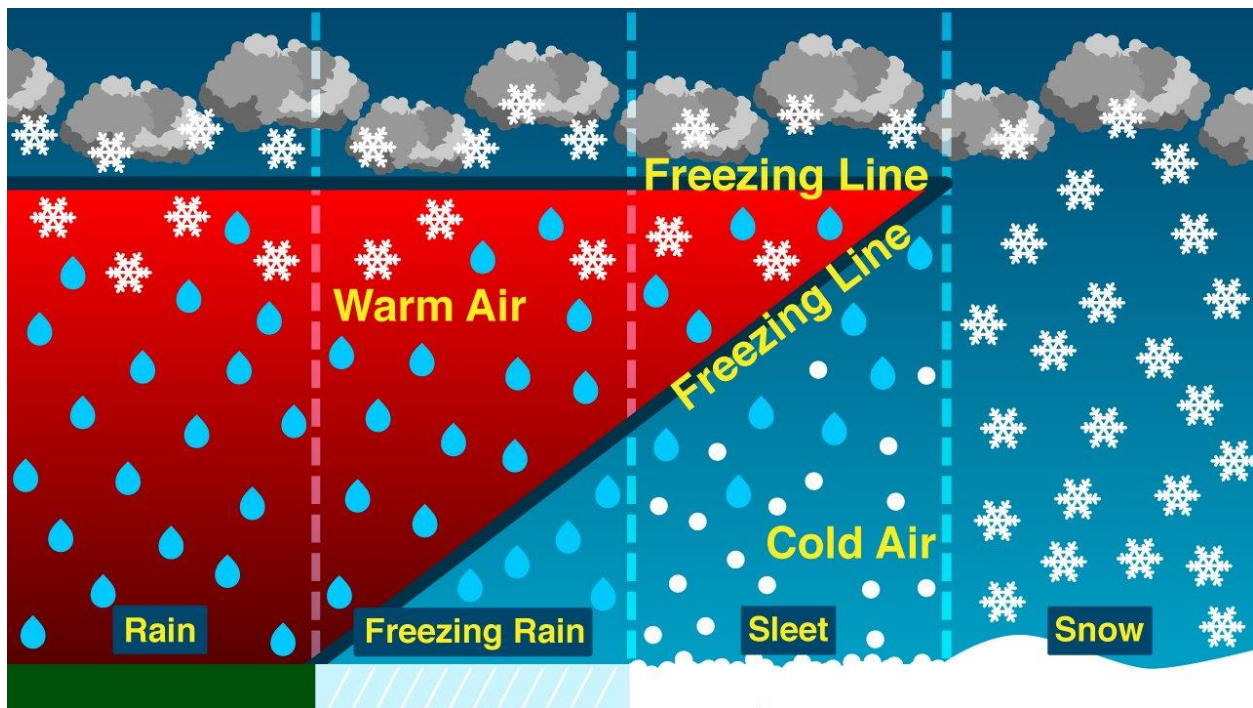
**SWE Mondays** Find where that average snow depth is, and with your outer cylinder turned upside down, cut a core into the snow pack, bringing that core indoors to melt it. The melted amount is the

snow water equivalent or SWE. Rather than cut cores into the snowpack every day, we perform this custom with Monday morning's report.

On Mondays, please report the snow water equivalent of that average snow depth. If many of participate in this, our efforts multiply in value.

CoCoRaHS YouTube [Training Videos](#) Without animation [Video](#)

One page guide to precipitation types in winter. Please do not confuse hail with sleet.



# Scenario #1

A dry day. No precipitation. No new snow. No snow on the ground. Report zeros for ALL values.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="7:00"/> AM	* Observation Time ?		
<input type="text" value="0.00"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<input type="text" value="A clear dry day."/>			
New Snowfall			
<input type="text" value="0"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="0"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		

## Scenario #2

Rainfall. No new snow. No snow on the ground.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="7:00"/> AM	* Observation Time ?		
<input type="text" value="0.78"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<div>Rain started during the overnight and stopped shortly before 7am. 0.78"</div>			
New Snowfall			
<input type="text" value="0"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="0"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		

## Scenario #3

A few snowflakes fall out of the sky. It takes a coating of snow to measure 0.1" of snow. Anything less is just a trace.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="7:00"/> AM	* Observation Time ?		
<input type="text" value="T"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<div>A few snowflakes fell during the afternoon as cold air came in.</div>			
New Snowfall			
<input type="text" value="T"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="T"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="0"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		

## Scenario #4

Snowfall. No mixed precipitation.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date		
<input type="text" value="7:00"/> AM	* Observation Time		
<input type="text" value="0.47"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown.		
Observation Notes: (This will be available to the public)			
<div>Melted precip from gauge. Core measurement has more than gauge because of wind. Snow began after 6pm and continued overnight.</div>			
New Snowfall			
<input type="text" value="5.2"/> in.	Accumulation of new snow in inches to the nearest tenth		
<input type="text" value="0.49"/> in.	Melted value from core to the nearest hundredth		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="5.0"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch		
<input type="text" value="0.49"/> in.	Melted value from core to the nearest hundredth		



## Scenario #5

Snowfall. No mixed precipitation. Change observation time.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="2:00"/> <input type="text" value="PM"/>	* Observation Time ?		
<input type="text" value="0.56"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<div>Melted precip from the gauge. Snow began after 6pm and continued overnight. 5.9"</div>			
New Snowfall			
<input type="text" value="5.9"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="0.5"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="6.0"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="NA"/> in.	Melted value from core to the nearest hundredth ?		

## Scenario #6

Mixed precipitation.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="7:00"/> AM	* Observation Time ?		
<input type="text" value="0.79"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<div>Rain, mixed with snow and sleet. Snow melted on impact. No accumulation of snow.</div>			
New Snowfall			
<input type="text" value="T"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="T"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="0"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		



## Scenario #7

Mixed precipitation. Change observation time.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="1:00"/> <input type="text" value="PM"/>	* Observation Time ?		
<input type="text" value="0.63"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<input type="text" value="Rain, mixed with snow and sleet. Snow melted on impact. No accumulation of snow."/>			
New Snowfall			
<input type="text" value="T"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="T"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="0"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		

## Scenario #8

Snow changes to rain.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="7:00"/> AM	* Observation Time ?		
<input type="text" value="0.48"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<div>Snow started at noon, 2.3", changed to rain at 4pm and ended by 9pm. Only 0.5" of snow remains.</div>			
New Snowfall			
<input type="text" value="2.3"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="0.22"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="0.5"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="NA"/> in.	Melted value from core to the nearest hundredth ?		

## Scenario #9

Rain changes to snow.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="7:00"/> AM	* Observation Time ?		
<input type="text" value="1.08"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<div>Rain began after obs time and continued until 6pm. 0.96" of rain. Changeover to snow left 1.4" of new snow, ending at 8pm. Some settling occurred with</div>			
New Snowfall			
<input type="text" value="1.4"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="0.12"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="1.0"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="NA"/> in.	Melted value from core to the nearest hundredth ?		

## Scenario #10

Snowfall on an existing snowpack.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date		
<input type="text" value="7:00"/> AM <input type="text"/>	* Observation Time		
<input type="text" value="0.78"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown.		
Observation Notes: <small>(This will be available to the public)</small>			
<div>Winter Storm started after 6pm and is snowing at obs time.</div>			
New Snowfall			
<input type="text" value="7.5"/> in.	Accumulation of new snow in inches to the nearest tenth		
<input type="text" value="0.78"/> in.	Melted value from core to the nearest hundredth		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="15.0"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch		
<input type="text" value="NA"/> in.	Melted value from core to the nearest hundredth		

# Scenario #11

Freezing rain.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="7:00"/> AM	* Observation Time ?		
<input type="text" value="0.23"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<div>Freezing rain began after 10am and continued until noon. 0.25" of ice average on all branches and surfaces.</div>			
New Snowfall			
<input type="text" value="0"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="7.5"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="NA"/> in.	Melted value from core to the nearest hundredth ?		



## Scenario #12

Snow depth.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="7:00"/> AM	* Observation Time ?		
<input type="text" value="0.00"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<input type="text" value="Snow pack is settling."/>			
New Snowfall			
<input type="text" value="0"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="6.5"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="NA"/> in.	Melted value from core to the nearest hundredth ?		



## Scenario #13

SWE Monday.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="7:00"/> AM	* Observation Time ?		
<input type="text" value="0.00"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<div>Snow pack has several ice layers and is dense. 1.37" of SWE.</div>			
New Snowfall			
<input type="text" value="0"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="6.5"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="1.37"/> in.	Melted value from core to the nearest hundredth ?		

## Scenario #14

Spring returns. No snow on the ground.

Precipitation Report Form		Submit Data	Reset
Station Number : <input type="text"/>			
Station Name : <input type="text"/>			
* Denotes Required Field			
<input type="text" value="12/20/2016"/>	* Observation Date ?		
<input type="text" value="7:00"/> AM	* Observation Time ?		
<input type="text" value="0.00"/> in.	* Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or T for trace, or NA for unknown. ?		
Observation Notes: (This will be available to the public) ?			
<input type="text" value="Our first warm day with no snow on the ground."/>			
New Snowfall			
<input type="text" value="0"/> in.	Accumulation of new snow in inches to the nearest tenth ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		
Total Snow and Ice on Ground at Observation Time			
<input type="text" value="0"/> in.	Depth of total snow and ice (new and old) in inches to the nearest half inch ?		
<input type="text" value="0"/> in.	Melted value from core to the nearest hundredth ?		