There's No Business Like Snow Business!

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CoCoRaHS QC Team
"A snow lover living in the wrong place."

Snow Observations

- The number of non-NA (i.e. >=0) snowfall observations is fairly consistent
  - May through September average is 65 percent of all daily observations
  - October through April average is about 72 percent of all daily observations
- These numbers are affected by the number of zero reports
  - Observers who enter zero for precipitation automatically have zero entered for snowfall

Snowfall Observations

- For this last year (Oct-Apr), that means about 77,000 "additional" snow observations
- From December through February, snow reporting errors are a big part of the QC load
- This past season (Oct-Apr) approximately 700 QC tickets were entered for snow-related errors

Snowfall Observations –What Can We Do?

- The snow training was updated in 2022.
  - Two national webinars were presented
  - Refinements being made based on comments and questions from the webinars
- When possible observers making snowfall errors are contacted by HQ (me)
  - Typically snow as gauge catch
  - Trying to clarify difference between gauge catch and SWE
- A training aid was developed to send to observers when contacted

Sample Email

From: Steve Hilberg <hberg@cocorahs.org> hberg@cocorahs.org | Cc | Bcc

To:

Subject: Your 2/17/2024 CoCoRaHS Observation -- IL-FL-17

Copy message to: SnowMail on hberg@cocorahs.org

Tags: Follow Up | Master Naturalist/Gardener | 1st Reminder | 2nd Reminder | CLOSE | COMPLETE | Coord Change | DEx Corrections | DEx Kudos | DEx Suggestion | Feedback | Meeting Link | MO-FSA | Reopens

Body Text | Palatino Linotype | Sigs | CoCoRaHS | Variables | Other

Hello Sue,

We were reviewing CoCoRaHS observations today and took note of your report of 2.80 inches of gauge catch and 2.8 inches of new snow. It appears you incorrectly entered your 24-hour snowfall in the Gauge Catch field (in addition to entering it in the New Snowfall field), instead of the melted amount from your rain gauge.

Measurement of new snowfall, snowpack, and snow water equivalent are optional, but if made it is important that any measurements are done and reported correctly. There are three primary measurements and reports for daily snow. First, the snow in the rain gauge must be melted and measured. This is your **Gauge Catch**. Second, the depth of the new snow should be measured on a flat surface to the nearest tenth of an inch. This is your **24-hour New Snowfall**. The third measurement is the **Snowpack Depth**, the total snow and ice on the ground at observation time to the nearest half inch.

Snowfall is not entered in the **Gauge Catch** field. The amount melted from your rain gauge is entered there. When reporting snowfall, you must enter it in the **24-hour New Snowfall** field. If you did not melt what was in your gauge (or are waiting for it to melt), enter NA for the Gauge Catch, and enter your snowfall in the **24-hour Snowfall** section. You can always go back and edit your report to add the melted contents of your gauge. The input form will not allow you to enter a New Snow amount with a zero for Gauge Catch (which is why it needs to be changed to NA). I have set your Gauge Catch to NA for the time being. If and when you have melted what has accumulated in the gauge you can go back and enter that by editing your report.

For future reference, I have included a guide you can print out and keep handy for the next time it snows. The attached guide also contains instructions for entering snow information on the mobile app. Please take time to review our Winter Weather Measurements webinar on our YouTube channel. There is also a slide version of this at this link.

1 Attachment 214 KB

DataEntry_Snow_web-mobile.pdf 214 KB

Reporting Snow and Sleet

Precipitation Report Form Submit Reset

Station Number :

Station Name :

* Denotes Required Field

*Observation Date 1/14/2022

*Observation Time 7:00 AM

*Gauge Catch: 0.55 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.

Melt the frozen precipitation on the gauge and report it here. If you cannot melt or do not have a measurement, change to NA. Do not leave it as zero. Do not enter your 24-hour snowfall here.

Observation Notes: (This will be available to the public)

Not much wind with this storm - fluffy snow.

Comments are always helpful!

The depth of snow and/or sleet that fell in the past 24 hours measured on your snow board or flat, level surface is entered here.

24-hr Snowfall

6.2 in. **Snowfall:** Accumulation of new snow in inches to the nearest tenth

0.57 in. **Snowfall SWE:** Melted value from core to the nearest hundredth

This is the water measured by melting a core of the 24-hour snowfall taken from your snow board. If you do not take a separate core leave this as NA. Do not copy your Gauge Catch into this field.

Snowpack (Total Snow and Ice on Ground at Observation Time)

8.0 in. **Snowpack Depth:** Total snow and ice (new and old) in inches to the nearest half inch

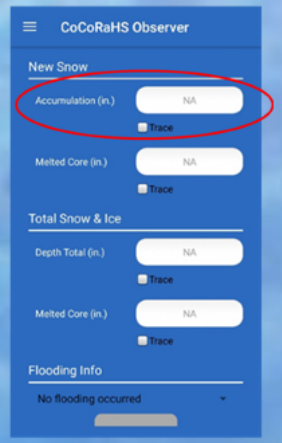
0.70 in. **Snowpack SWE:** Melted value from core to the nearest hundredth

This is for the SWE of the total snow and ice on the ground, old plus new snow and ice. It is measured by taking a core of snow at the Snowpack Depth and melting it.

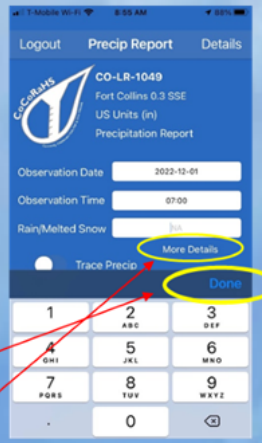
This is the total depth of snow and ice on the ground each day, whether or not any new snow has fallen.

Android

Click this link to go to the snow data entry page

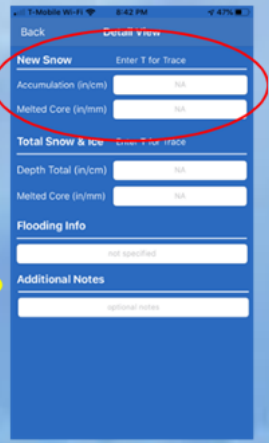


iOS



Click DONE after entering data on first screen.

Then, click "More Details" to go to the snow data entry page



2024-2025 Season

- Revise training based on feedback
- Offer two to three national webinars on winter measurements, with the first in mid-to-late October
- Monitor impact of the “Set Snow Values to Zero” button on the app.