

CoCoRaHS

Community Collaborative Rain, Hail & Snow Network



“Because every drop counts!”



What is CoCoRaHS?

CoCoRaHS is a unique, non-profit community based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow).



“By using low-cost measurement tools, stressing training and education, and utilizing an interactive Web-site, our aim is to provide the highest quality data for natural resource, education and research applications.”



CoCoRaHS COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

Home | States | View Data | Maps My Data | My Account | Admin | Logout

Welcome to CoCoRaHS

Read the new CoCoRaHS Newsletter
Click here to view the PDF
See CoCoRaHS on the Fox News Channel
Click here to see the video
Read about CoCoRaHS in the USA TODAY
Click here to read the article.

Things to know about...

- Rain
- Hail
- Snow

Would you like your state to be a part of the CoCoRaHS Network?
Contact us at info@cocorahs.org.

Resources

- Home
- About Us
- Join CoCoRaHS
- Contact Us

Resources

- FAQ / Help
- Education
- Volunteer Coordinators
- Hail Pad Drops
- Help Needed
- Printable Forms
- CoCoRaHS Store
- Calendar
- News
- Photo Gallery
- In the Spotlight
- Sponsors
- Recruiters

Key
CoCoRaHS State
Pending State

A map of the United States showing the states of CoCoRaHS in green and pending states in blue with diagonal lines. The green states include WA, MT, ND, SD, MN, WI, MI, PA, NY, NJ, DE, VA, WV, OH, IN, IL, MO, KY, TN, AL, GA, SC, NC, and TX. The blue states include OR, ID, UT, NV, AZ, NM, OK, AR, LA, MS, and FL.

Why CoCoRaHS?

FIVE

five

5

**Five
Important
Reasons**

5

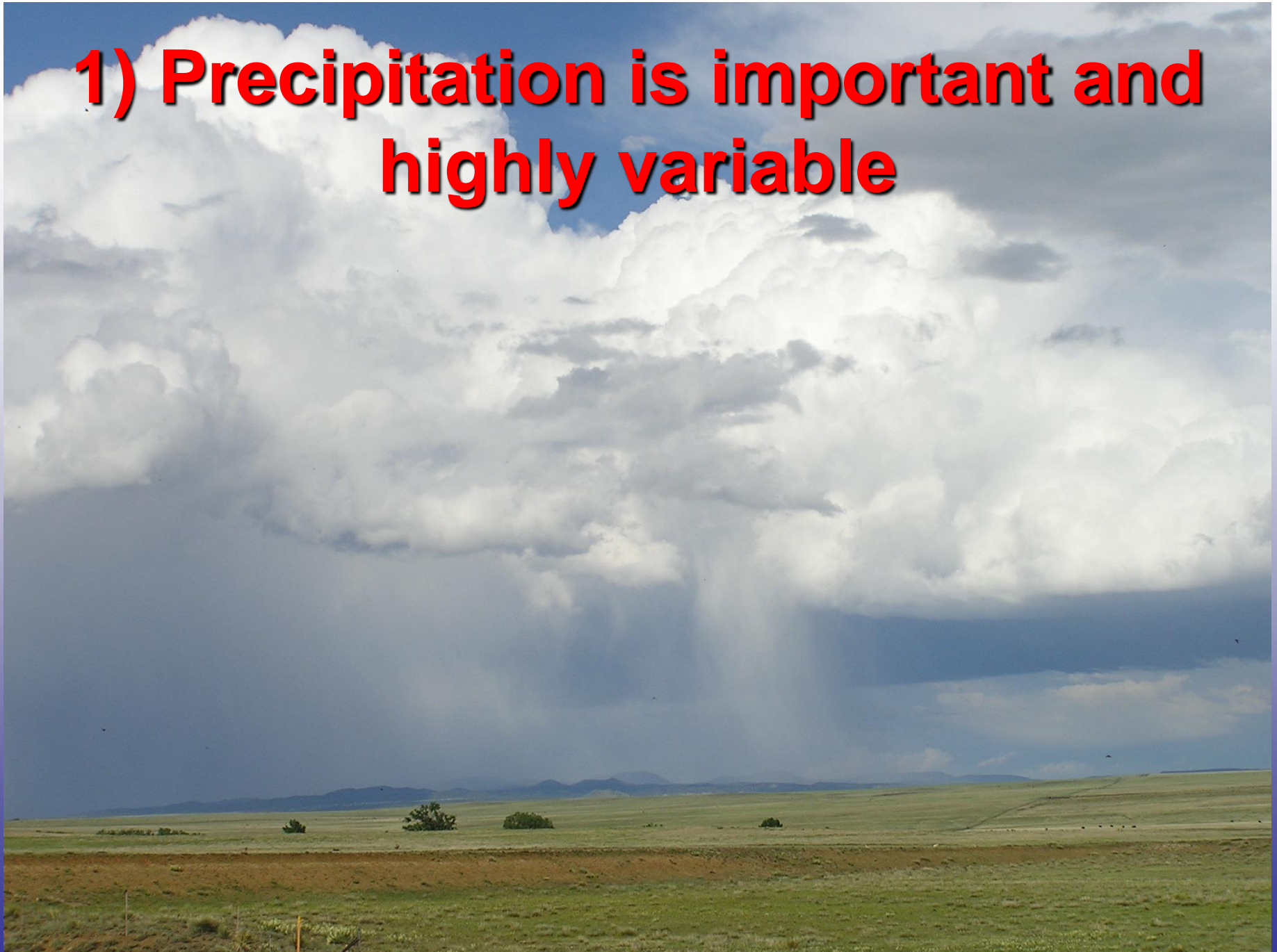
five

FIVE

5

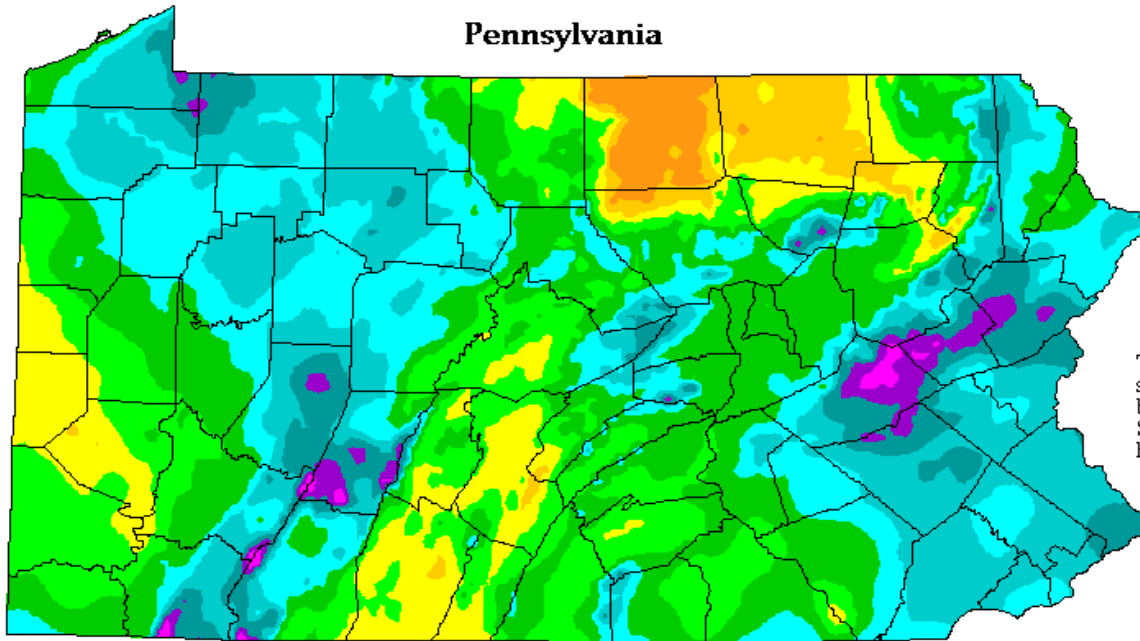
5

1) Precipitation is important and highly variable



2) Data sources are few and rain gauges are far apart

Average Annual Precipitation
Pennsylvania



For information on the PRISM modeling system, visit the SCAS web site at <http://www.ocs.orst.edu/prism>

The latest PRISM digital data sets created by the SCAS can be obtained from the Climate Source at <http://www.climate-source.com>

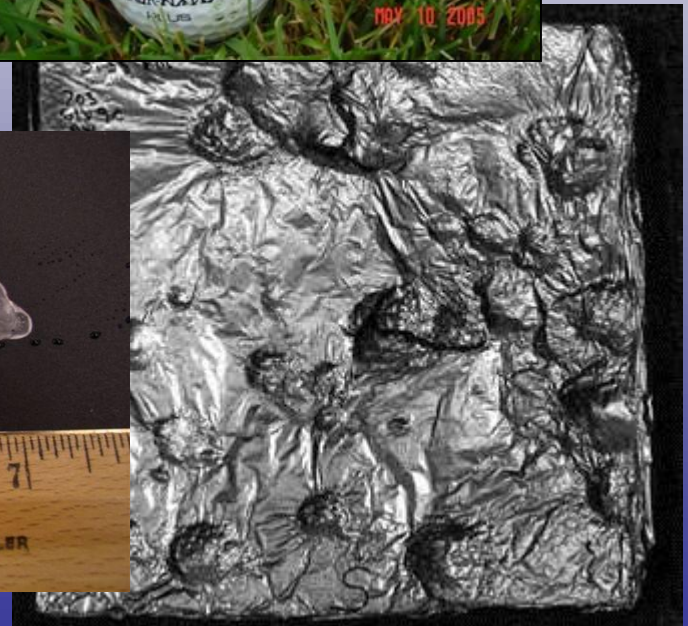
Legend (in inches)	
Under 34	42 to 44
34 to 36	44 to 46
36 to 38	46 to 48
38 to 40	48 to 50
40 to 42	Above 50

This is a map of annual precipitation averaged over the period 1961-1990. Station observations were collected from the NOAA Cooperative and USDA-NRCS SnoTel networks, plus other state and local networks. The PRISM modeling system was used to create the gridded estimates from which this map was made. The size of each grid pixel is approximately 4x4 km. Support was provided by the NRCS Water and Climate Center.

3) Measurements from many sources are not always accurate (especially snow)



4) There is almost no quantitative data being collected about hail



5) Storm reports can save lives



STORM TOLL

Deaths - 5 confirmed
Injuries - 40
Missing - 16
Rescued - 160
Damages - Tens of millions of dollars at Colorado State University, \$1.5 million to \$2 million to city roads and bridges; \$1 million to city parks and trails; no estimate for private property.

Source: Emergency Officials
All information as of 1 a.m. today

Wednesday

FORT COLLINS COLORADOAN

City death toll at 5; damage in millions



FLOOD
CSU's book losses speak volumes

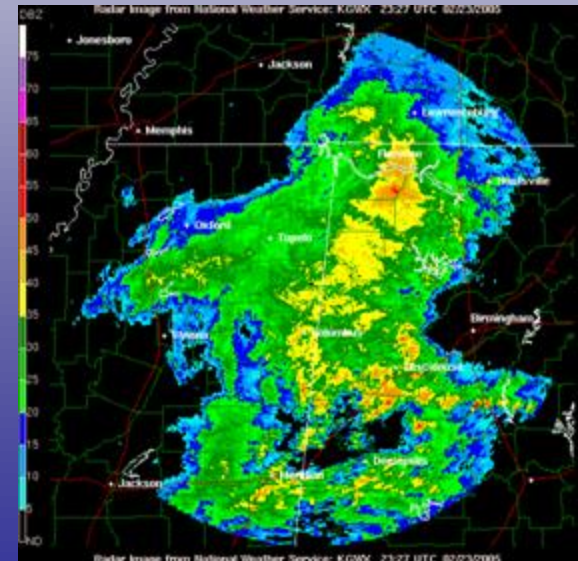
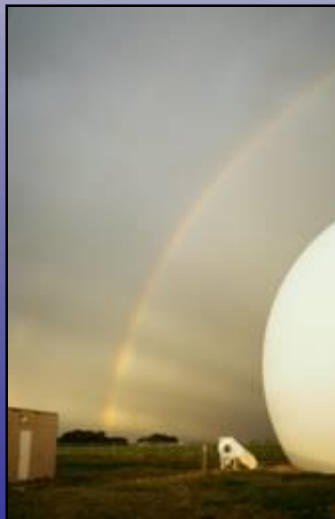
Rainfall breaks 20-year record

July 30th 1997



Who uses CoCoRaHS Data?

- National Weather Service
- Other Meteorologists
- Hydrologists
- Emergency Managers
- City Utilities
 - Water supply
 - Water conservation
 - Storm water
- Insurance adjusters
- USDA - Crop production
- Engineers
- Scientists studying storms
- Mosquito control
- Ranchers and Farmers
- Outdoor & Recreation
- Teachers and Students
 - Geoscience education tool
 - Taking measurements
 - Analyzing data
 - Organizing results
 - Conducting research
 - Helping the community



Who Sponsors CoCoRaHS?

The National Science Foundation

Colorado State University

USDA

US Bureau of Reclamation

National Weather Service Local Offices

Individual Contributors

As well as many others

What is FROST?



- Started through a collaboration with Colorado State and CoCoRaHS
- FROST is Pennsylvania's version of CoCoRaHS
- We want to collect data on Frost, Rain, Optics, Snow, and Thunder

A photograph of several horses in a field. In the foreground, a dark brown horse with a white blaze on its face and a white patch on its chest is looking towards the camera. To its left, another dark brown horse is leaning its head on a wooden post. In the background, a white horse with dark spots is walking. The scene is set in a field with patches of snow or frost on the ground, and the lighting suggests a warm, golden hour. A thought bubble is overlaid on the image, containing the text "OK, let's get started!".

OK, let's get started!

Things we need from you before you can participate as an observer



Photo by Henry Reges



COMMUNITY COLLABORATIVE RAIN, HAIL, AND SNOW NETWORK
 (www.cocorahs.org)

Volunteer Application Form

Name: _____ Date: _____
 Address: _____ PO Box: _____
 City: _____ State: _____ Zip: _____ County: _____
 Home Phone: () _____ Daytime Phone: () _____
 E-mail Address: _____ Daily Internet Access: Yes / No
 Give a brief description of your map location (Latitude/Longitude if available): _____

Nearest cross streets/roads: _____
 (Please use back of application to draw a map of your site, if located in a rural area – thanks!)
 If 18 years of age or older, please fill out the shaded section below:

Age: _____ Parent or Guardian Name: _____
 Grade: _____ What school do you attend: _____

How did you find out about this project? _____
 In order to participate in this project, you are strongly encouraged to attend a special 90-minute training session on measuring rain and hail. It is more fun than it sounds. Dates, times, and locations will be posted.

Volunteers may qualify for a free rain gauge provided by CoCo RaHS sponsors.
 I would like to: Donate \$25 for a rain gauge and other supplies to help offset supply costs!
 Receive Complimentary Gauge
 Use your own gauge. Describe: _____

(Rain gauge must be same type as CoCoRaHS gauge)
 Rain gauge will be read and emptied daily at:
 7:00 a.m. (highly recommended) 6:00 a.m. 8:00 a.m. Other time: _____

It is important to the project that your rain gauge is read and emptied at the same time each day. However, the CoCo RaHS staff does realize that summer is a time for vacations. We do not ask that you sacrifice your entire summer for the sake of the project, but please report when you are able.

If you or a family member would like to volunteer for additional project duties, check here:
 YES, I would like to help — Call me!

Please give the names and ages of others who will help you take rain & hail measurements:

Name/Age: _____ Name/Age: _____

I would prefer to: Train On-line Attend a Training Session Walk-in Training

Please return this form to:

Local CoCo RaHS Coordinator

Or return to:
 CoCoRaHS – Colorado Climate Center
 Department of Atmospheric Sciences
 Colorado State University - Fort Collins, CO 80523-1371

For Staff Use Only
 Station Name: _____
 Station Number: _____
 Latitude: _____ Longitude: _____
 Date Trained: _____ Date Station Num. Issued: _____
 Date Received/Shipped Gauge: _____
 Date Contacted: _____

**A completed
 application
 form
 (on-line or paper)**

Your Location

Your location – so we can produce accurate maps. Just having your address may not be good enough. We have to pinpoint it just as close as we can.



Your commitment



Your commitment to collect accurate scientific data

Your willingness to receive CoCoRaHS e-mails

Please make sure that
CoCoRaHS e-mails are not
blocked from reaching you
by your spam blocking
software.

It's important that we
contact you from time to
time to let you know about
things happening with
CoCoRaHS.

coco@anvil.atmos.colostate.edu
info@cocorahs.org

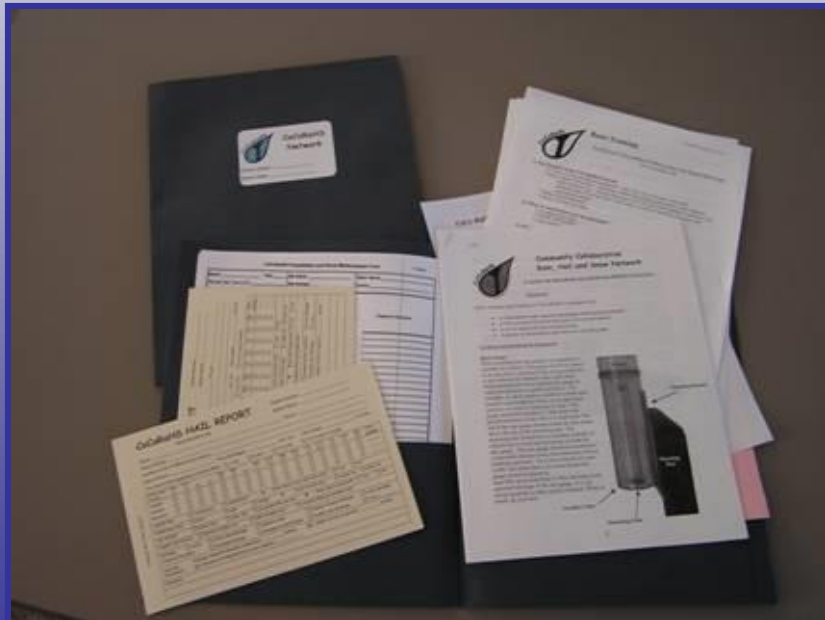
nolan@ccc.atmos.colostate.edu
cocorahsqc@msn.com

Things you will need before you can participate as an observer





A sincere desire to help study and learn about storms



A training packet
(will be mailed to you)

A unique station number and a station name (we will assign you one)



Station Number : CO-LR-368

Station Name : FCL 3.4 SW

A login ID and password to enter data

CoCoRaHS COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

Home | States | View Data | Maps My Data Entry | Login

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- [Contact Us](#)
- [In the Spotlight](#)

Log In:

UserName:

Password:

Save Login

- [Find your login info.](#)
- [Apply to be a Cocorahs observer.](#)

For questions or comments concerning this web page please contact the [webmaster](#).
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A 4 inch rain gauge
installed
in a good place



The ability to gather accurate data and transmit it in a timely fashion
(telephone or internet capabilities)



Setting up your Equipment

Location! Location! Location!



Photo by Henry Reges

It's the key to good data

Placement of your rain gauge



Photo by Henry Reges

Places not to place your gauge



The #1, all time worst place to put you rain gauge is to leave it in the box it came in !



Using your gauge to hold up your gutter downspout is not a wise choice either.



You'll want to avoid placing it under trees as well



**Avoid placing it near
or under any
structure**



**Although convenient,
the deck is still too
close to the house**

Also avoid placing it near:

- Sprinklers
- Animals (dogs, birds, etc.)
- Steep slopes



Photo by G. Pearson

Mountain Lions?

and

. . . anything that would artificially increase or decrease your gauge catch



Such as a solid fence

This can cause updrafting during strong winds, which may reduce your gauge catch

Ideal placement of your gauge



Distance from obstacles

- In open areas strive to be twice as far from obstacles as they are high.
- In developed areas strive to be as far from obstacles as they are high.

Distance between Trees



Ideally, place your gauge equidistant from the nearest trees

Height above the ground

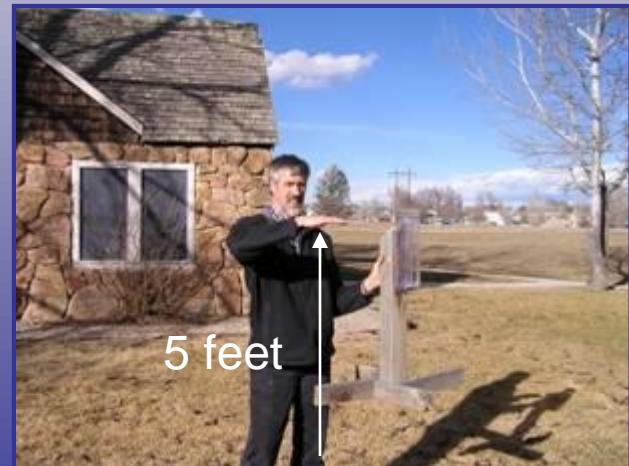
- In open areas place the gauge top approx. 2 feet off the ground.

*To improve gauge catch by reducing wind speed



- In developed areas place the gauge top approx. 5 feet off the ground.

*To improve gauge catch by reducing the impact of nearby obstacles



Make sure your gauge is level



Be sure to bevel the top of the post



This will help reduce precipitation splashing into the gauge

Snow board placement



Most times you can place your snow board in the same location as your hail pad. You can even use your hail pad holder as your snow board.

You will want to pay attention to snow accumulation patterns after the first few snows and then modify your location as needed

Now we are ready to measure
some precipitation!



A photograph of tree branches heavily coated in white frost, set against a clear, bright blue sky. The branches are intricate and dense, creating a complex web of white against the blue background. The word "FROST" is superimposed in the center in a large, white, bold, sans-serif font with a black outline.

FROST

Frost



When observing frost, estimate how much of the surface is covered.

RAIN



Reading your Rain Gauge



When should we read our gauges?



7:00AM is preferred

Between 5:00AM and 9:00AM is OK

Other times are accepted, but they will not appear on CoCoRaHS Maps

Reading your rain gauge

- Reading the rain gauge is easy but accuracy & consistency are important
- Here are the most common situations you may encounter when reading your gauge.



Your most common observation



. . . will be **zero**, (0.00), nada, naught, nothing

It is important for the network to know that it did NOT rain. Please report zeros.

0.000

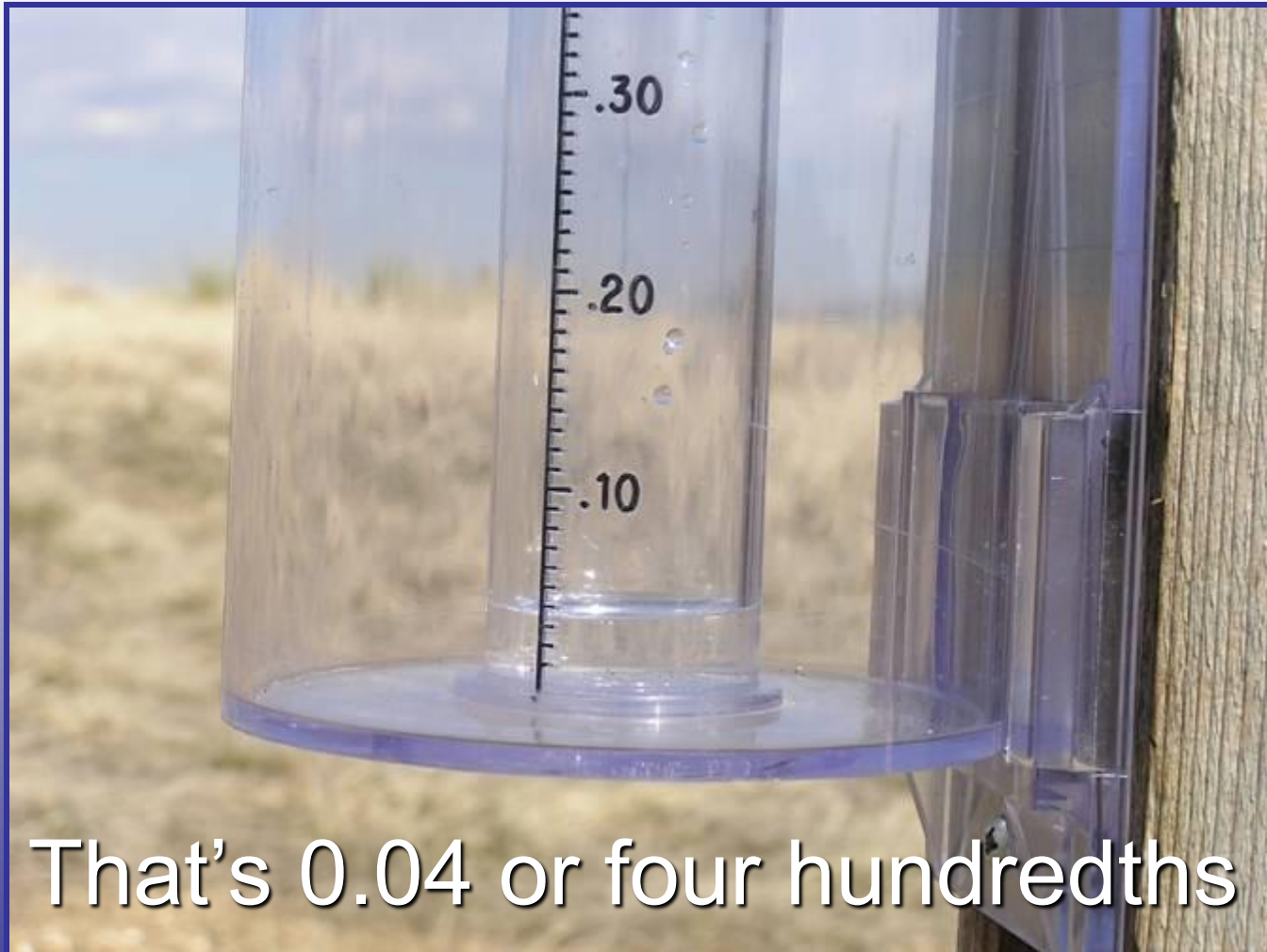
Trace “T”

T



When only a drop or two wet the gauge record a “T” for Trace

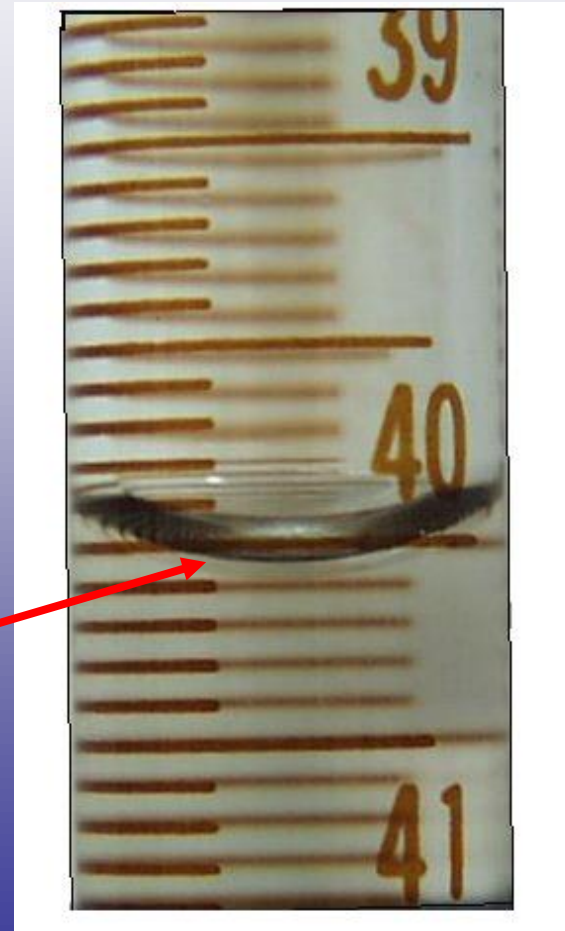
Between “T” and “one tenth” of an inch



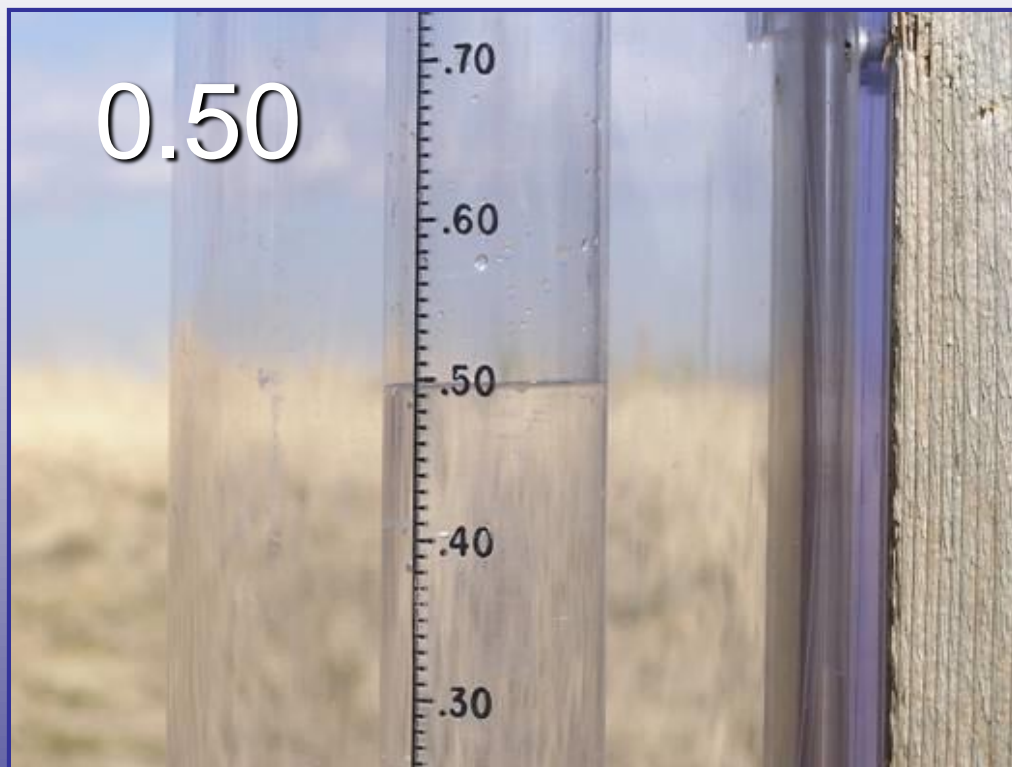
The surface of the water in the gauge looks curved. How do I know where to read?

As water fills up the measuring tube, a curved surface is formed called a **meniscus**. This meniscus is formed by the surface tension of a liquid in contact with the sides of the tube.

Always read the bottom of the **meniscus**, when the making your daily rain measurements.



A nice soaking rain



This is “one half” inch it’s . . . NOT 5.0, nor 0.05, but 0.50
(kind of like 50 cents out of a dollar)

A good rain



The inner tube holds 1.00 inches

DECIMALS

Getting the decimal point correct is ESSENTIAL

There is a large water difference between **0.90** and **9.00 inches**

Water! Water! Everywhere!



When more than an inch of rain falls the precipitation will overflow into the outer cylinder. The whole gauge has a capacity to hold 11 inches.

To measure this amount . . .



Pour out the first inch
from the inner tube



Now pour the remaining
water into the funnel &
measure using the inner
tube.



Continue until all of the water has been measured. Make sure you keep track of your amounts along the way.



Optics

A vibrant rainbow arches across a dark, stormy sky. The colors of the rainbow are clearly visible, transitioning from red on the outer edge to violet on the inner edge. The sky is a deep, dark brownish-grey, suggesting a recent or approaching storm. The overall mood is dramatic and natural.

Optics

Corona, 22° Halo, Sundog, Rainbow



Photos ©
<http://www.sundog.clara.co.uk/atoptics/phenom.htm>

Observing Optics

- Please remember to:
 - NEVER look directly at the sun! This can cause eye damage and even blindness.
 - Note the time and location if possible
 - We welcome pictures!

[Atmospheric Optics](#) is a great site that explains each type of optical phenomenon



SNOW

A photograph of a snowy landscape. In the foreground, a snow gauge is partially buried in a deep layer of snow. The background shows a line of trees heavily laden with snow, creating a dense, white canopy. The overall scene is a winter wonderland.

Let's look at how we measure our winter weather

If snow is anticipated . . .



Remove the funnel and inner tube, otherwise snow will clog the funnel

Snow in your gauge



If you live in a protected area many times you will have an accumulation of snow on the rim of your gauge



How do I know what to measure and what not to??



Take your snow swatter and tap gently on the rim of the gauge

What falls in gauge we measure



We will disregard the snow that lands outside the gauge.



Go ahead and clear away the snow from the gauge

Now you are ready to melt what's
in your gauge



Melting snowfall



Add some warm water to the inner cylinder Notice that you have two cylinders

Carefully measure your tap water before adding to outer cylinder



Be sure to measure to nearest hundredth of an inch

Add warm water to the snowfall sample



Pour water directly into sample

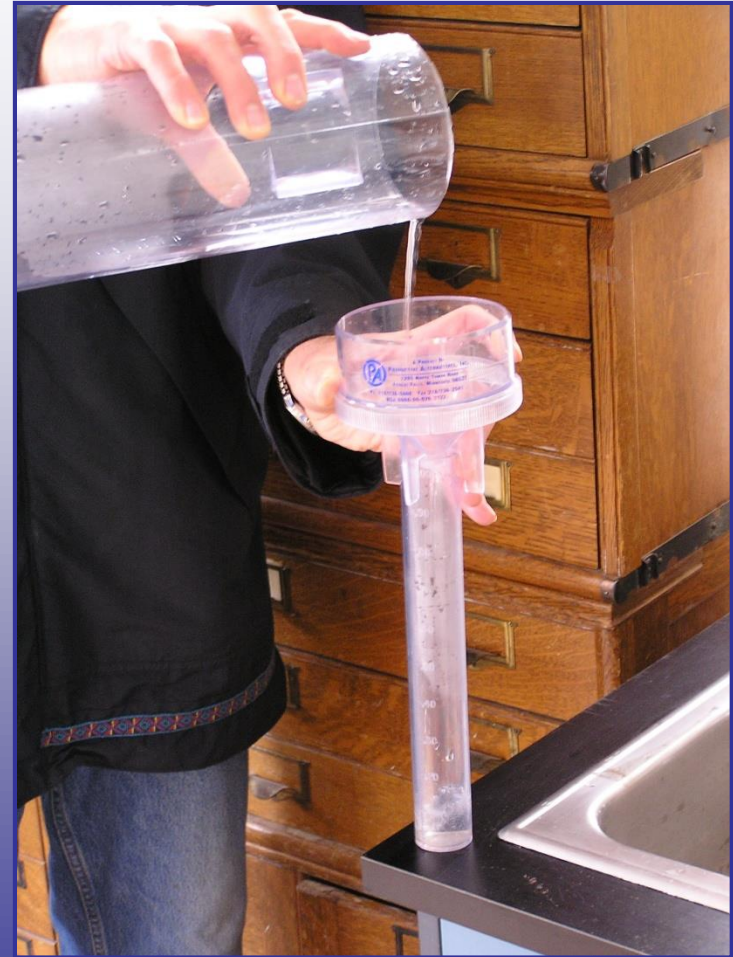


Allow sample to completely melt

Measure the liquefied snowfall sample

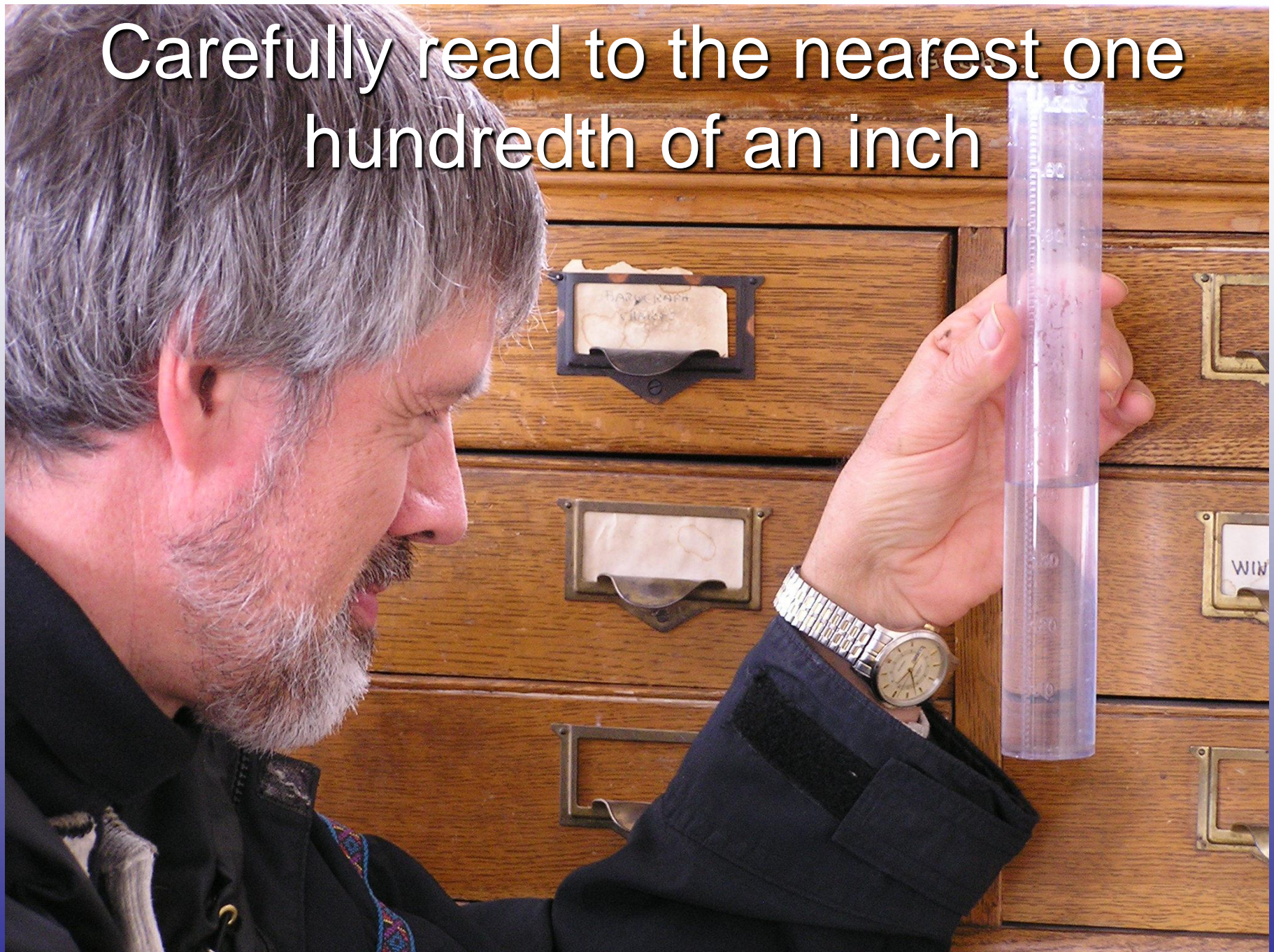


Pour snow sample into smaller tube



Remember "Every drop counts!"

Carefully read to the nearest one hundredth of an inch



Remember to subtract the amount of warm water that you've added to the tube

Reading of 0.79 inches of water
minus 0.50 inches of water added
gives a final reading of 0.29 inches

Tube full	0.79
- Water added	0.50

Final reading	0.29

The gauge may not always give an accurate measure of snow water content



It may be necessary to take
a snow core sample





Shovel your way out the door

Find a representative location



The spot should have not drifted, melted, or blown clear

Steps to cutting a sample



Place gauge upside down into snow



Push down on gauge

Clear the area around gauge



Capture the core



Slide snowwater under gauge



Make sure gauge is over swatter

Core has been captured



Slowly lift gauge and snowwater



Ok, now carefully get ready to flip gauge

Flip gauge



Now carefully bring the sample inside to melt

Snow Cores in deeper snow



Again, capture a sample



In wetter snow, the core will come out as one piece



Again, you are now ready
to melt the sample



Melting your snow core sample



Add some warm water to the inner cylinder



Notice that you have two cylinders

Carefully measure your tap water before adding to outer cylinder



Be sure to measure to nearest hundredth of an inch

Add warm water to core sample



Pour water directly into sample

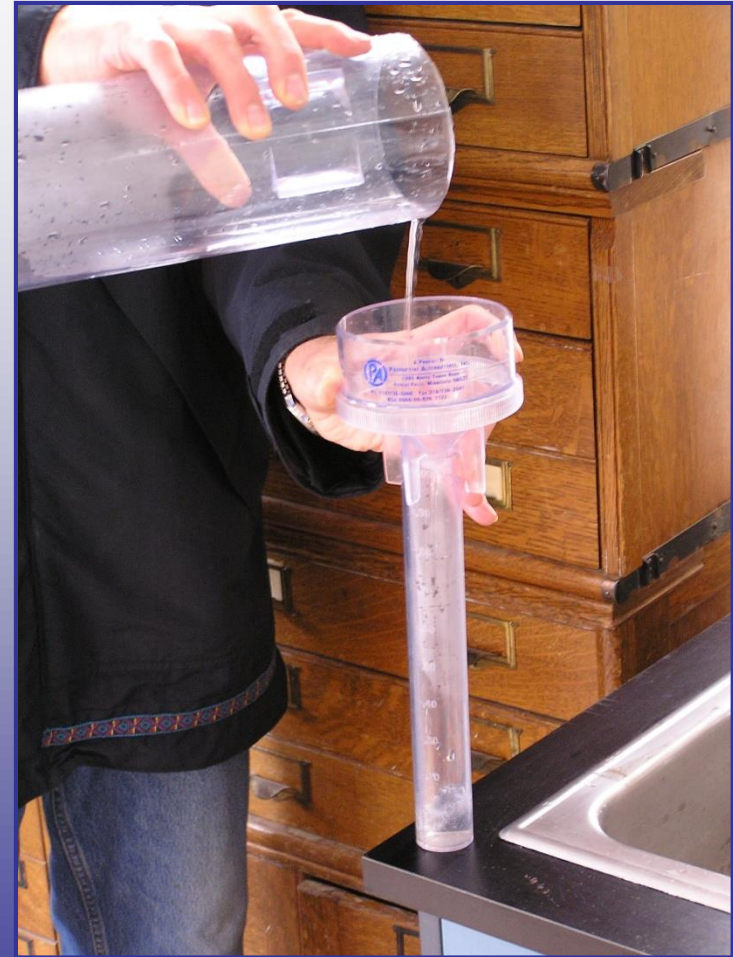


Allow sample to completely melt

Measure the liquefied core sample

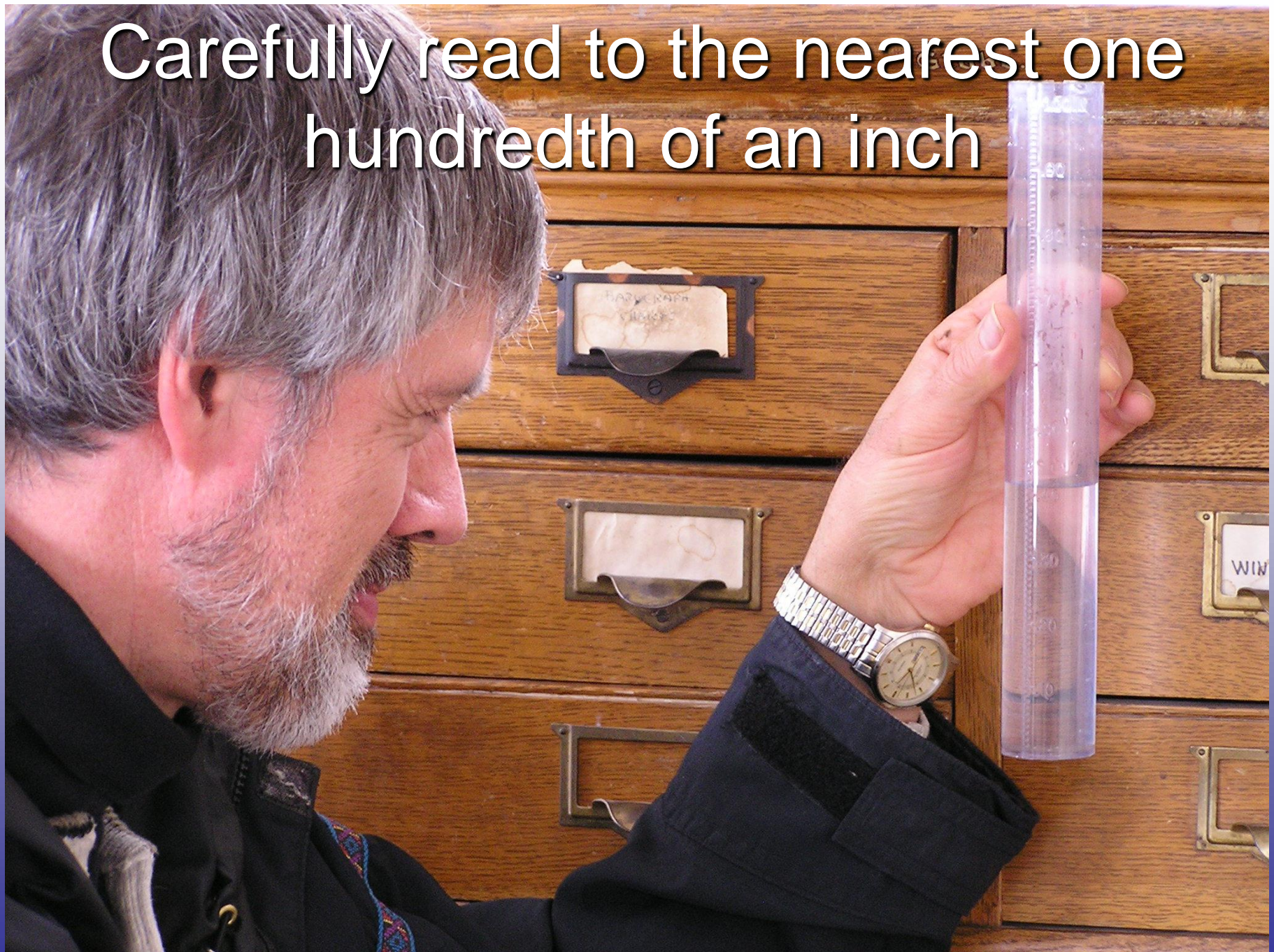


Pour core sample into smaller tube



Remember "Every drop counts!"

Carefully read to the nearest one hundredth of an inch



Again, remember to subtract the amount of warm water that you've added to the tube

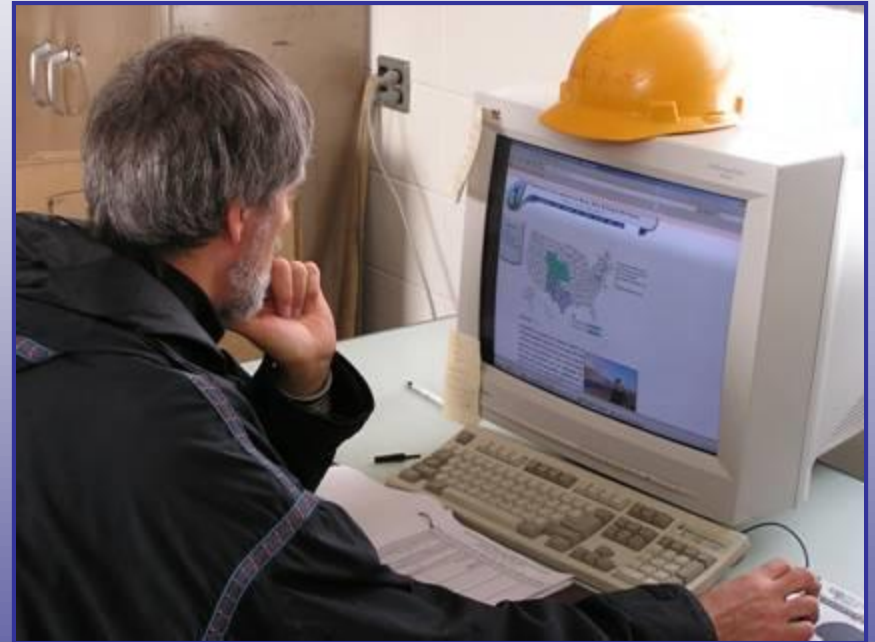
Reading of 0.59 inches of water
minus 0.50 inches of water added
gives a final reading of 0.09 inches



Tube full	0.59
- Water added	0.50

Final reading	0.09

Record your measurement



Enter you data on your precip sheet . . .

or using the CocoRaHS Web site
www.cocorahs.org

We also measure & report snowfall
& total depth of snow on the ground



Snowfall



Snowfall is the accumulation of new snow and ice in the past 24 hours prior to melting or settling

Snow depth is the average depth of snow (including old snow as well as new) that remains on the ground at a particular time of year.



Where to measure new snowfall

Measure newly fallen snow your snowboard if the snow has fallen and accumulated uniformly.



Snow measured under a tree



Notice that only 3.0 inches of snow has accumulated here

Snow measured in the open



Where as, 6.5 inches has fallen in the open

Angle of Measurement



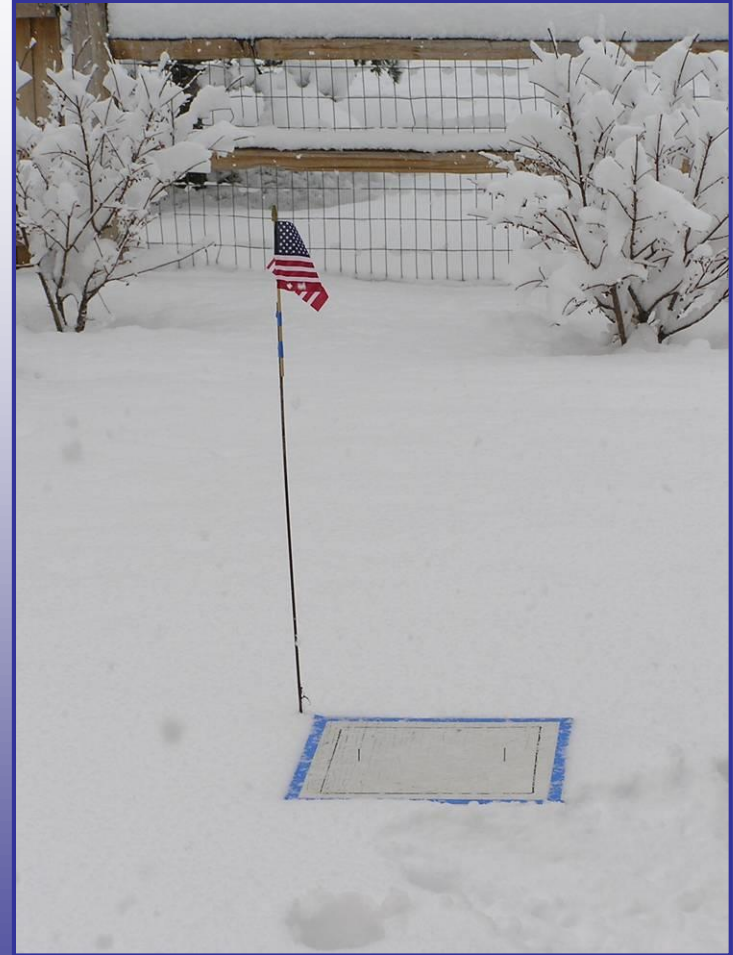
Measure at eye level, as angle will give you an inaccurate measurement

Replace the Board



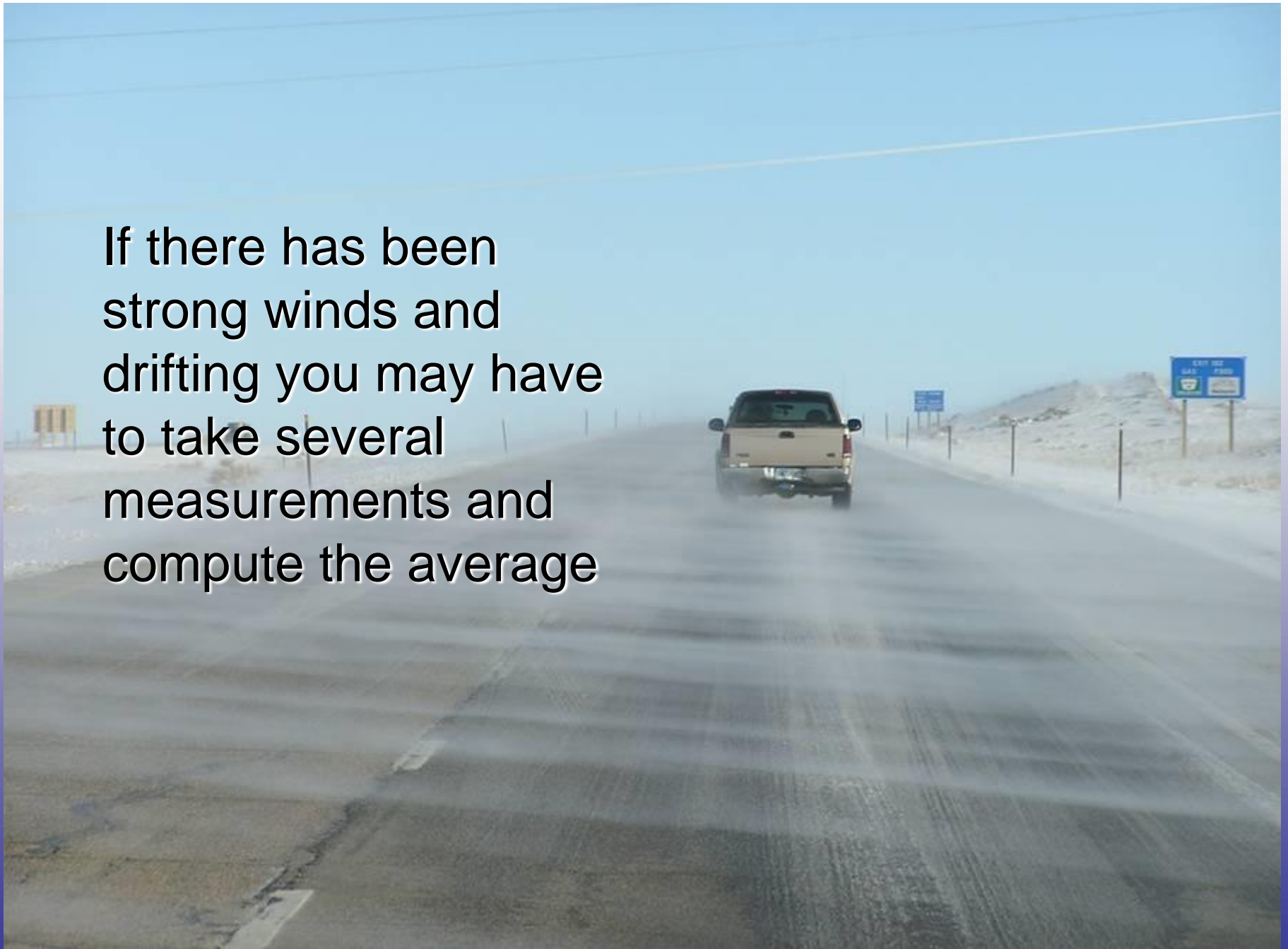
After you have measured the snow on your board, clean it off and replace it on top of the newly fallen snow. Now you are ready for the next snowstorm.

Mark the Spot



You will want to use a pole to mark your board so you can find it again after the next storm

If there has been strong winds and drifting you may have to take several measurements and compute the average

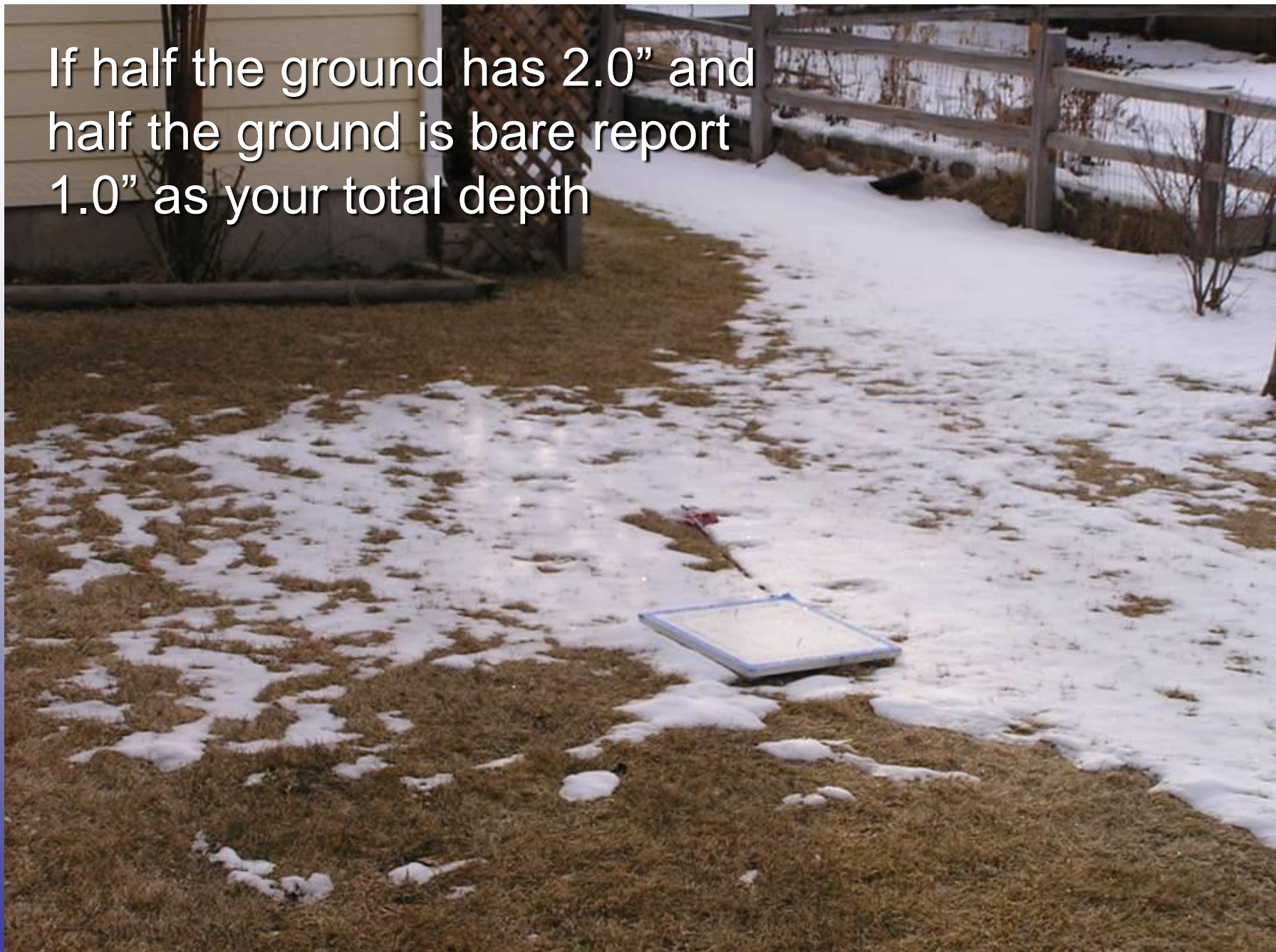


Reporting snow on the ground

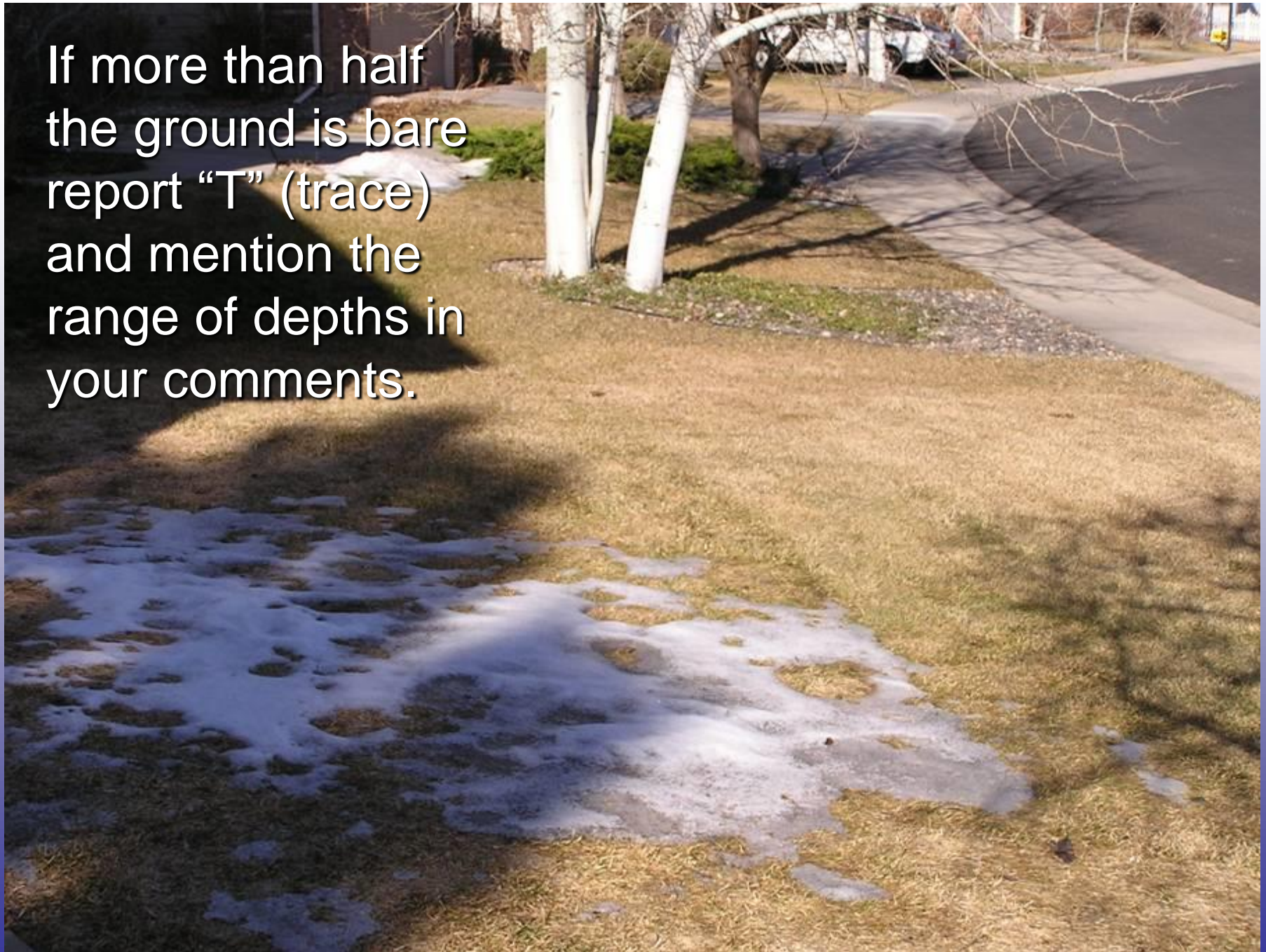


On some days snow will only partially cover the ground. To record this take an average of both covered and bare areas.

If half the ground has 2.0" and
half the ground is bare report
1.0" as your total depth



If more than half the ground is bare report “T” (trace) and mention the range of depths in your comments.



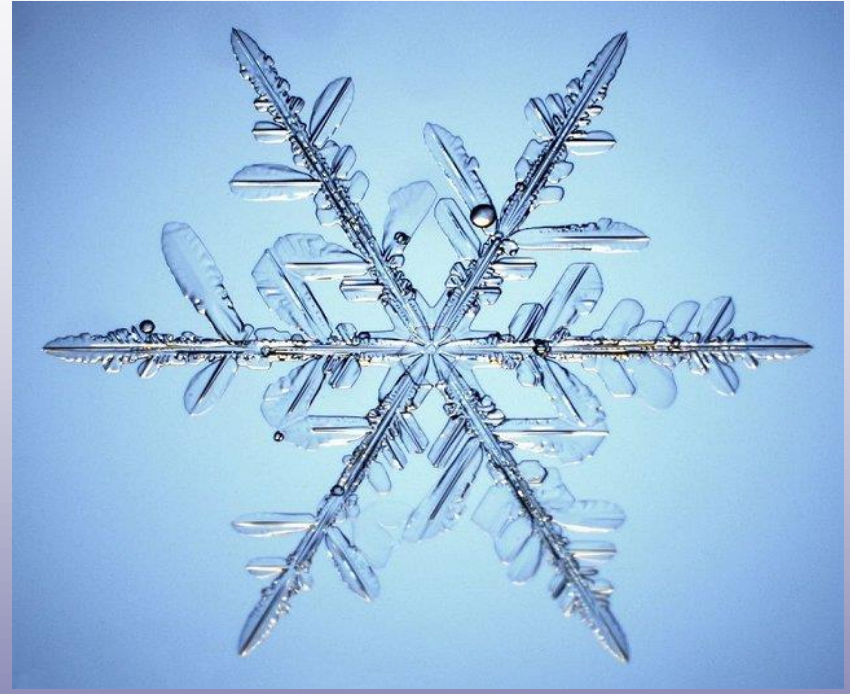
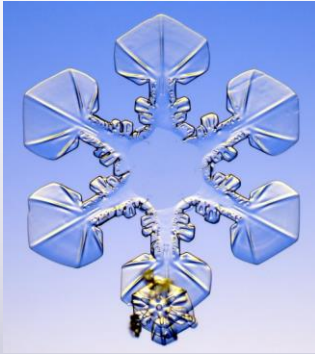
How to Observe Snowflakes

Have a magnifying glass handy



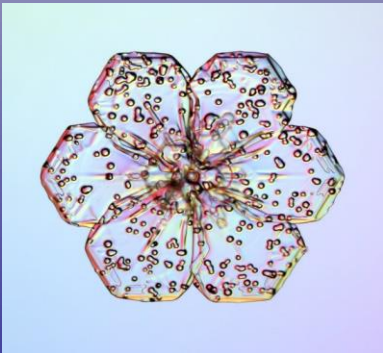
It may help to observe snowflakes on a cold, dark background, like black construction paper.

Identifying Snowflake Shapes



SnowCrystals.com

is a useful guide
for identifying the
shape of
snowflakes

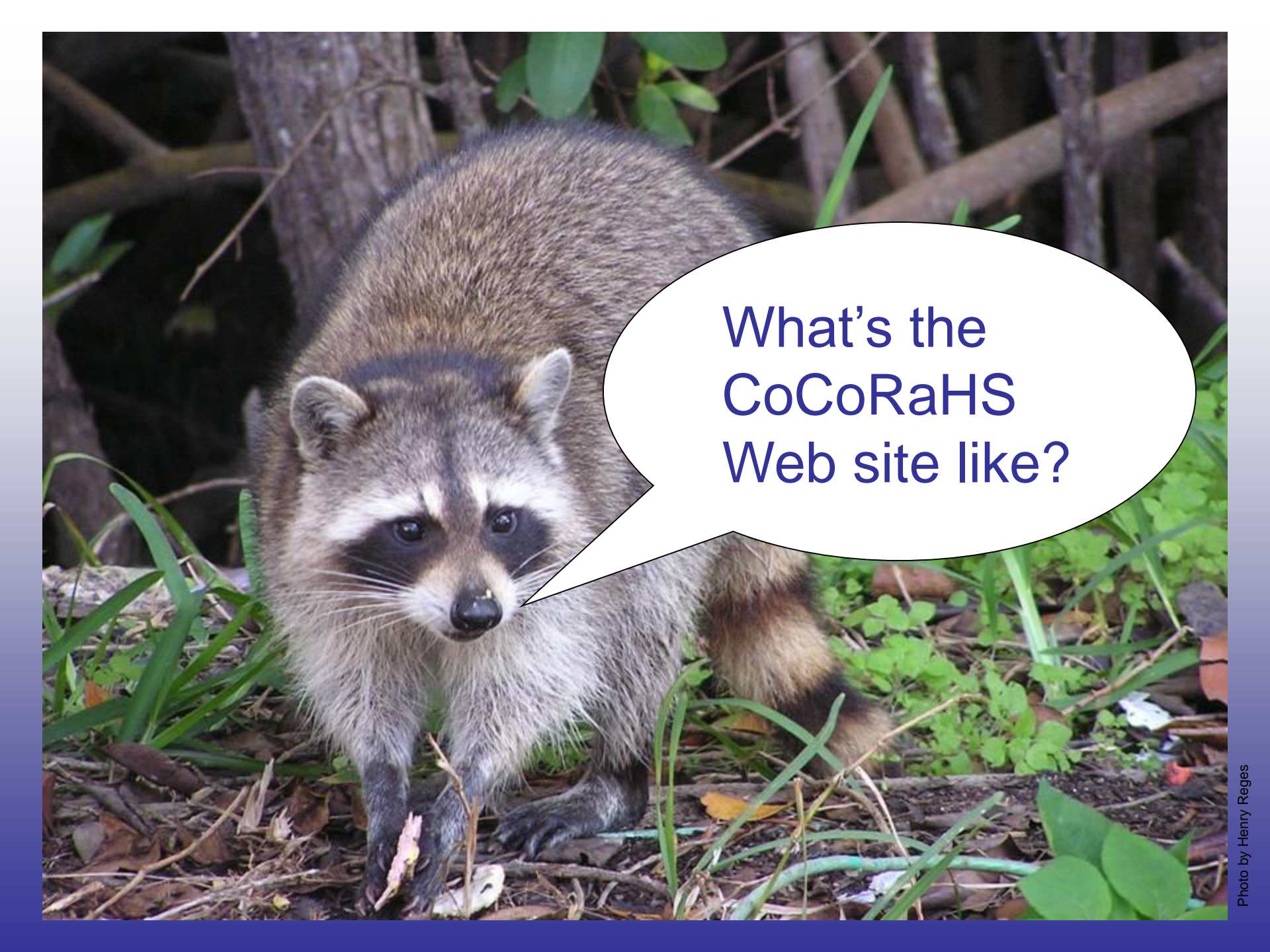


Thunder



One thunder clap includes all sounds that occur within 5 seconds.

Click the speaker symbol to hear examples of thunder claps

A photograph of a raccoon in a natural, wooded environment. The raccoon is the central focus, looking towards the camera. It has its characteristic grey and black fur, a white chest, and a dark mask around its eyes. A white speech bubble with a black outline is positioned to the right of the raccoon's head, containing the text "What's the CoCoRaHS Web site like?". The background consists of various green plants, grasses, and brown tree trunks and branches.

What's the
CoCoRaHS
Web site like?

The CoCoRaHS Web site

www.cocorahs.org

CoCoRaHS
COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

Home | States | View Data | Maps | My Data | My Account | Admin | Logout

Welcome to CoCoRaHS

Read the new CoCoRaHS Newsletter
[Click here to view the PDF.](#)
See CoCoRaHS on the Fox News Channel
[Click here to see the video.](#)
Read about CoCoRaHS in the USA TODAY
[Click here to read the article.](#)

Things to know about...

- Rain**
- Hail**
- Snow**

Would you like your state to be a part of the CoCoRaHS Network?
Contact us at info@cocorahs.org.

Key
CoCoRaHS State
Pending State

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- Sponsors
- Results

Our Web site is informative and easy to use. Here's how to begin →

Login to CoCoRaHS

CoCoRaHS COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

Home | States | View Data | Maps | **My Data Entry | Login**

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Log In:

UserName:

Password:

Save Login

- [Find your login info.](#)
- [Apply to be a Cocorahs observer.](#)

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First, Click to Login

Recording your Daily Precipitation

The screenshot displays the CoCoRaHS website interface. At the top, the logo features a stylized water drop with the text 'CoCoRaHS' and the tagline 'COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK "Because every drop counts"'. A navigation bar includes links for Home, States, View Data, Maps, My Data, My Account, Admin, and Logout. The main heading is 'My Data Entry : Daily Precipitation Report Form'. On the left, a sidebar menu titled 'Enter My Reports' lists options: 'Daily Precipitation', 'Hail', 'Intense Precipitation', 'Multi-Day Precipitation', and 'Monthly Zeros'. A red circle highlights 'Intense Precipitation' and 'Multi-Day Precipitation', with a red arrow pointing to the 'Daily Precipitation' option. The main form area is titled 'Precipitation Report Form' and includes 'Submit Data' and 'Reset' buttons. It contains fields for 'Station Number : CO-LR-610', 'Station Name : Fort Collins 3.5 SW', 'Observation Date : 3/1/2005', 'Observation Time : 7:00 AM', 'Total Precipitation (in inches) : 0.00', and a 'Report was taken at registered location?' checkbox (checked 'Yes'). There is also a 'Notes' text area. A 'Snow Information' section at the bottom has fields for 'New Snow Amount (in inches)', 'Core Precipitation (in inches)', 'Total Depth of Snow on Ground (in inches)', and 'Snow Water Equivalent (SWE)', all with '0.00' entered. The footer shows an 'Internet' icon.

After you login, the screen will automatically take you to the Daily Precip. Report

Enter Your Report

CoCoRaHS COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

Home | States | View Data | Maps My Data | My Account | Admin | Logout

Enter My Reports
-- Select Report Type

List/Edit My Reports
-- Select Report Type

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Precipitation Report Form Submit Data Reset

Station Number : CO-LR-273
Station Name : FCL 2.2 NW

2/23/2005 Observation Date ?
7:00 AM Observation Time ?
0.00 Total Precipitation (in inches) ?
 Yes No Report was taken at registered location?

Notes

Snow Information

0.0 New Snow Amount (in inches) ?
0.0 Total Depth of Snow on Ground (in inches) ?
0.00 Core Precipitation (in inches) ?
0.00 Snow Water Equivalent (SWE) ?

Record your measurement in hundredths (0.00)

Here you will enter the total precipitation measured in your gauge

Recording Comments

CoCoRaHS COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

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Enter My Reports
-- Select Report Type

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Precipitation Report Form Submit Data Reset

Station Number : CO-GN-18
Station Name : Gothic 0.1 ESE

2/16/2005 Observation Date
8:00 AM Observation Time
0.95 Total Precipitation (in inches)
 Yes No Report was taken at registered precipitation (rain or the melted water content of snow) that fell in the rain gauge for the past 24-hours ending at 7:00 am today.

Notes
Still warm with the low just 26F but heavy snowfall overnight

Snow Information

14.0 New Snow Amount (in inches)
66.5 Total Depth of Snow on Ground (in inches)
NA Core Precipitation (in inches)
NA Snow Water Equivalent (SWE)

Feel free to enter comments about the day's weather under "notes"

Submit your Report

The screenshot shows the CoCoRaHS website interface. At the top left is the CoCoRaHS logo. The main header reads "COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK" with the tagline "Because every drop counts". Navigation links include Home, States, View Data, Maps, My Data, My Account, and Logout. The left sidebar contains sections for "Enter My Reports", "List/Edit My Reports", "Main Menu" (with links to Home, Join Cocorahs, Contact Us, In the Spotlight), and "States" (with links to Colorado, Kansas, New Mexico, Wyoming). The main content area is titled "Precipitation Report Form" and contains the following fields:

- Station Number: CO-GN-18
- Station Name: Gothic 0.1 ESE
- Observation Date: 2/16/2005
- Observation Time: 8:00 AM
- Total Precipitation (in inches): 0.95
- Report was taken at registered: Yes No
- Notes: Still warm with the low just 26F but heavy snowfall overnight
- Snow Information:
 - New Snow Amount (in inches): 14.0
 - Total Depth of Snow on Ground (in inches): 66.5
 - Core Precipitation (in inches): NA
 - Snow Water Equivalent (SWE): NA

The "Submit Data" button is circled in red, and a red arrow points to it from the bottom of the slide. A tooltip for the "Report was taken at registered" field explains that precipitation includes rain or the melted water content of snow that fell in the rain gauge for the past 24-hours ending at 7:00 am today.

Click "Submit" and your data is recorded on our site

To See Your Report on the Map

CoCoRaHS COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

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Colorado

Map Key
Colorado Daily Precipitation
2/23/2005

0.0
Trace
0.00 - 0.17
0.17 - 0.33
0.33 - 0.50
0.50 - 0.67
0.67 - 0.83
0.83 - 1.00

The Community Collaborative Rain, Hail and Snow Network was founded in 1998 in northern Colorado. A huge flash flood, resulting from a highly localized intense rain storm that dropped over 14 inches of rain over a few neighborhoods in Fort Collins, Colorado, helped point out the role that volunteers can play to report weather events, track rainfall patterns, help scientists, and monitor water resources. The project has now expanded to the entire state and to other states. If you would like

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- [Maps](#)

Colorado Reports

- [Daily Precip](#)
- [Hail Reports](#)
- [Intense Precip](#)
- [Multi-Day Precip](#)

View All Reports

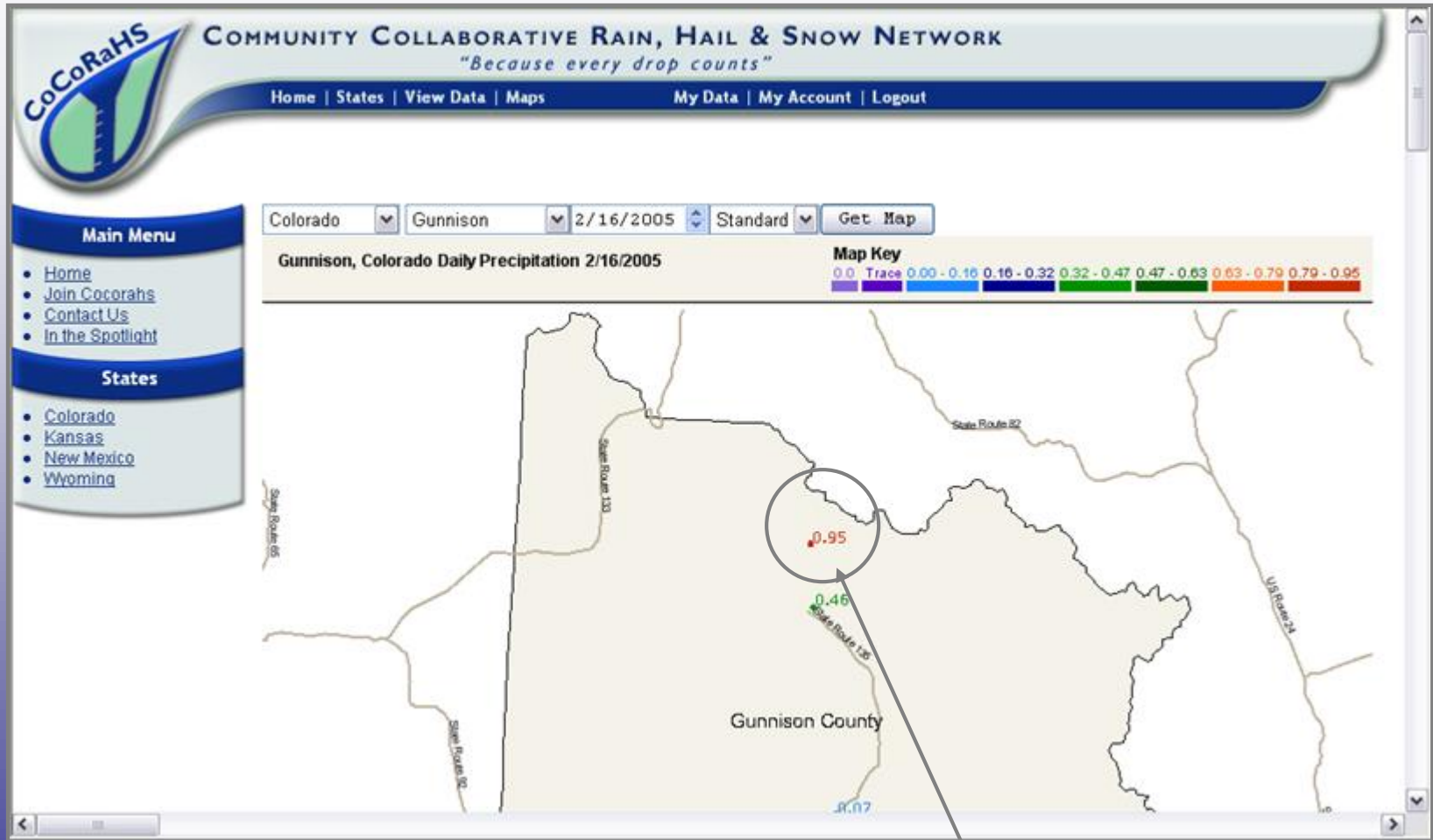
- [Daily Precip](#)
- [Hail Reports](#)
- [Intense Precip](#)
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- [Rainy Days](#)
- [Stations](#)

Main Menu

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Go to your state page and then click on your county

Your Report on our Daily Map



The amount of precipitation you entered shows up at your location on the map

Pennsylvania State Page



COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
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Pennsylvania

State Menu

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Pennsylvania Reports

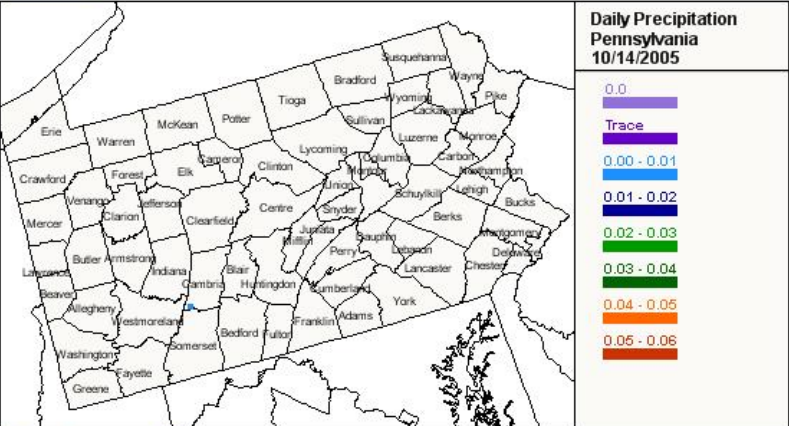
- [Daily Precip](#)
- [Hail Reports](#)
- [Intense Precip](#)
- [Multi-Day Precip](#)

View All Reports

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Daily Precipitation Pennsylvania 10/14/2005

- 0.0
- Trace
- 0.00 - 0.01
- 0.01 - 0.02
- 0.02 - 0.03
- 0.03 - 0.04
- 0.04 - 0.05
- 0.05 - 0.06

[View Large Map](#)

 From Erie to Allentown, Pittsburgh to Philly and all the other great towns in between, CoCoRaHS is now operating in Pennsylvania! It's easy to sign-up to become an observer (click on "Join CoCoRaHS"). Once you do your precipitation observations will start showing up daily on our county maps. You will also provide a great service to your community by allowing your friends, neighbors, scientists and others to see how daily precipitation has covered the state.

For more information on CoCoRaHS please contact our Pennsylvania State Coordinator:

Each CoCoRaHS State has it's own page which is updated daily

Other Reports

- Hail Report
- Intense Precipitation Report
- Monthly Zeros
- Multi-Day Precipitation Report
- Daily Precipitation Report

Hail Report

My Data Entry : Hail Report Form

Hail Report Form

Station Number : CO-LR-610
Station Name : Fort Collins 3.5 SW

3/4/2005
7:00 AM
 Yes No Report was taken at registered location?

Size of hailstones

Smallest Not Selected
Average Not Selected
Largest Not Selected

Hail Lasted
 Minutes This time is accurate within

Hailfall was: Continuous Intermittent

Hailstones were:
 Hard Soft Clear Ice White Ice Mixed (Check all that apply)

Was there more rain than hail? Yes No

Hail Started:
 Before rain After rain Same time as rain

Largest Hail Started
 Before smaller hail After smaller hail Same time as smaller hail

Damage?
If the storm caused damage, please specify. (Check all that apply)

Enter My Reports

-- Select Report Type --
Daily Precipitation
Hail
Intense Precipitation
Multi-Day Precipitation
Monthly Zeros

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Done Internet

Click here to access a Hail Report

Intense Precipitation Report

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My Data Entry : Intense Precipitation Report Form

Intense Precipitation Report [Submit Data](#) [Reset](#)

Station Number : CO-LR-610

Station Name : Fort Collins 3.5 SW

Yes No Report was taken at registered location?

3/1/2005 Observation Date

7:00 AM Observation Time

0.00 Total Precipitation since rain began (in inches)

0.00 (X.XX) inches of rain has fallen in the past

Minutes

Flooding

No

If Yes, how severe?

Minor (typical). Street or field flooding.

Unusual street or field flooding (only see this every few years)

Severe Flooding

Extreme (never seen it this bad before)

Notes

Enter My Reports

-- Select Report Type

-- Select Report Type --

Daily Precipitation

Hail

Intense Precipitation

Multi-Day Precipitation

Monthly Zeros

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Internet

Click here to access the Intense Precipitation Report

Monthly Zeros

CoCoRaHS COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

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My Data Entry : Monthly Zeros Form

Station Number : CO-LR-610 Station Name : Fort Collins 3.5 SW

February 2005

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	1	2	3	4	5
		<input type="checkbox"/> 0.0 Precip	Precip: T	<input type="checkbox"/> 0.0 Precip	Precip: 0	<input type="checkbox"/> 0.0 Precip
6	7	8	9	10	11	12
Precip: T	Precip: T	Precip: 0.07	Precip: 0	Precip: 0	Precip: 0	<input type="checkbox"/> 0.0 Precip
13	14	15	16	17	18	19
<input type="checkbox"/> 0.0 Precip	Precip: 0	<input type="checkbox"/> 0.0 Precip	<input type="checkbox"/> 0.0 Precip	Precip: 0	Precip: 0	Precip: 0
20	21	22	23	24	25	26
<input type="checkbox"/> 0.0 Precip	Precip: T	Precip: 0	Precip: 0	Precip: 0	Precip: 0	Precip: 0
27	28	1	2	3	4	5
Precip: 0	Precip: 0					
6	7	8	9	10	11	12

Submit Reset

For questions or comments concerning this web page please contact the webmaster.

Internet

Enter My Reports

- Select Report Type
- Select Report Type --
- Daily Precipitation
- Hail
- Intense Precipitation
- Multi-Day Precipitation
- Monthly Zeros**

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You can go back in and enter days of zero precipitation on one "simple to use" page

Multi-Day Precipitation

CoCoRaHS COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
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Home | States | View Data | Maps My Data | My Account | Admin | Logout

My Data Entry : Multi-Day Precipitation Report Form

Multiple Day Accumulation Form

Station Number : CO-LR-610
Station Name : Fort Collins 3.5 SW

First day of accumulation period. This day should be one day after your last report.
 Date the rain gauge was emptied.

Time the rain gauge was emptied.

Yes No Report was taken at registered location?

Multi Day Precipitation (in inches)
 Total Depth of Snow on Ground (in inches)
 Core Precipitation (in inches)

Notes

Done Internet

I was away for a week and read the accumulation in my Gauge when I returned.

You can even enter information after you've been away for several days

Daily Precipitation Reports

CoCoRaHS COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

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View Data : List Daily Precipitation Reports

Search Daily Precipitation Reports

Station Fields: Station Number Station Name

Location: New Mexico ALL COUNTIES

Date Range:
Start Date: 2/24/2005 End Date: 3/1/2005

Precip Value: All Precip Values Operator 0.00

Searched: Stations in New Mexico. Report date between 2/24/2005 and 3/1/2005.
Showing 6 Records.

Date ^	Time	Station Number	Station Name	Total Precip	New Snow	Total Snow	State	County	
2/28/2005	7:00 AM	NM-DA-2	Las Cruces 2.1 WSW	0.00	0.00	0.00	NM	Dona Ana	View
2/27/2005	7:00 AM	NM-DA-2	Las Cruces 2.1 WSW	0.01	0.00	0.00	NM	Dona Ana	View
2/26/2005	7:00 AM	NM-DA-2	Las Cruces 2.1 WSW T		0.00	0.00	NM	Dona Ana	View
2/25/2005	7:00 AM	NM-DA-2	Las Cruces 2.1 WSW	0.26	0.00	0.00	NM	Dona Ana	View
2/24/2005	7:00 AM	NM-DA-2	Las Cruces 2.1 WSW	0.56	0.00	0.00	NM	Dona Ana	View

Internet

Frequently Asked Questions

Do I have to be home everyday to participate in CoCoRaHS?

Answer: No. Report when you are able. If you are gone, you may leave your gauge outside and report a multi-day total when you return.

What if I don't have a good place to put my gauge?

Answer: Few people have ideal locations. Do your best. Send sight photos if possible to help interpret results.

What if it hails when I'm not at home?

Answer: We still would like your hail pad. Report as much info as you can find out from friends and neighbors.

Do I report morning dew that has collected in my rain gauge?

Answer: No. That is not precipitation, but you may note the dew in the comments.



How long is my commitment to CoCoRaHS?

Answer: Ideally, at least one season, but the longer you contribute, the more valuable the data become.

Thanks for joining us today!

- We hope that after learning about CoCoRaHS and FROST today you will consider joining our ever growing network of volunteers.
- If you are already a FROST Volunteer Observer, thank you for coming out today and for your help in making “*every drop count!*”

That's all folks!

THE END

