

COCORaHS

“BECAUSE EVERY DROP COUNTS”

**Rio Grande Customer Service Meeting
May 7, 2008**

**Diane Cooper
NWS – Southern Region Hydrologic
Services Program Manager**



What Is CoCoRaHS??

“CoCoRaHS is a grassroots, non-profit, community-based, high-density precipitation network

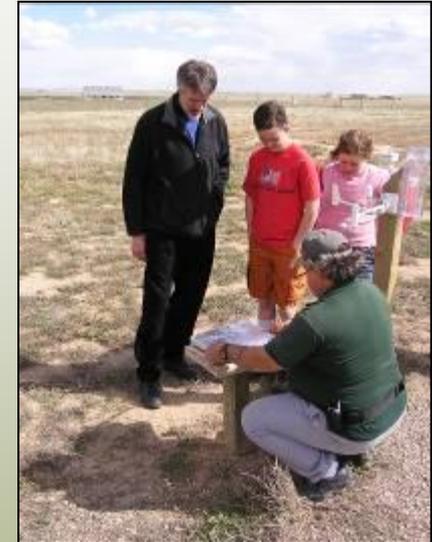


made up of volunteers of all backgrounds and ages . . .



CoCoRaHS

... who take daily measurements of precipitation right in their own backyards”



CoCoRaHS

& Snow Netw.

JUST PRECIPITATION!



Once trained, our volunteers collect data using low-cost measurement tools . . .



4-inch diameter high capacity rain gauges



Aluminum foil-wrapped Styrofoam hail pads



Things to know about...

- Rain**
 - Overview
 - Weather Radar
 - Measuring Rain
- Hail**
 - Overview
 - Hail Facts
 - Hail Floures
 - CoCoRaHS & Hail
 - Hail Pad Examples
 - Measuring Hail
- Snow**
 - Overview
 - Measuring Snow

Training is important to assure accurate, high quality data

and report their daily observations on our interactive 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

Main Menu

- Home
- About Us
- Join Cocorahs
- Contact Us
- Donate

Resources

- FAQ / Help
- Education
- Training Slide-Show(MB)
- Volunteer Coordinators
- Hail Pad
- Distribution/Drop-off
- Help Needed
- Printable Forms
- CoCoRaHS Store
- Calendar
- The Catch
- Message of the Day
- CoCoRaHS Blog
- Sponsors
- Presentations
- Links

Map of the United States

Key
 CoCoRaHS State (Green)
 State Joining During 2008 (Blue and White Stripes)

weatherwise
 Read the "CoCoRaHS Article" in the July/August 2007 Issue of Weatherwise Magazine

Things to know about...

- Rain
- Hail
- Snow

CoCoRaHS Welcomes Louisiana

CoCoRaHS New Jersey February 2008

New Jersey CoCoRaHS Garden State	New Jersey Feb 2008 Garden State
New Jersey CoCoRaHS Garden State	New Jersey Feb 2008 Garden State
New Jersey CoCoRaHS Garden State	New Jersey Feb 2008 Garden State

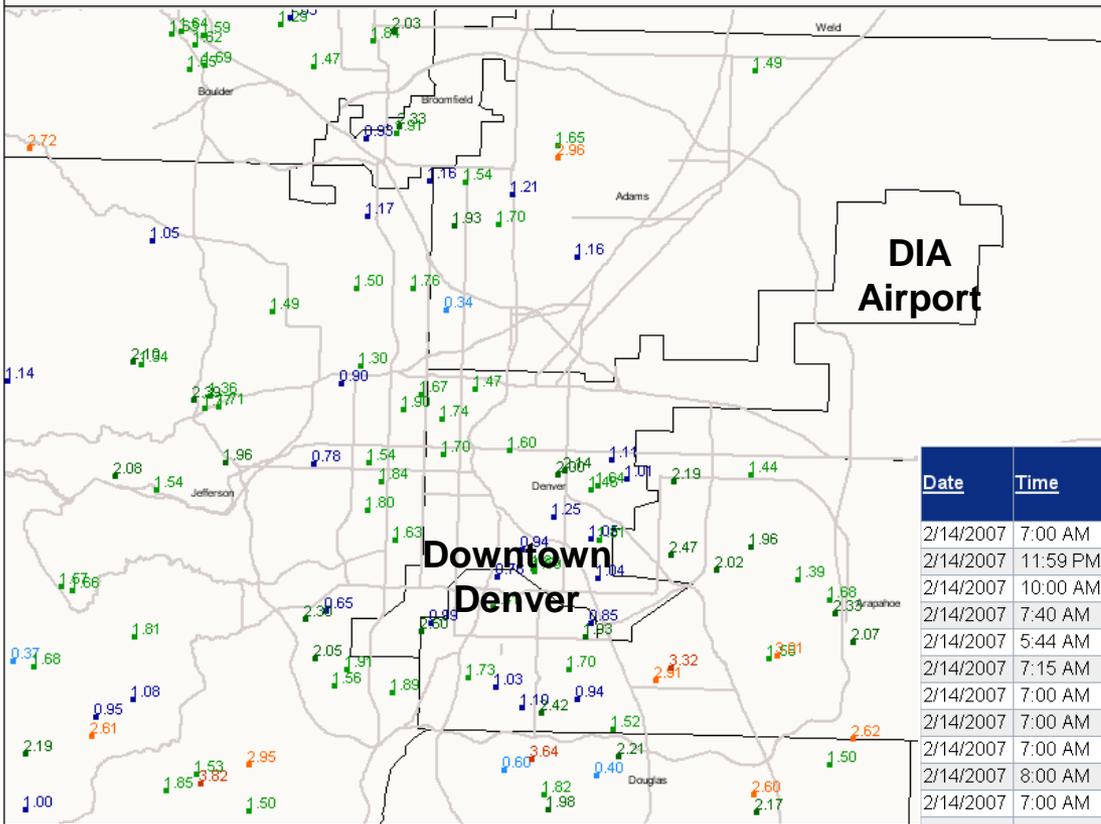
TRAINING SLIDE-SHOW

Purchase an official CoCoRaHS 4" Rain Gauge

Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am

Denver Metro, Colorado 12/21/2006

0.0 Trace 0.01 - 0.64 0.64 - 1.27 1.27 - 1.91 1.91 - 2.55 2.55 - 3.18 3.18 - 3.82

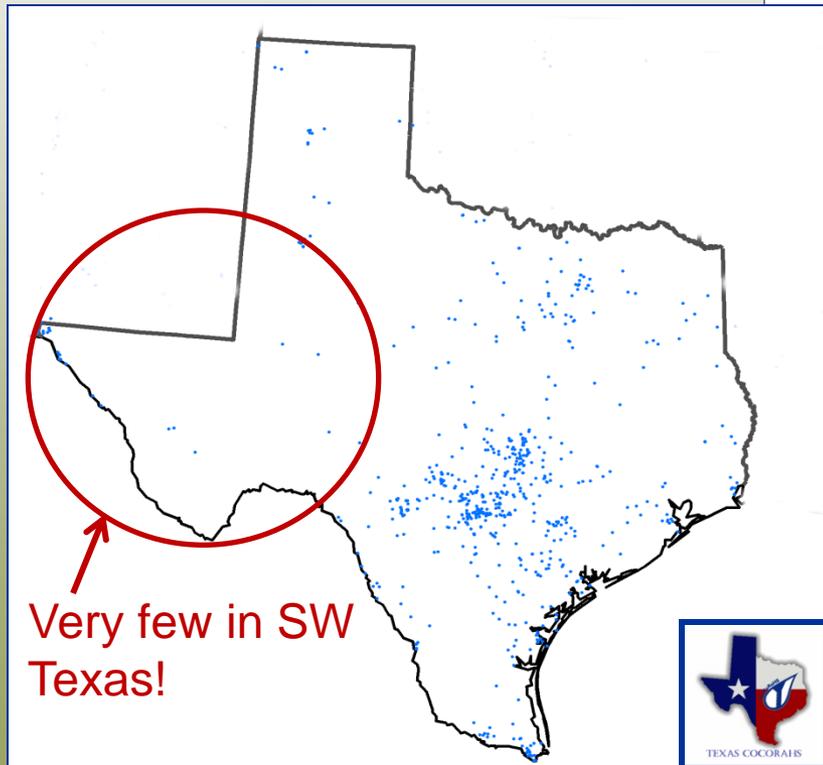
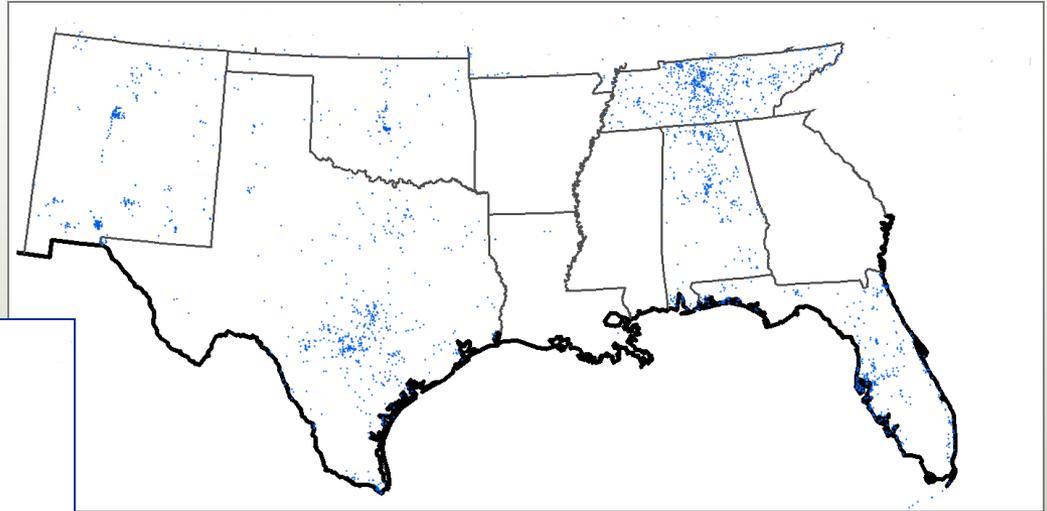


Observations are immediately available in map and table form for the public to view.

Date	Time	Station Number	Station Name	Total Precip .in	New Snow .in	Total Snow .in	State	County	View
2/14/2007	7:00 AM	MD-GR-1	Mc Henry 4.0 SSE	2.85	6.7	12.5	MD	Garrett	View
2/14/2007	11:59 PM	MD-MG-8	Gaithersburg 2 WNW	2.80	4.2	4.0	MD	Montgomery	View
2/14/2007	10:00 AM	MD-CR-7	Westminster 1.0 W	2.10	5.5	5.5	MD	Carroll	View
2/14/2007	7:40 AM	MD-MG-1	Montgomery Village 1.3 SSW	2.05	4.1	3.0	MD	Montgomery	View
2/14/2007	5:44 AM	MD-WH-1	Williamsport 2.8 ENE	1.92	2.6	5.0	MD	Washington	View
2/14/2007	7:15 AM	MD-CR-3	Mount Airy 0.2 SE	1.90	5.1	5.0	MD	Carroll	View
2/14/2007	7:00 AM	MD-CR-6	Taneytown 3.2 NE	1.83	5.0	NA	MD	Carroll	View
2/14/2007	7:00 AM	MD-HW-2	Sykesville 1.7 SSE	1.78	5.0	5.0	MD	Howard	View
2/14/2007	7:00 AM	MD-HW-12	Sykesville 2.6 SE	1.61	0.0	NA	MD	Howard	View
2/14/2007	8:00 AM	MD-MG-3	Potomac 0.9 NNW	1.54	3.2	NA	MD	Montgomery	View
2/14/2007	7:00 AM	MD-MG-2	Redland 0.8 NNE	1.52	4.5	4.5	MD	Montgomery	View
2/14/2007	7:00 AM	MD-PG-37	Brandywine 6.7 ESE	1.49	T	T	MD	Prince George's	View
2/14/2007	7:00 AM	MD-PG-1	Bowie 0.5 E	1.47	1.0	1.5	MD	Prince George's	View
2/14/2007	7:00 AM	MD-SM-3	Leonardtown 0.6 NE	1.42	0.0	NA	MD	St. Mary's	View
2/14/2007	7:00 AM	MD-CH-7	Waldorf 3.2 SW	1.40	0.8	0.7	MD	Charles	View
2/14/2007	7:00 AM	MD-HW-11	Columbia 1.7 W	1.40	3.2	3.5	MD	Howard	View
2/14/2007	7:00 AM	MD-PG-7	Camp Springs 1.6 NNW	1.38	1.8	NA	MD	Prince George's	View
2/14/2007	4:00 PM	MD-BL-7	White Hall 3.5 NE	1.38	NA	NA	MD	Baltimore	View
2/14/2007	7:00 AM	MD-CV-1	Marlton 6.0 E	1.37	0.3	0.0	MD	Calvert	View
2/14/2007	7:00 AM	MD-SM-4	Charlotte Hall 3.6 ENE	1.37	0.3	T	MD	St. Mary's	View
2/14/2007	7:00 AM	MD-MG-24	White Oak 1.2 N	1.35	2.5	2.0	MD	Montgomery	View
2/14/2007	7:00 AM	MD-PG-35	Brandywine 2.5 NNW	1.35	1.0	1.4	MD	Prince George's	View
2/14/2007	7:00 AM	MD-WC-1	Vienna 11.3 SSW	1.35	0.0	NA	MD	Wicomico	View
2/14/2007	7:00 AM	MD-PG-6	Friendly 1.0 N	1.32	2.4	1.8	MD	Prince George's	View
2/14/2007	7:00 AM	MD-MG-5	Norfolk 1.0 SE	1.31	2.4	2.5	MD	Montgomery	View

CoCoRaHS Active Observers

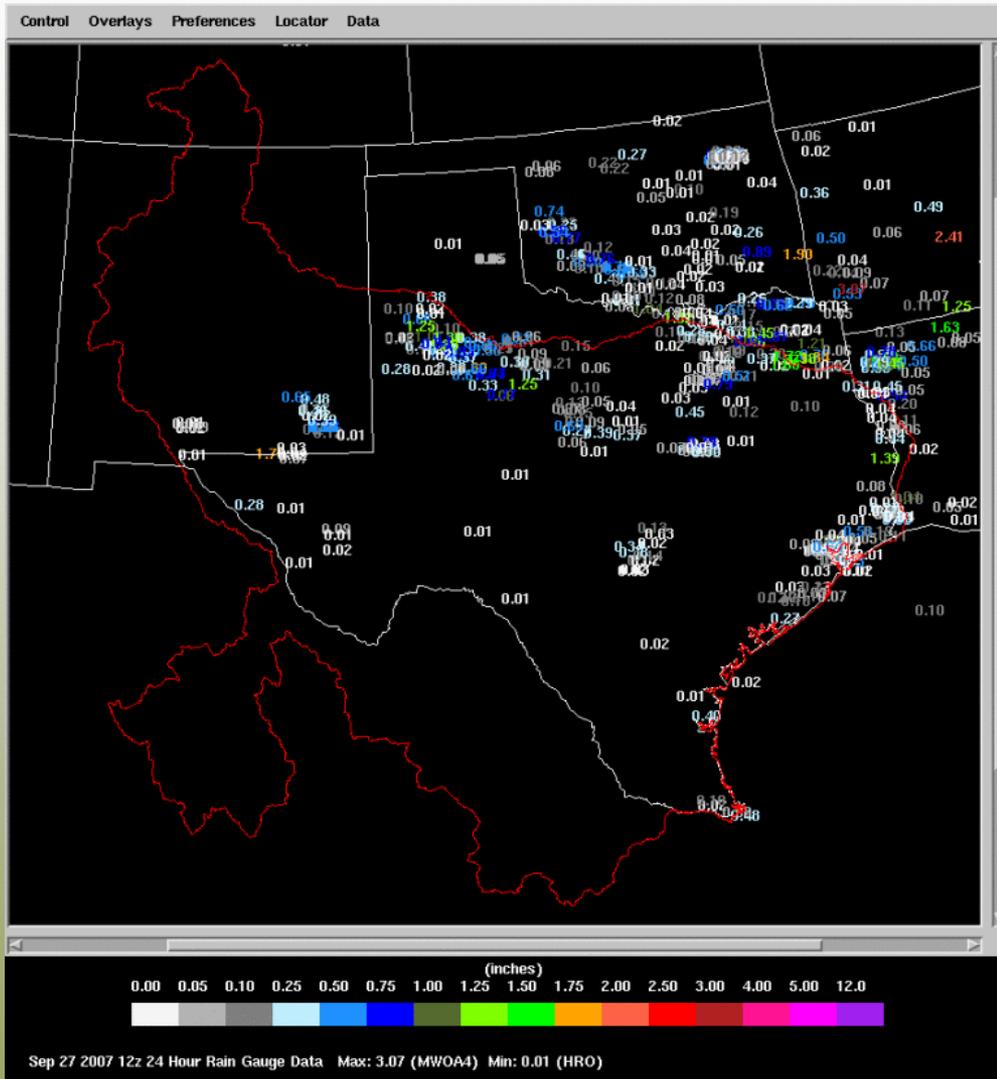
As of March 2008



3,874 Volunteer Observers

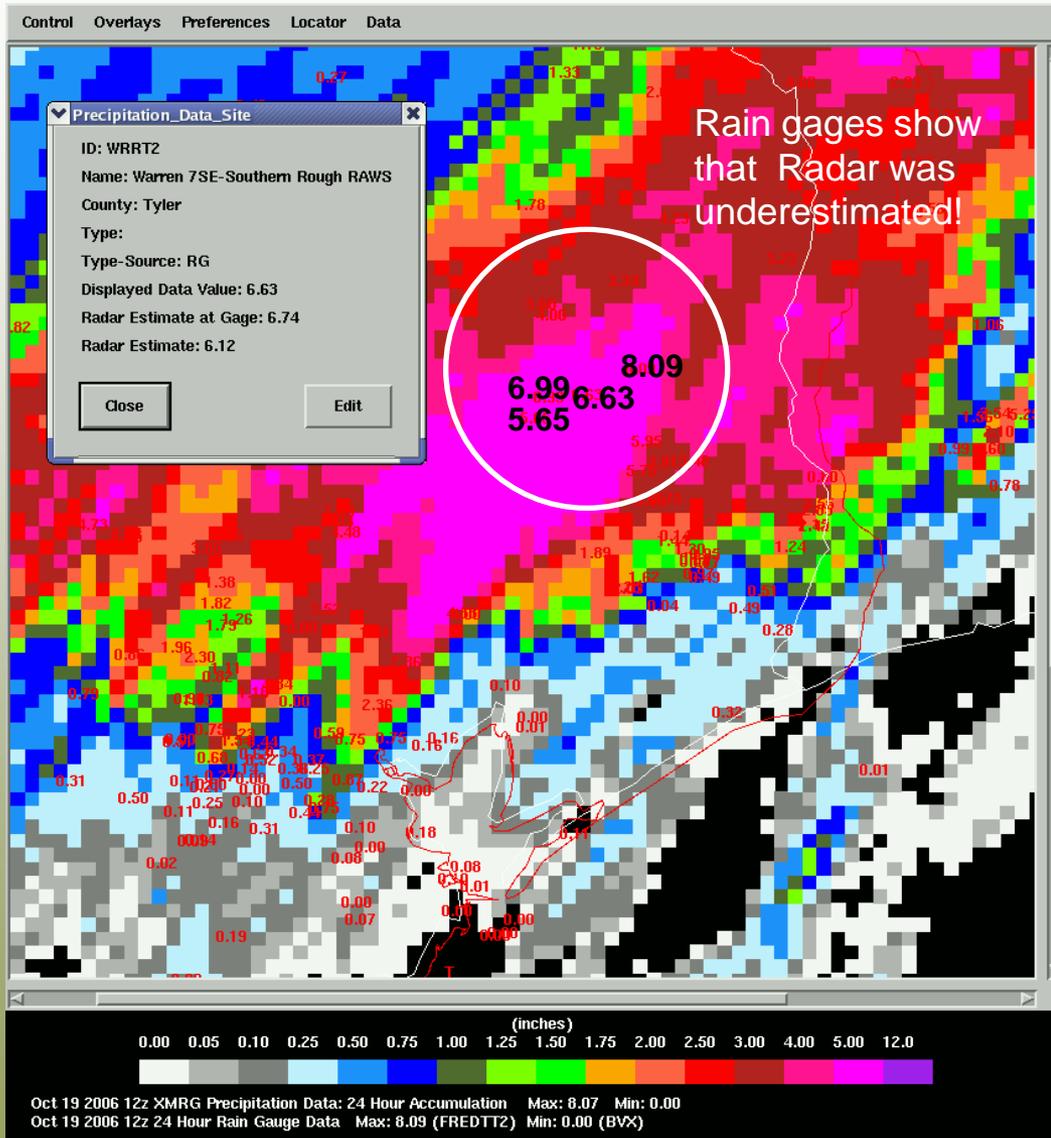
Texas	960
Tennessee	904
New Mexico	642
Florida	575
Alabama	530
Oklahoma	160
Louisiana	103

How CoCoRaHS Data Helps the NWS



CoCoRaHS
data received
and displayed
real-time in
NWS Systems

How CoCoRaHS Data Helps the NWS



So the RFC Forecaster in their post analysis precipitation processing will increase the Multi-gridded precipitation data (i.e. Radar and Satellite and hourly gage mosaic) based on these 24 hour amounts.

CoCoRaHS also provides the NWS with data for possible Severe Weather Warnings

Second Vehicle for communicating to the NWS WFO's and RFC's



Hail Reports



Instant Snow Reports



Possible Flash Flood or Severe Thunderstorm Warnings issued



Intense Rain Reports

CoCoRaHS Intense Rain Report

NZUS45 BKOU 051425
CCRAHS

Intense rain report from CoCoRAHS spotter:

County: **Robertson TN**

Cross Plains 3.7 W (number TN-RB-2)

Latitude: 36.550248

Longitude: -86.747602

05/05/2007 09:15 AM local time

-2.00 inches so far, with 2.77 inches in the past 222 mins

Flooding: Minor

Comments: Majority of rain fell 30-45 minutes before 09:15.

Received NWS Boulder Sat May 5 08:25:50 2007 MDT

All of today's CoCoRAHS observations are in WRKCCR (WFO Boulder only)
Or at <http://www.cocorahs.org> (click on reports)

NZUS45 KBOU 120128
CCRAHS

Detailed hail report from CoCoRAHS spotter:

County: **Coffee TN**

Wartrace 6/3 ENE (number TN-CF-4)

Latitude: 35.564987

Longitude: -86.230624

05/11/2007 03:30 PM local time

Largest hail: 0.625 average: NA

Damage: minor leaf damage

Duration: 30

depth:

Comments:

Received NWS Boulder Fri May 11 19:28:43 2007 MDT

All of today's CoCoRAHS observations are in WRKCCR (WFO Boulder only)

Or at <http://www.cocorahs.org> (click on reports)

CoCoRaHS Hail Report



My Data Entry : Daily Precipitation Report Form

Enter My New Reports

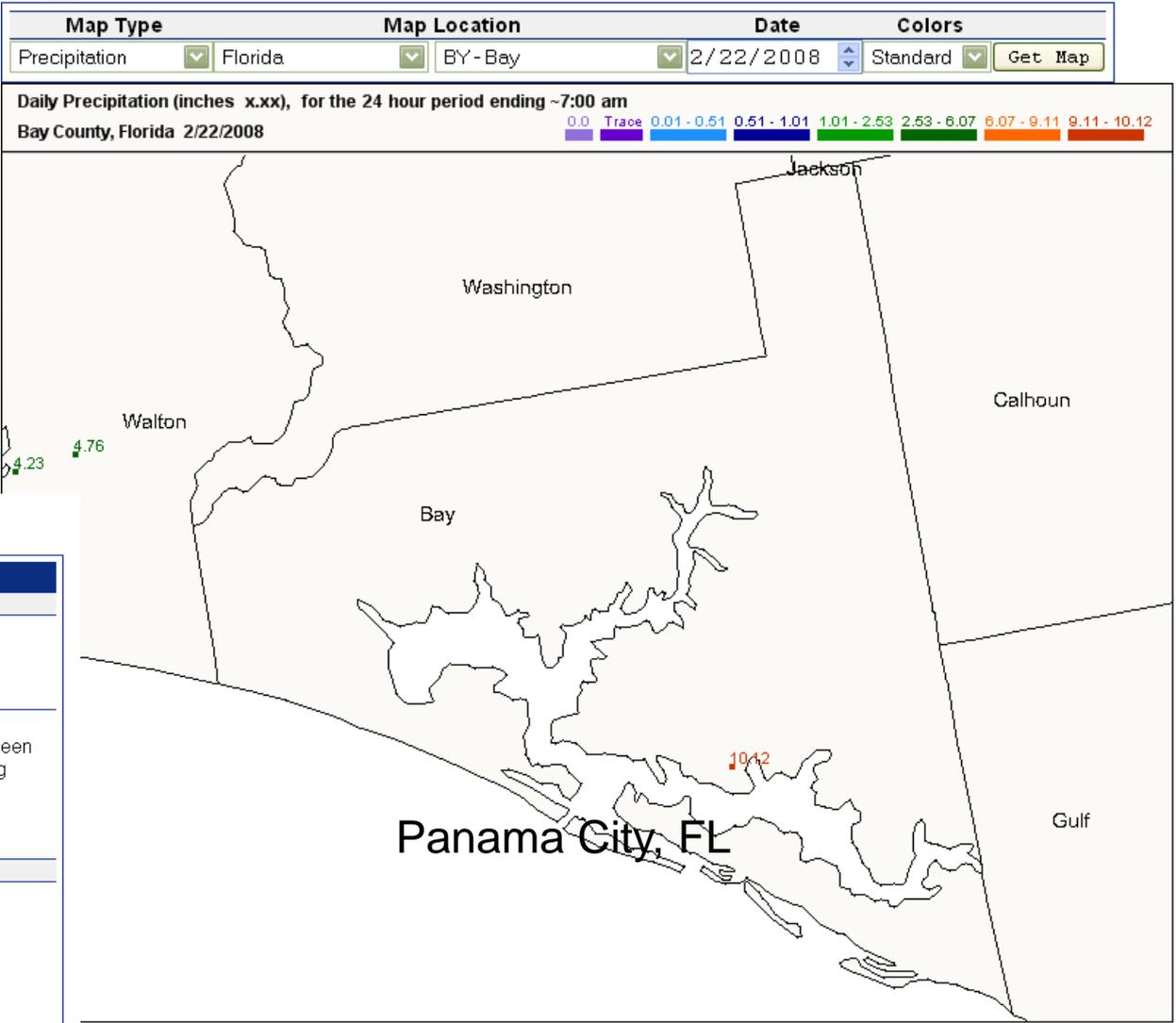
- ▶ [Daily Precipitation](#)
- ▶ [Hail](#)
- ▶ [Intense Precipitation](#)
- ▶ [Multi-Day Accumulation](#)
- ▶ [Monthly Zeros](#)

List/Edit My Reports

- ▶ [Daily Precipitation](#)
- ▶ [Hail](#)
- ▶ [Intense Precipitation](#)
- ▶ [Multi-Day Accumulation](#)

Precipitation Report Form		Submit Data	Reset
Station Number : CO-LR-610			
Station Name : Fort Collins 3.5 SW			
* Denotes Required Field			
3/7/2008		* Observation Date	?
7:00	AM	* Observation Time	?
0.15		* Total Rain and Melted Snow in gauge in inches to the nearest hundredth	?
<input checked="" type="radio"/> Yes <input type="radio"/> No		Report was taken at registered location?	
Observation Notes: (This will be available to the public) ?			
In addition to the precip amounts, the comments field can provide important auxiliary information			
New Snow			
0.0		Depth of new snow in inches to the nearest tenth	?
NA		Melted value from core to the nearest hundredth	?
Total Snow on Ground			
NA		Depth of total snow in inches to the nearest half inch	?
NA		Melted value from core to the nearest hundredth	?
Duration Information			

Panama City Flooding February 22, 2008



View Data : View Daily Precipitation Report

Daily Precipitation Report	
Station Number:	FL-BY-1
Station Name:	Callaway 0.3 W
Observation Date	2/22/2008 5:40 AM
Submitted	2/22/2008 5:51 AM
Total Precip Amount	10.12 inches
Notes	Very heavy almost continuous rain...lots of street flooding...not seen by me in the last 12 years of living here.
Taken at registered location	Yes
Snow Information	
New Snow Depth	0.0 inches
New Snow Water Equivalent	NA
Total Snow Depth	NA
Total Snow Water Equivalent	NA
Duration Information	
Precipitation Began	--
Precipitation Ended	--
Heavy Precip Began	--
Heavy Precip Lasted	--
Duration Time Accuracy	--
Additional Information	
Additional Data Recorded	No
Flooding	Severe

CoCoRaHS also provides a vehicle to report Snow Data

CoCoRaHS



In many cases radar doesn't measure snow well, while satellite-based products have many limitations.

With our local volunteers CoCoRaHS is providing additional "winter weather" measurement capabilities in many states across the country.

In some Colorado cities, there is approximately one CoCoRaHS observer per sq. mile.

HOW CAN YOU BECOME PART OF THE NETWORK?



Five easy steps

*Simply sign-up on the
CoCoRaHS web page
www.cocorahs.org*

*Obtain a 4" plastic rain gauge
(info available on web site)*

*View the "training slide show" or
attend a training session*

*Set-up the gauge in a "good"
location in your backyard*

*Start observing precipitation
and report on-line daily*