



OKLAHOMA  
Governor's  
Water Conference

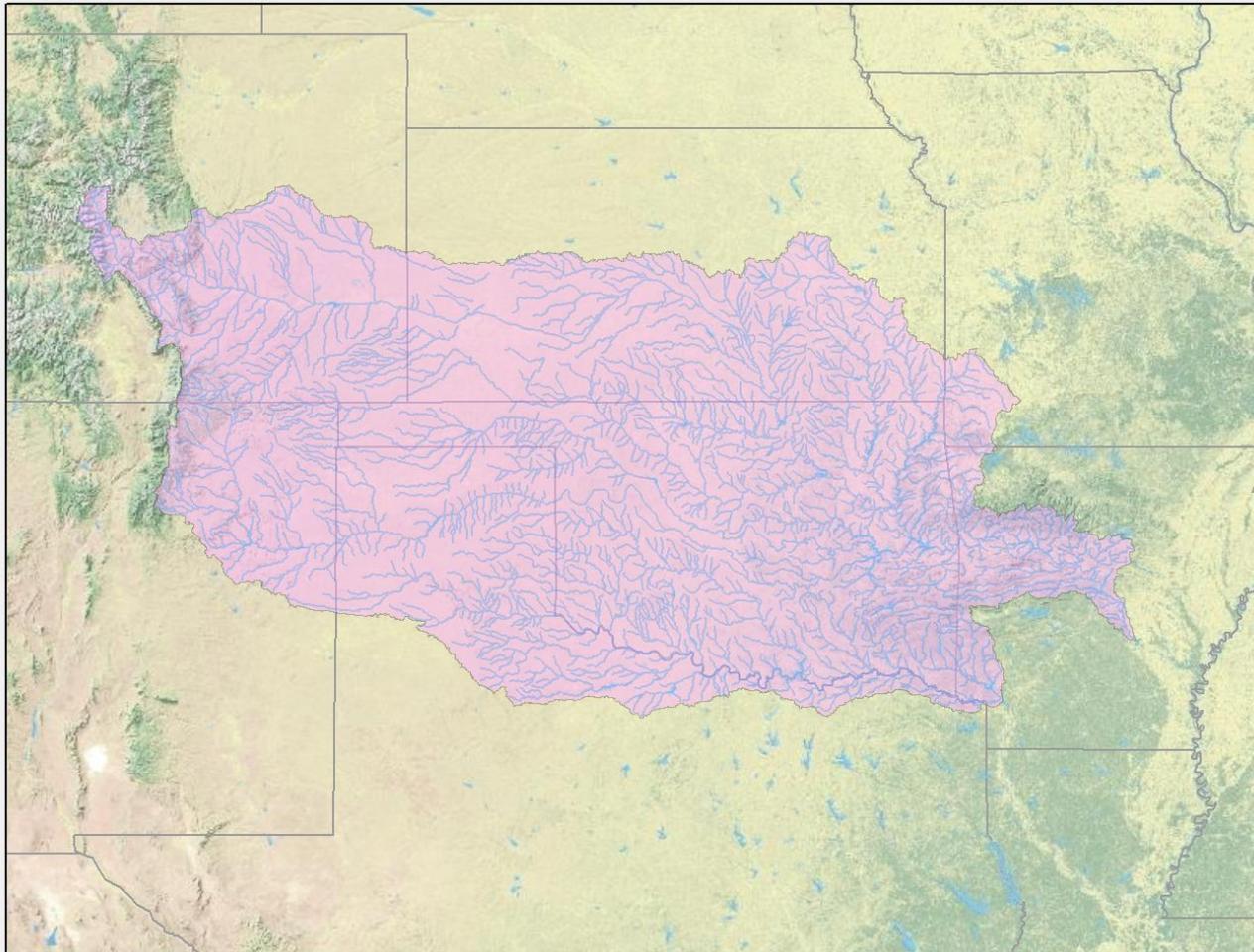


# ABRFC CoCoRaHS and You

James Paul  
Service Coordination Hydrologist  
National Weather Service  
Arkansas-Red Basin River Forecast Center  
Tulsa OK  
October 18, 2001

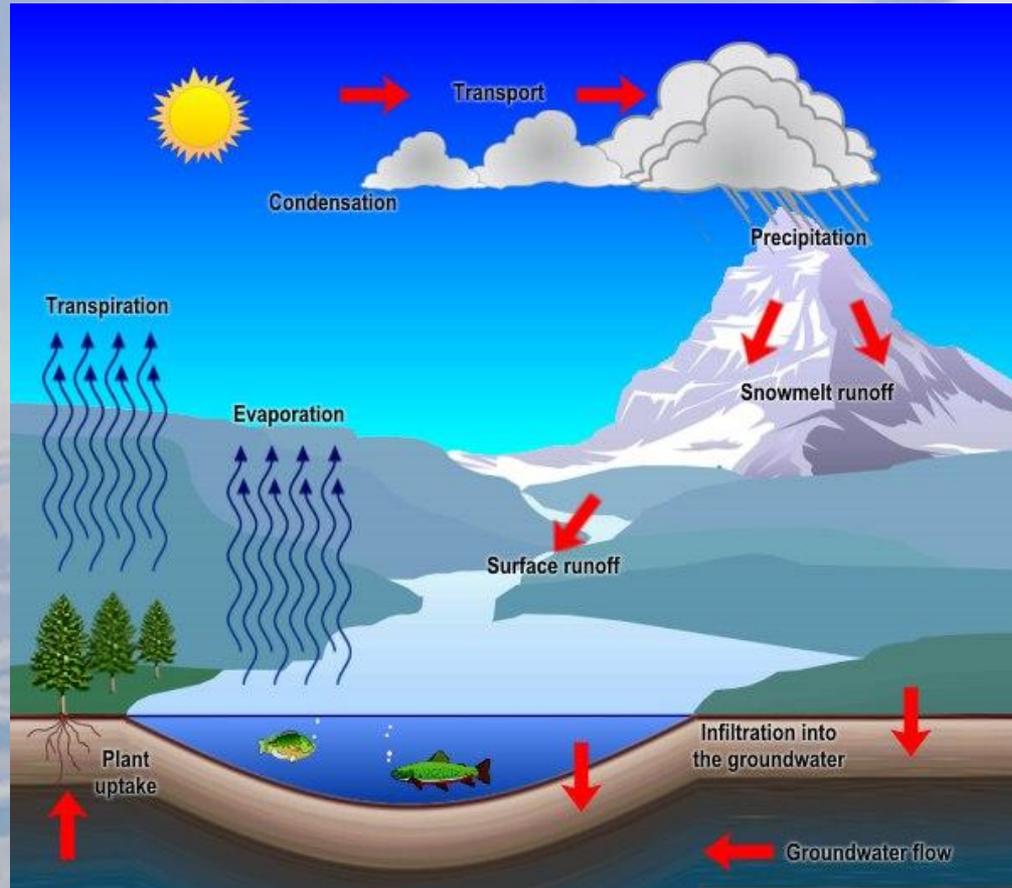


# ABRFC CoCoRaHS and You





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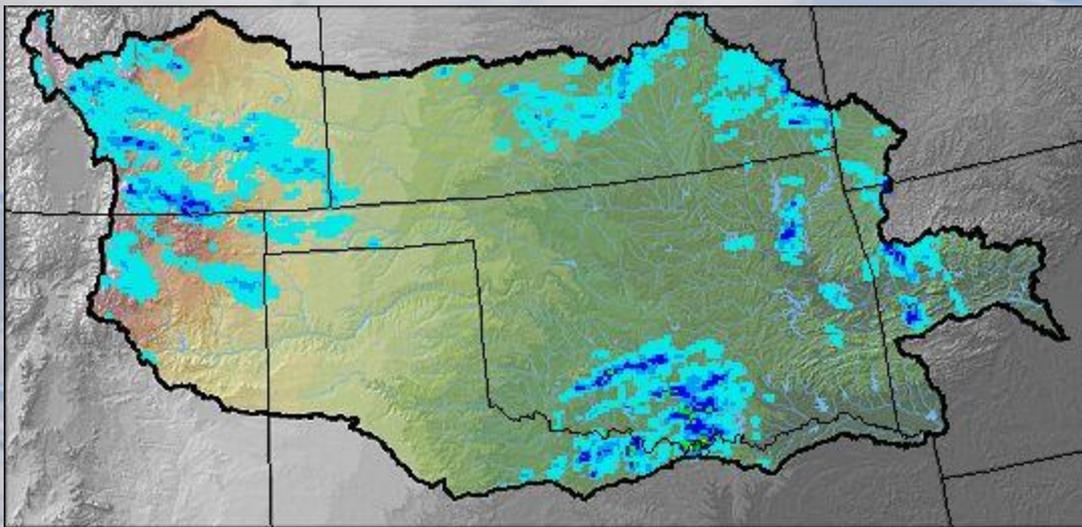




# ABRFC CoCoRaHS and You

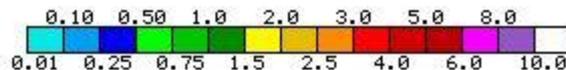


## Multi-Sensor Quantitative Precipitation Estimates (QPE)



National Weather Service - ABRFC - Tulsa OK

24 Hour Precipitation Ending at 12Z on Tuesday Aug 16 2011





# ABRFC CoCoRaHS and You



Final QC of hourly QPEs done using NWS COOP network

- Started in 1890 under the Organic Act
- Volunteer or paid network of observers provide max/min temperature, precipitation, snowfall

## CURRENT ISSUES

- Aging observers
- Non-intuitive data entry
- NWS budget woes (minimal training or replacement of observers)
- Sparse in some locations



# ABRFC CoCoRaHS and You



## What is CoCoRaHS??

CoCoRaHS is an acronym for the Community Collaborative Rain, Hail and Snow Network. 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. We are now in all fifty states.



# ABRFC CoCoRaHS and You



## What is CoCoRaHS??

- Started in Colorado in 1998 (after a flash flood the previous year in which the storms failed to hit any 'official rain gauges'.)
- Network organized by states. Oklahoma joined in 2006 (12<sup>th</sup> state).
- All 50 states are now participating.
- This is a community project. Everyone can help, young, old, and in-between. The only requirements are an enthusiasm for watching and reporting weather conditions and a desire to learn more about how weather can effect and impact our lives.
- The National Oceanic and Atmospheric Administration (NOAA) and the National Science Foundation (NSF) are major sponsors of CoCoRaHS.



# ABRFC CoCoRaHS and You

<http://www.cocorahs.org>



CoCoRaHS - Community Collaborative Rain, Hail & Snow Network - Mozilla Firefox

File Edit View History Bookmarks Tools Help

CoCoRaHS - Community Collaborative R... +

http://www.cocorahs.org/

Google

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

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

Welcome to CoCoRaHS! "Volunteers working together to measure precipitation across the nation."

**Main Menu**

- Home
- About Us
- Join CoCoRaHS
- Contact Us
- Donate

**Resources**

- FAQ / Help
- Education
- Training Slide-Shows
- Videos
- Drought Impacts
- Volunteer Coordinators
- Hail Pad
- Distribution/Drop-off
- Help Needed
- Printable Forms
- The Catch
- Message of the Day
- Data Analysis
- CoCoRaHS Blog
- Web Groups
- State Newsletters
- Master Gardener Guide
- State Climate Series
- Sponsors
- Links
- CoCoRaHS Store

**CoCoRaHS 'STATE CLIMATES' SERIES**

3,482 daily precipitation reports received today as of 10/17/2011 9:20 AM EDT

**Daily Precipitation (inches x.xx) USA 10/17/2011**

0.0
Trace
0.00 - 0.38
0.39 - 0.76
0.77 - 1.90
1.91 - 4.57
4.58 - 6.86
6.87 - 7.63

**JOIN COCORAHS**

**TRAINING SLIDE-SHOWS**

**Things to know about...**

- Rain
- Hail
- Snow

**Purchase an official CoCoRaHS 4" Rain Gauge**  
 "The official CoCoRaHS Rain Gauge supplier"  
**WEATHERYOURWAY.COM**  
 Fast, Friendly service from a meteorologist and fellow CoCoRaHS Observer

**Purchase an official CoCoRaHS 4" Rain Gauge**

**NOAA**



# ABRFC CoCoRaHS and You



<http://www.cocorahs.org>

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

### Become a CoCoRaHS Observer

Observer Information	Postal Address
First Name: <input type="text"/>	Address: <input type="text"/>
Last Name: <input type="text"/>	State: Alabama
Home: <input type="text"/>	County: Select County
Phone: <input type="text"/>	City: <input type="text"/>
Day Phone: <input type="text"/>	Zip: <input type="text"/>
Email: <input type="text"/>	

Privacy Policy

Daily Internet Access:  Yes  No

Station Location Information	Station Address
Location Description: (example: Gauge located at the 3rd house South of Fifth Ave on Vine.) <input type="text"/>	<input type="checkbox"/> Same as Postal Address
	Address: <input type="text"/>
	State: Alabama
	County: Select County
	City: <input type="text"/>
	Zip: <input type="text"/>

Location Coordinates: (if available) in decimal degrees.  
 Latitude (40.5993) :   
 Longitude (105.1152) :

**Additional Information**

How did you find out about CoCoRaHS?

Are you 18 years old or younger?  Yes  No  
 Age:   
 Parent or Guardian Name:   
 Grade:

**Rain gauge**  
 You will need a high capacity 4" diameter rain gauge to participate in this network  
 (You've seen us sponsored gauges.)

I already have this particular type of gauge.  
 I will need to obtain this type of gauge.  
 Ways to obtain a high capacity 4" rain gauge:

- Order from [www.weatheryourway.com/cocorahs](http://www.weatheryourway.com/cocorahs) (\$26.00 + shipping and handling)
- Contact your local area coordinator (coordinator info will be sent out via e-mail. [List Coordinators](#))
- Quality for a complimentary gauge (Indiana only)

For more info on possible sponsored gauges in other states contact your state coordinator.

**Rain gauge will be emptied daily at:**  
 7:00 a.m. (highly recommended)  6:00 a.m.  6:00 a.m.  Other Time  PM

It is important to the CoCoRaHS that your rain gauge is read and emptied at the same time each day.

**Would you or a family member like to volunteer for additional project duties?**  
 YES, I would like to help.  
 Please give the names and ages of others who will help you take rain & hail measurements:  
 Name/Age:  Name/Age:

**Training Preference:**  
 Train On-line  Attend a Training Session  Walk-in Training

Submit Application



\$26.25 + SH





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### My Data Entry : Daily Precipitation Report Form

**Precipitation Report Form**

Station Number : OK-TL-28

Station Name : Broken Arrow 2.2 SW

\*Observation Date

AM \*Observation Time

\*Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours

Yes  No Report was taken at registered location?

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

**New Snowfall**

Accumulation of new snow in inches to the nearest tenth

Melted value from core to the nearest hundredth

**Total Snow and Ice on Ground at Observation Time**

Depth of total snow and ice (new and old) in inches to the nearest half inch

Melted value from core to the nearest hundredth

**Duration Information**

If a time is unknown or the storm has not ended leave it blank.

Precipitation Began  AM  PM

Precipitation Ended  AM  PM

Heaviest Precipitation Began  AM  PM

Heaviest Precipitation Lasted  minutes

These times are: Select Time Accuracy

**Additional Information**

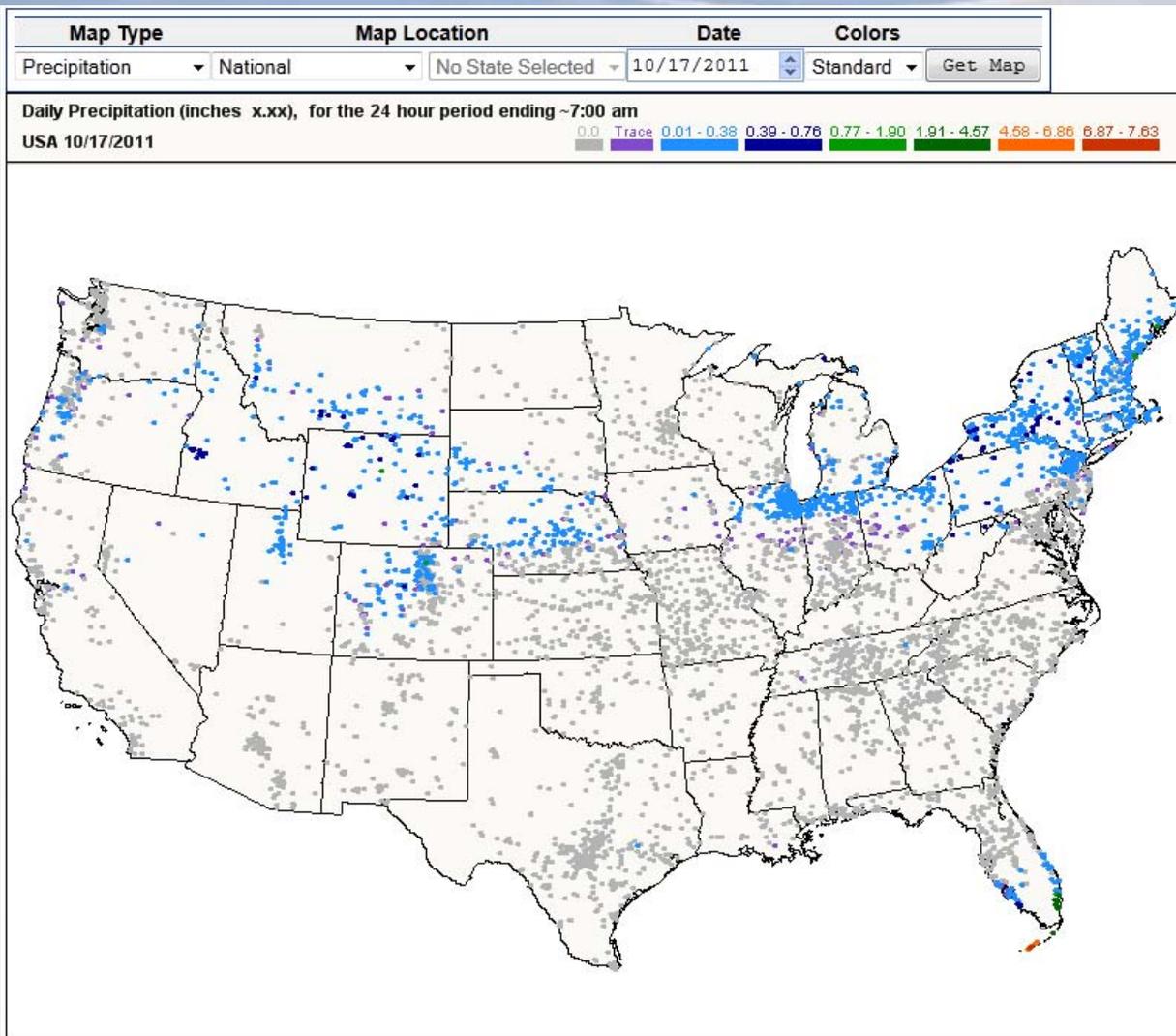
Any Flooding? Select a Flooding Value

Yes  No Did you record hourly precipitation (or other detailed time increments) for this storm? If yes, CoCoRaHS personnel may request a copy of this data later, so please save it.



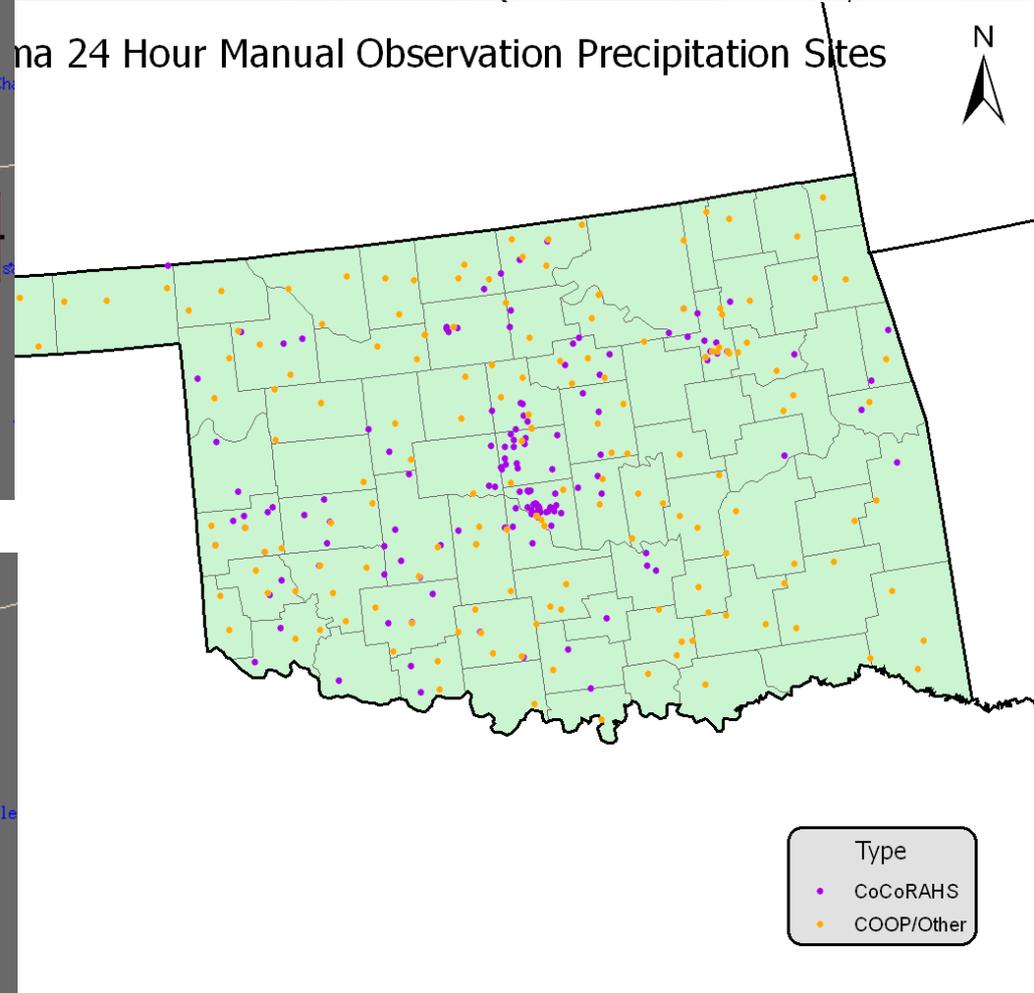
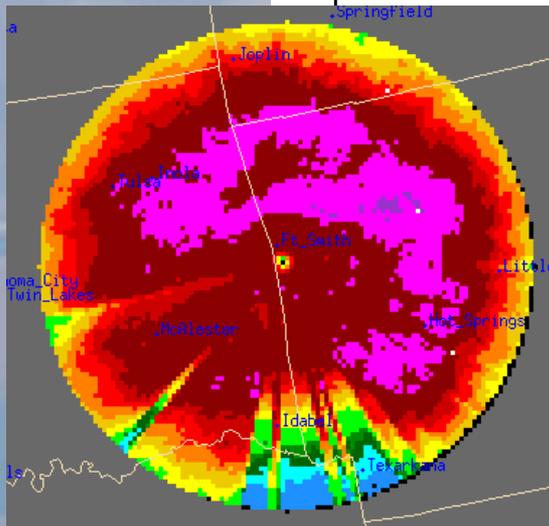
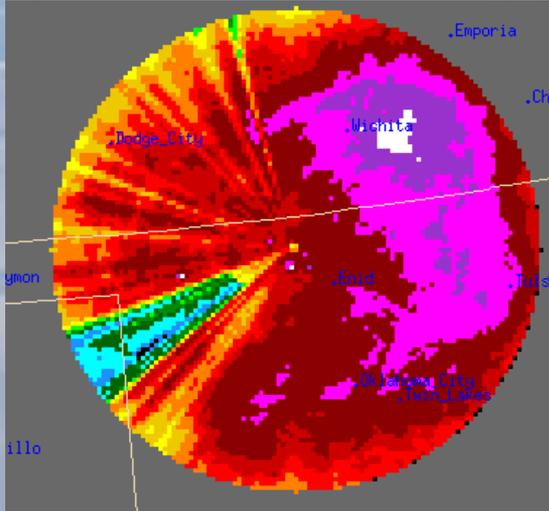
# ABRFC CoCoRaHS and You

<http://www.cocorahs.org>





# ABRFC CoCoRaHS and You



24 Hour Manual Observation Precipitation Sites

- Type
- CoCoRaHS
  - COOP/Other



# ABRFC CoCoRaHS and **You**



## NWS Precipitation Data

### Used by:

NWS - river/flood forecasts

Drought monitors

Climate modelers

University researchers

Corporations

Co-ops

Farmers

Ranchers

Recreation

Hunters

Fishermen

Kayakers

Etc



# ABRFC CoCoRaHS and You



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James Paul

Service Coordination Hydrologist

NWS – ABRFC

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Phone: 918 832-4110

