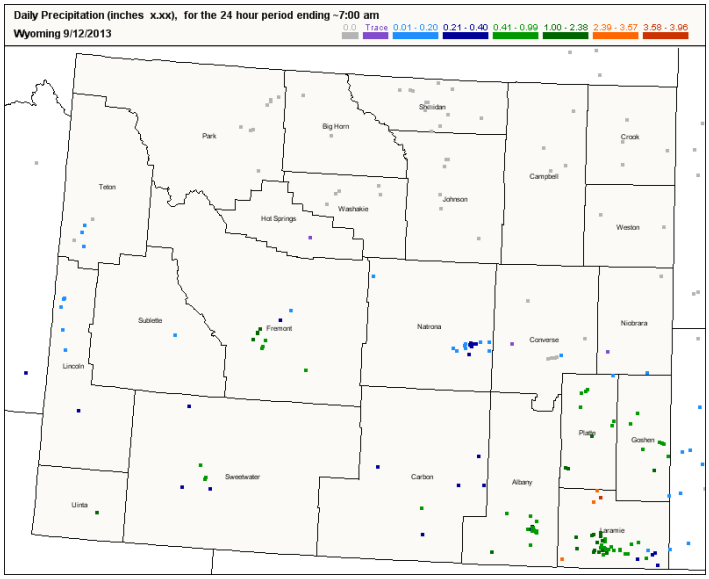
Wyoming CoCoRaHS

Jul-Sep 2013 Volume 2, Issue 3

Inside this issue:

Record Precipitation and Record Number of Observers and Reports	1
September Daily Average Precipitation by County	2
Never Missed a Drop! (01 Jul- 30 Sep)	2
Welcome new volunteers!	3
Happy New Year!	3
We Need You!	4

Record Precipitation and Record Number of Observers and Reports



Numerous precipitation records were broken in Wyoming during the third quarter of 2013. Most of these occurred during the early to middle part of September and were a result of the extended period of rain that fell from about the 8th to the 18th.

This rain was a result of an upper level low that was situated over the Great Basin area of Nevada and Utah which kept funneling storms northward along the Front Range in Colorado and into southeastern Wyoming.

Record daily, 7-day, and monthly rainfall totals were broken. Examples of these records are a daily record of 0.60" from 1912 that was broken on the 14th when Cheyenne recorded 1.20" at the National Weather Service Office. This was followed the next day when a 1950 record of 0.71" fell after Cheyenne received 0.90" on the 15th. Cheyenne saw a record monthly total for September as well.

Over the hill in Laramie the 0.53" rainfall record set in 1977 for the 12th of September was broken when the airport recorded 1.07" for that day.

I know that many of you set records for your own stations. I had the longest string of non-zero reports during that period and I may have set a record for greenest and most lush September grass in my yard, too!

The precipitation helped the drought situation in the state in the southeast where a large portion ended the quarter completely clear of any drought category.

CoCoRaHS records were set, too, thanks to all of you. There was a record 292 observers active in the third quarter with 275 of those reporting in September. 275 is the highest number of observers reporting in any month since CoCoRaHS started in Wyoming. At 17,615, the number of reports submitted during this quarter was the highest ever. September also had the highest daily average number of reports submitted but fell short (4th highest) of having the most reports entered. If September had as many days as the other three months, it **would** have been the highest!

September 2013 was the first month since May of 2011 where the number of zero reports entered was less than the number of reports having a trace or more.

Wyoming CoCoRaHS

3nd Quarter 2013

- Most observations in a day: 218 Reports September 12th
- Greatest Amount: 3.96" on September 12th, north of Cheyenne
- No days with no precipitation statewide
- 1 day (August 20th) with a trace or less statewide
- 17,615 daily reports submitted
- 292 active observers

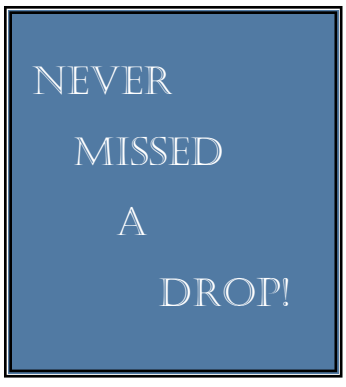
September Daily Average Precipitation by County

-- Indicates that no reports were received from that county for the particular day.

An empty cell indicates no precipitation was reported for that day by any observer in the county.

AB - Albany
BH - Big Horn
CM - Campbell
CR - Carbon
CV - Converse
CK - Crook
FM - Fremont
GS - Goshen
HS - Hot Springs
JN - Johnson
LM - Laramie
LN - Lincoln
NT - Natrona
NB - Niobrara
PK - Park
PT - Platte
SH - Sheridan
SL - Sublette
SW - Sweetwater
TT - Teton
UN - Uinta
WH - Washakie
WS - Weston
WY - Wyoming

	AB	BH	CM	CR	CV	CK	FM	GS	HS	JN	LM	LN	NT	NB	PK	PT	SH	SL	SW	TT	UN	WH	WS	WY
1								0.02			0.06										--			
2												0.01						0.09			0.06			0.01
3	0.04	0.03	0.02	0.02	0.06		0.05		0.02	0.03	0.03	0.41	0.07	0.01	0.02	0.25	0.02	0.09	0.03	0.18	--	0.10		0.06
4	0.02	0.11					0.03		0.01		0.09	0.04			0.08			0.24	0.09	0.08	--	0.03		0.04
5	0.06		0.01			0.27		0.20				0.03		0.02		0.09		0.02			--		0.07	0.03
6	0.11			0.06					--		0.01	0.06			0.07					0.10	0.04			0.02
7	0.04		0.20	0.03	0.01	0.06	0.01	0.13	--	0.04	0.22	0.27			0.28	0.04	0.05	0.08	0.05	0.35	--	0.03		0.08
8	0.05			0.01		0.06	0.22		--	0.68	0.01	0.03			0.04		0.48	0.02	0.09	0.01	0.04	0.13	0.10	0.09
9	0.12	0.02	0.48	0.13	0.14	0.50	0.08	0.08	--	0.25	0.03	0.02	0.02	0.34	0.02	0.18	0.27	0.08	0.05	0.13	0.10	0.09	0.68	0.17
10	0.32			0.19	0.03			0.20	--		0.69			0.03		0.08		0.01	0.01		--			0.07
11	0.09			0.23			0.08	0.05			0.41		0.08			0.17			0.09		--			0.05
12	0.50			0.34			0.77	0.65	--		1.05	0.08	0.17	0.05		0.94		0.14	0.48	0.08	2.03			0.32
13	0.80			0.28	0.04		0.40	0.11	0.04	0.03	0.65	0.08	0.08		0.02	0.26		0.24	0.13	0.03	0.31	0.03		0.15
14	0.19	0.11	0.04	0.15	0.37	0.02	0.08	0.57	0.07	0.20	1.36	0.10	0.33	0.10	0.06	0.29	0.25	0.06	0.09		0.08	0.18	0.02	0.21
15	0.16	0.65	0.03	0.54	0.08	0.08	0.51	0.52	0.25	0.17	1.24	0.10	0.96		0.76	0.58	0.88	0.20	0.08	0.02	0.10	0.09		0.35
16	0.06			0.17	0.05		0.35	0.12	--	0.02	0.30	0.10	0.02			0.06		0.55	0.16	0.06	0.03	0.05		0.09
17											0.05						0.02	0.02	0.02	0.03	0.02			0.01
18	0.02	0.40	0.02	0.01		0.08	0.22		0.25	0.18		0.74	0.02		0.26		0.21	0.85	0.02	0.48		0.40		0.18
19			0.04	0.03		0.07			0.09	0.03	0.04	0.01		0.03	0.03	0.06	0.02	0.02		0.02		0.10	0.06	0.03
20									--															
21									--															
22									--		0.01	0.01						--			0.02			
23	0.39		0.11	0.09	0.05	0.13	0.01	0.33		0.05	0.61		0.02	0.11		0.20	0.11	0.09	0.16	0.01	0.05		0.22	0.12
24			0.15		0.11	0.17		0.36			0.21			0.19		0.16		--					0.07	0.06
25		0.02					0.05					0.44			0.18			0.01		0.56	0.30			0.07
26		0.52	0.08			0.11	0.15		0.31	0.15		0.59	0.04		0.47		0.38	0.32	0.23	0.44	0.87	0.34	0.01	0.22
27	0.01	0.50	0.90	0.19	0.38	0.33	1.63	0.02	1.62	1.10	0.02	0.13	0.67	0.04	0.14	0.07	0.86	0.22	0.54	0.18	0.15	1.26	0.04	0.48
28	0.06	0.27	0.25	0.10	0.17	0.15	0.11	0.19	0.10	0.25	0.18	0.07	0.13	0.13	0.07	0.10	0.16	0.02	0.06	0.02		0.23	0.17	0.13
29																		--			--			
30												0.03								0.09	--			0.01
Sum	3.02	2.60	2.34	2.57	1.48	2.02	4.72	3.54	2.76	3.17	7.28	3.35	2.62	1.06	2.50	3.53	3.70	3.36	2.37	2.87	4.19	3.04	1.43	3.02



41 Stations reporting every day 01 Apr thru 30 Jun

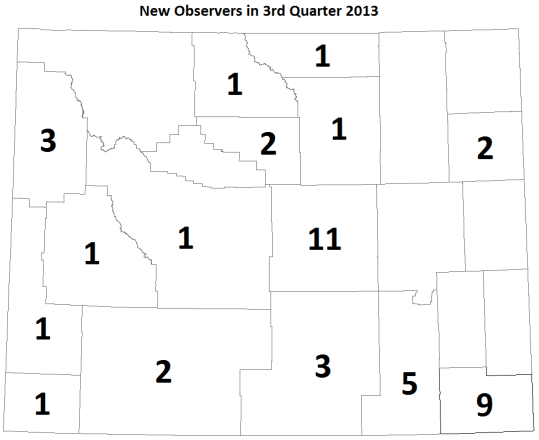
WY-AB-1
WY-AB-8
WY-AB-40
WY-BH-10
WY-CM-9
WY-CM-16
WY-CR-5
WY-CR-14
WY-CV-11
WY-CV-12
WY-CK-6
WY-GS-8
WY-GS-9
WY-GS-16
WY-GS-27
WY-JN-13
WY-JN-14
WY-LM-23
WY-LM-36
WY-LM-59
WY-LM-63
WY-LM-73
WY-LM-96
WY-LM-102
WY-LM-106
WY-LM-107
WY-LM-113
WY-LM-120
WY-LM-121
WY-LM-129
WY-NT-4
WY-NT-24
WY-NT-35
WY-PK-11
WY-PT-14
WY-SH-10
WY-SH-14
WY-SH-24
WY-SW-19
WY-TT-1
WY-WH-1

Welcome!

WY-AB-86	WY-LM-155	WY-SH-31
WY-AB-87	WY-LM-156	WY-SL-9
WY-AB-88	WY-LM-157	WY-SW-27
WY-AB-89	WY-LM-158	WY-SW-28
WY-AB-90	WY-LN-21	WY-TT-27
WY-BH-12	WY-NT-58	WY-TT-28
WY-CR-15	WY-NT-59	WY-TT-29
WY-CR-16	WY-NT-60	WY-UN-15
WY-CR-17	WY-NT-61	WY-WH-14
WY-FM-36	WY-NT-62	WY-WH-15
WY-JN-25	WY-NT-63	WY-WS-17
WY-LM-150	WY-NT-64	WY-WS-18
WY-LM-151	WY-NT-65	
WY-LM-152	WY-NT-66	
WY-LM-153	WY-NT-67	
WY-LM-154	WY-NT-68	

Welcome new volunteers!

There were 44 new observers who joined our ranks during the third quarter of 2013. These new observers represent 15 of our 23 counties. Natrona and Laramie counties were the big gainers this quarter with 11 new observers in Natrona County and 9 in Laramie County.



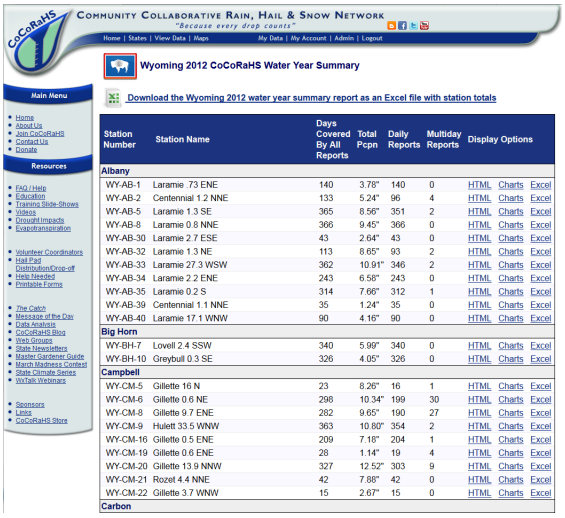
Counties with relatively few active observers saw gains as well, notably Big Horn and Uinta counties.

At this time I'd like to also recommend to the new observers to check the "In Depth" Snow Measuring slide show if questions arise now that we are in snow season. Long-time observers are also encouraged to look at the show as a quick refresher. Of course, you can always get a hold of me if you have questions as well. **At this time, the funnel and inner cylinder should be removed from the gauge since they do not handle freezing weather**

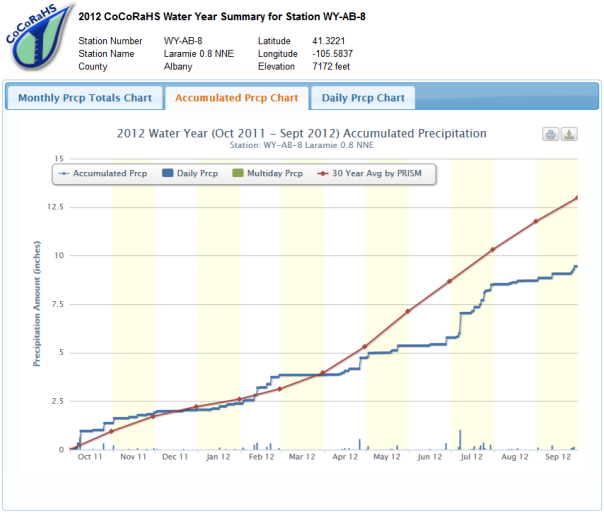
Happy New Year!

No, I haven't started celebrating early. It IS the new Water Year, though, which runs from 01 Oct to 30 Sep, so we are now entering Water Year 2014. Each year around this time, CoCoRaHS Water Year Summaries are produced for each station. These summaries can be found on the **View Data** page or accessed directly via this link: http://www.cocorahs.org/WaterYearSummary/

Summaries are run twice after the end of September. The first time provides observers with an initial look at their data through the previous year. At this time the observer can see if there are any data missing or if there are overlaps between multi-day and daily reports.



During this time, too, I go through and review each station for continuity of observations and try to correct any overlaps that I find. Observers are encouraged to go back through their data and enter any observations that are still on paper or otherwise haven't been entered into the database.



Some of the items contained in your Water Year Summary will be monthly totals and comparisons to the "Normal" for your location. Obviously, the more complete your data, the more meaningful the comparison will be.

We are looking at having a record number of observations and observers to create summaries for this year. The number of observations for Water Year 2013 is up over 20% compared to the number entered in Water Year 2012 while the number of active observers has gone from 240 in Water Year 2012 to 325 in 2013, this is more than a 35% increase!

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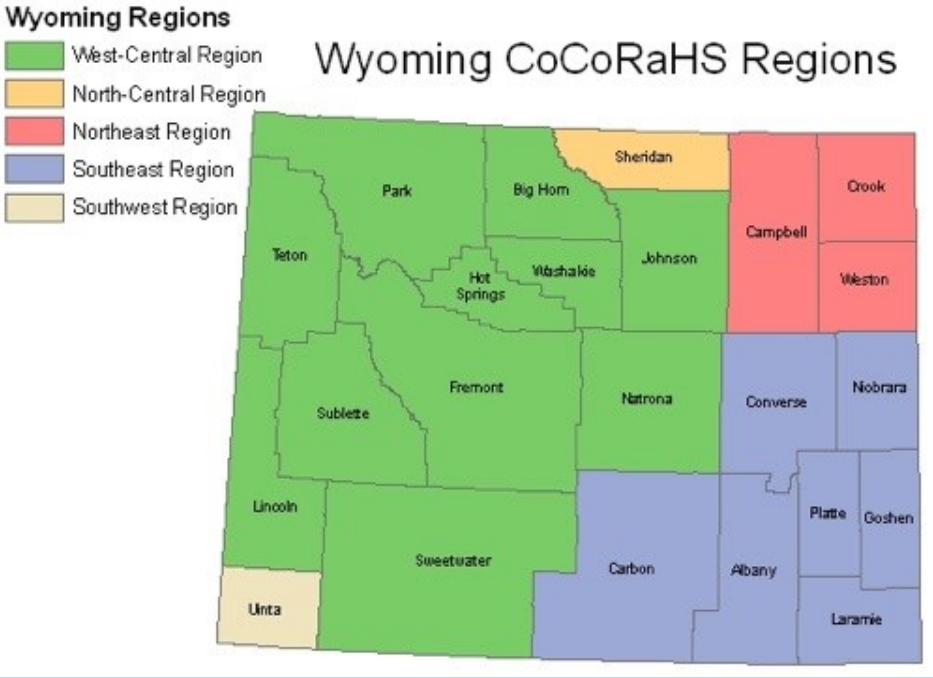
http://www.wrds.uwyo.edu



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Anvil cloud over Southeast Wyoming and Northeast Colorado
Photo by Tony Bergantino

We Need You!

If you are not a CoCoRaHS observer and would like to take part joining is simple.

Just go to http://cocorahs.org and click on the **Join CoCoRaHS** link on the left side of the page.

Participation requires only a few minutes a day, an internet connection, and an interest in measuring and reporting rainfall.

Your observations will appear each day on a map and you can see how much you received compared to your neighbors, neighboring counties, and neighboring states.

Meanwhile, your data are used by various entities throughout the country such as the National Weather Service, the National Drought Mitigation Center, researchers, and those who are just curious about how much rain fell where.

CoCoRaHS helps to fill in holes in places where there are no observers for other networks. CoCoRaHS is a high-density network which allows us to see the variations in precipitation across the country **and** across town.

If you are interested in joining or have any questions, please contact Tony Bergantino at:

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CoCoRaHS—Because Every Drop Counts