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# **WELCOME TO THE ALASKA COCORAHHS NEWSLETTER**

This newsletter will discuss Spring and Summer '22 updates to the Alaska Community Collaborative Rain, Hail and Snow Network.

Thank you for submitting your daily precipitation reports! This newsletter's purpose is to inform all of the volunteers about weather events in Alaska, and to talk about current events and opportunities.

**We would like to express our thanks to the Alaska Indigenous Tribal People who originally inhabited this land. It is a precious privilege to be doing this work on Indigenous land, and continue to help address the needs of the native inhabitants.**



We would also like to thank the Canadian Commission for Environmental Cooperation (CCEC) and Local Environmental Observer (LEO) network for their support of CoCoRaHS Alaska!



CoCoRaHS Alaska



## THANK YOU

We greatly appreciate our volunteers for taking the time to report their precipitation measurements to us!

**A special thank you goes out to those who have been consistently reporting for the last few months, and some new observers:**

- AK-AB-21
- AK-AB-38
- AK-AB-43
- AK-AB-51
- AK-AB-52
- AK-AB-55
- AK-AB-60
- AK-AB-62
- AK-AB-65
- AK-AB-69\*
- AK-BB-1\*
- AK-BC-4
- AK-FN-15
- AK-FN-19
- AK-FN-31\*
- AK-FN-32\*
- AK-FN-33\*
- AK-FN-38\*
- AK-FN-39\*
- AK-HB-2
- AK-HB-3\*
- AK-HB-6\*
- AK-JB-11
- AK-JB-16\*
- AK-KP-3
- AK-KP-6\*
- AK-MS-11
- AK-MS-12
- AK-MS-14
- AK-MS-19
- AK-MS-21\*
- AK-MS-22\*
- AK-PW-1
- AK-PW-9
- AK-VC-8\*

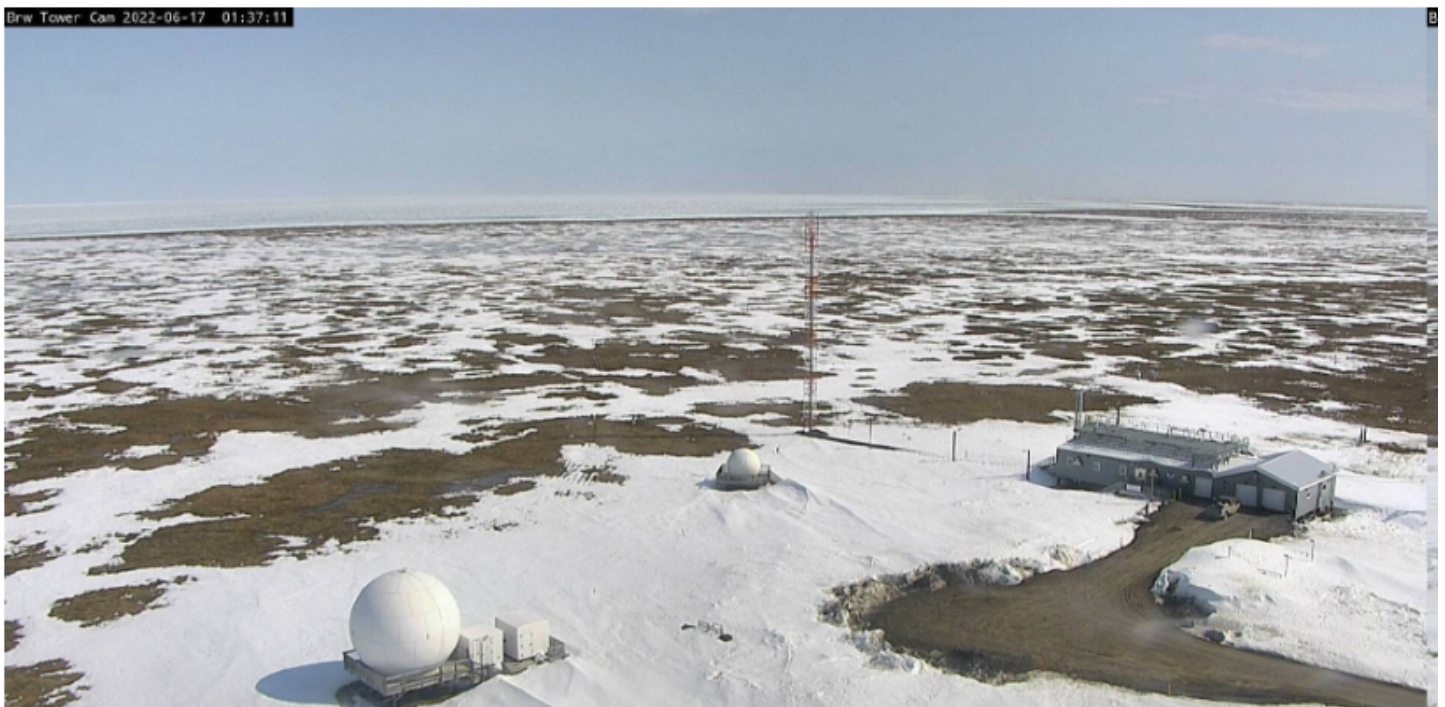
**\* New observer as of Spring-Summer '22.**



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## PICTURE OF THE MONTH

**This is a NSA - SKYRAD picture showing snow on the ground at Utqiagvik  
as of 06/17/2022**



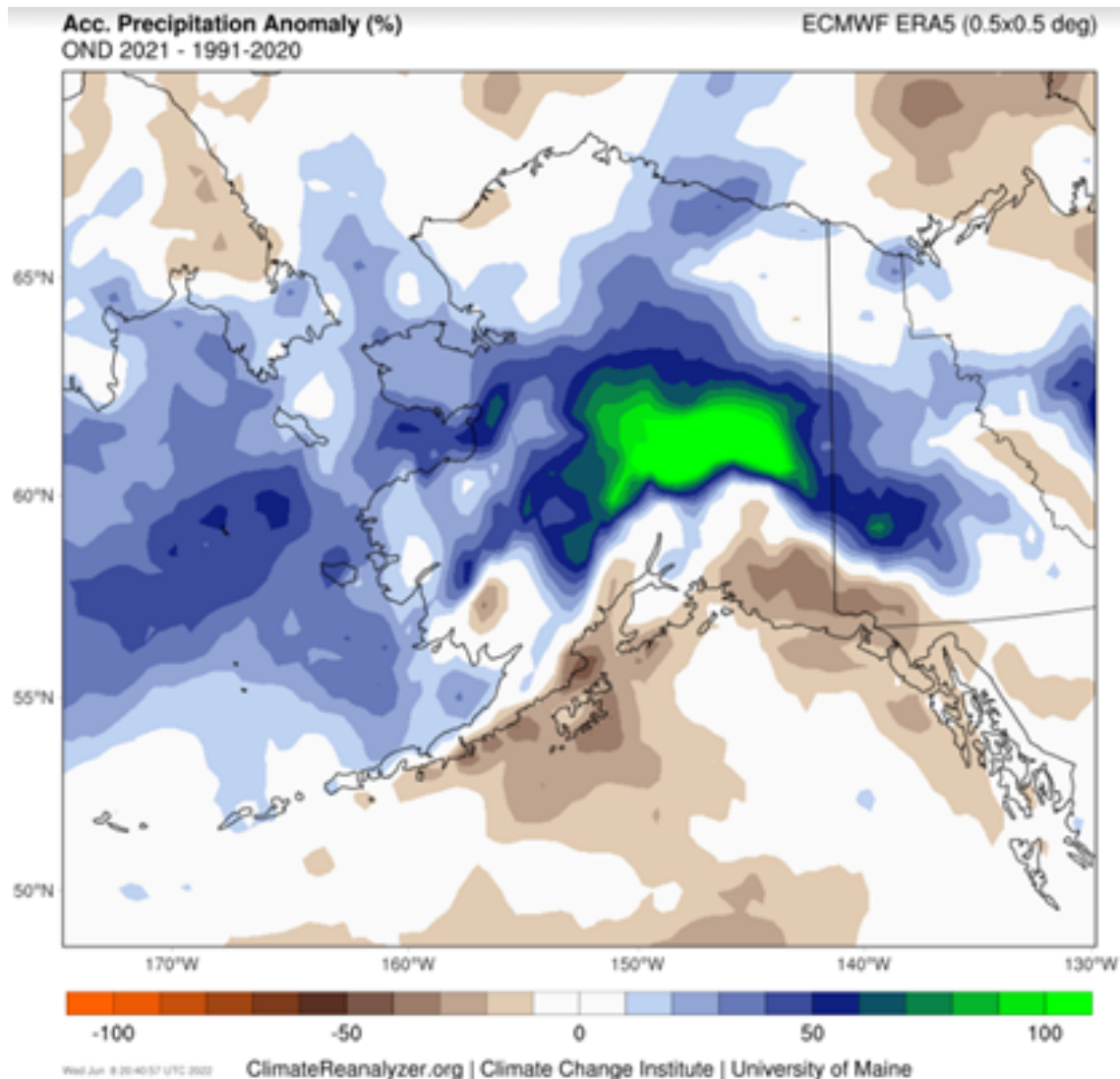
**Have a photo to share? Send it to us at the  
contact information at the end of this newsletter!**

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# THE WEATHER IN AUTUMN/WINTER 2021/2022

Oct-Dec 2021

Note the anomalously wet/snowy conditions measured over the eastern portions of interior AK. Meanwhile, relatively dry weather characterized much of the southern (east of the Aleutians) and southeastern coastlines, as well as much of southeast AK. Most of the remainder of AK recorded average to slightly above average precipitation.

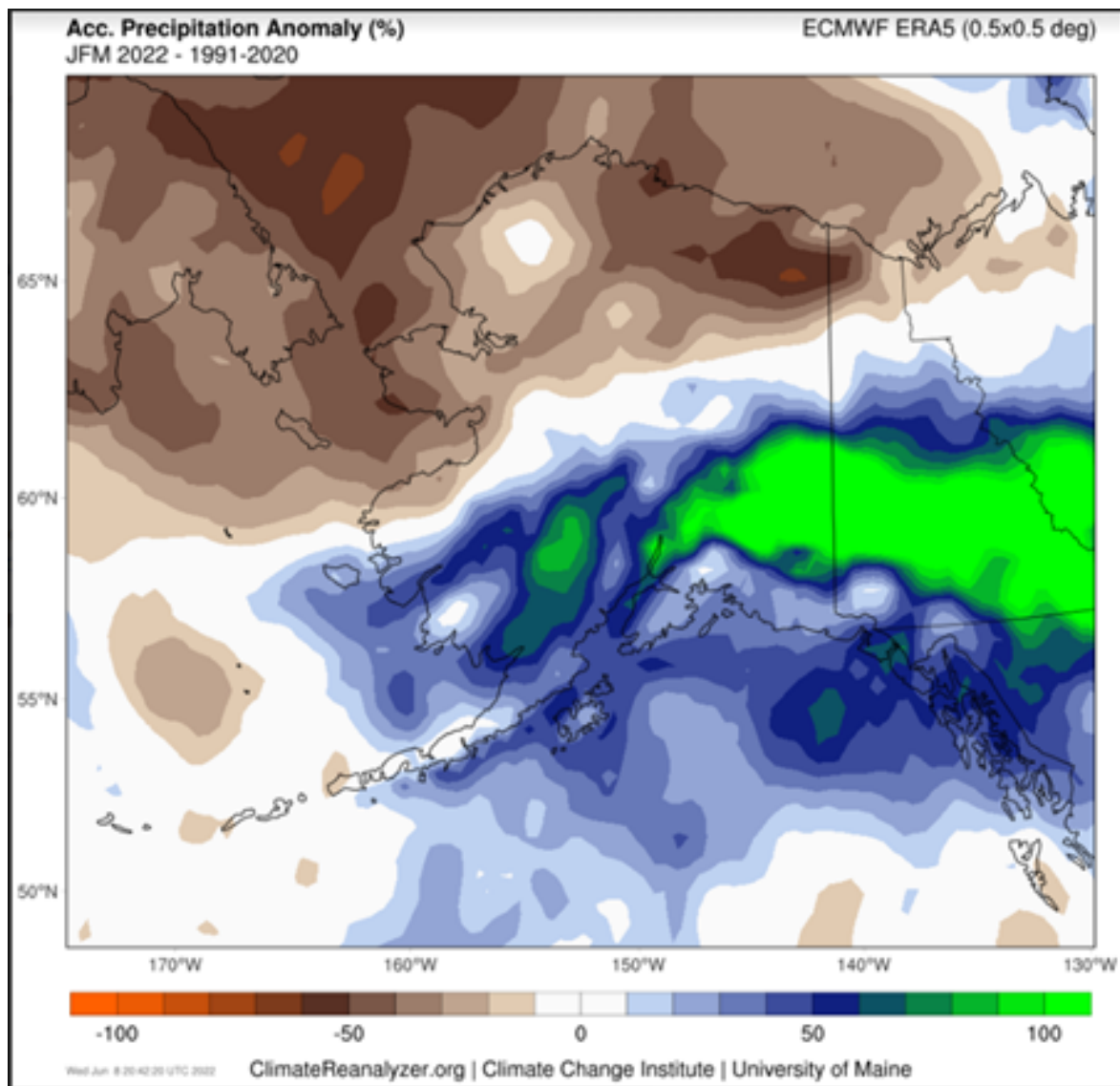




# THE WEATHER IN AUTUMN/WINTER 2021/2022

Jan-Mar 2022:

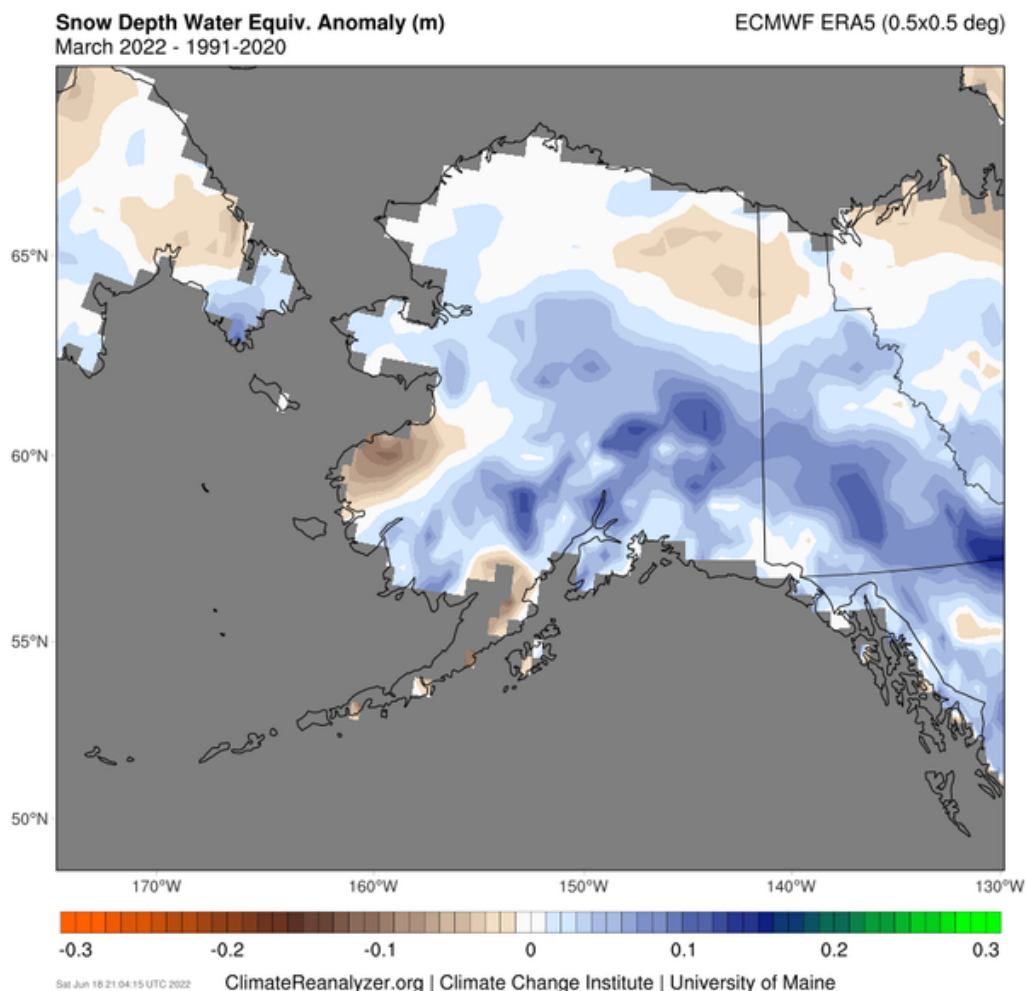
This mid-winter period was characterized by anomalously snowy conditions over much of the southern half of AK, with the exception of the Aleutian chain. This included extremely high snowpack accumulation over the Copper River basin, the Alaska Range, and the Kuskokwim Mountains. Meanwhile much of the northern half of AK experienced below average precipitation.



# THE WEATHER IN AUTUMN/WINTER 2021/2022

Here's a plot of the snowpack (liquid equivalent) compared to median amounts for March 2022. The big maximum over the eastern interior shows values up to 2-3" greater than the median.

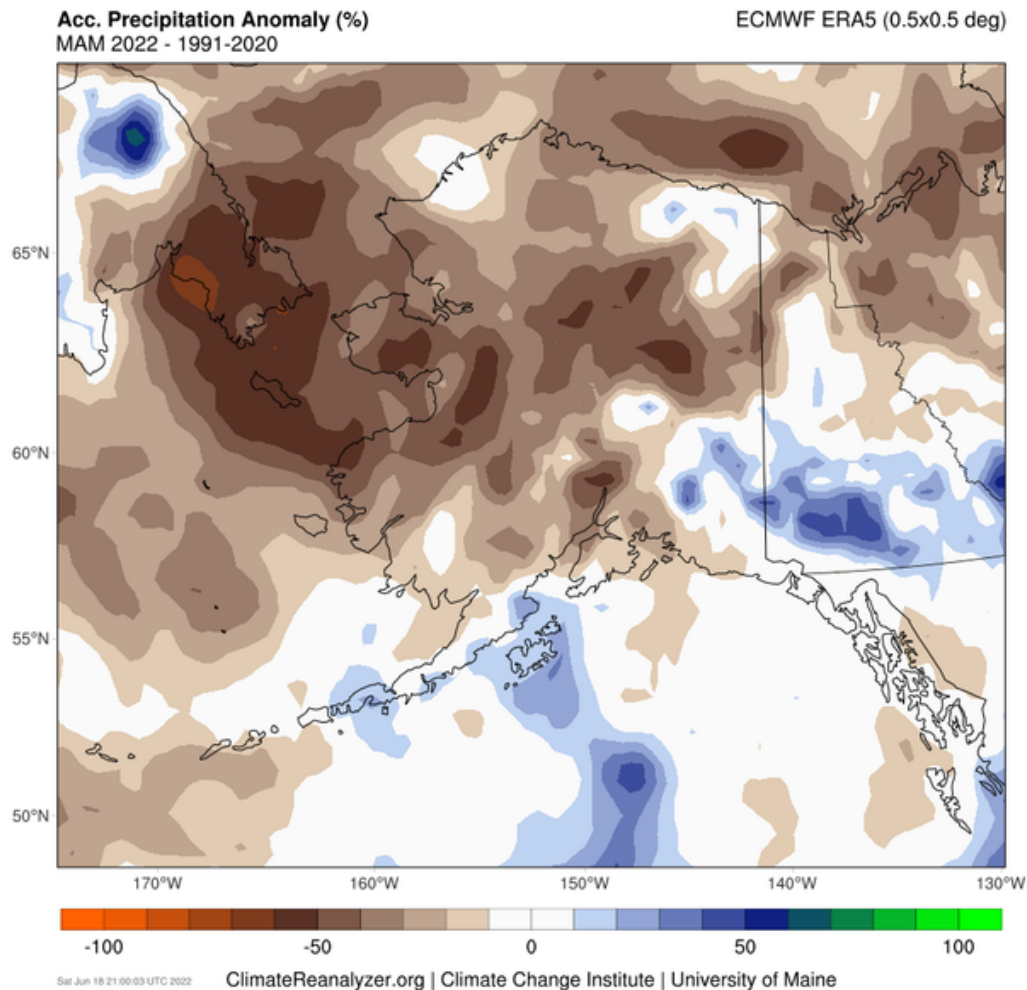
Generally most of the southern half of the interior is showing much greater-than-average snowpack.



# THE WEATHER IN AUTUMN/WINTER 2021/2022

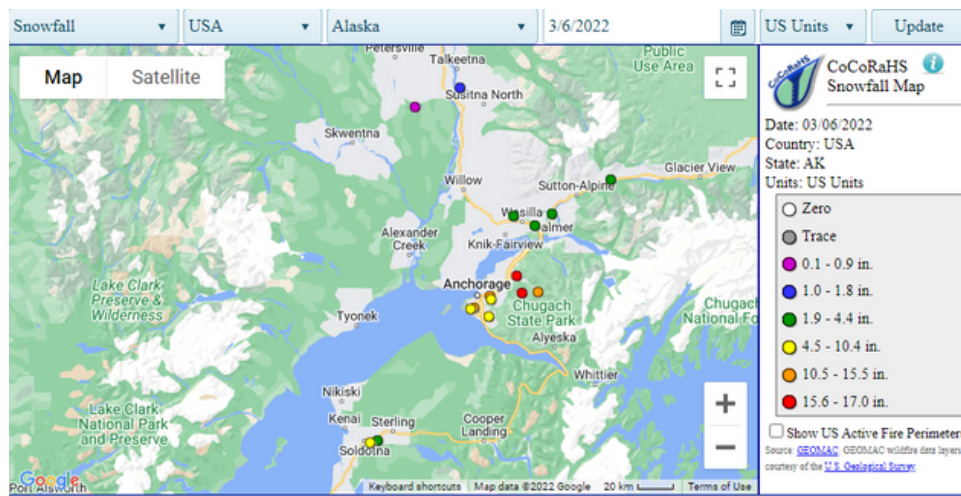
Here is a plot of the March-May 2022 precip compared to median. We can see that generally things dried out (much more than typical) for precip over much of the state.

All areas with the exception of the Alaska Panhandle, the eastern Aleutian region, and the southeast portion of the interior showed much drier conditions than average.

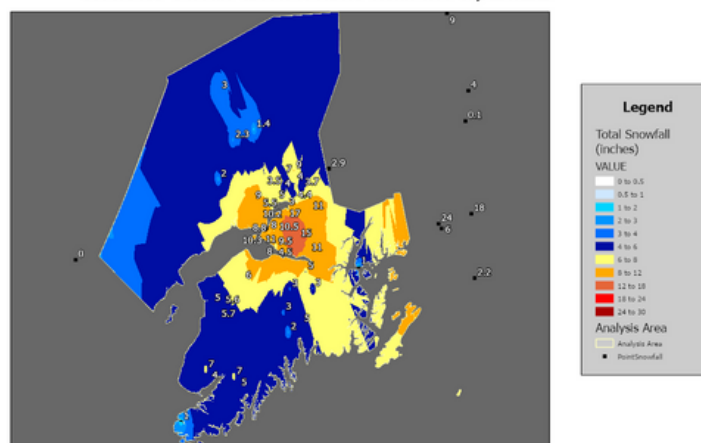


# THE WEATHER IN AUTUMN/WINTER 2021/2022

Here are observations and analyses of the big 3/5-6 snowstorm over south-central AK (accumulations of 5-17" were common over the Anchorage region). First, the CoCoRaHS snowfall observations for the early morning of March 6 are shown. Secondly, the analysis of all NWS observations (COOP, CoCoRaHS and phone call-ins) is shown for the storm, with interpolated color-coded approximations (color codes shown in the legend on the right). Thanks to ARH Scientist D. Levin for this analysis. This shows the critical role of CoCoRaHS observations in severe storm analyses.



**Storm Total Snowfall: March 5, 2022**

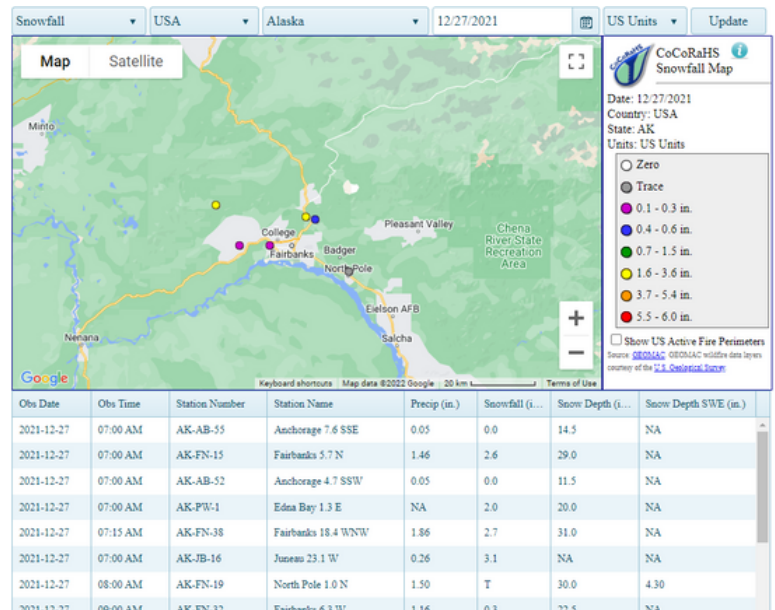
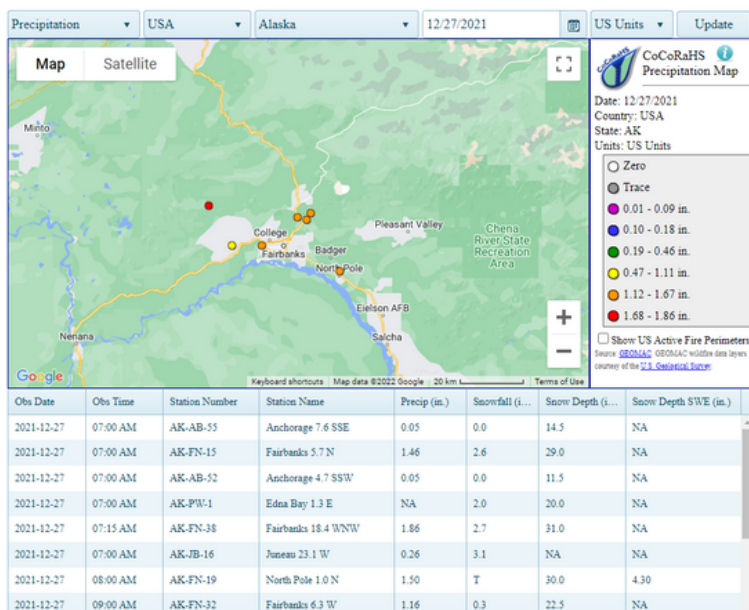


ZONE	MIN	MAX	RANGE	MEAN	STD	PCT10	PCT25	MEDIAN	PCT75	PCT90
101	4.510944	15.637345	11.126401	11.260441	2.038728	8.559328	9.12373	11.744472	13.119292	13.628812
111	4.078444	12.883471	8.805027	7.296975	1.691268	5.681763	5.881212	6.676399	8.498077	9.916093
125	1.136832	12.228024	11.091191	6.381202	1.538317	4.622218	5.089154	6.430439	7.276905	8.390491
145	1.58212	8.88839	7.28627	4.77442	0.932329	3.875693	4.168451	4.678261	5.066411	5.872657
121	1.10243	10.418544	9.316114	5.85475	1.244836	4.793073	5.190668	5.527436	6.585513	7.815007



# STORM OF THE 2021/2022 WINTER

Here are the CoCoRaHS plots for 12-27-2021 in the Fairbanks vicinity, showing the historic ice storm that occurred mostly on 12-26. Note the liquid amounts in the 1-1.5" range, while snowfall measured only 0.5-3". In particular, see the North Pole CoCoRaHS site (AK-FN-19) measurement of 1.50" liquid with only a trace of snow. Surface temperatures stayed well below freezing during this rain-on-snow event.



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# REMINDERS

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**Please report zeros!** Recording no precipitation is just as important as recording any amount  $>0$ .

## **FIRE WEATHER, FLOODING, and DROUGHT:**

Your rainfall measurements are of critical importance to monitoring these conditions. In particular, for Fire Weather forecasts, “0” measurements, nonzero precip, Soil Condition monitoring, and Condition Monitoring Reports are all crucial as they monitor actual conditions on the ground in areas that are sparsely populated.

**Review Measurement Training!** The CoCoRaHS website has plenty of resources in the [“Training Slide Shows”](#) link on the left of the main page. Learn about gauge placement, as well as the potential complicating effects of nearby trees and gauges that are not mounted properly.



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# COCORAHS WERA CONFERENCE

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During May 2022, CoCoRaHS was well-represented in the WERA 1012 meeting held at the YMCA of the Rockies in Estes Park, Colorado. The emphasis of discussion was “Managing and Utilizing Precipitation Observations from Volunteer Networks.”

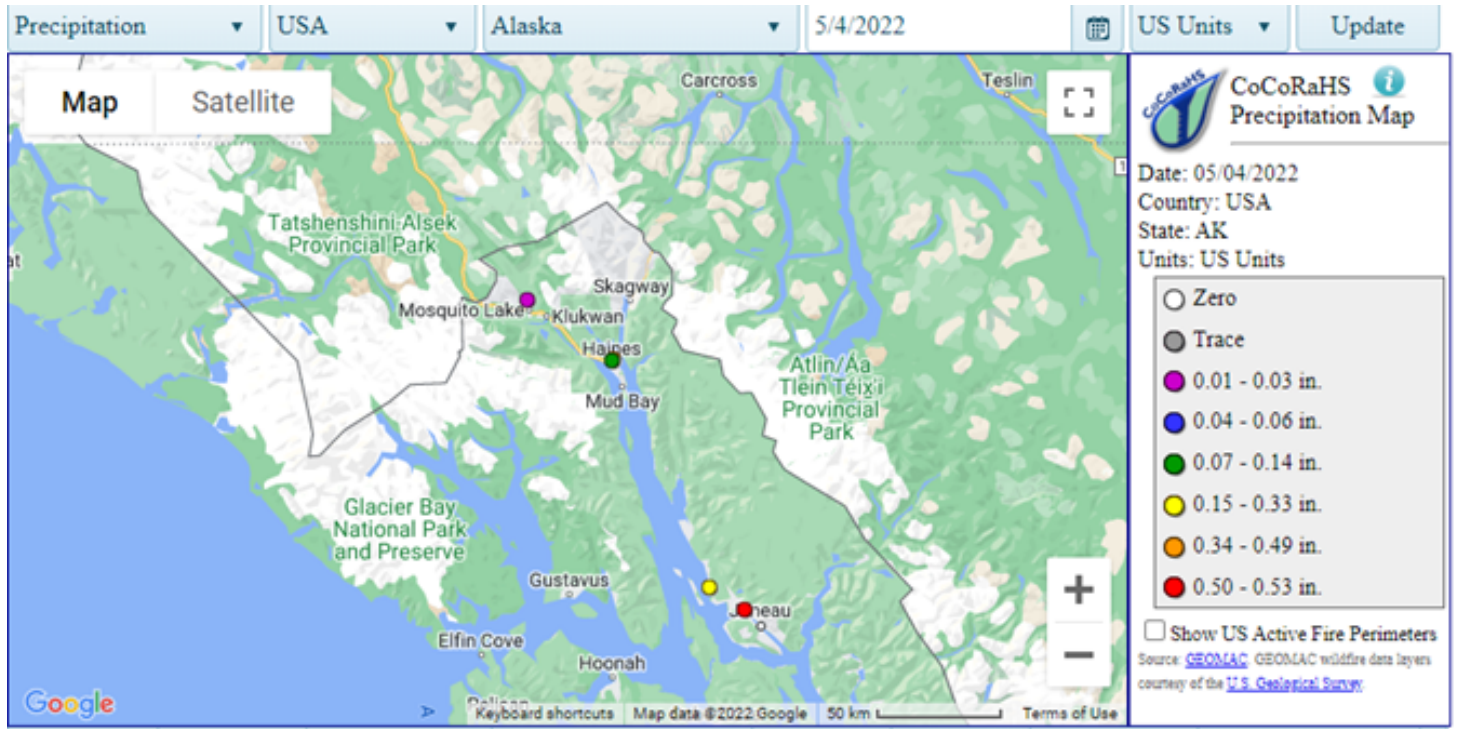
The meeting was in-person for the first time in 3 years. Valuable interaction with folks from the NWS COOP network regarding the applications and characteristics of these 2 observation sources occurred. This included impacts of current droughts, QC analysis (including CoCoRaHS data), and the important role of CoCoRaHS observations on drought analysis and prediction.

The crucial role of observer recruitment and retention was also an emphasis in the meeting.





# NEW REPORTS IN THE VICINITY OF HAINES AK



Thanks to Steve Wishstar and ErikStevens  
of the Haines Science Center and the Haines Avalanche Center: setup of  
gauges and observations in the Haines area; station numbers  
AK-HB-2, AK-HB-3, AK-HB-4, AK-HB-5, and AK-HB-6

Distribution of gauges in the Haines area was possible thanks to the  
Canadian CEC and LEO network.





# WATER YEAR SUMMARIES

From your login page, click on “My Account” on blue tabs near the top, and select your water year report. You will see a list of the history of your Water Year reports (Oct. – Sept.) for any given year of observing (Oct. – current for 2022). Simply click any particular year for a series of informational tables. The term “Water Year” comes from hydrology scientists, and represents the water season for 1 entire year of snowpack and melting. Here’s one example (abbreviated) from 2022:

STATION LIST

OVERVIEW

CHARTS

DAYS IN WATER YEAR

DAILY PRECIP OBS

MULTIDAY PRECIP OBS

HAIL OBS

Station Overview

Station Location

Station Number:

AK-AB-55

Station Name:

Anchorage 7.6 SSE

Elevation:

220 ft.

County:

Anchorage, AK

Latitude:

61.111287

Longitude:

-149.845998

Download as Excel File

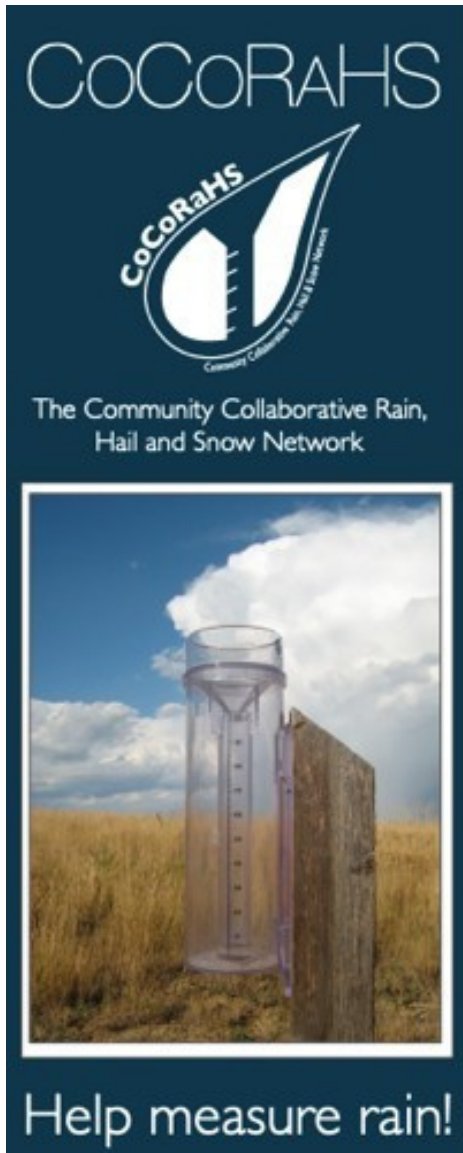
Water Year Overview

Year-Month	Total Precip Sum	Days Covered by All Obs	Daily Precip Sum	Daily Obs Count	Multiday Precip Sum	Days Covered by Multiday Obs	Multiday Obs Count	Days with Precip	Days with Trace	Total Snowfall	Days with Snowfall	Days with Snow on Ground
Oct 2021	1.82	31	1.82	31	0.00	0	0	13	4	5.4	4	8
Nov 2021	1.43	30	1.40	21	0.03	9	1	11	5	24.0	8	17
Dec 2021	1.64	31	1.64	31	0.00	0	0	16	8	19.0	14	31
Jan 2022	1.56	31	1.45	25	0.11	6	1	14	3	18.2	12	25
Feb 2022	2.54	28	1.34	21	1.20	7	1	7	5	9.7	6	21
March 2022	0.72	31	0.08	23	0.64	8	1	3	3	1.1	3	23
April 2022	0.23	30	0.23	30	0.00	0	0	4	2	2.8	3	24
May 2022	0.59	31	0.59	31	0.00	0	0	3	7	0.0	0	0
June 2022	0.29	10	0.29	10	0.00	0	0	2	1	0.0	0	0
July 2022	0.00	0	0.00	0	0.00	0	0	0	0	0.0	0	0
Aug 2022	0.00	0	0.00	0	0.00	0	0	0	0	0.0	0	0
Sept 2022	0.00	0	0.00	0	0.00	0	0	0	0	0.0	0	0
Totals:	10.82	253	8.84	223	1.98	30	4	73	38	80.2	50	149

This is an automated summary of the past water-year’s precipitation observations, including Total precipitation (at the bottom of the table), total obs counts by month, # days covered by multi-day obs, # days with precipitation, # traces, total snowfall, # days with snowfall, and # days with snow on the ground. There are also graphs with this info. displayed by month, and a graph showing accumulated precipitation through the year.

# SPREAD THE WORD!

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Do you know someone in your community who is interested in weather and measurement? Please introduce them to CoCoRaHS and contact your CoCoRaHS coordinator, listed on the final page of this newsletter.

Thank you for your help!

Links:

- [CoCoRaHS brochure](#)
- [CoCoRaHS "Wanted" Flyer](#)

**We need to recruit more observers, and to continue to train, for measuring precipitation in Alaska's unique terrain!**

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# CONTACTS

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