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# WELCOME TO THE ALASKA COCORAHS NEWSLETTER

This newsletter will discuss Fall 22 and winter 22-23 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.

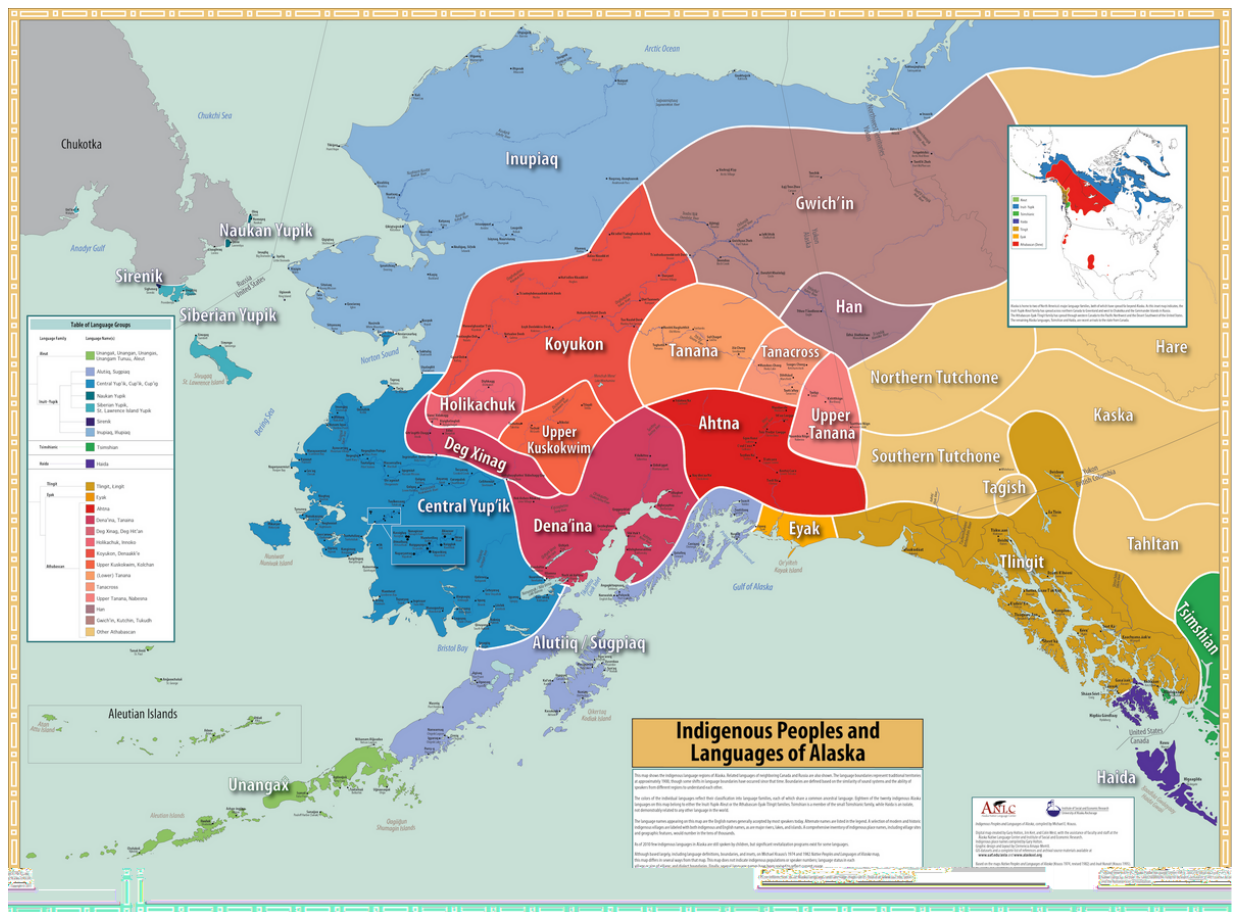


We would also like to thank the Canadian Commission for Environmental Cooperation (CEC) and Local Environmental Observer (LEO) network for their support of CoCoRaHS Alaska!



We would like to express our thanks to the **Alaska Indigenous Peoples** who inhabit and steward this land. It is a precious privilege to be doing this work on Indigenous land, and continue to work alongside our Native friends.

Below is a map of AK Native Languages for Alaska and surrounding areas.





## THANK YOU ! QUYANAA!

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 Eagle River 26 ESE	AK-FN-15 Fairbanks 5.7 N
AK-AB-38 Eagle River 7.8 SE	AK-FN-16 Fairbanks 4.4 W
AK-AB-43 Eagle River 11.5 ESE	AK-FN-19 North Pole 1 N
AK-AB-51 Anchorage 4.5 E	AK-FN-31 Fairbanks 7.2 NNE
AK-AB-52 Anchorage 4.7 SSW	AK-FN-32 Fairbanks 6.3 W
AK-AB-55 Anchorage 7.6 SSE	AK-FN-38 Fairbanks 18.4 WNW
AK-AB-60 Anchorage 2.1 SSW	AK-FN-35 Fairbanks 18.9 WNW
AK-AB-62 Anchorage 8.3 SSE	AK-FN-39 Anaktuvuk Pass 63.8 NE
AK-AB-65 Anchorage 5.1 SSW	AK-FN-41 Salcha 1.5 SSW
AK-AB-71 Anchorage 3.6 ESE	AK-FN-33 Fairbanks 12.1 W
AK-AB-15 Anchorage 5.0 ESE	
<b>AK-AB-77* Anchorage 7.3 ENE</b>	
AK-AB-76 Eagle River 5.9 ESE	
AK-AB-64 Chugiak 2.4 NE	
<b>AK-AB-73* Girdwood 1.2 E</b>	

\* New observer as of Fall '22/Winter '23.

# THANK YOU

(continued from previous page):

AK-HB-3 Haines 0.3 N

AK-HB-2 Haines 0.5 NNE

AK-HB-6 Mosquito Lake 5.7 SSE

AK-JB-11 Juneau 5.6 NW

AK-JB-16 Juneau 15.7 NW

AK-KP-3 Soldotna 5.1 E

AK-KP-6 Soldotna 2.3 ESE

**AK-KP-7\* Soldotna 9.5 E**

AK-BC-4 Sleetmute 1.4 SSE

**AK-MS-26\* Trapper Creek 2.2 N**

AK-MS-12 Talkeetna 7.6 S

AK-MS-14 Wasilla 2.7 NW

AK-MS-15 Mosquito Lake 1.0 WSW

AK-MS-19 Trapper Creek 8.5 SSW

AK-MS-21 Palmer 7.1 WSW

AK-MS-22 Chickaloon 1.7 WSW

**AK-MS-25\* Palmer 2.7 SW**

AK-PW-1 Edna Bay 13.8 SE

AK-PW-9 Thorne Bay 0.6 S

AK-SF-3 Tok 1.7 NE

**AK-SF-5\* Delta Junction 6.5 NW**

AK-VC-6 Paxson 10.8 SSE

AK-VC-8 Glennallen 3.2 NE

**AK-VC-9\* Valdez 4.6 NW**

\* New observer as of Fall/Winter '22-23.

# **ACTIVE REPORTING IN THE VICINITY OF FAIRBANKS**

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**AK-FN-35 (Fairbanks 18.9WNW)**

**AK-FN-41 (Salcha 1.5SSW)**

**AK-FN-38 (Fairbanks 18.4WNW)**

**AK-FN-32 (Fairbanks 6.3W)**

**AK-FN-33 (Fairbanks 12.1W)**

**AK-FN-31 (Fairbanks 7.2NNE)**

**AK-FN-35 (Fairbanks 18.9WNW)**

**AK-FN-39 (Anaktuvuk 63.8NE)**

**AK-FN-19 (North Pole 1.0N)**

**AK-FN-15 (Fairbanks 5.7N)**

**AK-FN-16 (Fairbanks 4.4W)**

Thanks to Erin Billings and Martin Stuefer for coordination and setup of gauges and observations in the Fairbanks area/borough. This area has been the most active for new observers over the last 2 years!

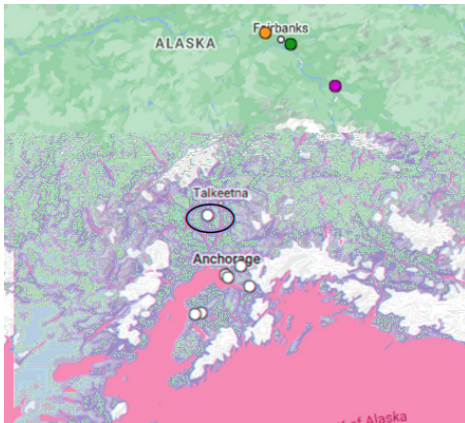
# OBSERVER SPOTLIGHT and Q&A

**Observer: Sylvan and Nancy Morgan**

**Station: AK-MS-19  
(Trapper Creek 8.5 SSW)**

**First Observation: 03/28/2020  
Total # observations: about 1100**

The Morgans have been observing river levels for more than 20 years, and in 2020 they became active CoCoRaHS observers at their remote AK location (only accessible by snowmobile during the long winter). They perform weekly snowpack SWE measurements at their site (10.16" as of 04/03/2023), and have a long history with their pack of sled dogs there.



Q1: What is your most difficult Observation or siting issue, historically?

**A1: That would be the SWE snowpack measurement.  
Even with good equipment it takes the longest.**

Q2: What motivates you as an observer?

**A2: I've always been fascinated by weather and the complexity  
of precipitation in Alaska.**

Q3: Are there any trends in your observations over the years?

**A3: In the 23 years we have been at the cabin,  
the winters seem milder temperature wise.**

**We have experienced fewer nights below minus 20 in the past four or five years.  
My calendars show that between 2001 and 2012 we would have several nights  
where the temperature dipped below -30, usually for several days in a row.  
Snow levels have ranged from 43 inches to 220+, but most years stay between  
120 and 140 inches with a pack maximum about 48 inches most years.**

Q4: What's your current observation count?

**A4: ~1100 (consecutive)**

CoCoRaHS Alaska

# CoCoRaHS Awards and Honors

Wasilla observer Suzanne Yehle's award this month for 3650 lifetime observations.



## The CoCoRaHS Team

is proud to present this

# 24+ Year Award

to

# Suzanne Yehle

CO-LR-121 (WEL 4.5 SE)

AK-MS-15 (Meadow Lakes 10 WSW)

ID-AD-72 (Boise City 2.1 NE)

**Over 3,600 Daily Precipitation Reports since June 1998**

A handwritten signature in black ink, appearing to read 'Nolan Doesken'.

Nolan Doesken, CoCoRaHS

Date



## PICTURES OF THE SEASON



Grizzly tracks just east of Anchorage, Oct. 10, 2022.



Anchorage, Dec. 17 2022



Hal Morgan's Bandit at his cabin

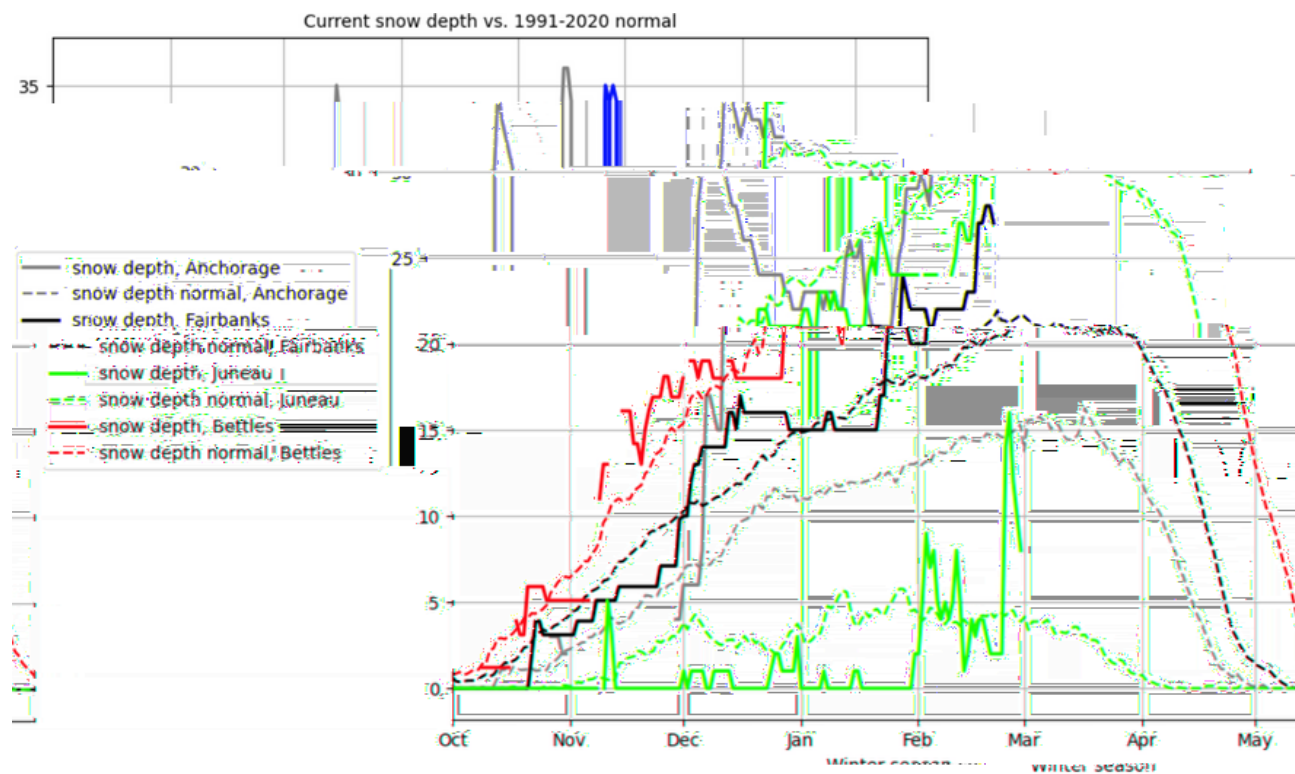
Have a photo to share? Send it to us at the contact information at the end of this newsletter!



# THE WEATHER IN FALL/WINTER 2022-23

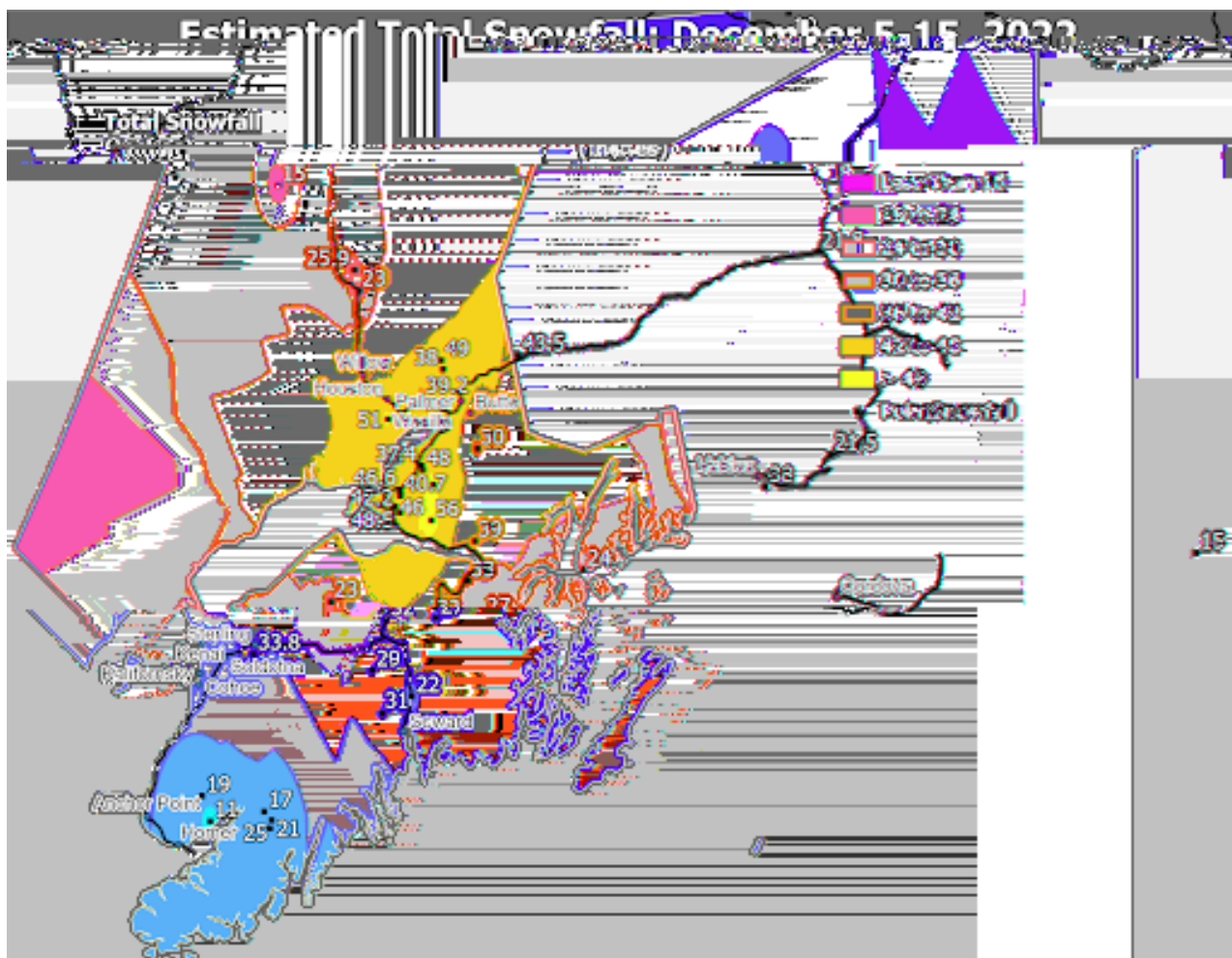
## Snow Early Dec 2022

The Anchorage region was pummelled by a series of storms that brought near record amounts of snow to the city and surrounding areas. Over the course of about two weeks, three major storm systems moved through Southcentral Alaska. The first system occurred (Dec. 6-7), along with two more rounds of snow on December 11-12 and December 14-15, totalling 30-55" over the Anchorage Bowl and Hillside. The daily (and in some cases more frequent) reports of snowfall, submitted by CoCoRaHS, COOP, and public observers, including "Significant Weather" measurements submitted by some volunteers, helped map out the snowfall. December 2022 turned out to be the snowiest December on record at ANC.



# THE WEATHER IN FALL/WINTER 2022-3

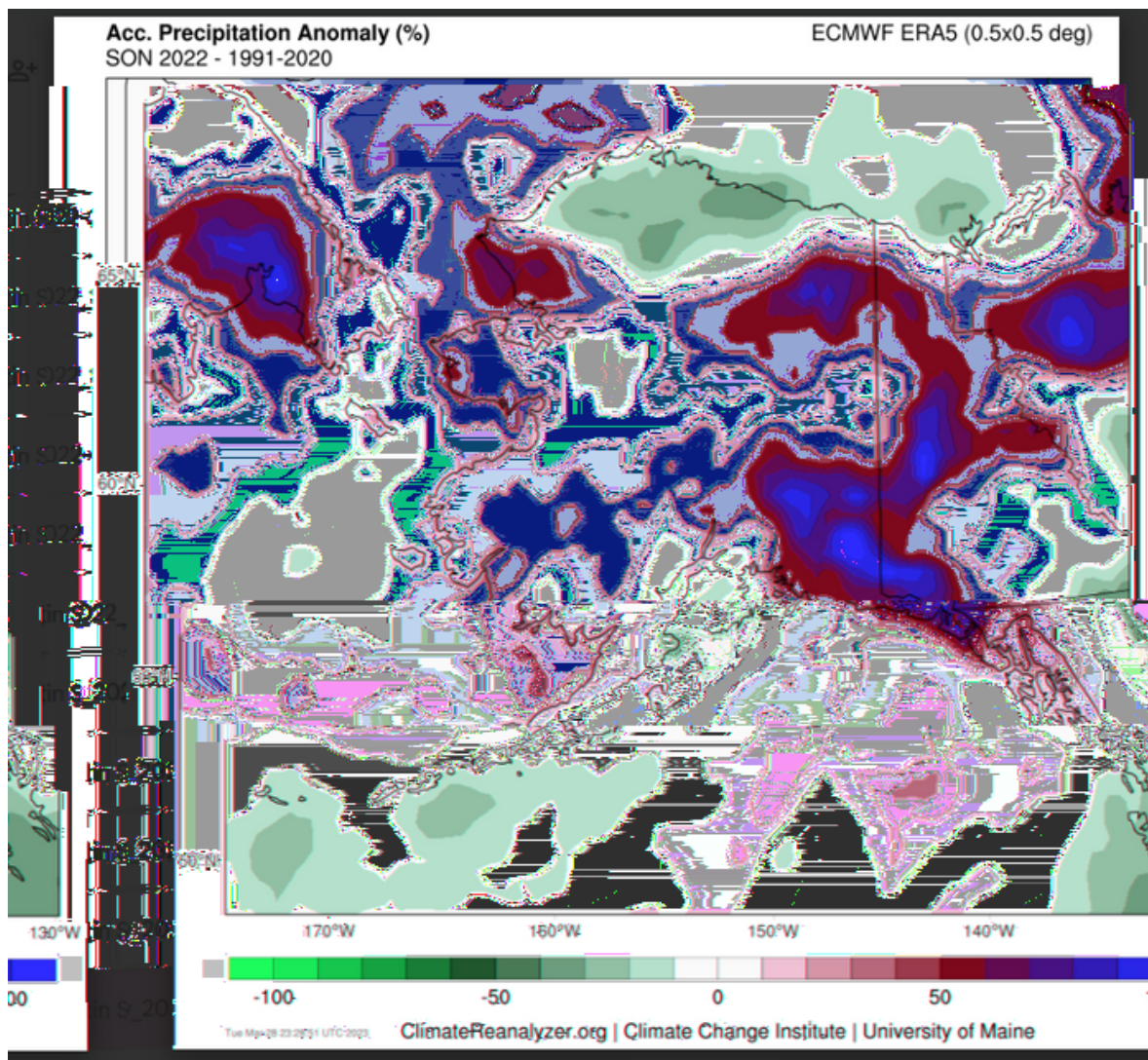
Heavy snowfall Anchorage Dec 5-15 2022, thanks to  
D. Levin's analysis (scientist at NWS Anchorage), including  
CoCoRaHS, COOP and public observations



Keep in mind that Anchorage experienced its 2nd wettest year on record for 2022.

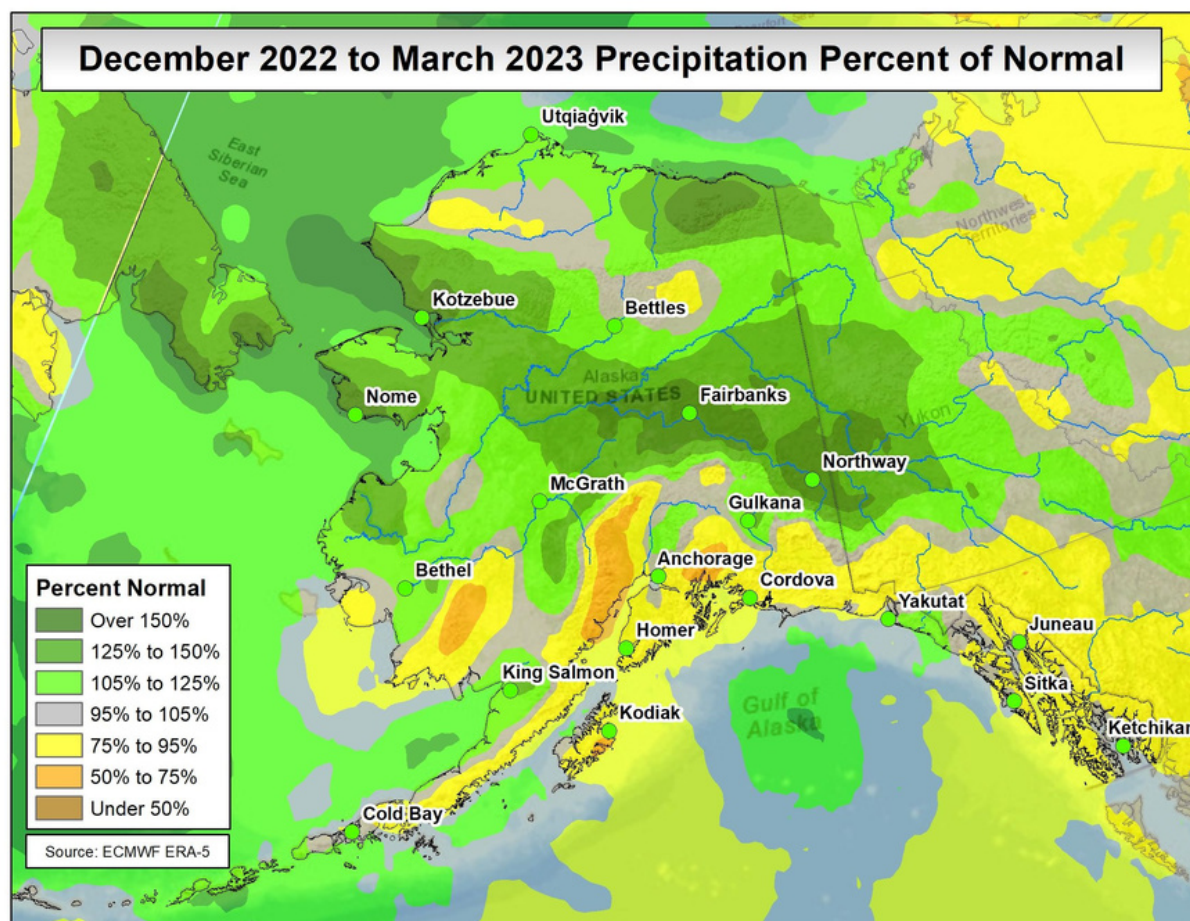
# THE WEATHER IN FALL/WINTER 2022-3

The general pattern observed during the summer months continued through Nov 2022, with very wet (up to double the average observed precip) conditions over the Copper River drainage, southeastward to the extreme northern panhandle and over the northern portions of the eastern Yukon River drainage region. Shown below are the anomalies for Sept-Nov 2022. The only large area that experienced dry anomalies was north of the Brooks Range. Much of the rest of AK saw normal to 20-40% above normal values.



# THE WEATHER IN FALL/WINTER 2022-23

This cold-season period marked a major change in the pattern experienced from mid-2022 to the end of the warm season. Note that the latter ~half of this fall/winter period is getting into the climatological dry season in AK. Most of southern AK returned to below-average precip values, despite the very heavy snowfall observed in portions of southcentral during the first half of Dec. Meanwhile much of the central interior including Fairbanks, northwestward through Kotzebue, and far NE AK maintained snowier-than-average conditions. Same goes for much of the Yukon/AK border region, except for the south end.



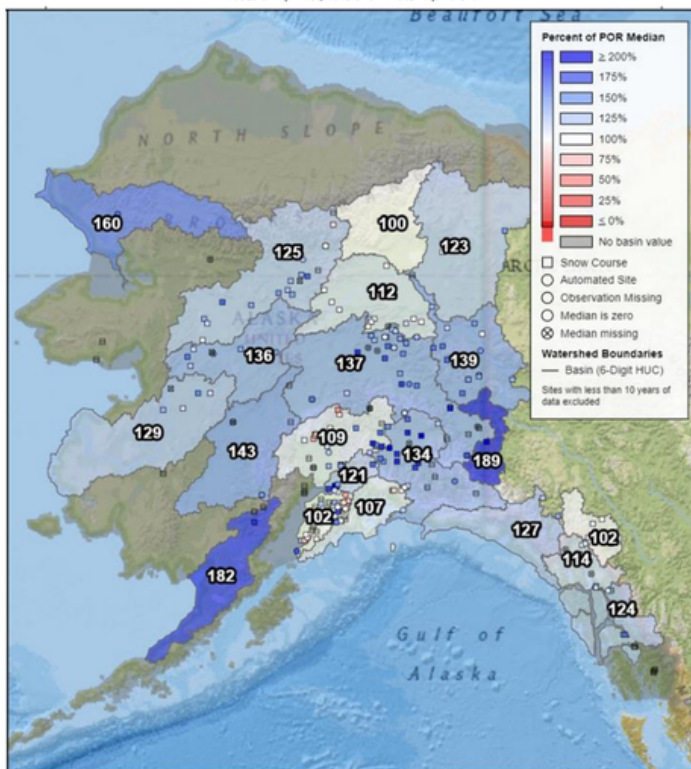
# THE WEATHER IN FALL/WINTER 2022-23

## Alaska Snotel Analysis 04/1/2023

These are based on SNOTEL measurements at high-elevation sites

Alaska Statewide Snowpack Map

Based on April 1st, 2023 Snow Water Equivalent



USDA Natural Resources Conservation Service  
United States Department of Agriculture

This analysis is useful for the runoff/breakup potential, as it represents one estimate of the current snowpack late in the winter. All areas with observations reported at or above the average snowpack values as of 04/01/2023

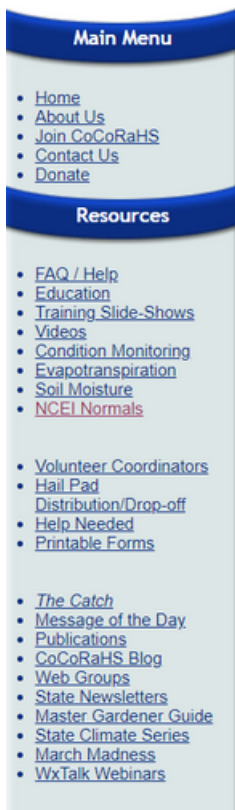
# REMINDERS

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

## **RAIN, SNOW and ICE:**

Your precip measurements are of critical importance to monitoring these conditions in AK. In particular, drought- and heavy rain-related measurements are crucial as the public, scientists and interested parties monitor actual conditions on the ground in areas that are sparsely populated.

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




The Service High School CoCoRaHS raingauge and stand in Anchorage


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# SPREAD THE WORD!

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CoCoRaHS  
The Community Collaborative Rain,  
Hail and Snow Network



Help measure rain!



## WANTED!

**VOLUNTEERS OF ALL AGES  
TO HELP SCIENTISTS STUDY STORMS**

*Measure precipitation in your own backyard with CoCoRaHS!*

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 continue to train, for measuring precipitation in Alaska's unique terrain!**

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# CONTACTS

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