

Village Weather, Snow, Ice, Breakup, Flooding, Fire sites

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Knowing the weather in other villages helps to prepare for trips and predict future weather. Forecasts for rural isolated villages are not as precise as they could be due to many factors including Alaska's complex geography and weather systems. The more complex the weather systems, the more weather observation tools are needed. Only, like everything else in Alaska, it is such a big State that the funding to cover things can be disproportionately small for the need.



What is it Like Now in Villages?

These sites provide the current weather in villages.

NOAA's National Weather Service list of Village Weather Stations:

<http://www.arh.noaa.gov/obs.php> This is the most comprehensive list of weather from stations actually located at a village. If a village does not have a station, it won't be listed here. Click on the "Station Identifier", in the second column to see the weather for that village.

Webcams: See the Weather!

At <http://akweathercams.faa.gov/> there are live Webcams from around the state, mostly at village airstrips. If you have a good connection, you can click on "All cams". This will give you a live picture of villages around the State all on one long web page.

Another web cam site that has most of the FAA web cams plus some DOT road sites and a couple of university and miscellaneous sites is at the Alaska Ocean Observing System (AOOS) website at <http://data.aos.org/maps/sensors.php> . Check this site out if you aren't listed at the FAA site. You can't view them all at

once - but while you are at this website, you should look at the different products that are there and see what might be useful. AOOOS focuses on the ocean and coastal communities, but also has some good Interior information as well.

Put up a webcam on your river?

We think it would be useful if everyone had a webcam on their river/ocean. That way, folks could check here to see travel conditions. This might be an eligible IGAP expense or other monies expense if it is done with an intention that fits the program. Storing images at a regular interval is a great visual documentation of what is happening to breakup/freezup each year and can help your community plan. Let us know what you think of this idea.



BREAKUP:

Besides using weather stations, radar, and stream gages that are available from different agencies, NOAA's national weather service works with pilots and local observers to help them with storm events, and flood and breakup predictions. You can access many of these local observations on their website. NOAA is also trying to incorporate more local observations and village knowledge into their weather services to assist villages with the type of weather - snow, ice, atmosphere descriptions that are needed for daily village decisions - like subsistence and winter ground travel.

For a list of most of the Breakup/Ice/Flood related products from NWS, go here:

<http://aprfc.arh.noaa.gov/data/breakup.php>

Look up historical Breakup dates for your Village's River(s):

This site includes latest safe dates for vehicles and person crossings, first boat, last ice, and personal observations. If no one has participated in this program from your village, there may be no observations:

<http://aprfc.arh.noaa.gov/php/brkup/getbrkup.php>

This is the same database, but it leads to a search page, where you will be able to view more the text field, but viewable records go back only 3 years here. You can search for specific words that local observers submitted. Go to the bottom row to the "Search database remarks by a single text word", and enter a word. For example, try **snowmachine**. That will give you all records on all rivers where a local

observer talked about snowmachines in their river breakup report. You can also enter a specific river and year, but don't have to.

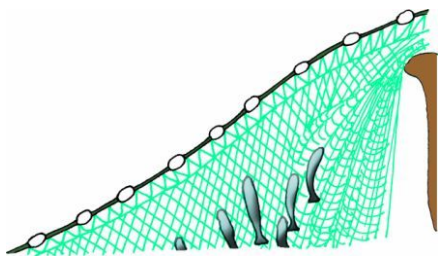
<http://aprfc.arh.noaa.gov/php/rivnotes/searchnotes.php>

Look up the average breakup date for your river(s):

<http://aprfc.arh.noaa.gov/php/brkup/getavgbrkup.php>

http://aprfc.arh.noaa.gov/data/maps/brkup_map.php

Flooding



The NWS River forecast home page is <http://aprfc.arh.noaa.gov/>. Look through here to find the pages that are of most use to you. NOAA Alaska region folks are really interested in serving rural village needs. Let the NWS (a branch of NOAA) know which pages are most useful and if you have suggestions on how to make their products more useful.

River flow:

Current Streamflow information from USGS steam gages:

<http://waterdata.usgs.gov/ak/nwis/current/?type=flow>

Rainfall

Rainfall information across Alaska from rainfall stations operated by many different agencies: http://aprfc.arh.noaa.gov/data/precip/akpmap_main.php?area=p24AK&day

Flooding

Spring Flood Potential Map (updated regularly during Breakup times):

http://aprfc.arh.noaa.gov/data/maps/flood_pot.php

48-hour Prediction Flooding Map (produced May through October with occasional Winter times if needed)

http://aprfc.arh.noaa.gov/data/maps/48flood_pot.php

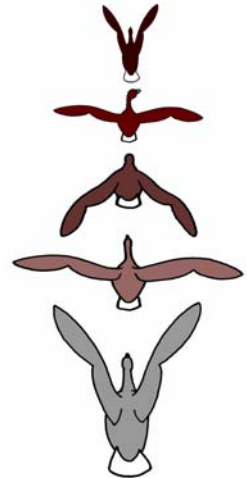
Snow

Snowdepth is measured by Natural Resource Conservation Service. You will see there is not a lot of information for villages off the road system, but with your local knowledge it might help to predict how much snow there will be in the place you are interested in, if you know the snow depth at one of these stations.

http://aprfc.arh.noaa.gov/sd_all_sites.php

You might check this site and then on your travels each time, see if there is any way to predict your places of interest. If not, and you can document this, then you can write to NRCS and ask for support for a local snow depth recording, and where the best place would be if they can find funding. It might help NRCS get this funded. Here is the snow program contact information. You can also look on this site for information on how the program works.

<http://www.ak.nrcs.usda.gov/snow/contact/>



Ice Reports

Go to this NWS page for ice conditions. <http://pafc.arh.noaa.gov/ice.php>

They have a number of additional ice condition links that you can search. Try to find the best one that fits your needs. For example,

Here is their **ice thickness map**:

http://aprfc.arh.noaa.gov/php/icedb/ak_it_color.php Again, weather prediction for Alaska is really hard in the isolated areas. If none of them help, you can document that, and then organize a justifying letter that can help organizations like NWS/NOAA to find funding for better coverage.

The NWS Ice Desk also requests you to call if you have read one of their ice reports and you are right there in your village and can see that the report is in error. Their number is on the main ice desk page

The NWS takes their ice forecasting very seriously. They know that knowledge of ice can save lives. As Villages we can start to make contributions to the NWS in the isolated areas of the States. We are the ones that live, travel, and subsist there. You can help NWS by becoming a weather spotter at

<http://pafc.arh.noaa.gov/spotter/index.php>

Fires

Bureau of Land Management, Alaska Forest Service and US Forest Service jointly coordinate for wildland fires. Each has a page devoted to Fires and who to call, what to do, for different regions - you should check out what is of most use to you. These are the current fire pages (meaning fires that are happening now). These sites also hold historical fire information.



Alaska Interagency Coordination Center <http://fire.ak.blm.gov/>

Active fires in AK - GIS map (takes a while to download)

<http://afsmaps.blm.gov/imf/imf.jsp?site=fire>

State of Alaska, Department of Natural Resources, Division of Forestry (DOF) current fires list of links. You can also go to their home page for additional information on past fires): <http://forestry.alaska.gov/fire/current.htm>

Fire Weather warnings, smoke, etc.maps and immediate forecasting service:

NOAA NWS' Fire Weather Maps/Info :

<http://firewx.arh.noaa.gov/brief.php>

NOAA NWS' Current Fire Weather Hazards Warning Map:

<http://firewx.arh.noaa.gov/warnings.php>

To **request an immediate forecast** for weather in your village due to threat of fire: <http://firewx.arh.noaa.gov/spot.php>

Village Weather Predictability, Weather and Ice Advisories and How You Can Help:

Sea ice erosion, volcanic ash uncovered by melting glaciers, permafrost melt, increased icing conditions for pilots are all affecting weather and they are affecting monthly and seasonal weather predictions. For a 2 minute audio recap by NWS of how climate change is affecting predictability for forecasters go to Alaska National Public Radio from September 2007:

<http://aprn.org/2007/09/19/climate-change-affecting-forecasting-models/>

Note - any mention of "current conditions won't apply because this was recorded in 2007.

Helping NWS to help Villages Are you interested in providing local observations to NOAA's National Weather Service (NWS)? The NWS provides the weather for all of Alaska. If you are getting weather reports, it originated from the NWS (pilot reports also use FAA). Your observations might help with storm advisories and local forecasting, and they could help neighboring villages prepare for storms and breakup conditions. And your reports can be accessed on the NWS website so other villages see them. You can really make a difference. NWS really appreciates your involvement and uses them as a very valuable tool in verifying, refining, training, and improving their current and future forecasts.



Weather/Storm "NWS Spotter Program":

To learn about how you can report weather to assist NWS in local/regional weather forecasting, Click on this link <http://pafc.arh.noaa.gov/spotter/index.php> With this program you'll receive a short training (on-line or in-person) and your observations will be entered into a database. This is a more active way to help weather forecasters with your area's weather. With all the villages taking part in this program, our efforts will result in better weather information for villages. Your participation can make a difference. You can become involved in reporting breakup conditions for your river, as well.

Juneau Office for Southeast Communities:

<http://pajk.arh.noaa.gov/spotter.php>.

Other communities: <http://www.arh.noaa.gov/spotter/>

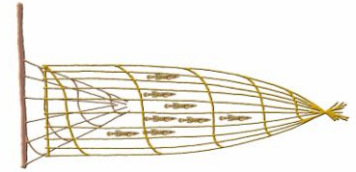
There are 3 main forecasting offices. Once you've signed up, you'll be working with the office that typically does your forecasts. If you are in the Yukon River basin, Western or Northwest Alaska, or North Slope, you'll work with the Fairbanks Weather Forecasting Office (WFO) at <http://pafg.arh.noaa.gov/spotter/spotter.php>. If you are in Southcentral or Southwest Alaska, or Aleutians, you'll work with the Anchorage WFO at <http://pafc.arh.noaa.gov/spotter/index.php>. If you are in Southeast Alaska, you'll work with the Juneau WFO at <http://pajk.arh.noaa.gov/spotter.php>.

River Watch Reports:

You can take part in reporting ice conditions on your river – such as changes in ice conditions during

Freezeup, thin or open ice conditions during winter, and status of Breakup. River ice spotter reports help the NWS understand the condition of the ice and the threats to personal safety and flooding. NWS has

developed training materials so that all of their River Watch reporters use the same language to describe the same ice/river conditions. To learn more go to <http://aprfc.arh.noaa.gov/resources/rivwatch/rwpindex.php> . At bottom is an email where you can submit ice pictures. If you submit an ice picture and have not contacted their office before, remember you will need to include the exact location of your ice, the time and date, and what about the ice condition might affect safety. BE sure to include your name and contact information. They may need to email you back questions.



Storm Reports:

There is also a program that you can report extreme storm and weather events that are happening now in your village. You don't need training for this program and can start right away. Extreme events include: tornadoes, blizzards, funnel clouds, high wind, wind damage, hail, lightning damage, heavy snow, sleet or freezing rain, heavy rain, flooding, dense fog, or any other unusual weather phenomena.

This information is extremely important and will be used for verification and training purposes so that NWS may provide more accurate warnings and forecasts in the future. **With all of the technology that NWS possesses, they still consider reliable local Village storm reports as one of their greatest tools.** To learn about how you can report current storm or other extreme weather events that are happening in your village, Click on this link <http://www.weather.gov/skywarn/>



We really encourage everyone to go through the "Storm/weather spotter program" above. You will still be able to report on storms and extreme weather in the Storm Report program. But **your storm reports can be used by NWS with a higher degree of reliability** because they will know the terms you use to describe the weather are the same terms that they use to describe the weather. So they can

use your reports easier to help other Villages and the region in forecasting what is happening now, and in refining their forecasting methods for the future.

Serving as an official NWS spotter can be part of your IGAP program if it is included as an allowable activity in your workplan. That means you need to explain how monitoring your weather and river assist your community's environmental objectives and/or build capacity in your environmental program via training, learned technical skills, or networking. Documenting weather and river conditions can be part of an overall climate change strategic plan - as it will enhance the community's information in adapting and addressing the many impacts of climate change, and possibly provide supplemental information to local "traditional knowledge" forecasting for subsistence-related logistics.