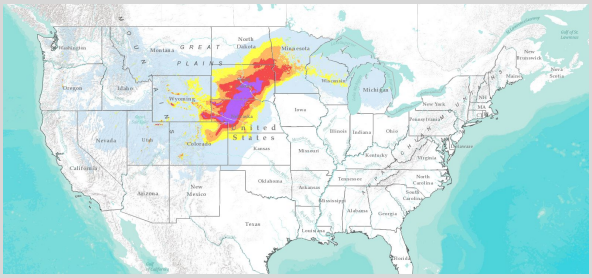

Winter Storm Severity Index – Southwest/Bristol Bay

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Focus Group Agenda

Introduction to the Project and Introduction of all Participants

Pre-session survey

Scenario

Post-session survey

Southwest Winter Storm
T-3
Wednesday

National Weather Service Anchorage, AK @NWSAnchorage

NATIONAL WEATHER SERVICE
Anchorage, AK
weather.gov/Anchorage

The weather impact level for Friday and Saturday is: **Moderate**

Key Points:

- Light snow of 1-3 inches is forecast for Thursday across most of the southwest.
  - Areas of Bristol Bay north and west of Dillingham should expect blowing snow. A Winter Weather Advisory is issued for this threat.
  - Winds will be out of the northeast 15 to 35 mph.
  - Visibility reductions to one half mile or less at times are expected.
- Warming temperatures as a system pushes out of the south will cause a pattern change Friday and Saturday.
  - A wintry mix is possible Friday and Saturday with the warming temperatures. A Special Weather Statement has been issued for this threat.
  - Periods of freezing rain, sleet, and rain are possible before temperatures cool again by the end of the weekend.
  - Rain falling on frozen surfaces will cause slick conditions even where temperatures rise a few degrees above freezing, which will be worsened in areas that get a period of freezing rain during the transition from snow to rain.
  - Many details associated with this, such as timing and amounts, are still uncertain. A first guess at possible liquid amounts Friday and Saturday are attached below.
- Strong winds Thursday and Friday may lead to:
  - Potentially dangerous near-shore ice conditions along the Bristol and Kuskokwim Bay.
  - Gusty conditions along the eastern Aleutian Islands, causing hazardous conditions for high profile vehicles.

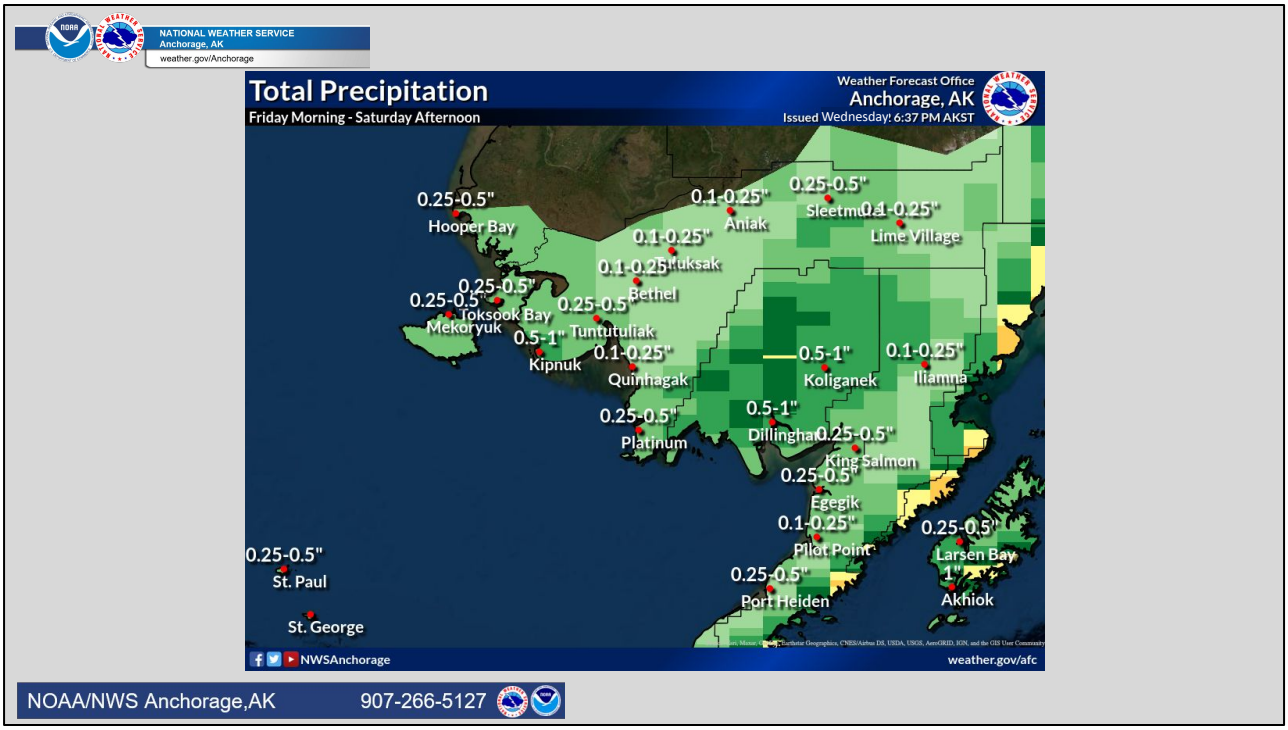
Also attached is a general 3 day outlook, already on social media.

NOAA/NWS Anchorage,AK 907-266-5127

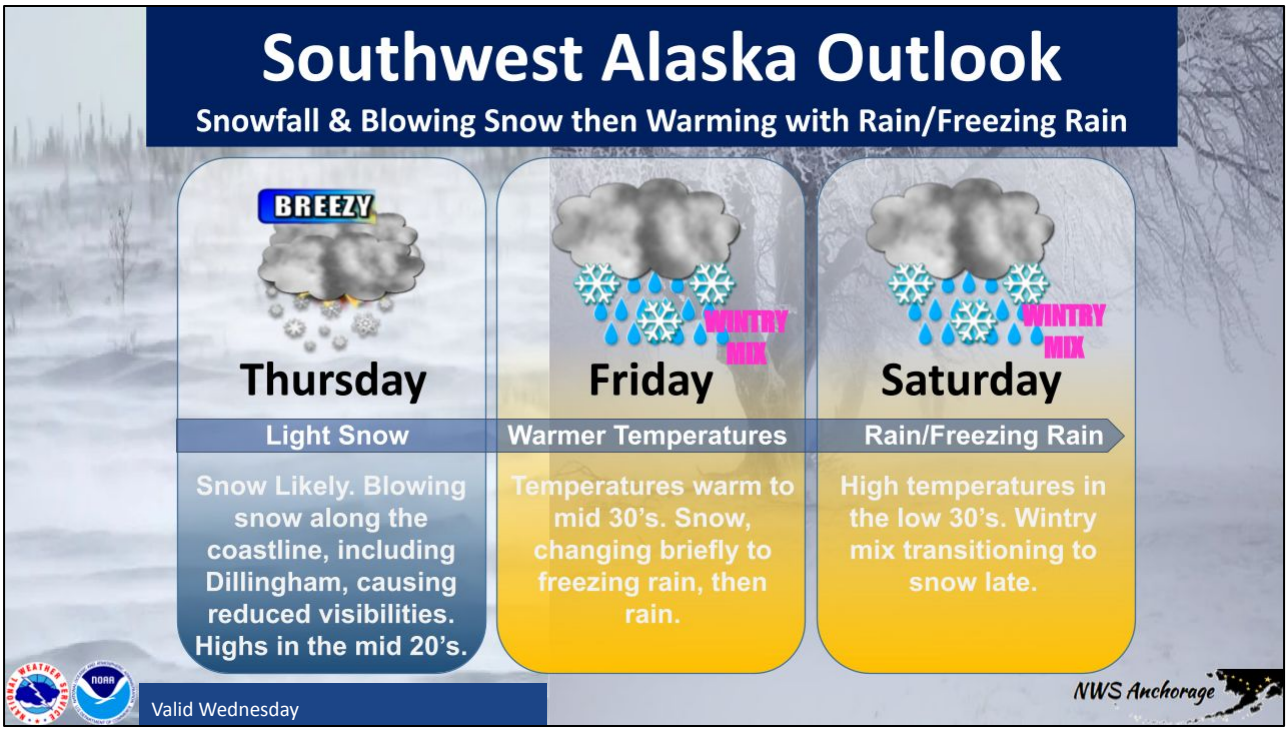
Here is briefing information from your local WFO . HOw are you feeling about your situation looking at this information? How do you translate the weather impact level of moderate - how does that affect your decision-making?

Weather Summary:

A series of disturbances are expected to impact southwest Alaska at the end of the week through this weekend. Thursday's system will bring light snow, with areas of blowing snow to affect areas near Dillingham. More notable is the pattern change towards warmer conditions with the next storm system Friday into the weekend. A wintry mix is likely, followed by a changeover to rain over frozen ground. Slick conditions are likely with the switchover, even as the mixed precipitation changes to rain. Winds look to increase Friday, potentially causing increased impacts along coastlines. Cold air looks to return to the region by early next week.



Precipitation information - do you use maps like these? How helpful is thai information? Are you concerned with these amounts?



Here is a three-day outlook. Do you use Outlooks like this? How helpful is this information? Is anything concerning?

SPECIAL WEATHER STATEMENT

AKZ152-155-161-201500-

Lower Kuskokwim Valley-Kuskokwim Delta-Bristol Bay-

Including the cities of Aniak, Sleetmute, Bethel, Hooper Bay, Nunivak Island, King Salmon, Dillingham, Naknek, and Pilot Point

508 PM AKST Wednesday

...SNOW AND POTENTIAL WINTRY MIX OF PRECIPITATION EXPECTED ACROSS BRISTOL BAY, THE KUSKOKWIM DELTA, AND MIDDLE KUSKOKWIM VALLEY THURSDAY EVENING THROUGH SATURDAY...

Two major storm systems and their associated fronts will bring winter weather across Southwest Alaska. Snow accumulations of 1 to 4 inches are expected for most of Bristol Bay north of King Salmon as two distinct fronts move ashore from south to north beginning Thursday evening. Farther south, snow may mix with or transition entirely to rain, leading to lower snowfall totals. Some uncertainty remains regarding how and where this transition will setup, although current thinking places this between Egegik and Port Alsworth. Within this transition zone, the potential for a short period of a wintry mix of freezing rain, sleet and snow is possible. The wintry mix is expected to be brief and produce only minimal ice accumulation before temperatures warm above freezing behind the first front early Friday morning. However, the timing of the changeover is still uncertain. Still, as rain falls onto cold surfaces, slick conditions as still possible with hazardous driving conditions persisting through Saturday.

Do you use special weather statements like this? How helpful is this information? What else are you lookin for at this point?

WINTER WEATHER ADVISORY

AKZ161-201500-

/O.NEW.PAFC.WW.Y.0004.220120T2100Z-220121T1000Z/

Bristol Bay-

Including the cities of King Salmon, Dillingham, Naknek, and Pilot Point

...WINTER WEATHER ADVISORY IN EFFECT FROM NOON THURSDAY TO 1 AM AKST FRIDAY NORTH AND WEST OF DILLINGHAM...

* WHAT...Snow and blowing snow expected. Northeast winds 15 to 35 mph. Total snow accumulations of up to 3 inches.

* WHERE...Bristol Bay north and west of Dillingham.

* WHEN...From noon Thursday to 1 AM AKST Friday.

* IMPACTS...Plan on slippery road conditions. Areas of blowing snow will reduce visibility to a half mile at times.

* ADDITIONAL DETAILS...Warmer temperatures may switch precipitation over to freezing rain from southwest to northeast by Friday morning, although the timing of the changeover is still uncertain.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Slow down and use caution while traveling.

An advisory is issued. Does this change anything in your actions? Do you share this information with anyone?

Southwest Winter Storm
T-2
Thursday

National Weather Service Anchorage, AK @NWSAnchorage

SPECIAL WEATHER STATEMENT

AKZ152-155-161-210300-

Lower Kuskokwim Valley-Kuskokwim Delta-Bristol Bay-

Including the cities of Aniak, Sleetmute, Bethel, Hooper Bay, Nunivak Island, King Salmon, Dillingham, Naknek, and Pilot Point

9 AM AKST Thursday

...SNOW AND POTENTIAL WINTRY MIX OF PRECIPITATION EXPECTED ACROSS BRISTOL BAY, THE KUSKOKWIM DELTA, AND MIDDLE KUSKOKWIM VALLEY THIS EVENING THROUGH SATURDAY...

Two active storm systems and their associated fronts will bring winter weather across Southwest Alaska. Snow accumulations of 1 to 4 inches are expected for much of the Southwest as the first front moves across interior Bristol Bay this evening, with higher totals possible near the Kuskokwim Mountains. Snow may mix with freezing rain or transition to rain, leading to lower snowfall totals. Some uncertainty remains regarding how and where this transition will set up. Current thinking places the transition zone from Dillingham to King Salmon and then Goodnews Bay to Sleetmute, with rain further south. Any wintry mix is expected to be brief with minimal ice accumulations. As the second front enters Friday morning, areas near Iliamna could also see a brief period of snow mixing with freezing rain. Then, precipitation should gradually change over to rain as the second front pushes inland Friday and Saturday. Still, as rain falls onto cold surfaces, slick conditions as still possible with hazardous driving conditions persisting through Saturday. Increased winds may accompany the warm air push Thursday and Friday with additional impacts likely.

An update to the weather statement. Now how do you feel about your risk? Is this kind of information presented this way helpful? Why, why not?

WINTER WEATHER ADVISORY

AKZ161-201500- /O.NEW.PAFC.WW.Y.0004.220120T2100Z-220121T1000Z/

Bristol Bay-Including the cities of King Salmon, Dillingham, Naknek, and Pilot Point

930 AM Thursday

...WINTER WEATHER ADVISORY REMAINS IN EFFECT NOON TODAY TO 1 AM AKST FRIDAY NORTH AND WEST OF DILLINGHAM...

* WHAT...Snow and blowing snow expected. Northeast winds 15 to 35 mph. Total snow accumulations of up to 3 inches.

* WHERE...Bristol Bay north and west of Dillingham.

* WHEN...From noon Thursday to 1 AM AKST Friday.

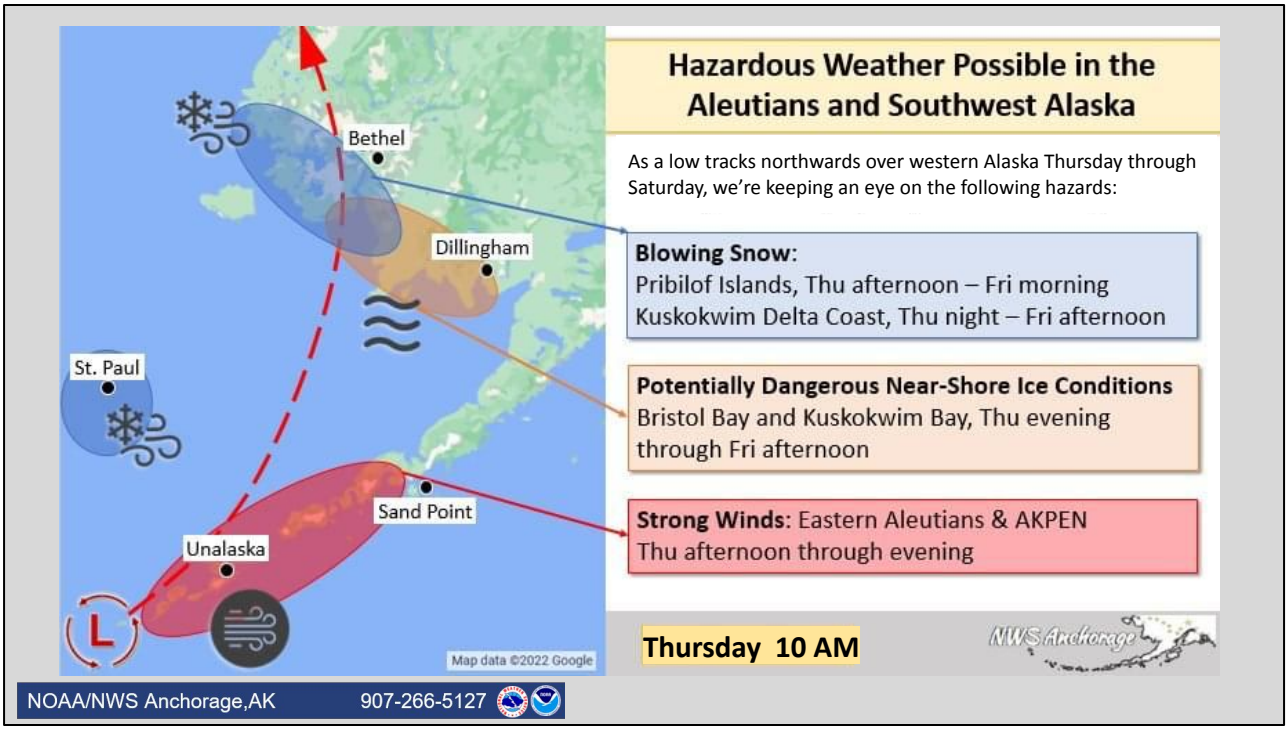
* IMPACTS...Plan on slippery road conditions. Areas of blowing snow will reduce visibility to a half mile at times.

* ADDITIONAL DETAILS...Warmer temperatures may switch precipitation over to freezing rain from southwest to northeast by Friday morning, although the timing of the changeover is still uncertain.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Slow down and use caution while traveling.

Advisory again - any thoughts on this?



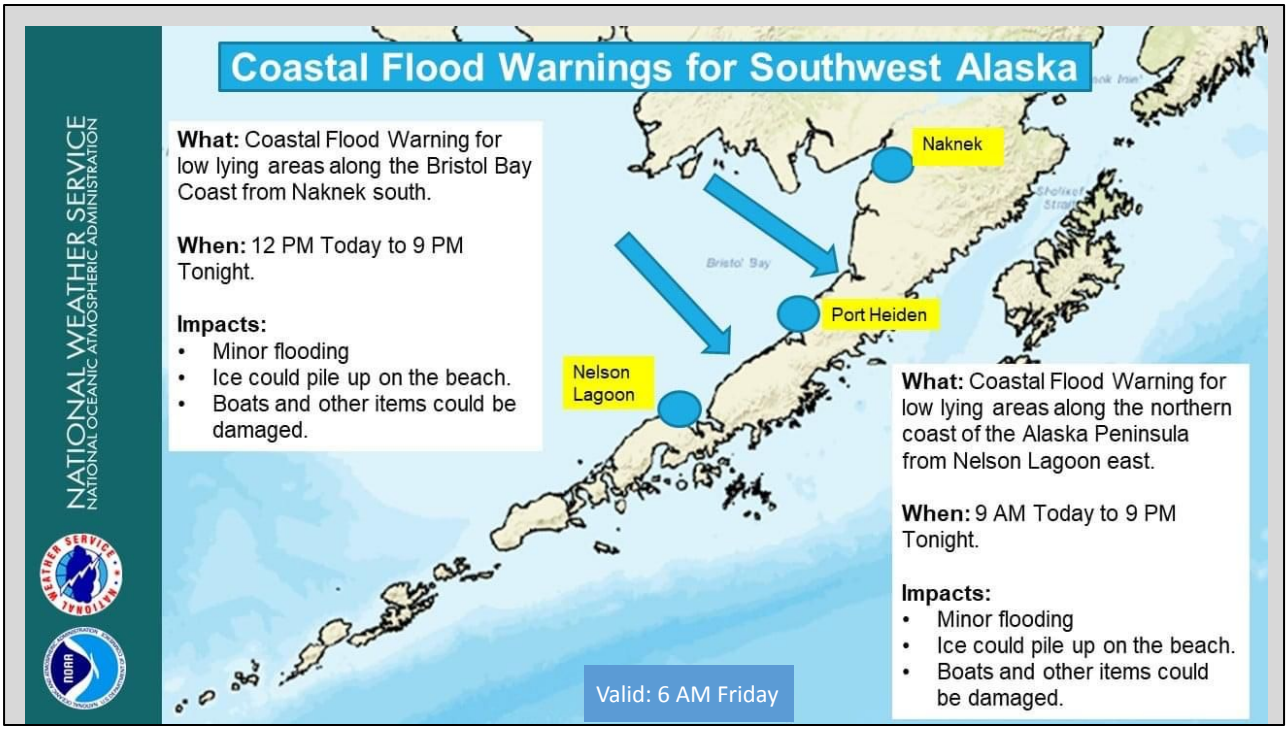
Here is a graphic showing different impacts in different areas. How helpful is this kind of information? What other impacts would you be looking for?

Southwest Winter Storm
T-1
Friday

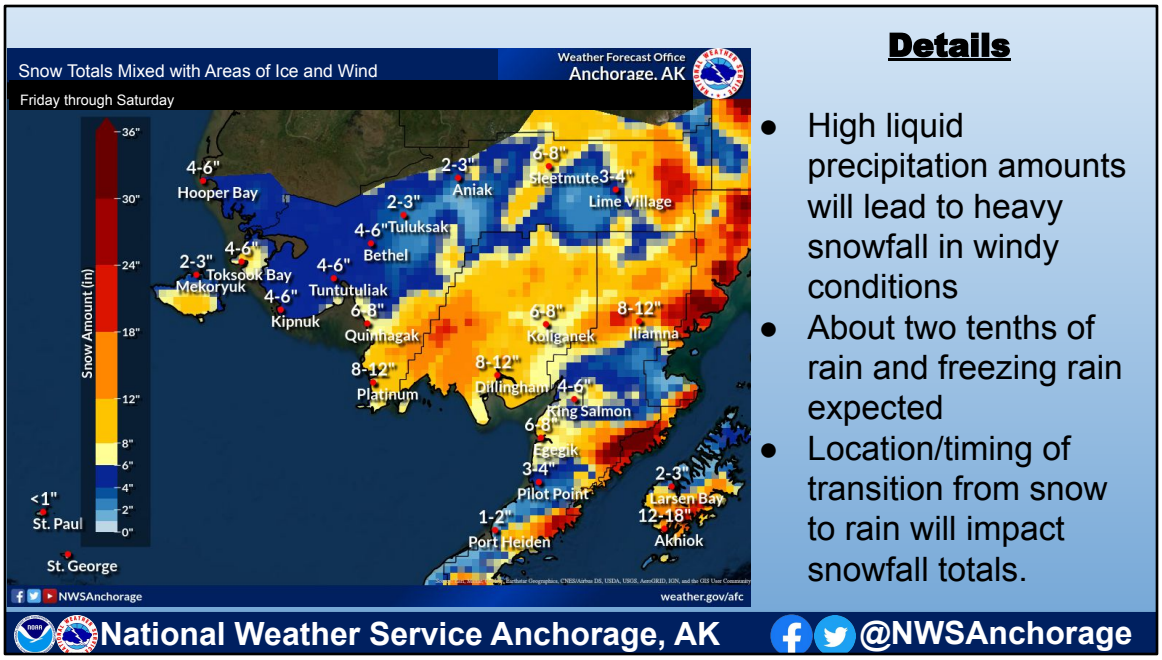
National Weather Service Anchorage, AK @NWSAnchorage

Here is a winter storm warning: do you use watches and warnings? How do? Do warnings trigger any specific actions?

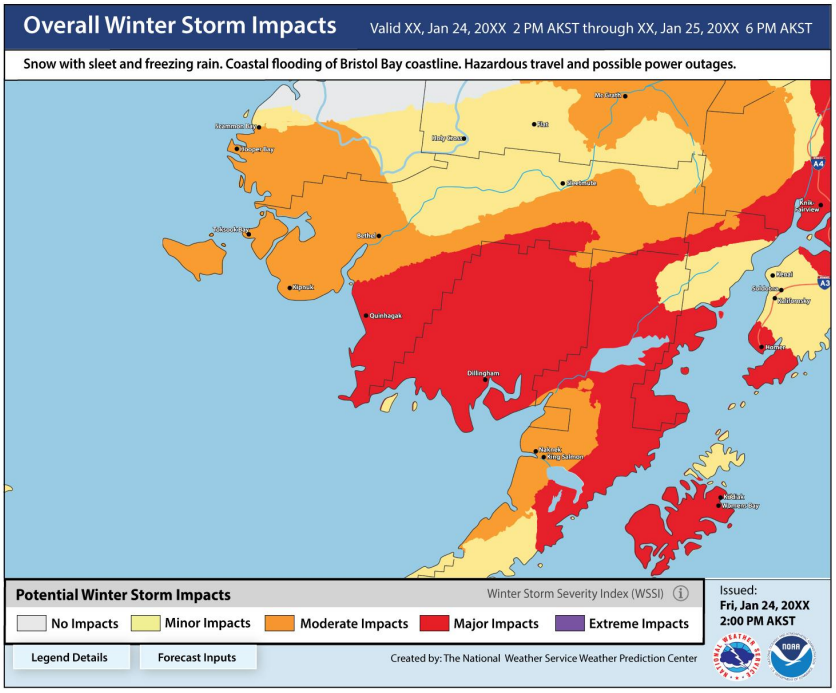
Narrative: Cold air held in place for longer than expected, so had to upgrade the SPS and Advisory to a Warning for the projected snow accumulation prior to the warming trend and sleet/freezing rain hazards come into play. Due to the increased pressure gradients as well, increased winds along the Alaska Peninsula, where snow totals are thankfully lower.



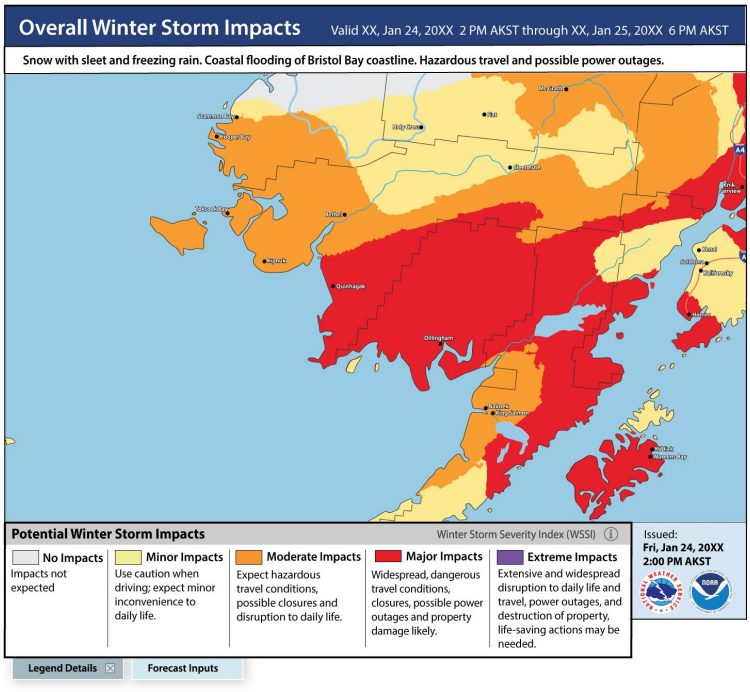
What about coastal flooding - how important is this kind of information? What else are you looking for related to coastal flooding risk and impacts? Would you share this product with others?



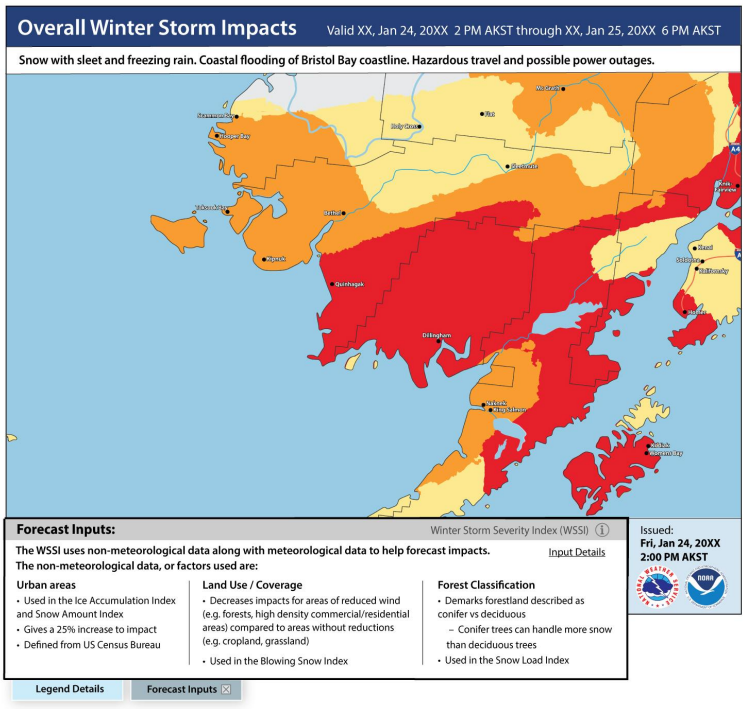
Snow totals = how helpful is this information? What kinds of impacts from snow are you concerned about?



Again, same products, but for the southwest area. Helpful? Why? Why not?

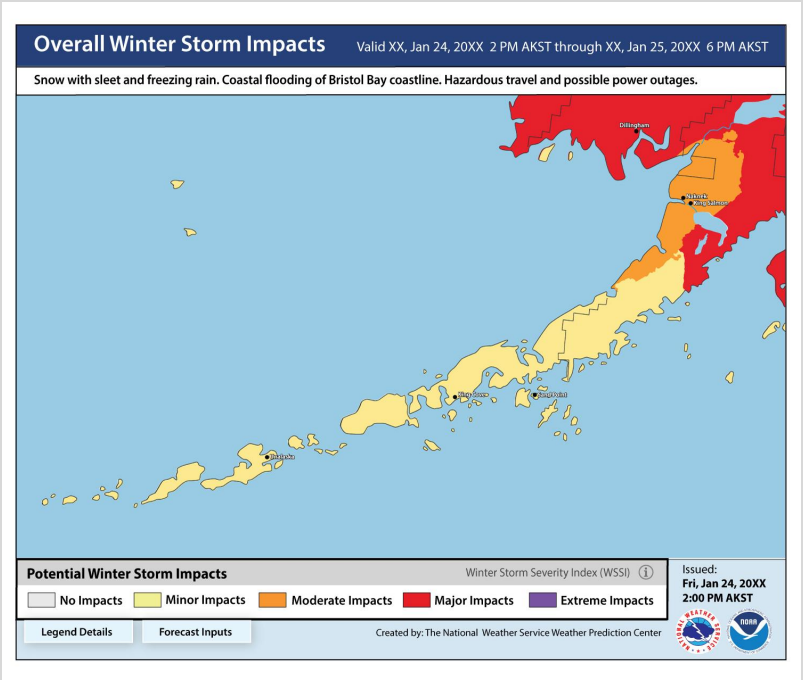


Now with the legend details - helpful? Why, why not?

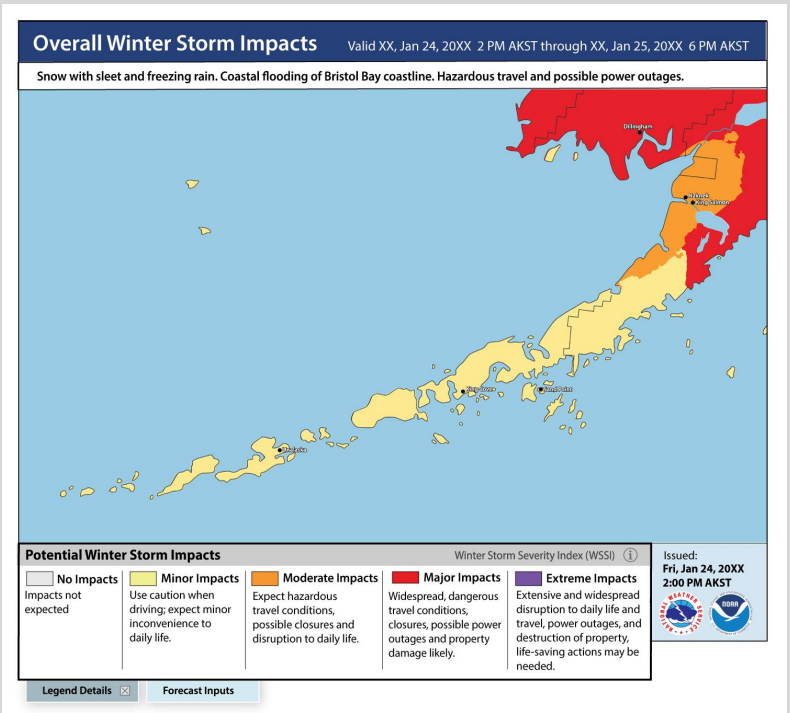


Let's study this legend a little more closely. This legend tells you some of the background factors that are used to determine the impact levels (that is, what is considered extreme or major or moderate and why). Is this information helpful to you? What else would you be looking for when using this product? Which impacts are you most concerned about when looking at this product?

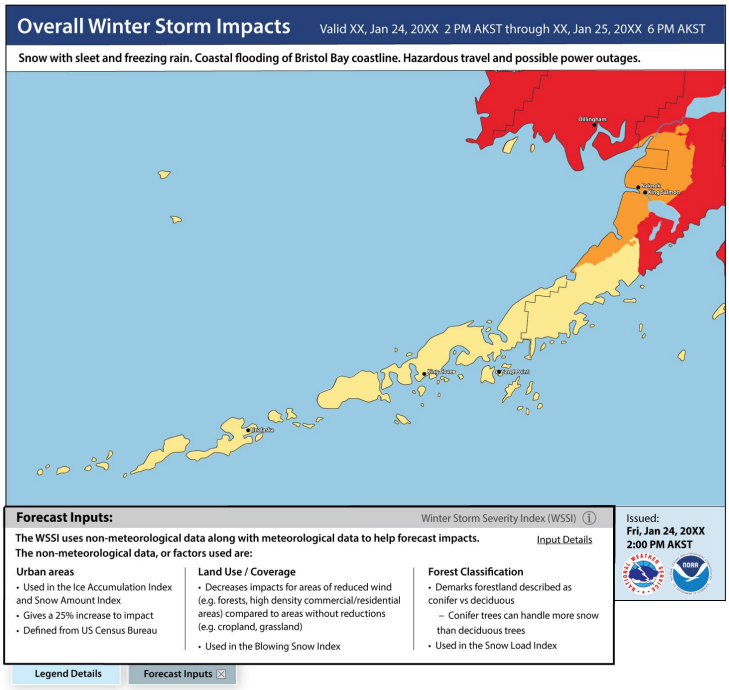
Mention forecaster's note and ask if that is helpful. What types of information would you like to see in this element?



What is this product telling you? How do you interpret the impact levels? What else do you want to know based on this graphic?

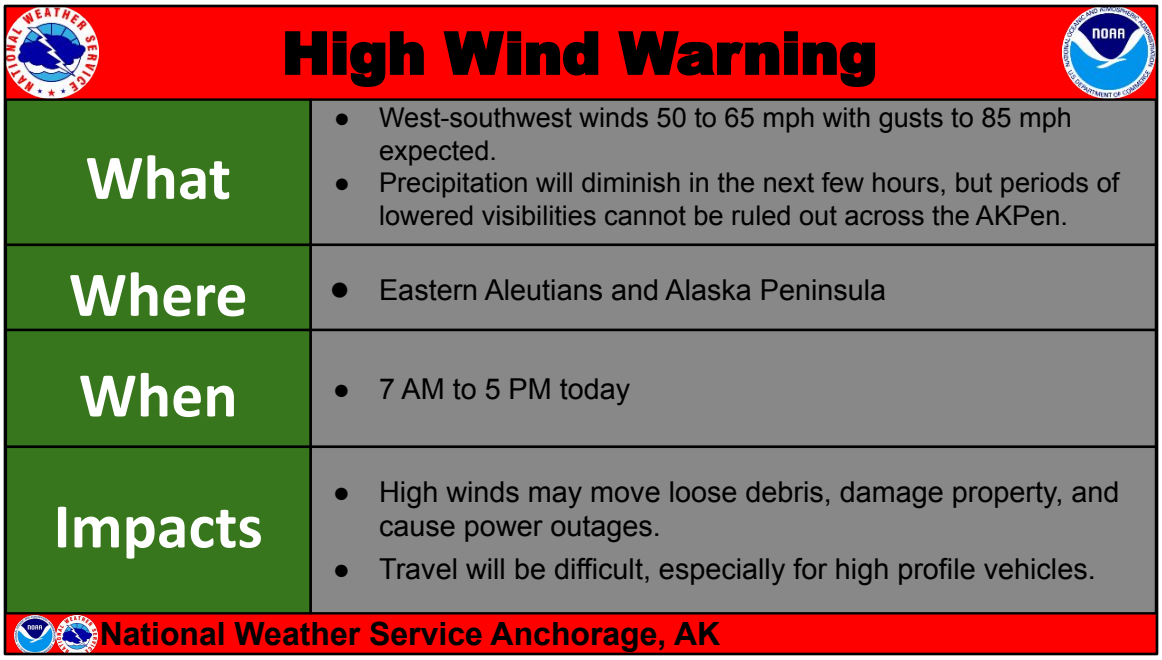


This version shows a more complete legend description. How do these impact definitions meet your decision-making needs? Is this product possibly useful to you? How? What else would it need to be useful? Would you share this product with others, and if so, with whom?



Let's study this legend a little more closely. This legend tells you some of the background factors that are used to determine the impact levels (that is, what is considered extreme or major or moderate and why). Is this information helpful to you? What else would you be looking for when using this product? Which impacts are you most concerned about when looking at this product?

Southwest Winter Storm
Update
T
Saturday
National Weather Service Anchorage, AK
@NWSAnchorage



Wind information: how important are high winds? ARe you looking for information like this? Why? Why not?

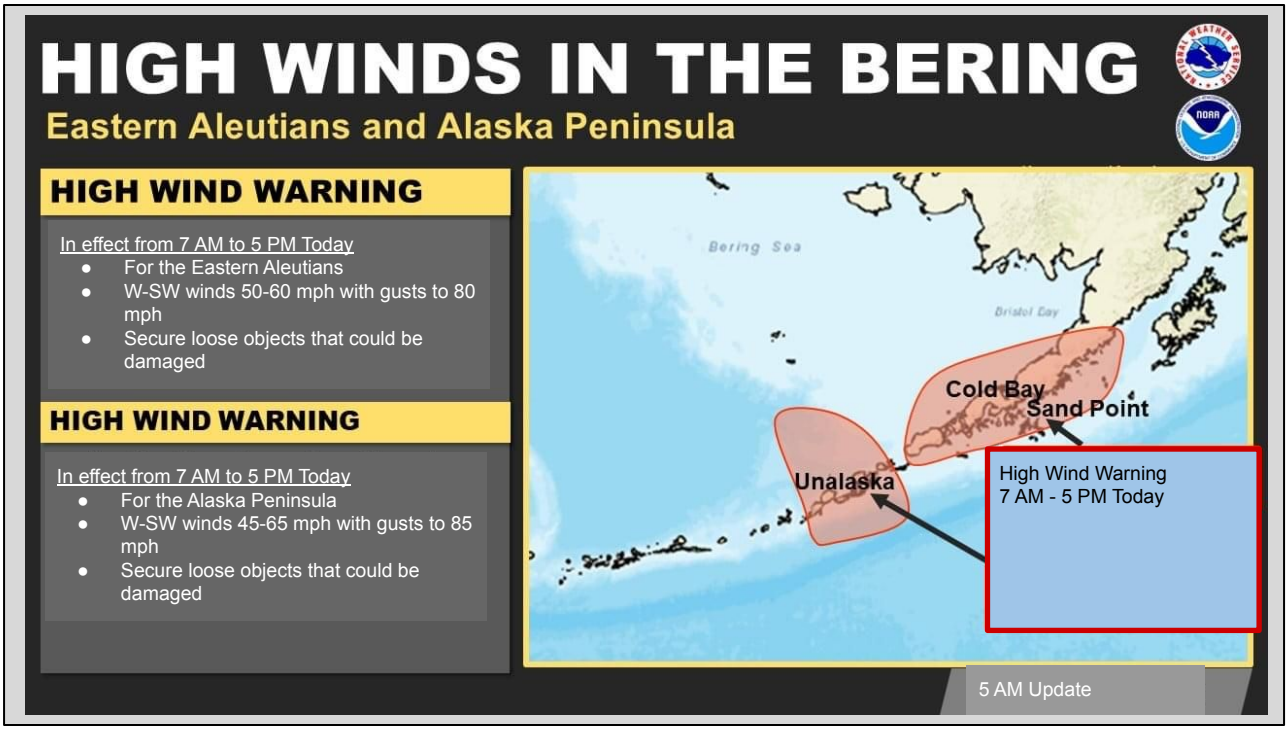
The Winter Storm Warning will likely expire at noon as expected, but winds have increased under a tight pressure gradient as the low pressure system deepens. AKPen = Alaska Peninsula.

Weather Summary for the Marine Zones:

A rapidly strengthening low pressure system will cause widespread gale force winds, with areas of storm force winds along the eastern Aleutians and Alaska Peninsula, in addition to High Winds over the terrain. In addition to storm force winds, high seas between 20-25ft are expected south of the Aleutians as storm force winds combined with large fetch will create favorable conditions for high seas to build. These seas can be locally higher at times as the west-southwesterly winds and primary swell will oppose the east-northeasterly currents which can locally stack the seas and shorten the wave periods. Winds may also be locally higher in the bays and passes along the Aleutian Chain ahead of the center of the low as those gaps are prone to funneling from the south. Winds will then gradually ease from west to east across the Bering/Aleutians this evening into early Sunday. Seas will also gradually abate from west to east tonight.

This storm will also bring ample rainfall in the Aleutians with the highest rainfall amounts expected in the Central to Eastern Aleutians on the windward side of the

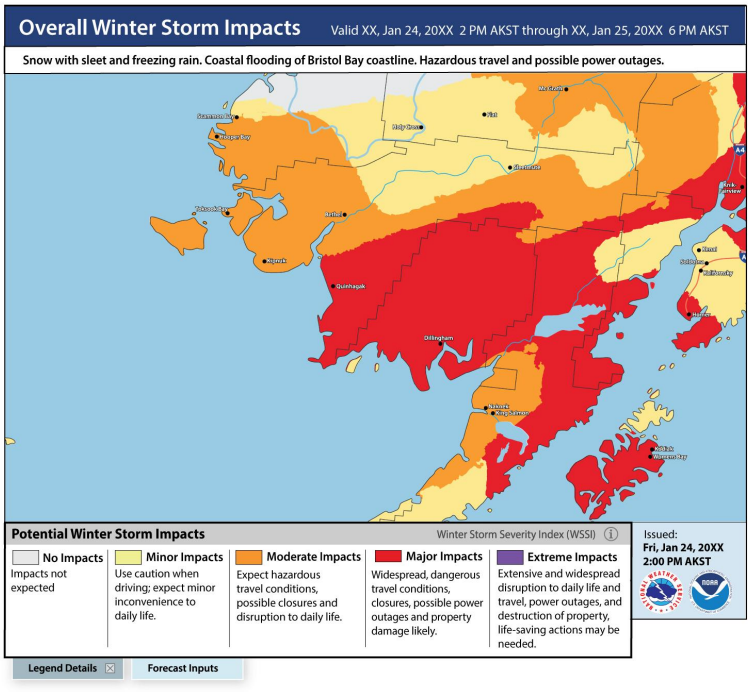
mountains.



A indifferent presentation of wind information. How do you use this information? What else would you be looking for?

WSSI Website

Have you visited this site before?
Explain the features/give tour of the site. Note that this is for CONUS only but that there will be one for Alaska in the future.
What features of the website are most useful to you?
Is there anything that is missing? What additional functionality would be helpful?
Is there anything that is confusing?
How would you use the information/products on this site? When would you use it (i.e. how many days before storm)?
Ask about rolling window - is this useful? Would you use this and if so, how?
Do you prefer static images to the interactive website?



Anything else you would add? Look at forecasters' note and legend again.
Leading components/impacts that need to be included in a useful product.