

2011 Bering Sea Storm

November 8-11, 2011

Overview

On November 8th 2011, a strong storm moved from the north Pacific into the Bering Sea near Shemya Island at the tip of the Aleutians. The storm, dubbed, "Bering Sea Superstorm" by the media, moved rapidly northeast. Over the next few days, at least 39 communities were impacted. Widescale blizzard conditions, high winds and major coastal flooding resulted from the storm. The storm made landfall in Russia northwest of Gambell before continuing northward. For some communities, the storm was compared to the 1974 storm, one of western Alaska's most destructive storms.

A Near Miss?

As impactful as the storm was, some coastal communities were spared from extensive damage. The storm track was further west than forecasted and winds changed from their more southerly direction to an easterly direction. Winds blew more parallel to shore reducing storm surge.

Millibars (mb)

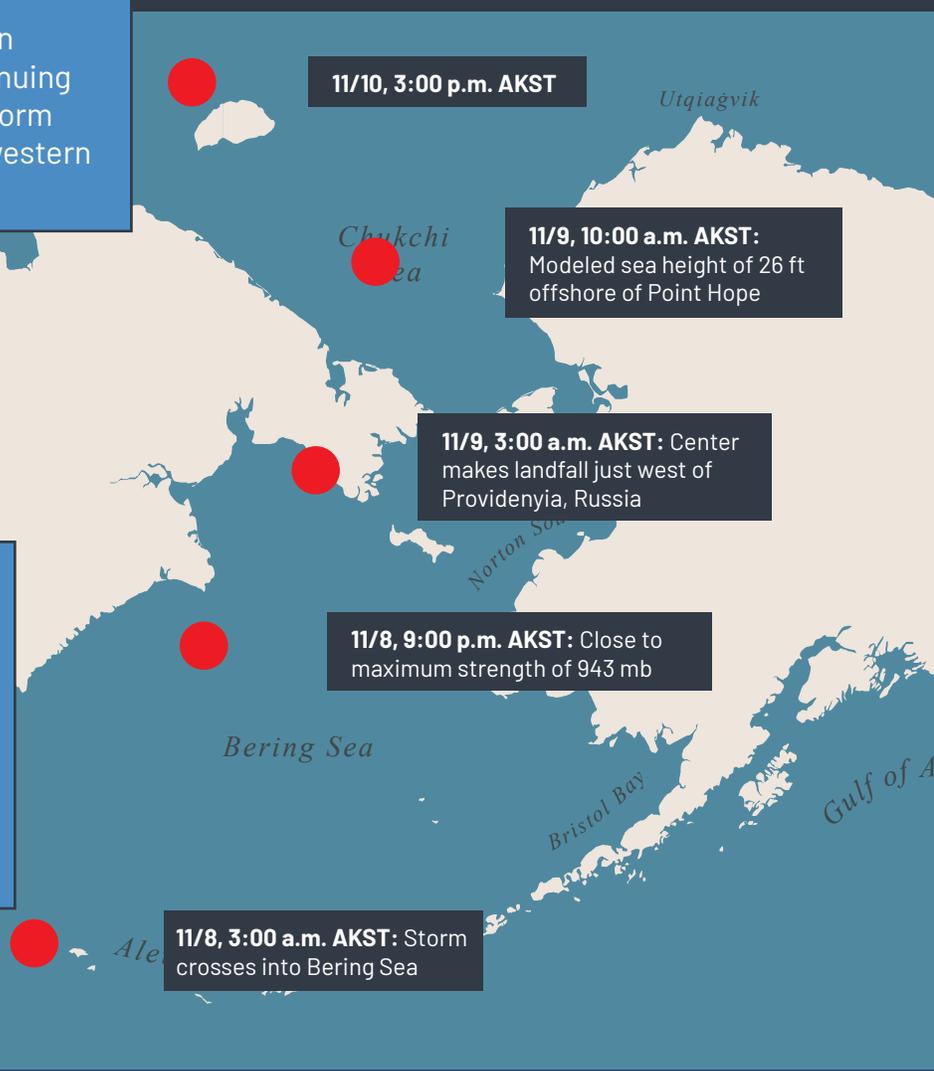
Millibars are units of air pressure. The standard air pressure at sea level is 1013 mb. In contrast, Merbok (2022) reached a lowest atmospheric pressure of 937 mb. The lower the pressure, the stronger the storm.

Disaster Declared:

Dec. 5 Governor Parnell declared a state disaster emergency

Dec. 22 President Obama approved federal disaster declaration

FEMA Public Assistance cost was estimated to be **\$2 million** program dollars (2011 dollars)



International Arctic Research Center



ACCAP

Alaska Center for Climate Assessment and Policy

A NOAA CAP team



Community Specific Impacts

POINT HOPE

Severe blizzard conditions, Approx. 550 of 674 people evacuated, fishing boats blown away, major power outages, estimated gusts of 85 mph

DEERING

Flooding forced evacuation of approx. 100 people to the school, brief blizzard conditions, peak gusts of 64 mph

KIVALINA

150 people slept at the school, flooding in low lying areas, homes lost roofing, blizzard conditions observed, maximum wind speed of 73 mph

GOLOVIN

Coastal flooding, water in downtown homes, ice destroyed 4 cabins and many fish racks, water levels peak at 4.3 ft above MHHW*, peak gust of 64 mph

GAMBELL

Minor flooding, water levels 6-8 ft above normal MHHW*, waves estimated to be 20 ft, blizzard conditions, peak gust of 74 mph

KOYUK

Flooding along Front Street, water contained chunks of ice, all fish racks destroyed along the east side of beach and some on the west

NOME & TELLER

\$24 million in damages to the Council Road, jetty damaged, sanitation plant flooded and 165,000 gallons of wastewater dumped into small boat harbor, maximum surge of 8.4 ft above MHHW*, Teller man drowned after driving four-wheeler into large waves

ST. MICHAEL

Several ice chunks deposited by storm, fishing camp and racks destroyed, blizzard conditions, maximum surge 3.6-5.6 ft above MHHW*, peak gusts of 64 mph

*DEFINITION

Mean Higher High Water (MHHW) is equivalent to "above the highest high tide line"



Photo: US Coast Guard

Historic Winter Fuel Delivery to Nome

Following the storm, a cold snap resulted in rapid sea ice formation which prevented a scheduled delivery to Nome. To reduce fuel costs and continue with planned projects through the winter, the Sitnasuak Native Corporation orchestrated the first winter marine delivery to Nome. The operation leveraged Russian tanker Renda and Icebreaker Healy. On January 15, 2012, they arrived in Nome to deliver 1.4 million gallons of fuel. International law, logistical challenges, and ice up to 4 feet thick did not stop this delivery!

To learn more visit us at: uaf-accap.org/projects/extreme-events-library

Sources: Nome Nugget, Anchorage Daily News, NOAA Storm Data Reports, FEMA Disaster Recovery Guidance, National Weather Service, NBC News, CBC News, New York Times, Alaska State Disaster List, Reuters, The Guardian

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