ATM F644/444 (Spring 2021): Weather/Synoptic Analysis and Forecast

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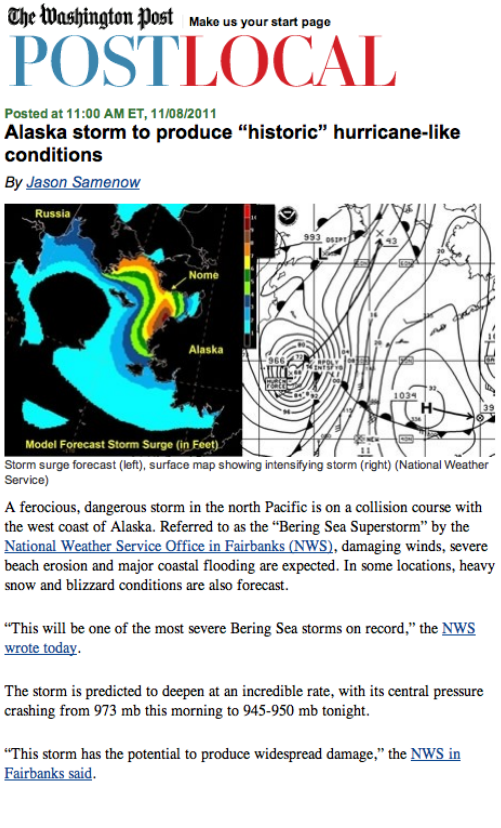
A central course in the Atmospheric Sciences and Meteorology and a required course for seeking professional development at NOAA, bridging the gaps between dynamic-thermodynamic theories and observations, and providing understandable knowledge and analysis skills that can be applied to weather, ocean, sea ice, ecosystem, environment, and natural hazard studies. The main questions to answer in this course include but are not limited to:

- **How do cyclones/storms, fronts, anticyclones/high pressures, jet stream, and polar vortex form, develop, and move, as well as cause extreme weather events?**
- **How do the weather systems mentioned above impact underlying ocean, sea ice, and interactions between atmosphere, sea ice, and ocean, contributing to climate change?**
- **How do frequency of occurrence, intensity, and locations of the weather systems and associated extreme events change with time in a warming climate?**



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POSTLOCAL

Posted at 11:00 AM ET, 11/08/2011

Alaska storm to produce "historic" hurricane-like conditions

By Jason Samenow

Storm surge forecast (left), surface map showing intensifying storm (right) (National Weather Service)

A ferocious, dangerous storm in the north Pacific is on a collision course with the west coast of Alaska. Referred to as the "Bering Sea Superstorm" by the National Weather Service Office in Fairbanks (NWS), damaging winds, severe beach erosion and major coastal flooding are expected. In some locations, heavy snow and blizzard conditions are also forecast.

"This will be one of the most severe Bering Sea storms on record," the NWS wrote today.

The storm is predicted to deepen at an incredible rate, with its central pressure crashing from 973 mb this morning to 945-950 mb tonight.

"This storm has the potential to produce widespread damage," the NWS in Fairbanks said.