



National/Naval Ice Center

NOAA Satellite Operations Facility

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Sea Ice Forecast – Bering Sea

USCGC Healy

March 2008

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Forecast for the Bering Sea for March 2008

Ice in the East and West Bering began to freeze approximately 2-3 weeks ahead of the normal seasonal onset. This early onset of ice will not reflect in thicker sea ice condition, nor will it reflect in denser concentration. The area remains quite dynamic with offshore winds pushing ice from the western portion of the Bering Strait, providing thinner ice, while the cold temperatures refreeze the surface water, keeping the concentration of sea ice near 9/10th.

Sea Ice Thickness and Concentration

Forecast conditions for the mid-late March timeframe, are for sea ice conditions to remain 9/10th concentrations throughout the region, with lesser concentration along the edge, as you enter and exit the pack ice. Sea ice to the west of the date line will consist of 4 to 6/10th of Thick First Year Ice (>120 cm, 4•). Sea ice north of Saint Lawrence Island will consist 1 to 2/10th of Thick First Year Ice. South and east of Saint Lawrence Island, sea ice will consist of Medium First Year Ice (70-120 cm, 1•). On the leeside of Saint Lawrence Island (within 60 nautical miles), sea ice conditions will consist primarily of New and Young Ice, with residual traces of the displaced sea ice.

Forecast Theoretical Thickness

The densest concentration of the thickest ice is forecast to remain along the Alaskan coastal regions. Portions of this ice will move out to sea as the currents, and internal stresses of the pack ice, break the fast ice in the vicinity.

Sea Ice Extent

Sea ice concentration of up to 9/10th, will extend slightly south of the Pribilof Islands in the eastern portion of the region, while in the western portion, the ice will extend southward to the vicinity of 60N.

This forecast is produced by the National/Naval Ice Center (NIC) for the National Science Foundation and U.S. Coast Guard in support of the U.S. Coast Guard Cutter Healy's 2008 cruise during March 2008 in the Bering Strait. The forecast provides a synopsis of the anticipated ice cover and indicates expected patterns of dynamics and freezing of ice in the Bering Strait during the period covered.

The forecast has been developed through analysis of cryospheric, meteorological and oceanographic conditions and forecasts. Also taken into account are the climatological ice growth and melt regimes.