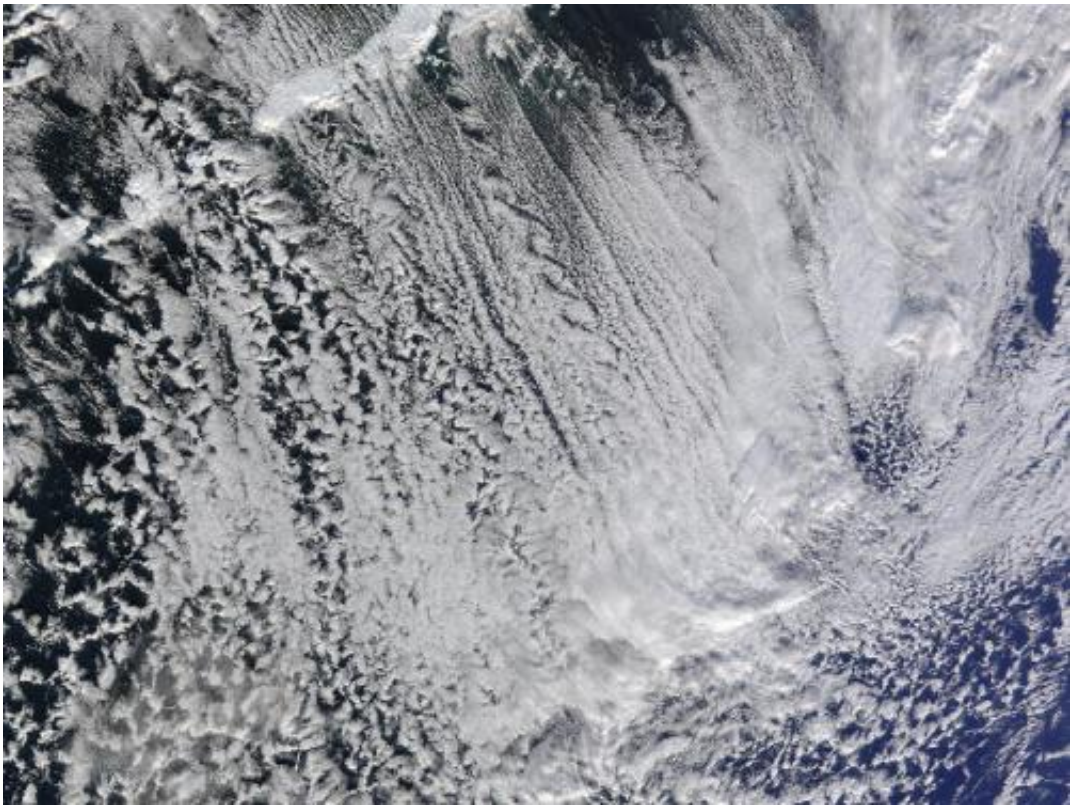
Cloud streets off of the Aleutian Islands

January 30 2012



Credit: NASA/GSFC/Jeff Schmaltz/MODIS Land Rapid Response Team

(PhysOrg.com) -- Strong winds polished the snow of southwestern Alaska and stretched marine stratocumulus clouds into long, parallel streets in early January, 2012. After crossing Bristol Bay, the winds scraped the clouds across the tall volcanic peaks of the Aleutian Islands. As the wind impacted the immobile mountains, the airflow became turbulent, swirling in symmetric eddies and carving intricate patterns

into the clouds on the leeward side of the islands.

At the top of this image, the bright white color indicates a thick layer of snow overlying the land of southwestern Alaska. The pristine white is broken by the rugged Ahklun Mountain Range in the east, which is partially covered by a bank of clouds.

Off the coast of Alaska, sea ice floats in Bristol Bay, cracked and chipped by the flow of the waters which lie underneath. A few cloud streets – parallel lines of clouds – can be seen in the far northwest over land. The clouds increase over the sea ice and become thick over open water, where row upon row of clouds lie close in perfectly parallel formation.

The Aleutian Islands stretch from northeast to southwest across the image. Sea ice, which is bright white here, lies on the windward side of the islands. A few of the tallest volcanic peaks can be seen rising from the icy islands.

The character of the cloud streets change as they impact the Aleutians, especially near the center of the image, where two rows of beautifully symmetric swirls of eddies in the clouds stretch across the sky. These swirling formations are known as von Karman vortex streets. This true-color image was captured by the Moderate Resolution Imaging Spectroradiometer (MODIS) aboard NASA's Terra satellite on January 11, 2012.

Provided by JPL/NASA