

Satellite Data Links for Ice-Monitoring Buoy

Iridium Satellite and service provider Marlink are providing two-way data communications with a remote unmanned buoy measuring ice thickness in the Arctic Ocean as part of a program aimed at detecting climate change at high latitudes. The Sea Ice Thickness Observation System (SITHOS) was developed by Christian Michelson Research (CMR), a Norwegian scientific research organisation. It was deployed in late 2005 at 84 degrees north and 60 degrees west. The buoy contains two-axis tilt sensors that measure the resonant frequency of deep-water waves under the ice. These waves are typically 300 metres long and only one millimetre deep. The raw tilt-meter data is transmitted at intervals through the Iridium satellite network. The buoy acquires and transmits up to five hours of data for each measurement. By analysing the movement of the deep-water waves, scientists can make accurate estimates of the thickness of the ice at the surface.

<https://www.hydro-international.com/content/news/satellite-data-links-for-ice-monitoring-buoy>
