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# Thickest, oldest Arctic ice is melting

REUTERS

By Deborah Zabarenko, Environment Correspondent
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The thickest, oldest and toughest sea ice around the North Pole is melting, a bad sign for the future of the Arctic ice cap, NASA satellite data showed on Tuesday.

"Thickness is an indicator of long-term health of sea ice, and that's not looking good at the moment," Walt Meier of the National Snow and Ice Data Center told reporters in a telephone briefing.

This adds to the litany of disturbing news about Arctic sea ice, which has been retreating over the last three decades, especially last year, when it ebbed to its lowest level.

Scientists have said the trend is spurred by human-generated climate change.

Melting Arctic ice does not raise sea levels as the melting of glaciers on Greenland or Antarctica could, but it does contribute to global warming when reflective white ice is replaced by dark water that absorbs the sun's heat.

Using satellites that measure how much ice covers water in the Arctic and Antarctic, Meier and other climate scientists found a steep drop in the amount of perennial ice -- the hardy, thick ice that is over a year old -- in the north.

The oldest Arctic ice that has survived six years or more is the toughest, and even that shrank dramatically, Meier and the other scientists said.

OLD ICE "TOUGH AS NAILS"

Some 965,300 square miles of perennial ice have been lost -- about one and a half times the area of Alaska -- a 50 percent decrease between February 2007 and February 2008, Meier said.

The oldest "tough as nails" perennial ice has decreased by about 75 percent this year, losing 579,200 square miles (1.5 million sq kms, or about twice the area of Texas, he said.

This doesn't mean the Arctic is open water during the winter, but it does mean that in many areas, the stronger perennial ice is being replaced by younger, frailer new ice that is more easily disturbed by wind and warm sea temperatures.

"It's like looking at a Hollywood set," Meier said of an Arctic largely covered with younger ice. "It may look OK but if you could see behind you'd see ... it's just empty. And what we're seeing with the ice cover is it's becoming more and more empty underneath the ice cover."

Perennial ice is also vulnerable to a recurring pattern of swirling winds and currents known as the Arctic oscillation, which ejects the old ice out of the zone around the pole and aims it south where warmer waters will melt it.

The scientists also analyzed satellite data for Antarctica but found less dramatic change there.

This was attributed to the difference in the two polar regions. The Arctic is an ocean surrounded by land while the Antarctic is a continent surrounded by ocean.

However, the scientists noted sharp warming on the Antarctic Peninsula, which stretches northward from the southern continent toward South America.