

Posted on Fri, Aug. 11, 2006

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## Study: Greenland ice melting faster

In two years, 100 cubic miles were lost, enough to fill Lake Erie. That is more than twice the previous rate.

By Jeff Nesmith  
COX NEWS SERVICE

WASHINGTON - The huge Greenland ice pack, which contains 10 percent of all the ice on Earth, has begun to melt at a dramatically faster rate in the last two years, scientists said yesterday.

Using data from two NASA satellites that measure small variations in the Earth's gravity, University of Texas scientists said Greenland was losing ice into the ocean at the rate of about 57 cubic miles a year.

That would mean a net loss since the summer of 2004 of about as much water as is in Lake Erie.

Scientists measure the net loss by calculating the amount of ice that melts into the ocean during the summer and subtracting the amount replaced by the winter snows. In 2002 and 2003, that loss was only about 20 cubic miles a year.

"It's kind of sobering when you look at the rate Greenland is depositing water into the ocean," said Byron Tapley of the University of Texas Center for Space Research.

The findings confirm other calculations pointing to accelerating Greenland ice melt and are consistent with computer models that predict the course of climate change.

The results were reported today in Science magazine by Tapley, chief scientist for the NASA satellite system, known as the Gravity Recovery and Climate Experiment.

The two NASA satellites have been used to map changes in the Indian Ocean sea floor after the earthquake that caused the deadly 2004 tsunami, to monitor Amazon River flooding cycles, and even to follow the course of ocean currents.

If all of Greenland's ice melted - a process scientists say would take centuries, even at the current rate - the additional water would raise the global sea level by about 20 feet.

In fact, Tapley noted, ocean-current alterations that could result from massive Greenland melting may represent a more imminent danger than sea-level rise.

That's because the constant northward movement of water in the Atlantic Ocean carries heat from the tropics to northern Europe.

Heavy infusions of fresh water into the north Atlantic could shut down this "heat conveyor," scientists fear.

This would cause Europe - and Greenland - to become much colder for a century or so.

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