



## YAHOO! NEWS

## Arctic Sea ice shrinks to second lowest level


**AP** Associated Press By SETH BORENSTEIN - AP Science Writer | AP - Thu, Sep 15, 2011

WASHINGTON (AP) — Arctic Sea ice melted this summer to the second lowest level since record-keeping began more than 50 years ago, scientists reported Thursday, mostly blaming global warming. 

"This is not a random event," said oceanographer James Overland of the U.S. National Oceanic and Atmospheric Administration. "It's a long-term change in Arctic climate."

The new measurements were taken by the National Snow and Ice Data Center. It reported that the amount of ice covering the Arctic hit its lowest point late last week, covering just 1.67 million square miles (4.33 million sq. kilometers). Only in 2007 was there less summer sea ice, which has been dramatically declining since scientists began using satellites to monitor melt in 1979. Other records go back to 1953. 

Each summer, sea ice melts and then refreezes starting in the fall. The summer minimum is a key measurement for scientists monitoring man-made global warming. This year's level is 36 percent below the average minimum of 2.59 million square miles (6.71 million sq. kilometers).


Since the 1980s, summer Arctic ice has shrunk from something the size of the Lower 48 United States to an area that covers just the region west of the Mississippi River, said Snow and Ice Data Center senior scientist Walt Meier. 

The University of Bremen in Germany, which uses a different satellite sensor and has been monitoring levels since 2003, reported last week that this year's sea ice actually fell below the record set in 2007.

Ice Data Center research scientist Julienne Stroeve said two factors cause summer sea ice to shrink more than normal: worsening man-made global warming and localized and seasonal Arctic weather. In 2007, local weather conditions — wind, barometric pressure and sea currents — all were the worst possible for keeping sea ice frozen, she said. But this year, those seasonal conditions weren't too bad, she said. Even so, the data center's measurements show one of the worst years for melt.

Stroeve thinks the problem is that after years of shrinking sea ice, what's left is so thin that it doesn't survive as much as ice would have in past years. Meier said the sea ice is 40 to 50 percent thinner than it used to be.

Using computer models, scientists have predicted the Arctic will eventually be free of sea ice in the summer by mid-century; a few researchers say it could happen as early as 2015 or 2020. Overland and Meier said they think 2030 to 2040 is more likely for an ice-free summer.

Sea ice is crucial for polar bears and walrus, Overland said. Sea ice also reflects the sun's heat, so when the ice melts Earth retains more warmth, Overland said. 

Online: National Snow and Ice Data Center: <http://www.nsidc.org/>

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