

Benchmark Arctic Melt Approaches 2007 Record

By [The Moscow Times](#)

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Arctic sea ice, a benchmark for Earth's rising temperature, may approach a record low in September after the biggest July melt since 2007, researchers at the U.S. National Snow and Ice Data Center said.

Ice covered an average of 7.92 million square kilometers of ocean last month, 210,000 square kilometers less than the average for the same period in 2007, when there was a record melt season, according to the center. After a recovery toward the end of the month, an all-time low is "an outside possibility," said Walt Meier, an NSIDC scientist.

"It will be another low year, very likely one of the five lowest," Meier said Friday in an e-mail. "One year doesn't say too much in and of itself, but the long-term downward trend and the series of very low years is indicative of a thinner ice cover and warming temperatures."

The Arctic ice typically melts until September, before freezing again through March. Scientists

at the Boulder, Colorado-based center say the declining ice pack is a harbinger of global warming. By 2030 there may "consistently" be summers where little or no ice remains on the ocean, Meier said.

"Arctic sea-ice decline is perhaps the best evidence around that something truly unusual is happening to our climate," Ted Scambos, another NSIDC scientist, said in an e-mail.

"Historical records and changes in high Arctic coastal areas that have been icebound for several thousand years indicate that this is not just 'a bad decade to be ice,' but something outside the normal range of climate."

The lowest ice extent recorded in data dating back to 1979 was the 4.1 million square kilometers posted on Sept. 16, 2007. This year's lowest point will probably be 4.3 million to 5.3 million square kilometers, according to Scambos, who said it was a "personal estimate."

The latest melt is in part a result of temperatures in May through July that were 1.5 degrees to 2.5 degrees Celsius higher than average, according to Scambos. The most recent daily data, for Aug. 3, show ice covering 6.57 million square kilometers, putting it back above the equivalent level in 2007, he said.

Antarctic sea ice, which is much more driven by the wind, is "slightly" below the average for this time of year, according to Scambos.

When measuring the extent of the ice, researchers at the center consider a patch of sea to be ice-covered if 15 percent of each grid-cell on the map that they analyze is ice. That means winds as well as melt can curb the extent of ice cover. In the Arctic, winds from the south can force ice northward and compress it, which was a "big factor" in 2007, Scambos said.

This year, "it would take a major shift of winds, or warming, to really break" the record since satellite measurements were first taken in 1979, Scambos said. Still, the trend remains downward because of warmer summers, he said. "As summers have warmed, old ice has melted, and less and less ice of more than a few years old has been retained. Old ice is thick ice and can survive one warm season."

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