Arctic Report Card 2017

Arctic shows no sign of returning to reliably frozen region of recent past decades

2017 Headlines

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Despite relatively cool summer temperatures, observations in 2017 continue to indicate that the Arctic environmental system has reached a 'new normal', characterized by long-term losses in the extent and thickness of the sea ice cover, the extent and duration of the winter snow cover and the mass of ice in the Greenland Ice Sheet and Arctic glaciers, and warming sea surface and permafrost temperatures.

Video

Highlights

- The average **surface air temperature** for the year ending September 2017 is the 2nd warmest since 1900; however, cooler spring and summer temperatures contributed to a rebound in snow cover in the Eurasian Arctic, slower summer sea ice loss, and below-average melt extent for the Greenland ice sheet.
- The **sea ice cover** continues to be relatively young and thin with older, thicker ice comprising only 21% of the ice cover in 2017 compared to 45% in 1985.
- In August 2017, **sea surface temperatures** in the Barents and Chukchi seas were up to 4° C warmer than average, contributing to a delay in the autumn freeze-up in these regions.
- Pronounced increases in **ocean primary productivity**, at the base of the marine food web, were observed in the Barents and Eurasian Arctic seas from 2003 to 2017.
- Arctic **tundra** is experiencing increased greenness and record permafrost warming.
- Pervasive changes in the environment are influencing **resource management** protocols, including those established for fisheries and wildfires.
- The unprecedented rate and global reach of Arctic change disproportionally affect the **people of northern communities**, further pressing the need to prepare for and adapt to the new Arctic.

http://www.arctic.noaa.gov/Report-Card