

Warming Arctic could fuel cold snaps

A smaller than normal extension of Arctic sea ice for this time of year could weaken the polar vortex above the North Pole, unleashing a deep freeze across energy-challenged Europe this winter

Arctic Circle

RUSSIA

North Pole

CANADA

Greenland (DEN)



SEA ICE EXTENT

(for Sep 16, 2021)

Summertime low of

4.72 million sq km

(1.82 million sq miles)

Melt is 12th lowest in 43-year-old satellite record. 15 lowest minimum extents have all occurred in last 15 years (2007 to 2021)

Lowest extent was in 2012, when ice shrank to 3.4 million sq km

(1.3 million sq miles)

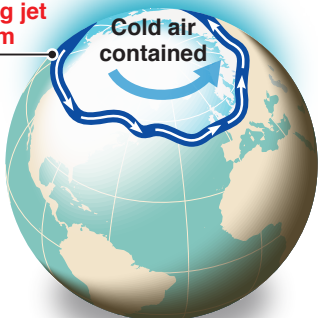
— 1981-2010 average ice extent (for Sep 16)

Polar vortex: Scientists believe reduction of Arctic sea ice allows more heat to escape from ocean, weakening wind circulation and causing surges of frigid air to splinter off and drift south

STABLE POLAR VORTEX

Strong jet stream

Cold air contained



WAVY POLAR VORTEX

Weak jet stream

Cold air moves south

Warm air moves north

