

From NASA Global Climate Change...

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Earth's Cryosphere Is Vital for Everyone. Here's How NASA Keeps Track of Its Changes.

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In Brief:

Due to ice's important role in the Earth system, NASA is committed to studying it extensively.

Everything on our planet — the land, the water, the air, people — is connected by the various chemical, physical and biological processes that make up what we call the Earth system.

One of the key components of that huge system is the cryosphere, or all of Earth's frozen water. This important "sphere" includes frozen soils in Alaska, the snow on top of the Himalayas, as well as all the ice in the polar regions.

Nowhere is the role of the cryosphere as evident as it is at high latitudes, where the Greenland and Antarctic ice sheets cover most of the land, and where sea ice caps enormous sections of the polar waters. The vastness of that bright, white ice — in addition to the huge areas covered by winter snow beyond polar regions — helps control the global climate by reflecting some of the Sun's radiation back into space.

Read more at LINK: <https://climate.nasa.gov/news/3079/earths-cryosphere-is-vital-for-everyone-heres-how-nasa-keeps-track-of-its-changes/>

Arctic Sea Ice Minimum

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Arctic sea ice reaches its minimum each September. September Arctic sea ice is now declining at a rate of 13.1 percent per decade, relative to the 1981 to 2010 average. This graph shows the average monthly Arctic sea ice extent each September since 1979, derived from satellite observations.

The animated time series below shows the annual Arctic sea ice minimum since 1979, based on satellite observations. The 2012 sea ice extent is the lowest in the satellite record.

Read more at **LINK**: <https://climate.nasa.gov/vital-signs/arctic-sea-ice/>