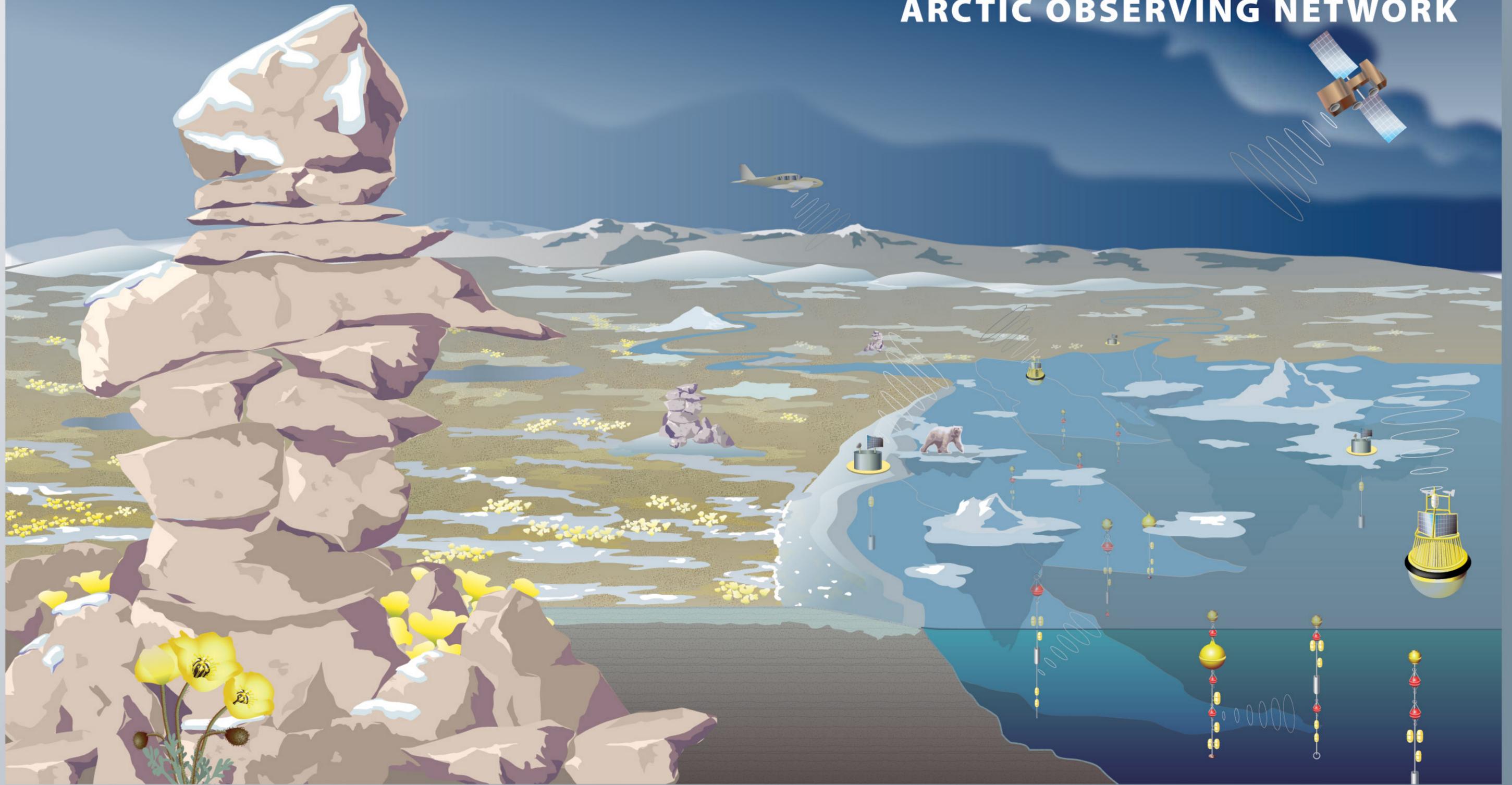


INTERNATIONAL POLAR YEAR 2007-2008

ARCTIC OBSERVING NETWORK



Nicolle Rager Fuller, National Science Foundation



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Since ancient times, people of the Arctic have used stone markers, called Inuksuit, as communication and navigation across the vast landscape. Today, scientists use modern sensor technology to learn new secrets of the north.



INTERNATIONAL POLAR YEAR 2007-2008



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Earth's polar regions, located some 12,000 miles apart, are vast, icy and inhospitable landscapes. Yet, they offer unique opportunities to answer some of life's most perplexing questions. International Polar Year (IPY) 2007-2008 follows in the footsteps of historic past campaigns that led to discoveries that fundamentally changed how we view the polar regions and their global linkages.

Research and education projects carried out during IPY 2007-2008 will explore new frontiers in polar science; discover details about the amazing adaptation strategies

polar life forms use to survive in "unearthly" environments; better define the critical role the polar regions play in global environmental and ecological processes; and educate students, teachers and the public about the importance of the polar regions to life on the entire planet.

All U.S. federal agencies engaged in research and education will participate actively in IPY. The National Science Foundation is the lead agency for coordinating U.S. IPY activities. Dozens of foreign countries will also take part.

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Substantial change is taking place in the Arctic, including higher air temperatures, thawing permafrost, and melting sea ice and glaciers. Non-local plant communities are appearing in the high latitudes, subsurface ocean currents are warmer, and precipitation patterns have changed. All of these phenomena are affecting animal habitats and migration routes.

The Study of Environmental Arctic Change program (SEARCH) observes recent and ongoing changes throughout the Arctic to identify their causes, to determine

whether they are permanent or part of a long-term cycle, what they might mean for the people and creatures of the Arctic ecosystem and what steps might be taken to mitigate the changes.

During the International Polar Year 2007-2008, NSF will fund projects to assist SEARCH scientists in measuring the full range of environmental changes on land, in the ocean and in the atmosphere. The program will also include human observations and ecosystem knowledge of native Arctic communities.



Inuit sculptures called Inuksuit are unique to the Arctic region. Constructed from rock slabs, they have been built since ancient times to mark shelters and hunting sites, and to facilitate navigation across the landscape.

Nicolle Rager Fuller, National Science Foundation

This poster is one in a series that depict NSF's science themes and observatories that are key to fulfilling NSF's role as the designated lead federal agency for the International Polar Year 2007-2008.



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