

NASA embarks on cutting-edge polar exploration and research

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NASA has selected 33 new scientific investigations to fund that will advance interdisciplinary studies of Earth's polar regions and the objectives of the International Polar Year (IPY). The three-year projects, supported by NASA at an estimated total of \$18 million, will be conducted by scientists and students at several NASA centers, U.S. universities and other research institutions.

"NASA's focus in these IPY science projects is to understand how the polar regions interact with the rest of the planet – the physical, chemical and biological components of the Earth system," said Seelye Martin, NASA cryospheric program manager. "A significant emphasis will be on the ice and the polar cryosphere, but NASA's IPY activities will also delve into the surrounding oceans, the overlying atmosphere, the land surface and polar ecosystems."

In the spirit of exploration and discovery characteristic of previous International Polar Years, NASA is sponsoring a project to determine the total ice flow out of the Arctic Ocean, and will look at the effect of black carbon deposits from northern hemisphere industrial activity on arctic snow. Another project will investigate the building blocks of life found in the soils of the Antarctic Dry Valleys, using an identical instrument to that planned for deployment in the Martian north polar region by the NASA Phoenix mission, scheduled for launch this August.

NASA projects will also monitor air pollution from the observatory at Summit, Greenland; study how changes in sea ice affect the ocean

ecosystem in the Bering Sea; and test an instrument that can directly measure the thicknesses of the Greenland glaciers.

Source: NASA/Goddard Space Flight Center

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