

Institutions Work Together To Advance Oceanographic And Earth Science By Integrating New Technology

Groups Create Cyberinfrastructure for Marine Research and Education

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The San Diego Supercomputer Center announced today that its scientists are collaborating with experts at four well-known institutions with the common goal of advancing community cyberinfrastructure for the future of marine research and education. Bringing together high-level expertise in digital library techniques, development of digital research and education resources as well as automated harvesting from sensors and ships, scientists will focus on solving the need for computational and data resources as well as long-term data management in science and education.

This first-time collaboration brings together SDSC and Scripps Institution of Oceanography with Lamont-Doherty Earth Observatory, Woods Hole Oceanographic Institution and the Center for International Earth Science Information Network. By working together, this program will allow for the advancement of oceanographic and earth sciences by integrating new data technologies.

"We are at a critical stage in marine scientific data management," said John Helly, senior staff scientist at SDSC. "This cross-institutional collaboration will allow us to advance and strengthen each institution's ability to contribute to the development of a marine science cyberinfrastructure."

"A new paradigm in oceanography has emerged through advances in information technology and integrating data from oceanographic ships at sea through continuous connections to the Internet, including video for classroom teaching from teachers at sea," said John Orcutt, deputy director for research at Scripps Institution of Oceanography at the University of California, San Diego. "Sharing data among institutions, researchers, teachers and the general public will ignite a revolutionary change in how we go to sea to study Earth."

Through coordinated efforts, developing the cyberinfrastructure for marine research and education will include:

- Ensuring interoperability in data and metadata for data centers and ocean-going vehicle operations including ships and submersibles
- Setting data acquisition protocols in the field and laboratory
- Publication of data
- Education of all users in data methods

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