

Robotics Change Oceanographic Exploration



Eric D'Asaro

Senior Principal Oceanographer, Applied Physics Laboratory & Professor, School of Oceanography

CURRENT RESEARCH

The new frontier for oceanic discovery

Most of the earth, 70%, is covered by oceans, which supply us with food, transportation, and, of course, tropical sunsets, sailing, and surfing. Traditionally scientists have operated from research ships to measure the ocean. These ships are very expensive and slow, travelling at the speed of a bicycle. While these will remain an important tool for learning about our oceans and the life within them, new tools can help paint a better picture of how the ocean works, while involving the international community in the effort. Dr. Eric D'Asaro, Professor of Oceanography at the University of Washington, is a leader in propelling oceanography into the next generation through the use of robotic oceanographic vehicles and sensors for these vehicles. Dr. D'Asaro's laboratory is one of the few that has the capability to conceive, design, build, and operate robotic oceanographic systems across a wide range of interdisciplinary ocean science. With the firm belief that the "future of ocean measurement is with robotic probes," Dr. D'Asaro's research gives opportunity to new types of systems and measurements. Over the last 20 years, the lab has developed and used underwater airplanes and balloons to study the physical, biological and chemical properties of the ocean. Just as the landscape around us has been transformed over time by man, the ocean landscapes are also shifting; Dr. D'Asaro's research will help make sense of what the changes will be, how we can adapt to them, and, if possible, prevent the worst of them.

Dr. D'Asaro's success as a professor, researcher and member of National Academy of Sciences has also enabled his strong engagement with Indian oceanographers on a working level. Dr. D'Asaro has worked to bring...

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AFFILIATION



University of Washington

EDUCATION

- B.A., in Physics, 1976 , Harvard University
- M.S., in Applied Physics, 1976 , Harvard University
- Ph.D., in Oceanography, 1980 , MIT/WHOI

AWARDS

- National Academy of Sciences, 2014
- Sverdrup Gold Medal, American Meteorological Society, 2011
- Fellow, American Geophysical Union, 2010
- Fellow, American Meteorological Society, 2011

RESEARCH AREAS

Environment, Oceanic, Natural Disasters / Emergency, Oceanic

FUNDING REQUEST

Your contributions will support the continued research of Dr. Eric D'Asaro, of the University of Washington, as he uses robotic sampling of the ocean's physics, biology, and chemistry to revolutionize oceanography and to engage Indian researchers in the field. Donations will fund the necessary \$40K required to send Dr. D'Asaro and a team on a three week oceanographic cruise with Indian oceanographers, \$75K to support a US graduate student for a year, and \$100K to deploy a robotic float for a couple of months. Join in paradigm shifting oceanic study that has a global impact!