



Integrated Ocean Observing System Crosscut



What is requested? In FY 2006, NOAA's observational data collection, research, and data management activities contributing to the Integrated Ocean Observing System (IOOS) will be sustained at or above FY 2005 levels. NOAA's FY 2006 request includes \$38.2M in base increases and program changes to build on existing IOOS capabilities. NOAA is the lead Federal agency for implementing IOOS. Because IOOS cuts across and supports many NOAA goals and program missions, it is not singled out in the budget. The IOOS interagency Development Plan will be before the National Ocean Research Leadership Council in 2005.

What are the benefits? A sustained and integrated ocean observing system will leverage investments in ocean observing and analysis from all sectors to: (1) improve predictions of climate change and its socio-economic consequences; (2) improve the safety and efficiency of marine operations; (3) more effectively mitigate the effects of natural hazards; (4) improve national and homeland security; (5) reduce public health risks; (6) more effectively protect and restore healthy marine ecosystems; and (7) enable ecosystem-based management. An independent analysis by economists under contract to NOAA estimated \$5 to \$6 of return for industry, government, and the public for every \$1 invested in ocean observing and predictions.

Why do we need it? Ocean conditions are inadequately captured, described, predicted and understood, creating adverse economic impacts at or near the coasts. Ocean observation systems that help describe and predict these changes are often single purpose and owned by a variety of government agencies, academic institutions and private sector companies that cannot share data and information. An integrated ocean observation system will efficiently link regional, national and international networks of observations, data management and analyses to provide information needed to better understand and predict how changes will impact the nation's oceans, coasts, estuaries and Great Lakes – and the people who live and work in, use and enjoy the coastal zone.

What will we do? NOAA's request for IOOS in FY 2006 includes \$1.5M for the National Current Program to systematically update NOAA's Annual Tidal Current Tables. NOAA requests \$9.5M to strengthen the U.S. tsunami warning program by deploying 20 deep ocean assessment and reporting of tsunami (DART) buoys to mitigate tsunamis impacts in U.S. coastal areas. An additional \$3.2M is requested for the Tropical Atmosphere Ocean (TAO) array and the Pilot Research Moored Array in the Tropical Atlantic (PIRATA) to enhance documentation of ocean climatic conditions and to improve seasonal forecasting. \$1.5M is requested for the Coastal Global Ocean Observing System (C-GOOS), which will allow additional oceanographic sensors to be added to the existing NWS marine observations backbone. There are \$15.1M of net increases for IOOS related to the Ecosystem mission including improved stock assessments and living marine resource monitoring (\$4.6M), socioeconomic assessments (\$5.5M), protected resource assessments (\$2.3M) and ecosystem assessments (\$2.5M). These increases will provide improved fishing industry and community assessments, public valuations of ecosystems, the status of biological resources and their habitats, along with ecosystem monitoring, assessment and forecasts. \$1.9M is requested for NOAA to continue to build and maintain Electronic Navigational Charts (ENCs) by adding 145 ENCs in FY 2006. NOAA also requests \$2.0M to implement the National Vertical Datum Transformation Tool (VDatum) to resolve the problems that exist between geospatial data sets collected at different reference levels. Finally, \$3.5M for Ocean Observations for NOAA's Climate Goal will continue building a global ocean observing system that will document climate-scale changes in ocean heat, carbon, and sea level.

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