

Progress Report
Developing the Pacific Islands Ocean Observing System (PacIOOS)
Cooperative Agreement # NA11NOS0120039
Performance Period: June 1, 2012 through November 30, 2012

Submitted by
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December 2012

1) Project Summary

The Pacific Islands Ocean Observing System (PacIOOS) is the Regional Association (RA) for Hawaii and the Insular Pacific region being developed as part of the national Integrated Ocean Observing System (IOOS). The primary goal of the work proposed under this award is to continue the development of an operational ocean monitoring and forecasting system that provides integrated, customized, and timely products that enable an ocean-literate and well-informed public and policy makers in the Pacific Islands. PacIOOS is being planned and implemented through the collective efforts of a consortium of users, signatories to the Memorandum of Agreement, and 17-member Governing Council. PacIOOS has focused initial development on water quality sensing, ocean-state and forecasting, the provision of marine ecosystem information, prediction of coastal hazards, and the development of integrated data visualization capabilities to inform marine spatial planning, operations, commerce, and recreation. Through the efforts proposed under this award, PacIOOS will enhance development of observing and product suites in each of the aforementioned focus areas and will continue to engage users, stakeholders, and system partners in the use, extension, education, and outreach of technical capacity, data visualization, and ocean information.

This report covers activities conducted during the third 6-month performance period of a 5-year award. Currently in Year 2 of the 5-year award, PacIOOS is operating with \$2,488,545 for FY12.

2.0 Progress and Accomplishments

All ongoing operations proposed under our FY12 descope continue as planned.

2.1 User Needs, Stakeholder Input and Partnerships

- **New Signatories to the MOA:**
 - Pacific Disaster Center
 - University of Guam, Sea Grant
 - U.S. Navy Pacific Fleet
 - United States Coast Guard, District 14
 - The Kohala Center
 - Coral Reef Research Foundation in Palau
- Participation in Pacific Regional Ocean Partnership, Pacific Island Regional Team and the new NOAA Pacific Regional Team, NOAA Sentinel Sites, and State ORMP efforts.
- Capacity building in American Samoa: visit in June 2012

2.2 Governance and Administrative Structure

- Hosted Governing Council Meeting and Partner Reception in October.
- USCG and US Navy Pacific Fleet now have representation on the Governing Council.
- Dr. Brian Taylor stepped down from his roles with PacIOOS. Mr. Chris Ostrander became the PI for the PacIOOS grant as well as the Chair of the Governing Council.
- Revised bylaws for election process (scheduled for 2013).

2.3 Business/Operations Plan

- First draft of Strategic Operational Plan complete.
- Contributed to national ocean observing governance and strategy design, including production of IOOS Summit Materials.

2.4 Planning, Design and Implementation

- Released three new operational wave models for the Mariana Islands.
- Enhanced capacity to provide 7-day high water level forecasting
- Completed a particle drift tool in Hawaiian Waters
- Deployed 3 new wave buoys: Guam, Saipan and Kaneohe Bay.
- Installed Kaena Pt HFR stations, but not yet operational.
- Deployed a new WQ buoy at Kiholo Bay, along the Kona Coast of Hawaii Island.

2.5 DMAC

- Much anticipated release of the new PacIOOS Data Viewer: PacIOOS Voyager (pacioos.org/voyager) and the PacIOOS Explorer.
- Enhanced user interface and experiences on the web page.
- Continuously work with data and technical staff in each of the focus areas to improve user experiences and access to products and data.
- Purchase of additional server space and capabilities

2.6 Education, Outreach and Public Awareness

- Hosted 2 successful webinars introducing partners and the community to the Voyager. Over 70 people from a diversity of disciplines participated.
- Secured partnership with COSEE to build and distribute flat panel screens.
- Participation/Exhibits/Presentations at Hawaii Conservation Conference, The Nature Conservancy, NOAA PSC, Science Foundations for Ocean Planning in Hawaii, Hawaii Ocean Safety Team, Area Committee Meetings, Hawaii Seafood and Fishing Festival, Pacific Climate Forum.
- Continue to produce updated and relevant flyers and materials for workshops, conferences, and partner visits.

2.7 National and International Collaborations

- Chris joined the IOOS System Advisory Committee.
- Participation in IOOS Summit and all Regional Webinars and discussions.
- Continued communication with PI-GOOS
- Representation on the IOOS Association Board.

3.0 SCOPE of WORK

3.1 User Needs, Stakeholder Input and Partnerships

- Continue to work with Pacific Regional teams and new NOAA Pacific Regional Team
- Host webinars focused on specific user groups and management questions.
- Visit Insular Pacific Islands.

3.2 Governance and Administrative

- Utilize newly created Executive Committee
- Hire new staff to aid with DMAC.
- Begin election process to replace 1/3 of Council members.
- Participate in national IOOS activities that provide direction to the development of PacIOOS.
- Meet frequently with PacIOOS PIs and focus area groups.

3.3 Business/Operations Plan

- 5-Year Strategic Operational Plan will be released in early 2013
- Continue to work with COL and IOOS Association to promote results from IOOS Summit.
- Identify funding opportunities with partners.

3.4 Implementation Activities

- Wave buoy planned for American Samoa in May 2013
- New WQ sensors deployments in: Maui (2) and in American Samoa OR Kauai.
- Expansion of models in Spring 2013: ROMS to Guam, CNMI and American Samoa; WWIII to Western and American Samoa; SWAN for Tutuilla; and WRF for the Samoas.
- Increase number of tagged animals in and around Oahu.
- Identify a new location for the Kilo Nalu water quality buoy.

3.5 DMAC

- New Wave Buoy and WQ websites
- Continued expansion and addition of data into Voyager and Explorer, specifically biological data.
- Development of new tools including ‘Forecast of the Potential for High Sea Level and Wave Run-Up’ at a number of locations throughout the Pacific.
- Decrease telemetered sensors in the Insular Pacific. Secure real-time data flow from Hawaii-based sensors, specifically water quality buoys on the Big Island.
- Improve and increase number of Harbor Surge Models.

3.6 Education, Outreach and Public Awareness

- Identify locations for each of the flat panels.
- Continue to present and participate in local events (Open House, Earth Day, etc).
- Host additional Webinars.
- Continue to provide and create outreach materials.

3.7 National and International Collaborations

- IOOS Association meeting in March.
- Continued participation in IOOS Association, PI-GOOS, IOOS SAC.
- Helping to host GOOS meeting in May.

4) Personnel and Organizational Structure

Ms. Heather Kerkering transitioned to the Director position on November 1, 2012 following approval of the PI, Director, and Governing Council. The previous PacIOOS Director, Chris E. Ostrander, moved to a position as the Assistant Dean of SOEST. In this new position, Chris will also serve as the PI of PacIOOS and the Chair of the Governing Council, relieving Dr. Brian Taylor of those positions. NOAA Approval of this change in Principal Investigator was granted 12/12/12.

5) Budget Analysis

Due to the five-month delay in the arrival of FY11 funds and, the subsequent carry-forward of a balance equivalent to five months of spending into this performance period, we have not drawn down funds as much as would be expected by this point in time. A significant portion of the remaining award funds will be spent on instrumentation and equipment to meet the scope of work outlined in FY12 for expanding observations, data management, modeling, and product development goals.

The University of Hawaii Office of Research Services submitted a financial report for this reporting period, through Grants Online, dated 10/23/12.