Pacific Risk Management *`Ohana* (PRiMO)

ACTIVITY REPORT – October 2004

E lauhoe mai na wa`a, pae aku i ka`aina.
If everyone paddles the canoe, the shore is reached.

! MARK YOUR CALENDARS !

The 2005 PRiMO Meeting is scheduled for the week of March 14, 2005

CURRENT ACTIVITIES

PRiMO INTERIM COORDINATING COUNCIL

PRiMO interim coordinating council meetings have been held on June 16, August 18, and October 20 of 2004. Consistent with the interim coordinating council work plan, the group of *hui* steersmen have been making recommendations for amendments to the drafts of the joint regional action plan based on review and comment from their members. They have also been providing a brief update on the current status of priority action items identified at the 2004 meeting and compiling a list of upcoming workshops, conferences, trainings, and other events. **The next PRiMO interim coordinating council meeting is scheduled for Wednesday, December 8, at 10:00 a.m. HST.**

HUI O HANA

The current status of priority action items identified at the 2004 meeting is summarized in the context of the *hui o hana* topic areas on the following pages.

- **Coastal and Ocean Observations and Processes**
- **Data Management**
- **Data Analysis and Decision-Support Tools**
- **Communications Infrastructure and Information Dissemination**
- **Post-Disaster Evaluation and Performance Indicators**
- **Education, Outreach, and Training**
- **Traditional Knowledge and Practices**

For an updated table of **Meetings, Conferences, Workshops, and Training Opportunities**, visit www.csc.noaa.gov/psc/FHMPPI/hazardevents.html.

CONTACT US

If you have any items of interest you would like to include in the next activity report, or if you have any questions or comments, please do not hesitate to contact John Marra, PSC/PSGS coastal hazards specialist, by e-mail at John.Marra@noaa.gov, or by phone at (808) 532-3206.

Coastal and Ocean Observations and Processes

Action #1. Form a working group to gather inventory of observing instruments and perform assessments of instrumentation and modeling capabilities.

As co-chairs of the ocean observations *hui*, Stan Boc (USACE Engineer Research and Development Center) and James Lewis (Scientific Solutions, Inc.) are currently developing an inventory of existing observing systems and capabilities based on a preliminary inventory produced by Roger Lukas and Mark Merrifield from the University of Hawaii's School of Ocean and Earth Science and Technology (SOEST).

Action #2. Submit a proposal for a regional association (aka Team Pacific).

A "Pacific IOOS" (integrated ocean observing system) planning proposal has been submitted to the NOAA Coastal Services Center (CSC) in response to its recent announcement of opportunity. The focus of these NOAA CSC planning grants is to support the emergence of an effective regional component of the IOOS program, with the Pacific explicitly identified as a geographic area of priority interest. Correspondingly, the Pacific IOOS planning proposal requests funding to support efforts to engage partner organizations and stakeholders in the development and implementation of a Pacific IOOS program. The proposal's author, Eileen Shea, is to be commended for her enthusiasm and commitment to a Pacific IOOS program designed to meet the needs of Pacific Island communities, governments, and businesses. One of the attachments to the proposal is a Statement of Initial Priorities that she submitted to Ocean.US on behalf of Team Pacific at the Ocean.US meeting held August 31 and September 1, 2004, in Rosslyn, Virginia. On behalf of Eileen and Team Pacific, *mahalo* to those of you who provided statements of support that accompanied the proposal.

Action #3. Hold an end-user group meeting.

Team Pacific is planning for a series of stakeholder discussions to take place in Hawaii and other Pacific Island jurisdictions over the coming 12 months. In the absence of targeted funding for such workshops, Team Pacific plans to leverage existing meetings and opportunities such as plans for a series of climate assessment workshops in the U.S.-affiliated Pacific Islands, which is being supported by the NOAA Coastal Services Center. In addition, Team Pacific is exploring opportunities to secure funding for a larger, regional IOOS/GCOS (Global Climate Observing System) stakeholder workshop that might be held in Hawaii.

Other Activities:

- The SOPAC (South Pacific Applied Geosciences Commission) STAR/TAG/Governing Council meeting was held September 17 to 24, 2004, in Fiji. At the STAR meeting, SPTAW presentations were made, a tsunami working group was convened, and recommendations were provided to the STAR chair for report to the General Council. The recommendations were discussed favorably during the TAG session, and the need for a regional tsunami warning service received strong support for action. The ITIC/PTWC/ITSU will be working with the SOPAC Community Risk Programme to coordinate, facilitate, and assist in the implementation of the SPTAW Work Programme. Additionally, Geoscience Australia has indicated a willingness to take the lead in seeking funding for a feasibility study. For further information, contact Laura Kong, Director of ITIC (International Tsunami Information Center), at Laura.Kong@noaa.gov, or Chip McCreery, Director of PTWC (Pacific Tsunami Warning Center) and Vice-Chair of ICG/ITSU, at Charles.McCreery@noaa.gov.

Data Management

Action #1. Convene a workshop of data providers and brokers to promote information exchange, awareness, access, and use of data related to hazard and risk management.

A PRiMO hazard and risk data providers and brokers workshop is scheduled for November 3 and 4, 2004, at the Hawaii IMIN International Conference Center, Honolulu, Hawaii. This meeting brings together more than 20 primary data providers in the Pacific. It includes presentations and group discussions on data inventory and gap assessment, data framework and structure, and data sharing mechanisms. For more information about the meeting, contact Eric Wong (USGS/PDC) at ewong@pdc.org.

Action #2. Convene a workshop for the user community of risk managers to expose them to data and identify data gaps.

It is anticipated that planning for this workshop will commence soon after the data providers workshop noted above.

Data Analysis and Decision-Support Tools

Action #1. Develop an inventory of existing data analysis and decision-support tools, with a focus on identification of those currently in use or that could be of use in the Pacific.

Adam Stein (NOAA PSC/PSGS), with the assistance of Dolan Eversole (UHSeaGrant/HDLNR) – the chairs of the *hui* – have developed a template for the inventory. In late July this inventory template was sent to members of the *hui* and they were be asked to populate it with information about tools that their agency, organization, or company is responsible for developing and maintaining. On September 28, 2004, the *hui* convened via conference call to discuss strategies for broadening the tools inventory. At this meeting it was agreed that individuals would contribute entries to the inventory for tools that their organization developed. Additional tools not developed by their organizations should be included in a list and provided to the *hui* for inclusion. The *hui* chairs will take on the lion's share of this task. Once a revised draft is complete it will be circulated to the entire PRiMO to ensure that as many tools as possible are captured.

Action #2. Conduct an assessment of the applicability of one or more of the tools in the Pacific Islands (i.e., their availability, data requirements, limitations, etc.).

Efforts in this area have focused on an evaluation of the applicability of FEMA's new HAZUS MH model in the Pacific. A detailed report, *Summary of Issues and Comments Relating to Applications in the Pacific Region for Earthquake, Flood, and Hurricane Loss Estimation and Related Information Products*, has been compiled by the Hawai`i State Earthquake Advisory Planning Subcommittee under the guidance of Gary Chock (Martin and Chock, Inc.). This document outlines near-term priorities relating to local data acquisition and analysis, verification of software features, evaluation of software performance, and HAZUS99 to HAZUS MH transition tasks. For more information, contact Gary Chock at engineers@martinchock.com.

Other Activities:

- The NOAA Coastal Services Center (CSC), NOAA Pacific Services Center (PSC), and the American Samoa Coastal Management Program (ASCMP) have recently completed development of the Tutuila Hazard Assessment Tool (T-HAT). The T-HAT is a lightweight Internet mapping application based on geographic information systems (GIS) hazard data used in American Samoa's recently completed DMA2000 Hazard Mitigation Plan. This tool was created to help ASCMP in its planning and permitting processes on the island of Tutuila, the largest and most populated island in American Samoa, by allowing staff and constituents to identify potential multihazard risk for any location on the island. This tool is portable in that where GIS data exist, it can be implemented on other Pacific islands. This tool can be viewed at www.csc.noaa.gov/t_hat (use Internet Explorer).

Communications Infrastructure and Information Dissemination

The communications *hui*, which also functions as the RANET-Pacific Steering Committee, met most recently via a two-hour audio and video teleconference call (VTC) on Tuesday, September 14, 2004. Those who participated in the conference call are as follows:

Honolulu, Hawaii:
- ◊ Jim Bannon – PREL, via VTC
- ◊ Nicole Colasacco – Pacific ENSO Application Center, via VTC at PEACESAT headquarters
- ◊ Christina Higa – PEACESAT director, via VTC at PEACESAT headquarters
- ◊ Carl Suekawa – NWS Pacific Region Headquarters, via VTC
- ◊ Bill Thomas – NOAA Pacific Services Center, via VTC
- ◊ Ed Young – NWS Pacific Region Headquarters, via VTC

Silver Spring, Maryland:
- ◊ Jennifer Lewis – NWS International Activities Division, via audio teleconference
- ◊ Kelly Sponberg – NWS International Activites Division, via audio teleconference

Guam:
- ◊ Bruce Best – University of Guam, PEACESAT Coordinator, via PEACESAT VTC

American Samoa:
- ◊ Akapo Akapo – NWS Pago Pago, American Samoa, via PEACESAT VTC
- ◊ Andra Samoa – American Samoa Delta Consortium, via PEACESAT VTC

Samoa:
- ◊ Mark Morrissey – SPREP GCOS coordinator, via PEACESAT VTC
- ◊ Henry Taiki – WMO Subregional Office, via PEACESAT VTC

Fiji:
- ◊ Len Bale – Fiji Meteorological Service, via audio call on the Nadi-Honolulu voice circuit
- ◊ Arona Ngari – Cook Islands Met Service, via audio call on the Nadi-Honolulu voice circuit

New Zealand:
- ◊ Garry Clarke – Met Service New Zealand Ltd., via audio conference from Wellington, New Zealand

Australia:
- ◊ Linda Anderson-Barry – Bureau of Meteorology, via VTC from Melbourne, Australia
- ◊ Bryan Hodge – Bureau of Meteorology, via VTC from Melbourne, Australia
- ◊ Colin Schulz – SPREP consultant, via audio satellite PEACESAT

French Polynesia:
- ◊ Marie-Christine Laurent – METEO-France, via audio teleconference call from Tahiti

All participants provided an update on their RANET-Pacific/communications work since the March 15 to 19 meeting. The steering committee agreed to the way that it is functioning at present—through posting on its list server—discussed currently planned projects (Niue, Vanuatu, Yap (FSM)), the plans of the Bureau of Meteorology's Pacific satellite survey, and plans for a second face-to-face meeting in conjunction with the 10th SPREP Regional Meteorological Services Directors' meeting in mid-April, 2005.

Mark Morrissey from SPREP reported that there is an internal RANET-Pacific team at SPREP that will work closely together to coordinate RANET support within SPREP.

Ed Young announced that he will be giving a 30-minute presentation on October 28, 2004, entitled "The RANET Pacific Concept: Communications to Remote Communities" to the Seminar for Pacific Disaster Managers, being held in Honolulu at the East-West Center.

Action #1. Develop an inventory of communication infrastructures.

- AusAid grant secured for pilot program study, approximately $80,000 AUD. Grant involves a number of satellite reception sites and two-way HF digital communication with sites for RANET back channel and communications disaster backup.
- Detailed technical project development plan is being written. Site selection is still to be finalized. Currently we have Niue, Tuvalu, Kirabati, Solomon Islands, and Papua New Guinea (PNG) on the list and are open to discussions on other sites that could be included. Final selection will be made in consideration of the budget and the greatest need and should be submitted to BOM and AusAid for release of funds by late September.
- Quotes are now being sought in anticipation of the funds' release.
- Negotiations are proceeding with the licensing authorities about some permanent frequencies so the HF network can remain in place after the pilot test. The Australian Communications Authority has indicated a favorable response.
- Formal approaches were made to site partners in October and November.
- Project was expanded to commence installation in late Quarter 4 of 2004.
- Discussions regarding developing a system where the HF channel forms a back channel so the system can give the impression of being two-way (i.e., information requests could be lodged). Discussions with BOM software resources indicate that we will be able to develop the mechanisms in this area.
- BOM is currently testing the uplink and should be feeding a usable product in several weeks once a reception site is in place for quality assurance and quality control purposes.
- The Australian Emergency Management Agencies has been approached for support packages for the maintaining equipment sites at PNG and the Solomon Islands.
- Support and promotion of RANET activities from the BOM delegate at the upcoming WCDR in Kobe (Dr. Linda Anderson-Berry).

Action #2. Complete three RANET demonstration projects.

Status: Garry Clarke

- Niue: Community FM radio station update. Awaiting outcome of Kelly Sponberg's USAID funding submission for additional equipment before proceeding in installation. Susan Postawko visited Niue for a few days in September. We have arranged for her to meet with the Liku community to assist them with content and sustainability of the Liku community FM radio station.
- Vanuatu: Working with Colin Schulz to get Siviri Village community FM radio station and WorldSpace receiving station installed in early November. (Subject to the release of SIDSNet funding for the additional equipment required). Early November timing also ideal for Susan Postawko, who will assist with content and sustainability of this community station.

Status: Bruce Best

Since the last RANET March meeting, I have been working with PREL, Peacesat, and the Micronesian states to improve communication across the region and out to the outer islands. Besides working with Christina and Ryan H to extend Peacesat site services out to local government offices via 802.11 links, we installed a Wantok community solar powered FM broadcast station for the

educational and medical community on Kosrae, and we built an emergency VHF communication network for the emergency management and medical community on Palau. This network helped coordinate the emergency ambulance services and provided mobile communication during the recent Pacific Arts Festival in Palau (the cell system was under transition from analog to GSM and not dependable).

This year we are continuing to support the typhoon-ravaged Yap State. With funding from PREL and support from Peacesat, UOG, and, hopefully, from NWS/UN-SIDS funds and my friends across the outer islands of Yap, we are scheduling and mobilizing for an extensive 13-island trip to install 10 remote solar-powered HF –e-mail stations and 13 or 14 RANET/WorldSpace computer-integrated receive Earth stations. This is a bold plan, which includes remote solar and tower installations and supporting volunteer doctors so they can conduct medical and dental clinics and distribute AYUDA-collected medical supplies. We hope to extend these services across the rest of the outer islands of the Carolines and into the Marshall Islands if funds can be secured.

Besides the standard Peacesat-related, over-the-air workshops, training sessions, phone patch services, SAR, medical support services, etc., I continue my daily morning madness broadcasts across Micronesia (simulcast over Peacesat-GOES and SSB—9.154.5 mghz—at 2300GMT) which always includes extensive NWS weather reports and typhoon tracking services. This has been a busy typhoon season for Micronesia.

Action #3. Develop an inventory of proposed/ongoing projects with communication requirements.
No progress has been reported on this item. However, note the extent of activities outlined under the previous two action items.

Action #4. Create promotional materials to engage partners.
No progress has been reported on this item.

Action #5. Conduct a national user needs workshop in Fiji.
No progress has been reported on this item.

Post-Disaster Evaluation and Performance Indicators

Action #1. Draft a white paper on Pacific Islands hazards (including human-induced hazards) experience database.

No progress has been reported on this action item.

Action #2. Draft a white paper on post-event evaluation tools (including human-induced) after consulting with folks in the region.

No progress has been reported on this action item.

Action #3. If there is a disaster, use it as a template.

No action has been taken to date.

Action #4. Make HAZUS-MH more island-appropriate.

Efforts in this area have focused on an evaluation of the applicability of FEMA's new HAZUS MH model in the Pacific. A detailed report, *Summary of Issues and Comments Relating to Applications in the Pacific Region for Earthquake, Flood, and Hurricane Loss Estimation and Related Information Products*, has been compiled by the Hawai`i State Earthquake Advisory Planning Subcommittee under the guidance of Gary Chock (Martin and Chock, Inc.). This document outlines near-term priorities relating to local data acquisition and analysis, verification of software features, evaluation of software performance and HAZUS99 to HAZUS MH transition tasks. For more information, contact Gary Chock at engineers@martinchock.com.

Other Activities:

- SOPAC is preparing to launch its Environmental Vulnerability Index (EVI) at the Mauritius International Meeting for Small Island Developing States (SIDS). The development of the (EVI) was first initiated in response to a call made in the Barbados Plan of Action for the Sustainable Development of Small Island Developing States to develop a composite vulnerability index that incorporates both ecological fragility and economic vulnerability. The purpose of this index was to enable SIDS to better understand their vulnerability and move towards sustainable development.

  SOPAC, in partnership with the United Nations Environment Programme's SIDS, the Alliance of Small Island States (AOSIS), Ireland, Italy, New Zealand, and Norway, developed the global Environmental Vulnerability Index model. The Environmental Vulnerability Index provides a new approach to managing vulnerability by allowing decision-makers to "see" the problem. It is a simple index that uses 50 smart indicators to capture critical elements of environmental vulnerability. Indicators capture the forces of nature, inherent characteristics of a country, and human use. The use of the Environmental Vulnerability Index as a benchmark and prioritization tool will help a country to focus on areas of critical environmental vulnerability or where existing resilience can be strengthened to reduce overall vulnerability. With repeated assessments through time, the Environmental Vulnerability Index will also help to provide a better understanding of how policy changes and actions have affected relative environmental vulnerability and guide decision makers towards sustainability. Courtesy of Sakaio P Manoa at sakaio@sopac.org.

Education, Outreach, and Training

Action #1. Advocate creation of a multi-agency education and outreach board to serve as an advocate for hazard mitigation education and outreach materials.

No progress has been reported on this action item.

Action #2. Secure commitment to identify training for end-line users in Pacific jurisdictions as a priority within organizations' strategic plans and annual action items.

No progress has been reported on this action item.

Action #3. Create a list server to be used for training announcements and advertising the availability of materials.

No progress has been reported on this action item.

Traditional Knowledge and Practices

Action #1. Develop an inventory of information-gathering activities under way and completed, including an inventory of individuals and organizations doing this.

Penehuro (Pene) Lefale reports that at the APN/USP/NOAA/EWC/NIWA Training Institute on Climate Variability and Extremes, held at the University of the South Pacific Suva campus, Fiji, June 15 and 16, 2004, two priorities for the region were discussed and unanimously recommended: a) organize a Pacific conference on traditional knowledge, and b) initiate and continue documentation and research on traditional knowledge in each country. He also reports that traditional knowledge in the Indochina region (Laos, Cambodia, Vietnam) was discussed at the Seasonal Climate Monitoring for Indochina Workshop, held in Vientianne, Laos, July 12 through 16, 2004. Workshop participants unanimously agreed to develop a traditional knowledge program for the region. The National Met Service of Laos has already begun a project called "Traditional Forecasting Methods at the Village Level" using traditional knowledge to forecast flooding events. For further information, contact Pene at NIWA (National Institute of Water & Atmospheric Research of New Zealand) p.lefale@niwa.co.nz.

Action #2. Initiate a network of cultural practitioners.

No progress has been reported on this action item.

Action #3. Publish Web database.

No progress has been reported on this action item. However, note that NIWA's Matauranga Maori (traditional-knowledge Maori) Web site should be up and running by the time this report reaches everyone.

Other Activities:

- The book *Snowscapes, Dreamscapes, Snowchange Book on Community Voices of Change*, edited by E. Helander and T. Mustonen and published by Tampere Polytechnic Publications, Finland, was launched in Finland in June. The book covers traditional knowledge of weather and climate from all over the world (Bolivia, Ghana, Iceland, Saami, Finland, Russia, Nepal, Hawaii, Canada, Samoa, etc.).
- An adaptation workshop organized by the Institute for Global Environmental Strategies (IGES), Japan, in association with the UNEP Risoe Center on Energy, Climate, and Sustainable Development (URC), Denmark, and SPREP, was held in Apia, Samoa, from October 11 to 13, 2004, on a theme entitled "Facilitating Adaptation to Climate Change in the South Pacific Region: Bridging Research, Policy, and Implementation." Traditional knowledge was featured in the workshop.