

■ ■ ■ Evolving to meet ever-changing needs

# PACIFIC DISASTER CENTER | 2003

By the year 2025, 80% of the world's population will live in developing countries and the majority of them will be highly vulnerable to disasters. Enhancing the ability of emergency managers to make informed decisions and communicate them in times of crisis continues to be the primary goal of the Pacific Disaster Center as we evolve our networking and activities throughout the Asia Pacific.

2003 saw a clear development of our mission to provide critical information research and analysis in five main program areas:

- Decision and policy support
- Risk and vulnerability assessment
- Institutional capacity development
- Humanitarian assistance
- Security and sustainability

The far-reaching results of these activities can best be demonstrated through the positive impacts and outcomes summarized here.



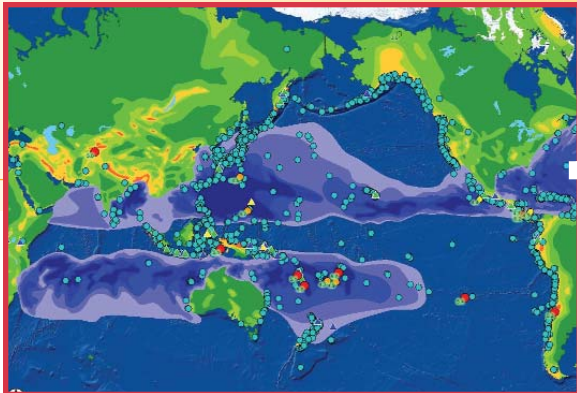
# regional

## 2003 | MAJOR ACCOMPLISHMENTS

### ■ ■ ■ Asia Pacific Natural Hazards and Vulnerabilities Atlas

In 2003, PDC developed the Asia Pacific Hazards Atlas to provide the region's disaster management community with a dynamic geospatial framework allowing timely access and viewing of critical hazard information over the Internet.

PDC's advanced technology gives Asia Pacific decision makers unprecedented awareness of the risks of natural hazards. The Atlas will evolve into a common foundation for exploring regional and national risk and vulnerability issues, thereby fostering region-wide cooperation in assessing natural hazard impacts.



PDC's Asia Pacific Natural Hazards And Vulnerabilities Atlas provides the capability to understand regional hazards using a graphical display on the Internet. Launch the Atlas at <http://atlas.pdc.org>.

### ■ ■ ■ Integrated Decision Support System (IDSS)

Under a U.S. Southern Command initiative, PDC was commissioned to design an innovative data architecture to support disaster management activities in the Caribbean. The end result incorporated emerging information, communication and observation technologies with state-of-the-art collaboration and decision-support applications.

For the first time, business applications, modeling applications and data systems have been realistically combined to provide a common operating picture for disaster managers.

### ■ ■ ■ ■ Fiji Tsunami Suva Risk & Vulnerability Assessment (RVA)

PDC demonstrated its RVA methodology and visualization tools to Fiji's Prime Minister and Cabinet, graphically depicting the impact of an earthquake-generated tsunami on Fiji's capital, Suva.

The tsunami visualization demonstration assisted Fiji's process to establish a cabinet-level position for disaster management, and heightened interest in applying visualization technology to other Pacific island nations.

### ■ ■ ■ American Samoa Natural Hazard Mitigation Plan

In partnership with the University of Hawaii Social Sciences Research Institute, as well as local government and industry decision makers in American Samoa, PDC applied remote sensing and Geographic Information System technologies to provide a powerful demonstration of natural hazard risks to the people of American Samoa. This effort culminated in the American Samoa Natural Hazard Mitigation Plan.

As a result of the Hazard Mitigation Plan, the American Samoan government has been awarded \$3.7 million by the Federal Emergency Management Agency to complete the Territory's two highest priority mitigation projects. The projects will mitigate flooding problems chronically suffered by the main LBJ Medical Center in Fagaalu, and by families and businesses in the major Pago Pago village watershed.



American Samoa Landslide Disaster, May 2003. As part of the American Samoa Hazard Mitigation Plan, PDC created digital maps for landslide, flood, earthquake, and tsunami hazards.

IMPACT

IMPACT

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# Hawaii

2003 | MAJOR ACCOMPLISHMENTS

## Hawaii HAZUS Atlas for Earthquake Loss Estimation ■ ■ ■

Using FEMA's Hazards U.S. (HAZUS) loss estimation methodology and an Internet-based catalog of historical earthquakes in Hawaii, PDC is translating complex model scenarios of earthquakes into an understandable analysis for the decision makers at the Governor's and Agency Director's levels.

**IMPACT** Timely transmission of loss and impact information to decision makers will greatly improve the efficiency of earthquake response and reconstruction efforts in Hawaii.

"With PDC's support, earthquake loss estimates can be transmitted within the first few hours after a destructive earthquake for review by Federal, State and County."

—Brian Yanagi, Hawaii State Earthquake & Tsunami Program Manager

## ■ Hawaii State Civil Defense Information Technology Support

During the course of the year, PDC continued to partner with state emergency management communities and sustain support for HSCD Information and Communication Systems (ICT) needs.

**IMPACT** PDC continually strengthens its working relationship with HSCD by providing needed services such as system upgrades, security patch implementation and training on ICT systems, hazard risk assessment and modeling applications.

## ■ ■ Hawaii Industry Partnership ■ ■ ■

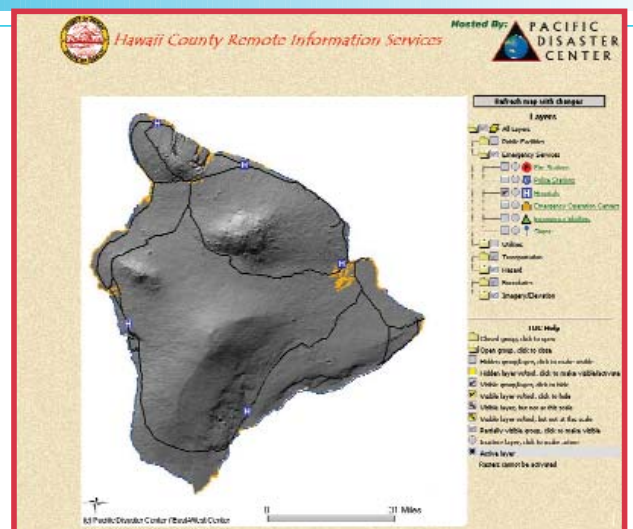
More than ever before, PDC in 2003 has initiated partnerships with Hawaii-based small businesses such as Referentia and Bump Networks to deliver consistently high-quality products to clients.

**IMPACT** By developing strong relationships with proven local partners, PDC is not only improving its quality and service to clients, it is also helping to promote the Hawaii-based business community.

## ■ Hawaii County Remote Information Services

PDC is working closely with emergency management in Hawaii County to provide secured remote geospatial information hosting and access services.

**IMPACT** The project helps emergency organizations on the Big Island use emerging information technologies to more effectively manage resources and protect life and property.



Emergency managers and public safety officials in Hawaii County now have online access to county data sets and interactive maps via the Hawaii County Remote Information Service developed by the PDC.

## Hawaii State Civil Defense Critical Infrastructure Protection Database ■

Hawaii State Civil Defense and PDC collaborated on a successful demonstration of this capability, integrating critical infrastructure information into a geospatial database for display and analysis.

**IMPACT** Not only will this new capability help HSCD prepare and respond to future threats against critical infrastructure, it will also improve their ability to cooperate with other agencies in federal "Critical Infrastructure Protection" activities within Hawaii.

# conferences

2003 |

## ■ ■ ■ International Symposium for Remote Sensing of Environment

Together with the East-West Center, PDC hosted the 30th International Symposium for Remote Sensing of Environment in Honolulu, bringing more than 500 international experts to Hawaii.

OUTCOME

The PDC was successful in assembling a broad network of experts to discuss state-of-the-art information and solutions for risk management and sustainable development.

The economic benefits of the conference were estimated at millions of dollars to the Hawaii state businesses.

## ■ PACFEST: Enabling Technologies in the War on Terrorism ■ ■

In October 2003, PDC and managing partner, the East-West Center, along with Sandia National Laboratories and Maui High Performance Computing Center, conducted a three-day workshop bringing together 40 key counter-terrorism experts from Asia.

OUTCOME

Through an active exchange of ideas, participants were able to jointly generate effective defensive solutions to thwart terrorist threats in the Pacific region and beyond.

2003 |

# support

PDC continues to help emergency managers better prepare and respond to disaster events by providing management support and intensive training exercises throughout the year.

### Disaster Events

- Hurricane Jimena – Hawaii Hurricane Support
- FEMA and American Samoa Flood and Landslide Disaster Support
- Super Typhoon Pongsona – U.S. Army Corps of Engineers Recovery
- Typhoon Lupit – Federal Emergency Management Agency Support
- Maui Fires – Maui County Fire Department and Civil Defense

### Exercise Support

- Hurricane – Hawaii Makani Pahili Exercise Support
- Earthquake – Alaska & U.S. Army Corps of Engineers Earthquake Exercise
- Weapons of Mass Destruction – Hawaii's 93rd Civil Support Team WMD Exercise
- Hawaii, FEMA, Pacific Command Support – 196th Light Infantry Brigade Defense Coordinating Element Tabletop/Functional Exercise
- Maui Voluntary Organizations Active in Disaster (VOAD)-Exercisen Support

### Pacific Disaster Center's Mission:

To provide applied information research and analysis support for the development of more effective policies, institutions, programs and information products for disaster management and humanitarian assistance communities of the Asia Pacific region and beyond.

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Managing Partner:



EAST-WEST CENTER

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