



**PACIFIC  
DISASTER  
CENTER**  
*Fostering Disaster-Resilient Communities...*

Pacific Disaster Center  
1305 North Holoopono Street, Suite 2,  
Kihei, Hawaii 96753  
<http://www.pdc.org>  
[info@pdc.org](mailto:info@pdc.org)  
1-808-891-0525  
1-808-891-0526 (Fax)



## PDC Overview

*Fostering Disaster-Resilient Communities Through Information, Science,  
Technology, and Exchange*



(c) Copyright 2006-2013 - PDC

University of Hawaii: Managing Partnering

## Avoid Hazards → Disasters → Crises

- **Vision: Safer & More Secure World**
  - Sustainable communities, safer nations, and a more secure world through Disaster Risk Reducing
- **Goal: Disaster Resiliency**
  - Foster disaster-resilient communities through information, science, technology, and exchange
- **Mission: Reduce Disaster Risks**
  - Provide applied information research and evidence-base analysis supporting development of more effective disaster risk reduction (**DRR**) policies and practices; and applications and information products supporting Humanitarian Assistance and Disaster Relief (**HA/DR**) operators and practitioners in the Asia Pacific region and beyond.



**Asia Pacific:**  
38% of World's Disasters  
80% of World's Casualties

(c) Copyright 2006-2013 - PDC



# Overcoming Challenges

- ◎ Tools for **Decision Makers**
  - Simplify, Automate, & Integrate
  - Understand Exposure
  - Estimate (Model) Impacts
  - Disseminate Early Warning
    - Social Media, Mobile App
  - Support Decisions Based on Latest Assessments
- ◎ Knowledge for **Policy Makers**
  - Assess Socio-Economic Risks & Vulnerabilities
- ◎ Capacity for **Practitioners**
  - Training & Exercise
  - Workshops
  - Engagements

(c) Copyright 2006-2014 - PDC

# PDC's Integrated Approach

- ◎ Applied Science & Technology
- ◎ Capability Building
- ◎ Evidence-Based Information Products
  - Policy & Decision Makers
  - Disaster Managers
  - Planners
  - Humanitarian Assist. Missions

Observation Systems, Data Collection

GIS, Visualization and Display Systems

Advanced Applications, Models, Risk & Vulnerability Assessment

Computing, Communication Systems and Networks

(c) Copyright 2006-2014 - PDC

# PDC's Integrated Approach

- ⊙ Applied Science & Technology
- ⊙ Capability Building
- ⊙ Evidence-Based Information Products
  - Policy & Decision Makers
  - Disaster Managers
  - Planners
  - Humanitarian Assist. Missions

Observation Systems, Data Collection

**Integrating Information, Science, & Technology**

GIS, Visualization and Display Systems

**Improve Decision-support Capabilities**

Advanced Applications, Models, Risk & Vulnerability Assessment

Computing, Communication Systems and Networks

PACIFIC DISASTER CENTER

(c) Copyright 2006-2014 - PDC

# Internet-Based DSS

EMOPS

Hazards & Products

PACIFIC DISASTER CENTER

(c) Copyright 2006-2014 - PDC

# Mobile Public Disaster Alert App

- Hazards occurring around the globe
- Android and iOS (iPhone/iPad) app via Android Market and iTunes



1.3M+ Downloads



Interactive map



Hazards list



Area Brief

(c) Copyright 2006-2013 - PDC



# PDC DisasterAWARE Applications

## Disaster Alert

- Mobile applications for iOS and Android devices
- Real-Time Hazard Reporting
- Search: Disaster Alert (iTunes/Google Play)



## ATLAS

- Publicly accessible application
- Real-Time Hazard Reporting
- Basedata and Observations
- <http://atlas.pdc.org/atlas/>



## EMOPS

- Used by State / Local / Foreign Disaster Practitioners
- Enhanced content and response operations
- Authorized users can add hazards & products
- <http://emops.pdc.org/emops/>



## Custom

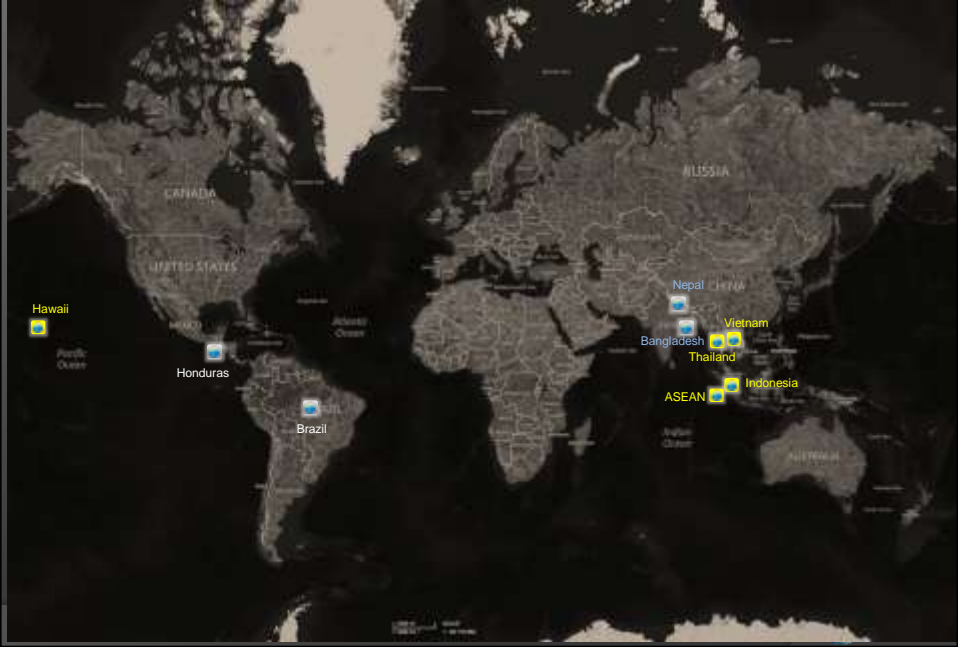
- Client-supported customized applications
- Agency or region specific platform
- Customized content and response operations
- Examples: VinAWARE, InAWARE, DMRS, etc...



(c) Copyright 2006-2013 - PDC



## DisasterAWARE Instantiations



## Reporting – Global & Regional



## DisasterAWARE for Health Monitoring



**Application:** Activate the [Disease Outbreak and Alerts](#) layers to view the latest information and coverage on warnings and/or alerts for epidemics and other public health emergencies. Sources include HealthMap, World Health Organization (WHO), and the U.S. Centers for Disease Control and Prevention (CDC).

(Layers Palette > Recent Hazards and Events > BioSurveillance > Disease Outbreaks and Alerts)

## DisasterAWARE for Health Monitoring



**Disease Outbreak and Alerts:** [HealthMap Incidents Layer](#)

**Description:** Access real-time disease outbreak information from healthmap.org to obtain a comprehensive view of the current global state of infectious diseases.

(Layers Palette > Recent Hazards and Events > BioSurveillance > Disease Outbreaks and Alerts > HealthMap)

# DisasterAWARE for Health Monitoring



**Disease Outbreak and Alerts:** [U.S. Centers for Disease Control and Prevention \(CDC\) Layers](#)  
**Description:** Access the latest CDC Travel Notices and Health Alert Network (HAN) updates.  
 (Layers Palette > Recent Hazards and Events > BioSurveillance > Disease Outbreaks and Alerts > CDC)

# Signing up for EMOPS Account



Click on the EMOPS icon on the PDC Homepage  
[www.PDC.org](http://www.PDC.org)



## Signing up for EMOPS Account

The screenshot shows the EMOPS login interface. At the top, it says 'WELCOME TO EMOPS! please login'. Below this are input fields for 'User name' and 'Password', followed by 'Login' and 'Forgot Password?' buttons. A red circle highlights the 'Request Access' link located below the login buttons. The background features a satellite map of a coastal region.

Click on the Request Access Icon



## Signing up for EMOPS Account

The screenshot shows the 'Register for EMOPS Access' form. It includes a header with the Pacific Disaster Center logo and the text 'EMOPS: Disaster & WAVE'. The main heading is 'Register for EMOPS Access'. Below the heading, there is a paragraph: 'Register to become an EMOPS user. Fill out the form and click Submit. Your application will be reviewed for eligibility and you will receive an email shortly. All fields are required.' The form contains the following fields: First name, Last name, Phone, Email, Job Title, Organization, Country, and Area of responsibility.

Fill out and submit the registration form







PACIFIC  
DISASTER  
CENTER

*Fostering Disaster-Resilient Communities*

For More Information:  
<http://www.pdc.org>  
 Contact Us At: [info@pdc.org](mailto:info@pdc.org)

Follow us on:    DisasterAWARE

(c) Copyright 2006-2013 - PDC



## Disease Background Information



Layers

- VECTORS/SPREAD
- VECTOR DETERMINATION
  - Global Data
  - WorldPop
  - WorldPop
  - Population Distribution
- Climate
  - Climate
  - PRECIPITATION AND WEATHER
  - ANIMAL CONTACT
  - VEGETATION
  - NOCTURNAL TEMPERATURE
  - WATER CONTACT
  - ADAPTABILITY
  - VEGETATION PRODUCTIVITY
  - VEGETATION PRODUCTIVITY
  - VEGETATION PRODUCTIVITY
- TEMPERATURE
- PRECIPITATION
- PRECIPITATION
- PRECIPITATION

Disease Background Information on Disease from the CDC. This tool from Identifying at risk areas and essential information on Disease from CDC and Disease Control and Prevention (DCP).

10:27 AM

## DisasterAWARE for Health Monitoring



**Application:** Activate the **Country and Regional Background Information** layers for an overview of select country-specific health risks, vulnerabilities and coping capacities. Statistics on public health interventions (e.g., vaccinations, clean water) are also provided for planning and operational purposes.

(Layers Palette > Recent Hazards and Events > BioSurveillance > Country and Regional Background Information)

## DisasterAWARE for Health Monitoring



**Application:** The **PDC Active Hazards** layer includes Biomedical Hazards, such as the recent outbreaks of Ebola. Select a Hazard from the **Hazards & Products (H&P)** list to access the latest updates from official sources for that event (e.g., SitReps, Advisories, Maps, Projections).

## DisasterAWARE for Health Monitoring



**Application:** Access **transportation infrastructure** layers, such as roads, airports and seaports, as well as layers showing **population locations**. Hospitals and other **medical infrastructure** layers are also available for many parts of the world. This information helps identify potential populations at risk, as well as infrastructure that may be valuable for response.

## DisasterAWARE for Health Monitoring



**Application:** Use **Area Brief** to quickly generate an executive-level summary report for a specific Hazard or area of interest. Area Brief provides situational awareness of current hazards; a regional overview including population estimates, locations of infrastructure, meteorological observations, terrain features, land cover and land use information; risk and vulnerability information; and a summary of historical hazards based on the Hazard or area selected.