DisasterAWARE: An Effective Tool for Early Warning and Decision Support

Submitted by: Pacific Disaster Centre (PDC)
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Outline

• PDC Introduction
• Early Warning and Decision Support
• DisasterAWARE™
• Implementation and Institutionalization Strategies
We apply **science and technology** to help ... executives and disaster managers worldwide make **informed decisions** to ... **reduce risks** and prepare for and respond to disasters.
Origin of PDC

A vision for a better future

Conceived by then-Senator Senator Daniel K. Inouye in the aftermath of Hurricane Iniki to the island of Kauai in Sept 11, 1992.

Starts Operation

As a center to provide access to innovative technologies and more effective information resources for disaster preparedness and response.

Cooperative Agreement - 2001

Expands outside of Hawaii

Managed by the University of Hawaii

A global leader

PDC is now a global leader in the use of science and technology to advance disaster risk reduction (DRR).
Building a bridge

Science community
- Peer review
- Low
- Complex
- Technical groups

Decision Makers
- General public
- High
- Simple
- Elected officials

Audience
- Comfort with uncertainty
- Vocabulary
- Associations
Who is using our systems?

A glance at our partners

We’re working hand-in-hand with partners around the globe to reduce disaster risk, prevent losses, and protect the lives and livelihoods of millions of people.

United States
- FEMA
- US State Department (Global Operations Center, US Embassies, OFDA, USAID)
- DoD – Pentagon
- State Civil Defense & EOCs
- Other Federal and State agencies
- NGOs (Red Cross)
A glance at our partners

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Who is using our systems?

Over 1.7 million Users

Nations
• Thailand
• Indonesia
• Vietnam
• Myanmar
• Philippines
• Bahamas
• Peru
• El Salvador
• Cambodia
• Honduras
• Nicaragua
• Guatemala
• Dominican Republic

International
• United Nations (IAEA, OCHA...)
• ASEAN (AHA Centre)
• CDEMA
• CEPRDENAC
• American Red Cross
• World Food Programme
• Salvation Army
• More...

Public
• International community
• Friends, family, etc.
PDC’s integrated approach

- Observational and collection systems
- GIS and visualization systems
- Advanced modeling and risk analysis
- Computing and communication technologies
Early Warning and Decision Making

Gaps and Challenges

Inadequate information & tools
- Warnings are hard to digest
- Information is scattered
- Lack of situational awareness
- Dissemination is limited

Inadequate insights
- Risks are not understood

Information not easily understood isn’t particularly useful...

Hurricane Advisory

Earthquake Advisory

Tsunami Advisory

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Overcoming Challenges
For Informed Decision Making

Tools for decision makers

- Simplify, automate, integrate
- Identify risks and exposure
- Estimated impacts
- Widely disseminate
- Updated assessments
DisasterAWARE™

Key features

Content
- Hazard information: real-time & historical
- Observations & forecasts
- Population data
- Infrastructure & Baseline data

Analytics / Sharing
- Integrated modeling
- Impact assessments
- Collaboration & SITREPS
- Bookmark sharing for geospatial layers
DisasterAWARE™

Key features

Mobile

- Touch friendly for mobile device users
- Offline mode for remote areas or lost network

Alerting

- In-app
- email
- sms
- Telegram app
DisasterAWARE™

Key features

Social media updates

Live TV streaming

Live camera feeds
Example: Tropical Cyclones
Example Earthquake
Example Tsunami
DisasterAWARE™ in Southeast Asia
Institutionalizing EWS

- Concept of Operations
- Policy Framework
- Standard Operating Procedures (SOP)
- Staffing Plan
- Training and Exercise