

Using Results to Communicate & Address Risk: Preparedness and Response

— Decision Support and Early Warning Systems —



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Challenges & Gaps ...

- Inadequate Tools for the Decision Makers
 - Information is Scattered
 - Warnings are Hard to Digest
 - Lack Situational Awareness
 - Risks are not Understood
 - Access and Dissemination is Limited
- Time is LIFE
 - Information you can't easily understand and act upon isn't particularly useful

Sample Advisories

•HURRICANE
•NATIONAL V
•0000Z WED
Starting ti
Starting ti
Location: J
Magnitude:

Ar MAG UT
5.9 2006
5.1 2006
5.2 2006
5.3 2006
5.1 2006
5.2 2006
5.3 2006
5.3 2006



DisasterAWARE

iPhone App

- Integrated Multi-hazard Hazard Monitoring
- Disaster Early Warning
- Automated / Integrated Modeling
- Exposure (Risk) Maps & Historical Hazard data
- Customized Impact Modeling
- Intra-Agency Info Sharing
 - User Added Situation Reports
 - Damage Products, ...
- Remote Access

May 10, 2010

The screenshot displays the DisasterAWARE web application interface. At the top, it shows the Pacific Disaster Center (PDC) logo and the EMOPS Release 4.0 version. The main content area features a map of Indonesia with a red alert icon indicating a 7.2 magnitude earthquake in northern Sumatra. A table titled 'Hazards & Product List' provides details for this event, including the organization (PDC), last update time, and GMT-10:00. A 'Regional Reporter' window is open, showing a map of the affected area and a table of population data for the years 2001 through 2007.

Available Product(s)	Edit	Flags	Updated By	Organization	GMT Last Update	GMT-10:00
7.4 - northern Sumatra, Indonesia			d2p2	PDC	2010-05-09 06:24	2010-05-08 20:24
7.2 - northern Sumatra, Indonesia			d2p2	PDC	2010-05-09 08:14	2010-05-08 22:14
7.4 - northern Sumatra, Indonesia			d2p2	PDC	2010-05-09 06:34	2010-05-08 20:34
7.2 - northern Sumatra, Indonesia			d2p2	PDC	2010-05-09 06:24	2010-05-08 20:24
Automated Product - Regional Reporter			d2p2	PDC	2010-05-09 06:24	2010-05-08 20:24

Population Year	Total Population	Maximum Density (pp/km ²)
2001	41,870,504	195,524
2002	41,975,985	184,259
2004	41,463,796	200,894
2007	42,734,206	18,876

Situation Reports

<http://www.pdc.org/emops>

Hurricane Preparedness Exercise 2010



PACIFIC DISASTER CENTER
Fostering Disaster-Resilient Communities

EMOPS Release 4.0.1
Powered by PDC's DisasterAWARE

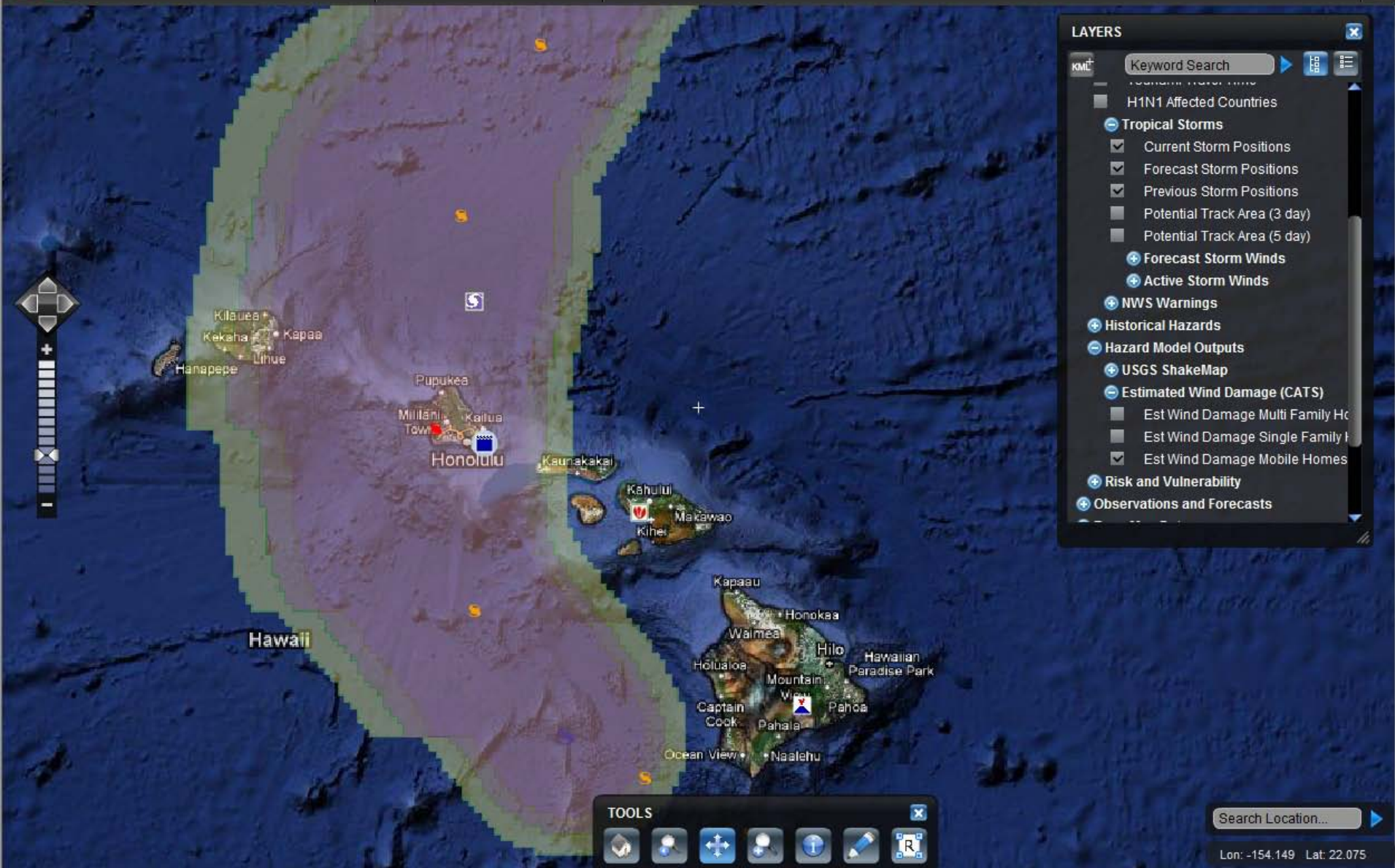
LAYERS

LEGEND

RESULTS



HP



LAYERS

Keyword Search

- H1N1 Affected Countries
- Tropical Storms**
 - Current Storm Positions
 - Forecast Storm Positions
 - Previous Storm Positions
 - Potential Track Area (3 day)
 - Potential Track Area (5 day)
 - Forecast Storm Winds
 - Active Storm Winds
- NWS Warnings
- Historical Hazards
- Hazard Model Outputs
- USGS ShakeMap
- Estimated Wind Damage (CATS)**
 - Est Wind Damage Multi Family Hc
 - Est Wind Damage Single Family Hc
 - Est Wind Damage Mobile Homes
- Risk and Vulnerability
- Observations and Forecasts

TOOLS

Search Location...
Lon: -154.149 Lat: 22.075

LEGEND

- Haiti Internally Displaced Pers
- Haiti Police
- Haiti Hospitals
- Haiti Aid Distribution Sites
- Haiti Damage Areas (Jan 16)
 - Catastrophic
 - Extensive
 - Moderate
 - Limited

RESULTS

Identify 4

- Haiti Aid Distribution Sites

AGENCY	DESCR	TYPE
WFP	Cham de Mars aid distribution site	Food, Water, and NFI

- Haiti Hospitals

NAME	TYPE	COUNTRY	DEPARTMENT	MUNICIPALI	ADDRESS	DAMAGE	OP STATUS	NUM BEDS	CONTACT
De LOFATMA (Cite Militaire)	Health Center	Haiti	Ouest	Port-Au-Prince	36 Rue Piquant	No Visible Damage	Full	47	509-222-3846, 509-222-7853

- Haiti Internally Displaced Persons

NAME

Camp Increase (size / population)

Camp Increase (size / population)

baie de Port-au-Prince



TOOLS

METADATA SUMMARY

Haiti Hospitals

Abstract:
Various facilities in and around Port-au-Prince, Haiti derived from multiple sources including NGA, UN, UNJLC, PDC, Reliefweb, and OpenStreetMap. Infrastructure locations are unverified and should only be used as a guideline.

[Open in Browser](#) [Full Metadata](#)

LAYERS

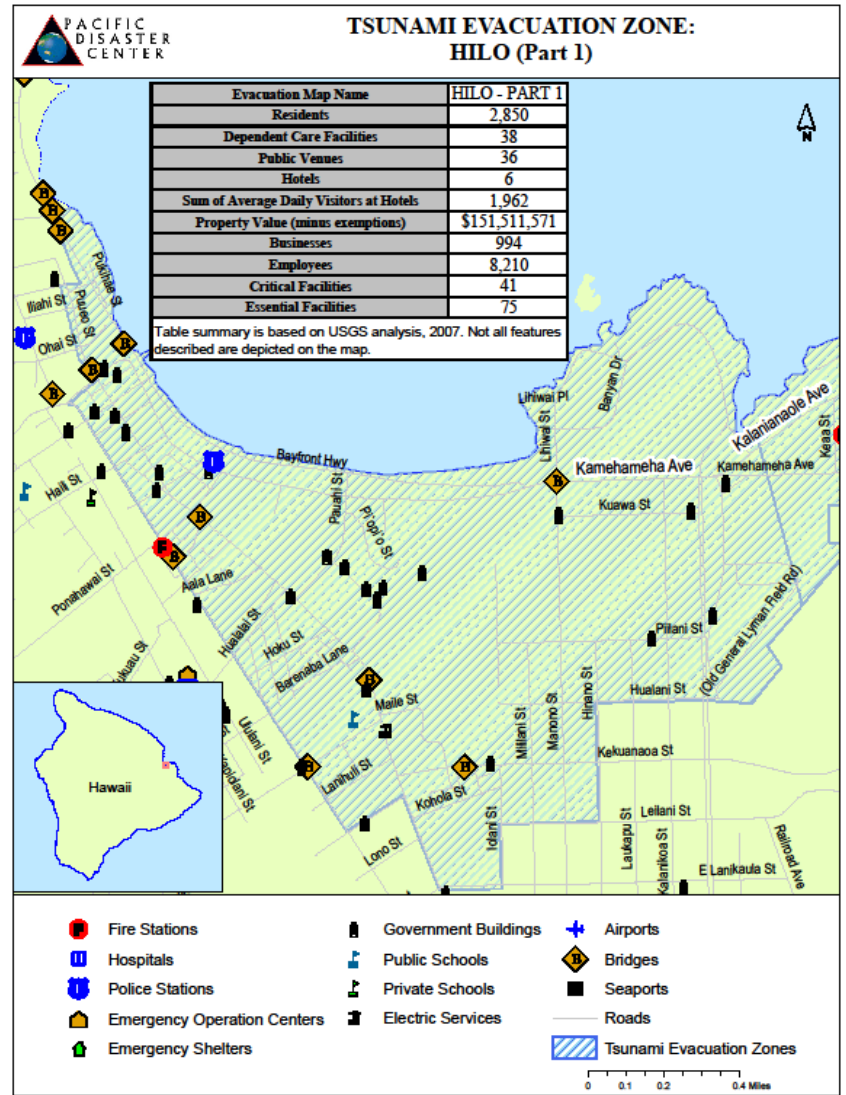
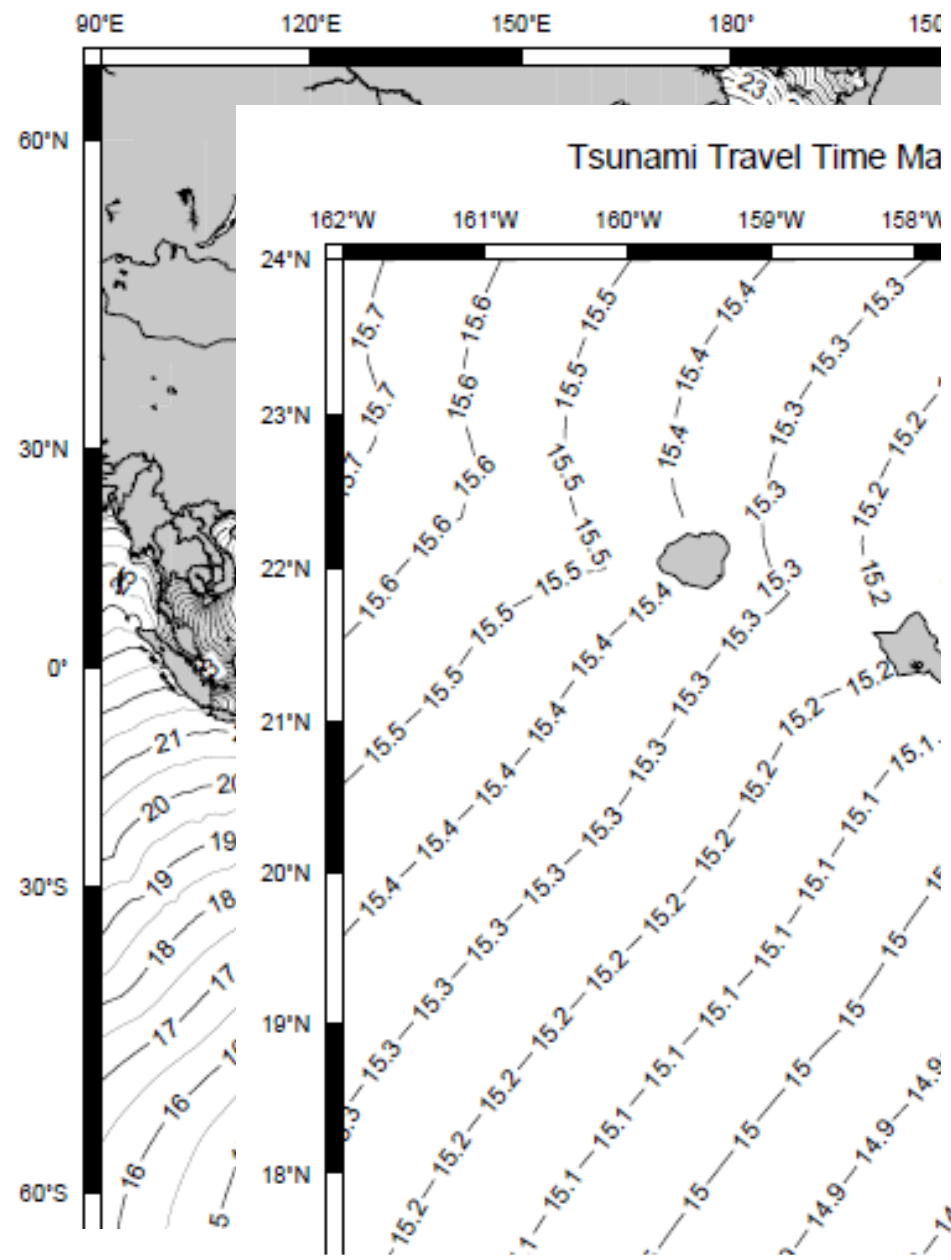
Keyword Search

- Government
 - Haiti Prisons
 - Haiti UN Facilities
 - Haiti Military Facilities
 - Haiti Government Facilities
 - Haiti Embassies
- Emergency Services
 - Haiti Operations Center
 - Haiti Aid Distribution Sites
 - Haiti Police
 - Haiti Hospitals
 - Haiti Field Hospitals
 - Haiti Fire Stations

Hospitals
[Click to view metadata summary](#)
Transparency: ██████████

Chile Earthquake/Tsunami 2010

Tsunami Travel Time Map Earthquake O



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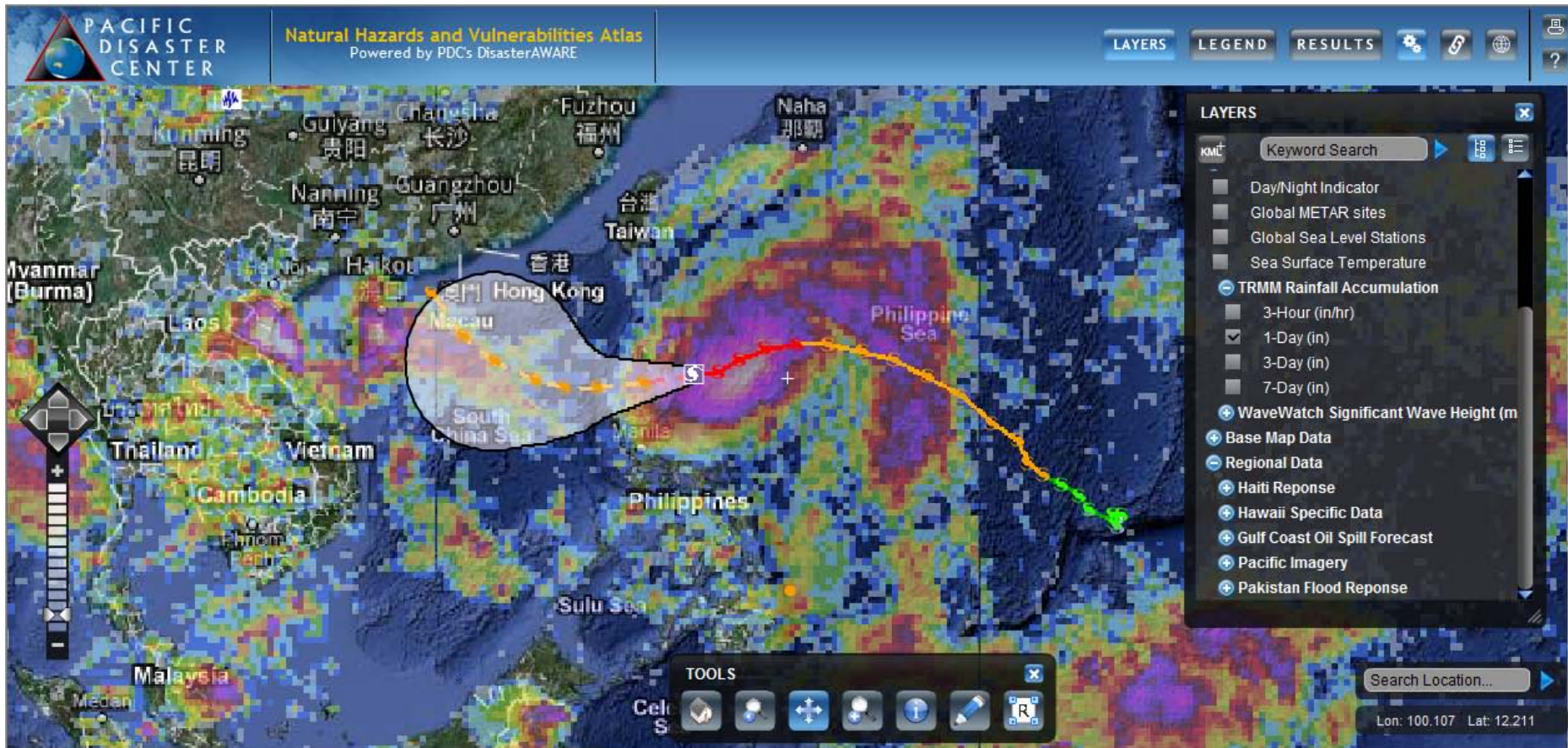
18°N

iEMOPS App



iTunes Apps Store (search 'Pacific Disaster Center')

PDC Global Hazards Atlas



<http://www.pdc.org/atlas>

Acknowledgements

Using Results to Communicate and Address Risk: Preparedness and Response

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 - Chris Chiesa, Pacific Disaster Center
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- **Published Source Materials**
 - Images used in presentation from various Pacific Disaster Center online and mobile applications:
 - DC's Emergency Operations system (EMOPS): www.pdc.org/emops;
 - PDC's Natural Hazards and Vulnerabilities Atlas: www.pdc.org/atlas; and
 - Disaster Alert (iPhone/mobile device application):
http://www.pdc.org/PDCNewsWebArticles/2010/iTunes/disaster_alert.htm