



# TsuInfo Alert

prepared by the Washington State Department of Natural Resources on behalf of the  
**National Tsunami Hazard Mitigation Program**  
 a state/federal partnership funded through the National Oceanic and Atmospheric Administration (NOAA)

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**NOAA Administrator Announces Resignation**  
 September 23, 2008



Vice Admiral Conrad C. Lautenbacher, JR., U.S. Navy (Ret.), NOAA Administrator

Retired Navy Vice Admiral [Conrad C. Lautenbacher, Jr.](#), Ph.D., under secretary of commerce for oceans and atmosphere and NOAA administrator, today announced his resignation, effective Oct. 31. Lautenbacher served as NOAA's eighth Administrator for nearly seven years.

Under Lautenbacher's leadership, NOAA was instrumental in the creation of the [Papahānaumokuākea Marine National Monument](#), the second largest area in the world dedicated to marine preservation. Lautenbacher contributed to the President's landmark Ocean Initiative and worked with Congress to pass the [Magnuson-Stevens Act reauthorization](#), which requires overfishing end by 2011.

In the international arena, Lautenbacher has led U.S. efforts to create a [Global Earth Observation System of Systems](#) (GEOSS), an effort that has been joined by more than 70 countries and 50 international organizations. Following the disastrous Indian Ocean tsunami in 2004, Lautenbacher led the development of a [tsunami warning system](#) in both the Atlantic and Pacific oceans and pushed for better warning capabilities in the Indian Ocean.

"I am most grateful for your leadership and offer my heartfelt thanks and appreciation to you and as well to NOAA's dedicated career force that has made all of these and many more achievements possible," Lautenbacher said in a letter to President Bush. "While I have both enjoyed my tenure and been proud to serve, it is time to make room for those who will follow and build on the legacy of NOAA created by this Administration." (Continued on page 3)

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WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**  
Doug Sutherland - Commissioner of Public Lands



(Continued from page 1)

Other significant accomplishments during Lautenbacher's tenure include:

- \* Development of the [National Integrated Drought Information System](#)
- \* Creation of [NOAA's Aquaculture Program](#)
- \* Advancements in climate science including creating the [Climate Change Science Program](#), [CarbonTracker](#) and [Air Quality Ozone Forecasts](#)
- \* Introducing "storm-based" warnings for tornadoes, severe thunderstorms and flash floods
- \* Implementation of a new hurricane weather research and forecast system
- \* Initiating [NOAA's Unmanned Aircraft Systems program](#)
- \* Commenced new investments in new Multi-function Phased Array Radar
- \* Installation of numerous [Physical Oceanographic Real-Time Systems](#) (PORTS®) around the country
- \* Launched three satellites and managed the development of next generation of satellite systems
- \* Commissioned eight new ships into the NOAA fleet, including four acoustically quiet fisheries survey vessels and the [Okeanos Explorer](#), the first U.S. ship dedicated to exploration
- \* Establishment of the [Integrated Ocean Observing System](#).

From:

[www.noaanews.noaa.gov/stories2008/20080923\\_vadm.html](http://www.noaanews.noaa.gov/stories2008/20080923_vadm.html) ♦

## NTHMP Annual Meeting, November 19-20, 2008

<http://nthmp.tsunami.gov/Minutes/november08/index.html>

downloaded 11 December 2008

To conserve paper and your patience, *TsuInfo Alert* is only printing the links, not the entire Annual Meeting reports and minutes

[Agenda](#)

[Attendees](#)

Meeting Minutes - to be provided later

[Mitigation and Education Brief Out](#)

[Mapping and Modeling Brief Out](#)

[Warning Coordination Brief Out](#)

[TsunamiReady Improvement Briefing](#)

[TsunamiReady Draft Revised Guidelines](#)

[NTHMP Strategic Plan](#)

[NTHMP Education Implementation](#)

[NTHMP Education Implementation Plan](#)

[FY09 Budget and Grant Process](#)

[State of Maryland](#)

[State of Hawaii](#)

[State of California](#)

[State of Washington](#)

[Commonwealth of Puerto Rico](#)

[State of Alaska](#)

[USGS NTHMP Briefing](#)

[UAF-CRESTnet](#)

[Territory of Guam](#)

[Tokeland, WA Briefing](#); [Tokeland, WA Report](#)

Tsunamis Know What To Do - Video - to be provided later

[Gulf Coast States](#)

[NOAA](#)

[State of Oregon](#) ♦

## NOAA recognises San Francisco as Tsunami-Ready

San Francisco has completed [NOAA's National Weather Service TsunamiReady™](#) recognition program, better equipping the city to prepare and warn its citizens for tsunamis. San Francisco is now the most populous city in the United States to achieve [TsunamiReady™](#) recognition, joining more than 60 [TsunamiReady™](#) communities throughout the country, including 14 in California.

Marking this achievement, city officials received a [TsunamiReady™](#) toolkit that includes road signs that identify tsunami inundation zones, evacuation routes and safe areas. Mark Tew, deputy director of the National Weather Service Western Region and Dave Reynolds meteorologist-in-charge of the National Weather Service forecast office in Monterey presented the toolkit at Ocean Beach.

"We're proud to have partnered with the National Weather Service on our comprehensive tsunami readiness program, and that we've become the largest city in the nation to earn the [TsunamiReady™](#) designation," said Mayor Gavin Newsom. ♦

## NOAA Scientist Honored with Service to America Medal for Tsunami Detection and Forecast System



Dr. Eddie Bernard  
[High resolution](#) (Credit: NOAA)

September 17, 2008

Eddie Bernard, director of [NOAA's Pacific Marine Environmental Laboratory](#) in Seattle has become the first NOAA scientist to be awarded a Service to America Medal for his work in establishing an international tsunami detection and forecast system.

"This is big time," Bernard said. "There are many worthy people who were nominated for this award and I'm humbled by this recognition."

"This is where NOAA research really shines," said retired Navy Vice Adm. Conrad C. Lautenbacher, Ph.D., undersecretary of commerce for oceans and atmosphere and NOAA administrator. "The tsunami work is an excellent example of science in service to society, combining technology, knowledge, and innovation to create a system to warn people of impending danger."

Bernard won in the Homeland Security category, one of the seven SAM categories presented by the Partnership for Public Service. The award ceremony took place Sept. 16 in Washington, D.C.

As director, Bernard oversees a broad range of oceanographic research programs, but the tsunami work has been the focus of his own research for most of his career. He served as director of the [Pacific Tsunami Warning Center](#) in Hawaii, published more than 70 papers, articles and reports about tsunamis and served as chairman of the [National Tsunami Hazard Mitigation Program](#), a joint federal-state effort, from 1997 to 2004. He serves and has served on many international and national panels and boards.

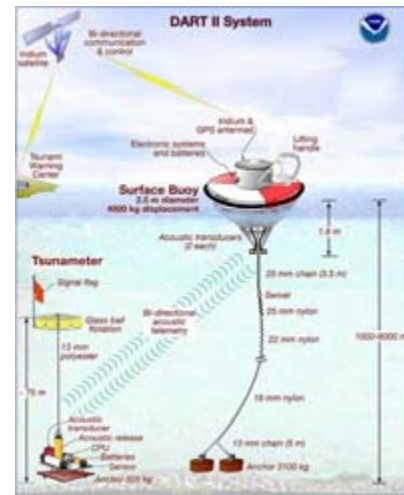
"The problem has always been that the existing technology only provided a forecast of when a tsunami would arrive at a coastline, not the intensity or duration once it arrived," said Bernard.

He experienced this problem first hand while serving as director of the tsunami warning center and dedicated his research to develop an accurate forecast.

The key to a tsunami forecast was accurately measuring a small change in the deep sea that could be identified as a tsunami and then transmitting these data in time to be useful. That led to developing the tsunami detection and forecast system now in use in the United States and along the Pacific Rim.

A team of scientists and engineers devised the Deep Ocean Assessment of Tsunamis, or DART, a deep ocean tsunami detection system that provides essential data that can be incorporated into computer models for accurate tsunami forecasts.

The DART systems consist of an anchored seafloor bottom pressure sensor and a companion moored surface buoy for real-time communications. An acoustic link transmits data from the bottom pressure sensor on the seafloor to the surface buoy. The data are then relayed via satellite link to NOAA's Tsunami Warning Centers, the National Data Buoy Center, and PMEL.



DART system.

[High resolution](#) (Credit: NOAA)

The system took years to perfect. But in 2003, it was right on target when it detected a tsunami resulting from a 7.5 earthquake in Adak, Alaska. The State of Hawaii saved about \$68 million by not issuing an evacuation order for its coastal residents, based upon the information from the buoy system that the resulting tsunami would not be a large one. The tsunami wave that made it to the Hawaiian shore was less than a foot high. "It worked as it was designed to do," Bernard said in 2003.

Following the December 26, 2004 Indian Ocean tsunami, which killed more than 228,000 people, NOAA's tsunami technology became the standard for

developing tsunami warning systems throughout the world.

Since 2004, there have been seven more tsunamis in the Pacific Ocean that were detected in real time and used to compute experimental forecasts. The forecast accuracy has been 90 percent as compared with tide gauge data in 12 different U.S. harbors. This accurate forecast system is now being installed at both of NOAA's tsunami warning centers in Hawaii and Alaska.

A tsunami is a series of ocean waves generated by any rapid large-scale disturbance of the seawater. Most tsunamis are generated by earthquakes, but they also may be caused by volcanic eruptions, landslides, undersea slumps, or meteor impacts.

NOAA understands and predicts changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and conserves and manages our coastal and marine resources.

From:

[http://www.noaanews.noaa.gov/stories2008/20080917\\_scientisthonored.html](http://www.noaanews.noaa.gov/stories2008/20080917_scientisthonored.html) ♦

### **Ensuring organizational resilience and human continuity through crisis communications**

By Dr. Gerald Lewis and Mike Martin

From: 13<sup>th</sup> Annual Disaster Resource Guide, 2008-2009: Emergency Lifeline Corp., p. 72-74.

[www.disaster-resource.com](http://www.disaster-resource.com)

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Information—the life-blood during a crisis. Whether it's a family, government agency, or place of employment, most organizations could improve their plans for communicating during a crisis.

Comparing the workplace to a living system, the information which flows within departments might be considered the blood that keeps the system functioning. And just as a patient may need multiple transfusions after surgery, a company may need to repeat their communications efforts in order to be effective. In addition, accuracy is vital, as providing the wrong information during a crisis can be as damaging as carrying out a transfusion using the wrong blood type. In order for information to be of significant value to any system at times of crisis, it must have the following qualities:

- **CONSISTENCY:** Information must be consistent and accurate from source to source.
- **REDUNDANCY:** A variety of sources for accessing information should be available. Emails, website postings, “800” numbers to recorded messages, face-to-face information

sessions, newsletters, and texting are viable methods.

- **FREQUENCY:** During crises information changes quickly. Therefore, it is important to update messages frequently.
- **CIRCULARITY:** Communications is a circular sharing of information. There must be a method of receiving people's concerns and questions and responding back with reliable, consistent information.
- **CONTINUITY:** Oftentimes at the beginning of a crisis there is a flurry of information, which then drops off. As will be discussed in the next section, crises can tend to roll on for awhile, and people need different types of information from stage to stage. Maintaining communications continuity during all stages of a crisis is critical.

In addition, it is essential to communicate clearly and consistently with a wide range of stakeholders and to assume that it will find its way to the media. Stakeholders include employees, customers, government and community leaders, families of employees, insurance companies and lawyers.

Objectives of workforce continuity communications

The challenges associated with achieving workforce continuity during an unplanned event are significant, and can include the following:

- **A DISPERSED WORKFORCE:** Employees may be located globally, traveling, or working remotely from home or elsewhere. This makes the task of delivering ongoing, timely, effective communications significantly more complex.
- **A NEED TO SUPPORT A SIGNIFICANTLY GREATER SCOPE:** There will likely be larger groups of people and a longer period of communications, which can last for months or even years in some cases.
- **THE VARIABILITY OF HUMAN BEHAVIOR:** It's difficult to determine how people will behave in crisis situations. The way one person responds to a disaster or a crisis is most likely very different from how your colleague will respond, making effective communications design a non-trivial challenge.

With these issues in mind, communications designed to overcome the barriers to workforce continuity should fulfill the following objectives:

- **INFORM AND EDUCATE (PRE-CRISIS):** A critical activity of workforce continuity communications actually occurs before the crisis. Informing and educating the employee base about programs, threats, expecta-

tions, accepted behaviors and actions will increase the likelihood that the intended response to an emergency will be achieved by making these situations at least a bit more familiar by way of repetition.

- **ACTIVATE AND INSTRUCT (INTRA-CRISIS):** At the time of the incident, communications are used to move employees into action, whether activating teams to manage the crisis or instructing employees to take specific action.
- **ACCOUNT AND ADJUST (POST-CRISIS):** Post-event communications focus on accounting for losses and lets employees and others know you are operating under normal business conditions, providing updates as normal business activities resume.

Finally, there are many notable reasons why workforce continuity communications are critical to organizational resiliency. Here are a few:

- Decreases downtime and helps mitigate loss of worker productivity
- Helps gather information on employee whereabouts and work availability
- Provides useful information during an incident, such as HR policies, employee assistance programs, and public updates
- Helps to allay fears and avoid the rumor mill internally and externally
- Assists in deployment determinations for available resources to keep key business functions running.

Workforce continuity communications: Best practices

How can organizations begin to optimize their critical communications toward the human side of BC? The following sections highlight some steps to help protect, connect and account for your people in an unplanned event.

Best practice 1: Develop a solid BC communications plan

A solid, well-publicized crisis communications plan will help keep people calm, informed and connected. This can help mitigate loss during a crisis. In addition, clear policies and protocols make it easier for people to know what to do over the course of an unplanned event. A well-defined communications plan will cover:

- Who needs notification? Who decides notification is required? Who will be the spokesperson?
- What needs to be communicated? What do you want people to do? What are the triggers?
- When do you start calling? When do you stop? When do you update?
- How will you inform your people?

Best practice 2: Message management

During an emergency, people may be confused and distracted. Precisely what you say and how you deliver your message is critical to ensure clarity during an emergency. Recommendations in these areas include:

- Provide regular update and status information.
- Avoid over-communicating – it dilutes important information.
- Send time-critical messages by phone.
- Send follow-up messages or non-critical status messages via e-mail.
- Reference other available device channels in all communications to ensure employees have these in mind during a very stressful time.
- Pay specific attention to tone of voice and pace. The simple sound of a known voice speaking calmly and deliberately can reduce uncertainty and stress.
- Engage the executive team for collaboration and decision-making. It is important to involve them in test exercises and run-throughs to ensure that they are familiar with the plan, and are clear about its objectives and their role.

Best practice 3: Testing – and testing again!

Consistent, regular testing is essential to the success of any communications plan, regardless of design. During testing, you will test the plan itself, the physical infrastructure, as well as familiarize employees and other potential (external) notification recipients.

When you test, it's important to simulate real conditions. It's critical to find a balance between having people accustomed to the system and having them ignore it because it's so routine. For this reason, raising awareness of what a test vs. an actual event sounds and looks like is key. Finally, it's extremely valuable to create venues for participant feedback. By giving participants input into the actual deployment, it invests them and makes them more committed to the plan's overall success.

Some testing steps include the following:

- **INTERNALLY MARKET THE COMMUNICATIONS CAPABILITY:** Make employees and other stakeholders thoroughly aware that a communications system exists, how to access it, how it's used, etc.
- **MEASURE RESULTS:** How many people got the message? How many people responded? How many messages bounced due to bad

contact information? What percentage of people were ultimately reached?

- TEST EXPECTED AND UNEXPECTED SCENARIOS: Set up and test scenarios for weather incidents, IT/network outages, transit strikes, pandemic flu, power outages, etc.
- TEST ACTIVATION METHODS: Ensure that the activation of the crisis communications system works every time. Ensure that there are multiple methods of activation (via Web, phone, PDA, etc), and that there are a number of designated people responsible for activating it.
- CONFIRM DATA ACCURACY: Regularly ensure that contact data is up to date and valid by enabling self service updates for employees, regularly researching bounced messages and obtaining new information for those contacts, ensuring that your communication system is fed by an up to date system (e.g. a HR information system).
- SOLICIT FEEDBACK: Incorporate feedback from recipients into your BC plan.

Best practice 4: Leverage technology to enable human-continuity communications

Using an automated communications system, management can stay abreast of a developing situation in real time, perhaps automatically bridging key executives into a conference call for live real-time collaboration and decision making. The fast, flexible decision-making this system enables can prove invaluable during the fluid, shifting nature of most emergency situations.

Additionally, interactive capabilities make it possible to create an audit trail of their decision, e.g. “Press one to confirm that this message should be sent to all employees”. This will require that executives are included in the training and testing of the service, and perhaps more importantly, are brought into the communication plan.

Automated communications associated with workforce continuity planning must blend both inbound and outbound communications capabilities to link the organization together. Blending ensures more resilient business communication by providing “social” infrastructure that offers a soft landing in hard times. This blended form of communications is particularly critical during a large scale event. During these events, it’s imperative to close the loop—to obtain reports back from outlying staff and other stakeholders, as well as provide information back to those individuals.

Advantages of automated critical communications

- \*Employees who have identified themselves by accessing an automated inbound system can later be contacted to help co-workers who live nearby.
- \*Members of response teams can be directed to begin, refocus or suspend their efforts based on the data received from the field via automated inbound communications.
- \*Organizations can upload maps to a Web-based inbound service to provide evacuation plans or directions to new employee work sites.
- \*Employees can call in to update their contact for more accurate outbound messaging.
- \*Organizations can contact authorities and mobilize appropriate resources for employees who need help.
- \*Employees can call in for corporate network status information. If the network it down, the company can let employees know when it is restored so that they can resume their responsibilities.

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**Gen Y and emergency management: How do we engage generation Y in the emergency management sector?**

Emil Wajs-Chaczko

*Australian Journal of Emergency Management*, v. 23, no. 3, p. 58-61

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Abstract

What are the broad implications of the values and expectations of Generation Y and what do they entail for the emergency management sector?

This article focuses on emerging community resilience issues, engaging Generation Y as volunteers and employees within the emergency management sector and the variety of changes for which we might expect or plan.

The article includes a series of considerations for planning by emergency management organisations. Gen Y is now entering the workforce and undertaking significant roles within the sector and the community. Therefore adjustments are needed to help the sector to adapt to changing society values.

## Introduction

Defining exactly what we mean by Generation Y is a perennial source of debate. Whichever definition one chooses to use, whether it is Generation Y, Millennial, iGen or echo-boomer, most refer broadly to those individuals born between 1977 and 1995. There is significant variance in precise definitions: Huntley (2006:2) deems 1982 to be the start of Gen Y, as does McCleneghan (2005:142). However, Howe and Strauss (2000:4); and Weiler (2004) and Krohn (2004:325) believe it started in 1980, and Freestone and Mitchell (2004:123) support Beard (2003:218) in setting the start at 1977. Regardless of the start date, there are around 5 million members of Gen Y in Australia. Contextually this equates to approximately 25-30% of the Australian population (ABS, 2006).

## Characteristics, experiences, value sets and emerging risks

Defining key characteristics and comparing these with those characteristics of previous generations allows us to begin to discuss what the experiences of this generation may mean for society. Baby boomers (circa 1946-1964) experienced the development and popularity of television, the space race, the emergence of Rock and Roll, both the Cold and Vietnam Wars, the emergence of the AIDS virus and the shift to decimal currency. Generation X (circa 1965-1977) saw the arrival of personal computers, experienced the AIDS epidemic, witnessed an increase in divorce rates and single parent families, public debate and growth in multiculturalism, the broader industrial relations issues relating to companies implementing popular downsizing techniques, and an increased attention to tertiary education.

It is imperative for those involved in emergency management to understand the different experiences underpinning the value sets of various generations in our community, as these are inextricably linked to how we should prioritise preparedness, prevention, response and recovery measures in relation to community expectations. Thus the experiences of Generation Y could change the landscape of emergency management, for example.

Gen Ys have lived through the emergence and evolution of the World Wide Web, internet, email and instant messaging, and the use of the internet to obtain and disseminate information as part of their daily routine. Whilst such practices are now fairly standard in any developed nation—and across all generations—of critical importance is the fact that this generation has not known life any other way, thus causing a heavy community reliance on such services. The risk generated by this dependency has seldom been assessed by the emergency management sector. Potential impacts for the sector (after a more precise establishment of context and hazard analysis) may include the necessity to generate new plans for longer-term outages of such services.

The significant increase in “live” and “reality” television, the rollout of cable television services and development of community websites such as *You-Tube*<sup>TM</sup> has meant that the ‘always on’ generation has not only been able to access a wide variety of up-to-date sources of information, but the nature of the media has also allowed it to actively participate in generating content for global audiences. Community participation and the dispersal of mass-media by the community itself (without reliance on traditional journalism) may mean that community expectations of the speed, format, content and method of public information provision may need to be reassessed. The information-seeking habits of Gen Y have already had extensive attention in literature (Weiler, 2004). It has been established that only a very small percentage of the younger population prefers to learn by reading and an underlying dependence on television and the internet is emerging for information gathering.

Gen Y has experienced a plethora of new options in social networking and communication techniques, moving from the traditional social engagement to new media. The emergence and development of the publicly available mobile phone has progressed three technological generations. Current technology (3G) allows SMS, multimedia messaging (MMS) and mobile internet (and instant messaging). The reliance on mobile communications has created new community standards. Not only are individuals expected to be available regardless of location, but expectations of communication services provision have also increased. Social networking websites such as *Facebook*<sup>TM</sup> and *MySpace*<sup>TM</sup> have meant that information pertaining to individuals is immediately and readily accessed by their own social network. Equally, information dissemination across networks has become simplified to the point where information may become ubiquitous at a much faster rate. The potential implications for social and cultural capital in our communities and the consequent impact on community resilience may be highly significant. It has recently been argued that communities with



higher levels of social capital are more resilient to the impact of hazards (Brenton, 2001; Maguire & Hagan, 2007).

Globalisation and its inherent networks and media of communication have meant that Gen Y is able to be aware of economic, social and political occurrences around the world. Participation in community actions surrounding emerging global community issues is also changing community expectations. A typical example could be the increased recent attention to environmentalism and expectation of corporations in performing corporate social responsibility. Issues relating to climate change will be of significance for this generation—a generation which has grown-up during times of drought, water shortages, and the emergence of recycling. These same issues also have significance for the emergency management sector on a daily basis aligning the value set of the generation with that of the core business of emergency management. Further compounding these issues is the validity and reliability of the information obtained by Gen Y through these new sources of information. Regardless of the validity of information, community expectations may be altered as a result.

The events of September 11, 2001 and the London Bombings, as well as the more general threat of terrorism, has given rise to the general concept of what Beck (1992) has called the 'Risk Society'. These events have had a significant impact on the perception of Gen Y. Whilst society has always been subjected to notions of risk, the notion of 'Risk Society' discusses exposure to hazards that are the result of the human development. Natural hazards have always had negative effects on human populations, but these are seen to be produced by non-human forces. Modern risks, on the other hand, are seen to be the product of human activity. These two different types of risk are referred to by Giddens (1999) as "external risks" and "manufactured risks". 'Risk Society' has a predicated interest in manufactured risks (see Beck [1992] and Giddens [1999]). If, as indicated by current literature, Gen Y is a key participant in the 'Risk Society', then clearly the community expectations of the emergency management sector to investigate 'manufactured risks', and their implications, will increase and the sector should pre-empt this expectation. It must be mentioned that many members of Gen Y have simply never experienced some of the more traditional significant disasters (such as flood), and this fact in itself could increase the risk posed to the community.

However, the perception of risk for Gen Y is not exclusive to the hazard of terrorism. The unprecedented attention in the media, in recent years, to events such as earthquakes, fires, floods and tsunamis, has instilled in Gen Y an awareness of

these external risks. The very real perception of these risks held by members of this generation may instill some increased sense of vigilance. Conversely, either stronger social capital bonds or a feeling of community alienation—depending on the individual's experience of community—could lead to a decreased sense of vigilance.

#### Implications for emergency management

The experiences of this generation will have a strong impact on the emergency management sector only when considered cumulatively. High dependence on advanced social networking, higher expectations of media and information availability, increased awareness and involvement in global community issues in a 'Risk Society' creates the platform for a dynamic emergency management sector, both in terms of its comprehensive approach to emergency management and for emergency management practitioners.

There are a number of factors which the emergency management community will need to respond to as Gen Y becomes more prevalent in community participation. These responses may include some of the below:

- Revisiting public information techniques both in terms of delivery mechanisms, speed of production, release and content, including that of disaster victim registration systems and enquiry methods to address the new information seeking habits of Gen Y.
- Participant-based approaches to community education through utilising new media and a focus on hazards from not only a local but international perspective to address the globalised perceptions experienced broadly by Gen Y.
- Risk assessments as to the implications of technological dependency of community bonds (and community resilience) and reliance on technology for routine lifestyle functions.
- Redevelopment of volunteer and professional emergency management agency programs, adapting to changes in expectations.

Direct participation in the emergency management sector as either volunteers or salaried staff will also need to be examined to ensure relevant programs and careers, adjusted to the value sets of Gen Y. Further consultation and research involving members of Gen Y is paramount in designing programs to recruit and retain volunteers and staff. Aspects and attitudes which will need to be considered to ensure relevance may include:

- Innovative, creative, collaborative and engaging experiences in career development and volunteer programs.
- Immediacy, quick milestones being possible and immediate feedback being provided.
- Clearly articulated tasks and expectations and explanations as to how these tasks are relevant to the broader picture.
- An increased use of technology.
- Gen Y members being respected as equals whilst still being directed, regardless of their actual experience.
- Experience being offered where appropriate and accepting that challenges to the status quo may be prevalent, but not necessarily meant to cause agitation.

### Conclusion

Emergency management professionals will need to consider the shifting value sets of community members and also consider life experiences to date when delivering comprehensive approaches to emergency management. The same approach should be taken when considering all groups within our community, regardless of generation. Fundamentally this should already be in practice when *establishing the context* in line with the Australia/New Zealand Risk Management Standard 4360:2000.

Adaption will be required both in the practice of emergency management and also in the professional development of the sector to align with these shifting values. Areas such as public information, education, technological utilisation and assessment of community expectations will require extensive revisiting. These recommendations are not necessarily unique to Gen Y, however they are integral to the practice of emergency management at any time and will mean that the sector evolves to reflect the continuous state of flux the broader community experiences.

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### About the author

Emil Wajs-Chaczko is currently employed in Emergency Management for the NSW Government [Australia] and is completing studies in Social Sciences, Digital Cultures, Government and Emergency Management. A member of Generation Y, he has a background in volunteer emergency service organisations and peak youth organisations at all levels. The author wishes to acknowledge the support provided by various staff at the NSW Office for Emergency Services. Feedback and discussion is encouraged: [emil@emil.id.au](mailto:emil@emil.id.au) ♦

### NOAA's simulation tool prepares Oregon coastal towns for tsunamis and floods

December 10, 2008

NOAA scientists have created four high-resolution digital elevation models, or DEMs, of Oregon's coastline that simulate deadly tsunamis and floods. These models will help emergency managers develop life-saving plans for communities in those locations.

The DEMs were developed by [NOAA's National Geophysical Data Center](#) and the [Cooperative Institute for Research in Environmental Science](#), both based in Boulder, Colo. The surface-relief models cover the Oregon coastal area from Port Orford to the Columbia

River, including the communities of Coos Bay, Newport, Lincoln City, Seaside and Astoria.

The DEMs are detailed coastal relief models constructed from near-shore seafloor depth and land elevation data. They provide a framework that allows scientists to forecast the magnitude and extent of coastal flooding caused by a tsunami or storm surge with greater accuracy. Since 2006, scientists have created 28 DEMs of U.S. coastal areas and an additional 45 DEMs are planned for the future.

“Creating the DEMs is part of NOAA’s effort to help local emergency managers determine which parts of their communities are most vulnerable to tsunami waves and coastal flooding. This allows them to dedicate their warning and response resources more efficiently and effectively,” said Lisa Taylor, NOAA’s NGDC project manager.

The coastal DEMs are part of the [U.S. Tsunami Forecast and Warning System](#). The new Oregon DEMs will support efforts by the Oregon Department of Geology and Mineral Industry to map tsunami evacuation zones. Once these DEMs were finished, [NOAA’s Pacific Marine Environmental Laboratory](#) in Seattle incorporated them into distant tsunami model scenarios. These scenarios simulate offshore earthquakes far from Oregon, the resulting tsunami that travels across the Pacific Ocean, and the potential flooding impacts when the tsunami reaches the coast. With this information, the [NOAA Tsunami Warning Centers](#) can issue more accurate flooding forecasts if an earthquake triggers an actual tsunami.

In addition to threats from distant tsunamis, Oregon faces other hazards from an active undersea fault zone capable of creating less frequent, but possibly much larger, more devastating local tsunamis that will arrive at the coast quickly. The Oregon Department of Geology and Mineral Industries and the Oregon Office of Emergency Management assess tsunami hazards, delineate evacuation zones, and promote tsunami preparedness. The new models will help local emergency officials decide whether to issue population evacuations when a tsunami threatens.

NOAA, along with its federal and state partners in the National Tsunami Hazard Mitigation Program, is implementing the Tsunami Warning and Education Act. This law authorizes and strengthens tsunami detection, forecast, warning, and mitigation. Working together, NOAA, the Oregon Department of Geology and other state and federal partners deliver accurate information to coastal communities to foster tsunami preparedness.

NOAA understands and predicts changes in the Earth’s environment, from the depths of the ocean to the surface of the sun, and conserves and manages our coastal and marine resources.

From:

[http://www.noaanews.noaa.gov/stories2008/20081210\\_oregonmodel.html](http://www.noaanews.noaa.gov/stories2008/20081210_oregonmodel.html) ♦

## NEWS

### **CORRECTION: TsunamiReady communities**

The October issue of *TsuInfo Alert* omitted Mayaguez, Puerto Rico from the list of TsunamiReady communities. Mayaguez has been TsunamiReady for more than two years. We apologize for this omission.

### **New post will drive disaster risk reduction momentum**

The United Nations has created a new appointment meant to increase international Disaster Risk Reduction (DRR) action and cooperation, according to a U.N. statement Monday. Margareta Wahlström has been named to serve as assistant secretary general for DRR, as well as the special representative of Secretary General Ban Ki-moon in implementing the Hyogo Framework.

Wahlström, of Sweden, has 25 years of experience in disaster management preparedness capacity building. She has held leadership positions in the U.N. Office for the Coordination of Humanitarian Affairs and the International Federation of the Red Cross and Red Crescent Societies and is a member of the Swedish Commission on Climate Change and Development.

Read the U.N. press release at

<http://www.un.org/News/Press/docs/2008/sga1165.doc.htm>.

From: *Disaster Research* 514, Nov. 20, 2008

### **Ireland’s national assessment mission, 8-11 July 2007, Dublin, Ireland**

Experts from various UN, Irish and European agencies, met in Dublin to assess a proposal to establish a tsunami early warning and mitigation system (TWS) for Ireland. The regional coordination system for Europe and North Africa, in which Ireland is actively participating is the Intergovernmental Coordination Group for the establishment of a North-East Atlantic, Mediterranean and Connected Seas Tsunami Warning and Mitigation System (ICG/NEAMTWS). The system shall be owned and operated by the Member States or the corresponding regions, and will be built upon national capabilities and centres; ensuring the system will ‘plug-in’ into existing natural disaster management systems and civil defense structures.

The meeting addressed Ireland's risk assessment and various capabilities in light of forming a national tsunami early warning system. By meeting's end the IOC Mission Team found the proposal appropriate and made several recommendations. A report of the meeting is at [http://www.ioc-tsunami.org/components/com\\_pdf-farm/files/TWS%20Assessment%20-%20Ireland\\_v1.5.pdf](http://www.ioc-tsunami.org/components/com_pdf-farm/files/TWS%20Assessment%20-%20Ireland_v1.5.pdf)

From; *Tsunami Newsletter*, v. 34, no. 3, 2007, p. 23.

### **World's largest tsunami debris discovered**

"A line of massive boulders on the western shore of Tonga may be evidence of the most powerful volcano-triggered tsunami found to date. Up to 9 meters (30 feet) high and weighing up to 1.6 million kilograms (3.5 million pounds), the seven coral boulders are located 100 to 400 meters (300 to 1,300 feet) from the coast."

The full report is available at <http://www.sciencedaily.com/releases/2008/09/080924185324.htm>

### **Emergency managers fear FEMA rule change will leave them scrambling**

A rough season of flooding, hurricanes, and other disasters haven't distracted emergency managers across the country from worries that they may soon have less federal money to spend on rebuilding roads, removing debris, and paying overtime for first responders.

The fears stem from an October 2007 change in how the Federal Emergency Management Agency (FEMA) will disburse money from the Public Assistance Grants Program, according to an article in "Government Technology's Emergency Management." The change, which would pay a flat rate versus the previous sliding scale, has managers concerned that not only will they have less money to work with, but that there will be a scramble between state and local governments for the funds.

"This is the No. 1 regulatory issue in emergency management right now," Kristin Robinson of the National Emergency Manager's Association (NEMA) told the magazine. "This is the heart attack issue."

FEMA denied the change will cause the type of mayhem managers predict, saying many of the costs incurred by local and state collaboration will fall outside the rule change, according to the magazine.

Read the article online at <http://www.govtech.com/em/articles/394745>.

From: *Disaster Research* 510, Sept. 25, 2008

### **Seven new centers created to study preparedness and emergency response**

Seven new research centers will be created to study the intersection of public health, preparedness, and emergency response. The centers, funded by the U.S. Centers for Disease Control and Prevention (CDC) will be located at universities across the United States, including John Hopkins University, University of North Carolina, Chapel Hill, Harvard School of Public Health, and Emory University in Atlanta.

CDC awarded each school between \$1.2 to \$1.5 million—\$10.9 million total—to conduct research that evaluates the "structure, capabilities, and performance of public health systems for preparedness and emergency response activities," according to a press release. The Pandemic and All-Hazards Preparedness Act of 2006 required the centers to be established to support research that improves public health preparedness and response.

For more on the program and how winners were chosen, visit the CDC Web site at <http://www.cdc.gov/media/pressrel/2008/r081006.htm>.

From: *Disaster Research* 511, Oct. 9, 2008

### **Social media buzzes past most emergency management agencies**

In today's wired world, social media—from the Internet to Twitter to text messaging—can be an effective communication tool for those ready to use it. But while most emergency management agencies are adept at getting the word out via traditional broadcast methods, a recent study found many are missing out on communication opportunities afforded by social media.

*Untapped Potential: Evaluating State Emergency Management Agency Web Sites 2008* examined 51 agency Web sites and surveyed agency public information officers (PIOs) to determine use and attitudes regarding the role of the Internet in crisis communication. The study found emergency planners need to recognize the value of social media as a communication tool—especially during a crisis—and that PIOs need to become more Web savvy.

The report authors, David W. Guth and Gordon A. Alloway of the University of Kansas, make six recommendations based on the research, including better defining the purpose and audience of agency Web sites, giving PIOs with direct access to top management the responsibility for making site content decisions, making staff contact information more easily accessible, creating more easily remembered web addresses, and generally improving staff technology knowledge.

The full text of the report, including feedback journalism, public relations, and emergency preparedness experts, is available at <http://people.ku.edu/~dguth/WebVersionEMA.pdf>.

From: *Disaster Research* 513, Nov. 6, 2008

### **Projected Tokyo disaster could leave thousands with nowhere to “go”**

When you gotta go, you gotta go, and if you’re the victim of a 7.3-magnitude temblor that rocks Tokyo, you could be out of luck.

A recent study by Japan’s disaster prevention panel estimated that within hours of a major earthquake more than 800,000 people would be in need of a bathroom and unable to find one, according to an Associated Press report

([http://ap.google.com/article/ALeqM5ifwhbCPgEZbh7pNz0RNtRn\\_1ThMAD943JOI00](http://ap.google.com/article/ALeqM5ifwhbCPgEZbh7pNz0RNtRn_1ThMAD943JOI00)). The estimate was based on a scenario in which Tokyo’s 12 million-person workforce would attempt to walk home following a quake. After factoring needed bathroom breaks every two hours and estimating about half of public restrooms would be functioning, the simulation projected some earthquake victims would go 17 hours without finding usable facilities.

Although unconventional, Japanese officials said a focus on providing bathrooms during disasters could stanch “unnecessary panic” caused by limited toilet access, according to the report. The panel has recommended the city do more to ensure available restrooms after a quake.

From: *Disaster Research* 513, Nov. 6, 2008

### **Many U.S. states can’t or won’t reveal federally mandated emergency plans**

Communication is sorely lacking when it comes to emergency operations plans, according to a recent George Mason University study of 50 states and the District of Columbia.

The study, *Using Sense-Making and Co-Orientation to Rank Strategic Public Communication in State Emergency Operations Plans*, has found 22 states either can’t or won’t reveal their emergency operations plan and others haven’t made provisions for including the public in planning dialogues. The plans are required to receive federal funding under the Stafford Disaster Relief and Emergency Assistance Act.

“It’s very important that these plans are available to the public,” Carl Botan, the communication professor who led the study, stated in a press release (<http://eagle.gmu.edu/newsroom/719/>). “Otherwise residents can’t be confident their needs have been thought of and aren’t sure who they can count on.”

The study ranked the state plans on communication criteria, including two-way communication components, addressing vulnerable populations’

communication needs, and the importance of public communication to the plan.

To receive a copy of the study, contact Tara Laskowski at [tlaskows@gmu.edu](mailto:tlaskows@gmu.edu).

From: *Disaster Research* 513, Nov. 6, 2008

### **Disaster risk reduction focuses on vulnerable Latin American communities**

Disaster Risk Reduction in the Americas will get a needed boost, as well, thanks to a five-year, \$4.5 million partnership between Florida International University and USAID’s Office of U.S. Foreign Disaster Assistance.

The project will attempt to strengthen disaster risk reduction initiatives in Latin America and the Caribbean by forming communities of practice—groups of stakeholders mobilized to consider disaster risk reduction strategies and act as agents of change.

“We must address the region’s vulnerabilities,” stated FIU Professor Richard Olson who, along with Professor Pablo Sarmiento, will lead the project. “If disaster response is playing defense, this project is a real chance to play offense for a change.”

The pair plan to travel to disaster-prone countries such as Chile, Colombia, Argentina, the Dominican Republic, Guatemala, and El Salvador, where they’ll talk to scientists, engineers, economists, and civic leaders to assess physical and social weaknesses and provide guidance on how to address them before a disaster strikes.

Read more about the project in the USAID/OFDA newsletter at [http://kosovo.info.usaid.gov/our/work/humanitarian assistance/disaster assistance/ofdalac/news/newsletter october 2008.pdf](http://kosovo.info.usaid.gov/our/work/humanitarian%20assistance/disaster%20assistance/ofdalac/news/newsletter%20october%202008.pdf)

From: *Disaster Research* 514, Nov. 20, 2008

## **PUBLICATIONS**

### ***Use of traditional knowledge in emergency management for tsunami hazard—A case study from Washington State, USA.***

This article appeared in volume 17, no. 4 (pages 488-502) of the journal *Disaster Prevention and Management*. The current issue and full text archive of this journal is available at [www.emeraldinsight.com/0965-3562.htm](http://www.emeraldinsight.com/0965-3562.htm).

The abstract states “The purpose of this paper is to explore a case study in Washington State, USA, where traditional stories (“oral tradition”) are being used in a contemporary context. Traditional knowledge is a system of experiential knowledge acquired through the continual observation of and interaction with the environment. This form of knowledge is still held by many societies and can provide an important con-

tribution in emergency management for natural hazards. Those holding traditional knowledge can assist in understanding the nature of local hazards, suggest appropriate risk reduction and response mechanisms, and even give options for recovery based on past experiences.”

### ***Management of Disaster Risk Today—Global Contexts, Local Tools***

The International Strategy for Disaster Reduction (ISDR) has made available the book entitled *Management of Disaster Risk Today—Global Contexts, Local Tools*. The publication, available on CD, internet and in print, makes reference to the Hyogo Framework for Action, its objectives, priorities and principles for risk reduction, the natural and social factors which have become threats to human and territorial security, climate change and its implications in Latin America, the Millennium Development Goals, the influence of risk management in the planning of development, of land distribution, communication and public information and so forth. The book (2008) is part of a series of co-operative activities in the area of local risk management and reduction of vulnerability which the International Development Research Centre, Canada (IDRC) and the UN/ISDR in the region are developing. The online version is available in Spanish at the following address:

<http://www.eird.org/gestion-del-riesgo/index.html>.

From: *Disasters Preparedness and Mitigation in the Americas*, issue 110, Oct. 2008, p. 10.

### ***Manual on Organization and Operation for Emergency Operations Centres***

The document drawn up by the International Federation of Red Cross and Red Crescent Societies puts forward a guide for organizing emergency operation centres within the perspective of a Management and Control of Emergency Operations system, which is made up of different types of tools forming a series of functional relations, methods and procedures, of an inter-institutional, inter-agency and territorial nature.

The manual is intended for technicians working in institutions, the aim of which is to organize emergency operation centres at any level and which require a straightforward, coherent methodology which ensures the necessary results. To access this document, visit

<http://www.cruzroja.org/desastres/redcamp/crepd/manuOyF.htm>.

From: *Disasters Preparedness and Mitigation in the Americas*, issue 110, Oct. 2008, p. 10.

### ***Disasters in Southeast Asia—Stories of struggle, resilience, greed***

By Southeast Asian Press Alliance, 2006, 108 p.

“By the World Bank’s reckoning, as the whole of Asia accounts for slightly more than half of the world’s population, it is also likely to account for 87 per cent of disaster casualties worldwide (p. vi).”

“Though disaster is the overarching theme of the book, the stories are largely about people—victims, survivors, whole communities, local officials, policy-makers—and how they cope with, adapt and respond to tragedy (p. viii). Although not restricted to tsunamis or Sumatra, the book looks at the effect of natural hazards on individuals, communities and countries.

Chapters include How to Blunt a Tsunami’s Death Blow, Tales from the Past Save Lives, Resilience Amid Ruin, and Women Lead the Way Toward Recovery.

This book was donated to the NTHMP Library by Alan Ruffman, Geomarine Associates Ltd.

### ***Natural Hazards Observer***

The September 2008 *Natural Hazards Observer* is now available online. Featured articles include: --Pandemic Influenza in Asia: Potential Risk and Possible Mitigation Strategies --Modeling Earthquakes in Real Time --Exploring the Cell Phone’s Role in Disaster --Flash Flood Research—Past, Present, and Future.

Regular features include Contracts and Grants, Resources, and Conferences and Training. Visit the Natural Hazards Center Web site at <http://www.colorado.edu/hazards/o/> to read the September and past *Observers*.

From: *Disaster Research 511*, October 9, 2008

### ***November Issue of Natural Hazards Observer Now Online***

The November 2008 *Natural Hazards Observer* is now available online. Featured articles include: --Exxon Valdez Oil Spill Mitigation and Community Resilience --Social Media and the Democratic Convention --Austin, Texas, and the Spanish Influenza of 1918 --Extreme Weather, Rapid Warming, and Public Water Systems.

Visit the Natural Hazards Center Web site at <http://www.colorado.edu/hazards/o/> to read the November issue, as well as past editions of the *Observer*.

From: *Disaster Research 513*, Nov. 6, 2008

### ***Using Highways for No-notice Evacuations***

U.S. Department of Transportation Federal Highway Administration. Dec. 2007. 108 p. [www.trb.org/news/blurb\\_detail.asp?id=8618](http://www.trb.org/news/blurb_detail.asp?id=8618)

Evacuations that must be carried out without any advance notice—like a toxic chemical spill, a tornado or other rapidly developing hazard—pose difficult problems for planners. For instance, says the DOT

publication, "Sufficient information is likely to be unavailable to decision makers before a determination has to be made on whether to order an evacuation. Instead incomplete, imperfect, and at times contradictory information about the incident is arriving, if at all, at the same time decisions need to be made."

*Using Highways* offers advice on the planning process emergency planners must be aware of to be prepared for no-notice events. The book contains a 16-page checklist for reviewing effective evacuation planning.

It emphasizes the use of new tools of traffic simulation modeling to identify potential bottlenecks or traffic choke points. In the July, 2008, *Natural Hazards Observer*, Louisiana State University engineering professor Brian Wolshon wrote, "One of the goals of these new models is testing the adequacy of current plans over any set of conditions. They include scenarios with greater levels of urgency resulting from less warning time; the potential for segment losses within the road network because of traffic incident lane blockages, road flooding, and other forms of malevolent activity; and greater or lesser rates of evacuee participation."

The issues are complicated by uncertainties about where a no-notice hazard might occur. A hurricane's track, for instance, can be predicted in advance with some reliability, but the location of a chemical spill is not so easy to predict. *Using Highways* said, "Advanced planning for evacuations can identify locations and areas where a coordinated evacuation effort is most likely to be needed."

From: *Natural Hazards Observer*, September 2008, v. 33, no. 1, p. 18.

***Trauma Psychology: Issues in Violence, Disaster, Health and Illness, volume 1, Violence and Disaster.***

Edited by Elizabeth Carll, Praeger Publishers, 2007. 334 p. \$225. ISBN 978-0-275-98531.

[www.praeger.com](http://www.praeger.com)

In her introduction, Elizabeth Carll wrote, "The need for a recognized body or specialty area of trauma research and knowledge within the discipline of psychology had been grown significantly." Trauma psychology encompasses a wide spectrum, she said, ranging from personal violence to accidents, illness, and warfare. The first chapter in the book deals with the psychological aftermath of the Sept. 11, 2001 attack on the World Trade Center. Authors Mary Tramontin and James Halpern said that the initial "worst-case fears of widespread psychopathology were unfounded. They also said that early intervention to address the emotional needs of victims increased the effectiveness of

treatment. The media has a "central role," the authors said. "A significant relationship was discovered between media exposure to the event and postdisaster stress, especially among children. Sensitive reporting of traumatic events is needed, and adults should monitor their own exposure to graphic images and details while paying careful attention to their children's exposure."

The authors also said that mental health professionals should be better incorporated into preparedness and planning.

From: *Natural Hazards Observer*, September 2008, v. 33, no. 1, p. 21.

***The Elements of Disaster Psychology: Managing Psychosocial Trauma.***

By James L. Greenstone. Charles C. Thomas Publisher, Ltd. 2008. 270 p. ISBN 978-0-398-07784-6. \$62.95 (hardcover); \$42.95 (paper). [www.ccthomas.com](http://www.ccthomas.com)

Greenstone, who has 40 years of experience in disaster response and police work, has provided the "book of lists" for disaster psychology. His shortest list is the "three-legged stool" of effective disaster response: "care of self; care of disaster victims; care of other intervenors." His longest, 68 items, is about understanding crisis intervention. In between he lists the ingredients of a 72-hour pack for extended deployment (58 items), the proper use of triage (33 items), and many, many others.

From: *Natural Hazards Observer*, September 2008, v. 33, no. 1, p. 21.

***Producing Emergency Plans: A Guide for All-Hazard Emergency Operations Planning for State, Territorial, Local, and Tribal Governments***

Federal Emergency Management Agency Interim Version 1.0. July 11, 2008. Free download. [www.fema.gov/pdf/about/divisions/npd/cpg\\_101\\_interim.pdf](http://www.fema.gov/pdf/about/divisions/npd/cpg_101_interim.pdf)

The FEMA guide is intended to help beginning and experienced planners navigate the stormy waters and rocky slopes of all-hazards planning. The current version incorporates lessons learned from Hurricanes Andrew, Hugo, Rita, and Katrina; the Loma Prieta earthquake; and flooding in the Midwest. This effort provides methods for emergency planners to:

- Develop and train planners;
- Identify resource demands and operation options;
- Link planning, preparedness, and resource and asset management in a virtual environment;
- Prioritize planning efforts;
- Provide concurrent planning through all levels; and
- Quickly produce plans on demand.

From: *Natural Hazards Observer*, v. 33, no. 2, p. 19.

### ***Disaster Preparedness in Urban Immigrant Communities.***

By Ann Bessie Mathew and Kimiko Kelly. A Tomas Rivera Policy Institute and Asian Pacific American Legal Center Report. June 2008. 36 pp. Free download. [www.trpi.org](http://www.trpi.org) or [www.apalc.org](http://www.apalc.org).

This report, subtitled *Lessons Learned from Recent Catastrophic Events and Their Relevance to Latino and Asian Communities in Southern California*, found language barriers hinder emergency and disaster response, education, awareness, and training efforts and not enough is being done to translate to what the authors have termed “limited English proficient” immigrants. The report used qualitative research conducted in areas with large immigrant Latino, Chinese, and Vietnamese populations, a literature review, and case studies to formulate recommendations.

The key findings were:

- Government and nonprofit relief agencies don’t provide culturally sensitive disaster preparedness education in appropriate languages;
- There are no tools to offer immediate translation of emergency information to immigrant populations in Southern California;
- First responders rely on bilingual family members, often children, to provide translations;
- Latino, Chinese, and Vietnamese immigrants turn first to native language radio stations for emergency information; and
- First response agencies don’t consider immigration status in providing services, but they don’t reassure the public that immigration status is not an issue, either.

From: *Natural Hazards Observer*, v. 33, no. 2, p. 19.

## **WEBSITES**

[http://www.dhs.gov/xnews/releases/pr\\_1225900531284.shtm](http://www.dhs.gov/xnews/releases/pr_1225900531284.shtm)

DHS 2009 Grant Guide

The Department of Homeland Security (Nov. 2008) announced \$3 billion in federal grants would be available for state and local government preparedness efforts. The money will be awarded through 14 programs such as the Urban Areas Security Initiative and the Transit Security Grant program. Learn more about how your organization can make a successful bid for its slice of the security pie with this 27-page downloadable DHS guide.

From: *Disaster Research* 514, Nov. 20,2008

<http://www.lrc.fema.gov/disasters.html>

FEMA Learning Resource Center’s Disaster Bibliographies

From a video journal of 1969 Hurricane Camille to a simulation of the 2003 Station Night Club fire, the Federal Emergency Management Agency has made accessing FEMA resources on specific events easy. The bibliographies of video, print, and other resources—some of them online—are arranged by category.

From: *Disaster Research* 514, Nov. 20,2008

<http://emergencymanagementnetwork.ning.com/>

Emergency preparedness junkies might soon be able to leave *MySpace* and *LinkedIn* behind, now that there’s a social networking site devoted to them. The Emergency Management Network community is just getting off the ground, but the site has areas for news, discussion forums, sharing photos and videos, blogging, and live chat.

From: *Disaster Research* 513, Nov. 6, 2008

[incaseofemergencyblog.com/](http://incaseofemergencyblog.com/)

Those with any kind of interest in emergency preparedness won’t want to wait to break the glass on this useful aggregation that includes education resources, legislative news, advice from experts, a video series on what the public should know and much more. The blog, subtitled “A Citizen’s Eye View of Emergency Preparedness”, began as a way for creator John Solomon to discuss, disperse, and develop research he gathered for his upcoming book, *In Case of Emergency, Read Book: Simple Steps To Prepare You and Your Family For Terrorism, Natural Disasters and Other 21st Century Crises*.

From: *Natural Hazards Observer*, v. 33, no. 2, p. 20.

<http://www.robustresilience.com/>

Robust Resilience

Business continuity doesn’t have to be costly with this bevy of free online trainings—complete with follow-up exams—at your fingertips. Robust Resilience, a coalition of contingency planning companies and the UK government, offers quick tutorials on subjects such as disaster recovery, information technology resilience, pandemic planning, and more. Although sometimes UK-specific, there’s plenty of tips for users abroad as well.

From: *Disaster Research* 511, October 9, 2008

[http://www.youtube.com/profile\\_videos?user=FEMA](http://www.youtube.com/profile_videos?user=FEMA)  
FEMA on YouTube

Anyone wondering what those crazy kids at the Federal Emergency Management Agency (FEMA) are up to these days doesn’t have to look far—FEMA now has its own *YouTube*™ channel where the agency has been posting videos ranging from David Paulison’s personal preparedness efforts of footage of debris clearing after Gustav. Surprisingly, the group doesn’t



have any friends listed yet, but maybe they're all hanging out at the agency's *MySpace* page....

From: *Disaster Research 511*, October 9, 2008

<http://www.betaexercise.org/>

Alternative Medical Treatment Sites

The Florida Department of Health's Beta Fish Exercise—which tested plans for the alternative medical treatment sites (AMTS) that would be used in mass casualty situations to care for less critical patients—went so swimmingly that their partners at Florida State University's Center for Disaster Risk Policy created a Web site so others could access information and tools used in the effort. Click on the fish for details of the exercises held in three Florida counties, as well as scenarios, victim and evaluator briefings, and even a certificate generator for those who participate in the exercise.

From: *Disaster Research 510*, Sept. 25, 2008

<http://www.gao.gov/new.items/d08823.pdf>

GAO Report on Voluntary Organizations

A recent report by the U.S. Government Accountability Office (GAO) found the nation's top volunteer disaster response organizations would likely be unable to meet expected needs for services in the event of "worst-case, large-scale disaster." The report is based on interviews with officials from the American Red Cross, The Salvation Army, the Southern Baptist Convention, Catholic Charities USA, and the United Way, as well as officials from large metro areas and the Federal Emergency Management Agency (FEMA). The report recommends FEMA clarify the role of the Red Cross under the 2008 National Response Framework, incorporate other organizations in its assessments, and detail disaster preparedness grant funding.

From: *Disaster Research 510*, Sept. 25, 2008

[http://www.dhs.gov/xlibrary/assets/DHS\\_StratPlan\\_FINAL\\_spread.pdf](http://www.dhs.gov/xlibrary/assets/DHS_StratPlan_FINAL_spread.pdf)

Department of Homeland Security's Strategic Plan 2008-2013

The Department of Homeland Security (DHS) has released its strategic plan for fiscal years 2008-2013. With an emphasis on risk management-based resource allocation, the plan lists five objectives ranging from protect the nation from "dangerous people" to strengthening preparedness and response capabilities. The plan is a "living document" and will be revised to address changing requirements, according to a DHS statement. Citizens can sign up to be notified of changes at

<http://www.dhs.gov/xabout/strategicplan/>.

From: *Disaster Research 510*, Sept. 25, 2008

<http://www.emforum.org/vforum/lc080924.htm>

EIIP Forum Stafford Act Discussion

The talk-provoking Stafford Act provided fodder for the most recent Emergency Information Infrastructure Project (EIIP) virtual forum—this time questioning whether the act was robust enough to handle "catastrophic disasters" or if it should be modified to address extremely large-scale events. The transcript of the discussion, led by Drew Sachs of James Lee Witt Associates, is one of many that can be found on the forum Web site. Search the database; also see the discussion on crisis informatics with Natural Hazards Center researcher Jeannette Sutton from October 8.

From: *Disaster Research 510*, Sept. 25, 2008

<http://monitter.com/>

Monitter.Com

Those familiar with Twitter know that the brief chirps of information during an emergency can paint a sonar-like picture of what's happening on the ground. Monitter.com allows you to enter keywords for instant and personalized monitoring of the Twitter stream.

From: *Disaster Research 515*, Dec. 4, 2008

## CONFERENCES AND SYMPOSIUMS

### December 15-17, 2008

2008 Caribbean All-Hazards Conference, hosted by Caribbean All-Hazards Association. Montego Bay, Jamaica. Cost and Registration: \$75 before November 3, \$95 after.

This conference brings together government agencies, academic institutions, and the private sector to exchange information and develop ways to reduce the impacts of hazards and disasters in the Caribbean. Presentations of case studies and other discussions will foster interaction among participants in sessions ranging from tourism issues to warning systems to building codes. <http://www.caribbeanallhazards.org/>

From: *Disaster Research 511*, October 9, 2008

### February 10-13, 2009

Australia Disasters Conference 2009: Surviving Future Risks-- Emergency Management Australia, Canberra, Australia Cost and Registration: \$895, closes February 1.

This conference explores future Australian disaster risk and recommends mitigation and preparedness enhancements to improve community resilience. Themes include the changing face of crisis management,

potential impacts of global warming, identifying risk and mitigation strategies, and disaster recovery.  
<http://www.ema.gov.au/disastersconference>

From: *Disaster Research* 515, Dec. 4, 2008

### **February 19-22, 2009**

2009 International Disaster Management Conference--Emergency Medicine Learning and Resource Center, Orlando, Florida. Cost and registration: \$390 before January 23.

This conference highlights the role first responders and response agencies play in disaster planning, response and mitigation. Emergency management challenges and lessons from the past year will provide the basis for many of the conference sessions.

[www.emlrc.org/disaster2009.htm](http://www.emlrc.org/disaster2009.htm)

From: *Natural Hazards Observer*, v. 33, no. 2, p. 22

### **March 4-6, 2009**

Third National Emergency Management Summit International Association of Emergency Managers Washington, D.C. Cost and registration: \$995 before December 19, open until filled.

The summit will assess risk and awareness of natural disasters, epidemics, and terrorism in the United States and set out practical approaches to planning, response, and recovery. The overarching goal is to increase disaster preparedness knowledge, learn to use scarce resources wisely, and effectively implement responses.

<http://www.emergencymanagementsummit.com/>

From: *Disaster Research* 514, Nov. 20, 2008

## **CONTRACTS, GRANTS**

### **Mitigating the risk of coastal infrastructure through understanding tsunami-structure interaction and modeling.**

Funding Organization: National Science Foundation. \$374,996. Three years. Principal Investigator: Daniel Cox, Oregon State University. [dan.cox@oregonstate.edu](mailto:dan.cox@oregonstate.edu).

The current tsunami evacuation strategy in the United States puts large populations at high risk because it requires everyone to evacuate the flooded areas and does not consider the possibility of using tall buildings for shelter. Part of the unwillingness to adopt vertical evacuation strategies stems from an inability to estimate the damage level in the flooded area for a range of building types, including reinforced concrete (e.g., modern hotel), unreinforced concrete masonry units (e.g., older motel, light commercial) and light-frame wood

(mostly residential and some light commercial) structures. The goal of this project is to model building damage by studying water flow and debris hazard of collapsed buildings in the flooded areas. This will help create an understanding of the expected damage to cities and towns and to design buildings to withstand these forces.

As a first step of this new approach, we will focus on residential (light-frame wood) buildings, which make up 90 percent of the building stock in the United States and are where people spend approximately half of their day.

The goals of this NEESR-II project are to (1) develop a methodology to assess the risk of residential structures to tsunami inundation and wave forces through a systematic experimental study coupled with a numerical probability of failure analysis; (2) enable the development of innovative retrofit products by developing a structural testing protocol that is representative of hydraulic impact/forces during a tsunami; and (3) refine the current hydraulic force equation in ASCE 7 based on a series of wave basin tests to account for building density and other variables.

To accomplish the project objectives, several largescale tests will be conducted over three years at the NEES Tsunami Facility at Oregon State University using both the Large Wave Flume and Tsunami Wave Basin Facilities. The tests will mark the first time that large-scale tsunami tests will be conducted for U.S. residential structures.

This project develops a collaboration with the Port and Airport Research Institute (PARI), Japan's premier research center for coastal infrastructure. Currently, the Tsunami and Storm Surge division of PARI is developing a series of nested numerical models that can model tsunami propagation and inundation over a wide range of spatial scales, including tsunami forces on buildings.

This project will have an important educational aspect by training two graduate students, one at Oregon State and the other at Colorado State, and one undergraduate research student per year from Texas A&M University-Kingsville, a minority serving institution. This research will permeate to basic undergraduate and graduate engineering courses at OSU, CSU, and TAMU-Kingsville to increase awareness of the engineer's role and responsibility in the design of houses and buildings exposed to the forces of nature. Outreach aspects focus on a hands-on design project related to tsunami-structure interaction for first-year engineering students at universities outside the NEES@OSU site. In addition to this activity, the project as a whole will reach the general public through collaborations with museums of science and industry in Portland, Oregon, and the other in Chicago, Illinois.

The project team will help the Chicago museum develop tsunami content for Science Storms, a high-visibility marquee exhibit at the museum, which welcomes over 1.5 million visitors, students, parents and teachers each year. Data from this project will be made available through the NEES data repository at [www.nees.org](http://www.nees.org).

From: *Natural Hazards Observer*, v. 33, no. 2, p. 16. ♦

## BOOK REVIEWS

*The Phoenix of Natural Disasters—Community Resilience*

Reviewed by George Seymour

From: *The Australian Journal of Emergency Management*, v. 23, no. 3, p. 67.

<http://www.ema.gov.au/ajem>

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*The Phoenix of Natural Disasters—Community Resilience*

By Kathryn Gow and Douglas Paton (eds.), 2008, Nova Publishers.

Spanning 15 chapters from 18 contributors, *The Phoenix of Natural Disasters: Community Resilience* is an academic resource which examines and interprets the nature of resilience in communities and individuals. The contributors come from academia, the emergency services sector, support agencies and the media. It is edited by Kathryn Gow and Douglas Paton, both of whom are psychologists who have studied stress, burnout, trauma and resilience on an individual and community level in times of natural disaster.

Resilient societies recognise that they need to put in place procedures and capabilities for their benefit when disaster strikes. The distinct chapters, which can be read in isolation, address a number of aspects of resilience, coping and recovery at the individual and community levels, the broad aim is to canvass topics that provide an overview of the issues that societies must address to develop and maintain resilience.

The text is organised into three parts. Part 1 outlines the overarching frameworks that provide insights into the scope and applicability of the resilience concept as a device that can facilitate planning and policy making in societies for whom the risk of experiencing disaster is high. Part 2 focuses on the individuals and organisations, such as the State Emergency Service and the Royal Australian Navy, that are responsible for enacting plans and policies when disaster strikes. Part 3 examines the

implications for citizens and communities that comprise contemporary societies.

The contributors stress the importance of engaging and supporting communities to prepare for, and manage, natural disasters. As is noted by several of the contributors, disaster readiness and preparation initiatives can make a longer term contribution to social capital.

The style of the book reflects the background of the majority of its contributors; academia. Like the development of resilience itself, the text is not suitable for quick access or consultation during the heat and drama of an emergency. It is a useful, welcome and somewhat rare contribution on the role and importance of resilience in coping with, and moving on, from natural disasters.

*Waves of Hope: The U.S. Navy's Response to the Tsunami in Northern Indonesia*

Reviewed by Lt. B.J. Armstrong, USN

"This review was originally published in *American Diplomacy*, [www.americandiplomacy.org](http://www.americandiplomacy.org)."

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*Waves of Hope: The U.S. Navy's Response to the Tsunami in Northern Indonesia* (Newport Paper #28), by Bruce A. Elleman, Naval War College Press, Newport RI, 2007. 134 pp. appendix, notes, glossary, bibliography, index. Available for free download at: [www.nwc.navy.mil/press/newportpapers/newportpapers.aspx](http://www.nwc.navy.mil/press/newportpapers/newportpapers.aspx)

The early twenty-first century has been a period of mixed missions for the United States Armed Forces. As combat operations have dominated in Iraq and Afghanistan, the U.S. maritime services have repeatedly been called upon to act as prime facilitators of humanitarian relief around the globe. Coast Guard and Navy rescue operations following Hurricane Katrina in 2005, non-combatant evacuation from Lebanon in 2006, and humanitarian relief operations following 2007's Tropical Cyclone Sidr in Bangladesh are just a few examples of the operations conducted. America's maritime leaders have recognized the important role that naval forces play in modern humanitarian efforts and have included these missions as one of the sea services' six core capabilities in the new "Cooperative Strategy for 21st Century Seapower." Dr. Bruce Elleman's *Waves of Hope: The U.S. Navy's Response to the Tsunami in Northern Indonesia* provides the first historically-minded account of Operation Unified Assistance, the U.S. Navy's role in saving thousands of lives following the tsunami that struck Sumatra in December 2004.

Dr. Elleman, a research professor at the U.S. Naval War College, has produced a well researched and engaging study of the relief effort. If journalism is the

first draft of history, then *Waves of Hope* can be seen as the second draft, as the author moved beyond the accounts of newspapers and press releases and included internal naval reports, interviews, and oral histories from the U.S. Naval Historical Center. In the process he tells the reader the story of how American naval forces delivered 9.5 million pounds of relief supplies to an Islamic nation, suspicious of American intentions, in a region with an active insurgency.

The study begins with an explanation of the science behind the earthquake and tsunami that wracked the Indian and Pacific Oceans on the December 26, 2004 and a brief history of other tsunamis that have impacted the world's littorals. Through eight more chapters the author illuminates the strengths and the weaknesses of the mission. Chapters are broken up by topic and include the intelligence limitations that resulted from a non-existent warning system and faulty reporting in the press, the importance of developing logistics and supply systems, and the positive post-mission political results of the operation.

Dr. Elleman spends a chapter discussing the vital importance of sea-basing during the mission. Sea-basing, or the capability to mount the operation completely from the sea, with sailors and assets returning to the ships of Combined Support Force 536 each night for hot chow and a navy rack, proved an important strategic point for the United States Navy. The concept had been talked about by navalists for decades, but Operation Unified Assistance validated the idea beyond combat operations. It significantly reduced the possibility of an incident between U.S. personnel and the local authorities, which was vital in a suspicious Islamic land. Sea-basing also limited the force protection issues that arose from operating in a region with an active anti-government insurgency. The coordination required to bring hundreds of military relief personnel ashore every day and return them to the ships every night, all the while moving people and supplies around the region, was nothing short of awe inspiring.

A second important chapter discusses the centrality of helicopter-assisted air access in the success of the mission. The region, which already had a limited infrastructure, had been decimated. Roads and bridges were washed out or destroyed and for a vast geography the helicopter was the only way in or out. While logistics missions are not dangerous, per se, the number of hours flown each day rapidly accumulated and placed a great deal of stress on both the aircrews and the airframes. Like the Berlin Airlift six decades before, Operation Unified Assistance demonstrated that airpower comes in many forms beyond the flight of the strategic bomber.

The final chapter is entitled "The Political Benefits of Unified Assistance." Dr. Elleman

attempts the difficult task of quantifying the political results of the humanitarian mission. While it is easy to quote the amount of water provided, the man hours devoted, or the sheer tonnage of relief supplies, it is much harder to illuminate the intangible benefits like political good will. In that effort Dr. Elleman compares Operation Unified Assistance with several other naval humanitarian missions and demonstrates the value of such operations diplomatically. The institutional bonds that developed between the United States and Indonesia, both militarily and in civil government, laid the foundation for future improvement of relations between the United States and largest Muslim nation in the world. This relationship has already resulted in positive results in America's fight against Islamic terrorists in South Asia.

Much of the focus of *Waves of Hope* is on the operational level of the mission: organization, command and control, and how the Combined Support Force operated. There are limited personal accounts from those in the lower half of the chain-of-command or those who worked on the ground among the Indonesians. The discussion of the combined nature of the operation, partnering U.S. forces with militaries from across the globe as well as civilian agencies, is rather limited as well. This shouldn't be much of surprise, however, since the work is a product of the U.S. Naval War College, a pre-eminent institution in the study and teaching of the strategic and operational levels of naval conflict. Besides the military aspects, Dr. Elleman also includes a very interesting chapter on the medical mission of the USNS Comfort following the initial relief operation, a mission that included the ground-breaking inclusion of civilian medical personnel as part of the naval crew. *Waves of Hope* achieves its goals, making a compelling case for the inclusion of humanitarian missions in naval strategy and the study of naval warfare.

The intersections of military power and diplomacy have been highlighted in recent years through operations in Iraq and Afghanistan. Operation Unified Assistance offers an example with positive results that commends itself to serious study. Bruce A. Elleman's *Waves of Hope: The U.S. Navy's Response to the Tsunami in Northern Indonesia* is an important read for students of modern naval power and a commendable illustration of the soft power aspect of the U.S. military for scholars of international relations.

#### AUTHOR

Benjamin Armstrong is an active duty naval aviator currently serving aboard USS WASP. He has completed assignments as a search and rescue and special warfare pilot and as an advanced helicopter instructor pilot. Lieutenant Armstrong has BS in history from the United States Naval Academy and

an MA in military history from Norwich University. His articles and reviews have appeared in several journals including *The Naval War College Review*, *Strategic Insights*, and *Chronicles Online Journal*.

From:

[http://www.unc.edu/depts/diplomat/item/2008/0709/book/book\\_armstrong\\_waves.html](http://www.unc.edu/depts/diplomat/item/2008/0709/book/book_armstrong_waves.html) ♦

Sept. 16, 2008

**Gameplay teaches disaster survival - RPV: Businessman's Monopoly-style board tests whether you know what to do in a earthquake or tsunami.**

*Daily Breeze* (Torrance, CA) - June 23, 2008

Author/Byline: Kristin S. Agostoni; Staff Writer

Edition: Torrance; section: NEWS; page: 3A

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Al McClain has spent the past decade planning for California's next Big One. In case of an earthquake or some other natural disaster, McClain has compiled lists of emergency numbers and survival supplies, and he knows a half-dozen ways to purify water. He's prepared for every possible scary scenario - downed power lines, collapsed walls, flying shards of glass, looting.

Now, just about 10 years after he started, the Rancho Palos Verdes businessman has rolled his tips into a board game that he wants to bring to a school or store near you. The Monopoly-style Shake, Rattle & Roll - for which McClain owns a patent and trademark - comes with a stack of question-and-answer cards he wrote, wooden game pieces and a multicolored board on which players race to answer questions and get across the Golden State to the Arizona border.

The 62-year-old McClain, who owns a packing and label distribution business, sees Shake, Rattle & Roll as both a money-making venture and an educational tool. As an entrepreneur, he buys into the philosophy that successful business models are the ones that help solve people's problems.

Not knowing how to react in emergencies is something McClain has observed among people he's surveyed over the years, he said. "They don't know anything. I asked questions, and they don't know," he said. "The ultimate key to this game is the questions."

The father of three said he started planning the game in 1998, gathering together news clips, emergency preparedness guides and tips from the Red Cross.

Once he decided to use the information for a board game, he wanted to ensure nobody lifted the idea. McClain estimates he's spent "thousands of dollars in attorneys' fees and costs for patents and trademarks."

He's had little luck so far with toy companies, two of which passed on an offer to buy and distribute the game, but has some success with local schools. His first

buyer was the Palos Verdes Peninsula Unified School District, which purchased a dozen games for classroom exercises, McClain said.

Since then, he's done more testing and added questions, including how to prepare for a tsunami. That was a disaster he hadn't really considered until the massive Indian Ocean earthquake that generated a deadly tsunami on Dec. 26, 2004.

"I have a lot of tenacity. I have a lot of drive, determination. So I kept on, kept on," he said. "I've gotten to that point where it's finished. ... It's user-friendly."

And so - with willing buyers or a perhaps a licensing partner - McClain 's ready to pack up the thousands of cards and game pieces that cover the pool table at his home office, the same place he stores custom-made boxes with a blurry picture of a city rattling in a quake.

Those were designed at Futuristic Container, Label & Packaging, the company he started in 1991 following a 25 year stint in the purchasing department at the former Honeywell plant in Gardena. That was his first solo venture, but McClain said he's always had an entrepreneurial spirit and "sort of a creative mind."

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### Material added to the NTHMP Library,

November - December 2008

Note: These, and all our tsunami materials, are included in the online (searchable) catalog at <http://www.dnr.wa.gov/ResearchScience/Topics/GeologyPublicationsLibrary/Pages/washbib.aspx>. Click on SEARCH DATABASE, then type 'tsunamis' in the Subject field to get a full listing of all the tsunami reports and maps in the collection.

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(continued on page 23)

STATE EMERGENCY MANAGEMENT OFFICES  
*updated 3-31-2006*

Alaska Dept of Military & Veteran Affairs  
Division of Homeland Security & Emergency  
Mgmt.

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Fort Richardson, AK 99505-5750  
(907) 428-7000; toll-free 800-478-2337  
Fax (907) 428-7009  
<http://www.ak-prepared.com/>

California Office of Emergency Services  
3650 Schriever Ave.  
Mather, CA 95655  
(916) 845-8510; Fax (916) 845-8910  
<http://www.oes.ca.gov/>

Hawaii State Civil Defense, Dept. of Defense  
3949 Diamond Head Road  
Honolulu, HI 96816-4495  
(808) 733-4300; Fax (808) 733-4287  
<http://www.scd.state.hi.us>

Oregon Division of Emergency Management  
PO Box 14370  
Salem, OR 97309-50620  
(503) 378-2911; Fax (503) 373-7833  
<http://www.oregon.gov/OOHS/OEM/>

Washington State Military Dept.  
Emergency Management Division  
Camp Murray, WA 98430-5122  
(253) 512-7067; Fax (253) 512-7207  
<http://emd.wa.gov>

Provincial Emergency Program  
455 Boleskin Road  
Victoria, BC V8Z 1E7 Canada  
(250) 952-4913; Fax (250) 952-4888  
<http://www.pep.bc.ca/>

ALSO:

American Samoa Territorial Emergency Management  
Coordination (TEMCO); American Samoa Government  
P.O. Box 1086  
Pago Pago, American Samoa 96799  
(011)(684) 699-6415; (011)(684) 699-6414 FAX

Office of Civil Defense, Government of Guam  
P.O. Box 2877  
Hagatna, Guam 96932  
(011)(671) 475-9600; (011)(671) 477-3727 FAX  
<http://ns.gov.gu/>

Guam Homeland Security/Office of Civil Defense  
221B Chalan Palasyo  
Agana Heights, Guam 96910

Tel:(671)475-9600; Fax:(671)477-3727  
[www.guamhs.org](http://www.guamhs.org)

CNMI Emergency Management Office  
Office of the Governor  
Commonwealth of the Northern Mariana Islands  
P.O. Box 10007  
Saipan, Mariana Islands 96950  
(670) 322-9529; (670) 322-7743 FAX  
[www.cnmiemo.gov.mp](http://www.cnmiemo.gov.mp)

National Disaster Management Office  
Office of the Chief Secretary  
P.O. Box 15  
Majuro, Republic of the Marshall Islands 96960-0015  
(011)(692) 625-5181; (011)(692) 625-6896 FAX

National Disaster Control Officer  
Federated States of Micronesia  
P.O. Box PS-53  
Kolonja, Pohnpei - Micronesia 96941  
(011)(691) 320-8815; (001)(691) 320-2785 FAX

Palau NEMO Coordinator, Office of the President  
P.O. Box 100  
Koror, Republic of Palau 96940  
(011)(680) 488-2422; (011)(680) 488-3312

Puerto Rico Emergency Management Agency  
P.O. Box 966597  
San Juan, Puerto Rico 00906-6597  
(787) 724-0124; (787) 725-4244 FAX

Virgin Islands Territorial Emergency Management -  
VITEMA  
2-C Contant, A-Q Building,  
Virgin Islands 00820  
(340) 774-2244; (340) 774-1491

**Saturday Academy, summer 2008**

Tsunami structure to be tested at Oregon State Uni-  
versity's Hinsdale Wave Lab  
(see story in October issue of *TsuInfo Alert*, p. 14)



(continued from page 21)

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## Infrequently Asked Questions

Besides sending tsunami waves across oceans, what else did the Sumatra earthquake send?

“The Sumatra earthquake [Dec. 2004] not only sent a tsunami rushing across the sea, but also shot sound waves into space. This allowed a remarkable observation to be made—how a natural terrestrial phenomenon affects the magnetic field surrounding Earth. By comparing data from Thailand, China and Japan, Kyoto University’s Toshihiko Iyemori and his colleagues found localized long-wavelength pulsations in the geomagnetic field at the Thai city of Phimai. The timing and nature of the pulsations suggest that the magnetic disturbance was caused by sound waves from the earthquake”

From: *Nature*, v. 438, no. 7065, p. 132 (Nov. 10, 2005).

What is the word for “tsunami” on Simeulue Island, near Aceh?

*Smong*. It means “curling waves.”

From: *Disasters in Southeast Asia—Stories of struggle, resilience, greed*: Southeast Asian Press Alliance, 2006, 108 p.

What word do the Moken people, sea gypsies, use for “tsunamis”?

*Laboon*.

From: *Disasters in Southeast Asia—Stories of struggle, resilience, greed*: Southeast Asian Press Alliance, 2006, 108 p.

Are there stories of animals saving peoples’ lives in the 2004 Indian Ocean tsunami?

“Aninat Tongkit of Ban Khao Lak in Phang Nga, a 23-year old mahout or elephant handler was able to flee from the waves in time because of his four-legged giant wards.

Aninat recalls that at about 5:30 on the morning of December 26, two of his eight elephants, which he kept just 500 metres from shore, began crying out. Aninat says he couldn’t figure out why. At around 10 a.m. that same day, the elephants began running towards the nearby hills, forcing a confused Aninat to chase after them; even the chained elephants had somehow broken free.

Aninat soon found out the reason behind his elephants’ strange behaviour: the tsunami hit the coast barely 10 minutes later.

“Two Japanese tourists who were riding elephants were saved because (the animals) ran away,” says Aninat.””

From: *Disasters in Southeast Asia—Stories of struggle, resilience, greed*: Southeast Asian Press Alliance, 2006, 108 p.♦

## VIDEO-CD-DVD RESERVATIONS

To reserve tsunami videos, CDs or DVDs, contact *TsuInfo Alert* Video Reservations, Lee Walkling, Division of Geology and Earth Resources Library, 1111 Washington St. SE, MS 47007, Olympia, WA 98504-7007; or e-mail [lee.walkling@dnr.wa.gov](mailto:lee.walkling@dnr.wa.gov)

Adventures of Disaster Dudes (14 min.). Preparedness for preteens. American Red Cross.

The Alaska Earthquake, 1964 (20 min.) Includes data on the tsunamis generated by that event.

Business Survival Kit for Earthquakes & Other Disasters; What every business should know before disaster strikes (27 min.). Global Net Productions for the Cascadia Regional Earthquake Workgroup, 2003. With CD disaster planning toolkit & other data.

Cannon Beach Fire District Community Warning System (COWS) (21 min.) Explains why Cannon Beach chose their particular warning system.

Cascadia: The Hidden Fire—An Earthquake Survival Guide (10 min.). Global Net Productions, 2001. A promo for a documentary about the Cascadia subduction zone and the preparedness its existence demands of Alaska, Oregon and Washington states. Includes mention of tsunamis.

Disasters are Preventable (22 min.) Ways to reduce losses from various kinds of disasters through preparedness and prevention.

Disaster Mitigation Campaign (15 min.). American Red Cross; 2000 TV spots. Hurricanes, high winds, floods, earthquakes.

Earthquake...Drop, Cover & Hold (5 min.). Washington Emergency Management Division. 1998.

Forum: Earthquakes & Tsunamis (2 hrs.). CTV-23, Vancouver, WA (January 24, 2000). 2 lectures: Brian Atwater describes the detective work and sources of information about the Jan. 1700 Cascadia earthquake and tsunami; Walter C. Dudley talks about Hawaiian tsunamis and warning systems.

International Tsunami Information Centre, 2004, Tsunami warning evacuation news clips and video footage, UNESCO /IOC International Tsunami Information Centre, 1 **DVD**, 12 min.

Killer Wave: Power of the Tsunami (60 min.). National Geographic video.

Mitigation: Making Families and Communities Safer (13 min.) American Red Cross.

Not Business as Usual: Emergency Planning for Small Businesses, sponsored by CREW (Cascadia Regional Earthquake Workgroup) (10 min.), 2001. Discusses disaster preparedness and business continuity. Although it was made for Utah, the multi-hazard issues remain valid for everyone. Websites are included at the end of the video for further information and for the source of a manual for emergency preparedness for businesses.

Numerical Model Aonae Tsunami—7-12-93 (animation by Dr. Vasily Titov) and Tsunami Early Warning by Glenn Farley, KING 5 News (The Glenn Farley portion cannot be rebroadcast.)

Ocean Fury--Tsunamis in Alaska (25 min.) VHS and **DVD**. Produced by Moving Images for NOAA Sea Grant College Program, 2004.

The Prediction Problem (58 min.) Episode 3 of the PBS series "Fire on the Rim." Explores earthquakes and tsunamis around the Pacific Rim

Protecting Our Kids from Disasters (15 min.) Gives good instructions to help parents and volunteers make effective but low-cost, non-structural changes to child care facilities, in preparation for natural disasters. Accompanying booklet. Does NOT address problems specifically caused by tsunamis.

The Quake Hunters (45 min.) A good mystery story,

explaining how a 300-year old Cascadia earthquake was finally dated by finding records in Japan about a rogue tsunami in January 1700

Raging Planet; Tidal Wave (50 min.) Produced for the Discovery Channel in 1997, this video shows a Japanese city that builds walls against tsunamis, talks with scientists about tsunami prediction, and has incredible survival stories.

Raging Sea: KGMB-TV Tsunami Special. (23.5 min.) Aired 4-17-99, tsunami preparedness in Hawaii.

The Restless Planet (60 min.) An episode of "Savage Earth" series. About earthquakes, with examples from Japan, Mexico, and the 1989 Loma Prieta earthquake.

Run to High Ground (14 min.). Produced by Global Net Productions for Washington Emergency Management Division and Provincial Emergency Program of British Columbia, 2004. Features storyteller Viola Riebe, Hoh Tribe. For K-6 grade levels. Have video and **DVD** versions.

Tsunami and Earthquake Video (60 min.). "Tsunami: How Occur, How Protect," "Learning from Earthquakes," "Computer modeling of alternative source scenarios."

Tsunami: Killer Wave, Born of Fire (10 min.). NOAA/PMEL. Features tsunami destruction and fires on Okushiri Island, Japan; good graphics, explanations, and safety information. Narrated by Dr. Eddie Bernard, (with Japanese subtitles).

Tsunami: Surviving the Killer Waves (13 min.). 2 versions, one with breaks inserted for discussion time.

Tsunami Chasers (52 min.). Costas Synolakis leads a research team to Papua New Guinea to study submarine landslide-induced tsunamis. Beyond Productions for the Discovery Channel.

Tsunami Evacuation PSA (30 sec.). DIS Interactive Technologies for WA Emergency Management Division. 2000.

TsunamiReady Education CD, 2005, American Geological Institute Earth Science Week kit.

Understanding Volcanic Hazards (25 min.). Includes information about volcano-induced tsunamis and landslides.

UNESCO/IOC International Tsunami Information Centre, 2005, U.S. National Tsunami Hazard Mitigation Program public information products—B-roll footage, tsunami science, warnings, and preparedness: UNESCO/IOC International Tsunami Information Centre, 1 **DVD**, 57 min.

The Wave: a Japanese Folktale (9 min.) Animated film to start discussions of tsunami preparedness for children.

Waves of Destruction (60 min.) An episode of the "Savage Earth" series. Tsunamis around the Pacific Rim.

Who Wants to be Disaster Smart? (9 min.). Washington Military Department/Emergency Management Division. 2000. A game show format, along the lines of *Who Wants to be a Millionaire?*, for teens. Questions cover a range of different hazards.

The Wild Sea: Enjoy It...Safely (7 min.) Produced by the Ocean Shores Wash. Interpretive Center, this video deals with beach safety, including tsunamis. ♦



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