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)

Contents **Volume 14, Number 4 August 2012**

REPORT FROM MAINE

Maine Tsunami Preparedness

Elizabeth Barton – Natural Hazards Planner for MEMA

Since 2009 Maine has been working to become more prepared in the event of a tsunami. To that end Maine Emergency Management Agency received a grant from the National Tsunami Hazard Mitigation Program to investigate the risk and the threat of a tsunami hitting the coast of Maine.

In the process of research it was discovered that there has been at least one earthquake generated tsunami (1872) and as many as three other tsunamis that were caused by meteorological events. This lead MEMA to believe that there was an actual threat the next step was to determine what the risk was and what was the most likely source of threat.

MEMA contracted with Maine Geological Survey to look at where the mostly likely threat resided and it was determined that an earthquake originating in the Puerto Rican Trench was the most realistic threat. Based on that, Maine Geological Survey began the work to model the impact on Maine's coast, enlisting the help of William Knight of WCATWC who did the actual model run with the input of Maine's data.

In 2011 MEMA hosted two tabletop exercises to test the Tsunami Response plan that was written by consultants hired for that purpose. The exercise was held in the spring not long after the earthquake and tsunami that struck Fukushima, Japan. Perhaps due to the attention generated by this disaster there was a positive response by local communities at the tabletops held. Prior to this Maine residents did not give the threat of a tsunami hitting Maine much credibility. However, when the world turned to look at Japan it caused many to wonder "could it happen here? " The answer they got was yes, but it is highly unlikely to be the same level of impact as what occurred in Japan.

(*continued on page 3*)

State Offices and agencies of emergency management:
Gives mailing addresses, phone and fax numbers, websites. Does not give personnel names or job titles.
http://www.fema.gov/about/contact/statedr.shtm

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Olympia, WA 98504-7007
360/902-1473
fax: 360/902-1785
e-mail: lee.walkling@dnr.wa.gov

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Also in 2011 Maine Emergency Management Agency contracted with Maine Department of Transportation to install 130 emergency evacuation route signs along coastal routes. This project generated a lot of discussion in Maine coastal communities – much of the discussion being disagreement with the need for the signage. Maine is a very independent state where its residents like to boast their ability to withstand whatever nature throws at them. On the whole Mainers are very resourceful and self-sufficient; however that very likely is not the case of the many tourists who come to Maine to enjoy its coastline and many lakes. Their safety is just as important to MEMA as the safety of the residents of Maine.

The excitement of the sign installation has died down and Mainers may scratch their heads about the signs but they are no longer worrying about them. The tabletop exercises that were held however have stayed in the minds of one particular county in Maine – Cumberland County. Cumberland County has perhaps the largest population and is one of the major metropolitan areas of the state. It also has a large coastal area and is rightly concerned about protecting its residents in the event of a tsunami. Cumberland County has perhaps the most diverse mix of nationalities living within its borders. Therefore it was no surprise when they decided they wanted to be better prepared for this disaster. They decided they needed to translate and update warning documentation so that the Counties diverse population could be better prepared with information on where to go and what to do in the event of a tsunami. Also knowing their geography and low lying roadways, they determined they needed a better way to notify locals about road closures and detours due to high water. Their plan is to translate their warning literature into 8 different languages including Braille and to purchase two variable message signs that can be carried by man power to locations that might not be easily accessible by a large vehicle. Their plan will be complete by the early spring in 2013. As Maine had completed its original grant plan, the County of Cumberland is working with Maryland Emergency Management agency to fund this project. Maryland received a grant to improve public outreach with regard to tsunamis along the Eastern coastal states. Maine is very appreciative of the opportunity to move forward with this project in Cumberland County due to the assistance of the Maryland Emergency Management Agency.

As part of the grant from NTHMP, Maine Emergency Management Agency produced a brochure that was printed and distributed to coastal counties in the state. It is also available on MEMA's website at:
http://www.maine.gov/mema/mema_library.shtml

A previous article came out in *TsunInfo Alert* in October 2011. It can be viewed at:
http://www.dnr.wa.gov/publications/ger_tsuinfo_2011_v13_no5.pdf ♦

REGIONAL REPORTS

ALASKA

Scientists kick-off first NOAA-led survey of southeast Alaska beaches for tsunami debris
NOAA Fisheries News Releases
June 18, 2012
Julie Speegle, 907 586-7032

Juneau, AK—A team of five NOAA scientists have kicked off the first NOAA-led survey of southeast Alaska beaches for Japan tsunami debris, leaving from Ketchikan Friday aboard the charter vessel *Sumdum.*

Over the 10-day cruise, the team will survey specific beaches of southeast Alaska from Dixon Entrance to Cape Spencer, covering approximately 78 kilometers of shoreline across 889 kilometers of outside coast.

"We doubt that the peak of tsunami debris has arrived, so this is a preliminary assessment to get an idea of the scope of what is arriving here right now," said NOAA's Jeep Rice from the Auke Bay Lab (ABL) in Juneau. "We are also keeping a sharp lookout to see if there is anything chemically or physically dangerous that needs immediate action. This scouting trip will help inform future cleanup efforts."

Rice said other locations further north and west in Alaska will be surveyed later this summer to include a wide swath of Alaska coastline all the way out to Adak. All human-related marine debris will be enumerated and cataloged so scientists can assess their spatial and temporal distribution.

Tsunami debris surveys will be conducted periodically throughout the next couple years. NOAA's Marine Debris Program provided funding for the survey, which will wrap-up June 24 in Juneau. The NOAA Marine Debris Program asks that members of the public visit their website on the Japanese tsunami marine debris http://marinedebris.noaa.gov/tsunamidebris/ to learn about procedures when they encounter marine debris. If one finds tsunami debris, NOAA asks that it be reported to DisasterDebris@noaa.gov.

Although this is the first NOAA survey in Alaska specifically for tsunami debris, NOAA has been conducting marine debris surveys along the

Alaska coast every 5-10 years since standard survey protocols were developed by Ted Merrell at ABL in the 1970s, meaning the agency has nearly 40-years of data on marine debris in southeast Alaska.

Auke Bay Lab's Jacek Maselko, the chief scientist for the survey, is leading a team that also includes Mark Hoover from ABL, Jason Rolfe from the NOAA Marine Debris Division, NOAA contractor Marty Myers from Juneau and University of Alaska student Derek Chamberlin.

NOAA's mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage our coastal and marine resources. Join us on Facebook, Twitter and our other social media channels.

From:
http://www.fakr.noaa.gov/newsreleases/2012/tsunamidebris061812.htm

CALIFORNIA

MyPlan—A new way to access CGS natural hazard information

A collaborative web service called MyPlan has been established by the California Emergency Management Agency and the California Natural Resources Agency (CNRA) to provide a "one-stop shop" for local agency access to interactive map information regarding natural hazards in California. Alongside contributions from Cal Fire and Water Resources, the California Geological Survey (CGS) provides information for earthquake and tsunami hazards.

CGS worked closely with CNRA developers to ensure accurate representation of its hazard information, and will continue to provide more data offering through this service.

Ready access to these data allows for enhanced dissemination of agency products to support local land-use and development decisions, and facilitates preparation and updating of local hazard mitigation plans. The new site can be accessed at http://myplan.casil.ucdavis.edu/

From: WSSPC e-newsletter, Spring 2012, p. 13.

Public Service Announcement (Japanese tsunami debris)

Date Released: 6/11/2012 Case No#: N/A
Contact: Lt. Steve Knight, Humboldt County
Released By: Lt. Steve Knight

The Humboldt County Sheriffs Office is receiving reports of possible debris from the Japanese tsunami that occurred in March 2011 washing up on area beaches. Please refer to the attached informational sheets on Japan Tsunami Marine Debris for specific information.

Just because debris is on the beach, does not necessarily mean it came from Japan. The North Coast is a natural repository for flotsam and jetsam due to ocean currents.

The Sheriff's Office of Emergency Services reminds the public that large earthquakes and tsunamis can strike the North Coast at any time, and persons in low lying areas or visiting our beaches should be aware of their location and the evacuation routes to safety.

HAWAII

Military, hospitals collaborate during 'tsunami' at RIMPAC

by William Cole
The Honolulu Star-Advertiser, July 21, 2012

An imagined magnitude-9.5 earthquake off Chile and a resulting 30-foot tsunami rolling into Honolulu gave the military and hospital system on Oahu a chance to work together over the past five days during Rim of the Pacific war games to manage the hypothetical disaster.

Full story at:
http://www.stripes.com/news/navy/military-hospitals-collaborate-during-tsunami-at-rimpac-1.183567

JAPAN

Plan for tsunami-hit airports in works

The transport ministry will develop emergency plans to get airports hit by tsunami up and running within three days, informed sources said.

The plans will cover Sendai Airport, Tokyo International Airport at Haneda, Central Japan International Airport in Aichi Prefecture, Kansai International Airport near Osaka, Kochi Airport in Shikoku, and Miyazaki Airport in Kyushu, the sources said.

The six, which are situated in coastal areas or on man-made islands, were chosen as they are at risk of being hit by tsunami from powerful earthquakes.

The government wants the airports to be able to recover as quickly as possible so they can serve as bases for rescue and relief operations after disasters, the sources said.

Full story at:
http://www.japantimes.co.jp/text/nn20120514a6.html

MIDWAY ATOLL

Tsunami debris appears to avoid Midway
Full article:
http://www.epa.gov/region9/marine-debris/bulletin/may2012.html

"Everyone in the oceanic administrations and the mariners at sea are eager to know where that debris from the tsunami has moved," said Robyn Thorson, the regional director for U.S. Fish and Wildlife Service.

Early predictions suggested the tsunami debris would soon wash ashore on Midway Atoll.

Researchers are breathing easier after news the debris will bypass Midway and move north instead.

From:
http://www.sacbee.com/2012/06/18/4571644/noaa-surveys-alaska-beaches-for.html

NEW ZEALAND

Work begins installing tsunami sirens
Friday, 15 June 2012, 3:51 pm
Press release: Christchurch City Council
http://www.scoop.co.nz/stories/AK1206/S00354/work-begins-installing-tsunami-sirens.htm

Work is underway installing the tsunami warning system along Christchurch's coastal area. Contractors have this week begun to install the 22 sirens from Waimairi Beach to Sumner which Christchurch Mayor Bob Parker says will be operational from 1 July 2012.

"Contractors will spend the next three weeks installing the sirens and silently testing the system.

"Residents will get to hear the sirens for the first time on Sunday 22 July at 11am when the sirens will be tested for one to two minutes

He says it is important residents are able to identify the sound the sirens make to know when they need to evacuate the coastal area.

"If during the testing the sirens are reactivated for more than 10 minutes, it will no longer be a test. Residents are advised they will need to evacuate the area."

Mr. Parker says the day of the testing is also a good time for all residents along coastal Christchurch to make sure they have an evacuation plan in place for themselves and their family, as self-evacuation may be necessary in the event of a tsunami.

He says businesses along coastal Christchurch also need to have an evacuation plan and ensure staff know where the closest evacuation route is to their workplace. "The tsunami warning system is just part of the solution to keep residents safe."

Further testing of the sirens will happen twice a year on the Sundays when Daylight Saving begins and ends. "There is a risk of tsunami inundation in Christchurch but that risk is considered low and has not changed as a result of the recent earthquakes."

He says the sirens will not be used in the event of a local tsunami, however they may be used in a regional tsunami, depending on when the tsunami is expected to reach land. The sirens will be used when a distance tsunami is heading towards our shores and there would be sufficient notice to activate the sirens.

Christchurch City's first tsunami warning test

The first test of the Christchurch City Council's 22 tsunami sirens was held at 11am. (July 22, 2012). The $550,000 sirens had been installed on the coastline between Waimari Beach and Sumner. Some residents reported on social networking sites that the sirens sounded "faint", and some said they could not hear them at all.

However, Civil defence and emergency management manager Murray Sinclair said the sirens were only meant to be heard up to 600 metres away from the coast, and were not designed to penetrate walls.

"We had volunteers around; some of the feedback they've picked up is that some people just couldn't hear it at all, or only just ... but if you were outside, you heard it fine." Full report at:

http://www.stuff.co.nz/national/7325605/Christchurch-tsunami-warnings-go-unheard

OREGON

Oregon installs dump sites for tsunami trash

Oregon Parks and Recreation is creating 32 drop-off sites on the Oregon coast to receive tsunami debris.

The Parks Department's debris drop-off sites are located in every county along the coast. They are at state parks, local trash haulers and transfer stations – run by companies that move trash to landfills and incinerators.

From: http://www.oregonlive.com/pacific-northwest-news/index.ssf/2012/06/post_69.html

Find tsunami debris on the Oregon coast? Call 211
The hotline will be staffed during business hours and will take recorded messages at other times.

Tsunami dock as permanent attraction on the Oregon coast?
By Lori Tobias, The Oregonian
http://www.oregonlive.com/pacific-northwest-news/index.ssf/2012/06/tsunami_dock_as_the_latest_shi.html
Full article, with 6 photos

"People have seen it on TV all over the country," said Herb Goblirsch, a tuna fisherman and 34-year resident of Newport. "We heard from people who sidetracked from I-5 to look at it. If the Chamber of Commerce had thought to make a tourism attraction, I don't know how much better they could have done. It's like Keiko."

Certainly, no one is denying the dock's draw. From June 5 when it landed through Thursday, state parks workers tallied 14,833 cars at and around the Agate Beach parking lot. A more typical June showing for a week at the same beach is just over 2,000. And the visitors show little sign of stopping.

No, the dock will be demolished

Ballard Diving and Salvage of Vancouver, Wash. will begin demolition on the dock July 31 and plans to finish within a week.

The company, under an $84 thousand contract with the Oregon Department of Parks and Recreation, plans to cut the dock, made mostly of concrete, into several large pieces, place them on a heavy-haul truck and transport them to a Portland area facility for final demolition and recycling.

Biologists from the Oregon Department of Fish and Wildlife will inspect the bottom of the dock as it's removed for invasive species.

The beach will remain open to the public during the work except for a closed safety zone around the demolition site.

Excerpted from
http://www.examiner.com/article/dock-from-japanese-tsunami-to-be-removed-from-oregon-beach

Oregon Office of Emergency Management

http://cms.oregon.egov.com/omd/oem/pages/plans_train/tsunamis.aspx

Includes links to

- General information on tsunamis in Oregon
- Oregon tsunami evacuation brochures
- Impact of tsunamis on Oregon coastal communities

List of local emergency managers

http://cms.oregon.egov.com/OMD/OEM/docs/plan_train/locals_list.pdf

Oregon State University becomes new PEER core institution

Oregon State University (OSU) has been added as a Pacific Earthquake Engineering Resource Center (PEER) core institution by a unanimous vote of the PEER institutional board.

OSU is the first university since PEER's inception in 1997 added as a core institution, and increases the number of PEER core institutions to a total of ten universities including the California Institute of Technology, Stanford University, UC Berkeley, UC Davis, UC Irvine, UCLA, UC San Diego, USC, and the University of Washington.

OSU has one of the nation's most sophisticated tsunami research basins and extensive programs in earthquake engineering, seismic safety, the study of "liquefaction," fault analysis, geophysics and other work relevant to earthquake hazards and mitigation.

To view the write-up, visit
http://peer.berkeley.edu/news/2012/02/osu-new-core-institution/

From: WSSPC e-newsletter, May 29, 2012

2012 Oregon Natural Hazards Mitigation Plan

The *2012 Oregon Natural Hazards Mitigation Plan* is available and ready for review at
http://csc.uoregon.edu/opdr/hazard_mitigation/state_mitigation_plan/current

From: WSSPC e-newsletter, May 29, 2012

Cascadia Preparedness Tsunami Road Show

Slides from the 2012 Cascadia Preparedness Tsunami Road Show are now available. The Road Show was conducted along the Oregon coast by Dr. Althea Rizzo, Oregon Emergency Management Geologic Hazards Program Coordinator.

The slide show is available at
www.oregon.gov/OMD/OEM/plans_train/Earthquake/2012_Road_Show_slides.pdf

From: WSSPC e-newsletter, May 29, 2012

Tillamook County considering phasing out tsunami sirens with newer technology

Full article at:
http://www.tillamookheadlightherald.com/news/article_d02d69d8-d1bf-11e1-9c84-001a4bcf887a.html

TEXAS

Dancing for preparedness? Flash mob spreads the message

Elaine Pittman
June 7, 2012
http://www.emergencymgmt.com/disaster/Dancing-for-Preparedness-Flash-Mob-Spreads-the-Message.html

Spreading the emergency preparedness message to the whole community can seem like a daunting task, but Austin, Texas, is getting creative to get the word out. Last week about 50 people gathered as part of a flash mob that danced at City Hall Plaza to encourage people to prepare for the worst.

While dancing isn't usually linked to emergency management agencies and their public

awareness activities, the song's lyrics — which include "This is my plan, and I'm ready to take action. I'm prepared." — helped spread an important message while making it fun for residents to think about personal preparedness.

Candice Wade Cooper, community preparedness manager for Austin's Office of Homeland Security and Emergency Management (HSEM), came up with the idea after participating in a flash mob last year for the premier of the movie *Footloose*. She found the song, called *This Is My Plan*, online and the office purchased the rights to it. Cooper then reached out to Dance Austin Studio, the choreographer that designed the *Footloose* flash mob, to see if it would assist with the flash mob for preparedness.

"We were looking for creative ways to raise awareness about emergency preparedness," she said. "We found that most of the time individuals do not think about preparing for an emergency unless there is a disaster actually occurring or about to happen."

It was estimated that 50 people danced during the May 30 event, and Cooper said the flash mob was the Austin HSEM's most successful campaign because it reached more than 150,000 people. To get that number, the office pulled analytics from YouTube and Facebook as well as the media outlets that covered the event. "We received a lot of community buzz about it," Wade Cooper said.

The city's website featured videos that taught the dance in addition to a free in-person class, according to the HSEM website.

And the flash mob isn't the only out-of-the-box way that Austin is encouraging its residents to prepare for an emergency. Wade Cooper said HSEM is launching a "gamification project" later this month that will use game-play mechanics, like awarding points, to encourage people to take preparedness training among other goals. The Preparedness Challenge will first be rolled out internally to city employees for about six months before being made available to the public.

"We have about 18 or 19 different preparedness quests in which they would take training classes, download preparedness books, and prepare themselves and their families by snapping a picture of their go kit and posting it on our website," Cooper said.

Participants will be awarded points for completing quests and attending preparedness events that they will be able to exchange for prizes. Austin HSEM also is using the Nintendo Wii gaming system to teach children about preparedness through a simulation of a disaster in a city. Children use the high-tech tool during annual open houses and the office's kids day.

The city also created the Ready Freddie mascot (which made an appearance during the flash mob) as part of the "Too Prepared to Be Scared" campaign. Wade Cooper said 30,000 Freddie and Friends kits have been distributed to children as another method for spreading the message.

For its preparedness outreach efforts, Austin HSEM received the award for Outstanding Educational Program of 2012 by the National Urban Area Association Inc. in partnership with *Emergency Management* magazine in May.

[Editor's note: there is a video of the dancing flash mob at the website]
http://www.emergencymgmt.com/disaster/Dancing-for-Preparedness-Flash-Mob-Spreads-the-Message.html

WASHINGTON

Gov. Gregoire announces state actions to address Japan tsunami debris
For Immediate Release: June 18, 2012

OLYMPIA – Gov. Chris Gregoire today directed the state's Military Department Emergency Management Division to lead a coordinated state effort to address potential tsunami debris floating onto Washington state beaches, and ensure Washington shores remain clean and safe.

"The federal government is the ultimate lead as our state responds to tsunami debris that washes up on our beaches," Gregoire said. "But our federal partners need support to protect our coast and keep our citizens safe. There is no better agency to lead coordination than our Emergency Management Division. That agency has the experience and know-how necessary to bring groups together to address a variety of situations."

State agencies already are working together on this debris issue. On April 25, 2012, 50 people representing local and tribal governments, state and federal agencies, and community organizations met in Ocean Shores to forge coordinated strategies for responding to tsunami debris.

EMD will continue working closely with the state's Departments of Health, Ecology, Fish and Wildlife, Parks, Natural Resources and other agencies as necessary, as well as the federal government and local and tribal communities and private non-profit groups.

Gregoire today also announced she intends to work with the governors of Oregon, California and Alaska and our respective congressional delegations

in requesting federal financial support to reimburse the state for any cleanup costs. Washington state set aside $100,000 from Ecology's litter cleanup account to help dispose of debris.

"While we expect debris to arrive slowly over the next several years, there's a chance a major storm could wash up several thousand pounds of debris at once," Gregoire said. "That will require far more financial resources than our state has available. I'm confident our federal partners will recognize the need to ensure our beaches, our shellfish, and the livelihoods of those living on the coast are safe and protected."

Since the March 11, 2011, tsunami in Japan, the Department of Health has continuously responded to issues of health and safety. Health officials will continue to test some debris that may be from Japan for radiation contamination. As expected, radiation tests so far have detected no contamination. Scientists say the tsunami debris was well offshore before the disaster at the nuclear power plants in Fukushima.

"I want to assure citizens that we will do everything we can to keep our beaches clean and safe," Gregoire said. "Our commitment must be well planned and it will be. I also want to say that the help of volunteers will be critical. I want to thank the Washingtonians who have already been picking up debris. Whether it comes from Japan or not, cleaning up the beach is a good thing to do."

If citizens find debris on beaches they think may be hazardous or contain oil, they should call 1-800-OILS-911. The Department of Ecology is poised to respond to any reports of hazardous marine debris, a service the agency already effectively performs. The Department of Fish and Wildlife will coordinate on efforts related to invasive species.

The National Oceanic and Atmospheric Administration (NOAA) is collecting information about potential debris from the Japanese tsunami on Washington beaches. Citizens can report tsunami debris to NOAA at disasterdebris@noaa.gov.

From: http://www.governor.wa.gov/news/news-view.asp?pressRelease=1917&newsType=1

Japan tsunami marine debris—What to do if you see debris (one-page flyer)

This website provides a good, 1-page hand-out. http://www.ecy.wa.gov/news/2012/docs/debris_flier.pdf

Washington State debris reporting sites:

Call: 1-855-922-6278;

Email: DisasterDebris@noaa.gov♦

A culture of preparedness

By Lt. Gen. Russell L. Honoré (U.S. Army Ret.)
Disaster Resource Guide, 15th edition, p. 30-31.
Reprinted with permission

Being prepared pays off because it can save your life as well as save you money. For every dollar we spend on preparedness in America, we save twelve dollars in response.

Family preparedness is not an option, it's a responsibility. It is a practice that builds resiliency, the ability to quickly bounce back from disasters. Take the time to care for your family, neighbors, and coworkers. Taking time to gain knowledge of what actions to take in a disaster WILL save your life and the lives of others. Being prepared can empower you to take part in one of the most gratifying experience you can imagine, saving somebody's life.

On any given day, Mother Nature can destroy anything built by man. We must be ready for anything she throws at us whether at home or in the work-place.

Basic preparedness starts with the simple mindset that a disaster can take place anywhere at any given time. The American Red Cross provides a helpful guide at RedCross.org/HomePreparedness.

The Red Cross lays out 3 easy steps for preparedness:

1. Get a kit
2. Make a plan
3. Be informed

It also recommends getting a NOAA Weather Radio for your home and your workplace. Take heed to the severe weather alerts put out by the National Weather Service. [And do not leave your tsunami evacuation site until NOAA gives the all-clear].

A culture of preparedness isn't built on fear. It isn't built on any major sacrifices or other draconian measures. All it takes is a small investment of time and consideration to prep your home and community. For example, on Mother's Day instead of buying Mom that fancy kitchen appliance she'll never use, buy her a disaster kit. What in the end is more important to Grandpa? A flashy hundred dollar Italian silk tie or a survival kit equipped with medical supplies, clothes, 3 days' supply of food, water and cash?

After disasters happen the government's number one priority is to focus on the most vulnerable of its citizens such as the elderly, those with disabilities and the urban poor as there folks will be at the most risk following a disaster. Hurricane Katrina proved that these populations had a higher fatality rate due to the lack of transportation or funds to acquire a means to evacuate.

We can build resiliency in our communities by encouraging businesses to be prepared. Have re-

sponse plans for all workplaces and ensure employees are well versed in disaster reaction. The most common thing that closes businesses following disasters is loss of electrical power. Local policy should require all drug stores and gas stations to have generators; this would be a great policy that would be a great asset in building community resiliency.

About the author

Lieutenant General Honoré holds one Bachelors degree, one Masters degree, and seven Honorary Doctorate degrees. He was commander of the Joint Task Force for Katrina and led the Department of Defense response to ten hurricanes. He has been awarded twenty-one medals and three badges. Retired after 37 years of active service, General Honoré speaks and consults nationally on "Building a culture of preparedness". For more information visit www.generalhonore.com

If you would like to receive future copies of the Disaster Resource GUIDE, which are complimentary to professionals involved with business continuity and disaster preparedness, please go to this link:
http://www.disaster-resource.com/index.php?option=com_user&view=register&Itemid=74♦

Interactive tsunami evacuation maps now available for the Pacific Northwest

March 20, 2012

For immediate release by Northwest Association of Networked Ocean Observing Systems, Oregon Department of Geology and Mineral Industries, Washington State Department of Natural Resources

Interactive maps of tsunami evacuation zones in both Oregon and Washington are now available online and as a smartphone app (*TsunamiEvac-NW*).

The Pacific Northwest Tsunami Evacuation Zones' online portal and smartphone app provide an at-a-glance view of tsunami hazard zones along the coasts of Oregon and Washington. This tool was developed by the Northwest Association of Networked Ocean Observing Systems (NANOOS) program.

The online portal can be found on the web at: http://nvs.nanoos.org/tsunami . The maps have also been integrated into a free smartphone app, TsunamiEvac-NW, which allows users to see whether they are in a tsunami evacuation zone, and plan their own evacuation routes. This free app is available from the iTunes App Store and Android Market:

iPhone:
http://itunes.apple.com/us/app/tsunamievac-nw/id478984841?mt=8

Android:
https://play.google.com/store/apps/details?id=org.nanoos.tsunami&hl=en

The coasts of Oregon, Washington, and Northern California are exposed to tsunamis from either *distant* earthquakes (such as the March 11, 2011, Tōhoku, Japan tsunami) or *local* earthquake events. The greatest risk to Northwest coastal communities is from very large *locally* generated tsunamis produced by an earthquake (magnitude 8-9+) occurring immediately offshore of the Pacific Northwest coast on the Cascadia Subduction Zone. The Oregon Dept. of Geology and Mineral Industries (DOGAMI) and the Washington State Dept. of Natural Resources (DNR) have mapped the zones that would be inundated by a tsunami. The collaborative effort between NANOOS, DOGAMI, and DNR will serve as an important tool in preparing for a potentially catastrophic tsunami event along the Pacific Northwest coast.

Both the interactive online portal and the smartphone app allow users to view whether their home, workplace, school, etc., are in a tsunami evacuation zone. Visitors to the coast can use the app to learn about tsunami risks before or during their visit. To help users develop and plan their own evacuation routes, the *Places* feature of this tool allows users to pinpoint a location by either entering an address or clicking on the map to see if that location is in a danger zone. Users can create multiple places with the feature and, if they log in with their *myNANOOS* account, those places will be saved automatically.

In addition to the maps, the portal and app provide information and resources of critical importance before, during, and following a tsunami event, including:

* Direct links to tsunami warnings issued by the NOAA West Coast and Alaska Tsunami Warning Center (WCTWC);
* Information links to WCATWC and the U.S. Geological Survey;
* The *Markers* feature that displays pre-set locations of schools, bridges, assembly areas, and various local government and emergency management buildings; and
* Downloadable brochures produced by DOGAMI and DNR showing evacuation routes and links to local emergency agencies for many communities along the Washington and Oregon coasts.

Although infrequent, tsunamis are a major threat to both life and property on the Washington and Oregon coasts. Based on sediment deposits, Japanese harbor records and Pacific Northwest tribal oral histories, scientists have identified that the last

mega-thrust earthquake (magnitude 8-9+) happened in 1700. Preparation for this type of event is necessary since scientists estimate that there is a 10 percent probability that the next earthquake will occur in the next 30 years.

Tsunamis that result from distant earthquakes, like the 1964 magnitude-9.2 Alaska earthquake or the 2011 magnitude-9.0 Japan earthquake, can cause damage in the Pacific Northwest as well. When the tsunamis from both of these events reached the shores of Washington, Oregon, and Northern California, lives were lost and tens of millions of dollars' worth of damage was created in several harbors and bays.

To minimize the loss of life and utilizing funding from NOAA's National Tsunami Hazard Mitigation Program, the Oregon Department of Geology and Mineral Industries (DOGAMI) has embarked on a massive effort to map new tsunami inundation zones for the entire Oregon coast by mid 2014.

DOGAMI scientists developed new earthquake source models in partnership with researchers at Oregon State University and the Geological Survey of Canada. DOGAMI constructed 3D point clouds using improved bathymetry and high-resolution lidar ground surface elevation data so that numerical hydrodynamic modeling could be performed by the Center for Coastal Margin Observation and Prediction. Upon model completion, DOGAMI staff created two lidar-based tsunami inundation map plate templates to create the Tsunami Inundation Map Series. This map series will span the entire Oregon Coast when complete, and will provide multiple local- and distant-source tsunami inundation scenarios, wave elevation profiles, wave height time series data, and building exposure analysis results.

DOGAMI also manages a comprehensive community outreach program that works to increase earthquake and tsunami preparedness among coastal visitors and residents, to create a local and sustainable grass-roots outreach program, and to create new evacuation brochures in collaboration with county and city officials. This outreach program is also supported by the Oregon Department of Land Conservation and Development and Oregon Emergency Management. For more information visit: www.oregontsunami.org.

In addition to managing more than 5.6 million acres of state-owned lands and serving as the state's wildland fire department, the Washington State Department of Natural Resources (DNR) houses the Washington State Geologist. The department regulates surface mining reclamation and provides technical assistance to citizens, industry and government on geologic hazards, forest stewardship, and other issues. Tsunami modeling was performed by NOAA's Center for Tsunami Research. Inundation mapping was undertaken by staff from the Washington State Department of Natural Resources. Community outreach is provided by the Washington Military Department, Emergency Management Division. For more information visit: www.dnr.wa.gov.

The Northwest Association of Networked Ocean Observing Systems (NANOOS) is the Pacific Northwest Regional Association of the U.S. Integrated Ocean Observing System (IOOS®), a national effort designed to enable the broadest access to ocean data, tools, products, and knowledge. NANOOS and its partners work with stakeholders to provide data and information needed to increase understanding and support decisions about key regional issues. For more information visit: www.nanoos.org.

The U.S. Integrated Ocean Observing System (IOOS®) is a federal, regional and private-sector partnership working to enhance its ability to collect, deliver and use ocean information. IOOS delivers the data and information needed to increase understanding of oceans and coasts, so that decision-makers can act to improve safety, enhance the economy and protect the environment. For more information visit: www.ioos.gov.

NANOOS Contacts:
Dr. Jan Newton – NANOOS Executive Director,
Phone: (206) 543-9152,
Email: newton@apl.washington.edu
Dr. Jonathan Allan – NANOOS Chair of User Products Committee , Phone: (541) 574-6658
Email: jonathan.allan@dogami.state.or.us

DNR Contact:
Bob Redling – Senior Communications Manager,
Phone: 360-902-1149
bob.redling@dnr.wa.gov

From:
http://www.dnr.wa.gov/ResearchScience/News/Pages/2012_03_20_tsunami_maps_nr.aspx
Accessed June 8, 2012 ♦

EYEWITNESS ACCOUNT

Tsunami survivor visits Cannon Beach [Oregon]
By Anthony Rimel
Cannon Beach Gazette, May 14, 2012
http://www.cannonbeachgazette.com/news/local_news/article_ea35db36-9e15-11e1-9133-001a4bcf887a.html
Reprinted with permission

A survivor of the 2011 Tohoku earthquake and the subsequent tsunami visited Cannon Beach this month and had two presentations at city hall discussing the aftermath of disaster. Hajime Saito was

a principle of a middle school in the coastal city of Kesennuma, Japan at the time of the disaster.

Although his school survived the earthquake and was outside the tsunami zone, it became a refugee center in the weeks after the earthquake.

Saito made two presentations, a more informal meeting with members of the city's emergency preparedness committee in the afternoon of May 9, and a larger public presentation that evening.

Saito, who is visiting Oregon as part of Mercy Corps "Voices from Tohoku" program, said through a translator that the March 11 earthquake happened during a school day.

"He is very grateful for the support from the states," said Rika Yamamoto, the Chief of Emergency Operations for Peace Winds Japan, who translated for Saito. Yamamoto said that volunteers from Portland helped clean up at the home of one of Saito's friends.

Although the school was out of the inundation zone and the building had recently undergone a series of upgrades to make it earthquake-safe, there was a single student fatality. Saito said the student was looking for a family member and drowned when the waters hit.

However, Saito presented a slide showing that another five students lost a parent, and another three students lost both parents. There were also 125 students whose houses were damaged or destroyed.

In addition to discussing the logistical challenges of feeding and sheltering the students and refugees at this school in the weeks after the tsunami, Saito discussed the challenges of keeping up morale.

Saito said that the school was evacuated during the earthquake, but he made the students line up outside and face away from the city to protect them from having to see the city as the tsunami hit. In Kesennuma City alone there were 1409 dead and missing people in the wake of the earthquake and tsunami.

Through his translator Saito said that giving students the option to help with activities such as cleaning or carrying water for the toilets helped them keep their spirits up. In Kesennuma the damage was extensive, and more than 80 percent of businesses were affected.

He added that resuming classes was a priority, and the school had first optional study sessions and then formally resumed classes more than a month after the tsunami. Saito said that when classes resumed more than half of the school grounds were occupied with temporary shelters for refugees.

During his presentation to the emergency preparedness committee Saito answered questions from committee members about his experience. Saito said that the school did have supplies for a tsunami prepared, but that it would have been helpful to have more food, water and things to keep the refugees warm. According to Saito it was several days before they had outside supplies, which were initially provided by city government.

Saito told the emergency preparedness committee that a year later unemployment in Kesenumma is more than 70 percent, and that his school had fewer students than they expected because their families moved away.

Saito's PowerPoint presentation included a photo of volunteers from Portland who assisted in the aftermath of the tsunami. He expressed gratitude to the US military and civilian volunteers who provided assistance to Japan.

Saito, who retired from teaching last month, said that he told his students that studying was the most important thing that they could do to repay the people who assisted them.

"He told them 'study very hard today so that when you are grown up you can remember what you have received and then you can repay society'," said Yamamoto, translating for Saito.

Local Oregon State Representative Deborah Boone said that it was informative to hear a personal story of the tsunami and earthquake.

"I was so happy they chose to spend two days in Clatsop County," she said.

Boone said that while Kesennuma's population is larger than any on the Oregon Coast but there are still parallels that make the experience valuable in the state's preparedness efforts. ♦

Wireless Emergency Alert (WEA)

A new text message alert system, called Wireless Emergency Alert (WEA), was launched Thursday, June 28, by the National Weather Service (NWS) in coordination with the Federal Emergency Management Agency. The alert system, which sends text messages to people in areas threatened by severe weather, has been in testing and limited use since 2010, but will now begin to see widespread use.

"At 2 p.m. today we open[ed] the pipes, so our warnings will flow through the system," NWS spokeswoman Susan Buchanan said Thursday, reported InformationWeek. "Ultimately, though, it's the wireless carriers that are implementing it; it's happening on a rolling basis across the country."

Participation in the alert service is voluntary for wireless carriers. Sprint and Verizon are ready for the system, and hundreds of smaller mom and pop carriers have agreed to ready their networks for the service as well. AT&T has the WEA service available in several cities with tentative plans for

wider coverage, but iPhone compatibility with the service is limited.

In fact, many older cellphones are not compatible with the alert service, Buchanan said, but all new cellphones on the market by the end of 2014 are expected to have WEA compatibility. A list of compatible models is available on the CTIA-The Wireless Association website.

The severe weather text alerts will be sent within seconds said Mike Gerber, NWS program leader. The alerts do not use GPS to locate users, but are rather sent by cell-tower region. A cellphone user from California vacationing in New York, for example, would receive alerts from only the tower in New York from which he or she currently receives a signal.

The WEAs are intended for warnings only and will not include severe weather watches. In addition, they only include certain weather conditions: blizzards, ice storms, dust storms, extreme winds, flash floods, hurricanes, typhoons, tornadoes and tsunamis.

The WEAs are issued through the Commercial Mobile Alert System, which went live in early April. In addition to alerts from the National Weather Service, presidential alerts will be issued using the system, and state and local agencies also will be able to use it to send emergency alerts and Amber Alerts.

The system was developed through a partnership between the Federal Emergency Management Agency, the FCC and wireless phone carriers to increase public safety nationwide.

Alerts can be a maximum of 90 characters, and in most cases, will only contain basic information such as the type of emergency, when the alert will expire and a recommended course of action.

Cellphone users can opt out of receiving all but the presidential alerts.

This article was originally published by *Government Technology*. http://www.emergencymgmt.com/safety/Weather-Warnings-Ready-for-US-Cellphone-Alerting-System.html ♦

Tsunami sensors will give Islanders 30-minute warning, vital information--High-tech models will affect planning of West Coast development

By Victoria Times Colonist, May 26, 2012

Deep, deep in the ocean, about 200 kilometres off the coast of Vancouver Island [British Columbia, Canada], an array of tsunami sensors, to be installed next month [June], will warn of impending tsunamis and offer vital information about where they might hit hardest.

"This new technology will provide early warning information that will potentially protect lives and property," said Kate Moran, director of North-East Pacific Time-series Undersea Networked Experiments Canada, also known as NEPTUNE.

From: http://www.vancouversun.com/news/Tsunami+sensors+will+give+Islanders+minute+warning+vital+information/6683930/story.html ♦

Lost & Found Project: Family photos swept by 3.11 East Japan Tsunami

Read a full report on the recovery and return of photos which were cleaned, scanned into digital format and indexed to help find the original owners. http://framework.latimes.com/2012/03/23/japan-tsunami-earthquake-recovered-photos/ ♦

Caribbean TsunamiReady Sites

Anguilla (entire island)

Puerto Rico

Aguada	Lajas
Aguadilla	Manati
Anasco	Mayaguez
Arroyo	Penuelas
Cabo Rojo	Ponce
Carolina	Quebradillas
Dorados	Rincon
Guayama	Salinas
Guayanilla	Santa Isabella
Isabela	Toa Baja
Juana Diaz	Yauco

Map is available at http://www.stormready.noaa.gov/tsunamiready/ts-com/caribbean-ts.htm

WSSPC National Awards Selection Committee names 2012 National Awards in Excellence winners; Earthquake Country Alliance wins 2012 Overall Award in Excellence

The Western States Seismic Policy Council (WSSPC) Board of Directors and National Awards Selection Committee is pleased to announce the winners of the *2012 National Awards in Excellence*. The *Overall Award in Excellence* in the category of *Outreach to the General Public* went to the Earthquake Country Alliance for their Public Education Activities.

The Earthquake Country Alliance (ECA) is a public-private partnership that began in 2003 in Southern California and expanded statewide in 2009 in coordination with the Bay Area Earthquake Alliance and Redwood Coast Tsunami Work Group. ECA's development has been coordinated by the Southern California Earthquake Center (SCEC) along with the California Emergency Management Agency (CalEMA), Federal Emergency Management Agency, U.S. Geological Survey, California Earthquake Authority, and many others.

The mission of the ECA is to support and coordinate efforts that improve earthquake and tsunami resilience in California. The statewide ECA organizes the annual *Great California ShakeOut* earthquake drill each October, updates and distributes the brochure *Putting Down Roots in Earthquake Country,* and other publications.

"We are deeply honored to be the recipient of the *2012 Overall National Award in Excellence*", said Mark Benthien, the Executive Director of the Earthquake Country Alliance and Director for Outreach at the Southern California Earthquake Center. "We are proud of what we have accomplished and are cognizant of how our creations (such as the ShakeOut and *Putting Down Roots*) can be shared with others around the country and around the world. This comes from our emphasis on fostering partnerships, our goal of developing shared resources, and our commitment to serving the whole community."

Also selected for a *2012 National Award in Excellence* in other categories were the following:

Use of New Technology: presented to the U.S. Geological Survey, National Earthquake Information Center, for ShakeMap and Suite of Accompanying Programs; and

Mitigation: presented to Washington Military Department, Emergency Management Division for *Project Safe Haven*; and

Research: presented to Washington Military Department, Emergency Management Division for *Washington Policy Gap Analysis;* and

Research: presented to Utah Geological Survey for their *Earthquake Working Groups*.

The WSSPC *Awards in Excellence* program was started in 1996 to recognize achievement in different areas of earthquake mitigation, preparedness and response. Every fourth year the awards are given nationally at the National Earthquake Conference. The Awards will be presented at the 2012 joint National Earthquake Conference/ Earthquake Engineering Research Institute Annual Meeting held at The Peabody Hotel in Memphis, Tennessee April 11, 2012. Summaries of the 2012 winning programs and projects are posted on the Western States Seismic Policy Council's website at *www.wsspc.org*.

Press release: February 14, 2012
WSSPC

Google Glass—What could it mean to emergency managers?
By Adam Crowe
Emergency Management online
June 29, 2012
http://www.emergencymgmt.com/emergency-blogs/disasters20/google-glass-emergency-managers-062912.html
Reprinted with permission

I typically try to keep posts here oriented around practical application and allow others to speak on technologies and other social interfaces that may be on the horizon. However, I could not help but be mesmerized earlier this week when Google showed off their Google Glass prototype.

If you haven't watched their simulated video it is worth the time. The Google Glass (as presented earlier this week) is a pair of "glasses" that are worn by the user. Within the viewing space is a small camera that captures the world being seen by the wearer.

External sources of information (ex: weather, address, etc.) are then laid over the view in the "glasses", which ultimately creates an augmented reality where real and metadata are provided simultaneously. This is not the first attempt at augmented reality, but like many Google applications this may be the version that pushes the technology from concept to reality. For the sake of consideration, here are some potential applications:
LAW ENFORCEMENT-- Law enforcement officers when engaging a citizen (whether to issue a ticket or to arrest) could immediately be provided with information through facial recognition information, license plate/vehicle registration, address, time, etc.
FIRE SUPPRESSION -- Fire fighters could utilize augmented maps placed into their visual spectrum when placed in areas of low visibility or recognition.
INCIDENT MANAGEMENT -- Incident commanders could be looking at multiple sources of real-time video feedbacks from all responders wearing the augmented reality device to make decisions based on real-time observation and management protocols.
DAMAGE ASSESSMENT -- Damage assessment teams could overlay GIS data and property documentation to visualize the pre-disaster conditions and make more accurate evaluations of damage in disaster zones.

These concepts just beginning to scratch the surface of what applications might exist via robust augmented reality systems. At this point, this is just a concept, but I think it is an interesting consideration as the technology is developed and organizations and communities continue to consider what improvements can be made to prepare their communities for emergencies and disasters.♦

NEWS

Flat Stanley and Stella

FEMA is excited to welcome two of its newest employees: Flat Stanley and Flat Stella! The pair will be working at FEMA to help kids learn more about disasters and emergencies. Children and their parents can build their own FEMA Flat Stanley or Flat Stella and share with their friends and classmates the steps they have taken to support preparedness throughout their homes, schools and communities. What a great activity to do with your kids this summer and then have them show off their project when they return to school.

You can follow Stanley and Stella's FEMA adventures by checking out their blog postings (http://blog.fema.gov/2012/07/flat-stanley-and-flat-stella-join-fema.html), FEMA's Twitter feed, FEMA's Facebook page (https://www.facebook.com/FEMA), or you can email them (StanleyandStella@fema.dhs.gov). Flat Stanley and Stella are just another way in which FEMA continues to emphasize the critical nature of youth preparedness.

From: DHS—FEMA Updates, July 18, 2012

FEMA announces its first Youth Preparedness Council

FEMA announced the formation of its first Youth Preparedness Council. The Council supports FEMA's continued commitment to involving the whole community in preparedness related activities. Additionally, it represents a unique opportunity for a select group of 13 young leaders to serve on a highly distinguished national council and to voice their opinions, experiences, ideas and solutions to help strengthen the nation's resiliency for all types of disasters.

Nominated by individuals who can attest to their preparedness activities, Council members demonstrate a willingness to represent the youth perspective on emergency preparedness and to share preparedness information from Council discussions with their communities.

Children comprise approximately 25 percent of our nation's population and are the future of our communities. They can play an important role in disaster preparedness and each have the unique ability to help their communities be safer, stronger and more resilient before, during and after a disaster or emergency event. As such, we all have a vested interest in engaging and empowering youth to become active participants in individual, family, and community preparedness.

Research states:

*Youth who are trained in preparedness are more resilient in actual disasters.
*Youth are highly effective messengers for reaching and influencing parents and other adults.
*Youth who are engaged today will ensure a future generation of prepared adults.

The Youth Preparedness Council is comprised of 13 diverse leaders (13 – 17 years of age) from across FEMA's ten regions and who are:

- Dedicated to public service;
- Making a difference in their community; and
- Expanding their impact as a national advocate for youth preparedness.

The distinguished members selected are as follows:
FEMA Region I: Rachel Little *(Massachusetts)*
FEMA Region II: Gabriela Rodriguez Boria *(Puerto Rico)*
FEMA Region III: Donald "Diesel" Embrey *(Virginia)*
FEMA Region IV: Benjamin Cooke *(Tennessee)*
FEMA Region V: Jason Reed *(Indiana)*
FEMA Region VI: Dorian Tre'Vaughn Gregory *(Louisiana)*
FEMA Region VI: Jonathan DeLong *(Texas)*
FEMA Region VII: Nimansha Jain *(Nebraska)*
FEMA Region VIII: Ashley Houston *(Utah)*
FEMA Region IX: Divya Saini *(California)*
FEMA Region IX: Tiffany Espensen *(California)*
FEMA Region IX: Christian Chowen *(Hawaii)*
FEMA Region X: Cayman Kirkhart *(Idaho)*

This year council members will have the opportunity to participate in a community preparedness roundtable event in Washington D.C. where they will advise and ask questions on youth disaster preparedness with the leadership of national organizations working on this critical priority. It is also expected members will meet with FEMA on a quarterly basis via conference call or webinar and provide ongoing input on strategies and initiatives. Council members are eligible to serve on the Council for two years.

Youth preparedness is a critical component to ensuring that a strong community can address any disaster or emergency event. Find out how you can implement a youth preparedness program in your neighborhood or get involved with Teen CERT.

Citizen Corps also offers a variety of recorded webinars dealing with the topic of youth and school preparedness which you may find beneficial.

To learn more about FEMA's youth preparedness efforts please visit: http://www.citizencorps.gov/getstarted/youth/youthindex.shtm.

Join with us as we congratulate the inaugural members of FEMA's Youth Preparedness Council! Great job and we look forward to hearing what you have to say. You've made your regions and country proud!

Follow us on Twitter for more tips and recommendations! We want to hear your suggestions on how we can improve our communications to you, be sure to email us at citizencorps@dhs.gov.

From: DHS—FEMA Updates, [fema@service.govdelivery.com], 7-23-2012

All aboard the garbage cruise: Adventurers who sail through tons of trash from Japan tsunami (all in the name of research)

The team trawls through Pacific Ocean debris to study effects on marine life. For the full story, a photo of the crew, and a video, visit http://www.dailymail.co.uk/news/article-2171900/Japan-tsunami-Astonishing-satellite-image-shows-1-5million-tonnes-debris-swept-US.html

July 16, 2012: NOAA will provide clean-up funds

The National Oceanic and Atmospheric Administration announced it will provide $250,000 in grants to five states affected by debris from last year's tsunami in Japan.

The agency said Alaska, Washington, Oregon, California and Hawaii will each receive up to $50,000 toward debris removal from its marine debris program. Money could be made available as early as this month.

PHIVOLCS to install tsunami sensor in Zambo City

The Philippine Volcanology and Seismology (PHIVOLCS) is set to install a tsunami sensor this year at the local wharf to help in the monitoring of possible tsunami that may hit the city of Zamboanga.

"We will have a collaboration with Japan International Cooperation Agency (JICA)," said the officer in charge, Allan Labayog. Full story: http://www.zambotimes.com/archives/49219-Phivolcs-set-to-install-tsunami-sensor-in-Zambo-City.html

Amateur radio event showcases emergency preparedness skills

By: News Staff on June 26, 2012
http://www.emergencymgmt.com/disaster/Amateur-Radio-Event-Emergency-Preparedness.html

More than 35,000 amateur radio users in the US and Canada participated on June 23 and 24 in Field Day, an event for teaching the public about amateur (or ham) radio and sharing information within the amateur radio community.

The Southwest Missouri Amateur Radio Club demonstrated the practical uses of ham radio during an emergency. When the phone and Internet are unavailable, radio remains an option, and the club

demonstrated how to use a radio with solar and battery power, as well as how to get an FCC license so citizens can be prepared to operate a radio in the event of a disaster.

For more information about amateur radio, visit the American Radio Relay League's website.

Sea level rise accelerating in U.S. Atlantic coast

It's high tide for America's coastal communities and the water is just going to keep rising, according to a trio of reports on sea level rise released this month (June 2012). The reports—produced independently—predict higher water this century from sea to shining sea, with several areas of the East and West coasts already rising at higher than average rates.

http://www.usgs.gov/newsroom/article.asp?ID=3256&from=rss_home

From DR 589, June 28, 2012

What do you think about our Nation's preparedness messaging?

Don't forget to visit FEMA's Ideascale to post your point of view on Building and Sustaining National Preparedness Efforts: A National Campaign. Your posts on this topic will help inform a national campaign encouraging people to take actions in their everyday lives to prepare for disasters. This effort is a major part of Presidential Policy Directive 8 / PPD-8: National Preparedness – and it's one of the most visible ways the whole community will be involved in keeping our nation safe and resilient.

For more information on PPD-8, visit www.fema.gov/ppd8 or contribute your ideas at http://fema.ideascale.com.

To join the discussion, click the link here: http://fema.ideascale.com/a/ideafactory.do?id=14692&mode=recent&discussionFilter=byids&discussionID=58561

From: Federal Emergency Management Agency [fema@service.govdelivery.com] June 19, 2012

Damairia (Damai) Pakpahan—2012 Mary Fran Myers Award winner

The Mary Fran Myers Award was established in 2002 to recognize disaster professionals who continue Myers' goal of promoting research on gender issues, disasters, emergency management, and higher education. The Gender and Disaster Network have named Damairie (Damai) Pakpahan as the 2012 Mary Fran Myers Award winner.

Pakpahan has worked for decades in the areas of gender justice and development, including work related to the 2004 Indian Ocean tsunami and issues of climate change and earthquakes. She has personally trained 500 civil servants on issues of gender, development, and disasters. Her work for the Aceh Tsunami Programme has significantly increased understanding of gender issues. Pakpaham's passion and advocacy for women and children in disaster clearly distinguished her as this year's winner of the Mary Fran Myers Award.

For a full bio of Pakpahan and past award winners, visit the Mary Fran Myers Award Winners page on the Natural Hazards Center Web Site: http://www.colorado.edu/hazards/awards/mfma_winners.html?utm_source=NHC+Master+List&utm_campaign=4a8956af6c-DR_5886_14_2012&utm_medium=email

From: Disaster Research 588, June 14, 2012, p. 6-7.

Los Angeles declared TsunamiReady™

On January 27, 2012 the National Oceanic and Atmospheric Administration's National Weather Service recognized Los Angeles, California as being TsunamiReady™ and StormReady.™

Los Angeles is the largest city in the nation to earn the TsunamiReady designation.

From: WSSPC e-newsletter, May 29, 2012

Researchers develop cloak that could protect buildings from earthquakes

Dr. William Parnell's team at the University of Manchester's School of Mathematics has been working on the theory of invisibility cloaks which could eventually help to protect buildings and structures from vibrations and natural disasters such as earthquakes.

Writing in the Proceedings of the Royal Society A, Dr. Parnell has shown that by cloaking components of structures with pressurized rubber, powerful waves such as those produced by an earthquake would not 'see' the building—they would simply pass around the structure and thus prevent serious damage or destruction. The building, or important components within it, could theoretically be 'cloaked.'

Full article: www.sciencedaily.com/releases/2012/02/120214100817.htm

From: WSSPC e-newsletter, Spring 2012.

The March 11 Tohoku earthquake, one year later. What have we learned?

Full story: http://www.usgs.gov/blogs/features/usgs_top_story/the-march-11-tohoku-earthquake-one-year-later-what-have-we-learned/?from=title

FEMA's Think Tank: An online forum where your ideas come to life

The FEMA Think Tank Online Forum is the place where you can share your thoughts, opinions, and feedback on all things homeland security and preparedness related – particularly on tools, documents, and other resources the Agency releases to the public. Topics range from how to prepare for power failures, and amateur radio in disaster preparedness, to how to motivate people to prepare. It's the perfect venue for Citizen Corps Councils, partners, and affiliates to share their stories, experiences, and questions so others may learn from them or offer their guidance.

The other added bonus to participating on the Think Tank Online Forum is the possibility of your discussion topic being selected by FEMA Deputy Administrator Serino for his monthly Think Tank Conference Call. All of his monthly calls revolve around trending and popular topics posted by users across the country to the Online Forum. Don't miss out on his next call; it will be live from Colorado Springs, CO on Tuesday, July 24. The focus will be on how the emergency management community engages public-private partnerships and building for the future.

What: FEMA Think Tank Conference Call
When: Tues., July 24, 2012, 2:15 p.m. – 4:15 p.m. (Mountain Time) 4:15 p.m. – 6:15 p.m. (Eastern Time) Call-In: 1-888-989-9730
Passcode: Think Tank
Captioning:
http://fedrcc.us//Enter.aspx?EventID=1981576&CustomerID=321

Start your discussion today!

There's a webinar for that!

We often send announcement and reminder messages for our upcoming webinars, but did you know you can access all of Citizen Corps' Community Preparedness Webinar Series event recordings through the Citizen Corps Website? All webinars recordings are grouped by topic and we're sure there are many which will interest you and help you identify pertinent activities, recommendations, and other actions you can pursue to make your community stronger and better prepared for any disaster. Summer has already brought many severe storms to different areas of the country. Take a look at our webinars about preparing for hurricanes and severe weather or learn more about preparedness consider-ations for aging Americans and for our pets. Finally, we can all do our part when disaster strikes – learn how you can volunteer in times of a disaster. Scroll through our library and find what interests you. Have an idea for a webinar? Let us know what it is. Email us at citizencorps@dhs.gov.

Free emergency preparedness brochures, posters & publications

September is fast approaching! With that in mind, we suggest you place orders for events during National Preparedness Month as soon as possible. The shipment of publications and brochures from the FEMA distribution warehouse usually takes four to six weeks, with standard shipping. An order placed today should arrive around the end of August. These materials will be great resources for Citizen Corps Councils, partners and affiliates to distribute at events or in their communities!

You can find the Ready order form here: http://www.ready.gov/sites/default/files/Ready_Order Form_June2012.pdf

Or contact the FEMA Distribution Warehouse directly at 1-800-480-2520 to place an order.

8 great online government resources about disasters and emergencies

FEMA and other government organizations, including USA.gov and GobiernoUSA.gov, the official web portals of the U.S. government, offer additional ways to connect with great information to help you prepare for, protect against, respond to, recover from, and mitigate all hazards. Sign up in one-click to receive Disaster and Emergency updates and to receive featured updates from USA.gov. En Español - Suscríbase con un clic para recibir información sobre desastres y emergencias y otras actualizaciones de GobiernoUSA.gov.

We also encourage you to explore and participate in our online communities:
Pledge to Prepare by joining the National Preparedness Coalition
Like us on Facebook
Follow us on Twitter
Watch us on YouTube
See all of our social media options
You can also update your e-mail subscriptions

From: FEMA (Federal Emergency Management Agency) [fema@service.govdelivery.com], June 21, 2012

PUBLICATIONS

Revealing Americans' awareness and preparedness surrounding emergency situations—2012 third annual public safety survey

A more accurate title might indicate Americans' lack of concern and preparedness. The 12-page report by Federal Signal Corporation is available at

http://www.federalsignal-indust.com/pdf/ANS104_2012_Survey-lowRes.pdf

Natural Hazards Observer (Hard copy)

The July *Natural Hazards Observer* is online—and in print!

For several years now, *Natural Hazards Observer* readers have had no choice but to pine for print. Although the august and once-free journal was still available online, the Natural Hazards Center couldn't afford the expanding costs of mailing.

For many, though, online wasn't good enough. Some missed their hard copy so much they even said they'd even be willing to pay for it! Well, now those readers (and anyone else who's interested) can put their money where their mouth is.

We're offering readers the option of a printed *Observer* for only $15 per year. That nominal and not-for-profit cost includes bimonthly delivery to your desk via First Class mail—and that's not all.

You'll also get a copy of *The Disaster Years*, a new book of cartoons by *Observer* artist Rob Pudim that spans his 36 years of limpid cartooning in the realm of hazards and disasters. This book is not for sale and is available only to subscribers to the *Observer* print edition.

Those interested in subscribing can sign up on our subscription page using a credit card or be invoiced later. Of course, the *Observer* is still available as a free PDF download.

You'll find the July issue available now, free, online. So whether you get it for cheap or get it for free, go ahead and get it!

From: Disaster Research 590, July 12, 2012

2012 National Preparedness Report

On May 3, 2012 the Federal Emergency Management Agency (FEMA) and its partners released the *2012 National Preparedness Report* (NPR) identifying significant progress the nation has made in areas of prevention, protection, mitigation, response, and recovery. Overall the report found that the nation has increased its collective preparedness, not only from external threats, but also for natural and technological hazards.

The *National Preparedness Report* is the next step in implementing PPD-8. Since the President signed the directive in March 2011, FEMA and its partners have released the first edition of the National Preparedness Goal, the National Preparedness System description and the working drafts of the National Planning Frameworks.

For more information on PPD-8 and to download the Report, visit www.fema.gov/ppd8 or contribute your ideas at fema.ideascale.com.

From: WSSPC e-newsletter, Spring 2012

Significant Changes Series for the 2012 International Codes

The *Significant Changes Series for the 2012 International Codes* offers comprehensive analysis of the critical changes made between the 2009 and 2012 editions of the International Building Code and International Fire Code. Changes are identified then followed by in-depth discussion of how the change affects real world application. Photos, tables and illustrations further clarify application. For more information visit www.iccsafe.org/Pages/default.aspx.

From: WSSPC e-newsletter, Spring 2012

NTHMP tsunami pamphlet for boaters

The National Tsunami Hazard Mitigation Program has released an informational tsunami pamphlet for boaters providing preparedness tips, general tsunami information, and a list of tsunami safety resources. Download pamphlet from: http://nthmp.tsunami.gov/documents/boatingpamphlet_v4-7-12.pdf

From: WSSPC e-newsletter, Spring 2012

NTHMP tsunami education *Resources Compendium*

The National Tsunami Hazard Mitigation Program (NTHMP) *Resources Compendium* is a list of references to materials that have been developed as part of the National Tsunami Education and Outreach Plan of the NTHMP for use in schools to educate students about tsunamis and related natural hazards.

http://nthmp.tsunami.gov/documents/CompendiumTsunamiEd.pdf

From: WSSPC e-newsletter, Spring 2012

NGDC provides bathymetric map for tsunami buoy deployment

NOAA's National Geophysical Data Center (NGDC) produces custom bathymetric maps to assist the National Data Buoy Center in the deployment of DART buoys. The NGDC delivered the latest custom siting map on March 21st for station 43413, western coast of Mexico. DART buoy placement is a key NOAA effort to reduce the loss of life from tsunami in coastal communities and minimize false alarms, which result in high economic costs for unnecessary evacuations. DART data are also used for long-term tracking of sea-level change and coastal impacts, interannual variability, and analysis of GRACE satellite data.

For more information, visit www.ngdc.noaa.gov/nndc/struts/results?eq_1=2012/03&op_3=eq&v_3=N&t=102750&s=3&d=10,6,11

From: WSSPC e-newsletter, Spring 2012

NTHMP annual meeting publication

The 2012 National Tsunami Hazard Mitigation Program annual meeting was held February 6-10, 2012 in San Diego, California. Meeting presentations, agendas, and a roster of attendees is available: http://nthmp.tsunami.gov/2012annualmeeting/index.html

The regional disaster resilience guide for developing an action plan

An updated edition of *The regional disaster resilience guide for developing an action plan* was recently published by The Infrastructure Security Partnership (TISP). The RDR Guide is a roadmap that describes a step-by-step process to develop a strategy to improve capabilities to deal with any major incident or disaster. The new edition provides an updated vision for resilience and a more comprehensive strategy to develop the necessary level of preparedness for communities to manage major disasters. Similar to the original version published in 2006, the updated guide contains background on infrastructure interdependencies and potential impacts, a comprehensive list of focus areas and priority issues to consider, and a checklist of typical preparedness gaps with recommended activities to address them. The RDR Guide is available at no charge online from www.tisp.org. Hard copies can be ordered for $25.00 each.

From: EERI Newsletter, v. 46, no. 5, p. 9.

CERT Liability Guide

The Community Emergency Response Team (CERT) Program at FEMA is pleased to announce publication of the new *CERT Liability Guide*, now available for download on the Supplemental Information page of the National CERT Website.

CERT advocates have understood that program activities can create risk and adverse consequences; however, perceptions about liability may become a larger barrier to CERT formation, activities and partnerships than is justified by reality. The purpose of this Guide is to offer information and suggested techniques to help local CERT programs overcome this barrier. Check out the Guide today to learn about the benefits of risk management for CERT programs and let us know what you think via the CERT discussion forum on the National Preparedness Coalition Website!

The 15th Edition of the *Disaster Resource GUIDE* – A decade of lessons (2012)

The 178-page GUIDE includes a feature article entitled: "A Decade of Lessons: A Time to Remember and a Time to Look Ahead." The one-stop GUIDE is where the BC & EM industry gathers on an annual basis.

If you haven't received your copy, subscribe at www.disaster-resource.com/freeguide. It's the best issue yet.

One article, A culture of preparedness, by Lt. Gen. Russell L. Honore (U.S. Army Ret.)* is reprinted on pages 8-9 of this issue of *TsuInfo Alert*.

There are articles on each of the seven worst disasters of the past decade: 9/11, Hurricane Katrina, Haiti earthquake, Iceland volcano, BP oil spill, Nashville flood and the Japan earthquake/tsunami, each listing the key lessons learned from that event.

Other articles of interest to *TsuInfo Alert* readers:

SERVPRO ready plan—Mobile application keeps critical disaster recovery and restoration information at property owners' fingertips (p. 32, also www.servpro.com/ready)

Q&A on social media and crisis management—While social media offers new ways to communicate, it must be systematically monitored to enable effective social media use in times of crisis (p. 75)

The disaster preparedness satellite registry—From hurricanes to earthquakes, and from tsunamis to volcanic eruptions, the brutal calculus of cost—whether it's measured in financial terms or in human lives—is being mitigated through new collaborative efforts of stakeholders in the public and private sectors. This is particularly evident in the way that wireless, fiber and other satellite-enabled information and communication technology (ICT) solutions are being applied by the United Nations' aid agencies, non-government organizations (NGOs), host-nation governments, military, and the private sector to address mission-critical disaster preparedness and long-term development requirements. (p. 100)

How thorough is your evacuation program?—A thorough evacuation program can mean the difference between life and death. It is the first step to any life safety program. All occupants must know their role in an evacuation, and take it seriously. This article [reviews] the key points for safe and effective evacuation. (p. 118)

Forward thinking—With an emergency notification system. You're busy. You've got a career that demands a lot of your time. You have a family and social life that demands a lot of your time. This adds up to not having any time to spend on irrelevant and unsolicited emails and other social media communication. Like most people you want only the information you need to make your days more effective and productive. (p. 132) Watch the video at www.xmatters.com/drg

In addition to these articles (any many more on business continuity issues), the Guide includes contact information for businesses and organizations

involved in emergency management. Product and service information is also provided.

*Lt. Gen. Honore has written a book with Ron Martz: *Survival: How being prepared can keep you and your family safe*.

WEBSITES and APPS

http://onthemap.ces.census.gov/em.html?utm_source=NHC+Master+List&utm_campaign=765381f213-DR_590&utm_medium=email
OnTheMap for emergency management

When there's an emergency on your map, you might find this newly updated tool from the U.S. Census Bureau comes in handy. The customizable mapping interface allows users to access population and workforce statistics in real time for areas that are experiencing emergencies such as storms, floods, or wildfire. Other documents, such as presidential disaster declarations, are also linked.

From: Disaster Research 590, July 12, 2012

http://www.breddi.com/?utm_source=NHC+Master+List&utm_campaign=e85c0b18fc-DR_589&utm_medium=email
bReddi

Speaking of challenges, the Department of Health and Human Services Office of the Assistant Secretary for Preparedness and Response recently announced the winner of their Lifeline Application Challenge—bReddi, a Facebook application that keeps you connected to your friends and family during emergencies. Using the app, you can assign someone "lifeline" status so they know where to meet you, how to contact you, and what you'll need in an emergency—and bReddi's central hub helps you keep tabs on threats happening in the area of your friends and family.

http://www.sustainableinfrastructure.org/rating/index.cfm?utm_source=NHC+Master+List&utm_campaign=e85c0b18fc-DR_589&utm_medium=email
Envision sustainable rating system

Envision is a rating system that attempts to gauge the community, environmental, and economic benefits of infrastructure projects. Created by Institute for Sustainable Infrastructure, the rating system can be applied by all levels of government or community and nonprofit groups to ascertain whether a proposed project is right for their area. Tools include resources for cost assessments, environmental evaluations, and outcome-based objectives.

From: DR 589, June 28, 2012

http://vosg.us/?utm_source=NHC+Master+List&utm_campaign=e85c0b18fc-DR_589&utm_medium=email
Virtual Operations Support Group.

So, you've acknowledged that social media use in disasters is here to stay—that doesn't mean you have any added resources to sift through the mounds of information generated by an emergency. That's why you should make friends at the Virtual Operations Support Group. This Web site can connect you to teams that will help you figure out a social media plan before a disaster and give you virtual bodies to deal with data overload during. Visit the site for to make connections, join online teams, or just learn more about how different folks are muddling through the social media phenomenon.

From: DR 589, June 28, 2012

http://www.usatoday.com/news/nation/story/2012-06-12/japanese-tsunami-debris-invasive-species/55584942/1

Great animation "Tsunami debris field" shows the projected path of the tsunami debris for 2011 through 2030, 6900 days after the tsunami.

Accompanying article "Unwelcome guests ride debris from tsunami"discusses invasive species and has a sidebar with drawings of the "Tsunami hitchhikers."

http://ngdc.noaa.gov/hazardimages

NGDC releases new natural hazards images site. The National Geophysical Data Center recently released an improved Natural Hazards Image site that provides a more efficient and dynamic user interface for discovery of and access to over 9,000 images of natural disaster impacts. The updated site utilizes a number of interface components to make browsing more intuitive and interactive and to provide geographic context to the images and events. Descriptive tags, or keywords, have been applied, enabling easier navigation and discovery.

From: WSSPC e-newsletter, Spring 2012

http://www.data.gov/communities/ocean?utm_source=NHC+Master+List&utm_campaign=4a8956af6c-DR_5886_14_2012&utm_medium=email

Anyone with a coast (or other marine resources) under their care will appreciate the planning and decision making tools available at Ocean Community, the National Ocean Council's Data.gov information portal. The newly launched site is filled with federal data sets related to oceans, coasts, and the Great Lakes, as well as tools to help visualize, map, and create scenarios from the information. Check out the many tools and technologies available and be sure to stop by the forums—Data.gov sites are participatory

by design, so the more you use it the more useful it will become.

From: Disaster Research 588, June 14, 2012, p. 9-10.

CONFERENCES/SYMPOSIUMS

August 20-24, 2012

Sixth Australasian hazards management conference, sponsored by GNS Science, Massey University, and University of Canterbury, in Christchurch, New Zealand.

This conference will discuss using up-to-date hazard information in risk management decisions. Topics include developing effective warning systems, improving response and recovery timelines, reducing risk by using land use planning, the role of social media in disasters, rapid evaluation of damaged buildings, planning pet evacuations, and forensic investigations of disasters.

From: DR 589, June 28, 2012 www.hazardseducation.org/conference/2012/2012index.php

August 26-30, 2012

International Disaster and Risk Conference, by Global Risk Forum in Davos, Switzerland. This conference discusses integrative risk management approaches for mega-catastrophes, country risk management, environmental and ecological risk, urban risk, societal and political risk, and health risk. Topics include disaster recovery and reconstruction, ecosystem services, land use planning, and critical infrastructure protection. For more information: idrc.info/pages_new.php/IDRC-Davos-2012/831/1/

From: Natural Hazards Observer, v. 36, no. 6, p. 23.

September 3-5, 2012

5th International Tsunami Symposium, Ispra, Italy.

September 7-9, 2012

From Surprise to Rationality: Managing Unprecedented Large-Scale Disasters. This conference, hosted by International Society for Integrated Disaster Risk Management in Beijing, China, will discuss scientific, technical, economic, financial, and educational aspects of large-scale disasters. Topics include theory and methodology in disaster risk science, recovery and reconstruction, economic impacts and financial management of large-scale disasters, managing unprecedented extreme events, and risk assessment modeling.

From: Disaster Research 590, July 12, 2012

September 9-12, 2012

Disaster Recovery Journal's Fall World 2012 (San Diego, California) sessions focus on training for practitioners in the public sector.

Practitioners who work in the public sector, including federal, state and local government, face a multitude of demands. Staying aware of the changes and on top of training needs can be difficult. But, DRJ makes it easy with the offerings at Fall World 2012, with sessions targeted toward your industry that can boost your education and your career. Invest in yourself at Fall World 2012. Early registration discounts are available now. Discover these excellent sessions and more at Fall World 2012.

GS-3: The Evolution of Emergency Responder Performance Challenges and Solutions

Emergency responders are well-trained professionals with the specialized knowledge to deal with a wide range of emergencies. Learn the physical and psychological impacts of emergency and crisis contexts. Discover recommendations for more effective management and response.

GS-7: ISO 22301 Arrived - Now What?

ISO 22301 is the first international business continuity management standard. What is it and what is its purpose? Discover key content and short-term preparation tips. In addition, the top five uses for this standard and specific strategies to implement ISO 22301 will be discussed.

ES2: The Importance of Partnerships in Building Resiliency in the Communications Infrastructure

In order to respond to the increasing number of disasters, it is paramount to leverage partnerships between multiple stakeholders in emergency management. The National Communications System (NCS) will discuss how coordination between Federal, State and local government and telecommunication industry partners facilitates effective disaster response.

GS-8: Community Resilience

In this session, discover a new model for emergency management. Community Resilience has become the new normal. Learn about the Presidential Policy Directive 8, it's significance for you and the Challenge Award program associated with the directive. Continuing trends and impact of catastrophic events will also be discussed.

These sessions and many other valuable training tools and networking events are available for one low fee at Fall World 2012. Browse the full agenda and find registration details at www.drj.com/fallworld.

From: Disaster Recovery Journal [drj@drj.com], 7-23-2012 email

September 12-13, 2012

Disaster Risk Reduction . This conference, by Disaster Management Institute of Southern Africa in

Limpopo, South Africa), will discuss natural hazard mitigation and response strategies. Topics include dealing with refugees and internally displaced persons, reducing the risk of fires in vulnerable settlements, addressing the effects of climate change, protecting communities from hazardous materials, educating communities about flood risk reduction and response, and providing humanitarian relief in Somalia and Sudan. More information at www.disaster.co.za/

From: Natural Hazards Observer, v. 36, no. 6, p. 23.

September 19-21, 2012

Eighth International Conference on Risk Analysis and Hazard Mitigation . This conference, hosted by Wessex Institute of Technology, Island of Brac, Croatia, will discuss new methods for estimating the effects of potential natural and human-caused disasters. Topics include risk mapping, natural hazards and climate change, security and public safety, financial risk assessment, political instability and economic vulnerability, health risk, early warning systems, hazard prevention, and the design and simulation of evacuation procedures.

From: Disaster Research 590, July 12, 2012

September 20-21, 2012

International Conference on Hazards and Disasters. This conference, hosted by International Center for Research and Development, Colombo, Sri Lanka, will present a broad range of research, promote networking opportunities, and generate new ideas about hazard risk reduction. Session themes include risk management, the economic impact of disasters, environmental and ecological risks, critical infrastructure, emergency medicine, climate change and natural disasters, transportation systems, technological disasters, and traditional knowledge about risk reduction.

From: Disaster Research 590, July 12, 2012

October 28-30, 2012

84th Annual Meeting of the Eastern Section of the Seismological Society of America; Blacksburg, Virginia -– Hosted by Virginia Tech. Meeting website: http://www.geol.vt.edu/outreach/vtso/esssa2012/

April 17-19, 2013

Annual meeting of the Seismological Society of America, Salt Lake City, Utah, meeting website: http://www.seismosoc.org/meetings/

April 30-May 2, 2014

Annual meeting of the Seismological Society of America, Anchorage, Alaska, meeting website: http://www.seismosoc.org/meetings/

CLASSES

ECORD summer school on "Submarine landslides, earthquakes and tsunamis"

The 6th ECORD Summer School (3-14 September 2012), Bremen, Germany to be held at the Center for Marine Environmental Sciences (MARUM) at the University of Bremen, Germany, aims to bring Ph.D. students and young postdocs in touch with IODP at an early stage of their careers, inform them about research within this international scientific program, and prepare them for future participation on IODP expeditions. Such training will be achieved by taking the summer school participants on a "virtual ship" by exploiting the unique facilities linked to the IODP Bremen Core Repository. They will be introduced to a wide spectrum of state-of-the-art analytical technologies and core description methods, including core logging/scanning according to IODP expedition standards. In addition, the topic "Submarine Landslides, Earthquakes and Tsunamis" will be covered by lectures and discussions with leading geoscientists in the field. The latter will include specialists in sedimentology, seismics, tectonics, and sediment transport modeling. This comprehensive approach—combining scientific lectures with practicals on IODP-style "shipboard" measurements—is the blueprint for the Bremen ECORD summer school series, which now rounds off its second three-year cycle of ECORD summer schools covering the three major topics of the IODP Initial Science Plan. For detailed information about the summer school, the application procedure and the scholarship options, visit http://www.marum.de/en/ECORD_Summer_Schools.html

From: Scientific Drilling, no. 13, p. 65 (April 2012).

GAMES/APPS

http://itunes.apple.com/us/app/stormstruck-tale-two-homes/id497824475?ls=1&mt=8&utm_source=NHC+Master+List&utm_campaign=4a8956af6c-DR_5886_14_2012&utm_medium=email

Stormstruck

Chances are you have at least a few silly-but-fun apps taking up space on your iPad or iPhone. Now you can download one that's serious but fun. Stormstruck is an addictive little game that lets players

ratchet up home preparedness before they loose a storm of their own making. Unlike real life, users have the chance to see just what mitigation efforts worked and what didn't in storms of varying degree. It's free, so download it today.

From: Disaster Research 588, June 14, 2012, p. 9

http://www.redcross.org/portal/site/en/menuitem.94aae335470e233f6cf911df43181aa0/?vgnextoid=c0d8ae0c897e7310VgnVCM10000089f0870aRCRD
First aid

Learn basic first aid situations right from your smart phone. Knowing what to do in an emergency situation can be a matter of life and death. Now, thanks to the American Red Cross, there's a new tool to keep you informed on basic, simple lifesaving information!

The FREE first aid app is available for use on both the Android and iPhone platforms. Take a protective action step and download the first aid app today.

Visit the American Red Cross' website for more information and check out a neat video explaining how the app works.

From: Federal Emergency Management Agency [fema@service.govdelivery.com] June 19, 2012 ♦

Material added to the NTHMP Library
July - August 2012

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.

CORRECTION:
The citation (June 2012 issue) for Tsunami evacuation—Lessons from the great east Japan earthquake and tsunami of March 11th 2011: GNS Science Report 2012/17, 89 p. was incorrect.

The correct citation is:
Fraser, S.; Leonard, G. S.; Matsuo, I.; Murakami, H.; 2012, Tsunami evacuation--Lessons from the great east Japan earthquake and tsunami of March 11th 2011: GNS Science Report 2012/17, 89 p.

Anagnostopoulos, G.; Papandreou, A., 2012, Space conditions during a month of a sequence of six M >6.8 earthquakes ending with the tsunami of 26 December 2004: Natural Hazards and Earth System Sciences, v. 12, no. 5, p. 1551-1559.

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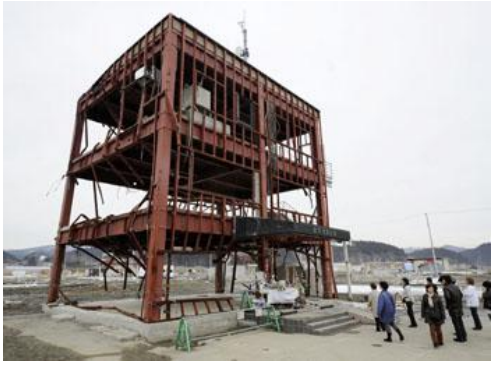
Tsunami-hit structures eyed as memorials



Grim reminder: The municipal disaster prevention office in Minamisanriku, Miyagi Prefecture, stripped to its frame by the March 2011 tsunami, remains a rusted hulk more than a year later. KYODO

http://www.japantimes.co.jp/text/nn20120725f1.html

INFREQUENTLY ASKED QUESTIONS

What surprised Len Pagano, president and CEO, Safe America Foundation?

"We were surprised to see just how many people remain unaware of the alerting systems in their area, and even more disconcerting, how many are apathetic in their response to emergency scenarios and communications." Len Pagana was quoted in *JEMSmobile*.

From: Natural Hazards Observer, v. 36, no. 6, p. 3

Is there a 2012 update for the Hazard Mitigation Grant Program Insert?

Yes, it's available at http://www.vaemergency.gov/em-community/grants/HMAgrant2010

Program name: Unified Hazard Mitigation Assistance (HMA) Grant Program 2012.
Fund source: FEMA
Amounts available: Grants are awarded through four yearly grant programs and one disaster funded grant program. The HMA program is subject to the availability of federal appropriation funding or presidential disaster declaration. Specific amounts for FY12 are not known as of 6/2/2011.
Purpose/Description: To support state and local Hazard Mitigation structural and planning projects
Eligibility requirements:

a) State-level agencies, including State institutions;
b) Public colleges or universities; and
c) Local jurisdictions that are participating in the NFIP.

All localities must have a FEMA approved 322 local-all hazard mitigation plan prior to application. The project must conform with the State Hazard Mitigation Plan, conform with environmental, historical, and economic justice issues, provide a long-term solution for the community, demonstrate cost-effectiveness, comply with program regulations, and be consistent with the State and local government's overall mitigation strategies as listed in their all-hazard mitigation plan.

For application forms, deadlines, etc, visit http://www.vaemergency.gov/em-community/grants/HMAgrant2010

What motivates people to prepare, or not prepare, for natural disasters?

Preparing for a natural disaster like a hurricane is critical in minimizing damage, but what motivates individuals to listen to warnings and act is largely unexplored territory.

The question intrigued Wharton marketing professor Robert Meyer, co-director of the Risk Management and Decision Processes Center. Over the past five years, Meyer has worked to develop an interactive simulation to study how such factors as news media reports, storm warnings and the level of concern expressed by friends and neighbors prompt people to take steps such as installing shutters to protect windows ahead of a hurricane. That model is described in a working paper titled, "Development and Pilot Testing of a Dynamic Hurricane Simulator for the Laboratory Study of Hurricane Preparedness and Mitigation Decisions."

The full article "Modeling behavior: What motivates people to prepare, or not prepare, for natural disasters" is online at http://knowledge.wharton.upenn.edu/article.cfm?articleid=2772

Do you want one more fact about the Japanese tsunami dock that ended up in Oregon?

"There were just an amazing diversity of species that we have never seen before. And the massiveness of this thing—it's about 100 tons of stuff. And it really does have millions of organisms and maybe hundreds of species," said marine biologist John Chapman on the sea life attached to the dock that was ripped free by the Japanese tsunami, floated across the Pacific intact, then came aground in Oregon. Quoted by NPR.

From: Natural Hazards Observer, v. 36, no. 6, p. 3 ♦

VIDEO-CD-DVD RESERVATIONS

To reserve tsunami videos, CDs or DVDs, contact 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.

These programs are available to all NTHMP participants, with a 3-week loan period.

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.). CVTV-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 in-formation. 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.

Tsunamis: Know What to Do! (8 min. DVD)

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. ♦

OPINION

Closing the loop in preparedness exercises
By: Tim Riecker | July 3, 2012

Exercises are an integral part of preparedness in emergency management and homeland security. Absent participating in an actual incident, there is no better way for us to evaluate plans, procedures, decision-making, operational capability and various other factors. Although these exercises utilize resources that are finite, they are an investment that pays a significant return. The National Preparedness System Description states that "an effective and comprehensive exercise program that includes active collaboration with the whole community is essential to the success of the National Preparedness System."

The Homeland Security Exercise and Evaluation Program (HSEEP) provides us with the guidance that leads us through exercise design, conduct, evaluation and to what is perhaps the ultimate goal — improvement planning. Let's be honest, though — how effective is the follow-through on your improvement plan?

Why do we conduct exercises? We test and validate capabilities and identify our strengths and limitations. The next logical step is to fix areas that limited our capacity to respond, although often times we fail to implement changes indicated as a result of the exercise. Why? One of the most significant reasons is lack of funding. That is why improvement planning needs to begin even prior to planning for a particular exercise. Rather, funding should be identified in the program management phase of the HSEEP cycle. Actually securing the funding, however, can be challenging. After-action reports from previous exercises can provide the greatest investment justification when seeking funding in that they provide actual evidence of an assessment process assembled in an official document. The same goes for the inclusion of a training and exercise plan. The bureaucracy of grant cycles, however, can cause delays in accomplishing our improvements in a timely fashion. If you are the recipient of regular annual funding, such as a local allocation of the Emergency Management Performance Grant, you may want to earmark a percentage of these funds for improvements.

New York state provides a good example of innovation in funding cycles. In recent history, the state authorized the allocation of Homeland Security Grant Program dollars to an Improvement Planning Fund, which was administered by the state's multiagency Exercise Coordination Committee. The committee reviews after-action reports and improvement plans and provides funding, albeit limited, to jurisdictions that demonstrated a well analyzed outcome and reasonable justification for the funding need. While in many cases the funding wasn't able to cover the entire cost of the improvement, it provided some aid.

While funding is often our most significant challenge, we cannot dismiss the investment we make in our exercises. While we are able to practice skills and cognitively learn from our exercises, which is certainly a valuable outcome, the learning must be institutionalized through documented procedures and operating guidelines. Even this documentation, albeit a relatively inexpensive improvement, is rarely completed. As with all of our other activities, we need to maximize our dollars by maximizing our investments.

Improvement plans need to transcend the matrix provided in the HSEEP after-action report/improvement plan template. While the matrix is a summary of the improvement plan, we all know that a matrix alone does not constitute a plan. The improvement plan needs to be comprehensive, identifying all aspects of the improvement — some of which may be very simple while others may be very complex. The complexities need to be identified as do the barriers to success. Some deficiencies identified in the after-action report may need to be further explored as the exercise itself may not have fully validated or assessed them. You may need to break down systems and procedures to fully uncover the reasons they fell short of performing as expected. This type of analysis requires time and recognition that the actual solution won't be known for certain at the time of publication of the after-action report/improvement plan. That said, be sure to set firm deadlines.

In the business of emergency management and homeland security we can't afford to miss an opportunity for improvement. We don't know when the next incident will occur, however, we know that it will — therefore we must always have a sense of urgency.

Tim Riecker is a partner with Emergency Preparedness Solutions LLC, a private consulting firm providing preparedness services to government, private sector and not-for-profit clients. He is a former state training officer and exercise training officer with recognized expertise in NIMS, EOC management and HSEEP.

This article was printed from:
http://www.emergencymgmt.com/training/Closing-Loop-Preparedness-Exercises-Opinion.html ♦

U.S. Department of Homeland Security
Region II
Jacob K. Javits Federal Office Building
26 Federal Plaza, Room 1311
New York, NY 10278

FEMA

June 25, 2012

MEMORANDUM FOR: The Virgin Islands Territorial Emergency Management Agency

FROM: Newton Tang, FEMA Region II USVI Planning Team Lead

SUBJECT: USVI Beach Survey Results

FEMA Region II published the U.S. Virgin Islands (USVI) Earthquake and Tsunami Hazard-Specific Annexes to the FEMA Region II All-Hazards Plan in May 2012. One of the objectives outlined in the Annexes is to "establish an air and sea bridge between the mainland and the USVI within 36 hours of the incident." The preferred option is to deliver Federal resources through the Virgin Islands Port Authority's airports and seaports. However, if all of these facilities are inaccessible due to damage or debris, the Federal government will attempt to deliver life-saving and life-sustaining resources by boat to accessible beaches on any or all three of the major islands.

As a first step in identifying potential beach landing sites for the delivery of Federal resources to the USVI, the FEMA Region II USVI Planning Team returned to the USVI to conduct preliminary site surveys from June 6 to 14, 2012. Three different survey teams were assembled, one each on St. Thomas, St. John, and St. Croix, which consisted of Federal, USVI, and whole community representation. The survey team's task was to identify locations that could receive Federal resources by shallow-draft barges and ferries.

The results of the beach survey are not to be construed as a decision by FEMA or any Federal agency on potential beach landing sites. The survey is merely a preliminary assessment of potential beach landing sites, which the government of the USVI should evaluate.

Potential sites that are not adjacent to or near Port Authority facilities were selected for assessment for the following reason, if a Port Authority facility is inaccessible due to earthquake or tsunami damage, it is likely that adjacent areas would be severely impacted.
The criteria for the evaluation of each site were:

1. Strategic location, i.e., the site is near the place where the resources are needed.
2. Existing dock/pier likely to survive a catastrophic event, i.e. the likelihood of the dock or pier surviving a catastrophic event.
3. Near-shore bathymetry, i.e. the slope of the ground allows boats to approach the shore.
4. Low level of onshore waves, swells, and currents.
5. Access to adequate roads, i.e., the nearby egress roads are likely to survive a catastrophic event

6. Low Environmental Impact, i.e., the absence of shoreline and/or coastal terrestrial ecosystems.
7. Insignificant inventory of endangered environmental treasure, i.e., little or no environmental treasures such as sea turtle and coral that will be endangered by a catastrophic event.
8. Number of [boat] moorings in the bay, i.e., a low number of moorings reduces the volume of post-event debris.
9. Presence of potential hazardous material (HAZMAT) dangers post-event, i.e., the absence of which decreases responders exposure to toxins and/or other dangerous substances.

In the following tables, each site was rated good (G), fair (F), or poor (P) for each criterion. **Note:** All the criteria imply a scale for evaluating the site that ranges from the negative (P) to the positive (G). Some of the criteria emphasize a negative impact on the evaluation (6); others emphasize a positive impact (3).

- **Criterion 3** – If the near-shore bathymetry allows boats to approach the shore, the site would receive a rating of G. If the slope of the ground does not allow boats to approach the shore or hinders their approach, the site could receive a rating of P.
- **Criterion 6** – A site with a low impact on the environment would receive a rating of G. On the other hand, the presence of vulnerable shoreline and/or coastal terrestrial ecosystems near the site could result in a rating of P.

A survey team visited 10 beaches on St. Thomas on June 6. The team consisted of:

- Chief Mark Holzman, U.S. Coast Guard (USCG)
- Keith Richards, Virgin Islands Department of Public Works (DPW) – Transportation
- Roberto Tapia, Virgin Islands Department of Planning and Natural Resources (DPNR)
- Steve Prosterman, University of the Virgin Islands (UVI)
- Javier Estrill, Taxicab Commission
- Judith Wheatley, Taxicab Commission
- Joseph Hodge, Virgin Islands Territorial Emergency Management Agency (VITEMA)
- Newton Tang, FEMA Region II USVI Planning Team
- Roy Watlington, FEMA Region II USVI Planning Team
- Ken Gordon, FEMA Region II USVI Planning Team

The results of the St. Thomas survey follow:

Criterion →	1	2	3	4	5	6	7	8	9
Lindbergh Bay	G	F	F	G	G	G	G	G	F
Brewers Bay	G	P	P	G	P	G	G	G	F
Hull Bay	P	G	F	P	P	F	F	F	G
Magens Park	P	P	G	G	F	G	G	G	G
Mandahl Bay	P	P	P	P	P	P	P	G	G
Water Bay	P	F	F	F/G	F	G	G	G	G

2

Criterion →	1	2	3	4	5	6	7	8	9
Coki Point	P	P	G	G	P	G	G	G	G
Smith Bay Park	G	P	G	F	G	G	G	G	G
Sapphire Beach	G	P	G	G	P	G	G	G	G
Secret Harbour	F	G	G	G	F	G	G	G	G

The survey team recommends that all of the sites visited, except Mandahl Bay, be evaluated further.

A survey team visited eight beaches on St. John on June 8. The team consisted of:

- Chief Mark Holzman, USCG
- David Rosa, DPNR
- Rafe Boulon, National Park Service (NPS)
- Newton Tang, FEMA Region II USVI Planning Team
- Ken Gordon, FEMA Region II USVI Planning Team

The results of the St. John survey follow:

Criterion →	1	2	3	4	5	6	7	8	9
Honeymoon Beach (Salomon Bay)	F	G	G	G	F	G	G	G	G
Caneel Bay	F	G	P	G	P	G	G	G	G
Cinnamon Bay	P	G	G	P	F	G	G	G	G
Maho Bay	P	G	P	G	G	G	G	G	G
Francis Bay	P	G	P	G	G	G	G	G	G
Coral Bay	G	P	F/P	G	G	G	G	P	G
Johnson Bay	P	G	F	G	G	G	G	F	G
John's Folly	P	G	G/F	F	F	G	G	G	G

The survey team recommends that all of the sites visited be evaluated further.

A survey team visited eight beaches on St. Croix on June 10. The team consisted of:

- MST1 Robert Davis, USCG
- Joel Tutein, NPS
- Newton Tang, FEMA Region II USVI Planning Team
- Roy Watlington, FEMA Region II USVI Planning Team
- Ken Gordon, FEMA Region II USVI Planning Team

The results of the St. Croix survey follow:

Criterion →	1	2	3	4	5	6	7	8	9
Carambola Bay	F	G	F	P	P	G	G	G	G

3

Criterion →	1	2	3	4	5	6	7	8	9
Cane Bay	F	G	P	P	F	G	G	G	G
Teague Bay	F/P	F	G	G	G	G	G	P	G
Duggan's Restaurant Beach	F/P	G	G	G	G	F	G	G	G
Cramer Park	F/P	G	G	G	G	G	G	G	G
Machenil Bay	P	F	F	F/G	F	G	G	G	G
Altona Lagoon Boat Ramp	G	G	G	F	G	G	G	G	F
Salt River Bay Nat. Historical Park	F	G	G	F	F	G	F	G	G

The survey team recommends that all of the sites visited except Carambola Bay and Cane Bay be evaluated further. **Note:** Because the Salt River Bay National Historical Park is a protected area, it should only be used as a last resort.

The attached presentation includes information, maps, and pictures for each of the sites.

cc: USCG Captain of the Port
Caribbean Area Division

Who Is Eligible to Apply?

- State and local governments
- Certain private nonprofit organizations and institutions
- Indian Tribes and authorized Tribal organizations, and Alaska native villages and organizations
- Individuals and businesses may not apply directly to the State or FEMA, but eligible local governments or private nonprofit organizations may apply to benefit the private entity

Additional Grant Programs and More Information

FEMA has four additional mitigation grant programs which provide funding for similar activities on an annual basis, regardless of disaster activity:

- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Repetitive Flood Claims (RFC)
- Severe Repetitive Loss (SRL)

You may also be eligible for assistance under these programs.

For more information about HMGP or the programs mentioned above, go to **http://www.fema.gov/government/grant/hma/index.shtm**, contact your State Hazard Mitigation Officer (SHMO), or contact the FEMA Regional Office for your State (listed on the back of this brochure).

FEMA Regional Contacts

Region I Main Number: 617-956-7506
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

Region II Main Number: 212-680-3600
New Jersey, New York, Puerto Rico, and the U.S. Virgin Islands

Region III Main Number: 215-931-5608
Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia

Region IV Main Number: 770-220-5200
Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee

Region V Main Number: 312-408-5500
Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin

Region VI Main Number: 940-898-5399
Arkansas, Louisiana, New Mexico, Oklahoma, and Texas

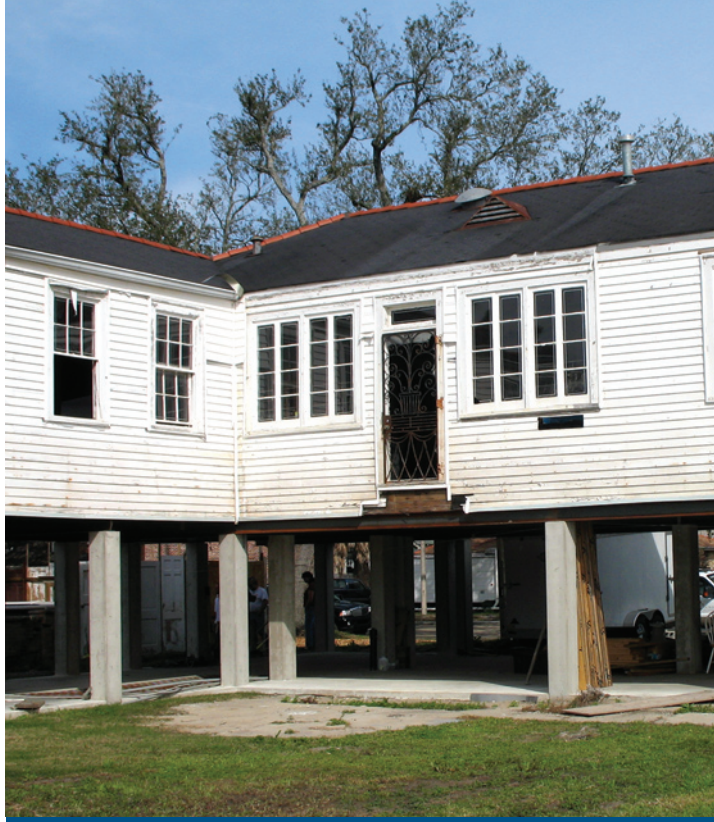
Region VII Main Number: 816-283-7063
Iowa, Kansas, Missouri, and Nebraska

Region VIII Main Number: 303-235-4800
Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming

Region IX Main Number: 510-627-7100
Arizona, California, Hawaii, Nevada, American Samoa, Guam, and Commonwealth of the Northern Mariana Islands

Region X Main Number: 425-487-4600
Alaska, Idaho, Oregon, and Washington

5/09



Hazard Mitigation Grant Program

FEMA

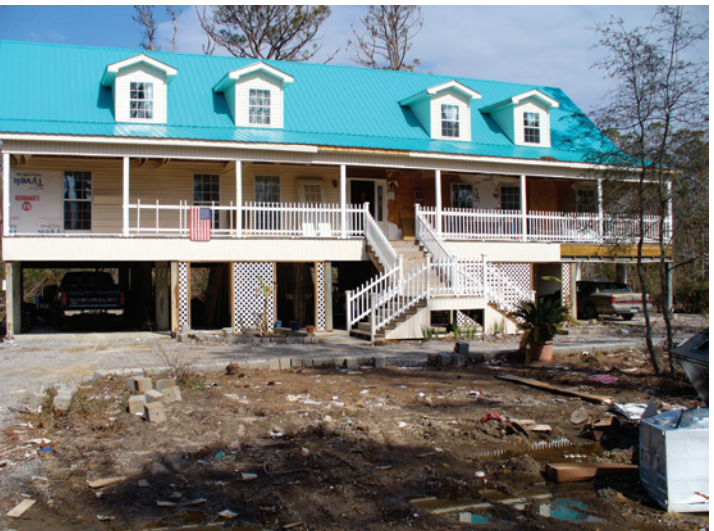
Hazard Mitigation Grant Program

The Hazard Mitigation Grant Program (HMGP) was created in November 1988, by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (amendments include the Hazard Mitigation and Relocation Assistance Act of 1993 and the Disaster Mitigation Act of 2000). The HMGP assists States, Tribes, and local communities in implementing long-term hazard mitigation measures following a major disaster declaration.

What Is the Purpose of the HMGP?

The Program's objectives are to:

- Significantly reduce or permanently eliminate future risk to lives and property from natural hazards
- Provide funds to implement projects in accordance with priorities identified in State, Tribal, or local hazard mitigation plans
- Enable mitigation measures to be implemented during the recovery from a disaster



What Types of Projects Can Be Funded?

The HMGP can be used to fund projects to protect either public or private property, as long as the project fits within State and local government mitigation strategies to address areas of risk and complies with HMGP guidelines. Examples of projects include:

- Acquiring and relocating structures from hazard-prone areas
- Retrofitting structures to protect them from floods, high winds, earthquakes, or other natural hazards
- Constructing certain types of minor and localized flood control projects
- Constructing safe rooms inside schools or other buildings in tornado-prone areas
- Developing State, local, or Tribal mitigation plans

How Much Money Is Available Under the HMGP?

Federal funding under the HMGP is available following a major disaster declaration if requested by the Governor. HMGP funding is allocated using a "sliding scale" formula based on the percentage of funds spent on Public and Individual Assistance for each Presidentially declared disaster. For States with a FEMA-approved Standard State Mitigation Plan, the formula provides for up to 15% of the first $2 billion of estimated aggregate amounts of disaster assistance, up to 10% for amounts between $2 billion and $10 billion, and 7.5% for amounts between $10 billion and $35.333 billion. For States with a FEMA-approved Enhanced Mitigation Plan, up to 20% of the total of Public and Individual Assistance funds authorized for the disaster (up to $35.333 billion of such assistance) are available.

Since 1988, the HMGP has been providing States and communities with the resources to invest in long-term actions today to reduce the toll from natural hazards tomorrow.

These grant funds may be used to pay up to 75% of the eligible project costs. The non-Federal match does not need to be cash; in-kind services or materials may be used.

What Are the Roles of Communities, States, and FEMA?

During the recovery phase of a disaster, local jurisdictions select projects that could reduce property damage from future disasters, and submit grant applications to the State. Indian Tribes and certain nonprofit organizations may also apply; and local governments may apply for assistance to benefit individual property owners and businesses.

The States administer the HMGP by establishing their mitigation priorities, facilitating the development of applications, and submitting applications to FEMA based on State criteria and available funding. The State also manages the project, monitors progress, and evaluates the effectiveness of projects implemented.

FEMA conducts a final eligibility review to ensure compliance with Federal regulations. HMGP projects must comply with Federal environmental laws and regulations, be cost-effective, and be technically feasible.

Federal law requires States and local jurisdictions to have a mitigation plan prior to receipt of HMGP funds. The plan identifies hazards, assesses community needs, and describes a community-wide strategy for reducing risks associated with natural disasters.