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 15, Number 2 April 2013**

REPORT FROM NORTH CAROLINA

Michael Sprayberry appointed director of North Carolina Emergency Management
Emergency Management journal online, Feb. 21, 2013
http://www.emergencymgmt.com/disaster/Michael-Sprayberry-Appointed-Director-NC-Emergency-Management.html

On February 20, Michael Sprayberry was appointed as the director of the North Carolina Division of Emergency Management.

"This is an exciting opportunity," said Sprayberry in a statement from the state, "and I'm looking forward to working with our local and state partners to continue building North Carolina's nationally recognized emergency management program."

Sprayberry was named deputy director for the North Carolina Division of Emergency Management in 2005. According to the state, he has overseen the division's budget, as well as the emergency and human services, communications and field staff.

"Sprayberry has been providing invaluable service as acting director, while still managing his responsibilities as deputy director and operations chief for the division," North Carolina Department of Public Safety Secretary Kieran Shanahan said in a statement. "Time and again he has demonstrated exceptional leadership, and I am confident in his abilities to carry the state's emergency management program forward."

Before working for the state, Sprayberry served in the U.S. Marine Corps and the North Carolina Army National Guard for 25 years.

He replaces Doug Hoell, who retired earlier this month.

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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MEMORIAL IN HONOR OF THE 2ND ANNIVERSARY OF THE JAPAN EARTHQUAKE AND TSUNAMI March 11, 2011

Stories sprout like warnings in Japan's tsunami wasteland

By Marwaan Macan-Markar
Inter Press Service News Agency

MINAMISANRIKU, Japan, Mar 19 2013 (IPS) - As a survivor of Japan's deadliest tsunami in living memory, Shun Ito dedicates his mornings to evoking stories of heroism that helped to save lives in this port town that was decimated on that fateful March afternoon two years ago.

Two names – Miki Endo and Takeshi Miura – frame the narrative that 37-year-old Ito shares with visitors as he guides them through this once quiet fishing resort, which still bears the scars of devastation left by the powerful waves on Mar. 11, 2011.

Among the few, gutted buildings still standing across empty stretches are the skeletal remains of the three-storey disaster-preparedness centre, where Endo and Miura served as radio operators.

They worked on the second floor and sent out messages through the town's loud-speakers for people to get to higher ground as the tsunami approached, recalls Ito, who works as a receptionist at a hotel on the edge of this town.

"They remained at their job, giving warnings, even when it was known that the waves were higher than the building they were in."

"They gave their lives to save others in this town," adds Ito, standing in front of an impromptu memorial, complete with fresh flowers, which has come up near a blown-out wall of the centre. "We have to remember their sacrifice."

Minamisanriku lost 1,206 of its 17,000 residents in March 2011, when 16-metre-high waves crashed over the town's existing tsunami barriers barely 30 minutes after the powerful 9.0-magnitude earthquake ruptured the seabed some 130 kilometres from Japan's Pacific coastline.

The death toll could have been higher, thousands more, had it not been for the work ethic of Endo, Miura and other members of Japan's well-drilled disaster response management programme, spread across the 12 prefectures along the coast, who sounded the alarm to save lives.

And as Japan remembered the 15,880 people who were killed and the 2,694 people still missing after the twin terrors of the earthquake and tsunami, the role of the first responders, so pivotal in disaster preparedness efforts, was celebrated.

The ones who died or went missing during their call of duty, like Endo and Miura, include 254 firefighters and volunteer fire corps, 30 police officers and three members of the country's self defence force, according to official records.

"People tend to forget, that is why such storytelling is important," affirms Fumihiko Imamura, a senior academic at the International Research Institute of Disaster Science at Tohoku University. "These soft measures help to plan rebuilding and to protect people from the next tsunami."

Such stories are being added to the graphic video footage of the raging waves crashing through towns as they surged many kilometres inland.

"The video material and other records in the media offer a more comprehensive picture to remember what happened," Imamura said in an exclusive interview with IPS. "So when communities in the Tohoku region design buildings and plan escape routes, (information about) the height of the waves and how far inland they came will shape their decisions."

In fact, the practice of stitching together a tapestry of memories and story-telling by members of the devastated communities taps into a Japanese tradition of "handing down memories" that goes back centuries.

The coastal region of this earthquake-prone and tsunami-hit country bears out these narratives in the form of carved warnings on stone tablets.

The memorial stones and rocks, some nearly three metres tall, have clear messages, such as: "If an earthquake comes, beware of tsunamis", or another, which says, "Do not build your homes below this point". The more legible tablets that dot the coast were erected after the 1896 tsunami that killed 22,000 people, the worst in over a century until the 2011 disaster struck. A tsunami in 1707 killed 30,000 people.

Hundreds of these warnings from the past, some 600 years old, are viewed in this corner of Japan as a glimpse into a world that placed a premium on knowledge sharing in order to survive regular battering from the sea.

But some residents honour the warnings of old as proof that previous victims of deadly tsunamis did not die in vain and that their wisdom ensures successive generations live in safer areas.

This culture of keeping collective memory alive has taken other forms further inland, such as in the southern city of Kobe, which was hit by a devastating earthquake in January 1995 that killed 6,434 people. There, an earthquake museum has emerged as the centerpiece of efforts to keep alive the memory of the temblor that struck at dawn.

The 500,000 visitors who walk through its halls every year are not only offered visual presentations of what happened, but they also get to hear real accounts from 40 survivors who are part of the museum's 160 volunteer staff.

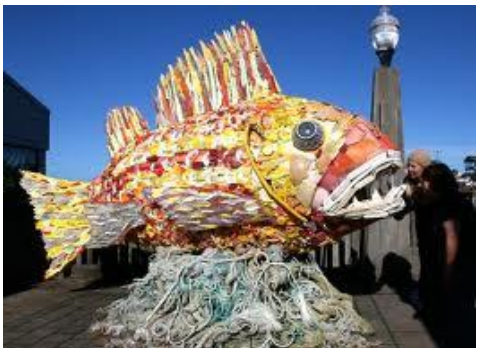
"This is a very effective way for the visitors to feel what happened," admits Masahiko Murata, director of the Kobe-based Disaster Reduction and Human Renovation Institute. "It is direct, human to human."

Lessons from past disasters have also begun filling the pages of textbooks being distributed throughout Japan's school system, adding a new layer to the country's laudable efforts to reduce the impact of disasters.

"Disaster management manuals for schools are important to prepare future generations," Murata told IPS. "We need to always keep transferring lessons to the next generations who have not experienced disasters and need to know what to do when caught in one."

For Ito, one of those lessons is obvious. Minamisanriku's new disaster preparedness centre should be a taller building and in a safer location to protect future radio operators. "We should do that for the sake of the two radio operators who died in 2011," he says. "Mr. Miura was my friend. We coached the sports teams at the local school together."

From: http://www.ipsnews.net/2013/03/stories-sprout-like-warnings-in-japans-tsunami-wasteland/ ♦



See page 12 for story

Photo essays of 2nd anniversary of Japanese tsunami (March 11 2011)—a compilation

Japan earthquake and **tsunami** second anniversary in pictures
Japan: Two Year Anniversary of Earthquake and Tsunami
http://www.theatlantic.com/infocus/2013/03/japan-earthquake-2-years-later-before-and-after/100469/
http://photos.oregonlive.com/photo-essay/2013/03/japan_pays_tribute_to_19000_ki.html
http://www.sacbee.com/2013/03/11/5254427/two-year-anniversary-japan-tsunami.html
http://www.boston.com/bigpicture/2012/03/japan_remembers_rebuilds.html ♦

REGIONAL REPORTS

EAST COAST

East Coast faces variety of tsunami threats
The most likely source for an East Coast tsunami would be an underwater avalanche along the continental slope.
By Douglas Main
Fri, Nov 16 2012

An offshore earthquake of magnitude 4.5 or above could cause submarine avalanches and create dangerous tsunamis with waves higher than 26 feet. (Photo: epugachev/flickr)

Although the risk is small, tsunamis are possible on the East Coast of the United States from a variety of sources, according to new research.

And as Hurricane Sandy showed, the region is completely unprepared for a major influx of water, said U.S. Geological Survey researcher Uri ten Brink.

The most likely source for an East Coast tsunami would be an underwater avalanche along the continental slope, according to research presented by ten Brink and others earlier this month at the annual meeting of the Geological Society of America in Charlotte, N.C. Ten Brink also outlined several other possible sources of tsunamis, including earthquakes and even collapsing volcanoes.

Underwater avalanches

An offshore earthquake of magnitude 4.5 or above could cause submarine avalanches and create dangerous tsunamis with waves higher than 26 feet (8 meters), ten Brink told OurAmazingPlanet. Underwater canyons and bays could focus these waves and make them even bigger.

A 7.2-magnitude earthquake off the southern coast of Newfoundland in 1929 caused a large underwater landslide, creating a large wave that rushed ashore and killed 28 people on the island, ten Brink said. The waves were up to 26 feet high until some reached narrow inlets, where they grew to 43 feet (13 m), he said.

While the tsunami was catastrophic for Newfoundland, it created only small waves for most of the U.S. coast and didn't cause any fatalities there. That's typical of tsunamis from submarine land-

slides: They tend to be large for nearby areas but quickly taper off, ten Brink said.

While this is the only example of a tsunami near the East Coast in recorded history, there are plenty of areas along the continental slope — where the North American continent ends and drops into the Atlantic Ocean basin — at risk for these landslides, ten Brink said.

Ten Brink and his colleagues are currently taking core samples of sediment from the submarine canyons along the continental slope, to find evidence of past landslides and how often landslides occur, he said. His team has been working for more than five years to map these submarine canyons with sonar to highlight areas most at risk for landslides, he added.

The Puerto Rico trench

The movement of tectonic plates beneath the ocean can create waves that travel much farther than those caused by submarine landslides, because they involve the movement of a much larger volume of water, with longer waves that don't quickly dissipate, ten Brink said. The most dangerous earthquakes are those at subduction zones, where one plate dives beneath another.

While the most infamous subduction zones are found around the Pacific Ring of Fire — such as the one that set off the massive 2011 Japan tsunami — there is indeed a subduction zone capable of creating tsunamis near the East Coast. In the northeast Caribbean, the area called the Puerto Rico trench features a subduction zone.

When the 2004 Indian Ocean tsunami hit, ten Brinks' group received funding from the U.S. government to study the tsunami potential of the Puerto Rico trench. Although its work is still ongoing, his group has found that much of the fault doesn't appear capable of creating an earthquake and tsunami large enough to cause big problems for the East Coast. But a tsunami originating there could cause significant destruction in the Caribbean.

University of Puerto Rico researcher Zamara Fuentes, who isn't involved in ten Brinks' research, said one quake in this region in 1918 created a tsunami that killed 116 people on Puerto Rico. Fuentes studies sediment cores around the Caribbean to look for evidence of past tsunamis. Based on historical records, the USGS says 27 tsunamis in the Caribbean have caused fatalities and extensive damage since the 16th century.

Risks across the Atlantic

Another possible source for East Coast tsunamis is the Azores-Gibraltar Transform Fault, off the coast of Portugal. One massive earthquake along this fault in 1755 destroyed most of Lisbon and created a tsunami recorded as far away as Brazil. It was barely noticed on the East Coast, however, ten Brink said. His group has created computer models that suggest underwater mountains west of Portugal helped reduce the impact of this tsunami by slowing the waves and disrupting their movement— and they could do the same thing in the future.

The nearby Canary Islands, off the coast of Morocco, also present a possible hazard. One large volcano on the island of La Palma, called Cumbre Vieja, could erupt, collapse and create a large tsunami capable of reaching the East Coast. A 2001 study suggested this series of events could send a 70-foot (21 m) wave crashing into the East Coast. But ten Brink said that study hasn't held up to subsequent review, and that the wave would be unlikely to exceed several feet in height by the time it reached North America. "I don't see it as a credible threat," he said.

The last possible tsunami source is a slow-moving fault north of Cuba, which has caused earthquakes in the past and possibly could create a tsunami that affected Florida and the Gulf Coast. Due to the current political situation, neither Cuban nor American researchers can conduct research in the area, he said.

To get a good idea of how often tsunamis from this or any source are likely to strike the East Coast in the future, ten Brink and others are trying to peer back in time — but much remains to be discovered. "There are more questions than answers at this point," ten Brink said

Website: http://www.mnn.com/earth-matters/wilderness-resources/stories/east-coast-faces-variety-of-tsunami-threats

OREGON

This way to safe haven: Newport's Tsunami Interpretive Trail guides visitors to higher ground

By Lori Tobias, The Oregonian
February 16, 2013 at 1:30 PM, updated February 16, 2013 at 2:26 PM
Reprinted with permission

NEWPORT – The sign just beyond the Hatfield Marine Science Center parking lot says it all: "You are a 12-minute walk from higher ground ... time to beat feet."

OK, so that's not quite the exact wording, but passers-by should get the idea -- in the event of a tsunami, there's not a lot of time, but there is a safe place nearby.

A newly installed Tsunami Interpretive Trail makes South Beach -- home to the Hatfield Marine Science Center, NOAA and a handful of other businesses -- the only place on the Oregon Coast where you'll know to the minute how much time you'll need

to get to safety if a tsunami is on the way. It's believed to be the first of its kind here, but organizers hope to see more of the signs up and down the coast.

"We just want to make this a safe place for people to visit, explore and have fun, and let them know we are doing something for their safety," said Newport police detective Tony Garbarino. The trail grew out of a conversation last summer between Garbarino and folks at Oregon Emergency Management and the Hatfield Marine Science Center about Safe Haven Hill. The hill is the only high ground close to the area, but until recently the heavy cover of brambles made a quick hike up the grade pretty unlikely.

Ongoing work has made the 90-foot hill more accessible and more improvements are planned. Now the focus in on educating people --particularly visitors who may not know about tsunamis -- on how to get to the hilltop.

Since the evacuation route to Safe Haven Hill follows an existing pedestrian trail, Garbarino thought signs along the way might be a good idea. Those signs quickly morphed into a fully developed interpretive trail.

"A lot of people who travel that trail are tourists," said Garbarino. "There are people who continually come back every year. For some people it's a ritual to come and fish every season. I thought it would be an extension of the educational process. It's awareness, it's public outreach and it's education."

The money was already available, thanks to a grant Oregon Emergency Management had received from FEMA's National Earthquake Hazards Reduction program, and everyone was on board with it, said Althea Rizzo, geologic hazards program coordinator with Oregon Emergency Management.

"We had great cooperation with the city, the port, Hatfield Marine Science Center," Rizzo said. "Everyone really wanted it to happen, and they made it happen." All in about six months and a price tag of $5,000.

Eight signs along the half-mile trail note the estimated time it would take to get from that point to Safe Haven Hill, give tips for surviving a tsunami and show a map of the evacuation route, which runs alongside a portion of the trail. There are also two other signs, one at the Hatfield Marine Science Center and one at the Oregon Coast Aquarium.

"One of the things we don't do well here in the U.S. is putting out this kind of information," Rizzo said. "If you go to Japan, Thailand, Chile, the tsunami information is much more prevalent. You can be in an inundation zone, and the evacuation routes are very clear.

"This is one way of putting the tsunami information out there so that it becomes part of the daily conversation of both residents and visitors. A lot of visitors to our coast don't even know about tsunamis. They can walk the interpretive trail and now they know the way to high ground."

That knowledge may very well be what they need to survive a local tsunami. Six million people lived in the tsunami impact zone in Japan. There were about 20,000 fatalities, Rizzo said.

"I think that's pretty darned good odds," she said. "Cascadia is scary. It's going to be big, bad and ugly, and it's going to be beyond any experience any of us have ever had. Taking protective actions ahead of time and educating yourself increases your chance of survival."

http://www.oregonlive.com/pacific-northwest-news/index.ssf/2013/02/this_way_to_safe_haven_newport.html

PUERTO RICO

Earthquakes and tsunamis: The time to get ready is now

FEMA

Release date: March 18, 2013 Release Number: 03

SAN JUAN, PR – Every year approximately 800 seismic events occur in the Puerto Rico region. While some of them are imperceptible, others remind us of the urgency to prepare ourselves better to survive no notice emergencies, such as earthquakes and tsunamis. The Federal Emergency Management Agency (FEMA) emphasizes the role of prepared communities that become stronger and smarter by planning and practicing what to do to survive and recover faster from this type of events.

This week FEMA joins efforts with the Puerto Rico Emergency Management Agency, the Puerto Rico Seismic Network, the Puerto Rico Broadcasters Association and the National Oceanographic and Atmospheric Agency (NOAA) through LANTEX 2013, an exercise that will take place this Wednesday, March 20, 2013. This drill will test the Emergency Alert System (EAS) during an earthquake/tsunami event and the communications and response processes of local, state and federal governments, as well as the private sector during an activation of this kind.

“A destructive earthquake can occur anytime and once it happens, it's too late to prepare ourselves. We encourage everyone in our communities to be ready NOW as you might not be with your family, your children might be at school or you could be at work,” said FEMA’s Caribbean Area Division Director Alejandro De La Campa. “This exercise provides everyone with a great opportunity to practice their emergency plans and become involved in their emergency preparedness.”

A great first step to include in your emergency plan is to look for information about emergency plans

in places where you and your family spend time: work, daycare and school. If no plan exists, the following simple steps can help you begin developing your family emergency communications plan:

Identify an out-of-town contact. It may be easier to make a long-distance phone call than to call across town, so an out-of-town contact may be in a better position to communicate among separated family members.

Be sure every member of your family knows the phone number and has a cell phone, coins, or a prepaid phone card to call the emergency contact. If you have a cell phone, program that person(s) as "ICE" (In Case of Emergency) in your phone. If you are in an accident, emergency personnel will often check your ICE listings in order to get a hold of someone you know. Make sure to tell your family and friends that you've listed them as emergency contacts.

Teach family members how to use text messaging (also known as SMS or Short Message Service). Text messages can often get around network disruptions when a phone call might not be able to get through.

In addition to being aware of your risks, learn what to do during diverse emergency situations. For more information on earthquake safety, including what to do before, during, and after an earthquake and how to check for earthquake hazards, visit http://www.fema.gov/hazard/earthquake/.

Further information regarding tsunami safety, evacuation, safe relocation and the tsunami ready program is available at www.tsunami.gov and http://prsn.upr.edu. For emergency planning information and how to put together an emergency kit and other preparedness initiatives to be ready for disasters, visit www.ready.gov.

FEMA News Desk (787) 296-3554, 3560

VIRGIN ISLANDS

VITEMA launches ReadyYOUTH-VI PSA competition for high school students

Press release: January 18, 2013

This week [Jan. 18, 2013], the Virgin Islands Territorial Emergency Management Agency (VITEMA) launched a ReadyYOUTH-VI earthquake and tsunami public service announcement competition at high schools across the Territory.

The competition is designed to engage and empower high school student to raise awareness about earthquakes and tsunamis by developing the concept for and videotaping a Public Service Announcement (PSA). The winning school will have their PSA professionally-produced and aired across major networks on cable television for a one-year period.

"One of VITEMA's ongoing goals is outreach to the youth of the Virgin Islands,"said VITEMA director Elton Lewis. "In disasters, we find that kids of all ages are often moved and inspired to do their part in the recovery effort and in helping the community be better prepared."

"The competition is a win-win because it gets the schools and students thinking about ways to be better prepared and it also gives us a fresh perspective on how to get the message out."

The Virgin Islands is located in a seismically active region and a major earthquake can occur at any time. A major earthquake within the region could also generate a deadly tsunami that can reach our shores within minutes, leaving thousands of residents and visitors along the coastline little time to act. Information is the key to saving lives, Lewis stated.

Schools [had] until Jan. 20,2013, to confirm their participation and a deadline of Feb. 20, 2013, to submit their PSA. VITEMA will debut the winning video on its website and social media channels during National Tsunami Awareness Week which is set for March 24-30, 2013.

For more information, visit www.VITEMA.gov or call Christine Lett, VITEM PIO, at 340-773-2244.

WASHINGTON

The Adjutant General appoints Emergency Management interim director

FOR IMMEDIATE RELEASE: February 27, 2013

CAMP MURRAY, Wash.

Maj. Gen. Bret Daugherty, the Adjutant General and Director of Washington Military Department has named Mr. Peter Antolin as the Interim Director of the Washington Emergency Management Division (EMD) in place of retiring Director, Mr. Jim Mullen.

"Peter has served in leadership positions in State Government for many years and has been instrumental in bringing about changes that have resulted in efficiencies and greater effectiveness to programs he has overseen," said Maj. Gen. Daugherty.

Mr. Antolin joined EMD as the acting Assistant Director in April of 2012. He is a long time advocate and friend to emergency management. Prior to working at EMD, he held a senior position within the Office of Financial Management, and he has extensive experience dealing with Emergency Management budgets and programmatic offerings.

Following the Nisqually Earthquake in 2001, he worked with EMD to determine the extent of the damage caused by the earthquake. He worked closely with the State Legislature to secure funding to expedite recovery after the quake, including the repairs to the Capital Building.

In 2005, while deputy director at General Administration, Mr. Antolin was appointed by Governor Gregoire to lead Washington State's response to Hurricane Katrina and Rita. In partnership with EMD Director Jim Mullen, Peter's efforts in Operation Evergreen resulted in a well coordinated response that provided a variety of state and local services to more than 5,500 individuals who chose to relocate into 35 counties in our state.

EMD's mission is to minimize the impact of emergencies and disasters on the people, property, environment, and economy of Washington State. Website: www.emd.wa.gov

Tsunami vertical evacuation on the Washington coast on Facebook

Project Save Haven is a grassroots, community-driven, public process currently taking place on the Washington coast to identify areas for future vertical evacuation structures.

Project Safe Haven: Tsunami Vertical Evacuation on the Washington Coast: https://www.facebook.com/ProjectSafeHaven

Seattle Emergency Management Summit

A rallying point for the Seattle area community of first responders, this regional event will gather top leaders in emergency management, public safety and homeland security and provide a forum to share best practices, renew relationships, and work on new solutions in Washington for both the problems that are anticipated—and those that aren't.

Whether emergencies are storm-related, man-made, or just the day-to-day challenges in large urban and suburban areas, government organizations are expected to have answers.

This Emergency Management Summit brings together the whole community of public and private sector leaders to help predict, mitigate, and better handle crisis situations in order to save lives and property.♦

OPINION

Redefining the emergency manager: A proposal for change

By Daniel Stevens, Training Coordinator, FEMA Response Directorate, Feb. 21, 2013
http://www.emergencymgmt.com/training/Redefining-the-Emergency-Manager.html

The opinions and ideas contained herein are those solely of the author and not necessarily reflective in any official capacity those of the Federal Emergency Management Agency or the United States government.

Long before the current benchmark events of Hurricane Katrina, 9/11 and now Hurricane Sandy, the field of emergency management has progressively evolved over many generations of first responders, receivers and managers. Whether this has been the result of new policy and doctrine, adopting lessons learned and best practices, or simply adapting to a more all-hazards and capability-based environment, I think there is a general consensus that these changes have greatly benefited the field of emergency management and more importantly, the communities and disaster survivors they serve.

The field has become significantly more proactive and integrated with response and recovery efforts, preparedness initiatives such as planning and training have gradually accepted the importance of cross-sector coordination, and leaders at all levels of government and across the whole community are now discussing risk-based prioritization of resources and the benefits derived from mitigating risks.

However, unlike most other professions, emergency managers have relied on an inconsistent approach to training and education, where unconventional career paths are often the norm. If you can imagine the implications this would have on other well defined professions like doctors, lawyers, engineers or pilots, then think of the positive impacts a consistent approach could have on emergency management training and education programs.

While there have been extensive efforts to expand emergency management degree programs, they often focus on public policy or public administration or are off-sets from a traditional MBA. Regardless of the quality or consistency of these programs, the field as a whole lacks a structured framework that adequately prepares individuals to be effective emergency managers in the field.

Despite the research and advances from several institutions on crisis leadership and meta-leadership, the lack of a structured alignment and cross-pollination between the worlds of academia and the practitioner has greatly stalled the development of the next generation of emergency management leaders.

The current development system for emergency managers is akin to a student completing medical school and becoming a surgeon without doing a residency. We have focused too heavily on knowledge development, while neglecting the importance of the hands-on skills and abilities acquired through real-life experience, mentor and internships, and simulations. While it's important to acknowledge there are different learning styles, in emergency management there are critical and necessary aspects that are much better suited to learn by doing as opposed to learning by reading. Conversely, individuals who develop their entire career in the field often have limited exposure to newly developed methodology based on sound research and analysis. There is a dire need to better integrate the whole community of emergency

management in order to truly professionalize the field.

The Emergency Management Institute (EMI), under the direction of FEMA's Protection and National Preparedness Directorate has recently made enor-mous strides in this arena by involving the whole community to include NEMA, the private sector and numerous others. The current direction to develop a National Training and Education System has caught the attention and interest of many stakeholders across all levels of government. Similarly, FEMA's Response Directorate has allocated a lot of resources to focus on the development of its own disaster workforce, to include the revamped FEMA Reservist Program and the Incident Management Assis-tance Teams. The recent implementation of the FEMA Qualification System (FQS) and supporting doctrine established a performance-based framework to consistently apply standards toward the certification of the agency's workforce. The FQS and supporting doctrine were largely modeled after the National Wildland Fire Qualification System, and represents a huge step in defining how the field of emergency management utilizes the Incident Command System at the federal level of resource support and coordination. Several other federal and state agencies are already considering the feasibility of adopting FQS as their own standard for an emergency management credentialing program.

These initiatives and programs from academia, FEMA and the countless other stakeholders involved have all greatly contributed toward this gradual evolution and progress for the field of emergency management and specifically training and education.

Similarly, new doctrine such as FEMA's capstone: Publication 1 and the frameworks resulting from Presidential Policy Directive 8 have greatly contributed to further defining the importance and requirements to successfully integrate and execute all phases of emergency management: preparedness, mitigation, response and recovery. Although, it's important to acknowledge that these initiatives may take several years of their own evolution and adaptation before being fully implemented and accepted by the field.

With so many new and emerging trends in the field of emergency management, and in a field that is evolving at a greater pace due to social media and advances in new technologies, the importance to re-focus on standardization (since the implementation of NIMS and ICS) is ever more critical today than in years past. So what exactly needs to be standardized? What have we missed in the field of emergency management if there are numerous new programs in academia, new policy and doctrine, and new systems for credentialing? It is the missing link across all these initiatives that still needs to be consistently understood and applied; the emergency manager. Without an agreed upon specification of the requisite knowledge, skills and abilities needed for such individuals to be successful, academia will continue to focus on the field of emergency management as opposed to the practitioner, the emergency manager.

So much of the new policy and doctrine focuses on the critical components of preparedness, protection, response, recovery and mitigation, but rarely touches on the importance of the individual(s) responsible for executing those programs. The FEMA Qualification System takes a step in the right direction by defining the core competencies, behaviors and tasks for individual positions. However, there still needs to be a core, cross-cutting set of competencies applied across the entire field to accurately reflect and define the emergency manager.

In 2007, the International Association of Emergency Managers, in coordination with Dr. Wayne Blanchard from EMI, and several other stakeholders wrote and published the Principles of Emergency Management (PDF). The document provides a clear definition, vision and mission and then outlines eight principles. For its time, this was a very progressive, well researched and thought out document, but it still does not accurately make the distinction between the field of emergency management and the individuals in the role of emergency manager.

The glossary of NIMS provides the following definition that also lacks an accurate portrayal of the specific knowledge, skills and abilities of an emergency manager: "Emergency Manager: The person who has the day-to-day responsibility for emergency management programs and activities. The role is one of coordinating all aspects of a jurisdiction's mitigation, preparedness, response and recovery capabilities." (FEMA, 2008)

Several other documents such as the National Response Framework and the National Disaster Recovery Framework provide core capabilities or key principles, but similar to the current doctrine, they frequently cross between the field of emergency management and the definition of the role of the emergency manager as a practitioner. In order for training curricula to effectively prepare individuals to serve in the field, one must first accurately and definitively outline what an emergency manager is and must do in order to succeed.

The definition and core competencies

I would like to put forth the following definition as a recommendation to be considered and adopted by the emergency management community as the official and definitive definition of the emergency manager. The definition must be also be accom-

panied by the supporting competencies.

Definition

Emergency Manager: An individual assigned with the role to manage risks associated with the prevention, protection, mitigation, response and/or recovery efforts of any hazard, and is able to lead and adapt while operating in unconventional environments with limited information.

Core competencies

It's important to note that these competencies are cross-cutting for all stages throughout one's career in the profession. What changes from an apprentice to expert are the complexity and impact of the associated behaviors and tasks for each competency. For example, the types of decisions one makes at the entry-level position will be very different than at an executive level, but the ability to know how to go through a decision-making process is equally important at both levels:

Self-care and management
Being comfortable in austere, fast-paced and stressful work environments
Interpersonal skills
Effective communicator
Verbal and written
Listening
360 communication – across different audiences and platforms; horizontal and vertical
Appropriately uses and understands social media
Coalition building
Establishes an environment of trust for team members to operate effectively
Empowers others
Facilitator
Coordinator
Negotiator
Decision-Making – Applies different models and techniques appropriate to the situation. "Makes decisions at pace with the level and speed of disruption." (Lagadec, 2009)
Analysis
Reasoning
Critical thinking
Ethics, integrity and accountability
Situational and environmental awareness
Emotional, social and cultural intelligence
Political savvy
Adaptive management styles
Technical proficiency in general emergency management principles and key concepts, to include position-specific requirements
Understands and complies with NIMS and ICS principles
Is able to utilize and coordinate resources and capabilities from across the entire community of emergency management stakeholders
Is technically qualified and proficient in their own position within the organization
Continual learner
Aspires for continuous improvement
Actively contributes to and is engaged in the community of practitioners

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Japanese dentists eye cloud computing for dental records

By Rosemary Frei, MSc, DrBicuspid.com contributing writer
Reprinted with permission
From:
http://www.drbicuspid.com/index.aspx?sec=sup&sub=img&pag=dis&ItemID=311926

November 6, 2012 -- A Japanese team is proposing that 100% of the country's dental records be digitized and stored using cloud computing. This is to ensure that dental records cannot be lost -- a problem that has plagued the quest for the identities of victims of last year's tsunami, leaving 600 unidentified. More than half of the area's dental offices and dental divisions in general hospitals were destroyed by the tsunami.

The team members, from the area hardest hit by the disaster, outlined their proposal in a poster presentation this week at the American Medical Informatics Association 2012 annual meeting in Chicago.

"We still have more than 600 dead bodies of which the identities had not been determined as of March 2012. The heavy damage suffered by the dead bodies make it difficult to identify them," noted lead author Shin Kasahara, DDS, PhD. "Furthermore, dental records are not available be-cause a majority of the antemortem dental record data were lost in the tsunami."

Dental records destroyed

More than 15,000 people died in the aftermath of the 9.0-magnitude earthquake that struck the Tohoku district of eastern Japan on March 11, 2011. Earthquake-resistant buildings were constructed in the country after the massive Hanshin earthquake in 1995, hence relatively few people died in last year's quake. However, the scale of the subsequent tsunami brought the death toll to 15,836. Another 2,872

people were injured, and 3,650 are still missing and presumed dead.

Dr. Kasahara and his colleagues from the Tohoku University Hospital provided emergency relief and medical and dental care in the afflicted areas during the disaster. They also assisted in the identification of tsunami victims, using dental radiographs and gypsum models of the oral cavity.

In Japan, less than 50% of dental x-rays are in digital form, and almost all digital information is stored in onsite computers, the study authors noted. As a consequence, many tsunami victims' records were not retrievable, and their identities may never be known.

Cloud computing still in the distance

Dr. Kasahara and his colleagues are starting to push for a switch to fully digital dental records and cloud computing, if several technological and funding barriers can be overcome. Tohoku University dentists began using a digital x-ray system in January 2010. The radiographic images are stored with other medical images on the hospital information system, which is an onsite mainframe computer system.

"However, we have severe problems with respect to the digital dental x-rays," Dr. Kasahara told *DrBicuspid.com*. "We do not have the 'international standard of dental x-rays' in the DICOM (Digital Imaging and Communications in Medicine) system. We have been trying to achieve this for the last couple of years, but we haven't had a good result yet."

Dr. Kasahara and his colleagues now also digitize dental casts. They started this in 2005 using the assistance of the Japanese company Digital Process. The group intends to switch to high-speed data acquisition, which is a prerequisite for cloud computing.

"Currently, we gather 3D data using a dental CAD/CAM system, but this is slow. I want to make shooting as quick and easy as snapping photos," Dr. Kasahara said. "Also, unfortunately, this measurement and display system for digitized dental casts requires a standalone computer system, so it currently is not compatible with the goal of storing data offsite."

He and his colleagues are proposing that the funds for converting to 100% digital and offsite dental record storage should come from a nation-wide increase in treatment fees, a portion of which would be used to pay for this project.♦

Active cloaking could counter radar, earthquakes, and tsunamis--Electromagnetic fields can cloak objects from passing waves

By Jeremy Hsu

Posted 08.19.2009 at 2:23 pm

Reprinted with permission

Today's stealth fighters, such as the F-22 Raptor, may do pretty well in concealing their radar signature, but mathematicians say that a new active cloaking technique could someday generate electromagnetic fields to hide submarines from sonar, or even protect buildings from earthquakes.

Active cloaking differs from cloaking technologies that rely on special materials to bend light or other electromagnetic waves around an object. Scientists have focused on next-generation metamaterials that can only shield very small objects from visible light.

"The problem with metamaterials is that their behavior depends strongly on the frequency you are trying to cloak from," said Graeme Milton, a mathematician at the University of Utah. "So it is difficult to obtain broadband cloaking. Maybe you'd be invisible to red light, but people would see you in blue light."

By contrast, active cloaking could generate electromagnetic waves that adapt to match the frequency and amplitude of incoming waves. That creates the phenomenon known as destructive interference, where waves cancel each other out, much like how noise cancellation headsets work on sound waves.

Milton and two other mathematicians have described their theoretical work in the journal *Optics Express* and *Physical Review Letters*, with funding from the National Science Foundation and the University of Utah.

A video created by mathematician Guevara Vasquez shows how the concept might work. The first part of the video shows a kite-shaped object getting struck by an incoming wave, which then creates an expanding ripple effect similar to how radar or sonar detects objects. The second part of the video shows three point-like cloaking devices which emit waves that cancel out incoming waves.

Previous research has only allowed for cloaking very small particles. But Milton and his colleagues ran new calculations that showed how the active cloaking method could hide objects up to 10 times wider than the wavelengths in question. For instance, the method could cloak an object 40 inches wide from radar microwaves that have wavelengths of about four inches.

The new calculations suggest that cloaking objects from the smaller end of the electromagnetic spectrum, such as light, remains extremely difficult. But they still leave open the easier possibility of protecting oil rigs from incoming tsunami waves, or using vibrations to cancel incoming seismic waves from earthquakes. Such waves are much larger than those of visible light, which means that scientists would have an easier time creating cloaking devices for the tasks at hand.

PopSci previously covered another seismic invisibility cloak concept, which would use concentric rings in building foundations to vibrate at the frequencies of earthquakes and minimize damage.

"It would be wonderful if you could cloak buildings against earthquakes," Milton said. "That's on the borderline of what's possible."

Keep in mind that none of this has been demonstrated yet in actual experiments. And there's a big downside in that scientists must somehow know when the pulse begins, as well as the frequencies and amplitudes of waves they wish to cancel out. Milton proposed that an advance sensor network could perhaps pick up such information for earthquakes or tsunamis.

From:
http://www.popsci.com/scitech/article/2009-08/active-cloaking-could-counter-radar-earthquakes-and-tsunamis. ♦

More tsunami debris stories

B.C. woman finds tsunami boat, meets owner in Japan

CBC News, Posted: Mar 7, 2013 10:00 PM ET
Last Updated: Mar 7, 2013 9:57 PM ET

A fishing boat owned by a Japanese couple and lost in the 2011 tsunami has brought two women from opposite sides of the Pacific Ocean together after the small vessel was discovered washed up on the B.C. coast.

"We were just going out in the dinghy, touring around a bit, and I just glanced over at the beach, and I saw what I thought was an odd-shaped, an odd-coloured log," said Jeanne Beaver, who with Rick Beaver lives in a floating cabin tucked away in an island cove east of B.C.'s Haida Gwaii.

Full story:
http://www.cbc.ca/news/canada/story/2013/03/06/boat-tsunami-japan-bc.html

Tsunami debris still a bit of a scary mystery to Oregon State scientists

By Lori Tobias, The Oregonian The Oregonian
on March 07, 2013 at 7:37 PM, updated March 07, 2013 at 11:17 PM

NEWPORT -- After examining dozens of pieces of debris from the 2011 Japanese tsunami, scientists are certain of only this: The invasive species are out there, but how damaging they ultimately will be might remain a mystery for years -- and then some.

Full story: http://www.oregonlive.com/pacific-northwest-news/index.ssf/2013/03/tsunami_debris_still_a_bit_of.html

Tsunami debris causing controversy in Hawaii

Finding a boat that washed up on Oahu raised the hopes of a Hawaiian family — but their dream of keeping it apparently was dashed when the government seized it as tsunami debris.

From:
http://www.usatoday.com/story/news/nation/2013/03/11/hawaii-boat-tsunami-debris/1976281/

Help Washed Ashore make tsunami art

BANDON — The eye-catching art collection of the Washed Ashore project is ever growing, much like the amount of tsunami debris arriving from Japan.

That's why the group needs volunteers to help build more sculptures. The group invites the public to help building a sea lion pup, a jellyfish and a coral reef from 2-5 p.m. today at the Harbortown Events Center, 325 Second St. SE, Bandon, Oregon.

Washed Ashore also offers regular sculpting workshops from 6-9 p.m. Tuesdays and Thursdays. Participants do not need to register in advance.

From: http://theworldlink.com/news/local/help-washed-ashore-make-tsunami-art/article_d2d2e9a2-8316-11e2-b9ff-001a4bcf887a.html

The Washed Ashore Project builds large art sculptures of sea life made from plastic marine debris. [Our] unique art pieces are part of a traveling exhibition which includes educational signage and programs that encourage reducing, refusing, reusing and recycling.

From: http://www.washedashore.org/
To see some of the sculptures, visit
http://www.washedashore.org/slideshows.php

One photo on page 4 of this issue. ♦

NEWS

Congratulations ! North Bend, Oregon, becomes TsunamiReady

March 16, 2013 12:47 am

North Bend has earned TsunamiReady-StormReady recognition from the National Weather Service by fulfilling rigorous guidelines established for disaster preparedness and severe weather education. The ceremony to present leaders with signs of recognition will happen at 11 a.m. Friday at North Bend City Hall.

From:
http://theworldlink.com/news/local/weather-service-nb-is-tsunami-ready/article_b52cfe36-8e0d-11e2-8ce8-0019bb2963f4.html

Next generation 911

FCC chairman Julius Genachowski announced the Text-to-911 program in 2010, citing the fact that students in the 2007 Virginia Tech shooting unsuccessfully tried texting police for help—and in 2013, that service will launch in some areas of the U.S.

Nationwide availability will be in place by May 15, 2014, the FCC said. The program's part of the FCC's next-generation 911, which aims to upgrade land-line-era rules and regulations to the current mobile and IP world.

"Access to 911 must catch up with how consumers communicate in the 21st century—and today, we are one step closer toward that vital goal," Genachowski said in a press release. "This is good progress, but our work is not done."

From: Emergency Management, January/February 2013, p. 14.

Tsunami dock on chopping block

Newport News Times (Oregon)

Port of Newport workers have sliced through the reinforced concrete hull of a Japanese dock that washed ashore at Newport's Agate Beach last year, readying a triangular chunk of the remnant for display at the OSU Hatfield Marine Science Center.

Inventor to test tsunami-proof pod over Niagara Falls

Honolulu Civil Beat (blog)

Inventor to test tsunami-proof pod Over Niagara Falls. A British inventor and former Boeing engineer has developed an aluminum survival capsule that he says can save people from natural disasters — specifically tsunamis.

From:
http://hawaii.news.blogs.civilbeat.com/post/43675198802/inventor-to-test-tsunami-proof-pod-over-niagara-falls

OceansWatch

We are sailors who want to make a positive difference to the oceans where we sail and the island communities we visit. Our vision is for healthy oceans and sustainable island communities. Our mission is: In partnership with coastal communities we develop marine conservation plans, sustainable livelihood projects and support primary school education

http://www.oceanswatch.org/

Expressways eyed as safety areas in tsunami

As some people who fled to expressways on embankments survived the tsunami following the Great East Japan Earthquake, municipalities in coastal areas have begun designating expressways on embankments as temporary evacuation areas.

According to the Land, Infrastructure, Transport and Tourism Ministry, 13 municipalities in Miyagi, Shizuoka, Mie, Tokushima, Kagawa, Kochi and Miyazaki prefectures have designated evacuation spots by concluding agreements with expressway operators and other means.

In the wake of the March 11, 2011, earthquake, about 230 residents in coastal Sendai rushed to the Sendai-Tobu Road, about three kilometers from the coast, and climbed the five- to 10-meter-high embankment to take refuge on the road. There were no tall buildings in the area so residents had reportedly planned to evacuate to the road since before the disaster.

Full story at:
http://www.yomiuri.co.jp/dy/national/T130216001840.htm

Restoring family links after quake and tsunami

Solomon Islands Red Cross (SIRC) Restoring Family Links (RFL) program has activated its work to assist individuals and families eager to be in touch with family members living on the islands affected by the earthquake and tsunami that struck near Temotu on 6th February. Mr. Clement Manuri, the local Red Cross deputy secretary general, is advising families or individuals without news of family members in the affected areas to visit or call the Solomon Islands Red Cross office in Lata, Temotu on telephone 53115 for Red Cross assistance to contact relatives.

From:
http://www.solomonstarnews.com/news/national/17138-restoring-family-links-after-quake-and-tsunami (February 13, 2013)

Tsunami-proof buildings targeted in new standards initiative

William Pentland, Contributor
Forbes 2/22/2013 @ 12:21PM
http://www.forbes.com/fdc/welcome_mjx.shtml

A clutch of civil engineers convened by the American Society of Civil Engineers are trying to tame the risks posed by tsunamis in the built environment.

The ASCE's newly formed Subcommittee on Tsunami Loads and Effects are crafting new building standards for "tsunami loads and effects."

The standards will strive mitigate the impact of the tsunami wave itself, but also address the collateral impacts of debris and flooding. The subcommittee is concentrating on larger public and commercial buildings, which could potentially endure a direct hit.

"It is going to help make our communities more resilient," Kent Yu, a principal of Portland, OR-based Degenkolb Engineers, and a member of the ASCE's subcommittee, told the Northwest News Network.

According to Yu, it will likely take years to update building codes with tsunami resilient design proposals.

From:
http://www.forbes.com/sites/williampentland/2013/02/22/tsunami-proof-buildings-targeted-in-new-standards-initiative/

PUBLICATIONS

Disaster Research

"One of the most useful e-newsletters I get," says the *TsuInfo Alert* editor. "It's in my Top Ten!"
To subscribe, visit http://www.colorado.edu/hazards/dr/ or email jolie.breeden@colorado.edu.

WEBSITES

http://www.hotdocs.ca/docignite/project/lost_found

Want to help make a 'tsunami' movie? The website above belongs to Nicolina Lanni & John Choi who are trying to make a film that powerfully observes the reuniting of belongings lost in the Japanese tsunami with their original owners.

On March 11, 2011, an earthquake off the Pacific coast of Tōhoku, Japan was a magnitude 9.0 – it was the most powerful earthquake ever to hit Japan. It triggered tsunami waves that reached heights of 40.5 meters. The waves devastated the eastern shore of Japan. 20,000 lives were lost and with them entire villages were swept into the sea. 25 million tonnes of debris – homes, cars, boats, personal belongings – was washed into the Pacific Ocean. Some debris sunk, some was rescued in the early days of clean up, the rest is slowly floated across the world and is now landing on the shores of North America.

LOST & FOUND follows the epic endeavor underway to reunite objects lost in the 2011 Japanese tsunami. Strangers, continents apart, are coming together to salvage the memories amid the debris. Join Nicolina Lanni & John Choi as they journey to Japan with the beachcombers, oceanographers, kayakers and environmentalists who have found these objects, return these lost belonging to their rightful owners, and hear the stories behind them.

The website (above) contains a 3-minute video.

http://evacuteer.org/ (Could go in REGIONAL – Louisiana)

Evacuteer isn't exactly a new resource, but its singular mission makes it a site worth revisiting. The organization, which trains about 500 people each year to help with disaster efforts, is charged with helping people leave Louisiana if they're forced to evacuate. But that's not all. The group has a bevy of projects it maintains including preparedness research, social media campaigns, and even public art installations (which will double as evacuation pick up points). Evacuteer hopes to one day take their concept nationwide, so stop by the Web site and see what might work for your community.

From: Disaster Research 603, Feb. 21, 2013, p. 9

http://emergency20wiki.org/

Don't let the name fool you—Emergency 2.0 is so much more than just anther pretty wiki. This Web site aims to give the emergency management community a resource to integrate social media and other technologies into their emergency repertoire, and hopefully build more resilient communities while doing so. In addition to the Wiki—arranged in a handy pre-, during, and post-disaster format—visitors to the site will find tips, guides, apps, mapping tools, and videos.

From: Disaster Research 603, Feb. 21, 2013, p. 9-10

http://inasafe.org/?utm_source=NHC+Master+List&utm_campaign=6f41088293-DR604&utm_medium=email

InaSafe

When disaster strike, most people would rather be in a safe place. InaSAFE software helps make sure they will be. The newly developed Indonesia Scenario Assessment for Emergencies uses information from scientists, the government, and community members to create realistic models of the impacts disasters can have on specific locales—including detailed projections by sector. The open-source software can be used by anyone who needs to explore the potential effects of disaster, so check it out today.

From: Disaster Research 604

http://crisis360app.com/?utm_source=NHC+Master+List&utm_campaign=6f41088293-DR604&utm_medium=email

Crisis 360

When universities and other organizations are in crisis, Crisis360 will make sure they have view of their emergency management operations. This app—available on Apple and Android platforms—was designed to deliver situational awareness, continuity, of operations, and risk and emergency management support. With a bevy of customizable options, you'll want to visit the Web site yourself and take a tour of what Crisis360 can do for you.

From: Disaster Research 604

http://disasterdistress.samhsa.gov/disasters/hurricanes-and-tropical-storms.aspx?utm_source=NHC+Master+List&utm_campaign=6f41088293-DR604&utm_medium=email

SAMHSA

Sometimes disaster survivors just need someone to talk to, but who'd think to ring up dear old Uncle Sam? Turns out the U.S. Substance Abuse and Mental Services Administration is sitting by the phone 24/7/365, just waiting to talk to people who are feeling anxious about or having trouble coping with disaster—counselors will even respond to text messages! Not only does the Web site offer downloadable brochures and wallet cards to help identify when someone's having trouble coping and how to contact the service, but it also has specific advice for a range of current disasters, including drought.

From: Disaster Research 604

http://www.colorado.edu/hazards/library/

HazLit contains citations to journal articles, books, and reports, in bound and electronic form. Many references also require abstracts or annotations. The Hazards Center Library does not provide a document delivery service and the center does not loan its holdings to the general public. Please contact your local library to determine how to obtain publications identified in the HazLit database.

http://gcrinstitute.org/

The Global Catastrophic Risk Institute is a nonprofit effort to bring together research, education, and professional communities that can help the world better reduce the risk of global catastrophes. From raising awareness to connecting thought leaders on topic of catastrophe, this think tank is reaching across disciplines, professions, and other barriers to find opportunities to reduce risk. Visit the site to peruse the organization's publications, find additional resources, or collaborate with members of the institute's network.

http://www.redcross.org/prepare/disaster-safety-library

The American Red Cross has created this Disaster and Safety Library to assist you in preparing your home, school, and workplace in the event of a disaster or emergency. Here you will find fact sheets, preparedness checklists, recovery guides and other helpful information to keep you informed and safe.

APPS

Critical contact

While storing In-Case-of-Emergency (ICE) contacts in cellphones is catching on, many people password-protect their phone, making it hard for emergency responders to access the data. To bypass the barrier, Acadian Ambulance developed the Acadian I.C.E. app, which creates an emergency contact banner on the phone's home screen or lock screen. The app lets users store data about medication allergies and health conditions, which is accessible only after the phone's unlocked. The app is free for Apple and Android devices. www.acadiaambulance.com

From: Emergency Management, Jan./Feb. 2012, p. 46

Disaster Hero

Do you have the skills needed to prepare, survive and recover from a natural disaster? Join Dante Shields, the internationally famous disaster specialist, and his genius prodigy, Mika, in the high-tech holographic simulation gameshow, Disaster Hero. Compete against the members of Dante's elite disaster specialist team in four different disaster scenarios; earthquakes, tornados, hurricane, and floods.

http://disasterhero.com/

Red Cross shelter finder app

The Red Cross Shelter Finder is available in the iTunes store and works on iOS devices. The Shelter Finder displays open Red Cross shelters and their current population on an easy to use map interface.

Red Cross first aid app

The official American Red Cross First Aid app puts expert advice for everyday emergencies in your hand. Available for iPhone and Android devices, the official American Red Cross First Aid app offers videos, interactive quizzes and simple step-by-step advice it's never been easier to know first aid.

Tsunami Alert app (Android)

Get real-time alerts for tsunami warnings, watches, and advisories. Tsunami Alert will alert you when a potentially dangerous tsunami has occurred. With real-time data from NOAA's Tsunami Warning Centers, get alerts for the US, Canada, and all countries along the Pacific Ocean, India Ocean, and Caribbean Sea.

From: https://play.google.com/store/apps/details?id=com.palta.tsunami&hl=en

CONFERENCES/SYMPOSIA

May 29-31, 2013

Australian and New Zealand Disaster & Emergency Management Conference--Disaster Management Conference**,** Brisbane, Australia

This conference will discuss post-disaster psychological and physical problems, as well as community ability to prepare for and recover from disasters. Topics include managing animals in disasters, current trends in emergency management education, the role of local

government in business recovery, trauma and disaster mental health mitigation, national response to jurisdictional emergencies, decision support systems for evacuation planning, and New Zealand's first public alert system with mobile apps.

From: Disaster Research 604

June 23-26, 2013

2013 World Conference on Emergency Management. "The power of global networking" will be held in Toronto, Ontario, Canada.

The World Conference on Emergency Management is an annual event celebrating its 23rd year, held for disaster management professionals, providing a global perspective on current issues and concerns in the industry. There are four featured tracks: business continuity management, emergency management, crisis communications, and resilience.

http://www.wcdm.org/ ♦

Material added to the NTHMP Library

March – April 2013

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

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Ten Brink, Uri S.; 2012, Tsunami hazards to the U.S. Atlantic coast [abstract]: Geological Society of America Abstracts with Programs, v. 44, no. 7, p. 302.

Wallace, Davin J.; Kanamaru, Kinuyo; Cook, Timothy L.; Woodruff, Jonathan D., 2012, Sedimentological record of typhoons and tsunamis fro Shikoku, southwestern Japan [abstract]: Geological Society of America Abstracts with Programs, v. 44, no. 7, p. 225.

Wood, Nathan J.; Ratliff, Jamie; Peters, Jeff, 2012, Community exposure to tsunami hazards in California: U.S. Geological Survey Scientific Investigations Report 2012-5222, 49 p.♦

Approximately 99% of all tsunami-related fatalities have occurred within 160 miles (250 km) of the tsunami's origin or within 30 minutes of when the tsunami was generated. Consequently, anyone in a coastal area who feels a strong earthquake should take that as a natural warning that a tsunami may be imminent and leave low-lying areas.

From: http://facts.randomhistory.com/tsunami-facts.html ♦

2013 National Tsunami Hazard Mitigation Program annual meeting, Portland, Oregon

Main meeting agenda
Meeting notes
California tsunami program events
Accomplishment reports
Washington
Puerto Rico
Oregon
Gulf of Mexico
California
Alaska
From:
http://nthmp.tsunami.gov/2013annualmeeting/index.html

INFREQUENTLY ASKED QUESTIONS

Where is the latest Gold Rush?

A so-called "goodwill gold rush" has hit a Japanese fishing port that was devastated by the 2011 tsunami, according to Australia News Network. About 10 days ago, packages containing bars of gold began arriving in Ishinomaki, which is located in Miyagi prefecture.

From: http://eijournal.com/showcase-articles/sandy-streaks-create-algerian-abstract?utm_source=EIX+Subscribers&utm_campaign=929826476a-Group_32_20_2013&utm_medium=email

Can tsunamis participate in charity drives?

Tsunami sirens recycled for charity drive (Tillamook Headlight Herald)

The old **tsunami** sirens that Tillamook County [Oregon] Information Services has been taking down since mid-January won't go to waste; they're being donated to the Tillamook High School Charity Drive, which will sell them for scrap metal.

Do tsunamis know the alphabet?

Only X and Y.

X- and Y-shaped ocean waves that are often seen at beaches may help explain why tsunamis can be so devastating, researchers say.

Ocean waves can sometimes interact to yield ripples that are much taller than the simply added combined heights of their originating waves, a sign of what researchers call "nonlinear interactions." (If they were linear, the wave heights would simply add together.) In shallow waters, most of these unusually tall waves look like an X or a Y from above, or like two connected Ys.

For the full story and a photo: http://www.ouramazingplanet.com/3478-wave-shapes-tsunamis.html

To read Mark Ablowitz and Douglas Baldwin's paper, find the Sept 6 issue of the journal Physical Review E, doi.org/jc9.

New Scientist (online) also has an article "Weird waves help model tsunamis' destructive potential" with a video showing the X and Y waves: http://www.newscientist.com/article/dn22291-weird-waves-help-model-tsunamis-destructive-potential.html

According to *Science News*, November 3, 2012 (p. 4), these waves are called solitons.

Who was the first person to associate tsunamis with underwater earthquakes, and when?

Greek historian Thucydides, 460-395 BC. He wrote about this in his *History of the Peloponnesian War*.

From: facts.randomhistory.com/tsunami-facts.html

How much energy did the 2004 Indonesian earthquake release?

The Indonesian 9.0 earthquake in 2004 released more energy than all the earthquakes on the planet in the last 25 years combined. A segment of seafloor the size of California moved upward and seaward by more than 30 feet, displacing huge amounts of water, thus creating the tsunami.♦

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

Who's prepared? Not many
By: Jim McKay on August 23, 2012
Emergency Management journal online
From: http://www.emergencymgmt.com/disaster/Whos-Prepared-Not-Many-Opinion.html

How many hands would go up if you asked any audience the question: Do you have an emergency kit or would you be self-sustained for at least 72 hours during an emergency? Not many, if the audience members were truthful.

At a recent roundtable discussion I posed the following question to a group of officials: "Why are folks indifferent about disaster preparedness?" It was a lively discussion, and I got several answers:"People don't pay attention until a disaster hits. They don't think it's going to happen to them. It's like telling people to put a smoke detector in their home. They might do it but then forget about the batteries."

One participant said adults just don't listen and that he'd turned his attention to kids. It's in the schools where we have to get to them. Then they'll go home and tell the parents, make them do something.

"It's not my job," said an emergency manager. "It's up to the community leaders to get the community to pay attention and prepare."

One gentleman gave me a quizzical look, obviously puzzled by the way I asked the question. He said people are simply unaware. And he was right. In most cases, amid their chaotic lives, many people have missed the preparedness memo, if there was one.

And what about non-English-speaking families? Who is communicating to them about becoming a first responder when disaster strikes? What about folks who struggle to put food on the table? Are they storing food and water to last 72 hours in case of an emergency?

How many families are really prepared to stand on their own for a few days? I called an emergency manager to discuss it.

"If you're on a plane today and somebody has a knife or is acting erratic, who's going to stand up and take care of that issue?" he asked. "Everybody. All the passengers understand they have the responsibility, because nobody's going to come to their rescue," he said.

"That's where it would be great to get to on disasters, but people want to sit back comfortably in their seats knowing that when something bad happens, somebody is going to take care of them."

I asked, "Have they gotten the message that they need to prepare themselves, that they might not be rescued?"

"No. A common response is they just don't have access to the information, that's why they're not prepared." He continued: "You see these surveys that say 25 to 30 percent of the population is ready for a disaster. That's BS." He estimated the prepared at less — even among his peers. "I bet only 10 percent of emergency managers are ready."

During the last week of June [2012], FEMA and the American Red Cross staged an event called Awareness to Action: A Workshop on Motivating the Public to Prepare. They invited 85 emergency management experts from around the country to figure out how to convey a message that makes an impact.

It's not enough to say that people won't listen. And it's a mistake to give up on adults and focus only on school-age children. Let's hope that the 85 experts at the workshop came up with real strategies because people just aren't getting the message.