A nationwide survey commissioned by the National Organization on Disability (NOD) through a grant from the U.S. Department of Homeland Security was conducted to determine the degree to which jurisdictions take into account the needs of people with disabilities in their emergency planning and included people with disabilities themselves in the planning process. The survey of 197 state and local emergency managers across the nation found that 69 percent of the respondents incorporated the needs of people with disabilities into their emergency plans. An additional 22 percent had a plan under development. In other words, planning is underway and the emergency preparedness community recognizes that America’s 54 million citizens with disabilities require special planning and attention.

Nevertheless, the survey also found that among those who currently have a preparedness plan in place or under development:

- 46 percent did not have plans to deal with schools for students with disabilities,
- 50 percent did not have a special needs registry that includes people with disabilities,
- 59 percent did not have plans for pediatric populations, and
- 76 percent did not have a paid expert to deal with emergency preparedness for people with disabilities.

Among all respondents:

- 39 percent had not purchased specialized equipment,
- 36 percent had not been offered special training,
- 73 percent had not received funding to address emergency planning for people with disabilities, and
- 42 percent had a public awareness campaign directed at providing emergency information to people with disabilities.

The final report of the NOD Emergency Preparedness Survey is available at http://www.nod.org/content.cfm?id=1586.

E-mail: sullivant@nod.org; http://www.nod.org/.
From: Natural Hazards Observer, v. 29, no. 3, p. 15, (http://www.colorado.edu/hazards/o/jan05/jan05e.html#survey)

DEDICATION

This issue is dedicated to Wayne Johnston, who has been an advocate for the disabled (a wheelchair is his mode of transportation) in hazard mitigation and planning, as well as being a contributor to TsuInfo Alert.

In 2003 shortly after I became a staff of one at the Geology Library and was wondering how I could also continue to find the time to edit TsuInfo Alert, Wayne contacted me. Natural hazards are his passion and he scours the Web to keep up on the latest news. We forged a partnership whereby he provided TsuInfo Alert with many newsworthy items or pointed me in the direction of good material. I appreciate his help and his friendship.

Thanks, Wayne!
TsuInfo Alert

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Washington Geology Library
Washington Department of Natural Resources
Division of Geology and Earth Resources
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Olympia, WA 98504-7007
360/902-1473
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The views expressed herein are those of the authors and not necessarily those of
NOAA, the Washington Department of Natural Resources, or other sponsors of
TsuInfo Alert.
EMERGENCY PLANNING FOR / BY THE DISABLED

This issue focuses on disaster planning for and by the disabled. After initially being ignored in mitigation plans, much new work has been done to include the needs of the disabled in the planning process. For these plans to be more effective, it was finally realized that the best people to list and describe requirements were the disabled themselves. TsuInfo Alert hopes that this information will provide a starting point for beginning or updating disaster mitigation plans in all communities.

Calculate How Many People with Disabilities Are in Your Community

You can use the online Census Bureau Profiles to calculate how many people with disabilities are in your town, city, or state. You can also find out population, age, and employment statistics for people with disabilities in your area. Data is available for towns with total populations as small as 39.

Go to
1) http://censtats.census.gov/pub/Profiles.shtml
2) Select a state from the pull down menu
3) Enter the name of the town, city, or state in the box to the right and click "Go"
4) If multiple entries are found, they will be displayed on the next screen to appear. Select the entry you want and click "Go".
5) When the demographic profile is displayed, go to page 2 and scroll down the left hand column to "Disability Status of the Civilian Non-institutionalized Population"
6) To obtain the total number of persons with disabilities in the community, add the numbers for:
   - Population 5-20 with a disability
   - Population 21-64 with a disability
   - Population 65 and over with a disability

From: National Organization on Disability (www.nod.org)

Disability Etiquette Tips

One in five Americans has a disability. There is a good chance that you interact everyday with somebody who has a disability, perhaps without even knowing it. Sometimes people are uncomfortable around people with disabilities because they don't know how to act or what to say. Here are some general tips to make communicating easier.

1. First and most important - people with disabilities, like everyone else, deserve to be treated with dignity and respect. People with disabilities have different personalities and different preferences about how to do things. To find out what a person prefers, ask.

2. When you meet someone with a disability, it is appropriate to shake hands - even if a person has limited hand use or artificial limbs. Simply touch hands (or the person's prosthesis) to acknowledge his/her presence. Shaking the left hand is also fine.

3. Always ask before you assist a person with a disability, and then listen carefully to any instructions. Do not interfere with a person's full control over his/her own assistive devices. For example, before you push someone who uses a wheelchair, make sure to ask if they want to be pushed. Likewise, never move crutches or communication boards out of the reach of their owners without permission.

4. Remember, most people with disabilities want to serve as well as be served and enjoy assisting others.

5. Usually people with disabilities do not want to make the origin or details of their disability the first topic of conversation. In general, it's best not to ask personal questions until you've become real friends.

6. Be considerate of the extra time it might take a person with a disability to get some things done.

7. Speak directly to the person with a disability rather than to a companion or sign language interpreter who may be along.

8. Relax. Don't be embarrassed to use common expressions such as "I've got to run now," "See you later," or "Have you heard about" even if the person doesn't run, see or hear well. People with disabilities use these phrases all the time.

9. Some terms that might have sounded acceptable in the past, such as "crippled," "deaf and dumb" and "wheelchair-bound" are no longer accepted by people with disabilities. Many have negative associations. Instead say "person with a disability," "Mary is deaf (or hard of hearing)" "Denise uses a wheelchair," and "Joe has mental retardation." This type of language focuses on the person first, and their disability afterwards.

10. Avoid excessive praise when people with
disabilities accomplish normal tasks. Living with a disability is an adjustment, one most people have to make at some point in their lives, and does not require exaggerated compliments.

11. Don't lean on a person's wheelchair - it's considered an extension of personal space.

12. When you talk to a person in a wheelchair for more than a few minutes, try to sit down so that you will be at eye level with that person.

13. Don't pet a guide or companion dog while it's working.

14. Give unrushed attention to a person who has difficulty speaking. Don't pretend to understand when you don't -- ask the person to repeat what they said.

15. Speak calmly, slowly and directly to a person who is hard of hearing. Don't shout or speak in the person's ear. Your facial expressions, gestures, and body movements help in understanding. If you're not certain that you've been understood, write your message.

16. Greet a person who is visually impaired by telling the person your name and where you are. When you offer walking assistance, let the person take your arm and then tell him or her when you are approaching inclines or turning right or left.

17. Be aware that there are many people with disabilities that are not apparent. Just because you cannot see a disability does not mean it doesn't exist.

18. Whatever you do, don't let fear of saying or doing something "wrong" prevent you from getting to know someone who has a disability. If you are unsure of what to say when you first meet, try "hello."

19. Help make community events available to everyone. Hold them in wheelchair accessible locations. This makes it easier for everyone!

From: National Organization on Disability (www.nod.org)

The Basics

Ten important steps are listed below to get you [a disabled individual] started:

1. Know what kinds of disasters could happen in your area and consider what your environment might look like after one occurs. Certain resources or utilities may not be available and conditions could hamper your independence.

2. Complete a personal assessment. Decide what you will be able to do for yourself and what assistance you may need before, during and after a disaster (based on the disrupted environment, your capabilities and your limitations).

3. Create a personal support network of family, friends, relatives, neighbors, roommates and coworkers who could assist you at a moment's notice. Discuss your special needs with them, including evacuation plans and medical information lists.

4. Make an emergency information list so others will know whom to call if they find you unconscious, unable to speak or if they need to help you evacuate quickly. Include the names and numbers of out-of-town contacts, as well as everyone in your network.

5. Compile a medical information list that contains the names and numbers of your doctors, your medications, dosage instructions, and any existing conditions. Make note of your adaptive equipment, allergies, and any communication difficulties you may have.

6. Keep at least a seven-day supply of medications on hand. Ask your doctor or pharmacist what you should do if you cannot immediately get more. If you undergo treatments administered by a clinic or hospital, ask your provider how to prepare for a disruption caused by a disaster.

7. Install at least one smoke alarm on each level of your home and test them once a month. Know the location of main utility cutoff valves and learn how and when to disconnect them during an emergency. Identify evacuation routes and safe places to go during a disaster.

8. Complete a summary checklist to make sure that your personal disaster plan is comprehensive. Be sure to include your medical needs, evacuation routes, care plans for your service animals, an alternative place to stay, etc.

9. Keep a disaster supply kit in your home, car, workplace or anywhere you may spend your time. Include such items as food, water, a first aid kit, adaptive equipment, batteries, and supplies for your pets or service animals.

10. Make your home or office safer by checking hallways, stairwells, doorways, windows and other areas for hazards that may keep you from
safely leaving a building during an emergency. Secure or remove furniture and objects that may block your path.

From: American Red Cross, http://www.prepare.org/disabilities/disabilitiesprep.htm ♦

Guides for People with Disabilities


Web version: http://www.cdihp.org/evacuation/toc.html
Word version: http://www.cdihp.org/evacuation/emergency_evacuation.doc
Plain text version: http://www.cdihp.org/evacuation/emergency_evacuation.txt

Perspective: “It’s up to us as people with disabilities to individually and collectively prepare for disasters.”

Deals with building evacuation procedures and equipment.

Has suggestions for plans at work, at home, and when traveling.

Includes information on emergency evacuation devices.

Includes an “Ability Self-Assessment” form and Sample Emergency Health Information form.

Emergency Procedures for Employees with Disabilities in Office Occupancies


Perspective: “…crucial that the person be included in the decision on which equipment and procedures will work for them.” (p. 1)

Addresses fires specifically, but much of the information applies to all emergency situations and evacuations.

Includes examples of signs, warning devices, evacuation equipment.

Includes a glossary of terms.

Good overview for companies needing to create an emergency plan.

Disaster Preparedness Information – People with Disabilities

Red Cross
http://www.prepare.org/disabilities/disabilities.htm

Perspective: To help the disabled prepare for disasters.

Includes links to the above two publications.

Offers information in several languages.

Individually webpages for people with cognitive disabilities, communication disabilities, medical concerns, environmental or chemical sensitivities, hearing impairments, life-support systems; with mobility concerns, psychiatric disabilities, service animals or pets, visual disabilities.

Offers information in LARGE PRINT format, too.

Links to Sign Language for Emergency Situations and Using a Generator when Disaster Strikes


The third edition of N.O.D.’s Emergency Preparedness Initiative Guide for Emergency Managers, Planners & Responders is now available. This guide highlights key disability concerns for officials and experts responsible for emergency planning in their communities. This guide is also designed to help emergency managers, planners and responders make the best use of resources to include all citizens of the community in emergency preparedness plans.

Perspective: For the Emergency Manager
Author: Elizabeth Davis, 32 p.
Permission is granted to reprint the document, with the proper credit (see back page)

Discusses the need to include disability needs in the recovery phase as well as the preparedness phase.

Has good section on Tools and Resources for Special Needs Emergency Planning
From:

Disaster Preparedness for People with Disabilities

American Red Cross Disaster Services, 49 p.
Perspective: “…to help people who have physical, visual, auditory, or cognitive disabili-
ties to prepare for natural disasters.”

Has Personal Assessment form, Disaster Supply List, Emergency Information List form,
Medical Information List form, and Disability-related Supplies and Special Equipment List
form.

http://www.redcross.org/services/disaster/be prepared/disability.pdf

A Checklist for People with Mobility Problems
American Red Cross
(http://www.redcrossalbq.org/mobility_problems .html)

Perspective: self-help for the disabled
A checklist to help you get started with emergency planning. A very good first step.
Topics include Create a Plan, Prepare a Disaster Supplies Kit, Home Hazard Hunt,
Evacuation Plans, Car Kit, and Fire Safety. ♦

[Printed below]

A checklist for people with mobility problems

[NOTE: This checklist is written for people with mobility problems, but it can be used as a template for a wide range of other disabilities. Make necessary deletions and additions.]

For the millions of Americans with mobility problems, emergencies, such as fires and floods, present a special challenge. Protecting yourself and your family when disaster strikes requires planning ahead. This checklist will help you get started. Discuss ideas with your family, friends, or personal care attendant, and prepare an emergency plan. Post the plan where everyone will see it.

Emergency Checklist
Ask questions.
Call your local emergency management office - Ask what kind of disasters could occur in your area and how to prepare for each.
Ask how you would be warned of an emergency. Ask about special assistance that may be available to you in an emergency.
Many communities ask people with a disability to register, usually with the local fire department or emergency management office, so needed help can be provided quickly in an emergency.
Ask your supervisor about emergency plans at your workplace.

Ask your childrens' teachers and caregivers about emergency plans for schools and daycare centers.
If you currently use a personal care attendant obtained from an agency, check to see if the agency has special provisions for emergencies (e.g., providing services at another location should an evacuation be ordered).

Create a Plan
Meet with household members or your personal care attendant. Discuss the dangers of fire, severe weather, earthquakes, and other emergencies that might occur in your community.
Determine what you will need to do for each type of emergency. For example, most people head for a basement when there is a tornado warning, but most basements are not wheelchair-accessible.

Determine in advance what your alternative shelter will be and how you will get there.
Post emergency telephone numbers near telephones and teach your children how and when to call for help.
Learn what to do in case of power outages and personal injuries. Know how to connect or start a back-up power supply for essential medical equipment.
If you or someone in your household uses a wheelchair, make more than one exit from your home wheelchair-accessible in case the primary exit is blocked in a disaster.
Teach those who may need to assist you in an emergency how to operate necessary equipment.
Arrange for a relative or neighbor to check on you in an emergency.
Learn how to turn off the water, gas, and Elec-tricity at main valves or switches.
Plan and practice how to escape from your home in an emergency.
Consider getting a medical alert system that will allow you to call for help if you are immobilized in an emergency.
If you live in an apartment, ask the management to identify and mark accessible exits.
Learn your community's evacuation routes. Listen to a battery-operated radio for emergency information.
Pick one out-of-state and one local friend or relative for family members to call if separated by disaster.
Pick two meeting places:
A place near your home in case of fire.
A place outside your neighborhood in case you cannot return home after a disaster.
Keep family records in a watertight, fire-proof container.
Prepare a Disaster Supplies Kit
Assemble supplies you might need in an evacuation. Store them in an easy-to-carry container, such as a backpack or duffel bag.
Include:
A battery-powered radio, flashlight, and plenty of extra batteries for them.
A first aid kit, prescription medicines, and an extra pair of glasses.
A supply of water (one gallon per person per day). Store water in sealed, unbreakable containers. Identify the storage date and replace every six months.
A supply of non-perishable food and a non-electric can opener, plus any special foods you require.
If you have a baby, include extra diapers and other infant care items.
Extra wheelchair batteries, oxygen, medication, catheters, food for guide or service dogs, or other special equipment you might need.
A change of clothing, rain gear, and sturdy shoes.
Blankets or sleeping bags.
A list of family physicians and the relative or friend who should be notified if you are injured.
A list of the style and serial numbers of medical devices such as pacemakers.
An extra set of car keys.
Store back-up equipment, such as a manual wheelchair, at a neighbor’s home, school, or your workplace.

Home Hazard Hunt
In a disaster, anything that can move, fall, break, or cause a fire is a potential hazard.
Repair defective electrical wiring. Smell for leaky gas connections. If you smell gas, turn the gas off and call a professional to restart it.
Keep the shut-off switch for oxygen equipment near your bed or chair, so you can get to it quickly if there is a fire.
Fasten shelves securely to the wall. Place large, heavy objects on lower shelves or the floor. Hang pictures and mirrors away from beds. Bolt large pictures or mirrors to the wall.
Secure the water heater by strapping it to a nearby wall.
Repair cracks in ceilings or foundations. Brace overhead light fixtures.
Store weed killers, pesticides, and flammable products away from heat sources.
Have chimneys, flue pipes, vent connectors, and gas vents cleaned and repaired by a professional.

If You Need to Evacuate...
Listen to a battery-powered radio for the location of emergency shelters.
Know in advance the location of wheelchair-accessible shelters. Follow instructions of local officials.
Wear appropriate clothing and sturdy shoes.
Take your Disaster Supplies Kit.
Lock your house.
Use the travel routes specified or special assistance provided by local officials.
If you are sure you have time...
Shut off water, gas, and electricity if instructed to do so.
Let others know when you left and where you are going.
Make arrangements for pets. Non-service animals may not be allowed in public shelters.

Prepare a Car Kit
Include:
Battery-powered radio, flashlight, extra batteries, and maps.
Blanket and first aid kit.
Shovel
Tire repair kit, booster cables, pump, and flares
Fire extinguisher (5 lb., A-B-C type).
Bottled water and non-perishable foods such as granola bars, raisins, and cookies.

Fire Safety
Plan two escape routes out of each room. If you cannot use the stairways, make special arrangements for help in advance. Never use the elevators.
Install smoke detectors. Clean and test smoke detectors once a month. Change batteries at least once a year.
Consider installing home sprinklers.
If there is a fire, do not try to fight the fire. Get out fast. Do not stop for pets or possessions. Call the fire department after you are outside. Never go back into a burning building.
Feel the bottom of the door with the palm of your hand. If it is hot, find another way out.

General Disaster Preparedness Information
"Your Family Disaster Plan" (ARC 4466)
"Your Family Disaster Supplies Kit" (ARC 4463)

Designed and Hosted by Baker Technology Resource Group, Inc.
Tips for Creating an Emergency Health Information Card

This fact sheet is designed to provide a check list for activities for Creating an Emergency Health Information Card to improve your emergency preparedness. Preparation may seem like a lot of work. It is. Preparing does take time and effort. So do a little at a time, as your energy and budget permit. The important thing is to start preparing. The more you do, the more confident you will be that you can protect yourself, your family, and your belongings.

DATE COMPLETED / ACTIVITIES

__________ Complete and/or Customize Health Card
__________ Keep copies in wallet, purse and all emergency supply kits. Give copies to your doctors and employers.

Customize Card
An emergency health information card communicates to rescuers what they need to know about you if they find you unconscious or incoherent, or, if they need to quickly help evacuate you. An emergency health information card should contain information about medications, equipment you use, allergies and sensitivities, communication difficulties you may have, preferred treatment and treatment-medical providers, and important contact people.

Copies of Card
Make multiple copies of this card to keep in emergency supply kits, emergency carry-with-you kits, car, work, wallet and purse (behind drivers license or primary identification card) wheelchair pack, etc.

Put these items on the front:
- Name
- Street Address
- City, State, Zip
- Phone (Home, Work)
- Fax No
- Birth date
- Blood Type
- Social Security No.
- Health Insurance Carrier and Individual and Group #
- Physicians

Put these items on the back:
- Emergency Contacts
- Conditions, Disability
- Medications
- Assistance Needed
- Allergies
- Immunization Dates
- Communication/Equipment/Other Needs

Instructions for filling out the card:
(1-11) Self-explanatory:
Name, address, phone: home, work, fax birth date, blood type, social security number, primary physician(s), insurance carrier, local and out of town emergency contacts and personal support network.
(12) Conditions which a rescuer might need to know about (if you are not sure, list it): i.e. diabetes, epilepsy, heart condition, high blood pressure, respiratory condition, HIV positive. "My disability, which is due to a head injury, sometimes make me appear drunk. I'm not!" "I have a psychiatric disability, in an emergency I may become confused. Help me find a quiet corner and I should be fine in about 10 minutes; if not give me one green pill, (name of medication) located in my (purse, wallet, pocket, etc.)" "I take Lithium and my blood level needs to be checked every ______ ."

Multiple chemical sensitivities - these conditions may not be commonly understood therefore explanations may need to be detailed. "I react to..., my reaction is...... do this...."
(13) **Medications**  If you take medication that cannot be interrupted without serious consequences, make sure this is stated clearly and include:
- prescriptions
- dosage
- times taken
- other details regarding specifications of administration/regime; i.e., insulin, etc.

**Instructions:** i.e.: take my gamma globulin from the freezer, take my insulin from the refrigerator.

Name, address, phone and fax numbers of pharmacy where you get your prescriptions filled.

(14) **Anticipated assistance needed.**
"I need specific help with: walking, eating, standing, dressing, transferring."
Walking - "best way to assist is to allow me to hang on your arm for balance."

(15) **Allergies and sensitivities:**
History of skin or other reaction of sickness following injection or oral administration of:
- Penicillin or other antibiotics
- Tetanus, antitoxin or other serums
- Morphine, Codeine, Demerol or other narcotics
- Adhesive tape
- Novocain or other anesthetics
- Iodine or methiolate
- Aspirin, emperin or other pain remedies
- Foods such as eggs, milk chocolate, or others
- Sulfa drugs
- Sun exposure
- Insect bites, bee stings

(16) **Immunization Dates** (self explanatory)

(17a) **Communication or a speech-related disability:**
Specific communication needs (examples):
- "I speak using an artificial larynx, if it is not available I can write notes to communicate."
- "I may not make sense for a while if under stress, let me alone for 10-15 minutes to clear my mind"
- "I speak slowly, softly and my speech is not clear. Find a quiet place for us to communicate. Be patient! Ask me to repeat or spell out what I am saying, if you cannot understand me!"
- "I use a word board, augmentative communication device, artificial larynx, etc., to communicate. In an emergency I can point to words and letters."
- "I cannot read. I communicate using an augmentative communication device. I can point to simple pictures or key words which you will find in my wallet or emergency supply kit"
- "I may have difficulty understanding what you’re telling me, please speak slowly and use simple language."
- "My primary language is ASL (American Sign Language). I am deaf and not fluent in English, I will need an ASL interpreter. I read only very simple English."

(17b) **Equipment used:**
- motorized wheelchair
- suction machine
- home dialysis
- respirator
- other

**Instructions:** take my oxygen tank, take my wheelchair.

(17c) **Sanitary needs:**
- indwelling catheter
- trach

Add any additional information you think is important on the back of the form. **Update the form whenever you change doctors, medications or residence.** At the very least, check once a year (on your birthday?) to make sure the data is current and correct.

Developed and Distributed By Independent Living Resource Center San Francisco, 70 10th Street, San Francisco, CA 94103; 415-863-0581, TTY 415-863-1367, FAX 415-863-1290

In cooperation with June Kailes, Disability Consultant through a grant from The American Red Cross Northern California Disaster Preparedness Network ♦
Individuals with Disabilities Integrated into National Preparedness Effort

Compelled by the attacks of September 11, 2001, the National Organization on Disability formed a task force comprised of U.S. government officials, disability community leaders, and disaster relief groups to identify the special needs of people with disabilities during emergencies and to recommend action. The task force concluded that preparedness for people with disabilities, just like for the general population, needs to be continuous and ongoing. As a result of the task force's efforts, on July 22 the president signed an executive order, seeking to fully integrate people with disabilities into the national emergency preparedness effort.

The order directs the federal government to address the safety and security needs of agency employees and customers with disabilities in disaster situations and calls for the creation of an Interagency Coordinating Council on Emergency Preparedness and Individuals with Disabilities to coordinate and oversee the effort. The executive order, Individuals with Disabilities in Emergency Preparedness is available online at http://www.nod.org/content.cfm?id=1546.

Update on Individuals with Disabilities in Emergency Preparedness

In July, the U.S. Department of Homeland Security Office for Civil Rights and Civil Liberties submitted a report to the president documenting the progress made by the Interagency Coordinating Council on Emergency Preparedness and Individuals with Disabilities in overcoming the complex challenges people with disabilities face in times of emergency.

The report documents results achieved and makes eight recommendations that the council believes will better integrate people with disabilities into the nation's disaster and emergency mitigation, preparedness, response, and recovery efforts:

Increase the rate of participation of people with disabilities in emergency planning
Increase the rate of participation of people with disabilities in emergency preparedness, response, and recovery drills and exercises

Direct homeland security funding to promote the full integration of people with disabilities in all aspects of emergency preparedness, response, and recovery
Urge federal building officials and managers to include the concerns of federal employees and visitors with disabilities in developing emergency plans and continuity of government plans
Ensure that during an emergency Telecommunications Relay Services personnel and Public Safety Answering Point personnel and captioners can travel to and from their designated facilities to provide continuity of services for persons with hearing and speech disabilities
Integrate the needs of individuals with disabilities into the National Response Plan and the National Incident Management System
Coordinate evidence-based federal research into the effectiveness of audio, visual, and/or tactile protocols and technologies related to emergency preparedness, alerting, warning, and response for individuals with disabilities
Ensure comprehensive medical approaches that address the health care and medical needs of individuals with disabilities across the lifespan of an emergency event


New poll highlights need for emergency management planning by people with disabilities

More than two years after terrorist attacks focused national attention on the importance of planning ahead for disasters, people with disabilities remain insufficiently prepared, and are anxious about their safety, according to a new Harris Interactive survey commissioned by the National Organization on Disability (Washington, DC). In the event of a terrorist attack, natural disaster, or other crisis, only 44 percent of people with disabilities say they know whom to contact about emergency plans for their community. Just 39 percent have made plans to evacuate quickly and safely from their homes. These figures have barely changed from two years ago (40 and 38 percent, respectively), when Harris conducted the same survey following the September 11, 2001 terrorist attacks. The Harris Interactive survey interviewed 993 people, 19 percent of whom reported having disabilities. NOD's Emergency Preparedness Initiative
will continue to monitor and report on the disability community’s preparedness level.

www.nod.org


**DHS Homeland Security Grant Applications Must Now Include Disability and Special Needs Component**

The DHS Preparedness Directorate Office of Grants and Training issued a Preparedness Directorate Information Bulletin on November 23, 2005 that will impact the national emergency management plan review being conducted by each state and territory of the United States. Planning issues surrounding the special needs population and people with disabilities are now clearly seen in two parts of the Catastrophic Event Planning that each FY2006 DHS Homeland Security Grant applicant must provide answers to during their grant application process. This is a major accomplishment for comprehensive emergency planning for people with disabilities. The Office of Grants and Training should be commended on their swift inclusion of appropriate grant requirements.

On October 3, 2005 the Emergency Preparedness Initiative signed off on a letter to the Office of Grants and Training encouraging them to make some of these changes. Many of these same recommendations were shared as lessons-learned during the National Capitol Region Conference on Emergency Preparedness for People with Disabilities that was held in September 2004.

The general requirement for States and urban areas to update their plans now include the following:

- What actions are being taken to fully address requirements for populations with special needs, particularly persons with disabilities?
- What actions are being taken to ensure prompt evacuation of patients (ambulatory and non-ambulatory) from health care or other facilities?

From:

**N.O.D. Participates in November 10th Congressional Briefing on Emergency Management and People with Disabilities**

On November 10, 2005, N.O.D. EPI Director Hilary Styron participated in a Congressional Briefing on "Emergency Management and People with Disabilities: Before, During and After Disasters," which was jointly organized by N.O.D., the National Council on Disability, the National Council on Independent Living, the National Spinal Cord Injury Association and the Paralyzed Veterans of America. The briefing was hosted by Congressmen Jim Ramstad (R-MN) and Jim Langevin (D-RI), members of the Congressional Bipartisan Disabilities Caucus.

At the briefing, Ms. Styron provided details on N.O.D.’s Special Needs for Katrina Evacuees (SNAKE) Project report and "ground truth" as to what people with disabilities experienced and are continuing to experience in the wake of the recent Gulf Coast hurricanes. Transcripts and reports from this briefing are forthcoming.

In addition to Ms. Styron’s account, testimony was given by representatives of the US Department of Homeland Security, the National Council on Disability, the National Spinal Cord Injury Association, the National Council on Independent Living, Paralyzed Veterans of America and the American Red Cross.

From:

At the website: Click here to download the transcript from the briefing (in Adobe PDF Format)

**Accessible America competition**

Accessible America is a $55,000 award competition open to all cities and towns across the nation. Its purpose is to recognize and promote replication of exemplary practices that communities use to facilitate the comprehensive involvement of citizens with disabilities in community life.


For more information:

**USAID Announces Launch of Indian Ocean Tsunami Warning System Program**

In August, the U.S. Agency for International Development (USAID) announced the launch of the U.S. government’s Indian Ocean Tsunami Warning System (IOTWS) program in response to the 2004 Indian Ocean tsunami. This two-year, $16.6 million effort will contribute to the development of integrated early warning and mitigation systems that allow countries in the Indian Ocean region to detect and prepare for tsunamis and related coastal hazards.

The program involves a number of key U.S. agencies, each contributing specialized expertise
USAID’s Regional Development Mission for Asia in Bangkok, Thailand, will lead the U.S. effort, with technical support from the National Oceanic and Atmospheric Administration, U.S. Geological Survey, U.S. Trade and Development Agency, and U.S. Forest Service. USAID also recently contracted with a joint venture between the International Resources Group (IRG) and Tetra Tech, Inc. to provide overall support to the U.S. program as its “lead program integrator” contractor. IRG-Tetra Tech’s principal subcontractor, the Asian Disaster Preparedness Center, will contribute additional on-the-ground technical resources.

The U.S. program involves close collaboration with the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific, and Cultural Organization. The IOC has the lead responsibility for developing the Indian Ocean’s regional warning capabilities. Working with the international community, the U.S. program will provide technical assistance using an end-to-end approach that addresses all levels of early warning capabilities from community-level disaster readiness to national and regional-level tsunami and earthquake detection and warning communications systems. The U.S. approach also promotes multihazard solutions that strengthen capabilities in the Indian Ocean to respond not only to tsunamis, but to other serious coastal hazards, such as cyclones, sea swells, and floods, as well as earthquakes. Until a regional system can operate autonomously, the U.S. program will provide interim support for detecting earthquakes and possible tsunami conditions in the Indian Ocean through the Pacific Tsunami Warning Center in Hawaii and the National Earthquake Information Center in Colorado.


From: Natural Hazards Observer, v. 30, no. 2, p. 17

NEMA’s recommendations for naming the director of the Federal Emergency Management Agency

The National Emergency Management Association (NEMA) released the following recommendations for naming the director of the Federal Emergency Management Agency (FEMA).

Nomination and Confirmation Process for FEMA Director

The director of FEMA should be a fixed term appointment for not less than five years (as is the director of the Federal Bureau of Investigation in the U.S. Department of Justice, for example).

Regardless of where FEMA is located in the federal government organizational structure, the FEMA director should have a direct report to the president of the United States.

The president should continue to nominate and the Senate confirm the director of FEMA. Congress should scrutinize the nomination to ensure the appointed individual meets established criteria.

A vetting process should be established that includes a role for input by emergency management constituent groups (using the judicial nomination process and rating by the American Bar Association as an example).

Recommended FEMA Director Qualifications, Knowledge, and Expertise:

- Emergency management or similar, related career at the federal, state, or local government level
- Executive level management, government administration, and budgeting experience
- Understanding of fundamental principles of population protection; disaster preparedness, mitigation, response, and recovery; and command and control
- Understanding of the legislative process
- Demonstrated leadership: ability to exert authority and execute decisions in crisis situations

For more information about NEMA, contact NEMA, PO Box 11910, Lexington, KY 40578; (859) 244-8000; http://www.nemaweb.org/.

From: http://www.colorado.edu/hazards/o/nov05/nov05c.html

R. David Paulison replaces Michael Brown as head of FEMA

With the departure of Michael Brown from the Federal Emergency Management Agency’s (FEMA) top spot, the president designated R. David Paulison, administrator of the U.S. Fire Administration, as acting undersecretary of homeland security for emergency preparedness and response and head of FEMA. Paulison, a 30-year veteran of fire and emergency services served as director of the Preparedness Division of the Emergency Preparedness and Response Directorate/FEMA from 2003 to 2004 and has
served as the administrator for the U.S. Fire Administration since December 2001. Before joining FEMA, Paulison was chief of the Miami-Dade Fire Rescue Department. His emergency management experience includes Hurricane Andrew and the crash of ValuJet Flight 592. Read more about Paulison on the FEMA Web site at http://www.fema.gov/about/bios/paulison.shtml.

From: Natural Hazards Observer, v. 29, no. 5, p. 19.

**Tsunami road signs**

A question was raised about tsunami road signs being in compliance with a new Federal Highway Administration (FHWA) requirements.

Rick Mowlds, Signing Engineer, Washington State Department of Transportation (MowldsR@wsdot.wa.gov), gave this answer, “We do not have to replace the existing round evacuation signs to meet the new Federal Highway Administration (FHWA) requirements immediately. FHWA has a compliance date of December 18, 2018, to meet the new requirements. Therefore, we can get the full service life of the existing evacuation signs. Eventually, we will have both round and square signs in the field for a period of time. That will be acceptable to FHWA, based on our experience with our signing changes and required compliance dates.”

George Crawford, EMD, Washington, added that this will change the way our signs look in the states, but the design on the sign will not be altered.

Jay Wilson, Oregon Emergency Management, brought up another issue. “Several communities in Oregon are beginning to consider the 18” signs rather than the 12” signs as their primary size along Hwy 101 for their evacuations routes. The current GAO investigation of the NTHMP has noted how difficult it is to see the 12” signs along Hwy 101 in towns like Seaside [Oregon]. The 12” size signs are deemed good for pedestrian traffic areas.

Update provided by George Crawford, EMD, Washington

**PUBLICATIONS**

*Guide on the Special Needs of People with Disabilities for Emergency Managers, Planners, and Responders*

2005. 32 pp. Pricing for bulk orders of printed copies will be available soon. Requests for bulk orders or three complimentary copies should be made in writing to epi@nod.org.

Available free online from the National Organization on Disability, 910 Sixteenth Street NW, Suite 600, Washington, DC 20006; (202) 293-5960; e-mail: epi@nod.org; http://www.nod.org/resources/PDFs/epiguide2005.pdf.

This Guide highlights key disability concerns to officials and experts responsible for emergency planning in their communities and seeks to assist them in developing plans that will take into account the needs and insights of people with disabilities before, during, and after emergencies. It also is designed to help emergency managers, planners, and responders make the best use of resources, which include people with disabilities, in the emergency preparedness planning process. This revised edition has an expanded resource section and additional statistics from a 2004 survey of emergency managers.

From: Natural Hazards Observer, v. 29, no. 5, p. 19.

**The Emergency Readiness Wheel for People with Disabilities**

As part of our continuing Partners in Preparedness campaign, EPI is pleased to announce the availability of a new custom designed disability-specific preparedness wheel.

*The Emergency Readiness Wheel for People with Disabilities* includes instructions for individuals to "prepare" or "respond" to emergencies including: fires, earthquakes, hurricanes, floods, terrorism, severe weather, tornadoes, and hazardous materials. There are areas where the individual may write in their personal information for medical conditions, allergies, and medications; emergency contact numbers for family and physicians; fire and police department phone numbers; and other critical contact numbers a person may need during an emergency situation.


At the website: Click here to learn more about the *Emergency Readiness Wheel for People with Disabilities* and to place your bulk order.

**Preparing the Workplace for Everyone**

On July 21, 2005, U.S. Assistant Secretary of Labor and Office of Disability Employment Policy head Roy Grizzard announced the release of *Preparing the Workplace for Everyone*, a comprehensive guide aimed at ensuring that the federal government's workplace emergency plans

TsuInfo Alert, v. 7 no. 6, December 2005
address the needs of employees with disabilities. The announcement was made at the first anniversary meeting of the Interagency Coordinating Council on Emergency Preparedness and Individuals with Disabilities held at the Federal Communications Commission. In addition to the guide, ODEP will also launch a new web page dedicated to workplace emergency preparedness issues and related resources.

According to Dr. Grizzard, "In compiling these guidelines, we found that emergency preparedness plans that include enhanced communications and mobility and disability awareness actually improve safety for everyone in the workplace, not just individuals with disabilities. By implementing effective practices, the federal workplace will serve as a model workplace, one that ensures a safe and secure environment for everyone.”

Guide- Preparing the Workplace for Everyone: Accounting for the Needs of People with Disabilities

News Release- New Resources Will Ensure Safety During Emergencies for Workers With Disabilities


For more information on the Interagency Coordinating Council on Emergency Preparedness and Individuals with Disabilities:
Visit the Council's web site at www.dhs.gov/disabilitypreparedness

Are You Ready? What Lawyers Need to Know about Emergency Preparedness and Disaster Recovery.


This documentary-style DVD describes simple but effective ways lawyers can help prepare their communities and the nation for the effects of natural and human-made disasters. Designed for an audience of local government attorneys, risk managers, or anyone else who needs to know how the law affects disaster preparedness and response, it aims to enhance pre-event emergency planning and increase awareness of the legal resources that are available to aid in planning for and coping with disaster. A 98-page coursebook accompanies the DVD.

From: Natural Hazards Observer, v. 30, no. 2, p. 33

Natural Hazards Observer

The current issue, (v. 30, no. 2, November 2005), is available online at http://www.colorado.edu/hazards/o/nov05/

WEBSITES

http://www.nod.org

National Organization on Disability. Click on Emergency Preparedness under the Community Involvement heading for a thorough list of news items, published guides and checklists, government and private programs, and more!

Submitted by Wayne Johnston


The National Organization on Disability’s Emergency Preparedness Initiative has released this “virtual binder” of materials related to the National Capital Region Conference on Emergency Preparedness for People with Disabilities.


http://www.prepare.org/disabilities/signlanguage.pdf

Sign language for emergency situations.


New DOT Web Site to Assist Persons with Disabilities for Emergency Preparedness.

In response to a 2004 executive order directing federal agencies to support safety and security for individuals with disabilities during disasters, the U.S. Department of Transportation (DOT) has launched a Web site containing information to help ensure safe and secure transportation for persons with disabilities in the event of a disaster or emergency. The new site includes advice on emergency preparedness, transportation accessibility, and evacuation methods for certain modes of transportation, such as rail and transit systems. Disabled individuals can learn how to react in situations ranging from evacuations of mass transit systems to being trapped in a car during a blizzard or hurricane. It also provides information for transportation providers on how to respond to the unique

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needs of people with disabilities during an emergency.

From: Natural Hazards Observer, v. 30, no. 1, p. 6


This 2004 issue of Aging Successfully, a newsletter of the Division of Geriatric Medicine at the Saint Louis University School of Medicine, provides information about how elderly persons and health care providers working with them can prepare to minimize the human toll caused by disasters.

From: Natural Hazards Observer, v. 30, no. 1, p. 14

http://www.benfieldhrc.org/disaster_studies/disability&disasters/d&d_index.htm

The Benfield Hazard Research Centre has launched a new Web page on disability and disasters. The primary aim is to identify publications and unpublished material on the subject (in print or online), field initiatives, and people working in the field. An annotated list of publications, outlines of known research and field projects, and details of key contacts will be updated periodically on this Web page. This work will be ongoing. Details of publications, initiatives, and people working in the field are therefore welcome.

From: Natural Hazards Observer, v. 30, no. 1, p. 15

www.abcdesastres.ceride.gov.ar

“ABCDesastres” is a new web site where young students and their teachers can learn about natural disasters and risks. The Spanish-language web site is divided into a number of sections. In ¡Quiero aprender! (Let’s Learn) youngsters will find a wide range of information on disasters and risk, including a glossary of terms. They will also be able to pay a virtual visit to many regions of the world as they search for data on risks and natural disasters, and explore links to web sites of a variety of organizations working in the field.

A section called ¡Quiero Hacer! (Let’s Do It) contains activities that students can take part in to learn more about disaster prevention and mitigation. ABCDesastres was created by the Regional Center for Research and Development in Santa Fe, Argentina, with the support of the Pan American Health Organization (PAHO), the U.N. International Strategy for Disaster Reduction (ISDR) and UNICEF.


The Government Accountability Office (GAO) has posted this bibliography of its disaster-related products.

From: Natural Hazards Observer, v. 30, no. 2, p. 26

http://www.fema.gov/fema/statedr.shtm

Contact information for state offices and agencies of emergency management is available from this Federal Emergency Management Agency online directory.

From: Natural Hazards Observer, v. 30, no. 2, p. 26

http://www.nvrc.org/content.aspx?page=5138§ion=5


From: Natural Hazards Observer, v. 30, no. 2, p.27

http://www.training.fema.gov/emiweb/edu/surveys.asp

The results of the 2005 emergency management demographics survey conducted by the International Association of Emergency Managers can be accessed from this Web site.

From: Natural Hazards Observer, v. 30, no. 1, p. 27

http://pubs.usgs.gov/pp/pp1661b/

A new U.S. Geological Survey paper Local Tsunami Hazards in the Pacific Northwest from Cascadia Subduction Zone Earthquakes is available here.

From: Natural Hazards Observer, v. 30, no. 2, p. 27

http://ioc.unesco.org/INDOTSUNAMI/perth05/perth05_results.htm

This Web page features a summary of the results of the 1st Session of the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System held in
Perth, Australia, in August and a link to the full report.

From: Natural Hazards Observer, v. 30, no. 2, p. 27

http://www.fritzinstitute.org/

“Lessons from the Tsunami: Top Line Findings,” an aid recipient survey based on interviews with individuals and nongovernmental organizations in India and Sri Lanka, provides lessons learned and ideas about how to improve future relief.

From: Natural Hazards Observer, v. 30, no. 2, p. 27

CONFERENCES

October 18-20, 2005

The Universidad de Falcón - UDEFA- and its "Centro de Investigacion de Riesgos, Risk Research Center (CIR) successfully organized the Seminar "Involving the Community in Disaster Risk Reduction Programs, which took place October 18-20 in the city of Punto Fijo, Paraguana in western Venezuela, within the frame work of the United Nations disaster risk re-duction program.

The invited lecture was delivered by Dr. Nuris Orihuela, Deputy Minister for Technology and Innovation Ministry of Science and Technology and former President of the Venezuelan Foundation for Seismological Research (FUNVISIS).

Cnel Antonio River, National Civil Protection Director, also participated in the event as a Special Guest.

Among the other experts that traveled to Punto Fijo were:
Mr. Yukio Aoshima, former Head of the Coastal Protection System of the city of Osaka Japan;
Retired Delf University at Dario Cardona, Colombian expert and recipient of the 2004 Sasakawa Award, Dr. Virginio Garcia Acosta, Director of CIESAS, Mexico, among others.

More than twenty Venezuelan experts discussed the topic of disaster risk reduction from both a technological and a social perspective.

One of the salient activities of the Seminar was the round table discussion "Hurricane Katrina as seen from a Venezuelan perspective" This activity analyzed Katrina from different points of view.

As part of the activities of the Seminar, Ing. Juan Murria, Director of UDEFA's Risk Re-

Happy New Year!

TsuiInfo Alert, v. 7 no. 6, December 2005
**Tsunami Glossary (ITIC-UNESCO, 2003)**

I

Initial rise…..time of the first minimum of the tsunami waves.

Intensity…..extreme strength, force or energy.

Internal tsunami…..a tsunami whose destructive effects are confined to coasts within a hundred km of the source, usually an earthquake and sometimes a landslide.

Inundation area…..area flooded with water by the tsunami.

Inundation line…..inland limit of wetting, measured horizontally from the mean sea level (MSL) line. The vegetation line is sometimes used as a reference. If it can be determined that it is more than 10 feet from the MSL line, adjust; otherwise, ignore. In tsunami science, the landward limit of tsunami runup.

L

Leading wave…..first arriving wave of a tsunami. In some cases, the leading wave produces an initial depression or drop in water level, and in some cases an elevation or rise in water level.

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**More news items on December 26, 2004 tsunami**

**Tsunami court hears sombre litany of death**

Telegraph.co.uk 05 Dec 2005 6:34 PM PST

The first 11 inquests to be held into the deaths of Britons killed by the tsunami last Boxing Day have been recorded at the Olympia exhibition hall in west London.

**No plan to mark Dec 26 tsunami**

The Star Online 05 Dec 2005 7:56 PM PST

The state government has yet to plan any activity in memory of the Dec 26 tsunami in Penang.

**Oxfam tsunami report reveals biggest aid effort**

Scoop.co.nz Mon, 05 Dec 2005 6:09 PM PST

The tsunami aid effort has been Oxfam international’s biggest ever relief operation according to its end of year Tsunami Accountability Report™. The report has been produced to show the public how the money it gave to Oxfam’s appeal has been spent.

**One year on: life in the tsunami’s wake**

The Herald Mon, 05 Dec 2005 6:35 PM PST

ERIDA Surjan sits on the floor of her mosquito-infested tent, worrying that the world has forgotten about her. She lives in the village of Peulangahan with her mother and brother Mbastir, praying that, almost a year after the December 26 tsunami devastated the region, someone will remember them.

**Much of tsunami aid not reaching hit areas**

UPI Mon, 05 Dec 2005 6:34 PM PST

TOKYO, Dec. 6 (UPI) -- Much of Japan's aid to last year's tsunami-hit areas along the Indian Ocean has not been used, said government sources quoted by Asahi Shimbun.

**There was not a single phone call**

The Herald Mon, 05 Dec 2005 6:35 PM PST

An expert told the UK inquest into the tsunami that an early warning system on its own could not save lives. Tim Henstock, a senior lecturer at the National Oceanography Centre in Southampton said evacuation plans were essential.

Submitted by Wayne Johnston
Request for research help

Researcher with a nose for data seeks leads to primary observations, or to descriptive sources, of the arrival of the tsunami created by the Lisbon Earthquake of Saturday, November 1, 1755 along the shores of the western Atlantic Ocean from Iceland and Greenland south the British colonies of Newfoundland, Nova Scotia and New England, and on to the Caribbean Islands and the northeast coast of South America. This is a voluntary project with the researcher no subject to the benefits of a contract, grants or a patron. I am particularly interested in reports that note the time of arrival of the “unusual agitation of the sea” and its “flux and reflux” of sea levels, keeping in mind that observers had no idea what they were seeing drain their harbours to expose unseen ocean floor or coral reefs, then to flow back onto the land creating unheard of currents and eddies. The tsunami traveled at 700 km/hr from the ocean floor break that occurred at 0930 Lisbon Time (1021 UT) to the southwest of Lisbon. It arrived on the shores of the western Atlantic in early to mid-afternoon of November 1, 1755.

It was at least 40 days, and in the case of the French island of la Martinique three months and a week, before a vessel from Europe arrived with news of the Lisbon Earthquake and the deaths and disruption caused, first from the shaking from the ~8.5 magnitude offshore event, and then, within 30 to 60 minutes, from the arrival of the powerful tsunami triggered from a large seafloor rupture. Had there been tourists with video cameras in resorts along the Algarve coast of Portugal, their images of the November 1, 1755 tsunami would have reminded us all of what we witnessed on our televisions from the 0058:53 UT December 26, 2004 Indian Ocean Tsunami.

The Atlantic Ocean is no better protected from tsunamis than was the Indian Ocean on Boxing Day 2004. If a tsunami warning system is to be installed for the Atlantic, we must better understand and discover our Atlantic tsunami history. For the western Atlantic we have a relatively short written history, and we have lost the oral history of the First Nations peoples. Understanding and modeling events such as the Lisbon Tsunami of November 1, 1755 is a part of the exercise of reconstructing our tsunami history and quantifying the hazard they represent.

The same sort of an ocean edge tectonic plate subduction zone exists in the Atlantic Ocean, in two places, as let loose off the northwest coast of Sumatra on December 26, 2004. Both have created, can, and will create in the future, large tsunamigenic earthquakes that have the potential to effect both sides of the Atlantic. One subduction zone is seen reflected in the deep trench that wraps around the eastern Caribbean Windward islands, and the other is seen in the Scotia Arc that connects the southern tip of South America to Antarctica. The focal mechanism of the 1755 Lisbon Earthquake is not yet understood, but it may have been the product of the slow, relentless collision of the African tectonic plate, northward, into the European plate.

One of the best records of the arrival of the 1755 Lisbon Tsunami in all ports will be found in the logbooks of vessels tied up at wharves. British, French, Spanish, Portuguese and Danish, and perhaps Icelandic, naval vessels may be the best sources since their logbooks will record actions taken to protect the ship as mooring lines were loosened to allow the vessel to sink and possibly ground. As the positive tsunami pulse came about 15 minutes later lines would have been tightened and further adjusted as each tsunami pulse arrived. Anchors may have been ordered to be set—or even dragged in the currents created. There may have been minor damage to vessels. I would welcome the names of the vessels known to be in ports on November 1-2, 1755 anywhere along the western shores of the Atlantic. I will follow all leads in all languages, and will carefully credit and recognize all input. I’ve not much traveled in the Eighteenth Century, and will welcome the assistance of the eyes of all readers.

Alan Ruffman, President
Geomarine Associates Ltd
Honourary Research Associate
Department of Earth Sciences
Dalhousie University
PO Box 41, Station M
Halifax, Nova Scotia, Canada
(902) 477-5415

TsunInfo Alert, v. 7 no. 6, December 2005 18
Obituary

Washington State Seismologist Dr. Anthony Qamar and Dr. Daniel J. Johnson, a former University of Puget Sound geophysics researcher were both killed October 5, 2005 in a logging truck accident north of Hoquiam, Washington. It was reported that an apparent equipment failure caused logs to fall off the trailer.

The two men were on their way to the Olympic Peninsula to retrieve a GPS instrument deployed to record an episode of Episodic Tremor and Slip.

Anthony Qamar, a research associate professor of earth and space sciences at the University of Washington, joined the Washington faculty in 1983 and had been a key scientist studying earthquakes and volcanoes.

Bill Steele, U.W. seismology spokesman, said Qamar’s death was a “huge loss” that has devastated colleagues. “He was always cheerful, always helping anyone…always the first to volunteer to take stuff on.”

A Memorial Service for Dr. Qamar was held Tuesday, Oct 11 from 7-9pm in Kane Hall (room 120) on UW campus with a reception afterwards in the Walker Ames Room (room 225). The Memorial Service for Dan Johnson was held Monday, Oct. 10, 1 PM at the Wheelock Student Center Rotunda at the University of Puget Sound.

A more detailed biography of Dr. Anthony Qamar can be found at http://www.pnsn.org/NEWS/PRESS_RELEASES/TONY_QAMAR.html.

Dr. Daniel Johnson’s biography is online at http://www.pnsn.org/NEWS/PRESS_RELEASES/DAN_JOHNSON.html.

STATE EMERGENCY MANAGEMENT OFFICES

Alaska Dept of Military & Veteran Affairs
Division of Homeland Security & Emergency Mgmt.
PO Box 5750
Fort Richardson, AK 99505-5750
(907) 428-7000; toll-free 800-478-2337
Fax (907) 428-7009
http://www.ak-prepared.com/

California Office of Emergency Services
PO Box 419047
Rancho Cordova, CA 95741-9047
(916) 845-8911; Fax (916) 845-8910
http://www.oes.ca.gov/

Hawaii State Civil Defense, Dept. of Defense
3949 Diamond Head Road
Honolulu, HI 96816-4495
(808) 734-2161; Fax (808) 733-4287
http://www.sed.state.hi.us

Oregon Division of Emergency Management
595 Cottage Street NE
Salem, OR 97310
(503) 378-2911, ext. 225; Fax (503) 588-1378
http://www.oregon.gov/osp/oem

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

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

updated 2-15-2005

Errata

TsunInfo Alert, August 2000, volume 2, number 4
From Alan Ruffman, P. Geo., Geomarine Associates Ltd.
“Given the interest this issue may now have after the events of December 26, 2004 in the Indian Ocean, may I point out an apparent error when comparing the Kozak and James piece on pp. 3-4 and your map on p. 5. Kozak and James say that the November 1, 1755 earthquake was ‘centered in the Atlantic Ocean, about 200 km WSW of Cape St. Vincent’ while your map on p. 5 shows the epicenter NW of Cape St. Vincent. One is not correct; possibly the placing of Cape St. Vincent on the map is incorrect? The star seems too close to shore to be 200 km off any point or cape??”
Material added to the National Tsunami Hazard Mitigation Program Library
November-December 2005

Note: These, and all our tsunami materials, are included in the online (searchable) catalog at http://www.dnr.wa.gov/geology/washbib.htm.
Type ‘tsunamis’ in the Subject field to get a full listing of all the tsunami reports and maps in the collection.


Faingold, Noam, 2005, Krakatoa made a lot of noise--Disaster had ripple effect: AAPG Explorer, v. 26, no. 4, p. 27.


Goto, Kazuhsa; Imamura, Fumihiko; Keerthi, Nimal; Kunthasap, Passkorn; Matsui, Takafuli; Minoura, Koji; Ruanggrassamee, Anat; Sugawara, Daisuke; Supharatid, Seree, 2005, Preliminary results of field survey on the the Indian Ocean tsunami deposits in Thailand and Sri Lanka [abstract]: Geological Society of America Abstracts with Programs, v. 37, no. 7, p. 74.


Moore, Andrew Lathrop; Gelfenbaum, Guy; Kamataki, Takanobu; Nishimura, Yuichi, 2005, Sedimentation from the 26 December 2004 South Asia tsunami in northern Sumatra, Indonesia [abstract]: Geological Society of America Abstracts with Programs, v. 37, no. 7, p. 73-74.


Ullmann, Albin; Pons, Frederic; Moron, Vincent, 2005, Tool kit helps digitize tide gauge records: Eos (American Geophysical Union Transactions), v. 86, no. 38, p. 342.

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.


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.


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.

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.)


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.


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

Tsunami: Surviving the Killer Waves (13 min.). 2 versions, 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.


The Wave: a Japanese Folktales (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.
If a tsunami warning is issued in your area while you are in a boat at sea, what should you do?

“Since tsunami wave activity is imperceptible in the open ocean, do not return to port if you are at sea and a tsunami warning has been issued for your area. Tsunamis can cause rapid changes in water level and unpredictable currents in harbors and ports.

If there is time to move your boat or ship from port to a location where the water is more than 400m deep (and after you know a tsunami warning has been issued), you should weigh the following considerations:

* Most large harbors and ports are under the control of a harbor authority and/or a vessel traffic system. These authorities direct operations during periods of increased readiness, including the forced movement of vessels if deemed necessary. Keep in contact with the authorities should a forced movement of vessels be directed.
* Smaller ports may not be under the control of a harbor authority. If you are aware there is a tsunami warning, be sure you have enough time to motor your vessel safely into deep water. Small boat owners may find it safest to leave their boat at the pier and physically move to higher ground, particularly in the event of a locally-generated tsunami [closer to shore, faster-arriving]. Concurrent severe weather conditions (rough seas outside the harbor) could present a greater hazardous situation to small boats, so physically moving yourself to higher ground may be the only option.
* Damaging wave activity and unpredictable currents can affect harbors for a period of time following the initial tsunami impact on the coast. Contact the harbor authority before returning to port making sure to verify that conditions in the harbor are safe for navigation and berthing.”


Why is the Richter scale being replaced by other earthquake measurements?

“Seismologists, studying the dynamics of earthquakes with broad band seismometers (20 to 0.003 Hertz), are formulating new methods to analyze earthquake motion and the amount of energy released. Where the traditional Richter (surface wave) magnitude of earthquakes is not accurate above 7.5, the seismic moment and the source duration are now used to better define the amount of energy released and the potential for tsunami generation. Real-time determination of earthquake depth, type of faulting, and extent and direction of slippage will significantly improve the warning centres’ ability to identify the likelihood of a threatening tsunami.”


What is seismic moment? What is source duration?

Seismic moment is a measure of the strength of an earthquake, particularly of the low-frequency wave motion. Source duration is the measurement of the length of time that seismic energy is released at the source location of that seismic activity.

As of January 17, 2005, how many aftershocks of magnitude 5.0 or greater has been experienced following the Sumatra earthquake (Dec. 26, 2004)?

125 aftershocks of magnitude 5.0 or greater, and hundreds of smaller aftershocks have been recorded.

There is a chart at http://www.ga.gov.au/urban/geohazardupdates/tsunami/#aft♦
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