NATURAL HAZARDS
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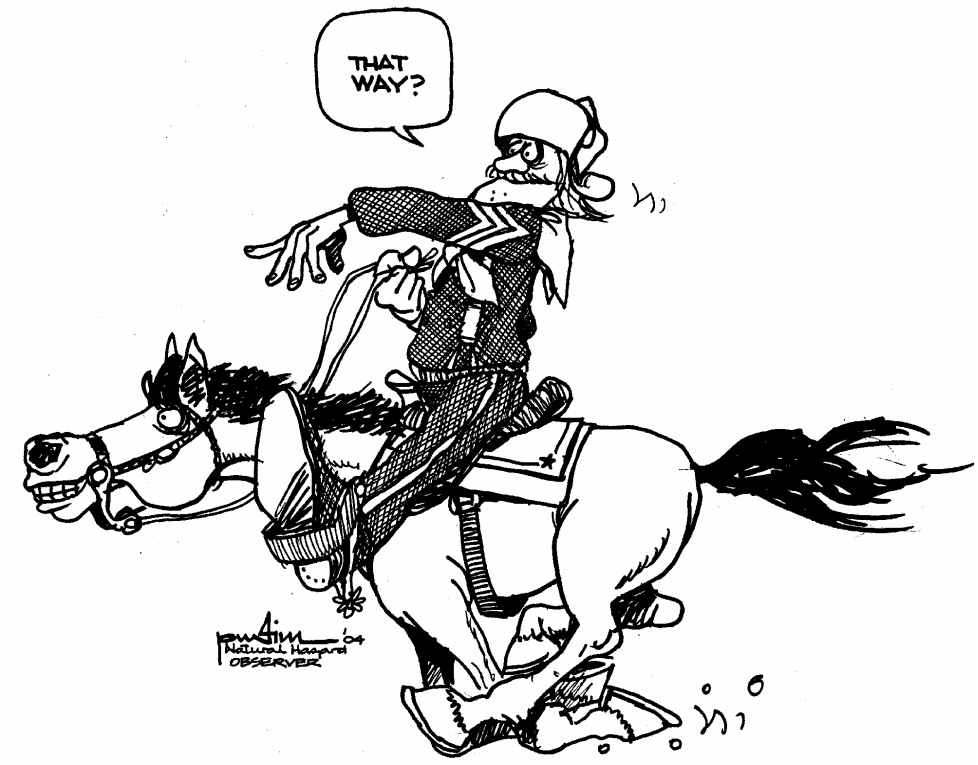


Where's the Cavalry?

— an invited comment

In westerns, when the going gets tough the settlers send for the cavalry, and troops bring reinforcements for the hometown hero and help save the town. In war movies, the hero calls in the cavalry, too: trucks, tanks, and aircraft. Today, the world of emergency preparedness and response is getting more dangerous, demanding, and complex. But where's the cavalry? While you cannot hear the bugles, the local highway, transit, trucking, and rail agencies are rallying to the call.

Preparedness and Response Has Become a Bigger Job

Emergency responders are facing more disasters, more threats, and greater agency involvement then ever before. The California wildfires in 2003 were among the largest in U.S. history, and major disaster declarations by the Federal Emergency Management Agency (FEMA) in the last 10 years rose 60% from the previous decade. And September 11 focused America's attention on international terrorism.

Government agencies at every level are now involved in all facets of emergency preparedness and response. New players such as the Department of Homeland Security (DHS) are setting priorities and developing new initiatives that will impact emergency management. DHS published the National Incident Management System (NIMS) on March 1, 2004 (see p. 6 of this ***Observer***). It calls for all levels of government to plan, prepare, and coordinate within a standardized framework. It appears that local

emergency response agencies will have the lead in coordinating many of these efforts. Everyone involved will be able to benefit from the expertise of hazards practitioners and researchers.

As head of safety and security programs for the Federal Transit Administration (FTA) in the U.S. Department of Transportation, I worked with transit agencies and the surface transportation community to respond to new threats after September 11. By tapping into their incredible commitment and expertise, we made tremendous progress in preparedness issues. The very largest transit agencies know that they are targets for terrorists. Even before September 11, they responded to major accidents, evacuations, and emergency events. The smaller agencies have now recognized their vulnerabilities as well. The FTA held forums around the country to bring the transit community together with emergency responders to share plans, training, and resources. We shared intelligence, stepped up training and public awareness, completed vulnerability assessments, dispatched multidisciplinary security/transportation teams to harden transit operations and facilities, and initiated millions of dollars in transportation security research. Highway, rail, port, pipeline, and trucking agencies have begun preparedness initiatives.

Transportation Is a Big Part of the Problem

The multiple explosions on the Madrid commuter rail system on March 11, 2004, were a horrifying reminder that transportation systems are primary targets and vehicles for terrorists seeking to kill large numbers of people and to immobilize economies. Transit systems in London, Paris, and Tokyo have been the targets of terrorist attacks. Suicide bombers often use crowded city buses or pack trucks with explosives, and the September 11 attackers used airplanes as explosive devices.

In addition, transportation accidents kill and injure hundreds, and transport of damaged hazardous materials containers can create widespread environmental damage. Disruptions in transportation can have disastrous impacts on the economy. Keeping the freight and passenger transportation system working is essential. Factories and stores now rely on "just-in-time delivery" rather than on-site inventory. A major expressway accident can quickly become a six-hour traffic jam that disrupts business for a day and causes additional accidents.

Transportation and First Response

The public agencies and private companies that maintain highways and operate trucks, buses, subways, and trains are critical partners for regional emergency preparedness, response, and recovery. Transportation workers may be the first on scene in a disaster and can play an important role in response and recovery. How they react may determine whether people live or die. On September 11, the operator of a PATH commuter train coming into the World Trade Tower station felt an unusual vibration and did not go into the station. Thanks to her, no transit passengers were injured. During the blackout last fall, transit operators in the New York subway system safely evacuated thousands of people through dark subway tunnels. Highway departments have regional operations centers with video and remote sensing that offer real-time information that highway and transit agencies can quickly use. After any disaster, one of the first priorities is to get the roads open and trucks and buses running. These agencies have resources, experts, and technology that can be invaluable to emergency responders.

What Are Our Options?

One option is to continue the status quo. We could read NIMS and just decide it offers nothing new, meetings continue as usual, and preparedness remains an agency-specific concern. Nevertheless, many agencies not historically involved in preparedness planning such as transportation, utilities, public works, public health, agriculture, and education are now writing emergency plans. Who will bring them together? Could these agencies benefit from the research and best practices of the hazards community?

Another option is to wait for federal agencies to provide training, resources, and equipment. Grant money is coming, research is underway, and more is planned. However, demand for funds is great, and the bureaucracy is deliberate (Washington-speak for slow!). It will take time for the concepts and organization of NIMS to reach all levels of government. NIMS recognizes that emergency response is first a local responsibility. Can local governments afford to wait and hope that nothing happens in the meantime? Will the people in Washington or in state capitals know what is best for a region?

The third option is to start now. Tap into the skills, expertise, and resources of the primary agencies.

Integrating agencies will not be easy. The "transportation community" is not yet a cohesive and well-organized group, operating intermodal highways, trucks, transit, ports, rail, and air as one efficient system. However, the imperative for emergency preparedness can bring them together.

Imagine This

A coordinated response to a major disaster, with transportation agencies as full partners, will be better prepared if a disaster spreads across jurisdictions and affects thousands of people, homes, and businesses. During such an event:

- The highway department patches through real-time video of the affected areas from their traffic cameras to the command center;
- Variable message signs and highway advisory radio on major routes in the surrounding counties and states immediately direct traffic away from the area;
- Traffic signals are changed from the highway operations center to speed an evacuation;
- Buses are used to block off certain roads, transport responders to the site, and serve as resting areas;
- Subway and commuter rail systems begin the orderly evacuation of thousands of people;

- Trucks and trains move in extra supplies and equipment; and
- The number of emergency response personnel surges as fully trained transit police, highway engineers, and equipment operators report in.

Can't you almost see the cavalry?

Take Action Now

I come from the transportation community. We have a lot to learn. But many in transportation are working at national, state, and local levels to bring resources to bear in emergency preparedness and security. We need hazards practitioners and researchers to reach out to the transportation community.

What can you do?

- Look at your emergency response plan. How is transportation addressed? Is there an evacuation plan, joint training and exercises, and current points of contact?
- Call the highway department, transit agency, and railroad in your region. Emergency response and homeland security may be "additional assignments" for their staff. You may find relevant personnel in the safety or security department, or in planning or engineering. Most of the people who have stepped up to these new challenges are innovators and leaders who understand the role that their agency can play in security and emergency preparedness.
- Get to know the emergency response leaders in your county, region, and state. How is the hazards community organized? How does it set plans, priorities, and funding across the region?
- Get involved nationally. What different institutional arrangements work better in other states?
- Contact DHS and share with them how you are leading and implementing NIMS in your area. Don't wait for them to tell you how to start or what to do!
- Look at the National Academy of Sciences Transportation Research Board resources on security (*http://www4.trb.org/trb/homepage.nsf/web/security*). Is the federal level repeating research that has already been done? Are there areas to partner and leverage research dollars?

We must all work together. It's no longer business as usual. We need all the help we can get. Call the cavalry!

Susan Bell Knisely
U.S. Department of Transportation (retired)
Security and Transportation Consultant

Two New Quick Response Reports!

The Hazards Center announces the availability of two new Quick Response (QR) reports: an earthquake damage assessment and an overview of evacuation experiences during the Colorado wildfires of 2002.

QR 166: Damage Assessment After the Paso Robles (San Simeon, California) Earthquake: Lessons for Emergency Management was written by David McEntire and Jill Cope of the University of North Texas. The report explores the issue of damage assessment, an often-neglected area of emergency management study, using the San Simeon earthquake in Paso Robles, California (San Luis Obispo County), as a case study to identify lessons for the emergency management profession. The authors' findings range from the importance of damage assessment, to the need for coordination among the many actors involved in the post-disaster damage assessment function.

QR 167: Colorado Wildfires 2002, by Charles Benight, Eve Gruntfest, and Kelly Sparks of the University of Colorado at Colorado Springs, presents survey research on wildfire evacuation behavior and experiences. More than 5,000 people were evacuated during Colorado wildfires in 2002. Respondents were asked about their pre-evacuation experience and what happened during and after the actual evacuation. ***QR167*** explores both the actions that people took and their perceptions of the fire during the evacuation period. The study finds that people generally use a combination of public and private warning sources for wildfire information; that length of residency impacts evacuation behavior; and that the accuracy and consistency of maps, geospatial information, and fire behavior are crucial.

Quick Response reports are available free on-line at *http://www.colorado.edu/hazards/qr/* in both html and PDF formats. Information about the Quick Response program can be found at *http://www.colorado.edu/hazards/qr/*.

Plague on Pasadena:
A Public Health Disaster

Yersinia pestis, the bacteria that causes plague, is endemic to California. However, cases of the respiratory form of the disease, pneumonic plague, are highly unusual. Pneumonic plague would likely be disseminated in an aerosol form and arise from a bioterrorist event. Plague is highly communicable and can be fatal if not treated within 24 hours. The respiratory form of the disease is characterized by high fever, chills, headache, malaise, and a productive cough. Effective disease control requires isolation of infected individuals until they have been on antibiotics for three days. Most hospital laboratories are able to culture and identify *Y. pestis* within 48 hours, although faster methods do exist, primarily at public health laboratories. Prophylaxis (preventative treatment with antibiotics) is recommended for all persons exposed to the aerosol and for close contacts of confirmed cases.

It has now been four days since the first cases of plague were reported to the Pasadena Public Health Department. Based on epidemiological evidence, the Federal Bureau of Investigation (FBI) suspects that a release of aerosolized plague occurred at the Pacific Movie Theaters in Pasadena. They have classified this event as a terrorist act. The results of their ongoing investigation have not yet been shared with the people of Pasadena and surrounding areas, but they are keeping the public informed of their activities. The following is a review of what has happened so far.

The First Cases

Early Monday morning, Amber, a 14-year-old volleyball star at Pasadena High School, walked into the emergency room at Huntington Memorial Hospital complaining of a high fever, headache, and watery productive cough. While in the waiting room, Amber started to have difficulty breathing and became cyanotic. She was then taken immediately for an examination. A chest x-ray suggested pneumonia, and Amber was admitted to the hospital but not placed in isolation. She was started on antibiotics while doctors waited for results from blood and sputum cultures.

In the middle of the afternoon, two patients walked into the emergency room at Kaiser Hospital in Pasadena, and another two walked into St. Luke Hospital in Pasadena. All four shared similar flu-like symptoms, including shortness of breath, and what appeared to be pneumonia. One of the patients at Kaiser died and his body was transferred to the Los Angeles County Coroner's Office.

Later that day another patient arrived at Huntington Memorial Hospital with flu-like symptoms and a bloody productive cough. By the time he presented, a staff shift change had occurred and the emergency room doctors and nurses knew nothing about Amber's case. Since the cases were being cared for by different doctors and at different facilities, it was virtually impossible to recognize that these cases were part of an impending epidemic.

Signs of an Epidemic

Around 1:30 a.m. on Tuesday, Pasadena Fire Emergency Medical Services (EMS) began receiving calls from people in severe respiratory distress. From 1:30 to 4:00 a.m., EMS transported a total of 17 people to Pasadena hospitals. Ten were taken to Huntington Memorial, five to St. Luke, and two were taken to Kaiser. Both Huntington Memorial and St. Luke closed their emergency rooms to EMS transports, but that did not stop people from walking in. By 4:00 a.m., both hospitals had received 15 walk-ins each. All of the patients had flu-like symptoms.

At 4:30 in the morning, an emergency room physician from Huntington Memorial called the Pasadena Health Department's after-hours reporting line, but was unable to leave a message. He asked his staff to look for another number, but they could not find one. The doctor decided to call the Pasadena Police for assistance. A confused police operator transferred the call to the Department of Public Works. Frustrated, the doctor called back and spoke to a supervisor who said the police would locate and alert the health officer.

The Health Department Responds

By 8:30 a.m. on Tuesday, Pasadena Public Health (DPH) was mobilizing. A surveillance advisory was issued asking area physicians to be on the lookout for pneumonia-like

illnesses and to report them to the Department of Public Health by phone or fax immediately. An epidemiology investigation team was sent to interview the cases at Huntington Memorial. Unfortunately, due to the number of cases, they quickly discovered that they did not have enough staff to conduct individual investigations. Instead, DPH began collecting samples for analysis at the Los Angeles County Public Health Lab. Additional cases were flooding area hospitals, and all area intensive care units were filled beyond capacity, rapidly overwhelming both the hospital system and the health department. The health officer called the Los Angeles County Department of Health Services, Centers for Disease Control (CDC), and California Department of Health Services for support.

By Tuesday evening the Los Angeles County Public Health Laboratory Director confirmed *Y. pestis* as the causative agent in the Huntington Memorial Cases. Pneumonic plague had hit Pasadena. The FBI was notified by both the Pasadena and Los Angeles County Health officers, and the California Department of Health Services (DHS) issued statewide advisories. The FBI, Department of Homeland Security, and other national enforcement agencies quickly took over the search for those responsible.

The Pasadena Public Information Officer issued a general press release noting that plague had been released in Pasadena. The release immediately went out to all the papers and was broadcast on the radio. The officer explained that the pneumonic form was highly contagious and described the symptoms to the public. She also outlined plans for mass distribution of antibiotics to exposed persons and defined exposure parameters. The City of Pasadena set up a toll-free hotline for people to call for information, and a second number for psychological counseling. Many people decided it was no longer safe to live in Pasadena and tried to leave the city, causing massive congestion on the 110, 134, and 210 freeways. The city's emergency management team was activated and opened an Emergency Operations Center (EOC) to respond to these and other issues.

On Wednesday morning, support staff from the CDC arrived in Pasadena. Los Angeles County Department of Health officials were busy conducting investigations of plague cases within its jurisdiction. The CDC began the process of shipping antibiotics from the Strategic National Stockpile to Los Angeles.

Despite warnings against using the 911 system for questions and concerns, the system for Pasadena became overwhelmed. The Los Angeles County Coroner reported that his facility was completely overwhelmed by the 101 fatalities. The California Health Alert Network (CAHAN) reported that cases of plague were appearing in San Diego, Orange, and San Bernardino Counties.

Meanwhile, Pasadena health officials were establishing prophylaxis distribution centers at the Rose Bowl and Pasadena City College, and finalizing the method of distribution. They decided to use EMS to distribute the antibiotics. When the public discovered that prophylaxis centers had been established, they flocked to them demanding medication. Pasadena Police had problems controlling the massive crowds and put out a call for mutual aid.

Primary care physicians reported to the health department that many patients were demanding antibiotics, while others wanted Xanax or Valium. By this time, area hospitals were running low on supplies, and staff were becoming concerned about their personal safety.

End Is in Sight

By Thursday evening, federal authorities and the Pasadena Public Health Department estimated that 6,297 people had passed through the Pacific Theaters during the release of *Y. pestis*. The agencies are working to identify and evaluate these people and those who came into contact with them. It is predicted that isolation strategies, along with the distribution of prophylaxis antibiotics from the Strategic National Stockpile, will quell the epidemic, although there may still be sporadic cases occurring for several weeks.

For the Future

A citywide review of the public health response to this event is scheduled for next month. All local response agencies who were involved, along with federal agency representatives, staff from local and state media outlets, hospitals, city government, private voluntary organizations, and others, will participate in a debriefing session to identify the successes and challenges of the response. Particular emphasis will be placed on intra-agency communication and information sharing, risk communication, and the distribution of medicine and medical supplies. Prior to the citywide review, hospitals, agencies, and organizations will conduct individual in-house examinations of their response roles. National attention is focused on this event due to its multijurisdictional nature, and the fact it was an intentional act.

This *Invited Scenario* was written by Kimberly Shoaf and Joshua Alexander of Community Health Sciences at the University of California at Los Angeles School of Public Health, Center for Public Health and Disasters in Los Angeles, California.

Suggested Internet Resources

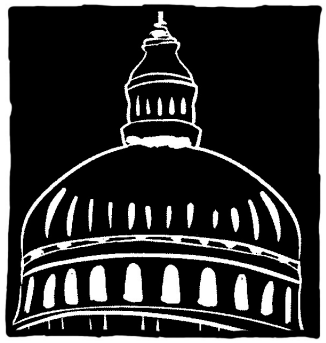
http://www.cphd.ucla.edu/
UCLA Center for Public Health and Disasters

http://www.upmc-biosecurity.org/
Center for Biosecurity at the University of Pittsburgh Medical Center

http://www.hrsa.gov/bioterrorism/index.htm
Health and Human Services Bioterrorism Hospital Preparedness Program

http://www.naccho.org/
National Association of County and City Health Officials

http://www.bt.cdc.gov/
CDC Emergency Preparedness and Response Pages



Washington Update

DHS Approves NIMS

On March 1, U.S. Department of Homeland Security (DHS) Secretary Tom Ridge announced approval of the National Incident Management System (NIMS), the nation's first standardized management plan that creates a unified chain of command for federal, state, and local lines of government for incident response. The system is the result of the efforts and input of all who participated—from state and local governments, to law enforcement, fire and emergency management, emergency medical services, tribal associations, public health, private sector, public works, and nongovernmental organizations. NIMS provides first-responders and authorities a standard foundation for managing terrorist attacks, natural disasters, and all other types of emergencies.

NIMS balances flexibility and standardization, while providing common doctrine, terminology, concepts, principles, and processes, so that response during an incident will be consistent and teamwork will be enhanced. Key elements and features of NIMS include:

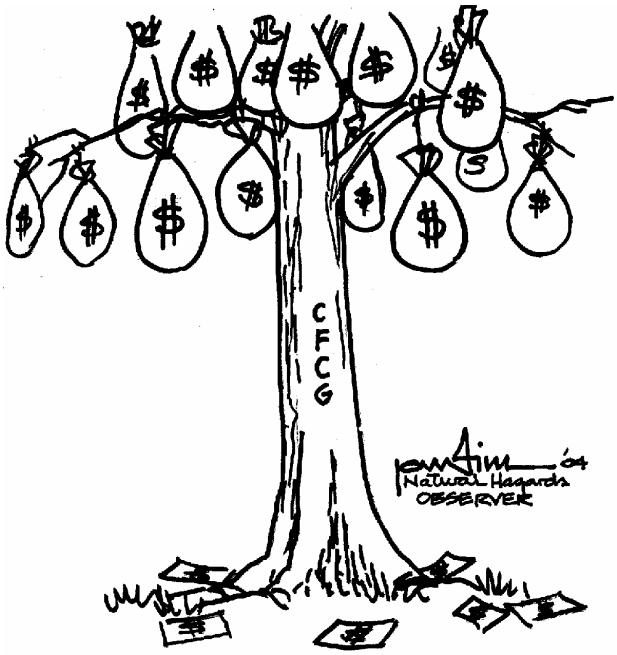
- Incident Command System (ICS)—NIMS outlines a standard system for ICS that establishes five functional areas for management of all major incidents: command, operations, planning, logistics, and finance/administration. To ensure coordination during incidents involving multiple jurisdictions or agencies, the principle of unified command has been incorporated into NIMS. Unified command not only coordinates the efforts of many jurisdictions, but provides for and assures joint decisions on objectives, strategies, plans, priorities, and public communications.
- Preparedness—NIMS recognizes the need for pre-event preparation and defines advance preparedness measures such as planning, training, qualification and certification, equipment acquisition, and publication management. Preparedness also incorporates mitigation activities such as public education, enforcement of building standards and codes, and preventive measures to deter or lessen loss of life or property.
- Communications and Information Management—Standardized communications during an incident are essential, and NIMS prescribes interoperable communications systems for both incident and information management.
- Joint Information System (JIS)—NIMS further enhances public communication efforts by prescribing a JIS to provide the public with timely and accurate incident information and unified public messages. This system employs Joint Information Centers (JICs) and brings incident communicators together during an incident to develop, coordinate, and deliver messages.
- NIMS Integration Center (NIC)—To ensure that NIMS remains an accurate and effective management tool, a NIC will be established by the Secretary of Homeland Security to assess proposed changes to NIMS, capture and evaluate lessons learned, and employ best practices. The NIC will provide strategic direction and oversight for NIMS, supporting both routine maintenance and continuous refinement of the system and its components. It will continue to use a collaborative process involving federal, state, tribal, local, multidisciplinary, and private authorities to assess prospective changes and assure continuity and accuracy.

The completion of NIMS follows the October 2003 nationwide deployment of the Initial National Response Plan (INRP) (see the ***Observer***, January 2004, p.5), which was the first step in consolidating and aligning incident management response and actions among all federal, state, tribal, local, and private participants. A final National Response Plan

will soon replace the INRP, while NIMS will continue to provide the guidance for the management of incidents of terrorism, natural disasters, and other emergencies. NIMS is available on-line from the DHS web site at *http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf*.

Coordination Group Releases California Wildfire Recovery Report

In February 2004 the California Fires Coordination Group (CFCG), convened by President Bush immediately following the outbreak of the California wildfires in October 2003, released a report on the recovery efforts that followed those devastating and unprecedented fires. The interagency coordination group, composed of the top government officials who coordinated the federal government's recovery operation, was chaired by Michael D. Brown, undersecretary of Homeland Security for Emergency Preparedness and Response.



The magnitude of the fires and the extensive federal lands involved dictated a unique level of coordination to expedite aid to the affected communities. The CFCG report discusses the roles of the CFCG and the joint Disaster Field Office (DFO)/Multi-Agency Support Group (MASG)—a team of federal, state, local government, and private organizations, that collectively provided aid to communities. This aid was made available efficiently and expeditiously due to continuous dialog among key stakeholders that allowed them to coordinate over $481 million in complementary federal assistance programs, while minimizing duplication efforts.

The CFCG report is available on the Federal Emergency Management Agency (FEMA) web site at *http://www.fema.gov/pdf/library/draft_cfcg_report_0204.pdf*.

First Combined FEMA Training Catalog now Available On-Line and in Print

FEMA has issued its first catalog combining courses for both the National Fire Academy (NFA) and Emergency Management Institute (EMI). The catalog describes the hundreds of courses offered by both training facilities and marks the first time the two institutions have issued a joint directory. Both training facilities are located at the National Emergency Training Center in Emmitsburg, Maryland. The courses range in length from three days to two weeks and are appropriate for all members of the emergency management and firefighting community. The catalog includes two new courses: ***Command and General Staff Functions in the Incident Command System*** and ***Partnering for Fire Defense and Emergency Services Planning***.

There is no charge for courses and lodging. Transportation costs are reimbursed. The first semester application period is May 1-June 30, 2004. The 272-page catalog for FY 2005 is available on-line at *http://www.usfa.fema.gov/downloads/pdf/publications/fa-273.pdf*. A hard copy can be ordered on-line at *http://www.usfa.fema.gov/applications/publications* or by calling *(800) 561-3356*.

FEMA Offers On-Line Course to Help Build Partnerships with Tribal Governments

FEMA has released an on-line, independent study course for those working with tribal governments to protect native people and their property against all types of hazards. The course is available to anyone who has an interest in learning more about building partnerships with tribal communities.

Developed by FEMA's EMI, ***Building Partnerships with Tribal Governments***, IS 650, includes lessons covering historical and legal perspectives, tribal culture, and challenges in delivering government programs. Those who pass the final exercise receive a certificate of completion. The course is available on-line at *http://training.fema.gov/EMIWeb/IS/is650.asp*.

FEMA and USFA Announce New Job Aid for First Responders

In February 2004, FEMA and the U.S. Fire Administration (USFA) announced the availability of ***Emergency Response to Terrorism Job Aid, Version 2.0*** to assist emergency response personnel in identifying possible terrorist or WMD incidents and implementing initial response and recovery actions. The software covers both tactical and strategic issues and is geared toward first responders, including line personnel, unit officers, and initial incident commanders. This aid is not a training manual; rather, it is intended as a reminder for those who have already completed the appropriate level of training.

Copies can be downloaded from *http://www.usfa.fema.gov/fire-service/c-terror/download-jobaid.shtm*.

DHS Expands Homeland Security Information Network

DHS is expanding its computer-based counterterrorism Homeland Security Information Network to all 50 states, five territories, the District of Columbia, and 50 major urban areas. The network provides real-time, interactive communication among all participants and the DHS Homeland Security Operations Center (HSOC) by utilizing the Joint Regional Information Exchange System (JRIES). Other DHS agencies will participate through seats at the HSOC and their own operations centers, and the system will be further expanded within DHS operations.

The JRIES system, developed by state and local officials in partnership with the federal government, allows multiple jurisdictions, disciplines, and emergency operation centers to receive and share the same intelligence and tactical information—so that all users can have the same overall situational awareness. The expanded communications network will provide a means of informing homeland security partners regarding current, relevant information about threats and vulnerabilities and giving them the information they need to better use limited resources.

Participants will receive software, technology, and training to enhance the information sharing that JRIES already brings to state and local homeland security personnel across the U.S. The goal is to establish more effective communication and more efficient responses to deter, detect, prevent, or respond to terrorist actions. Examples of new participants include state National Guard offices, emergency operations centers, and first responder and public safety departments. Participants currently represent approximately 100 organizations, including federal agencies, states, municipalities, and other local government entities. In the future the program will be expanded to include county-level offices and the private sector.

For more details, see the DHS web site: *http://www.dhs.gov/dhspublic/*, particularly, *http://www.dhs.gov/dhspublic/display?content=3213*.

National Mutual Aid and Resource Management Initiative

FEMA has been working in concert with DHS, the National Emergency Management Association (NEMA), and a cross-section of emergency responders to develop a national intrastate mutual aid agreement modeled after states that are currently participating in similar agreements. The goal of FEMA's "National Mutual Aid and Resource Management Initiative" is to enhance jurisdictional abilities to respond to any incident through using mutual aid, and to create a national system that builds on existing agreements and compacts to enhance preparedness and the nation's ability to respond to emergencies at all levels.

Federal, state, and local officials from a wide array of organizations and associations are participating in the design of this program, which takes an all-hazards approach. They are in the process of resource typing and consulting with stakeholders to design, coordinate, and market the initiative. Pilot training courses will begin this month.

A draft brochure is available from the Emergency Management Association Compact (EMAC), an existing interstate mutual aid compact administered by NEMA, at *http://www.emacweb.org/*. There are 48 states, the District of Columbia, and two U.S. territories utilizing EMAC. FEMA's web site at *http://www.fema.gov/preparedness/mutual_aid.shtm* contains information about this program, along with a glossary of terms and definitions.

For more information, contact *Layoyed Hudgins, National Emergency Management Association, P.O. Box 11910, Lexington, KY 40578; (859) 244-8217; e-mail: lhudgins@csg.org*.

DHS Launches Protected Critical Infrastructure Information Program

On February 18, 2004, DHS launched the Protected Critical Infrastructure Information (PCII) program. The PCII program enables the private sector to voluntarily submit infrastructure information to the federal government in order to reduce vulnerability to terrorist attacks. Critical infrastructure comprises the assets and systems that, if disrupted, would threaten national security, public health and safety, the economy, and Americans' general well being.

Under provisions of the Critical Infrastructure Information (CII) Act of 2002, information that is voluntarily submitted will be protected from public disclosure until and unless a determination is made by the PCII program office that the information does not meet the requirements for PCII. If validated by PCII, the information will remain exempt from public disclosure. The rule establishing the procedures for PCII was published in the ***Federal Register*** on February 20, 2004 (Vol. 69, No. 34, pp. 8073-8089). The PCII program office is part of Homeland Security's Information Analysis and Infrastructure Protection (IAIP) Directorate and is charged with receiving submissions, determining if the information qualifies for protection, and, if validated, sharing it with authorized entities for use as specified in the CII Act. The IAIP Directorate plays a critical role in securing public safety by identifying and assessing threats and mapping those threats against vulnerabilities such as critical infrastructure.

Initially, the PCII program office will limit the sharing of PCII to IAIP analyses. PCII may be used for many purposes, focusing primarily on analyzing and securing critical infrastructure and protected systems, risk and vulnerability assessments, and assisting with recovery as appropriate. Members of the public who wish to submit information may do so through the PCII Program Office.

For more information about the PCII program, visit the PCII program office web site at *http://www.dhs.gov/pcii*.

Second National Coastal Report Announced

On March 9, 2004, the U.S. Environmental Protection Agency (EPA) released the Draft National Coastal Condition Report II (NCCR2), a collaborative effort of EPA, the National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, and the U.S. Geological Survey. NCCR2 is intended to enhance scientific understanding of coastal conditions and help scientists, environmental managers, and the public make informed decisions to protect coastal resources. When finalized, the report will serve as a foundation for efforts to protect, manage, and restore coastal ecosystems.

The first National Coastal Condition Report assessed the condition of 70% of the nation's estuarine resources, using 1990-1996 data. NCCR2 is based on 1997-2000 data and examines 100% of such resources in the contiguous 48 states and Puerto Rico. Regional conditions are provided using five indicators: coastal habitat, water quality, sediment quality, bottom-dwelling organisms, and fish tissue. NCCR2 shows that conditions in the Southeast, Gulf of Mexico, and the Great Lakes have improved, while the Northeast and the Western coasts remain essentially the same. The data indicate the nation's estuaries continue to be in fair condition.

EPA has also signed an agreement with the National Oceanographic Partnership Program, an interagency organization, to establish the Integrated Ocean Observing System to improve forecasting of climate change effects on the ocean and preserve and restore healthy marine ecosystems.

A 90-day public comment period on NCCR2 runs through June 8, 2004. EPA is seeking public input concerning the information in the report, the availability of additional data, and the appropriateness of conclusions drawn from the information presented. The NCCR2 report is available on the EPA web site: *http://www.epa.gov/owow/oceans/nccr2/index.html*.

DHS Deploys Funding Task Force

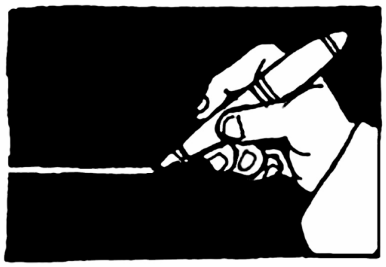
In March of 2004, following a series of DHS actions to expedite the process of moving funds into the hands of local first responders, Secretary Tom Ridge announced the implementation of a Homeland Security Funding Task Force. The task force, composed of state, county, and tribal representatives, will examine state and local funding processes and identify solutions to allow first responders to receive incident-based funds more quickly. Other recent actions that DHS has taken to reduce the amount of time between incidents and the dissemination of first-responder funds include:

- Simplification of the application process for several grant programs;
- Promotion of communication between states, counties, and cities, by facilitation of a series of conference calls that identified both problems and solutions to fund distribution;
- The creation of *http://www.dhs.gov/grants*, a "one-stop shop" for DHS all-hazards and other homeland security grant information and applications (see the ***Observer***, January 2004, p.11);
- Streamlining the grant application process;
- Allowing funds to be released immediately by conditionally approving State or Urban Area Security Strategies;
- Administering stricter timelines by which states must obligate funds to local jurisdictions; and
- Providing first responders with alternative equipment procurement options, resulting in lower costs and faster attainment of products.

For more information, see: *http://www.dhs.gov/dhspublic/display?content=3353*.

FEMA Offers On-Line Course on Environmental and Historic Preservation

FEMA recently unveiled an on-line, independent study course to help local, state, tribal, and federal officials better understand the environmental and historic preservation compliance regulations and how they affect FEMA's disaster recovery programs. ***Coordinating Environmental and Historical Preservation Compliance***, IS 253, discusses compliance and emphasizes the importance of considering environmental/historical preservation issues early in the recovery process so that projects may be funded as quickly as possible. The course is available at *http://training.fema.gov/emiweb/IS/is253*.



On The Line

The Difference Between Cats and Dogs:
Considering the Social Cultural Dimensions of Communicating

"This is Annie, our kitty," I nervously tried to explain to Christina, my newly adopted 27-month-old daughter, shortly after we returned from Russia last year. Over the next few weeks, David, my husband, and I worked hard to teach her the differences between Annie, our high-strung Burmese cat, and Sonya, the big, lumbering good-natured dog next door. One day after sharing her *sippy* cup with Sonya she raced back to our house, found our shy feline family member cowering in a chair and began shoving her drinking cup into Annie's tiny mouth, now barely visible beneath the terrified yellow eyes. "No, honey!" I cried, pulling her away as Annie's claws sprang into defense.

No matter how many times we had softly patted the cat and spoke or signed "gentle, gentle," clearly, neither our limited verbal communication skills nor our sign language were successfully getting the species lesson across. Then it dawned on me. Christina's world had been limited to living only with the other children and caretakers within the walls of her Russian orphanage. We were focused on cats and dogs. She didn't understand the simple concept of animal.

Re-Examining Community

How often do we try to communicate risk and loss prevention messages to an audience that doesn't understand our frame of reference? How often do we assume a shared perception of life, a shared world view, or the same religious context when we talk about why a river floods, the earth shakes, houses fall down, or people die from natural, technological, and human-caused disasters? The perceptions of risk of a 20-year-old atheist Angelo shopkeeper are most likely quite different from those of a 30-year-old devout Catholic Latino social worker, a 40-year-old Indian Hindu computer programmer, a 50-year-old Chinese Buddhist homeowner, or a 60-year-old Muslim grandfather, recently relocated from Lebanon to live with his beloved family. Each of these individuals holds equally important perspectives about culture, community, family, spiritual realities, life, and openness to lifestyle or environmental change, and yet all of them together can comprise what disaster management professionals often simply refer to as an urban "community."

In order to effectively communicate the disaster risk prior to an event, or help in recovery afterwards, the characteristics and specific needs of the world's richly diverse local populations—the communities within a community—need to be thoroughly addressed. Unfortunately, due to time, money, agency protocols, or lack of understanding of the critical role culture plays in perception and action, most disaster risk communicators utilize a generic "one message fits all" outreach approach. In doing so, critical social and cultural identities—invaluable clues to furthering the success of the risk reduction and recovery outreach effort—are lost. As a result, risk messages are not heard, or if heard, not believed or personalized, which leads to actions not being taken, losses incurring, and recovery being less effective or timely than it could have been.

Turning Data into Intelligence

Fighting fierce competition presented by other message campaigns and by life in general is difficult. This challenge is particularly formidable if the desire is to create a sustained communication campaign, not just a one-shot message. Researchers and practitioners alike often correctly identify risk reduction problems. Unfortunately, the messages addressing these issues are created and expressed in their most raw, fundamental form, and often reflect the culture and psychology of the creators, not the target audiences.

This transfer of information, knowledge, or research is conducted without considering how the message will be heard, understood, or applied by those to whom it is directed. When data are transferred without being made into usable intelligence, the message is inevitably lost. The

missing step is the act of incorporating the psychology and conditions of the target community and the uniqueness of their complex decision-making process into message creation. When we as practitioners and/or researchers ignore the ever-shifting social landscape, most risk communication efforts are unsuccessful, or at best, unsustainable.

This common disconnect takes place in the most advanced American communities as well those around the world. These socio-cultural challenges are particularly difficult in areas such as Southeast Asia, the most disaster prone region of the world. Unlike South or Central America, Southeast Asia does not share a single landmass, language, or culture. Differences in such things as core religious philosophies and cultural traditions impact the ability to create and share a common risk framework. The ability to efficiently expedite important new risk reduction assessments, technologies, and analytical applications is hampered by these differences, which also stand in the way of moving data application into community implementation.

Information, particularly if somewhat boring and ho-hum (which science and mitigation can sometimes be as compared to many "sexier" media-intensive issues), needs to be placed into a context that makes sense to the recipient. The social, political, economic, and cultural landscape of our individual audiences needs to be the basic platform from which we skillfully craft relevant campaign strategies and messages.

By including the softer sciences in risk communications, ones that address the theoretical underpinnings of cross cultural communications, honor multiple world views, and examine reasons for social vulnerability, a more effective, holistic approach can be taken to reach those most at risk.

Crafting New Approaches

Three particularly memorable experiences during my nine years as a Public Information Officer/Mitigation Education Outreach Coordinator for FEMA confirm the need for such crafted approaches: first, working in the Federated States of Micronesia in the Western Pacific Ocean where traditional U.S. mainland outreach approaches and distribution networks weren't practical; second, working with the Navajo where symbols were most readily accepted by the elders; and third, in the Northridge Earthquake recovery, where we engaged with many diverse communities within the Los Angeles area "community." In each of these field experiences, we took risks, stumbled a bit, and eventually embraced the uniqueness of local populations through cultural attentiveness, research, and non-traditional approaches.

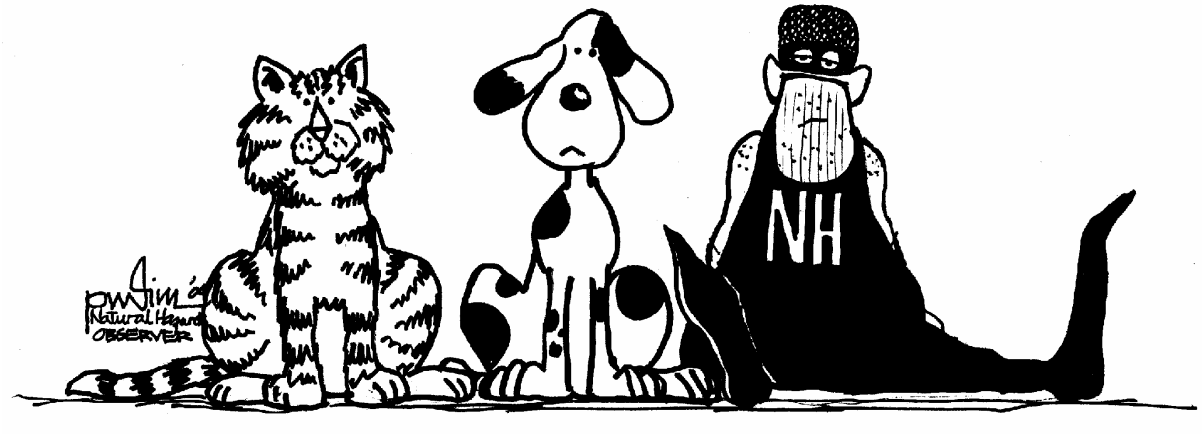
The identifiable roles in disaster information and risk communications are often closely linked (e.g., risk communications, community outreach, education, training, public awareness, and public information). While each term has different meanings and interpretations, all of them share a common goal of informing a target audience. Perhaps there is wisdom to be shared among these roles and from those of other industries as well.

In my recent work with emergency management initiatives in Asia, I have embraced an approach well utilized in health care and advertising—social marketing. Consider an applicable definition of social marketing for our industry: the process through which we market the risk communications message to our target audience by learning their cultural identifiers and crafting a customized outreach approach and message to address their uniqueness. As in traditional social marketing, by doing our homework, being other-oriented, addressing cultural indicators in the assessment stage, and risking non-traditional approaches, we can establish a communications framework that leads to creative, more personalized, and successful outreach opportunities.

Hopefully, we can all learn from our experiences. My most insightful one was right at home. Now, over a year later, Christina's favorite toys have turned out to be her stuffed animals, several large and small bears, two dogs, a unicorn, and a Ms. Kitty (sadly, the real kitty died), and her mommy, a more enlightened, if not a bit more tired, cross-cultural communicator.

Suzanne Frew
The Frew Group
Oakland, California

Suzanne is currently working on a new book, ***Disaster Sunrise: A Memoir of Family and Place***.



Conferences and Training

Below are the most recent conference announcements received by the Natural Hazards Center. A comprehensive list of hazards/disaster meetings is posted on our web site: *http://www.colorado.edu/hazards/conf.html*.

2004 Conference on Response to Terrorism. Sponsor: University of Kansas Fire and Rescue Training Center. Kansas City, Kansas: May 10-12, 2004. This annual conference is geared toward personnel who may respond first to a terrorism incident. This includes law enforcement, fire, emergency medical services, emergency managers, public health employees, the military, and public works professionals. Break-out sessions include: terrorism risk assessment, weapons of mass destruction, hospital preparedness, and bioterrorism response. For more information, contact *Shaun Coffey, University of Kansas, Continuing Education, Lawrence, KS 66045; (785) 864-9188; e-mail: shaunc@ku.edu; http://www.kuce.org/fst/crt/index.html*.

Third Southeast Asia Disaster Management Practitioners Workshop. Sponsors: Asian Disaster Preparedness Center (ADPC) and the International Federation of Red Cross and Red Crescent Societies. Bangkok, Thailand: May 10-13, 2004. This workshop will address the expressed need for peer support for the operational and technical issues surrounding disaster risk management in Southeast Asia. Workshop registration information can be obtained from *Vicky Diopenes, ADPC, P.O. Box 4, Klong Luang, Pathumthani, Thailand 12120; e-mail: vicky@adpc.net; http://www.adpc.net/PDR-SEA/TDMPW.pdf.*

AWRA's 2004 Spring Specialty Conference: Geographic Information Systems (GIS) and Water Resources III. Sponsor: American Water Resources Association (AWRA). Nashville, Tennessee: May 17-19, 2004. This multidisciplinary conference will highlight water-related applications of GIS technology, including flood mapping and using the national hydrography dataset. For details, contact *Harriette Bayse, AWRA, P.O. Box 1626, Middleburg, VA 20118; (540) 687-8390; e-mail: harriette@awra.org; http://awra.org/meetings/Nashville2004/*.

VOAD Annual Conference. Sponsor: National Voluntary Organizations Active in Disaster (VOAD). Lexington, Kentucky: May 18-21, 2004. This conference will not only provide information exchange, but encourage networking and cooperation among community organizations, government, private business, and voluntary agencies working with disasters. Complete information can be obtained from *George Betz, KY/VOAD, 2004 Registration, P.O. Box 91252, Louisville, KY 40291; (502) 561-3747; http://www.nvoad.org/annualconf1.php*.

Fundamentals of Earthquake Engineering. Sponsor: BOSS International, Inc. Denver, Colorado: May 20-21, 2004. This seminar is geared towards practicing engineering and building professionals with little or no training in earthquake engineering. It will cover the history and philosophy of seismic code development in the U.S. and provide a context for recent code developments. For more information, contact *BOSS International, Inc., 6300 University Avenue, Madison, WI 53562; (608) 258-9943; http://training.bossintl.com/html/earthquakeengineering.html*.

Structures 2004. Sponsor: American Society of Civil Engineers (ASCE). Nashville, Tennessee: May 22-26, 2004. The theme for this congress is "Building on the Past: Securing the Future." Revised codes and standards and new materials and building methods not only ensure the performance of new structures, they drive retrofit efforts. This meeting will showcase the latest code changes, including wind and seismic provisions, as well as new approaches to security, rehabilitation, and retrofitting, with the goal of bringing together practicing engineers, academics, and policy professionals. For more information, contact *ASCE World Headquarters, 1801 Alexander Bell Drive, Reston, Virginia 20191; (703) 295-6300; http://www.asce.org/conferences/structures2004/general.cfm.*

Contingency Planning and Management (CPM) 2004 West Conference. Sponsor: CPM. Las Vegas, Nevada: May 25-27, 2004. This conference and exhibition is geared toward those who work with continuity of operations, emergency management, and homeland security. The agenda includes a mixture of continuing education, panel discussions, case

studies, and tabletop exercises. Registration information is available from *CPM 2004 West, c/o CDS, Inc., 107 Waterhouse Road, Bourne, MA 02532; (908) 788-0343; e-mail: CPM2004@WitterPublishing.com; http://www.contingencyplanningexpo.com/.*

Hospital Emergency Management Strategies: Coping with Terrorism and Disasters through Effective Emergency Management. Sponsors: TVI Corporation and Homeland Security Research. Boston, Massachusetts: May 26-27, 2004. The focus of this conference is on developing and executing hospital-based response strategies for disasters. Session topics include resources and mass casualty triage, intensive care unit expansion, 10-codes for disaster preparedness, avoiding recurring pitfalls, hospital communications, and more. Registration information can be obtained from *WRG Research, Inc., 500 West Cummings Park, Suite 5200, Woburn MA 01801; (781) 939-2438; e-mail: info@worldrg.com; http://www.worldrg.com.*

Long Island/New York City Emergency Management Conference Emergency Preparedness Planning: Public/Private Initiatives. Sponsors: Long Island Power Authority, New York State Emergency Management Office, New York City Office of Emergency Management, Nassau County Office of Emergency Management, Suffolk County Office of Emergency Management. Melville, New York: June 2-3, 2004. This conference will focus on public and private sector emergency preparedness, and will showcase emergency preparedness and planning initiatives that stress the importance of coordination and cooperation. Hurricane preparedness will be a central theme. For more information, contact *Catherine Lowenski, State Emergency Management Office, 1220 Washington Avenue, Suite 101, Building 22, Albany, NY 12226; (518) 457-9986; e-mail: catherine.lowenski@semo.state.ny.us; http://www.linycemconference.com/.*

The Media and Climate: Building Partnerships Workshop. Sponsor: Asian Disaster Preparedness Center (ADCP). Bangkok, Thailand: June 3-4, 2004. This workshop aims to strengthen and sustain partnerships between the media and climate communities in Southeast Asia to foster accurate and effective communication about the nature and implications of climate variability and change. Workshop details can be obtained from *Lolita Bildan, ADCP, P.O. Box 4, Klong Luang, Pathumthani 12120, Thailand; tel: (66-2) 516-5900-10; e-mail: lolita@adpc.net; http://www.adpc.net.*

The 2004 Government Symposium on Information Sharing and Homeland Security. Sponsor: Government Emerging Technology Alliance (GETA). Orlando, Florida: June 28-30, 2004. This symposium will identify the challenges with integrating information and intelligence, and will focus on solutions using case studies and best practices from Chicago, New York, Florida, and California. The intent of this conference is to find solutions that help to close the gaps existing between federal agencies and those found between the federal level and the state and local levels. For more information, contact *National Conference Services, Inc. (NCSI), 6440-C Dobbin Road, Columbia, MD 21045; (888) 603-8899; http://federalevents.com/ishs/.*

New Zealand Recovery Symposium. Sponsors: Ministry of Civil Defense and Emergency Management, Earthquake Commission, Insurance Australia Group, New Zealand Fire Service. Napier, New Zealand: July 12-13, 2004. This symposium provides a unique opportunity for disaster recovery professionals to discuss the multifaceted aspects of recovery along with the opportunity to question, debate and provoke discussion about its wider implications. Registration forms and additional information are available from *Lee Harrison, Recovery Symposium, Fairdene Productions, P.O. Box 7330, Wellington 6039, New Zealand; tel: 04 801 5385; e-mail: lee@event.org.nz; http://www.civildefence.govt.nz.*

Third European Conference on Structural Control (3ECSC). Sponsor: Vienna Consulting Engineers (VCE). Vienna, Austria: July 12-15, 2004. This conference will foster interactions among the community of researchers contributing to structural control among the European research and professional community. Cross-fertilization among scientific disciplines and professions is encouraged. More information is available from *Susanne Halbkram, VCE, Hadikgasse 60, A-1140 Vienna, Austria; tel: 43-1-894-60-21, ext. 144; e-mail: halbkram@vce.at; http://www.samco.org/3ecsc/index.htm.*

America's Fire Expo 2004. Sponsor: National Fire Protection Association (NFPA). Miami Beach, Florida: July 20-22, 2004. This conference is directed toward those involved with fire protection systems and equipment, special hazards, chemical and hazardous material storage and handling, building fire protection, life safety, and electrical installations. For more information, contact *ROC Exhibitions, Inc., 1963 University Lane, Lisle, IL 60532; (630) 271-8210; e-mail: fire@rocexhibitions.com; http://www.nfpa.org.*

30th Congress of the International Geographical Union: One Earth, Many Worlds. Glasgow, Scotland: August 15-20, 2004. This extensive and varied program includes topics of special interest to hazards researchers, including desertification, coastal systems geomorphology, changing demographics, health and environment, population, flooding, and more. Registration information can be obtained from *Meeting Makers, Jordanhill Campus, 76 Southbrae Drive, Glasgow G13 1PP, Scotland, UK; tel: +44 (0) 141 434 1500; e-mail: igc2004@meetingmakers.co.uk; http://www.meetingmakers.co.uk/igc-uk2004/index.html.*

Urban Flood Mitigation (UFM) Course. Sponsors: Asian Disaster Preparedness Center (ADCP), ITC Netherlands. Manila, Philippines: August 28-September 3, 2004. This course will focus on urban flood mitigation issues, specifically on the impact of floods and structural and nonstructural interventions available to mitigate urban impact with the goal of integrating GIS applications to these issues. Workshop details can be obtained from *ADCP, P.O. Box 4, Klong Luang, Pathumthani 12120, Thailand; tel:*

(66-2) 516-5900-10; e-mail: audmp@adpc.net; http://www.adpc.net.

National Earthquake Conference: Strengthening America—Preparing for Earthquakes and More. Sponsors: Department of Homeland Security/Federal Emergency Management Agency, U.S. Geological Survey. St. Louis, Missouri: September 26-30, 2004. The goal of this conference is to provide a national forum for dialog among earthquake professionals, government, and businesses to build common ground and lead to actions that reduce the social and economic losses from earthquakes. Information can be obtained from *Phyllis Steckel, Missouri Seismic Safety Commission; (650) 330-1101; e-mail: psteckel@charter.net; http://www.earthquakeconference.org/index.html.*

Fifth Annual International Disaster and Emergency Readiness Forum (IDER). Sponsors: United Nations, International Aviation Transport Association, International Training and Simulation Association, Institute for Civil Defense and Disaster Studies. Moreton-in-Marsh, England: October 14-15, 2004. With the increasing concern over national and international security due to the heightened threats of global terrorism, as well as natural and human-made disasters, it is essential for the international community to work together to share information and good practices and integrate disaster response. Conference details can be obtained from *Simon Langdon, Insight Consulting Ltd., Churchfield House, 5 The Quintet, Churchfield Road, Walton-on Thames, Surey KT12 2TZ UK; tel: +44 1932 241000; e-mail: simon.langdon@insight.co.uk; http://www.andrich.com/ider/.*

NFPA Fall Education Conference. Sponsor: National Fire Protection Association (NFPA). Miami Beach, Florida: November 13-17, 2004. This conference will focus on fire and lifeline safety through accredited training sessions and other sessions. Complete information can be obtained from *Linda Bailey, NFPA, One Batterymarch Park, Quincy, MA 02169; (617) 984-7030; e-mail: lbailey@nfpa.org; http://www.nfpa.org.*

ASFPM Arid Regions Flood and River Restoration Conference. Sponsor: Association of State Floodplain Managers (ASFPM). Mesa, Arizona: November 16-19, 2004. Conference details are available from *Tom Loomis, Arizona Floodplain Management Association, P.O. Box 18102, Phoenix, Arizona 85005; (602) 506-4767 e-mail: trl@mail.maricopa.gov; http://www.azfma.org/meetings.htm.*

Hazards and Disasters Student Paper Competition

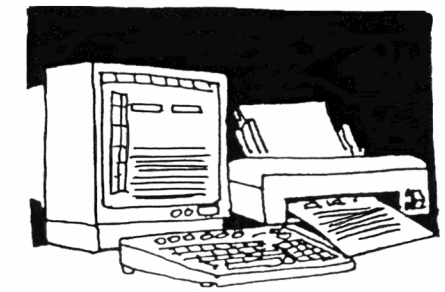
The study of hazards and disasters is highly interdisciplinary and relies on scholarly and professional input from a wide array of professions and academic disciplines. The Hazards Center works to unite hazards students and researchers across disciplinary boundaries with the goal of sharing academic research perspectives and theory with the larger professional hazards and disasters community.

We are soliciting student papers from disciplines related to natural, human-made, or technological hazards or disasters. Applicants must be enrolled as an undergraduate or graduate student at the time of submission. Areas of study include, but are not limited to, the natural and physical sciences, social and behavioral sciences, environmental studies, journalism, public health, education, and individuals whose work, interests, and research are related to hazards, risk, extreme events, mitigation, and recovery.

Papers can be literature reviews, case studies, descriptions of research results, or essays on related topics. Papers cannot have been accepted for publication at the time of submission, although papers under review may be submitted. Papers must be less than 25 pages (double-spaced with 1" margins). Submit three copies to *Student Paper Competition, Natural Hazards Research and Applications Information Center, University of Colorado, 482 UCB, Boulder, CO 80309; (303) 492-4180; http://www.colorado.edu/hazards/specialprojects.html*. Please include a cover page with your complete contact information, student status, and academic institution. E-mailed submissions will not be accepted.

Winners in both the undergraduate and graduate categories will receive $100, have their papers published on the Natural Hazards Center web site, and have their papers submitted for review and potential publication in the ***Natural Hazards Review***, a peer-reviewed scholarly journal.

Papers are due June 15, 2004. Submissions will be reviewed by an in-house committee and winners will be notified in August 2004.



INTERNET PAGES

Below are new or updated Internet resources that the Natural Hazards Center staff have found informative and useful.
For a more complete list, see *http://www.colorado.edu/hazards/resources/sites.html*.

All Hazards

http://all-hands.net/pn//modules/Downloads/store_folder/REM/Glossaries/ah_glossary_0214.pdf

The All-Hands Community, a free, on-line user-supported community of emergency and continuity professionals with the goal of sharing information, has recently uploaded a comprehensive ***Network Glossary of Terms and Definitions*** to its web site. Started in 2002, the glossary is a work in progress and currently features over 1,500 terms and definitions gathered from around the world. Free membership in All-Hands is required to view this file.

http://training.fema.gov/EMIweb/edu/highpapers.asp

The Federal Emergency Management Agency's (FEMA) Higher Education Project of the Emergency Management Institute uploads a variety of articles, papers, and presentations related to emergency management and higher education at this site. The page is updated periodically.

http://www.dwf.org/Vietnam/preventdamage/n_dipecho.htm

With support from the European Commission Office for Humanitarian Aid (ECHO), as part of the Third Dipecho Action Plan for Southeast Asia, this program in Vietnam works to protect families and homes with a strategy that emphasizes prevention rather than reconstruction for coastal communities through community-based programs.

http://www.cred.be/

The Center for Research on the Epidemiology for Disasters (CRED), located in Belgium, has launched a redeveloped, more user friendly web site. The site contains a number of global disaster databases, publications lists, and a searchable bibliography.

http://www.hazardmaps.gov/atlas.php

The Multi-Hazard Mapping Initiative provides an on-line hazards advisory atlas with the goal of fostering the collection and exchange of geospatial hazards data, increasing hazard awareness, and establishing map creation standards. Maps can be customized by site visitors in a variety of ways.

http://training.fema.gov/EMIWeb/pub/register.html

Due to demand, FEMA has created a web site with course materials for ***Emergency Planning and Special Needs Populations,*** G197. The course is not designed for self-study, but the materials are available on-line.

http://www.adpc.net/news/tempalte2.pdf

The Asian Disaster Preparedness Center in Thailand now has a PDF brochure that comprehensively lists its many course offerings and workshops.

http://www.emcomm.org/

EMCOMM is a web site dedicated to emergency communications personnel, both professional and volunteer. It contains links to other sites, an electronic newsletter, and information about upcoming events and training.

http://www.arrl.org/cce/Tech.html

Get your amateur radio license on-line from the National Association for Amateur Radio!

http://www.organizingmadesimple.com/

Organizing Made Simple, a company devoted to creating organization in one's life has a free, downloadable, wallet-sized crisis checklist available on its web site.

http://crasar.csee.usf.edu/MainFiles/index.asp

The Center for Robot Assisted Search and Rescue works on new technologies for search and rescue and deploys them as part of an international response support team. Their web site contains resources, course offerings, conferences, and other information related to human-robot interactions.

Earthquakes

http://www.seinstitute.org/

The Structural Engineering Institute of the American Society of Civil Engineers has developed a new web site that includes answers to questions related to standards, technical articles, and an on-line version of their magazine ***Structure***.

http://www.undp.org/dpa/choices/2004/December/elsalvador.html#

The United Nations Development Program Information and Communication Technology profiles a reconstruction program, *Reconstruir*, which was instrumental in consolidating and distributing information generated by the various actors involved in reconstruction after the 2001 El Salvador earthquake. The technology also helped demonstrate the accountability and the status of many projects, and allowed those involved to know in which locations work was in progress and in which it was not.

Coastal Hazards

http://www.nga.org/cda/files/102203WavesColgan.pdf

The National Governors Association has released a report titled ***The Changing Ocean and Coastal Economy in the United States*** that examines the factors affecting the country's coasts and oceans and their policy implications for states.

Wildfires

http://www.iafc.org/downloads/challenges_survey.pdf

The International Association of Fire Chiefs (IAFC), a network of more than 12,000 chief fire and emergency officers from around the country, recently released the results of a member-based survey to determine the major challenges facing career, volunteer, and combination fire departments in 2004. The document can be accessed from IAFC's newly enhanced web site, *http://www.iafc.org*, that now includes a conference section and a comprehensive section on government relations.

http://www.ibhs.org/publications/downloads/125.pdf

The Institute of Business and Home Safety (IBHS) has released a wildfire protection brochure that is aimed at homeowners who want to increase the ability of their home to withstand wildfire. The brochure discusses defensible space, fuel wood and brush, landscape design criteria, and includes suggestions about emergency preparedness.

Public Health

http://www.hrsa.gov/bioterrorism/index.htm

The goal of the National Bioterrorism Hospital Preparedness Program is to aid states and territories to improve the capacity of the health care system, including hospitals, emergency departments, outpatient facilities, EMS systems, and poison control centers, to respond to incidents requiring mass immunization, isolation, decontamination, diagnosis, and treatment, in the aftermath of terrorism or other public health emergencies.

http://er1.org/

This web site, maintained by the Washington Hospital Center in Washington, DC, houses an extensive amount of information on hazards, hospitals, mass casualty response, and more, with the goal of creating an interactive information clearinghouse.

http://www.neha.org/9-11%20report/

Messages in the Dust: What Are the Lessons of the Environmental Health Response to the Terrorist Attacks of September 11? This report, published by the National Environmental Health Association, draws upon lessons learned from the terrorist attacks to equip environmental health professionals to better understand and anticipate the health and safety needs of communities who would respond to terrorist incidents in the future.

Contracts and Grants

Below are descriptions of recently awarded contracts and grants related to hazards and disasters. An inventory of awards from 1995 to the present is available at *http://www.colorado.edu/hazards/resources/grants/*.

Computational Modeling of Disaster Response. Funding: National Science Foundation, $50,000, six months. Principal Investigator: *Allen Batteau, Wayne State University, 656 West Kirby, Detroit, MI 48202; (313) 577-2424; e-mail: a.batteau@wayne.edu*.

An interdisciplinary team of anthropologists, engineers, computer scientists, public health scholars, and organizational theorists will study the creation of a multi-agent simulation model for planning and evaluating disaster response in complex urban settings. Using data collected at disaster scenarios and exercises, the team will develop small-scale models of the multiple agency and jurisdiction interactions in the Detroit metropolitan area. These models will be used in both training and evaluation of first responders. Upon successful completion of this study, and funds permitting, the team will extend these models and, in close cooperation with municipal police, fire, and emergency medical service personnel, build a Multiple Agency and Jurisdiction Organized Response disaster (MAJOR) model.

U.S.-Turkey Cooperative Research: A Novel LIDAR System Development and Studies for Remote Sensing. Funding: National Science Foundation, two years. Principal Investigator: *Hulya Kirkichi, Auburn University, 202 Samford Hall, Auburn, AL 36849; (205) 826-4000; e-mail: kirkih@eng.auburn.edu*.

Earthquakes are a constant threat in both the U.S. and Turkey. In an effort to better manage this shared threat, a team of researchers from Auburn University in Alabama and Istanbul Technical University in Turkey plans to study the development of a smaller, lighter, and less costly light detecting and ranging (LIDAR) system and its accompanying system control and imaging software. The results will have very broad applications in remote sensing, including the ability to detect structural damage due to earthquakes.

Studies in Empirical Climate Prediction and Understanding. Funding: National Science Foundation, $199,000, two years. Principal Investigator: *William M. Gray, Colorado State University, Department of Atmospheric Science, Fort Collins, CO 80523; (970) 491-1101; e-mail: Barb@tutt.atmos.colostate.edu*.

This research has several goals related to Atlantic tropical cyclone/hurricane climatology and projections: 1) improvement of extended-range seasonal Atlantic basin hurricane prediction, 2) intraseasonal (month-to-month) prediction of Atlantic hurricane activity, 3) development of probability forecasts for U.S. hurricane landfall, and 4) early December and early April prediction of El Niño-Southern Oscillation (ENSO). Empirical and statistical prediction models will be further developed and applied. The development of a more skillful ENSO prediction will benefit societal planning on intraseasonal to interannual time scales.

Modeling Watershed Flooding and Adaptive Flood Management: An Integrative Plan for Research, Teaching, and Learning. Funding: National Science Foundation, $489,000, four years. Principal Investigator: *Samuel D. Brody, Texas Engineering Experiment Station, 332 Wisenbaker Engineering Research Center, College Station, TX 77843; (979) 862-1696; e-mail: sbrody@archone.tamu.edu*.

As population growth and urban development continue to expand in the coastal margin, flooding poses a major threat to human safety and the natural environment. This research examines these threats and the relationship between wetland development and coastal flooding. Research will focus on the impacts of wetland development on coastal watershed flooding and policy learning at the community level to mitigate the adverse impacts of flood damage to the human and natural environment. An education component will develop and offer place-based learning modules on coastal watershed management and flood mitigation along with a series of interdisciplinary, problem-based seminars.

Modeling Fragility of Sociotechnical Systems: A Transportation Study. Funding: National Science Foundation, $60,000, one year. Principal Investigator: *Louise K. Comfort, Graduate School of Public and International Affairs, University of Pittsburgh, 3E30 Wesley West Posuar Hall, Pittsburgh, PA 15260; (412) 648-7606; e-mail: lkc@pitt.edu*.

Public agencies responsible for maintaining continuity of operations and security for metropolitan regions need to be prepared to face new challenges such as when technical systems are disrupted. The purpose of this research is to conduct a small exploratory study to design and develop an improved set of analytical models to assess the interaction among managers, technical infrastructure, and a dynamic population of users.

Substructure Damage Characterization for Performance-Based Earthquake Engineering. Funding: National Science Foundation, $433,000, five years. Principal Investigator: *Tara Hutchinson, Department of Civil and Environmental Engineering, University of California, Irvine, 300 University Tower, Irvine, CA 92697; (949) 824-4768; e-mail: thutchin@uci.edu*.

When it comes to foundation design, it is still not known what constitutes satisfactory performance of below-ground portions of foundations when subjected to earthquake loading. This research will focus on damage characteristics of pile foundations, with the particular application of piles embedded in liquefiable soils. Educational outreach will focus on educating the public through hands-on laboratories, interactive workshops, and web-based dissemination, and bridging the gap between geotechnical and structural engineering through curriculum enhancement. The long-term goal of this project is the synthesis of geotechnical and structural engineering into performance-based engineering tangible objectives to reduce human and economic losses due to earthquakes.

HHS Awards $81 Million to Screen Health of World Trade Center Rescue, Recovery Workers

In March, the U.S. Department of Health and Human Services (HHS) announced $81 million in grants to fund a five-year health screening program of individuals involved in the World Trade Center rescue, recovery, and restoration efforts. To date, over 20,000 people, including all of the approximately 11,000 New York City firefighters, have received initial exams as a result of previous HHS funding (see the ***Observer***, November 2002, p.17). This funding will allow recipients to conduct three free, standardized clinical examinations per eligible individual over the next five years. The purpose of these exams is to identify symptoms, injuries, or conditions that may indicate long-term illness as a result of the World Trade Center disaster operations, so that treatment can be expedited.

Grants were awarded to the New York City Fire Department, the Long Island Occupational and Environmental Health Center, the Mt. Sinai School of Medicine, the New York University School of Medicine, the City University of New York Queen's College, and the University of Medicine and Dentistry of New Jersey's Robert Wood Johnson Medical School. Additional grants were awarded to the New York City Fire Department and the Mt. Sinai School of Medicine to manage the data and use it to determine the ongoing needs and priorities of the program. The grants will be administered by the Centers for Disease Control and Preventions' National Institute for Occupational Safety and Health (NIOSH). For more information, contact *NIOSH at (513) 533-8328 or (800) 356-4674 or visit http://www.cdc.gov/niosh/*.

Joint Infrastructure Interdependencies Research Program

The Natural Sciences and Engineering Research Council (NSERC) and Public Safety and Emergency Preparedness Canada (PSEPC) have launched a $3 million joint program to fund research in the area of critical infrastructure interdependencies. The program, the Joint Infrastructure Interdependencies Research Program (JIIRP), will produce new science-based knowledge and practices to better assess, manage, and mitigate risks to Canadians from critical infrastructure interdependencies. The program has four overlapping objectives:

- Expand and leverage academic, industrial, and government research activities in the area of infrastructure interdependencies to develop relevant new knowledge, techniques, and policies to better assess, manage, and mitigate risks resulting from these interdependencies;
- Build Canadian research capacity by promoting Canadian academic expertise in infrastructure interdependency issues and, thereby, providing a training environment for highly qualified researchers and professionals of the future;
- Raise awareness of infrastructure interdependency research issues and promote Canadian academic interdependency research, education, and training; and
- Build linkages, networks, and partnerships across Canada and among relevant disciplines to facilitate effective transfer and dissemination of research results to the private and public sectors.

Funding for projects under JIIRP will be available for a maximum of three years. Research in this area will require experts and scientists from different fields in the engineering and social and natural sciences to work together to produce new and innovative solutions. Non-traditional approaches and collaborations are, therefore, expected and encouraged. A full program description and application instructions can be seen at *http://www.nserc.gc.ca/programs/jiirp_e.htm*. The application deadline is September 1, 2004. For more information, contact *Francis Lionnet, NSERC Communications; (613) 992-9001; e-mail: fzl@nserc.ca*.

RECENT PUBLICATIONS

Below are summaries of some of the recent, most useful publications on hazards and disasters received by the Natural Hazards Center. Due to space limitations, we have provided descriptions of key publications. All items contain information on how to obtain a copy. A complete listing of all publications listed in the ***Observer*** may be found by searching the Hazards Library database at *http://www.colorado.edu/hazards/library/*.

All Hazards

Cultures of Disaster: Society and Natural Hazard in the Philippines. *Greg Bankoff. ISBN 0-7007-1761-7. 2003. 232 pp. $80.00. Available from Routledge Press, 10650 Toebben Drive, Independence, KY 41051; (800) 634-7064; http://www.routledge-ny.com/.*

The cultural history of the Philippines is shaped to a degree by the interrelationship between the natural to the human and the physical to the social. The environment (disaster-prone as it is) plays a role in determining the cultural formation and resilience of the Philippine people. This book explores the relationship between physical events and culture, the sequence of events that can turn physical phenomena into social crises, and the necessity of a historical perspective and cultural awareness. For billions of people, hazards and disasters are accepted aspects of daily life—so normal that many cultures are partly the product of that adaptation. Chapters include "vulnerability" as western discourse, environment and hazard in Southeast Asia, the costs of hazards in the Philippines, and the politics of disaster management and relief.

Reducing Disaster Risk: A Challenge for Development. *United Nations Development Program (UNDP), Bureau for Crisis and Recovery. ISBN 92-1-126160-0. 2004. 149 pp. Free. Available on-line from UNDP, One United Nations Plaza, New York, NY, 10017; http://www.undp.org/bcpr/disred/rdr.htm.*

Billions of people in more than 100 countries are periodically exposed to extreme events, and many of these events occur in the developing world. This publication examines the increasing impact of natural disasters on development and how the development choices we make impact disaster resiliency and recovery, especially in the developing world. Chapters include hazard-specific risk profiles, an exploration of whether and how development is helping to reduce risk, and conclusions and recommendations.

An Examination of EPA Risk Assessment Principles and Practices. *Office of the Science Advisor, U.S. Environmental Protection Agency (EPA). EPA/100/B-04/001. 2004. 193 pp. Free. Available on-line from Office of the Science Advisor, EPA, 1200 Pennsylvania Avenue, NW (8105R), Washington, DC 20460; (202) 564-4499 e-mail: science.advisor@epa.gov; http://www.epa.gov/osa/ratf-final.pdf.*

The product of a U.S. Environmental Protection Agency (EPA) staff review, this document examines how risk assessment, as it pertains to environmental hazards, is conducted at EPA and offers recommendations to strengthen and improve EPA's existing risk assessment practices. This exercise is the beginning of a multi-step process to generate a dialogue, internally and externally, about the advancement of EPA's risk assessment principles and practices.

Mapping the Impacts of Recent Natural Disasters and Technological Accidents in Europe. *European Environment Agency. ISBN 92-9167-630-6. 2003. 48 pp. Free. Available on-line from the European Environment Agency, Kongens Nytorv 6, DK-1050 Copenhagen K, Denmark; tel: +45 3336 7100; e-mail: eea@eea.eu.int; http://reports.eea.eu.int/environmental_issue_report_2004_35/en/accidents_032004.pdf.*

Focusing on major natural disasters and technological accidents across Europe between 1998 and 2002, this report examines these incidents and their impacts on the environment and society. The natural disasters covered are floods, storms, wildfires, droughts, landslides, avalanches, and earthquakes. The technological accidents include oil spills, and industrial and mining accidents. Maps, illustrations, and case studies document these events. Collectively, and in many cases individually, these events had considerable human, economic, and environmental impacts.

Risk Management for Small Business. *Claire Lee Reiss. 2004. 92 pp. Free. Available on-line from Public Entity Risk Institute (PERI), 11350 Random Hills Road, Suite 210, Fairfax, VA 22030; (703) 352-1846; http://www.riskinstitute.org/newsite/test.php?pid=pubs&tid=1126.*

This manual was designed to be an easy-to-use resource to help small and emerging businesses begin incorporating risk management into their business plans. It includes a variety of worksheets and checklists that simplify the process of risk identification and analysis for those with little or no previous experience in risk management and an appendix with useful Internet resources. Users should keep in mind that the manual was written to guide all small business owners and, due to the diversity of needs, processes and forms may need to be modified in order to address specific issues.

The Emergency Alert System (EAS): An Assessment. *Partnership for Public Warning. 2004. 64 pp. Free. Available on-line from Partnership for Public Warning, 7515 Colshire Drive, MS N655, McLean, VA 22102; (703) 883-2745; e-mail: information@ppw.us; http://www.partnershipforpublicwarning.org/ppw/docs/eas_assessment.pdf.*

The importance of a unified national warning system is undeniable. Today, the Emergency Alert System (EAS) is one of two systems capable of providing alert and warning information directly to the public. A recent assessment of the EAS reported a number of significant policy, management, and operational challenges. Three main concerns hinder the effectiveness of the EAS. First, the Primary Entry Point (PEP) system cannot be reliably monitored by all state-level EAS entry points and many broadcast stations and cable system headends are not part of the national-level EAS. Second,

with no one agency in charge of the system, leadership and support is insufficient. Finally, there is no concerted effort to combine EAS and other alerting techniques with existing and new technologies.

The assessment recommends that in order to create an effective national public warning system, the Department of Homeland Security should take the lead and provide leadership and oversight; improve the PEP system; clearly designate management, operation, and oversight responsibilities; provide funding and resources to support and operate the system; and support a public-private partnership to develop standards, policies, and procedures.

Earthquakes

Preventing Earthquake Disasters: The Grand Challenge in Earthquake Engineering. *National Research Council of the National Academies. ISBN 0-309-09064-4. 2003. 232 pp. $42.00 ($37.80, on-line). A PDF, ISBN 0-309-52723-6, costs $28.50. This publication may be read on-line for free. Available from National Academies Press, 500 Fifth Street, NW, Box 285, Washington, DC 20055; (800) 624-6242; http://books.nap.edu/catalog/10799.html. See the November 2003* ***Observer*** *for a prepublication announcement.*

The National Science Foundation has awarded over $80 million in grants to establish the George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) to foster improved seismic design and improved performance of the nation's buildings and infrastructure. NEES was conceived as a network of 20 or more geographically distributed, shared-use, next-generation research sites, which will host integrated experimentation, computation, database development, and model-based simulation in earthquake engineering research. This report is the result of an effort to establish a long-term research agenda for NEES. The committee identified research challenges in seismology, tsunamis, geotechnical engineering, buildings, lifelines, risk assessment, and public policy.

Commentary on the Use of ATC-13 Earthquake Damage Evaluation Data for Probable Maximum Loss Studies of California Buildings. *Applied Technology Council (ATC). Stephanie King. ATC 13-1. 2002. 66 pp. $30.00. Available from ATC, 201 Redwood Shores Parkway, Suite 240, Redwood City, CA 94065; (650) 595-1542; e-mail: atc@atcouncil.org; http://www.atcouncil.org/.*

This commentary provides guidance to consulting firms using ATC-13 expert-opinion data (***ATC-13: Earthquake Damage Evaluation Data for California.*** 1985. 492 pp. $50.00) for probable maximum loss (PML) studies of California buildings. It explains the development of the data, the limitations of the data, and the issues associated with using the data for PML studies. It also stresses that the ATC-13 data are not intended to be used to estimate single-building damage and loss. They were developed to estimate the average seismic performance of large numbers of buildings and thereby estimate earthquake losses on a regional basis.

San Simeon Earthquake: December 22, 2003. *Ken Johnson. 2003. 16 pp. plus six appendices. Free. Available on-line from Paso Robles Emergency Services Department, 900 Park Street, Paso Robles, CA 93446; (805) 227-7560; e-mail: fire_hq@prcity.com; http://www.prcity.com/government/dec03-earthquake-report.asp.*

On December 22, 2003, residents of Paso Robles, California experienced a magnitude 6.5 earthquake. The successful emergency response required a coordinated, all-hands effort from city employees and a call for mutual aid. This report details the work conducted over the first few days following the quake; analyzes the response and the challenges; and, based on lessons learned, offers suggestions for improving responses to future emergencies.

The Bam (Iran) Earthquake of December 26, 2003: Preliminary Reconnaissance Using Remotely Sensed Data and the VIEWS (Visualizing the Impacts of Earthquakes with Satellite Images) System. *Beverly J. Adams, Charles K. Huyck, Michael Mio, Sungbin Cho, Shubharoop Ghosh, Hung Chi Chung, Ronald T. Eguchi, Bijan Houshmand, Masanobu Shinozuka, Babak Mansouri. 2004. 10 pp. Free. Available on-line from Multidisciplinary Center for Earthquake Engineering Research (MCEER), State University of New York at Buffalo, Red Jacket Quadrangle, Box 610025, Buffalo, NY 14261; (716) 645-3391; e-mail: mceer@acsu.buffalo.edu. http://www.mceer.buffalo.edu/research/Bam/page1.asp.*

This recent installment of MCEER's earthquake-reconnaissance investigation series focuses on the magnitude 6.6 earthquake that struck the historic city of Bam (Iran) on December 26, 2003. Although the damage was concentrated in a relatively small area, it was extreme. With up to 45,000 dead, up to 75,000 displaced, and the city's infrastructure in ruins, the Bam earthquake ranks as the worst recorded disaster in Iranian history in terms of human cost. This preliminary report is based on the use of the VIEWS (Visualizing the Impacts of Earthquakes with Satellite Images) system and demonstrates how satellite imagery can be used to assess damage, and ultimately aid in response and recovery efforts.

Hurricanes

Sudden Sea. *R. A. Scott. ISBN 0-316-73911-1. 2003. 288 pp. $24.95. Published by Little, Brown and Company, 1271 Avenue of the Americas, New York, NY 10020 (800) 759-0190; e-mail: cust. service@twbg.com; http://www.twbookmark.com/.*

On September 21, 1938, the fastest hurricane on record caught the Northeast by surprise. It struck the coast ahead of warnings and with such intensity that seismographs in Alaska registered the impact. The storm, which scarred both a landscape and a generation, left a path of death and destruction across seven states. Through newspaper accounts, personal testimony, and archival sources, ***Sudden Sea*** tells the tales of heroism, terror, and survival that are the legacies of this great storm.

National Preparedness

The Department of Homeland Security's First Year: A Report Card. (Draft manuscript.) *2004. Century Foundation. 151 pp. Free. Available on-line from the Century Foundation, 41 East 70th Street, New York, NY 10021; (212) 535-4441; http://www.tcf.org/4L/4LMain.asp?SubjectID=1&ArticleId=451&TopicId=5.*

When the Department of Homeland Security (DHS) was created, a significant reorganization of the federal government occurred. Twenty-two federal agencies and 170,000 employees were united under one agency, the largest restructuring since the inception of the Department of Defense. This report looks at how DHS has fared since then, focusing on strategy, capacity, and results. The authors break down DHS operations into aviation security, intelligence, immigration, coordination with state and local governments, and DHS management, and arrive at an overall grade of C+. The on-line version will be published in a forthcoming book.

The Risks of Terrorism. *W. Kip Viscusi, editor. ISBN 1-4020-7734-3. 2003. 151 pp. $98.00. Available from Kluwer Academic Publishers, 101 Philip Drive, Norwell, MA 02061; (781) 871-6600; e-mail: kluwer@wkap.com; http://www.wkap.nl. Reprinted from the* ***Journal of Risk and Uncertainty*** *(Vol. 26, Nos. 2-3, 2003). Annual subscriptions: $644, institutional; $255, individual. http://www.kluweronline.com/.*

This book draws on the expertise of researchers in several risk-related fields to assess risk beliefs, insurance market effects, and policy responses in light of the terrorist attacks on September 11, 2001. It considers how people think about the risks of terrorism, what their attitudes are toward these risks; to what extent low probability and highly dramatic risks are overestimated; the uncertainty, response, and recovery of insurance markets when faced with unforeseen circumstances; and the idea that protective actions taken by one party may affect the risks posed to others, possibly diminishing the net improvement in security and prompting a re-examination of how resources should be targeted.

Review of EPA Homeland Security Efforts: Safe Buildings Program Research Implementation Plan. *Committee on Safe Buildings Program Board on Chemical Sciences and Technology Division on Earth and Life Studies. ISBN 0-309-09104-7. 2003. 38 pp. $12.00*

($10.80, on-line). A PDF, ISBN 0-309-52823-2, costs $8.50. This publication may be read on-line for free. Available from National Academies Press, 500 Fifth Street, NW, Box 285, Washington, DC 20055; (202) 334-3313, (800) 624-6242; http://books.nap.edu/catalog/10864.html.

In recent years, building protection and decontamination have become important and challenging tasks for the U.S. Environmental Protection Agency (EPA). With $50 million from Congress, EPA, in conjunction with the National Homeland Security Research Center, initiated the Safe Buildings Program, a comprehensive research program dedicated to the safety of building occupants in the event of a chemical or biological attack. The cornerstone of the program is the Research Implementation Plan (RIP), which focuses on detection, containment, decontamination, and disposal.

To ensure that the plan is useful to individuals and agencies involved in protecting human health and the environment, EPA asked the National Research Council to review the RIP to determine the most efficient strategy for effective implementation of the plan. The council found that, while EPA is focusing on the appropriate research areas, the time frame of the program is too narrow to achieve the full scope of the plan. Accordingly, the council recommended including a plan for a longer-term research program and focusing in the short term almost exclusively on the issues of decontamination and disposal.

***Mapping the Risks: Assessing the Homeland Security Implications of Publicly Available Geospatial Information**. John C. Baker, Beth E. Lachman, David R. Frelinger, Kevin M. O'Connell, Alex Hou, Michael S. Tseng, David Orletsky, Charles Yost. ISBN 0-8330-3547-9. 2004. 195 pp. Free ($24.00, printed copy). Available on-line from Rand Corporation, P.O. Box 2138, Santa Monica, CA 90407; (310) 451-7002 or (877) 584-8642; e-mail: order@rand.org. http://www.rand.org/publications/MG/MG142/.*

Undertaken at the request of the National Geospatial-Intelligence Agency (NGA), this report assesses the vulnerability of major U.S. cities and infrastructures to potential terrorist attacks based on publicly available geospatial data and information. While this federally produced and disseminated information is used for a wide range of beneficial purposes, the potential for the information to be exploited by terrorists does exist. A challenge lies in deciding what types of sensitive information should be restricted, if any, and how. ***Mapping the Risks*** highlights key factors decision makers should consider in addressing this issue.

A research brief on this work, ***America's Publicly Available Geospatial Information: Does It Pose a Homeland Security Risk?*** is also available on-line (2004, 3 pp., free).

Wildfires

***Feeling the Heat: Dispatches from the Frontlines of Climate Change.** Jim Motavalli, editor. ISBN 0-415-94656-5. 2004. 194 pp. $17.95. Available from Routledge Press, 29 West 35th Street, New York, NY 10001; (212) 216-7800; http://www.routledge-ny.com/.*

Highlighting human and ecosystem impacts, the essays in this edited volume profile the wide-ranging impacts of changes in the global temperature. From China to New York City, minor changes in established weather patterns have produced profound and permanent impacts on local ecosystems. Flooding, heat waves, pollution, rising sea levels, increasing incidence of disease, and shrinking ice packs, along with their ecological, human, and political ramifications are presented in a readable way.

***In Fire's Way: A Practical Guide to Life in the Wildfire Danger Zone.** Tom Wolf. ISBN 0-8263-2096-1. 2003. 176 pp. $16.95. Available from the University of New Mexico Press, MSC01 1200, University of New Mexico, Albuquerque, NM 87131; (800) 249-7737; http://www.unmpress.com/.*

Directed toward those who live in the urban/wildland interface, fire managers, policy makers, and foresters, this book provides information, suggestions, and an environmental perspective on how we live with and manage wildfire.

The following three reports are the result of an independent study, funded by the U.S. Forest Service and the Department of the Interior, of methods for implementing recommendations from the National Academy of Public Administration's report ***Wildfire Suppression: Strategies for Containing Costs*** (2002, 77 pp., free on-line).

***Containing Wildland Fire Costs: Improving Equipment and Services Acquisition.** 2003. 61pp. Free.*

***Containing Wildland Fire Costs: Utilizing Local Firefighting Forces.** 2003. 40 pp. Free.*

***Containing Wildland Fire Costs: Enhancing Hazard Mitigation Capacity.** 2004. 18 pp. Free. (Printed copy is 149 pp. and includes a report in brief and background report, which are available independently and free on-line).*

These publications are available on-line from National Academy of Public Administration, 1100 New York Avenue, NW, Suite 1090 East, Washington, DC 20005; (202) 347-3190; http://www.napawash.org/pc_management_studies/ongoing_wildfirepage.html.

Floods and Extreme Weather

***Flood Insurance Guide for Community Associations.** Federal Emergency Management Agency. F-660. 2003. 8 pp. Free. Available from the FEMA Distribution Center, P.O. Box 2013, Jessup, MD 20794; (800) 480-2520. http://www.fema.gov/.*

Today there are more than 231,000 community associations (CAs) in the U.S. (consisting of an estimated 47 million Americans). In metropolitan areas, about one-half of all new residential construction embraces the CA model. This eight-page brochure emphasizes how important it is that CAs, and property owners who belong to CAs, prepare for floods and purchase flood insurance. A two-page Flood Insurance Selection Chart shows how the NFIP's Standard Flood Insurance Policy can provide affordable coverage for a variety of CA ownership methods, building types, and insurance needs. This guide is a valuable resource for community associations and members as well as insurance agents, real estate agents, lenders, and other professionals who handle CA business.

***Guidelines for Reducing Flood Losses.** Paul J. Pilon, editor. 2004. 79 pp. Free. Available on-line (and in print) from United Nations International Strategy for Disaster Reduction (UN/ISDR) at Palais des Nations CH 1211 Geneva 10, Switzerland; e-mail: isdr@un.org; http://www.unisdr.org/eng/library/isdr-publication/flood-guidelines/isdr-publication-floods.htm.*

This publication was made available to commemorate World Water Day on March 22, 2004. The guidelines were designed to present policy and decision makers with an array of options to consider for reducing flood losses associated with flooding. The publication was written with a number of partners including the UN Department of Economic and Social Affairs (DESA), the UN Economic and Social Commission for Asia and the Pacific (UNESCAP), the U.S. National Oceanic and Atmospheric Administration (NOAA), the World Meteorological Organization (WMO) and UN/ISDR, with support from the Swiss Agency for Development and Cooperation (SDC). Guideline topics include the socio-economic aspects of water-related disaster response, key elements of floodplain management, and setting up integrated flood forecasting, warning, and response systems.

***Water and Disasters: Be Informed and be Prepared.** World Meteorological Organization (WMO). ISBN 92-63-10971-0. 2004. 32 pp. Free. Available on-line from WMO, 7 ib, Avenue de la Paix, CH1211, Geneva 2, Switzerland; http://www.waterday2004.org/docs/WWD_En.pdf.*

In recognition of the increasing concern about extreme weather events, which seem to be growing in frequency and adverse impact, the theme for this year's World Water Day was "Water and Disasters." For the millions of people at risk from water-related hazards such as cyclones, storm surges, floods, droughts, avalanches, landslides, and mudflows, the potential for human catastrophe is all too real. It is critical that an increased emphasis be placed on under-

standing and attending to these hazards through prevention, mitigation, and preparedness, before disaster strikes. This booklet explains the science behind water-related hazards, the impact they may have, and what can be done to reduce vulnerability and risk.

No Adverse Impact: A Toolkit for Common Sense Floodplain Management. *Association of State Floodplain Managers (ASFPM). 2003. 108 pp. Free ($10.00, printed copy). Available on-line from ASFPM, 2809 Fish Hatchery Road, Madison, WI 53713; (608) 274-0123; e-mail: asfpm2@floods.org; http://www.floods.org/NoAdverse Impact/NAI_Toolkit_2003.pdf.*

"No Adverse Impact" (NAI) floodplain management is a managing principle developed by ASFPM to address the shortcomings of the typical local floodplain management program. NAI provides tools for community officials so that they can assume greater responsibility for their flood problems and floodplain management programs (beyond federal and state minimum requirements) and provide a higher level of protection to their citizens. This "toolkit" addresses seven key topics at three levels of effort: basic, better, and NAI (the most effective level). The topics are hazard identification and floodplain mapping, education and outreach, planning, regulations and development standards, mitigation, infrastructure, and emergency services.

The ASFPM has also published three new legal brochures: ***Common Legal Questions about Floodplain Regulations in the Courts*** and ***Legal Questions: Government Liability and No Adverse Impact Floodplain Management***, which are both appendices in the toolkit, and an ***NAI Legal Issues Flyer.***

Disaster Mental Health

"Natural Disaster and Mental Health in Asia," by Masahiro Kokai, Senta Fujii, Naotaka Shinfuku, Glen Edwards. ***Psychiatry and Clinical Neurosciences****, Vol. 58, No. 2 (April 2004). Single copies are available for purchase. Annual subscriptions: $876, institutional; $207, individual. To subscribe, contact Blackwell Publishing, Journal Customer Services, 350 Main Street, Malden, MA 02148; (781) 388-8206 or (800) 835-6770; e-mail: suscrip@bos.blackwellpublishing.com; http://www.blackwellpublishing.com/.*

This review of the literature on disaster mental health in relation to natural disasters such as earthquakes, volcanic eruptions, typhoons and cyclones throughout Asia, indicates that disaster psychiatry is beginning to gain recognition in Asia. This is primarily due to the recent acceptance of the concept of post-traumatic stress disorder (PTSD), which does not evoke the same stigma often associated with other psychiatric diagnoses. The review found that as a result of this acceptance, mental health professionals now have access to a greater number of research opportunities and are better equipped to provide support to survivors of both natural and man-made disasters in Asia.

Terrorism and Disaster: Individual and Community Mental Health Interventions. *Robert J. Ursano, Carol S. Fullerton, Ann E. Norwood, editors. ISBN 0-521-53345-7. 2003. 480 pp. $55.00 (paperback). Available from Cambridge University Press, 100 Brook Hill Drive, West Nyack, NY 10994; (845) 353-7500; e-mail: orders@cup.org; http://us.cambridge.org/.*

This collaboration of international experts is written from the perspective that terrorism is a special kind of disaster and that it, of all disasters, has the greatest impact on the mental health of the direct victims as well as families, helpers, communities, and even others without direct ties to the event. This book examines lessons learned from recent terrorism events, considers assessment and treatment of individuals and groups, and explores the effects of contamination at both the individual and community level.

Hazardous Materials

HazMat Data: For First Response, Transportation, Storage, and Security. *Second Edition. Richard P. Pohanish. ISBN 0-471-27328-7. 2004. 1,263 pp. $250.00. Available from John Wiley & Sons, Inc., Customer Care Center, Consumer Accounts, 10475 Crosspoint Boulevard, Indianapolis, IN 46256; (877) 762-2974; e-mail: consumers@wiley.com; http://www.wiley.com/.*

This newly updated and revised second edition of ***HazMat Data*** is an invaluable reference for industrial, transportation, environmental, first response, and federal and state agency personnel dealing with hazardous materials. It provides high-quality critical data to meet all of today's threats and contingencies and now covers nearly 1,450 chemicals, including chemical warfare agents relevant to the post-9/11 world and security environment.

GAO Reports

U.S. General Accounting Office (GAO) reports provide background information and insight into key issues and concerns of the U.S. Congress. The office frequently publishes studies regarding hazards and disaster policy. Some recent GAO reports and testimonies that might interest ***Observer*** readers are listed below. Summaries and full text are available on the web at *http://www.gao.gov*. Printed copies are also available. Single copies are free. Multiple copies are $2.00 each. To order, contact the *U.S. General Accounting Office, 441 G Street, NW, Room LM, Washington, DC 20548; (202) 512-6000; TDD: (202) 512-2537.*

National Flood Insurance Program: Actions to Address Repetitive Loss Properties. *GAO-04-401T. 2004. 18 pp.*

Flood Map Modernization: Program Strategy Shows Promise, but Challenges Remain. *GAO-04-417. 2004. 49 pp.*

HHS Bioterrorism Preparedness Programs: States Reported Progress but Fell Short of Program Goals for 2002. *GAO-04-360R. 2004. 45 pp.*

Homeland Security Advisory System: Preliminary Observations Regarding Threat Level Increases from Yellow to Orange. *GAO-04-453R. 2004. 49 pp.*

Homeland Security: Risk Communication Principles May Assist in Refinement of the Homeland Security Advisory System. *GAO-04-538T. 2004. 19 pp.*

Homeland Security: Federal Action Needed to Address Security Challenges at Chemical Facilities. *GAO-04-482T. 2004. 16 pp.*

Critical Infrastructure Protection: Challenges and Efforts to Secure Control Systems. *GAO-04-354. 2004. 41pp.*

Chemical Weapons: Destruction Schedule Delays and Cost Growth Continue to Challenge Program Management. *GAO-04-634T. 2004. 10 pp.*

Agencies' Use of Procurement Flexibilities Provided in the Homeland Security Act of 2002 (P.L. 107-296). *GAO-04-447R. 2004. 3 pp.*

Homeland Security: Summary of Challenges Faced in Targeting Oceangoing Cargo Containers for Inspection. *GAO-04-557T. 2004. 24 pp.*

In Memoriam

It is with deep sadness and love that the Hazards Center mourns the passing of Mary Fran Myers. She died on April 1, 2004, after a long battle with cancer. Mary Fran was for many years the co-director of the Center, and reducing disaster losses, both nationally and internationally, was her life's work. She was an innovator, a mentor, and a creative spirit, who touched many lives and had a lasting impact on the global hazards community. The world is better for Mary Fran having been a part of it.

Mary Fran came to the Hazards Center in 1988. During her time here, she was instrumental in maintaining the Center's international reputation as a driving force in the hazards field in many numerous and far-reaching ways. Her work helped to bring about a fundamental change in national and international perspectives regarding hazards and helped institute a new, more far-sighted and sustainable way of dealing with extreme environmental events. In 1997, Mary Fran received the Association of State Floodplain Mangers' highest individual honor, the Goddard-White Award, in recognition of her many contributions to improving floodplain management in the country. The issue of gender and disaster was especially close to her heart, and in 2002, the Gender and Disaster Network established the Mary Fran Myers Award in her honor. The award recognizes her sustained efforts to launch a worldwide network among disaster professionals to advance women's careers and to promote research on gender issues, disasters, emergency management, and higher education (see below).

For those of us at the Center, Mary Fran was much more than her job title. She provided leadership, guidance, grace, and laughter, as well as a standard of excellence that will always be something we strive for. She once said that she couldn't imagine having a better job than working with the Center, and we all loved working with her.

Donations may be made in Mary Fran's name to the Mary Fran Myers Scholarship Fund. The intent of the scholarship is to bring participants to the Annual Hazards Workshop who otherwise would not be able to attend. Mary Fran was particularly concerned that many who could greatly benefit from and contribute to workshop activities are among the least likely to be able to afford to attend. Checks should be written to the "University of Colorado Foundation" and sent to the *Natural Hazards Center, University of Colorado, 482 UCB, Boulder, CO 80309-0482*. Please contact *Diane Smith at (303) 492-6818; diane.smith@colorado.edu* with questions.

Request for Nominations

The Gender and Disaster Network (GDN) and the Natural Hazards Center invite nominations of individuals working in the hazards field who should be recognized for "efforts to advance women's careers in emergency management and the academy and for promoting gendered disaster research." Established in 2002, the Mary Fran Myers Award recognizes that vulnerability to disasters and mass emergencies is influenced by social, cultural, and economic structures that marginalize women and girls. The award was so named to recognize Mary Fran's sustained efforts to launch a worldwide network among disaster professionals for advancing women's careers and for promoting research on gender issues, disasters, emergency management, and higher education.

The intent of this award is to recognize people whose program-related activities, advocacy efforts, or research has had a lasting, positive impact in reducing hazards vulnerability for women and girls. The award committee is especially interested in soliciting nominations from countries outside the U.S. People whose work adds to the body of knowledge on gender and disasters; is significant for the theory and/or practice of gender and disasters; or has furthered opportunities for women to succeed in the hazards fields are eligible to receive the award.

Nominations are due June 1, 2004. To nominate someone: submit the full name and contact information (e-mail, mailing address, telephone, and fax) of both nominee and nominator; provide a 500-word description of how the nominee's work fits the award criteria mentioned above; provide a two-page resume/CV of the nominee that reflects his/her commitment over time to gendered research and the promotion of women's involvement in the field; and provide no more than two letters of support, not to exceed one page, from other people or organizations that support the nomination.

Complete information is available at *http://www.colorado.edu/hazards/mfmaward/*. Submit application materials (e-mail attachment preferred) to *Lori Peek, Natural Hazards Center, University of Colorado, 482 UCB, Boulder, CO 80309; (303) 492-1028; lori.peek@colorado.edu*.

Welcome, Christa!

Christa Rabenold joined the Hazards Center staff in late March. Christa, a Connecticut native, holds a degree in international studies from the University of North Carolina at Chapel Hill and is currently completing a master's of public administration with a personal focus on hazards at the University of Colorado at Denver. Christa's background, interests, and strong editorial, communications, and design experience (not to mention her sparkling personality) have already made her a valued member of our editorial staff.

THE HAZARDS CENTER

The NATURAL HAZARDS RESEARCH AND APPLICATIONS INFORMATION CENTER was founded to strengthen communication among researchers and the individuals and organizations concerned with mitigating natural disasters. The center is funded by the National Science Foundation, the Federal Emergency Management Agency, the National Oceanic and Atmospheric Administration, the U.S. Geological Survey, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Department of Transportation, the U.S. Bureau of Reclamation, the U.S. Forest Service, the National Aeronautics and Space Administration, the Centers for Disease Control and Prevention, the Institute for Business and Home Safety, and the Public Entity Risk Institute. Please send information of potential interest to the center or the readers of this newsletter to the address below. The deadline for the next ***Observer*** is *May 19, 2004.*

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Copies of the ***Observer*** and the Hazards Center's electronic newsletter, ***Disaster Research***, are also available from the Natural Hazards Center's web site:

http://www.colorado.edu/hazards

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