

HAZUS HOT ZONE

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HAZUS-MH — A Crystal Ball for the 21st Century:

Orange County's Facilities Risk Assessment Data Compilations

By Rebecca Blankenship

Trying to predict the future is nothing new. Ancient civilizations imagined many aspects of the modern age; even predictions made as recently as a century ago retain the power to amaze us or amuse us. While predicting the future may not be a new activity, in many instances it has become progressively more sophisticated.

Take the predicting of natural hazards and their impacts. Early forecasters relied upon environmental signs to help them anticipate hazard occurrences; today forward-thinking communities utilize HAZUS-MH loss estimation methodology to predict the outcomes of natural disaster events and find ways to proactively minimize the damages they cause.

That's what happened recently in Orange County, California, when two leaders within the HAZUS community found themselves inspired by the potential of the traditional HAZUS offering. Raymond Lenaburg (chief of the Analysis Branch of FEMA's Region IX) and Vicki Osborn (assistant emergency manager for the Orange County Sheriff's Department) undertook a pilot project of special relevance to Southern California: the Orange County Essential Facilities Risk Assessment.

In what became a mammoth collaboration involving much of the community, Lenaburg and Osborn coordinated input from 114 political subdivisions and 34 incorporated cities that make up Orange County — including cities, schools and special districts (such as water departments) — all to help support the mitigation planning and execution of this project with the newly collected data loaded into HAZUS-MH. Participating organizations provided data for essential facilities, including the date facilities were built, as well as their structure type, square footage, replacement cost and backup power availability.

Due to the massive scope of the project, Lenaburg and Osborn realized the criticality of engaging key stakeholders in the process and established a Community Executive Committee (CEC) to participate in the study. CEC members met throughout the year to guide development, discuss HAZUS-MH utilization within their communities, ensure usability of products and deliver the best possible risk information for the county.

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FEMA

HUG News

HAZUS User Groups (HUGs) continue to grow in size and number throughout the United States. These groups bring together state and local emergency managers, university professors and researchers, and private industry professionals and unite them around a shared goal — promoting and expanding the use of HAZUS methodology. Currently, there are 22 HUGS in place, representing all 50 states and each of FEMA's 10 regions.

Three new HUGs have formed recently: the Virginia HUG (VAHUG), the Arkansas HUG (ARHUG) and the California Central Valley HUG (CAValleyHUG). Each of these groups has a “champion,” an individual who has been instrumental in leading the drive to establish that HUG. In Virginia, Brian Crumpler (Virginia Division of Emergency Management) has spearheaded such efforts. In Arkansas, Ed Leachman (Arkansas Tech University) has led the charge. And in Central California, Ken Leep (California Governor's Office of Emergency Services) has worked to popularize that group. Each of these individuals possesses a strong technical background, knowledge of the HAZUS methodology and software application, and a compelling vision for the use of HAZUS within that particular jurisdiction.

As HAZUS methodology matures and its utilization continues to expand, the need for technical assistance to HUGs

and individual users will also increase. FEMA is offering technical assistance in numerous ways, including posting updates on the fema.gov Web site, documenting HAZUS success stories and developing other published materials, sponsoring conferences and training, and providing strategic planning and on-site assistance.

Through the HAZUS outreach program, FEMA continues to explore new and innovative ways to provide support to HUGs. One way is through on-site technical assistance, which provides customized HAZUS training. Another outreach method involves sponsorship of HAZUS applications roundtables, which bring together HUG leaders in order to identify both short-term and long-term goals, objectives and potential initiatives.

In summary, there is a strong pulse that's growing steadily among established and emerging HUGs across the United States. As HAZUS models continue to evolve and become more sophisticated (and as the number of users increases), it is anticipated that HAZUS User Groups will continue to play a pivotal role in HAZUS outreach, planning and training. For HUG technical assistance in your region, please contact Vincent Brown at vincent.brown@dhs.gov or Jamie Caplan at jamie@jamiecaplan.com.

Training Information

Basic HAZUS-MH

Course Number: E313

This course is designed to provide Federal, state, and local geographic information systems (GIS) specialists in emergency management with the skills and knowledge to use HAZUS-MH, the nationally applicable standardized methodology that contains models for estimating potential losses from earthquakes, floods and hurricanes. HAZUS-MH uses state-of-the-art GIS software (ArcGIS) to map and display hazard data and the results of damage and economic loss estimates for buildings and infrastructure, allowing users to estimate the impacts of hurricanes, floods and earthquakes to populations

APRIL 7-10, 2008 AND JULY 14-17, 2008

Application of HAZUS-MH for Disaster Operations

Course Number: E179

This training is designed to increase the level of awareness and knowledge of Federal and state emergency management officials of: 1) the capabilities of HAZUS-MH 2) the information and analyses requirements of key Joint Field Office (JFO) sections and 3) the potential applications of HAZUS-MH to support decisions at the Regional Operations Center, the National Response Coordination Center, and the JFO (including Mitigation, Individual Assistance, and Public Assistance).

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OCEFRA Community Executive Committee
OC Sheriff's Department – Emergency Management
OC Fire Authority
OC Department of Education
County of Orange, Resources & Development Management Department
OC Health Care Agency
Hospital Association of Southern California
California Office of Emergency Services
City of Newport Beach
City of San Clemente
Santa Ana Unified School District
University of California, Irvine
U.S. Congressman Dana Rohrabacher's Staff

With this expanded and detailed data loaded into HAZUS-MH, the program is able to provide an unprecedented view of what could happen during the occurrence of an earthquake or flood event in Orange County. Local users are starting to see the vast potential of HAZUS and are now beginning to install the program in their offices and request training from FEMA.

“Our initial investment is paying off on this project. We’re teaching these local communities how to ‘fish’ for themselves instead of ‘feeding’ them modeling runs prepared

by FEMA,” reports Ray Lenaburg. “The investment these communities have made in preparing their data sets for HAZUS will pay long-term dividends in terms of the accuracy of the disaster models they can run. And by using HAZUS to model their disasters, they will be able to easily calculate the cost-benefit information needed to apply for FEMA mitigation grants. It’s a win-win for everyone,” he says.

Predicting the future is still a risky business, even with today’s technology. But in order to effectively protect communities from the devastation that can be caused by natural hazards, we must first understand the probable outcomes of possible disaster events. That’s where HAZUS methodology truly shines. By illuminating what is likely to happen should certain natural hazards occur, HAZUS functions with a certain clairvoyant ability — a crystal ball for the 21st century.

Rebecca Blankenship is the Outreach Manager for Outreach Process Partners, LLC. She can be reached at Rebecca@OPP-LLC.com.

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Advanced HAZUS-MH for Flood

Course Number: E172

This course is designed to provide in-depth instruction on the use of HAZUS-MH for advanced applications related to flood-loss modeling. The Flood Model is capable of assessing riverine and coastal flooding. It estimates potential damages to all classes of buildings, essential facilities, transportation lifelines, utility lifelines, vehicles and agricultural crops. The model addresses building debris generation and shelter requirements. Direct losses are estimated based on physical damage to structures, contents and building interiors. The effects of flood warning are taken into account, as well as flow velocity effects. The Flood Information Tool (FIT) allows users to prepare local flood hazard data and other pertinent data for use in the HAZUS-MH. Detailed lessons include: riverine and coastal hazard methodology, FIT, damage functions, “what-if” Analysis, and advanced spatial queries.

JUNE 16-19, 2008

Who Should I Contact to Enroll in HAZUS Training Courses?

To enroll, download the [Admission Application](#) or contact Ray Chevalier at 301.447.1187 or Philip Moore at 301.447.1248.

For further information on registration, please visit [FEMA's Emergency Management Institute's Web site](#).

2008 National HAZUS User Conference:

From Data Collection to Decision Making

The 2008 National HAZUS User Conference will be held August 5–7 in San Diego, California. This is the second annual National HAZUS User Conference, bringing together emergency managers, GIS professionals, researchers and other groups and disciplines to share expertise and experiences related to the development and use of HAZUS-MH methodology.

Building upon the success of the 2007 meeting, conference organizers have identified new topics for this year's event, which carries the theme, "From Data Collection to Decision Making." The 2008 conference will include sessions on:

- New Advances in HAZUS-MH Technology
- HAZUS-MH Training: New Courses and Approaches
- Innovative Applications of HAZUS-MH in California
- Use of HAZUS-MH for Catastrophic Planning
- Use of HAZUS-MH for Statewide Flood Analysis
- HAZUS User Groups: New Tools and Strategies

The 2008 conference will also feature one-day training workshops and other activities of interest to HAZUS-MH users.

If you are interested in participating in these sessions (or have ideas for others), please send an e-mail to bmhowser@pbsj.com. We will be in touch with all interested speakers during the next month.

Did you Know...

That you can receive free e-mail updates from FEMA? Sign up for FEMA's free e-mail subscription service and you will receive notifications when new updates become available, including information about risk analysis, risk reduction, hazard mitigation planning, EMI training, and other topics of interest to the HAZUS community. And, by establishing a subscription profile, you can automatically receive updates without having to return to the Web site to check for changes.

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3. Pages throughout the site also feature a button labeled, "E-mail me when this page is updated." Clicking on this button will allow you to subscribe to updates for that particular page.
4. Select how often you wish to be notified about updates (e.g., immediately, daily, weekly, or monthly). Please note that some topics, depending on the subject, may only be updated at certain intervals.

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