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Association of State Floodplain Manager’s Floodplain Management Resource Center (FRC) wants to include mitigation and recovery plans for *all* natural hazards. FEMA supports this plan to provide a wealth of written materials to local and state disaster/mitigation managers. The documents will be placed in the FRC library, with a summary added to the searchable computer database.

If you have mitigation plans that can be included contact

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To receive information or mitigation plans from the FRC Library contact

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For more information on sample mitigation plans or outlines for mitigation plans, see Infrequently Asked Questions in this issue.

Newsbriefs

FEMA has a website!

The Federal Emergency Management Agency has developed a World Wide Web server on the Internet, at <http://www.fema.gov>. The home page features news bytes about a wide variety of hazards and provides links to mitigation, preparedness, disaster assistance, Project Impact, and other topics. At the bottom of the page there is a link to the FEMA library.

The library page opens with a ‘floorplan’ of the library, showing clickable rooms for Preparedness and Training, Response and Recovery, Mitigation, Still Photos and Video, National Flood Insurance Program, Maps, and several other topics of interest. Clicking on Preparedness and Training, I found a list of FEMA reports. Check out the *Good Ideas Book* about mitigation/preparedness program ideas and case studies. Or the 3-volume report *Partnerships in Preparedness: A Compendium of Exemplary Practices in Emergency Management*. Both are valuable resources for Emergency Managers who are beginning a mitigation plan or who want to refine the one they now have.

FRC is looking for all-hazard mitigation plans

The Natural Hazards Research and Applications Information Center, University of Colorado reports that the

A Tsunami Journal is on The 'Net!

Michael Blackford of the International Tsunami Information Center (ITIC) in Honolulu reports that the Tsunami Society has put all the issues of its *Science of Tsunami Hazards* journal on the Internet. The files are in PDF at <http://epubs.lanl.gov/tsunami>, courtesy of the Los Alamos National Laboratory library's national “library without walls” program. The complete journal is also available on CD-ROM and individual articles reprints are also available from *TsuInfo Alert*.

TsuInfo Alert is published monthly by the Washington Department of Natural Resources, Division of Geology and Earth Resources. This publication is free upon request and is available in print (by surface mail) and electronically (by e-mail).

TsuInfo Alert and the TsuInfo document delivery program are made possible by a grant from the Federal Emergency Management Agency via the Washington Military Department, Division of Emergency Management.

Participants in the TsuInfo program can request copies of reports listed in this issue from:

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Division of Geology and Earth Resources
P.O. Box 47007
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WASHINGTON STATE DEPARTMENT OF
Natural Resources
Jennifer M. Belcher - Commissioner of Public Lands

New Tsunami Mitigation Materials Added to the Library, April, 1999

compiled by
Connie J. Manson

Note: Free reprints of these materials are available. (See page 2 for ordering information)

Bourgeois, Joanne; Johnson, S. Y., 1999, **Evidence for at least three moderate or larger earthquakes near Everett, Washington, since about A.D. 800** [abstract]: Seismological Research Letters, v. 70, no. 2, p. 232-233.

A brief description of current research on tsunami deposits in the Everett, Washington area.

Carver, G. A.; Abramson, H. A.; Garrison-Laney, C. E.; Leroy, T., 1999, **Paleotsunami evidence from northern California for repeated long rupture (M 9) of the Cascadia subduction zone** [abstract]: Seismological Research Letters, v. 70, no. 2, p. 232.

A brief description of current research on tsunami deposits along the northern California coast.

Geist, E. L., 1999, **A stochastic source model for estimating local tsunami hazards** [abstract]: Seismological Research Letters, v. 70, no. 2, p. 221.

A brief description of current research on tsunami modeling.

Plafker, George; Carver, G. A., 1999, **Seismotectonics of the eastern Aleutian subduction zone--An analog for great tsunamigenic earthquakes in southern Cascadia?** [abstract]: Seismological Research Letters, v. 70, no. 2, p. 232.

A brief description of current research on Alaskan earthquakes that can be an analogy for Cascadia earthquakes.

Moffeld, H. O.; Gonzalez, F. I.; Newman, J. C., 1999, **Tsunami prediction in U.S. coastal regions**. In Mooers, C. N. K., editor, Coastal ocean prediction: American Geophysical Union, p. 353-375.

Excellent discussion of current approaches to tsunami prediction. Reviews tsunami modeling, long-term prediction, short-term prediction, and current research trends.

Recommended for local emergency managers and government officials.

Monmonier, Mark, 1997, **Cartographies of danger--Mapping hazards in America**: University of Chicago Press, 363 p.

A thorough discussion of hazard mapping. (Reviewed, in this issue, p. 10)

Gonzalez, Frank I., 1999, **Tsunami!**: Scientific American, v. 280, no. 5, p. 56-65. [Also available at <http://www.scientificamerican.com/1999/0599issue/0599gonzalez.html>]

An excellent report on tsunamis and tsunami hazards. Highly recommended for emergency managers, educators, and local government officials.

* * * *

Tsunami Society Symposium

The Tsunami Society symposium will be held in Honolulu May 25-27, 1999. The program has been distributed and is available on the web at <http://www.ccalmr.ogi.edu/STH/society.html>. May 25 will include sessions on asteroid impact tsunamis and other mega-tsunamis. Tsunami Warning Centers will be discussed on May 26. On the final day, Tsunami Civil Defense projects and historical tsunamis will be the featured topics, followed by the Tsunami Society Annual Meeting. The scope is world-wide.

**Community Mitigation Successes:
NOAA Weather Radio Coverage for the Entire Washington Coast**

by

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Editor's note: Karin Frinell-Hanrahan presented this at the Regional Coastal Earthquake Conference May 13, 1999 in SeaTac, WA. This is such a terrific project that we asked her to publish it here so it could be shared with others.

When I came on board at the Grays Harbor County Department of Emergency Management everyone was asking "Where are our tsunami sirens?" I had worked with sirens before at Lewis County and knew they were very expensive but didn't always work as planned. Instead, I started looking for a source of warning that was already available in Grays Harbor County-- and found it: NOAA Weather Radio.

But there were problems with it. The County was covered by signals from Astoria and Olympia, but a large area of the County -- including the Quinault Indian National and part of Olympic National Park--could not receive either signal.

So the question was, How could we get coverage for all of Grays Harbor County from our warning point in Seattle?

I learned there was money in Tsunami Funds and they needed projects, and the Idea was born: to use those funds to expand NOAA Weather Radio to the entire Pacific coast of Washington.

From conversations with Ted Buehner of the National Weather Service and with George Crawford of the Washington Emergency Management Division, I proposed to move the station from Neah Bay to Mount Octopus, but

leave a small receiver at Neah Bay to cover the opening of the Strait of Juan De Fuca. This would provide alert capabilities for tsunamis and for adverse weather for the entire coast and inland areas. The area would include three Counties (Grays Harbor, Jefferson, and Clallam) and five coastal Indian Nations (Quinault, Makah, Quillayute, Hoh and Ozette). Depending on the strength of the signal, it would also provide additional alert capabilities at sea. To do this, we needed a site on Mt. Octopus, preferably with existing tower, racks and auxiliary power supply. To establish the site, we needed a 1-kilowatt dual transmitter (\$6,000), a directional antenna (\$3,000), cabling (at \$5 per foot), and the hardware and labor to install and test the site.

I made this proposal to the State Tsunami Working Group, Counties, State, FEMA and the Quinault Indian Nation, with the help of the National Weather Service and a communication consultant. The proposal was enthusiastically accepted.

George Crawford, Ted Buehner, George Bisso and many others have worked very hard to see this proposal become a working project.

The new site on Mt. Octopus will be functional by August 1, 1999.

[FIGURE]

Figure 1. Location map.

New Program Participants: Pacific-States Senators and Representatives

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BOOK REVIEW

by
Lee Walkling

Monmonier, Mark, 1997, *Cartographies of danger--Mapping hazards in America*: University of Chicago Press, 363 p.

Local governments are suddenly asking for hazard mapping, particularly inundation mapping for coastal areas, in order to prepare tsunami hazard mitigation plans and all-hazard preparedness plans. *Cartographies of danger--Mapping hazards in America* provides an essential overview to what hazard maps are and how they are made. As with all statistical reporting, it is necessary to know how to read hazard maps, what they don't tell you, and how to use them correctly-- and not to "expect precision or easy answers." (p. 14). The author, Mark Monmonier, is the perfect person to explain all this. He is a Professor of Geography at Syracuse University and the author of *How To Lie with Maps*.

The chapter headings are Map Scale, Danger Zones, and Safe Places; Shaky Preparations; Lavas and Other Strangers; Uncertain Shores (about tsunamis); Death Tracks; Floodplains, by Definition,...; Subterranean Poisons; Ill Winds; Short-Lived Daughters and ELF Fields; Nuclear Nightmares; Imagining Vulnerability; Crimescapes; John Snow's Legacy; and Emerging Cartographies of Danger.

Chapter One deals with map scale--an important but little understood topic-- that is especially critical for the proper use of hazard maps. Chapter Two, about earthquakes, is also pertinent to tsunami mitigation. The final chapter talks about the relatively new field of hazard mapping, its potential and its pitfalls.

"That risk maps are rhetorical should surprise no one--persuasion is their prime role, after all, and

if they fail to convince or at least command attention, they miss their most important target. There's a danger, though, in maps that under- or overstate risk, thereby either promising false security or raising needless alarm. All risk maps are at least partly rhetorical, if only to enlarge understanding of a hazard by momentarily ignoring the attendant uncertainty." (p. 294)

Uncertain Shores, Chapter Four, discusses tsunamis. The Hawaiian evacuation maps, found in the local phone books, are used as illustrations of effective hazard mapping and disaster preparedness. The author also looks at the National Atlas map series (1985, U.S.G.S.) which "despite praise from coastal scientists,...never caught the attention of the public, the media, or the Congress." (P. 75) The map series author Bob Dolan believes the maps were too complicated.

Cartographies of danger, designed for the layperson, examines current efforts to map hazards. Professor Monmonier offers readable explanations of the limitations and strengths of maps, providing appropriate illustrations to help visualize the concepts he is discussing. This study also provides "insights about scientific knowledge, public policy, and popular perceptions." (P. x, preface). Before ordering inundation maps, or before studying the ones you've received, it might pay to read this book.

Infrequently Asked Questions: "Mitigation Plans"

compiled by
Lee Walkling

1. Where can I find examples of really good mitigation plans?

FEMA has published a 3-volume set, *Partnerships in Preparedness: A Compendium of Exemplary Practices in Emergency Management*. The printed volumes are free from FEMA (by calling 1-800-480-2520) and it's also online at <http://www.fema.gov/pte/partnr01.htm>

2. Just what does that mean-- "A compendium of exemplary practices?"

FEMA contacted its regional offices to gather examples of innovative emergency management practices that were effective and easily adaptable to other locations and situations. Those examples were collected in these volumes.

3. I just want a sample mitigation plan to use as a model for the emergency management plan for my area.

What's available?

Some good examples are:

FEMA's 1996 *Guide for All-Hazard Emergency Operations Planning (State and Local Guide 101)* for free by calling 1-800-480-2520.

Strategy for Tsunami Mitigation and Public Awareness, by Donald A. Hull and Angie Karel, Oregon Department of Geology and Mineral Industries, 1997. 503-872-2750 to order. You may also borrow *TsuInfo Alert's* copy.

Good Idea Book, FEMA. (See **Newsbriefs** "FEMA has a website!" for more information).

Contact your state's Emergency Management Director for more information.



WASHINGTON STATE DEPARTMENT OF
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