Alaska Division of Homeland Security and Emergency Management

Partnerships
The State of Alaska's Division of Homeland Security and Emergency Management (DHS&EM) organized its mitigation, earthquake, tsunami, and preparedness programs under the Mitigation Section to ensure the public is educated about the interrelationship of these natural hazard threats. DHS&EM takes great pride in our partnerships with: the University of Alaska Fairbanks Geophysical Institute (UAF/GI), Alaska Department of Natural Resources Division of Geological and Geophysical Survey (DNR/DGGS), Alaska Earthquake Information Center (AEIC), Alaska Department of Transportation and Public Facilities (AKDOT&PF), West Coast / Alaska Tsunami Warning Center (WC/ATWC), National Weather Service (NWS), National Oceanographic and Atmospheric Administration's Pacific Marine Environmental Laboratory (NOAA/PMEL) and Tsunami Inundation Mapping Effort (TIME), Federal Emergency Management Agency (FEMA), the U.S. Department of Interior (DOI), and Alaska's local, tribal and borough governments. Very few projects would be accomplished without quality partnerships and willing participation.

Commission Involvement
The Alaska Seismic Hazard Safety Commission is active in developing effective practices and policies for earthquake loss-reduction while pursuing accelerating implementation of these policies. DHS&EM State Hazard Mitigation Officer, Mark Roberts, was nominated to serve as one of the eleven commission board members this year. The Commission members meet monthly to focus on prioritizing and identifying earthquake related hazard threats including: critical facilities' structural stability, earthquake insurance necessity and availability, approaches to incorporating seismic risk mitigation into future construction, changes to response and recovery practices to mitigate future seismic risk, hazard identification, and public education outreach initiatives.

Post-Disaster Damage Assessment (PDDA)
DHS&EM aggressively supports and provides funding to the statewide Post-Disaster Damage Assessment (PDDA) training program managed by the Municipality of Anchorage's (MOA) Building Safety Officer. The PDDA Coordinator conducts the modified ATC-20 courses to provide initial and recertification training for Post-Disaster Damage Assessment Evaluators. These evaluator team members assess a building's structural integrity for safe occupancy following a catastrophic event. The PDDA Coordinator is working with the DHS&EM Mitigation, Training and IT Sections to develop a statewide training database and identification cards. The State currently has approximately 650 trained and certified damage assessors.

Quake Cottage Earthquake Simulator
Two of the Division's innovative outreach tools, the "Quake Cottage" earthquake simulator and the "Earthquake Resistant Model Home," continue to generate requests supporting non-structural seismic hazard mitigation demonstrations. These tools provide audiences effective earthquake preparedness and mitigation lessons as well as build visual relationships about the effects of hazards affecting structures and contents. Although the "Quake Cottage" activities were scaled back for 2007, the Division has delivered our preparedness message to over 2,500 people this year at schools, the Nenana Fair, Kenai River Days Festival, the Governor's Annual Picnic, and various other central Alaska outreach events.

Preparedness
DHS&EM provided funds for printing 2,000 copies each of the children's books "Molly and the Earthquake" and "Heidi and the Tsunami". High School Senior Ms. Hanna C. Watkins designed, wrote, and illustrated the books for Kindergarten through Fourth Grade students. The books tell fictional stories of a family's natural hazards experiences and give safety tips on what to do before, during, and after an

event. These publications are distributed throughout the state at various outreach venues. DHS&EM is excited that we can add them to our outreach resources. The books are available for download at: *http://www.borough.kenai.ak.us/emergency/books/watkins.htm.* DHS&EM Staff participated in a UAF education program that will teach high school students basic GIS and hazard mapping. The program targets specific native communities having significant seismic and tsunami threats along the Aleutian Chain.

Improve techniques to reduce seismic vulnerability to facilities and systems
Two real time earthquake-monitoring systems supplied by UAF/GI and USGS are used in the State Emergency Coordination Center (SECC). These systems provide immediate earthquake notification showing seismic station depictions of a quake and related scientific data. The systems graphically relate the earthquake data to adjacent communities, allowing the SECC to quickly contact communities and gather impact data for potential post disaster damage estimates. The State of Alaska received two FEMA Pre-Disaster Mitigation-Competitive (PDM-C) grants for 2006. The Kodiak Island Borough School will receive seismic retrofitting and 10 Anchorage Schools will receive automatic gas shut-off valves. The Kodiak project ranked number one in the nation from the FEMA review panel.

Improve seismic hazard identification and risk assessment methods and their use
The State is using VRiskMap® software to facilitate risk and vulnerability analysis from earthquakes and other natural hazards. The software allows Mitigation Staff to overlay hazard maps, delineate by degree of hazard, and run queries giving population and infrastructure-associated information to determine potential impact and estimated losses. Several of Alaska's largest communities and boroughs have FEMA-approved and community- adopted Local All-Hazard Mitigation Plans fulfilling the Disaster Mitigation Act of 2000 criteria. These plans are essential for identifying the risks, vulnerabilities, and the economic impact to the State's population and infrastructure from natural hazards like the State's extensive earthquake hazard. These plans cover approximately 83% of the State's population. Several of the remaining communities are developing Local Hazard Mitigation Plans to align their local hazard mitigation plans, hazard data, strategies, goals, and initiatives with the State Plan.

Mapping
NOAA and the State of Alaska sponsored Tsunami Inundation Mapping projects for Homer and Seldovia. This project provides potential tsunami mapping coverage to enable local community partners to tailor the information obtained from the inundation maps toward their emergency response and planning efforts. These maps will assist the communities with preparing for, and mitigating against, potential tsunamis. The Alaska Division of Geological and Geophysical Survey produce the final maps for planning and distribution by the local government and emergency management. UAF/GI is currently researching tsunami potential for the Cities of Seward, Sitka, and Valdez, Alaska.

Submitted by Brent Nichols, Earthquake Program Coordinator, Alaska Division of Homeland Security and Emergency Management