Quick Response Report #149

Oregon Emergency Management: Evaluating Interagency Communication in the Post-Disaster Environment

Robert Parker
AICP
Managing Director
Community Service Center
E-mail: rgp@darkwing.uoregon.edu

Andre LeDuc
Director
Oregon Natural Hazards Workgroup

Kathy Lynn
Project Manager
Oregon Natural Hazards Workgroup

Community Service Center
1209 University of Oregon
Eugene, OR 97403-1209

2002

ACKNOWLEDGEMENTS

INTRODUCTION

Interagency communication in Oregon during emergency response and post-disaster recovery is largely facilitated by the Oregon Emergency Response System (OERS). The Governor of Oregon established OERS in 1972. Its purpose is to coordinate and manage state resources in response to natural and technological emergencies and civil unrest involving multi-jurisdictional cooperation between all levels of government and the private sector. OERS is the primary point of contact by which any public agency provides the state notification of an emergency or disaster or requests access to state or federal resources.[1]

September 11, 2001, illustrated America's vulnerability to terrorist attacks. In response to these events, federal, state, and local governments around the nation implemented their emergency

response plans and communication processes, which, in some cases, illustrated deficiencies and challenges facing interagency communication.

Understanding the gravity of the terrorism threat, and reflecting on the many natural and technological hazards that Oregon communities are vulnerable to, the Oregon Emergency Management (OEM) Agency expressed an interest in evaluating how effective state agency communication is in responding to emergency response and disaster recovery situations. Oregon Natural Hazards Workgroup (ONHW), a program within the University of Oregon Community Service Center, partnered with OEM to evaluate interagency communication in the post-disaster environment. The research was funded, in part, through a Quick Response Research Grant funded by the Natural Hazards Center at the University of Colorado, Boulder.

PURPOSE

The objective of this research was to examine the communication and coordination roles of Oregon State government agencies (and state appointed bodies) participating in disaster response in the post-disaster environment. Our research intended to gain insights into the relationships between the complex variables and acute pressures experienced in the initial disaster-recovery communication at the state agency level. This research adds to the body of knowledge on disaster communication, response, and recovery.

METHODOLOGY

Our research methodology examined interagency communication in the post-disaster environment. To gather information on interagency communication in the post-disaster environment, ONHW administered a survey to the 22 state member agencies of the OERS Council. The purpose of the survey was to evaluate the communication and coordination between the OERS Council agencies and OEM when the State Emergency Communication Center (ECC) is activated.

More specifically, the survey instrument was intended to gauge state agencies' understanding of roles and responsibilities during emergency response and recovery phases in a disaster, as well as what could assist in improving interagency communication. The survey included 21 questions that focus on expectations of OEM during response and recovery; services and information needs; and communication and coordination between OEM, the ECC, and OERS.

SURVEY RESULTS

ONHW distributed the survey to the directors of the 22 member agencies of the OERS council in October 2001. We received 20 responses for an 87% response rate.[2] The survey results and findings are organized in three core elements:

1. Agency roles and responsibilities;
2. Coordinating roles in emergency response and recovery: Agency understanding of OEM, the ECC, and the OERS; and
3. Communication and informational needs.

> *"Communicate with the media, public, customers, municipalities, and other state agencies..."*
> - 2001 OEM interagency communication survey

Appendix A contains the survey results and the survey instrument.

Agency roles and responsibilities

OERS maintains the state emergency communications center in a state of readiness by routine testing and monitoring of communication systems and support equipment. OERS develops and maintains operational and notification procedures for state agencies under the OERS banner and manages the National Alert Warning System throughout Oregon's 9-1-1 centers and selected local, state, and federal agencies. OERS also plays a key role in the management of amateur radio operators, provides support for the Emergency Alert System, and provides support for emergency information and notification of local and state agencies, the Chemical Stockpile Emergency Preparedness Programs, the Fire Net Radio System, the Radiological Emergency Notification System, and the emergency power and mobile emergency communications systems.[3]

Figure 1 shows services provided by the responding agencies. Ninety percent of the survey respondents include communication with other state agencies among their roles during emergency response, while 80% stated that their roles included communication with the public, media, and provision of services. Services provided between agencies and to the public included technical support, transportation, equipment, and human resources. In the post-disaster environment, 30% of respondents stated that they communicate with the media, other agencies, and the public. Seventy-five percent of agencies provide technical support in response to a state declared emergency/disaster, 55% provide equipment and personnel resources, 35% provide logistical support, and 15% provide human services such as housing and senior services.

Figure 1. Services Provided

Emergency Response and Post-Disaster Recovery Coordination

OERS is the primary point of contact for state notification of an emergency or disaster. Moreover, OERS coordinates 24 hour access to, and use of, personnel and equipment for all state agencies necessary to assess, alleviate, respond to, mitigate, or recover from conditions caused by an emergency or disaster. OERS provides service through the Oregon Emergency

Management (OEM) Agency. OEM's purpose is to execute the Governor's responsibilities to maintain an emergency services system as prescribed in Oregon Revised Statutes Chapter 401 by planning, preparing and providing for the prevention, mitigation and management of emergencies or disasters that present a threat to the lives and property of citizens of and visitors to the State of Oregon.[4]

Oregon Emergency Management. The majority of agencies responding to the survey (95%) understood OEM's role as providing alert and notification, communication, and coordination during the emergency response phase. Figure 2 illustrates what other agencies understand to be OEM's role in the post-disaster recovery environment, including interagency coordination, interagency communication, technical assistance, and coordinating requests from local government and the Federal Emergency Management Agency (FEMA).

Figure 2: Agency Understanding of OEM's Role During Post-Disaster recovery

Seventy-five percent of respondents said that their agency had relied on OEM for emergency/disaster services or information in the past. Specifically, agencies have relied on OEM for information, technical, financial, and resource assistance.

Emergency Coordination Center Activation. Of those respondents that said their agency would be contacted during activation of the ECC (17 of 20 agencies), 83% said that they would receive incident information. About 39% said that they would be notified that the ECC was activated and informed that an agency representative should be sent to the ECC.

Of the agencies contacted during ECC activation, 47% said that their agency director would receive the notification, 37% that the Agency Director's Designee would receive the notification, and 26% said that the Agency Operations Center would receive the notification.

> *"Generally, agencies don't know what's out there or how it might work - won't know until an event occurs. OERS is a good start."*
> - 2001 OEM interagency communication survey

Over 80% of respondents agreed that nature of the emergency, potentially impacted areas of the state, activities being carried out by government officials to respond to the emergency or mitigate its effects, and actions the public should take for their protection should be included in information released from OEM during ECC activation. Of the agencies contacted during ECC activation, 47% of the agencies stated that they assist in providing information, 26% provide technical support, and 16% assist in determining the hazard-related risk.

Communication and Informational Needs

Figure 3 shows agency methods of communication and the ECC. When asked about the most effective way to disseminate information and support OEM/State Agency coordination, 50% of respondents agreed that OERS is a very effective and important means of communication.

Additionally, respondents said that the OERS Council helps facilitate communication between state agencies by collecting and disseminating information, providing direct lines of communication, and increasing agency awareness.

Figure 3: Agency Methods of Communication with the ECC

Only 30% of the agencies surveyed have an agency or division emergency operations center. Of those that do have a center, 67% use the telephone and e-mail/Internet to communicate with the State ECC. Fifty percent of respondents use the OERS.

Seventy-three percent of respondents prefer the telephone as their primary method of communication to receive incident information. While over 35% of respondents said that e-mail and pagers are also preferred communication methods, several respondents stated that reliance on many forms of communication may become useless in hazard events that lead to downed power lines, outages, and other utility failures.

When asked how effectively information has been disseminated among agencies pre and post-disaster, only 5% of respondents felt it has been very effective in the past. Over 30% felt it was somewhat effective, and 20% felt it was ineffective.

About 70% of respondents said that communication between and among agencies could be improved by having increased education on current policies and operations. Over 50% felt that frequent exercises and increased training opportunities would further improve communication.

> *"In light of 9/11, there is a need for clarified jurisdictional requirements and limitations. Continued dialogue and negotiation is key to overall success of emergency response to Oregon citizens. Eliminating historical outlooks and perceptions regarding capabilities will drastically improve response time and performance."*
>
> - 2001 OEM interagency communication survey

FINDINGS

Agency roles and responsibilities findings

- The survey results suggest OEM is effectively communicating its role in coordinating communication and assistance in emergency response and post-disaster recovery to other agencies. OEM is providing important information and services to other agencies during disaster events.
- When asked what OEM's role is during post-disaster recovery, only 25% of respondents indicated that OEM is responsible for coordinating with FEMA.
- Agency directors and their designees want to be kept appraised of ECC coordination and all agency-related emergency response plans and operations.

Coordinating roles in emergency response and recovery

- Survey results suggest that up-to-date and accurate information on disaster incidents and specific needs for response and recovery coordinated and disseminated through OEM and the ECC help agencies provide appropriate services and communicate an accurate message to the public, media, and other agencies.
- Some agencies or divisions that do not have an emergency operations center may not have a plan for communicating and coordinating with OERS and the ECC.

Communication and informational needs

- The survey found that many agencies prefer to use communication methods that are dependant on external communication systems (e.g. telephone, e-mail and Internet, and cellular phone) and this could present a problem in the event that these external systems fail during emergency response and post-disaster recovery activities.
- The distribution of timely and accurate information is a necessary function in emergency response and post-disaster recovery. OERS member agencies that understand OERS and ECC procedures can better facilitate the exchange of information and implementation of services during and after a disaster event.
- Communication about pre-disaster planning, emergency response, and recovery information yield an average (40%) to somewhat effective (30%) response on the survey. General comments implied that information should be delivered to agencies in a concise and readily available manner.
- Alternative methods of accessing information before, during, and after disaster situations will help communication processes. Respondents suggested the Internet, satellite telephones, radio, and other technology.
- The OERS council and operations has proven to be an effective communication resource, though clarifying the purpose and use of the system and sending clear and more concise information to OERS council members will lead to better communication.

SURVEY IMPLICATIONS

Findings from survey respondents illustrate the complex nature of interagency communication and coordination during disaster events. Moreover, current world events demonstrate the importance of pre-disaster planning, and the crucial connection between preparing for, responding to, and recovering from disasters. Interagency communication is essential to all phases of disaster: response, recovery, mitigation, and preparedness, along with state government continuity. Developing disaster management strategies among agencies will lead to improved communication and coordination during disaster events.

Oregon addresses hazards through its State Emergency Response and Hazard Mitigation Plans, as well as through public policy and Statewide Land Use Planning Goals. Through its public policy framework, Oregon has made progress in hazard preparedness and loss reduction. The state's land use planning laws, building code requirements, emergency preparedness planning, hazards assessment, and other policies and programs that establish the basis for loss reduction provide direction for reducing risk and responding to natural hazard events. Moreover, in

Oregon, there are two state agency bodies that play central roles in communication and coordination for disaster management: the Oregon Emergency Response System (OERS) and the Governor's Interagency Hazard Mitigation Team (GIHMT).

The objective of OERS is to provide and implement a plan for coordinated state agency action in cases involving natural or technological hazards or civil disorder that threaten the citizens or resources of Oregon. The GIHMT's broad focus is to understand losses arising from natural and technological hazards, and recommend strategies to mitigate loss of life, property, and natural resources by developing for promulgation a State Hazard Mitigation Plan. Furthermore, there are many other agencies, organizations, and programs throughout the state that are engaging in disaster response, recovery, mitigation, and preparedness.

Activities to further understand and strengthen disaster-related interagency communication could include the following:

- Examine the current state infrastructure for disaster management and how interagency communication is involved in coordinating disaster response, recovery, preparedness, and/or mitigation.
- Examine the relationship between OERS and the GIHMT and if OERS' official state role makes it more efficient than the GIHMT, which is not a formal organization.

Initial research focused on evaluating interagency communication in the post-disaster environment. Further examination, however, of communication and coordination in all phases of the disaster cycle, and among the various groups that engage in disaster management, can potentially lead to improved coordination and implementation of disaster management strategies.

APPENDIX

Appendix A: Survey Results and Survey Instruments

ENDNOTES

1. Oregon Emergency Management Web site, (January 2002), http://www.osp.state.or.us/oem/index.html.

2. Of the 22 surveys distributed, there were 20 responses and 3 non-responses. One agency submitted responses from two different divisions.

3. Oregon Emergency Management Web site, (January 2002), http://www.osp.state.or.us/oem/index.html.

4. Oregon Emergency Management Web site, (January 2002),
http://www.osp.state.or.us/oem/index.html.

Return to Top

Return to Hazards Center Home Page

Return to Quick Response Paper Index

April 16, 2002

hazctr@colorado.edu