ABSTRACT

During the onslaught of hurricane Katrina on the gulf coast of the United States in August 2005, local emergency planning officials, state agencies, and federal entities came together to impress upon those still left in the danger zone to evacuate. Unfortunately, more than 100,000 people remained in the danger area because of various reasons. In this piece, the author will examine Protective Action Recommendations, proper and poor risk communications, and the need for emergency management officials to keep the pulse of those that they serve.

Key words: protective action recommendations, communications, FEMA, NOAA, New Orleans, Katrina

PRERISK COMMUNICATIONS

Within the emergency and disaster management field, we know from experience that if we cannot communicate with the public, then our entire program is a huge waist of money, effort, and time. In this three-part series, we will discuss risk communications, protective action recommendations (PARs), and the challenges thereof. We hope that you are able to identify with some of the scenarios and will put the suggestions to use.

What to tell the public during the off season?

“No news is good news” is often an adage that is used to portray the instability of our society; however, in the field of emergency and disaster management, this is simply not the case. Emergency managers (EMs) need to have constant contact with the people they are sworn to protect.

Today’s society could be dubbed the “information age.” The Internet is a part of every facet of our lives. During times of crisis, it is not uncommon for the public to be extremely inquisitive, often delaying the adoption of PARs. Providing the public with the Saffir-Simpson, Fujita, Richter, and Modified Mercalli Scales allows them to feel like they have enough comparative information to decide if they should adopt any recommendations from EMs. Education is the key to preparedness. Informing the public before an event occurs, with data, tips, and tools, is as important as responding to an event.

Off-season communications allow us as EMs to provide training and prevention measures as well as other resources that will allow the community members to remain ever vigilant and informed. “How?” There are a few effective ways to maintain the open lines of communication. Web sites, toll-free hotlines, and monthly publications can aid in the dissemination of important and vital off-season information.

Posting information about mitigation programs, agriculture protection programs, grant opportunities, Homeland Security, and FEMA news is essential toward an effective program of communication. For example, the state of Maryland has a great Web site that is well structured and contains vital local/state information: http://www.mema.state.md.us/MEMA/index.jsp.

We, the professionals in the field of emergency management, are not in the business of preaching;
however, we should concentrate on essential, accurate, and the timely dissemination of information. Communicating with the public when there is no impending emergency allows us to hone our communication skills, build a rapport with the local and national media outlets, and practice our ability to craft specific messages. The more active and involved an emergency management agency is with the community, the more credible and reliable the agency becomes. This will pay off later down the line when PARs are needed to ensure public safety.

**How does credibility factor into risk communication?**

Trust and credibility are the cornerstones of emergency management. Without trust, reliability, and credibility, emergency management may not function properly because of the public’s drive to gather more information about the hazard agent and to self-evaluate the need to take protective action. Drills, media exposure, “predisaster/off-season” print or electronic communications, and other preparedness activities increase the public’s trust of an emergency management agency.

When the public does not fully trust their local emergency management agency, they will waste valuable time attempting to corroborate the claims of the agency. The public will stay at home longer rather than evacuate. They may even completely ignore verbal, written, and auditory warnings. During hurricane Katrina, more than 100,000 New Orleanians remained in the city. Many stayed because they did not believe that anything catastrophic would happen to their city, their community, or their home.¹

**Predisaster messages/communications**

Deciding on effective preevent or preseason messages is one of the best decisions any emergency management or emergency planning agency can make. During my 6 years as a fire fighter for Prince Georges County, MD, I have learned over and over that the planning cycle of comprehensive emergency management should and must continue all year long. As a fireman, we often made “preplans” for various structures. Plans for petrol storage facilities included a preset “hazard vulnerability zone,” “at-risk population” facilities, and environmental hazards (streams, lakes, wildlife, and so on). Planning for what messages to send out, how to send them, and who sends them reduces the confusion and increases the likelihood of public adoption.

Having a point of contact, or premeditative aggressive public message campaign, to which our citizens can turn to for disaster and mitigation information before an event occurs increases the credibility of the agency. Projecting an image of professionalism is essential toward achieving the operational goals of an emergency and disaster management program.

**Protective action recommendations**

A PAR can be defined as “any function, supported by emergency management officials, to protect life safety, personal property, and public health.” Keeping within the context of the definition, we as EMs must be very specific on how we present PARs to the public. PARs should address main life safety concerns and how to protect the public at large.

Here is an actual PAR from the National Weather Service warning the gulf coast during the onslaught of hurricane Katrina.

Note that I had to shorten the PAR down because of space concerns for this segment. I removed a few of the cities that were being warned. Having Jefferson Parish listed will be sufficient for purposes.²

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2. Bulletin - EAS Activation Requested
   Tornado Warning
   National Weather Service New Orleans LA
   836 AM CDT Mon Aug 29 2005

   The National Weather Service in New Orleans has issued a

   * Tornado Warning for Catastrophic Winds for . . .
   Jefferson Parish in Southeast Louisiana

   This includes the cities of: . . . Timberlane . . . Kenner . . .

   * Until 900 AM CDT
* AT 832 AM CDT . . . MANY REPORTS ARE COMING IN
STATING TOTAL STRUCTURAL FAILURE IN THE NEW
ORLEANS METRO AREA.

SEEK SUBSTANTIAL COVER NOW!!! THIS IS A LIFE-
THREATENING SITUATION.

A TORNADO WATCH REMAINS IN EFFECT UNTIL NOON CDT
MONDAY FOR SOUTHEAST
LOUISIANA AND SOUTHERN MISSISSIPPI.

Is this an effective PAR? Well let us look at the
message with the following criterion:

Is the message clear and to the point?

Does the message stipulate a start time
and an end time of the hazard agent?

Does the message recommend clear pro-
tective action?

Does the message state which areas/
counties/parishes/cities are affected?

Does the message rate the type of hazard
agent? (F scale for tornados, Cat scale for
hurricanes, and so on)

If we apply these five simple questions to
the NOAA/NWS PAR, we come up with a
proper, accurate, and informative PAR.

PAR creation

PARs should start with the issuing agency and
the location of the agency. The time/date the PAR is
being issued should also be included in the heading.
Type of hazard agent, intensity of the agent, short
description of the agent, and the projected duration
of the agent are vital information that must be
included in any message. Not including this informa-
tion may cause the public to feel that they are not
being told the entire truth. This will cause them to
doubt the messages and doubt if action really needs
to be taken.

Tips on increasing community adoption of PARs

Many areas may require any PAR to be published
in different language. For example, my parents have
a house in the hills of Pennsylvania where some of
the residents speak German. Effective EMs should take
cultural diversity into account when drafting emergency
messages.

During the off season, it is important to build a
rapport with the local and national media outlets.
When an event occurs, media agencies will be critical
toward distributing timely, factual information.
Radio, TV, and print media can be used to reach the
target audience. Street signs, door to door sweeps,
and the use of first responders are extremely effective
ways to disburse a specific message.

PAR planning tips

It is important for EMs to anticipate the risks
associated with PARs. These risks should be identified
during the planning process. The role of emergency
and disaster management entities discussing and pre-
planning PARs is vital toward the eventual safety of
life, limb, and property. The US Nuclear Regulatory
Commission states that “Nuclear power plant person-
nel are required to report the PARs to the State or
local government agencies (within 15 minutes of an
event or incident at a facility). State and local officials
make the final decision on what protective action is
necessary to protect public health and safety, and then
relay these decisions to the public in a timely manner
(normally within approximately 15 minutes).”

Determining what PARs will be issued for a spe-
cific hazard agent during the off season will allow for
the quicker adoption and dissemination of informa-
tion. It is vital that EMs know what they are going to
say before they have to say it; however, not everything
has a text book answer and actions need to be flexible
and adaptable. If EMs have prepared language for
PARs, life can be made a lot easier.

TYPES OF PARS

Shelter in place tips

Shelter in place is the term used to identify a pro-
tective action for the public that includes sheltering
in a secure building. During my attendance at the fire department’s hazardous materials operations class, we were taught a very important lesson: The best way to survive radiation is with time, distance and shielding. During a chemical, biological, radiological, nuclear, or explosive (CBRNE) attack, one of the best methods of self-preservation is to shelter in place. Stay inside, lock the doors, and close the windows. Turn the heating and AC off. Use duct tape and plastic sheeting to cover the doors, windows, vents, and all electrical and light switch outlets and external openings to internal plumbing. This will lower the air exchange ratio and allows for increased shielding from a CBRNE attack.

Contraflow operations

Contraflow operations are a logistical and financial nightmare. Ensuring that police/fire/EMS units are located on every “on” and “off” ramp to ensure continuity of the contraflow operation and to provide fuel, first aid, and tow-truck services every 30 or so miles along the evacuation route(s) and then paying for it all. It can be very expensive, but very vital toward mass evacuation of an area.4

When setting up contraflow operations, emergency management should include several factors in its plans. Establish a written Memorandum of Understanding with an EMS provider to provide EMS services in predetermined areas along the evacuation route (ER). Take into consideration that some vehicles will run out of gas during the trip. Ensuring that there are fueling stations along the ER will minimize any stalled and abandoned vehicles that will cause significant delays. Take into account that broken down vehicles will slow the evacuation down significantly (Figure 1).

Evacuation shadows

What is an evacuation shadow? An evacuation shadow can be defined as “people who are not at risk, adopt the PAR for those impacted by a hazard agent, and unnecessarly evacuate.” This phenomenon is usually associated with an evacuation because of an unknown or unfamiliar hazard agent, such as a nuclear power plant incident or chemical release. Having people who do not need to evacuate and flood into the main stream process increases not only congestion but also the psychological stress that is experience. One way to reduce the occurrence of an evacuation shadow is with proper, timely, and accurate information. People who have the knowledge to understand and grasp the situation or the feeling of being informed are less likely to make rash decisions.

At-risk populations

At-risk populations are very tricky to manage. In my professional opinion, every local/state emergency management agency should have an “at-risk population” facilitator. Usually when we think of “at-risk populations,” we only think of the elderly, the infirm, and the incarcerated.

At-risk populations encompass tourists, homeless/transient populations, mental institutions, hospitals, jails, and assisted living/nursing home facilities and special needs schools. When deciding PARs, we must be very aware that it will take more time and specific recourses to evacuate the at-risk populace than it would to evacuate the normal population.

The designation of at-risk populations should be determined early during the planning process. It is vital not only for agency credibility but also for life and health safety that at-risk populations and the logistical support behind evacuating/caring for them are properly discussed and decided upon prior to the onset of any specific hazard agent.

CONCLUSIONS

By taking the time to read and identify these essential strategies for the efficient mitigation of manmade hazards in response to an event of national significance, it is hoped that a sense of understanding is reached and noted for the need for open communications.

The age old adage of “practice makes perfect” cannot be reinforced enough. Preparing possible PARs for release before they are needed not only reduces the stress level on the EMs but it also allows for the successful distribution of information in a timely manner. Successfully crafting protection action recommendations (while taking risk communications into
Figure 1. Metropolitan New Orleans Contraflow Plan.
account) is the first step toward protecting the public at large.

As with the all-hazard approaches toward emergency management, communicating the risk to the public, without sending them into a mass panic, is essential to saving life, limb, and property.


REFERENCES

Figure 1. Metropolitan New Orleans Contraflow Plan (continued).