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MASS MEDIA AND DISASTERS

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Introduction

Disaster researchers and emergency management officials often disagree about many facets of the disaster experience. Like the earthworm and the giraffe, it is often difficult for them to see eye-to-eye. Researchers sometimes become upset with tradition-bound practitioners who seem incapable of not making the same mistake over and over again. Meanwhile, emergency management officials often become either bemused or furious with theoretical, pipe-smoking, naive, eggheads who would not know a real-life, honest to goodness, disaster problem if it came into their Ivory Towers and bit them in the ankle.

There is at least one issue, however, about which researchers and officials seem to agree, and that is their mutual love-hate relationship with the mass media and its activities and coverage of disaster events. On the one hand, both groups have great expectations for the media and see it as a valuable element for distribution of needed information during the time of disaster. On the other hand, they are often frustrated, disappointed, and disturbed at both the media's newsgathering procedures, their content and their impact. Fascination and frustration, delight and despair, appreciation and anger all highlight the nature of both researcher's and official's relationships with the media.

It is understandable that the mass media is a somewhat emotional issue in the disaster business, because disasters are very big business for the media. Part of the fascination with disasters can be found in

the book publishing and motion picture industries. Writers, publishers, screen writers, producers, and directors have used the crucible of disaster as a setting for the espousal of tales of tragedy, chaos, suffering, love, and courage acted out by a menagerie of heroes, villains, fools, cowards, and scoundrels. Researchers have long noted that these portrayals are one source of widely-accepted myths about disaster (Quarantelli and Dynes, 1972; Wenger, 1975; and Wenger, 1980). (For an analysis of the content of disaster films and a discussion of the methodological issues involved in studying them, see Quarantelli, 1980.)

Our major concern, however, is not with the media of film or books. The major interest in the relationship between the mass media and disasters centers around electronic and print journalism. Disasters are a significant source of news. In fact, it has been estimated through empirical analysis that about 25 percent of all news stories involve natural disasters, technological hazards, or civil disorders (Gans, 1979).

Why is this the case? Well, it is possible to argue that the mass media are interested in "good stories," and that disasters are a natural source of colorful, gripping yarns. (One must remember that news reports are called "stories.") Also, in the case of television journalism, disaster coverage usually allows for "great visuals," i.e., colorful, attention-grabbing film coverage (Epstein, 1973).

While the preceding reasons may have some validity, it can be strongly offered that the primary reason we see so many disasters in news accounts is because they are a reliable source of news that is generally easy to cover. It must be remembered that the producer of an evening, network

news program must fill about 22 minutes of air time with actual news.
If it is a slow newsday, or if transmission of other stories is disrupted,
there is always a disaster to report on from somewhere. In addition,
for both electronic and print communication organizations, disasters
are viewed as being relatively easy to cover. The media organizations,
have developed patterned, routinized procedures for creating news and
covering events. For example, television likes to cover disasters. All
it takes is a film crew or two, a public shelter where victims can be
photographed, a few shots of rising water, destroyed homes or trailers,
some high surf, and an authority figure to _interview and you have one
minute and thirty-seconds of dynamite, visual coverage.

The quantity of disaster coverage by the media, therefore, is quite
extensive. But, what of its quality? Why do both disaster researchers
and emergency officials simultaneously love and hate it? The answer
to this question is deceptively simple; the mixed response results from
the fact that there are both positive and negative aspects of media
coverage. In many ways, for both researchers and officials the mass
media are seen as both friend and foe during disasters.

Of course, this answer is deceptively simple, because it must be
noted that there are very few areas of disaster behavior that are more
debated and discussed -- and for which there is so little empirical
research -- as that of the media in disasters. Members of the research
community have not done a good job of providing practitioners with empirical
findings and policy implications regarding the media. In 1980 a National
Academy of Science Committee on Media in Disasters conducted an extensive

overview of the field and concluded that very little was known. In fact, they noted that knowledge gaps existed across the board, in all areas of concern (National Academy of Sciences, 1980).

Of course, our knowledge base in this area is not nil. The Disaster Research Center has produced a number of studies that constitute more than one-third of our knowledge in this area (e.g., Adams, 1965, Stallings, 1967; Brooks, 1970. Quarantelli, 1971; Waxman, 1973; Kueneman and Wright, 1976; Hannigan, 1976; Quarantelli, 1980; Quarantelli, 1981; and Green, 1983). Other noteworthy research efforts involve the work of Turner and his associates (1980 and 1982) on the role of local news media in earthquake prediction and warning situations. Nimmo recently completed an analysis of the television network coverage of the accident at Three Mile Island. He observed that the three networks each gave the incident a different thematic emphasis, ranging from CBS's treatment of a "techno-logical crisis" to ABC's portrayal of a Draculan drama (1984). Goltz (1984) also has recently undertaken a content analysis of coverage of four earthquakes by two southern California newspapers. These efforts, along with the overviews by Kreps (1980)and Larson (1980) constitute a considerable portion of what we know, empirically, about disasters within the United States.

Cross-culturally, Scanlon in Canada has been engaged in ongoing empirical studies of the media in disaster (e.g. Scanlon, 1979 and 1980). McKay (1983) recently undertook a content analysis of newspaper reporting of bushfires in Australia. Finally, the Disaster Research Center has completed a joint project with a team of Japanese researchers on the

operation and output of local media organizations in disasters (forthcoming).

Based upon this information and other material, let us highlight some of the problems that are often voiced by both emergency management personnel and disaster researchers with respect to the media. In other words, let us first examine elements of media coverage that result in the mass media being viewed as a foe. Second, we will consider the positive, beneficial elements that are involved in media coverage that result in it being viewed as a friend. Third, we will offer some brief observations on the issue of the operation of EOC's, Rumor Control Centers, and the need or advisability for centralized information distribution during disaster. Finally, a few observations on the future nature of the problem will be given. While most of these remarks will deal with the past and present, we must also consider some elements that will influence the relationship between emergency management and media coverage in the coming decades.

Let us first examine some of the major problems that both emergency personnel and disaster researchers have noted with media operations and coverage during disasters.

The Media as Foe

Emergency management personnel have often expressed dismay and frustration with the role of the media in disasters. Although a number of problems could be noted, let us just highlight a few.

1. The Grenada Fantasy

When the United States government invaded the island-nation of Grenada, the media were not initial observers of the action and were

only allowed (or in some instances contrived) to cover the event after

most of the operational decisions and actions had taken place. This

"lockout" of the press stimulated a cry of outrage from media representa-

tives. However, there must have been a few emergency management person-

nel who felt somewhat envious of the military commanders who were able

to carryout their action without the probing eye and scrutiny of media

representatives to worry about.

Often emergency officials perceive the media as complicating their

mitigation and response activities. It has been noted that things might

be better if the media were not present, as Scanlon has noted to "record

their actions, question their decisions, and air the remarks of their

critics" (Scanlon et. al. 1985: 123). Simply put, paying attention

to the media is often viewed by emergency officials as not paying attention

to more pressing matters, such as evacuation, sheltering, search and

rescue and casualty care. At times, life would be simpler without them.

Part of the problem, of course, results from the second major difficulty.

    2. The Who, What, When, Where, Why, How, How Much, and How Many
        Syndrome

Reporters are trained to ask for specific, detailed "facts" about

any story. They will often pressure local officials and emergency person-

nel for "exact figures" on loss of life, injuries, property loss, social

and economic distruption, and the amount of expected aid. Furthermore,

they are quick to ask "why" and "how" such an event could happen,

particularly in the case of technological disasters.

Unfortunately, these questions are often posed early in the emergency

period, and accurate answers to them may not be known for weeks. Under

pressure to answer, officials often offer estimates that may or may

not prove to be accurate, state that they do not know, which may raise questions about their competence, or attempt to somehow placate the media. Regardless of the response, the concern that must often be paid to these issues may divert the attention, of the media representatives, and also of the emergency personnel from serious, but less easily reported concerns, such as communication, coordination, and control activities.

3. The Fortress Mentality

To emergency personnel in disasters, it may often seem as though they are under siege from the media. Particularly in the case of an event that attracts national media attention, literally hundreds of print and electronic journalists and their assistants may be at the scene. In addition to the local media, these organizational representatives have needs -- and they expect the local emergency personnel to fulfill them. Some of the needs are physical, such as adequate lighting, power sources, and work space. Others are processual, such as an experienced press representative or spokesperson. Not only may these demands create considerable stress upon local officials, but the media representatives often seem to have a "pack" mentality. Working in groups, they often seem to surround and overwhelm local officials. In fact, sometimes the stress of satisfying and facilitating the media can result in a fourth problem (See Scanlon, 1985, for a discussion of these issues).

4. The What Happened to our Planned, Emergency Response System Problem

If media demands upon emergency officials become extreme -- in a quasi-worst-case scenario, they can actually result in the disruption

of the emergency management system. (This condition is most likely
to result when adequate planning for including the media in the response
has not been provided, and when other elements of the disaster are severe.)

For example, the Commonwealth of Pennsylvania had a proposed emergency
response system for an accident at fixed-site nuclear facilities prior
to the accident at Three Mile Island. Basically, the plan centered
around the major coordinating role that was to be performed by the
Pennsylvania Emergency Management Agency. Actually, the system was
implemented and functioned somewhat as planned throughout the early
phases of the accident. However, by the later stages it had been abandoned.
Not only did ultimate control reside with other state and federal authorities,
but the entire system had evolved into that of "emergency management
by press conference." Under the stress of monumental media attention
and demands, state and federal authorities centralized all decisions
and information-distribution within the Governor's office. This alteration
effectively isolated the state's emergency management system not only
from active involvement in decision-making, but also from the receipt
of information. Local and state emergency management officials, who
had planned to be centrally involved in the response, often found it
necessary to listen to radio and television press conferences in order
to find out what was happening (see Dynes et. al. for a discussion of
the emergency response problems associated with the TMI accident, 1979).

Before turning to some of the media criticism that has been voiced
by disaster researchers, allow us to note that many of these problems
result from a lack of adequate planning on the part of emergency officials

for assisting and integrating the mass media into their expected disaster response. Furthermore, they are based upon a lack of understanding of how media organizations operate. More will be said about this shortly.

If possible, disaster researchers have been even more critical of media activity in disasters. Since the time of the earliest studies of the National Academy of Sciences and the work of Fritz (1961), through the work of the Disaster Research Center and the criticisms of Quarantelli and Dynes (1972), to the studies of Turner (1982) and Wenger et al (1980, 1984), researchers have argued that the media contribute to a number of serious problems associated with disaster response.

Most of the criticisms focus upon the content of the media, i.e., the images portrayed to the audience by the words, photographs, sounds and pictures of the electronic and print media. Simply stated, it is argued that the content and reporting of the mass media present a distorted, mythical, perhaps inaccurate, depiction of actual disaster behavior. It is argued that the media distorts reality by focusing upon the atypical event and individual, and thus making them appear to be typical, by focusing only upon the scenes of destruction, by "framing" the news story within preconceived notions of what should occur, rather than what is actually occurring, and by focusing upon the most dramatic, visual, or exciting elements, as opposed to perhaps the most significant elements.

Generally, researchers argue that media content tends to overemphasize the chaotic, non-social, irrational, and non-traditional aspects of the event. Among the number of problems identified are the following:

5.   The Media Perpetuate Myths About Disaster

Decades of disaster research have found that many popular images
of disaster behavior, though widely believed, are in fact inaccurate,
i.e., they are myths (see Quarantelli and Dynes, 1972; Wenger et. al.,
1975). For example, it is known that panic is a very rare phenomenon
in American disasters. Mass panic is so rare that the few verified
events are somewhat historical milestones, e.g., the Iroquois Theatre
Fire. The problem is not usually panic, it is exactly the opposite,
i.e., getting people to move!

The mass media, however, appear to be somewhat preoccupied with
panic flight. Journalistic accounts of panic often involve an overdose
of literary license in the reporting of orderly evacuation. Furthermore,
even the accurate reporting by journalists may serve to perpetuate the
panic myth. For example, in general "nonevents" are not reported as
news. Therefore, the myth of panic is solidified when accounts note
that "there was no panic in this instance" (Turner et. al., 1979).

Let's consider looting. Empirical studies have found that, like
panic, it is a relatively rare phenomenon. (A number of social forces
emerge during the emergency period of disaster that work against the
development of looting. See Quarantelli and Dynes, 1970 for a discussion
of these social forces.)

Although police records support the observation that looting is
rare, reports of looting are common and spread widely via the media.
At times the media will report rumors of looting as actual looting.
On other occassions the media will accurately report that social control

provisions have been undertaken to protect against looting, without reporting that no looting has occurred. In addition, looting during riots and marginal disaster situations, such as power blackouts, has been widely reported; therefore, the public may generalize this pattern to other, superficially similar, community emergencies. Similarly, counter to popular opinion, the crime rate does not increase during the emergency period of a disaster. In fact, it does the opposite.

If this discussion indicates that wide-spread social chaos is not an element of disaster, it must also be noted that the common, popular image of the victims is also in error. The stunned, shocked and paralyzed victim constitutes one of the most graphic and potent images of disaster. This belief is fostered by dramatic news and human interest stories of disaster victims who are pictured as immobilized and uncomprehending of their fate.

These, and other disaster myths, are not only perpetuated by the media, but can also have serious, negative consequences for emergency response. For example, they can result in the inefficient allocation of resources and in unrealistic demands and expectations being made by members of the public upon emergency officials.

Recently, researchers have undertaken content analyses to determine if, and to what extent, the media do portray mythical behavior. Goltz (1984) has argued that the media are not major disseminators of disaster myths. His analysis of newspaper coverage found that only about 6 percent of all behavioral sequences reported were of an emergent, maladaptive nature. Wenger and Friedman (1985), however, have taken issue with

this conclusion. They note that their analysis of newspaper coverage
of Hurricane Alicia at both the local and national levels did perpetuate
myths. The difference in findings may result from different methodologies.
Goltz relied solely upon a quantitative content analysis. Wenger and
Friedman combined quantitative measure with a qualitative analysis that
examined placement of the stories, general themes, etc. For example,
while it was found that only a minority of all stories mentioned looting
or criminal behavior, the few that did were given prominent placement
within the newspaper. In addition, it must be noted that both these
studies are limited in that they studied only the print media. In fact,
researchers have long argued that the electronic media, particularly
television and the motion picture industry, are far more likely to present
mythical images than their print counterparts.

6. The Dresden Syndrome

Related to the charge of mythical portrayal, there is the accusation
by researchers that the media tend to distort the extent of physical
damage, human loss, and social disruption associated with a specific
disaster. Generally, the electronic and print media accounts overstate
and exaggerate the scope of impact and destructive effects of disaster
agents. In effect, they make every community hit by a tornado look
like Dresden during World War II.

There are a number of reasons for this distortion (See Quarantelli
and Dynes, 1972). Initial estimates of deaths and injuries will be
duly reported, but these may be excessive. Later, more accurate accounts
will be buried in the back pages. In addition, news films and photographs

focus upon the scenes of destruction, not upon the surrounding area adjacent to the impact zone. By focusing upon the destruction that occurred (i.e., by "shooting bloody"), the audience may be drawn to conclude that a tornado, for example, destroyed an entire community rather than a few blocks. Furthermore, the "human interest story" is a staple element in disaster coverage. Through the use of such stories the media can distort reality. These stories detail the plight of the individual who has been "wiped out" by the disaster, who has lost their family, or suffered great misfortune. Of course, such individuals are covered by the media because they "stand out" from the other victims. However, these atypical cases are often presented as if they were the typical or modal response, i.e., as if they were representatives of all victims. Death, economic loss, human suffering, and social disruption are the standard themes in the media's portrayal of disaster.

7. The Convergence Phenomenon

Related to the image of total destruction is the problem of material, informational and human convergence upon the disaster site. Social scientists have long recognized that convergence is one of the more serious problems in any disaster (Fritz and Mathewson, 1957). Through nonspecified calls for aid and by stressing what has been destroyed in the impact area, the media's coverage may result in the disaster site being inundated with tons of unneeded and unwanted clothing, supplies, and material. Furthermore, communication and information overload upon local systems may occur as those outside the impact area attempt to make contact with the community. In addition, volunteers may also be motivated to converge upon the scene, along with sightseers and

others, and thereby create traffic congestion and problems of controlling human convergence.

8. The Command Post View of Disaster

Quarantelli (1971) has argued that during emergencies the media tend to rely very heavily upon "official sources" for news. Of course, during nondisaster periods the media also rely upon officials, however, during times of disaster there is a heavy reliance upon emergencies officials who would appear to provide the media with "authoritative sources." Officials during a disaster, of course, can be found in the Emergency Operations Center, or the Command Post. Problems, emerge, however, because this "command post" view of the emergency can distort the media's coverage of the event.

Specifically, what is covered is the "official view" of the disaster and the activity of formal, traditional emergency organizations. While the activities of these organizations obviously are critical to disaster response, this coverage pattern presents a biased view of human response to disaster. For example, it tends to ignore the ephemeral, emergent activity that often is the essence of disaster response. The activities of individual victims and those from the "filter area" are often missed in media coverage. Emergent search and rescue networks, ad hoc, collective attempts at damage assessment, and other activities undertaken by the victims themselves tend to be ignored. The resulting picture is one of helpless victims who must rely upon traditional organizations to respond to the disaster. The critical role played by emergent groups is ignored by the media.

9. The "If its hard to cover, let's ignore it" Problem

The media are often criticized for focusing upon dramatic events that are easy to cover. Events that are concentrated in time and space, provide for excellent visual footage, and can be encapsulated within a 90 second story are the essence of electronic journalism. For example, crime and political events, fires and collisions are the stuff of local news. More complex, slowly developing, diffuse issues, however, are often ignored. Changes in the distribution of employment opportunities within the economic system, issues of foreign investment and the role of multinational corporations, and analysis of changing ideologies are not the standard news story.

A similar criticism can be leveled against the media with respect to disaster coverage. Rapid onset, highly destructive, focused events are covered. Therefore, a steady diet of tornadoes, fires, hurricanes, storms, transportation accidents and explosions is presented to the audience. Slowly developing, diffuse disasters, however, are relatively ignored, even though they may be potentially more devastating than those that are covered. For example, it has taken the mass media years to discover that a monumental drought and famine are occurring in sub-sahara Africa. While this event has been of concern to relief agencies and governments for years, the public easily may have the mistaken notion that the problem is rather recent. Actually, its current escalation to a "media event" was somewhat fortuitous and involved the happenstance meeting of a BBC film crew with a refugee feeding station. Part of the problem, of course, is structural. The networks and world-wide television systems have limited numbers of

film crews and correspondents, most of whom are on domestic assignment. Coverage of other types of events, therefore, is limited by economic, structural and political factors (Epstein, 1973). Nevertheless, even though a disasterous condition may be significant, if it is difficult to cover, the media will tend to ignore it.

10. The Biased Coverage of Third World Disasters Issue

Related to the previously noted problem, researchers have also claimed that the western mass media are biased in their coverage of disasters that occur in the Third World. Gans (1979), for example, has charged that American media tend to present a distorted image of disasters in developing countries by focusing upon the amount of devastation, highlighting corruption and difficulties in emergency management, and generally presenting a picture of people and governments being overwhelmed by the events. Furthermore, they are likely to focus upon such disaster myths as panic and looting in their coverage. The resulting picture if one of inefficient mitigation, preparation and warning activities being matched by nonresponsive activity by both organizations and individuals.

Goltz (1984) has recently verified these charges in an empirical examination of how two American newspapers covered two foreign disasters. Also, Wenger and Friedman (1985) have also observed that these elements are the essence of foreign coverage of disasters as carried over the wire services and used by one newspaper.

To this point we have noted some of the problems voiced by both emergency personnel and researchers with regard to the activities of the media in disaster. However, it would be a serious mistake to

only view the media's activities from a negative perspective. In fact, it can be argued that overall, the media are anything but a problem. Actually, their absence can cause serious problems for disaster management and response. Information distribution, for example, is of utmost importance in effective disaster management activities; without the presence of the mass media the task is made incredibly difficult. Therefore, there is also a "love" component to this relationship.

The Media as Friend

Scanlon (1985), Kreps (1980) and a number of observors have noted the important, positive role that the media can perform in a number of areas throughout the disaster period. (Although Scanlon and Kreps do not err in this regard, it should be noted that there is a tendency on the part of some observors to overstate the importance and effect of the media in many of these activities. For example, interpersonal communication is critically important in the distribution of warnings, public education material, and general information about disaster. In fact, considerable research has shown that interpersonal communication is a more important factor than media coverage or exposure in determining individual opinions and behavior with regard to many issues (Davison, Boylan and Yu, 1982; McQuail, 1983). Therefore, even in these cases the role of the media must not be overemphasized.) Among the areas are the following:

1. Pre-disaster Public Education Programs

The mass media, if utilized correctly, can be a valuable tool in public education programs concerning disaster prevention and mitigation. Wenger, James, and Faupel (1980, 1984) have found that the mass media

are the most salient source of information about disasters for members
of the public; even for those members of the public who live in traditional,
disaster subculture communities. As such, they are an important source
of mythical knowledge about disasters, however, they can also be a source
of correct information.

The Federal Emergency Management Agency, for example, has recently
attempted to assist local emergency management officials in better utilizing
the local mass media in this regard. However, to be effective, the
public education messages broadcast or published must be targeted at
specific audiences in an increasingly fractured audience.

2. The Role of the Mass Media in Warning Dissemination Systems

Disaster researchers have studied the role of the mass media in
producing a successful warning process. When the media are used as
a conduit for the dissemination of clearly written, authoritative, and
consistent warning messages, they can be a highly effective element
in producing an appropriate response. Of course, the mass media's role
in warning systems must be viewed as compatible with interpersonal channels.

3. The Role of the Mass Media in General Information Distribution

The electronic media, particularly radio and to only a slightly
less extent television are key elements that must be utilized by emergency
planners in their preparation for any local disaster. Local radio and
television stations have the approval of the Federal Communication
Commission to extend their broadcasting hours and even offer person-to-
person and point-to-point communication during disasters. In fact,
in communities without a viable local media system, information distribution
to the affected victims is often severly limited and may have a detrimental
effect on emergency response. At times emergency officials, and not

just the public, must rely upon the information from the mass media.
When prearranged communication systems falter, officials must often
turn to the media for necessary information for coordinating their response.

4. The Mobilization of Outside Assistance

Previously we noted that the media may contribute to the problem
of unneeded convergence upon the disaster site. However, they are also
an important linkage between the local disaster area and the outside
world. When the media are utilized to disseminate specified, focused
requests for aid, they can be a vital source of effective response.

Although other important functions of the mass media could be noted,
at this time let us turn to a related issue, i.e., the necessity and
advisability of centralizing all information distribution to the media.

Centralized Information Distribution for Media Representatives

There is a standard wisdom within the emergency management field
that is advisable, if not necessary, to centralize all information dis-
tribution to the mass media. Usually the Emergency Operations Center
is viewed as the legitimate locus for such activity (Bernstein, 1983).
The "media circus" that surrounded the Three Mile Island accident is
often pointed to as an example of what can go wrong if this centralization
is not done. By clearing information, controlling what items are released,
utilizing trained public relations and media personnel, and filtering
all information through one authoritative source, it is felt that rumors
will be limited, conflicting and inaccurate information not disseminated,
and public and official action will be maximized.

There is obviously some merit in this proposal. For one thing,
the media expect that press briefings information officers, and a media
center will be provided for them. As we noted previously, the representatives

of the mass media tend to have a "command post image" of disasters anyway,
and this proposal is consistent with their expectations. Furthermore,
media personnel are very cooperative with each other. It is not that
they are overly concerned with scooping their rivals. As Scanlon (1985)
notes, they are more concerned with not being scooped. In addition,
the proposal appears to have the advantage of controlling information.
In particular, it is hoped that this arrangement will result in only
consistent information being distributed. Finally, in addition to con-
trolling information, it is offered that centralization can, implicitly,
control the mass media.

There is, however, another side of this issue. No emergency management
official is going to be able to control the media. Mass media organizations
cover disasters generally the same way they cover other stories. Reporters,
correspondents and journalists do not rely only upon one source in their
normal coverage. Local reporters have a variety of reliable sources
that they utilize in constructing the stories that they call news (Sigal,
1973; Tuchman, 1978; Epstein, 1973). They will continue to use multiple
sources during the disaster. If Fred, the janitor on the second floor
of City hall, is normally a good source of news, there is not reason
for a reporter not to turn to him during the disaster.

Similarly, members of the public do not rely only upon one source
of information during normal, non-disaster periods. They seek a variety
of sources, some from the electronic and print media, some from their
friends and family members, some from any source they can contact.
They will continue to do so during a disaster. This idea of a "market
place of information" generally describes the normal, problem-solving

patterns of communication in most communities. While the disaster situation may concentrate some problems and their solutions in time and space, it is not a different problem-solving process per se from what normally occurs.

Therefore, while it may be advisable to establish a media center with trained public relations personnel and attempt to collect and disseminate information from one authoritative source, it is naive to think that this procedure will truly centralize all information, stop rumors, or increase the credibility of emergency officials. Both the media representatives and the public will still rely upon their normal sources and opinion leaders, in addition to the official ones. Normally, information within a community is not centralized and then distributed to all involved. There may be a number of reasons for not imposing too artificial an arrangement during the disaster. If one of the cardinal rules of disaster planning is that the planned response should be "normalized" to the ongoing social patterns of the community, then centralization of information distribution should be taken with great care (Dynes, Quarantelli and Kreps, 1973). (Actually, emergency personnel and organizational officials probably benefit more from centralized information distribution than anyone else during the disaster.)

The issue, however, is somewhat complicated, because one must consider the difference between the local and national media. For the local media with their preestablished patterns of coverage and traditional sources, the centralization of information may not be crucially important. For the national media, however, it is probably advisable.

At this time let us turn to our last issue and consider future media operations in disaster.

A Few Observations on the Future of Media Operations in Disaster

The future will be even more complex with respect to this issue than it is today. Basically, let us discuss three basic trends in society that will directly effect media activities in disaster. (This listing is not exhaustive, but these are examples of three, major trends.

1. Changes in the Nature of Hazards

As we enter the 21st century, all of the old disasters will still be with us. Those natural hazards that are part of our world will still be shaking the ground, drowning the land, and destroying property. However, new hazards will increasingly be added to our problems. In the future, technological or "human generated hazards" will occur in increasing abundance. Toxic spills, nuclear accidents, explosions, chemical hazards, massive power grid failings, and disaster fires in high population density settings are just some of the modern, future disasters.

The problem is that media reporting and involvement in technological disasters is more problematic than it is in natural disaster situations. Increasing technology and its sophistication present problems. For example, during the Three Mile Island accident one of the difficulties was that media representatives lacked technical knowledge and mastery of nuclear jargon to understand and report what was occurring. (Of course, with respect to this crisis, it is still uncertain if anyone knew what was happening!) For emergency managers, this problem requires having expert, technical assistants who can translate technical information into a form that is usable by the media.

With regard to technological hazards, the interface between emergency management officials and media representatives can also be made more

complicated because of such auxilliary issues as the assignment of responsibility and blame. The media is likely to be concerned with fixing responsibility for the disaster; issues of liability and blame place the event within a different, conflict-oriented context. An adversarial relationship may develop between media representatives and emergency management personnel as the former engage in "investigative reporting" that appears to be callous "snooping" from the perspective of the latter.

2. Changes in Media Technology

Twenty-first century mass media will include technology that presents qualitatively different problems than those we have faced up to now. The continued expansion of cable television, and its supplanting by direct satellite access, will blur the distinction between local and national media. Even today it is possible to sit in Newark, Delaware and see tornado warnings on your television screen for areas, such as Atlanta, hundreds of miles away. Problems of coordination and public response to warning messages may become very complex due to this expansion of scale.

The technological structure of the media organizations will undergo continued change. Micro-wive transmission, satellite bouncing, and other devices that were esoteric just a few years ago are now becoming standard operating equipment, even in smaller media markets. Generally, these devices allow for more rapid dissemination of information and are more portable than traditional technology. As a result, on-the-spot coverage of disasters may increase and so may the difficulties experienced by emergency officials in responding to the media.

Two-way cable television, computer networks, and the continued expansion of home information utilities offer new areas for emergency response planning.

For example, the technology exists at the present to institute personalized, interactive warning systems within the homes of areas surrounding hazardous sites. The technology is here, the problem is one of money, authority and responsibility. Therefore, the future technological developments offer both potential benefits and problems for emergency management.

3. Changes in the Mass Communication Audience

About a decade ago Richard Maisel (1973) noted the deline of the mass media. Maisel argued that as we move past the period of the industrial society to a post-industrial work, we are also moving away from massive, mass communication systems that simultaneously reach a vast, heterogenous audience to high specialized media that attract a highly fragmented, specialized audience. This trend was first apparent in the areas of radio and magazines. Both of these media evolved to highly specialized formats to attract highly fragmented audiences, be they teenagers, golden oldie listeners, model railroaders, sports enthusiasts, or coin collectors. The radio networks, mass circulation magazines, and general format radio died over a decade ago. Television, with the leadfoot of cable television on the throttle, is rapidly undergoing the same process. The television networks have a decreasing share of the total audience as many people avail themselves of the highly specialized programs available through cable, such as ESPN, MTV, and various subscriber services.

As a result of these trends the audience of the future should become even more fragmented. Even at the local level it will be increasingly difficult to reach a massive, general audience. Emergency managers must be cognizant of this trend and prepare for ways to overcome this barrier to the massive dissemination of warning messages and disaster information.

What hopes can we have for the future? Ideally, we will have a system in which the mass media no longer disappoint us in which their portrayal of disasters is accurate and effective in aiding response.

This idyllic view of the future will only be possible if there is increased planning, cooperation and network among emergency management officials and respresntatives of the mass media. Currently, in most communities there is very little, if any, planning for integrating the media into the system's disaster response. In fact, many of the problems that emergency managers perceive with regard to media activity are actually problems of their inability to fully understand and plan for the media. The mass communication system is one of the most technologically sophisticated and rapidly changing elements of society. It is a 20th Century creature entering the 21st Century. Unfortunately, we often still try to integrate and plan for media activity in disasters by 19th Century ideas and principles. It is not adequate to simply plan to set-up a room and "talk to the press."

On the contrary, integrating the media into an effective emergency response network involves constant planning and active participation on the part of media officials themselves. It also involves an increasing knowledge on the part of emergency officials about how the mass media operate.

Emergency management officials are starting to get some assistance from the disaster research community in structuring their plans for media integration in disaster response. For example, Joseph Scanlon (1985) recently produced an outstanding set of guidelines for planning for media in disasters. It should be required reading for all emergency personnel. Scanlon's proposals include identifying what media may be involved in

disaster coverage and becoming knowledgeable with their needs and operations; establishing the media's potential for disaster response and determining what they can do to aid in the effectiveness of management activities; and collaborating with them in the development of plans. While providing rich detail about specific media operations related to these issues, Scanlon reemphasizes the old maxim of the disaster researchers, i.e., "Make planning a process, not just a product."

If planning for mass media involvement in disasters does not improve, we will continue to have a "love-hate relationship" with the mass communication system. If planning for media activity is not undertaken by emergency managers, then their criticism of the media should perhaps be reserved for the person they see each morning in the mirror.

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