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BEHAVIOR IN DISASTER AND  
IMPLICATIONS FOR THE  
INSURANCE INDUSTRY

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**BEHAVIOR IN DISASTERS AND IMPLICATIONS FOR  
THE INSURANCE INDUSTRY**

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Abstract

In this report we summarize research findings on the general behavior of individuals/households, organizations and communities in the pre-,trans, and post-impact periods of sudden natural and technological disasters. This is done for the purpose of drawing operational implications for those in the insurance industry in the United States responsible for planning and responding in such situations. Since mass media outlets would be one major way for reaching impacted populations, some observations about the operation of local community mass communication systems are provided.

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Introduction

Any policy or program for disasters instituted by the insurance industry has to make assumptions about the pre-, trans-, and post-impact periods of such occasions. Incorrect assumptions can not produce good policies or programs. Therefore, in the first part of this report we summarize relevant findings that social science research has produced about disaster-related human and social behavior. We then provide some observations about local mass media operations in disasters, since using such communication channels would be one major way of trying to reach impacted populations. After that discussion, we conclude by indicating some of the major implications from the research for members of the insurance industry involved in planning for and responding to disasters.

We want to start off with a very simple observation. Practically everyone is willing to express views and opinions about what will or will not happen in disasters. In fact, people do not hesitate in social surveys in stating what they think goes on with respect to behavior associated with disasters (see Wenger, James and Faupel, 1985). There are few claims of not knowing.

In some ways, this is rather strange. Why? Because except for a relative handful of emergency managers and disaster researchers, the great majority of people in Western societies have only very limited direct experiences with disasters. Most human beings will directly undergo only one or two, if any at all, major disasters in their lifetimes. Even crisis oriented organizations and many communities, except those in highly risk prone areas, can go decades without becoming involved in significant disasters. Disastrous occasions are low probability events for any given locality or group, and the statistical chances of being caught in them is rather low for any given individual.

So where do people get their images of disastrous phenomena if they do not base them on personal experiences? Some of the picture they have undoubtedly comes from deeply rooted cultural beliefs that are informally passed on, such as the Great Flood story in the Bible.

But we think a strong case can be made that what average citizens and officials expect about disasters, what they come to know of ongoing disasters, and what they learn from disasters that have occurred, are primarily although not exclusively learned from mass media accounts. In fact, studies indicate that even in communities that have been recently hit by disasters:

the mass media were the most salient source of information...for many of the respondents, the media were not only an important source of information, they were the only source (Wenger, 1980a: 243; see also, Greene, Perry and Lindell, 1981; Saarinen, 1982).

The images we have of disaster phenomena are drawn mostly from the

stories produced by the mass communication system. The expectations almost all of us, including the great majority of people in the insurance industry, have of disasters is mostly provided by mass media news accounts. Recent specific disasters, mostly of a catastrophic nature, that are instantly recognized world wide (Bhopal, Mount St. Helens, Chernobyl, the Loma Prieta earthquake, Three Mile Island, the Bangladesh flood, the famine in Sudan, the Armenian earthquake, Hurricane Andrew, etc.) can be particularly attributed to mass media news reporting (see Patterson and Wilkins, 1988).

At least one point is made and one question is raised if our general assertion is correct. The mass communication system is important. Its reality is our reality. It undoubtedly provides the image of disasters held by most insurance agents. But it can be asked: how accurate is the picture conveyed by such stories?

#### The Research Base

We can discuss this because there is another knowledge base to draw from. Research on the human and social aspects of disasters, both natural and technological, has been done since the late 1950s. Much has been learned on how individuals, organizations, communities and societies prepare for and respond to disasters. We are going to selectively summarize this research-based body of knowledge. While we will draw heavily from the work of the Disaster Research Center (DRC) which has undertaken over 515 field studies of disasters since it was established in 1963 (see especially Dynes, 1974; Dynes, Quarantelli and Kreps, 1981; and Quarantelli, 1984c), we will also consider the findings of others (especially Barton, 1970; Petak and Atkisson, 1982; Kreps, 1984, 1989; Drabek, 1986; Dynes, De Marchi and Pelanda, 1987; Rosenthal, Charles and d'Hart, 1989; Drabek and Hoetmer, 1991).

Our initial remarks will summarize in very general terms what is known from systematic social science studies about disaster-related behavior. For purposes of exposition, we generalize what is known about behaviors at three different social levels, namely the:

- individual/household,
- the organizational, and
- the community levels.

Additionally, we will talk about what is known about the activities of these social entities at different time periods of disasters, namely the:

- preimpact or preparatory phase,
- the emergency or impact phase, and
- the post impact or recovery phase.

When these two dimensions are cross classified there are nine cells as indicated by this table:

LEVEL OF SOCIAL ENTITY	TIME PHASE		
	Pre	Impact	Post
Individuals/ households			
Organizations			
Communities			

Our summary statements attempt to depict some existing mythologies about disaster behavior. For example, the overwhelming majority of survivors of disasters instead of being in a state of passive shock attempt actively to cope with the new situation with which they are faced. They see themselves more as "survivors" than as "victims", and resent what they perceive as paternalistic assistance whether by insurance agents or others. Survivors see themselves and have different expectations of others than do victims.

Our remarks are also intend to convey the social context within which any good disaster planning or response necessarily must take place. For example, people and communities impacted by disasters see the experience as "their" happening, and tend to be somewhat indignant toward and hostile to outsiders seen as trying to take over "their" disaster. Thus, the insurance industry as well as other should use local personnel and resources as much as possible and not be seen as outside persons or groups attempting to usurp the "locals" in the situation. This almost inherent clash between less experienced local personnel and more disaster experienced professionals, which holds for almost any disaster occasion, is simply one of the social realities of such occasions that need to be understood and accepted for appropriate planning and managing of disasters.

#### What is a Disaster?

Now what we or anyone else calls "disasters" is not merely a semantic matter or insignificant. Labels do matter. They affect

what planning will be undertaken, who will undertake it, which groups will respond, and generally how citizens will think of the phenomena. For example, is the AIDS epidemic treated as a disaster? Why or why not? In what way does it make a difference? We believe if these and related questions are thought about, it will be seen that names and labels do make a difference. Thus, it is important to understand our referent of the term "disaster".

The word "disaster" has a variety of technical meanings, legal and otherwise. The American Red Cross defines a "disaster" as an event in which five or more families require immediate assistance, but only if a state declares it can not handle certain specified emergency situations with its own resources can there be a Presidentially declared "disaster". But for most general purposes there would be agreement that a relatively sudden occasion which is characterized by disruption of community life and perceived serious risk to life and property as a result of natural or technological agents, is a disaster. In particular, the social responses have to be different in disasters from everyday coping behaviors.

Now the very severe consequences that recently resulted from Hurricane Andrew raise some questions again about whether all "disasters" can be seen as merely differing in degree. In fact, there has been a persistent and insistent argument in the literature that some "disasters" are both qualitatively and quantitatively different (with more negative consequences) from the general run of "disasters", at least in developed countries. Those researchers who take this position essentially argue that "disasters" are different from "catastrophes" in the same way that the typical community disaster is different from everyday emergencies (see. e.g, Quarantelli, 1991, 1992). For example, in the typical disaster, victims who have to leave their destroyed or damaged homes overwhelmingly go to the homes of friends and relatives. However, in a catastrophic disaster, often those homes are not available for sheltering because they too can no longer be used for sheltering. This was certainly the case in some areas in Florida, such as Homestead, after Hurricane Andrew impacted. It is not a rare outcome in many developing countries where the typical cyclone or earthquake many displace almost all residents of certain communities. If this line of reasoning is correct, what will be true of behaviors in a disaster will not necessarily be so in a catastrophe. This should be kept in mind in assessing what follows for our remarks are basically about the research findings from studies of disasters and not of catastrophes.

On another matter of how to conceptualize disasters, there is considerably more consensus. While not everyone has proceeded in the same way, the vast majority of self designated disaster researchers have dealt with the human and social aspects associated with natural hazardous agents (such as hurricanes, floods, volcanic eruptions, tornadoes, earthquakes, tsunamis, and blizzards) and with risk producing technological agents (such as explosions, fires,

chemical and nuclear plant accidents, electric and energy system failures, biological poisonings, and large scale transportation wrecks and structural collapses). It is of course the social effects not the physical agents which are the essence of any disaster; many instances of the latter have no significant consequences for human activities.

While there are exceptions (see e.g., Baum and Davidson, 1983), most disaster researchers also have not found it particularly useful for study purposes to draw a distinction between so called Acts of God and Acts of Men and Women (e.g., see Smith, North and Price, 1988). The behavioral similarities are far more important than surface differences in the agents involved. Interestingly, populations impacted by disasters are more and more likewise setting aside such a distinction and are increasingly taking the position that other human beings and/or governmental entities have some responsibility for whatever happened, a long run trend that the insurance industry also may eventually have to face directly.

It is noticeable that the events associated with the above occasions are all relatively sudden in appearance and generally have a fairly definable locale or area of impact. Far less studied by American social and behavioral scientists have been the usually more diffuse in time and space kinds of hazardous situations. Examples would be famines, droughts, health epidemics, coastal erosions and subsidence, unhurried spreading of chemical poisonings such as by asbestos, radiation contaminations such as by radon, and climatological pollutions such as acid rain. Slow on-set threats generate some problems and issues not encountered in quick on-set dangers (see Quarantelli, 1987). Since the research base and literature we draw from is primarily about sudden type disasters (for an inventory of disaster field studies in the social and behavioral sciences up to 1980, see Quarantelli, 1984b), anyone from the insurance industry interested in more slowly moving hazards should keep this point in mind.

Even more excluded from consideration by those doing studies in the field are conflict types of occasions, that is, where one or more parties in the situation are consciously and deliberately trying to inflict damage, destruction and/or disruption on others. Thus, disaster researchers on the whole have not taken as part of their immediate subject matter such situations as wars, riots and civil disturbances, terrorist attacks and hostage takings, product tampering and sabotage, and pogroms and massacres (but see Kreps, 1984, for the opposite view). We as well as others do see conflict occasions as one kind of collective stress situation (as discussed in Barton, 1970), and as such there are certain common elements shared with disasters but nonetheless the differences are far more important than the similarities (see the contrast in Quarantelli and Dynes, 1970 and Dynes and Quarantelli, 1973). Disasters are more of a consensus nature type of crisis; there is general initial agreement that the crisis, unlike in conflict types of situations,

ought to be terminated or reduced as quickly as possible (conflict can of course surface in disasters but it is not a basic characteristic of the occasion). While consensus and conflict crisis occasions share certain common elements in that they are both collective stress situations, they differ enough to require separate kinds of planning and managing; they also evoke different views about victims and if they should be helped.

In the main, we will not deal directly with conflict type situations, but simply note in passing that the insurance industry might also want to make more explicit to those insured a distinction between these two types of crisis occasions especially since many policies exclude claims emanating from civil disturbances or riots, for instance.

#### Research Findings About Individuals, Organizations, Communities

Out of the extensive research literature we have pulled out nine general findings, that is, broad generalizations rooted in a body of research studies (see the general references mentioned earlier). Three general themes are each presented for individual behavior, for organizational behavior, and for community behavior. For heuristic purposes, within each set of the three we look at what can be said about the behavior in the preimpact phase, the emergency time phase, and postimpact recovery phase of disasters. While there is reason to think that the reported observations apply in all social systems, they clearly are most applicable in modern societies, the industrialized and urbanized countries in which most of the research has been undertaken.

#### INDIVIDUAL BEHAVIOR.

1. It is very difficult to get individuals/households to be self interested much less concerned about disasters before they happen.

The great majority of people are oriented to the "here and now". As such, the idea of a possible disaster in the future in which they will be directly involved is seen as so remote, unlikely, and uncertain, that the threat does not enter into consciousness, or if it does, is usually quickly dismissed. Human beings are very unlikely to be engaged by something they do not see as personally involving themselves (or what they value such as their family), which is not immediately present, and which is not certain to occur. The ordinary individual and household is preoccupied with day-to-day specific problems of living, and is not concerned with rare possibilities (for a review of the relevant literature. see Drabek, 1986: 320-331). Of course the actual very low probability nature of disasters for individual actors strongly reinforces this orientation; in this sense the behavior is correctly based on a common sense calculation.



Moreover, even when in certain localities there is a recognition and awareness of a potential threat (e.g., as a result of living near an earthquake fault or a hazardous waste site), citizens see disaster planning as primarily a collective or governmental responsibility (Turner, Nigg and Paz, 1986: 80; see also Drabek, 1986: 23). This obligation of the state tends to be seen more in moral than legal terms. To a considerable extent, the passive attitude and expectation that public agencies ought to be taking the lead is indicated by the fact that extremely few persons undertake any kind of specific disaster preparedness in their own households or their places of work (Saarinen, 1982). Given that relatively few people take precautions against fires in their own homes, it is not surprising that even fewer take steps with regard to preparing for an even rarer and collective crisis, that is, a community disaster which may or may not directly involve them.

From an insurance and other points of view, the implementation of personal or family mitigation or prevention measures would be highly desirable. However, efforts in such directions are not likely to be too successful for the just indicated reasons. One consequence is that the planning emphasis for individuals and households has to be laid on short term emergency preparedness and immediate response and recovery activities. The initiation and institutionalization of general mitigatory and preventive actions is best undertaken at another level, such as at the organizational or community levels.

There are two major exceptions to the above general indifference to disasters.

First, in localities which repeatedly experience sudden disaster threats or impacts, an agent specific disaster subculture may develop (e.g., for riverain floods or for hurricanes--see Moore, 1964). In such a setting, many residents will not only be aware of the danger but will have taken preparatory actions (e.g., having built a tornado shelter) and/or will know ahead of time what to do or not to do (e.g., not running out of doors during an earthquake). Of course, not all inhabitants even in disaster subculture area will have been socialized into taking the appropriate behavior. Furthermore, what is important here is not primarily the personal experience of a previous disaster, but rather the development of a shared or collective definition and perception of the situation, namely a subculture. In fact, inhabitants of localities that have disaster subcultures need not have had direct involvement in the earlier occasion--they will learn about the relevance of a specific disaster agent subculture in the same way they learn about other important aspects of their community. Actually even repeated experiences per se of a disaster agent does not automatically generate a disaster subculture among the population of an area; other facilitating conditions are also necessary (see Wenger for a discussion of them, 1978).

However, it should be noted that knowledge about a hazard can make a difference regarding insurance purchase. As one report states, while:

Hazard knowledge was found to be limited among homeowners residing in hazard-prone areas, although those who had purchased insurance did show signs of being more knowledgeable--of having a higher level of information (Drabek, 1986: 353)

Another study noted:

Insured homeowners expect more damage from these disasters than do the uninsured group...Homeowners were also asked to estimate the chances of a severe flood or earthquake causing damage to their property during the next year...The insured homeowners generally have higher estimates of the chances of a severe flood or earthquake than do the nonpolicy holders (Kunreuther et al., 1978: 236-237)

But knowledge of risk is not enough as another study suggests:

Most respondents in the field survey were aware that flood and earthquake insurance existed, but over 60 percent of the uninsured homeowners residing in hazard prone areas said they were unaware that they were eligible to purchase coverage...Approximately 25 percent of the uninsured in both the flood and earthquake surveys were unable to estimate the premium, even when prodded by the interviewer to offer their best guess (Kunreuther et al., 1978: 236).

Second, there is the increasing appearance of emergent citizen groups organized around the possible threat or actual impact of a disaster (sometime these reflect more macro level interests such as those that are involved in antinuclear or proenvironmental social movements). This, as a recent DRC study found, is a relatively new phenomena in American society (Quarantelli, 1984a; 1988a). If people come to define a serious, likely, and probable threat in their immediate neighborhood, and if they judge the local authorities as illegitimately dismissing the concern of residents over the danger, citizen groups typically emerge. These groups, often try to pressure governmental entities to do something about the specific threat. At times this involves attempting to get laws, ordinances or regulations passed to prevent or to mitigate the threat. These informal citizen groups may also at times try to

prepare the local population for a possible disaster from the particular danger involved, although it is not very easy to get people involved (for difficulties in the development of emergent citizen groups concerned with possible earthquakes, see Quarantelli, 1984d). But to the extent such groups are successful, and a few do sometime succeed in a localized area, the awareness and preparations for specific disaster agents may increase substantially in certain neighborhoods of a community. However, the DRC study of more than 50 such groups did not find that any of them advocated the purchase of insurance as a preparatory measure.

It should be noted that both exceptions we have noted--the disaster subcultures and the emergent citizen groups--are collective entities, not aggregations of isolated individuals. This is important because mass public educational campaigns aimed at changing individual behavior do not have much of a success record. The research picture in the disaster area about educational efforts aimed at individual persons is also not very encouraging (see Drabek, 1986: 334-336); often relatively few people are reached and even fewer learn much. Perhaps a general lesson here for the insurance industry for improving risk communication to persons is that the groups of which they are a part rather than individuals per se ought to be the prime focus of the effort.

## 2. When disasters do occur, individuals react very well.

As a whole, human beings respond well at the impact times of disasters. People in such situations actively seek relevant information and attempt to do what they can to deal with the exigencies presented by the emergency. The threat of a disaster just about to happen or its actual impact does not paralyze those affected. Passivity in the face of danger is almost nonexistent. The nearer the threat is perceived to be or the more there have been life or household disrupting problems to be solved as a result of an impact, the more active persons and households will be in responding.

During and immediately after a sudden impact disaster, individuals tend to think of the event as something centered around their immediate physical surroundings, and to underestimate therefore the scope and destructiveness of some disasters. This results in considerable variability in the initial behavior of those impacted as they enact their usual social roles as worker, family member, friend, neighbor, etc. At the individual and small group level the behavior is generally organized, meaningful and goal oriented, although to outsider observers it incorrectly appears as chaotic, confused and random (Dynes, Quarantelli and Kreps, 1981).

For example, the bulk of the search and rescue is quickly initiated by survivors. Typically this informal action, sometime undertaken by small ad hoc groupings, attempts to establish the whereabouts and status of most of those in the searched neighborhoods, locates

the injured, and frequently gets them transported for medical treatment (e.g., De Bruycker et al, 1983). Concurrently, other survivors will be attempting to find out if relatives and friends in other localities are safe, while still others will go to places they think they might be needed, and others will voluntarily undertake a variety of emergency tasks from unofficially clearing streets of debris and directly traffic to informally providing shelter, food and clothing to their neighbors in immediate need of such assistance. Survivors do so much prior to and separate from the actions and directions of officials that it sometimes leads emergency agency personnel to mischaracterize the activities as confused and non-goal directed (Dynes, 1990).

Those impacted by disasters not only act positively, but they also show little deviant behavior. However, the belief that disasters generate much personal deviancy is very widespread and deeply rooted in the population at large, community officials, and to some extent even among the personnel of emergency organizations, and disaster victims themselves (Wenger, James and Faupel, 1985). Several themes predominate in this kind of thinking.

Thus, it is assumed that disasters generate irrational panic and unleash anti-social behavior. While stories and rumors about such behavior are almost universal after a disaster, actual instances are often nonexistent, very low in relative frequency when they do occur, and surface only if there are particular set of circumstances which tend to be rare in community type disasters. However, these myths about individual disaster behavior are important because they affect what both citizens and officials often expect and accordingly influence other behaviors, e.g., a reluctance to evacuate because of concern over possible looting, or not issuing warnings because of the belief that panic flight may occur (Quarantelli, 1960).

Disaster victims do not generally act irrationally, certainly no more so and even less likely than in their everyday activities (if by rationality is meant considering options in a crisis situation and/or using appropriate means given certain desired ends, see Quarantelli, 1981b). People who perceive themselves in great danger, if they have any contact with social reality, will feel greatly afraid. But even great fear does not automatically translate into hysterical paralysis, wild flight, or other dysfunctional actions--three frequent referents when the term "panic" is used. Panic flight additionally endangering self and/or others can and does very rarely occur in some collective stress situations (Wenger, 1980b), but even isolated episodes of such behavior are almost nonexistent in community disasters.

Instead of wild flight away from a disaster site there is far more likely to be convergence on places where emergency tasks are being carried out (for the earliest discussion of convergence, see Fritz and Mathewson, 1957). Motivations to help others, rather than

Brother attitude in trying to help after impact are working with an unreal image of these kinds of collective emergencies.

3. While the experience of a disaster is a memorable one, and there are differential short run effects, there does not appear to be too many lasting behavioral consequences.

There is a major dispute among researchers regarding possible pathological consequences for victims of disasters (see Perry and Lindell, 1978). On one side, the minority, there are those who believe that the traumatic stress of a disaster experience has both short and long run negative consequences for the mental health of those impacted. Thus, community disasters supposedly drive some people "crazy", seriously psychologically scar numerous others so they cannot function normally in the postimpact period, and leave in their wake many seriously emotionally disturbed victims. These pathological psychological behaviors are presumably manifested by almost all or a majority of individuals involved in a disaster, and may last indefinitely unless treatment is obtained (e.g., for an exposition of this position see some of the articles in Lystad, 1988; but see Taylor, 1990: 79, who in her review of the book notes:

upon competing the book I sensed a paradox...in the fact that the consensus that emerges from Part I is that disasters do not provoke widespread psychological and emotional impairment. Yet the remainder of the book is devoted to outlining the necessity for specialized planning and services directly at alleviating the mental health consequences of disasters.)

However, according to many other researchers and we agree with them, this image of community disasters as inevitably creating many and significant mental health problems is another one of the prevailing major myths of disasters (for an analysis of the different points of view on this issue, see Quarantelli, 1985a). Thus, our reading of the research evidence indicates that community disasters very rarely if ever produce any new psychoses or severe mental illnesses (particularly if measured against the degree of mental illness that can be found in the everyday in the typical community, which supposedly is about 15% of the population in the average American community).

It does appear such occasions can generate many surface psychological reactions such as sleeplessness, loss of appetite, anxiety and irritability (Tierney and Baisden, 1979). But these symptoms tend to be subclinical, short lived and self remitting. In some postimpact situations most of the victims exhibit many such characteristics, but it has to be remembered that if no disaster had occurred many individuals would still manifest the same symptoms as a result of everyday stresses. Actually and far more

typical for disaster occasions, there is considerable variation in the number of individuals who exhibit them and the kinds of postimpact psychological reactions that appear. Equally if not more important, even those persons showing these kinds of reactions are rarely functionally, that is, behaviorally incapacitated in terms of their normal everyday home, school, recreational and work behaviors.

With respect to nonpathological consequences, there seems to be differential effects especially in the short run. Thus, while "experience increases hazard perception" (Drabek, 1986: 327), for some this results in more sensitivity to future cues, but for others it appears instead to create a sense of future invulnerability. The latter seems to be similar to a phenomena noted with respect to individuals who survived a "near miss" during World War II air raids or rocket attacks; they too generally felt less vulnerable to later threats (Janis, 1951). Also, development of more positive self images as a result of having reacted well to the crisis has been reported by researchers who looked for other than just negative aftereffects (see, e.g., Taylor, 1977).

Behaviorally too, there are differential nonpathological effects. For example, it has been reported that direct victim family members compared to nonvictim family members not only feel closer to one another than before the disaster, but they also come to interact more with one another than with others outside of the family (Drabek and Key, 1984). A minority view among researchers is that there can be a variety of behavioral as well as psychological negative effects in the long run, the major example often cited was the aftermath of a very atypical and rare catastrophic occasion, namely the Buffalo Creek flood disaster (Erikson, 1976).

There are some indications of selective postimpact increases in insurance purchase. Thus:

Once victimized, people do evidence a tendency to increase their insurance (Drabek, 1986: 213)

But:

The proportion of victims with household insurance will increase after a disaster, but it will not increase for non-victims in the same community (Bolin, 1982: 239)

Furthermore, this increase is from a very small base. Thus:

Of the 207 home owners, only 18 (18.7%) indicated that they had earthquake insurance, although 52 (29.3%) believed that a major earthquake will definitely or probably occur

in the area while they are living there. Those who believe that a major earthquake is likely to occur while they are living in their present house are no more likely to purchase earthquake insurance (Palm, 1981: 56).

However, while a major disaster experience is seldom forgotten, in the long run it seems to fade somewhat in salience and importance. It is especially difficult to see from the research done many behavioral consequences for individuals which can be attributed to having experienced a disaster. In some ways this is to be expected. People experience very many things in their lives, and while a disaster may be a dramatic incident, it often is simply that--a one time memorable occasion embedded in very many other more important family and work experiences of a continuous nature. These other experiences will necessarily have greater impact on the person. In that context, it is not surprising that one study found far more serious psychological and behavioral consequences from an economic recession than it did from even the extended stress created by the Three Mile Island nuclear plant accident in the same general area (Dew, Bromet and Schulberg, 1987).

There are important general implications in these observations. The overwhelming majority of survivors of disasters, while they may show some signs of psychological stress, are not in a state of shock and unable to act. Even extreme stress does not incapacitate the great majority of people. On the contrary, all those who attempt to assist after disasters, be they insurance agents or others, should assume that most people and households will be very reasonably active in their efforts to resume normal life.

#### ORGANIZATIONAL BEHAVIOR.

**4. While the organizational planning undertaken for disasters is often limited, almost everywhere there is a core group of emergency oriented agencies.**

Certain normally crisis-oriented groups such as police and fire departments (see Wenger, Quarantelli and Dynes, 1988), the hospitals (see Butman, 1982), and the public utilities (see Bardo, 1978) do plan for disasters (although the great majority of public and private organizations in local communities do no planning at all). This is seen as part of their everyday responsibilities. But there are limitations to much of this organizational planning. For one, there is a tendency to plan for disastrous happenings that will occur to others rather than themselves. Most hospital planning, for instance, ignores the possibility that the hospital itself may be directly impacted (Auf der Heide, 1989).

Second, such planning as is undertaken frequently reflects a technological bias. Emphasis is on having certain kinds of equipment and facilities such as multiple radios or a computer run

emergency operating center (EOC), rather than developing the appropriate social organization to use the technology. In fact, as technological types of disasters have increased, the more the notion has spread that there are technological means to prevent these disasters in the first place. A problem is that technological disasters are seldom solely the result of technical failures. They are the result of social errors and these can only be addressed and solved with social solutions not technological ones (Turner, 1978; Perrow, 1984).

Even more important, many of the emergency oriented groups we have mentioned (as well as railroads and airlines, parts of the chemical and nuclear industries) that do plan, have learned to cope--often very adequately--with accidents and everyday emergencies. They have standard operating procedures (SOPs) to manage such situations. Unfortunately this often leads to the belief that an accident can be treated as a little disaster or that a disaster can be viewed as a big accident. As such it is assumed that the regular SOPs can be used in all crisis occasions. But research has shown that in a disaster there is a difference of kind not just degree compared to what behaviorally goes on in a routine accident or emergency. A disaster involves not just more or a difference in degree but something which is qualitatively different from the everyday emergency. Preparedness planning has to recognize that in disaster situations the responding organizations will necessarily have to:

- quickly related to more and different groups;
- adjust to losing part of their autonomy;
- apply different performance standards;
- operate within a closer than usual public and private sector interface; and,
- cope with direct losses of their own personnel, facilities, and resources (for more detailed discussion, see Quarantelli, 1984c)

Thus, even among those organizations that do plan, the planning is often incorrect in its basic assumption. The basic flaw is in not recognizing that disasters are both quantitatively and qualitatively different from everyday emergencies or accidents.

However, when all is said and done, it is necessary to keep in that while the situation is far from ideal, that there is disaster planning in all but the very smallest of American communities. One survey found that:

- Formal disaster plans have been adopted by over 80% of U.S. localities (Emergency planning, 1988: 1)

In almost all localities there is some group with direct



responsibility for local preimpact risk assessments, for coordinating the emergency response at time of impact, and for helping in postrecovery efforts. In about a quarter of American communities there is a separate emergency management agency (sometimes called a civil defense office); if not, the planning and coordination function is usually lodged in fire or police departments (Emergency planning, 1988: 9). Thus, any public or private agency or sector which may wish to institute or improve their own local disaster planning, such as might be true of the insurance industry, will usually have a core group and a planning process in being upon which they can build; they do not need to proceed as if nothing is in place.

**5. Typically organizations have more management than planning problems in responding to disasters.**

It is very easy to assume that if there has been organizational disaster planning there will be successful crisis or emergency management. That would seem to be the purpose of planning. But apart from the possibility alluded to above that the planning could be poor to start with (Dynes, 1983), there is also the fact that planning is not managing, and that the former does not automatically transform into the latter.

We may perhaps clarify this by drawing a parallel. The military draws a distinction between strategy and tactics: in fact, they teach and try to implement the differences between the two. Strategy in general has reference to the overall approach to a problem or objective. But there are always situational factors or other contingencies which require particular adjustments to attain a specific goal if the overall objective is to be attained. This is the area of tactics. In somewhat parallel terms, good disaster planning involves the general strategies to be followed in preparing for a sudden community disaster. Good management involves using particular tactics to handle the specific situational contingencies which are present or arise during the course of a disaster occasion (Quarantelli, 1988b).

There are at least three general sets of crisis management problems which responding organizations have to solve. One set has to do with the information flow in the communication process. Within this there typically can be five major sources of difficulty, namely in the:

intra and interorganizational information flow; information flow to and from organizations and the general public; and information flow within systems of organizations.

The physical means of communication seldom are the roots of serious trouble.

Second, there can be problems in organizational decision making. These can stem from:

losses of higher echelon personnel because of overwork;  
conflict regarding authority over new disaster tasks; and  
confusion over jurisdictional responsibilities.

But it would be extremely rare in disaster occasions to have any breakdown in the chain-of-command and lines-of-authority in established organizations.

Third, are the problems associated with the need to have interorganizational coordination as well as a loosening of the command structure. These can result from:

lack of consensus about what constitutes "coordination";  
strained relationship created by new disaster tasks; and  
the magnitude of the disaster impact  
(for a detailed discussion on these sources of organizational difficulties in disasters, see Quarantelli, 1988b).

Given the potential difficulties it is almost certain there will be organizational problems during the emergency period of a disaster. Inevitably to meet these, there will be emergence and innovations in organizational behavior (Kreps, 1991). This is not a statement of despair about being unable to do anything ahead of times. It is instead a suggestion that it is too late to wait for a disaster to occur before starting to think how organizations can cope with problems and what tactics they can use (those who sometime argue that every disaster is different and therefore prior planning cannot be undertaken, seem to assume the opposite). There also has to be a realistic conception of what actual problems will surface in disaster occasions.

A major lessons from all of this is that even good planning is not enough. Organizations must also learn to manage the problems during the emergency period. Planning and managing while related are two different processes, a distinction not always noted.

This applies to the insurance industry as well as any other that undertakes disaster planning. There is always a need to test or otherwise simulate whatever is planned. It not only can be done, but it is necessary for effective response in disasters that it should be done.

**6. There is only selective organizational change at best from undergoing a disaster.**

In the immediate postimpact period there usually is much talk within organizations on how improvements should be made in preparations for future crises. But unlike after civil disorders (at least those in the 1960s in American society) where organizational change was often the norm (Weller, 1974), there typically is relatively little change in group structures and functions in the recovery period of disasters (Warheit, 1968; Anderson, 1969). The talk seldom gets translated into concrete actions.

There are occasional exceptions. A few crisis-type organizations have sometimes been markedly changed after undergoing a disaster (Ross, 1978). The facilitating conditions are complex and some of the research results are not altogether consistent (see Drabek, 1986: 284-288 for a discussion of some of the literature). But how the group performed during the emergency period appears to be less of an impetus to change than the willingness of some key officials to lead an organized effort for better disaster planning (particularly if planning was already an expectation in the organization given that future threats might have to be faced, see Forrest, 1974). In some cases the disaster occasion simply seems to accelerate organizational changes already planned or underway; disasters per se do not seem to be spawning grounds for totally new initiatives for social change.

A lesson from this is that while organizations can change and institute better planning for disasters, it is difficult to do so and occurs relatively rarely. The sometime stated notion that the experience of a disaster makes organizations far more receptive, or at least more open, to change is not fully supported by the research data. The best time to plan for disasters is clearly before they happen and not afterwards.

#### COMMUNITY BEHAVIOR.

##### **7. Communities generally give very low priority to disaster planning.**

General or overall disaster planning has low priority--whether measured by attention, budgets or organizational participation--in the great majority of communities. The issue of planning very seldom becomes a matter of broad public concern as would be indicated by mass media focus, discussions in the political arena, or involvement of pressure or interest groups (except in somewhat isolated cases of emergency planning around nuclear or chemical plants). In almost all areas local resources allocated to planning are very minimal and in the United States would be considerably less if it were not for federal matching funds and planning grants. In short, disaster planning has very low ranking on the problem agenda of almost all communities (Rossi, Wright and Weber-Burdin, 1982). The consequence is:

that disaster preparedness at the community level is not highly developed at the present time (Tierney, 1981: 340),

even in American society which is more attuned to disaster risks than many other societies.

To the extent communities do undertake or attempt general planning, existing or preimpact organizational cleavages, disputes and conflicts make the effort difficult. For example, there are often everyday stresses and strains between local police and fire departments, between them and the local emergency management agencies, among hospitals and emergency medical service entities, and between public and private sector groups. These make the development of overall disaster planning problematical since it requires the giving up of some organizational autonomy, allowing others access to organizational domains and territories, and providing resources (people, things, information) which could be used by other than the organization itself. Put another way, there are frequently deeply rooted social structural factors affecting organizations which work against rather than facilitating their involvement in community planning.

There are some lessons from the low priority typically assigned preimpact community disaster planning and the factors which discourage it. First, just because disasters are almost universally defined as being "bad" does not mean that automatic attention will be given to dealing with them. Second, the advancement and improvement of planning will generally depend on larger social factors which have little to do directly with the merit of preparing for disasters. Both of these points apply to the insurance industry. Even local initiatives are not likely to be undertaken unless there is some guidance and suggestions from national groups or associations and some benefits for the local community can be indicated.

Perhaps illustrative is what researchers discovered in Austin, Texas following extensive flooding.

On the night of May 24-25, 528 residential and business structures suffered flood damage. Most were not covered by flood insurance. There appear to have been two main reasons for the low incidence of insurance: (1) a false sense of security and (2) lack of information and encouragement...Interviews with insurance agents during this study indicated (1) that agents are not supported by their companies with informational and promotional campaigns designed to sell flood insurance, and (2) that the commissions allowed by governmental regulation are too low to bother with

(Committee on Natural Disasters, 1982: 26)

**8. The greater the disaster, the more there will be the emergence of new structures and functions.**

Typically, the overall community response in disasters is fragmented and differentiated. This stems from two factors. Impact tends to be differentiated as well as the response.

It would be the extremely rare and catastrophic disaster that would not have differential effects. That is, typically different neighborhoods and areas within an impacted community will vary considerably in terms of physical impact and social disruption. A tornado, for example, will skip and zig zag through any given locality; in an earthquake, buildings side by side may be affected in rather markedly different ways while structures miles apart may suffer the same consequences. Fallout from radiation, as in the Chernobyl disaster, can fall in random patterns thousands of miles from the source; a chemical spill may force evacuation across many different jurisdictional areas. Put another way, a disaster will usually cut across many of the heterogeneous elements that constitute any given community.

Thus, it is not surprising that the following observations were made after disasters. For example, insurance coverage for wind damage appears to be vary within the United States across socioeconomic strata. Not all families are covered, but the proportions vary by income levels. One study noted:

Only 50% of the homes damaged in the Lubbock tornado...were estimated to be covered by insurance, and the average coverage was 40% of the home's value (Kunreuther, 1973)

The Eastern Area tornadoes...showed a similar pattern of coverage. The American Red Cross estimated that the average number of homes covered in the six states affected was 80% (Cochrane, 1975: 90).

However:

The lowest income group shown was discovered to have approximately 53% of their homes insured at an average coverage of 54% of the house value. In contrast, 85% of the highest income group was insured for 84% of the structure's value (Cochrane, 1975: 91).

In addition, the greater the disaster, the more and the wider the variety of responding entities from different layers of the governmental and nongovernmental sectors (Dynes, 1974). Furthermore, organizational responses are not uniform at different

chronological time phases since some groups are just starting to get involved when others are already no longer involved (e.g., weather agencies have usually phased out before relief groups start operating). Similarly, tasks of the same organization will often change through time (e.g., police and fire departments who may initially help in preimpact to alerting residents to a threat will undertake search and rescue after impact).

This extreme heterogeneity in response stems from a variety of factors. In the United States, for example, by law and tradition as well as expectation, governmental response is decentralized. So local agencies will be complemented by state organizations, and both in turn will be joined by federal groups. Also for the same reasons, organizations in the public and the private sectors take and are assigned various responsibilities for varying emergency time tasks. Finally, even in the most preplanned of occasions, disasters draw to themselves a massive convergence of people, communications and material goods from outside the impacted area. So a major community disaster insures an uncoordinated "mass assault" (Kreps, 1983).

The not too distant Whittier earthquake can be used to illustrate the possible diversity of the overall impact of disasters as well as impacted populations. Seven communities were most affected (namely Alhambra, Compton, Los Angeles, Montebello, Monterey Park, Rosemead, and Whittier). But the following four from this number, although roughly having the same population size and all being located in the Los Angeles basin, illustrate their diversity in socioeconomic composition and lifestyles as well as business characteristics. As indicated in Table I (at end of this report), Whittier, the most seriously affected community, is a largely Anglo city with a high median household income. Incomes are also relatively high in Monterey Park, but Anglos constitute less than 20% of the population. Even prior to the 1980 census, Monterey Park had become one of the few US cities to have a majority of Asian residents, and that population trend continued in the last decade. Alhambra, has a median income of about \$20,000 and a large Hispanic and Asian population. Compton is a low-income community in which about 3/4 of the residents are Black. Unemployment was highest by far in Compton, while the other three cities had similar relatively low rates.

Faced with this kind of diversity, community officials sometime struggle to impose some overall order in the emergency, attempting to bring into being what has been called a "command and control" situation. This is a model which essentially involves the idea of centralizing authority and operating with a top down, decision making structure (for its relationship to poor planning, see Dynes, 1983). At the operational level, the effort is to try and answer the question: "who is in charge?"

However, research indicates that the last question is not a very

meaningful one. Coordination rather than control is the best that can be achieved, and that in certain respects a loosening of the command structure and decentralization of decision making to lower levels will be the most effective community response (Quarantelli, 1988b). There typically is the emergence of many new behaviors in the attempt to cope with the multiple contingencies created by the disaster occasion (Quarantelli, 1984a; Drabek, 1987). The greater the disaster, the more improvisations of all kinds appear accompanied by new groupings and pluralistic decision making in tasks ranging from search and rescue (Drabek et al., 1981) and the providing of emergency medical services (Quarantelli, 1983), to interorganizational coordination and community priority setting (Dynes, 1974, 1978). While the emergent phenomena is partly rooted in and comes out of preexisting structures and functions, there is also always an element of the new, novel, nontraditional or nonroutine in what can be seen at the height of a disaster, and as such there is the appearance of a temporary "synthetic community" (Drabek, 1986; see also Bosworth and Kreps, 1986).

A lesson of all of this is that any thinking about disasters has to come to terms with the fact of considerable diversity in impact and with substantial emergent behavior at the community level. However, this has to be seen in the larger context that while there will be diversity depending on the particular community impacted, much human and organizational behavior will be the same everywhere; similarly while new social patterns will emerge to cope with the exigencies of the emergency time period, the greater part of the preimpact social and cultural structure will remain in place. If the insurance industry is to realistically plan, it also will have to assume some possible diversity of impact along with the probability that the predisaster structure will still be in place after impact.

**9. There are some selective longer run outcomes and changes in communities that have been impacted by disasters, including the surfacing of negative aspects.**

Typically, disasters bring about relatively little change in any impacted community, at least in developed countries. Thus, studies in the United States have shown no discernible disaster related long term effects on such community characteristics as population, age composition, housing stock and values, rents, family income, size of work force, unemployment level, retail sales, number of businesses, etc. (Friesema et al., 1979; Rossi et al., 1982). While some of these findings have been strongly challenged on methodological grounds (see, e.g., Drabek, 1981), most researchers would probably agree that community change as a whole is not an outcome of disasters. Even very heavily stricken communities are physically rebuilt and socially restructured fairly similar to what they were before impact (see e.g., Francaviglia, 1978).

However, other research does indicates that there can be some

selective community changes as well as functional and dysfunctional consequences (see Kartez, 1984; Scanlon, 1988). As to the former there is some evidence (see Drabek, 1986: 293-298) that disasters can both accelerate some ongoing community trends (e.g., in local governmental arrangements and power structures) and generate limited new patterns (e.g. in the providing of local mental health services and some mitigation measures such as flood proofing regulations). However, all the conditions which will produce some disaster induced community changes and in what ways, are far from clear.

The recovery phase of impacted communities seems to be related to a variety of factors, especially the political aspects of postdisaster intergovernmental relations (Rubin, 1981; Stratton, 1989). There is often the surfacing of negative feelings and opinions in the community. For example, there frequently are persistent and complained about discrimination in rehousing of disaster victims (Quarantelli, 1984e), and complaints that some neighborhoods or sectors are being favored in relief efforts. Some of the former is manifested in blame assignation which however may deflect attention away from social structural flaws to a mass media influenced search for individual scapegoats (see, e.g., Drabek and Quarantelli, 1967; Neal, 1984). In fact, one of the longer run effects of disasters is the return not only of preimpact community conflicts, but of the addition of new ones created by recovery and reconstruction efforts (Quarantelli and Dynes, 1976; Stallings, 1988).

If the research base being used about longer run effects is valid, a lesson would appear to be that while there are differential outcomes in the community, negative aspects also frequently surface. The latter seem particularly related to reporting by the local mass media. This is not to imply that the mass communication systems create the problems, only that they are a factor in their existence. If the insurance industry is negatively or indifferently viewed after a disaster, the explanation for such a perception rests primarily in what local agents have done by way of preparing for such an occasion, how they have related to other groups in the community, and which services they actually provided to insured persons and households.

While the just concluded presentation has necessarily been selective, we believe that we have conveyed the larger social context of disaster related matters. Although some of the research findings are not unexpected, we think that a number of them are counter intuitive and that others are simply contrary to what is widely believed. We now turn to a presentation of what social science research has established about the operation of the mass media with respect to disasters. It is perhaps not amiss to mention again that our discussion is primarily about the local mass media and about sudden disasters and not other kinds of community crises.



## Research Findings About Local Mass Communication Systems

From the research studies we have pulled out eight major findings about disaster relevant operations of the mass communication system. Much of this study in the United States has been carried on at the DRC, although increasingly other work is appearing (for a general discussion of this other literature see Quarantelli, 1989). The greatest attention is paid to the conclusions from the most recent of the DRC research undertaken; thus, most of the statistics provided are from that study (see Wenger and Quarantelli, 1989).

In this discussion our findings are primarily about the reporting of news stories by local community mass media organizations (few of the studies deal with national news reporting). We mostly also, although not exclusively, focus on news reporting at the emergency time period of disasters, reflecting both the research and mass media foci of attention.

The Preimpact Time Period.

### **1. The mass media give very little coverage to disaster mitigation and prevention measures.**

Very rarely does the local mass communication system report on community disaster mitigation and prevention activities. Such matters as hazard related building codes, land use ordinances, zoning measures, disaster insurance etc., are normally not seen as very interesting topics for media coverage and there is little effort to initiate reporting on such measures. About the only time there is any attention is when the activity becomes the object of public controversy in the political arena, as when suggested actions would be economically costly for homeowners, real estate interests and/or the construction industry (see Drabek, Mushkatel and Kilijanek, 1983). Not much attention is paid to disasters before they occur.

But even after they occur, the picture does not fundamentally change. In this context, Scanlon once posited that:

the media would provide no advance information about the possibility of a disaster or what to do about it, nor would they provide any post-disaster information about what might be done to avoid future occurrences (1979: 256).

In other words, media coverage would focus for the most part on the actual disaster itself and ignore the more long-term issues such as hazard mitigation. Most research would generally support this position. In fact, a study in Australia makes the point that:

newspapers did not provide members of the public with information to help them reduce the personal impact of a subsequent event. In fact, the newspaper reporting may well lull the community into believing that another severe event could not happen again and therefore inhibit public acceptance of a counter-disaster plan or land use zoning policy (McKay, 1983: 123).

At best there is only rather selective and limited attention paid by the mass media to some other kinds of preimpact preparedness activities, to which we now turn.

**2. The participation of the mass communication system in longer run preimpact disaster preparedness activities tends to be selective and limited.**

To the extent that there is any mass media interest in longer run preparedness planning, it is usually with respect to certain organized educational campaigns and informational efforts. Sometime in a local community there will be a campaign to make residents aware of certain risks and the measures which might be undertaken to prepare for them (e.g. with respect to preparing for a hurricane or nuclear plant radiation fallout). As part of this, for instance, some mass media may provide inserts in newspapers or announcements in the electronic media, and/or have a news story covering the activity. At best, such mass communication activities seem to have limited effect on awareness and even less on the taking of individual/household preparedness steps (see, e.g., Christensen and Ruch, 1978; Strother and Buchbinder, 1980; McKay, 1984). Or as elsewhere stated in a discussion of reporting by newspapers in Los Angeles:

attention to politicized controversies over dam, nuclear plant, and LNG terminal safety, while emphasizing earthquake danger, does not stimulate attention to preparedness and safety in the local community and therefore probably does not contribute toward public understanding of the local earthquake threat (Turner, Nigg, Paz and Young, 1981: 15).

About the only exceptions are in disaster subcultures, where such educational campaigns are sometimes regular parts of the preparedness effort. In those cases, they serve to reinforce already existing attitudes and beliefs. The insurance industry does not seem to be too often involved in such campaigns up to now.

Also, at times mass media outlets will produce documentaries or more general informational pieces on possible disasters in particular localities. While there is very little research

evidence on their creation/production and reception/effectiveness, but from what is known of the general impact of informational documentaries in general, the effects are probably rather minimal. As Larson comments, public information campaigns must work on "the assumption that most of the public will be only mildly interested or not at all interested in what is communicated" (1980: 121), or as Drabek states: "research suggests that merely increasing the frequency of public information campaigns does not produce sweeping change" (1986: 334).

What seems to be suggested about these observations, is that general informational campaigns by the insurance industry or anyone else need to very specifically target their intended audiences as well as delivering messages that can be seen as personally important to those being communicated with. People can be reached, but different sectors and segments of the general public have to be contacted through different mass media outlets and using somewhat different kinds of messages. Sometime the best approach is through tapping into already existing social settings meaningful to those involved, such as children in school settings and older individuals through social clubs.

### **3. Those organizations that provide information about disasters in their communities give very extensive coverage to the occasion.**

Disaster coverage is massive for all mass media that operate. In one DRC study, it was found that the local newspapers examined in nine communities impacted by disasters carried from 44 to 160 stories with an average of almost 90 stories about the event. Of these stories, 33% appeared on the front page and 55% appeared within the first three pages. In addition, a total of almost 700 photographs accompanied the 904 stories.

A somewhat similar picture also appeared when an examination was made of the electronic coverage of two disaster impacted communities (actually not all media outlets were studied). Several local television stations produced a total of 175 reports during the first two days, or about 44 reports each da. In both cases, normal programming was preempted and news coverage was extended to cover the disaster occasion. Radio stations in the same two communities provided a total of 134 reports, or about 34 reports each in the same time period.

These observations were made of disasters, which while major, were neither massive nor catastrophic. While there are very few data on local mass media coverage of the latter kind of occasions, the reporting from outside the local community for them supports the notion that disasters are big news stories. For example, after the Loma Prieta earthquake the Los Angeles Time published 215 stories during the first 16 days after impact and the New York Times published 111 stories in the same time period (Rogers, Berndt, Harris and Minzer, 1990: 32).

What is important here is that the mass media organizations because they give such extensive coverage to their local disasters, need many stories to fill air time and print space. In normal times, the "news hole" is usually numerically limited; consequently all groups wanting to get a story about themselves aired or published will not be successful. Representatives of the local insurance industry, as well as almost all other groups, have far more opportunity for news stories about themselves in the aftermath of a disaster than is usually the case, if they make themselves known.

#### **4. Mass media organizations primarily use traditional sources of information even at times of disasters.**

Even in disasters, reporters do not generally seek new sources of information. Instead there continues to be a heavy reliance upon traditional--which usually means official--sources of news by all media organizations (although certain everyday sources such as wire services and syndicated services are ignored since their content is generally not relevant to local coverage of a community disaster). Many reporters first turn to their local normal news sources, usually working their "beats". For those who are able to communicate with their newsroom, their news stories are often composed almost exclusively from the perspective of these sources.

One DRC study found that local governmental officials were cited by name or title in 14% of radio, 19% of television and 24% of newspaper stories; this obviously understates the informal use of such sources. Police, fire and certain relief agencies were also frequently given as sources. In contrast, local emergency management officials were infrequently cited, being mentioned in only 8% of radio, 2% of television and 3% of newspaper stories. The insurance industry was very seldom mentioned. Officials from outside the community who have come in to respond to the disaster were seldom cited. These patterns indicate the influence of traditional "beats" in the coverage of disasters. Those sources that are ignored, and that could have relevant information on disasters, are generally those unattended to during normal day to day operations. In addition, a reliance upon local, as opposed to other officials, is not only consistent with traditional news gathering patterns but is also compatible with the "proprietary" orientation that is developed by many mass media personnel towards their local disasters.

What of traditional sources of information such as press conferences and press releases? Their role are different during normal times and during disasters. First, given the difficulties reporters have in obtaining information, they view press conferences at disaster times as more valuable than during normal times. But second, unlike on an everyday basis, press conferences in disasters are irregularly held and often delayed for hours (although much local community disaster planning calls for regular and frequent conferences, this procedure is not always implemented

in actual emergencies). Third, conferences and releases while considered helpful are sometime viewed with a little suspicion in that the official information released is given out by "somebody for reasons of their own"; in fact, if reporters questions are not handled well, the situation can become a "media disaster" as was the case in the Three Mile Island nuclear plant accident where there was increasing media doubt and skepticism that they were being properly informed about what was occurring (see Friedman, 1981; Rubin, 1987).

From an insurance industry perspective, the overall idea that emerges from all of this is that press conferences and releases could be used as a way of getting information distributed, but only if some preplanning has gone into their use. For instance, in one study of 370 American municipalities it was found that 90 per cent have plans to establish a press information center after disasters (Emergency planning, 1988: 5). However, there is very little evidence that local insurance agents are even asked or ask to participate in such planning.

**5. There is a rather selective reporting of important emergency time related activities with some receiving extensive treatment and others, little, if any at all.**

One consequence of a reliance upon traditional sources is that the actions of nontraditional sources slip through the "news net." The activities of volunteers and of emergent groups and organizations that are not part of the normal "beat" system or regularly courted for news tend to be ignored in mass media accounts. A somewhat distorted image of the disaster can be created by this practice.

For example, as indicated earlier, search and rescue is overwhelmingly carried out right after impact by the immediate survivors, whereas mass media accounts focus heavily on formal and search efforts that often are relatively insignificant in the carrying out of the task. Thus, while thousands may be informally rescued alive, news stories may primarily concentrate on accounts of organized dog teams from outside who almost always find a relative few dead bodies, if they find anyone at all. In one DRC study, it was found that only 8% of the radio, the television and the newspaper stories discussed search and rescue, making this crucial emergency time task invisible in most coverage.

Similarly, the activities of certain organizations familiar on an everyday basis to mass media personnel, such as police and fire departments, are highlighted, whereas other more unfamiliar groups such as the public utilities, the insurance industry, or many relief agencies go all but unreported. Thus, the media content can create the impression that the emergency response is primarily an activity of a few formal and familiar organizations. For example, the police almost inevitably are portrayed as having a lead role; this is certainly true in some occasions, but in many disasters the

mass media attention to them is misleading of their relative importance (if we keep in mind our earlier remarks that our pictures of disasters is mostly what the mass media report, it should be seen why this is an important research observation).

**6. A "command post" perspective is generally assumed particularly in the electronic media.**

Some earlier DRC studies suggest the local mass media by obtaining information mostly from community officials generally located at the command post or emergency operations center tend almost exclusively to present a "command post view" of the disaster occasion. Thus, it is argued that there is a bias in the reporting towards the perception and construction of "reality" as seen by only one set of social actors in the situation, mostly emergency oriented governmental officials (Quarantelli, 1981a; see also Sood, Stockdale and Rogers, 1987). This is one possible perspective, but it is only one of many different orientations that could be possible about a disaster (e.g., the perspectives of on-the-line operational personnel such as police and fire officers; of disaster impacted victims; of relief workers from outside of the community; of foreign researchers; of distant relatives and friends of victims; of non-impacted community residents, etc.) Therefore, coverage is somewhat limited and reflective more of an official, top down, governmental and social control perspective than other possible views. It might also be questioned if taking this perspective does not contribute to disaster mythologies about looting and antisocial behavior, given that such matters are the understandable interests of such social control agencies as the police.

The more recent DRC research indicates that a command post perspective is especially assumed in the electronic media, although somewhat less true of radio stations. A DRC study found that within radio, 62% of the reports used some command post sources and 42% relied solely on such officials; for television, 54% of all stories incorporated these sources and 37% relied solely on command post officials. Newspapers were somewhat less command post oriented; only 21% of the stories relied solely on these types of officials.

Although citizens, other officials, and private sector groups involved (although seldom from the insurance industry) are sometimes contacted and informally used, command post sources clearly dominate the actual content that is produced. In other words, although private citizens may be a valued source of information, they are not an important source for attribution in published articles and broadcast reports. In utilizing the strategic ritual of objectivity, reporters continue to turn to command post officials for quotes and citations. Although citizen input may shape the structure of a story or news report, it tends to be a hidden, covert source. In sum, the "command post view" is

certainly present in the content although it is less evident in actual news gathering process and the construction of news account.

**7. The print media are more likely than the electronic media to produce more "soft" rather than "hard" or instrumental news stories.**

News stories are frequently characterized as being "hard" or "soft". The former refers to reports that are factual, informative, descriptive; the latter to accounts that are impressionistic, human interest oriented, analytical. In a disaster context, hard news (or instrumental) contains factual accounts of disaster happenings, official and unofficial announcements, and items that describe happenings occurring at or around the time of being reported. Soft news (or expressive) refers to analytical and feature stories concerning such issues as planning, blame for casualties, and human responses to the disaster.

During a disaster, all of the local mass media are oriented toward instrumental stories. Nevertheless, the distinction between hard and soft news shows up in reporting of disastrous occasions. In this newspapers compared with radio and television stations adopt somewhat different roles and cover different aspects of disasters. Generally, the electronic media are the primary distributors of hard news items during the early emergency time period. Where there is not a loss of electrical power, television plays the prime role, otherwise it is radio. For some outlets, this stress on hard news is a simple extension of their normal definition and preference. However, in other stations, this orientation represents a shift from a more feature or expressive oriented content.

It could be argued that the emphasis on hard news represents the effect of journalistic values and ethics that stress the presentation of factual informative content of immediate import during disaster occasions. The argument may have some validity. However, the presentation of hard news is also a quick and easy solution to the problem of immediately filling the expanded news time of the electronic media. Analytical and feature stories require more time to construct. They usually require some research and consultation with a variety of sources. Their substance is not consistent with organizational demands for rapid, intense coverage under stressful conditions. In the instance of disasters there appears to be a fortuitous convergence of journalistic values, the nature of hard news stories, and the organizational needs of the electronic media outlets.

In newspapers instead, while hard news is of course presented, a different picture emerges. One DRC study that content analyzed the reporting in the first two days after the impact of disasters found that only 52.9% of all stories were of an instrumental nature,

nearly half the total. In contrast, 93% of stories on radio were instrumental, while for television stories the figure was 78%. Thus, the more expressive, feature and analytical nature of newspaper reporting can be seen even during the initial days of the emergency periods of disasters.

What use can be made of these observations depends on the goals of responding organizations. Getting hard news stories about their work would be the objective of most groups in disasters. However, soft news stories can have symbolic and public relations value; the insurance industry might consider this possibility in its planning.

**8. Mass media reports, especially in television, tend to present content that perpetuates certain disaster "myths".**

A quantitative analysis by DRC of media news accounts does indicate that only a small minority of them refer to such disaster myths as the prevalence of panic, looting, martial law imposition, disaster shock, increasing crime, mass shelter utilization, mass evacuation flight and victim helplessness. In general, less than 10% of the stories in all media present these images.

However, the qualitative analysis indicates a different matter. The content often highlights the myths. Television in particular is prone to perpetuating disaster myths. For example, although references to panic and looting constitute only a small proportion of the total television content, their presentation is very dramatic and consistent with the mythologies.

The importance of these observations is that not only citizens and public officials, but personnel in the private sector often depend on news accounts during the early stages for information on the situation. To the extent that what they receive is incorrect, the more difficult it will be for them to react appropriately in disaster occasions.

Even when media reports are correct, they can be misleading. For example, because news accounts tend to focus on injuries, deaths and destruction it becomes difficult to place such indices in the context of the many resources which still remain in post-impact American communities. In the Loma Prieta earthquake, for instance, the mass media focus was on the collapsed Nimitz Freeway in Oakland and the residential fires in the Marina district of San Francisco. But while 62 people were killed and over 22,000 residential units were destroyed or significantly damaged in the six county area most affected by the earthquake, over 4,342,000 people survived and 1,534,000 residential units remained intact. In addition, within that six county area, there were 65 general hospitals with nearly 15,000 beds as well as 35 ambulance companies with over 1,500 personnel which were more than able to handle the several thousand injured.



## Implications

In noting some major implications of the research findings just discussed, we will first indicate some basic assumptions which the insurance industry should make. We will then note some operational strategies and tactics which might be used by insurance personnel. Our remarks conclude with a summary of ten principles for effective post disaster communication by the insurance industry.

### ASSUMPTIONS

1. As we just illustrated above, even in disastrous occasions which produce significant damage to individuals, to housing, and to facilities, extensive community resources continue to exist. Additionally, "extra" resources typically can be surfaced by way of using school and church buildings, food stockpiles, material in transit and storage, etc. which can be diverted from normal use or handling and utilized for emergency time purposes. Even more important is that whatever the physical damage or destruction, it is nowhere accompanied by any parallel social disintegration and disorganization. Preimpact social roles and interpersonal relationships do not disappear. Organizations and groups seen as legitimate and relevant continue to have authority and leadership. Put another way, even in the worst of disasters the preimpact community structure, socially as well as physically, is not totally "ripped" apart. This means that disasters do not create radical change in the way the majority of things were done before impact.

The importance of this is that the most important postimpact source of information one can have to respond to a disaster is knowledge of the workings of the preimpact community. Superficial appearances to the contrary at times, the emergency and immediate post-impact periods of a disaster do not create a totally new social setting or world. The previous patterns can serve as the primary base for planning and managing an effective response. If the insurance industry is to effectively respond it must primarily plan on the basis of the preimpact situation.

2. As we also indicated earlier, a disaster does not create a condition of total helplessness among the impacted individuals and households. Most of the early emergency time period activities ranging from the initial search and rescue efforts to the finding of temporary housing are done by the surviving local residents. A prosocial and active stance rather than an antisocial and passive orientation is characteristic of postimpact behavior. While there are a number of reasons why local people respond so quickly and so well in a major emergency, one facilitating factor is their collective awareness, knowledge, and understanding of their local community.

This is important in several respects. For one, it means that outsiders are at a considerable disadvantage in helping to plan and

to respond to community disasters. (This does not mean extra community groups can not help or that they are not necessary; only that there are limits to their interventions). For another, when a local community experiences a disaster, its population quickly see it as "their" happening. Resentment will soon surface if personnel and groups from outside the community attempt to take control of the response or are seen as taking too much credit for the managing of the help provided. It would be wise for the insurance industry to organize its planning and response around local personnel and avoid the public expression of views that local populations can perceive, whether correctly or not, as being condescending and paternalistic.

3. As likewise indicated earlier, most organizations do have difficulties in mobilizing and responding in the early stages of the impact period. In part, this is because a disaster context tends to require more of an integrated and overall coordinated community response than do most everyday situations. Unfortunately, the very time this prevails is also when many individuals and households are faced with new disaster generated problems to solve (such as finding new living quarters, where insurance claims can be filed, etc.). When these problems are aggregated, it means that many residents will be seeking to solve their individual, family and household problems at the very time when the more general problem solving mechanisms of the community (its organizations) are overloaded and having difficulty adjusting to the additional demands upon them.

From this it follows that the insurance industry should assume that: (1) there will be a postimpact increase in information seeking about insurance; and (2) unless there has been prior planning (both within the local insurance world and between it and other local groups), the organizational sources which residents will turn to will not be able to provide adequate answers to inquiries.

As to the first, while questions about insurance will not have the very highest priority among survivors (matters about the status and welfare of family members, temporary housing, medical treatment of the injured, etc., being ranked the most important), they will rank high after immediate emergency needs have been met. They also will quickly surface because in many cases what households can obtain by way of insurance claims will directly affect what activities they can undertake to bring about personal and family recovery.

As to the second, it is necessary to recognize that at emergency time periods those involved will not necessarily seek information initially and only from local insurance representatives. There is a tendency to ask a variety of questions of all crisis related organizations with which they have contact, even though the inquiry may not in any way be the arena of responsibility of the organization involved (e.g., questions about insurance claims being

asked of the Red Cross, the local emergency management agency, relief agencies, hospitals, local churches, etc.). Unless there has been preplanning this will contribute to an inquiry overload on such groups, as well as leaving the inquiry of survivors unanswered. It should also be noted that it can not be assumed that all local insurance sources will always be available for inquiries; their personnel may be among the injured and the dead; their offices may be damaged or destroyed, and the phone system may be partly inoperative.

#### Strategies and Tactics for a More Effective Performance:

As continually stressed in this report, the bulk of what should be done with respect to disaster planning has to be done in preimpact times. This of course, for reasons discussed earlier, is not always easy to do. But opportunities sometime can be taken of disasters elsewhere to call attention to locals that they too might have to face similar problems in the future. Even a distant disaster outside of the United States can be used to initiate discussion among local insurance agents if the happening involved could be shown to have probability of locally occurring (e.g., because of being near earthquake faults, flood plains, chemical plants, heavily travelled highways with much transportation of hazardous materials, etc.). The theme of "it can happen here too", if well argued and illustrated can be a strong motivator for action (maps and other illustrative material on the particular risk hazards in a community can frequently be obtained from the local emergency agency or other governmental agencies such as the Corps of Engineers or the US National Weather Service). Planning can of course be considerably facilitated in what we earlier discussed as disaster subculture communities.

Apart from motivating actions, what has been described previously strongly indicates that any deliberative strategy should be locally based. Persons from the locality are more likely to be sensitive to the nature of community life and to such manifest and latent issues as related to the sensitivities and interests of the particular composition of the community. It would also be helpful if the leadership with respect to insurance planning be taken by those already more locally visible. However, in many respects, it would be most useful if the leadership were of a collective nature rather than just a single individual or two. An informal small "committee" of local insurance agents would best reflect different insurance constituencies in the community (these can be of social class, ethnic, racial, religious, lifestyles, gender, etc.). In addition, many national companies encourage their local representatives to participate in the civil life of the community in which they reside. Such involvement can take many different forms and there is no reason why local agents cannot be encouraged to participate, as a volunteer, in local emergency management activities.

An important first step would be to develop knowledge about organizational and community planning for disaster response and management. As earlier described, it would be the most unusual of American communities except for the very smallest size ones, where there would not emergency planning undertaken by crisis oriented agencies. The nature of the activity and the location of the core groups in the formal governmental structure will vary from community to community. But the local emergency management agency usually ought to be the first point of contact (these groups are variously named--some even still continue to carry the rather outmoded name of office of civil defense), especially since in moderate and larger size localities they are the organization with the formal mandate for disaster planning. In smaller size places, more typically, police or fire department personnel will have the planning function.

Although the primary responsibility in the US system is at the local level, there are also state level emergency management agencies; if insurance activities are organized on a state wide basis, contact with and knowledge of state activities and responsibilities will be important. Some understanding of the federal role in disasters, especially that of FEMA (the Federal Emergency Management Agency) ought to be acquired, but this should be obtainable from local sources.

It is especially important to note that whether at the local, state or federal level, almost all planning is of a voluntary nature in that there are very few sanctions and these only for special problems (e.g., nuclear plants) which allow for governmental control of the process. Emphasis instead is on coordination. Thus, much local planning activity takes the form of trying to preplan a coordinated response of multiple public and private organizations to a disaster. There should be no concern among local insurance agents of getting enmeshed in governmental bureaucracies or coming under governmental control in the instance of disaster planning.

As part of this planning process, the need for public involvement is anticipated and mechanisms are developed for reaching different segments of the public. Often, individuals with previous experience in dealing with the mass media will be designated as responsible for developing and distributing information during the emergency period. It would be critical for such a person to be knowledgeable about the local insurance sector and to know potential contact points within that sector who could serve as a source of knowledge and referral during the emergency. Pre-disaster contacts will secure that informational link and avoid the difficult problem of trying to establish them during the emergency period.

In addition, the disaster related agencies--especially in high risk prone areas--may promote "hazard awareness" in various ways. For

example, in many eastern and Gulf Coast states, special days are often set aside at the beginning of the hurricane season in which media attention is directed toward the potential threat. Such a period is also an opportunity to provide types of public education about the nature and effects of hurricanes. Those periods would be times when the insurance industry could "sponsor" activities in collaboration with other groups (normally this would be a rather low cost activity). Individual insurance agents might support such measures by their participation. In turn, involvement in such activities would provide a base for getting to understand the local emergency management planning as well as obtaining knowledge of officials and organizations centrally involved in the planning process.

It is possible that local insurance agency personnel might find that local emergency planning may seem somewhat unstructured and indeterminate. But this is often the nature of such planning for infrequent events. However, knowledge and participation in such activities will have a long term payoff in the event of an actual disaster.

In addition to developing knowledge about the local emergency management system and possible participation in that larger community, it would be prudent if the local insurance world developed plans for its own activities during an emergency of a disastrous nature. This could involve preparing materials, developing public information strategies, and anticipating cooperative strategies to be implemented. Such planning could be incorporated into ongoing cooperative activities which are usual within the life of that community. As has been suggested, it is much better to base anticipated disaster activities on patterns of activity which are usual in the community, rather than creating special structures and activities which will be implemented only during the emergency period of a disaster.

However, some thought has to be given to the possibility that some or most of the local insurance industry might have difficulty because of losses in functioning in the aftermath of a large scale or catastrophic disaster. Stand-by plans have to be evolved for such situations. But as already noted, the negative social effects of disasters seldom approach that of the physical destruction. For example, to the extent they are alive, the knowledge about insurance, claims, etc. will continue to exist in the heads of surviving agents even if their offices are nonfunctional.

As was noted earlier, almost always in American society, the results of a sudden impact disaster, such as chemical explosions, as well as the culmination of situations of gradual impact, such as floods, evoke considerable media attention. This is because the various mass media organizations see disasters as a worthy story and seek multiple story sources for that coverage. It follows that such an interest in a variety of stories will afford the

opportunity for stories about "insurance" which can contain information useful to those impacted by a disaster. Such stories, and their accuracy can be enhanced by the knowledge on the part of local reporters as to "reliable" local sources. This illustrates again the importance of knowing the predisaster community.

In addition to the work of the media, there is evidence that after a disaster there is an increase in the "need" for information. In other words, those in an impacted community increase their consumption of media content. This means that they will be alert to information that would be relevant to them. In general, either in the predisaster or the emergency period, people depend on multiple sources of information, often confirming what one media source reports by comparing it with another source. This suggests that one single source should be avoided for "paid" notices.

We have already indicated the complexity and differentiation in the behavior of the local mass communication system in the emergency period of disasters. In general, radio stations are the best sources for reaching an impacted population, although if there is not loss electric power, television stations can be almost equally useful. But typically stations have rather different audiences (e.g., teenagers, religiously oriented listeners, particular ethnic group members, those interested in country music, etc.); this does not necessarily change at times of crises. Again, a knowledge of selective radio markets would be important in attempting to reach specific targeted categories.

The electronic media are also more likely to provide hard or instrumental news stories in contrast to newspapers which are just as likely to publish soft news stories. This all suggests the need for the local insurance industry to use multiple and different media outlets, instead of only one or the so-called dominant news station in an area. It should also be noted that the widespread existence of a cable system in a local community can further complicate planning; such systems are geared to bringing in distant stations. While many cable systems have a dedicated channel for governmental or emergency use, it is seldom incorporated into community disaster planning; nevertheless it could be used for preimpact announcements.

In most discussions of the mass media and its utility for conveying messages, there is a tendency to forget that most of the information we depend on comes from other people, not media sources. People talk to each other--as family members, as fellow workers, as friends--as well as in casual conversations. Sometime that talk in interpersonal networks and linkages is simply repeating what had been heard from mass media sources but the more personalized form of the communication will reinforce the nature and the validity of the message from the media. This suggests that perhaps the most important channel by which to convey information should center on these interpersonal networks and linkages. For

example, rather than sole dependence on TV or radio ads or newspaper notices, printed flyers should be distributed which contain a telephone number to call for further information; these flyers should be placed at locations where people "naturally" congregate such as churches and temples, places of work, schools, supermarkets, bars, etc. The specific locations are illustrative, but the point is that information should be injected into natural communication links and networks within a given community. Again, the specific locations can be determined by a preimpact knowledge of customary life.

The design of a "hotline" can be done as a part of preplanning on the part of local insurance representatives. The technological problem of installing such a line can be discussed with the local telephone company. The physical location of such a line would need to be determined as would the staffing of such an operation. It may be that the hot line could provide a number of functions. For example, it might be used as a referral source to local agents. It may be that materials could be prepared which respond to standardized questions (e.g., on how to file a claim, how to determine coverage, etc.). Certainly, a hotline operation should be seen as a location that facilitates solving problems rather than providing intermediate delays. But providing a major source of information which can be easily accessed and knowledge of that source can be easily "advertised" through the use of simple handouts to allow communication through "natural" social networks. It is possible that such a hotline might be manned by insurance personnel drawn from outside the impacted area at some later time stage. But the initiation of such an effort will fall on local agents. Even with later outside assistance such a hot line should be presented as part of a local cooperative effort. More general information could be provided by national sources.

Another important consideration of communication in a disaster context is the importance of sequencing the information. The research literature on disasters tends to be organized around four time phases--mitigation, preparedness, emergency response and recovery. Our focus here is on the middle two, preparedness and emergency response. These distinctions are most applicable in describing the overall activities of the community. An implication of the distinction is that information concerning issues of longer time recovery is not as useful during the emergency period. This also means that the questions which are raised and need to be answered in reference to insurance will change over time and priority should be given to issues and questions which emerge first. We would hypothesize that the most immediate questions after a sudden impact situation will center around coverage of "temporary" repairs. For example, "If I buy ten sheets of plywood to put over the holes in my roof, am I covered?" or "My roof is gone, will my insurance cover a hotel room until I can get the plywood on tomorrow?" The longer term issues about the "final" repair of the roof will be delayed until the emergency is over.

It would be useful to contact insurance agents in recently impacted communities to determine the nature and the volume of questions they have received, keeping the time sequences in mind. Then material could be prepared to answer the first questions first. In future disaster response situations, especially if a hot line is developed, a more systematic study might be done. In other words, it would not be useful to prepare materials to be distributed in the emergency period which answers only recovery type questions. If one views the emergency period as a time when a number of problems have been created for the local residents to solve, the initial focus should be on information which is immediately relevant to the problems which they face now, rather than information which they might need at some later point.

In addition, information should not be directed to "victims", using victim terminology. Such an approach will be counterproductive since it will be seen as paternalistic. Relatively few people will see themselves as victims. In fact, where many people in a community are negatively affected, there is actually a considerable dampening of the feeling of being victimized, since there are so many sufferers. In the most widespread areas of damage, there is always someone else that can be perceived as being worse off. In fact, in disasters where there have been fatalities, those still around after impact, will see themselves as relatively well off. Therefore, often the appropriate feeling that surfaces is to be thankful that things were not worse. Local residents tend to see themselves as "survivors" more than as victims.

Information will be most attended to when it is framed in terms of helping survivors to "solve problems." For those who have experienced damage to living quarters, that damage creates a set of problems for them. What should be repaired first? How should things be repaired? Who should do it? How will that work be financed? Knowledge about what insurance will or will not cover than constitutes a potential answer to some of the problems that survivors have. In the most general terms, messages ought to stress the positive in the sense of indicating that the insurance industry can contribute to the solving of family or household problems of those caught in a disaster.

Finally, we earlier indicated that there are probably more management than planning problems in the aftermath of disasters. This, among other things, means that the local insurance industry can not just simply plan and then wait for a disaster to occur. Whatever is planned must be exercised and tested as much as possible. For example, if a disaster simulation or test is undertaken in the community by the local emergency management agency, and the planning has some role in it for representatives of the local insurance industry, they ought to be involved in the exercise. Similarly, if local agents are supposed to communicate and decide about insurance matters at a disaster time, they should simulate as much as possible whatever is planned (e.g. meet at the



designated central point, call the designated persons, etc.) before an actual occurrence. Put another way, an unexercised plan will not surface the limitations and problems that are almost inevitable in any abstract planning program. Some aspects of planning are very difficult if not impossible to test, but as hospitals have learned in testing their planning, very mundane matters can be easily overlooked (e.g., on how to cover when key persons are on vacation or where certain supplies can be found during an emergency).

In addition, in some cases efforts ought to be made to obtain feedback to see if intended audiences are being reached. To give a talk on the role of insurance in disasters to school classes or senior citizen gatherings is fine, but how does one know what if anything has really been communicated? Likewise, there are always changes going on in even the most stable of communities. This necessitates that the planning be periodically rechecked and updated; it is remarkable how much can relatively quickly get out of date. As such, emphasis should be on the planning process rather than written plans as such. In a real sense, local planning for disasters is a never ending activity; it can not be considered finished when a written document is produced.

#### Summary

The most important factor in a post disaster insurance context is the predisaster knowledge of the community. That knowledge can be enhanced by an understanding of and participation by representatives of the local insurance industry in the local emergency planning effort in the community. Such knowledge will be enhanced by an understanding of the population characteristics of the community, especially those of racial and ethnic minorities. Knowing what and how to plan will also be facilitated by an understanding of the local mass media, the patterning of newsprocessing and the coverage by various types of mass media. In turn, the fact that the local insurance representatives have planned an insurance response should be known by the emergency planners and the local mass media, and periodically updated, as well as tested.

During the emergency period, the planning which has been prepared during the predisaster period can be used as the primary base for action. Information about how to obtain information about insurance problems should be integrated into the content of emergency information. This can be done indirectly if local emergency planners and managers know about such planing and have contact points. This can be done more directly by representatives of the insurance industry, if they are considered as a result of their predisaster activities to be essential elements of a coordinating group which emerges in the emergency period.

People seek information from many different sources during an

emergency, so that a single exclusive source should be avoided. Radio channels have some advantages especially in targeting subgroups and categories within the community. Detailed information should be avoided in the emergency period as should public relation efforts to underscore the importance of the insurance industry in disasters. The key should be on how information needed about insurance can be obtained by the affected population. Such information should focus on the service and availability of local insurance agencies.

Several ways to emphasize those services should be attempted. Perhaps the most effective would be to emphasize the interpersonal means of communication which exist prior to disaster impact and continue to exist afterwards. Brief notices about how to obtain information about insurance should be distributed at key locations where people are likely to congregate. Some locations may be determined by emergency planning, for example, mass feeding places, disaster application centers, offices of disaster relevant agencies such as the Red Cross and the Salvation Army, etc. In addition, depending on the size of the community, the telephone numbers of local representatives or a hotline might be provided also.

In sum, post disaster communication for the insurance industry should be:

1. Locally based;
2. Grounded in an understanding of the social structure and composition of the predisaster community;
3. Based on knowledge gained by participation by local insurance agents in the emergency planning of that community;
4. Grounded in the programmatic notion that the aim of the insurance industry is to help survivors solve the problems created by the disaster;
5. Communicating the notion of problem solving in many ways and not be dependent on a single message source;
6. Passing messages, in particular, through the already existing channels of interpersonal communication;
7. Utilizing simple messages mostly as a prompt to getting survivors seeking further information;

8. Sensitive to the diversity of racial and ethnic groups within the community and the different media sources such groups depend upon;

9. Providing materials and other resources for utilization by the local community, but avoiding the development of a completely standardized program.

10. Paying attention to disaster management as well as planning problems.

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