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The impact of media blame assignation on the EOC response to disaster: A case study of the response to the April 26, 1991, Andover (Kansas) Tornado

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THE IMPACT OF MEDIA BLAME
ASSIGNATION ON THE EOC

RESPONSE TO DISASTER:

A CASE STUDY OF THE RESPONSE
TO THE APRIL 26, 1991 ANDOVER
(KANSAS) TORNADO

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QUICK RESPONSE RESEARCH REPORT # 48

MARCH 1992

**THE IMPACT OF MEDIA BLAME ASSIGNATION ON THE EOC RESPONSE TO
DISASTER**

**A Case Study of the Response to the April 26, 1991
Andover (Kansas) Tornado**

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**A QUICK RESPONSE GRANT FINAL REPORT
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ABSTRACT

A three-person field team devoted four days to gathering data in Andover, Kansas, after a tornado devastated the Golden Spur Mobil Home Park on April 26, 1991. The research focus was to assess the extent to which the media's reporting of the local emergency management team's response to the disaster influenced the team's subsequent decisions. The researchers functioned as participant observers in the Emergency Operating Center (EOC), informally interviewed principal EOC members and media personnel, and obtained copies of media news stories (television and newspaper) which reported on the organizational response to the disaster. An assessment of the observation and interview data as well as the content analysis of the news stories, suggests that the EOC team devoted a considerable portion of their time to responding to the negative press they received centering around two issues: pre-impact warning and post-impact debris clearance. Some of the media's news stories sought to engage in blame assignation. The EOC members devoted time to developing strategies to control the media damage and changed some decisions they had made in response to the media's criticism. The relevant disaster research literature is utilized to explain the response of the EOC personnel and the media.

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What would Dorothy have found if she had returned home to the Golden Spur Mobil Home Park on Friday, April 26, 1991? The answer depends on the time of day. If she had arrived at 6:00 p.m., she would have found a calm, normal time life style being followed by the residents. If she had arrived after 6:39 p.m., she would have been confronted by the horror of what looked like a reenactment of the bombing of Hiroshima.

The Event

On Friday, April 26, 1991, the work week was ending, the community's children and their parents were looking forward to the weekend. For the residents of Andover, however, this would NOT be a normal weekend. Thirteen lives would end, 175 others would be injured, 840 individuals would lose their homes, and \$7 million damage would be sustained by a Kansas community of 4,047 before the day was over.

The Golden Spur Mobile Home Park is located just east of one of the main traffic arteries leading into the central business district of Andover, a suburb of Wichita. The park had contained 241 mobile homes housing approximately 1,000 people. The residents represented a cross-section of the citizens of Andover: newly-

weds, singles, young families, middle-aged couples, retirees, and so forth. The town's police chief numbered among the residents of the mobile home community. The city government offices are housed in a building approximately one mile north of the park. The central business district of the community is located approximately two miles north of the Golden Spur.

On the evening of Friday, April 26, some residents of the Golden Spur were not yet home from work, others had gone out for dinner or to run errands, many others were at home. By 6:00 p.m., the tornado watch had become a warning. Local radio and television stations broadcast this warning for the Wichita/Andover area. Unfortunately, numerous residents did not have their radio or television turned on when these warnings were being broadcast. Many people had no idea a tornado was approaching their community. To make matters worse, the neighborhood "civil defense" siren which was supposed to sound the warning, apparently did not work when it was activated. Furthermore, when a local police officer tried to give one last warning to the park residents by driving up and down the streets of the Golden Spur sounding his police car siren just minutes before impact, thereby risking his own life, many residents did not know (or did not remember) that such police action during a storm is a warning to take shelter.

At approximately 6:39 p.m. on Friday, April 26, 1991, a tornado did impact the Golden Spur trailer park destroying virtually every trailer in the park. Thirteen people died, 175 were injured. More deaths and injuries had been averted for two

reasons. First, many residents were not at home. Second, between 200-300 residents had heard the tornado warning and went to the underground shelter located in the center of the trailer park. They watched in horror as the tornado crushed their mobile homes. The Golden Spur Mobile Home park sustained a direct impact from the unusually large and powerful tornado. The police chief was in the shelter watching his own home being destroyed. He was in constant radio contact with the police station while the tornado worked its destruction. Listening to recordings of his messages to police headquarters provides a chilling indication of what the victims were experiencing. The destruction was so massive and total that Federal Emergency Management Agency (FEMA) certified the Andover site as a federal disaster area.

Research Goal and Methodology

The Natural Hazards Research and Applications Information Center's "Quick-Response Grant" program (University of Colorado) supports research which is focused on questions best answered through gathering data during the immediate post-impact period of a disaster event. A three-person field team from the Social Research Group (SRG), Department of Sociology and Anthropology, Millersville University of Pennsylvania, was supported by such a grant when it proceeded to the Andover site within 48 hours of impact. The team sought to assess the extent to which media reporting of the local emergency management agency (LEMA) response to the event influenced the subsequent LEMA decisions. There is a

disaster research literature that notes the contribution made by the media in warning the public of an impending disaster and in disseminating helpful recovery information (see, for example, Drabek & Stephensen, 1971, for a discussion of the radio as a warning source; and Quarantelli, 1980), but less is known about the role of the media in influencing the behind-the-scenes LEMA decision-making process.

The research director (faculty member) and two research assistants (students) remained in the field for four days functioning primarily as participant observers in the temporary emergency operating center (EOC). The team informally interviewed virtually every member of the EOC team, e.g., the mayor who served as the emergency response coordinator, a county commissioner, city council members, various city workers, police personnel, and so forth. The field team also observed and interviewed several print and broadcast media personnel who were working on news stories of the event. The field team sought to gain an understanding of what the EOC was attempting to coordinate and how they prioritized their actions pursuant to meeting the needs and desires of their various constituencies, e.g., victims, volunteers, city workers, and the larger public.

The members of the research team easily gained entree to the EOC. The research director had spoken with one of the LEMA personnel by telephone prior to leaving for the field. This LEMA official was receptive to our research participation and indicated that he would serve as our "sponsor." When we arrived in the field

we asked for our contact and presented our credentials. The EOC personnel invited our complete participation. In fact, we had to make it clear that we were not there to advise, but merely to observe and gather information that could be helpful to others as they develop their future disaster plans. We functioned as participant observers. We were free to enter and leave the EOC as we wished. We observed virtually all EOC meetings during the four days of our field work. We completed informal, one-on-one interviews, during non-busy periods. The principal EOC personnel were very candid about their situation, i.e., the problems they were facing in trying to coordinate a response, their perceived failures, their irritation at the media, and so forth. They were very frank during their EOC meetings in discussing the details of how they should respond to the media and various community constituencies. The completeness of our entree became readily apparent to us during our second and third days in the field when they were openly discussing how they should react to the media's blame-fixing--local officials were coming under increasing criticism in the broadcast and print media for allegedly not adequately warning the Golden Spur residents.

An interview guide was committed to memory by the field team members prior to entering the field. This informal guide contained open-ended questions designed to obtain the respondent's perspective of what problems they were encountering in responding to the disaster, how these problems were being addressed, by whom, and when. We asked the EOC personnel what they thought they would

do differently (or similarly) should they face such a situation again. We asked what individuals and what organizations were involved in the response. And, we asked them to describe their perspective on the media's activities in helping or hindering the response process.

After entering the field and observing EOC activities, the team realized the limited utility of the interview guide. We found it far more useful to just observe every conversation, meeting, and discussion that we could. We tried to inconspicuously take notes to help us remember what happened and when it happened. We used our tape recorders to dictate notes and to sometimes record interviews. Most of our interviews became conversations which helped us piece together the decisions made by the different emergency organizations. We were trying to understand the interactive decision-making process of this emergent (EOC) group. We "interviewed" every member of the EOC team which was comprised of personnel from local government agencies and volunteer organizations. We also "interviewed" leaders and workers in volunteer organizations which had no direct affiliation with the EOC, e.g., the Mennonite Disaster Services, and we "interviewed" personnel from local print and broadcast media organizations. We completed a total of 32 "interviews" while in the field.

The field team obtained copies of the local newspapers published during the first month of the post-impact and recovery periods in order to determine types of stories and the slant of the stories being published about the EOC's disaster response. While

in the field, the team also video-taped news broadcasts of two of the local television stations for the same purpose.

Did Media Reporting Influence EOC Decisions?

What We Found Upon Our Arrival. The field team presented its credentials to the first local official we met upon entering the EOC. After explaining who we were and why we were present, we were accepted and given access to every activity taking place in the EOC. We immediately assumed the role of observer. We conducted interviews when possible. We had telephoned the EOC prior to leaving for the field in order to facilitate entree. We found our initial contact shortly after our arrival. The EOC personnel appeared to be pleased to be of help to the research effort that contributes to helping other communities as they plan for such events.

The field team found the EOC located in an empty store front in a small strip-mall adjacent to the destroyed mobile home park. The community did not have a written disaster plan. There is no full or part-time local emergency preparedness coordinator. The mayor emerged during the immediate post-impact period to function as the coordinator of the city's response to the tornado. Various other local elected officials emerged to function as a committee to assist the mayor. Community, church, and volunteer organizations converged to assist the elected officials in coordinating the cleanup.

A temporary EOC was set up in an empty room of the vacant

store. The EOC contained a conference table with enough chairs around it to seat approximately 15 people. A felt-tip writing board was mounted on a wall on which information was written as it became available, e.g., problems needing attention, names and phone numbers of key personnel, the mayor's next scheduled press conference. A typewriter, telephones, and eventually a television and a photo-copying machine were installed. Almost everything in the EOC, including the store it was housed in, were donated by local businesses.

EOC security was maintained by the local police department which numbered five uniformed police officers. Within 36 hours of impact a security badge system was in place. No one was allowed into the EOC area without a security badge. A communications bus was positioned directly in front of the store (EOC location). A Red Cross Canteen was located in the parking lot near the communications bus. Various additional volunteer organizations, e.g., ham radio operators club, were working out of empty stores or vehicles in the mall parking lot.

The destroyed trailer park was across the street from the mall in which the EOC was located. Anyone from the EOC wishing to visit the disaster site could simply walk to it within a few minutes. The field team made numerous such trips. The National Guard was onsite to prevent anyone who did not have a security badge from entering the trailer park. They were called to Andover to "prevent looting and to assist in traffic control." There was a problem with converging sightseers clogging the roads. Search and rescue

activities were slowed due to this convergence. Residents who were not home during impact as well as the relatives of victims or survivors found it difficult to reach the site. And, volunteers who were trying to assist sorting the debris for valuables were also hindered by the convergence. The trucks carrying the bulldozed debris had a difficult time getting to and from the site.

Emergent Issues Reported in the Media

Debris Clearance. When we first arrived, the EOC personnel were in the process of dividing into two separate camps of diverse opinion in response to an emerging issue. When should clearance of the trailer park begin? It had been less than 48 hours since impact, but there were those who wanted to give the go-ahead to the city engineer, his crew, and the crews donated by area businesses, to initiate the clearance of the debris. The primary reason given for starting the cleanup as soon as possible was that the businesses which donated the bulldozer crews and equipment would not be able to do without them indefinitely. Their withdrawal was anticipated within days, especially if they were sitting idle. A second reason, provided by the owner of the mobile home park, was that the victims would not be able to obtain, install, and move into new mobile homes in the park until the park was cleared of the debris from the storm. Hence, the park owner and those personnel charged with completing the clearance of the debris, lobbied the EOC to keep the survivors out of the park so that the debris clearance could be completed immediately.

Those opposing immediate action were concerned that the

survivors needed much more time to locate valuables that were among the ruins, e.g., family photos and mementos. Members of this camp made frequent visits to the trailer park to speak with the surviving residents who were combing through the debris. These EOC officials would return to relate the pleas and frustrations these citizens expressed in asking for "a couple more days" to find their irreplaceable keepsakes. Most local print and broadcast media focused on reporting the extent of damage, the death and injuries, the sources of help for victims, the types of aid needed, where to send it, and the locations for volunteers to meet to help victims. One local television station, however, and one local newspaper focused on blame-fixing. [Blame assignation occurs more commonly after technological disasters, but has been known to occur after natural disasters such as tornadoes (Chandessers, 1966).] A reporter from each of these repeatedly interviewed victims who were very vocal about their frustration with the city's initial decision to not allow them to return to their damaged or destroyed home to obtain valuables and with the city's initial announcement that debris clearance would begin shortly--before valuable salvaging could be completed. The slant of the news stories of these reporters essentially portrayed the EOC as being inconsiderate of the needs of those they were supposed to serve. We are not taking sides here, we are merely attempting to describe the roles assumed by the principals as we have assessed the situation in the field. The argument could certainly be made that the blame-fixing reporters were doing the victims a service by taking up their

cause. The point being made here is that we are not passing judgment on who may be more right or more wrong, we are noting that a conflict existed which pit the EOC against some in the media. This conflict consumed a lot of time from the EOC personnel as they planned how to respond to the mounting criticism where it appeared. While the EOC was attempting to coordinate the community's response to the disaster, it devoted much time to determining what it considered the best response to this criticism. The debate over when to complete the debris clearance continued throughout our four days in the field. Deadlines for victims to finish their salvage efforts were set daily, then pushed back as a result of complaints by the victims and the media's portrayal of such complaints. The clearance was finally set to begin the day the field team was leaving town.

The Mennonite Disaster Services (MDS) also contributed to the continual EOC "mind changing." Early each morning the MDS would send a large crew to the trailer park to sift through the debris for victims who were not present. The MDS operated separately from the EOC and resisted virtually all efforts to bring them within the coordination sphere of the EOC. The MDS essentially ignored any decision by the EOC when it would indicate that search activities would be discontinued to begin clearing the park. Between the media's criticism and the MDS's ignoring of EOC decisions, it became impossible to begin clearing the park. EOC personnel realized any "strong arm tactics" to stop the MDS would only further exacerbate the EOC's emerging public relations problems.

The field team concluded that it was obvious that the media's involvement had a definite impact on the decision making of the EOC personnel. It influenced how the EOC utilized its time. It also influenced the EOC's decision as to when to begin the final phase of the debris clearance. Virtually every EOC decision increasingly became hostage to the desire to limit "media damage" as the need to consider how the media might perceive (or misperceive) their actions was of increasingly greater concern to them with each negative press story.

Warnings. We also discovered, shortly after our arrival, that both EOC camps were bristling at the emerging media blame-fixing reports which were suggesting that the city did not do an adequate job warning the trailer park residents about the tornado's impending impact. Even though there was a difference of opinion between the two camps in the EOC over when to initiate debris clearance, there was total unanimity of resentment toward those in the media who sought to criticize their pre-impact efforts. Virtually all of the EOC personnel had no sleep in the 48 hours since impact. They felt that they had been totally devoted to doing the best job they could in coordinating the response to facilitate the community's restoration to normal time activity. In private conversations with the research team, some EOC personnel suggested that maybe everything they had done before, as well as since, impact may not have been perfect, but "we are only human . . . had no prior experience, no written (disaster) plan, no prior training, and are doing the best we can making this up as we go

along." They indicated that they were in frequent contact with a neighboring community that had recently experienced an emergency event and had taken steps to be better prepared should they be a target of a disaster again. The Andover EOC personnel were using their neighboring community's emergency coordinators as consultants in developing their own emergent response. Nevertheless, media attention continued to focus on why the city, allegedly, did not take adequate steps to warn the residents prior to impact.

The first such issue centered on criticism of the police department's attempt to warn the mobile home residents by sending a patrol car through the park neighborhoods sounding its siren. The city stated that this procedure is standard operating procedure during a tornado warning, a procedure that the community had previously been educated to recognize through newspaper and television reports. In other words, the citizens should have known what the siren meant. From the city's perspective, they risked the life of an officer to give the warning just minutes before impact. From the point of view of those who criticized the police effort, it was a meaningless effort. In the view of one survivor, "why not at least use a bull horn to warn those who were walking on the street?"

The EOC decided to release a video tape they had of the police officer's effort. In response to the alledged beating of Rodney King by Los Angeles police officers, Andover had mounted a video camera on each police cruiser just weeks before the tornado struck their community. City officials stated that these cameras were to

be used to record arrests in order to provide evidence for drunk driving offenses and to protect the police officer from false charges of police brutality. By chance, the officer who sounded the alarm in the mobile home park, had the video camera on, inadvertently recording his attempt to warn the park residents. The EOC decided to call a press conference in order to play the video tape for the press as a strategy for reducing the criticism. Many in the media saw it differently, however; they recoiled when they watched the police officer drive past a resident who was walking her dog--apparently unaware or unconcerned about the impending disaster. They thought the officer should have stopped to inform the resident of what the siren meant and tell her to seek shelter. It was seen as quite possible that she could have had time to get to the shelter if he had stopped. It is also quite possible that a) she would have decided to not go to the shelter, b) she may not have had enough time anyway, and/or c) the police officer may have run out of time to save himself. . . and died.

A second criticism of the city's alleged lack of adequate pre-impact warning emerged. A debate raged around the question as to whether or not the community (civil defense style) siren was actually activated during the pre-impact period. The media and the EOC personnel continued the debate throughout the post-impact period. Many residents were quoted in the press as stating that they did not hear a siren, some said that they had. An examination of the siren found it to be non-functional. EOC personnel stated that it had been inspected recently and had been found to have been

in good working order. The firm that had been employed to maintain the siren was quoted as indicating that the siren had been left unrepaired until funds could be found to purchase the expensive parts it needed.

While the EOC was busy responding to the post-impact needs of the trailer park, it was also spending a fair amount of time trying to both respond to the media's investigation into the siren's status and to attempt to limit the ill-will being generated in the community by the media's investigative reporting of this third issue. To counter the increasing negative feelings being generated in the community by the siren issue, the EOC decided to hold a press conference at which they would answer questions and release information which, they felt, would refute the perception that the city had been irresponsible.

The field team concluded that it was obvious that the media's reporting had an obvious impact on the actions taken by the EOC in response to each of the three issues which emerged in the media during the post-impact immediate recovery period. We want to clearly repeat that we are not chastising either the media or the EOC for actions taken. Our task was to determine if the decisions made by the EOC personnel were influenced by the reporting in the media during the immediate recovery period. As participant observers who engaged in informal interviewing we sought to gather qualitative data which would enable us to discern what was occurring pursuant to our research goal. The short answer to the question (Did the media's reporting influence the disaster response

decisions made by the emergency personnel in the aftermath of the Andover tornado?) is: Yes!

Content of Media's Reporting

While the EOC was stung by the negative media reports, we found most of the print and broadcast media reporting to have been either supportive of their efforts or at least neutral. Most of the reporting dealt with damage estimates, death tolls, human interest stories about survivors, and so forth. The media was a real asset as the primary or only source of disaster information for the community (as observed, for example, by Wenger, 1980-- while Wenger's focus was quite different, the point is applicable here). It was essentially one reporter from one of the television stations and one reporter from one of the newspapers that focused on the critical issues. Yet, while most of the reporting was supportive of the EOC, much time and effort were devoted to responding to those minority of instances where they received negative press. Some EOC personnel became increasingly antagonist toward anyone from the offending television station or newspaper company. They also became increasingly distrustful of the media generally.

For example Table 1, below, provides the results of our content analysis of print and broadcast news reports on the disaster. Please note that in the case of both the print and broadcast media the ratio of negative reporting was less than one in ten. Most television news stories (91%) were either positive or

neutral in reporting on disaster events and most newspaper accounts (93%) were also either neutral or supportive of the efforts of the EOC.

TABLE 1: TYPE OF REPORTING

<u>Reporting</u>	<u>Media Form</u>	
	Broadcast	Print
Supportive	91% (120)	93% (141)
Critical	<u>9% (12)</u>	<u>7% (10)</u>
	100% (132)	100% (151)

The reader should note, however, that while the Wichita area has five television stations, plus cable news channel, the field team was able to obtain video tapes of television news broadcasts only while we were in the field. Furthermore, these taped broadcasts came from only two of the television stations. It is possible that the broadcasts of the other stations were substantively different from those we recorded.

On the other hand, it was possible to obtain copies of the major local newspaper and the local weekly newspaper for the month following the date of impact. Hence, the content analysis of the print media news stories of the event is more complete than that for the broadcast media. We were able to include in our content analysis those news reports that the EOC found offensive--and to which their decisions were responsive.

Recovery. During the weeks that followed the disaster event, the clearing of the park was subsequently completed. Rebuilding

was begun and attempts were made to return the community to a version of normal time activity. The media sought new stories and the victims continued to struggle with what would be, for them, a long term process of rebuilding their lives. Those local leaders who comprised the post-tornado emergent EOC staff began a soul searching process to assess what should be done to be better prepared for any future disaster that they hoped would never visit their community.

Literature Based Analysis & Discussion of the Findings

Researchers have long argued that disaster warnings must be conceptualized as a social process (Williams, 1956; Mileti, 1975; Mileti, Drabek, and Haas, 1975; Janis & Mann 1977; Quarantelli, 1980; Perry, 1985; Drabek, 1986). "The initial response to a disaster warning is disbelief" (Drabek, 1986; see also, Drabek, 1969; Moore, et al., 1963; Fritz & Mathewson, 1957). If the disaster event was unexpected, e.g., the case of a rapid onset disaster agent such as a tornado, and if the level of emergency preparedness is low, most people tend to continue in their normal routine when first warned of an impending disaster, as they disbelieve the warning whether it comes from an authority or not (Perry, Lindell, & Greene, 1981; Quarantelli, 1980). If the warning message appears to the listener as vague, their tendency to disbelieve it is increased (Drabek, 1986 & 1968; Mileti, Drabek, & Haas, 1975; Perry, et al., 1981; Fritz, 1957).

Several variables appear to increase the likelihood of a warning being taken seriously and appropriately acted upon. These

variables include the **clarity** of the warning message, i.e., specificity of the nature of the hazard and what the listener is directed to do in response to it (Perry, Lindell, & Greene, 1982); the **consistency** of the warning message with other warning messages, i.e., media, weather services, local authorities, family members seem to all be giving the same warning message (Demerath, 1957; Fritz, 1957; Mileti, Drabek, & Haas, 1975; Drabek, 1986); the **frequency** of the warnings (Mileti, 1975; Fritz, 1961; Drabek & Boggs, 1968; Drabek, 1969 & 1986; Perry, Lindell, & Greene, 1981); the **type of authority** who is giving the message, e.g., the media is believed more than the police or fire personnel, yet the police/fire personnel are believed more than friends or family (Perry & Greene, 1983; Drabek, 1969 & 1986; Mileti, 1975); the **accuracy of past warnings**, i.e., if they accurately forecast the disaster agents direction and impact (Mileti, Drabek, & Haas, 1975; Haas, Cochrane, and Eddy, 1976; Foster, 1980; Drabek, 1986); and the **frequency of the disaster agent**, e.g., if tornadoes frequently strike the area (Drabek, 1986; Anderson, 1969).

During the pre-impact period, an attempt was made to warn the residents of Andover of the impending tornado's impact. First, the community officials attempted to activate the civil-defense siren system. It apparently failed to operate in the normal fashion. Even if it had, it should be noted that Hodler (1982) studied the response of the residents of a community to a tornado warning and found that less than half of the affected residents who heard the civil defense warning sirens sought a location of safety, even

though they were tested briefly on the first Saturday of each month. Dependence on a siren system to move the population to effectively respond to the warning of an impending impact is thereby rendered suspect as an effective means of warning the population.

The community utilized two additional medium to warn the residents. First, radio and television stations broadcast the tornado watch, then the warning for the Wichita-Andover area. Because a tornado is a rapid-onset disaster agent, it is difficult to expect the warning to provide sufficient time for the total population to complete the social process of digesting, confirming, and acting upon the warning prior to impact. As noted above, the media has been found in the literature to be the most believed source of disaster warning information and Wenger, James, and Faupel (1980) found that most citizens tend to obtain their information about disasters from the media. Furthermore, not all residents of any community have a radio or television turned on when such warnings are being given. This appeared to be the case for many Andover residents. And, there remain the issues of clarity, consistency, frequency, previous accuracy, and frequency of tornadoes in the area. The broadcast messages were clear to the extent that they indicated the nature of the threat, a tornado, and the response the listener was being directed to follow, seek appropriate shelter. As is the nature of the state of the art of tornado forecasting, the path of the tornado and subsequent impact area is vague enough to enable many listeners to assume that they

will not be the actual target. Previous experience, even in an area prone to tornadoes, tends to reinforce this perception of the validity of the warning to many listeners. And, the opportunity to broadcast frequent warnings is reduced by the rapid-onset of a tornado, unlike the slow-onset generated opportunities a hurricane provides for giving frequent warnings not only in the broadcast, but also the print media.

The remaining attempt to warn the area was the attempt by the Andover Police Department to alert the residents of the Golden Spur Mobile Home Park by sending an officer to quickly drive up and down the streets of the mobile home park with his siren activated as a warning. When it became apparent to the city that this area was in the direct path of the tornado, there were minutes to act. The patrol car was dispatched to the park, the officer had less than 10 minutes to drive through the park and then return, at speeds exceeding 80 miles per hour, to the station house shelter which was approximately two miles from the park. If the officer had attempted to go door to door to warn residents he would, in all likelihood, have become a victim of the storm himself. Post-storm criticism which suggested that the officer could have used a bull horn to at least warn those who were milling outside their homes, as well as the criticism which suggests that the residents "had only themselves to blame since they did not heed the warnings," assume the clarity of vision that comes with hindsight. The literature, as noted above, has observed the tendency for those who even hear the warning to disregard it, unless the message is very

clear, frequently given in a consistent message over time, which is not undermined by previous experience where the warnings appeared, to the listener, to be unnecessary. In the Andover experience, the community is one which is generally exposed to the threat of tornadoes, the appropriate authorities were sounding the alarm (media and police personnel), and the message was clear. In fact, we can account for the response of at least 388, perhaps 488 of the Golden Spur Mobile Home Park residents. Between 200 and 300 of them heeded the warning and went to the shelter in the park. They were safe. Thirteen people died and 175 were injured. Presumably these 188 individuals either did not hear the warnings or did not heed them. We do not know the whereabouts of the remaining residents, between 512 and 612 individuals. Most, if not all of them, were apparently not home at the time. Some of them heeded the warning and left for safer locations out of the area, many had not returned from work yet, others had gone out for the evening. Apparently, few stayed in their mobile homes and walked away unharmed. Hence, it appears that more than half of the residents that we can account for, did respond to the warning. This is better than what Hodler (1982, discussed previously) observed in response to the warning of an impending tornado's impact in a case study of another community. It appears, therefore, that the Andover citizens behavior was very typical of what tends to occur in response to disaster warnings. It also appears that the response of the relevant community organizations, e.g., the media and local government, was very typical in their attempts to warn

the residents. Using civil-defense sirens, media warnings, and police warnings are not unusual ways to attempt to alert the citizenry and move them to act on behalf of their own safety.

If the Andover experience is not atypical of the research literature, then why did we observe the blame assignation process among local residents as reflected in the media? Drabek (1968) notes that searches for "the guilty" do follow some disaster events. Chandessais (1966) discovered that citizens do sometimes use the town administration as the scapegoat during the aftermath of a tornado. Singer (1982), similarly, observed a tendency to direct blame toward civic officials. Wolensky and Miller (1981, as reported in Drabek, 1986:293) noted "the generalized belief that formal authorities in local government were [seen as] unresponsive to the needs of specific citizens . . . there existed a 'gap' between what was expected and what was delivered. In response to this, certain constituencies felt unprotected and 'forced' to mobilize." Drabek and Quarantelli (1967, as reported in Drabek, 1986:292) suggest that such blame assignation may "help give the illusion that corrective action of some sort is being taken." While blame assignation is more likely to occur in conjunction with a technological disaster than with one that is caused naturally (Drabek & Quarantelli, 1967), the scapegoating experienced by the Andover government officials during the post-impact and early recovery periods was **not**, therefore, totally unprecedented.

The appropriate question to address presently seems to suggest itself automatically: under what circumstances is a community

likely to become more effective in responding to such disaster events? Beyond those which have already been implied above, several suggested by the literature will be offered below.

Concluding Observations

What would Dorothy have found if she had returned home to Kansas on that fateful Friday in April 1991? She would have found a trailer park totally destroyed by an extremely large and powerful tornado. She would have been pleased to find so many survivors resulting from the 200-300 residents wisely heeding the warning and evacuating to the underground shelter. She would have found a divided, but earnest, EOC trying its best to respond to the events that have befallen them, without a written disaster plan or training to guide them in their decision-making. She would have found a very well organized, very competent, if very independent, group assisting the victims in their determination to find irreplaceable possessions. And Dorothy would have found broadcast and print media news stories which were often supportive of the community's attempts to recover from the tornado, yet she also would have found stories which were critical of the town's response. These latter stories were of sufficient concern to the EOC as to influence their decision-making during the immediate post-impact and early recovery periods.

Since Dorothy knows "there's no place like home," she would be interested in suggesting how things could possibly be improved in case another tornado comes to town. Therefore, the field team

offers several suggestions which are not meant to be critical, only supportive as Andover and other communities seek to continue to improve the service they give to their public during time of disaster.

Disaster Plan. A written disaster plan would assist present and future individuals who find themselves with the unenviable task of having to respond to a disaster agent's impact (see Drabek, 1986; Quarantelli, 1984; Dynes & Quarantelli, 1975; Dynes, Quarantelli, & Kreps, 1972 for a discussion of the merits of such planning). The process of constructing the written plan would be of great benefit to the organizations who must respond to such emergencies. Other communities, the state emergency management office, and FEMA would all be sources for guidance in developing such a plan.

Community Education Effort. The local government could engage in an ongoing effort to educate the community about the needs, problems, and procedures associated with disaster events. For example, school children could be taught the importance of evacuating or seeking shelter when the community and/or police siren is activated. Of course, additional warning activities could be considered to facilitate gaining the awareness of community members that an emergency is taking place.

Disaster Training & Drills. Those who are members of the EOC would greatly benefit by attending training seminars. Such training would not only give direction to the individual role responsibilities, but should also give some direction in writing

and updating a community's disaster plans. In addition to being taught disaster response skills, regular disaster drills would test the readiness of the individuals and their organizations. Drills should benefit the community in assessing the adequacy of their written disaster plan as well.

EOC Design. While it may not be economically feasible for every community to maintain a permanent EOC, the disaster plan could designate an emergent EOC structure which should alleviate some of the trial-and-error decision making that accompanies organizational response to a disaster. Even an EOC that does not exist until a disaster strikes, needs some written guidelines which outline what roles need to be fulfilled, what tasks commonly need to be addressed in what order, and what problems can be expected to arise during the life cycle of the recovery period. Of course, any written plan is only useful if it is actually implemented.

Mutual Assistance Agreements. Perhaps the cooperation of organizations such as the Mennonite Disaster Services could be attained if the community developed and maintained, as part of their implemented written disaster plan, a relationship with it during normal time. The community and organizations like MDS could mutually educate each other of their needs, procedures, and so forth. If an emergency develops in the community, it would, thereby, be in a better position to respond in concert with the various organizations.

Developing a Relationship with the Media. Investigative reporters may by definition view their role as adversarial. It is

arguably good that this is the case at times, since the Golden Spur Mobile Home Park residents' desire to have more time to reclaim their property was essentially fulfilled through the role the local media played on their behalf. The rebuilding process can be hurt, however, if local politics and personality clashes interfere with EOC attempts to respond effectively. A good disaster plan, when implemented properly, could assist those who would perform EOC functions during emergency time, if it provides for mechanisms for developing an effective relationship with key personnel in print and broadcast media during normal time. The media could become involved in the planning process and gain an understanding of the valuable role they can play in assisting the local community as an information disseminator during time of disaster. The media can be a very valuable aid to a community struck by disaster. Life saving information can be disseminated with the help of newspaper, television, and radio reporters. If those who would fulfill EOC roles during disaster time seek to educate those in the media as to how they can give valuable assistance to the recovery effort, then perhaps the emergency coordinators can devote more of their time to the primary task of responding to the disaster rather than to the media's criticism. By developing a working relationship with media organizations, EOC personnel may gain insight into the most effective approach to involving media personnel as team members who are jointly attempting to serve the community rather than be adversaries.

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