INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or “target” for pages apparently lacking from the document photographed is “Missing Page(s)”. If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.

2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in “sectioning” the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again — beginning below the first row and continuing on until complete.

4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from “photographs” if essential to the understanding of the dissertation. Silver prints of “photographs” may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.

5. PLEASE NOTE: Some pages may have indistinct print. Filmed as received.

Xerox University Microfilms
300 North Zeeb Road
Ann Arbor, Michigan 48106
74-3346

WAXMAN, Jerry Joseph, 1949-
AN ANALYSIS OF COMMERCIAL BROADCASTING
ORGANIZATIONS DURING FLOOD DISASTERS.

The Ohio State University, Ph.D., 1973
Mass Communications

University Microfilms, A XEROX Company, Ann Arbor, Michigan
AN ANALYSIS OF COMMERCIAL BROADCASTING
ORGANIZATIONS DURING FLOOD DISASTERS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Jerry Joseph Waxman, B.A., M.A.

* * * * *

The Ohio State University
1973

Reading Committee:

E.L. Quarantelli
Russell R. Dynes
Alfred C. Clarke

Approved By

E. L. Quarantelli
Adviser
Department of Sociology
ACKNOWLEDGEMENTS

It is virtually impossible to acknowledge all persons whose paths have crossed mine and thus influenced the undertaking of this research. Therefore, I wish to generally thank each individual who lent help or support to this project.

In addition, certain people gave much more than just help or support at various stages of this work. Foremost among these was Professor E.L. Quarantelli who, as my advisor, teacher, and research chairman, provided me with more understanding and wise counsel than he was aware. To Professors Russell Dynes and Alfred Clarke I give my thanks for the persistent support that was always forthcoming.

At the Disaster Research Center I would like to acknowledge the excellent typing assistance given by Ms. Jeanette Seeman who typed the first drafts of this manuscript from what was at times an illegible scrawl and also thank Ms. Diane Delahunty for her efficient transcribing of the taped interviews and for her gracious enlivening of "the house on ninth." I also wish to congratulate myself on the excellent and professional typing of the final copy of this research.

A word of thanks also goes to the commercial broadcasters who so patiently and honestly allowed me to enter their world for
a brief moment. This project report is the first installment toward repaying my debt to them.

Concerning the funding of this research, I would like to express my thanks to the following two organizations for their financial support: the Center for Studies of Mental Health and Social Problems, Applied Research Branch, National Institutes of Mental Health for aid under grant PHS 5 R01 MH-15399-04, 05 and the Department of Health, Education and Welfare for a National Defense Education Act Title IV Fellowship.

Lastly, I would like to thank my wife Brenda, who contributed so much to my education and to whom this research is dedicated.
VITA

January 21, 1949 ......... Born - Chattanooga, Tennessee

1970 ................. B.A. in Sociology
The Florida State University
Tallahassee, Florida

1970-1973 ............ Woodrow Wilson Fellow
Department of Sociology
The Ohio State University
Columbus, Ohio

1971 ................. M.A. in Sociology
The Ohio State University
Columbus, Ohio

1971-1973 ............ Research Associate
Disaster Research Center
The Ohio State University
Columbus, Ohio

1972-1973 ............ Teaching Associate
Department of Sociology
The Ohio State University
Columbus, Ohio

PUBLICATIONS


Changes in Response Patterns of Fire Departments in Civil Disturbances, Report Series No. 12, Disaster Research Center, The Ohio State University, 1972.


PRESENTATIONS


FIELDS OF STUDY

Major Field: Sociology

Studies in Collective Behavior. Professor E.L. Quarantelli
Studies in Social Organization. Professor Alfred C. Clarke
Studies in Sociology of Religion. Professor Russell R. Dynes
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>ii</td>
</tr>
<tr>
<td>VITA</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>viii</td>
</tr>
</tbody>
</table>

## Chapter

I. **INTRODUCTION** ........................................... 1  
   - Introduction  
   - Overview  
   - Descriptive Accounts  
   - Media as Information Source  
   - Criticism of the Media  
   - Reasons for Study

II. **RELEVANT LITERATURE** ................................. 31  
   - Introduction  
   - The Mass Communications Literature  
   - The Organizational Literature  
   - The Disaster Literature  
   - Summary

III. **RESEARCH METHODS** ................................. 59  
   - Introduction  
   - Research Design  
   - Data Analysis  
   - Summary
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV. MEDIA ACTIVITIES DURING DISASTER</td>
<td>81</td>
</tr>
<tr>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>The Differential Responses of Radio and Television</td>
<td></td>
</tr>
<tr>
<td>Community Size and Disaster Scope</td>
<td></td>
</tr>
<tr>
<td>Disaster Planning</td>
<td></td>
</tr>
<tr>
<td>Intraorganizational Gatekeeping</td>
<td></td>
</tr>
<tr>
<td>Interorganizational Relations</td>
<td></td>
</tr>
<tr>
<td>Communication Patterns</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td></td>
</tr>
<tr>
<td>V. ORGANIZATIONAL STRESS</td>
<td>143</td>
</tr>
<tr>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>Overview</td>
<td></td>
</tr>
<tr>
<td>The Hypotheses</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td></td>
</tr>
<tr>
<td>VI. CONCLUSIONS</td>
<td>169</td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>The Hypotheses</td>
<td></td>
</tr>
<tr>
<td>New Models</td>
<td></td>
</tr>
<tr>
<td>Paths for Future Research</td>
<td></td>
</tr>
<tr>
<td>Conclusion</td>
<td></td>
</tr>
<tr>
<td>APPENDIX</td>
<td>213</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>217</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Four Flood Communities</td>
<td>63</td>
</tr>
<tr>
<td>2. Flow Model Depicting News Channels during Normal Operations (T_1)</td>
<td>104</td>
</tr>
<tr>
<td>3. Flow Model Depicting News Channels during Local Disaster Operations (T_2)</td>
<td>107</td>
</tr>
<tr>
<td>4. Patterns of Organization-to-Public Communication during Disasters</td>
<td>132</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Introduction

Disasters, as one reporter notes, are "smashingly big" news stories.¹ The total inundation of a community by flood, the burning of numerous areas by fire, the sudden destruction by tornado, the continuous onslaught by hurricane, and the massive disruption by earthquake -- these are some of the elements that are of utmost news importance. People are interested in disasters for numerous reasons. Some enjoy the opportunity of being in contact with heroism and suffering. Others seek the universal and the significant beyond the event itself.² Still others are directly affected by the disaster and are interested because of their concern for the safety of their family, relatives, and friends. Concern over damage to homes and other property also contributes to this interest. Finally, the disruption of everyday life overrides the entire situation and this too stimulates interest. This disruption of everyday life, in fact, is probably the greatest single factor in making disasters newsworthy.³ It affects many people in a community in their routine day-to-day
activities. Basic public utilities such as water, heat, and power may become inoperable. So too may telephone and telegraph service and mail delivery. Bus, railroad, and airplane service also may become interrupted. Overall, the community social system undergoes a period of severe crisis. New activities and modes of organization are required to help counterbalance the social disruption that occurs. The separate workings of disparate individuals, families, groups, organizations, and the general public need to be linked into a unified effort. "The basis for such unified effort is coordination, and the basis for coordination is communication." The mass media often play a major role in communication and hence coordination. Newspapers, radio, and television probably provide an important source of information to community actors. Most every sub-group in the community usually comes to rely upon the data that are disseminated by the mass media. The mass media, therefore, seem to be important components in a community's attempt to regain normalcy. As such, they are suitable subjects for extended examination. This research thus focuses upon the operations and activities of the two broadcast mass media, radio and television, as they react and adapt to local massive community disasters.

Overview

Natural disasters have been conceptualized as a particular
type of crisis situation. Community crises fall roughly into two
types, those exhibiting a general degree of consensus and those
exhibiting a general degree of dissensus. The latter are best
typified by civil disturbances as they have occurred in racial
ghettos and on college campuses during the past few years. There
is disagreement concerning overall community goals and about how
these goals should be implemented; the situation is very politi­
cally charged. While of serious import, dissensus crises are not
the topic of relevance for this study. The subject of more
limited focus is consensus crises. Consensus crises exhibit
substantial agreement within the affected community about the
make-up and priority of community goals and about the means to
be used to administer these goals. This type of situation is
illustrated in those communities struck by natural disasters.

Natural disasters inject a degree of crisis into normal
day-to-day community functioning. The community as a social
organization experiences the disaster agent as a threat to its
very existence and viability. Following impact, the stable
patterns of life that have arisen as a result of the daily inter­
action of numerous social actors on a multitude of levels become
strained, impaired, or disjoined. The social system on a very
general level is disrupted from normal routines and its structures
and/or processes need to be modified or changed to cope with the
new situation brought on by environmental uncertainty precipitated
by the natural disaster agent. Old structures need to be rearranged or new ones brought into existence; old tasks need to be modified or new ones assumed. With this community response stability may be brought back into the system and the disaster context neutralized, routinized, and then alleviated. To accomplish this, community actors must funnel their numerous lines of activity into coordinated flows of behavior. Through this coordinated behavior the community regains a large degree of normalcy and can successfully cope with the social disruption. This community coordination depends upon a basic level of communication flowing through the system. Communication links each member of the community with each other and only through communication can coordination be implemented. Communication in its most basic form is interpersonal; social actors exchange messages in a face-to-face interactive sequence. At the other end of the analytical continuum is mass communication where composite social entities exchange messages through a diffuse and indirect process. Interpersonal communication during normal times and during crises has received a major share of attention as a social activity and will not be directly considered here. Mass communication, though, has been relatively neglected. Its importance as an essential component of community coordination during disasters has not been highlighted by studies.

Mass communication is communication of diffuse messages
through a highly complex technology to a general public from a specialized formal organization and involving little or no feedback. The content of mass communication reinforces primary interpersonal communication in providing a basis for coordinated community activity. This seems to be especially true of natural disasters. During disasters mass communication assumes prominent visibility as a means for the community achievement of coordinated behavior. Its community-wide focus has in a single instance a larger range of contact in both space and time than does interpersonal communication. It therefore achieves prominence during the crisis period as an efficient means of disseminating information throughout the community.

This research will specifically study the organization and operation of one segment of the mass media as they undergo crisis due to natural disaster stress in their local community. Only the broadcast mass media will be explicitly examined; though similar to radio and television, newspaper organizations exhibit qualitative differences in structures and technologies from the former and will be relegated to future research. A second limitation is that this study will only look at mass media response to local community massive disasters. Non-local community disasters do not provide the context for community action nor do they involve the mass media organizations themselves as active participants in the crisis and hence will not be studied.
Focus of this research will be upon the broadcast mass communication organization. Three goals are paramount in this inquiry. (1) Due to the lack of reliable and in-depth information simply describing media operations during disasters, the first task is to more adequately describe the phenomenon under study. Extended material will be sought to sociologically portray the nature and characteristics of radio and television station operations as they react to local community disasters. (2) The second task is to test specific hypotheses. These propositions relate basically to internal station operations and were extant in the literature. (3) Finally, the third goal is to generate new hypotheses. This is intertwined with the preceding two goals but is also independent of them. Through both extensive description and the testing and modifying of existing hypotheses, new hypotheses may be arrived at that are more relevant and more precise and that enable better explanation and prediction. These hypotheses in turn provide the foundation for future research.

This research, thus, is basically exploratory in nature. Data are sought to help describe the phenomenon under study so that with a better understanding of the essential characteristics of station operations hypotheses may be generated that more effectively isolate relevant structures and processes. Allied with this is the testing of certain specific hypotheses already existing in the literature; their value lies not so much in their
specific validity as in their sensitizing nature in the search for key research areas.

This first chapter will proceed as an introduction for the reader to the general area of study of this dissertation. Some of the few accounts that are available in the literature describing in limited detail station activities during natural disasters will be presented. There will then follow two specific rationale for undertaking a study such as this, couched in terms of the media as information sources and hence of prominence and the media as targets of criticism and thus also of study relevance. This chapter will close with a more systematic listing of legitimations for this study.

**Descriptive Accounts**

From a legal perspective, it is the responsibility of the mass media to provide adequate and reliable information to the general public during times of disaster. The seeking of news, then, is a major task of the media. Disaster reporting is an "all-hands operation." A large portion of the media organization's resources are applied to getting the disaster story. However, there are few descriptive accounts of media operations during disaster. There is little information provided as to the changes that occur in the internal patterning of mass communication organizations or to the changes that occur in the
relation between mass media organizations and other organizations. Scattered throughout both the journalistic and disaster literature, though, are a small number of fragmentary accounts of how the media gather disaster news. These accounts are of the print and the broadcast media. They are some of the only sources providing a glimpse into the inner workings of the media. This report will selectively note some of these accounts.

The sinking of the Titanic in 1912 is one of the world's most famous maritime disasters. There are two reports by newsmen of their activities as they attempt to gather information about this tragedy. Hurd of the St. Louis Post-Dispatch is a passenger on the liner Carpathia en route to a vacation holiday in Europe. It is a fortuitous circumstance that the Carpathia is the vessel that rescues the surviving passengers of the Titanic. Hurd finds himself in the enviable position of being the only newsmen on board. During the three days that it takes the Carpathia to reach dock in New York, Hurd manages to interview whatever passengers and crew of the Titanic he can find. His story cannot be filed from the ship, however, because the Carpathia's captain has ordered the wireless cabin closed. Hurd circumvents this order by having his reports thrown aboard a tugboat that has been rented by the newspaper and that is closely following the Carpathia. The tugboat reaches New York hours ahead of the rescue ship and Hurd's story is the first account published of the passengers'
side of the Titanic's sinking.

A second newsman's report of the sinking of the Titanic is by Stoddart. Stoddart is the assistant city editor of the New York Press and he goes into lengthy detail telling how his newspaper fills copy about the disaster during the three days that news is blacked out from the Carpathia. As the early deadlines of the paper approach, the newsroom experiences frenzies of activity. But soon the whole organization settles into a quiet routine of fact-finding. Reporters are assigned to get stories about the crowds at the steamship office, human interest material about prominent passengers, descriptions of the Titanic, the career of the ship's captain, previous ship disasters, and numerous items about glaciers and icebergs. In addition, other local news that is not related to the disaster is also prepared. When the Carpathia finally arrives in New York, the focus shifts to the Titanic's survivors and all reporters try to get stories from them. Elaborate telephone-to-copy desk-to-typesetting-to-printing circuits are arranged to get the story back to the office and into print as soon as possible to beat both the paper's own deadline and that of competing newspapers.

A dam collapse at Austin, Pennsylvania in the same year is the setting for Durstine's account of his adventures getting information for the New York Sun. He describes hazardous travel over disrupted transportation lines, personal danger, extreme
inconveniences such as lack of food, water, and shelter, and other privations he has to endure. The greater part of his account reflects the hardship in getting the information, once collected, back to New York for inclusion in the newspaper. With disrupted transportation and no useable communication facilities in the local area, Durstine is forced to travel to distant towns to seek a telegraph office. It is only with great difficulty that he files an account of the disaster.

An early account of the activities of the broadcast media in disaster discusses radio during the St. Louis tornado in 1927. This is "the first instance in history of the rapid assemblage of relief agencies under the control of radio -- all other means of communication having been smashed into inactivity." Radio is described as a "new, powerful, mysterious force of the air." The article describes the help of radio stations in the calling-up of the National Guard and Army and Navy Reserves. Mention is also made of a local station that is knocked off the air due to antenna damage. Finally, the article discloses radio activities in the community recovery phase when the station acts as an appeal center for money, food, and clothing.

The January, 1937, Louisville flood is the scene of the next report of radio's encounter with disaster. Three articles describe station operations. One interesting account describes the workings of WHAS, the CBS affiliate in Louisville. The
station discards regularly-scheduled programs and instead broadcasts a continuous flow of rescue and relief messages. It loses power, though, and is forced off the air. Station engineers patch a line from their studio in Louisville to the studios of NBC-affiliate WSM in Nashville, Tennessee. WSM then discontinues its own programming and allows WHAS announcers to broadcast over its facilities flood messages that are then beamed back to Louisville. This 1937 Louisville flood is also noted for various radio precedents. The first radio flood network is founded when a number of stations in Louisville and surrounding communities join forces in a voluntary effort to disseminate the largest amount of disaster information. The WHAS-WSM transmission is simulcasted by other stations so that the same information is being broadcast by all stations at the same time. In addition, this is the first disaster that radio stations remain on the air twenty-four hours a day while an emergency is in progress. Normal sign-off time is discarded. Finally, it is the first time that commercial broadcast stations and public rescue and relief organizations are coordinated in a far-flung multi-state area under disaster conditions. When the WHAS control room receives a message from police that citizens are trapped in a certain area, the information is broadcast over the air and received by rescuers with radios in their boats. The rescuers then proceed to the stranded citizens.
There are other descriptive articles portraying the activities of the press during disaster. The stories "behind the story" of the 1938 New England hurricane, the wreck of the passenger train "City of San Francisco," the crash of the "Samoan Clipper," and the "Squalus" rescue are quite interesting but add little of further note. 15

In a short article, Powell mentions the operations of WMBD radio during the tornado in South Pekin, Illinois in March, 1938. 16 The station allies itself with the police command center and like the Louisville disaster it broadcasts rescue messages over the air. In addition, mention is made of the use of the station's own short-wave field transmitter to receive information for broadcasting since power and telephone lines are destroyed. Finally, the station becomes a clearing-house for disaster supplies and information and it routes the donated material to the appropriate areas.

Killian and Rayner include in their report of disaster operations following the Warner Robins, Georgia tornado of April, 1953 a supplement written by the news staff of radio station WMAZ in Macon, Georgia. 17 This supplement is a summary of the broadcasting activities of that station and is one of the two best descriptive accounts of its kind in the literature. Emergency bulletins received from public officials, private organizations, and the general public are given top priority at the station and
immediately broadcast. The station also cooperates with local military officials and broadcasts requests by Robins Air Force Base calling off-duty personnel back to work. Orders for National Guard members to mobilize are also put on the air. The station works very closely with local public officials and any messages that the Mayor needs to relay to the public, are immediately broadcast by WMAZ. Lists of missing, injured, and dead persons are aired and in response hundreds of calls are received from people worried about relatives or friends in the disaster area. A further fact is that the station does not operate past normal sign-off time but leaves the air at its scheduled hour. Finally, it is noted that many jobs are switched within the radio station during the crisis. Engineers become reporters and salesmen answer phones or seek stories. The effort is toward gathering the most news about the disaster as possible.

The second excellent account of radio's response to disaster is a report by Nash of the activities of station KFYO during the Lubbock, Texas tornado of May, 1970. Nash is the assistant manager of the station which is the area's key Emergency Broadcasting System (EBS) station. Of special note is the fact that Lubbock is in a recurrent tornado-prone area and hence the station has written emergency operating plans. These plans are reviewed at the beginning of each "bad weather" season and simulation exercises involving local emergency-relevant organizations are
held. As the weather worsens, the station assumes an emergency stance. Reporters are sent to the Civil Defense Emergency Operations Center (EOC) across the street from the station while regular programming is dropped and emergency bulletins broadcast. As the tornado hits nearby, electrical power is lost but the station stays on the air using power from its emergency generator. A direct line is opened between the station and the EOC and official Civil Defense messages are aired. Also, the station stays on the air continuously around the clock and in addition uses full daytime power so that the largest surrounding area is covered by the KFYO signal. No commercials are aired until normal programming is resumed when the emergency is over.

Finally, some representative descriptive material about television operations during disasters is a series of notes about stations during the Rapid City, South Dakota flash flood in June, 1972 and during the flooding in the U.S. Northeast due to Hurricane Agnes, also in June, 1972. Little additional information, though, can be gleaned from them.

This paucity of sociologically-relevant descriptive accounts of media operations during disasters highlights the need for research in this area. If any understanding is to be gained at all about how commercial broadcasting organizations react and adapt to natural disaster stress, a solid foundation of description must first be laid. Systematic description is thus the first
need of research in this area and one of the goals of this study. The next section continues in this same vein of seeking justification for studying the broadcast media by looking at the general functions of the media during disasters.

Media as Information Source

While it is the responsibility of the mass media to provide adequate and reliable information during times of disaster, this service goes to waste if the general public does not listen to the emergency broadcasts. It therefore becomes important whether or not the public in fact does rely upon the mass media for information during crisis. A number of empirical disaster studies include this question in their design. It is worthwhile to briefly examine some of their findings.

Killian interviews seventy-five residents of Panama City, Florida after a large portion of that community is evacuated because of the threat of Hurricane Florence in September, 1953. He finds that local residents do indeed listen to radio as one source of information. No specific figures, however, are available from this study about the relative importance of radio or the other mass media to community members.

Blum and Klass specifically focus upon communications and public actions in their study of the Christmas floods in California in 1955. Two hundred and ninety-five residents of Yuba City,
Marysville, and Palo Alto are interviewed. The primary news source for residents of Yuba City and Marysville is the radio. The first news and weather reports about the possibility of flood are received over the radio: 88 percent of both the Yuba City and Marysville sample get the first hint of a flood from radio. Radio is ranked by 73 percent of the total sample as the most important source of news and weather information during the whole period prior to the actual flooding. And, finally, of those residents who receive actual advice about evacuation before the flood, 66 percent list radio as their source. Both the actual and preferred source of news and weather information is the radio.

Contradictory findings are reported in another study by Killian of a large explosion at a fireworks plant in Houston, Texas in June, 1953. He interviews 139 local residents and finds that only 16 percent get their first information about what happened from radio or television. Adding newspapers, this figure is still less than twenty percent. Two thirds of the sample get their first information by word-of-mouth from friends or strangers. These opposite findings may in part be explained when it is noted that the explosion created a large mushroom-shaped cloud that is visible throughout the city. The explosion is extremely localized and much convergence behavior results as people flood into the area to see what caused the cloud and the noise. Person-to-person interaction increases as large numbers of people descend into the
small area. There is milling and as a result the first source of information for many is word-of-mouth by friend or stranger.

Petersmeyer reports on a mailed questionnaire sent to fifteen hundred Houston and Galveston residents shortly after Hurricane Carla in September, 1961. Eighty-one percent of the Galveston sample and 73 percent of the Houston sample first learn of the approaching hurricane through either radio or television.

Wilkinson and Ross report in a study of citizens' response to warnings about Hurricane Camille in August, 1969 in Harrison County, Mississippi that radio and television are the most frequently mentioned sources of information. Both those residents who stay to ride out the storm and also those who evacuate, mention the mass media. Consistently throughout the disaster over two thirds of the sample use radio or television as their source of information.

Finally, Drabek and Stevenson interview 280 families in the Denver area after a flood in June, 1965. They report that 52 percent, or over half, of the families receive their initial warnings via the mass media, radio or television.

It seems quite evident that the general public does indeed "tune in" to the information and news being disseminated over the air by the broadcast media. The mass media are the most frequently preferred and the most frequently used sources of information during times of disaster. They are relied upon by more
people than any other method of communication. This provides another important reason for a systematic and in-depth examination of them.

However, there is some disagreement throughout the community about the proper role of the media and about the techniques used by media personnel to gather and broadcast information. The next section adds a further reason for study in its scansion of criticism of the media.

**Criticism of the Media**

The mass media have been subject to much criticism concerning their activities during disaster. This criticism basically revolves around two areas: the seeking of stories by the media and the actual dissemination of information over the air. A few pertinent examples from the literature provide clarification on these points.

In their disaster handbook, Garb and Eng mention the seeking of information by representatives of the mass media. Although they note that reporters are well-meaning, they state that the press has often usurped telephones needed by others and that "their attempts to help have often resulted in greater confusion."26

Courtney et al. discuss the activities of the press during the Holland flood disaster of January, 1953.27 They describe as
"irksome" the situation of reporters trying to get aboard helicopters and other aircraft that are going to the scene of the disaster. Also, during the Worcester County tornado of June, 1953, Bakst et al. note that the press "especially were in the way" at certain local hospitals and that the media representatives "distracted the Administrator from other important duties."\textsuperscript{28}

One disaster researcher dwells at length on media criticism during the Vaiont Dam disaster in Italy in October, 1963:

There was almost universal condemnation by other organizational personnel of mass media representatives. Remarks ranged from hostile to vitriolic. Among others, there were charges that many supposedly direct quotations were totally fabricated, charges that official announcements failed to be transmitted, and charges that some of the political press was /sic/ deliberately agitating the populace to look unfavorably upon the disaster operations of certain organizations,... The existence of an openly expressed, negative orientation towards mass media reporting was an easily observable fact.\textsuperscript{29}

These four instances of criticism directed at the media share an underlying dimension that partly helps to explain the cause of these attacks. The seeking of stories by the media usually results in criticism by organizational representatives when it is felt that organizational goals are being hindered by the questioning of newsmen. As Quarantelli notes, "The attempts by newsmen to obtain information were acknowledged as legitimate, but not when defined as interfering with carrying out organizational objectives."\textsuperscript{30} Very little if any criticism is aimed by the
general public at media representatives in their role as seekers of disaster stories; it is usually organizational members who criticize the press for interference.

The general public, however, is not totally satisfied with the media during disasters. While they do not criticize the press for seeking out disaster stories, they do criticize the media for both the manner and content of information broadcast over the air. Killian remarks that during the Panama City evacuation of September, 1953, a minority of his sample feel that "the radio announcements were too emotional."31 This is a recurring point in the general public's criticism of the manner of information diffusion. Hesbacher and Segaloff note in a discussion of a toxic gas leak in a Southern community that media coverage is "sensational."32 During Hurricane Camille in Mississippi, "a highly emotional plea" to evacuate the area is broadcast by one television station.33

The content of information broadcast by the media receives even more criticism from the general public than the manner of broadcast. What is usually mentioned here is the fact of incorrect and/or contradictory information that is put over the air. Chaunsey tells of her stay in an evacuation center during a Florida hurricane and how a news commentator had broadcast the incorrect message of the community's total destruction.34 Drabek and Stephenson mention the situation of contradictory information being broadcast during the Denver flood as some stations "seemed
compelled to be first with the news." During Hurricane Camille, while the above-mentioned emotional plea to evacuate is being broadcast by one television station, another station broadcasts the general weather forecast and "then returned to the usual program of recorded music." Power and Wettenhall note that during the 1967 Tasmanian bushfire disaster one local radio station "(as customary in such cases) increased anxieties and created confusions with its alarming and often inaccurate flash news reports." Kennedy mentions that during the Jackson, Mississippi tornado of March, 1966 an incorrect announcement is broadcast on radio and television and creates misunderstandings. Finally, the 1955 California floods provide numerous examples of the broadcast of incorrect and contradictory information. Stiles notes that radio stations "confused the issue" by putting over the air incorrect evacuation information for Yuba City. The California Disaster Office in its report of the floods writes that "confusion existed on the air" in the Marysville-Yuba City area. Also, a false report broadcast over the air of the death of thirty persons in a California river is mentioned along with the conclusion that one Civil Defense director "singled out lack of correct information to the public as the greatest shortcoming of the disaster operations."

The media during disaster, then, are not exempt from criticism from both the general public and organizational representatives.
To seek answers clarifying the nature of the relationship between the media and other organizations and between the media and the general public thus takes on added import. The scarcity of information on this subject is extensive. A worthwhile reason, then, to study commercial broadcasting organizations is to illuminate this area. In the next and final section, more systematic and viable legitimations for studying the topic under investigation are presented.

**Reasons for Study**

There are numerous reasons why commercial radio and television stations during disaster should be studied. This first chapter itself has been an extended descriptive introduction to the media during times of disaster and has presented a number of reasons for such a study. The paucity of reliable information about the inner workings of media organizations during crises has been noted. Random jottings by newsmen of their activities and only a few good descriptive accounts of station operations are to be found in the literature. No analytical or empirical study of note has ever been done on media operations or organization during disaster. Studies have been presented of audiences and their responses to media broadcasts but these have always been just a minor part of the total research effort and they do not integrate their findings. Criticism of the media has been described but no studies have
looked at the media themselves during disasters to see what accounts for this negative orientation on the part of the general public and private organizations. Finally, mass communication has been seen to be at the very center of community efforts to reorganize after a disaster. Coordination requires communication and the mass communication agencies provide a large share of this. To find out what exactly occurs at radio and television stations thus becomes doubly important when it is remembered that the disruption of communications is a frequent occurrence during disasters. To summarize this section and simplify the argument, it can be said that radio and television stations during disasters are key agencies in community activity. They are crucial for private organizations as well as the general public. Little work has been done to see what actually is the response of the mass media to disaster. This need for information is an excellent reason for this study.

In addition, there are a number of theoretical legitimations for a study such as this one. They primarily come from two areas: the mass communications literature and the disaster literature. Schramm indicates a number of challenges to mass communications research. Among these is the study of radio and television stations. He declares that "what we need ... is a closer analysis of what goes on in a mass communication organization." Ehling also feels more research is needed of the broadcast media. He says that research should be applied to the media for "a better
understanding of ... the specific role of particular media in the social process." Gans writes that "much can be learned from local ... television stations." He feels that "we need to know how the mass media function ... and why they function as they do." Brooks provides a bridge between mass communications and disaster research in his plea for studies of the operations of commercial radio and television stations "both in normal times and under emergency conditions." Wallace presents an early survey of the disaster literature and suggestions for further research. "Communications ... could profitably be included in the panel of phenomena to be observed in the study of any disaster." Courtney et al. see a "need to study disaster communications more carefully." Killian and Rayner discuss the need for studies "of the role of mass media of communication in disaster." Finally, Loomis is quite explicit about the study of communication during disasters. "Few areas of specialty in social science can profit more from disaster research and few can perhaps contribute more than that of (mass) communication." As one sifts through the relevant literature it becomes apparent that a large gap exists in the knowledge about radio and television station operations during disaster. This study is a small first step in the filling of this void.

The plan of this report is as follows. The next chapter presents a selective overview of literature having bearing on this
topic. Chapter III outlines the methods followed in the design of this research. Chapter IV begins the presentation of the data with major focus on description and analysis of intraorganizational and interorganizational activity. This chapter both describes the phenomenon and is the basis from which new hypotheses will be generated. Chapter V presents the testing of the existing hypotheses and their reworking into more suitable form. The last chapter presents a summary of this research, models and propositions derived from the data, and paths for future research.
Notes: Chapter I


4. Robert A. Stallings, Communications in Natural Disasters, Disaster Research Center Report No. 10 (Columbus, Ohio: Disaster Research Center, Ohio State University, 1971), p. 2.


6. Important differences are the larger size and higher degree of bureaucratization of newspaper offices, the greater length of time involved in the production and distribution of the finished product, and the commercial relationship with buyers-clients during distribution.


15. See the articles by Dame, Simpson, Lerner, and Barrows in Frank Luther Mott (ed.), *Headlining America* (New York: The Dryden Press, 1940).


29. E.L. Quarantelli, The Vaiont Dam Catastrophe: A Case Study of Extracommunity Responses in a Massive Disaster, Disaster Research Center Research Report No. 24 (Columbus, Ohio: Disaster Research Center, Ohio State University, 1970), p.29.

30. Ibid.


35. Drabek and Stephenson, p. 188.


38. Will C. Kennedy, Some Preliminary Observations on a Hospital Response to the Jackson, Mississippi Tornado of March 3, 1966, Disaster Research Center Research Report No. 17 (Columbus, Ohio: Disaster Research Center, Ohio State University, 1967), p. 16.


41. Ibid., p. 122 and p. 104.


47. Courtney et al., p. 41.


CHAPTER II

RELEVANT LITERATURE

Introduction

This research is a study of commercial radio and television stations during disasters. Its form is basically exploratory in nature since an attempt is made to uncover the basic activities and operations of the broadcast media. In addition certain leads and specific hypotheses provided by the literature are followed and tested; hence, this study is partly hypothesis-testing also. This chapter introduces the relevant literature that was consulted for this study.

Three broad categories of literature are relevant for a study such as this. If the research has as its focus commercial broadcasting organizations during disasters, then it is apparent that a look is needed at the broadcasting or mass communications literature, the organizational literature, and the disaster literature. This chapter summarizes these categories of appropriate material.

The Mass Communications Literature

As has been mentioned, there are no analytical studies of
commercial broadcast organizations in disasters. However, an important section of the literature pertains to an area that has relevance for this study. This area is that of gatekeepers and the flow of news and information.

The gatekeeper concept is quite new in the communications literature and not widely known within sociology. Yet it has great validity as a construct in the delineation of important relationships that otherwise may remain unnoticed. The term was coined by the field theorist Kurt Lewin to indicate functionally-important social positions in the communication channel. These positions are those that can regulate or control the flow of information. The analogy is that every piece of information passes through numerous "gates" from its first point of origination until its final dissemination. Certain positions sit astride these gates and thus control them; these positions are "gatekeeper" positions and the individuals occupying them are called "gatekeepers." In actuality, anyone occupying a position intersecting the information flow is a gatekeeper but the concept has narrowed to refer only to those positions that can modify or alter communication in a significant way. An example of a gatekeeper is a newspaper reporter. The reporter is in a position that initiates the transmission of information. The reporter seeks stories and writes them for publication. He has the choice of going to some incidents and not to others. Those he does not go to do not become stories.
The others do become stories. But the reporter can either consciously or unconsciously include some facts and not others. The whole definition of the situation thus depends upon what he does. He is, then, a gatekeeper.

The gatekeeper concept is found to be germane to this research. Its importance lies in its usefulness as a sensitizer to the flow of news and information within any organization. Given the focus of this inquiry upon communication, the gatekeeper concept points to the key organizational positions one should study. Those that control communication in this sense control the total organization. Their importance is great during normal times and assumes even more prominence during disasters. Thus, for basic intraorganizational analysis, the gatekeeper concept provides a handy and useful tool.

Numerous studies about gatekeepers have been published since David Manning White's seminal article in 1950. Most frequently researched are newspaper personnel, either the reporter or the wire editor. Less frequently studied are gatekeepers in commercial television stations. There are no published studies of gatekeepers at commercial radio stations. Each of these areas will be briefly reviewed in turn.

Carter looks at the newspaper reporter in interaction with his news sources. He presents a look at psychological and social psychological factors impinging upon this news gathering activity.
Status differences, reference groups, goal differences, language barriers, and personal expectations are seen to be important in a study of the relationship of newsmen to medical doctors and public school superintendents.

Grey also studies the newspaper reporter, in this case Dana Bullen of the Washington \textit{Evening Star}. The research is a simple observation analysis or one-man case study. Bullen is followed on a typical work day and a minute-by-minute diary is kept by Grey. Major findings are that what is considered news by Bullen and hence what appears in the newspaper is to a large extent determined by what Bullen thinks is of most importance to the readership.

Meyer continues in this vein of newspaper reporter gatekeeper studies in his analysis of reporter bias in the description of the 1969 Agnew speeches. Meyer's focus is upon selective perception and the ways in which personal factors influence the writing of stories. A reporter's description of an event is seen to be very much affected by personal background characteristics such as age, political views, and education, among others.

Judd in a study of newspaper reporters in a California suburb, Gieber in a study of reporters and civil liberties news in four California cities, and Seemann in a study of reporters at the Chicago \textit{Defender}, all continue in the tradition of attitudinal and perceptual research on gatekeepers in an attempt to uncover background characteristics of reporters that may influence
the writing of news stories.\textsuperscript{6}

Newspaper wire editors have also been the subjects for gatekeeper studies. White's pioneer study, and the replication by Snider, look at a wire editor of a small morning newspaper and come up with findings similar to the newspaper reporter gatekeeper studies.\textsuperscript{7} Personal temperaments, preferences, or idiosyncracies are found to be important determining variables in the selection and writing of news stories. Further evidence of this is provided in studies by Liebes, Donohew, Gieber, and Jones \textit{et al.} \textsuperscript{8}

There have been a couple of studies of gatekeepers at commercial television stations. Drew focuses upon roles and decision making of three television beat reporters in a medium-sized Midwest community.\textsuperscript{9} The role expectations of the reporter are a powerful force in the decision to include some stories and exclude others in the day's newscast. Buckalew studies the decisions of television news editors.\textsuperscript{10} He finds that certain dimensions or facets of news (timeliness, conflict, proximity, etc.) are perceived by the editors as being more important and hence account for the selection of news items from the large mass of input material.

Three points of note that relate to the present study may be gleaned from the short summaries of the gatekeeper studies. First, commercial radio stations have been neglected as gatekeeper research sites. Most of the published gatekeeper studies are of newspaper personnel; a few are of television personnel. None,
however, focus upon the radio station. For any comparison with the other mass media and for a larger base for generalizations, the radio station should be included as a target of study. This study, thus, in its look at the gatekeeping phenomenon, places special emphasis on radio stations.

The second point of interest is that the previously-mentioned gatekeeper studies are quite static in design. Usually only one individual, either a reporter or a news editor, is followed through a day or week of decision making to determine what factors influence his acceptance or rejection of news stories. Underlying this static design is a psychological approach. Key emphasis is on the mental characteristics of the individuals and factors influencing their perception of news events. This psychological framework is due, of course, to the impetus provided by White's design. But there are important exceptions to this general trend in gatekeeper studies. Macrorie studies the process of news reporting and notes that "a description of the whole process of a news report in the making will tell more than a mere examination of printed reports." He looks at the channel through which the news flows from its source to its inclusion as a finished product in the newspaper. Bass also focuses upon the process of the news flow in his study of UN radio and formulates a "Double-Action Internal Newsflow" model with prime emphasis again on process channels. Bailey and Lichy provide the best example of research
conducted on the news flow with their step-by-step analysis of the progress of the Tet execution film from its origination in Saigon to its television news showing in the United States. In two further articles, Westley and MacLean and McNelly give theoretical legitimations for study of the news flow instead of individual gatekeepers. Thus, there is precedent in concentrating attention on structural variables providing parameters to the news flow. Studies of gatekeepers need to be balanced by studies of gatekeeping, i.e., the structural context of the news flow. Individual gatekeepers with their idiosyncrasies recede into the background as attention is focused on characteristics of the news flow itself and other properties structuring the gathering, receiving, filtering, and disseminating of information from first point of entry into the station through all "gates" until the finished product is broadcast. This research thus is not looking at gatekeepers but rather gatekeeping at commercial broadcast stations. With this emphasis symmetry is introduced into the gatekeeper studies; social structural as well as social psychological factors are then available for integration by researchers.

Finally, the above studies use a time sample that may be described as pertaining to "normal, everyday operations" of the organization. Each study only focuses upon the routine and the mundane. But social life is more than just routine; crises, also,
strike organizations. Gatekeepers may be forced by the exigencies of the situation to operate in different contexts than during normal times. One such context is the disaster context. Gatekeeping studies of broadcast organizations during disasters provide a balance to studies of organizational operations during everyday times. Structures and processes that may be hidden or seem insignificant during normal operations may become visible and quite important during disasters; similarly, structures and processes that may be viewed as important during normal operations may become quite unimportant and unnecessary during disasters. Data on these subjects are lacking; thus, this study concentrates on the disaster context as the overall situation bracketing the activities of broadcast personnel and the flow of news and information through the station channels.

To summarize this discussion, it can be stated that three facts are taken from an examination of the gatekeeper area of the mass communications literature. These ideas determine the form of this particular section of the study. The first point is that radio stations are neglected as research sites for gatekeeper studies. The second point is that, with only a few exceptions, the major concentration of these studies have been on individual gatekeepers and their psychological and social psychological characteristics. The third point is that only a normal, everyday period is used as the time of study. To provide a needed foil to
this slant in research on gatekeepers, this inquiry then targets radio stations as the prime area of focus, looks not at individual gatekeepers but rather forces in the news channel and hence is a study of gatekeeping, and finally looks at gatekeeping at broadcasting stations during a crisis period of disasters.

The Organizational Literature

While the preceding literature laid the groundwork for this dissertation's study of intraorganizational structures and processes through an analysis of the communication flow and gatekeeping, the literature in this section has relevance for interorganizational activities. Only a small part of the total organizational literature will be cited; this portion is from the interorganizational literature.

Researchers are becoming increasingly cognizant of the fact that just as individuals exist within a wide matrix of groups and other collectivities, organizations exist within groups and other collectivities. Evan notes this in his discussion of organization set where the organization under analysis, or focal organization, subsists within a dynamic relationship with other organizations through boundary-role personnel. Other organizations are part of the larger environment of the focal organization and hence must be taken into account in any examination of organizational functioning. Other writers, most notably Terreberry, Levine and
White, and Turk provide further impetus for this argument.\textsuperscript{18} At a more concrete level, Litwak and Hylton concentrate on a specific pattern of interorganizational activity, that of coordination.\textsuperscript{19} Their study looks at health and welfare organizations but has implications for other types. The authors study coordinating mechanisms that arise under variable conditions of organizational interdependence. High interdependence leads to merger, low interdependence leads to no coordination, and moderate interdependence leads to coordination.

Thompson and McEwen also deal with organization-environment interaction though they do not restrict themselves only to interorganizational relations.\textsuperscript{20} They posit four strategies that organizations may use in dealing with their environment. The first strategy is competition among organizations or the mutual striving to secure the same scarce resources. The last three strategies are all subtypes of cooperation: bargaining, cooptation, and coalition. The Thompson and McEwen work is valuable in that it does not simply take as given the fact of interorganizational relationships but sees that area as problematic and worthy of study.

The present research continues in this same vein by looking at the patterns of relationships that exist when organizations interact with each other. Rather than being taken as given, interorganizational relations will be viewed as problematic and as a matter of degree between differing alternatives. The research
will not be restricted only to cooperative or competitive activities but will explore the topic seeking the variability among the patterns and trying to uncover causes leading to these differences. This leads, in a sense, to a partial integration of the Litwak-Hylton and Thompson-McEwen models. Interorganizational strategies, most notably cooperation and competition, are seen as outcomes of organizational interdependence. The present research explores this area and especially looks at pre-crisis communication linkages as an empirical indicator of interdependence. What high, medium, and low interdependence then lead to in the way of interorganizational activity patterns is the area of focus.

The above remarks have been of necessity quite limited to only a few writers in the field of interorganizational relations. This limited sampling, however, is enough to acquaint the reader with the relatively low level of productivity in this area. Much more work needs to be undertaken on interorganizational relations and especially as these occur within a crisis context. This study, then, briefly explores this topic.

The Disaster Literature

Wallace summarizes the types of literature that are available under the broader heading of disaster literature. He divides the area into four categories: the popular, the technical, the scholarly, and the scientific. Each will be briefly reviewed and
its importance for this study assessed.

The popular literature is found in the general public press and intended for casual, lay readers. Usually descriptive, these articles or books are quite often eyewitness accounts of particular disasters. Though designed for general consumption, the popular literature is far from worthless for one interested in organizational functioning during disasters. The popular literature on disasters performs two important services. The first is that it can be used as a source of description and introduction to the research problem. With little background knowledge of disasters, a researcher can immerse himself in the presentations provided by the rough journalistic accounts found in the popular press and begin to experience sensitivity for the disaster situation. The second service of the popular literature is that insights or leads may be found that can be expanded into further research problems. Stray statements of unusual findings or unanticipated happenings may be simply noted in the literature. These can be picked up by the alert researcher as insights that, needing explanation, may be pursued in later research.

Several ideas are taken from the popular literature and used as guides in this research. For example, there is found in scattered accounts of disasters the information that some stations remain on the air past their normal sign-off time and continue night broadcasting with daytime power while other stations go off
the air at their regular hour. Nowhere is there evidence one way or the other as to the rationale, necessity, or implications of this activity. The present study, then, includes this topic in the research phase and seeks clarification on this matter.

Similarly, other loose strands are picked from the popular literature as sign posts for this exploratory study. Also mentioned in some of the literature cited in the previous chapter is the information that informal "networks" among broadcasting stations emerge during disasters. This is clearly seen in the 1937 Louisville flood. The local stations band together in a voluntary effort to simulcast broadcasts and also to merge personnel and/or equipment into a "supra-organization." But no data are provided as to the actual mechanics of this blending of organizations and no data are provided as to the sociological significance of these instances of organizational assimilation in terms of conflict, communication, boundary maintenance, authority, etc. Here again, these ideas are used as research guides in this study and point the way to relevant processes worthy of examination.

Also found in popular accounts of disasters are statements of broadcast stations being damaged by the disaster agent and "docked off the air." No mention is made of the significance of this for community functioning nor for overall communication coordination. This lead is followed and the whole area of disrupted mass communications during crises is broached. There is
also some observation about the differences in organizational responses to disaster between commercial radio and commercial television stations. However, in the usual journalistic report radio and television stations are lumped together as "the mass media" and no allowances made for the differential impact the disaster may have upon each, the differential structures and requirements of each, and the differential functions of each. This general area also is included in the research guide as another instance that needs clarification.

One very important lead provided by the popular press is the subject of the initial diffusion of disaster information to the mass media. It is usually assumed that radio and television will provide warnings to the general public at the first hint of disaster. But in one disaster, members of a family are on the roof of their home in rain and darkness as the home is being carried downstream by flash flood waters. They manage only to bring with them a transistor radio and become angered when the station plays nothing but music. A subject that then needs to be looked at is the process by which the mass media are informed of disasters in their own community in the first place. Finally, a perusal of the popular accounts of disaster leads one to the conclusion that most of the information applies to mass media organizations not themselves in the physical area of the disaster. The organizations are in one community and the disaster in another; the
accounts are then of newsmen or other organizational personnel and their trials and tribulations in the seeking of stories. Very little, indeed, is known of broadcasting organizations in response to massive disasters in which the station itself is involved in the local community. This is noted as a further gap and included in the research design. This listing could continue for a considerable length showing the specific pieces of information gleaned from popular journalistic descriptions of disasters and how they are then used as guides in the exploratory study; however, sufficient time has been devoted to this to make the more general point also that the unsystematic and usually totally descriptive popular literature is an important source of raw research data and, though biased toward the sensational of blood, gore, death and destruction, is an excellent foundation on which to place the other types of disaster literature.

The second category of disaster literature that Wallace mentions is the technical or technical journalism. This is information published in either house organs or trade journals and usually consists of either descriptive or technical accounts of organizational functioning during disasters. There is an obvious bias in this literature, also, since quite often it is written with the intent of furthering public relations. But as with the popular literature, if a researcher realizes the limitations of this source he may still profit from the raw data
that are presented.

In this study, the technical literature provides a very important service in the accumulation of ideas for testing. It is mentioned above that this literature has a strong public relations focus and thus the pamphlets or booklets published by radio and television stations detailing their activities during disasters usually always portray the station as a leader in the raising of food, clothing, and money during the community recovery period. This in itself is important since this dissertation is not restricted only to station operations during the impact period but throughout the disaster; hence, a look is needed at this phenomenon of station activity. How the station becomes a relief center, what resources this takes, and what duties this entails should be spotlighted. This leads, of course, to the whole question of the role of the mass media in disaster and the different functions it performs at different time periods of the emergency.

A further topic is found to be important after a reading of the technical literature. The mass media themselves are key agents in the arena of public relations. Other organizations need to be in good graces with media representatives so that their company or business can receive a favorable image through the press. The close working of certain organizations with the mass media for public relations purposes may have implications for
media operations during disasters. The use of these organizations as information sources or contacts may be either beneficial or disadvantageous; the situation may be beneficial if these organizations can provide the media with needed information while, on the other hand, the situation may be disadvantageous if the information is incorrect or heavily biased in any direction. This needs to be looked at in the research.

Wallace's third category of disaster literature is the scholarly. By this he means well-written descriptions of individual disasters or series of disasters but having little or no theoretical framework. This would include the vast amount of literature on the warning process. For this study this area of disaster literature unfortunately proved to be of little help in the providing of ideas for testing.30

The last category of disaster literature is the scientific. Scientific disaster literature is composed of studies done by social or psychological scientists using the theory and research methods of their disciplines and focusing upon human or organizational behavior in disaster contexts. Both general research guides and the specific hypotheses of this investigation come from this new but increasing area of study. Relevant to the subject of this research is one significant portion of the scientific disaster literature: the organizational stress literature. It is to an examination of this stress literature that
most of this section is devoted.

While a very explicit and formal theory of organizational stress has been developed by writers in this field, this study uses only selected core concepts of this broader model. These concepts lie at the heart of the larger model and are more easily conceptualized and operationalized than the total framework. The concepts are organizational demands, organizational capabilities, and organizational stress.

The organization may be conceived of as a relatively permanent and relatively complex structured body enacted to achieve specified goals and objectives. In addition, it exists in a state of relative balance between its capabilities and the demands placed upon it. Organizational capabilities are "the entire range of possible organizational actions that an organization could perform if appropriate decisions to do so were made." Capabilities encompass the activities that are carried out within any organization on a day-to-day basis and also those activities not presently being carried out but that could be carried out if it were so directed. The entire range of task activities are thus captured by this term. The capabilities are mostly made possible by the resources available to the organization. In general, resources are any physical or ideational unit that is currently being used or known to be available for use by organizational personnel. Common types of resources are personnel, equipment, and information.
Organizational demands are "requests or commands for action either received directly by any member of the organization or resulting from knowledge of demand-relevant cues." In this sense, demands are the basic stimulus for organizational activity. Demands are neither uniform nor constant, however. They vary within sections of any organization and within the same section during different time periods. As an overall guide, it may be stated that demands vary in quantity, priority, and quality. Demands thus vary through each day and this variation may either be in numbers, in composition, or in priority of response.

The organization, then, exists in a rough equilibrium between the demands impinging upon it and its capabilities for action. During most phases of everyday operations the organization's capabilities outstrip the demands and the organization routinely carries on its activities. During certain times, however, and for numerous reasons the demands-capabilities ratio becomes intensified. One such situation is that found during natural disasters. During natural disasters many organizations experience the common pattern of sharp decreases in their capabilities concomitantly with sharp increases in demands. The result is organizational stress, "the organizational state or condition indicated by the degree of discrepancy between organizational demands and organizational (capabilities)." Natural disasters can produce acute stress for organizations. A maximum amount of acute organizational
stress results from a change in two variables: the level of capabilities and the level of demands. Demands may increase in quantity, in priority, or in quality. The increase in quantity of demands is usually of a considerable magnitude and frequently unanticipated. The increase in priority of demands is usually for certain central organizational values where immediate action is required. The increase in quality of demands is usually new demands made upon the organization. At the same time organizational capabilities may decrease. There may be the loss, absence, or destruction of personnel, equipment, or information. Organizational stress then in the disaster situation results from a decrease in capabilities, an increase in demands, or a combination of the two.

The resultant of this stress are changes, either short-run or long-term, in the structure and functions of the organization. The organization seeks to cope with and adapt to the stress by making changes that increase its capabilities and decrease the demands. These changes are visible within the organization and thus can be targets of study.

Four interrelated and to some extent overlapping areas are viewed as crucial during the organizational response to stress. These areas are tasks, decision making, authority, and communication. While not complete, these areas are certainly within the crucial center of activities. Extended focus is thus placed on these four areas. In the stations examined for the present study
attempts are made during the fieldwork to gather data on these four areas. The purpose is to test certain specific hypotheses that are viewed by Drabek as fruitful research propositions. These propositions attempt to tap these four areas reflecting organizational change. The hypotheses represent the basis for the hypothesis-testing section of this dissertation and will be discussed in Chapter V, following the presentation of the major findings in Chapter IV. There are twelve hypotheses pertaining to the four areas of organizational change that are tested in this dissertation:

A. Tasks

1. As the degree of organizational stress increases, the rate of task performance increases.

2. As the degree of organizational stress increases, organizational incumbents increasingly limit activities to tasks of highest priority.

B. Decision Making

3. As the degree of organizational stress increases, the rate of official decision making increases.

4. As the degree of organizational stress increases, organizational incumbents increasingly make only decisions of highest priority.

5. As the degree of organizational stress increases, the rate of unofficial decision making increases.
6. As the degree of organizational stress increases, the number of individuals conferred with before a decision is made decreases.

C. Authority

7. As the degree of organizational stress increases, the amount of deviation from the official lines of authority increases.

8. As the degree of organizational stress increases, the lines of authority shift to emphasize special skills and/or knowledge of position incumbents.

D. Communication

9. As the degree of organizational stress increases, the number of organizational incumbents through which directives are transmitted decreases.

10. As the degree of organizational stress increases, the total amount of information to be communicated increases.

11. As the degree of organizational stress increases, the amount of deviation from the official communications channels increases.

12. As the degree of organizational stress increases, the modes of communication shift to maximize speed.

There are, of course, other hypotheses listed in the stress literature that could be tested on the mass media. The twelve listed above, however, relate to key dimensions of organizational
response and hence for an exploratory study of the scope of the present one, are deemed sufficient to capture the major processes of organizational functioning during disasters.

It has been frequently mentioned that there are no analytical studies of commercial radio or commercial television stations during disasters. There is one recent study, however, by Singer and Green that examines in a scholarly fashion the broadcast content of one radio station during a serious blizzard emergency in Canada.\(^7\) One section of the study pertains to the dynamic functions of radio and posits a number of types of transmission channels. The study finds that whereas during normal times radio operates as a medium of mass communication broadcasting diffuse messages to a non-specific general public, during disasters there is a profound change. Radio then transmits information to specific individuals, to specific groups, and responds to direct questions in a two-way conversational manner as well as broadcasting to the general public. Radio thus ceases to be solely a medium of mass communication during disasters. This intriguing finding is based only upon a content analysis of selected tapes of actual broadcasts. The idea is extremely important, however, and further work needs to be done on it. Thus, the subject also is included in the research phase of this report as a guide for further scrutiny.
Summary

This chapter presents the literature consulted for this study. It is noted that the greater part of this dissertation research is exploratory in nature. Though exploratory it is not random; relevant literatures are consulted for facts or ideas that then form the basis for extended examination. In addition, a number of hypotheses emanating from the stress literature are presented as specific foci of analysis.

The general tone of this research is a blending of description and analysis. Description is the basic first step, of course, and with no adequate published work on the operations of commercial broadcasting stations during disasters, it is needed so that a researcher can firmly plant his feet and begin analysis. After description comes analysis of the many leads proposed in this chapter and the testing of the hypotheses. The many findings are then tied together so that a degree of explanation is introduced. Though the findings are numerous and at times disjointed, they hopefully will appear more coherent at the end. This is the aim of any exploratory study and the present one is no exception.
Notes: Chapter II


13. Bass, "Refining the 'Gatekeeper' Concept."


27. See, for example, Roy S. Durstine, "The Story of a Story: A Newspaper Man's Narrative," The Outlook, January 6, 1912, 34-39.


30. While both serious and extensive, the warning literature has usually viewed the broadcasting organization as a simple entity whose only task is to pass along official warnings. Little thought has been given to the multi-faceted complexities of the station as a formal organization. For some of the better warning studies, see Benjamin McLuckie, The Warning System: A Social Science Perspective (Washington, D.C.: National Weather Service, Southern Region, 1973).

32. Haas and Drabek, Complex Organizations, p. 249.

33. Ibid., p. 247.

34. Four types of demands-capabilities ratios are theoretically possible. This study focuses only upon acute stress, or the situation of an increase in demands and a decrease in capabilities. For a discussion of the remaining types, see Haas and Drabek, Complex Organizations, pp. 259-261.

35. Haas and Drabek, Complex Organizations, p. 251.

36. These hypotheses are taken from Thomas E. Drabek, Laboratory Simulation of a Police Communication System Under Stress (Columbus, Ohio: College of Administrative Science, Ohio State University, 1969).

CHAPTER III

RESEARCH METHODS

Introduction

This chapter describes for the reader the research methods used in this study of commercial broadcasting organizations in disasters. To the greatest extent possible, the actual decisions and background assumptions that were made in the planning of this research are presented. The research methods and techniques used in this study are thought to be practical, reliable, and valid given the nature of the subject under examination.

Research Design

This study falls in the mode of research being carried out on a continual basis at the Disaster Research Center (DRC). Its shape is to a large extent determined by the focus of that research. As mentioned previously, communications plays a key role in community coordination during disaster. Its importance is hence recognized and it becomes a strategic area of study. Mass communications is central to modern society and assumes much prominence during
disasters. Studies by Brooks and Stallings scan, respectively, mass communications during everyday times and communications in general during disaster, but "the topic of mass communication in disaster will be left to subsequent studies and reports." The present study assumes this task.

From the beginning then, the focus has been on the operations and activities of commercial radio and commercial television stations during disasters. With little to start from except the topic itself, a thorough literature search was instituted. Sources on broadcasting dating as far back as the turn of the present century were consulted for descriptive material and interesting or unusual findings. Little was found of direct bearing on the topic so other subjects were scanned. The print media, especially newspapers, were immediately included for any elements that they could add. The whole area of disaster literature was also included and it was here that the most helpful information was located. Other areas of literature having only indirect but substantive bearing on the topic, such as the civil disturbance literature, were also consulted.

With a tentative outline gathered from the literature search, an interview guide was formulated. This was then compared to the leads provided by the literature and deletions or additions made. Further thoughts on the topic necessitated other minor changes in the plan. By June, 1972 the interview guide was felt to be in
satisfactory form. It consisted of open-ended questions covering a multitude of subjects having to do with station operations during disasters in addition to questions pertaining to everyday operations for baseline purposes.\(^4\)

Due to funding considerations, the interviews had to be conducted during the summer of 1972. The problem, then, revolved around the selection of relevant research sites. Fortunately for this study, that summer was "apparently the season for flood disasters."\(^5\) Numerous floods occurred throughout many portions of the United States and it became obvious that most of the variables under examination in this research were present in the affected flooded communities. Both for practical reasons and as a control for type of disaster agent, the flooded communities became the population under study. Practically, flood communities were chosen since they were recent disaster victims. As a control, it was seen through the examination of the disaster literature that community disruption varies according to the type of disaster; hurricanes, tornadoes, and earthquakes may demand different responses from the mass media than do floods. Since flood communities were available and in sufficient number, it was felt that this control should be built into the design. The next step was to select a sample from the population of flood cities. Again, the literature was consulted and it was found that within the category of flood agents there may be variation due to the scope of community disruption. Disruption
may either be of focalized or diffused circumscription. A focalized crisis involves only a limited area or limited institutional facilities; a flash flood in a single neighborhood is an example of this type. A diffused crisis involves a large scale area and numerous institutional facilities; a general flood covering a total community is an example of this type. Most disaster studies have been limited to focalized situations. This inquiry included focalized flood disasters as well as the less frequently studied diffused flood disasters. Finally, size of community was controlled by the gross characteristic of numbers of population. Community size was simply dichotomized into medium and small cities with the break at 50 thousand. No large cities were disaster victims and hence none were included in the sample.

Figure 1 shows the communities selected according to the classification scheme just proposed.

Corning, New York has a population of 18,000 people and suffered widespread flooding due to Hurricane Agnes during June, 1972. Two radio stations and no television stations are located in the city. Harrisburg, Pennsylvania has a population of 60,000 and also suffered extensive flooding due to Hurricane Agnes. Two radio stations, one television station, and a combined radio-television station are located in this community. New Braunfels, Texas has a population of 19,000 people and was the victim of a major flash flood in 1972. One radio station and no television
stations are located there. Finally, Rapid City, South Dakota, with a population of 56,000 persons, suffered numerous deaths and much destruction due to a major flash flood that struck the community in June, 1972. Two radio stations and two combined radio-television stations are located in Rapid City. Total number of stations in the sample is eleven; this is divided into seven radio stations, one television station, and three joint radio-television stations. This variation was included to insure a degree of breadth in station types and to see if there were differences or similarities in station operations between the types. Excluded from the sample were FM radio stations, local cable television stations, and
educational stations affiliated with schools or universities. The
eleven stations in the sample were either corporately or privately
owned; there were no network owned stations in these communities.
Station sizes varied from a low of eight fulltime personnel in one
small radio station to almost seventy in a combined radio-television
station. In addition, the sample included stations that had re­
mained on the air throughout the emergency period, stations that
had been on the air only intermittently, and stations that had been
completely knocked off the air for the duration of the flooding.

Once these stations were picked a telephone call was made to
each from Columbus. The call was directed to the general manager
in charge of daily operations; if this person was unavailable either
the owner or program director was then approached. The telephone
conversation consisted of a description of the study and the asking
for the station's cooperation in its undertaking. In a few instan­
ces, covering letters were requested by the managers and these were
immediately sent. Appointment dates and times were then arranged
over the phone for the interviewing. Station response in most
evory instance was favorable. The actual interviewing was con­
ducted during late summer of 1972. Upon arrival in the community,
local telephone calls were made to the station to reconfirm the
appointments. Due to the unavailability of some of the station
personnel because of the frequency of vacationing at that time in
addition to pressing business matters at the station, some of the
appointments had to be switched a matter of days. This was accomplished after a frantic bout with the calendar; no stations, however, were lost to the interviewing.  

It was mentioned in the previous chapter that four areas of organizational functioning were felt to be important during disaster stress situations. These four areas were tasks, decision making, authority, and communication. To tap these regions it was decided that as many station members as possible would be interviewed. This is what Wallace calls the "jig-saw puzzle" method: the fitting together of numerous and divergent views into a holistic account. Ideally, it was hoped at the beginning of this research that at least four members of each station would be interviewed; these four were the general manager, news director, engineer, and secretary/bookkeeper. It was thought that these four could provide the different vantage points needed for a reconstruction of station operations. Once in the field, however, it was found that numerous positions overlapped; in addition, many organizational personnel were either on vacation or simply absent from the station. In a couple of instances station members who were on-duty during the disaster had left the station for other jobs by the time interviewing began a month or so after the floods. In sum, it was possible to secure interviews with at least four personnel in only three of the stations; these were the three largest stations. In the smaller stations two or three interviews were conducted. The
smaller number, however, does not represent a loss of data since the decision was made to interview only the general manager in those stations that were knocked off the air during the whole emergency period. These stations were found to be of little importance in a functional sense; the total Gestalt of station operations was easily covered by the one interview. Total number of interviews at all the stations was twenty-eight.\textsuperscript{10}

Each interview was tape recorded with only the interviewee and the interviewer in attendance. There were no multiple interviews. Most of the interviews took place in private offices or sound rooms. After introductions, the tape recorder was set up but left off and a description of the research offered. A few of the questions were then given as samples to the interviewee to familiarize him with the format of the interview to follow. Any problems or questions the interviewee then had were discussed.\textsuperscript{11} The recorder was then turned on and the interview begun. At any time during the interview the recorder was turned off at the interviewee's request if confidential or off-the-record material was discussed. This happened in only one instance. In no case did the interviewee mention unease or misgivings about the presence of the recorder during the interview. This was attributed to the frequent use of recorders by media personnel; most of the interviewees were quite used to talking into microphones. Hand notes were taken during the interviewing in addition to the recording
and direct eye contact was maintained with the interviewee. A sense of keen interest and importance in what the interviewee was saying was thereby portrayed and a feeling of rapport established. The interviews lasted on the average ninety minutes; one was as long as two and half hours while another was as short as ten minutes.

In addition to the interview material, other data sources were also used. In a couple of instances copies were secured of the actual disaster broadcasting of the stations. Also, where feasible, samples were taken of written messages that were broadcast over the air during the disaster. In addition, any other written records that were available were consulted.

One veteran disaster researcher has noted that "There is no area of social research in which the scientist must operate with less freedom than in the field of disaster study."12 This is true for most scientific examinations of disaster situations and is true for the present study. The most serious handicap that disaster researchers must endure is the lack of proper controls in the formulation of the research design. There is much difficulty in establishing controls over the relevant variables being investigated. Relying primarily upon interview data, this study runs the risk of acquiring incorrect or misleading information due to a faulty memory occurring over the time interval since the disaster incident. Time is usually against the researcher since
every day he delays in getting into the field the disaster experience becomes more and more remote for both the participants and himself. Also, the displacement or replacement of personnel has already been mentioned and these organizational incumbents are forever lost to the sample unless they can somehow be tracked down and interviewed. On a larger scale, disaster research is almost always post hoc. Given the state of knowledge of the physical sciences in this area, disasters are quite unpredictable and hence researchers usually do not have the opportunity to select the affected communities before the disaster strikes. As in this study, the relevant communities are usually determined for a researcher by forces totally beyond his control. It was quite fortuitous for this research that the number and types of disasters that occurred during the summer of 1972 happened when and where they did. But other researchers at other times may not be as fortunate and would have to settle for either less interesting, productive, or representative cases.

**Data Analysis**

The preceding two chapters have presented the argument that very little is known about the organization and operation of commercial radio and television stations during disasters. It was then decided that an exploratory study would be initiated to uncover relevant processes and structures. Open-ended questions
were formulated in a guide and interviews conducted with media personnel. Mostly descriptive and qualitative information resulted. This mode of research was preferred over the use of quantitative indicators since it was felt that exploration of a new subject area was better accomplished by a wide-angle and multi-ranging method of attack than through total reliance upon specific hypotheses that may or may not refer to the underlying relationships. In addition, an introductory study should be amenable to the accidental or incidental finding; an open-ended and qualitative approach gives the researcher the flexibility to seek out and explore where the more strictly controlled quantitative approach does not.

In a real sense, the division of this chapter into two separate headings, that of research design and that of data analysis, creates a logical and ideal framework where none really exists. The general nature of this study is qualitative and follows the perspective of Glaser and Strauss. In their methodology, "there is no clear-cut line between data collection and analysis."13 "There tends to be blurring and intertwining of coding, data collection and data analysis, from the beginning of the investigation until near its end."14 A "retroductive" approach best describes the methodology used in this research. This is a combination of the inductive and the deductive and consists of the researcher constantly comparing ideas with the data. New ideas that arise during
the research are included in the interview guide and asked of the remaining interviewees. If they "fit," they are kept in the guide and become part of the data; if they do not fit, they are either modified and asked in their new form or they are dropped completely from the guide. Older ideas, as they become grounded in the data, become stabilized and little further material is gathered on them. "As various segments of the analytical framework get built during chronologically different stages of the fieldwork, more data need not be gathered nor analysis be rethought for the segment." In this manner, theory becomes emergent with the data and both attain a unity beyond the artificial separation of the two. Flexibility is thus maximized as it definitely should be in an exploratory study.

The above statements, of course, while applying to the major part of this research do not pertain to the hypothesis-testing section of this work. In that phase of the study the goal is not the formulation of new propositions but the testing of existing ones. The Glaser-Strauss methodology is thus not wholly applicable here. Instead of generalized questions being asked to determine analytical categories, more detailed and delimited questions were discussed with the interviewees to tap the measurable properties that were predicted by the hypotheses. Goodness of fit was then assessed of each hypothesis and they were either allowed to stand as proposed or they were modified and reworked.
Finally, the above remarks lead to the conclusion that analysis of both sets of data was substantially non-linear and a-logical. Rather than taking each question and tallying the responses of interviewees into mutually exclusive categories, the data were analyzed as the research progressed. Some parts of the findings achieved clarity sooner than others and thus influenced the rest of the research. At the close of the fieldwork, the data in actuality were already analyzed and categorized. Analytical properties relative to important components of media response to disasters had coalesced and taken shape. All that remained was the rereading of the interview transcripts for even further clarification of the basic findings.

Statistical tests of significance or measures of association are used neither in the exploratory nor hypothesis-testing section of this study. Concerning the former, there are no hypotheses to be tested but simply descriptive generalizations. The goal is the generation of theory and new hypotheses and the integration of the many divergent findings relating to the subject. High levels of quantification and control are not needed in the attainment of this end. Concerning the latter, statistical tests are not applicable due to the nature of the research design itself. While in one sense systematically drawn, the sample clearly fails to meet the assumption of randomness needed for either parametric or non-parametric statistics. The sample may be representative of the
population from which it was drawn, but it is just as likely that it may not be representative of that population. One cannot make statements with certainty about the randomness of the sample used in this dissertation.

Questions relating to reliability and validity must also be answered. Reliability may be approached from two complementary perspectives. One view sees reliability as stability or dependability. This refers to the likelihood that a researcher, measuring the same objects again with the same or comparable instruments, will obtain similar results. It has already been mentioned that time works against the researcher in that the post-disaster social situation is constantly changing away from the disaster experience and distortions may enter the picture. A researcher who attempts replication of an earlier study is even further away from the important disaster processes and it is possible that he may emerge with different results even though using the same instrument.

A second view sees reliability in terms of accuracy. This refers to whether the data obtained from the measuring instrument properly reflect the "true" measures of the property under investigation. What is important here is the precision of the measuring instrument, not the data. Errors of measurement may be present in the instrument and to that extent the instrument is unreliable. This point may be handled by noting that this study is mostly
exploratory; numerous questions in the schedule seek data about the same processes but from different vantage points. Redundancy, in other words, has been built into the design so that even if some questions conduct the focus of information away from the underlying property the others will eventually tap that dimension.

Validity also is composed of two aspects. The first is internal validity or the degree to which the findings of a study coincide with the social reality it purports to study. The second is external validity or the degree to which the findings of a study can be generalized to larger contexts. Of the two, internal validity is probably the more important. There are numerous extraneous and contextual influences that may intervene in the research process to bias the data away from the underlying social reality and thus minimize internal validity. One serious influence is the observer's inability to witness and record all relevant aspects of the situation under study. This was, certainly, a factor in the present study. Only certain organizational incumbents on certain selected days were interviewed for the information about disasters that they held; it was definitely the case that much data were either unavailable or lost to further inquiry. To try to alleviate this, each organizational representative was treated in the interview as both a respondent and as an informant. As a respondent, he was asked to report on his own activities and reactions during disaster operations. It was felt that the specific
position incumbent would have more knowledge about his own response than others would. At the same time, though, the interviewee was treated as an informant and asked to report on the activities and reactions of others around him during the disaster operations. This was done for two reasons. The first was to complement the data provided in the other interviews and thus try to record the largest amount of information about the situation. Different vantage points could thus be compared and integrated in order to maximize accuracy. The second reason was to minimize conscious information distortion on the part of the interviewees. This is a second biasing influence that lessens internal validity. It was not, however, felt to be serious in the present research. In the first place, the questions on the interview guide were in no way felt to be either threatening or "investigative" to the respondents. There was no need on their part to consciously or deliberately distort information either negatively to hide something or positively to try to please the interviewer. The short amount of time in the interview itself, the lack of knowledge on the part of the interviewees concerning the feelings or preferences of the interviewer, and the perceived importance of the research all helped to mitigate what influences there were to distort the data.

A third biasing influence working against internal validity is the reactive effect of the presence of the interviewer. This can never be totally controlled but can be greatly minimized. It
was not felt that the interviewer's presence in the organization created any serious difficulties either in on-going operations or within the interview itself. Most of the interviewees welcomed the chance to discuss their activities during the disaster and they felt that the purpose of the research was significant and would benefit other broadcasters throughout the country. Most were quite willing to discuss matters of internal station operations to an "outsider." The fact of the researcher being a sociologist seemed of little consequence to them.

A fourth biasing influence is the reportorial ability of the interviewees. This was felt to have little biasing effect since the broadcasters all had excellent speaking voices and could frame answers in very articulate terms. Their proficiency in the use of microphones in their daily occupation also helped make the interviews a pleasant experience for all concerned.

A final influence limiting internal validity is the selective perception of the researcher. This, hopefully, was lessened by the use of a tape recorder to faithfully register the total interview sequence. In addition, notes were taken by the researcher of new thoughts and ideas that cropped up during the discussion and which were then asked. The most important technique, however, minimizing selective perception on the part of the researcher was the format of open-ended questions in the guide. Responses were not limited to what the researcher thought was important but
included numerous answers that were not felt to be pre-determined by the questions. It was felt that a greater wealth of data was obtained by letting the interviewee talk quite freely on matters generally pertaining to the subject and structuring his own response to the questions. This semi-structured interview allowed information to freely surface and it was then the duty of the interviewer to probe beneath the surface for the important findings.

External validity is the degree to which the findings of the study can be generalized. It has been mentioned previously that the sampling techniques used were to a large extent determined by the parameters of the disaster situation; while systematic, the sample was not random. However, much can be learned from studies that do not use representative samples. Especially in exploratory and hypothesis-seeking studies where the generation of ideas is the main task, an in-depth but non-representative sample can be of great benefit. It will remain to further studies using more sophisticated methodological techniques to provide the data that can be generalized to other areas.

**Summary**

This chapter has described the qualitative and generally exploratory nature of this study. Data were gathered from selected organizational personnel in four natural disaster-struck communities.
An open-ended interview guide was administered to all the media representatives. Data analysis proceeded with the data collection and consisted of the constant comparative method. Reliability and validity were felt to be adequate and generally good and the research left to further studies the more rigorous testing of the ideas presented. With an introduction to the subject, a description of the relevant literature, and the methodology of this research now detailed, there remains the presentation of the data. This will be accomplished in the next two chapters.
Notes: Chapter III


2. Robert A. Stallings, Communications in Natural Disasters, Disaster Research Center Report No. 10 (Columbus, Ohio: Disaster Research Center, Ohio State University, 1971), p. 3; see also John Michael Brooks, "A Sociological Study of Commercial Broadcast Organizations" (Ph.D. dissertation, Ohio State University, 1970).

3. "The aim ... is not to achieve a tightly structured set of questions and associated range of likely answers but, rather, to provide for oneself a list of things to be sure to ask about when talking to the person interviewed. It is because of this aim that this type of device is called an interview guide rather than an interview schedule or questionnaire." John Lofland, Analyzing Social Settings (Belmont, California: Wadsworth Publishing Company, Inc., 1971), p. 84. Italics in original.

4. The interview guide appears in the Appendix.


7. In the presentation of the data beginning in the next chapter, neither stations nor localities will be explicitly identified. This is to respect respondent anonymity; where necessary, data pertaining to individuals, stations, or communities are masked to meet this requirement.

8. One station initially refused entry. However, one short interview was finally conducted. Enough information was gathered for this research, though, since this station had been knocked off the air for the total length of the disaster situation.
9. Anthony F.C. Wallace, *Human Behavior in Extreme Situations: A Survey of the Literature and Suggestions for Further Research*, Disaster Study Number 1 (Washington, D.C.: Committee on Disaster Studies, National Academy of Sciences - National Research Council, 1956), p. 24. Ideally, and more concretely to add further strength to this research, it would have been preferable to interview all station personnel about their activities during the crisis period. But for practical reasons, it was necessary to restrict the sample. This researcher is well aware that this limits the perspective that was gained.

10. "Studies based on intensive interviewing have typically used only from about 20 to 50 interviews. Given the material management problem, numbers in that range seem quite reasonable. One legitimately sacrifices breadth for depth." Lofland, p. 91. Of course more fieldwork would have been done (and this especially refers to the inclusion of more television stations in the sample as well as the inclusion of more personnel at each station) if additional funds had been available.

11. "Each interviewer is somehow stereotyped, and responded to accordingly. And each question evokes a certain emotional reaction which affects the interviewee's answers. By giving the interviewee a chance to ask questions, these factors are brought to the surface where the researcher can deal with them." Fred H. Blum, "Getting Individuals to Give Information to the Outsider," *Qualitative Methodology*, ed. William J. Filstead (Chicago: Markham Publishing Company, 1970), p. 87.


15. Ibid.


CHAPTER IV

MEDIA ACTIVITIES DURING DISASTER

Introduction

This chapter follows the leads presented in the literature and describes the emergency operations of commercial broadcasting stations as they react to the impact of a disaster agent within the community. Explanations are attempted to interpret the patterns of intraorganizational and interorganizational activity; wide areas of station response, ranging from internal gatekeeping to external communication patterns, are described in detail so that the reader of this exploratory study can begin to gain understanding about the subject matter.

This chapter presents the majority of the data found in this research. It is divided into three main areas: general background information, intraorganizational material, and interorganizational material. The general background data consist of the first three sections that introduce the reader to the subject of this research. The first section proposes a distinction between radio and television station operations during disasters. Section two continues the introduction by looking at the variables of community size
and disaster scope and assessing their influence on station activities. The third section concludes the background material by broadly broaching the topic of disaster planning at commercial broadcasting stations. The next section begins the major findings of this study. Intraorganizational activity patterns are discussed in terms of the gatekeeping concept outlined in Chapter II. Following that is the area of interorganizational relations. The chapter concludes with a section spanning both the intraorganizational and interorganizational levels in its discussion of organization-to-public communication patterns. The material on organizational stress and the specific stress hypotheses are detailed in Chapter V.

The Differential Responses of Radio and Television

The broadcast media are usually viewed as a single entity during everyday times and also as a single entity during disasters. Here, attention is given to the different requirements that radio might have as versus television and the different impact that the disaster agent may have on each. This first section will be an introduction describing the differential responses of radio and television as they attempt to cope with natural disaster stress. As such, it will be a descriptive account of the activities and operations of the broadcast media during disasters.
Radio's Response

Radio's response to disaster was typified by a general manager's remark that, "It was exciting radio during the flood." This statement becomes clear when one understands the parameters of a disaster situation.

When a disaster occurs, normal programming is left by the wayside; commercials and music are replaced by a total news and information format that runs continuously from the onset of the disaster for days and even weeks later. This is necessitated by the general public's need for reliable and immediate knowledge about the community and its functioning. Questions concerning missing friends, missing family members, property damage, safe drinking water, work, schools, loans, immunizations, and numerous other subjects that one takes for granted during normal times need to be answered during disasters. This is doubly so when communications to other cities and even communications within the local area are severely disrupted. In two of the communities, the local newspaper was totally destroyed by the floods; this adds a strain. In addition, some of the radio and television stations themselves were damaged by flood waters and were knocked off the air for periods ranging from hours to over a week. This puts a greater load on those stations that are fortunate enough to have emergency generators and other resources enabling them to remain on the air even though electrical service is lost.
The operations of the typical radio station during the floods were to a large extent summed up by one news director's statement that his station's goal was "to dispense as much information and news as we possibly could." This took the form, as previously mentioned, of a continuous information program. Whereas during normal operations music was interspersed with commercials and a spot news summary, during disaster there was only news. A station manager said that "it's just strictly information, no entertainment at all." This necessitated a reorganization of the station's structure and tasks.

There were changes relating to both internal and external operations of the station. Most internal changes centered around personnel reallocation. During everyday operations most stations were divided into specialized subunits, such as sales, management, programming, etc. This radically changed during disaster when most all tasks were subordinated to the total information goal. For example, with no commercials the sales people become superfluous and may be switched to other sections to help out. In actuality, all sections ceased to exist except that of programming which is composed of the actual broadcasting tasks and news. All in-station personnel were assigned to one of these two areas. This included owners, managers, salesmen and the like. In a number of instances this was the first time in many years that managers or directors who had been announcers in the past, returned to the air
for broadcasting duties. This was a result, largely, of employee fatigue arising from continuous around-the-clock activity. There were simply not enough regular personnel to cover the announcing tasks; other station members had to help out. Concerning the news part of programming, those in-station people who did not have the requisite background or abilities for on-air duties were assigned to the news department. The news department, however, was quite different during the disaster than normal times. Two major changes were apparent. First was the increased size of the department. Regular one- or two-man departments were now composed of ten to twenty people. These extra personnel were received from two sources. The first source was the in-station personnel who were not qualified to perform the actual broadcasting functions. The second source was out-of-station volunteers, people who came to the station and offered their free services. Along with the regular newsmen, these in-station personnel and out-of-station volunteers made up the news department.

The second change in this area revolved around what might be called the "pace" of news gathering. During everyday operations the news department relied upon local sources -- police, fire, hospitals, ambulance, elected officials, weather bureau -- and the press newswires for the information that was broadcast during the news reports. There was always plenty of information that had to be distilled to a small and manageable package. During the floods,
however, the press newswires were inoperable since communication lines were down between the local community and the outside and local electrical service also was not functioning. Further, the local sources could not be contacted in the usual manner by telephone since these lines were jammed. What the news department did was to rely upon a usually untapped source for the information it needed: the general public. The general public, then, was both the cause (disregarding the disaster agent itself) and the cure for the news department's increased activity. This can be explained in greater detail.

The public was the stimulus for news department activity in that it had questions about community functioning that needed to be answered. This has been discussed above. The public was the remedy for news department activity in that the information that the community needed was supplied to a great extent by the public itself. Respondent statements such as "We had a flood of calls" and "There were thousands and thousands of calls" testify to this increased input from the public. With police and fire personnel undergoing enormous strain in their own organizations the public tended to help out by supplying to the radio stations its own surveillance of the environment. This information complemented what the station received from official emergency-relevant organizations. Together the two sources provided the minimum information that a community needed to sustain its existence during
such a massive emergency.

The "pace" of news department activity speeded up appreciably since more information than was usually available about more subjects was needed more quickly. What occurred was the radio station became more and more a funnel for public information. It ceased to be the origination point of news, music and commercials and instead became simply the channel through which news flowed: it became the middle link in a public-to-public chain. One general manager noted this when he said, "The public had control of us." A program director said that "the telephone calls dictated what we did. That supplied us with what the people needed and wanted to know." In a number of stations telephone calls from the public were put directly on the air; in one station an all-talk format was instituted for over a week so that the public could have the maximum exposure through the media.

With personnel shifted, with schedules discarded, with broadcasting activity increased, with personal danger present, with immediate public feedback instituted, with all the stress and strain of adventuring into unknown areas, radio's response to disaster was indeed "exciting."

Television's Response

Television's response to disaster was markedly different than that of radio. The dissimilarities of the two media became most
apparent during disaster. This follows Dynes' comment that "large-scale community disasters ... provide a kind of maximum test of organizational functioning.... Crises reveal, as few situations can, how organizations are structured, how organizations maintain stability, how organizations change, and how organizations fulfill their functions."^2

Whereas the functioning of radio stations during disaster included many changes in structure and tasks, there was very little change in television station operations. Two patterns were evident; one reflected the combined radio-television station, the other the television-only station.

A very clear picture emerged of the relative importance of radio over television during disaster when one looked at the allocation of resources at those stations with combined facilities. Electrical power and personnel were shifted from the television operations to that of radio. Instead of gaining in-station personnel and out-of-station volunteers, the television activities lost personnel. These, of course, were shifted to radio. Electrical power was at a premium since service was disrupted and emergency generator-supplied power was used to keep the radio side on the air; television was allowed to be discontinued. In no station was power taken from radio and shifted to television. This process of priority shifting to radio was seen in a station manager's remark that, "We used TV for supplemental coverage and on
TV we announced that radio was the prime source (for information)."

Television operations at these combined stations were all very similar and quite startling when one considers that the local community was experiencing a massive and disrupting disaster. Television operations were viewed by the broadcasters as "pretty normal." Network programming continued to be carried by most of the stations; those that did not carry the network substituted local movies. Very little locally-originated disaster-related information and news was carried over television. One station manager estimated less than ten minutes of live flood programming was carried over television the whole first week of his community's disaster. This was in direct contrast to radio where the first week's broadcasting was total flood programming. One broadcaster noted, concerning the role of television during disaster, that "television took a back seat (to radio) during the whole emergency."

At the television-only stations, operations were more like that of radio. A few volunteers were accepted to man telephones or to do other clerical tasks. The number of volunteers was quite small, however, compared to that used by the radio stations; television managers felt that their activities were more complex than those of radio and volunteers would be more of a hindrance than a help. In addition, the in-station personnel were rarely shifted from one task to another; most tasks were important in keeping the station on the air. The only major personnel changes
that occurred were for more people to be sent out on picture-taking news assignments so that the station would have more film for broadcasting. The major similarity with radio was that some live locally-originated disaster-related programs were attempted. The number was limited, however, and was not around-the-clock as on radio. The programs usually were in prime-time evening slots and consisted of an expanded evening news format. Also, interview-type programs with local emergency officials were carried with viewers having the opportunity to phone in questions. But outside of these few programs the bulk of the daily television viewing was regular network programming with its diet of soap operas, quiz shows, and commercials. In addition, unlike radio where daytime-only stations remained on the air continuously, the television stations signed off at their normal times.

Discussion

The differential responses of radio and television show an acute awareness on the part of the broadcasters to the exigencies of a disaster situation. During disaster, usually the first service to be disrupted is that of electricity. In most cases it will be a week or more until the whole community is once again provided with that service. In the meantime, emergency generators provide some organizations with power while most private individuals usually have none. This is coupled with the fact that people are
not just sitting at home doing nothing; after the impact of a disaster agent people are working to clean up their community and repair the damage. Most community members are engaged in doing something. Post impact is a time of activity. During most of the day people are outside in the yard or down in the basement cleaning up mud and debris. They do not have time, even if they are fortunate enough to have electricity, to sit down and watch television to gather their information. A radio, though, presents no problem. Being portable it is easily carried around by the individual wherever he goes; being battery-operated it does not rely upon electrical lines. An individual can be working and at the same time listening to the radio. Thus, radio gains listeners during a disaster at the expense of television. Radio is the quickest way to feed information to the public in an emergency of the flood type.

The broadcasters were cognizant of this fact and shifted their activities when the disaster agent struck. At radio-only stations, all normal programming was discarded and a news and information format instituted. This ran continuously as the stations operated past their normal sign-off time. Music and commercials were not carried. Telephone lines were opened up and the public allowed to ask questions and receive the requested answers. Disaster-relevant organizations like civil defense also used radio to disseminate official information to the populace. At combined radio-television
facilities, personnel and power were shifted to the radio side so that that important channel of communication could be kept on the air. Television was almost totally ignored and retained its normal network programming since it was felt that few individuals could watch or were watching the station. At television-only stations, the daytime was acknowledged to be radio's domain and also only network programs were carried. At night, however, it was felt that enough of the public had returned home from clean-up activities so that a sizeable audience was present. The local evening news was expanded for another hour or two to pick up those listeners who had electrical power and thus could watch television. Only as power was restored did television gain back its audience and replace radio as the prime communicator. This had two facets to it. First, private homes had no electricity and thus could not pick up television until power was regained. Second, the television stations themselves needed more power than radio especially for live cameras, lights, and film developing yet they too were either with little or no power. As they also had their power restored their ability to initiate quality live programming with pictures increased and the public turned to them. Thus, the three patterns of operations that were initiated by the broadcast media during these community disasters were the most effective way in reaching the largest segment of the population at the time.

On the basis of this finding of differential responses between
the media, it was decided to concentrate most attention on radio stations since these organizations demonstrated the greatest degree of structural and functional adaptation to disaster. In addition, television stations were not represented in the sample to a degree sufficient enough to include them in systematic and in-depth analysis. Accordingly, the remainder of this study uses the commercial radio station as its prime model with combined stations and television-only stations having lesser degrees of comparison with it.

**Community Size and Disaster Scope**

The preceding section has illuminated the finding that the broadcast media exhibit three differential responses to natural disaster stress depending upon the type of station involved. A look is now directed to the two characteristics used in the research design to discriminate between sample cities: community size and disaster scope. The importance of each for station operations will be assessed.

Community size had no direct but only indirect bearing on station activities during disaster. There were no discernible differences in any pattern of station functioning between the small and medium cities. Numerous expected findings relating to community size as a contextual variable did not materialize. For example, it had been felt that larger communities would have more
disaster-relevant organizations with which the broadcasting station might interact. Each organization would have its own goals and its own philosophy about how to secure these goals. There would then be a greater chance for differences of opinion and conflicting viewpoints leading to competition or in some instances even conflict between organizations. In smaller communities, it was felt, the smaller number of organizations would be of benefit in disaster operations since it was more likely that key organizational officials would know each other in their informal, out-of-organization roles and that this would facilitate interaction in the disaster situation. These patterns were not borne out by the data. Organizational interaction between the broadcasting station and other organizations in both community sizes was generally mixed. Both extreme difficulties and mutual cooperation were evident in the four communities. Community size had no effect on this variable. The same was true of other characteristics that were expected to vary with community size such as incidence of volunteering, for example.

Community size was important only indirectly in that the larger communities had both more and larger broadcasting stations. Of the two, the latter fact was the more important. There were differences in organizational functioning during the floods related to organizational size. The larger stations by definition had more personnel and hence more resources in this regard. During
disaster the larger stations had a wider manpower pool to manipulate and could easily switch over into work shifts to ease the inevitable employee fatigue. Smaller stations could not do this and for this reason the disaster produced a greater degree of organizational change among them. In addition, the larger stations had numerous overlapping personnel so that even if some employees were not able to report for work due to physical injury or the disrupted transportation system, others could report and the station would not suffer. In smaller stations, however, the loss of even one employee was a major drop in organizational capabilities and the station output suffered. Thus, not community size but organizational size was seen to be a key characteristic defining differences in organizational operations.

It had also been expected that disaster scope would differentiate between media organizations. It was felt that a focalized disaster agent would be seen as less of a threat to station operations, less of a demand variable, an easier event to cover, and a producer of fewer difficulties or problems relating to both internal operations and external relations than would a diffused disaster agent. This was not the case. Both types of disaster agent generated a high degree of organizational stress and an enormous amount of problems. It is quite evident to see that a diffused disaster scope, in this case a general flood covering either the entire area or a large part of a community, would create
many difficulties for radio and television stations. Physically, the stations themselves would probably be inundated and suffer damage to equipment and other resources. This occurred in both diffused flood communities. A number of stations were physically flood victims and lost equipment. Some were literally wiped out and forced off the air completely. In addition, a general flood disaster would make travel to and from the station either difficult, hazardous, or impossible. Employees at home might not be able to get to the station; those already at the station might not be able to get home. Also, a diffused flood might damage or destroy more of the community's other resources that have bearing on station activities. Larger areas would be without telephone and electrical service and this would create difficulties for the station in the locating of missing persons. Other factors could be readily noted to show the seriousness of diffused disaster agents for broadcasting stations.

Diffused flood disasters are generally of consequence for broadcasting stations because the stations themselves are physically involved. The stations are participants and quite often victims. It had been expected that focalized disaster agents would be seen by the station as a news story happening to others and thus an external event. The station itself would not be physically involved nor would there be the degree of disruption of the transportation, communication, and electrical systems as occur during diffused
disasters. As noted above, however, this was not the case. Broadcasting stations in the focalized disaster communities underwent the same difficulties and hardships as did those in the diffused disaster communities. The explanation, though, probably lies in the particular sample and is not a general characteristic of disaster scope. This requires discussion. In the two focalized disaster communities, flash floods occurred in a limited area bounding a few blocks on either side of a local creek and river. The rest of the community was only slightly affected. However, two circumstances of note tended to increase the stress upon the stations and bring the situation to a level of comparability with diffused disasters. The first fact was that some of the stations, unfortunately, were physically located within the narrow path of destruction caused by the focalized disaster agent. Results ranged from minor damage to equipment to total destruction of all the station's material resources. This, of course, knocked some stations off the air and added strain on those remaining. The second and more important fact was a purely fortuitous ecological pattern. The flooded creek and river both ran through the center of their respective communities and divided the area into two halves. As it turned out, in the majority of the organizations the station was on one side of the water and the homes of the personnel on the other. Due to the limited but serious damage, station members could not cross the river or creek to report for work or leave
work if they were already there. All the attendant difficulties just mentioned for diffused flood agents then applied to these stations also.

Thus, neither community size nor disaster scope was seen to be an important contextual variable differentiating particular stations in the present sample. Community size had less influence than its by-product, organizational size. Organizational size, measured simply by number of personnel, did have effects upon station operations during disasters. Disaster scope also had no influence upon organizational functioning and this was seen as an outcome of local ecological configurations and should not be generalized to other communities. More extensive sampling in the future might well produce the expected differences according to disaster scope.

**Disaster Planning**

Commercial broadcasting stations are an important component of the community warning and recovery system. The stations are key disseminators of messages from civilian defense authorities to the general public as well as other organizations. During disasters the activities of broadcasters are usually viewed by the broadcasters and the general community as subsumed under the realm of public service. Public service relates to the non-commercial, non-business aspects of broadcasting and is a key criterion in
governmental issuance and renewal of broadcast licenses. It thus is a very important part of station philosophy. It was expected that since disaster operations are a very visible and significant public service function the stations would have formulated disaster guidelines or plans to be used when disaster occurred. A contingency plan would provide for smooth organizational functioning, decrease mistakes and the resultant criticism, and hence be of indirect favorable use when renewal time arises. This would be in addition to the concrete benefits to the community during disaster of having an efficient and useful broadcasting station in operation.

No station in the sample had either a general or specific, written or unwritten disaster plan or guideline. This is even more surprising when it is noted that two of the stations are Emergency Broadcast System (EBS) stations and are responsible for information diffusion in their local area in case of enemy attack. Yet no station had any type of contingency procedure whereby station operations would be shifted in event of disaster. In addition to having no plan for operational changes, the stations had undergone little if any planning for mechanical changes. Only in isolated instances did a station have backup emergency generators or stocks of food and other supplies that are needed when power and transportation are disrupted. The stations were quite unprepared both operationally and mechanically for natural disasters.
This is important when it is again stressed that the mass media are key agents in community coordination during and after disasters.

The resultant of the lack of disaster plans showed up in station operations during the emergency period. Some station personnel mentioned that "the first six to eight to ten hours of the disaster were utter confusion as far as the broadcast media were concerned." One interviewee mentioned that "we were groping; we didn't know what to do so all we could do was just take stabs at what we were supposed to do and this was very difficult."

Every station in the sample experienced periods of disorganization at the beginning of the emergency period as normal operations proved to be ineffectual in the disaster context. The broadcasters almost literally had to "sink or swim" during the flooding; most stations successfully coped with the unanticipated crisis, reorganized structurally and functionally, and participated in the community recovery. Once the emergency was over the broadcasters remarked that disaster plans would have been a desired help in the early stages. They felt that their operations would have been much smoother and of greater benefit to the community if they had known what to expect from the disaster and how to cope with it.

Curiously, though, the broadcasters then stated that they would not compose plans for their station for future use because either a disaster would not strike their community again "at least for another generation" or because "each disaster is different; you
have to play them all by ear." Two factors partly account for this viewpoint.

The first reason is what psychologists call "the delusion of personal invulnerability."[^6] This is the belief that a disaster is what strikes someone else or that "it can't happen here." Hence, the individuals are likely to refrain from taking preventive measures to help alleviate the stress resulting from the disaster's occurrence. We have seen, however, that the disaster "did happen here" as far as the four communities in the sample were concerned. A number of broadcasters still used the argument by changing it slightly to state that "it can't happen here again." Some personnel stated that the last disaster was the Great Flood of 1937 and that it would probably be the next century at the earliest before their community became a victim again. Thus, they formulated no plans for operational activities and did not secure the mechanical equipment needed to keep the station on the air.

The second reason is more sociological but relates to the one above. None of the four flood communities are located in what are referred to as disaster subculture areas.[^7] The four communities are not prone to the repetitive occurrence of a disaster agent and do not have standardized normative expectations concerning this agent. No general community or specific organizational values relating to disasters have become institutionalized. No recent stock of disaster experience is available to the community.
participants; all thoughts concerning disasters were phrased in terms of the last great disaster, the flood of 1936 or 1937. Being so non-repetitive in the community's history, disasters are not seen as something to be aware of and prepared for but rather was viewed by the broadcasters simply as a big news story. Even though the station itself was physically involved in the damage due to the disaster agent, no special plans or equipment were felt to be necessary to cover the news of the event. Though their actions showed otherwise, the broadcasters felt that the community disaster was strictly routine as far as their station operations were concerned. No plans were essential since the story would be handled like any other fast-breaking news story.

Intraorganizational Gatekeeping

Up to now, the material presented has been quite general. The differential responses of radio and television to disasters, community size and disaster scope in relation to organizational characteristics, and disaster planning at broadcasting stations have all been discussed. This section narrows its focus to one specific area, that of gatekeeping and intraorganizational relations, and looks at this phenomenon in view of the literature discussed in Chapter II. The discussion will center around gatekeeping at commercial radio stations both during normal times and during disasters.
Gatekeeping during Normal Times ($T_1$)

Figure 2 shows a flow model representing the passage of news and information through the different gates at the typical radio station during normal operations. There are three gatekeepers that should be noted. The major gatekeeper is the professional newsmen or news gatherers. The width of Arrow A indicates that most of the news being processed by the station is that which the radio newsmen gather themselves. During a normal working day the newsmen will contact their local sources -- police, fire, hospital, schools, elected officials, weather bureau -- usually by telephone before newscasts to get the latest local information. In addition, state, national, and international news are gathered off the wire service by the newsmen who more than likely will simply "rip and read."

Stringers and tipsters are a second gatekeeper who infrequently pass along information to the professional newsmen. Their importance is diminished, certainly, since the information's qualities must be judged by the newsmen. The third gatekeeper is composed of the news processors who usually but not always work within the news department. Their job is to edit, translate, and otherwise process the news items gathered by the professional newsmen. They may significantly alter the content or form of the news stories and hence are gatekeepers; their significance, though, is not as great as that of the news gatherers. The professional
FIGURE 2
FLOW MODEL DEPICTING NEWS CHANNELS
DURING NORMAL OPERATIONS ($T_1$)

Local Sources:
police, fire,
schools, hospitals,
weather bureau, etc.

Extra-local Sources: Wire Services

Reads News Over Air

Completed Copy

Public

Raw Events

Stringers & Tipsters

Professional Newsmen (News Gatherers)

News Processors

Programming

(AB)
newsmen, then, preside over the major gate at the radio station. It is the newsmen who decide what stories to pursue, what information to gather, and how the story will basically be written.

Following through the news flow in Figure 2, we see Arrow A as being the major channel. Arrow B is less important and feeds into the news department. The news is then processed and a completed copy is sent along to programming. The copy is then usually read over the air by a newsmen during his newscast. Very rarely is the news copy read by non-news personnel, i.e., disc jockeys or announcers. The news is then received by the listener who "is outside the news operation... and not part of the Press."8 Thus, during normal times, "News is What News...men Make It."9 The professional newsmen make the major decisions controlling the gates at radio stations.

Gatekeeping during Local Disasters (T2)

A radically different situation is encountered during massive community disasters. Disasters have been conceptualized as stress situations.10 During normal times an organization may be conceived of as existing in a dynamic equilibrium between its capabilities and the demands made upon it; during disasters, stress occurs for the organization when either its capabilities decrease, demands increase, or a combination of the two. The latter occurred to the radio stations during the flood disasters. Station capa-
ilities decreased either as a result of physical destruction or inoperability of mechanical facilities and/or as a result of the loss of station personnel due to death, injury, or disrupted transportation. Station demands increased as the request for or telling of information magnified enormously. The radio stations, then, were operating under unanticipated stress conditions. The stations' response to this stress situation would then dictate the changes, if any, in the gatekeeping process. Figure 3 shows a flow model depicting the channel of news at the typical radio station during a local massive disaster.

It may be seen that a number of important changes have indeed occurred in the news flow. These will be discussed in order. A major difference in station response concerns the increased demands. As a number of writers have noted, "the normal situation in a ... newsroom is that more news items are available than can be used on the air." For example, radio news broadcasts may only use a maximum of five minutes of information per hour; this must be selected from sources and the wires. This surplus leads to a selection process whereby the news items are whittled down to a relatively small number. It is during this process of purposive selection that the gatekeeper is important; it is during this process that the gatekeeper performs his major functions. But a significant change has occurred during the disasters. There is now a shortage of news and information
FIGURE 3

FLOW MODEL DEPICTING NEWS CHANNELS DURING LOCAL DISASTER OPERATIONS ($T_2$)

Raw Events → Professional Newsmen (News Gatherers) → Completed Copy

News Processors, Programming (Enlarged Staff)

Increased News Flow

Public

ABC

Feedback

In-Station Clerical & Out-of-Station Volunteers (Enlarged)
flowing through the channels (In **absolute** terms there is a much greater number of news items; in **relative** terms, however, there is a shortage since the normal five-minute newscast has now expanded into a continuous around-the-clock news format that lasted in a number of stations almost a week). With communications to outside areas and even within the local area severely disrupted by disaster damage and overload, the general public is in constant need of raw news to keep it informed of the developing situation. Information about missing persons, the dead, property damage, drinking water, food, electricity, work, schools, and a thousand and one other subjects that are usually taken for granted, are requested by the populace from the broadcasters. Almost anything and everything concerning the community and its disaster are important and newsworthy. What develops then at the station is an emergent norm that all information should be allowed through the channels to meet the increased demand. This was phrased by the interviewees in statements such as the following:

(Our goal) was to dispense as much information and news to the public as we possibly could.

(Our goal) is to get all the information as rapidly as we can... (and) get it on the air and to the public as rapidly as possible.

The result is that the emergent norm replaces the gatekeeper. Lewin noted this norm when he wrote that, "Gate sections are governed either by impartial rules or by 'gate keepers'."12
During disasters, with shortage replacing surplus, gatekeepers are superceded by an impartial rule. The rule was for all information to be allowed through the channels. The situation was one of open gates.

Closely related to this is the role of the professional radio newsmen during the disaster. As previously mentioned, the professional newsmen during T\textsubscript{1} are the major gatekeeping figure. This changes during T\textsubscript{2}. As Figure 3 shows, the major news and information flow is not through the news department but rather from public to clerical-volunteers (Arrow A) and from public to programming-processing (Arrow B). The news department is almost entirely bypassed. This is due to the state of the disaster context and requires explanation.

During a disaster a major fact of importance for most emergency-relevant organizations is the increase in telephone calls flowing into the organization and the concomitant hardship in calling out of the organization. A radio station is no exception. Respondents discussed the phone situation during T\textsubscript{2} in the following terms:

\begin{quote}
We had a flood of calls.

There were thousands and thousands of calls.

The lines were swamped; I mean, they were lit up all the time.
\end{quote}

What developed was the inability of most of the broadcasting
personnel to secure an open line to call out. Some could, however, using private lines, most frequently the news hot line. Yet even this was to no avail since the newsmen could not reach their sources; police, fire, civil defense, National Guard, and weather bureau all had jammed lines also. As a newsgathering device the telephone was of no use to the local news gatherers. To get their story, they had to "leg" it. This was a difficult and time-consuming task considering the distances over flooded and impassable streets that had to be travelled for stories. The result was the frequent absence of the newsmen from the station for long periods of time.

The newsmen, in addition, were not just after any story. Their responsibility was for the "soft" news, the background information, the reasons why. The "hard" news was secured not by the newsmen but from the general public. The medium, of course, was the public telephoning the radio station.

Every station responded to the great influx of calls by assigning non-professional (i.e., non-news) personnel to answer the phones. Secretaries, bookkeepers, engineers, general managers, owners and salesmen were shifted from their T1 jobs to answering phones; in addition, numerous volunteers were pressed into service as phone handlers. This was one of the two busiest spots of activity at the station. The second was programming; it was here that the news was disseminated. Here also other station personnel
were assigned. News reading was taken over from the newsmen by the announcers and the other personnel. Phones were also located in the control room so that information could be taken directly over the air from the public.

The result of these changes in organizational structure, allied with the emergent norm of open gates, was two-fold. First, news during the disaster period was not "what newsmen make it." The radio news reporter ceased to be the key gatekeeper in the news channel. In fact, he played a minor role in the total disaster reporting. News became what non-professionals (the public) said was news. Two channels became open. The public could telephone the out-of-station volunteers and clerical personnel and give their information which would be written down and immediately passed to the announcers or the public could call the control room directly and sometimes even be put live on the air. There was little attempt at gatekeeping. Even contradictory information was broadcast:

We could not withhold any information.

We broadcast all information, even if (x) from civil defense and (opposite) from the general public. The public checked us on accuracy.

This last statement points to the final change in the gatekeeping channel during the two time periods. As has been mentioned above, during $T_1$ the public is outside the news operation. Figure
3 shows that during disaster operations the public is very strongly related to the news operation. There is immediate feedback between public and station over the telephone. If inaccuracies are broadcast the public will tell the station.

If information was incorrect, people would call in and immediately correct us.

What naturally follows, then, given the instant feedback loop between station and public, is an enormous change in the focus of the news channels. Numerous writers have noted during T₄ the phenomenon of the "passive" gatekeeper. This has been stated as a lack of awareness of the public, typified by one of Gieber's wire editor's remark, "I don't give a damn for the public." Elsewhere, Gieber notes:

The fate of the local news story is not determined by the audience.... The ultimate rationale of the press -- the reason for its license -- is to serve the audience. The news-gathering machinery and the news-gathering bureaucracy are the means; the audience needs are the goals. In the telegraph editor survey, the means all but replaced the goals.

During the disasters, due to the immediate feedback, the audience's needs once again served as the major focus of the press. The public's calls to the station decided what was put on the air; their needs were always in the forefront:

The telephone calls dictated what we did. That supplied us with what people needed and wanted to know.
The public had control of us.... They had control of the airways.

Thus, the closer working relationship between station and public brought on by the emergency context did away with the passive gatekeeper and substituted instead an active, open channel of public awareness. The public became the prime beneficiary of the station. The station once again became the instrumentality for the satisfaction of audience needs.

Summary

This section has avoided a static, psychological approach to gatekeepers and instead focused upon structural variables providing parameters to the news flow. The gatekeeping process rather than gatekeepers was the main topic of concern. This was analyzed in terms of the situational context within which the radio station as an organization operated. A comparison of gatekeeping during normal everyday operations and flood disaster operations was presented. Changes between the two situations were noted. Findings of importance were the following:

1. Whereas during normal operations the radio newsmen were the controllers of the major gate in the news flow, during local disasters they and other gatekeepers were replaced by an emergent norm that opened all gates.

2. Whereas during normal operations news was what newsmen
made it, during local disasters news was what the public made it.

3. Whereas during normal operations there was little feedback between public and station, during local disasters there was massive and instantaneous public feedback.

Interorganizational Relations

While the preceding section looked at one facet of intra-organizational activity, this section focuses upon interorganizational activity. The relationship between commercial broadcast organizations and a number of other organizations with which it had contact during the crisis period will be examined. The frame of reference will always be that of the mass communication organization; the broadcasting station will be the focal organization for analysis.

Other Local Broadcasting Stations

A very important phenomenon, and one alluded to a number of times previously, is the relationship of a single commercial radio or television station to other local commercial radio or television stations in the affected community. Two types of connections existed between the focal organization and other local broadcast stations.

The first type of relationship was cooperation between the organizations. While expected to be present, it was not felt that
cooperation would be of the magnitude that was found. What occurred between the focal organization and other local mass media outlets was an extremely high degree of cooperation. This led, in some instances, to a breakdown in organizational boundaries and the fusion of organizations into "networks" and "super-organizations."

It is one of the defining characteristics of a consensus crisis context as illustrated by natural disaster situations that there is general agreement about community goals and about the means to be used to implement these goals. The broadcast media shared this normative framework and the opinion was voiced at every station that the main task was the provision of information to the community. The broadcasters felt that no other group or organization could better provide this needed service than they. In addition, they felt that the disaster situation was an excellent opportunity for the rest of the community to once again acknowledge the broadcasters' vital duties. They felt that, being so pervasive, they were being "taken for granted" by the general public and other organizations. A good performance during the disaster would then revitalize the public's awareness of them. To accomplish this the broadcasters worked closely with each other; cooperation became an accepted value. Stations that did not suffer a decrease in organizational capabilities shared their resources with other stations that did lose men or material. In one instance, a television station was the only one within the area having power to
run film processors. Other television stations sent their film to this station and it was developed at no charge. Stations loaned each other pieces of equipment that were needed to keep each other on the air. Also, station personnel themselves were loaned out to other stations as extra help if one station seemed to be in difficulties due to a shortage of members. Information was also exchanged between stations as to the validity of news items and the importance of stories.

It will be remembered that the Louisville flood of 1937 provided an example of the spontaneous emergence of local disaster-relevant broadcast networks. This pattern was also present in one of the communities of this study. Cooperation between stations proceeded to such a degree that it was felt that organizational resources would be utilized better if a single information flow could be established. In this manner, the general public would be receiving the same information and the same news at the same time over all the stations. Reporters and other personnel from different stations could then concentrate on increasing the amount of official information flowing to the central point of dissemination. Individual station call letters were dropped in favor of a more global identifying name such as "The Northeast Flood Emergency Network" or something similar. Stations gave up considerable autonomy in that they conceded control over their broadcast content to others and in this sense ceased to exist as
Individual organizations.

In a more concrete sense, some of the stations ceased to exist when their patterns of cooperation reached a level that group boundaries became blurred. In one instance in particular, one radio station lost its transmitter but suffered no damage to its studio facilities. A second station in the community lost its studio to flood waters but its transmitter remained intact. The obvious solution was the one agreed upon. Lines were strung by the stations' engineers connecting the transmitter from station A to the studios of station B. Only in this manner could either broadcasting facility go on the air. All personnel worked out of the intact studio and the two organizations were effectively meshed into one supra-organization. Due to the similarity of positions between any two stations there was little difficulty encountered in this example of organizational merger. The organizations, if anything, gained immensely by having a larger component of trained personnel on hand. Decisions were made by democratically oriented group processes among high-level position incumbents. Similarities in training and viewpoint tended to minimize any differences of opinion. Individual call letters were again discarded in favor of a more global network identifying term. After a couple of days the combined station was notified by the Federal Communications Commission that such a procedure was illegal even during an emergency and that the stations should be identified.
with the call letters of the station providing transmitter facilities since the broadcast frequency was determined by that transmitter. The order was complied with and the combined station identified itself with the call letters of station A even though all personnel were working out of station B's studios. During the next three or four days while the two organizations were still meshed until they separated and both returned to the air separately, no conflicts or hostility were evident. Extreme cooperation was the order of the day.

It had been hypothesized that cooperation between broadcasting stations would be the general pattern of organizational interaction. A very high level of cooperation was found. This was, however, only part of the picture. Cooperation was between only certain stations in some communities and between no stations in others. Instead, a second pattern of relationships surfaced and this was that of competition. A broadcasting station as the focal organization was in direct competition and even rivalry at times with other local mass media stations. This was an outgrowth of the competition existing between such stations during normal everyday times when each station was out to "scoop" the other on important stories. It was felt, though, that such competition would be at a minimum during natural disasters given the general degree of consensus existing in the community. This was not the case. It has been mentioned that the media view disasters as big news
stories and not as a different type of social situation. The disaster was thus fair territory for scoops. Some stations were seen as mutually opposed in an effort to secure the scarce resource of being first with the news. Two examples will make this clear. In one community overt hostility was expressed by members of a long-established station toward members of a newer and competing station when the latter inadvertently left a microphone button on and broadcast over other announcements a statement to the effect that, "We sure beat those so-and-so's on that story." In a second community President Nixon made an unannounced visit to the area. One station was fortunate in having by chance a camera crew at the President's arrival point and this was the only station to record the short visit on film. Other stations were scooped and the film was shown on the air with the statement that "This is an exclusive film from the newsrooms of [station's call letters]." Much was made in subsequent days of that exclusive story.

The disaster situation was seen as one of even more intense competition than during normal times given the importance of the disaster to local community functioning. It was, in effect, a time of jockeying for post-disaster social and economic position. The stations felt that any gain or loss in audience numbers would be due to the adequacy or inadequacy of disaster reporting. If the station was first with the news then it would gain a larger share of the audience during the disaster who might then remain as
listeners or viewers of that station after the return to normalcy. The opposite was felt to happen if the station produced a poor performance. Ratings, advertising, and revenue would then increase or decrease. The outcome, again, of this point of view was rivalry between some stations. Instead of working together and even merging as some stations did under the norm of cooperation, station boundaries became sharper and more distinct as they competed with one another. Care was taken to identify scoops as the property of particular stations. Equipment and personnel were not loaned from one station to the next but retained. Information was not shared. Individual station call letters were frequently announced and no larger networks emerged. The situation was just the opposite of consensus as far as the focal organization in relation to other local broadcasting stations was concerned. More disagreements and conflict were evident in the communities than the consensus model of disasters would seem to apply. Not only working with but working against other stations was the norm. Both conflict and consensus were present.

Non-Local Mass Media

The relationship of local broadcasting organizations to non-local mass media representatives was just as complex as that portrayed in the preceding discussion. Instead of cooperation and competition, however, there was avoidance and hostility.
The major association between local stations and representatives of national networks was in terms of avoidance. The local stations were not total strangers to network newsmen who came into the flooded communities to report on the disaster for the networks. These newsmen worked out of the local stations as temporary headquarters and used station facilities, most notably the film developing equipment. Yet little interaction besides this was forthcoming from the local people. They did not cooperate with the national newsmen as much as they did with their fellow community newsmen. Neither did they engage in competition with them. The local stations provided a base of operations for the non-local media representatives and then let them seek for themselves whatever stories they wanted. They provided neither help nor interference. The reason is quite obvious and common to many disaster situations. The network newsmen were seen as the proverbial "outsiders" who come into the affected community and with no local expertise either begin to tell the "locals" what to do or begin to grab glory away from the local people. It was no exception in the case of the mass media. The local stations felt a professional responsibility to supply the non-local media people with equipment and supplies but the responsibility ended there. The seeking of stories, the tracking down of leads, the travelling, the writing, the editing, etc., all were to be done by the outside representatives as best as they could. In actuality, the non-local
newsmen became a separate news-gathering entity within the local
community; they gathered and processed their information locally
and then disseminated it to national collecting points for broad-
cast. Little contact of a sustained nature was made with the
local newsmen.

Only under certain circumstances did the pattern of interaction
change from avoidance or neglect; at times, hostility arose between
the local stations and the national media representatives. The
reason is related to the point made above. Being outsiders the
network newsmen were by definition unfamiliar with the local area
or its inhabitants. Being pressured by deadlines, these newsmen
at times did not have either the time to check up on certain facts
or the expertise in determining the reliability of local informants.
The result was the forwarding of erroneous or incorrect information
to national disseminating points. The information was then broad-
cast to the country on network news programs. Local individuals,
and among these were the local broadcasters, received these pro-
grams and noted the inaccuracies. In one instance, information
that the local flood disaster was due to a dam collapse gained
wide currency throughout the country after it was reported by
national newsmen who had travelled to the community. In actuality
the major damage, destruction, and deaths had occurred above the
dam site and while the dam did collapse, it was not the disaster
agent. This was common knowledge to the local media but was not
checked out thoroughly by the national newsmen. Repeated calls by local newsmen to network headquarters in New York concerning the falsity of the information were to no avail; the report was rebroadcast numerous times, gained much attention, and contributed to hostility being directed at the non-local newsmen for the inaccurate reporting. Other examples, both more and less serious, of incorrect information being broadcast over national programs were noted by the local broadcasters.

**Local Emergency-Relevant Organizations**

Probably the greatest sustained contact of the local mass media was with emergency-relevant organizations of the community. This section will focus upon the relationship of the media to the chief disaster-control agency in most emergencies, the local civil defense.

A number of important findings become apparent when one looks at the interaction of the broadcasting stations with their local civil defense agency. First was the belief of the broadcasters concerning the lack of knowledge on the part of civil defense of the duties and capabilities of the media during disasters. The broadcasters were well aware of the general nature of civil defense and believed along with most other community members that civil defense was the official coordinating organization for community response to disaster. They felt, however, that civil
defense did not adequately understand the role of the mass media. It has been stressed throughout this study that the mass media are key agents in information dissemination during disasters and play a vital part in community functioning during warning, impact, and recovery. Civil defense, however, according to the broadcasters seemed quite unaware of the media in a couple of the communities. For example, in one city flood waters destroyed all electrical service and knocked all the broadcasting stations off the air. The stations had no generators to supply power for the resumption of service. For two days the community was without any means of mass communication (the local newspaper plant had also been physically destroyed). During this time station managers had asked and then pleaded with civil defense for priority in getting emergency generators. The reply was that the media were at the bottom of the priority list; other organizations were more important and would receive equipment ahead of the broadcasting stations. For two days the community had no official means of mass information diffusion and numerous conflicting, erroneous, and partial stories were spread interpersonally as community members tried to make some sense of the new social situation brought on by the disaster agent. On the third day emergency generators were procured by station members from businessmen acting as volunteers. The stations resumed broadcasting and disseminated official information to the general public. Civil defense later contacted the broadcasters
and said that the resumption of media service had generated a great relief in the pressure being applied to civil defense by community members who needed information from it and that they had erred in not providing the broadcasters generators for immediate assistance. In the future the broadcasting stations would receive high priority from civil defense.

A second incident related by broadcasters in a different community also shows the lack of knowledge on the part of civil defense of the value of the media. In this particular city the disaster agent struck late at night after all television stations and most radio stations had signed off the air. According to the broadcasters, no attempt to contact general managers, owners, or other station personnel was made by civil defense authorities. Most broadcasters learned of their community's disaster either interpersonally from neighbors or friends or when they went to work the next morning. In one particular instance, a general manager went to his quite-large station early the next morning to resume broadcasting. Being a Saturday, cartoons were programmed and were shown for over an hour until the county sheriff called the station and told the manager about the previous night's disaster. Until then, the manager had had no idea that a disaster agent had impacted his community. He had received no word from civil defense or any other organization about the disaster.

A large part of the explanation concerning the low degree of
sustained media-civil defense interaction flows from the fact that pre-disaster linkages were virtually non-existent between the two organizations. There was a lack of experience in dealings between broadcasting stations and civil defense during normal conditions. The relative absence of previous disasters in the affected communities and the low degree of planning on the part of the broadcasters allied with the "office" as versus organizational nature of civil defense all tended to make disaster connections very tenuous between the two organizations. They were not used to working together in normal times and hence found it difficult to coordinate their behavior during disasters. Civil defense, according to the broadcasters, viewed the media as simply one of many organizations while the broadcasters felt themselves to be central to the community. The media were then effectively ignored by civil defense agencies in some of the communities.

The above pattern of civil defense unfamiliarity with the possibilities of media activity during disaster was common during the early phases of community disruption. It was the case, though, that after a varying time of agency disorganization and unawareness of the media, civil defense worked quite closely with the commercial broadcasting stations in the dissemination of information to the general public. Special telephone lines were strung between civil defense operating centers and some stations so that a direct information circuit would always be open. Other
communities instituted runner systems or messenger services between the two organizations. However, problems were still encountered, some of quite serious import.

The early relationship of media and civil defense may be thought of as highlighted by a lack of information between the two. During the initial stages of the disaster the organizations acted with little awareness of each other. The broadcasters were given low priority by civil defense officials. As the community disruption progressed a working liaison was instituted and adequate interaction between the organizations resulted. Now, however, instead of the problem of the lack of information there was the problem of conflicting information. This was a major criticism of the broadcasters concerning the whole set of local emergency-relevant organizations.

The media representatives in all four communities were quite vocal concerning the lack of a central information source for official announcements. They felt that they were caught in the middle of an unpleasant situation. On the one hand the general public and private organizations were clamoring for information from the broadcasters so that community life could continue with a degree of stability. On the other hand the broadcasters received at times directly contradictory facts from official emergency organizations. The sources were quite unimpeachable but definitely someone was wrong. If the broadcasters withheld the information
while further checking was instituted they were accused of not performing their duties of information provision and were criticized by numerous people. But if the newsmen went ahead and broadcast the information, either one version or contradictory versions, they were certain to be criticized for disseminating incorrect information. The usual solution of the broadcasters was to follow the latter course. Even if contradictory, information was still put out on the airwaves for the benefit of the public. Listeners, either private citizens or officials, would then call in and provide corrections.

In all four communities lack of a central information source for official pronouncements led to the broadcasting of contradictory information. Given the type of disaster agent, it is quite understandable that most of these cases revolved around water, dams, or bridges. In one community broadcasters disseminated a report from the mayor's office that the water in the community was safe for drinking along with a report that quoted health department officials stating that the community's water was not safe for drinking. In a few minutes numerous elected and appointed city officials had called the stations and described under what conditions the water was safe and under what conditions the water was unsafe. By use of telephone call-ins, contradictory information was set straight. The broadcasters, though, felt that a single official person or department should have been responsible
for providing them with official information so that they would not, for example, have to put on the air a report from the sheriff and its opposite from the mayor or county judge. A single source would have alleviated this.

The broadcasters believed, however, that nothing could have prevented the dissemination of not contradictory but incorrect official information. Given, in some future disaster, the establishment of a central information supply house for official information dispersal to the mass media as a means of stopping the flow of contradictory information, even then there would be no control over the information's validity. In all four communities this was also a problem that cropped up repeatedly. In one instance the broadcasters reported that a certain dam upstream had collapsed; the source cited was the county sheriff. Numerous residents evacuated their homes to seek safety from the expected waters but none came; the report turned out to be erroneous. Later, the information was traced through its path of transmission to its origination with a National Guard officer riding in a helicopter above the dam who mistakenly attributed excess water flowing over the top of the dam for a dam collapse. Other instances of incorrect information coming from official sources concerning the toppling of bridges, the level of flood waters, and the number of victims were also listed by radio and television personnel. Their concern was that they could not totally check every piece of information.
given them by emergency organization officials. Sheer lack of time, not to mention disabled telephone lines and impassable streets, made this impossible. Their only recourse was to accept the official announcements, broadcast them, and then immediately correct any that were found to be erroneous.

The above discussion of contradictory and incorrect information relates only to official announcements from official disaster-relevant organizations that are in contact with the mass media stations. As the section on gatekeeping shows, official information was only a very small part of the total output that was broadcast during disaster operations. Most of the information dispersed over the media was non-official; it was, primarily, information received from members of the public providing answers to questions asked by other members of the public. Here, contradictory and even incorrect information was expected but it was felt that corrections would be almost instantaneous. Broadcasters stated that "the public checked us on accuracy" and "if information was incorrect, people would call in and immediately correct us."

Communication Patterns

It was mentioned in the literature review chapter that a study by Singer and Green of radio broadcasts during a recent Canadian blizzard emergency described changing patterns of mass communication but that further work was needed in this area.21
This section reports on this inquiry's attempt to follow-up and clarify the previous study. While the Singer and Green report was based upon a quantification of a sample of actual disaster broadcasts, the present research remains qualitative in nature. Though samples were also taken of actual radio and television disaster messages and were analyzed for this section, their lack of representativeness precludes extensive quantification.

Six patterns of organization-to-public communication were evident during the total disaster time sequence. These six patterns were, generally, a radio phenomenon; television, though, did show similar configurations but to a quite less degree. Six distinct communication channels were found according to the cross-classification of two variables: feedback and the intended receiver of the broadcast transmission. Feedback was dichotomized as either present or absent while intended receiver was trichotomized into general public, specialized groups, and specific individuals. The six categories of organization-to-public communication are detailed in Figure 4. Each will be discussed below.

By definition and by law, normal radio and television station organization-to-public communication is mass communication. This is defined as the transmission of output to a generalized, diffuse, or "mass" audience. Point-to-point communication is not intended. Mass communication is communication to the general public. In most instances this communication to a diffuse public is usually
FIGURE 4
PATTERNS OF ORGANIZATION-TO-PUBLIC COMMUNICATION DURING DISASTERS

<table>
<thead>
<tr>
<th>FEEDBACK</th>
<th>INTENDED RECEIVER OF TRANSMISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Public</td>
</tr>
<tr>
<td>Present</td>
<td>Diffuse One-Way</td>
</tr>
<tr>
<td></td>
<td>(Mass Communication)</td>
</tr>
<tr>
<td>Absent</td>
<td>Diffuse Two-Way</td>
</tr>
</tbody>
</table>

accompanied by a lack of feedback from public to organization. Immediate feedback is almost non-existent. Broadcasters rely upon the delayed measures of letters from audience members either praising or condemning station practices and program presentations or upon the more indirect measure of ratings and consumer performance. Some immediate feedback is present, though; however, for analytical purposes, mass communication will be categorized here as diffuse one-way transmission of information.

Mass communication is the overwhelmingly major configuration of organization-to-public communication during non-crisis station operations. Information is disseminated from the sending point and broadcast to a specifically unknown but generally describable audience that may or may not be receiving the messages. During
natural disasters mass communication continues to be the major method of information transmission from broadcast organizations to the public. However, it is not the sole method; during disasters the communication pattern shifts from almost total diffuse one-way communication to a variety of arrangements that collectively are better suited to the exigencies of the crisis.

Mass communication carried over from normal everyday times its role as the major link between organization and public. During the disasters well over half of the information broadcast was in the form of one-way messages to a diffuse public. The intended audience was not identified as either specific individuals, groups, organizations, or sub-communities; the total community listener-ship was intended. In addition, feedback from audience to the broadcasting station was not required nor requested. The messages were repeated numerous times during disaster broadcasting under the assumption that multiple exposure to the content would insure receipt of the information. Overriding diffuse one-way communication was the characteristic of information-giving. The station had possession of units of information that had to be relayed to the general community. These information units were for the most part declarative in form; they were statements telling the audience what to do or not to do or what was happening or not happening. No feedback was really necessary. Concrete examples would be, "Do not wave at helicopters unless it is a distress signal" or
"Please stay off all local streets" or "The official casualty count is now fifteen." Most of the information being broadcast was this type of diffuse one-way communication.

In addition to the standardized mass communication there was communication to the general public from the broadcasting organization that was two-way in nature. While present to a small degree in non-crisis broadcasting situations, this pattern was substantial during the flood disasters. The communication in this instance was directed to the diffuse general public and feedback, either requested or unrequested, was immediate. Feedback consisted of members of the general public calling the station by telephone and directly responding to the previously-given message. Responses either were of a confirming or clarifying nature. For example, the message that "Nearville (a surrounding community) was almost completely wiped off the map" was broadcast. Feedback was quick. Members of the general public called in and said that the message was correct because they had tried to call friends in that community and there was nothing but silence on the other end of the phone. Other listeners called in and said that the message was not correct because they had just come from Nearville and knew that only the telephone central office had been destroyed and that that was the reason for the phones being out of order. The message was thus clarified and then re-broadcast.

The two types of diffuse communication patterns, both one-way
and two-way, may be viewed as only minor changes in the configurations from normal times that are then carried over into the disaster situation. The same cannot be said of the remaining four types of organization-to-public communication. These were strictly emergent phenomena indigenous to the consensus crisis context of natural disasters.

The third type of communication pattern was specific one-way communication aimed at specialized groups or organizations and requiring or including no feedback. These were messages or pieces of information that were broadcast not for the benefit of the general public or total community audience but rather for the express knowledge or action of particular organizations, groups, or sub-communities. Feedback was not needed. An example of this type would be the following message that was broadcast: "For those persons looking for lost friends or relatives, please call the missing bureau number at 343-8000." In this instance the intended receiver of this broadcast was not the general public but a selected sub-group, those persons who were searching for lost friends or relatives. Feedback to the mass communication organization was not required; the audience was requested to contact the number provided instead. Other examples of this pattern were messages directed to specific organizations -- "All Airbase laundry personnel are to report to work immediately" or specific sub-communities -- "The Black Creek area and Two Pines Estates are asked to conserve
electrical power."

Similar to the third type but including feedback from the public to the broadcasting stations was the specific two-way communication pattern. This was communication broadcast by the commercial radio and commercial television stations to specialized organizations, groups, or sub-communities and incorporating direct and speedy feedback. A message such as "The Jackson Boulevard School of Nursing's capping ceremony will not be held tonight" was an example of this. Interested parties contacted the broadcasting station and inquired further as to when the ceremony would be held, where, what time, etc. The dissemination of the announcement was stimulus for feedback from a specialized segment of the public, those interested in or participating in the capping ceremony, to the mass media stations. This third type was a very prevalent form of organization-to-public communication during the disaster period. A large number of messages were of this point to point type. It was a very expedient means of contacting those groups or organizations that were out of touch except for the broadcasting link. For example, when disagreement arose over the proper method of cleaning electrical motors on household appliances, the message was broadcast for any member of the city department of electricity to contact the station and give the proper instructions over the air. This was immediately accomplished and the relevant information was disseminated.
The remaining two types of organization-to-public communication were completely opposite what has been called mass communication. Whereas mass communication was the dissemination of general messages to a diffuse public, the final two patterns of information diffusion were the broadcasting of messages from the radio and television stations to specifically named individuals within the audience. This was, in effect, point to point communication of the highest degree.

The fifth pattern was one-way transmissions from the mass media to particular individuals and involving no feedback. The mass media ceased to be agencies of mass communication and instead functioned as personalized information senders. For example, numerous messages similar to the following were broadcast: "JoAnn Smith is safe and is at her uncle's home in Nearville" or "James Black, call John Wilson at 488-8211." The first message was directed to the family of the missing girl and reported on her safety at the home of nearby relatives. No feedback to the mass media station was required. The second message was directed to one specific individual and identified him by name; he was requested to contact the second party at the provided number. Again, no feedback to the mass media station was required. This type of point to point communication constituted large segments of the time and helped contribute to the high frequency of station personnel fatigue due to frequent repeating of numerous specialized
messages of this kind. Many broadcasters voiced the opinion that the reading of these messages produced great strain on the announcers.

The final type of organization-to-public communication was the diffusion of messages to specific individuals and including feedback to the broadcasting station. The media quite frequently announced over the air that it would like the mayor or civil defense head to contact them since the station could not reach the desired person by telephone. In most every instance the reply was immediate. Another example that was frequent was the media announcing for specific individuals who were visiting or transient within the local area to call the station for messages that friends or relatives had left there. The latter had no means of getting in touch with the travelers and so had to resort to the use of the broadcasting stations for their purposes.

These six patterns of media communication show the changing channels that the broadcasting stations may use during disaster. While the media during normal operations are agents of mass communication, during disaster the media become multi-oriented. In addition to a diffuse general public the media broadcast messages to specialized groups, organizations, sub-communities, and to specific individuals. While direct feedback is rare during normal operations, during disaster feedback is frequent. At the extreme, that of two-way communication between the media organization and
specific individuals and including feedback between the two, the media act as large-scale megaphones providing a community-wide voice in its conversation with private citizens. What occurred was a normal interpersonal telephone chat between two individuals but instead of being private the conversation could be picked up by area-wide residents who listened in over the radio or television. These six patterns highlight the shifting functions of the media during disasters and they point out that the media are not inflexibly bound only to the dissemination of information to generalized audiences but can transmit messages and even carry on quasi-private conversations with specific individuals over the air. They are, also, specific manifestations of the media's attempt to supply the needed information to the community, both generally and quite concretely, that such a community requires to maintain a relative degree of normalcy during a massive local disaster.

Summary

This chapter has presented the majority of the findings of this study of commercial broadcasting organizations responding to natural disaster stress. Background information concerning the differential responses of the media, the impact of community size and disaster scope, and the area of disaster planning was given first. There then followed a discussion of intraorganizational activity phrased in terms of the gatekeeping phenomenon.
Interorganizational relations were then reviewed. This chapter closed with a discussion of organization-to-public communication patterns. It remains as the task of the next chapter to delineate more concretely the broadcasting organization under stress and to look at the specific hypotheses under review.
Notes: Chapter IV

1. Unless otherwise noted, all quotes are from personal interviews conducted by the author.


4. The broadcasters themselves, both radio and television people, mentioned this. In addition, an empirical indicator of the importance of radio over television was the numerous reports of radios, and not televisions, being stolen throughout the community.


7. This section draws upon an unpublished paper by Dennis E. Wenger and Jack M. Weller in the Disaster Research Center files.


13. One respondent reported that volunteers were "just people walking in off the streets."

14. "Just as soon as we had messages, we took them to the control room where they were broadcast."

15. "The phones went right on the air."


20. For a cross-cultural comparison of this phenomenon, see Kitao Abe, "Rumor Analysis in the Niigata Earthquake," Proceedings of the Japan - United States Disaster Research Seminar (Columbus, Ohio: Disaster Research Center, Ohio State University, 1973), 166-174.

CHAPTER V

ORGANIZATIONAL STRESS

Introduction

Organizational stress has been defined as that situation when the capabilities and demands of an organization exist in rough disequilibrium. This imbalance is usually the result of a decrease in the system's capabilities, an increase in the demands upon the system, or a variable combination of the two. Changes in organizational structure and functions may emerge under stress and are visible in concrete organizational activities. Twelve hypotheses are included for testing that relate to this aspect of organizational response to disasters. This chapter examines them. The following discussion will pertain to a composite type of commercial broadcasting organization; each station will bear much resemblance to the discussion but none will bear total likeness to it. The first section presents a general overview of stress at broadcasting stations. The second and concluding section presents the specific stress hypotheses.
Overview

There was a major decrease in the capabilities of the mass communication organization during the overall disaster period. The decrease was not constant, however, and varied over time. Most every organization suffered initial decreases in capabilities upon the impact of the disaster agent. This decrease was related to the damage, inoperability, or destruction of the station's resources. The physical equipment contained within the station itself and including both studio and transmitting facilities were damaged to some extent by flood waters. This ranged from minor precipitation and humidity problems within equipment to complete and total loss. Station personnel were the second largest area of resource decrease. While there were several deaths among station personnel due to the flooding, injuries were almost non-existent; the problem, though, was in the linkage between personnel and station. On account of either the diffuse flooding or the peculiar geographical terrain of the communities experiencing focalized flooding, station members who were at home during the early stages of the impact were unable to travel to the organization for some lengths of time. This group included most of the persons employed at the station since for some reason the impact of the disaster agents occurred during the late night or early morning hours. The implication of this was that the members who were at the station immediately
before, during, and after the serious flooding were those with the least experience; the newest and least capable persons had the duty to work the overnight shift. In some stations, and these were frequently television, no personnel at all were present when the impact occurred since these stations had signed off the air at relatively early hours. The situation, then, was one of a major drop in organizational personnel, both numerically and experience-wise.

Over time, however, the capabilities of the broadcasting organization reversed its decreasing trend and quite dramatically increased to a point where it equalled and then surpassed its pre-emergency level. Concerning the damage or destruction of the physical equipment of the station, it was only a matter of days at the longest for any one station to secure the needed equipment or services to return it to on-air broadcasting. This was accomplished by one of three means. First, for that equipment suffering only minor damage station engineers repaired the defective parts either permanently or temporarily. Second, needed parts or equipment were secured from other local or extra-local organizations either through purchase or loan. Most equipment was purchased from factory warehouses or commercial dealers specializing in broadcasting supplies. Some were acquired on loan from other organizations; this was accomplished either through pre-disaster formal or informal agreements covering just such emergencies or
through spontaneous gestures of goodwill on the part of organizations upon learning of the difficulties of the broadcast stations. Third, physical equipment was procured through the device of the already-discussed organizational merger. The most vivid example of this temporary fusion of separate organizations was the unification of one station with intact transmitter facilities but destroyed studio with another station with destroyed transmitter but intact studio. Both stations thereby acquired their needed equipment and an impermanent network alliance allowed both to return to the air.

Concerning the decrease in organizational personnel, this problem was resolved by a combination of two factors. First, the disrupted transportation system returned to a degree of normalcy after a minimum amount of time allowing those persons who were cut off from the station to report for work. Those already at the station were given relief and all shifts worked overtime to keep the station on the air. New shifts were set up and new schedules arranged so that a maximum number of regular personnel would be at the station at all times. The second factor involved the use of out-of-station volunteers as temporary and mostly unpaid help. The number of personnel was increased by taking into the organization on a temporary basis friends or family members of regular fulltime station persons or strangers who came to the station. The latter were recruited through either their own initiative in
in going to the station and asking to help or either explicit calls for volunteers were broadcast over the air and volunteers picked from those responding. In either case enough volunteers showed up at the station to complement those fulltime regular employees and to do the basically secretarial, clerical and janitorial tasks that then freed the in-station personnel for more important duties.

Thus, the capabilities of the mass communication organization underwent a sharp decline at the beginning of the disaster period with a loss of equipment and personnel but after a relatively short time increased to a new high as these two problem areas were eased. The same, however, cannot be said of the demands placed upon the organization. During these flood disasters the major criterion delimiting the occurrence of stress upon the mass media organization was the steady and insistent rise in demands impinging upon the organization. The level of demand was the variable controlling organizational stress for the commercial radio and television stations in this sample.

While capabilities presented a curvilinear pattern, demands exhibited almost strict linearity. Demands were initially low before the onset of the disaster but with the impact of the disaster agent they increased in quantity, in priority, and in quality. Demands exceeded station capabilities during all phases of the disaster time span and only with community recovery well under way did they cease to impinge upon the station. With their demise,
stress ceased for the organization and normal everyday operations resumed.

The increase in quantity of demands had a great impact upon station operations. This increase in quantity had a single but weighty referent: the general public. The general public most frequently telephoned but also personally came to the station to both ask numerous questions and give numerous answers. Whereas during normal non-crisis times there was very little interaction between the station and the general public, during the emergency there were thousands of calls from the public to the station. This large jump in calls was the primary producer of demands upon the station. The broadcasting organization normally produces a small information content that is disseminated over the air to a diffuse and unknown audience. The rest of the broadcast day is filled with music and commercials. But during the floods all music and commercials were eliminated in favor of a complete around-the-clock news and information format. Specialized pieces of information for specific organizations, groups, sub-communities, and individuals were broadcast. The mass communication organization usually did not produce so much particularized content and have so much direct interaction with the public; the changes in these areas placed great demand upon the station.

The increase in priority of demands basically involved attempts to alleviate the decreased capabilities of the organizations. Once
a broadcasting station is set up, few mechanical emergencies of any serious import occur. Minor problems do arise but the station engineers readily solve them. During the floods, however, the organization's security and existence were threatened by water damage to its equipment. This unanticipated crisis condition threatened this most basic and central organizational value. Immediate action was thus required to meet this new and high priority demand. Much time, money, and other resources were spent trying to resolve the issue of how to keep the station on the air.

The increase in quality of demands was related to the two previous types but directly referred to sets of new demands being made upon the organization. The new relationship with the listening audience discussed above was one example of a new demand that impinged upon the organization. Relationships with organizations that the broadcasting station did not usually interact with on a large scale, was another example. Numerous other new demands upon the station, such as the provision of sleeping facilities at the station for those who could not get home or the application of first aid on injured persons who came to the station for medical help, increased organizational stress.

Unlike capabilities, which soon returned to a high level of proficiency, demands constantly increased and ultimately were unsolvable. The key areas of demands at first were quantity, priority, and quality. Priority of demands and quality of demands
soon ceased to be stress factors but the increase in quantity of demands offset any respite the organization may have gained. Demand quantity was controlled by the reaction of the general public and only when the public was in command of the information it needed did quantity of demands slacken and stop.

With a decrease in capabilities and increase in demands being standard for the broadcasting stations during disasters, organizational stress by definition was present. Empirical indicators of this stress then showed up within the organization in the areas of tasks, decision making, authority, and communication. Twelve hypotheses relating to this subject were included for testing. The rest of this chapter reports on these hypotheses.

The Hypotheses

A. Tasks

1. As the degree of organizational stress increases, the rate of task performance increases.

2. As the degree of organizational stress increases, organizational incumbents increasingly limit activities to tasks of highest priority.

Task performance during the crisis period had two referents: the demands and the capabilities. Tasks were initiated by organizational personnel to try to increase organizational capabilities and to try to decrease the demands. Organizational members were augmented by volunteers so that the station had a much-increased labor pool with which to manipulate its environment. This total
labor force worked longer hours so that the station not only had more manpower but also more manpower working for longer periods of time. Each of the position incumbents did many more jobs than was the norm during non-crisis operations. Station output increased from a standard amount of news, music, and commercials being broadcast from morning to evening to a very substantial amount of locally-originated information being disseminated around-the-clock. Interviewees described task performance during the crisis in terms such as "hectic" and "rushed." Each interviewee said that the disaster situation was physically enervating due to the increased work pace and that it took as long as a few weeks to gain back the lost strength.

This feeling of overwork was due partly to the increase in task performances but also to the fact that these tasks were unfamiliar to a great many of the station personnel. As the stress increased, task performance became limited to those tasks of highest priority to the organization. Two areas were viewed as essential to the organization's continuance as a viable entity: keeping the station mechanically operational and disseminating locally-relevant flood information. All other jobs were viewed as either secondary, peripheral, or incidental to these two high-priority tasks. These two areas, however, were not equally important in their consequences. Keeping the station mechanically operational was a complex chore that was solely the domain of
station engineers. Few personnel beside the engineers had the requisite electrical or mechanical knowledge to repair and integrate generators, transformers, and transmitters into a workable broadcasting system. Thus, while being one of two priority areas, the mechanical tasks were limited to station engineers. This area, however, did receive a large amount of other station resources, notably money. This was taken from station areas that were important during normal everyday operations but that lost priority during the crisis.

The second high priority area was broadcasting. Broadcasting was contingent upon engineering success in keeping the station on the air and as such was not as important as engineering. However, once the station became operational broadcasting assumed top priority. Whereas engineering gained few personnel and only monetary resources, broadcasting gathered the lion's share of men, material, and money. Broadcasting became the central focus of the organization. During non-crisis times broadcasting must exist with sales as central values of the organization.\textsuperscript{1} Both being of community service by the dissemination of information and the making of money are normal operational goals. But during disasters sales are discontinued; the salesmen, along with other organizational personnel whose functions have now become incidental to the single goal of broadcasting, are switched from their normal everyday jobs to the high priority task of broadcasting and its
components. The highest priority was to gather and disseminate locally-relevant disaster information. Excepting the engineering staff and the actual professional newsmen, all station personnel and volunteers either answered telephones, typed messages, conveyed the messages to the control booth, or announced the messages over the air. There were no disc jockeys spinning the top forty hits and there were no promotional contests or prizes; all were eliminated in favor of straight informational announcements. This required an enormous increase in the rate of task performance and the limiting of these tasks to only those of highest priority.

B. Decision Making

3. As the degree of organizational stress increases, the rate of official decision making increases.

4. As the degree of organizational stress increases, organizational incumbents increasingly make only decisions of highest priority.

5. As the degree of organizational stress increases, the rate of unofficial decision making increases.

6. As the degree of organizational stress increases, the number of individuals conferred with before a decision is made decreases.

Official decision making during the crisis period was not constant but varied closely with the capabilities of the organization. Official decision making did not increase as organizational stress increased. Rather, the rate of official decision making increased at the beginning of the emergency when organizational resources were damaged and demands were being magnified to a large
extent; official decision making decreased as organizational capabilities were restored even though demands reached higher levels. Capabilities, not demands, influenced the rate of official decision making.

At the beginning of the emergency period the broadcasting station was undergoing stress due to the decrease in capabilities brought on by the damage to the physical equipment and loss of personnel and the increase in demands brought on by the public's request for information. The organization was still operating with its pre-crisis structure and performing its pre-crisis functions. Music and commercials were still being carried. As the community was impacted by the disaster agent upper-echelon organizational officials, in almost every instance either the station owner or general manager, made the decision to cover the developing situation as an important, fast-breaking but local news story. This was soon found to be unsatisfactory and key officials realized that the disaster was both quantitatively and qualitatively dissimilar to a single news story. The owner or general manager then made the decision to initiate changes in the organizational task structure -- discontinue the revenue-producing music and commercial format -- and changes in the personnel structure -- discontinue all superfluous areas and concentrate on engineering and broadcasting. Decisions were made to ask for and/or accept volunteer help at the station. Other minor and major decisions
relating to the reorganization of a broadcasting station from normal operations to disaster operations were also made by station officials. The effect of the majority of these decisions was to secure added resources and thus increase organizational capabilities. Some decisions were related to decreasing the demands but this was not considered to be as solvable a problem as capabilities. With this initial flurry of decisions, the capabilities of the organization reached a high level. Decision making then dropped off since in effect the station had done all within its power to respond to the stress. It had increased its capabilities but it had no control over the demand inputs. Demand was controlled by extra-organization community contextual variables such as length of disaster sequence, severity of agent, time, etc. Key station officials had switched the organization from non-crisis to crisis status; this was accomplished by an increase in official decision making at the beginning of the disruption. Once this initial change in organizational structure and focus was achieved, however, official decision making decreased. The new crisis activity pattern was now the normal pattern of activity. It became the "routine" pattern of organizational functioning and was capable of running with a minimum of official decision making. Even though demands upon the organization continued to increase, official decision making remained at a low level.

The method by which key station officials could limit their
official decision making was by the use of a priority system. Once the early decisions were reached, top officials made the further decision that only matters of utmost importance would require their deliberation. Decisions that were not central to the survival and operation of the organization could be made by personnel lower in the organizational hierarchy. Top officials would then make only decisions of highest priority; lower-level position incumbents would make the innumerable minor decisions that have to be made if any organization is to continue in existence.

While the rate of official decision making reached an early peak and then tapered off, the rate of unofficial or informal decision making increased as the degree of organizational stress increased. Although the organization had changed from its normal everyday stance to a crisis stance and was operating under a new routine pattern, numerous minor problems and peculiarities needed to be adjusted if the station was to continue with a satisfactory degree of effectiveness and efficiency. These were problems that the formal organizational structure, either emergency or pre-emergency, did not plan for and/or recognize. These basically were associated with stresses in the interpersonal relations within the organization. Certain individuals could not or would not engage in satisfactory role behaviors with other station members. Whereas the mechanisms of shifts and different physical
location of offices had insulated these individuals from each other during normal times, with the onset of disaster and the around-the-clock activity of all personnel in a common location these strains reemerged. Unofficial, peer group decisions were informally arrived at in an attempt to reach some accord. Unofficial decision making continued throughout the stress period as new problems emerged and had to be solved.

Finally, as the degree of organizational stress increased, the number of individuals conferred with before an official decision was made remained roughly constant. This probably was a factor peculiar to the commercial broadcasting stations in this sample and was not a universally-valid phenomenon. In the stations in this study, official decision making was the province of a small number of upper-echelon organizational officials. Close communication ties existed among these officials and it was usually in a group or discussion arrangement that these decisions were finally reached. Decisions were then disseminated through memos, notes, or rules to the rest of the organization. During the disasters these same organizational officials reached their important decisions in the same way. The top personnel continued to meet in group situations and discuss, even if only momentarily, the different plans of action and the consequences of each; decisions were then made. No lower-level intraorganizational person or any position incumbent in any outside organization was
consulted. Again, this was probably due to the extreme centralization existing within broadcasting stations and the concomitant plethora of "benevolent dictatorships," as many interviewees described it. Either larger organizations or more specialized organizations would probably show differences with respect to the findings presented here.

Concerning unofficial decisions, as the degree of organizational stress increased the number of individuals conferred with before a decision was made increased also. This was the result of the above-mentioned larger number of unofficial decisions being made and the new problems arising within the organizational performance structure requiring solutions. More lower-level organizational members were present in addition to the numerous volunteers, and key work leaders and primary group decision makers had to be consulted beforehand to determine the consequences of any decision affecting personnel during disaster operations. Informally arrived decisions may have momentous significance for organizational functioning. Also, each participant needed information from other station members in order to correctly make certain decisions. Normal channels of interpersonal communication were disrupted during disaster operations and thus, to secure needed information for decision making, more individuals were approached within the organization and bits of information exchanged to keep each member abreast of the developing situation.
C. Authority

7. As the degree of organizational stress increases, the amount of deviation from the official lines of authority increases.

8. As the degree of organizational stress increases, the lines of authority shift to emphasize special skills and/or knowledge of position incumbents.

Deviation from official lines of authority could roughly be seen to be of two types: approved and unapproved. Approved or legitimate deviation consisted of formally recognized or formally ordered departures from the official authority structure. This deviation was either unintended according to those in authority positions but then recognized and legitimated ex post facto or else the deviation was proposed by station authorities as an initial course of action and legitimated. Unapproved deviation consisted of divergence from official lines of authority unintended, unrecognized, and hence not legitimated by top authority incumbents.

As the degree of organizational stress increased, approved deviation from the official lines of authority increased. The most prominent kind of approved deviation was that initially ordered and recognized by legitimate station decision makers. Broadcasting and engineering personnel were the usual recipients of an increased amount of authority outside the normal authority structure. This quite logically flowed from the high priority given these two areas during the disaster. The lines of authority did not shift but rather were increased to include the personnel in these sections.
since they had the special skills and knowledge to keep the station operational in the new crisis context. The chief engineering and broadcasting personnel were brought into the official authority structure as part of an orderly and planned enlargement on the part of station owners and general managers.

The second kind of approved deviation was also quite common. Deflections from the official authority structure that were unintended by key decision makers but that were recognized after-the-fact were very prominent. This pertained generally to activities of lower-level members in the organizational hierarchy. As organizational stress increased, certain personnel within the station emerged as wielders of quite large amounts of power. Either due to their skills or their knowledge they became unofficial leaders during the crisis. Station officials recognized the occurrence of this situation and promptly legitimated it by coopting these emergent leaders and making them a legitimate part of the authority structure. The most frequent example of this was the situation of veteran newscasters or announcers who usually because of their experience or maturity assumed a commanding role in unofficial decision making. These "old-timers" became competing power centers to the legitimate authorities and on occasion modified or blocked official plans of action and/or substituted their own. Organization officials legalized the veterans' power and included them in the official authority hierarchy.
Unapproved deviation from the authority structure also increased as organizational stress increased. Unintended, unrecognized, and non-legitimate authority became invested in some lower-level personnel who occupied key positions in the new and enlarged interpersonal structure. For example, secretaries controlled access to important people and information and began to exercise power over the numerous out-of-station volunteers and in-station displaced persons who were shifted from their everyday jobs. This deviation from the authority structure was not recognized by upper-echelon officials and hence did not become legitimated. It nevertheless continued to exist and functioned as a mediating mechanism between the organization's formal structure and the actual day-to-day requirements of people trying to cope with a disaster situation.

Patterns of authority were thus quite different during the disasters than during normal times. The legitimate authority structure was increased to include those station personnel who because of special skills or knowledge were vital to the organization's new crisis operations. Engineering and broadcasting were the main beneficiaries here. Also, the structure was enlarged to include those personnel who were essential to the organization because of their informal leadership activities during the disaster. Veteran newscasters or announcers were frequently coopted and their leadership role made legal. Finally, unapproved deviations also
occurred and continued throughout the disaster sequence as new situations required new perspectives and the formal structure proved incapable of handling all organizational conditions. Other unofficial leaders emerged who tried to lessen the difficulties of an organization shifting from its normal operations to disaster operations. Secretaries were examples of these. All three patterns helped increase the adaptability of the broadcasting station to the unanticipated stress conditions it was facing.

D. Communication

9. As the degree of organizational stress increases, the number of organizational incumbents through which directives are transmitted decreases.

10. As the degree of organizational stress increases, the total amount of information to be communicated increases.

11. As the degree of organizational stress increases, the amount of deviation from the official communications channels increases.

12. As the degree of organizational stress increases, the modes of communication shift to maximize speed.

The hypotheses relating to organizational communication were also not completely predicted by the stress model. As the degree of stress increased, the number of organizational incumbents through which directives were transmitted did not decrease but rather increased. This was the result of two factors. First, there were simply more organizational personnel at the station during the disasters through whom messages had to be transmitted than there were during normal times. The large number of volunteers
increased station size during the crisis and each one had to be kept informed of the developing situation and the role they were to play at the station. Related to this was the second factor. Not only were there more personnel but these personnel were performing new or unfamiliar tasks in a strange environment. Both the out-of-station volunteers and the in-station personnel who were shifted from their regular jobs were discharging new duties. These individuals were included in the communication structure which then became enlarged to handle them. Station officials decided that these personnel should be included in the communication net even though some valuable time might be lost because overall organizational performance would benefit. Since both new personnel were present in addition to regular personnel in different jobs, intraorganizational communication channels were intentionally broadened to insure individual receipt of all relevant information.

As the degree of stress increased, the total amount of information that was communicated also increased. This is directly related to the preceding discussion. The broadcasting organization needed a larger amount of raw input within its system if it was to effectively respond to the disaster context. During non-crisis operations station norms patterned most social interaction with only a minimum amount of information expended; during the disasters the environment was in flux and more information was needed to respond to it. This information must be disseminated within the
organization if the system was to survive. This was, of course, the direct parallel to the community-wide information increase. Just as the community itself needed more information to make some sense out of the on-going social disruption brought on by the disaster agent, so too did the broadcasting organization.

With more information being disseminated within the organizational communication channels to keep both regular, displaced, and new personnel apprised of the environment, the amount of deviation from the official communication channels increased. This deviation was both formal and informal. Formal deviation was the type just discussed; the pre-disaster communication structure was modified by legal organizational directives for the limited time of the crisis situation to keep all organizational members in contact. New communication patterns were instituted that bypassed pre-crisis member linkages and substituted interchanges that were not predicated upon organizational authority. Whereas during normal times communication flowed from superordinate to subordinate and back again according to the individual's position within the authority hierarchy, during the disasters communication flowed from functional superordinates to functional subordinates and back again. A functional superordinate might have less formal authority than his functional subordinate but the former still was the collector of information. For example, during normal times the head of the sales department has higher authority than an
assistant engineer and he would have minimal communication contact with the latter. During disasters the engineer is functionally more important than the sales head who is now performing clerical tasks or answering telephones; the sales manager receives communication from the engineer who is now in the superordinate position and in turn directs information back to him. Very little conflict, however, was evident within the broadcasting station due to this inversion of communication patterns.

Informal communication deviation was more spontaneous, unplanned, and unofficial. This was deviation from official communication channels that station members engaged in due to informal alliances within the interpersonal structure. This occurs during normal everyday operations and also occurred during the disasters, though on a larger scale. Informal arrangements became stabilized whereby certain individuals receive communication that either they were not supposed to receive or were to receive at a future date. Secretaries, switchboard operators, and administrative assistants are well known for their dissemination of information to friends or fellow workers on informal bases outside the official communication channels. These patterns carried over into disaster operations and were quite beneficial in insuring receipt of necessary directives.

Finally, it should not be felt that because of the increased size and complexity of the communication structure much time was
either lost or wasted transmitting information during the disasters. Although the communication structure was enlarged, the flow of information became much sharper than during normal operations. This was due to the actual mode of communication. As stress increased, the modes of communication shifted to maximize speed. Written messages, memos, and intraorganization telephone calls were discarded as communication vehicles and replaced by more concrete interpersonal interactions. Whereas during non-crisis situations a message from the general manager, for example, would disseminate throughout the organization by going through a number of filter positions and each position incumbent would write a memo or note to his subordinant detailing the information, during the disasters the manager or his assistant would personally walk the message down the communication hierarchy. Much time was thus saved in addition to the added benefit of officials knowing that their message was received. Generally, written communications were replaced by oral communications; lengthy communications by short communications; indirect communications by direct communications. The essential goal of communication was the dissemination of information at the fastest speed possible. Only through faster modes of communication could the enlarged staff of the station receive the greater number of messages that were directed to it.
Summary

This chapter has presented detailed analysis of commercial broadcasting organizations as they responded to natural disaster stress. The discussion was in terms of a general overview of the response of the media and also in terms of specific hypotheses. The hypotheses proved very valuable as guides in the delineation of key organizational structures and processes. Although they did not totally capture the functioning of the mass communication organizations during disasters, they did highlight the central media activities.
Notes: Chapter V

CHAPTER VI

CONCLUSIONS

Description

This chapter concludes this study of commercial radio and commercial television stations responding to natural disaster stress by summarizing the material presented so far and then presenting two major sections: a reformulation of the specific stress hypotheses and the listing of new hypotheses that were generated from the descriptive data. The chapter closes with additional paths for future research.

It was found that the broadcasting station was undergoing stress due to a decrease in organizational capabilities and an increase in demands placed upon the station. Decreased capabilities referred to the damage to or inoperability of the station's mechanical equipment, including both studio and transmitter facilities, and also the injury to or unavailability of station personnel. Increased demands were basically the impact of the public upon the station as the general community contacted the station for information so as to continue normal institutional functioning. This stress was wholly unanticipated by the broad-
cast media since the community was not a frequent disaster victim and since little warning was given in any of the four cities as to the immediate impact occurrence. The stations responded to the disruption in different ways according to their established structure. The most prevalent type was the response of radio stations. These organizations completely shifted station operations from their pre-crisis structure and functions and instituted emergency adaptations. They commenced around-the-clock broadcasting and discarded all music and commercials in favor of a news and information format. Internal station members were switched from their everyday jobs and placed within either engineering or broadcasting as operational or support personnel. Volunteers were readily accepted and performed clerical, secretarial, or other secondary roles. At combined radio-television stations, resources were taken from television and placed at the disposal of radio. Radio then assumed the same response as in the above-described radio-only stations. Television continued more normal broadcasting with the majority of its output network-originated programs that took a minimum of local personnel and other resources, most notably electricity, and it stayed fairly regularly within its normal operating time slot. Television-only stations were more similar to radio since all their resources could be applied to that one area. The station stayed on the air longer and originated some flood-relevant programs while still carrying the national network.
Due to the sparsity of the data from television stations in the sample and because of the more significant change processes occurring within radio stations, the major focus of this inquiry's discussion was directed to radio.

Organizational mergers and community-wide broadcasting networks were seen as the result of the decreased capabilities of some stations. In order to secure the needed mechanical equipment to return to on-air status, the stations found it most expedient to temporarily merge personnel and facilities into a supra-organization. This entailed little internal conflict and produced many benefits. Overriding this merger was the norm of cooperation and the belief among the broadcasters that by working together both they and the community would benefit in both the short and long run.

The increase in demands led to the job-switching of in-station personnel and the recruitment of out-of-station volunteers. Their task was to process the information coming into the station from emergency organizations and the general public. The larger flow of information to be disseminated resulted in changing channels of organization-to-public communication. The station ceased to be solely a medium of mass communication broadcasting information to a diffuse public and functioned also as an operational and interpersonal communication medium. Specialized groups, organizations, and sub-communities as well as specific individuals were targeted
as the intended receiver of the transmission and feedback became an integral part of the arrangement. Internally, the information flow also underwent changes due to the increased demands when key gatekeepers, most notably the professional news gatherers, were replaced by an emergent norm opening all gates. The information channels were thus widened and allowed more input to be received, processed, and then communicated to the listening audience.

Competition and conflict were also present in selected inter-organizational relationships. The pattern of interaction of the broadcasting station with some other broadcasting stations in the local community was characterized by feelings of intense rivalry. Some stations still operated during the disaster under a pre-crisis normative framework and tried to be the first station in the community with the latest news. Stations tried to scoop each other on stories and as a result did not cooperate with each other in the exchange of personnel and ideas as some stations did. Present in almost every case, however, was the fact of station conflict with extra-local network newsmen who came into the community to seek stories. The latter were invariably strangers to the area and unknowingly disseminated bits of erroneous information that were broadcast over national network programs.

Broadcasting personnel felt that the greatest reason for criticism of the media during disasters is that they were caught in a dilemma revolving around the lack of an official information
supply center. Conflicting and/or erroneous information was supplied to them by official agencies. The media were blamed by one party for delay if they withheld transmission of the information while further checking was initiated or they were blamed by another party for haste if the information was broadcast and it turned out to be incorrect. The broadcasters followed the latter course and relied upon the listening audience, either the general public or private organizations, for the necessary additional information to make corrections.

Neither community size nor disaster scope was found to be an important variable in this sample discriminating between station operations. Community size was only indirectly influential in that the larger communities had larger broadcasting stations. These stations were better able to cope with stress since they had both more personnel and wider ranges of equipment. Their ability to withstand decreases in their capabilities was thus greater than smaller stations; the increase in demands, however, had effects similar to those of smaller stations. Disaster scope was not influential and this was due to the unique topographical patterning of the focalized flood communities that made these cities similar in geographical and social consequences to diffused flood communities.

Finally, the lack of pre-disaster planning on the part of broadcasters contributed significantly to the problems encountered
in station interaction with other local organizations. Few non-crisis linkages were present that might have reduced some of the difficulties that arose. The relationship with the local civilian defense agency, as one specific example, was fraught with misunderstandings and conflict during the initial stages of the disaster. A period of groping between the two organizations was necessary before a satisfactory working arrangement was stabilized. During this time, however, there was the absence of any community-wide or open-ended warning or recovery communication system broadcasting official information.

The Hypotheses

It was found that the twelve hypotheses were not totally adequate in predicting organizational response to natural disasters. The organizational stress concepts had anticipated changes in the station's structure and functioning and especially in the four key areas of decision making, authority, tasks, and communication. Relationships more complex and in some instances even opposite the expected changes were discovered. These will be discussed.

Concerning tasks, as stress increased the rate of task performance increased and these tasks were limited to those activities of highest priority. The two areas of key importance were engineering and broadcasting; the former was related to capabilities and the latter to demands. Engineering was so specialized that
only technically trained personnel were able to perform its complex
duties. Tasks in this area were attempts to increase station
capabilities. All other persons were shifted to broadcasting since
it was here that the large number of demands was concentrated.
Thus, it might be more correct to hypothesize that as the degree
of organizational stress increases, the rate of task performance
will increase and these tasks will be limited to those activities
that increase organizational capabilities and decrease organi-
zational demands.

Concerning decision making, differences were noted in the
pattern of official and unofficial decision making. Official
decision making increased at the beginning of the crisis period
and then decreased even though stress (determined by demands)
continued to increase. Unofficial decision making increased as
organizational stress increased. Rather than stating that decision
making of both types increases as stress increases, it might be
more correct to view official decision making as tied in with
organizational capabilities in those situations where the organi-
zation is powerless to control demand inputs. This is what occurred
at the commercial broadcasting organizations and also at metro-
politan fire departments during civil disturbances. At the latter,
organizational officials recalled all off-duty work shifts and put
into service all usable equipment. In addition, task forces were
instituted to further increase organizational capabilities. Once
this was accomplished official decision making decreased just as at
the broadcasting stations since the organization had done all within
its ability to increase capabilities. Capabilities were at the
highest level and stress was present only because demands continued
to increase even faster. Demands, though, were not controlled by
the organization but by outside factors. Key organizational
officials were thus powerless to further respond to the stress by
making decisions. Also, with its effective switch from pre-crisis
to crisis structure, the organization was now operating with a new
routine pattern. Few official decisions were required as the system
could now operate roughly on its own. Official decision making
was then limited only to infrequent decisions related to matters
of only the highest priority. Unofficial decision making, however,
was different. This was not as closely controlled by capabilities
but was more a response to demands. The station's informal organi-
ization bore the brunt of the station adapting to the new crisis
operating pattern. Numerous minor problems and conflicts arose
within the organization related mainly to the enormous shift in
regular personnel and the addition of volunteers. Unofficial
decisions had to be arrived at to solve these problems that con-
tinued throughout the time demands impinged upon the station. As
the stress ceased, so too did this type of unofficial decision
making. Thus, in those situations where the organization has no
control over demands but only over capabilities, the rate of
official decision making will increase only to the point of increasing organizational capabilities; as capabilities are restored, official decision making will decrease and only those decisions of highest priority will then be made. In those situations where the organization has no control over demands but only over capabilities, the rate of unofficial decision making will increase as organizational stress increases.

Modification must also be made concerning the number of individuals conferred with before a decision is reached. Here also the distinction must be created between official and unofficial decisions. Due to the type of organization under study in this research and this refers mainly to the small size and the highly centralized decision making processes occurring in localized groups, official decisions were reached with no increase in the number of individuals consulted. All formal authority was present in the official decision makers and they did not need to include any other persons in their groups to arrive at decisions. There was very little change in the size of the official decision making group from everyday times to disaster operations. Unofficial decision making was quite dissimilar. The number of individuals conferred with increased as stress increased. This was due to the large number of new and displaced personnel working at the station combined with the uncertainty surrounding the disaster context. The informal structure needed to make more decisions and to accomplish
this the station members needed to interact with greater numbers of people within the station, especially key work leaders and primary group decision makers, to determine the consequences of any decision that would be made. Thus, the hypotheses might better be stated as follows: in those organizations of small size and centralized decision making structures, as the degree of organizational stress increases the number of individuals conferred with before an official decision is made will remain constant; as the degree of organizational stress increases the number of individuals conferred with before an unofficial decision is made will increase.

Concerning authority, deviation from the official lines of authority were either approved or unapproved. The former was deviation initiated by organizational authority figures and hence legitimated from the outset or deviation unintended but then recognized and legalized ex post facto. The lines of authority did not shift but rather increased to include those personnel who because of either their special skills or knowledge (engineering and broadcasting) or informal leadership (veteran newscasters) became vital to the organization's functioning during the crisis period. Unapproved deviation was unintended, unrecognized, and non-legitimated; it was deviation from the official lines of authority that was the result of organizational personnel assuming leadership positions within the informal structure. Secretaries or other key communication controllers frequently exercised power
within the station and especially over the numerous volunteers. This leadership role, however, was not recognized as legitimate by top organizational officials and therefore remained informal or unapproved. Thus, as the degree of organizational stress increases, the amount of approved deviation from the official lines of authority will increase; the lines of authority will expand to include those personnel who have special skills or knowledge or who perform emergent leadership roles. As the degree of organizational stress increases, the amount of unapproved deviation from the official lines of authority will increase.

Concerning internal communication, the larger number of regular and volunteer personnel present at the station during the disasters necessitated an increase in the number of organizational incumbents through whom directives were transmitted. The task was to keep all station members informed of the general situation and of their specific jobs during the disaster. New personnel had to be told information so that they could fit more readily into the organizational structure and the regular but task-shifted employees also were in a sense "new" since they were occupying different positions and they also needed a continuous flow of intelligence directed to them. The communication channels were intentionally broadened by official decision making to include all personnel within its boundaries. Thus, in those organizations with expanding membership, as the degree of stress increases the number of
organizational incumbents through whom directives are transmitted will increase.

The hypothesis pertaining to the amount of information communicated was one that did not need any modification. It was almost axiomatically true that the total amount of information communicated during the disasters increased considerably. This was a direct outgrowth of the disaster agent's impact upon the ongoing social situation in general and upon the communications systems specifically. The disaster agent's intrusion into normal community functioning created a problematic social situation that required increased amounts of information for the successful patterning and assimilation of this event. The agent also disrupted the local communications systems (interpersonal, telephone, wire, transportation, mass media) and this placed a greater load on those agencies still operating. It fell to the mass media to disseminate locally-relevant flood information to the affected community. Thus, more information was flowing through the broadcasting station on its way to the general community. In addition, the station itself needed more information to make sense of its own environment and to adequately respond to the social disruption. More information was processed that pertained directly to the station and its operations and that had to be communicated internally to all members. Therefore, as the degree of organizational stress increases, the total amount of information to be communicated will increase.
Concerning deviation from the official communications channels, distinctions were noted between formal and informal deviation. Formal deviation was divergence from communication channels that was legitimate and official. This was instituted by organizational officials to pattern a new set of communication linkages based not upon the authority but upon the functional hierarchy. The communication structure was redesigned in certain selected spots to include those personnel who assumed priority status within the organization due to their functional importance. Informal deviation was divergence that organizational personnel engaged in due to their position within the unofficial interpersonal structure. This deviation was not recognized by organizational officials and was non-legitimated. Certain individuals intercepted official messages and disseminated them to other personnel who were outside of or lower in the communication channels. This functioned to spread information within the organization and served as a complementary vehicle to the formal channels. Thus, as the degree of organizational stress increases, the amount of formal deviation from the official communications channels will increase. As the degree of organizational stress increases, the amount of informal deviation from the official communications channels will increase.

Finally, the modes of communication within the organization shifted to maximize speed. This also was an hypothesis needing no modification. The forms of communication changed from long,
impersonal, written messages to short, interpersonal, verbal messages that took the least amount of time and provided the most clarity. This was necessitated by the great increase of information flowing within the system that had to be disseminated. Only by changing the modes of communication could all directives and messages be processed. Therefore, as the degree of organizational stress increases, the modes of communication will shift to maximize speed.

New Models

There has been throughout the presentation of the findings of this research an implicit model that has existed just below the level of deliberate discussion. This model was the result of the interaction of the researcher, the social setting, and the specific data that were gathered. In this section the general model will be explicitly focused upon and brought to a level of conscious deliberation. The rationale for this, of course, is a major justification for exploratory research: the presentation of a model and precise interrelated propositions that are amenable to further research. An exploratory study that generates hypotheses for future testing then becomes in essence the foundation for a more systematic investigation of the subject area.

Just as the data of the preceding chapters have had two system referents, that of the overall community and that of the particular
mass media organization, so also will there be two models presented and two sets of hypotheses. Attention will first be devoted to the more global network of the community and a general community communication crisis model will be outlined. Relevant specific propositions relating to this will then be detailed. Focus will then shift to the mass communication organization itself and a general commercial broadcasting organization stress model will be proposed. Again, specific relevant propositions relating to this area will be offered.

Community Communication and the Management of Environmental Uncertainty

The community is a system of interrelated functional units having locality-relevance that are bound by communication linkages. The disparate elements that comprise the general community -- individuals, families, groups, neighborhoods, organizations, and the public -- are joined together by a working relationship existing through patterns of communication. It is this communication that forms the community skeletal structure and ties the numerous parts together. With this communication foundation, the community can perform the many tasks that are needed to be accomplished to produce an adequate and viable plan of living. Messages are produced, encoded, distributed, and received; orders are formulated that dictate prescribed forms of behavior; and the more basic surveillance of the internal and external social and physical
environment are all carried out through the communication system. This community communication exists on a number of different levels. Most ubiquitous, perhaps, and running horizontally and vertically throughout the entire range of system elements is the interpersonal communication system. Universal to the point of being taken for granted, interpersonal communication provides the interaction medium that binds any two individuals. These may be private citizens acting out personal behaviors, members of families or other groups representing this larger collectivity, organizational incumbents interacting either within or between organizations, or members of the amorphous general public representing specialized points of view or positions. Interpersonal communication is the primary form of communication existing within the community and proto-typical in this respect. Its major point of reference is the individual social actor.

Modern society in addition is composed of elements larger than any one individual. Most common in this respect is the presence of a multitude of organizations of many sizes, purposes, and complexity. These organizations must somehow be fitted together so that the numerous lines of activity either interact or parallel. Interpersonal communication, but in this instance at the level of organizational incumbents, is the major workhorse here also.

With the advent of these large-scale organizations there has emerged certain specialized organizations whose primary function is
communication itself. The telephone company, the telegraph company, newspaper companies, and commercial radio and commercial television stations are examples. These organizations do not replace but complement and reinforce the primary layer of interpersonal communication. They extend the boundaries of each individual contact through time and space and thus help bind larger and more variegated types of social collectivities. Communication by telephone is only slightly removed from the standard interpersonal communication of face-to-face contact; distance is interposed between individuals but the communication is interpersonal nevertheless. Communication by telegraph belongs in a slightly different realm of contact since the direct link between two individuals is qualitatively lengthened by the introduction of an organization between the two actors. Communication by newspaper begins to completely leave the level of interpersonal contact and assumes more and more the characteristics of the intervening organization; the organization itself assumes a position as one of the communicatees in the relationship. It becomes, more properly, a composite actor; one partner in the communication relationship is the multi-person organization itself. Finally, communication by radio and television or mass communication is at the opposite end of the continuum from direct, primary, and face-to-face interpersonal communication. The media themselves rather than the individual actors shape and color the communication episode.
These specialized communication organizations, especially in modern society, gain wide prominence in the distribution of information between two points. At times, they completely overshadow the interpersonal communication system and are thought of as the main means of community communication. The interpersonal system, however, remains the more basic.

With these different communication exchanges existing for it, the community becomes a coordinated system. With this minimum level of coordination comes the ability for system functioning. The community gains the competence to correlate widely divergent social actors and to execute patterns of activity that produce benefits for the community members. The community, in other words, becomes a functioning entity. Stable arrangements based upon communication become regularized and routinized. Predictability becomes an important component of the community's make-up. This relates especially to input from the community's environment. Though the community-environment relation is constantly in flux since each is undergoing continuous change, the community develops routines that manage environmental change and that help to incorporate it into a stable set of predictable expectations. Environmental change, within certain broad limits, is assigned a measure of constancy and thus dealt with in a manner analogous to other informational inputs.

In certain instances, however, environmental change occurs to
such a degree that uncertainty is produced. The regularized patterns of knowledge and activities cease to be reliable guides for system functioning. The community experiences a challenge to its very existence. One instance of this type of environmental uncertainty is the occasion discussed in this research; unanticipated and unplanned-for natural disasters are acute stress agents. They are severe environmental changes that produce threats to the community. The community ceases to operate within a regularized and predictable environmental context and enters a crisis state. Something new is required in the way of structure and/or functioning at the community level if the community is to successfully meet this challenge to its viability. It is beyond the scope of this discussion to outline the community changes that are often attempted; while important, they are less significant for this research than the communication that makes these changes possible.

With environmental uncertainty, "everyday conditions under which (the community) normally operate(s) have been altered; feedback from the environment is urgently sought." Both short-term adaptations and long-run changes require increased information about the environment for adequate decision making. Individuals, families, groups, neighborhoods, organizations, and the public all need to structure the changed environmental pattern so that each can produce a workable definition of the situation and thus carry on a minimum level of social organization. Communication
therefore becomes of utmost importance. At different levels increased communication flows are evident. Terms such as rumor (at the individual level) or intelligence (at the organizational level) reflect this increased importance of communication as social actors grope for meaning. Information is the more generic term and covers all the levels of functional units comprising the community. Each seeks information to cope with the uncertainty. This information, of course, is primarily sent and received through the community communication channels.

The two ideal-type polar opposites, interpersonal and mass communication, handle the majority of crisis information. Whereas during normal non-crisis times there is a roughly constant level of information being processed through these two systems, during crisis the level of information increases enormously. There is some pattern to the content of the information flow that showed up in this research but the data were sometimes partial or fragmentary on this matter. The pattern will be sketched in though with the proviso that conclusions here are only tentative. Early communication is strictly aimed at the environment itself. From individual citizens through organizations and publics, information is requested either directly or indirectly concerning the state of the environment. Directly, social actors themselves survey the environment to determine its exact nature and condition in order to provide a stable context for future action. Indirectly, social actors
request this environmental surveillance information from other social actors. In either case, attempts at defining the situation are the primary concerns. These attempts are social in nature in that numerous actors are consulted during this surveillance process. Partial and often conflicting definitions of the situation are compared among numerous actors and the most plausible in belief is settled upon. This process may vary in length of time from minutes to days depending upon ease of access to the environment. Access to the environment depends in large measure upon the operational status of the specialized organizations whose primary task is to monitor the environment. If these organizations are to a sufficient degree impaired in some functional way (and in this research most commercial broadcasting organizations would fall in this classification), the surveillance of the environment and hence the definition of the situation will take a longer time.

Once this initial but primary defining activity is complete, a new pattern reflecting the new definition of the environmental context also comes into being. It is on the basis of this new context that structures and tasks take on meaning. The crisis itself loses much of its unpredictability and strangeness and assumes the value of routineness. Though radically different from the normal pre-crisis community definition, the new definition takes on the aura of facticity. It becomes the new "normal" pattern.
Communication-wise, step two then proceeds as the community seeks to extend its recently-enacted definition of the situation to all areas of community life. It tries, in other words, to orient day-to-day operations to the changed context. The new routine definition is put into actual practice. This takes added information also and thus later communications are not directed solely to environmental surveillance but also to internal adaptations and changes through which functioning is carried out. Feedback from constituent parts of the community to each other about the relative conditions of their own state becomes extremely important at this time. Whereas during the preceding stage environmental feedback is the key commodity that all units seek, during this stage internal community feedback is paramount. The community as a system seeks to assess its own parameters for action and a definition of its own state. This, as was mentioned, is in terms of the new environmental context.

As these two types of communication continue, a state is reached where the input from the environment signals to social actors that the threat is dissipating and the crisis is disappearing. Parallel to the process of the community recognizing that a threat is impinging upon it and making adaptations or changes in structure and/or functions as a result, is the process of the community recognizing that a threat is ceasing and making adaptations or changes in structure and/or functions. Environmental
surveillance again assumes primacy and information is sought either directly or indirectly about the environment. On the basis of this information that is received, once again, through both the interpersonal and the mass communication networks, the community revises its definition of the environmental situation and in most cases reimposes its pre-crisis conceptual constructs. Normalcy in its pre-crisis sense begins to return. With the return to this old definition social actors then attempt to gather information about internal processes so that the switch-over back to a reasonable facsimile of pre-crisis structure and functioning can be accomplished. This usually takes less time than the change from non-crisis to crisis as most previous patterns are reinstituted. With this, a return to normalcy is accomplished.

Hypotheses. I.

The model is of course presented in general terms. It is the aim of the present section to lend flesh to the structure portrayed above by listing a number of specific hypotheses that may be derived from this community communication crisis model and that are amenable to testing in systematic fashion at a later time. These propositions are listed below.

Basic Proposition: The community under all conditions attempts to regularize its relationship with its external environment.
General Proposition: The community under all conditions attempts to increase its stability in relation to the external environment.
1. Under a definition of environmental certainty, the community seeks to increase its stability in relation to the external environment.
2. Under a definition of environmental uncertainty, the community seeks to increase its stability in relation to the external environment.

Specific Propositions:
1. As environmental uncertainty increases, the flow of information increases.
2. As environmental uncertainty increases, total community communication increases.
3. As environmental uncertainty increases, interpersonal communication increases.
4. As environmental uncertainty increases, mass communication increases.
5. As environmental uncertainty increases, environmental surveillance increases.
   A. As environmental uncertainty increases, direct environmental surveillance increases.
   B. As environmental uncertainty increases, indirect environmental surveillance increases.
6. As environmental uncertainty becomes constant, environmental surveillance becomes constant.
7. As environmental uncertainty becomes constant, internal community surveillance increases.
8. As environmental uncertainty decreases, environmental surveillance increases.
9. As environmental uncertainty decreases, interpersonal communication increases.
10. As environmental uncertainty decreases, mass communication increases.
11. As environmental certainty becomes constant, environmental surveillance becomes constant.
12. As environmental certainty becomes constant, internal community surveillance becomes constant.
Organizations and Stress Response

The topic discussed below will be at a higher level of specificity than the preceding remarks. There will be presented a description of selected formal organizational responses to a natural disaster situation. Though part of the general community and thus exhibiting to a large degree the same activities as the community in coping with environmental uncertainty, the organization is also independent of the community at an analytical level and may be viewed as featuring unique responses. Both types will be indicated. The formal organization is similarly viewed as a system of interrelated functional units existing because of and through communication linkages. Its sub-parts are formalized sections and informal groups. These are complementary and interpenetrate to a substantial extent.

The organization is always attempting environmental surveillance in varying degrees. During most of everyday operations the organization exists in a constantly changing but roughly stable environment. The environment is composed of the fundamental external physical environment and also the external social environment. The latter consists basically of other formal organizations and the general public. Other organizations provide the basis for interorganizational relations while the general public provides the basis for organization-public interaction. Both interpersonal and mass communication are carried out between the parts of this
Information-seeking is a constant in organizational activity. The organization always keeps close tabs on the environment so as to help regularize its relationship to it. This routinized relationship allows the organization to plan in an orderly way for a predictable and quasi-stable future. This routine allows for more expenditures to be spent on the attainment of whatever organizational goals are deemed important and less expenditures on simply keeping the organization in a ready state of existence. But the organization must respond to severe changes in its environment. Under threat conditions (and here the focus will be on natural disaster-induced environmental uncertainty) unpredictability becomes prominent. The organization experiences threat to its basic pattern maintenance ability and thus to its performance of goals. Certain adaptations are required if the organization is to continue viable operations. These adaptations are basically in the organization's structure and/or tasks.

Any organizational adaptation of this sort must occur after numerous communication activities have first been carried out. These communication activities at the organizational level are similar to the processes discussed at the more general community level. A curvilinear pattern is evident as the organization first assesses the magnitude and direction of environmental instability, how this affects its own survival, and then seeks definitions as
to what internal changes if any are necessary or possible to cope with the changed situation. The organization experiences stress as it is used in this research since the demand/capability ratio becomes imbalanced.

The organization increases its direct and indirect surveillance of the external physical environment. At the organizational level, indirect environmental surveillance assumes added importance. The organization relies upon other organizations and upon the general public to inform it of the changes in the physical environment. Feedback, thus, becomes an extreme necessity. Messages must be sent to other community actors requesting informational inputs and answers must be received, understood, and applied. An increase is allowed for in both the width of the communication channels and in the number of the communication channels since more actors are being consulted about many more environment-related matters than is usual. This communication with other organizations and with the general public concerning the physical environment shades over into communication with these same collectivities about their own interaction with the organization. These other organizations and the public make up the focal organization's social environment and this environment must also be kept under surveillance to see the changes occurring within it, both normally and as a result of the physical environmental change. It is in this activity of social environmental surveillance that the two processes of consensus and conflict
are essentially found.

In its interaction with its social environment, the focal organization reaches a high level of consensus with other organizations and with the general public. There is substantial agreement among the parties as to the developing definition of the situation and about what means are appropriate and necessary to insure implementation of this definition. Close liaison relationships emerge among these actors and the overall system tightens and presents a unified front to environmental change. This situation is common in those communities among organizations that have pre-crisis experience dealing with each other and especially dealing with each other in a consensual way. The situation is less common in those communities among organizations that have pre-crisis experience dealing with each other but in a dissensual way. Cooperation is least common among those organizations that have little or no pre-crisis experience dealing with each other. Instead, there is found a moderate to high degree of competition and conflict. There is difficulty in reaching a common viewpoint in the defining of the environmental context and few areas of substantive agreement. The organizations do not initiate new and in some instances withdraw old communication linkages and this further increases the probability of dissensus. This dissensus, as it has been shown, is a function of the number of social actors existing within a community and the number of differing definitions of the situation allied
with each.

Related to this process of physical and social environmental surveillance and a direct outcome of it are changes in the organization's structure and/or functions. Structural changes occur within the organization when, on the basis of information derived through the communication channels about the physical and social environment, selected organizational components are modified to handle the demand/capability imbalance. Attempts are made to decrease demands and at the same time increase capabilities. The control of demands in this instance lies outside the decision making structure of the organization and hence they are relatively imperious to manipulation by organizational incumbents. Capabilities, though, are a quite different matter. Structural changes are initiated that give the organization wide freedom in responding to the stress impinging upon it by increasing capabilities. One expedient solution is the expansion of the total organization to include persons outside the system. Volunteers are either directly or indirectly secured and brought within the organization to boost its primary type of resource. Volunteers are used to perform either key or secondary roles within organizational activity, although the more general pattern is the placement of volunteers within strictly secondary or support roles.

A second and not mutually exclusive structural means of increasing capabilities is the displacement of regular personnal from
pre-crisis units and their placement in either more important old or emergent structures. Organizational units having little relevance to the changed environmental context are deprived of resources and either cut back or totally disbanded. The personnel and other resources from these now superfluous units are switched to those units that are deemed vital for either the organization's existence or functioning. These units thus increase greatly in size, money, and material. Rather than move resources from incidental sections to vital but established units, it is often necessary to move resources to new and emergent units having no pre-crisis existence. Personnel and other resources are often switched from established sections and placed together in new units that are solely the outcome of the crisis context. New structures are initiated to better handle the demands by the organization's capabilities being put to more effective use in emergent sections.

A third means of increasing capabilities is not strictly within the domain of intraorganizational structure but includes other organizations as well. This structural adaptation is the implementation of pan-organizational super or synthetic organizations having life duration solely for the length of the crisis period. This recourse is usually attempted by those organizations having severe decreases in their capabilities brought about by damage, disruption, inoperability, or loss to major parts of their resources. This is rarely resorted to by those organizations suffering little or no
loss of vital resources. Supra-organizations emerge as two or more organizations combine their remaining resources so that the capabilities of each will be greatly benefited.

The preceding have been structural adaptations relating to threat emanating from environmental uncertainty; the following are functional adaptations as organizations try to increase capabilities and decrease demands. Functional adaptations fall roughly into two types of categories: those that may be found in any organization and those that depend upon the specific organization, the specific threat, and the specific context. Concerning the first type, any organization will change operating procedures in an attempt to decrease demands impinging upon it. This is most easily accomplished by the establishment of a priority listing delimiting several categories of demands and their importance for action. Rather than accepting all demands coming into the organization and having to respond to each and every one, the organization sets up a priority schedule that divides demands into categories ranging from immediate response to no response at all. This is in essence the redefining of some demands into "non-demands" and thus has the obvious consequence of reducing the overall level of demands. A second functional adaptation in organizational response to demands and one that shades over into increasing capabilities is to modify task performance from usual operating procedures so that less time is taken in any one unit performance. Certain under-the-circum-
stances unnecessary or needless steps are cut out from the job so that each task may be accomplished in a shorter amount of time. Many more tasks may thus be initiated in the short run and hence more demands may be taken care of.

Some functional adaptations may not be adequately predicted since they depend upon the specific organization in interaction with a specific threat agent. For example, some organizations are more vital to adequate community functioning during crisis times than are other organizations; in addition, some organizations are vital to community functioning during some crises and not during other crises. Only through adequate knowledge of the structure of the organization, its functions, the stress agent, and the prior stress response of the community can adequate predictions be attempted.

The organizational response in its structural and functional adaptations to crisis itself has ramifications for further organizational response. Structural and/or functional change has consequences in one important organizational area, that of the interaction of the formalized and informal groups making up the organization. Before changes are initiated, these two groupings exist in a rough balance, each responding and adapting to the other. With internal organizational changes, the pattern between the two is greatly modified and a new working relationship is needed. To accomplish this, more information is required of the organization.
and its changes. This information is sought by both the legitimate and the informal leaders of the organization as an assistance in the formulation of new policy guides. This information is urgently requested at the initiation of organizational change and continues to be requested throughout the crisis period.

The result, then, of environmental uncertainty at the organizational level is an enlargement in the surveillance process. Information is needed by both formalized and informal elements within the organization about the external physical environment, the external social environment, and about internal processes relating to structures and functions within the organization itself. Communication becomes of substantial import and is the pivot around which organizational response turns. The increased communication flow requires increases in both the number and width of the communication channels to handle the greater demands placed upon it. Changes are initiated to assist the flow of information through the system and these changes in turn require more information. Information, thus, is the central core of the organization and the major focus of its response to environmental uncertainty. Without it the organization cannot function in any meaningful way in the changed environmental context.

**Hypotheses. II.**

A number of specific hypotheses are readily apparent from the
above model. Though not exhaustive, the following listing is representative of some testable propositions.

Basic Proposition: Organizational change is basically externally induced.\textsuperscript{8}

General Proposition: Organizational change is a result of information derived from environmental surveillance.

Specific Propositions:
1. As environmental uncertainty increases, environmental surveillance increases.
   A. As environmental uncertainty increases, external physical environment surveillance increases.
   B. As environmental uncertainty increases, external social environment surveillance increases.
   C. As environmental uncertainty increases, internal physical and social environment surveillance increases.
2. As environmental uncertainty increases, the importance of system feedback increases.
3. As environmental uncertainty increases, the likelihood of changes in organizational structure increases.
4. As environmental uncertainty increases, the likelihood of changes in organizational functioning increases.
5. As environmental uncertainty increases, the likelihood that those organizations with pre-crisis communication linkages and pre-crisis consensual interaction will initiate consensual interaction increases.
6. As environmental uncertainty increases, the likelihood that those organizations with pre-crisis communication linkages and pre-crisis dissensual interaction will initiate consensual interaction increases.
7. As environmental uncertainty increases, the likelihood that those organizations with no pre-crisis communication linkages will initiate dissensual interaction increases.
8. As environmental uncertainty increases, the likelihood that volunteers will be accepted into the organization increases.
9. As environmental uncertainty increases, the likelihood that regular personnel will be shifted to key sections increases.
10. As environmental uncertainty increases, the likelihood that supra-organizations will emerge increases.

11. As environmental uncertainty increases, the likelihood of a task priority system being initiated increases.
12. As environmental uncertainty increases, the likelihood that operating procedures will change increases.

Paths for Future Research

This study is for the moment completed. Data have been presented describing the organizational and operational adaptations of commercial broadcasting organizations as they respond to natural flood disasters. In this final section, paths for future research will be highlighted. They, hopefully, will help guide later students in this area in their quest for significant problems.

This research, of course, was limited by the type of disaster occurrence only to floods. While both focalized and diffused flood agents were contained within the sample, other natural disaster agents need to be studied to see their influence upon media activities. Tornadoes, hurricanes, earthquakes, forest fires, and blizzards must be included as disaster agents to see the degree of comparability and dissimilarity occurring between these forms of disruption and their impact upon broadcasting stations and the impact of floods. It is quite evident that disaster agents vary along a wide continuum of properties and it is also very plausible to assume that significant differences in findings may result if different agents are studied. {} Future research thus needs to
broaden the scope of disaster agents.

The scope of broadcasting stations also needs to be broadened. This dissertation was primarily a study of commercial radio stations; the lack of complete data precluded an extended examination of commercial television stations. It was found that the everyday structure of the station had a significant bearing on that station's response to the crisis and that three differential responses were apparent. This research focused mainly upon radio-only stations; combined radio-television and television-only stations should also be examined to see what findings emerge.

Also, the scope of communities studied needs to be broadened. This research was unavoidably restricted only to small and medium-sized urban areas that were flood disaster victims. Much larger cities having multiple media outlets should be included to discover both similar and dissimilar findings from those uncovered in this study.

In addition, while this research has looked at the mass media, it has restricted itself only to the broadcast mass media. The other type of media organization of consequence, newspaper organizations, would be an ideal research site to compare and contrast to commercial broadcasting organizations. While newspapers have been the unit of analysis in disaster research in the past, these studies have usually been journalistic content analyses of the organization's finished product -- the newspaper itself. Little
work has been done on newspapers as complex organizations and how they react to local natural disasters. It has been stated that radio and television have different technologies and hence are impacted by and respond differentially to the disaster agent; newspapers also operate with a different technology and important changes from the above may be expected in their organizational structure and functioning. For example, the lengthy process of printing itself as versus the immediate dissemination of the broadcast message should produce viable differences during disasters when speed is of the essence. Also, newspapers must be distributed to a clientelle in a commercial transaction and this creates variation from the "free" broadcasting of radio or television messages. Other differences are readily apparent and are worthy of review.

Finally, this dissertation is only one of a few looking at organizational behavior during disasters. The whole gamut of organizational types -- from police departments to community hospitals to the Red Cross -- may profitably be studied for the data they contain on organizational functioning. Not the mass media specifically but organizational theory in general would be the prime beneficiary of the integration of the many findings that result. This study of broadcasting organizations is thus one part of this larger task.

Other types of stress situations lie along a second path for
future research. It has been stated that natural disasters provide a consensus crisis context and this has been the concentration of this research. The other broad category of crisis situation, a dissensus crisis context exemplified by civil disturbances, remains as an area to be explored. Many similarities relating to a decrease in capabilities and especially an increase in demands are readily manifest between broadcasting station operations in disasters and in civil disturbances. But the changed context itself provides parameters that precipitate differences. Physical attacks upon newsmen, for example, by racial or student group members during disturbances have caused these reporters to seek stories in unmarked cars and otherwise show little press identification. The implications of this for "scoops" and other competitive behavior need to be assessed. Likewise, the apparent closer relationship of the media with social control agencies during disturbances than during disasters is a further fruitful area for continued research.

A third path for future research relates to the organizational stress concepts. The concepts and the hypotheses were quite valuable in concentrating attention upon important regions within the broadcasting stations. Findings led to numerous modifications in the specific hypotheses that generally broadened their scope by making them more responsive to formal and informal processes occurring within the station. However, additional work can
advance these hypotheses even further. Other radio, television, and newspaper organizations can be studied in terms of the concepts and compared and contrasted with numerous other types of organizations to help lay the groundwork for closure in this area and to further the hypotheses' predictive validity.

A fourth path for future research is the testing of the new hypotheses generated by the present study. Both the organizational and the community communication model should be subjected to rigorous examination to see their validity in other disaster and stress situations. Only in this manner can the full circle of data to theory to data be closed and new ideas gained. With this comes the major impetus to the cumulation of knowledge.

A fifth path for future examination revolves around continuation of some of the specific ideas presented in this research. For example, modification, extension, and expansion of the temporary merger concept might be quite advantageous. These transient and specifically expedient organizational mergers may have application outside the disaster situation. They may be forerunners of a problem-oriented social type that consists of a number of organizations legally merging physical and personnel resources so that the combination can better solve pressing social problems that each individual organization could not solve on its own. Once a solution has been arrived at, the merger dissolves and each organization resumes its "pre-problem" structure. A second area
that may be explored concerns the topic of conflict within a consensus context. A natural disaster is conceptualized as a consensus context situation where there is overall agreement about community goals and about how these goals should be realized during the emergency. Yet this study has found much conflict between the local broadcasting station and other local broadcasting stations, extra-local broadcasting representatives, and other types of local organizations, especially civil defense. Questions are thus directed toward the whole topic of the occurrence of dissensus during disasters and the validity of the consensus-dissensus dichotomy. It may be that general public consensus is indeed high during disasters but that dissensus has shifted to the realm of interorganizational relations. Future research might well explore this area.

A last path for future examination can be a study of commercial broadcasting organizations during disasters but looking at different phenomena than the ones in this dissertation. The present research has necessarily been limited due to the practical requirements of the methodology but it has also been quite general. This latter factor was necessitated by its exploratory nature. Only certain selected organizational structures and processes were deemed important and hence highlighted in this study; much still remains uncovered. For example, Barton mentions organizational role specialization occurring during disasters. Related
to the mass media, this would involve one radio station operating only as a missing persons bureau, another as only a supply center, another as only an official information center, etc. The communities in the present sample were not large enough to have this type of specialization. (However, mention was made by some interviewees of a station in a nearby community acting solely as a missing persons bureau. But this was outside the sample and not studied further.) It may be hypothesized that metropolitan areas in the range of a million persons or more and having at least ten to twelve broadcasting stations may exhibit this phenomenon. Its importance for organizational functioning may be quite vital. Finally, Killian discusses the topic of role conflict during disasters. Individuals may have a family, organization, or community reference group and their behavior during crisis would reflect this focused allegiance. For example, workers might leave or not report to jobs so that they may be with their family during disasters or they may leave or ignore their family to help the general community. Some interviewees mentioned the occurrence of role conflicts similar to these at their stations among some personnel. It may have serious consequences for organizational capabilities and the response to demands. Future research can look at this subject in depth.
Conclusion

Though ended, this inquiry is only a beginning. It is an exploratory study that seeks to describe systematically and for the first time what occurs at commercial broadcasting organizations as these stations undergo stress due to the intrusion of a flood disaster agent within the local community. It has attempted to show how the media seek stories, why the media receive blame and criticism, and how the media respond and adapt to their decreased capabilities and increased demands. Though not definitive, it has laid a descriptive foundation for the more serious and in-depth studies of the media that certainly will follow. If the reader of this work has gained any understanding of the operations of the media or any awareness of the complexities of reporting news and information during disasters, then this study will have succeeded in its purpose.

Much work is needed to continue the systematic study of the mass media during disasters. Though relatively neglected, the topic is of immense importance; the media are key agencies in the community attempt to achieve coordinated behavior during social disruption. Any study illuminating broadcasting operations during stress periods can have immense outcomes as far as the probable saving of lives and property is concerned. Other scholarly attempts at extended examination of the media during natural disasters are thus welcomed.
Notes: Chapter VI

1. See Jerry J. Waxman, *Changes in Response Patterns of Fire Departments in Civil Disturbances*, Disaster Research Center Report No. 12 (Columbus, Ohio: Disaster Research Center, Ohio State University, 1972) and George J. Warheit and Jerry Waxman, "Operational and Organizational Adaptations of Fire Departments to Civil Disturbances," *American Behavioral Scientist*, 16 (January-February, 1973), 343-355.


3. This definition is more encompassing than that put forth by Warren, for example. It is the relationship among the units that is here defined as the community, not the individual components. See Roland L. Warren, *The Community in America* (Chicago: Rand McNally, 1963).


5. "If a complex social organization is to survive critical changes in its environment, it can do so only by changing its structure and behavior." Cadwallader, p. 160. For a theoretical discussion of these changes, see John R. Brouillette and E.L. Quarantelli, "Types of Patterned Variation in Bureaucratic Adaptations to Organizational Stress," *Sociological Inquiry*, 41 (Winter, 1971), 39-46.


10. See, for example, Carl Jensen, *The Use and Abuse of Media in the Aftermath of a Disaster: An Analysis of the 1970 Southern California Fires* (Santa Barbara: Department of Sociology, University of California at Santa Barbara, 1972).


APPENDIX
Background

1. What is the size of the station, personnel-wise?

2. What is the ownership of the station? (a. Network b. Corporation c. Family or small group)

3. How many departments or divisions are there within the station? What are these?

4. How are important decisions reached within the station? (Probe for group discussion, autocratic, etc.)

Baseline Data

1. What do you consider to be the goals of the station? (Probe for public service, business, news, entertainment, etc.)

2. How do you perceive the people you are broadcasting to?

3. Disaster subculture:
   Have station personnel been through a disaster before?
   Has the station itself been in a disaster before?
   Have you had any kind of formal disaster training?
   Does the station have any disaster plans? (Probe for written or unwritten, specific or general, etc.)

4. What are your sources of news on a normal working day?

5. On a normal working day, about how much commitment is given to news?

6. What kind of informal social contact is there among the members of the station?

7. What kinds of emergency equipment are there available at the station?

Emergency Period - General

1. What do you feel was the station's responsibility during the disaster?
2. How would you characterize the type of coverage that was broadcast during the emergency? Was there any specific focus to it? (General, victims, property damage, etc.)

Crisis Response

Would you give me a summary description of your activities, as a station member, beginning when you first became aware of the emergency and continue it through the emergency period and until the close of the emergency and the return to normalcy? (If not covered in discussion, probe for:)

1. Who were you with?
2. What were you doing?
3. How were you notified of the flooding?
4. How were other station members notified? How long did it take? Problems?
5. What organizations did you have contact with at this time?
6. Were warnings issued over the air for people to evacuate? Who issued the warnings?
7. Did the station go on the air full time? Who decided this? Commercials? Music?
8. How would you characterize record keeping during this time?
9. Was there an increase in telephone calls to the station? From whom? About what? How were these handled?
10. Trace the path of a piece of information phoned into the station until it is disposed of.
11. Who did the station try to contact at this time? For what? Why? Successful or not?
12. What kind of contact did you have with an EOC or command post? Who called whom? For what? When? How was the information exchanged?
13. How was information passed within the organization?
14. Was there a first news flash? What was involved?
15. Was the station knocked off the air at all? How long? Did the station have to move? How did the station return to the air?
16. Was there any remote broadcasting, or all in-station?
17. Was any information withheld from broadcasting? Why? How long? By whose authority?
18. Were inaccuracies broadcast? Where did the information come from? How was it handled?
19. Were lists of dead and missing read over the air? How was this list gathered? What happened to this list?
20. Did you broadcast requests for blood and/or other supplies to be brought to certain places? Who asked you to do this? Were 'cease' orders broadcast to stop this flow? When?
Conclusion

1. How did you view the public during the whole emergency period?

2. Discuss the size of your listenership or viewership. Decrease? Increase? Why?

3. Were volunteers utilized at the station? How? How were they recruited? Who were they? Did they get paid?

4. What was the major difference between broadcasting at normal times and broadcasting during the emergency?

5. What things that are normally done everyday were not done during the emergency? What things were done during the emergency that are not done normally everyday?

6. Were any jobs shifted during the emergency? Which ones? Why? From where to where?

7. Where was the greatest point of stress on your station? When? Why?

8. In another flood disaster, what would you do differently? Why?

9. Suggestions for other broadcasting stations.
BIBLIOGRAPHY


_____ "How the 'Gatekeepers' View Local Civil Liberties News," Journalism Quarterly, 37 (Spring, 1960), 199-205.


"Second Chapter on Agnes Coverage," Broadcasting, July 10, 1972, 43-44.


Stallings, Robert A. *Communications in Natural Disasters*. Disaster Research Center Report No. 10. Columbus, Ohio: Disaster Research Center, Ohio State University, 1971.


Stoddart, Alex. McD. "Telling the Tale of the 'Titanic'," *The Independent*, May 2, 1912, 945-953.


