Chapter 1
Introduction

At midnight Friday September 22, 1989 the costliest and one of the strongest hurricanes of the century made landfall along the South Carolina coast. Hugo, a storm that began southeast of the Cape Verde Islands, left a path of destruction across the Leeward Islands, the Virgin Islands, and Puerto Rico before slamming into the U.S. mainland. An estimated one-half million people evacuated in coastal areas of Georgia, South Carolina, and North Carolina. According to the National Hurricane Center, Hugo had the highest recorded storm surge heights on the east coast this century. Damage estimates from some sources have been placed as high as seven billion dollars for the U.S. mainland. Of only about forty U.S. mainland deaths attributed to Hugo, very few were from drowning - a testament to successful evacuations carried out by local and state officials throughout the threatened areas.

Prior to Hurricane Hugo and even before the onset of the 1989 hurricane season, comprehensive hurricane evacuation studies had been completed for South Carolina and North Carolina and a study for Georgia neared completion. These studies were jointly funded by FEMA, the Corps of Engineers, state governments, NWS, and the South Carolina Coastal Council with local districts of the Corps serving as project managers for each study. With these studies in hand and a severe storm making landfall along the eastern seaboard a perfect opportunity was available to answer several key questions regarding these major FEMA/Corps planning efforts:

Were local and state officials using the products produced by these major studies?

Were the data in the studies related to storm hazards, behavioral characteristics of the evacuees, shelter information, evacuation times, and decision-making, accurate and reliable?

Which study products were most useful and least useful - what improvements could be made to current methodologies and products?

To answer these questions, a study team comprised of William G. Massey representing FEMA and John K. Graham representing the Corps of Engineers visited with local and state officials throughout the threatened areas of Georgia, South Carolina, and North Carolina. Donald C. Lewis representing Post, Buckley, Schuh and Jernigan, Inc. was retained to accompany the study team and document all relevant findings. Approximately one hundred local and state officials were visited. County and city emergency management directors, law enforcement officers, Red Cross personnel, and state emergency preparedness division staff were primarily involved in meetings held in each area that responded to Hurricane Hugo. Two separate meetings were held in the major media markets of Savannah and Charleston to discuss study product usage with local media representatives. Appendix A lists those individuals who either attended meetings or provided critical input through telephone conversations.

Discussion with local emergency management officials focused on study products and their use relative to the evacuation decision process, evacuation/traffic control and clearance, sheltering, and public information. In meetings with state officials discussions centered on the role the state played in the evacuation process including the use (or non-use) of study products in communicating with local officials. Media representatives in Savannah and Charleston were asked to focus on study related materials that they possessed and that were broadcast to the general public. They also addressed the types of materials and public information they could have used that had not been developed or delivered to them as of yet.

In addition to the meetings held with state and local officials, a residential sample survey was accomplished and analyzed by Hazards Management Group for selected communities in the directly affected South Carolina coastal area. Telephone interviews were conducted in Myrtle Beach, Charleston, and Beaufort County, to compare actual evacuation response in Hugo, to predicted evacuation response developed in the original comprehensive hurricane evacuation study. The behavioral analysis focused on the actual percent of the affected population that evacuated during Hugo, when the evacuees left their residence, what sort of refuge evacuees used, where the refuge was located and the number of vehicles used by evacuating households.

Representative Scenes at Local Coordination Meetings