ORGANIZING FOR RESPONSE: COMPARING PRACTICE, PLAN, AND THEORY

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A week in Florida, but this was not spring break. We were using our quick response grant to observe the organizational evolution of the response to Hurricane Andrew, to see where and how decisions were made in the response organization, and to compare these empirical observations with policy and procedure documents. The comments that follow are based on this limited experience; we make no claim to completeness. A week is a relatively brief period in a heavily affected area and, although we had excellent access to relief operations at all levels, we chose to not attempt in depth interviews with busy personnel during the operation. We are still gathering data in follow up interviews. This was a very large and complex disaster and the federal, state, local, and volunteer response was also large and complex. We chose to focus our attention on the response of the Federal Government and the American Red Cross in the critical area of mass care as it related to the intentions of the Federal Response Plan (Emergency Support Function 6) and internal Red Cross plans.

Hurricane Andrew was the first real test of the Federal Response Plan and it was obvious to all observers that the response did not go according to plan. On Sunday night hundreds of thousands of Floridians were evacuated from coastal areas based on storm surge predictions. Early Monday morning Andrew hit South Dade County where most of the residents rode out the storm in their homes. By mid morning, thousands of people were picking through the ruins of what had been Homestead, Florida City, Perrine, Goulds, Cutler Ridge and other South Dade communities. Entire communities were smashed into piles of tree limbs, twisted metal and rubble. Most of the damaged homes were not in the area evacuated and most were damaged by wind and flying debris, not the storm surge. It was estimated that over 100,000 homes were damaged and that over a quarter of a million people were homeless. In addition, shopping centers, public buildings and schools were hard hit, as were the Florida Everglades and the Miami MetroZoo.

A federal disaster was declared almost immediately, but county, state and local organizations had to face the initial overwhelming immediate response needs with resources in place. The Red Cross had moved its disaster relief operations headquarters to Miami from a pre-staging site in Orlando on Tuesday and a national recruiting effort was initiated that brought over 2,000 trained staff to the area to augment the local chapter and volunteers (over 500 people had arrived within four days of the disaster). By Wednesday, however, it was apparent that the situation was beyond

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the control of local and volunteer agencies and was, in fact, the largest disaster in U.S. history. Shortages of water and food and health supplies were critical. By Thursday, local government regulations began to be enforced, thus closing down local and church group efforts that did not have health permits or failed to meet health standards. The Federal Disaster Field Office (DFO) was established at Miami airport on Thursday with the Director of FEMA region IV, Philip May, as Federal Coordinating Officer (FCO). By Friday a Department of Defense Joint Task Force under the command of Lt. Gen. Samuel Ebbeson was established and thousands of troops began arriving in South Florida. Secretary of Transportation Andrew Card was dispatched to the scene by President Bush and established a presence that evolved into a formal organization called the Presidential Task Force. On the same day the Red Cross staffed the mass care (ESF 6) element of Disaster Field Office. By Monday, one week after Andrew struck, tent cities were set up for victims. On the next day, President Bush visited South Florida for the second time and toured the most severely affected areas and promised millions in aid.

By this point it was clear that several of the fundamental assumptions of the Federal Response Plan had been shown to be unrealistic. The plan assumes that affected jurisdictions will be capable of assessing damage and estimating response requirements and that the federal support organization will react to these requests for resources. In reality, Dade County and the State of Florida were overwhelmed and exhausted after the evacuation and initial response effort and this detailed assessment and communication of needs did not occur. The requirements of the Federal Plan for partial state reimbursement of federal costs was perceived as an impediment to state requests for aid and to the full activation of the plan until these provisions were waived by President Bush. The Federal Response Plan also assumes that the organizations have the capacities to execute the responsibilities assigned by the plan. The Red Cross, for example, has accepted the responsibility for coordinating the delivery of mass care services. Although the Red Cross mobilized more trained people in a week than it was able to muster in a month after Hurricane Hugo, it and other volunteer agencies were not capable of providing immediate shelter and feeding for 200,000 people. Similarly, the General Services Administration was not capable of providing emergency resource support for the mobilization of such a massive relief effort. Finally, the Federal Response Plan assumes that the national response effort will support the state and will be coordinated by the Catastrophic Disaster Response Group (CDRG) in Washington and by the Federal Coordinating Officer (FCO) at the Disaster Field Office (DFO). In reality, the state government was never in charge and the role of the CDRG and DFO were greatly diminished once the Presidential Task Force and the DOD Joint Task Force were created. Secretary Card, not the FCO, was directing DOD efforts. ESF 6, mass care, was never fully activated in the sense that mass care activities were coordinated through the DFO. The Red Cross found
it necessary to create an additional ad hoc organizational element by deploying a Donald Jones, its General Manager of Disaster Operations, and a small staff to coordinate Red Cross Activities with the Presidential and Joint task forces.

The inability to rapidly capture and transmit information from the disaster area affected estimates of the severity of the disaster and the deployment of resources. The Red Cross detailed damage assessment process moved slowly; it was only 75% completed by Saturday, August 29, five days after the disaster. FEMA's independent damage assessment lagged and was not coordinated with the Red Cross; Dade County performed its own assessment of damage. It took days before the sheer magnitude of the destruction was fully appreciated. Local conditions made it difficult to assess damage, to determine the needs of victims and to effectively respond. Streets were impassable until cleared of trees and debris, power and water were cut off, and the dominant language in many areas were Spanish and Creole. Damage assessment criteria were not clearly defined in terms of the structural types affected. This plus inaccurate maps slowed the process and led to inconsistent and misleading results. One week after Andrew, senior Red Cross managers had not visited the affected area and their lack of a good mental picture of the scope and location of the disaster affected resource allocation decisions. Nevertheless, the scope and magnitude of the damages created an awareness that the response was going to take a long time and that response and recovery efforts were probably going to merge.

Feedback of information from the affected area was also impeded by poor communications, incompatible communications systems, and lack of expertise. Display technology was not made available to federal and Red Cross decision makers and they did not have a common view of the disaster situation. Information that should have existed before the disaster (e.g. reliable maps, demographic information, structural information) was not made available to responders. Dade County, however, did use their ARC-INF0 GIS system and pre-existing data bases and eventually some of this information was available at the DFO. Additional problems were caused by the inability of relief organizations to communicate vital information to victims: e.g. where relief supplies and medical facilities were located; where and how to apply for Red Cross or FEMA aid. Innovative communications methods were employed such as the use of the Goodyear blimp.

South Florida was at this time only one of several disaster sites. Andrew relief efforts were being provided in Louisiana. Later in the week Typhoon Omar hit Guam, followed by Hurricane Iniki in Hawaii. Response efforts by national groups were thus soon spread quite thin. The devastation of South Florida, however continued to hold the media's and so the nations interest. One of the major reasons that this occurred was that Florida is a key state in the upcoming presidential election. Thus, the perceived
success of the disaster response became a potential political issue. In addition, a host of other factors created a somewhat unusual and volatile situation. These included: the scope of the disaster; the ad hoc nature of the federal response; the deployment of approximately 30,000 troops; the severe impact on low income households; and the potential long term ecological damage. The media picked up on all of these factors and created new criteria for evaluating the success and failure of the organizational response on a daily basis. The media, rather than the federal response plan or organizational criteria defined what was sufficient help and what help was needed. Often, of course, the media was wrong. This lead to situations such as bottled water being delivered long after the water distribution problem had been solved, unneeded food and clothes stockpiling and rotting, and the myth that rampant looting was occurring. Looting was a problem since the area was accessible from the outside, but social order was never an issue even before thousands of armed troops started to patrol the area. The initial objective stated by the Army Chief of Staff General Gordon Sullivan to "establish a military structure in every neighborhood" did not appear to be directed at the primary needs of the victims.

Despite all this, the response effort was not as disorganized or as ineffective as one might think after reading the initial press reports. Lessons had been learned by organizations involved in the Hurricane Hugo response. Coordination of volunteer groups both at the administrative and service delivery level was very positive. For example, several poor minority areas did not receive adequate service after Hurricane Hugo because they were missed during the initial Red Cross and FEMA damage assessments. Immediately after Andrew struck, the Red Cross was able to enlist the help of 43 clergy from minority churches to assess the status of their communities and to coordinate the allocation of Southern Baptist feeding units to the hardest hit areas. Organizational response groups formed, reformed, and dissolved in the span of hours as new needs arose that required inter-organizational cooperation. Local church and community groups provided vital lifeline support in the first 76 hours until they were augmented or replaced by national groups. Emergent groups and actions solved unanticipated problems. For example, volunteer groups took over traffic direction when police were deployed elsewhere and street signals were inoperative. Newspapers created a system for locating missing persons, supplanting the cumbersome Red Cross disaster welfare information program. Inter-faith coordination of relief efforts was achieved on the fly as leaders worked hard to avoid doctrinal controversy and maximize service to the victims. The Marines in Homestead worked closely with elected officials. Navy Seabees assisted victims filling out forms at Red Cross service centers. Hard hit corporations such as Burger King took care of the needs of their own employees.

We conclude by adding our voices to those that have observed
that Andrew exposed serious flaws in the Federal Response Plan and the Federal Response Organization specified by the plan. The direct involvement of the White House and the Department of Defense in a catastrophic disaster are predictable. Why not include them in the plan and why hold to the pretense that states must request federal assistance? Volunteer organizations such as the Red Cross, Southern Baptists, Salvation Army, Second Harvest, Habitat for Humanity, Church of the Brethren, Church World Service and others once again demonstrated that they have the capability to respond rapidly and effectively with significant resources. The Red Cross has served over 4 million meals...many of them prepared at Southern Baptist and DOD field kitchens. The Salvation Army and Southern Baptists have also prepared and served millions of meals and distributed needed food, clothes, and supplies. These organizations provide the kernel of the long term recovery capability and have the ability to respond to the social and emotional needs as well as to the physical needs of victims. Their expertise should be better integrated into the federal plan; they will be on the scene long after the troops go home. In spite of obvious improvement since Hurricane Hugo and Loma Prieta, however, these organizations do not have the capacity or the capability to meet immediate physical needs following a catastrophic disaster. Relief workers functioned under extreme conditions in the aftermath of Andrew; long hours, heavy work, heat, humidity, and inadequate shelter were the rule. Why do we rely on volunteer workers with an average age of 50+ to provide our first line of mass care response and only bring in the 18-25 year old troops when the volunteers are overwhelmed? When the 18-25 year old troops arrive, why do they all have to be carrying weapons and wouldn't it be nice if they or their leaders were trained and equipped for the task ahead?

Hurricane Andrew may be the catalyst for the re-evaluation of the process of planning and preparing for natural disasters in the way the EXXON VALDEZ incident led to the passage of the Oil Pollution Act of 1990 and the revitalization of the national response system for technological disasters. Once again we see that paper plans and organizational agreements are not enough. Success requires a significant investment in infrastructure, people and training. The matching of organizational responsibilities and capabilities must occur and will require a re-evaluation of the operational role of FEMA, the Red Cross--Federal relationship, and the role of the DOD in disaster response.

Two final observations should be made. Hurricane Andrew has reaffirmed the validity of prior disaster research. Emergent organizations, unanticipated stakeholders, pro-active behavior by victims, the impacts of inadequate feedback on management and decision making all were obvious. Finally and most importantly, we must note that the people that were there to help, civilian and military, volunteer and bureaucrat, functioned well in spite of planning and organizational problems. Good things do happen, even in the worst of times.