

Tuesday, September 11, 2001 dawned a sunny, late summer morning. It was primary day in New York City, and voters were choosing party candidates for the November elections. In many families, parents were sending children off to the first day of school. Millions were already at work or commuting on subways and buses that crisscross Manhattan, New Jersey, and the outer boroughs. The New York Stock Exchange was preparing for the opening bell. Hundreds of shopkeepers in and around the financial district were unlocking their doors. At 8:46 and 9:04 AM, without warning, terrorists flew two hijacked commercial airliners into the towers of the World Trade Center (WTC).

Within two hours, intense fires caused both Trade towers to collapse. About 25,000 people escaped, but nearly 2,800 civilians and hundreds of police officers and fire fighters were killed. By midmorning, the New York City Emergency Operations Center (EOC) at 7 World Trade Center had to be abandoned. Wall Street was completely disabled by the loss of all utilities and communication services. A national emergency was declared and the assets of the City, State, and national government were mobilized to respond. Scores of other buildings were damaged or lost. The 16 acre WTC site and surrounding area were buried in debris and smothered by an enormous cloud of dust and smoke. The area south of Canal Street, containing 70 percent of the City government offices, the main federal government complex, and thousands of businesses and residences, was cordoned off as both a disaster site and a crime scene.

Within the day, the City government re-established its EOC in temporary quarters in the Police Academy. By Friday, September 14, a new EOC was operating on Pier 92 in Midtown over the Hudson River. A hastily set up family information center established at the National Guard Armory was replaced on Monday, September 17, with a completely functioning Family Assistance Center on Pier 94. The Federal Emergency Management Agency (FEMA) set up operations at the Jacob Javits Convention Center in Midtown, and other federal agencies took up residence on Pier 90. In the face of almost impossible odds, the New York Stock Exchange reopened the following Monday.

In the ensuing weeks and months, hundreds of government agencies, businesses, and nonprofit organizations engaged in the most concentrated and complicated urban emergency ever witnessed in the United States. Federal, state, local, and regional government agencies converged on Lower Manhattan. Businesses of every description volunteered people, material, and services. Charities and civic organizations launched a massive effort to assist the families of victims and the businesses devastated by the attack. Americans and people everywhere donated massive amounts of goods and about \$1.4 billion.

The immediate response gave way to a recovery effort aimed at finding and identifying the remains of victims and securing and clearing the WTC site, "Ground Zero." Assistance to bereaved families and damaged businesses remained high priorities. The clean up and restoration of electricity, water, telecommunications, and transportation services drew massive, collective efforts from public agencies, unions, and private contractors.

On May 30, 2002, a memorial ceremony officially ended the recovery effort, and plans for rebuilding the Trade Center site were under public debate. Most organizations returned to normal operations, but all carried with them the effects of what for most was an unprecedented challenge to their capabilities and ingenuity.

What does such an experience teach us as public officials, civic-minded individuals, and leaders of organizations? Can the experiences of coping with responding to the WTC attack prepare us better for an uncertain future? What kinds of information, decision-making tools, and policy frameworks will be effective in the immediate and longer-term aftermath of such events? What new knowledge and relationships strengthen our capacity to perform? Can our organizations build operational and support systems that are more robust and resilient? Can the lessons of the WTC response and recovery lead to better performing governments and stronger communities in normal times?

Research into what government agencies and related organizations did, and the role of information and IT in the events, provides valuable lessons for improving crisis response and emergency management and planning. Equally important, building the preparedness and interdependencies necessary for effective emergency response also generates human, organizational, and technological resources that may well benefit government operations, business activity, and community life in normal times. A central part of that preparedness involves information and communication resources. This report therefore covers seven topics.

- Information needs associated with the event and the response and recovery efforts
- The availability, quality, use, and management of information resources
- The nature, strengths, and weaknesses of information technology
- The role and effectiveness of existing plans, programs, and relationships
- Information policy issues

Introduction

- Methods and effectiveness of communications with the public
- Recommendations and prospects for long-term improvements in government and community resilience and performance