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EMERGENCE IN SALT LAKE CITY:  
SOME OBSERVATIONS

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What follows are some impressions derived from field observations and does not involve a systematic analysis of the data obtained by the DRC field teams in several visits to the city.

It is difficult to decide whether any classic group emergence occurred in Salt Lake City (SLC). What emergence did occur can probably be best classified as abstract task emergence. Groundwork had been laid for many organizational structures to respond to the flood. The flood was anticipated; it did exceed expectations, however. More city employees worked overtime than was expected, and more volunteers were recruited. A surprising number of city departments and voluntary/church organizations had either formal/informal disaster plans including at least some division of labor and responsibility assignment.

The SLC/County EOC has drawn up a flood/disaster plan and held briefings with various departments about the flood. The situation was under control until City Canyon Creek began to flood. At this point it was determined that State Street would be turned into a canal. City engineers surveyed and approved the idea; street crews began to sandbag with hundreds of volunteers. This was not a new idea, as it had been done in previous floods. The EOC also reported having pre-planned inter-organizational meetings with voluntary groups (Red Cross, Salvation Army) and the Latter Day Saints (LDS) church.

A volunteer network exists in the structure of the LDS Church where members are easily recruited to flood fight. The Church was active in previous flood fighting. LDS representatives suggest that members were probably contacted by county employees who hold various positions in the church. Previous contact, however, had been made with SLC emergency management personnel. An adhoc committee on world-wide disasters exists informally in LDS and had been in contact with SLC officials. Due to the high percentage of LDS members living in the area, a high proportion of sandbag/clean-up volunteers were from the Church. Volunteers brought their own shovels and clothes; a women's church organization provided food. The LDS Church has also assisted in the clean-up including provision of items through their self-help program.

Red Cross and Salvation Army provided their usual community services. The Salvation Army canteens were located at various places including the county complex, 24 hours a day for about one month. Among their services were blankets, clothing, furniture and food items. Salvation Army worked in cooperation with Flood Control, Red Cross, Jaycees, and their Women's Auxiliary Shop. Red Cross stated that they worked cooperatively with many organizations, most notably LDS. Some problems were encountered when trying to work with the community but the problems were ironed out. One of the first things to do in a SLC disaster, according to RC, is to call the LDS Church.

Public Works personnel, however, neglected to mention the LDS Church. This city department has a carefully laid out flood control plan. They were able to follow their plan. The key to their success, they claimed, was centralized planning with decentralized execution. In other words, supervisors were permitted to make decisions in the field regarding flood control during the emergency.

County Flood Control also claims to have been well-prepared for the Flood. They had put flood mitigation plans into effect up to a year before the flood. A blackboard in one office bore the motto, "The Water Stops Here", and Flood Control has spent time developing ways to monitor creeks and tributaries and to keep streams clear of debris. The County had bought 1.6 million sandbags and launched media efforts to inform citizens of ways

to protect their homes. Over the years a great amount of money has been spent in mitigation. Inter-organizational coordination occurs regularly with the National Weather Service, U. S. Forestry Service, Army Corps of Engineers, Associated General Contractors and County Planners. No emergence was indicated in any of these organizations. What I can say is that the flood surpassed everyone's expectations and departments were forced to expand their flood fighting efforts.

#### CITY COMMAND CENTER EMERGENCE

The Salt Lake City Command Center (CC) is the primary location for all administrative activities during emergency occurrences. In the event of an emergency of such magnitude that all city agencies and resources must be mobilized (a level three emergency) the CC is activated.

The CC is located in the Hall of Justice Building where the City Police have their headquarters. The Chief of Police's Office on the fifth floor is converted for use as the main communication and operations point.

NOTE: The City Command Center was referred to by different names through the course of our research; i.e. "Command Post", "City Emergency Operation Center", etc. The general consensus was "City Command Center" (CC), however, and will be used in this report.

At another location within the building, space is provided for media personnel. They are briefed at this location and emergency news conferences originate from there. Living accommodations are available to CC personnel on the fifth floor should the emergency require prolonged CC staffing.

The CC is staffed by a pre-designated group of city officials and employees. The CC personnel can be assigned within a structure having two components.

The first component is the Emergency Planning Board (EPB). The EPB is comprised of the City's two executives. The Mayor services the role of political decision maker, but the City's Chief Administration Officer chairs the EPB and is the primary authority at CC.

The other fourteen positions on the EPB are held by members of the various city departments, however department heads fill the majority of these positions. The board is responsible for orientation of city efforts during emergency occurrences.

The second component of the Command Center is the support staff. These are appointed members of city departments who serve as liaison among their department and the other departments at the CC. They also function as links between the members of the EPB and their personnel in the field.

The Command Center was opened on May 26, at 7:00 p.m. following the Mayor's State of Emergency (level three emergency). The CC coordinated the City activity, extended to construct the diking system along 13 south.

Information as far as conditions and needs were collected by various members of city departments and radioed or phoned back to the CC. The CC would analyse the information and direct resources toward the problem area.

Shortly after the completion of the 13 south structure, the flow of City Creek required further CC decisions. The State Street Canal brought about further mobilization of city resources by the CC.

The CC monitored authority of emergency procedures following the State Street Canal construction where the clean-up activities began. The major events after the State Street Canal Structure focused around repair of the storm system or dislodging of debris.

On Friday, June 10 with the stream flow well below a problem level and general clean-up of emergency structures planned, the CC closed its operation.

#### EMERGENCY

The task of the CC remained the same throughout the emergency that faced Salt Lake. Coordination and direction of the City's emergency response efforts began and ended as the primary responsibility of the CC.

Structure within the command center did, however, experience alternation as the emergency progressed. The technical nature of many of the problems that forced the City over the two week period specified professional knowledge for their resolution. The knowledge of hydraulics and other engineering areas was not distributed widely through the ranks of city personnel. The specific knowledge that the problems required was not necessarily possessed by members represented within the formal pre-designated structure of the CC. The need for specific technical knowledge to solve problems led to the emergence of an ephemeral informal structure within the command center.

Emergency procedures were desperate attempts to protect property and lives. Time was seen as a valuable and declining resource in the struggle. The situation demanded quick analysis and action to insure conservation of time and property. As the success of the emergency activities proved to depend upon technical decisions, the CC operations officer gathered experts from different departments of the City. They were at different authority levels within their respective departments. This new group in effect usurped the task and authority of the emergency planning board for taking part in CC decisions. The Operations Officer continued to rely upon this group for information and options throughout the emergency. Their emergence was a result of the desperate nature of the incident, thus the need to conserve time; and the technical nature of the problems presented; thus the need for specific knowledge.

As a result of a City wide critique of the Emergency Operations, new disaster contingency plans have been mandated. These plans will deal specifically with individual hazards. The structure of the CC will remain generally the same but the personnel will vary. Who will be a member of the Emergency Planning Board will depend upon the agent the city is faced with and how the employee's skill relates to that agent. The Board will be comprised of one set of people for chemical spills and possibly a different set for earthquakes. In this way the informal group of technical experts

which formalized and amalgamated with the previous structure of the Command Center.

#### SALT LAKE CITY ENGINEERING DEPARTMENT (SLCED)

The SLCED is staffed by engineers with expertise in different areas. Normally, they operate in areas that are dictated by their expertise. When SLC declared a general emergency, however, operation boundaries were discounted.

All of the emergency construction required professional design, assembly, and quality control. The engineers worked around the clock on I3 south and other areas where problems occurred.

Their tasks were different with respect to the context in which they were completed. Their structure changed because of the prolonged field work. The I3 south construction was divided into sections. Each section was controlled by an engineer who oversaw construction. The engineer would mark poles and sign posts to signify the proper height for the structure. Strength and quality was checked. After construction engineers inspected and directed repair efforts as the structure was filled with water. Supervisors and underlings shared levels of responsibility. Technical decisions were made without consultation of supervisors. The lines of authority were obscured by the demands of the emergency.

#### CITY COUNCIL OF SALT LAKE CITY

City Council continued their regular meeting schedule throughout the flooding period. In addition, three emergency meetings and one special meeting was held where flood considerations were addressed. These were financial considerations with emergency deficit spending a major topic.

There are no indications that City Council altered its structure or tasks during the emergency. By plan they are not represented at the Command Center and therefore have no direct influence upon emergency operations. However, their budgetary decisions will affect recovery and future emergency operations of SLC.

Members of council were quite active in their home districts. They have prepared for and experienced flooding before. Some were instrumental in coordinating parts of the volunteer effort. This represents an administrative link between the City and the LDS Church.

#### SALT LAKE CITY PURCHASING DEPARTMENT

The nature of the May/June flooding caused unusual demands to be placed upon the Purchasing Department.

Employees for the Department under the directives of the CC searched and acquired unusual equipment, supplies, and over one million sandbags. Their efforts were complicated by the scarcity of the required items due to region wide flooding.

Members of the Department make up a portion of the support staff at the CC. Their first overwhelming request from the CC was for sandbags. The cities stock of 20,000 was quickly depleted and very few were available in the area. Large numbers were located in California and Idaho. These were purchased and flown in by Utah Air National Guard Aircraft.

The normal procedure for purchasing became too inefficient and especially time consuming. An emergency procedure was instituted to insure future payment by the City. Emphasis was shifted from accountability and thrift to speed and reliability of acquisition. Formal bidding was suspended.

Purchasing was asked to deliver unusual items which they had little experience in locating. For those items they relied on informal contacts. Information was sought from professionals and knowledgeable people in the different fields of interest.

The department operated for twenty-four hours during emergency. Some employees remaining at their desks for days at a time.

Tasks in a general sense remained the same for the department. Departmental structure aid did not undergo any obvious changes. Nature and conflict of tasks were greatly altered, however.

#### SALT LAKE CITY FIRE DEPARTMENT (SLCFD)

The SLCFD played four major roles during the 1983 flooding. The first was their routine role of safety and fire protection. Their second role was that of information collection for the City Command Center (CC). Their third role was organizational during the State Street sandbagging effort. The fourth role was in State Street clean-up.

The responsibility for the fire protection of SLC was maintained by the SLCFD without interruption from the flood emergency. The emergency construction aid blocked normal routes of travel for the fire department. This necessitated realignment of fire station boundaries. Some stations lost responsibilities for sections where access for them was restricted by the State Street or 13 south construction. These restricted areas were given to stations with better access. The lack of major fire incidents and reduction of emergency medical calls prevented any station from being over stressed by demand.

Information about flood conditions were relayed from the field level back to the CC. Reports from citizens that came into different fire stations were relayed back to the Command Center, and the stations were accessed by the CC to verify information they had received. In the early flooding of City Creek at Memory Grove Fire Station #1 received reports from citizens of street flooding. The report was checked and flooding was varified. Fire personnel at the scene reported back to the CC and requested sandbags. At the scene fire workers laid sandbags along with local residents to prevent property damage. This exhibits an explanation of tasks for the fire department. Collection of information which is not related to normal fire fighting activities is unusual for fire personnel as is collecting it for the CC. Laying sandbags is also unusual but is an explanation of their general safety responsibility.

As the City Creek Flooding became more problematic the decision to build the State Street Canal was made. To organize this massive undertaking of sandbags and volunteers, fire equipment was stationed at each intersection along the proposed route. Sandbags and sand were delivered near the vehicles and volunteers were directed to fill while others placed the sandbags according to city engineer plans. Because on the scene observation would be required to delineate specific activities and division of labor particulars it appears from interviews and reports that the fire personnel were not in leadership roles vis a vis the volunteers. At a No. Temple location a city engineer reported that actual leadership of volunteers continued along pre-emergency structures. LDS leaders shouted direct orders to volunteers as a result of information city professionals would pass to them. The State Street Canal would not require complicated guidance of volunteers. The abundance of volunteers did not demand decisions which would protect against wasting the human resource. Once bags were laid the pattern could be followed mechanically and only the decision of when to stop stacking would be required. Therefore, it appears that fire personnel aided in organization of the effort by their mere presence and contributed labor more than functional decision making.

Fire personnel were well represented among the city volunteers who cleaned up State Street. They operated fire hoses and brooms to wash away debris from the street. This is a new task with respect to the context of the emergency. No change in fire department structure was facilitated by the clean-up.

#### SALT LAKE CITY POLICE DEPARTMENT (SLCPD)

The SLCPD took part in no type four emergency during the 1983 flood incident. Their normal emergency tasks of security for the Command Center (located in the police complex), traffic control, and security for any evacuated areas were undertaken. The magnitude of the emergency and the nature of mitigation measures (sandbagging) caused the Police Department to pursue their tasks in unusual time frames and environments.

Emergency construction of the 13 south and State Street structures required re-routing of traffic and special security for areas that became isolated by altered streets. As is the case for level three emergencies, police personnel were placed on 12-hour shifts and all leaves were suspended. Thirteen south construction was undertaken Thursday night. This meant that Friday business traffic had to be re-routed and controlled so the emergency construction would not be slowed. This was accomplished without altering significantly the normal business activities of the citizenry.

It was reported that many officers worked passed their shifts and volunteered while off duty if the emergency at hand indicated more human power needs.

The major part of clean-up activities were undertaken by city workers who were given the opportunity to volunteer for the effort. These employees were paid their regular wage plus overtime. The majority of workers had worked forty hours before the clean-up began on Saturday morning (6/11) which meant they were rewarded with time plus one-half wages for their volunteer efforts.

Police personnel were well represented in the clean-up effort from observations made at the scene. The city volunteers were asked to sign-in at the City Personnel Office before beginning the clean-up. The volunteers signed out when they wished or in some cases worked until the clean-up was completed late Sunday evening. The workers were payed according to this informal procedure.

Overall, the Police Department experienced no structural emergence. Tasks were altered mainly by magnitude and duration but fell within pre-defined responsibility guidelines. A general reduction in crime was experienced permitting more human resources to be concentrated upon the flooding emergency.

Because of their twenty-four hour schedule, the police personnel in the field served as valuable sources of information for the Command Center. Conditions of rising water were reported to the CC, during routine police patrols. This improved the decision marking power of the CC.

#### SALT LAKE CITY WATER DEPARTMENT (SLCWD)

The SLCWD is responsible for water flow projections from creeks which affect SLC drainage systems. Their activities became more critical as the impact continues the SLCWD is responsible for surveying snow pack and soil moisture content through the winter and spring. Their tasks did not change only in magnitude and importance. No change in structure was indicated during the May/June flooding.

#### AIRPORT AND PARKS DEPARTMENTS

As defined by a level three emergency, all city resources are mobilized for the work at hand. The airport and parks departments contributed personnel and equipment during the flooding. They were used for any task which the Command Center felt they were suited. In this respect, their tasks changed, however, their basic structure remained the same.

The Parks Department tree trimming unit was used to cut trees that might be swept away by City Creek. Debris on the creek had resulted in a number of blocked conaults so this was a preventive measure. General park maintenance was curtailed during the emergency.