BUSINESS RESUMPTION PLANNING:
EXERCISING YOUR EMERGENCY RESPONSE TEAMS

Disaster simulation exercises are used to test the staffing, management, and decision making aspects of both the computer and non-computer related aspects of an organization's business resumption plans. A proven approach to designing and conducting these simulation exercises is presented, including the full script of an actual simulation exercise. A film of the exercise is available.

Paul H. Rosenthal
School of Business & Economics
California State University, Los Angeles

and

Barry Himel
Corporate Security Department
Security Pacific Corporation

* * * * *

During the 1980s, contingency planning has evolved from data center backup planning, to business resumption planning (BRP). Business resumption planning involves arranging for emergency operations and recovery planning. A BRP is required for all of an organization's information systems related functions and non-computer related business units. However, unless these BRPs are tested periodically, they seldom are operationally usable. Plans that were initially operationally viable become obsolete very quickly unless periodic tests force every department and work group to maintain off-site: up-to-date contact lists; files and processing resources; communications resources; and current programs, procedures, and forms.
FUNCTIONS OF OPERATIONAL & SIMULATION TESTING

There are two primary activities involved in testing a BRP:

- Operational Testing
  Performing critical computer and non-computer related tasks using backup resources and facilities.

- Simulation Testing
  Stepping through the notification, activation, emergency operations, and recovery phases of a BRP based on a typical disaster.

The methodologies for operational testing are well known. Organizations with available backup resources, normally adequately test their emergency operations capability. However, the use of simulation for testing the managerial aspects of their BRPs is rare, and the methods for planning and conducting such simulations are poorly understood. This paper, therefore, presents a methodology for BRP simulation that has been used in numerous simulations conducted in the Los Angeles basin. In addition to the methodology, a full script is included from a recent exercise.

BUSINESS RESUMPTION PLANNING (BRP) LIFE CYCLE

Rothberg [7] defines disaster planning as "...any event that causes significant disruption to operations, thereby threatening the business' survival." Business Resumption Planning (BRP), the newest term for such planning, can be conceptually divided into three major phases: prevention, planning, and testing. Table I lists the major life cycle tasks needed to protect against such disasters. Exercising the Emergency Response Teams (ERT), the subject of this paper, is the next to last step in the BRP life cycle.

An excellent example of a BRP for a university data center can be found in Rohde and Haskett [6]. They, as do most other authors, stop short of the testing phase. Without both periodic operational testing (performing critical business functions using backup resources) and simulation testing (exercising the decision making portions of the plan), a plan quickly becomes unusable.

Phase I- Prevention

The first steps in a BRP program, is to determine the extent of exposure to a disaster, and then to minimize the probability of a disaster occurring. The initial function of a BRP program must be to obtain the substantial funding that is required. This requires selling the Board of Directors on the reality of a disaster occurring and the impact on the survivability of the organization.

According to Yetter [8], an inadequate understanding of potential threats and their impacts is often the weak link in many disaster security and recovery programs. His paper is an excellent presentation of the quantitative approach to threat evaluation. The results of such a quantitative
study attempt to rate the potential severity of each hazard as a guide for prevention and recovery spending.

The detailed quantitative approach to risk analysis is popular with government and large industrial firms with major consulting budgets. The board of directors of most firms however, respond better to a fiduciary responsibility analysis. A list of risks to which the firm's facilities and personnel is exposed is presented and a case study approach is used to demonstrate their realistic risk exposure. Estimates are made of the financial impact of a loss in resource capability on various business functions, both computer related and non-computer related. When the impacts include financial or service level losses that can effect the firms survival, then the board members fiduciary responsibility requires a prudent level of protection and recoverability. Funding for an adequate BRP is then made available, often as a priority project.

Physical security planning primarily involves access controls, fire and water protection, earthquake and storm hardening, and critical records security. Most firms have a physical security program in place encompassing these areas prior to the implementation of a BRP program. The second step in the BRP is therefore simply an assessment of the program, and improvement if necessary. The authors find that the critical records area, particularly for non-computerized files, are normally the major weak point.

Data security and protection programs are not as wide spread as physical security programs. Few firms have high quality data oriented security programs involving off-site backup of all critical records, particularly in the personal computer and non-financial/personnel manual records areas. A major effort in this area is therefore frequently needed.

Phase II- Planning

The disaster planning process outlined in Table I is often initiated by the data center, after it implements applications critical to the day-to-day operations of the organization. The data processing oriented disaster planning presentation to the board often alerts them to the risk presented by the non-computerized portions of the firms operations. As discussed in Orr [5], a total business recovery planning effort is initiated. An overview of the BRP process can be found in McNurlin and Sprague [4], Friedman [2], and Janulaitis [3] as well as in numerous books and articles.

Phase III- Testing

Few organizations test the complete disaster recovery cycle of: activation, life-safety, damage assessment, mobilization, emergency operations using off-site files and backup resources, and recovery planning. Only the data processing emergency operations area can be tested without involving a substantial number of persons during business hours. The scope of most operational tests therefore, include: a semi-annual off-hour call to the head of data center operations, assembly of the backup site operations team, acquisition of backup materials from an off-site location, travel to a backup hot/cold site, installation of systems and applications software, loading production data, and systems test of several critical applications.
Simulation testing of the decision making aspects of all the management oriented disaster recovery activities is the most feasible approach. Over the last decade, the use of simulation exercises for BRP has been slowly spreading. Unlike their counterpart, military war games that use computer driven scenarios to perform very realistic exercises, BRP exercises are paper and pencil simulations. Teams are placed at tables representing their backup locations, and the description of an evolving disaster is presented. The teams communicate using backup communication resources or forms, make decisions, and everyone pretends that what is decided actually happens. Debriefings and evaluation studies follow in order to correct any flaws in the BRP. Such simulation exercises are very successful in that they force personnel to learn the BRP while working together, and finding flaws and inconsistencies in policies and plans.

**FUNCTIONS OF BRP TEAMS**

Most organizations with mature disaster continuity plans have a three tier BRP organization structure (for an example see Coleman [1]), including:

- **Top tier-** Policy Group
- **Second tier-** Disaster Management Team (DMT)
- **Third tier-** Emergency Response Teams (ERT)

The top tier Policy Group consists of upper-level executives who are available for approving major DMT decisions involving customer service impact, major expenditures or major potential liabilities. For example, after the Bay Area earthquake a major bank opened their branches the next day without power and full cleanup and repairs. The ability to provide much needed cash to customers was deemed more important than the potential for accidents or robberies.

The middle tier DMT includes representatives of key departments and functions involved in life-safety and BRP. The chair of the DMT, and therefore the coordinator of the organization’s Emergency Operations Center (EOC), should be an extremely knowledgeable peer of the other members of the DMT. The chair should not however, be associated with any ERT. The chair is frequently the supervisor of the Project Head, Business Continuity Planning.

The third tier is comprised of a large number of Emergency Response Teams (ERT). For example, the data processing area might have specialized logistics, backup data center operations, network operations, and user support ERTs. The safety area might include a dozen or more ERTs with first aid and evacuation responsibilities, each headed by a floor warden. The remainder of this paper discusses the planning of simulation tests for these types of Emergency Response Teams.

**DESIGNING A DISASTER SCENARIO**

A scenario for use in simulation testing of a BRP must fulfill several objectives.

- **Objective I-** Be solvable for a majority of the business functions participating, using existing plans and backup resources.
Except under very unusual political conditions, a major failure during a simulation test is not a suitable motivator for improvement in disaster planning, or for acquiring additional funding for backup resources. A mostly positive experience however, appears to be a powerful motivator to obtain additional funding to complete planning and backup resource acquisition. In fact, the scheduling of a simulation is often the easiest way to motivate organizations to update their staffing and contact lists.

Proper planning of a scenario includes the review of each participating organization's BRP to determine if they can perform emergency operations at an acceptable level. If they cannot, a discussion with top management is appropriate, and warnings to the deficient organization's management is always proper (e.g., there should be no major surprises or disappointments).

Objective II- Represent a realistic risk.

A fire, flood, earthquake (in California), or bomb is normally the basis for a scenario. A detailed knowledge of the buildings, area, and emergency services involved is always necessary. The disaster and its effects over several days or weeks has to be described, so that the participation of facility and security personnel is required.

Objective III- Capable of being partitioned into practical time steps.

Simulation exercises with four to six time steps are the most practical. Each time step must meet the following criteria:

a) The external and internal environment should change in terms of both the evolution of the events causing the disaster, and in terms of emergency and recovery efforts (e.g., new information given to participants and new actions required).

b) Each team should have some significant action they must accomplish (e.g., a decision, announcement, report to management).

c) Time allowed for the time step should be sufficient but not generous (normally 30-60 minutes).

The period simulated becomes longer with each time step in the simulation. The simulations performed to date indicate that the initial period simulated is often one to four hours, while the final period simulated is often several days to a week.

Objective IV- Be self documenting

Messages and plans produced during the simulation exercise should be rigidly formatted and documented, so that there is a detailed record of all events and actions. This documentation, together with the umpires and evaluators check lists, is necessary for later analysis.
SAMPLE SIMULATION EXERCISE SCENARIO

The sample simulation exercise scenario is real. It was used for a major exercise, during early 1990, by a subsidiary of Security Pacific Corporation (SPC). The names have been deleted, however, to protect the guilty.

The exercise involved seven departmental teams plus a disaster management team staffed by executive management and public relations personnel. The average team size was 10 persons.

Exercise Introduction

Exhibit 1 contains the script used to start the exercise. The team members on arrival at the exercise site were directed to conference rooms representing their disaster assembly sites. The SPC emergency radio system was used for this and all subsequent announcements using radios assigned to key personnel. Spare radios were available for those teams without them.

The Exhibit 2 script explains the various roles of the persons managing the simulation. The exercise control group contained persons involved in planning and running the simulation. They read the script over the emergency radio system, determined when to move to the next simulation period, and administered the movement and collection of paperwork.

The umpires and evaluators mentioned in the Exhibit 2 script were requested to attend a fake meeting late on the day before the simulation. They were briefed on the scenario, the most likely good and poor responses, and on their duties during the simulation.

Exhibit 3 presents the form used by participants to document all messages, both verbal and written. Runners circulated the copies to appropriate teams several times during each scenario period.

Scenario 1

Exhibit 4 contains the script used to present the disaster from whose impacts the participants must resume company operations. This type of earthquake scenario has been used several times. In addition, fires, floods and bomb threats have been successfully used as disaster scenarios.

The hour period announced for the first scenario is quite long. Experience has shown that teams require an extended period to: settle into problem solving mode, organize based on those persons who are actually present, and produce an initial activation plan responsive to the scenario.

Exhibits 5 and 6 present the forms used to structure the teams' activation plans. The use of this type of form for each scenario stage is a recent development. They have proved valuable in speeding team responses, and are extremely useful during evaluation of the simulation exercise. Several copies of Exhibit 5 and 6 were given to each team with the sample scenario summary shown in Exhibit 7. The summary is to reduce the number of questions asked of the umpires and
exercise control group. Substantial data is presented rapidly over the radio link, and many participants need the crib notes included in the summary.

The umpires' primary role is to evaluate each team's operations and products. Exhibit 8 presents the scenario 1 umpire's checklist used to structure and speed the evaluation. A similar checklist was used for each scenario period.

The umpires' report when their team is ready for broadcasting their report to the management team. When most of the teams are ready, the control group requests the reports in some type of logical order.

**Scenario 2**

Exhibit 9 contains the script for scenario 2. This is a particularly critical step in the teams' planning. They must forecast when travel and utility services might be available and determine how to be in operation on Monday using backup resources. Exhibit 10 presents the form used to guide the short term planning. Teams will usually take the entire 45 minutes, with several utilizing almost a full hour due to the feasibility of multiple emergency operations options.

**Scenario 3**

Exhibit 11 contains the script for scenario 3. By the third period the teams are normally working together efficiently. This efficiency, coupled with good environmental knowledge, permits the teams to finish well within the allocated 45 minute period. The teams also began to consume the refreshments provided in each room.

Exhibit 12 presents the long term planning form used by the teams. While completing these forms, radio communications between the teams are heavy used and jokes appear for the first time. The broadcasts closing the simulation period are usually comprehensive and often fill the last 20 minutes of the period.

**Scenario 4**

Exhibit 13 contains the script for scenario 4. Exhibit 14 presents the form used to guide restoration planning. The discussions during this period involve when to attempt the transfer of people and data from backup sites to their normal sites. The facility restorations scheduled for Wednesday occupancy should include a major data center, so that a weekend transfer is seriously considered, if not selected.

**Debriefing Session**

Exhibit 15 contains the script used to announce lunch and the debriefing session. During this simulation exercise, lunch was served in the cafeteria. However, at most prior exercises, box lunches were provided for consumption in their work groups. The debriefing was scheduled for
1:00 p.m. in an assembly hall large enough to hold the 75-150 persons usually participating and observing the exercise.

Exhibit 16 presents a checklist which the evaluators used during the exercises. During lunch they were asked to summarize their multiple copies of the form (a dozen is not unusual) into a single form for presentation.

The head of the management team usually kicks off the debriefing, followed by representatives of each operations' team. The evaluators were then asked for 2-3 minute summaries of their impressions.

One of the authors then closes the session with a pep talk and comment, "See you next year," delivered to moans of exhaustion.

EVALUATING THE SIMULATION

The end of the simulation marks the beginning of some of the most important and detailed work performed by the members of the Exercise Control Team and the paper's authors. In order to evaluate the performance of each team, we must read and collate the hundred or so sheets of illegible paper created during the simulation. The evaluation group:

- produces an executive level letter presenting an overview of each team's performance, a summary of recommended improvements, and a statement of each team's level of preparation.
- produces for each team or business function, details on their performance and recommendations for improvements. When feasible, a summary is prepared analyzing the level of preparation and protection for each business activity involved in the simulation.
- conducts briefings with the management of the various business functions involved in the simulation to discuss their levels of preparation and protection.

The evaluation group then spends the following year monitoring the commitments made during the briefings, preparing for the next year's simulation, and preparing disaster simulation exercises for other organizations and subsidiaries.
REFERENCES


<table>
<thead>
<tr>
<th>I. Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Threat Analysis</td>
</tr>
<tr>
<td>- Physical Security &amp; Protection Program</td>
</tr>
<tr>
<td>- Data Security &amp; Protection Program</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Critical Function/Application Analysis</td>
</tr>
<tr>
<td>- Design of Normal &amp; Emergency Processing</td>
</tr>
<tr>
<td>Architectures for:</td>
</tr>
<tr>
<td>.. computer &amp; telecommunications</td>
</tr>
<tr>
<td>.. manual processing and record storage</td>
</tr>
<tr>
<td>- Obtain Backup Resources for:</td>
</tr>
<tr>
<td>.. off-site storage</td>
</tr>
<tr>
<td>.. computer processing</td>
</tr>
<tr>
<td>.. manual processing</td>
</tr>
<tr>
<td>.. data and voice communications</td>
</tr>
<tr>
<td>.. management control</td>
</tr>
<tr>
<td>- Arrange Disaster Response Team Staffing for:</td>
</tr>
<tr>
<td>.. damage assessment and recovery planning</td>
</tr>
<tr>
<td>.. emergency operations</td>
</tr>
<tr>
<td>.. disaster response management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Operations Testing</td>
</tr>
<tr>
<td>.. computer processing based applications</td>
</tr>
<tr>
<td>.. manual processing based applications</td>
</tr>
<tr>
<td>- Simulation Testing</td>
</tr>
<tr>
<td>.. emergency response teams</td>
</tr>
<tr>
<td>.. disaster management team</td>
</tr>
</tbody>
</table>
EXHIBIT 1: Introductory Script

Actual Time:  8:15 a.m.

"We are all here today to play out a disaster simulation. The objective of this exercise is to evaluate the viability of our firm's contingency plans. Specifically, the exercise is focused on the following:

! Identify vital functions and applications in priority order, as they affect our functioning.

! Evaluate the logistical considerations of relocating to backup sites, and evaluate the operational capacities of those backup sites for performing recovery activities.

! Determine the preparedness of Action Teams.

! Evaluate the viability of currently established recovery procedures as documented in the respective contingency plans.

! Identify the resources vital to the implementation of recovery activities.

Although the Simulation Exercise has been carefully planned, there are many variables and unanticipated responses and results which may occur. Please recognize that these are common occurrences in a simulation exercise.

"Mr. XXXXXX, COO and Managing Director has been kind enough to begin the day by providing us with some introductory comments.
EXHIBIT 2: Participants Introduction

"I will now introduce to you the staff members comprising the Exercise Control group, the Umpires, invited guests, and participants."

The Exercise Control Group will present the rules and assumptions for the simulation and outline the disaster scenario. This group will also administer the exercise as it proceeds throughout the day.

XXXXXX, Exercise Coordinator
XXXXXX, Exercise Team Member

The Umpires will coordinate communications among the contingency operations teams. Written communications must be delivered and signed off by an Umpire. All communications outside your group must be recorded on the Simulation Exercise Message form (radio, telephone, etc.). The Umpires include:

XXXXXX

The Evaluators will observe the actions and decisions of the contingency operations teams and evaluate how effectively the exercise proves to be in meeting the initial objectives. The Evaluators will include:

XXXXXX

Invited Guests include:

XXXXXX

The narrators are:

XXXXXX

The members of the contingency management team attending today include:

XXXXXX, COO & Managing Director, Key Speaker
XXXXXX, CFO & Managing Director
XXXXXX, Managing Director, Public Relations
XXXXXX, Senior Marketing Representative
XXXXXX, Senior Strategic Planning Representative
XXXXXX, Senior Corporate Trust Marketing Representative
XXXXXX, Senior Human Resources Representative
"Located on each table is a floor plan identifying the room in which each contingency operations team will be operating. (Please remember that these rooms represent your initial assembly sites.)

"All communication with the media must be passed through the Public Relations member of the Contingency Management Team. Questions related to how the exercise is being administered may be directed to the members of the Exercise Control Group or to the Umpires. However, please be advised that time is of the essence.

"The following people are not available (due to injury, out of state/country travel, or inability to communicate with their backup site):

XXXXXX

Instructions for this exercise will be given over the SPC Emergency Radio System. An SPC radio is located in each working room. Please use the SPC Emergency Radio System, or any other communications resources, as they become available, throughout the course of the simulation exercise.

"Please report to your simulated initial assembly sites."
Exhibit 3: Message Form

A pad of three part forms (originator, Recipient and Evaluator copies) for each location.
At 6:30 a.m., Thursday, March 15, 1990, a major earthquake occurred. The epicenter of the tremor originated north of San Bernardino from the San Andrea's Fault Line and radiated outward reaching into the metropolitan Los Angeles, San Fernando Valley, San Gabriel Valley, and Orange County areas.

An initial news report outlined the scene. From radio station KFWB 98, the following report was transmitted:

"Initial estimates from Cal Tech rate the earthquake magnitude within a range of 7.9 to 8.3. An aerial report of the metropolitan downtown area at 7:30 a.m., describes the freeways and surface streets as having significantly lighter traffic than is usual at this time of the morning. It appears that because the earthquake struck at an early hour, most people either returned home, or simply decided to stay home.

"Surface streets adjacent to high rise buildings in the San Fernando Valley, Los Angeles, San Gabriel Valley, Glendale, Pasadena, Burbank and Orange County are littered with fallen debris and glass. All access routes into downtown Los Angeles have been closed off by emergency response teams from the Police, Sheriff, and Fire Departments.

"To enter any of the closed off areas, individuals must show proof of residency, or a California Earthquake Identification Card. Subject to search, individuals will be allowed to leave the impacted areas. All individuals will be denied access to high rise buildings until evaluations of structural condition are made by building engineers."

"Southern Orange County and Northern San Diego County have been quarantined due to a possible radiation leak of the San Onofre Nuclear Power Plant. Interstate 5 is therefore closed."

Several minutes later, the following emergency radio transmission was heard:

"Sheriff Block requests that individuals planning to come into the downtown Los Angeles, Glendale, Pasadena, and Costa Mesa areas stay out of the said area until the authorized emergency response teams have completed their duties, and the structural soundness of the buildings has been established."
Personnel located in the downtown Los Angeles, Glendale, Pasadena, and Costa Mesa buildings hear the following Office of the Building public address announcement:

"Personnel in high rise buildings are requested to remain inside and when it is deemed safe, report to your assembly site."

Starting at approximately 8:30 a.m., Executive Management personnel were picked up from the Headquarters building and special assembly sites and airlifted to the Executive Command Center at the Arizona Operations Center.

It is now 10:00 a.m., Thursday, March 15, 1990, staff members assigned to disaster recovery teams have finished checking on family members and the structural soundness of their homes. They are beginning to make their way to their respective assembly sites.

The emergency radio system has provided the following information:

"The satellite & Emergency Radio Systems are up and operating. Our Satellite dish located at the Pasadena Command Center can now be used to relay radio messages outside our radio system coverage area."

The corporations Damage Assessment Teams report that maintenance and repair resources are extremely limited due to the fact that many businesses are starting to draw from the same resource pool. Maintenance resource companies from out of the area and from Northern California are being contacted to assist in restoration of our facilities.

The Corporate Damage Assessment teams have entered the following buildings and reported that everything is over-turned, computer hardware has moved across rooms, and therefore declared they are not accessible. Our Disaster Management Team has decided to activate contingency plans.

The Corporation's Southern California Operations Center is not operational and the Los Angeles Fedwire system inoperable.

Each team should now complete the function activation profiles (Handouts #1-A and #1-B). After completing the handouts, please broadcast your report via the Emergency Radio System to the Disaster Recovery Management Team. You have approximately an hour to complete these handouts.
### EXHIBIT 5: Scenario 1 Form A

**FUNCTION ACTIVATION PROFILE**

| DEPARTMENT: ____________________________ |          |          |
|_______________________________________|----------|----------|
| **FUNCTIONS TO BE ACTIVATED** | **CURRENT LOCATION** | **ALTERNATE LOCATION** |

**CRITICAL:**

Must be performed as close as possible to existing schedule.

**REQUIRED:**

Not necessary to maintain existing work schedules

**DEFERRABLE:**

Non-essential, can be delayed until other activities are restored
EXHIBIT 6: Scenario 1 Form B

FUNCTION ACTIVATION PROFILE

DEPARTMENT: ____________________

FUNCTION: _______________ STAFF: ___

BACKUP LOCATION: ____________
   LOCATION CHOICE:  O First  O Second  O Other
   DO YOU HAVE AN EMERGENCY PASS?  O Yes  O No

___________________________
DESCRIBE YOUR FACILITY.

___________________________
WHAT ARE YOUR ADDITIONAL RESOURCE REQUIREMENTS?

___________________________
OUTLINE INSTRUCTIONS TO YOUR STAFF,

___________________________
OUTLINE YOUR REPORT TO THE DISASTER RECOVERY MANAGEMENT TEAM.
Exhibit 7: SCENARIO 1 SUMMARY

SIMULATED TIME: 10:00 A.M.
THURSDAY, MARCH 15, 1990

! Earthquake Magnitude: 7.9 - 8.3

! Access Routes Into Downtown Los Angeles Closed Off

! Radiation Leak at San Onofre - Interstate 5 Closed

! Emergency Radio Network Transmitting

! California Bankers Clearing House Radio Network Transmitting

! The XXXXXX Offices are NOT Accessible

! S. C. Operations Center NOT Operational

! Fedwire System Inoperable

! Contingency Plans to be Activated
EXHIBIT 8: Typical Umpire Check List

UMPIRE CHECK LIST

DEPARTMENT: ______________________

UMPIRE: ______________________

TEAM INITIAL ORGANIZATION:  O Rapid  O Expected  O Slow
COMMENTS:

FUNCTION CRITICALITY & LOCATIONS:  O Rapid  O Expected  O Slow
COMMENTS:

FACILITY & RESOURCES:  O Rapid  O Expected  O Slow
COMMENTS:

STAFF INSTRUCTIONS:  O Rapid  O Expected  O Slow
COMMENTS:

DRMT REPORT:  O Rapid  O Expected  O Slow
COMMENTS:

GENERAL COMMENTS:
EXHIBIT 9: Scenario 2

Actual Time: 9:45 a.m.     Simulated Time: 4:00 p.m.
Thursday, 3/15/90

It is now 4:00 p.m. Thursday, March 15, 1990, approximately 10 hours since the 8.0 earthquake north west of San Bernardino. The San Bernardino valley area is severely damaged and most major highways and freeways are impassable for an extended period.

The Los Angeles basin is without utilities, and glass and other debris has made roads adjacent to high rise buildings impassable. The LA basin has been declared a disaster area and everyone but essential services personnel have been requested to stay at home until utility services are available at their home and their destination.

Most major highways and freeways are passable with very light traffic reported. Cal Trans has stated that all LA basin major streets and freeways will be open to traffic by mid-day Friday.

The Mayor's Emergency Commission has ordered all local airports closed except to incoming emergency personnel and supplies. A dusk to dawn curfew has been declared for LA county for all personnel without emergency services passes. Additionally, the police, sheriff, and national guard now arriving in force have stated that looters and others who do not STOP ON COMMAND will be shot. Curfew violators will be kept in temporary retention facilities until Monday at the earliest, and will be released only after paying their fine for breaking the curfew.

DWP, SC gas, and SC Edison have issued the following statement:

Crews are working around the clock to repair broken utility lines. As soon as a neighborhood has been found free of any leaks or broken power lines, utilities will be restored. It is anticipated that most areas of the LA basin will have utilities restored by Sunday, however some badly damaged areas on unstable soil may not have utility service until late Monday.

The mayor, using his emergency powers has directed all contracting and construction firms and personnel in the LA Basin to report to mobilization centers where they will be assigned to restoration work on critical health, safety, transportation, and utility facilities. The mayor stated that contractor personnel would most likely become available for private firms and families on Monday.

Corporate Damage Assessment Teams have briefly examined all major LA Basin facilities from the air, and report that no MAJOR structural damage is visible. However, the damage assessment teams reported that the XXXXXXX and YYYYYY buildings appear to have some visible structural damage and staff will be restricted from entering both buildings. There is extensive loss
of glass in all facilities. They are now making arrangements with out-of-area contractors to arrive for work on our major facilities by late Saturday to start cleanup and repair.

The offices still NOT accessible are:

XXXXXX

However, selected personnel with Emergency Passes and with suitable equipment (hard hats) will be permitted into the buildings under escort to remove vital records and tapes.

Los Angeles telephone land lines and cellular systems are operational but over-loaded. Emergency radio interconnect is available.

Executive management has issued a request for information regarding the status of all units as well as plans for emergency operations and recovery.

Produce a short term operations plan for Friday, Saturday and Sunday and create a watch list for the assembly site. Prepare any information your team feels is needed by public relations for announcements to our employees and the public.

You will have 45 minutes to complete this portion of the exercise.
EXHIBIT 10: Scenario 2 Form

SIMULATED TIME: 4:00 P.M.
THURSDAY, MARCH 15, 1990

SHORT TERM PLANNING

DEPARTMENT: __________________________

FUNCTION: _______________ STAFF: ___

ASSEMBLY LOCATION: ________________

______________________________
GIVEN THE PRELIMINARY CONDITIONS IN THE LA BASIN,
WHAT ARE YOUR OPERATIONS PLANS FOR FRIDAY AND THE WEEK-END?

______________________________
OUTLINE AN ANNOUNCEMENT TO THE PUBLIC RELATIONS OFFICER.
(Include Staff Instructions and Status/Plans).

______________________________
PRODUCE AN ANNOUNCEMENT USING THE EXERCISE MESSAGE FORM.

______________________________
PRODUCE A WATCH LIST.
It is now 8:00 a.m., Friday, March 16, 1990. Most of the disaster team members are now reporting to their respective assembly sites.

A representative from San Onofre Nuclear Facility advised the local authorities that the reported radiation leak has been contained and they are back on-line producing power. San Diego now is accessible via Interstate 5. Our Rancho Bernardo backup data center is now accessible from the South only.

Damage assessment teams have determined that the XXXXXX and YYYYYY buildings do have structural damage. We have hired out-of-area contractors to arrive for work by late Saturday. High rise areas are still full of glass and quarantined but information has been received that the Wells Fargo, Costa Mesa, and Beaudry buildings should be occupiable by early next week. A few banking offices in the impacted area have been secured and are open for business without power. Staff are still restricted from entering all buildings except under escort with Emergency Passes.

Freeways are amazingly empty and open. Therefore, vans will be made available at noon from Pasadena, Costa Mesa, and Glendale buildings for transporting personnel to our backup data center.

At this time all telephone land lines, except in the San Bernardino Valley, are operational. Power will be coming up over the week-end throughout the Los Angeles Basin.

The S. C. Operations Center is expected to reopen Saturday afternoon making the Fedwire System and Ready Teller (ATM System) available.

Taking all the updated information into consideration, please complete a long term operations plan for this week-end and next week. Outline your report to the Disaster Recovery Management team and broadcast via the Emergency Radio System. You will have 45 minutes to complete this plan.
EXHIBIT 12: Scenario 3 Form

SIMULATED TIME: 8:00 A.M.
FRIDAY, MARCH 16, 1990
LONG TERM PLANNING HANDOUT #4

DEPARTMENT: ________________________

FUNCTION: _______________ STAFF: ___

ASSEMBLY LOCATION: ________________

GIVEN THE CURRENT DAMAGE AND REPAIR ASSESSMENTS,
WHAT ARE YOUR OPERATIONS PLANS FOR THIS WEEK-END AND NEXT WEEK?

OUTLINE YOUR REPORT TO THE DISASTER RECOVERY MANAGEMENT TEAM.
(Include Staff Instructions and Status/Plans)

PRODUCE A REPORT TO THE DRMT USING THE SIMULATION MESSAGE
FORM AND BROADCAST VIA THE EMERGENCY RADIO SYSTEM.
___
EXHIBIT 13: Scenario 4

Actual Time: 11:15 a.m. Simulated Time: 8:00 A.M. MONDAY
3/19/90

Power is now completely restored throughout the Los Angeles Basin though the San Bernardino Valley is still inaccessible. All our major buildings are now operational except for XXXXXX and YYYYYY. Designated staff are requested to report to these buildings. The XXXXXX and YYYYYY will be available for full staffing Wednesday a.m. A management communique received states that all facilities in Southern California will be fully operational by Wednesday, March 21st.

During this period, you should complete your recovery plans and make an outline of the report to be made to Executive Management itemizing recovery actions and plans for returning to normal operations.

You will have 30 minutes to complete this portion of the exercise.
EXHIBIT 14: Scenario 4 Form

______________________________

SIMULATED TIME:  8:00 A.M.
MONDAY, MARCH 19, 1990

RECOVERY PLANNING                HANDOUT #5

DEPARTMENT:_____________________

FUNCTION:____________________   STAFF:____

ASSEMBLY LOCATION:_________________

WHAT ARE YOUR PLANS FOR RETURNING TO NORMAL OPERATIONS?
(Moving back - people, data, papers, supplies, etc.)

_________________________________

OUTLINE YOUR REPORT TO EXECUTIVE MANAGEMENT.

_________________________________

COMPLETE A SIMULATION EXERCISE MESSAGE FORM.
EXHIBIT 15: Evaluation Preparation

Actual Time: 11:45 a.m.

Working teams are now requested to prepare during lunch a final status and critique for presentation at the debriefing session. Each team should select a spokes person to present the team's critique during the debriefing session.

Lunch will be served at 12:00 in the Cafeteria. Use this lunch time to work with your team to complete the final debriefing report. Also complete the Contingency Plan Evaluation report to be handed in to the Exercise Control Group.
EXHIBIT 16: Evaluators Check List

EVALUATORS CHECK LIST

EVALUATOR: _______________  PERIOD: ___

DEPARTMENT: _____________________

TEAM ORGANIZATION & OPERATION:

PLAN CREATION & QUALITY:

ANNOUNCEMENT/REPORT CREATION & QUALITY:

OTHER COMMENTS: