

AFTER ACTION (AA)/CORRECTIVE ACTION (CA) REPORT
SHOCKWAVE CENTENNIAL EARTHQUAKE RESPONSE EXERCISE

APRIL 18, 2006

GENERAL INFORMATION

Name of Agency	University of California, Berkeley
Type of Agency* * City, county, Operational Area (OA), State Agency (State), Federal Agency (Fed), special district, Tribal Nation Government, UASI city, non-governmental or volunteer organization, other (Select one)	Special District
OES Admin Region (Coastal, Inland, or Southern)	Coastal
Completed by:	Treacy Malloy
Position	Senior Analyst, Office of Emergency Preparedness
Phone number & email address	510-642-9036, thm@berkeley.edu
Dates and Duration of event	Tuesday, April 18, 2006, 8:30 AM – 11:30 AM
Date Report Completed	June 21, 2006
Type of event	Pre-identified, planned event
Hazard or exercise scenario	Earthquake

EXERCISE OR TRAINING OVERVIEW

Mission Brief overview of the event, major strengths demonstrated during the exercise, areas that require improvement	<p>This was a multi-agency training exercise simulating the aftermath of an earthquake on the San Andreas Fault. Event happened 9 hours previous to start of exercise. Emphasis was on increasing awareness of the expected widespread regional impacts and on practicing coordinated regional emergency management in a disaster.</p> <p><u>Objectives:</u></p> <ul style="list-style-type: none"> - strengthen relationships and communications between organizations - practice regional coordination in a major disaster - exercise the Joint Information Center (JIC) - assess regional impacts on transportation - improve care and shelter coordination <p><u>Major strengths</u> demonstrated during the exercise included improved inter-agency cooperation on transportation, care and shelter issues, and JIC coordination.</p> <p><u>At the UC Berkeley EOC the following improvements</u> were noted:</p> <ul style="list-style-type: none"> - more focused briefings and direction by EOC management - improved internal EOC communications and information
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sharing

- EOC Sections exhibited improved teamwork and worked well with other teams
- the use of real-time graphic representation of conditions made the situation status easier to grasp (FASDI)
- PIO function/communications performed well, as did information filtering and dissemination by the JIC
- action planning and communication of the plan improved markedly

Areas that could be improved at UC Berkeley included:

- more frequent inspection/charging of amateur radio equipment, including battery and charger
- add electronic template of all EOC forms to each computer or have temporary file for easy access
- move toward built-in projection system for easy viewing of info and less equipment crowding room
- have copier and additional printers available, or flash drives to transport info to central printing site
- develop list of all communications/office equipment on campus, along with a locator tool for buildings where EOC, Alt EOC are located
- re-design staging of Alt EOC, with Amateur radio near Communications Unit
- re-acquaint EOC staff with ICS forms, and encourage their use. Have enough printed forms and electronic templates available
- better procedure for verification and dissemination of intelligence
- suggestions from participants: more in-depth plans and procedures, more frequent training/refreshers, technically enhanced EOC, some kind of noise reduction, more in-depth debriefing and follow-up

Event Overview

Describe the specific details of the exercise, how event or exercise was structured, how was event or exercise carried out

Goal was to practice coordinated response in the hours after a major earthquake in the San Francisco Bay Area, specifically a magnitude 7.9 with the same epicenter as the 1906 event in this area. Exercise began 8 /12 hours after the earthquake.

In the seven months leading up to the exercise, the six participating agencies jointly developed objectives, scenario, and message traffic. Each agency trained its own emergency response personnel, and one joint training session for all participating emergency response personnel was held one month before the exercise.

On the day of the exercise, the six participating agencies activated their EOCs simultaneously, along with the JIC. Message traffic was inserted by a simulation team consisting of representatives from each of the participating agencies. Each team in each EOC was presented with challenges and information that could lead teams to successful solutions. Action plans were developed and updated as the situation unfolded. Communication and coordination between agencies occurred via amateur radio, telephone, 800 Mhz radio, email and runners.

Hazard or Exercise Scenario* * Avalanche, civil Disorder, Dam Failure, Drought, Earthquake, Fire (structural), Fire (Woodland), Flood, Landslide, Mudslide, Terrorism, Tsunami, Winter Storm, Other	Earthquake
Total Participants	360 (130 from UC)
Number of agencies involved	6
Lead/Host Agency	City of Berkeley

For more detailed UC participant comments on the exercise, please see attachment A (analysis of internal survey results).

SEMS/NIMS FUNCTION EVALUATION

MANAGEMENT (Public Information, Safety, Liaison, etc.)

	Satisfactory	Needs Improvement
Overall Assessment of Function (check one)		X

If "needs improvement" please briefly describe improvements needed:

Planning	
Training	EOC Coordinators need activation binder, training on establishment of EOC
Personnel	
Equipment	Management should have more communications equipment (phones, copier, computer, printers) available to them
Facilities	Alt EOC not large enough for team meetings

FIELD COMMAND (Use for assessment of field operations, if applicable)

N/A	Satisfactory	Needs Improvement
Overall Assessment of Function (check one)		

If "needs improvement" please briefly describe improvements needed:

Planning	
Training	
Personnel	
Equipment	
Facilities	

OPERATIONS (Law enforcement, fire/rescue, medical/health, etc.)

	Satisfactory	Needs Improvement
Overall Assessment of Function (check one)	X	

If "needs improvement" please briefly describe improvements needed:

Planning	
Training	Care & Shelter needs to have more training in thinking through all the attendant facilities needed with shelter; (i.e., food, water, bathrooms)
Personnel	
Equipment	
Facilities	

PLANNING/INTELLIGENCE (Situation analysis, documentation, GIS, etc.)

	Satisfactory	Needs Improvement
Overall Assessment of Function (check one)		X

If “needs improvement” please briefly describe improvements needed:

Planning	Should begin to include AAR/CA as part of job responsibility (per NIMS)
Training	Personnel need to be better trained in intelligence gathering and “truthing”
Personnel	Good, but need more training.
Equipment	New technology needs to be better integrated for maximum utilization
Facilities	Used alternate EOC, so cramped quarters. Info gathering personnel scattered throughout EOC.

LOGISTICS (Services, support, facilities, etc.)

	Satisfactory	Needs Improvement
Overall Assessment of Function (check one)		X

If “needs improvement” please briefly describe improvements needed:

Planning	Need campus-wide inventory of available equipment: use resource typing and cross match with equipment operators. Plans need to include strategy for provision of food/water to shelters and emergency responders.
Training	More training in resource typing and strategizing with other Branches and Units, esp. Care & Shelter
Personnel	
Equipment	Personnel should bring laptops to EOC that have inventories pre-loaded.
Facilities	Re-think location of Logistics Branch in the Alternate EOC.

FINANCE/ADMINISTRATION (Purchasing, cost unit, etc.)

	Satisfactory	Needs Improvement
Overall Assessment of Function (check one)	X	

If “needs improvement” please briefly describe improvements needed:

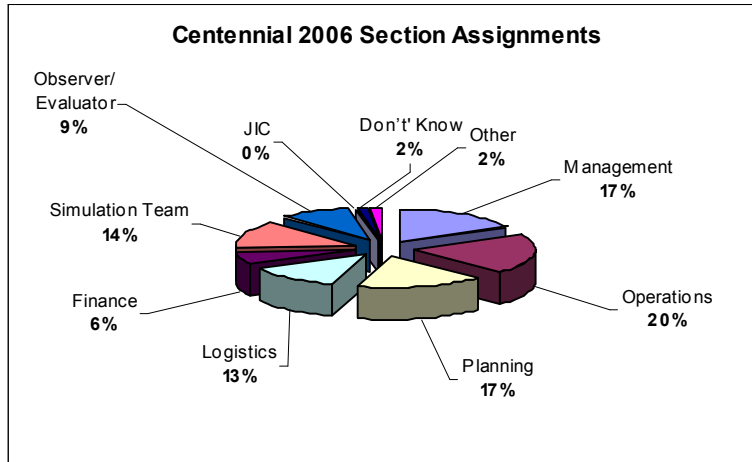
Planning	
Training	
Personnel	
Equipment	
Facilities	

Attachment A: Internal Survey Results

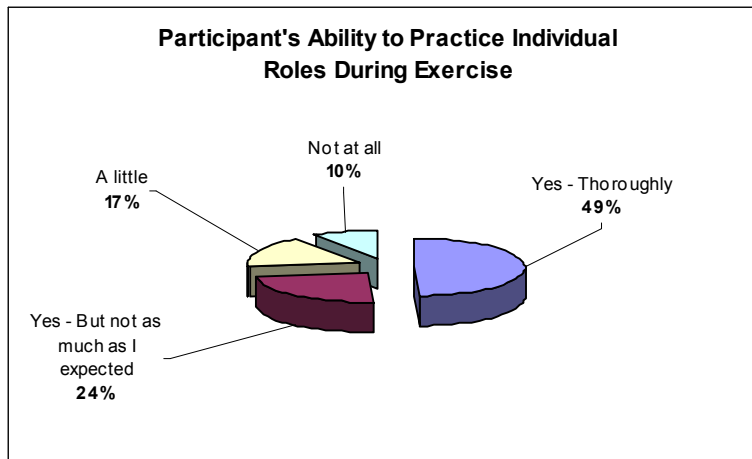
(130 participants, 64 respondents)

1. Question: Which section were you assigned to?

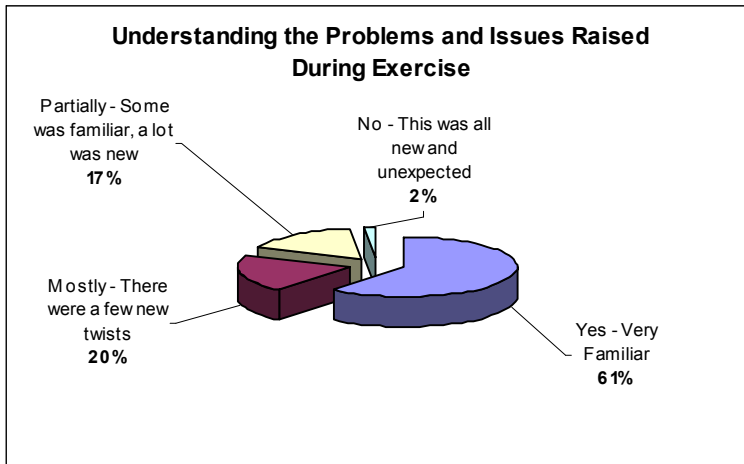
The majority of respondents were in EOC Operations, Management or Planning Sections:



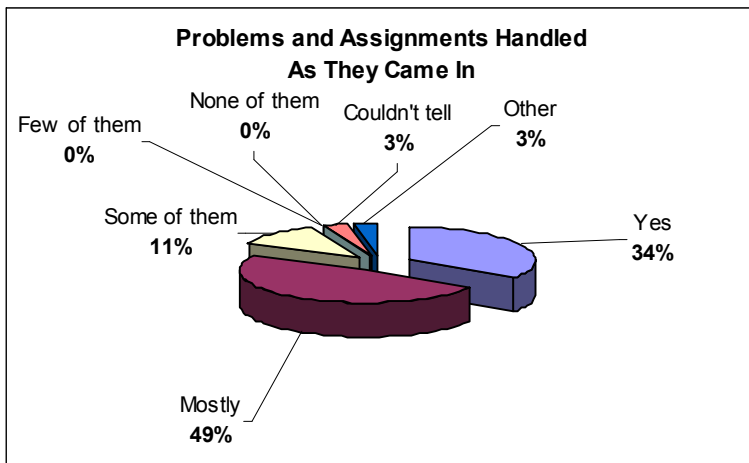
2. Question: Were you able to practice your role in this drill?



3. Question: Did you understand the problems and issues raised in the exercise?



4. Question: Were problems and assignments handled as they came in?



5. Question: Please rate the following aspects of the exercise and disaster plan:

5. Please rate the following aspects of the exercise and disaster plan:							
	High	Med. High	Medium	Medium Low	Low	N/A	Response Average
The complexity/challenge of the scenario	23% (15)	31% (20)	38% (24)	6% (4)	2% (1)	0% (0)	2.31
Your ability to communicate outside the EOC	5% (3)	15% (9)	19% (12)	15% (9)	11% (7)	35% (22)	3.20
Your ability to communicate inside the EOC	24% (15)	37% (23)	18% (11)	6% (4)	0% (0)	15% (9)	2.08
The realism of the drill	13% (8)	32% (20)	30% (19)	16% (10)	8% (5)	2% (1)	2.74
Adequacy of the Tang EOC	3% (2)	21% (13)	31% (19)	16% (10)	15% (9)	15% (9)	3.21
Total Respondents							64
(skipped this question)							0

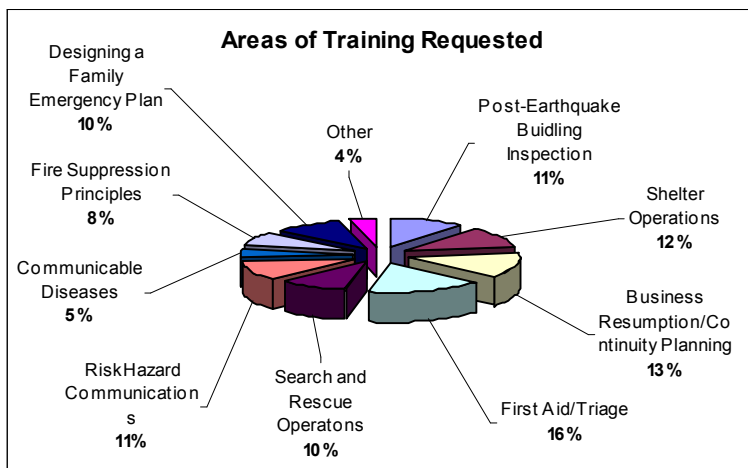
6. Question: Which means of communications did you use in the drill?

	Used this and it worked reliably	Used this and it worked sporadically	Tried to use it but it didn't work at all	Wasn't available in my location	Response Total
Land line phone	57% (27)	17% (8)	4% (2)	21% (10)	47
cell phone	37% (16)	19% (8)	5% (2)	40% (17)	43
800 Mhz radio	18% (5)	4% (1)	0% (0)	79% (22)	28
Nextel Radio	4% (1)	4% (1)	0% (0)	93% (25)	27
Amateur Radio Operator	9% (2)	14% (3)	0% (0)	77% (17)	22
Runner	45% (14)	10% (3)	3% (1)	42% (13)	31
email	32% (9)	11% (3)	0% (0)	57% (16)	28
esp	8% (2)	4% (1)	15% (4)	73% (19)	26
Total Respondents					54
(skipped this question)					10

7. Question: Which of the following elements would you recommend?

	Yes	Maybe	No	N/A	Response Average
More frequent exercises	27% (16)	36% (21)	37% (22)	0% (0)	2.10
Longer exercises	19% (11)	29% (17)	53% (31)	0% (0)	2.34
Shorter exercises	5% (3)	4% (2)	91% (51)	0% (0)	2.86
More frequent training/refreshers	50% (30)	37% (22)	13% (8)	0% (0)	1.63
More in-depth plans and procedures	56% (33)	29% (17)	15% (9)	0% (0)	1.59
Technically enhanced EOC	45% (26)	31% (18)	21% (12)	3% (2)	1.75
Total Respondents					61
(skipped this question)					3

8. Question: Check the subjects listed below in which you would like training:



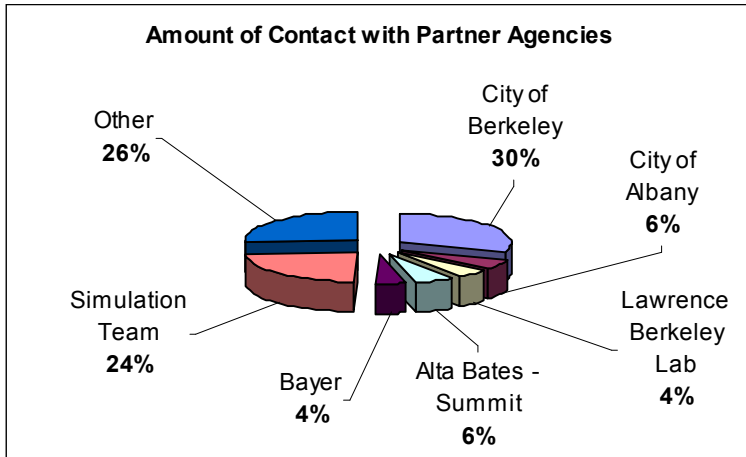
9. Question: What improvements can you recommend?

Most answers to this question dealt with noise, space, and technical improvements. However, a significant number of participants' answers suggest that they still don't have a clear picture of how communications should flow within the EOC. Most of these respondents suggested more training and exercises, or different methods of sharing information visually. (See second page of the AAR/CA, as well as individual responses – Appendix B - for more detail.)

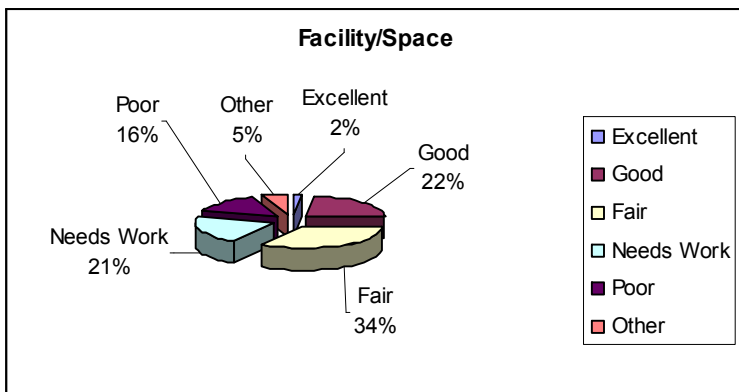
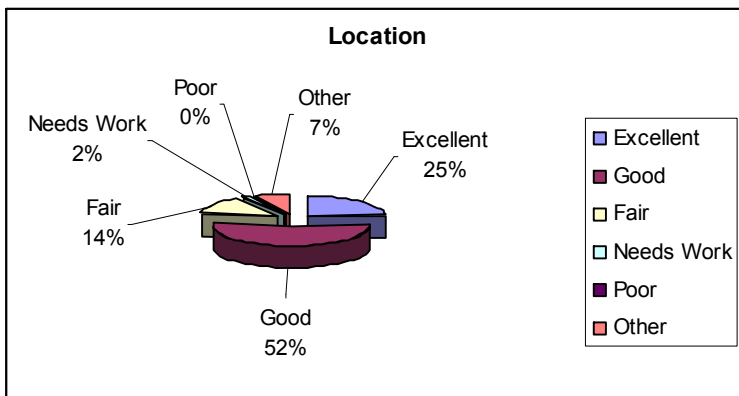
10. Question: What worked well or has improved greatly?

Many participants mentioned an increasing confidence in their roles and, along with improved communication, cooperation, and teamwork within the EOC. (See “Major Strengths” section, page 1, AAR/CA – or see individual responses – Appendix C – for more detail.)

11. Question: Which Agency did you have direct contact with?



12. Question: Please rate the alternate EOC (Tang) on the following:



Communications Availability/Adequacy

