



Stanford Gymnasium post-1906 earthquake

Stanford University Emergency Exercise

Stanford University EOC/SOC Exercise

April 6, 2006



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 Counties report minor damage and business as usual: 29



**Stanford University Emergency Exercise
Emergency Operations Center
Satellite Operations Centers
April 6, 2006**

Exercise Type

- Functional exercise – using a simulation team and pre-scripted messages.

Exercise Goal

- The goal of this exercise is to experience an “in-progress” seismic event that will impact the Stanford campus, assess the current level of readiness and the status of the Emergency Operations Center (EOC) and Satellite Operations Center (SOC) plans.

Exercise Objectives

Stanford Emergency Operations Center (EOC)

- 3.1.1 Understand the EOC team functions and process including clarifying roles and responsibilities of the EOC team members.
- 3.1.2 Challenge the Policy Team with specific problems including human issues, student housing, academic, research, and communication concerns requiring Policy Team involvement and decision-making.
- 3.1.3 Assess that team members are able to differentiate between EOC and SOC activities.
- 3.1.4 Assess current physical EOC space and equipment and determine if changes are necessary for efficient operation.
- 3.1.5 Assess the ability of the EOC to capture and display information in a timely manner.
- 3.1.6 Assess the ability of the EOC to develop timely action plans based on information received and disseminate the plans in a timely manner and refine plans as the event progresses and the conditions change.
- 3.1.7 Assess the effectiveness of communication:
- 3.1.8 To all identified key stakeholders through all established means (800’s, web site, press releases, fax and email)
- 3.1.9 Across EOC teams within the EOC.
- 3.1.10 From the EOC to and from the SOCs.
- 3.1.11 Executive press conference scheduled for 10:45am detailing the status of Stanford to be broadcast to the SOCs.

Satellite Operations Center (SOC)

- 3.1.12 Understand and perform the SOC functions and processes including clarifying roles and responsibilities of SOC team members.
- 3.1.13 Assess current physical SOC space and equipment and determine if changes are necessary for efficient operation.
- 3.1.14 Capture, log, track and display information in a timely manner on status boards.
- 3.1.15 Develop timely SOC action plans based on information received and disseminate the plans to EOC in a timely manner.
- 3.1.16 Implement the SOC business continuity plan and assess effectiveness.
- 3.1.17 Assess SOC’s ability to communicate with the EOC and implement EOC decisions.

Timeline

Continental Breakfast	7:30 – 8:00
Welcome	8:00 – 8:05

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Review EOC layout and team functions	8:05 – 8:15
Exercise	8:15 – 11:00
Executive Press Conference	10:45 – 11:00
Debriefing and lunch	11:00 – 12:00

Instructions to Participants

- Exercises have the greatest value if they are treated as real. Please stay in role the entire time.
- As this is “an exercise in-progress” details may not be as complete as you would like... The value is in the process, the dialogue and the experience. The design team has worked to make the situations as realistic as possible.
- In order to make this exercise work and to facilitate the learning process, a certain amount of "exercise magic" has been used. We ask you not to debate that something has happened, could have happened or is available – it just is!
- This is a training exercise designed to assess existing plans and procedures as a tool to manage a major event at the Stanford campus. The exercise is designed to help verify current plans or processes.
- Questions regarding the exercise should be directed to the exercise facilitators.

Communications

- Periodic inputs (phone calls, emails or faxes) will be sent to the EOC/SOCs by a simulation team here at Stanford. Just as in a real disaster, things keep happening in real time and this team will provide much more information to you during the course of the exercise.
- The exercise participants will simulate all communications. There are no “quick fixes.” Any communication that you would normally do must be simulated using the communications directory. If you must call an entity to solve a problem, use the attached directory and call!
- If you need to communicate to any group, vendor, individual, etc, use the simulation team communications directory in this exercise plan. All calls will be answered with “This is an exercise, May I help you?” Tell the individual whom you want to speak to and magically that company/group/person will appear in the phone for you!
- Messages called into the EOC from the simulation team will be prefaced with “This is an exercise message...”

Evaluation

The exercise will be evaluated by use of participant written evaluations, the debrief session and evaluators observations based on the objectives.

Artificialities and Assumptions

- Artificialities
 - A 7.0 earthquake struck the Bay Area on April 3, 2006 at 7:15am. The epicenter was the city of Los Altos; the fault was the mid-Peninsula segment of the San Andreas. It has been approximately 72 hours since the quake struck.

- You have heard from approximately 50% of your staff and faculty. Only about 30% are available to work as of today, April 6. This is due to transit and communication problems, injuries and deaths and damage to homes. This number is likely to rise to 50-60% by Monday April 10. This same number applies to vendors, contractors and outside sources for materials and services.
- Through exercise magic, the EOC has assembled at the Faculty Club and has use of the phones and computers (in reality, the Faculty Club would have likely sustained severe damage and would not be available).
- Make the following assumptions when looking at the number of people on campus:
 - 4,000 undergraduate (50% of graduate students)
 - 6,000 graduate students (90% of undergraduate students)
 - 1,800 staff (30% of staff)
 - 900 faculty (50% of faculty)
- Assumptions
 - Many events have occurred on campus over the past 72 hours and many problems have been resolved. Staff, faculty, graduate students, research associates and post-docs who live near campus came quickly after dealing with family and home emergencies. This earthquake is far more damaging and serious than the Loma Prieta. The damage to the campus is serious; however a creative approach to problem solving and thinking outside the box may lead to the campus reopening in a timely manner. See page four for campus status.
 - Don't assume anything...all information can be verified through the communications directory.
 - The weather is as it is today.
 - All information in the narrative and provided by the facilitators and simulation team is to be considered valid. However just like in a real disaster messages can be jumbled and rumors started on incorrect information or assumptions. Multiple versions of the same problem may occur.

Narrative

The earthquake that struck the Bay Area on April 3 at 7:15am has created substantial damage. The 7.0 magnitude earthquake was a rupture of the mid-Peninsula San Andreas Fault and the epicenter was the Los Altos Hill near the 280 Freeway. Severe damage is reported along population areas of Santa Clara, San Mateo, Santa Cruz and San Francisco counties. Since then there have been 87 aftershocks, 39 of them over 3.0. The largest, a 4.8 magnitude was yesterday, April 5 at 4:30pm. This aftershock collapsed some buildings near the epicenter that were severely weakened from the initial quake and has caused additional collateral damage. President Bush has issued a Presidential Declaration of Disaster thereby allowing FEMA to activate. Yesterday, Governor Arnold Schwarzenegger called up the Guard to assist local law enforcement, fire and emergency services. They have been deployed to Los Altos and other Peninsula cities and San Francisco. They are not on the Stanford campus.

Stanford University Status

Information from around the campus has been slow to come into the EOC. The campus and the people present are still very much in a state of shock.

EOC/SOC

Date -Time	Problem/Issue	Status
4/3	Limited number of EOC members due to damage to personal homes, injuries and transportation problems	Fully staffed by 4/4 @ 8am
4/3	SOCs slow to set up	All functional by 4/4 @ noon. Haven't heard from Hoover Institute.
4/4	Hold classes this week?	Classes on campus were cancelled for the remainder of this week. There has been no decision on when to resume classes as of yet.
4/4	Athletic events – hold as scheduled?	All athletic events on campus cancelled until April 9, 2006. Will need to reassess in the next 24 hours.

Students

Date -Time	Problem/Issue	Status
4/3 began immediately Current status as of 4/5 10pm	Account for all students	Approximately 90% of the on-campus undergraduate residential student population has been accounted for. The other 10% may have been away from campus at the time of the earthquake or have left to stay with family and friends but their status is unknown. At this time, 50% of the graduate students have been accounted for.
4/5 9pm	Student injuries	Approximately 200 students suffered significant injuries, 50 serious injuries requiring hospitalization. There were hundreds of “walking wounded” with cuts, lacerations, minor burns and simple fractures treated at Vaden Health Center. There have been 10 student deaths on campus. The deaths have been reported to the County Coroner.
4/5 10pm	Sleeping areas for students	Students have been sleeping outdoors, in lounges, living rooms and crowding into sleeping areas. Fac Ops set up tents in athletic fields as well. It is estimated that about 25% of the residential student population (these are not part of the 30% status unknown) is living with family or friends off campus. Off campus students have been coming onto campus for meals and lodging (if they lost their apartments).
4/5 6pm	Connect parents with students	There have been numerous distraught parents on campus since April 3, Monday morning trying to find their children. More are expected. Student Affairs has a hot line set up for information in Tresidder Union
4/5 9am	Provide meals for students and staff	Dining has been al fresco although some areas have done barbeques. Dining has fed 10,000 people (students/staff) two meals yesterday and has plans to continue to do the same today.
4/5 noon	Organizing volunteers wishing to help	Many students wish to volunteer and are working with staff although the effort has not yet been organized effectively. Process is still informal as of this morning. The Volunteer SOC is performing

		this function.
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Faculty and Staff

Date -Time	Problem/Issue	Status
4/5 10pm	Accounting for all staff	Approximately 50% of the faculty and staff have been accounted for and about 30% have reported to work. Many who have not come into work report major problems with their homes, families or transportation issues in getting to work.
4/5 10pm	Staff injuries	There are 183 significant injuries, 68 requiring hospitalization. Three staff deaths on campus have been reported.
4/6 6am	Daycare for staff returning to work	There is no daycare operational on campus as of today.

Visitors

Date -Time	Problem/Issue	Status
4/5 9am	People looking for persons who were supposedly on campus Monday night	No reports of dead or missing people who might have been visiting the campus at the time of the quake.

Police

Date -Time	Problem/Issue	Status
4/5 10am	Looting	There have been reports of looting on campus. With a limited number of officers on campus this is a real problem. Using volunteers and officers to guard some buildings.
4/5 noon	Limited number of staff	The Police have 12 officers and 5 community service workers rotating 12-hour shifts. Due to the magnitude of the problem, city and county law enforcement have told Stanford they will need to provide for their own protection. There may be a possibility of receiving National Guard assistance, should that be asked for??

Fire

Date -Time	Problem/Issue	Status
4/3 8:30am	Fire - Hansen Exp. Physics Lab (HEPL)	Fire out by 4/3 11:45am. Damage to first floor; water and smoke damage to entire building,
4/3 8:45am	Fire - Varian Physics Lab (Russell H	Fire out by 4/3 12:15pm Damage to 2 nd and 3 rd floors. Water and smoke damage to entire building,
4/3 11:20am	Stauffer 1 - Chemistry	Fire out by 4/3 2:15pm Damage to 1 st and 2 nd floors. Water and smoke damage to entire building,
4/3 11:45am	Stauffer 2 – Physical Chemistry	Fire out by 4/3 12:00pmpm Damage to 1 st and 2 nd floors. Water and smoke damage to entire building
4/5 noon	Fire company off campus	Fire house #6 has sustained major damage. Firehouse #6 has been called to fires outside the campus as directed by the Palo Alto EOC. The SLAC fire company has been assisting on campus and off. Both stations are currently unmanned as the equipment and staff are on calls in other locations.

Utilities - Natural Gas

Date -Time	Problem/Issue	Status
4/3	Many Buildings without Gas	Appears that Seismic Isolation Valves have operated and closed down service to many buildings.
4/4	Varian 1 on Fire due to Gas Ignition.	Varian 1 Gas Meter severed and burning Gas for last 72 hours. Corridor between Varian and EE/ Sequoia Hall Closed by police. Building fire keeps igniting due to gas flow. PG& Have not responded

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Date -Time	Problem/Issue	Status
		in 72+ hours. Excavation of down stream gas line started 2 hours ago by Fac Ops Grounds & Plumbers.
4/4	Vaden Health Center requesting assistance with NO GAS	Vaden has been without Gas for 72+ hours. Needs to know if PG&E can reset isolation valve.
4/3	Major Natural Gas leaks in Escondido Village	Gas has permeated the air in Escondido village for the last 72 hours. No info on leaking locations.

Utilities -Electrical

Date -Time	Problem/Issue	Status
4/3	Palou Substation tripped main breakers tripped.	20 hours later Palou Substation is closed back into Cogen. PG&E are still down. Campus is Islanded with Cogen.
4/4	At Palou Substation, Bank 1, 4160 volt Transformer for Panama is damaged beyond repair.	Panama Substation has transferred to Feeder No. 2 but now 72 hours later the feeder has tripped again from over load/damage. Electricity is curtailed to central Campus Area including Frat Houses on South Side of Campus
4/4	Electricity not on to Escondido Village	F6 & F2 Feeder Damaged East of Panama Substation & Vault 14 Switches.
4/4	Feeder to Psychiatry Tripped.	Feeder 12F5 down due to flooding south of Cactus Garden.

Utilities - Generators

Date -Time	Problem/Issue	Status
4/6	Only 2,000 gallons of diesel fuel left @ Bonair Service Station	12 Generators running on Campus (All Priority 1) Need to shut-down 6 to conserve fuel for the remaining 6 . Another 48 hours minimum before promised 5,000gallon delivery. (Vaden, Police Communications, Faculty Club EOC).

Utilities – Cogen/CEF

Date -Time	Problem/Issue	Status
4/4	Cogen back up running after 24 hours.	All systems are to be OK. 72 hours into disaster

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Utilities - Steam

Date -Time	Problem/Issue	Status
4/3	Major Cross-campus Steam Line break on Santa Teresa, due South of Thornton Center. East of Vault 21)	Line was isolated within 12 hours of break but Steam to East Campus restricted.
4/4	North Feed Steam & Chilled Water Tunnel to the hospital has collapsed.	Steam Supply to North end of SUH is blocked.

Utilities – Chilled Water

Date -Time	Problem/Issue	Status
4/3	Major Chilled Water Breaks somewhere on Campus. Campus CW Loop Pumping is shut down at CW Plant.	Chilled Water distribution curtailed to Campus for initial 24 hrs. SUH still receiving CW. from Major break isolated at front of Main Quad but East of the main quad has limited Chill Water of Campus..
4/4	North Feed Chilled Water Tunnel to the hospital has collapsed.	SUH receiving limited amount of Ice Plant CW from West Loop.

Utilities -Water

Date -Time	Problem/Issue	Status
4/3	Major Unrepairable water line breaks around Toyon / Branner Complex.	One line left to back feed buildings. Demand is high, and the single line cannot keep up with demand.
4/3	Major unrepairable break on line to Psychiatry Building	In first 10 hours, major flooding occurred South of Cactus Garden & Mausoleum. Restriction of use from wells on West Side of the Campus. (Well 1, 2, 3, 4)
4/3	Reservoir No.1 has collapsed and has flooded JSB & Campus East.	74 Hrs Later JSB is still impassable.
4/4	Well No 5 not operating.	Primary well for supplementing domestic water

Utilities -Sewer

Date -Time	Problem/Issue	Status
4/3	Unfixable broken line @ Stanford Avenue (Main Line to PA Treatment Plant)	The line was leaking sewer effluent into the open Storm Drain parallel to Stanford Avenue. Early on (9AM) Water Department by-passed the broken Pipe by pumping from one MH to the Next. Sewer effluent volume has increased during the last 3 days and sewage is again poring into Stanford Avenue Storm Drain.
4/4	Double Line break on West side of Toyon Hall	Sewage has been backing-up in MH 8701 & 8702. Threatening to spill into basement of Toyon.
4/4	Sewage Lift Pump not working next to Encina Hall	Flooding of the Basement of Encina Hall is possible. Trailers have been put over the top of this pump Vault. Difficult to get to.

Utilities -Roads

Date -Time	Problem/Issue	Status
4/6	Flooding on JSB due to reservoir No.1 collapse	74 Hrs Later JSB is still impassable.

Information Technology

Date -Time	Problem/Issue	Status
4/6 status	Forsythe Damage Second Floor Roof-Rooms 245-247 not fit for occupancy	<ul style="list-style-type: none"> • ITS/AS SOC and Production Control relocated to Puichon Hall. • OSC Room 125 Still functional and occupied by Operators.
4/6 status	Forsythe Damage Second Floor - Some equipment racks on the second floor that were not earthquake braced have tipped over damaging servers.	<ul style="list-style-type: none"> • Forsythe second floor equipment room and penthouse utility space is accessible. Power is on. A number of equipment racks on the second floor that were not earthquake braced have tipped over damaging servers. • Oracle Financials Down- Estimated date of repair 4/12 • People Soft Down- Estimated date of repair 4/12 • Kronos is unavailable- Estimated date of repair 4/11
4/6 status	ECH at 333 Bonair - Building has been severely damaged - building is without power	<ul style="list-style-type: none"> • Stanford telephone service is down for area. Fac Ops and 711 Serra have a total of 40 Stanford telephone lines trunked from other areas.
4/6 status	Card System Down	<ul style="list-style-type: none"> • Estimated date of repair is 4/11. Waiting on parts from vendor. Dining impacted- Student meal plans are inaccessible, POS terminals in all dining facilities cannot debit card plan. • New SUID badges cannot be created • Building door access operating in standalone mode. No changes can be made for people permissions or schedules. Existing lock/unlock schedules are operative if building/door has power.
4/6 status	Infrastructure	Some systems impacted/slow, however all primary/core services are served from category 1 ECH buildings - DNS, Active Directory, Email, WebAuth, Main University ITS supported web sites are functional as of Day 3.
4/6 status	Phone Services	All Stanford services are functional, except for 333 Bonair Siding, however, calls to and from the Public Switched Network for local calls are problematic. Both AT&T/SBC Central Offices serving campus are fully functional and with links to Long distance switching points. Due to the wide spread damage to buildings in the Bay Area people are not at their listed directory numbers.
4/6 status	Network connections	<ul style="list-style-type: none"> • Commodity Internet and Internet 2 are functional but very slow. • SUNet is also slow as numerous department networks are down due to power outages in those buildings.

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Date -Time	Problem/Issue	Status
		<ul style="list-style-type: none"> Buildings without power have no network connections (this includes wireless).
4/6 status	Cellular Service Severely limited	<ul style="list-style-type: none"> Beckman cell sites completely disabled - Cingular, Nextel, and T-Mobile unusable in West campus area. Meyer cell sites operational - Sprint and Cingular service in central campus okay. Cingular Cellular on Wheels (COWs) locate at Jenkins Court and Cowell Lane are operational - Cingular service in east campus okay. Nextel COW on Bonair Siding is operational - Nextel service in East campus is okay. Calls to off campus cellular telephones is problematic. Many cell towers remain out of service. Cellular Carriers have deployed all available Cell On Wheels to critical service areas near hospitals and local government offices.
4/6 status	Call center limited staffing	Many Operator Services Personnel live outside the area and cannot come to campus due to road conditions. The call center is operating with only 40% of normal staffing. Volunteers are helping, however, Code trained operators that can make it to campus have to work double shifts to cover hospital needs. The OSC will not be able to meet Hospital needs much longer without additional trained staff.
4/6 status	Order Management, Installation and Maintenance and Production Control Group	Requests to move telephone lines out of red-tagged buildings, provide call intercepts and forward numbers to new locations overwhelming available staff. New requests must be prioritized by the ITSS SOC before they will be scheduled.

Public Safety

Date -Time	Problem/Issue	Status
4/6 8am	Department Update	<p>– Because the earthquake occurred during shift change AND on an overlap training day, a very high number of SUDPS staff (33 out of 49 full time employees) were either on campus or scheduled to be on duty within 1 hour of the incident. An additional 6 employees were scheduled to report to work within the next 3-8 hours.</p> <p>– One deputy was severely injured when the building collapsed and will not be able to return to work. A Sgt and a civilian employee were trapped in the front office for the first 16 hours after the earthquake. They were eventually rescued. They each sustained minor to moderate injuries but were physically able to return to work after taking some time off. Two other sworn officers sustained moderate injuries responding to calls for service in the days after the incident, but they are continuing to work. Personnel have been extremely shaken by the injuries to their co-workers.</p>
		– All of the full time staff, except for two, have been accounted for. Over

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Date -Time	Problem/Issue	Status
		<p>the course of the first 72 hours, ten staff persons (sworn, CSOs and civilian staff) called in and reported that they would not return to work because they wanted or needed to care for family members.</p> <p>– Parts of the main Public Safety facility collapsed after the initial earthquake and the building is unsafe for occupancy. The SOC at the Compound is fully operational. The SOC has been running on the department’s diesel generator for the past 72 hours. SUDPS was able to partially refill the generator, but they will likely run out of fuel in the next 8-12 hours. The repeaters are all working, but the generators which support them also need to be refueled on a regular and on-going basis every 7 hours in order for the department personnel to be able to maintain radio communication capability. Nextels are working for Nextel to Nextel communication, but not for phone calls.</p> <p>– Some SEPs (casual, security personnel) have reported to SUDPS to assist in the response efforts. They are being used in the SOC and on priority security details. The police department does not have the resources to provide security to the campus or meet any of the requests for security they are receiving from the campus community. SUDPS has contacted several local security companies in an effort to obtain support for security efforts. To date, they have not been successful. They are in the process of trying to obtain security resources from outside the state. Additional support will not arrive for at least 48 hours. All SUDPS personnel are tied up on calls for service or priority security details and there are NO additional security personnel available to the campus through SUDPS. There are total of 4-5 sworn officers, including command staff, available to handle all calls for service per each 12 hour shift.</p> <p>– Because SUDPS personnel worked between 14 and 20 hours per day for the first 72 hours tending to life safety issues, they are extremely tired. Some have not been home to see their families or their homes or been able to tend to unattended pets. The stress and fatigue levels are extremely high.</p>

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Vendors – Delivery of Supplies

Date -Time	Problem/Issue	Status
4/5 6pm	No deliveries of supplies	As of today there have been no supply deliveries on campus. This includes lab materials and gasses, food and medical supplies. Vendors have been difficult to reach and they are unable to guarantee deliveries due to transit problems and lack of staff. The local and state government has evoked some eminent domain clauses with suppliers in the area that may be impacting some deliveries. Working to get deliveries started this weekend. (Diesel fuel is discussed in utility section under generators.

Hazardous Materials on Campus

Date -Time	Problem/Issue	Status
4/5 6pm	Buildings awaiting inspections	<ul style="list-style-type: none"> • Spills have been reported and that they need to be verified and they need to be assessed by a Hazardous Material Team. Other buildings are assumed to contain spills but have not been officially reported yet. <ul style="list-style-type: none"> ○ 02-660 Mechanical Engineering Laboratory ○ 04-510 TEACHING CENTER FOR SEQ seq rtf ○ 07-230 CHEMICAL BIOLOGY (LORRY LOKEY) ○ 07-340 JAMES H. CLARK CENTER ○ 07-590 Center For Clinical Sciences Research ○ 02-540 Civil Engineering (Blume Center) ○ 03-010 Cummings Art Building (Nathan) ○ 04-480 McCullough Annex SEQ ○ 04-490 McCullough Building (Jack A.) ○ 04-560 Mitchell Earth Sciences (Ruth W.) ○ 07-570 MSLS/ Lucas Center ○ 07-580 Parking Structure 3 ○ 07-530 BECKMAN CENTER molecular & genetics med. ○ 07-306 Grant Building (C.S.R.B.) Medical Center - STONE COMPLEX ○ 07-307 Alway Building Medical Center - STONE COMPLEX ○ 90-402R 975 California Ave, Palo Alto ○ 90-941R 855 California Ave, Palo Alto

Campus Building Inspections

Windshield surveys and BAT (Building Inspection Team) inspections have completed about 80% of the buildings (exterior inspection only) on-campus with inspection priority 1-5 (about 575 structures). These initial inspections have revealed broken and shattered windows, some apparent structural damage, water damage, and suspected chemical spills. Other than 12 buildings already closed prior to the EQ, BATs report that only 13 are closed due to major collapse or other severe damage. However a large number of buildings have posted caution due to what appears to be moderate damage. All of the housing, classrooms and animal facilities have had a cursory BAT or structural engineering inspection but only the buildings posted green have been officially tagged by engineers. About 50% of the classroom inventory and housing stock is currently occupiable with some minor cosmetic repair. The remaining 50% are questionable and require detailed inspection by engineers. Engineers have not inspected the majority of the research and administration buildings on campus. BATs have little information on buildings off-campus (about 150 facilities), and thus far with the exception of the Blood Banks and the SLAC Guesthouse engineering teams

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have not been sent to any hospital or off-campus facilities. There are 15 teams of engineers on campus with that number expected to increase to 20 teams today. Building inspections are ongoing, as some aftershocks have created more problems.

Classrooms – Green Tagged

Count	BldgID	Building Description	Square Footage
1	01-020	Classics	8,243
2	01-030	Afro-American Studies	4,108
3	01-040	English Department	7,280
4	01-050	English	11,400
5	01-060	English Building	11,462
6	01-070	Humanities-Religious Studies	7,254
7	01-080	Environ. Geology/ Human Biology	8,507
8	01-090	Philosophy	8,239
9	01-100	Anthropology-Linguistics	7,431
10	01-110	Anthropology	11,606
11	01-120	McClatchy Hall (Soc. & Comm.)	71,542
12	01-160	Wallenberg Hall	92,105
13	01-200	Lane History Corner	65,579
14	01-240	German Studies	8,146
15	01-250	Asian Languages	8,238
16	01-260	PigottHall LanguageCorner	50,008
17	01-300	Building 300 (English)	7,264
18	01-320	Braun Corner Geology Corner	40,322
19	01-360	Environmental Geology	8,342
20	01-370	Science, Technology & Society	8,242
21	01-380	Sloan Mathematics Center	75,552
22	01-420	Jordan Hall (Psychology)	113,715
23	01-460	Jacks (Margaret) Hall	69030
24	02-200	Dinkelspiel Auditorium	38,062
25	02-610	Mechanical Engineering	14,953
26	04-030	DAVID PACKARD ELECTRICAL ENG. SEQ EE	126,704
27	04-510	TEACHING CENTER FOR SEQ seq rtf	40,783
28	04-530	Sequoia Hall SEQ Statistics	22,018
29	04-720	Thornton Ctr Terman Mechanical Engineering	12,764
30	07-525	Sherman Fairchild Auditorium	12,811
31	11-110	Bolivar House	3,799
		Total Square Footage	975,509

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Classrooms – Caution

Count	BldgID	Building Description	Square Footage
1	02-020	Center for Educational Research	66,237
2	02-050	Crown Quadrangle - Law School	202,460
3	02-060	Kresge Auditorium	13,156
4	02-210	Braun Music Cntr (Inc. Campbell)	75,158
5	02-524	ENVIRONMENTAL FLUID MECHANICS LAB	21,926
6	03-010	Cummings Art Building (Nathan)	56,308
7	03-001	Art Gallery	13,050
8	05-300	Knoll	18,770
9	07-210	Mudd (Seeley G.) Chemistry	85,223
10	08-290	LANDAU CENTER (Economics)	52,885
11	08-350	Graduate School of Business GSB	229,845
12	08-360	Littlefield Center (GSB)	66,975
		Total Square Footage	901,993

Classrooms – Out of Commission By BAT Inspection

Count	BldgID	Building Description	Square Footage
1	03-300	Education (Incl. CuBBerLeY Aud.)	106,650
2	04-550	Skilling Bldg (Hugh Hildreth)	6,276
3	04-650	Roble Gymnasium	42,398
4	07-240	Chemistry Conference (Gazebo 1)	995
5	07-280	Chem Engineering Conf. (Gazebo 2)	995
6	08-300	Memorial Hall (Incl. Memorial Aud.)	133,110
		Total Square Footage	290,424

Housing – Green Tagged

Count	BldgID	Building Description	Square Footage
1	02-921	Storey House 544 Lasuen Mall	14,588
2	05-010A	Lagunita - NaranjaAdelfaUjammaABGranadaEucalypto	118,667
3	05-010G	Lagunita - Dining Hall	17,188
4	05-010H	Lagunita - Kitchen & Admin.	4,268
5	05-100	Roble Hall	84,483
6	05-200A	Florence Moore - Alondra,Cardenal,Faisan,Gavilan,Loro,Paloma,Mirlo,Admin	116,536
7	05-200H	Florence Moore - Kitchen	11,952

Stanford University EOC/SOC Exercise

8	05-710	EAST (Treat House)	19,487
9	05-712	American Studies (Murray House)	18,159
10	05-714	Yost House	18,717
11	05-720	Elliott Prog. Cntr Governor's Corner	10,782
12	05-730A	Griffin Jenkins Anderson Marx House Governor's Corner Suites-	55,149
13	05-740A	Middle Earth Avanti Bollard Beefeater Dining Governor's Corner	12,059
14	05-750A	Potter Adams Robinson Schiff Ricker House	101,611
15	05-760A	Richard Lyman Grad Res. (bldg. 1,2,3) GRAD HOUSING AT GOVERNOR'S CORNER	102,976
16	06-100	Branner Hall	60,475
17	06-200	Toyon Hall	66,610
18	06-300	Crothers Memorial Hall	50,892
19	06-350	Crothers Hall	49,200
20	06-700	Kimball Hall	51,350
21	06-710	Kimball Dining	15,100
22	06-750A	schwab residential center bldg. a,b,c,d,e GSB	182,507
23	10-055	EV-2 Bldg 55-76	161,832
24	10-126	EV-4 Blackwelder highrise	82,559
25	10-145	Mirrielees Apts.	96,477
26	10-150	Escondido Vill. Admin bldg 859 Escondido Rd.	5,807
27	10-185	795 Escondido Road	3,689
28	10-201	Rains Apts - Bldg 1-14	91,800
29	10-203	Rains Apts - Bldg 3,5,10,11,19-25,30-37	57,377
30	10-215	Rains Apts - Bldg 15-18	107,928
31	10-226	Rains Apts - Bldg 26-29	18,088
32	10-455	ESCONDIDO - STUDIO 3,4,6,5,2,1	339,392
33	11-270	Synergy Cooksey 550 San Juan	19,803
34	40-049	SLAC Guest House	35,013
		Total Square Footage	2,202,521

Housing – Caution

1	02-925	Columbae 549 Lasuen Mall	12,488
2	05-600	566 Mayfield BOB(R. M. South)	15,732
3	05-610	La Casa Italiana (R. M. North) - 562 Mayfield	14,283
4	05-620	Xanadu-558 Mayfield Avenue	14,687
5	06-400	Wilbur Hall Dining	38,192
6	06-400A	Wilbur - Arroyo,Trancos,Okada,Otero,Cedro,Rinconada,Soto	217,379
7	06-500	Stern - Dining	19,886
8	06-500B	Stern - Twain North,Larkin,Donner,Serra,Burbank,Zapata	99,344
9	06-720	Manzanita II South - Castano	29,040
10	06-740	Manzanita II North - Lantana	29,040
11	10-001	EV-1 Bldg 1-54	191,970

Stanford University EOC/SOC Exercise

12	10-055	EV-2 Bldg 77-98	140,124
13	10-063	EV-2 Abrams Midrise	57,322
14	10-074	EV-2 Barnes Midrise	57,322
15	10-087	EV-2 Hulme Midrise	57,322
16	10-100	EV-3 Bldg 100-115	102,102
17	10-102	EV-3 Hoskins Midrise	57,322
18	10-109	EV-3 McFarland Midrise	57,322
19	10-116	EV-4 Bldg 116-125	47,466
20	10-119	EV-4 Quillen highrise	82,559
21	10-127	EV-5 Bldg 127-144	47,466
22	10-128	EV-5 Bldg 128	44,829
23	10-610	Alpha Sigma,ZAP,ATO,Whitman,Terra - 585 Cowell Cowell Cluster	73,632
24	11-160	Slavianski Dom - 584 Mayfield	15,605
25	11-180	Grove I (Lasuen) - 572 Mayfield	7,710
26	11-210	Kairos - 586 Mayfield	10,350
27	11-220	Delta Kappa Epsilon - 592 Mayfield (fraternity)	10,258
28	11-230	La Maison Francaise (Guthrie) - 610 Mayfield	12,978
29	11-260	Durand House - 634 Mayfield	10,678
30	11-280	Roth - 713 Santa Ynez	12,455
31	11-290	Theta Xi - 717 Dolores (fraternity)	14,805
		Total Square Footage	1,601,668

Housing – Out of Commission By BAT Inspection

Count	BldgID	Building Description	Square Footage
1	02-914	Five Fiftythree Mayfield 553 Mayfield Av.	10,226
2	02-920	Muwekma-Tah-Ruk (Amer. Indian) - 543 Lasuen Mall	13,898
3	02-922	Sigma Chi 550 Lasuen Mall (fraternity)	15,000
4	02-926	Beta Theta Pi 557 Mayfield Ave. (fraternity)	15,715
5	11-100	Chi Theta Chi - 576 Alvarado	12,459
6	11-240	Haus Mitteleuropa - 620 Mayfield	11,330
		Total Square Footage	78,628

Building (other than housing and classrooms) – Green Tagged

Count	BldgID	Building Description	Square Footage
1	02-935	HAAS Ctr for Public Service	14,575
2	07-330	Research Animal Facility I	35,166
3	08-450	Stanford Alumni Center	116,400

Stanford University EOC/SOC Exercise

4	08-450	FRANCES C. ARRILLAGA ALUMNI CENTER	126,285
5	08-465	NEAR EAST ELECTRONIC COMM. HUB	1,456
6	09-140	341 Bonair Siding	3,758
7	09-307	Arrillaga Sports Ctr	114,654
8	10-590	GRADUATE COMMUNITY CENTER	12,000
9	10-710	VADEN STUDENT HEALTH CENTER	30,828
10	13-180	Stanford Arboretum Children's Center	7,307
11	14-640	Environmental Safety Facility Annex	6,548
12	14-640A	Environmental Safety Facility - A	9,710
13	14-640B	Environmental Safety Facility - B	6,205
14	14-640C	Environmental Safety Facility - C	7,895
15	14-640D	Environmental Safety Facility - D	360
Total Square Footage			493,147

Building (other than housing and classrooms) – Caution

Count	BldgID	Building Description	Square Footage
1	01-001	Administration	17,122
2	02-100	Humanities Center	17,605
3	02-300	Tresidder Memorial Union	78,716
4	02-350	Faculty Club	24,991
5	02-400	BecHTel International Center I CENTER	14,646
6	02-500A	Terman Engineering South Wing 500 ANNEX Mechanical Engineering	6,500
7	02-635	NEWS SERVICE / ITSS News & Publication Services AREA C1	9,282
8	03-120	Herbert Hoover Memorial Building HHMB	107,976
9	03-200	Green Library - West (Cecil H)	229,926
10	03-420	Sweet Hall (Air)	50,812
11	04-460	GREEN EARTH SCIENCES (cecil h and ida m)	91,957
12	04-490	McCullough Building (Jack A.)	80,501
13	04-560	Mitchell Earth Sciences (Ruth W.)	104,183
14	04-700	Terman (Frederick E.) Engr. Center Mechanical Engineering	173,060
15	07-320	Falk Cardiovascular Research	52,350
16	07-525	Sherman Fairchild Auditorium	12,811
17	07-570	MSLS/ Lucas Center	113,962
18	08-250	Ford Ctr Field House	38,964
19	09-100	315 Bonair Siding	48,900
20	09-110A	Procurement Stores	28,000
21	09-110B	Procurement Stores	8,500
22	09-110C	Procurement Stores	2,000
23	09-110D	Procurement Stores	15,000

Stanford University EOC/SOC Exercise

24	09-110E	Procurement Stores	17,000
25	09-190	333 Bonair Siding	11,509
26	09-200	Fire and Police Facility	23,074
27	09-300	Maples (Roscoe) Pavilion	74,514
28	10-300	Bing Nursery School	13,410
29	13-019	PSYC Academic Clinic	75,560
30	14-160	Polya Hall	19,045
31	14-170	Pine Hall	16,385
32	14-200	Forsythe Hall	46,923
33	14-200A	Forsythe Hall addition	11,090
34	14-550	Puichon Building	5,474
Total Square Footage			1,641,748

Building (other than housing and classrooms) – Out of Commission By BAT Inspection

Count	BldgID	Building Description	Square Footage
1	09-105	327 Bonair Siding	7,904
2	07-308	Lane Building Medical Center	112,480
3	07-306	Grant Building Medical Center	151,980
4	07-307	Alway Building Medical Center	84,717
5	07-309	Edwards Building Medical Center	65,798
Total Square Footage			386,879

Campus Satellite Operation Centers Status

Alumni Association/Development- The SOC is being inundated with volunteers (alumni) and offers of housing, money, donations and other types of assistance. The staff is overwhelmed and will need assistance and some guidelines on using volunteers and safety concerns.

Athletics- Still assessing facilities. Have not heard from all of the teams that were traveling since the quake but assume they are OK. Tent cities are starting to pop up on the fields adjacent to El Camino.

CFO & Business Affairs- 651 and 655 are closed due to major cracking of concrete walls. 651 has suffered a partial collapse of a wall panel at the second floor level at the east end. Risk Management has contacted OES to request damage assessment assistance and authorization necessary to begin the most critical repairs. Vendors are demanding payment upon delivery of goods and services. Consequently, Accounts Payable staff is being diverted from normal processing duties and are manually preparing dozens of checks without normal documentation.

Dean of Research- 50%-60% staff have been on campus; only a few minor injuries reported. Through exercise magic our SOC location in McCullough Bldg would be available. Main activities include fielding incoming calls and making outgoing inquiries to gather information about the status of our

research centers; reacting to problems and finding solutions as they are raised. Focus would probably be on decision-making and prioritizing available resources in support of the business recovery of various research endeavors. Researchers are anxious to get into their spaces and begin cleanup and to continue their work; see building list for buildings available.

Environmental Health and Safety- Other EH&S Haz Mat team members expected to arrive this morning. Unable to find contractors to assist with Haz Mat inspections at this time. The Annex and ESF Trailers #4 and #5 are closed as both buildings are off the foundation. Staff is providing chemical information and assistance as requested. Haz Mat Spills noted on page 16

Hoover Institution- Have not heard from the Hoover SOC. The building has obvious structural damage as noted from a windshield survey.

Hospital- On emergency power, is not accepting new patients. Elective procedures have been cancelled. Awaiting deliveries of supplies, hopefully today, and is prepared to ration if necessary. Rotating staff on 12-hour shifts. Employees have had difficulty getting to work and staff personal issues at home are making staffing challenging.

ITS/AS – ITS/AS SOC and Production Control relocated to Puichon Hall due to damage at Forsythe Hall. (See Technology summary on page 12.)

Land & Buildings (Fac Ops)- Working to get contractors in to begin repairs of buildings, roads and utilities. The Planning Office is looking for areas on campus for temporary modular buildings. About 50% of the Fac Ops staff is onsite, doing repairs to buildings, water, utilities and other life safety issues.

News Service- Has set up a media center outside the News Service building. Have had a limited number of media on campus to date, although there have been major network helicopters overhead. This will increase beginning today as transit becomes easier. SOC is short on staff to assist with information delivery. The Stanford Report has not been published and may not resume till next week. (Nor will the Stanford Daily.)

President's/Provost's Office- Receiving numerous offers of assistance from alumni, donors, board members and local and state officials. Many local politicians are calling offering assistance. Calls offering supplies and donations are beginning to come in.

Public Safety- Public Safety has located to its backup EOC due to the severe damage at the Police Station. Public Safety staff is stretched and being primarily used to secure or monitor sites with high theft risk or serious safety issues. Need additional officers. SOC has small number of staff as most are in the field assisting and patrolling the area. Have 12 officers on day shift today, 5 staff in the SOC. The Fire Department remains off campus due to the collapse of the room of the firehouse.

Residential & Dining Enterprises- Continuing to find suitable housing for all students. Providing al fresco meals for all students and staff on campus. Expecting food deliveries and chemical toilets by the end of today. Students are taking cold showers. Students are using toilets in buildings that have running water. Have opened their supply silos and are distributing emergency supplies to students. Pushing for structural engineers and more generators.

School of Business- GSB South and Littlefield Buildings are closed for 6 months to 1 year; and Schwab Residential and the KnightBuilding is open. Need plan on how to resume classes (MBA, Sloan, PhD, Exec Ed) and scheduled events and how faculty can continue their research. 30% of staff has reported to the

SOC on 4/6, expect to rises to 60% on Monday. 2 minor injuries to staff; 1 minor injury to faculty; no student injuries. NO deaths.

School of Earth Sciences- The BES Stable Isotope Lab had a small fire that was extinguished by a sprinkler, the lab has severe smoke and water damage.

School of Education- Cubberley is badly damaged and is closed - School of Education has lost most of its space. Need to develop a strategy along with the Registrars office for immediate relocation of classes and students.

School of Engineering- Terman Engineering has been tagged yellow. Further inspection is required to determine final status of the building. Access to the Dean's office is limited. There is the likelihood that the building will be closed after a more detailed inspection. The ME HTGL Lab Facility Service Center has had a water pipe rupture creating flooding in the lab. The wind tunnel (HTGL) is destroyed; it is custom made for research but needs replacement. Acid/base neutralization system fiberglass tanks broken beyond repair (CIS basement). Lab closed to all chemical processing. Chemical usage too great in volume for local collection.

School of Humanities & Science- There are concerns regarding chemical spills in some lab buildings. Lane (History Corner) and Sloan (Math Corner) have minor structural damage but both have water main pipes that have ruptured, causing flooding. Mudd and Keck have limited access due to chemical spills that need remediation. Staff has been cleaning up as possible.

School of Law- The Law School building is tagged yellow due to water main pipes that have broken flooding several floors.

School of Medicine- The five buildings of the Stone complex (Boswell, Grant, Always, Lane and Edwards) are closed. This represents about 40% of the medical school space. Some of the buildings are likely to remain closed for an extended period of time. Many researchers are attempting to remove materials from the buildings. There has been some flooding in the tunnel connecting Clark to RAF. The Beckman Center has had numerous water pipes break creating severe flooding conditions on all floors. A small fire was extinguished at 975 California Ave, with water and smoke damage to the structure and interior office space. Card key systems reverted to their default position with the power failure. Many doors have been propped open by staff members.

SLAC- There is significant damage to 20% of the portable office buildings and unsupported concrete structures. Landslides have prevented access to building 620/ IR2. There are several haz-mat spills at several locations including the plating shop with the most significant being sulfuric acid spill in building 25. There are several labs that have had inert and flammable gas releases. There is a water main break at near building 685/region 8 and a natural gas break at cafeteria.

Stanford Campus Residential Leaseholders- Residents have been doubling up in homes and housing those displaced from the quake. This has included community cooking and assistance to those injured. Some homes remain without water and sewer service. The area has been fortunate with no fires in the area.

Stanford Management Company- Tenants at the Stanford Shopping Center and the Research Park are desperate to know when they can re-enter their buildings, clean-up and resume business. No structural inspections have occurred.

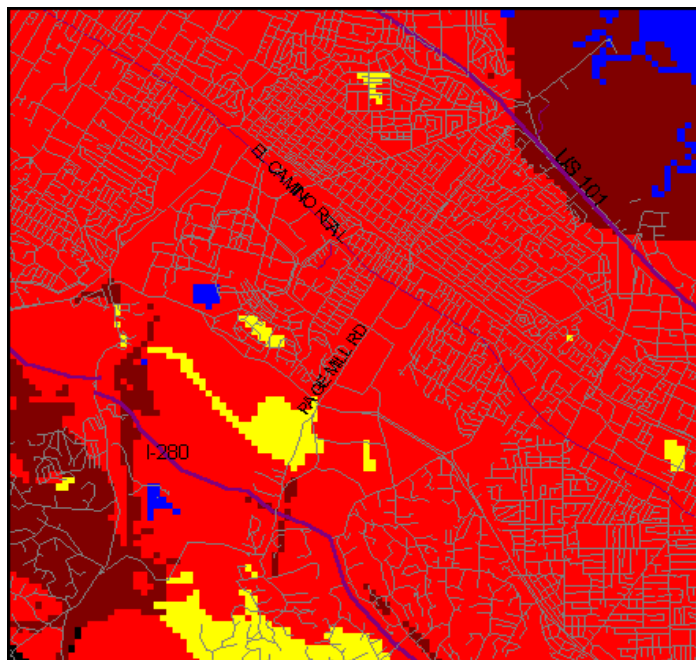
Student Affairs- Phone bank continues to be overwhelmed with calls from parents and concerned relatives. Large numbers of students wish to volunteer and need direction. Need to communicate with students and parents; the Stanford Daily is not publishing.

University Librarian's Office- At Green Library, a sprinkler main broke inside the basement, flooding the lower level of Green Library East and the South Stacks in the Meyer basement. No one present has keys to turn off the main. Approximately 2/3 of our materials are off the shelves on the floor; **because they are all wet, the books in the lower level/south stacks are in need of attention within a 24-hour period.** By exercise magic, some of our Facilities staff was on hand at 7:15, 4/3, and after evacuation of the building and attention to other immediate concerns, were able to assemble enough BATS to give an evaluation of Green and Meyer buildings. Again by exercise magic, the EOC was able to provide a structural engineer later in the day, who pronounced both buildings damaged, but habitable. On Tuesday, 4/4, some of the members of the SUL SOC Team, along with Library Preservation staff, were assembled to begin the arduous tasks ahead, as follows:

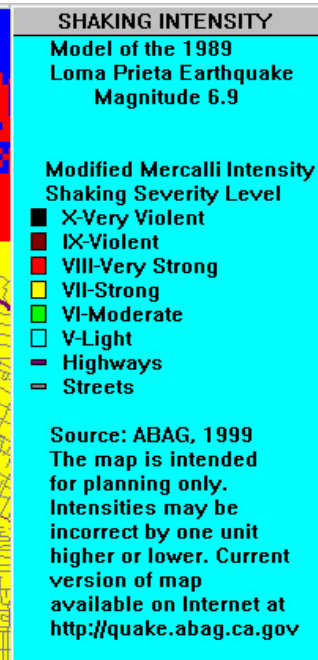
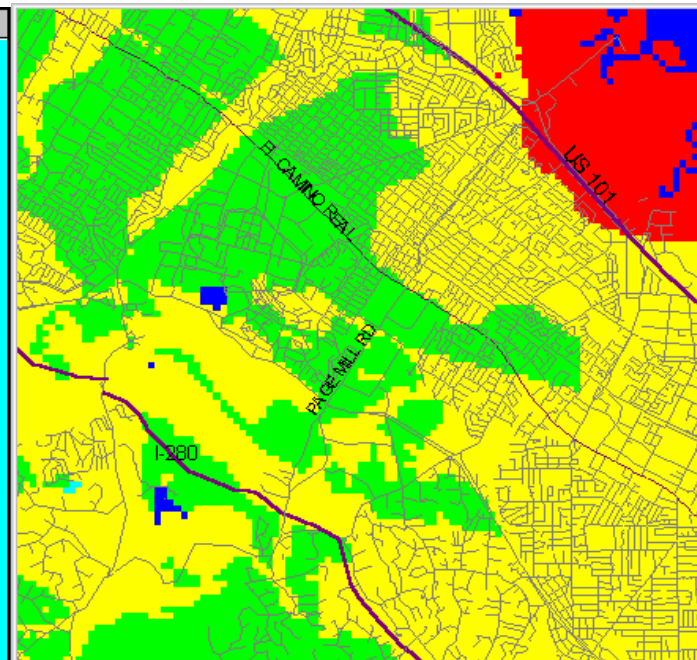
- Need to assemble a large group of volunteers (library staff to start with, and anyone else, as available) to pull books out of the water to get them to freezers
- Need to locate available trucks to take books to the freezers
- Need to arrange for and obtain dehumidifiers to be set up in flooded areas
- Need to arrange to get dry air pumped into all areas of the buildings to get humidity down to acceptable levels quickly. This requires large,
- Specialized trucks provided by a company such as Munters Inc.
- Vendors used in 1998 flood were: Munters Inc., and Restoration Management

Vaden Health Center- Providing care for students, staff and faculty 24 x 7. Rotating staff on 12-hour shifts. Rationing supplies. awaiting deliveries. Providing mental health counseling to whoever needs it. Staff is fatigued. Using students for administrative duties, clean-up, crowd control and runners.

USGS Map as of April 6, 2006



The Following Image Denotes Damage to the Stanford Area after the 1989 Loma Prieta EQ



Bay Area Issues As Of April 6, 2006

Transportation

- There continues to be transit problems all over the Bay Area. This most damaged includes 101, 280, 35, 92 and 84. Transit is mainly possible using side and smaller roads. Amazingly 880, 17, 237 and 1 are open.
- The Bay Bridge (ETA 4/30), San Mateo (ETA 4/25) and Dumbarton (ETA 4/30) are closed due to damage. The other Bay Area bridges are open.
- SFO (ETA 4/7), San Jose (ETA 4/10) and Oakland (ETA 4/7) airports remain closed.
- Cal-Train has initiated repairs and expects the system to open 4/7 in the afternoon. This will allow commuters and supplies to get into the affected area.
- BART is open 24 hours a day system-wide and is serving all stations except Daly City and south.
- Ferry service is now 24 hours a day and is connecting many east bay communities with BART and Cal-Trans routes to ease commute issues.

Communication

- Cellular phone service remains spotty during day hours due to over-taxing of system and damage to equipment. More mobile cells to facilitate calls will be brought into the region today and should improve service substantially.
- Line load control remains in effect by SBC throughout the Bay Area.
- Satellite phones are operational.

Utilities

- Electrical service remains out in much of three Bay Area counties (San Francisco, San Mateo, and Santa Clara). Alameda and Contra-Costa have electrical power in all but the affected areas along the Bay. PG&E expects power to be restored to much of the Peninsula over this weekend.
- Natural gas is disrupted to the affected counties. PG&E estimates repairs for homes to be 30+ days. Critical users will have service much sooner.
- Water and sewer services are disrupted to the affected counties due to broken pipes in the streets and at connecting sites. (ETA for repairs 5-30 days)

Schools, Hospitals and Care Facilities

- Public and private schools (K-12) remain closed at least until Monday, April 10.
- Colleges and Universities remain closed. UC Berkeley expects to open Monday. UCSF, USF, Stanford and San Jose State have not yet announced dates.
- Most private daycare facilities are not open.
- Many hospitals in San Francisco, San Mateo, and Santa Clara have reported damage to their facilities and are operating with a limited staff. Most are accepting patients for emergency treatment only, elective procedures have been cancelled and remain on emergency power
- Eldercare facilities (assisted-living, nursing homes) are open with a skeleton staff.

People

- Death toll is reported at 1,320 for all counties. There are 13,902 injured.
- A curfew remains in effect in San Francisco, San Mateo and Santa Clara counties from 10pm to 5am daily.
- The overall spirit of the citizens remains high in the affected areas although fatigue is setting in. Many communities have banded together with informal volunteer groups sprouting up to begin clean-up, perform search and rescue, fire-fighting and medical assistance.

- The housing stock has been seriously damaged. Over 95,000 people are displaced, 18,000 are in shelters and 16,000 dwellings are completely destroyed in the three affected counties. Tent cities are offering temporary shelter.
- Looting has been occurring since the earthquake in some of the hardest hit areas due to easy access to buildings (broken windows, no security systems due to lack of electrical power and phones) and very limited law enforcement. Thefts of computers, televisions and other expensive equipment have been reported.
- Most businesses (SF, SM, SC county) including retail, hotels and restaurants have been closed due to lack of power and natural gas.
- The Office of Homeland Security advises that due to the severe damage in the Bay Area that the region is also more prone to a terrorist attack. Citizens are urged to be alert for suspicious activity and report any such activity to local law enforcement.

San Mateo County

- There is severe damage along the 101, including sinkholes, liquefaction and several collapsed overpasses. The abandoned autos have been cleared.
- The Crystal Springs reservoir is still leaking. The Army Corps of Engineers has instituted repairs.
- Two of the four main lines from the Hetch Hetchy water system from the East Bay are broken. This has resulted in a real shortage of water in some communities.
- The Millbrae sewer treatment plant is not functioning. Raw Sewage continues to spill into the Bay from most treatment plants facing the Bay in the County.

Santa Clara County

- San Jose Light Rail is closed for repairs. Will reopen 4/18.
- The Altamont Commuter will resume service 4/18.
- Most of the fires have been contained. Several technology sites have reported fires; most have been contained, including Intel and AMD.
- Many shelters have been set up in the cities near the epicenter. These tent cities are housing thousands of residents.
- Palo Alto Airport (101 and Embarcadero) and Reid Hillview Airport (Story Road/101/Capitol Expressway) have substantial damage. No known time estimated for repairs. San Carlos Airport (101 and Whipple) in San Mateo County is closed as well.

San Francisco County

- The fires in the Marina, South of Market and along the Bay in the Financial District are out.
- Tent cities have been set up in Golden Gate Park, reminiscent of the Great 1906 earthquake and fire.
- The Financial District and much of downtown remains closed. This is due to power outage, building damage and slow building inspections. This area is expected to partially open beginning on Monday. Employees should check with their employer as to when to come to work.

Alameda County- Hayward/San Leandro/Union City Area

- The Hayward air terminal is closed due to buckling of the runway and severe damage in the tower.
- The San Leandro and Hayward Sewage Treatment plant continue to dump raw sewage into the Bay.

Alameda County-Fremont/Newark Area

- The area along the Bay remains the most impacted with roads closed, no utilities and closed businesses.

Alameda County-Oakland Area

- Alameda is an island due to damage and flooding to both of the tubes. There is no estimated time for repair.
- Oakland Port is receiving emergency supplies. Repairs to the Port are underway.
- Downtown Oakland is expected to open on Monday.

Alameda County-Berkeley Area

- The Caldecott tunnel is open.
- East Bay Mud Sewer Treatment Center continues to dump of raw sewage into the Bay.
- Most of the area has all utilities.

Contra Costa County-Richmond/El Cerrito/San Pablo/Martinez Area

- The Richmond/San Rafael Bridge is open.
- The Refineries are being inspected. There has been no chemical release or fires since the quake.
- The breaks in the pipelines that move oil from the marine terminals to the refineries have been repaired.

Contra Costa County-Walnut Creek Area

- The 24/680 interchange is open.
- Minor damage occurred in homes and businesses but for the most part it is business as usual in the area.

Marin County/San Rafael Area

- The Golden Gate Bridge is open.
- The roadway approach to the San Rafael Bridge has been repaired and the bridge is open.
- The sewer treatment center in Mill Valley has been repaired.

Counties report minor damage and business as usual:

- Sonoma County (San Pablo Bay Area)
- Napa County (San Pablo Bay Area)
- Solono County
- Monterey County (Pacific Grove, City of Monterey)
- Santa Cruz County