Imaginary quake tests emergency response

BY MICHAEL PEÑA

It wasn’t what anyone wanted to hear first thing in the morning: Unconfirmed reports of injuries and deaths were pouring in, power from PG&E to campus was knocked out and so was the normal supply of water—all because of an earthquake along the Hayward Fault measuring 6.9 on the Richter scale.

Stanford’s emergency response teams faced this fictitious catastrophe during a campus-wide drill Thursday morning to test how well life and safety issues would be addressed in the event of a real regional disaster. When one does occur—indeed, earthquake experts say it’s only a matter of time—the university’s top officers and administrators are to convene with several-dozen staff members who are familiar with the institution’s most critical functions.

And that’s what everyone did, taking over the Faculty Club and activating the university’s Emergency Operations Center (EOC). The center housed four main teams, each responsible for managing different areas: operations, logistics and finance, intelligence and planning, and public information. The heads of those groups reported to the EOC’s command team, which included President John Hennessy, Provost John Etchemendy and Stanford Police Chief Laura Wilson.

Also switched on across campus were 25 "satellite operations centers" (SOCs) for major units, including athletics, the hospitals, land and buildings, and each of the seven schools. A simulation team of 22 staff members brought authenticity to the drill by pretending to be the type of individuals—everyday citizens, public officials, journalists and worried parents—the university’s responders would interact with during an actual crisis.

"We have our mass notification system," Hennessy said to the other command team members. "Even if there are tens of deaths or hundreds of deaths, we have to say something."

To add more pressure, the scenario was set five hours after the earthquake and less than two hours before sunset. With no natural gas to power the university’s cogeneration plant, rapidly dropping temperatures in buildings on campus would be a problem as the night approached. The only sources of electricity throughout campus were provided by diesel generators, so the command team had to set priorities for using and conserving fuel supplies.

The scenario also assumed the closure of Bay Area highways and BART, as well as an unreliable power grid for a five-day period and dependence on unfiltered water from local wells. Throughout the region, hundreds of people were assumed to have died in vehicle accidents and building collapses. Rain loomed in the forecast.

In the event of a natural disaster, Stanford would need enough food, water and other supplies to be self-sufficient for 24 to 48 hours. That would include caring for roughly 30,000 people across 1,100 buildings.

During a debriefing session after the drill, participants shared their thoughts about what went well and where improvements might be needed. Many said communication between teams in the EOC and with the SOCs was better than in prior years. Shirley Everett, senior associate vice provost for Residential and Dining Enterprises, said the general quality of the exercise improved.

"The exercise itself, I think, was written much better than in the past," said Everett, who sits on the EOC’s operations team. "It allowed us to be more self-reliant, and therefore, allowed us to see our real weaknesses."

But there were also problems. This year, emergency planners at Stanford introduced a new web-based system for tracking data, which got mixed reviews. And despite a generally smoother experience overall, as in previous exercises the teams had to work through technical glitches related to phones and...
Leading up to the Feb. 5 exercise, several field exercises were held on campus last week to test various aspects of the university's disaster response. On Jan. 30, Vaden Health Center held a mock triage in conjunction with Stanford Hospital, which set up a tent in the parking lot that sheltered "victims" who were actually student volunteers. With the help of moulage, their clothes were stained with fake blood and, in one case, a shard of glass protruded from a person's forearm. Some were transported to Vaden on gurneys by the student group Stanford Emergency Medical Service; others limped up to the center.

A separate field exercise that day took place in the vacated Storke Building, where members of the Stanford Community Emergency Response Team practiced search-and-rescue procedures. Mock victims were slumped inside, concealed by smoke generated by a fog machine.

"It was an extremely good learning experience," Keith Perry, emergency manager in Stanford's office of Environmental Health and Safety, said of the search-and-rescue exercise. "If they had to do it again tomorrow, it would be much more efficient."