The Northridge Earthquake:
22 years later, are there lessons to be learned?

Emergency Managers & Continuity Coordinators
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The Northridge Earthquake By The Numbers

- January 17, 1994, 4:31am
- Magnitude 6.7
- Produced the highest ground acceleration ever recorded in an urban area in North America
- Felt as far away as Las Vegas
- 57 people perished, 5000 injured
- Caused an estimated $13B - $40B in damages
- CSUN suffered $400M in damages that took more than 13 years to fully repair/replace
- 3 Students perished in the Northridge Meadows Apts.
The First Day

- The earthquake occurred before dawn on a Federal holiday, Martin Luther King Day
- With the exception of a few public safety staff and the students and staff that lived in campus housing, the campus was uninhabited
- The President was at her vacation home in Pine Mountain
- A number of Facilities and Public Safety staff came to campus, but many staff could not get there…
  - Roads and utilities (water, electricity and gas) severely disrupted
  - Interstate 5 and California 14 were closed in Sylmar
  - Interstate 10 was closed in West Los Angeles
- …Or chose not to come in
I-5 and CA 14 in Gavin Canyon
The Impact

- Virtually every building on campus was damaged, a half-dozen or so would ultimately be demolished and replaced
- Fire involving hazardous chemicals in a Science building
- Cadavers in a temperature controlled anatomy lab
- South Library housed the campus data center and was structurally unsound
- Oviatt Library was severely damaged, and most books were on the floor
- Lindley Ave. Parking Structure had collapsed
- Approx. 3,200 housing residents were out of their home

The good news

- No need for Search & Rescue
How To React?

- Reopen or not?
  - Housing was home to 3,200 students
  - Approx. 28,000 students were depending on us to offer classes. The education we were providing was intended to change their lives. Help them achieve their dreams.
  - Thousands of employees depended on the campus for their livelihood
  - Economic impact on the San Fernando Valley was non-trivial

There really was no choice…

- We would build a temporary campus
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- We would build a temporary campus – in one month!
  - 335 temporary structures
  - 475,000 Sq.Ft. of classroom space
  - 1,000 people working 3 shifts
The Recovery

- Communication was critical, but this pre-dated the internet as we know it today
  - Telecom was vintage 1950s
  - Modem pools + toll free 800 lines
  - Cell phones that did exist were “bricks”
  - Basic e-mail became the standard

- Twice daily coordination meetings
  - Lasted not more than 30 minutes
  - Simple status reporting and coordination

- Procurement of...
  - Brooms, shovels, gloves, dust masks, hard hats, etc.
  - Tools and professional services related to security, damage assessment, documentation, hazardous materials disposal, etc.
The Recovery

- **Security**
  - Secured buildings from looki-loos and fac/staff wanting to retrieve personal items, check on experiments, provide tours to friends, etc.

- **Safety**
  - Whole sections of the campus were Hard Hat Areas
  - Asbestos was an issue
  - Hired a Safety Coordinator

- **Logistical response**
  - Move Crew

- **Temporary office space**
  - Early on it was tents provided by National Guard
  - Motor coach for the President
  - Converted two vacant residence halls into offices
Help From Friends

- Law Crandall Engineering
- California National Guard
- Pac Bell/AT&T
- IBM
- Many others too numerous to mention

Other campuses

- Long Beach Public Safety
- Fresno Data Center
- UCLA Library
- The CO
  - Capital Planning, Design & Construction
  - Contract & Procurement Services
  - Office of General Counsel
Some Observations

- Roles of staff were temporarily disrupted
  - Police Chief was injured at home
  - Librarians had no library
- People with 'technical' skills played a very prominent role. Many administrators, not so much.
- Temporary forgiveness of rules and reporting deadlines…
  - Got lots of stuff done in a short amount of time
  - Built a temporary campus in 30 days
  - Governor authorized the travel of mobile trailers during daylight hours
  - Every available mobile building west of the Mississippi was on the campus at one point
- …But the system would ultimately re-impose its will
Take-Aways

- Restoration of communications systems will be paramount
- Flexibility in procurement will be required
- No amount of planning will foresee every problem
- Creativity and flexibility pay dividends
- Crises bring out the best and the worst in people.
  - Be prepared to recognize and use talent from unexpected places.
  - Be prepared to adjust when performance by others is underwhelming