

Southern California Disasters Visited Series

THE 1994 NORTHRIDGE EARTHQUAKE

written: March 28, 1994

© 1994 Charles W. Paige

## RUDE AWAKENING

An Account of the January 17, 1994, Northridge Earthquake

The main earthquake struck at 4:31 a.m. waking me from a deep sleep. No time to think logically, I jumped out of bed and ran for the back porch as the house jolted and shook violently around me. Elsewhere, a mother running to protect her newborn baby tripped over something that had fallen and broke her neck. Many people were stepping on injury-producing obstacles such as broken glass, while a few elderly folk suffered heart attacks.

Papers, framed pictures and knickknacks fell from shelves, the reel-to-reel tape player took a walk to the edge of its Akai speaker base, an heirloom plate broke under a pile of falling books, while other things shifted position during the 30-second spasm. Next door, the neighbors' kitten chose this time to sit in their upstairs window. The hinged window flew open and the small cat fell to the ground, surviving but using one of its nine lives.

It was too dark to see anything happening except the irrational movements of walls, floor, ceiling. The only thing going through my mind was that this was a big one, and I wanted to be close as possible to an exit!

I called Mom at 5:00 a.m. Pacific Standard Time. This was after the shaking had become more intermittent so I could plug the extension phone power cord back into its socket, and before the phone company switched the area's telephone system to emergency mode. All interstate calls would soon be deflected to prevent phone lines from jamming, thus freeing them for emergency use. I told Mom that I was okay and that we had just experienced a major earthquake, at the time estimating the shock at about 6.5 on the Richter scale.

I retrieved a portable radio from inside the apartment and set up shop on the back porch, where there was already a TV. At first I listened to radio DJs talking to people calling in about what the quake and aftershocks were like in their area. Then I switched on the TV to see initially meager news footage swell in size and content as cameras and news people arrived at scenes of devastation. The very first scenes were shot near the television studios, of downtown Los Angeles apartment residents making their way from broken and warped buildings, sometimes having to force sprung doors open to escape. Most were barefoot, scantily clad and walking on carpets of glass. These early scenes were twenty miles from the epicenter.

It was almost 6:00 a.m. before official announcement of the quake's size was made. The California Institute of Technology (Caltech) placed the quake at 6.6. This figure, however, would later revise to 6.7, then 6.8. They also announced that the temblor was produced by upward movement of a "thrust" fault and was epicentered in the city of Northridge, 30 miles northwest of Pasadena and 20 miles north of Los Angeles. As with the size, the epicenter was later revised. Its new locale was Reseda, a town on the southern border of Northridge. It would still be called the "Northridge Quake," since that city sustained the most damage.

There were literally hundreds of aftershocks during the hours immediately following the main event, some of them over 5.0, and it didn't seem like the earth ever stopped shaking. I, along with perhaps millions of other area residents who still had working TVs/electricity, watched the many incoming news stories as though transfixed. I watched until 10:30 a.m. before going to work. Stories included the following:

## Earthquake—1994

- A. Damage to, and evacuation of, several apartment houses in Hollywood, South-Center and West Los Angeles.
- B. Rescue efforts to free people trapped in partially and fully destroyed buildings, especially the multi-story Northridge Meadows Apartments that had collapsed on and obliterated its ground floor.
  - 1. It took some hours to free one older fellow from his ground floor apartment. Upon being pulled out on a stretcher, he remarked how beautiful was the sky.
  - 2. Two young men arrived by car from Arizona looking for their mother and sister. They had recognized the fallen apartment building as being their mother's residence, when watching news in Arizona, and were requesting help in their search.
  - 3. One older couple was sleeping in a corner bedroom when the building collapsed. They became trapped and had to dig their way out through a wall.
  - 4. One of the more dramatic miracles happened to a young couple asleep in their ground floor bedroom. When the quake hit, their bedroom's outside wall exploded outward, while the couple, on their mattress, followed suit, landing in the yard as the building came down and crushed the empty bed frame.
  - 5. A majority of the more than fifty deaths attributed to the January 17 earthquake would be tenants from the ground floor of this building.
- C. The Northridge Fashion Mall, a major shopping attraction, was severely damaged, totaling some of its major stores such as Bullocks and Sears.
  - 1. My friend Ven's nephew-in-law was a manager at the wrecked Sears store, and was fortunate to be given a similar position at the Glendale Sears store a week after the quake.
  - 2. At some point it was announced that the entire mall complex would be torn down and rebuilt, perhaps in another location.
- D. Collapse of, or damage to, several parking structures.
- E. Interviews with people injured and those who had suffered great loss.

## Earthquake—1994

- F. Coverage of collapsed freeways, including the heavily-traversed Interstate 10, California 118 on and off-ramps, and the blocked Interstate 5 (blocked by the fallen 118 on and off-ramps).
1. The first non-heart-attack fatality reported was at the fallen California 118. A motorcycle policeman had died when his motorcycle hit some debris in the road that threw him from the bike.
  2. The policeman was speeding to help a pregnant woman trapped on a fallen section of the 118.
  3. The woman was already being medevaced to safety when a witness saw the policeman's mishap occur.
- G. Only one Northridge hospital remained open, even though it had broken water lines that left several inches of water standing on the ground floor.
1. Less serious injured were asked to wait outside the hospital for eventual treatment by doctors. Chairs were set up, and the injured received first aid and morale boosting refreshments from triage staff.
  2. The hospital soon announced that it could not accept any more seriously injured patients. It was filled beyond capacity. Medevac helicopters would carry future critical patients arriving to hospitals outside the epicenter area.
- H. The town of Granada Hills:
1. A fuel transfer pipe running under the city ruptured, sending petroleum to the surface of Wolfskill Street in a residential neighborhood.
    - a. A home owner on that street said that he had smelled the strong odor of fuel and had gone outside to determine the source.
    - b. Petroleum was flowing down the gutters and under automobiles on both sides of the street.
    - c. Suddenly the liquid exploded into flames at the locale where it jettisoned from the ground. The flames spread down the gutters, causing all the autos to catch fire and explode.
      - (1) A pickup truck was traveling down the street when the explosion and fire occurred.

## Earthquake—1994

- (2) The driver was able to escape, with burns over much of his body.
  - (3) The passenger, a female mongrel dog named "Bimbo," wasn't seen again by her master for several days.
  - (4) Eventually, someone turned Bimbo over to the Humane Society, where she was treated for severe burns over most of her body.
  - (5) Bimbo's progress was followed closely by the media as a "human interest" story.
  - (6) Bimbo lost her battle and died of kidney failure.
- d. When authorities required evacuation of the neighborhood, buses were sent in to retrieve those residents who had just lost their only form of transportation.
2. A main underground water transfer conduit burst, sending a torrent of high pressure water to the surface near where the burning petroleum was gushing.
    - a. The streets immediately became rivers of fire, oil and water.
    - b. Authorities quickly sprang into action, stemming the flow of water before totally losing the feeding reservoir's precious fluid.
- I. Several Burbank houses built on stilts collapsed down the side of their respective hills, decomposing to the consistency of kindling, destroying some but not all life within.
  - J. The San Fernando Valley's several towns lost all power.
    1. This condition would continue for some days.
    2. With no street lights or traffic signals, getting anywhere by vehicle was a dangerous and nightmarish undertaking.
    3. The National Guard was called out to protect the citizens, prevent looting and maintain order.
    4. Outlying cities on the same power grid also lost power, including an area of Portland, Oregon.

## Earthquake—1994

- K. County, State and Federal authorities were quick to set up special services. Many announcements were made on TV and radio giving emergency information.
1. Locations and phone numbers of temporary shelters for the thousands that were suddenly homeless.
  2. Financial aid information.
  3. Health advisories, such as Los Angeles warning that the city's water had been contaminated by a break in the water line. Subscribers to the Los Angeles Municipal water supply were advised:
    - a. Not to drink the water unless it had been purified, i.e., boiled for twenty minutes, with chlorine added.
    - b. To drink bottled water if possible.
- L. California Institute of Technology's seismologists were besieged by reporters.
1. Most of the time, a live shot of a seismograph could be seen in a corner of the TV's screen. Viewers away from the epicenter could tell that aftershocks were coming seconds before the temblors hit their area just by watching the graph needle do its line dance.
  2. By the end of a week there would be more than fifteen hundred aftershocks.
- M. A train pulling cars filled with poisonous gas had been crossing near the epicenter area and thirty cars had derailed. Fortunately, none of the cars ruptured even though most of them were laying on their side.
- N. An early estimate of cost to repair damages was \$30 billion (later reduced to \$15—20 billion<sup>1</sup>), yet what price the terrors of local inhabitants, and anxieties of their friends and family elsewhere?
- O. U.S. President Bill Clinton, California Governor Pete Wilson, and Los Angeles Mayor Richard Riordan would tour the affected areas by helicopter.
1. Aid was promised to help in the long and painful recovery to come.
  2. The President's brother lived near the epicenter but was all right.

---

<sup>1</sup> \$4.9 billion would come from insurance companies, the second costliest insurance pay-out in U.S. history. The record is held by a restoration cost of \$15.5 billion for hurricane Andrew.

## Earthquake—1984

- P. Thousands of displaced people set up homes away from home in area parks.
- Q. Damage in outlying counties, including Orange County where more than \$1 million in damages occurred at Anaheim Stadium.

The frequent and strong aftershocks kept me out of the shower until the sun was well up. Finally, after a particularly large set of aftershocks, I took a shower and prepared for work. I did not bother to pick anything up that had fallen, just moved things that were in the way.

I went to work at 11:00 a.m., pleasantly surprised and relieved that nothing was askew in my working area. It was business as usual for the remainder of the day save for the building's occasional lurches, rocks and rolls.

Some other people showed up, but none living in the hardest hit areas. Not surprisingly, few people (myself included) left their car in our parking structure that first day. The large-screen TV in our conference room was left on all day to monitor news goings-on. People came and went, stopping for short spells to catch up on the latest happenings or revelations.

I slept nights on the back porch for the next two weeks. Fortunately, the couch was long enough for me to stretch out comfortably. Also, we were experiencing unusually warm January weather, so nights weren't too chilly.<sup>2</sup>

There was an especially large aftershock early in the morning of Saturday, January 22. The shock damaged the California 101 freeway where it meets the Hollywood Freeway (170) near Burbank. The shock also caused a great crack to occur in the Los Angeles Memorial Coliseum (home of the 1932 and 1984 summer Olympics) large enough for someone to look through from the outside into the arena.

The evening of the 22nd, my friend Ven and I were scheduled to attend a party in Northridge. I had never before been to Northridge, and it was ironic that now would be the time to have a commitment there. We couldn't take blocked Interstate 5 to the collapsed California 118. Instead we took the Hollywood Freeway (170), finding the going very slow near its intersection with the newly damaged California 101. Much of the drive was down Roscoe Boulevard, where we saw a great deal of damage to buildings. Many people were in the process of moving into undamaged apartments, even though it was after dark, and some others were still living on the street. Not far from our destination, Roscoe Boulevard had an area cordoned off where great chunks of concrete/asphalt were missing. It looked like water damage.

The Oriental woman we were going to visit, a close friend of Ven's niece and nephew-in-law, Daisy and Philip, was having a combined birthday and house warming party. Pati had recently moved to Northridge from Palmdale, California. Palmdale, for those who don't know, is home to the infamous Palmdale Bulge caused by tectonic pressure along the San Andreas Fault.

The San Andreas Fault is the earthquake nemesis of California from the San Francisco Bay area south.

---

<sup>2</sup> Whenever the weather is unseasonably or inexplicably warm, people living in Southern California have a name for the condition. We call it "earthquake weather," if for no other reason than experience. Seismologists, however, claim there is no connection.

## Earthquake—1994

The niece and her family were at the party with daughter Audrey, and there were several others. Basically, the evening was spent comparing notes about earthquake experiences/damage.

- R. Pati's brand new, large-screen TV had leapt from its entertainment center niche to the floor and was no longer working.
- S. A friend Carl's refrigerator was on wheels. It had rolled across the kitchen and back again. His son's refrigerator, not so lucky, had fallen over, as did everything else in the son's house. Carl has my suspicions that Gia, or Mother Nature, is looking for a volcanic outlet.
- T. The niece and family, who had only a few months earlier purchased and moved into a home in Reseda, had invited a friend left homeless by the quake to live with them until things get "settled." For a long time after January 17, both Daisy and Philip slept nights on the floor near their bedroom door.

Time passed, and I was taking a noontime rest in my car one day, parking once again in the structure at work. The Pasadena City College radio station KPCC was airing Gloria Swanson singing a tune, recorded in 1932, called "I love you so much I hate you." Suddenly an aftershock hit and the structure began to move, making the car bounce up and down, back and forth.

The aftershocks, themselves, were different from any I had experienced from prior seismic events. In the past there was usually at least a small warning in the form of "S" waves to precede the main event. In other words, you got a little jiggle moments before the jolt. After the 6.8 Northridge quake hit, the aftershocks tended to start immediately with a jolt, or upward thrust, that always caught me off guard.

We had a large aftershock Thursday, January 27, that busted a small, city water line below my front yard. Thursday afternoon, when I arrived home from work, there was quite a stream of water flowing from the front lawn into the street gutter. I talked with my downstairs neighbor about it, and he said the landlord had already come by and sealed off the leak. I then called the landlord and told him that water was still bubbling up from around the base of the tree in our front yard.

Friday, when I returned home from work, Department of Water and Power workers were busily digging up a portion of the yard between the tree and the sidewalk. They finished repairing the break well after dark, and refilled the hole albeit poorly.

The original January 17 shock was devastating, but damage didn't stop there. By the start of the next month more than 600 historical landmark buildings/sites had been damaged, along with others, in many cases resulting as much from the thousands of aftershocks as from the original assault.

The U.S. Defense Department, through NASA and its Jet Propulsion Laboratory (part of Caltech), has a system of two dozen satellites orbiting the earth at 20,000 kilometers. The



## Earthquake—1994

network of satellites, called the Global Positioning System (GPS), among other tasks can track ground movement on Earth by comparing measurements to ground receivers. Using this technology, scientists at the Jet Propulsion Laboratory determined that 3,618-foot-high Oat Mountain, in the Santa Susana range north of San Fernando Valley, rose 14.8 inches while sliding north 6.2 inches and west 5.5 inches. All this occurred in less than a minute. Aftershocks have since contributed another inch to Oat Mountain's height, with the January 29, 5.0 shock shoving the mountain back south an inch.

On the brighter side:

- U. The quake occurred very early, and on a holiday that, for some, meant a day off work to celebrate the Reverend Dr. Martin Luther King Jr.'s birthday. Traffic was a small percentage of what it normally would have been on a Monday morning at 4:31.
- V. The disaster brought together many otherwise disparate communities and solidified them into sustaining and caring entities, as iron is forged into steel by fire.
- W. The billions of dollars pouring into the area from various government and insurance agencies is helping to revive an otherwise recessive local economy.
  - 1. Structure replacements and repairs are helping the construction industry.
  - 2. The purchases of vehicles and appliances to replace those destroyed are assisting the retail industry.
- X. There is a good chance the many schools and hospitals destroyed or badly damaged will be replaced by more modern facilities, potentially better equipped.
- Y. Agencies in charge of overseeing road and freeway construction will now have ample ammunition when demanding adequate funds for proper road construction and retrofitting of older roadways, bridges and overpasses.

Money had already been earmarked and set aside for retrofitting by Los Angeles voters following the 1989 San Francisco earthquake. However, very little of it had been used till now.
- Z. People who may never have looked for alternative means of traveling to work than by single occupant automobiles are taking buses, metrolink commuter trains, or joining van pools due to freeway/road closures and the resultant over-crowding/traffic jams and other inconveniences. Quake destruction of parking structures also contributes to this tendency.

## Earthquake—1994

- AA. The population of the area is likely to diminish somewhat as people from out of state return whence they came, not wishing to live in an area where the ground beneath their feet is not always stable.
- BB. Perhaps the plight of the homeless will become more real to the many thousands of people left homeless by the quake, leading to some future action alleviating this chronic condition.

It was Sunday, March 20. In Santa Monica, California, a Quake Anxiety seminar was being held for people recovering from shattered nerves. The Pasadena Civic Auditorium was hosting the 1994 Star Trek "Trekkie" Convention, which had been going on all weekend. In Hollywood, celebrities and technicians were preparing for the upcoming Academy Awards ceremony, to be held the next day. I was sitting in the living room watching TV and proofreading a late version of this essay. Suddenly an "S" wave started things rattling just before a large "aftershock" struck at 1:20 P.M., this one measuring 5.3 on the Richter scale. Everything shook violently. I reached out and steadied the swaying bookcase next to my chair, but nothing fell in the entire apartment. Elsewhere, however, there was extensive damage such as great cracks in freeway junctures, and the loss of structures awaiting life-saving repairs of earlier devastation.

This earthquake, the strongest of seven aftershocks greater than 5.0 on the Richter scale, felt different from the original January 17 shaker, more like those I was used to experiencing (if one can ever get "used" to such things). I predicted that it was a new quake, but those who were supposed to know claimed it was another aftershock. Still, its epicenter was two miles northwest of Panorama City, which is several miles south of Northridge. I wonder!

### AFTER NOTE

Following four of Dad's last five visits to Pasadena, an earthquake has occurred shortly after his return home. That's quite a set of coincidences! He departed here Monday, June 10, 1991, and the Sierra Madre quake, measuring 6.0, hit June 28. He departed here Monday, May 25, 1992, and two quakes, the Landers and the Joshua Tree, measuring 6.6 and 7.5, respectively, hit the morning of June 28. He departed November 16, 1992, and an aftershock of the Landers quake, measuring 5.4, hit November 27. Dad departed Sunday, December 26, 1993, and less than a month later the Northridge quake hit, measuring 6.8. (We didn't have a sizable quake after Dad and Rosalie's September 1993 visit, though we did have the fires of October.)

\* \* \* \* \*