



THE WESTHOME SIREN

Special Earthquake Bulletin Serving the greater Westhome, Oregon, area!

2 strong quakes rattle Japan

Western parts of nation feel effects; damage is limited

Two strong earthquakes, one magnitude 6.9 and the second magnitude 7.3, rattled western Japan within hours of each other Sunday night, injuring 14 people, shaking buildings in Tokyo and triggering tsunami waves.

Damage and injuries appeared to be limited because both quakes were far off Japan's coast, and the region shaken most strongly by them was a sparsely populated rural area, Wakayama, 280 miles west of Tokyo.

But tall buildings in Osaka, Kyoto and Nagoya shook and buildings swayed in Tokyo.

The first quake, with a magnitude 6.9, struck shortly after 7 p.m., centered 70 miles southeast off the Kii peninsula and six miles beneath the Pacific Ocean

floor. Kyoto News reported that five were hurt in the first temblor.

The second temblor, magnitude 7.3, struck about five hours later, centered about 80 miles southeast off the coast of Kochi prefecture (state), also six miles below the seabed. Public broadcaster NHK reported that nine people were injured.

Tsunamis — waves triggered by seismic activity — were recorded along the Pacific Coast, the largest being 3 feet high.

The Meteorological Agency issued fresh tsunami warnings after the second quake, prompting several coastal towns in Mie prefecture (state) to order residents to evacuate, public broadcaster NHK reported.

Earthquakes in history: a literary perspective

John Muir vividly recalls an earthquake that shook up part of Yosemite — the Owens Valley — in 1872.

“At half-past two o'clock in the morning in March, I was awakened by a tremendous earthquake. I had never before enjoyed such a storm, and the strange thrilling motion could not be mistaken.

The shocks were so violent and varied, and succeeded one another so closely that I had to balance myself carefully as if walking on the deck of a ship. It seemed impossible that the high cliffs of the valley could escape being shattered. I feared that the sheer-fronted Sentinel Rock, which towered above my cabin, would be shaken down.

The shocks became more and more violent — flashing horizontal thrusts mixed with a few twists and battering, explosive, upheaving jolts.

After, no sound was heard for the first minute or so, save for a low, muffled, underground bubbling, rumblings, and the whispering and rustling of the agitated trees. Then, suddenly, there came a tremendous roar. The Eagle Rock on the south wall, about a half mile up the Valley, gave way making a terrible sublime spectacle — an arc of glowing, passionate fire, fifteen hundred feet span — a roaring rockstorm.

After the ground became calm I ran across the meadow to the river to see in what direction it was flowing and was glad to see that *down* the Valley was still down.”

Turn to page 2 for more historical accounts of famous earthquakes!

More tales of earthquakes in history...

Mark Twain recounts his first earthquake in San Francisco on October 8, 1865.

“It was just after noon, I was coming down Third Street, all was solitude and stillness. As I turned the corner there came a terrific shock; the ground seemed to roll under me in waves, interrupted by a violent joggling up and down, and there was a heavy grinding noise of the brick houses rubbing together. I fell up against the frame house and hurt my elbow. A third and still severer shock came, and as I reeled about the pavement trying to keep my footing, I saw a sight! The entire front of a tall four-story brick building sprung outward like a door and fell sprawling across the street, raising a great dust-like volume of smoke!”

Jack London tells of the fires that consumed San Francisco after the devastating earthquake of April 1906.

“San Francisco is gone. Nothing remains of it but memories. Its industrial section is wiped out. Its business section is wiped out. Its social and residential section is wiped out.

Within an hour after the quake the smoke was a lurid tower, visible a hundred miles away. For three days this lurid tower stayed in the sky, reddening the sun, darkening the day, and filling the land with smoke.

There was no organization, no communication. The streets were humped into ridges and depressions and piled with the debris of fallen walls.”

Did you know?

- ◆ If you find yourself indoors during an earthquake it is better to stay put and take cover than to run outside and risk being hit by falling debris.
- ◆ In the 1880s, three Englishmen working in Japan invented the first seismic instruments accurate enough to be used in the scientific study of earthquakes.
- ◆ The most severe earthquake in the twentieth century occurred along the coast of Chile, in South America, in 1960. It registered a whopping 9.5 on the Richter scale!
- ◆ The following states have all experienced a major earthquake (magnitude 7.0 or greater) in the last 200 years:
 Arkansas Hawaii
 Alaska Washington
 Nevada Idaho
 California Montana
 Alaska's had the most — 12 major earthquakes in just the last 30 years!

Mercalli vs. Richter: a tale of scales

Underground shock waves from an earthquake are measured by seismologists (scientists who study earthquakes) with a device called a seismometer. The results are displayed in the Richter scale. Every whole value on the Richter scale is equal to about 33 times the value below it. The Mercalli scale rates the effects of an earthquake above ground.

<u>Mercalli</u>	<u>Effects</u>	<u>Richter</u>
1	Detectable only by seismometers.	0-2.9
2	Only a few people on upper floors notice.	3-3.4
3	Like a heavy truck passing by, hanging lights may swing.	3-5.4
4	Windows and dishes rattle. Like a heavy truck crashing into a building.	4.1-4.4
5	Almost everyone notices. Sleepers wake up. Small objects move and drinks spill.	4.9-5.4
6	Many people are frightened and run outdoors. Heavy furniture moves. Pictures fall off walls.	4.9-5.4
7	Walls crack. Tiles and bricks fall from buildings.	5.5-6
8	Chimneys and some weaker buildings collapse.	6.1-6.5
9	Well-built houses collapse. Underground pipes are damaged. Cracks open in ground.	6.6-7
10	Landslides. Railroad tracks buckle. Rivers overflow. Many stone buildings collapse.	7.1-7.3
11	Most buildings destroyed. Large cracks in ground. Bridges destroyed.	7.4-8.1
12	Ground moves in waves. Total destruction.	8.2+