

# Quake shake: It depends on fault

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SANTA CRUZ — A major earthquake on the Hayward Fault would shake Santa Cruz County only a fraction as much as the Oct. 17 quake did, scientists at the U.S. Geological Survey predict.

A magnitude 7 earthquake on the southern Hayward Fault, in the area between San Leandro and Fremont, would shake Santa Cruz only one-fifth as much as the Oct. 17 earthquake. A temblor on the northern section, in the area near Oakland, would shake Santa Cruz only one-tenth as much, according to figures presented to San Francisco Bay Area government officials on Monday.

The news wasn't as optimistic for those officials.

"If a (7.1) earthquake occurs on the Hayward Fault, the shaking in downtown Oakland will be as much as 12 times stronger than it was in October; the Marina Dis-

trict in San Francisco will shake about five times stronger," said Dr. Peter Ward, a geophysicist at the USGS Office of Earthquakes, Volcanoes and Engineering in Menlo Park.

USGS scientists say there is now a 67 percent probability that a magnitude 7 or greater quake will strike the San Francisco Bay Area in the next 30 years, a substantial increase from the 50 percent probability estimated just two years ago.

Scientists are concerned about the Hayward fault, the Rodgers Creek Fault near Santa Rosa and the peninsula segment of the San Andreas Fault.

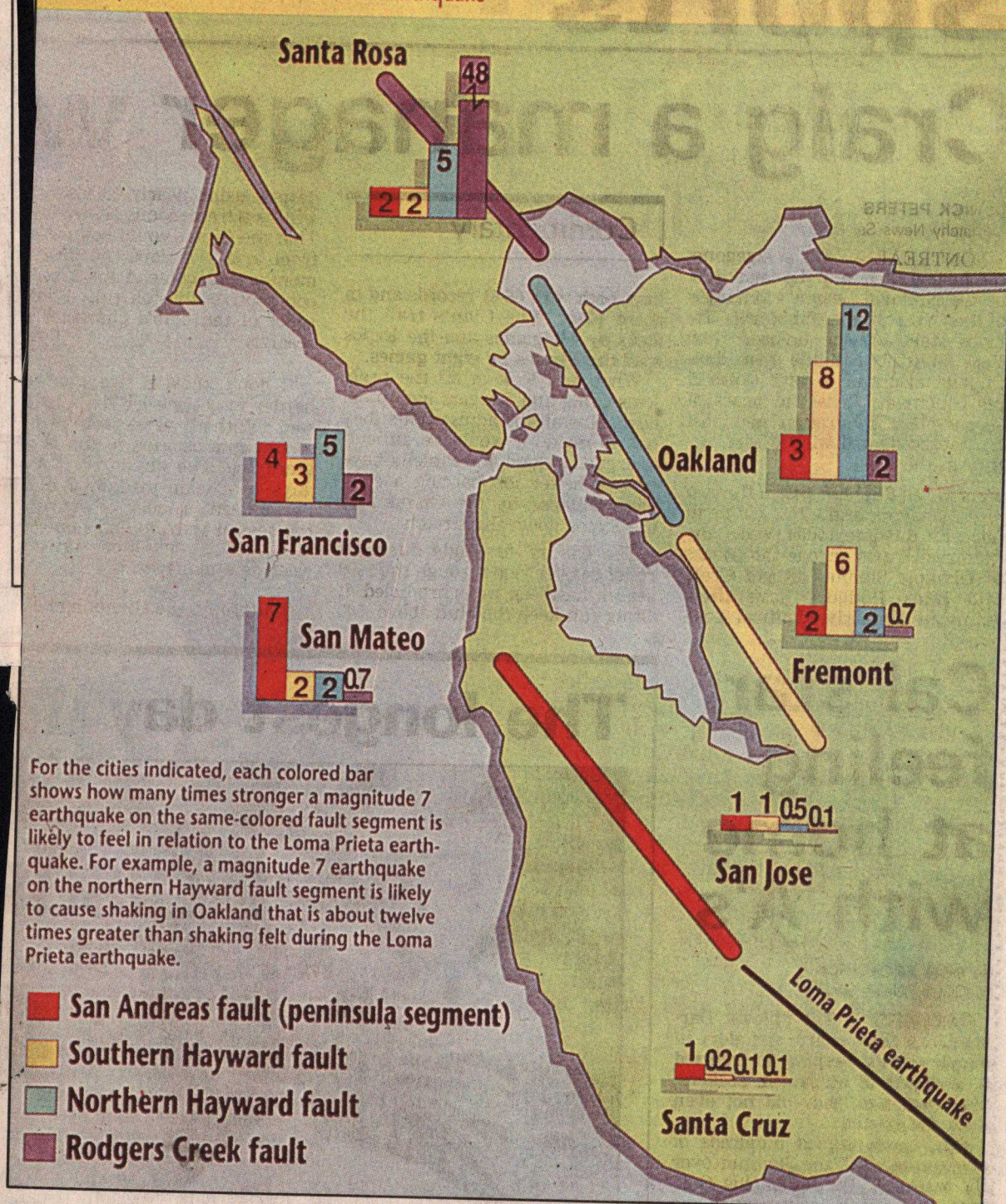
If the next big quake is on that segment, the shaking in Santa Cruz would be equal to that of Oct. 17. But San Francisco would get shaken four times as hard, geologists predict.

If the next quake occurs during business hours, at least a quarter

Please see **QUAKE** — A12

## HOW MUCH THE GROUND WILL SHAKE

A Comparison with the Loma Prieta Earthquake



Map shows how quakes along specified faults would affect nearby areas.

## Quake probability increases

Continued from Page A1

of Santa Cruz County's residents could be in the Santa Clara Valley.

The USGS predicts that San Jose would be shaken just as much as Oct. 17 whether the next quake is on the southern Hayward Fault or the peninsula segment of the San Andreas Fault.

The USGS will present all of its findings and preparedness recommendations in a magazine insert to Bay Area newspapers on Sept. 9. The Sentinel also will carry that insert.

"Get ready" was the message to government officials at the Monday conference, sponsored by the Association of Bay Area Governments.

"Earthquakes are acts of God," Ward said. "But the damage caused does not have to be."

There is too little time to do all of the things needed to prevent damage from the big quake, he and other speakers said. "You must prioritize where the weakest links are — where the greatest damage would be and where the most people would be killed," Ward said.

Maps are available showing shaking predictions, said Jeanne Perkins, earthquake preparedness program manager for the Association of Bay Area Governments. She urged city officials to consult those maps before approving new developments in their communities. Emergency facilities, especially, should not be located in areas

that could suffer the greatest damage, she said. The state is working on a satellite system that would provide emergency telephone service in a major earthquake, said Richard Andrews, chief deputy director of the state Office of Emergency Services.

Better exchange of information would be needed if a major quake struck the Bay Area, Andrews said.

"In October, there was too much reliance on Al Michaels in the Goodyear blimp to tell us where the damage was," he said. The Goodyear blimp was hovering over Candlestick Park preparing for the third game of the World Series when the quake hit.