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'Corralitos hum' may be clue to quake-prediction method

McCLATCHY NEWS SERVICE

STANFORD – Early on the afternoon of Oct. 17, 1989, Antony Fraser-Smith's antenna picked up a very strange noise.

The Stanford University physicist had placed the six-foot antenna in Corralitos as part of a Navy experiment.

He chose the location for its quiet. But suddenly the air around it was humming with radio waves, peaking at 200 times the normal background level.

Three hours later, a 7.1 magnitude earthquake struck the San Francisco Bay area with crippling force. Its epicenter was in Loma Prieta, just four miles from Fraser-Smith's antenna.

And today he finds himself in the midst of a sudden rush by scientists to find out whether that special hum in the Earth's crust may offer the best chance yet to predict major earthquakes.

"I hope we're building up to predictions," Fraser-Smith said Thursday. "But, I can tell you that almost as soon as I released my data, Stanford's lawyers called me and told me not to make a prediction. They're practically fibrillating over the idea that we'll be sued."

He and other scientists gathered at Stanford University to assess the possibilities during a meeting of the Society for Scientific Exploration. Researchers from around the world shared findings showing that sudden jolting rises in radio waves have been linked to earthquakes from Japan to Greece. Expectations ranged from very enthusiastic – one Bay Area firm is already testing a prediction system – to the very dubious.

"I just want to make the point that there are obvious constraints," said Malcolm Johnson of the U.S. Geological Survey. "We have the ability now to detect incredibly faint strains or tilts in the continental crust.

"To give you an example, if we could lift up one end of the continent, slide a piece of paper underneath it, and put it back in place, we could measure the tilt caused by that paper," he said. "And yet, we can detect nothing, no strain or motion, that correlates with these signals."

Still, the radio waves are consistently generated, said Marsha Adams, president of the Time Research Institute in Woodside.

Adams' company has received private funding to test a system of sensor and computers in the Bay Area, listening for the electromagnetic signals associated with earthquakes.