



The Spirit of the Northwest



FISHER.COM

11/13/2005

[HOME](#)

[KATU NEWS](#)

[News Archive](#)

[News Search](#)

[War on Terror](#)

[News Releases](#)

[Contact KATU News](#)

[AP NEWS](#)

[HOTLINKS](#)

[DESKTOP NEWS](#)

[WEATHER](#)

[CAMERAS](#)

[TRAFFIC](#)

[TEAM 2](#)

[REPORTS](#)

[2 ON YOUR SIDE](#)

[SALEM](#)

[ENTERTAINMENT](#)

[BUSINESS](#)

[HEALTH](#)

[EDUCATION](#)

[OUTDOOR](#)

[SPORTS](#)

[VIDEO](#)



[AM NORTHWEST](#)

[TOWN HALL](#)

[IN THE GARDEN](#)

[FEATURES](#)

[INSIDE KATU](#)

[CONTACT KATU](#)

[TV SCHEDULE](#)

[CARS](#)

[HOMES](#)

[LEGAL CENTER](#)

[NW JOBS](#)

KATU NEWS

November 9, 2005

Study: Quake's first seconds may determine its strength

By ALICIA CHANG
AP Science Writer

LOS ANGELES - Scientists have found a way to estimate an earthquake's ultimate strength by analyzing the initial seconds of a rupture - a step that could one day provide early earthquake warning.

Currently, a quake's magnitude - or how much energy is released - is determined after the shaking stops, usually minutes after an event.

But researchers from the University of California, Berkeley, say the measurements of seismic waves soon after a temblor can signal whether it will be a minor or monster temblor.

They say the information could possibly be used in an alert system to give seconds to tens of seconds of advance notice of an impending quake - enough time for schoolchildren to take cover, power generators to trip off and valves to shut on pipelines.

"We're not talking about a massive amount of time," said Richard Allen, an assistant professor of earth and planetary science, who led the study. "But one can use our approach to come up with a magnitude before people have felt the ground shaking."

Details appear in Thursday's issue of the journal Nature.



TOOLS

[Email this story to a friend](#)

[Printer-friendly Version](#)

SEARCH KATU I

MI CROCAST WI

[Microcast Forecast](#)
[Microcast Doppler](#)
[Zone Forecasts](#)

ADVERTISEMEN



CONNECT WITH

- E-mail news tips t
- E-mail [departmen](#)
- Connect with [KATU](#)
- KATU News [on yo](#)
- E-mail [KATU News](#)

ADVERTISEMEN

The study suggests different magnitude earthquakes begin in different ways, said Lucy Jones, the scientist in charge of the U.S. Geological Survey in Pasadena, who was not part of the study.

But Jones was skeptical that the information can be reliably used to create an early warning system. The United States is still years away from an alert system because of fears of false alarms and disagreement among scientists about what physical forces cause an earthquake to turn into a big one.

In the study, Allen and colleagues analyzed records of 71 major Pacific Rim quakes in the past decades including 24 events that were greater than a magnitude-6.

Using a mathematical model, they were able to estimate a quake's size to within one magnitude unit from as little as four seconds of data of the frequency of the energy in the primary wave. These low-energy waves typically cause a jolt, signaling the occurrence of a quake.

Earlier research conducted by Allen showed that the first few seconds after a quake can be used to estimate quakes smaller than magnitude-6.

Allen is currently testing the model in real-time using an intricate network of seismic instruments scattered in Northern California.

(Copyright 2005 by The Associated Press. All Rights Reserved.)



ADVERTISEMENT


 Are you paying too much for auto insurance?

ZIP code where you park at night.

Do you currently have auto insurance? Yes No

Have you had a U.S driver's license for more than 3 years? Yes No

Has any driver in your household had 2 or more accidents or moving violations in the last 3 years? Yes No



KATU NEWS FE












- [Amazing KATU vic](#)
- Send in your [Fish](#)

FEATURE



OTHER TOP STORIES

-  [Portland's Saturday Market seeks new home](#)
-  [Paul McCartney sings live to space station crew](#)

-  [Mariah Carey wins big at calm Vibe Awards](#)
-  [Linnman Looks Back On Exploding Whale Story](#)
-  [Police Shoot Man During Courthouse Standoff](#)
-  [Powerball jackpot winners rebut claims of greed](#)
-  [Group hit by sneaker wave was scattering loved one's ashes](#)
-  [Potentially fatal parvovirus spreading in southern Oregon dogs](#)
-  [Senator close to making independent bid for governor](#)
-  [Oregon tree growers may have a grinch-like season](#)
-  [Walden, Smith ask EPA for help with asbestos-ridden homes](#)
-  [Frustrated by FEMA, local agencies wind down Katrina efforts](#)
-  [Commentary: Face 2 Face with Kremer and Abrams](#)

KATU TV

2153 N.E. Sandy Blvd,
Portland, OR 97232
Main Phone 503-231-4222
News Desk 503-231-4264
Sales 503-231-4200

This site contains copyrighted material of [Fisher Communications, Inc.](#) (KATU TV) which may not be copied, distributed or re-used in any way without KATU TV's prior written consent. KATU TV trademarks are also subject to legal protection and may not be used without KATU TV's prior written consent. KATU TV is not responsible for the content of third party material provided to or linked with this site. Some of the material on this site contributed by the Associated Press.

FIS