

Computer predicts quakes in S.F. area

October 10 2005

Scientists say the San Francisco Bay Area has a 25-percent chance of a magnitude 7 or greater earthquake during the next 20 years.

A University of California-Davis computer simulation called Virtual California was used to simulate earthquake activity in the San Francisco segment of the San Andreas fault over a 40,000-year period, yielding 395 simulated earthquakes with a magnitude of 7.0 or higher on the Richter scale and an average recurrence interval of 101 years.

The simulation data predict a 25 percent chance of another magnitude 7.0 or greater quake occurring during the next 20 years, a 50 percent chance in the next 45 years, and a 75 percent chance during the next 80 years.

The computer simulation was designed by John Rundle and colleagues in an effort to better predict earthquakes in the San Francisco Bay Area.

The authors introduced unique statistical forecasting methods by considering not only the large San Andreas Fault, but all the complex interactions between it and adjacent faults.

The research is presented in the online early edition of the Proceedings of the National Academy of Sciences.

Copyright 2005 by United Press International

Citation: Computer predicts quakes in S.F. area (2005, October 10) retrieved 19 April 2024 from <https://phys.org/news/2005-10-quakes-sf-area.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.