***Important information to accompany* *the movie:***

***Earthquake Ruptures along the San Andreas Fault in   
Southern California since 1100 AD*.**

This movie shows a possible history of southern San Andreas fault ruptures from a study by Sieh, Stuiver, and Brillinger, 1989. They deduced the rupture history from the interpretion of disruptions of sedimentary beds in cross-fault trenches and from data collected after historic earthquakes. They show ruptures during major earthquakes in 1100, 1346, 1480, 1680, 1812, and 1857 AD. Especially impressive are two huge events, in 1100 and 1480, that appear to have ruptured the fault from the Salton Sea to central California, more than 300 miles. Note that within the dating uncertainties, some of the long ruptures could have actually been two or more shorter ones that occurred closely in time. Download package includes the animation and a set of jpg images

This movie was created by Tanya Atwater using Photoshop and Morph. Rupture patterns are from Sieh, Stuiver, and Brillinger, 1989, "A more precise chronology of earthquakes produced by the San Andreas fault in southern California," *Journal of Geophysical Research, v.94*, No.B1, pp.603-623. Background physiographic map is from K. Edwards and R.M.Batson, U.S.G.S., 1990, *Experimental Digital Shaded-Relief Maps of Southwestern United States*.

The work was partially supportedby a National Science Foundation Director's Award for Distinguished Teaching Scholars, and by grants and services from the U.C.S.B. Office of Instructional Development.

The animation clips and materials on this site are free works. You may download, copy, distribute, and modify them as suits your purposes. Acknowledgement of authorship Sieh, Stuiver, and Brillinger, 1989 and reference to this website is appreciated. Note that many were constructed in the early 2000s when computer files were much more restricted in size and delivery rate. Hopefully some are still useful.

Complaints, corrections, comments and, especially, suggestions for how to make these materials more useful are always welcomed: [atwater@geol.ucsb.edu](mailto:atwater@geol.ucsb.edu)