

When the Big One comes to call

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Californians with even the most passing knowledge of their state's earthquakes know that when the Big One comes, the fault on which it's most likely to occur is the fabled San Andreas.

The 800-mile fault, tectonic boundary between the North American Plate and the Pacific Plate, is easy to spot from the air, especially when flying over the desert area known as the Carrizo Plain.

It runs from Southern California, where it's also easy to see on the ground from the Antelope Valley Freeway, up through the state's midsection and the Santa Cruz Mountains into the San Francisco Peninsula, ending near Cape Mendocino.

When those big plates slip, tremendous force can be, and has been, unleashed.

But the usual attitude of Golden Staters toward the San Andreas is, classically, a bit hang-loose: What're you going to do? Earthquakes happen.

Well, a new study by UC Irvine and Arizona State researchers shows that quakes along the San Andreas actually happen a lot more often, historically, than had formerly been thought.

By taking a long look at the Carrizo area, the study, published in the academic journal *Geology*, shows that large quakes along that part of the San Andreas usually occur every 45 to 144 years.

Except, see, the last really big one there, about 100 miles north of here, was in 1857.

Seismologists aren't as superstitious, or as reliant on the "overdue" model, as regular folks are. They are used to working in time frames of a geologic scale. A fault doesn't slip because it ought to have by now.

But even they say that this new knowledge means that, yes, the southern San Andreas is overdue for a quake large enough to qualify as our Big One.

What to do with this new knowledge? There's no point in wasting a lot of Chicken Little energy on it. But the fact is that the sky - or, rather, the roof - is falling, or will fall soon. We need to use this new study the same way we have been encouraging Southern Californians to for many years:

Secure heavy items in your home and office, including TVs, computers and bookshelves. Look in to the structural integrity of where you live, and shore up the place if it needs it.

Make a plan with your family about what to do when the Big One comes. Communications, including cell towers, will be down for a time. Have an out-of-state contact through whom all of you can communicate. Set a place to meet if you are apart when it happens.

Create disaster kits with food, water, flashlights, portable radios, medications and a first-aid kit.

Drop, cover and hold on when the quake hits. Put old shoes under your bed in case of broken glass if the quake hits at night.

More than ever, it's not if - it's when.