

## Earthquake Early Warning System Coming to California

Colin Wood | September 25, 2013



Californians may soon get a head start on their duck and cover routine in advance of the next earthquake. Gov. Jerry Brown signed a bill on Tuesday, Sept. 24 introduced by Sen. Alex Padilla that will require the California Office of Emergency Services (OES) to develop comprehensive standards for the system as the state searches for \$80 million in funding to pay for its development. While this legislation affects California only, the OES reported that the earthquake early warning system may eventually include the entire western United States. California's portion of the project will cost \$23 million in initial development, with \$12 million in additional annual costs for the next five years.

The early detection system will provide public safety agencies and the public up to a 60-second head start on impending earthquakes, OES Spokesperson Greg Renick said. And that minute could prove to be a critical one.

"Those warnings will help the public take a number of safety measures to reduce injury and damages," he said. "People will be able to take cover, shut off electrical and computer equipment; medical professionals will have a chance to stop procedures they're in the middle of; and train operators should have time to slow down and stop the trains."

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According to the OES, 100 new monitoring stations will be needed in Southern California, along with upgrades to one-third of the existing stations in the southern half of the state. Northern California also needs 100 new stations, along with upgrades to all 300 current monitoring stations. “We’re pleased that the governor signed the legislation and we applaud him and Sen. Padilla for their efforts. We think this is a critical first step in enhancing preparedness in California,” Renick said.

## **Golden State in Catch-Up Mode?**

While advocating for his bill, Padilla lamented the fact that California lags behind other regions of the world where such technology has already been deployed or is being deployed now, such as Japan, Taiwan, Mexico, Turkey, Italy, Romania and China. “It is a little ironic as much as California prides itself on technology and innovation that we’re behind other countries when it comes to the deployment of this system,” Padilla said. “I’m thrilled that the bill was signed and I think it means good news for Californians everywhere that an earthquake alert system is going to be here sooner rather than later.”

Padilla said he doesn’t just want California to be playing catch-up with technology that keeps people safe. Rather the state should keep an eye on the future, as the potential uses of such a system are beyond what people can imagine today. “As technology advances and new capabilities are discovered, we’ll continue to modernize it and update it in the coming years,” he said. “Some people may only think of the emergency broadcast system we’re all familiar with on television and radio. In coastal areas that are prone to tsunamis that are wired for sirens, we’ll be connecting to that.”

Padilla also said that the system could potentially leverage freeway signage now used for Amber Alerts. “In this day and age where nearly everybody has a smartphone, I can only imagine what the app development community is going to come up with,” he added.

The system will also be valuable for commercial and industrial applications, such as automating equipment shut-offs when an alert comes, Padilla said. “So it’s not a matter of getting an alert and having to go push buttons to power down industrial equipment,” he said. “There are elevator issues, issues in firehouses and police stations, let alone our water infrastructure and our electrical infrastructure.”

Japan’s earthquake early warning system [provided](#) the public advance notice of the March 2011 Tohoku 9.0 magnitude earthquake. Warnings of the earthquake were automatically broadcast on television and radio, and 52 million people received warnings on their smartphones. Bullet trains were brought safely to a stop, and many computers were automatically turned off as a precaution. A professor at the University

of Sendai received the warning on his smartphone via text message and was able to warn his students to duck for cover before light fixtures began falling from the ceiling. These are the types of measures California hopes to implement when the next large earthquake hits, Padilla said.

<http://www.govtech.com/public-safety/Earthquake-Early-Warning-System-Coming-to-California.html>