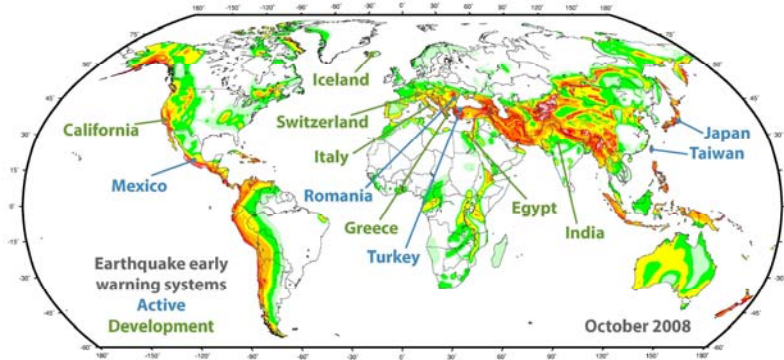


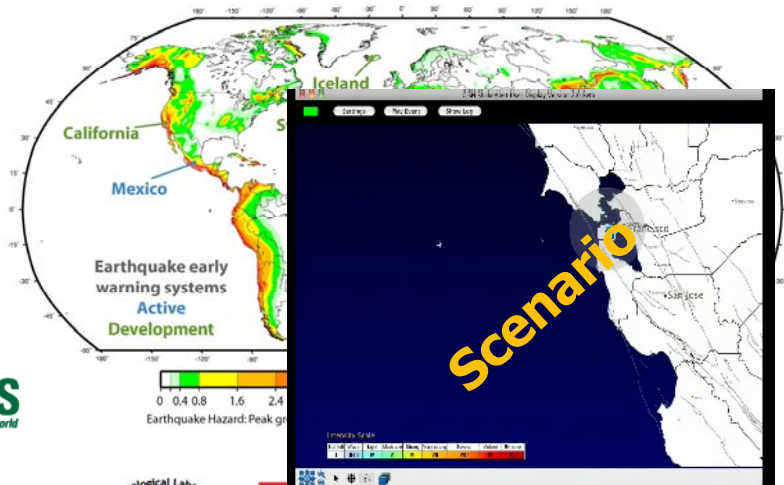
ShakeAlert: Earthquake Early Warning in the US



0 0.4 0.8 1.6 2.4 3.2 4.0 4.8 7.0 10.0
Earthquake Hazard: Peak ground acceleration (ms⁻²) with 10% probability of exceedance in 50 years



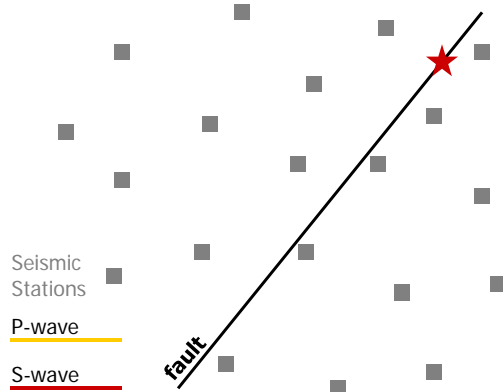
ShakeAlert: Earthquake Early Warning in the US



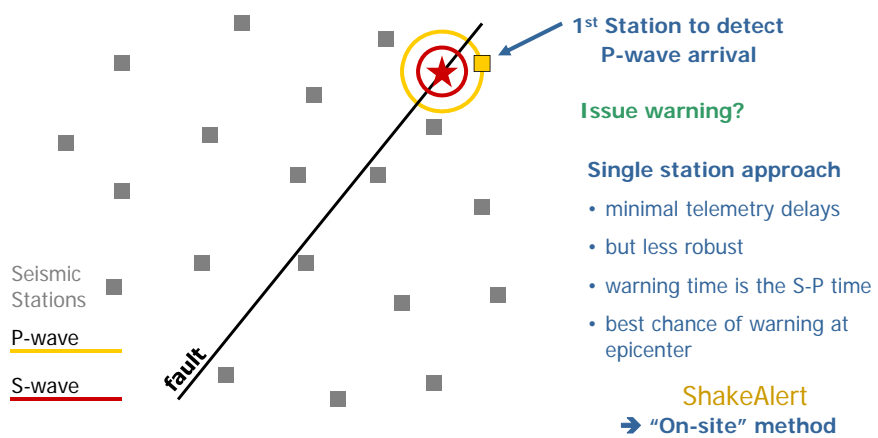
0 0.4 0.8 1.6 2.4
Earthquake Hazard: Peak g



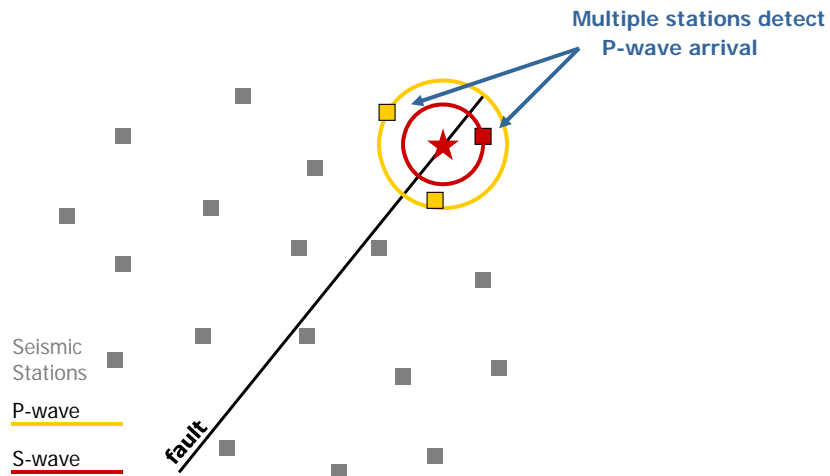
The early warning concept



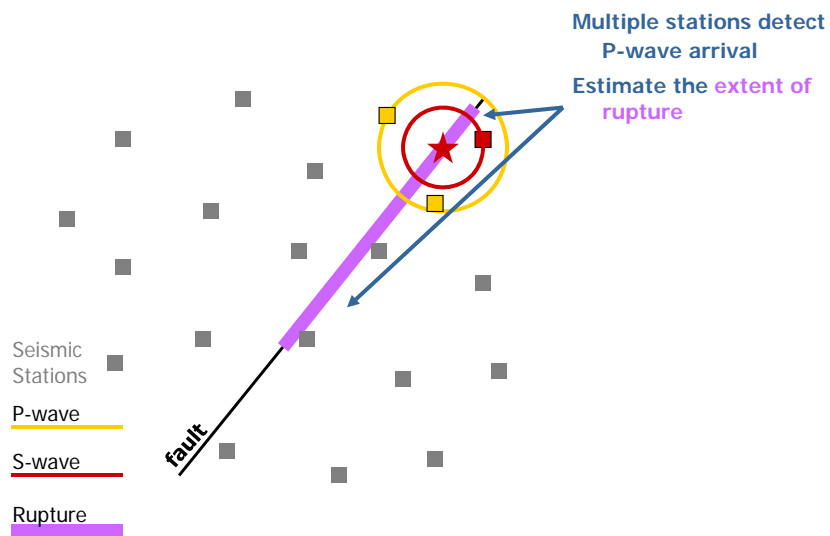
The early warning concept



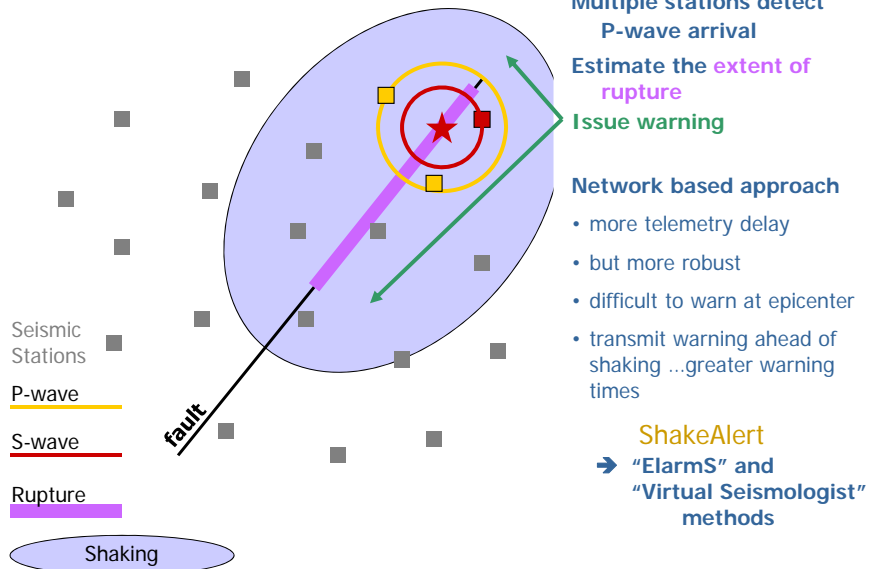
The early warning concept



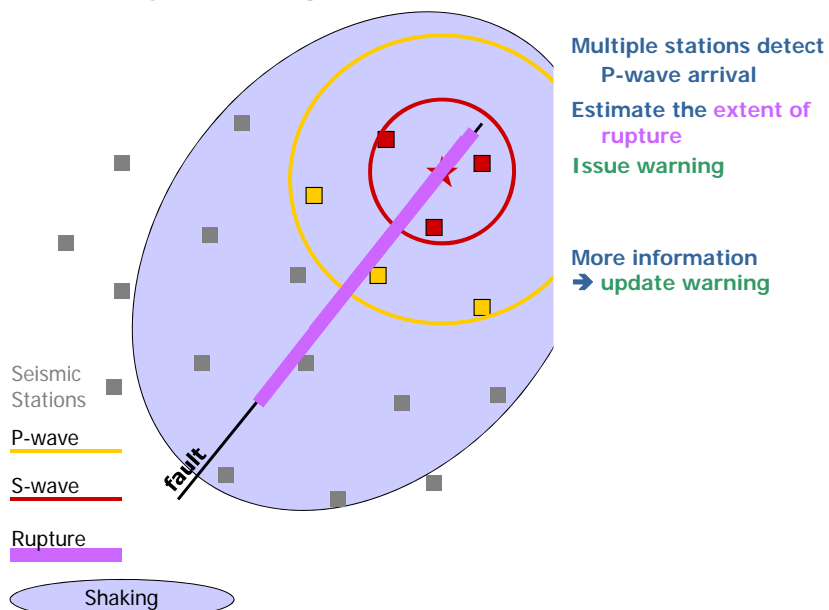
The early warning concept



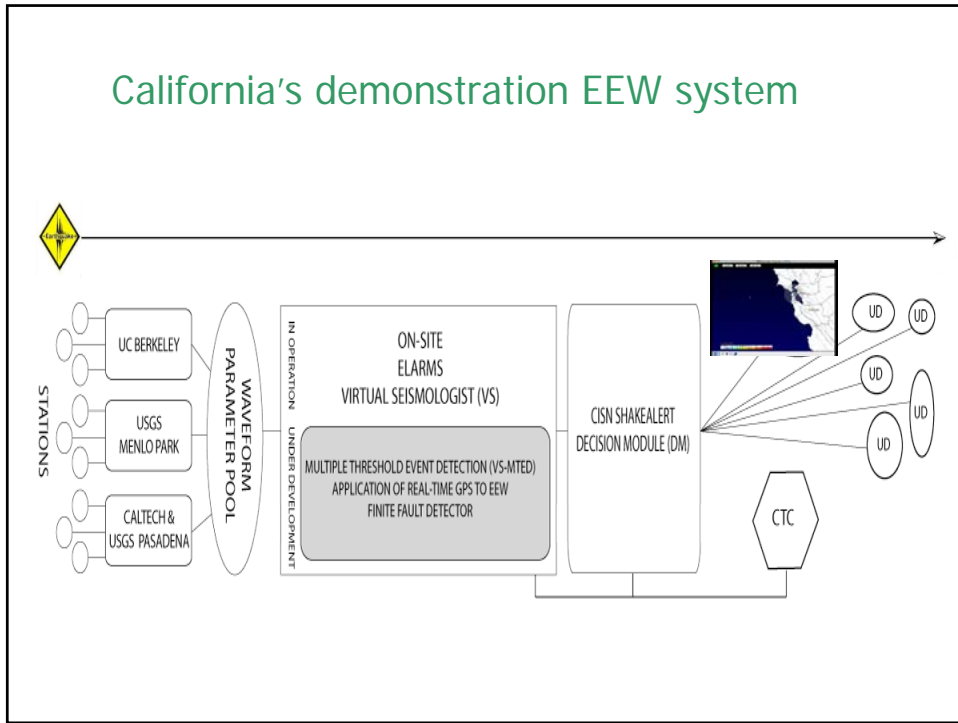
The early warning concept



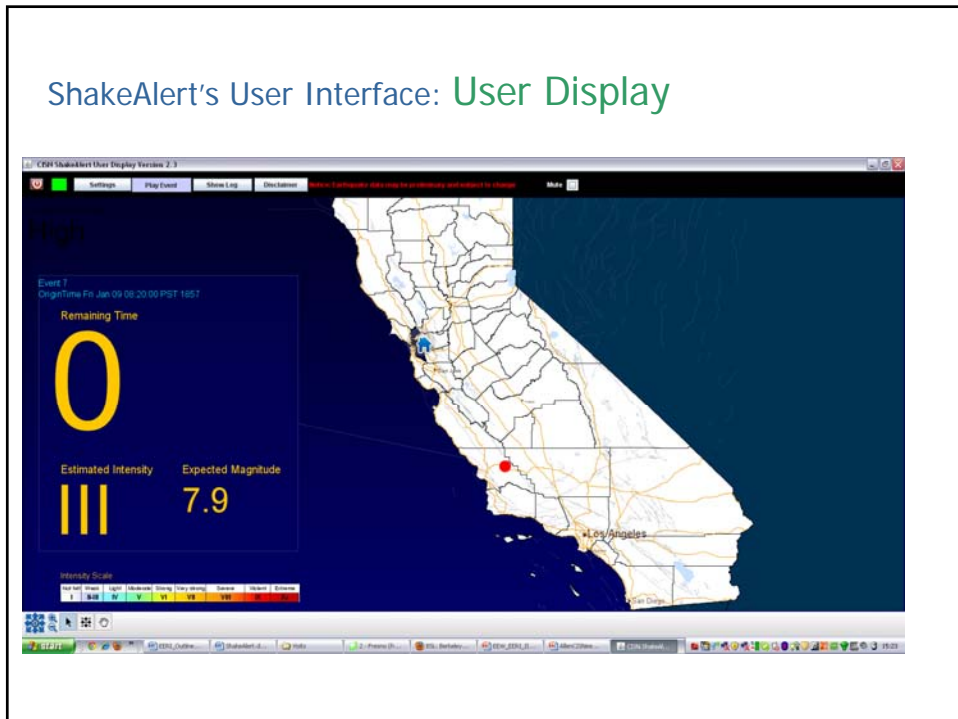
The early warning concept



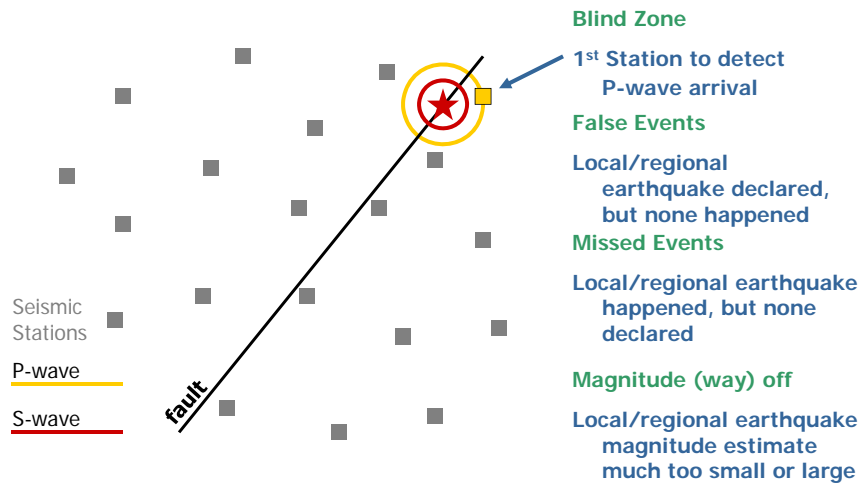
California's demonstration EEW system



ShakeAlert's User Interface: User Display



Early warning system weaknesses and limitations



EEW weaknesses learned from Tohoku

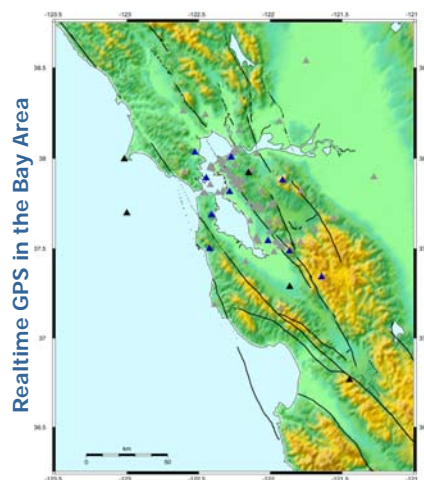
Fault finiteness for large magnitude events

Area affected

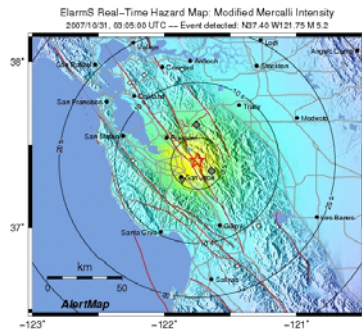
Solutions?

Use of rapid/high rate GPS data

"Expertise" in programs (Virtual Seismologist)



Delivering Earthquake Early Warnings



AlertMaps



Cell Phone Msg/App?

and...

IPAWS, Notification Systems (Radio, TV),

Take-home Message:

**Shake
Alert** = **EEW
Technology** + **Public
Education**

Take-home Message:

Shake = **EEW**
Technology

Take-home Message:

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