ShakeAlert® Post-Alert Summary

Overview of ShakeAlert Performance

Earthquake

M 3.8 - 13.8 mi NE of Gonzales

ANSS origin (Local):	2019-10-17 07:54:55.5
ANSS origin (UTC):	2019-10-17 14:54:55.5
ANSS depth:	10.6 km (6.6 mi)
ShakeAlert alert (UTC):	2019-10-17 14:55:02.5

ShakeAlert Event ID: ew1571324095

Summary Report

Speed of Alert:

Initial alert after origin time: 7.0 s
Final alert update after origin time: 13.0 s

Magnitude Accuracy:

Initial ShakeAlert:	M 3.7
Final ShakeAlert:	M 3.8
ANSS report:	M 3.7

Distance From Alert to Reviewed Location

Initial alert: 10.6 km (6.6 mi) SW
Final alert: 5.1 km (3.2 mi) SW

Number of stations reporting

1 within 10 km of epicenter
40 within 100 km of epicenter
31 used in final ShakeAlert update

Performance for Nearby Cities

City	Distance	Warning Time*	MMI*
Gonzales	22 km (13 mi)	~0 sec	<2
Hollister	27 km (16 mi)	~1 sec	<2
Salinas	35 km (22 mi)	~3 sec	<2
San Francisco	163 km (101 mi)	~39 sec	<2

Zone Shaken by S-wave Before Alert: 25 km 15 mi

Footnotes

1) *MMI -- Modified Mercalli Intensity: a scale to measure ground shaking.
2) *Warning Time -- Time between alert production and arrival of the S-wave at a chosen site.

Disclaimer

This information is preliminary or provisional and is subject to revision. It is being provided to meet the need for timely best science. The information has not received final approval by the U.S. Geological Survey (USGS) and is provided on the condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from the authorized or unauthorized use of the information.

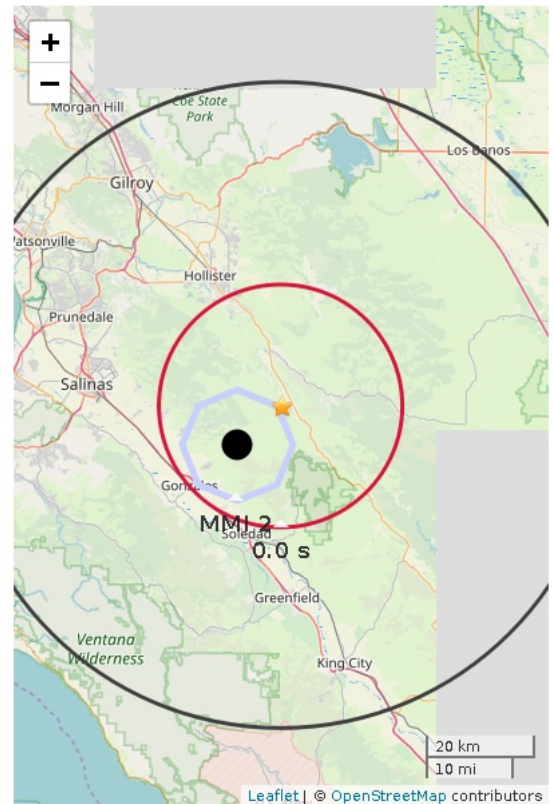*To learn more about ShakeAlert®, visit www.shakealert.org/FAQ*

Figure 1. ShakeAlert initial earthquake location (black dot). Star is regional network epicenter. Polygon is the predicted outer range for felt ground motion (MMI 2). Red circle is front of peak shaking when the alert was released. Shaking takes 10 s to expand from circle to circle.

Figure 2. Polygons show shaking intensity contours for the final ShakeAlert. Shaking of intensity 3 or less is often not felt. Star shows the regional network epicenter.

Report created 2019-10-17 07:58:35 (Pacific)