ShakeAlert Post-Alert Summary

An overview of the performance of ShakeAlert during this event

Earthquake

M5.9 - 29 miles SW of Rio Dell

ANSS origin (Local): 2019-06-22 20:53:02.9 ANSS origin (UTC): 2019-06-23 03:53:02.9 ShakeAlert alert (UTC): 2019-06-23 03:53:11.0

ShakeAlert Event ID ew285

Summary Report

Speed of Alert:

Initial alert after origin time: 8.2 s Final alert update after origin time: 45.7 s

Magnitude Accuracy:

Initial ShakeAlert: M 6.3 Final ShakeAlert: M 5.9

ANSS report: 255 s after origin, M5.5

Distance From Alert to Reviewed Location

Initial alert: 1.3 km, 0.8 miles S Final alert: 2.1 km, 1.3 miles SW

Number of stations reporting

1 within 10 km of epicenter 7 within 100 km of epicenter 54 used in final ShakeAlert update

Performance for Nearby Cities

City	Distance	Warning Time*	*IMM
Rio Dell	29 km	~0.5 sec	5
Ferndale	32 km	~1.5 sec	5
Fortuna	37 km	~2.7 sec	4
Sacramento	306 km	~78.1 sec	2

Zone Shaken by S-wave Before Alert: 29 km (18 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.
- For moderate earthquakes, the 'final' alert area may be little changed from the initial.

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 earthquake location (red dot). Star is regional network epicenter. MMI 4 polygon is the estimated initial alert area. Red circle is locus of peak shaking when the alert was released. Shaking takes 10 s to expand from circle to circle.

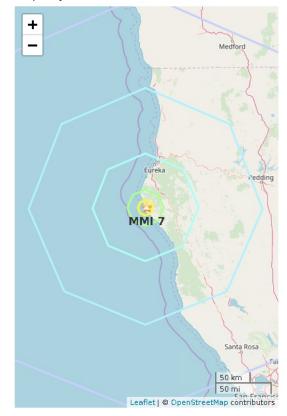


Figure 2. Polygons show shaking intensity contours for the final ShakeAlert. Shaking of intensity 3 or less often is not felt. Star shows the regional network epicenter.