ShakeAlert® Post-Alert Summary

Overview of ShakeAlert Performance

Earthquake

M 3.4 - 8.5 mi NE of Ridgecrest
ANSS origin (Local): 2019-12-16 22:57:45.3
ANSS origin (UTC): 2019-12-17 06:57:45.3
ANSS depth: 6.3 km (3.9 mi)
ShakeAlert alert (UTC): 2019-12-17 06:57:51.6
ShakeAlert Event ID: ew6012

Summary Report

Speed of Alert:

Initial alert after origin time: 6.3 s
Final alert update after origin time: 11.0 s

Magnitude Accuracy:

Initial ShakeAlert: M 3.6
Final ShakeAlert: M 3.4
ANSS report: M 3.5

Distance From Alert to Reviewed Location

Initial alert: 1.8 km (1.1 mi) NW
Final alert: 1.1 km (0.7 mi) NE

Number of stations reporting

0 within 10 km of epicenter
32 within 100 km of epicenter
16 used in final ShakeAlert update

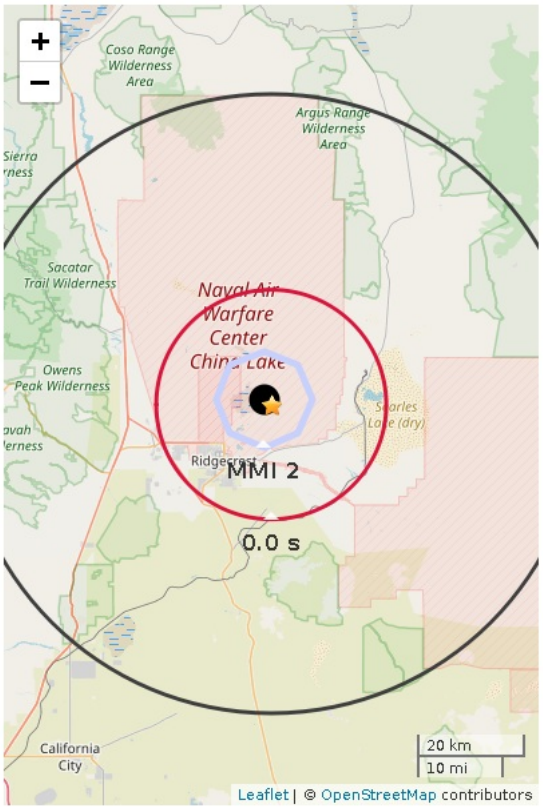

Figure 1. ShakeAlert initial earthquake location (black dot). Star is regional network epicenter. Polygon is the predicted outer range for felt ground motion (MMI 2). Red circle is front of peak shaking when the alert was released. Shaking takes 10 s to expand from circle to circle.

Performance for Nearby Cities

City	Distance	Warning Time*	MMI*
Ridgecrest	13 km (8 mi)	~0 sec	<2
Tehachapi	102 km (63 mi)	~22 sec	<2
Palmdale	135 km (84 mi)	~31 sec	<2
Los Angeles	194 km (121 mi)	~48 sec	<2

Zone Shaken by S-wave Before Alert: 22 km 14 mi

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.

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.*

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

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