

ShakeAlert Post-Alert Summary

An overview of the performance of ShakeAlert during this event

Earthquake

M4.1 - 54 miles N of Ridgecrest
ANSS origin (Local): 2019-07-07 01:03:25.6
ANSS origin (UTC): 2019-07-07 08:03:25.6
ShakeAlert alert (UTC): 2019-07-07 08:03:35.9
ShakeAlert Event ID ew1506

Summary Report

Speed of Alert:

Initial alert after origin time: 10.3 s
Final alert update after origin time: 70.6 s

Magnitude Accuracy:

Initial ShakeAlert: M 3.8
Final ShakeAlert: M 4.1
ANSS report: 125 s after origin, M3.7

Distance From Alert to Reviewed Location

Initial alert: 8.4 km, 5.2 miles NW
Final alert: 34.4 km, 21.4 miles W

Number of stations reporting

2 within 10 km of epicenter
26 within 100 km of epicenter
59 used in final ShakeAlert update

Performance for Nearby Cities

City	Distance	Warning Time*	MMI*
Ridgecrest	54 km	~5.0 sec	<2
Porterville	104 km	~19.2 sec	<2
California City	107 km	~20.0 sec	<2
Los Angeles	228 km	~54.2 sec	<2

Zone Shaken by S-wave Before Alert: 36 km (23 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.
- 3) For moderate earthquakes, the 'final' alert area may be little changed from the initial.

Disclaimer

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



Figure 1. ShakeAlert 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.