Post-ShakeAlert® Message Summary

Earthquake:

Advanced National Seismic System (ANSS):
M 3.6 - 12.2 km (7.6 mi) W of Simi Valley

ANSS location:	34.229, -118.905
ANSS depth:	1.8 km (1.1 mi)
ANSS origin (Local):	2021-09-13 07:59:35.9
ANSS origin (UTC):	2021-09-13 14:59:35.9
ShakeAlert origin (UTC):	2021-09-13 14:59:40.2
ShakeAlert Event ID:	ew1631545180

ShakeAlert Messages Issued (after origin time):

Initial:	4.3 sec
Peak magnitude:	4.3 sec
Final:	18.3 sec

ShakeAlert System Magnitude Estimates:

Initial:	M 4.1
Peak:	M 4.1
Final:	M 3.7

ShakeAlert System Location Accuracy:

Initial:	5.5 km (3.4 mi) NE
At peak mag.:	5.5 km (3.4 mi) NE
Final:	1.9 km (1.2 mi) N

Wireless Emergency Alert:

WEA alerts are distributed to the MMI 4+ area if ShakeAlert Peak M>=5.0

Number of Stations Reporting:

3 within 10 km of epicenter
127 within 100 km of epicenter
72 used in final ShakeAlert Message

Nearby Cities:

City	Distance	Time*	MMI**
Simi Valley	12 km (8 mi)	~0 sec	2
Ventura	30 km (19 mi)	~4 sec	<2
Santa Monica	45 km (28 mi)	~8 sec	<2
Los Angeles	64 km (40 mi)	~14 sec	<2

Radius shaken before message release: 15 km (9 mi)

Footnotes:

** Time -- Time between message release and
  arrival of the S-wave at the location.*
*** MMI -- Modified Mercalli Intensity: a scale to measure
  ground shaking severity.*
**** For earthquakes deeper than ~15 km, the ShakeAlert Message may
  be sent before peak shaking reaches the surface.*

Disclaimer:

*This information is provisional and 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 ANSS earthquake epicenter. Polygon approximates the outer range for felt ground motion. If shown, red circle is front of peak shaking when the message was released***. Shaking takes 10 s to expand from circle to circle.
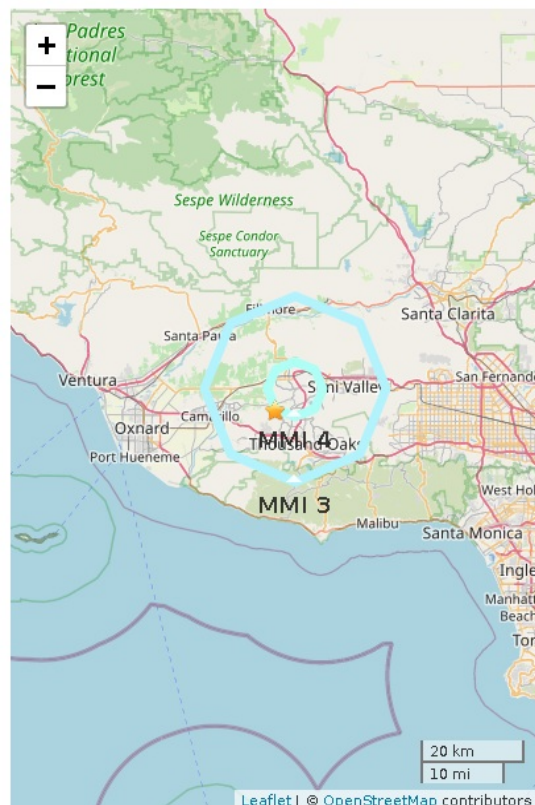

Figure 2. Polygons show shaking intensity contours for the peak magnitude estimate. Shaking of MMI 3 or less is often not felt. Star shows the ANSS earthquake epicenter.