Post-ShakeAlert® Message Summary

Earthquake:

Advanced National Seismic System (ANSS):
M 2.9 - 37.2 km (23.1 mi) SE of Mexicali B.C.

ANSS location:	32.381, -115.235
ANSS depth:	23.2 km (14.4 mi)
ANSS origin (Local):	2022-04-18 17:27:35.6
ANSS origin (UTC):	2022-04-19 00:27:35.6
ShakeAlert first Message (UTC):	2022-04-19 00:27:49.5
ShakeAlert Event ID:	ew1650328060

ShakeAlert Messages Issued (after origin time):

Initial:	13.9 sec
Peak magnitude:	13.9 sec
Final:	18.0 sec

ShakeAlert System Magnitude Estimates:

Initial:	M 3.6
Peak:	M 3.6
Final:	M 3.5

ShakeAlert System Location Accuracy:

Initial:	13.7 km (8.5 mi) S
At peak mag.:	13.7 km (8.5 mi) S
Final:	12.2 km (7.6 mi) S

Wireless Emergency Alert:

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

Number of Stations Reporting:

1 within 10 km of epicenter
32 within 100 km of epicenter
9 used in final ShakeAlert Message

Nearby Cities:

City	Distance	Time*	MMI**
Mexicali B.C.	37 km (23 mi)	~0 sec	<2
Tijuana B.C.	168 km (105 mi)	~34 sec	<2
San Diego	184 km (114 mi)	~38 sec	<2
Escondido	192 km (119 mi)	~40 sec	<2

Radius shaken before message release: 49 km (31 mi)

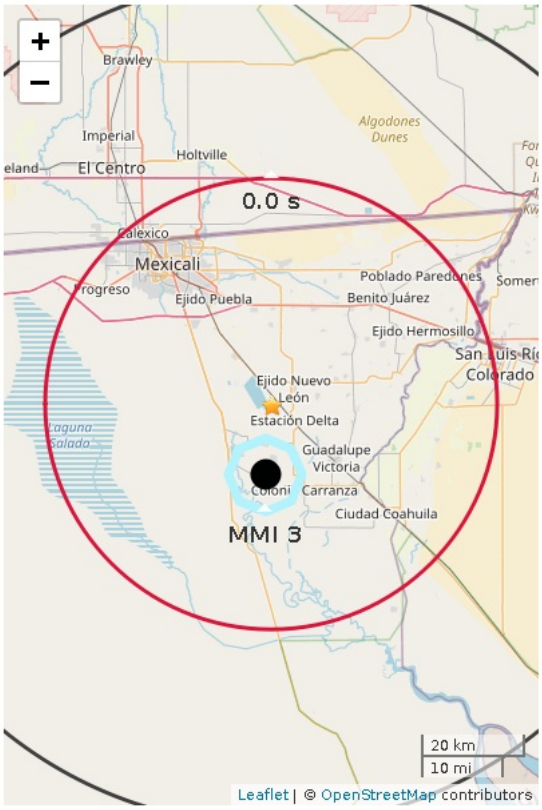

*Figure 1. ShakeAlert initial earthquake location (black dot). Star is ANSS earthquake epicenter. Polygon approximates the outer range for felt ground motion. If shown, red circle is front of peak shaking when the message was released***. Shaking takes 10 s to expand from circle to circle.*

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.

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

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