

U.S. Geological Survey - Earthquake Hazards Program

← Latest Earthquakes	<div>M 7.5 – 78km N of Palu, Indonesia</div> <div>2018-09-28 10:02:43 (UTC) 0.178°S 119.840°E 10.0 km depth</div>
Overview	
Interactive Map	
Regional Information	<div>Finite Fault</div> <div>Back to Technical</div>
Impact	<div>Contributed by USGS¹ last updated 2018-10-09 22:12:14 (UTC)</div> <div><div><div>✓</div><div>The data below are the most preferred data available</div></div><div><div>✓</div><div>The data below have been reviewed by a scientist</div></div></div>
Felt Report - Tell Us!	
Did You Feel It?	
ShakeMap	
PAGER	
Ground Failure	
Technical	<div>This version represents an update of the rapid finite fault solution posted a few hours after the earthquake, which did not accurately portray the full extent of rupture. Please note that this solution still assumes a single fault plane, whose geometry has been chosen based on an exploration of model space (varying strike, dip, rake, etc.). Geodetic imagery indicates complexity to the surface trace of this event that is not accounted for here, so subsequent models will differ at least with respect to the finer details of the slip distribution. The major change described by this update is in the rupture velocity, assumed to be ~4.0 km/s here. Rupture velocities of at least this speed seem to be required to propagate rupture as far south as observed in geodetic data (pixel tracking correlation and InSAR images). Other points of note: 1) none of the suite of models produced leading to this version resulted in surface slip at the epicenter. 2) These data do not rule out slip to the north; allowing slip to extend to the north, as in this model, results in improved model fits. 3) Models allowing oblique-thrust rake angles (rake > 0 deg) also produce notably better model fits, particularly evident in P-wave first motions at stations to the west.</div>
Origin	
Moment Tensor	
Finite Fault	
Waveforms	
Download Event KML	
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