

Prompt Assessment of Global Earthquakes for Response

Background

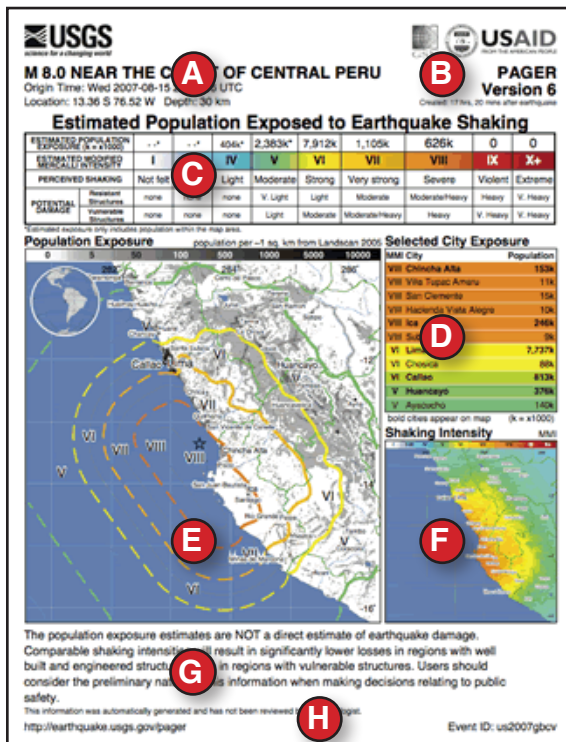
PAGER provides estimates of the number of people and names of cities exposed to severe shaking following significant earthquakes anywhere in the world. These estimates are generally available within 30 minutes of an earthquake's occurrence and are updated as more information becomes available. The content provided by PAGER is used to assess the possible shaking impact of an earthquake and to prioritize regions for further reconnaissance. However, PAGER currently does not provide casualty estimates and does not consider secondary effects such as landslides and tsunamis. For tsunami warnings see: <http://tsunami.gov/>.

Information on the extent of shaking will be uncertain in the minutes and hours following an earthquake and typically improves as additional sensor data and reported intensities are acquired and incorporated into models of the earthquake's source. Users of PAGER exposure estimates should account for uncertainty and always seek the most current PAGER release for any earthquake.

PAGER alerts are available in a one-page summary and web pages with extended content at <http://earthquake.usgs.gov/pager/>.

A Summary of the basic earthquake parameters, including origin time, magnitude, hypocenter, and the name of the region where the earthquake took place.

B The version of the PAGER alert and the time the alert was created. New versions of the alert are generated when the earthquake information is improved or supplemental ground shaking constraints become available.



C Table showing population exposed to different estimated Modified Mercalli Intensity (MMI) levels and the possible damage at different intensity levels for resistant and vulnerable structures. MMI describes the severity of an earthquake in terms of its effect on humans and structures and is a rough measure of the amount of shaking at a given location. Unlike earthquake magnitude, intensity varies with distance from the fault. Population outside the map bounds are not included in the totals.

D Table of MMI estimates for selected settlements. A maximum of eleven settlements that fall within the map boundary are included in the table. The table contains country capitals and the six settlements with the highest estimated intensity. The remaining settlements listed are selected by population. The settlement name, location, and population are obtained from the freely-available GeoNames geographical database.

G General disclaimer and region or earthquake-specific commentary. The comment may contain a general description of the vulnerability of the buildings in the region and an account of damage and population exposure for previous nearby earthquakes. In some cases, the potential for fires, landslides, liquefaction, or other hazards will be noted.

E Map of MMI contours plotted over population. The regions of integer MMI values are separated by the thick contour lines and labeled with Roman numerals. The total population exposure to a given MMI value is obtained by summing the population between the thick contour lines. This total is shown in the population exposure table.

F Map of shaking intensity. This map shows the estimated MMI as a continuous color scale. The ground shaking estimates can be obtained from <http://earthquake.usgs.gov/shakemap/>.

H Footer information, including a link to the latest version of the PAGER alert, the internal event-identification number, and a warning statement if the alert content was not reviewed by a seismologist.