

Emergency Response – Levels of Intensity

There are twelve (12) levels of intensity for earthquake damage, and indicators that can be used to answer the question "When do we actually initiate an emergency response to an earthquake?" CORE training suggests that the Incident Commander (IC) should decide, but no indicators are specified to help the IC make that decision. If the IC does not initiate emergency response when needed, further damage or injury may occur. On the other hand, an unnecessary emergency response may dull future response.

The 12 levels of earthquake damage, according to the internationally recognized Modified Mercalli Intensity (MMI) Index* range from very mild (1) to extreme (12). Using this scale it has been suggested that neighborhoods may want to activate emergency response at levels 5 or 6, midlevel, where the most uncertainty about responding may occur.

It is suggested that each neighborhood group discuss response indicators for their own neighborhood. Neighborhoods may want to enlarge on the scale to add more earthquake response indicators and to add indicators for other emergencies such as wildfire, landslides, etc.

One suggestion for determining the appropriate response to an emergency is to have neighborhood leaders use GMRS/FRS 2-way radios to contact adjacent organized neighborhoods, to determine what actions they feel are appropriate.

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* The Twelve Levels are:

Level 1 - Vibrations felt only by a few people under very special circumstances.

Level 2 - Vibrations felt by a few people on upper floors of buildings and in position to observe the swinging of suspended objects.

Level 3 - Vibrations felt generally by people indoors but may not be any more intense than those due to a passing vehicle.

Level 4 - Vibrations felt by almost all people indoors and some outdoors. Some objects displaced. Sounds produced in structures. Some vehicles perceptibly rocked.

Level 5 - Vibrations felt by everyone. Some objects rocked off of tables and shelves. Some objects overturned

Level 6 - Vibrations and motion felt by everyone. Even heavy objects displaced. Some structural damage such as to plaster or wallboard.

Level 7 - Some structures, such as brick chimneys, damaged. Slight damage in other structures such as wood frame buildings.

Level 8 - Structural damage to even well-designed structures. Frame structure walls pushed out of shape. Masonry structures destroyed. Heavy objects overturned.

Level 9 - Considerable damage to structures, even partial collapse. Some structures shifted off of foundations.

Level 10 - Even wood frame structures destroyed. Foundations damaged. Rails bent.

Level 11 - Almost all masonry structures destroyed. Wood frame structures generally damaged and some destroyed. Metal structures such as bridges destroyed and rails severely bent.

Level 12 - Most structures destroyed. Elevation or subsidence of land forms. Some objects thrown into the air.