Life Detector

Most of the time, rescuers can't immediately hear victims trapped in earthquake rubble. That's when the Life Detector can help. It can pick up extremely small sound vibrations—like someone tapping on concrete or wood. Then it displays these vibrations as a bar chart on a screen, the way a home stereo system displays sounds. To pinpoint the sounds, six sensors are arranged around a section of the rescue scene. Then the rescuer searches between the two loudest channels—the sensors picking up the strongest signals. Next, the ring of sensors is moved to within this focus area, and the process is repeated to narrow the search area. Digging through rubble is a huge job. The Life Detector makes it possible to home in on the exact place the victim is trapped.

Another system for rescuing earthquake victims takes advantage of the fact that many people carry cell phones. A Japanese company, Toshiba, developed an emergency system that can be activated in any area by a call to a special number. The system transmits an alert message to every cell phone in that area, causing them all to ring. Then rescuers can use the ringing phones as beacons to home in on.