## From Madison River Canyon Earthquake area booklet, Forest Service publication 2004.75.759

It was near midnight on August 17, 1959. The quiet of a soft summer night lay gently over southwestern Montana. Hundreds of vacationers were asleep in camps, trailers and lodges near Hebgen Lake and along the Madison River. At 11:37 the first heavy shock smashed through the night. Earth and rock buckled, lifted, and dropped. Boulders crashed down into canyons and valleys. Mother Earth was reshaping her mountains, not with the gentle hand of time, but in violent response to an agony of deep-seated tensions no longer bearable.

An eight-state area felt the first heavy jolt of the Hebgen Lake Earthquake. It was one of the strongest earthquakes ever recorded in the United States. That first shock was felt from the Pacific Coast eastward into western North Dakota. It was felt from Utah and Nevada northward into British Columbia. Surface damage extended from near Old Faithful Geyser in Yellowstone National Park westward for about fifty miles. The area of heaviest visible damage is near two large faults in Madison Canyon on the Gallatin Nation- al Forest. One large fault ripped the earth's surface on a fifteen-mile front from the forest's eastern boundary to a point north of Hebgen Dam. Another major fault paralleled the north shore of Hebgen Lake and old Highway 287.

On the fateful night of the earthquake, deep-seated tensions opened the two major faults, tilted the bed of Hebgen Lake, and damaged Hebgen Dam. The movement and resulting shock sent at least four surges of water plunging over Hebgen Dam. Faults shot across highways; cracks split along and across roads and trails; several large sections of Highway 287 dropped into Hebgen Lake. But that first shock was only the beginning. Major aftershocks and hundreds of tremors shook the mountains and plateaus of southwestern Montana and northwestern Wyoming during the next several weeks. Soon after the main shock, a gigantic land- slide came down across the mouth of Madison Canyon. Many people were trapped.

For most of the vacationers there were hours of ordeal yet to come. For a few there was final tragedy. Nine persons were killed and another 19 are presumed buried beneath the huge slide. At dawn a plane made a reconnaissance flight; rescue units from many agencies were soon on the move. Forest Service smokejumpers parachuted into the canyon to give aid and to set up communications.

Injured were flown out by Air Force and Forest Service helicopters and others were able to leave the canyon by evening. The emergency was soon over. The earth lay nearly still amid the harsh signs of the long struggle to adjust to its realigned foundations. As earth tremors weakened, damage control work started. Army Engineers raced to cut a safe overflow through the slide before the rapidly rising new lake reached Hebgen Dam, and to avert a flood threat to towns below the Madison slide.