GENERAL INFORMATION

EARTHQUAKE NOTES

HAWAII EARTHQUAKE OF 29 NOVEMBER, 1975

A recent issue of the Bulletin of the Seismological Society of America contains a reconnaissance report of the shallow magnitude 7.2 Hawaii earthquake on 29 November, 1975. The abstract is reproduced below. Direct damage costs are estimated to be $US 4 million.

"Two earthquakes occurred on the island of Hawaii on 29 November, 1975, a magnitude (M_S) 5.7 event at 0335 (local time) and a magnitude (M_S) 7.2 event at 0447. During the larger event, a maximum acceleration of 0.22 g was recorded in the southern part of Hilo, 43 km north of the epicenter. A 0.05 g threshold duration of 13.7 sec was measured for the same component. Smaller amplitude accelerograph records were obtained at two other locations on the island along with four seismoscope records.

During or subsequent to the larger event, a large sector of the southeastern coastline subsided by as much as 3.5 meters. A tsunami generated by the larger event caused at least one death (one person also missing), injury to 28 persons, and significant structural and non-structural damage.

Only scattered evidence of strong ground shaking was observed in the epicentral area, and most of the several dozen nearby structures sustained little or no structural damage from ground shaking. In Hilo, 45 km north of the M_S = 7.2 epicenter, structural and non-structural damage was slight to moderate but more extensive than elsewhere on the island."

Reference: The Island of Hawaii Earthquakes of 29 November, 1975: Strong Motion Date and Damage Reconnaissance Report by Christopher Rojahn and B. J. Morrill B.S.S.A. Vol. 67, No. 2, pp493-515. April 1977.

GAZLI EARTHQUAKE OF 17 MAY, 1976

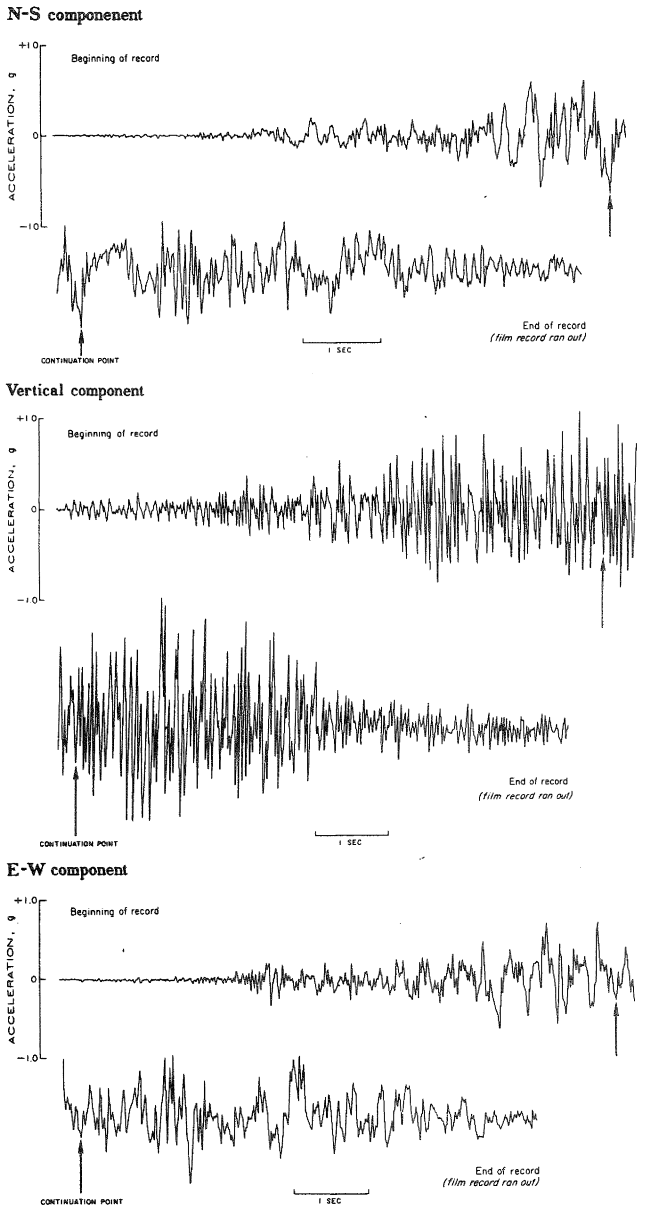
A particularly interesting strong-motion record was obtained in the 17 May, 1976 Gazli, U.S.S.R. earthquake. The earthquake has been assigned magnitude 7.3 and focal depth 30 km and the accelograph appears to have been sited only 10 km from the epicentre.

On the basis of direct scaling from the uncorrected record U.S. Geological Survey have estimated the peak ground accelerations for the N-S, vertical and E-W components to be 0.6g, 1.3g and 0.8g. Ground accelerations of 0.5g or more were recorded for 3.8, 6.1, and 4.7 seconds for the N-S, vertical and E-W components respectively. The uncorrected record is illustrated on page 164.

The strong motion recorder was installed after a magnitude 7 event on 26 April, 1976. The recorder was sited on 1500m of sandy clay over rock.

During the 17 May event, MM IX was experienced in the town of Gazli, 27 kilometers from the epicentre.

Source: U.S. Geological Survey Circular 736-D, Seismic Engineering Program Report, October-September, 1976.



UNCORRECTED MOTION RECORDED IN THE 17 MAY, 1976 GAZLI EARTHQUAKE.