

of erosion estimated is less than that of deposition, suggesting that the tsunami transported the sand from the shallow sea bottom in the area around Korim.

In eastern Biak, local people report that the level of high tide is now 0.5 to 1.0 m higher than in the past, indicating the land in that area has subsided due to the earthquake.

To assist in planning the ITST survey, the tsunami simulation model TSUNAMI was used to estimate the probable tsunami heights along the Irian Jaya coast. Actual measurements on Biak Island compared well to the predicted values.

ITST Members

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Learning from Earthquakes

The March 28, 1996 Ecuador Earthquake

At 6:03 p.m. local time (23:03 GMT) on March 28, 1996, a Richter magnitude 5.7 earthquake struck the Ecuadoran province of Cotopaxi, about 120 km south of Quito. The epicenter was located at S 1.06° W 78.60°. A total of 70 rural communities were affected. The 27 most severely affected communities included Pujili, San Juan, La Victoria, Mulalillo, Zumbahua, Nagsiche, Pucara and Cusubamba. These communities are located at an average altitude of 3,000 m. The quake was also felt in the cities of Quito, Latacunga and Ambato, where minor damage to windows and masonry occurred.

The official reports cite 19 deaths and 58 people injured. Approximately 1,000 families have been left homeless. The majority of the housing in the affected area is built with adobe walls and heavy tile roofs. In areas of concentrated population, such as Pujili and San Juan, up to 85 percent of the housing has been totally or partially destroyed. In some of the smaller towns and villages, 100 percent of the houses collapsed, either in the main shock or in the continuing aftershocks. It has been reported that in some of the most severely damaged areas, people have begun to move en masse in search of relief. Authorities fear that this will lead to abandonment of agricultural land and will have a further negative impact on the area in the future.

Water supply systems were also affected. At least 1,000 m of water pipes, servicing 3,000 people, are damaged. Numerous small landslides occurred, blocking secondary roads. Collapsed bridges have made access to some communities impossible by land.

Learning from Non-Earthquakes

Oregonians Are Ready for an Earthquake

The following article was published in the March 22, 1996, Seattle Post-Intelligencer.

Military jets staging a mock battle rocked northwestern Oregon with a pair of thunderous sonic booms yesterday, panicking some coastal residents who thought a tidal wave was headed their way.

The booms, just before and after 9 a.m., felt like earthquakes to people from Astoria on the northern coast to Albany, 160 miles to the southeast.

Authorities in Cannon Beach,

population 1,300, activated the tsunami warning system, sending virtually the entire town to high ground. In Tillamook, the courthouse was evacuated.

The noises were caused by three Oregon Air National Guard F-15 fighter jets and two Air Force B-1 bombers that had joined a military exercise off the coast.

The jets were 100 miles offshore, said an Air National Guard spokeswoman, but atmospheric conditions apparently amplified the sound, and caused a highly unusual atmospheric disturbance.