

## Learning from Earthquakes

# Rare Earthquake Occurs in Argentina

Sources of information for this article were Virginia Rodriguez, Universidad Nacional de San Juan, Argentina; El Diario Clarin; and the U.S. Geological Survey.

An earthquake of magnitude 6.4 occurred in northwestern Argentina on September 7, 2004. The earthquake had its epicenter in a sparsely populated mountainous region, 15 km from the city of Catamarca (the capital of the province of Catamarca), about 975 km (625 miles) northwest of Buenos Aires.

Although felt throughout 14 provinces, including Buenos Aires, the relatively isolated epicenter and the depth of the earthquake (22 km) resulted in minimal damage. Since strong earthquakes occur rarely in Argentina, residents of this wide region expressed surprise over such strong shaking. At least one person was reported dead.

The provincial governor sent inspectors to conduct building evaluations.



Evacuation of public building (photo: El Diario Clarin).

Public buildings, including schools and government buildings, were evacuated.

Many churches in the province of Catamarca that are historical monuments were damaged. Church buildings in several towns sustained cracks in walls and ceilings. Similar damage occurred to several school buildings. In the town of Andalgalá, parents decided not to send their children to school No. 995 until it could be structurally evaluated; it is more than 100 years old and has more than 1,000 students.

At least one hospital, built in 1892, has been declared uninhabitable. Two hundred houses were destroyed, and officials reported that 500 pesos (US\$166) will be given to affected families to help subsidize temporary lodgings. The governor has asked the president of Argentina for federal assistance in reconstructing housing and repairing public buildings.

Past damaging earthquakes in Argentina include the magnitude 7.4 San Juan earthquake of 1977, which severely damaged the town of Caucete, and the magnitude 7.8 San Juan earthquake of 1944, killing almost 10,000 people and severely damaging the city of San Juan.



Damage to adobe structure in Catamarca (photo: El Diario Clarin).



Damage in city of Catamarca (photo: El Diario Clarin).