



United States
Department of the Interior
Geological Survey, National Center
Reston, Virginia 22092



Public Affairs Office

Bob Johns (703) 860-7444

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RECENT EARTHQUAKES IN NORTHEAST NOT THAT UNUSUAL

The two earthquakes that shook the northeastern part of the country on January 9 and 18, 1982, do not appear to be related and are not regarded as a signal of the beginning of increased earthquake activity for that part of the country, according to the U.S. Geological Survey.

"These two quakes, the earlier one which was centered in New Brunswick, Canada, and registered magnitude 5.9 on the Richter Scale and the later one centered in Franklin, New Hampshire, and registering 4.8, are only two of over 1,200 earthquakes to have been felt in the northeastern area over the last few hundred years," said Dr. Walter Hays, a senior geophysicist at the USGS National Center in Reston, Va.

According to Dr. Hays, all of the northeastern states have had their share of ground shaking. "New York, for example, has had over 330 felt earthquakes in its recorded history dating from 1737. That averages to better than one felt earthquake per year. Massachusetts has had about 275 dating back to 1627, that's about two every three years. New Hampshire is about the same with over 170 felt quakes from 1728 to the present," Hays said.

The other states in the Northeast have also had some significant shaking. Maine has had over 165 felt quakes since 1766, Connecticut has had over 90 since 1568, Vermont has had over 40 since 1843 and Rhode Island has had about 25 since 1766.

"So while people often only associate notable earthquake activity with such states as California and Alaska, eastern states have also been quite active seismically," Hays said.

Hays said the USGS is taking advantage of the opportunity to collect earthquake data afforded by the two quakes. "We sent a field crew out to record ground motion caused by aftershocks from the New Brunswick, Canada, quake and with the New Hampshire quake occurring in such close proximity, the crew may be able to record aftershocks from both of the quakes. There is very little strong ground motion data for the northeastern United States and hopefully, these quakes will give us some ground motion records to augment the intensity data available from past earthquakes," Hays said.

Instrumental ground motion data are used in preparing criteria for earthquake-resistant design of critical structures such as hospitals, schools and emergency facilities and are more definitive than intensity data, he added.

During FY 1981, the USGS, the primary federal agency charged with conducting earthquake hazards research, funded \$34 million in research through grants, contracts and in-house studies. In addition to assessments of regional and national seismic hazards and risk, numerous studies involving eastern United States areas are also being conducted by the USGS including studies of earthquake recurrence rates and geophysical studies using seismic reflection techniques used in oil exploration to identify buried faults.

As part of the earthquake hazards reduction program, the USGS has already published seismicity maps for 34 states, including all of the eastern United States, showing the locations, dates and magnitudes (or epicentral intensities) of earthquakes that have occurred within these states. Such information is useful in land-use planning, in siting power plants and other critical facilities, in establishing earthquake insurance rates and policies and in other planning activities in which earthquake history and the frequency of earthquake occurrence are factors.