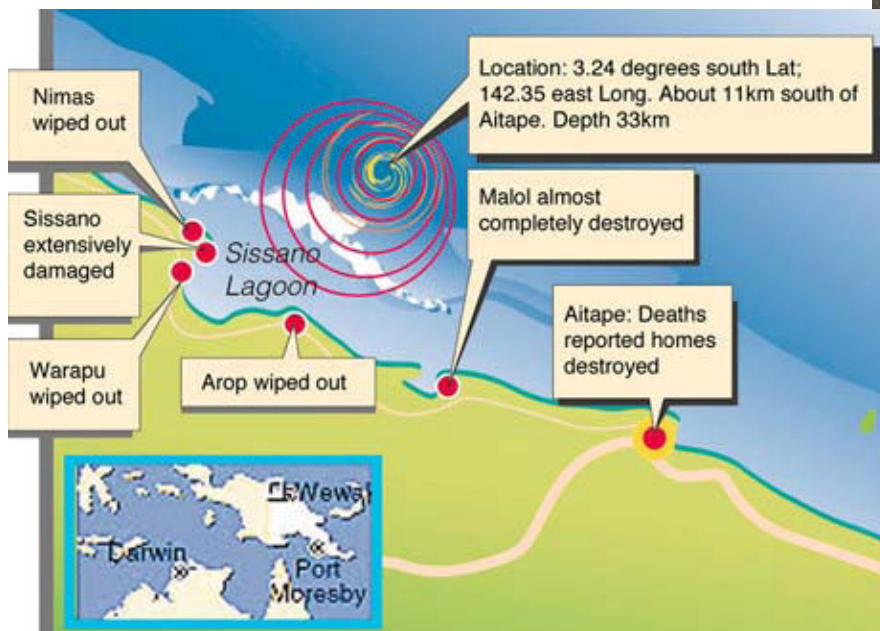
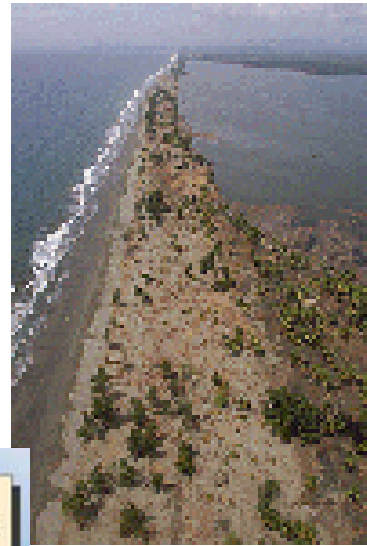


Papua-New Guinea - 17 July 1998

A major earthquake (magnitude 7.0) about 12 miles off the northern coast of Papua - New Guinea (PNG), in the Bismarck Sea, generated one of the most destructive and deadly tsunamis to strike this country in recent years. There was no warning. Minutes after the earthquake shook the region, and in the darkness of the early night, tsunami waves destroyed three fishing villages along a 30 km stretch of beach west of Aitape in the West Sepik Province. Most of the deaths occurred at the villages of Sissano, Warupu, Arop and Malol along the shores of the Sissano lagoon.

The sand spit where the Arop village stood. (Photo credit: Hugh Davies, University of PNG.)



According to accounts of survivors, first they felt their homes tremble as the earthquake shook the seabed. Approximately one minute later, they heard a roar described "like a jet fighter landing".

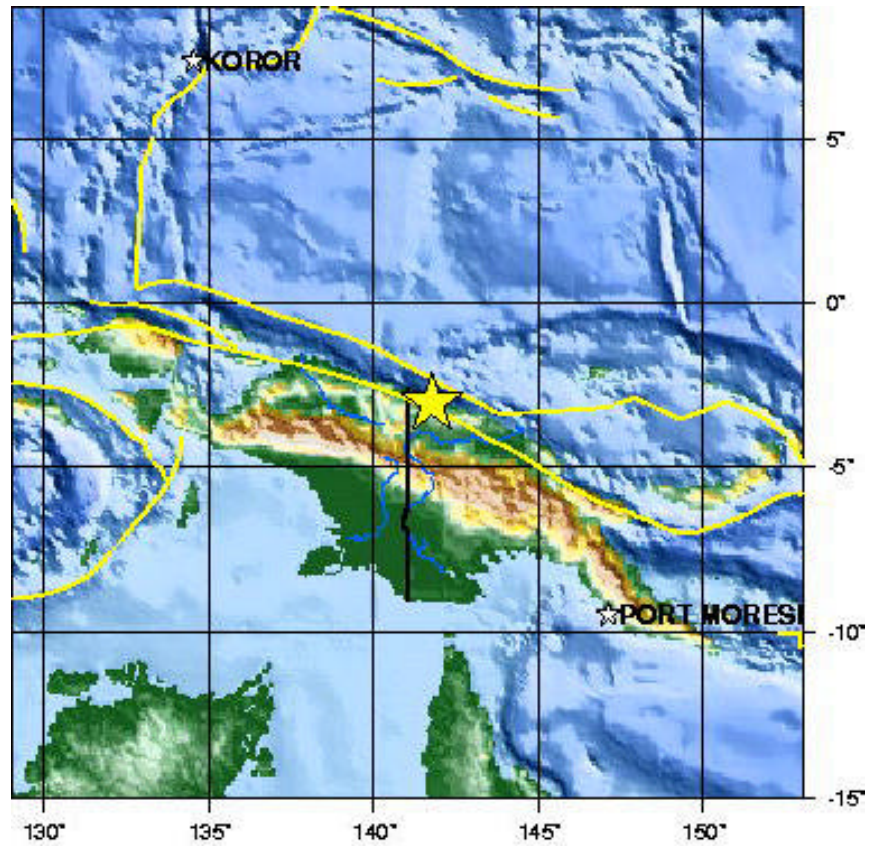
In the next few minutes, three huge waves, the largest estimated at 10 meters high, slammed the coastline. The waves swept men, women and children into the sea.

Most of the victims were children. The waves were followed by a brief lull, then a fourth less violent wave arrived. Approximately 18 minutes after the earthquake, the sea was quiet again.

At least 2,182 people died and another 1,000 were injured. More than 10,000 people were left homeless. Two of the villages, one on the spit separating the sea from Sissano lagoon, were completely swept away. #At the Warupu, a village of 1,800 people, and at Arop, a village of 1800-2,000 people, there were no houses standing. Palm and coconut trees were ripped out completely by the wave action.

Northern PNG is a very active seismic region, involving complex interactions and movements of tectonic plates. This is where the smaller Caroline tectonic plate subtruts the larger Australian tectonic plate. Most of the earthquakes along this zone result from strike slip movements but some occur along steep dipping reverse faults with vertical components, sizable enough to generate destructive local tsunamis.

Lessons learned from this disaster were many and bitter. In spite of continuous efforts by IOC in the past, PNG had not joined the ITSU Group and had no programmes of preparedness or public education about the tsunami hazard.



Survivor at Sissano lagoon going through the remnants of his house (AFP Photo

