Appendix D
1867 Virgin Islands Tsunami
The 1867 Virgin Islands Tsunami

On the afternoon of November 18, 1867, a magnitude 7.5 earthquake occurred in the Anegada trough, located between the US Virgin Islands of St. Croix, and St. Thomas. The earthquake actually consisted of two shocks, separated by ten minutes. These shocks generated two tsunami waves that were recorded at several Island locations across the eastern Caribbean region, most notably on the Islands of St. Thomas and St. Croix.

The first tsunami wave struck the town of Charlotte Amalie, on the island of St. Thomas, approximately 10 minutes after the first shock and the second wave approximately 10
minutes after the second shock. Both waves struck the harbor at Charlotte Amalie first as a large recession of water, followed by a bore, which eyewitness accounts describe as a 4.5 to 6.1 meter wall of water. At the southern point of Water Island, located approximately four kilometers from Charlotte Amalie, the bore was reportedly 12.1 meters high. The waves destroyed many small boats anchored in the harbor, leveled the town's iron warf, and either flooded out or destroyed all buildings located along the waterfront area. The waves also damaged a United States Navy ship De Soto, that happened to be anchored in the harbor at the time of the event. The tsunami produced an estimated 2.4 meters of run-up at Charlotte Amalie, and a maximum 75 meter inland inundation.

Frederiksted, St. Croix was struck by two large tsunami waves, each approximately 7.6 meters high, according to eyewitness accounts. These waves caused severe damage along the waterfront, washing several wooden houses and other structures a considerable distance inland. The waves destroyed many of the smaller boats anchored in the harbor, and beached a large United States Navy ship, the Monongahela (see photo below). A total of five people died as a result of the tsunami. Eyewitness accounts from Frederiksted indicate that the water withdrew from the harbor almost immediately after the earthquake, which suggests that the first wave to strike here might have been a local tsunami produced by a submarine landslide.

Reports from Christiansted, St. Croix, indicate that the tsunami inundated an area up to 91 meters inland. The greatest damage here occurred at Gallows Bay, where the waves destroyed 20 houses and beached many boats.

Source: http://www.usc.edu/dept/tsunamis/caribbean/webpages/1867viindex.html