Tsunami Protection

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Having previously found that the shoreline (as opposed to out in the ocean or up on dry land) is the most effective placement of a wave barrier, I now observe the percentage of the shoreline that should include the wave barrier. Obviously an unbroken, continuous wall along the entire shoreline would offer the greatest protection... but, assuming limited resources, what percentage of shoreline coverage protects a given point while also using the least amount of resources to create? The procedure will consist of creating a tsunami simulator and using a number of bricks, which make up the walls, to identify the optimum shoreline percentage of the tsunami wall. Hypothesis: The percentage wall that will reduce the force of a tsunami most effectively with the least amount of force will be the 75% of the wall. A bed frame with plastic liner in it will be used for a tsunami wave pool. A hinged weighted board will be attached to one side of the wave pool to cause the tsunami waves. Four bricks, placed side by side will be used for creating the full wall while one will be removed each time the data for that wall size will be taken. Each wall size will be charged by a tsunami wave multiple times and the average of the wave heights will be taken.

Awards Won: