How Does a Gravel Seafloor Versus a Sand Seafloor Effect the Wave Velocity of a Tsunami?

Kessler, Sydney

Tsunami waves can cause a massive amount of damage to communities around the world. Waves with a higher wave velocity result in more damage because there is more energy transferred from the ocean water to the coast. This experiment was done to find out if a sand seafloor or an uneven (gravel) seafloor would result in the higher wave velocity. This was tested by simulating a miniature tsunami in a water tank. After completing this experiment, the data showed that the wave with the gravel seafloor generated a faster wave velocity (82.18cm/s) than the wave with the sand seafloor (53.22cm/s), so therefore communities on the coastline that have a gravel seafloor could be more vulnerable to the damage of a tsunami wave.

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