

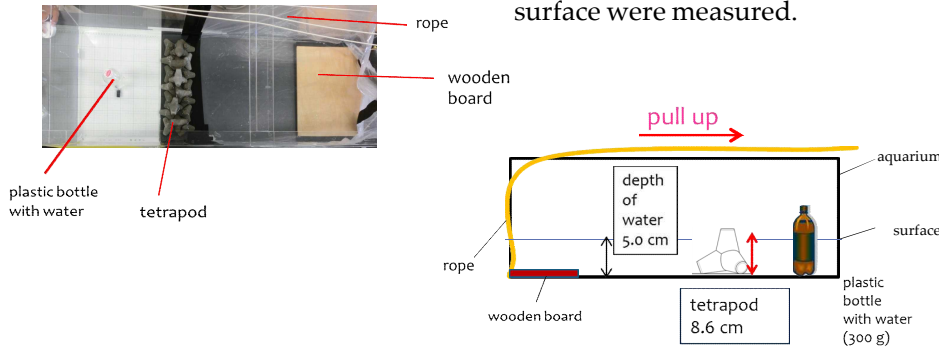
Effect of Tetrapods on Reducing Water Waves

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1. Introduction

Three years ago, in March 2011, The Great East Japan Earthquake took place. It is difficult to stop tsunamis with tetrapods because they are made for waves which have less energy. So, the effects of tetrapods on waves were studied in this research.

2. Materials and Method



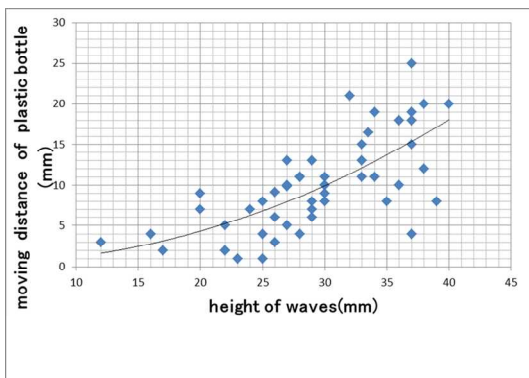
3. Hypothesis

Tetrapods can reduce waves with low height (0mm~50mm), but they can not reduce waves whose heights are higher than 50 mm.



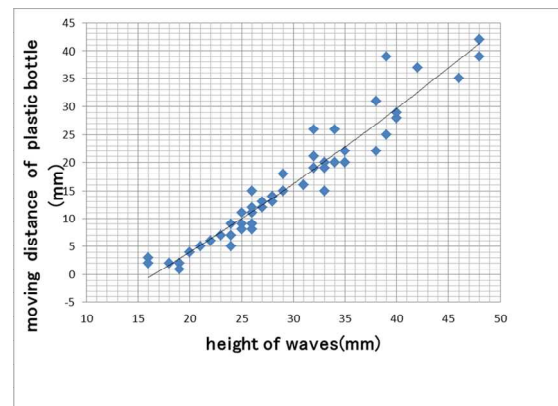
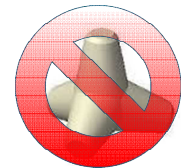
4. Experiment 1

First, performance of experiment with twenty tetrapods.

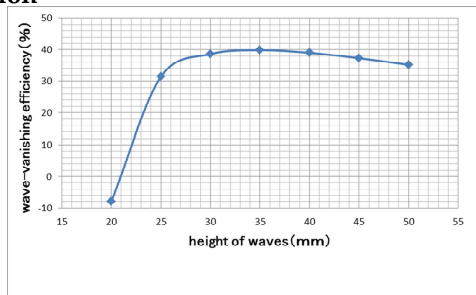


5. Experiment 2

Second, performance of experiment without tetrapods as a contrast experiment.



6. Conclusion



Experiments 1 and 2 were used to make this graph. The effect of reducing wave becomes bigger suddenly up to twenty-seven millimeters height, but it becomes smaller when the height of the waves exceed thirty-five millimeters. The effect becomes small because waves exceeded the maximum height of the tetrapods.

8. References

不規則波による消波ブロックの実験例 (www.pari.go.jp)
 図録東日本大震災での津波の高さ (www2.ttcn.ne.jp/honkawa/4363b.html)
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