

Interactive comment on “Tsunami response system for ports in Korea” by H.-R. Cho et al.

Anonymous Referee #2

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This scientific significance and hypothesis of this paper is good. Two issues would improve the scientific quality.

1) Another past earthquake generated a tsunami in 1964 : the Niigata earthquake of magnitude estimated at 7.2. The Ulsan tide gage on the Korean coastline recorded a 20 cm tsunami. The epicenter of this event should be added on the map, and information reported in the text, plus reference (NOAA/NGDC). These historical events show that in less than 30 years, 3 tsunamis impacted Korean harbors. Such information should be reported in this paper.

2) A question related to closer sources. The proposed method is efficient for the 3 past tsunamis observed in the XX century on Korea tide gages and 2 of them damaged several harbors. The question should be : is this method valid for all potential tsunamis that could impact the shore of Korea ? What would happen in case of a big earthquake

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located on the closest Japanese coastlines from Korea ? The seismicity in that zone is not very high. Nevertheless the seismicity in the regions close to the 1964 , 1983 and 1999 is also very low. To demonstrate this, an estimated travel time map for an epicenter located on the closest Japanese coastlines should be computed. As the hypothesis exposed, boat could need 55 minutes to evacuate some harbor. So to be absolutely adequate for all potential event, the authors should demonstrate that the travel time of a tsunami generated at an epicenter located at the closest Japanese coastlines is larger than 55 minutes. An new map should be added and an explanation of the minimum travel time to the Korean coastlines.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 2025, 2015.