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Interactive comment on "Stand-Alone Tsunami Alarm Equipment" *by* Akio Katsumata et al.

Anonymous Referee #1

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I have reviewed the proposed changes to the methodology. My opinion is that the empirical relations used to estimate tsunami magnitude and earthquake magnitude from peak ground displacement, provide an approximation to estimating these quantities but have not been fully adopted by the scientific community as reliable ways of assessing these magnitudes. Moreover, estimates of the tsunami magnitude generated by the formula presented which relies on tide gauge data can be significantly off. Based on this, the authors should be aware of the potential for false alarms or failure to alert of a real damaging event in a specific location due to local effects. I would strongly advise for further testing and investigation before a system like this is developed and put into operations.

The potential for conflict with official warnings is an issue to which the authors have not provided a satisfactory response. The fact that official warnings will take precedence over those generated automatically by these systems does not prevent the potential

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for these systems to cause confusion amongst coastal residents in the case of conflicting assessment of the situation. This, however, is not a scientific issue but rather an emergency management one.

I do not think the issue I raised, of slow-rupture earthquakes and the potential for this system to assist in such situations, has been addressed in the modifications to the methodology.

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