

## ***Interactive comment on “Multi-method observation and analysis of an impulse wave and tsunami caused by glacier calving” by M. P. Lüthi and A. Vieli***

### **Anonymous Referee #5**

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The authors describe an odd calving event and nicely lay out some equations and scaling that future studies could use to better understand iceberg calving. It is a great contribution and it should be published after the authors consider the following minor grammatical corrections.

I have a few general issues. First, the authors do not explain how they obtain the DEM. The TRI gives you a line-of-sight reflections and the authors are definitive about the actual height of the cliffs, so how do they obtain the height of 200 m? Along these lines, Figures 3 and 4 seem to drive home this point. There is no thickness change of anything greater than 150 m (scale bar does not exceed 150 m) on Figure 4, while

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Figure 3 indicates a height of 200 m - the authors should reconcile these.

6472/7: "in 800 m distance" seems awkward 6472/9: "in 4 km distance" seems awkward 6472/19: "which are threatening live" is poor grammar, maybe change to "which have the potential to threaten lives" 6472/22: "in large distance" is poor grammar 6473/1-2: weird to define Glacier calving by using another reference to calving, edit this sentence 6473/8: What unpublished data? Please specify what/where this is 6473/20: Where is the Lüthi et al., 2015 paper? 6473/27: "a new type" - how is this new? Also, "a new type of calving events" is poor grammar 6475/15: How are the DEMs obtained? In my understanding of the TRI, it requires some sort of correction to obtain an actual DEM rather than just a line-of-sight measurement, so how is the TRI data processed to obtain a DEM? 6476/14: Define celerity 6476/24: How does the tide gauge keep time? Internal clock? 6478/19: "while other travel" should be plural "others" 6479/4: Where is Ege Lagoon? 6479/9: "shores is eroded" should be "shores are eroded" 6479/15: change "with" to "which" 6481/4: "in a distance" poor English 6482/28: "in 3 km distance" Figure 7 caption: Remove "important"

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Interactive comment on The Cryosphere Discuss., 9, 6471, 2015.

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