

Interactive comment on “The effect of increased resolution of geostationary satellite imageries on predictability of tropical thunderstorms over Southeast Asia” by Kwonmin Lee et al.

Anonymous Referee #1

Received and published: 10 January 2019

This paper explores the potential of using brightness temperature from the Himawari-8 satellite to predict tropical thunderstorms compared to lower-resolution images. While a significant improvement in forecasting lead-time is found using the Himawari-8 satellite, the review recommends considering more events (during both daylight and darkness) to evaluate the efficacy of this method. A full thorough English editorial is also recommended prior to publication. Further comments are outlined below.

Major overarching issues:

- The number of events (clouds) considered in this manuscript should be increased. To validate the efficacy of this approach, images from other months and from both

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day and night should be considered. The authors' comment about considering daytime only because "the floating population is most active during the daytime", is misinformed. During darkness, many people will be asleep and the lack of direct sunlight may impair the ability of the population to respond to the given hazard effectively. An improvement of lead time during darkness would be a significant contribution to the body of research. As such, it is recommended that both day and night are considered in this analysis.

Specific comments:

- P1 L10: suggest using the term 'significant damage' instead of 'heavy damage'.
- P1 L27: change 'lost' to 'loss'.
- P2 L3: what about storm surge and coastal inundation?
- P2 L11: what do you mean by "grounded"? Do you mean ground-truthed?
- P3 L5: suggest changing "growing" to "developing".
- P3 L6: why is only August considered? This needs to be clarified. The review recommends considering other months in this analysis.
- P3 L22: check the date for Schmit et al., reference.
- P3 L29: change "statuses" to "status".
- P4 L15: check the date for Housze reference.
- P4 L18-L19: check grammar.
- P5 L5: Is "100 min" a typo? Do you mean 10 min?
- P6 L2: This study is validated using a small number of clouds, over a small range, during daylight hours. This needs to be clarified in this sentence.
- Fig 2a: Including coordinates and a continent basemap would be useful.

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