

Interactive comment on “Impact of Hurricanes Irma and Maria on the PTWC Tsunami Warning Capability for the Caribbean Region” by Victor Sardina et al.

Anonymous Referee #3

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Manuscript of Sardina et al. called "Impact of hurricanes Irma and Maria on the PTWC tsunami warning capability for the Caribbean region" represents rather a scientific report than a research paper where Authors theoretically evaluate PTWC response time capabilities before and after the two hurricanes. Authors first introduce their methodology to assess the expected PTWC event detection time, apply it to an ideal situation (all stations online and with zero data latency), then take into account the usual outage- and data latency statistics and, finally, consider network performance after the two devastating hurricanes. Their numerical analysis is extensively illustrated by a set of maps presenting event detection time as well as time delay introduced by the hurricanes.

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The Manuscript is compact, clearly written, exemplifies an important question of TWC response time, and, to my opinion, should be published in NHESD after minor revisions.

In particular:

(1) From the text in Ch.3 is not clear if data latency and station outage statistics (Figure 1b, upper right corner, – note! – "right" not "left" as written in line 29 page 2) reflects the overall network performance during the second half of 2017 disregarding individual stations (i.e., data latencies and outages might "jump" from station to station within this time period), or latencies and outages are "bound" to particular stations? In the first case, results (detection time maps accounting for data availability) will strongly depend on how Authors distribute outage and latency statistics between concrete stations. In the second case (which, I think, is valid), it is not clear why such a statistics has a persistent character – why not to repair non-working stations (persistent outages)? Why not to reduce problematic data latency at correspondent stations?

(2) Ch. 5: One mitigation measure can be reduction of number of P-wave registering stations from 8 down to 4 (Figure 9a). How much should that affect the epicentral offset?

(3) At least for Figure 1 I would suggest to start the caption with: "Hypothetical epicentre positions coloured by theoretical detection time.".

(4) Optional. Some figures could be send to Supplementary. For example, 2, 4, 5, 8, 10.

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