

Interactive comment on “Storm-wave trends in Mexican waters of the Gulf of Mexico and Caribbean Sea” by Elena Ojeda et al.

Anonymous Referee #3

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Manuscript “Storm-wave trends in Mexican waters of the Gulf of Mexico and Caribbean Sea” by Elena Ojeda, Christian Mario Appendini and Ernesto Tonatiuh Mendoza addresses a topical issue of changes in the trends of high wave events in the coastal region. The dataset has been comprehensively analysed and the statistical significance of the trends has been evaluated. The results show that there is increase in the occurrence of high wave events related to TC. The results are of interest to the scientific community and within the scope of nhess. I recommend the paper to be published after minor revision.

Few questions/comments:

Study area, page 2, lines 31-32: Is the accuracy of the hindcast against measurements evaluated in an earlier paper? Does 'best performance' refer to the accuracy of SWH

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or also some other parameters and is the evaluation done at all the nodes? Please also give reference.

Hindcast wave data, page 3, line 14-15: Is 50 m depth deep water in the high wave events? What are typical peak periods during these events?

Storm definition, page 4, line 10-11: Is the minimum time between consecutive events, 48 h, based on storm characteristics in GoM? Could you further elaborate the reason behind this selection?

Storm classification, page 4, line 27: Which of the nodes had the lowest/highest number of events occurring during both types of events? Line 33: Could the wind direction criteria be used as main criteria to classify the events?

Conclusion, page 9, line 16: I recommend removing the reference to unpublished work suggesting a link between the presented results and climate change. The paper has enough interesting content even without it.

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