Accepted Manuscript

Role of continental shelf on nonlinear interaction of storm-surge, tides and windwaves: An idealized study representing west coast of India

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PII: S0272-7714(17)30267-6

DOI: 10.1016/j.ecss.2017.06.007

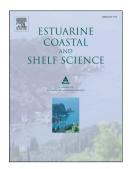
Reference: YECSS 5496

To appear in: Estuarine, Coastal and Shelf Science

Received Date: 8 March 2017
Revised Date: 2 June 2017
Accepted Date: 5 June 2017

Please cite this article as: Jismy, P., Rao, A.D., Bhaskaran, P.K., Role of continental shelf on nonlinear interaction of storm-surge, tides and wind-waves: An idealized study representing west coast of India, *Estuarine*, *Coastal and Shelf Science* (2017), doi: 10.1016/j.ecss.2017.06.007.

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ACCEPTED MANUSCRIPT

1	Role of Continental Shelf on Nonlinear Interaction of Storm-Surge, Tides and Wind-Waves:
2	an Idealized Study Representing West Coast of India
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15	ABSTRACT
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17	The study reports role and dependence of continental shelf geometry on the non-linear
18	interaction of storm surges, tides, and wind-waves. As a case study, the shelf geometry
19	representing the west coast of India is considered and numerical simulations are executed
20	using the standard representation of a tropical cyclone. The idealized experiments assume the
21	west coast of India as a straight coastline with varying continental shelf width ranging from 35
22	km in the south to 330 km in the north. For the experiments, ADCIRC model in standalone
23	mode and coupled ADCIRC+SWANare used by considering 13 idealized cyclone tracks
24	covering the study domain. It is noticed that an amplification of peak storm surge of ~ 12cm

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