Supplement of Nat. Hazards Earth Syst. Sci., 20, 1955–1968, 2020
https://doi.org/10.5194/nhess-20-1955-2020-supplement

Natural Hazards and Earth System Sciences
Open Access
EGU

Supplement of

Coastal impacts of Storm Gloria (January 2020) over the north-western Mediterranean

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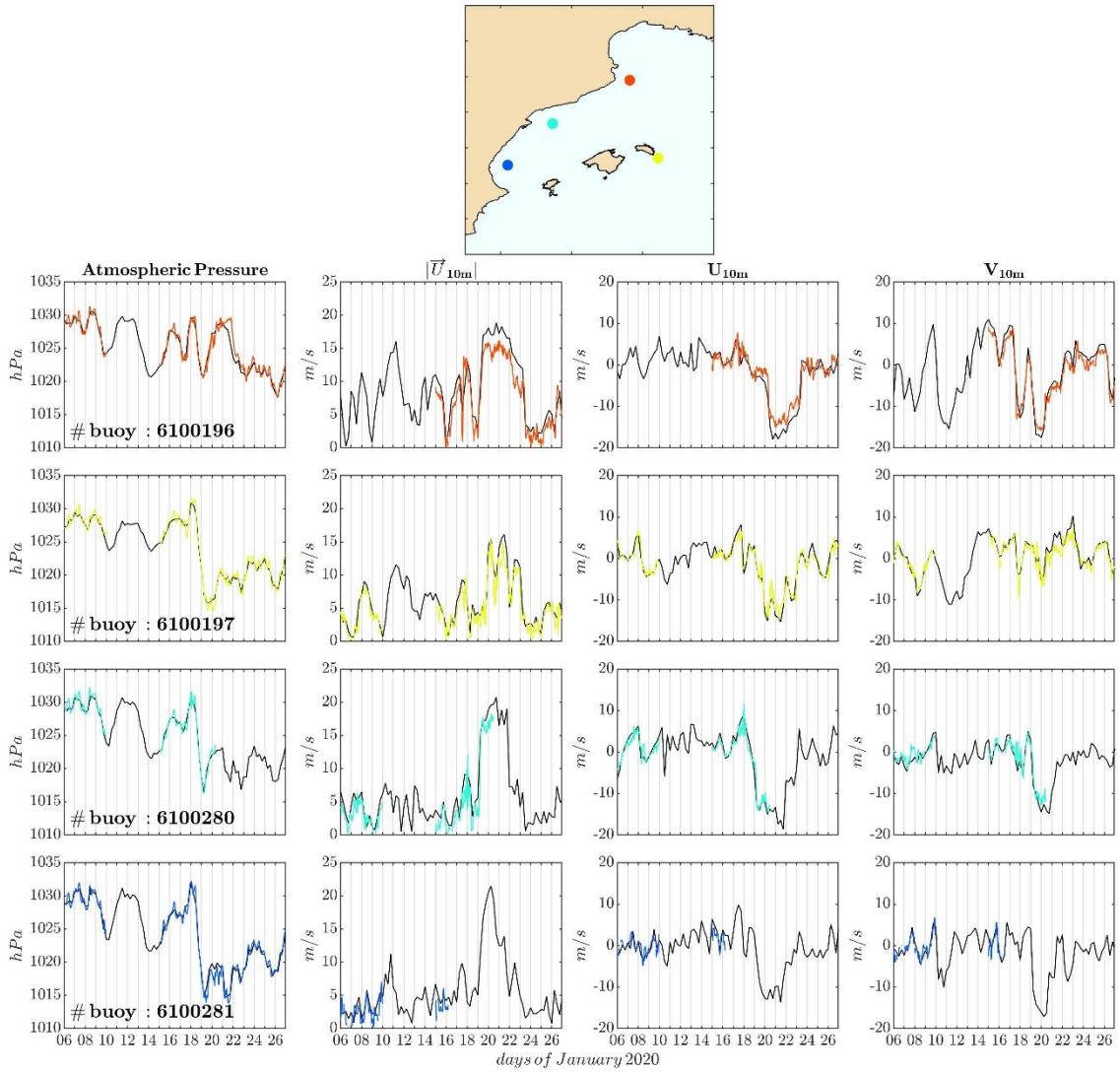

Figure S1: Comparison between modelled (black lines) and observed atmospheric pressure and wind fields (colours; each colour corresponds to one location in the map) at buoy locations.

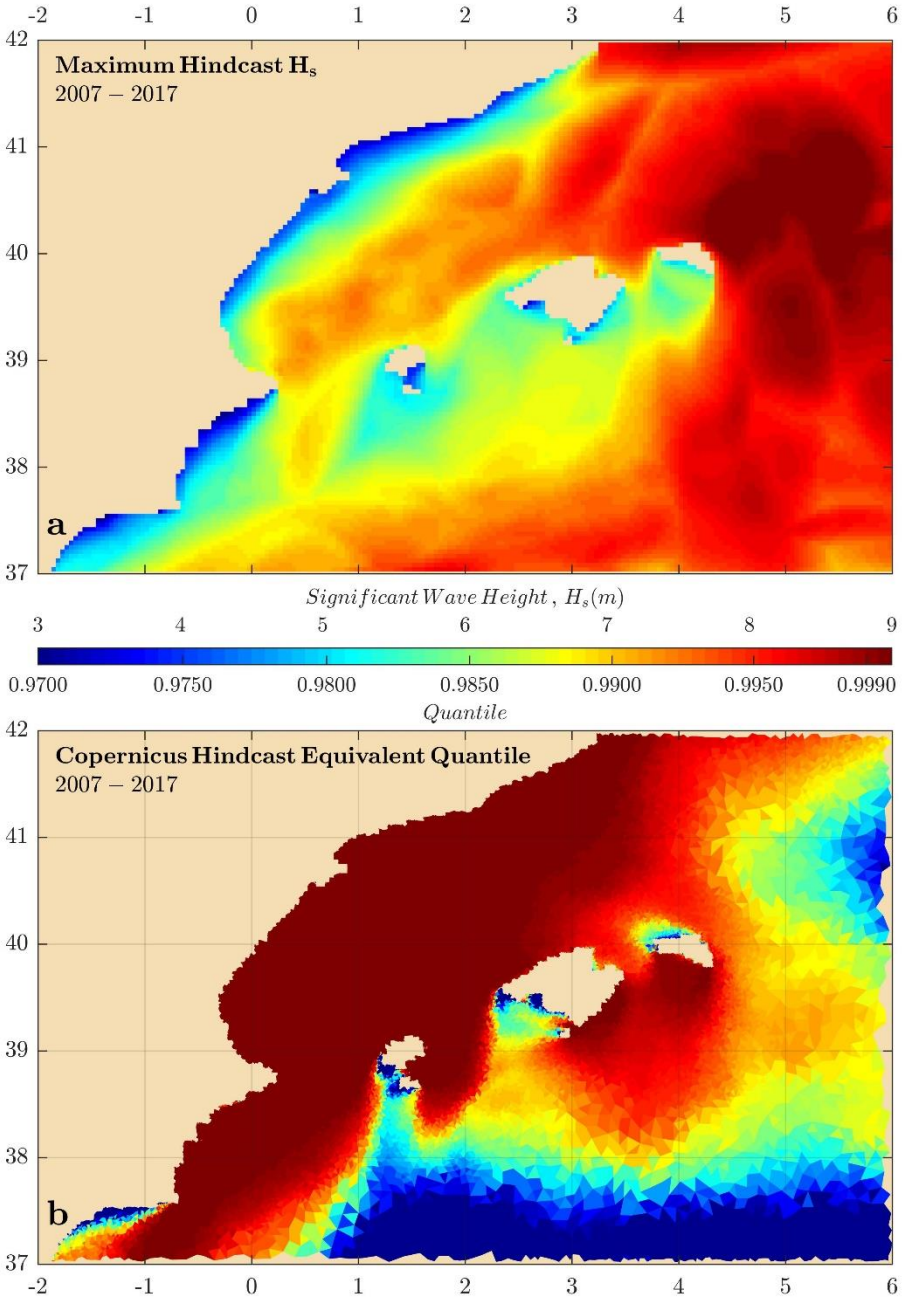

Figure S2: Maximum H_s in the Copernicus Hindcast (a) and its corresponding quantiles compared to our simulation of Gloria Storm.

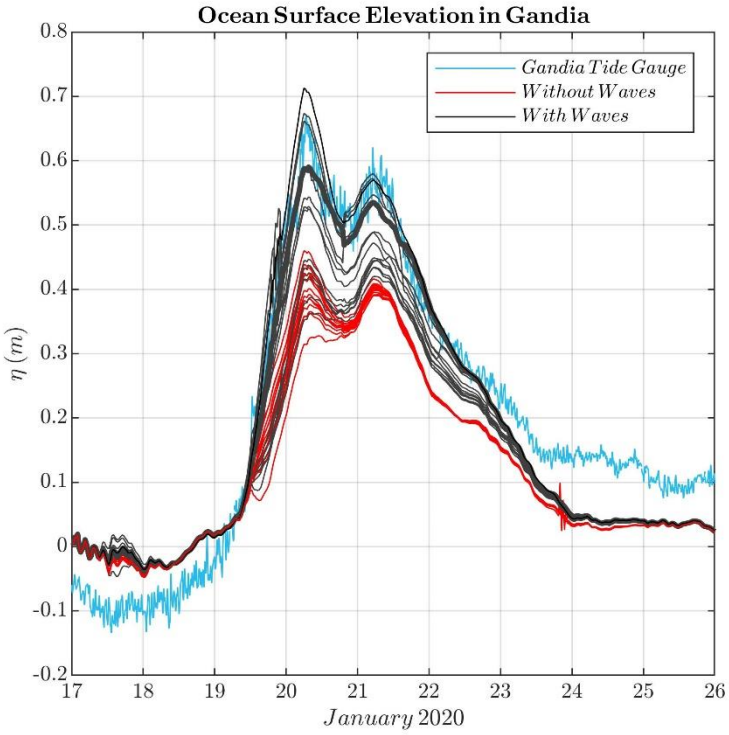

Figure S3: Comparison of the storm surges observed by the tide gauge of Gandia (light blue) to the coupled (black lines), and decoupled (red lines) simulations. To avoid strong bathymetric dependencies, the time series of all modelled points closer to 2.5 km to the tide gauge location are shown. The closest modelled point to the tide gauge is indicated by a thick black line.

Video S1: Animation of the simulated period. The first panel shows the atmospheric forcing (wind speed in colours and black arrows; surface atmospheric pressure in black isolines), the second the total simulated surge, and the third panel shows the wind waves.