

Supplementary materials

Section 1 includes the figures showing the time series of H_s , z , V_w and D_w during the ten analyzed events: six Mo.S.E. operations and four ordinary events. Section 2 presents the H_s numerical results for the ten events carried out with the SWAN model mapped for the whole lagoon (main model grid).

1. Analyzed storm events

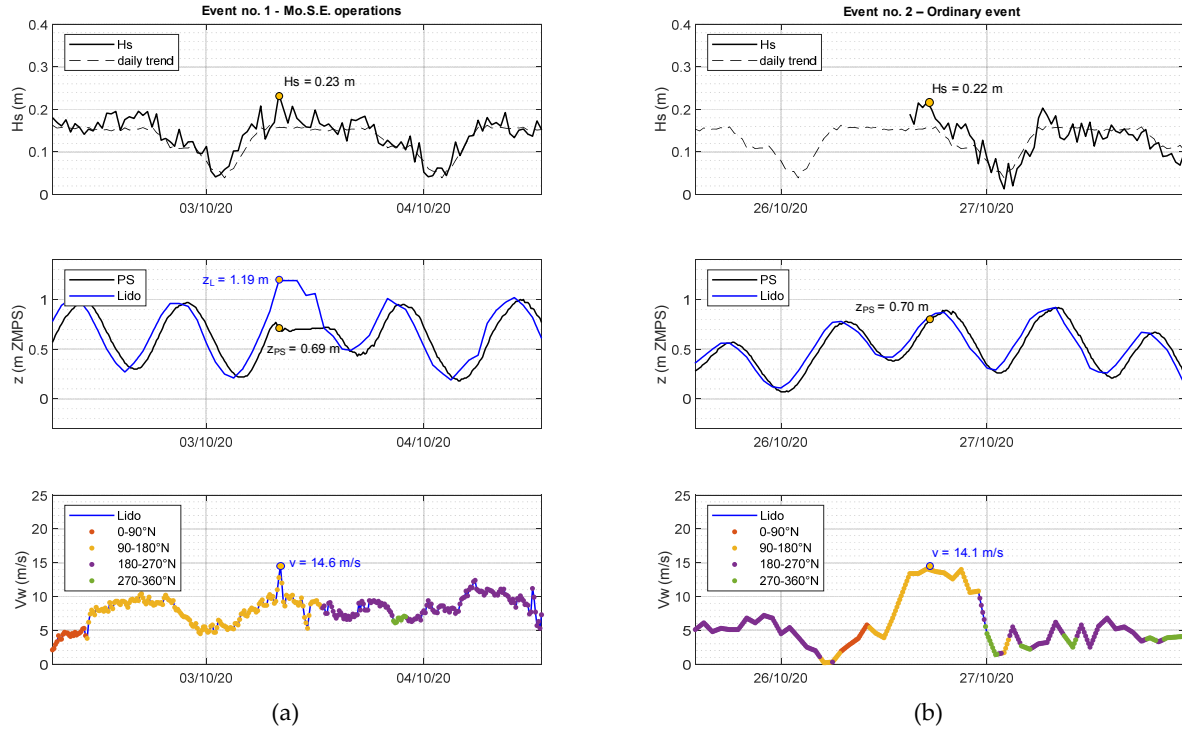


Figure S1 Time series of H_s , sea levels (z) at the Punta della Salute gauge and at the Lido inlet and wind intensity (V_w) with information also on wind direction (D_w): (a) during a Mo.S.E. closure, October 3rd, 2020, and (b) an ordinary event, October 26th, 2020.

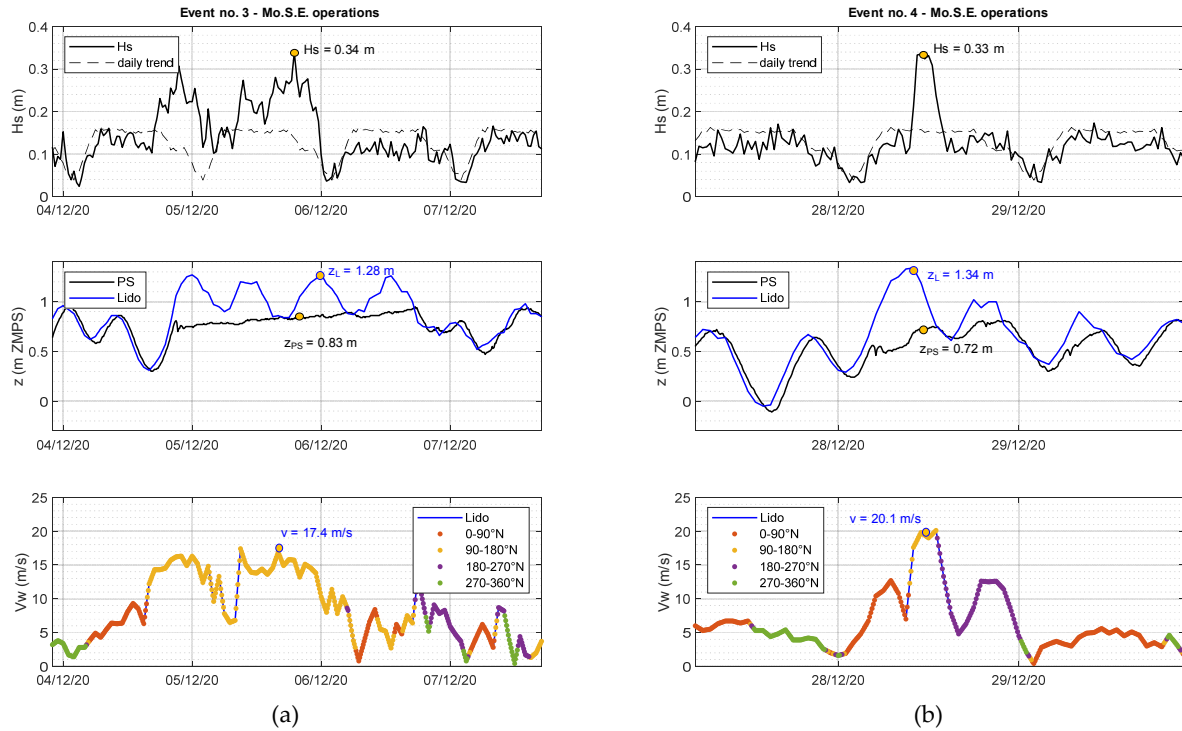
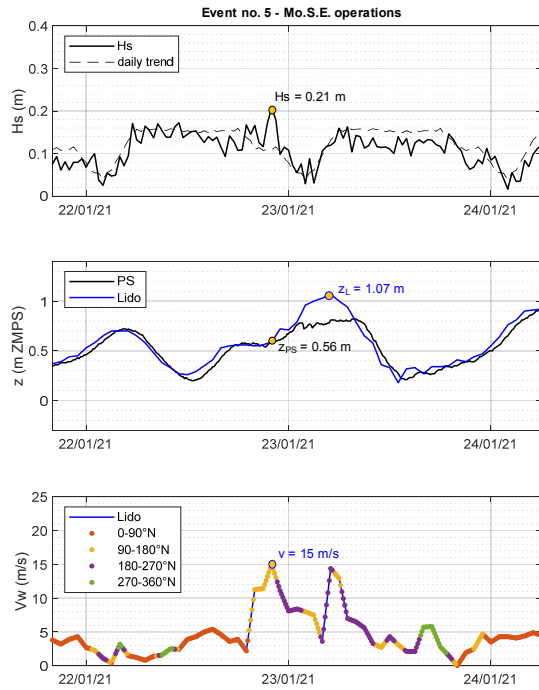
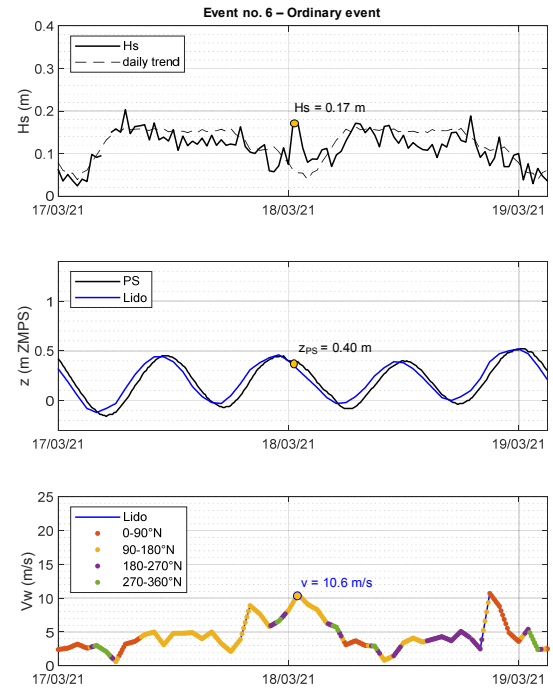


Figure S2 Time series of H_s , sea levels (z) at the Punta della Salute gauge and at the Lido inlet and wind intensity (V_w) with information also on wind direction (D_w): (a) during a Mo.S.E. closure, December 5th, 2020, and (b) a Mo.S.E. closure, December 28th, 2020.

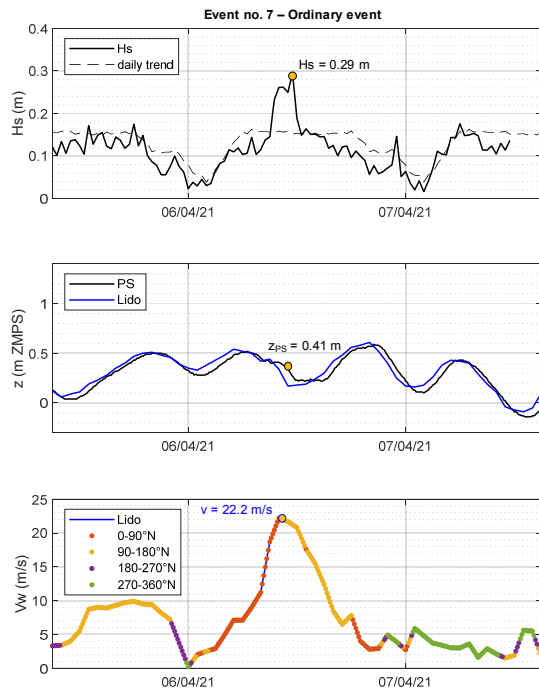


(a)

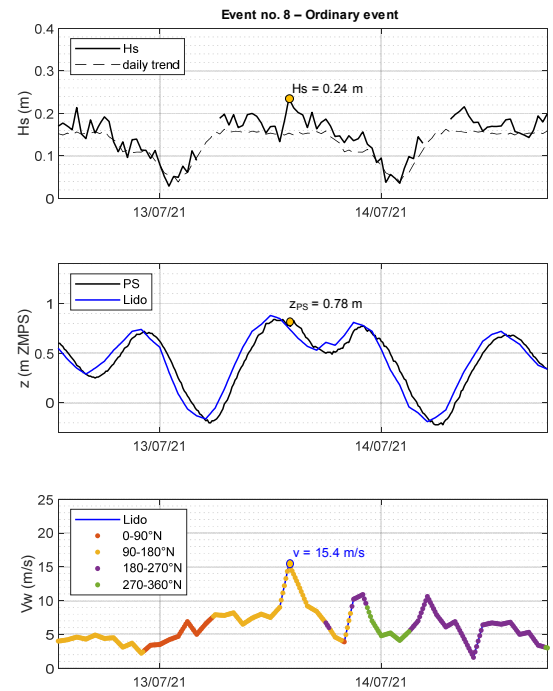


(b)

Figure S3 Time series of H_s , sea levels (z) at the Punta della Salute gauge and at the Lido inlet and wind intensity (V_w) with information also on wind direction (D_w): (a) during a Mo.S.E. closure, January 22th, 2021, and (b) an ordinary event, March 18th, 2021.



(a)



(b)

Figure S4 Time series of H_s , sea levels (z) at the Punta della Salute gauge and at the Lido inlet and wind intensity (V_w) with information also on wind direction (D_w): (a) during an ordinary event, April 6th, 2021, and (b) an ordinary event, July 13th, 2021.

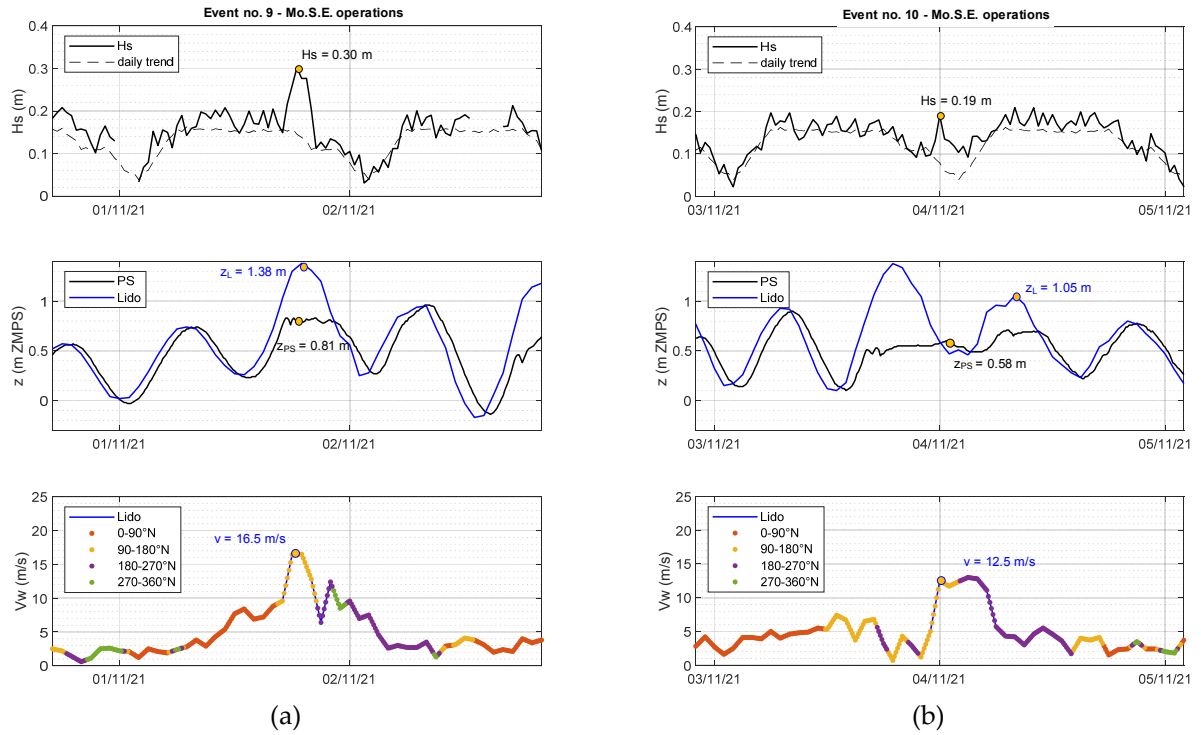


Figure S5 Time series of H_s , sea levels (z) at the Punta della Salute gauge and at the Lido inlet and wind intensity (V_w) with information also on wind direction (D_w): (a) during a Mo.S.E. closure, November 1st, 2021, and (b) a Mo.S.E. closure, November 4th, 2021.

2. Numerical results

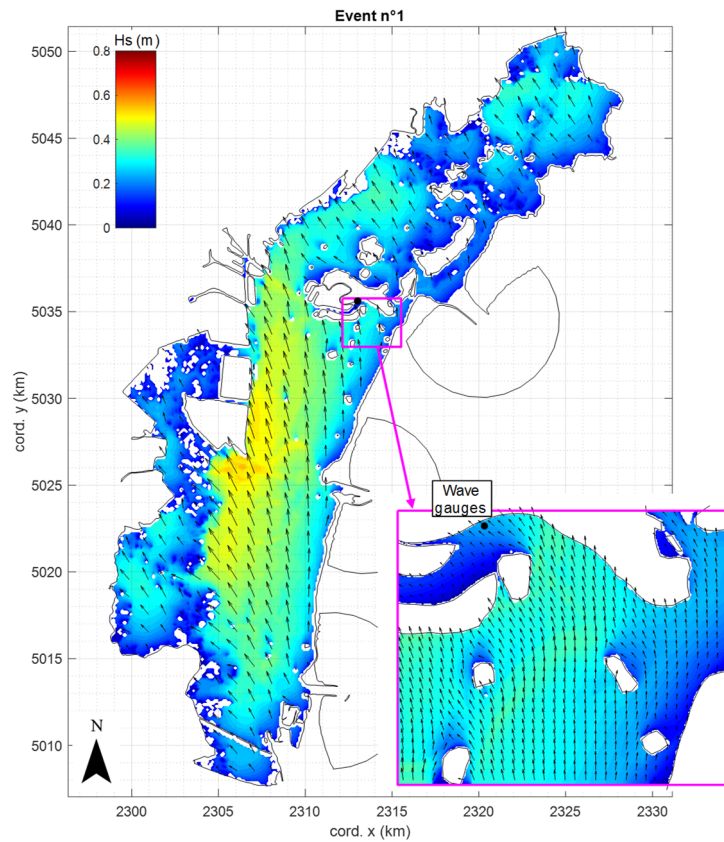


Figure S6 Numerical model results for event no. 1. Mo.S.E. operations, October 3rd, 2020

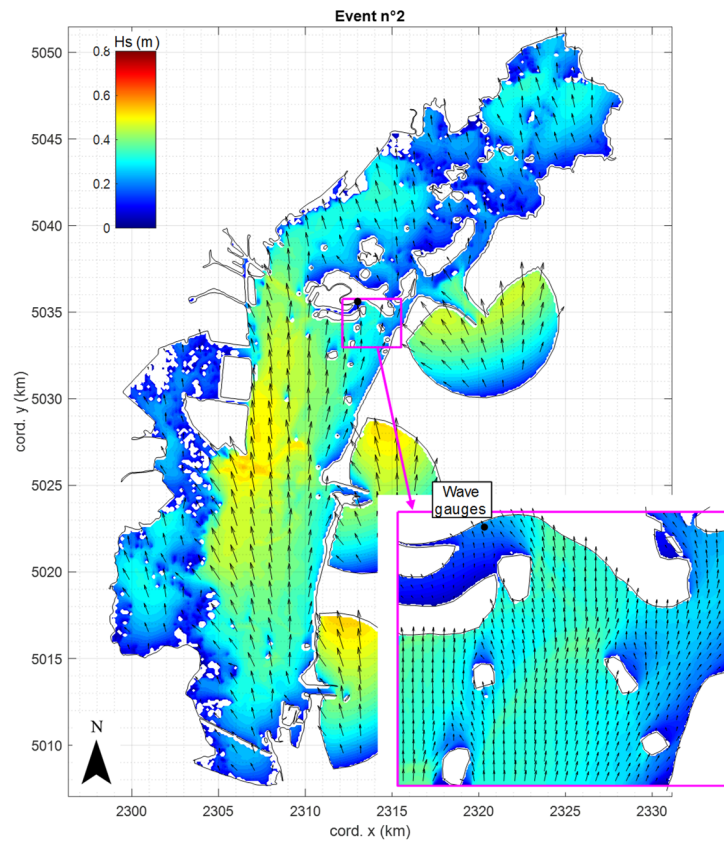


Figure S7 Numerical model results for event no. 2. ordinary event, October 26th, 2020

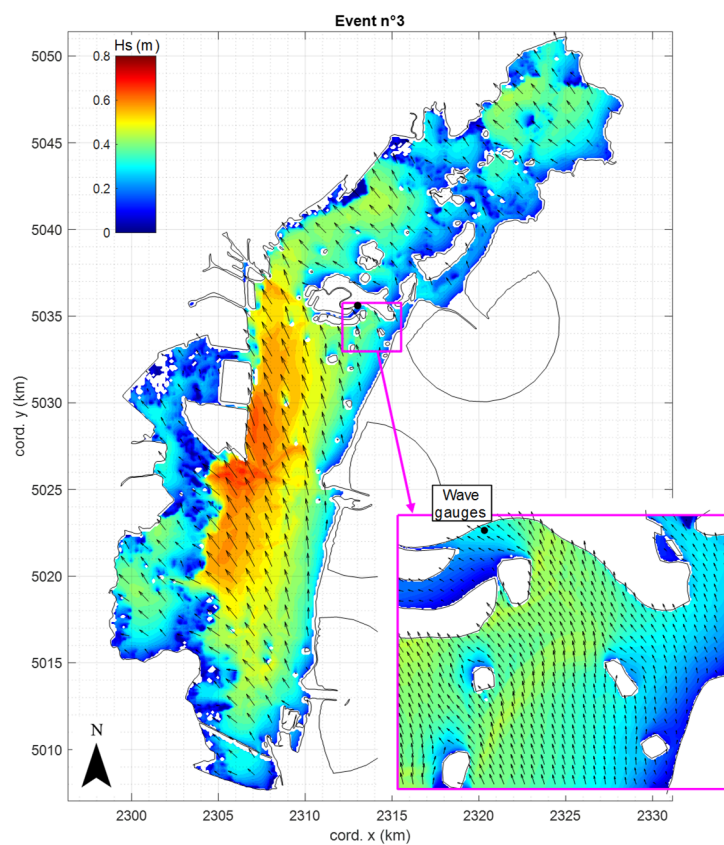


Figure S8 Numerical model results for event no. 3. Mo.S.E. operations, December 5th, 2020

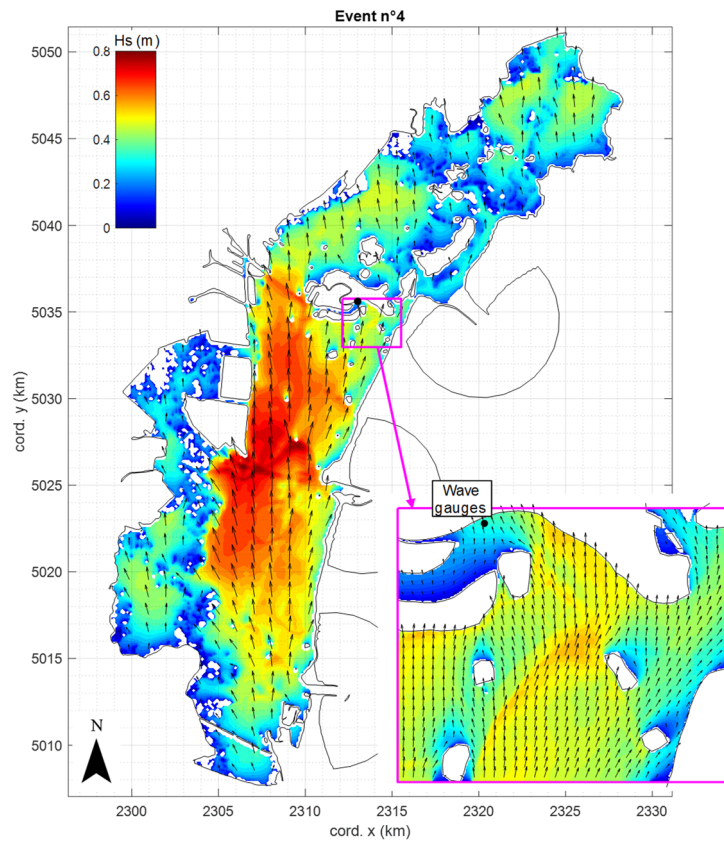


Figure S9 Numerical model results for event no. 4. Mo.S.E. operations, December 28th, 2020

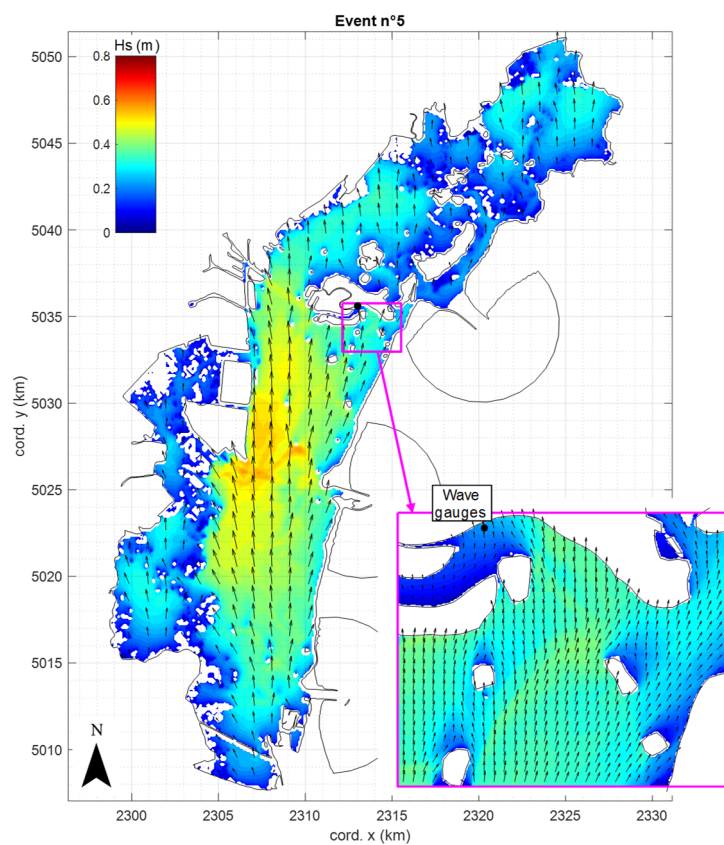


Figure S10 Numerical model results for event no. 5. Mo.S.E. operations, January 22th, 2021

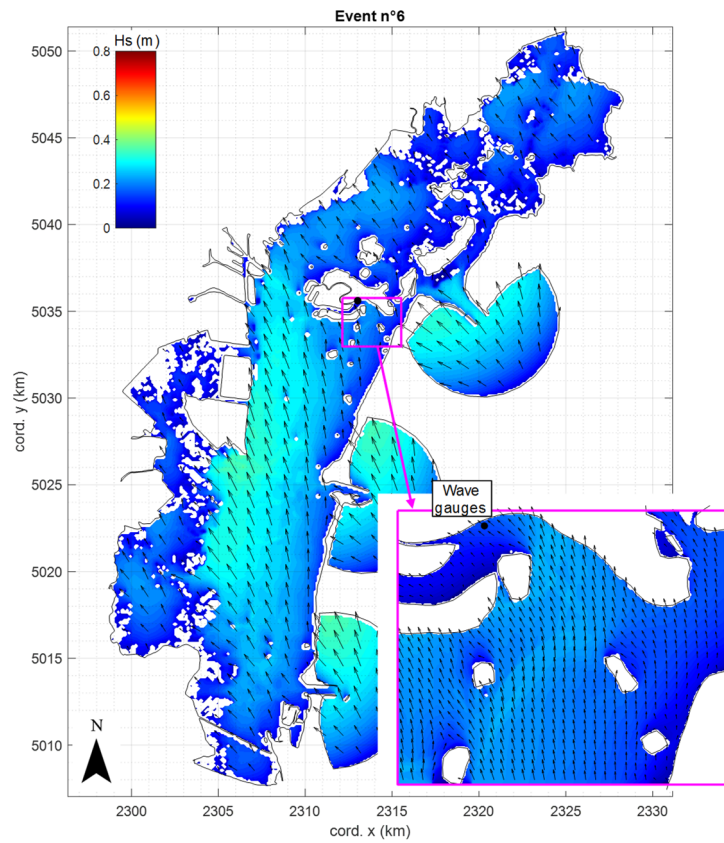


Figure S11 Numerical model results for event no. 6. ordinary event, March 18th, 2021.

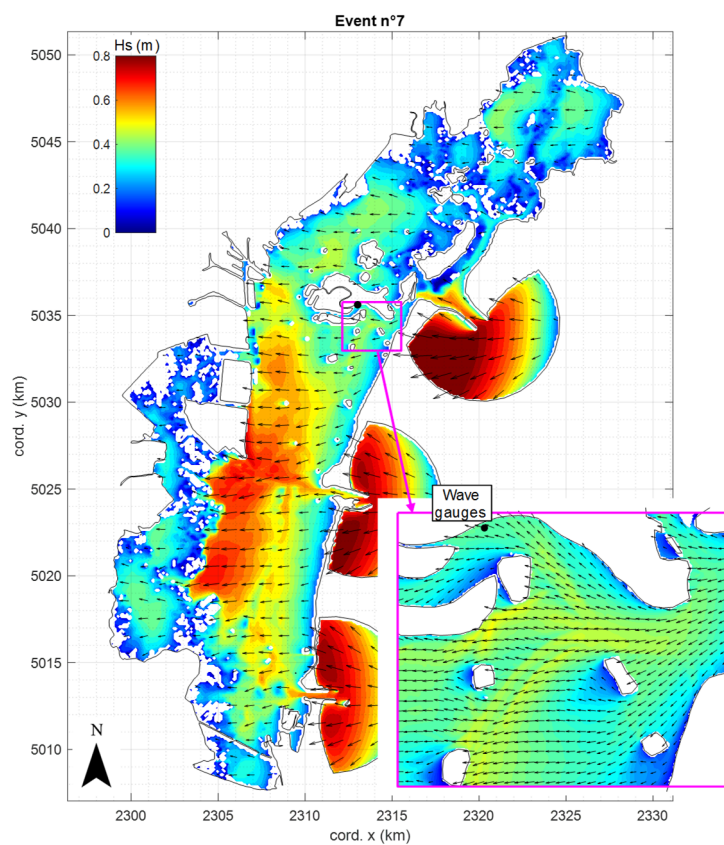


Figure S12 Numerical model results for event no. 7. ordinary event, April 6th, 2021

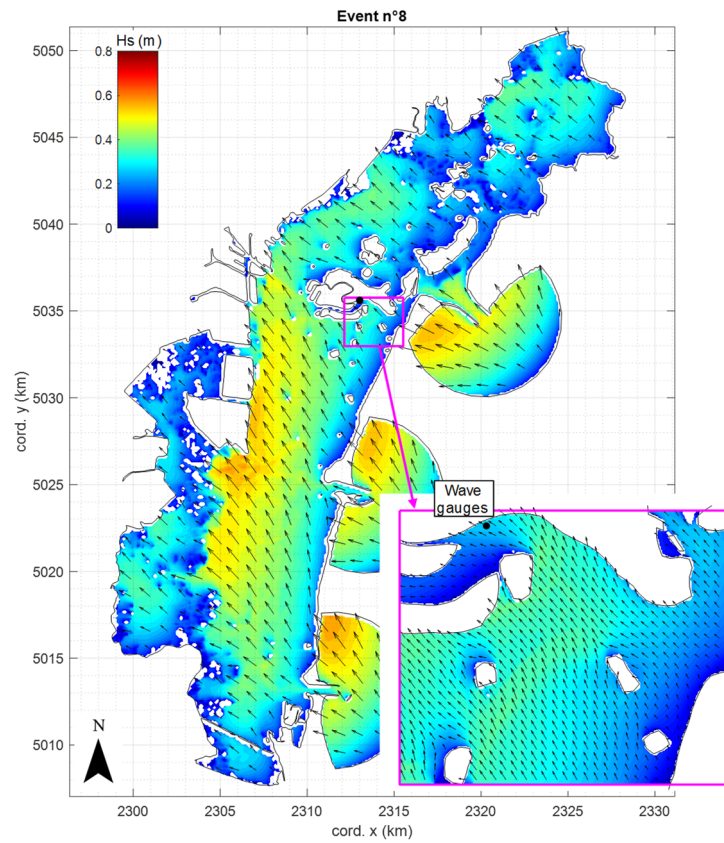


Figure S13 Numerical model results for event no. 8. ordinary event, July 13th, 2021.

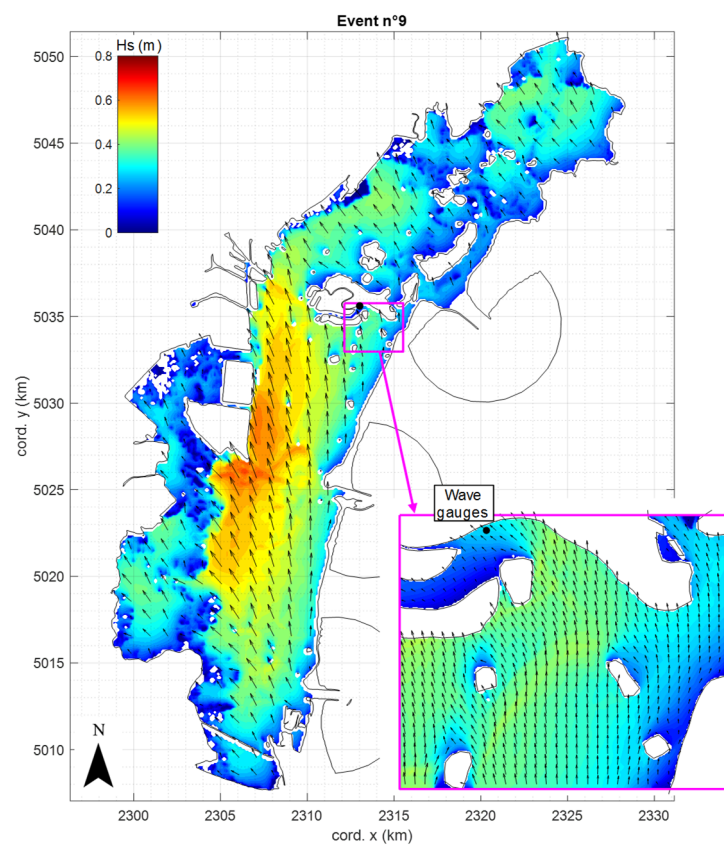


Figure S14 Numerical model results for event no. 9. Mo.S.E. operations, November 1st, 2021

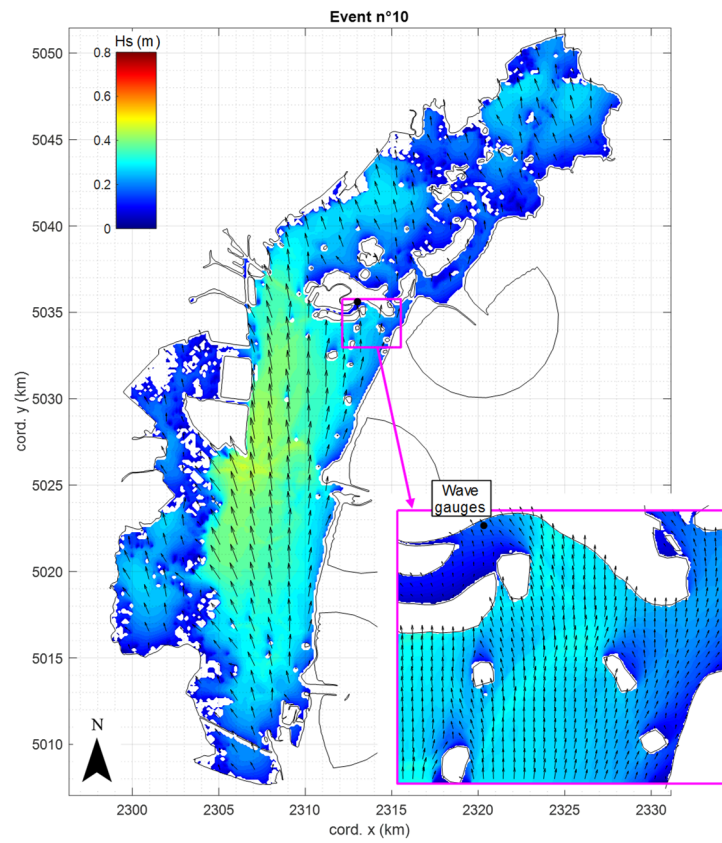


Figure S15 Numerical model results for event no. 10. Mo.S.E. operations, November 4th, 2021.