The authors investigate the impact on the model performance of modelling choices including spatial resolution, adjustments in wind-wave generation and swell dissipation, wave-current interactions, spectral resolution, bottom friction, forcing fields, and parameterizations of physical processes in a regional model that covers most of the Atlantic and North Sea coasts. The authors have presented a very nice and important guiding work that includes almost all the tests that need to be performed for the development of a nearshore wave model. The writing style and details are very well expressed. I think it can be accepted after very few minor corrections.

In the abstract: the fourth sentence of the abstract needs to be rephrased. More events are focused on in the study than are mentioned there. Also, the study does verification but this is not mentioned in the abstract.

In line 37: “section 3” should be.

The title of chapter 4 should be “model performance indicators” and should be separated from the following sub-sections. The sub-headings that appear under the title of chapter 4 should be given under the main title of results and discussion.

In line 169: “Ponce de Leon” must be.

In Fig. 9: “Significant” must be “Significant”
In line 232: “were presented in Fig. 4” must be.

In line 309: “altimeters” must be.

In the title of Fig. 14: please check this word “mayor”