I am generally satisfied with the response and the revision of the paper and I recommend publication. I wasn't clear obviously in some of my comments but i will leave it as it is since my misunderstood comments are not of such importance.

I have only one explanation I would like to make. Below is my objection to the claim that precipitation is an important driver of the sea level and the manuscript authors' response.

Reviewer comment: L246: I am not sure I agree with the formulation that precipitation is an important driver of the sea levels. It may be an important predictor and the net can learn something from it, but the driver indicates a dynamic relationship. So precipitation may perhaps be a proxy for low air pressure which is the actual driver, but is not the driver itself. Please pay attention to this in the text.

Author response: We politely disagree. Precipitation directly adds water on top of the ocean surface, water which is fresh and will hence have a steric contribution. Besides, since the grid cell is rather large it also includes precipitation on land, which is helpful in our case since the river runoff timeseries is low temporal resolution. However, this is not what we meant by "precipitation is important" L246. We meant that the network finds a high importance for precipitation. We rephrased to make this clearer.

I think I need to clarify my response. I am not sure what the authors have in mind about how a steric contribution looks like but I'll try to explain what I mean by my comment. It is true that freshwater does add to the ocean surface as a steric contribution. However, let's take a look at an apocalyptic storm with a 100 mm/hour rainfall rate. If a model grid cell would be sealed off from the rest of the ocean, this storm would add 10 cm to the sea level in the grid cell in one hour. This of course would never happen in nature because the grid cell is not isolated from the neighbouring ocean. Momentum conservation, combined with the continuity equation, indicates that any sea level gradient induced by the rainfall gets immediately radiated away in the form of surface gravity waves. And these waves travel fast with barotropic speeds (because pressure gradient force is depth independent) and these speeds are much faster than 10 cm/hour which is the accumulation rate of an intense storm. So 100 mm/hour rainfall would never, in an open basin, add 10 cm to the sea level. My point is that there is a steric contribution, but it is in the form of gravity waves which rapidly radiate into infinity and reduce sea level gradient due to precipitation. In this sense precipitation is not a driver of storm surges. It just coincidentally occurs with pressure lows and wind stresses which are the actual drivers of far more importance than adding rainfall on top of an ocean.