Dear Dr. Ralph Foster (Referee),

Thank you very much for your valuable suggestions and comments. We will incorporate the resolutions of comments each point by point. In this present study we are estimated the pressure fields from OSCAT winds using UWPBL model and compared with the in-situ observation these results are well compared. But the cyclone center values are having lag when compared with the IMD analysis. As well as in revised manuscript, we compared ECMWF re-analysis mean sea level pressure with UWPBL model estimations. In this study the pressure values are well matching with the UWPBL model estimated pressure fields in the center of the cyclone corresponding to the best track data.

With reference to (1), if the scatterometer wind speeds are biased low (very low in the TC case), even a perfect PBL model will consequently produce low (or very low) estimates of the corresponding surface pressure gradient magnitudes.

Authors Response: Yes, we too agree with your observation and experience.

With reference to (2), an important way to think about the directional errors is to consider how a misaligned wind vector will alias the azimuthal flow (primary circulation) into the radial flow (secondary circulation). Radial pressure gradients are much stronger than azimuthal pressure gradients. The strong radial pressure gradients are largely balanced by the nonlinear mean flow dynamics that are first-order in the TC PBL, but small in "normal" PBLs – see below.

Even if the pressure gradient magnitudes were correctly estimated by the surface winds and PBL model, systematic errors in the surface wind direction will pass through to errors in the corresponding pressure gradient orientations. Since the SLP code effectively integrates through the pressure gradients, the resulting field will have the wrong shape. (Random direction errors, if small enough, can be tolerated.)

Authors Response: What you said is correct in the consideration of directional errors. As per the OSCAT mission goal of 2 ms^{-1} wind speed accuracy and 20° in direction, in the range of 4 – 24 ms^{-1} wind speed is maintained from the OSCAT these wind speed and directional accuracies are well compared with ECMWF and NCEP analysis products by Chakraborty *et al.*, 2013.

With respective to your 3rd point, we added filters to remove the directional errors to address without changing the wind speed. As you mentioned in the last point "Using high-quality SAR surface winds, RMS errors in the SLP are less than 4 mb when compared to aircraft drop sonde observations", in this study we observed the RMS errors are less than 1.7 mb with the in-situ observation. We will investigate why lag is high between IMD analysis and UWPBL estimations in further studies.