**Positioning the Tropical Cyclone Center near the Coastal Area**

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Accurate analysis and determination of low level circulation centers (LLCCs) from various available data such as satellite, radar, and synoptic observation, especially at the coastal area around the Korean Peninsula, are very important because the consequent result may affect the landfall time and position of Tropical Cyclone (TC) center. However, it is very difficult to analyze LLCCs because TC is at the weaken stage or tilted vertically in the mid-latitudes. And the uncertainty of post-analysis is larger by the interaction between TC and land before landing. Eventually, this makes ambiguity among TC position estimates of each best track agencies

Satellite-based microwave images are very useful information to remotely discern TC center position in the post-analysis. However, it can be utilized only if it is measured at the time and the region exactly that we want to analyze. On the other hand, the radars, especially installed in coastal region, provide almost continuous images with higher time resolution as TCs come closer. It is also valuable to analysis LLCCs because it could show more detail horizontal and vertical structure of TC. In this study, potential intervals (PIs) have been devised to express the uncertainty of TC post-analysis information. PI means minimum boundary that TC center can locate and accuracy of position analysis. We will suggest a solution to determine the LLCCs of the approaching TCs with PIs through some case studies using microwave and radar images.