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# Validation of Sea-Surface Wind Retrieved Using Low-level AMV Based on GK-2A

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Sea-Surface Wind(SSW) is important to understand ocean-atmosphere interactions and the wind conditions around typhoon. This study addresses the assessment of AMV-based Sea-surface Winds (ASWinds) estimated by using AMV data at low-level atmosphere(700~1000hPa) from Geo-Kompsat-2A(GK-2A), which has high temporal and spatial resolution. ASWinds is derived from regression equation between GK-2A AMV data and SSW from ASCAT on board MetOP-A/B satellite. We produced the coefficients of the regression equation using cases of typhoon that occurred during the summer period(July to September) from 2020 to 2021. The results of this study were verified by comparing the ASWinds obtained through regression equations with ASCAT SSW data from typhoon cases(2019 and 2022) that affected the Korean peninsula. For the 2022 typhoon cases, the validation results showed that wind speed bias of ASWinds was 0.08ms-1, and Root Mean Square Error (RMSE) was 1.48 ms-1. Furthermore, it is anticipated to be useful in analyzing the low-level wind field during the typhoon's weakening stage marked by the separation of upper and lower-level centers of typhoon.