Impact Assessment of Aeolus Winds on NOAA Global Forecast

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Recent efforts have focused on evaluation of the reprocessed Aeolus Level 2B (L2B) wind data with ESA M1 bias correction and its impact on NOAA global forecast. Aeolus wind quality especially the remaining biases vs NOAA global model background is examined. As a result, a revised bias correction taking account of noises in both Aeolus and GFS winds is implemented in the NOAA global data assimilation system to improve Aeolus wind assimilation. In this study we will present impact from Aeolus wind on NOAA global forecast, focusing on synoptic and mesoscale scale events, e.g., tropical cyclones track and intensity in Eastern Pacific, and heavy rainfalls over the Western Coast of US.