P12

Research to Operations: The STAR Enterprise Winds Algorithm on Himawari-8 for Algorithm Continuity in Operations

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The Enterprise Derived Motion Winds (DMW) is an algorithm developed by NOAA/NESDIS/STAR to retrieve environmental variables such as wind speed and wind direction. This algorithm has been implemented within the STAR Algorithm Processing Framework (SAPF) originally designed for GOES-R and has been adapted to run on Suomi-NPP Data Exploitation (NDE) and Consolidated High-throughput Operational Products System (CHOPS) operational processing systems. Data from the Advanced Himawari Imager (AHI) on board the Himawari-8 satellite has been added to SAPF since it is a close proxy of the GOES-R Advanced Baseline Imager (ABI) instrument. The Enterprise DMW products have been requested by the National Weather Service (NWS) Field Offices and will be produced from the SAPF.

The Algorithm Scientific Software Integration and System Transition Team (ASSISTT) at STAR has developed Near Real-Time (NRT) processing systems for product generation by using SAPF. The NRT system helps ASSISTT prepare for algorithm transition from research to operations (R2O). Because of the successful role the NRT processing has played in previous R2O projects, ASSISTT will run the Enterprise DMW algorithm pseudo-operationally to meet the NWS Field Office need until operations is ready for the transition. Updates to SAPF to produce the Enterprise DMW products along with the pseudo-operational methodology will be discussed.