GOES-R Algorithm Working Group (AWG)

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Abstract

For the next-generation of GOES-R instruments to meet stated performance requirements, state-of-the-art algorithms will be needed to convert raw instrument data to calibrated radiances and derived geophysical parameters (atmosphere, land, ocean, and space weather). The GOES-R Program Office (GPO) assigned the NOAA/NESDIS Center for Satellite Research and Applications (STAR) the responsibility for technical leadership and management of GOES-R algorithm development and calibration/validation. STAR responded with the creation of the GOES-R Algorithm Working Group (AWG) to manage and coordinate development and calibration/validation activities for GOES-R proxy data and geophysical product algorithms. The AWG consists of 15 application teams that bring expertise in product algorithms that span atmospheric, land, oceanic, and space weather disciplines. Each AWG teams will develop new scientific algorithms for GOES-R and will also leverage science developments from other communities (other government agencies, universities and industry), and heritage approaches from current operational GOES and POES product systems. All algorithms will be demonstrated and validated in a scalable operational demonstration environment. All software developed by the AWG will adhere to new standards established within NOAA/NESDIS. The AWG Algorithm Integration Team (AIT) has the responsibility for establishing the system framework, integrating the product software from each team into this framework, enforcing the established software development standards, and preparing system deliveries. The AWG will deliver an Algorithm Theoretical Basis Document (ATBD) for each GOES-R geophysical product as well as Delivered Algorithm Packages (DAPs) to the GPO.