Satellite Product Analysis and Distribution Enterprise System (SPADES)

Principal Investigator: W.F. Denig, NESDIS/NGDC

Abstract

This proposed effort addresses a significant disconnect in the GOES-R program for Level 2+ processing of space weather products. Currently, the NWS and NESDIS are investigating strategies for establishing an operational capability for creating these products after 2016 although it is unlikely that this capability will be available at the time of GOES-R launch. Under the auspices of the GOES-R Risk-Reduction and Algorithm Readiness programs, the NESDIS National Geophysical Data Center (NGDC) with the NWS Space Weather Prediction Center (SWPC) have developed the Algorithm Theoretical Basis Document (ATBDs) and supporting research-grade codes for the full suite of L2+ SWx products. We propose to design, build, and operate a prototype system within NGDC for 1) acquiring GOES-R Level 1b SWx products in real time, 2) creating L2+ products, 3) visualizing these products via a graphical user interface (GUI) and 3) distributing these products to real-time users. We refer to this prototype system as the **Satellite Product Analysis and Distribution Enterprise System** (SPADES). The current schedule allows for SPADES to support an Initial Operational Capability (IOC) for GOES-R Post Launch Testing (PLT) in FY16 with and a Final Operational Capability in FY17. To the maximum extent possible, SPADES will be developed as a stand-alone system to facilitate a research-to-operations (R2O) transition and to support follow-on Operations and Maintenance (O&M).