

## DEVELOPING LAND PRODUCTS FOR THE U.S. GOES-R SATELLITE MISSION

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### ABSTRACT

The Land team of the GOES-R Algorithm Working Group (AWG) has been working on algorithm development and evaluation for the GOES-R land surface products since late 2005. There are six land surface products that are currently under development: two baseline products and four option 2 products. The baseline products are land surface temperature (LST) and fire/hot spot characterization (FIRE); the option 2 products are normalized difference vegetation index (NDVI), green vegetation fraction (GVF), land surface albedo, and land surface flood/standing water. All the products will be based on the advanced baseline imager (ABI) which is a significantly enhanced and improved version of the current U.S. GOES Imagers and will be onboard the GOES-R satellite. Currently, the land team of GOES-R AWG has finalized techniques needed for developing the LST, FIRE, and NDVI products. A so-called eighty percent readiness package of these algorithms will be delivered in summer 2009, and the one-hundred percent readiness deliveries are schedule in summer 2010. The deliveries include the algorithm theoretical bases document (ATBD) for each product, software design and implementation code, description documents, test datasets and test reports, and evaluation results. For the option 2 algorithms, the eighty percent readiness deliveries and the one-hundred percent readiness deliveries are scheduled in summer 2010 and 2011, respectively. Meanwhile, the land team of GOES-R AWG is planning solid validation procedures for all the land surface products. This paper will present activities and accomplishments of the land team for developing, testing and validating algorithms of the above GOES-R land surface products.