

**Topic:** Detecting and Monitoring Changes in the Earth's Surface-Integration of multiple sources of data

**Preference for presentation:** either Oral or Poster

**Title:** A LAND PRODUCT CHARACTERIZATION SYSTEM (LPCS) FOR MONITORING LAND SURFACE CHANGE

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National Oceanic and Atmospheric Administration (NOAA) and the U.S. Geological Survey (USGS) Earth Resources Observation and Science Center (EROS) Center are collaborating on the development of a Land Product Characterizations System (LPCS) that will facilitate the application of multi-satellite data for characterization and validation of land-related products (e.g., surface reflectance, normalized difference vegetation index, and land surface temperature). Although primarily designed for characterization of satellite-derived land products, the system functionality that will integrate multiple data sources (satellite and potentially other gridded datasets), will make the system useful for other activities including detecting and monitoring land surface changes.

The system is planned to utilize data from the USGS Landsat 8, European Space Agency (ESA) Sentinel series of satellites, and other relatively high and medium resolution sensors, to validate Geostationary Operational Environmental Satellites (GOES)-R and Joint Polar Satellite System (JPSS) Visible Infrared Imager Radiometer Suite (VIIRS) products. The VIIRS products from the Suomi National Polar-orbiting Partnership (NPP) satellite will also be integrated into the system as available.

The LPCS includes data inventory, access, and analysis functions that will permit selection of data housed within multiple archive facilities to be easily identified, retrieved, co-registered, and compared statistically through a single interface. The LPCS functionality is evolving through a prototype phase (2014) and a beta operational phase (2015) before becoming operational in 2016.

**Keywords:** satellite, data integration, land cover monitoring, data characterization

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