

Processes for generating and sustaining scientifically defensible climate data records from satellites

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NOAA's National Climatic Data Center (NCDC) recently initiated a Climate Data Record (CDR) Program to provide climate information derived from satellite data that NOAA and others have collected over the past 30 years. NOAA is now reprocessing these observations and preparing to process future observations using consistent community-accepted techniques. To help ensure authoritative products, the CDR Program is pursuing scientifically defensible approaches to algorithm acquisition, product generation, and data stewardship. These concepts impart requirements on CDRs, specifically that they be accessible, extensible, preserved, reproducible, sustainable, transparent, and continuously improved. NOAA is now developing and implementing systems and processes based on these requirements. Several competitively-selected CDRs -- including data sets, algorithms and documentation -- have now undergone these processes and are publicly available. Throughout the program development, NOAA has sought to follow the CDR production guidelines outlined by the Global Climate Observing System (GCOS, 2010) and World Meteorological Organization's (WMO's) Sustained, Coordinated Processing of Environmental Satellite Data for Climate Monitoring (SCOPE-CM; 2009) activity. This poster describes NOAA's requirements and processes designed to assure open, transparent and accessible CDR development.