

## Potential NOAA/NESDIS Contributions to SWCEM

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NOAA's National Environmental Satellite, Data and Information Service (NESDIS) operates both Geostationary (GOES) and Polar Orbiting Environmental Satellites (POES). From this set of satellites, several products related to weather and climate extremes are generated.

In this presentation, a review of NOAA's GOES and POES satellite programs is presented. Most recently, the GOES-16 satellite was commissioned; launched in November 2016, the GOES-16 satellite is the first in series of new GOES satellites, with an enhanced visible and IR sensor (the ABI) and a new, space based lightning mapper (the GLM). NESDIS continues to utilize data from the S-NPP satellite; the follow on, JPSS-1, is planned for launch in September 2017. JPSS-1 will maintain the VIIRS and ATMS sensors from S-NPP.

The presentation then reviews a host of products from the GOES and POES systems, including precipitation, water vapor, soil moisture, vegetation parameters, and snow cover – all important to the monitoring of weather and climate extremes. NOAA's Climate Data Record (CDR) program is also discussed – several precipitation CDR's are housed at NOAA's Center for Environmental Information (NCEI), and can be examined for extreme events. Finally, the talk presents some recent developments at NCEI's Pacific Region Climate Service, which is active in WMO pacific region activities.