Paper ID: 31558
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66th International Astronautical Congress 2015

EARTH OBSERVATION SYMPOSIUM (B1)
Future Earth Observation Systems (2)

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UNITED STATES PLANS FOR CONTINUITY OF OPERATIONAL POLAR WEATHER AND ENVIRONMENTAL OBSERVATIONS

Abstract

The United States Joint Polar Satellite System (JPSS) is the new generation of Polar Operational Environmental Satellites in the early afternoon sun-synchronous orbit. The Joint NOAA/NASA Suomi-National Polar Partnership (S-NPP) mission is the first of the JPSS missions. It has achieved nearly four years of successful on-orbit observations and was declared primary satellite for weather in May of 2014. Many advances have been made in data product maturity and utilization; development of succeeding missions - JPSS-1 and JPSS-2; and planning for future missions so as to provide global observations into the 2030's. This planning includes cooperation with EUMETSAT in the context of their planning for the EUMETSAT Polar System - Second Generation to provide global coverage from two orbits. This paper provides a summary of experience to date with the S-NPP mission and its four primary JPSS instruments; the status and results of data product maturity and calibration/validation efforts; status of preparations for JPSS-1 and JPSS-2 missions; and NOAA plans for additional missions providing coverage into the 2030's. It will also outline updates to the space and ground segments which are important to users; provide international partnership status and developments; and convey the strategy to assure continuity. The paper will conclude with a summary of how the observations are increasingly critical to ability of the world's weather services to support public safety, infrastructure protection, and mitigate societal impacts from weather and related environmental phenomena.