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**Statement of  
Marcus A. Watkins  
Director, Joint Agency Satellite Division  
National Aeronautics and Space Administration  
before the  
House Subcommittee on Investigations and Oversight  
and  
House Subcommittee on Energy and Environment  
Committee on Science, Space and Technology  
United States House of Representatives**

Mr. Chairmen and Members of the Subcommittees, thank you for the opportunity to appear today to provide you information regarding the NASA role in, and commitment to, the National Oceanic and Atmospheric Administration (NOAA) Joint Polar Satellite System (JPSS) and Geostationary Operational Environmental Satellite-R Series (GOES-R) Programs. The JPSS and GOES-R Programs are critical to the Nation's weather forecasting system, environmental monitoring and research activities.

**JPSS Organization is Working Well**

NASA and NOAA have been partners for more than 40 years in developing the Nation's polar and geosynchronous weather satellites. With the President's direction in 2010, NASA and NOAA included JPSS in this partnership. The NASA program office for JPSS has been established and is fully staffed with a complement of 114 NASA civil servants and 310 support contractors. NOAA and NASA have established joint agency-level program management councils to oversee JPSS, and have integrated their decision-making processes to efficiently and effectively manage this cooperative activity. The NASA and NOAA teams have strengthened their working relationship over the last three years. The following are a few of our latest successes.

**Suomi NPP Continues its Successful Operation**

The Suomi National Polar-orbiting Partnership, or "Suomi-NPP," was developed to extend the record of key observations from the NASA Earth Observing System (EOS) series of satellites and to demonstrate space flight and ground data processing technologies for the next generation of operational polar-orbiting meteorological satellites. Suomi-NPP was successfully launched on October 28, 2011, activation and initial checkout are now complete, and NOAA has operational control of the satellite.

We are now reaching the end of a planned validation period, during which we are comparing the performance of the new sensors, both with data from on-orbit legacy instruments, and with high-quality ground-based and airborne calibration standards. As we characterize the performance of these new sensors, Suomi-NPP provides feedback to improve the operational instruments that will fly on JPSS.

While the satellite was not originally intended to be used as an operational asset, NOAA will use Suomi-NPP data in its operational weather forecasting models. NOAA meteorologists are already using data products from three instruments – the Advanced Technology Microwave Sounder (ATMS), the Cross-track Infrared Sounder (CrIS), and the Visible Infrared Imager Radiometer Suite (VIIRS) – in their weather forecasts. All of the data products have been publicly released, and our analyses are indicating that the instruments on Suomi-NPP are performing excellently.

### **JPSS Baseline is Established**

In addition to the successful Suomi NPP launch, the transition from the NPOESS program to the new JPSS program is now complete. The JPSS program successfully completed two critical milestones in July 2013, keeping the program on schedule and within budget. Both milestones were based on JPSS program content as outlined in the President’s FY 2014 Budget request for a streamlined program designed to meet NOAA’s weather mission. On July 17, 2013, NOAA approved the Key Decision Point –C for the JPSS-1 mission, establishing a baseline commitment confirming a second-quarter FY 2017 launch. On July 31, 2013, the Department of Commerce approved a combined Milestone 2/3 and Key Decision Point-I for the overall JPSS Program. These combined milestones established the full JPSS Program lifecycle cost of \$11.3B, covering operations through FY 2025, the launch of JPSS-1 by second quarter FY 2017, and the launch of JPSS-2 by first quarter FY 2022. With these critical milestones now completed, both the JPSS-1 satellite mission and overall program move from the planning and formulation phase, to implementation and execution.

NASA, as NOAA’s acquisition agent, manages all of the JPSS instrument, spacecraft, and ground system contracts. The first JPSS satellite, JPSS-1, will be a near clone of Suomi-NPP with upgrades to meet the JPSS Level 1 requirements. The instrument vendors continue to make progress in the manufacture of the flight units for JPSS-1, and the spacecraft is currently in development at Ball Aerospace. Additionally, the Delta II rocket has been selected as the launch vehicle for the JPSS-1 mission.

### **GOES-R Series Program Continues to Make Progress**

The GOES-R Series Program of four geosynchronous satellites continues to make progress toward launching GOES-R. Last fall, the GOES-R Series Program successfully completed a Mission Critical Design Review. Since then, the GOES-R and S spacecraft have made good progress in component manufacturing, and GOES-R is proceeding with spacecraft

integration. Four of the six GOES-R instruments have completed environmental testing. The GOES-R Extreme Ultraviolet and X-ray Irradiance Sensor instrument is in storage awaiting integration onto the spacecraft. The GOES-R Advanced Baseline Imager, Space Environment In-Situ Suite, and the Solar Ultraviolet Imager instruments have all completed environmental testing and will undergo pre-shipment reviews this fall in preparation for integration with the spacecraft next spring. The Geostationary Lightning Mapper instrument is completing its final assembly phase and will begin instrument-level environmental testing early this fall.

The next major milestone for the GOES-R Series Program is the Systems Integration Review, which is currently planned for the spring of 2014. This review will evaluate the readiness of the program to start system assembly, test and launch operations. Given the magnitude of the work planned for FY2014, any reduction in the requested GOES-R Series budget will have significant impact on the program schedule and life cycle cost.

### **Total Solar Irradiance**

One example of the JPSS organization's success is the upcoming launch of Total Solar Irradiance Calibration Transfer Experiment (TCTE) later this year. The Total Solar Irradiance (TSI) climate record, which extends from 1978 to the present, is critical to understanding Earth's climate variability. The Solar Radiation and Climate Experiment (SORCE) is currently providing data continuity for the record, but there could be a gap between the end of SORCE and the launch of NOAA's next TSI mission, the Total Solar Irradiance Sensor (TSIS). As such, the JPSS organization plans to launch the TSI Calibration Transfer Experiment (TCTE) late this year on a United States Air Force mission.

### **Conclusion**

NASA and NOAA are committed to the JPSS and GOES-R programs, and ensuring the success of these programs is essential to both agencies and the Nation. The NASA and NOAA teams have established strong working relationships and are striving to ensure that weather and environmental requirements are met on the most efficient and predictable schedule without reducing system capabilities or further increasing risk.

With the launch of Suomi NPP in October 2011, the first fruits of the NASA-NOAA partnership for JPSS are being realized. With your continued support, NASA and NOAA expect this partnership to successfully develop and deliver the JPSS-1 mission on time for launch in FY 2017, thus ensuring the continuation of the Nation's capability to monitor the weather and environment.

Mr. Chairmen, I appreciate the continued support of these Subcommittees and the Congress, and I would be pleased to respond to any questions you or the other Members of the Subcommittees may have.