



Joint Polar Satellite System (JPSS) for NOAA

- Services:** System and Architecture Design and Evolution, Software Development and Testing, Hardware Maintenance and Evolution, Program Engineering Support
- Timeline:** March 2013 to present
- Locations:** Suitland, MD

The Joint Polar Satellite System (JPSS) is the nation's next generation polar-orbiting operational environmental satellite system procured by NOAA through the National Aeronautics and Space Administration (NASA). JPSS will provide continuity of critical observations for accurate weather forecasting; reliable severe storm forecasting; and global measurements of atmospheric and oceanic conditions such as sea surface temperatures, ozone, and more. This new satellite and ground system represents a major upgrade to the existing Polar-orbiting Operational Environmental Satellites (POES) that has successfully served the operational weather forecasting community for nearly 50 years. The Common Ground System (CGS) is a multi-mission ground system and the Suomi National Polar Partnership (SNPP), launched October 28, 2011, is the first mission of the CGS.

The GST team actively supports the NOAA JPSS Office (NJO), the Data Product Engineering and Services, Data Product Algorithm (DPA) and Program System Engineering needs, which will benefit the JPSS program by facilitating effective interactions and coordination of priorities, processes, and schedules between the data consumers and the JPSS Ground Project systems. We provide to the NJO insight into the planning and execution of the ground systems development and installations into multiple government locations. Our program office support allows our NOAA customer to focus on mission system development and deployment. In all, GST facilitates engagement with National Centers for Environmental Prediction, NWS, Data Quality Engineers (DQEs), the data quality system development team, Center for Satellite Applications and Research (STAR), and OSPO users.

We provide development and systems engineering expertise to the JPSS Government Resource for Algorithm Verification, Independent Testing and Evaluation (GRAVITE) system. Additionally, GST provides development, testing, and deployment of data handling, monitoring, and algorithm capabilities and components using PostgreSQL databases, end-to-end test management mapped to requirements, system monitoring, scalable architecture design, and system administration. The system will ingest, store, index, and make available the JPSS mission data, matchup data, metadata, and quality information needed by investigators for quality and performance assessments. Our DPA work consists of a variety of interaction with STAR science teams and support for configuration change requests for algorithms. For PSE we provide support on R/F requirements for JPSS, software engineering support and trade studies for the Block 3 development.

Intuitive understanding of problem solving within a flight project environment improves efficiency at planning and executing assignments. The GST team provides unique elements of success to supporting the senior scientist by our decades of experience in many aspects of the program. This experience gives essential perspective to problems and solutions.

SNPP Launch, October 28, 2011



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