NOAA through NASA, as its acquisition agent, will procure the afternoon orbit assets that support its civil weather and climate requirements and DoD will independently procure assets for the morning orbit military mission. Both agencies will continue to share environmental measurements made by the system and support the operations of a shared common ground system.

Our valuable international partnership with the Europeans will remain for support of the mid-morning orbit, and NOAA will continue to pursue additional partners for inclusion into the system. Some work remains to develop the most effective transition and alignment of responsibilities, as well as to refine the launch readiness dates.

Environmental Data Records (EDRs)

NPJSS/JPSS-1 – 30 EDRs

Flight Segment

Command, Control and Communications (C3) Architecture

Common Ground System

IDFS/FTS

Interface Data Processing Architecture

Field Terminal Segment Architecture

Continuity of Polar Operational Satellite Programs

Joint Polar Satellite System (JPSS)

JPSS: Improving Operational Global Earth Observations from Space

Environmental Monitoring in Support of Civil and Defense Applications

Features:
- Rapid data delivery – 4 times faster than legacy systems (JPSS-2 and beyond)
- Quick react to changing conditions
- 10 times the data
- More accurate data for better forecasts
- International collaboration

Benefits:
- Critical inputs to weather forecast models
- Science quality data to users including research scientists
- Continuity of climate data records

Protect Safety of Life and Property

Improved Accuracy and Timeliness of Severe Weather Warnings

NPOESS Preparatory Project (NPP)

• Instrument Risk Reduction
  - Early delivery/Instrument level test/system level integration & test
  - VIRS – Visible/Infrared Imager Radiometer Suite
  - CrIS – Cross-track Infrared Sounder
  - ATMS – Advanced Technology Microwave Sounder
  - OMPS – Ozone Mapping and Profiler Suite
  - CERES – Clouds and Earth's Radiant Energy System
  - Provides lessons learned and allows time for any required modifications before JPSS-1 launch

• Ground System Risk Reduction
  - Early delivery and test of a subset of JPSS-like ground system elements
  - Early User Evaluation of JPSS data products

• Provides lessons/Instrument verification and opportunities for instrument calibration/Validation prior to first JPSS launch

• Continuity of data for NASA’s EOS Terra/Aqua/Aura missions

JPSS GRAVITE

(Government Resource for Algorithm Verification, Independent Testing, and Evaluation)

GRAVITE is a common facility and data repository for use by multiple Calibration/Validation (Cal/Val) Teams to assess and maintain data quality.

- Purpose:
  - Provide access to common technical resources used by the Cal/Val teams
  - Provide program data to satisfy agreements with other projects
  - Provide a common portal for technical interaction with the NPJSS data validation community

- Functions:
  - Data Access
  - Data Storage
  - Tools and Data Processing
  - Data distribution to Cal/Val Teams

- Components:
  - Central Computing System
  - Technical Library of data, documentation, and software
  - Communication connectivity to the agencies participating in Cal/Val

Backbone for GEOSS - Maximizing the Value of JPSS for Societal Benefits

Improve Accuracy and Timeliness of Severe Weather Warnings

NPP

Tropical Storm Tracking

Fire & Smoke Monitoring

Dust & Sandstorm

Clouds and Earth's Radiant Energy System

National Cybersecurity Technology Demonstration Project

Ozone Mapping and Profiler Suite

Microwave Sounder

System (CERES)