Building the Nation’s Next Generation Operational Polar Orbiting Weather Satellite
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What is JPSS
- JPSS-1 is the first in a series of four Operational Polar Weather Satellites that will provide enhanced and improved observations of the land, oceans, atmosphere, cryosphere, and space to support weather 
- The JPSS-1 mission will launch in October 2017
- The JPSS-1 mission is currently underway

Why launch a Polar Orbiter?
- A polar orbit offers daily global coverage, by making ~14 polar orbits
- A polar orbit plane is nominally fixed in inertial space allowing the spacecraft low degree inclination orbits, useful for spacecraft that rotate below a polar orbit

JPSS-1 Mission Description
- JPSS-1 launch mass is 7,200 kg
- JPSS-1 planned orbit is 770 km, 98.5° inclination
- JPSS-1 launch is scheduled for December 2016
- JPSS-1 solar array power is 13.5 kW (orbit average)
- JPSS-1 navigation system is Spacecraft Processes
- JPSS-1 uses Star Trackers for navigation
- JPSS-1 Star Trackers
- JPSS-1 uses SpaceWire for command & telemetry
- JPSS-1 uses Link S Control & Telemetry (SCT) & Data Recorder
- JPSS-1 uses one Antenna
- JPSS-1 uses four Solar Arrays
- JPSS-1 uses four Antennas
- JPSS-1 uses one Solar Array Module
- JPSS-1 uses one Data Recorder
- JPSS-1 uses one Navigation System
- JPSS-1 uses one Command & Telemetry System

JPSS-1 Launch Mass Breakdown

Advanced Payloads Promise Critical Operational Weather Data & Long Term Climate Monitoring
- JPSS-1 has four advanced payloads:
  - Cross-track Infrared Sounder (CrIS)
  - Visible/Infrared Imaging Radiometer Suite (VIIRS)
  - Advanced Technology Microwave Observatory (ATMS)
  - Clouds and the Earth’s Radiant Energy System (CERES)

What is JPSS-1 Launch Mass Breakdown
- JPSS-1 launch mass is 7,200 kg
- JPSS-1 launch mass includes:
  - 7,200 kg launch mass
  - 770 km planned orbit
  - 98.5° inclination
  - 3 years mission life requirement
  - 13.5 kW power (orbit average)
  - 4 Solar Arrays
  - 4 Antennas
  - 1 Data Recorder
  - 1 Navigation System
  - 1 Command & Telemetry System