We help the nation keep people, property and our world safe. From devastating tornadoes to crippling floods, from raging wildfires to frigid blizzards, severe weather can strike anywhere. The Joint Polar Satellite System (JPSS-1) will collect critical data for tracking and monitoring severe weather events, increasing the accuracy and timeliness of forecasts.
Weather forecasters rely on data collected from polar-orbiting satellites to provide decision-makers the actionable environmental intelligence they need to predict and prepare for future weather events. In fact, more than 85 percent of our weather data comes from these satellites.

A joint project led by NASA and NOAA, the Joint Polar Satellite System-1 (JPSS-1), a next-generation weather satellite, will collect data on our Earth’s atmosphere, oceans and land surface. This information will feed into National Weather Service models, giving forecasters the ability to monitor and predict weather patterns with greater speed and accuracy.

One of the most advanced environmental satellites ever created, JPSS-1 will provide a significant technological and scientific advancement in severe weather prediction and environmental monitoring, helping to keep us safe and protect our property. Data collected from JPSS-1 increases the timeliness and accuracy of forecasts three to seven days in advance of severe weather events, enabling emergency managers to make timely decisions to protect lives and property, including ordering effective evacuations. In addition, the data from JPSS-1 will give our troops a competitive advantage on the battlefield; allow the transportation industry to prepare and move resources, protecting local economies; and provide citizens with more accurate weather forecasts to plan their day.

Ball Aerospace designed and built the JPSS-1 spacecraft bus and the Ozone Mapping Profiler Suite instrument, integrating all five of the spacecraft’s instruments, performing satellite-level testing and providing launch support.

The JPSS-1 spacecraft bus is based on our flexible and proven Ball Configurable Platform line of spacecraft designed for cost-effective, remote sensing applications. The JPSS-1 spacecraft bus is the twelfth spacecraft built on our core architecture, which has more than 50 years of successful on-orbit operations.

JPSS-1 uses next-generation technology coupled with proven systems developed by Ball for the Suomi National Polar-orbiting Partnership (Suomi NPP) weather satellite, which has performed beyond expectation for our nation’s weather program.

JPSS-1 follows the successful and ongoing mission of the Suomi NPP, which launched in 2011. JPSS-1 will fly a suite of advanced remote sensing instruments:

- The Visible Infrared Imager Radiometer Suite (VIIRS)
- The Cross-track Infrared Sounder (CrIS)
- The Advanced Technology Microwave Sounder (ATMS)
- The Ozone Mapping and Profiler Suite (OMPS)
- The Clouds and the Earth Radiant Energy System (CERES)