



SORCE Quick Facts

Launch Date/Time - January 25, 2003, 3:14 p.m. EST

Spacecraft Dimensions:

Stowed: 39.4 inches (100 centimeters) wide x 63.1 inches (160.3 centimeters) high

Deployed: 133.6 inches (339.3 centimeters) wide x 63.1 inches (160.3 centimeters) high

Weight at launch: 632.7 pounds (287 kilograms)

Power: 348 watts of electric power from solar array

Orbit: 397.8 miles (640 kilometers)

Mission Lifetime: Five years (six-year design goal)

Science Instruments:

The four instruments on SORCE are the Total Irradiance Monitor (TIM), the Spectral Irradiance Monitor (SIM), Solar Stellar Irradiance Comparison Experiment (SOLSTICE) and the Extreme Ultraviolet Photometer System (XPS).

TIM, SIM and SOLSTICE will measure solar irradiance and the solar spectrum to help scientists understand the Sun's role in climate change. The XPS will measure high-energy radiation from the Sun.

Launch Site: Kennedy Space Center/Cape Canaveral Air Force Station, Florida

Launch Vehicle: Pegasus XL

Launch Day: Saturday, January 25, 2003

2:12 p.m. EST -- L1011 Takes off from Cape Canaveral Air Force Station, Florida

3:14 p.m. EST -- Pegasus launches (beginning of 58-minute launch window)

Launch + 646 seconds (slightly over ten minutes after launch) -- SORCE spacecraft separation

Launch + 653 seconds -- First Acquisition of SORCE Signal

Launch + 30 days -- Beginning of science operations

Launch + 60 days -- Release of first data

Cost: Spacecraft, Instruments, Launch Vehicle & Five Years of Operations = \$122 million

Spacecraft Builder/Integrator: Orbital Sciences Corporation, Dulles, Virginia

Instruments Builder: University of Colorado's Laboratory for Atmospheric and Space Physics

Launch Vehicle/Operations: NASA's Kennedy Space Center, Florida

Mission Management: University of Colorado's Laboratory for Atmospheric and Space Physics

Management and scientific oversight and engineering support: NASA's Goddard Space Flight Center

Acquisition, management, processing, and distribution of the science data: University of Colorado's Laboratory for Atmospheric and Space Physics