Lockheed Martin Team Passes Critical Design Review For Solar Ultraviolet Imager For GOES-R Satellite Series

The Lockheed Martin team, awarded a contract by NASA in 2007 to design and build the agency's Solar Ultraviolet Imager (SUVI) for the Geostationary Operational Environmental Satellite (GOES)-R Series, has met the requirements of a Critical Design Review. The review was conducted last week at the Lockheed Martin Space Systems Advanced Technology Center (ATC) in Palo Alto by a group of multi-disciplinary experts from NASA and NOAA, as well as a number of independent reviewers. The SUVI instrument will be built at the ATC under the management of the company's Sensing & Exploration Systems organization.

The Lockheed Martin SUVI instrument meets and exceeds all performance requirements. The design provides over six times more pixels (picture elements) than required, and imaging cadence capability at more than three times the original specification. The SUVI program will now proceed to fabrication of the flight units. The next major review will be the Pre-Environmental Review in Nov. 2011. The team is on track for instrument delivery in Oct. 2012, with six months of schedule margin to meet that date. The first GOES-R launch is scheduled for 2015.

"As a team we are honored to have surpassed this important milestone in the design and construction of SUVI," said Mons Morrison, Lockheed Martin SUVI program manager. "We look forward to continuing our collaboration with NASA and NOAA to produce the best possible suite of instruments that will make these crucial measurements, and to working side by side with our Lockheed Martin colleagues who will design and build the GOES-R spacecraft."

The SUVI on the GOES-R satellites is a diverse set of operational instruments that will provide the required solar observational capabilities that enable NOAA to monitor solar activity and to issue accurate real-time alerts when space weather may possibly affect the performance and reliability of space-borne and ground-based technological systems and human endeavors. Space weather can disrupt satellite operations, communications, navigation, and the distribution of electricity through power grids. These can lead to economic losses and can potentially endanger human life.

In recognition of the importance of the data SUVI will gather and the challenges associated with designing and building the instruments, Lockheed Martin assembled a highly capable team with a substantial record of success in providing similar instruments for other missions. The Lockheed Martin Solar and Astrophysics Laboratory (LMSAL) within the ATC, well known for solar instrument development and solar physics research, leads the GOES-R SUVI effort. LMSAL recently completed work on the GOES-O Solar X-ray Imager (SXI) and oversaw its successful calibration on-orbit following a June 2009 launch.

Along with the Polar Operational Environmental Satellite (POES) and Defense Meteorological Satellite Program (DMSP) polar orbiting weather satellites currently built by Lockheed Martin, GOES is a critical part of the U.S. satellite constellation for weather observations. Operational since 1975, the GOES program is a key element in National Weather Service (NWS) operations, providing a continuous stream of environmental information (weather imagery and sounding data) used to support weather forecasting, severe-storm tracking, and meteorological research. Along with weather forecasting, the GOES program also provides data to support space weather forecasting, safety, protection of property, and ultimately, economic health and development. The future GOES-R mission is expected to improve the quality and timeliness of forecasts, expanding the safety and economic security of the public.

The GOES Program is managed by NOAA, which establishes requirements, provides funding and distributes environmental data for the United States. NASA's Goddard Space Flight Center, Greenbelt, Md., manages the SUVI instrument acquisition as a part of its support to NOAA's development of the GOES-R series of satellites.

The ATC is the research and development organization of Lockheed Martin Space Systems Company (LMSSC). LMSSC, a major operating unit of Lockheed Martin Corporation, designs and develops, tests, manufactures and operates a full spectrum of advanced-technology systems for national security and military, civil government and commercial customers. Chief products include human space flight systems; a full range of remote sensing, navigation, meteorological and communications satellites and instruments; space observatories and interplanetary spacecraft; laser radar; ballistic missiles; missile defense systems; and nanotechnology research and development.

Headquartered in Bethesda, Md., Lockheed Martin is a global security company that employs about 140,000

people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The corporation reported 2008 sales of $42.7 billion.

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