



NASA Review Board Validates New Technologies Developed for Northrop Grumman-built James Webb Space Telescope

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REDONDO BEACH, Calif., May 2, 2007 (PrimeNewswire via COMTEX News Network) -- Technologies developed for NASA's James Webb Space Telescope (JWST) are mature enough to move into the detailed engineering phase. Northrop Grumman Corporation (NYSE:NOC) is prime contractor, leading an industry team in the Webb's design and development under contract to NASA's Goddard Space Flight Center (GSFC) in Greenbelt, Md.

A team of experts assembled by NASA thoroughly reviewed the progress and status of the new technologies during a Technical Non-Advocate Review held in late January. The experts determined that nine of the ten technologies have achieved Technology Readiness Level (TRL) 6, which means the prototypes have been successfully tested in a relevant environment (simulating space). The tenth technology, an advanced cryocooler, has made excellent progress and will reach TRL 6 in the next several months.

"New technologies had to be pioneered for the Webb Telescope to perform its mission," said Martin Mohan, JWST program manager for Northrop Grumman's Space Technology sector. "These required tremendous expertise and hard work to bring them to the required level of maturity. We are pleased with the Review Board's validation of our progress to date, and we are ready to move forward and flight qualify our engineering designs."

The JWST program held this review more than one year prior to the mission preliminary design review to assure that all the new technologies were understood before proceeding further. The goal is to help reduce the risk of cost growth and schedule delays as the program moves further into development.

The technologies were developed under Northrop Grumman's and GSFC's leadership. They include: near-infrared detectors, sunshield materials, mid-infrared detectors, lightweight cryogenic mirrors, micro-shutter arrays, cryogenic detector readout application-specific integrated circuits, cryogenic heat switches, large precision cryogenic structures, wavefront sensing and control and cryocoolers.

The Webb Telescope will explore far beyond the reach of current telescopes, peering into the near and mid-infrared at great distances to search for answers to astronomers' fundamental questions about the birth and evolution of galaxies, the size and shape of the universe and the mysterious life cycle of matter.

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