Boeing's Spectrolab Produces Two Millionth Multi-Junction Solar Cell

Boeing [NYSE: BA] today announced that Spectrolab, Inc., a wholly-owned subsidiary, has produced its two millionth multi-junction, gallium-arsenide solar cell.

Spectrolab, the industry-leading solar cell producer, pioneered this type of cell in 1983, perfecting the technology for production several years later. Spectrolab's advancements gave satellite operators the option of doubling satellite power and increasing potential revenue or controlling costs by reducing spacecraft size without sacrificing capability.

"We're very proud of Spectrolab's heritage in the space industry and the integral role it has played in making space-based solar power what it is today," said Howard Chambers, vice president and general manager, Boeing Space and Intelligence Systems. "Spectrolab's on-orbit products are creating more than 575 kilowatts of total power for agencies like NASA and the National Oceanic and Atmospheric Administration, and high performance commercial spacecraft for customers such as DIRECTV and Thuraya."

Spectrolab also is the leading solar cell supplier for numerous government and national security programs.

Spectrolab manufactured its two millionth multi-junction solar cell as it celebrates its 50th anniversary. For the past five decades, Spectrolab's technological advancements have driven space solar cell efficiencies to more than 28 percent. Today, Spectrolab cells power 60 percent of all satellites orbiting the Earth as well as the International Space Station.

Six of the seven programs currently operating on or in orbit around Mars have Spectrolab-built solar cells and panels. The Mars Global Surveyor, for example, has exceeded its mission life-span by about six years and continues to function nominally. The Spectrolab-built solar cells and panels on the rovers Spirit and Opportunity have both operated well beyond their 90-day planned mission life, and have conducted research operations for more than 33 months on the Red Planet. In all, Spectrolab's products have powered more than 525 satellites and interplanetary missions over the past half-century

"I'd like to thank the U.S. Air Force and NASA for their visionary support of Spectrolab and early adoption of the multi-junction solar cell technology," said David Lillington, president of Spectrolab. "We are laying the groundwork for the future. In 2007, we'll offer our next-generation triple junction solar cell, which will be 30 percent efficient. Long-term, we plan to achieve 40 percent efficiency space solar cells through further advancements in our multi-junction technology."

Spectrolab also is a leader in multi-junction solar cells for use in terrestrial solar concentrators, which hold record-breaking efficiencies of 39 percent. Spectrolab is working with several domestic and international solar concentrator manufacturers on clean, renewable solar energy solutions. Currently, the company's solar cells are delivering power to a 1-kilowatt solar concentrator test system in the Arizona desert, which has functioned optimally for more than two years. Spectrolab's terrestrial concentrator cells also are generating power in a 33-kilowatt full-scale concentrator system in the Australian desert.

A unit of The Boeing Company, Boeing Integrated Defense Systems is one of the world's largest space and defense businesses. Headquartered in St. Louis, Boeing Integrated Defense Systems is a $30.8 billion business. It provides network-centric system solutions to its global military, government, and commercial customers. It is a leading provider of intelligence, surveillance and reconnaissance systems; the world's largest military aircraft manufacturer; the world's largest satellite manufacturer; a foremost developer of advanced concepts and technologies; a leading provider of space-based communications; the primary systems integrator for U.S. missile defense; NASA's largest contractor; and a global leader in sustainment solutions and launch services.
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