

Boeing's Spectrolab to Power NASA's Roman Space Telescope

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- Approximately 4,000 XTJ Prime solar cells will power NASA's Roman Space Telescope
- Cells will maximize power generation allowing for more generated data

SYLMAR, Calif., April 5, 2022— Spectrolab, Inc., a wholly owned subsidiary of Boeing [NYSE: BA], will manufacture, integrate and test approximately 4,000 XTJ Prime solar cells for NASA's Nancy Grace Roman Space Telescope.

"Using Spectrolab's XTJ Prime solar cells, NASA will be able to maximize the Roman Space Telescope's power generation, allowing greater data gathering capability while operating in a unique mission environment at the L2 Lagrange point," said Tony Mueller, president of Spectrolab. "These cells leverage both heritage and high efficiency for the agency's newest universe studying telescope."

Spectrolab's NeXt Triple Junction (XTJ) Prime solar cells will provide power to the telescope, including its two main instruments – the Wide Field Instrument and the Coronagraph Instrument – as well as the primary mirror that is 2.4 meters in diameter (7.9 feet), and is the same size as the Hubble Space Telescope's primary mirror. The solar array consists of six panels, each approximately 3m-by-2.5m and consists of 4,000 triple junction solar cells. Triple junction solar cells leverage multiple bandgaps tuned to different wavelengths of the solar spectrum, allowing higher efficiencies not possible with commercially available silicon solar cell technology.

Targeted to launch no later than May 2027, NASA's Roman Space Telescope will investigate long-standing astronomical mysteries, such as the force behind the universe's expansion, and search for distant planets beyond our solar system. The telescope is named after Nancy Grace Roman, NASA's first chief astronomer, who paved the way for space telescopes focused on the broader universe.

"Our versatility in supporting a wide range of NASA human space exploration, Earth observation and solar system missions is something we're incredibly proud of at Boeing," said Jim Chilton, senior vice president, Boeing Space and Launch. "The on-orbit performance of our innovative solar cell technology to-date proves we can provide more power – and in smaller packages – to customers than ever before."

As an example, the new International Space Station Roll-Out Solar Arrays (iROSA), which utilize XTJ Prime solar cells, are producing an additional 120 kilowatts of electricity from the sun's energy for NASA's orbiting laboratory – enough to power more than 40 average U.S. homes. Spectrolab also produced the station's original solar cells that have kept the football field sized ISS operating for more than two decades.

Spectrolab has produced more than 6.5 million gallium-arsenide solar cells for more than 1,000 spacecraft over the last 65 years in a shared vision with customers to connect and protect people globally, enable the exploration of other worlds, and build a space ecosystem for the future. For more information on Spectrolab, visit www.spectrolab.com.

As a leading global aerospace company, Boeing develops, manufactures and services commercial airplanes, defense products and space systems for customers in more than 150 countries. As a top U.S. exporter, the company leverages the talents of a global supplier base to advance economic opportunity, sustainability and community impact. Boeing's diverse team is committed to innovating for the future, leading with sustainability, and cultivating a culture based on the company's core values of safety, quality and integrity. Learn more at www.boeing.com.

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