

Ball Aerospace Celebrates First Images from NASA's James Webb Space Telescope

Ball Aerospace built the mirrors and optics that helped make first images possible

BROOMFIELD, Colo., July 12, 2022 /[PRNewswire](#)/ -- Ball Aerospace, a business of Ball Corporation (NYSE: BALL), is celebrating with NASA and all of the mission partners, as NASA's James Webb Space Telescope shares its first images with the world. The Colorado-based company designed and built the advanced optical technology and lightweight mirror system that make these unprecedented images possible.

"It is awe-inspiring to see these images, which are the culmination of more than 20 years of really hard work by thousands of people across multiple companies, government agencies and academic institutions," said Dr. Makenzie Lystrup, vice president and general manager, Civil Space, Ball Aerospace. "These are just the first of what will be exquisitely-rendered and detailed images that will shed new light on the formation of the universe as well as the galaxies and stars within it."



Launched in December 2021, the James Webb Space Telescope (Webb) took approximately 30 days to reach its orbit near the second Lagrange point (L2) where it captured these images. During its month-long journey it went through the careful processes of deploying the sunshield and mirrors. Once Webb's main camera cooled-off enough to start supporting telescope alignment activities, Webb's optics team began meticulously moving the 18 primary mirror segments to form a single mirror surface that can capture extremely sharp and detailed images, like those just released.

Ball Aerospace worked with NASA's Goddard Space Flight Center and Northrop Grumman, the prime industry contractor, to innovate the 25 square-meter (~269 square feet) system consisting of 18 beryllium mirror segments working together as one unit. Ball also developed the cryogenic actuators and electronic flight control boxes used to keep the mirror segments properly aligned on orbit.

In addition to its work on Webb, Ball is playing critical roles in other upcoming space observation missions. It is partnering with NASA's Goddard Space Flight Center to develop the Wide Field Instrument for the Nancy Grace Roman Space Telescope and NASA/JPL by providing the spacecraft bus and telescope for the Spectro-Photometer for the History of the Universe, Epoch of Reionization and Ices Explorer (SPHEREx). The Ball-built Imaging X-Ray Polarimetry Explorer (IXPE) launched last December to study exotic astronomical objects such as neutron stars and black holes. IXPE's first science image of Cassiopeia A, an object consisting of the remains of a star that exploded in the 17th century, was released on February 14.

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For further information: Media Contact: Joanna Climer, (303) 939-7041, joanna.climer@ballaerospace.com, or Investor Relations: Ann Scott, (303) 460-3537, ascott@ball.com

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