Ball Aerospace Final Mirrors for James Webb Space Telescope Arrive at Goddard Space Flight Center

18 Beryllium Primary Mirror Segments Ready for Telescope Integration

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BOULDER, Colo., Dec. 18, 2013 /PRNewswire/ -- The final three of eighteen primary mirrors built by Ball Aerospace & Technologies Corp. for the James Webb Space Telescope (JWST) have arrived at Goddard Space Flight Center,Greenbelt, Md. for integration prior to a scheduled launch in 2018.

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(Logo: http://photos.prnewswire.com/prnh/20130108/LA39163LOGO)

Once on orbit, the 18 hexagonal mirror segments will work together as one 21.3-foot (6.5-meter) primary mirror, the largest mirror ever flown in space and the first to deploy in space. Ball Aerospace also developed the secondary mirror, tertiary mirror, and fine-steering mirror. Ball is the principal optical subcontractor for the Webb Telescope, led by prime contractor Northrop Grumman Corp. Aerospace Systems.

"Ball's sophisticated mirror architecture will provideJames Webb with the most advanced infrared vision of any space observatory ever launched by NASA," said Robert Strain, Ball Aerospace president. "A huge amount of teamwork was needed to meet the exacting requirements for the telescope's optical design and we're eager to see the results."

The premier observatory for the next decade, James Webb will be stationed 1 million miles (1.5 million km) from Earth – some four times farther away from us than the Moon. The Webb will be the most powerful space telescope ever built, able to detect the light from the first galaxies ever formed and explore planets around distant stars. It will study every phase of our universe's history, ranging from the first luminous glows after the Big Bang, to the formation of stellar systems capable of supporting life on planets like Earth, to the evolution of our own Solar System.

Ball began an incremental process of shipping the finished mirrors to Goddard inSeptember 2012. The mirrors are housed in custom shipping containers designed specifically for the multiple cross-country trips the mirrors made through eight U.S. states during manufacturing. Each container is hermetically sealed to handle atmospheric pressure changes caused by shipping from high elevations such as Boulder to locations at or near sea level such asGreenbelt, Md.

In addition to the Webb telescope, Ball Aerospace has played a significant role in astrophysics and planetary missions including Kepler, the Hubble Space Telescope, the Wide-field Infrared Survey Explorer, the Spitzer Space Telescope, the Infrared Astronomical Satellite, the Cosmic Background Explorer, the Chandra X-ray Observatory and the upcoming Sentinel Mission.

Ball Aerospace & Technologies Corp. supports critical missions for national agencies such as the Department of Defense, NASA, NOAA and other U.S. government and commercial entities. The company develops and manufactures spacecraft, advanced instruments and sensors, components, data exploitation systems and RF solutions for strategic, tactical and scientific applications. For more information, visit www.ballaerospace.com.

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This release contains "forward-looking" statements concerning future events and financial performance. Words such as "expects," "anticipates," "estimates" and similar expressions are intended to identify forward-looking statements. Such statements are subject to risks and uncertainties which could cause actual results to differ materially from those expressed or implied. The company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Key risks and uncertainties are summarized in filings with the Securities and Exchange Commission, including Exhibit 99.2 in our Form 10-K, which are available on our website and at www.sec.gov. Factors that might affect our packaging segments include fluctuation in product demand and preferences; availability and cost of raw materials; competitive packaging availability, pricing and substitution; changes in climate and weather; crop yields; competitive activity; failure to achieve anticipated productivity improvements or production cost reductions; mandatory deposit or other restrictive packaging laws; changes in major customer or supplier contracts or loss of a major customer or supplier; political instability and sanctions; and changes in foreign exchange rates or tax rates. Factors that might affect our aerospace segment include: funding, authorization, availability and returns of government and commercial contracts; and delays, extensions and technical uncertainties affecting segment contracts. Factors that might affect the company as a whole include

those listed plus: accounting changes; changes in senior management; the recent global recession and its effects on liquidity, credit risk, asset values and the economy; successful or unsuccessful acquisitions; regulatory action or laws including tax, environmental, health and workplace safety, including U.S. FDA and other actions affecting products filled in our containers, or chemicals or substances used in raw materials or in the manufacturing process; governmental investigations; technological developments and innovations; goodwill impairment; antitrust, patent and other litigation; strikes; labor cost changes; rates of return projected and earned on assets of the company's defined benefit retirement plans; pension changes; uncertainties surrounding the U.S. government budget and debt limit; reduced cash flow; interest rates affecting our debt; and changes to unaudited results due to statutory audits or other effects.

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