

Ball Aerospace Equips Lockheed Martin's Inaugural Orion Mission with Key Avionics and Antenna Hardware

PR Newswire
BOULDER, Colo.

BOULDER, Colo., Nov. 21, 2014 /PRNewswire/ -- Ball Aerospace & Technologies Corp. is providing the phased array antennas and flight test cameras to prime contractor Lockheed Martin for Orion's Exploration Flight Test-1 (EFT-1), which is an unmanned test flight scheduled to launch from Cape Canaveral, Florida on December 4.

"We are eagerly awaiting the launch of the first mission of Orion as NASA enters its next era of human space flight," said Jim Oschmann, vice president and general manager of civil space and technology. "Ball Aerospace is best known for its support of major unmanned space exploration, but has also been a long-time supplier of technology products to the human spaceflight program including the Gemini and Apollo missions, Skylab, the Space Shuttle and now the next generation, Orion spacecraft."

Ball delivered four phased array antennas for the EFT-1. Each of the phased array antennas is a highly sophisticated subassembly containing over 5,000 individual parts encased in a briefcase-sized housing. The antennas carry mission-critical voice and data communications and will perform on the pad, during ascent, on orbit, and through de-orbit and splashdown. The Orion phased array antenna design leverages dozens of Ball phased array designs delivered for space, airborne, ground and marine applications.

Ball's three flight test cameras were the first avionics hardware delivered for Orion EFT-1. They are based on the design of the docking camera that flew aboard the STS-134 Sensor Test for Orion Relative Navigation Risk Mitigation ([STORRM](#)) mission in 2011. For the December Orion flight they will be used for situational awareness to gather data for the duration of the mission, from lift-off through splash-down.

Orion is NASA's first interplanetary spacecraft designed to carry astronauts beyond low-Earth orbit on long-duration, deep space missions and eventually to Mars. The December test flight will mimic the extreme re-entry forces and harsh environment the crewed versions of Orion will need to withstand carrying astronauts on deep-space missions.

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 and international 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

Ball Corporation (NYSE: BLL) supplies innovative, sustainable packaging solutions for beverage, food and household products customers, as well as aerospace and other technologies and services primarily for the U.S. government. Ball Corporation and its subsidiaries employ 14,500 people worldwide and reported 2013 sales of \$8.5 billion. For more information, visit www.ball.com, or connect with us on Facebook or Twitter.

Forward-Looking Statements

This release contains "forward-looking" statements concerning future events and financial performance. Words such as "expects," "anticipates," "estimates" and similar expressions 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 in our Form 10-K, which are available on our website and at www.sec.gov. Factors that might affect: a) our packaging segments include product demand fluctuations; availability/cost of raw materials; competitive packaging, pricing and substitution; changes in climate and weather; crop yields; competitive activity; failure to achieve productivity improvements or cost reductions; mandatory deposit or other restrictive packaging laws; customer and supplier consolidation, power and supply chain influence; changes in major customer or supplier contracts or loss of a major customer or supplier; political instability and sanctions; and changes in foreign exchange or tax rates; b) our aerospace segment include funding, authorization, availability and returns of government and commercial contracts; and delays, extensions and technical uncertainties affecting segment contracts; c) the company as a whole include those listed plus: changes in senior management; successful or unsuccessful acquisitions and divestitures; regulatory action or issues including tax, environmental, health and workplace safety, including U.S. FDA and other actions or public concerns affecting products filled in our containers, or chemicals or substances used in raw materials or in the manufacturing process; technological developments and innovations; litigation; strikes; labor cost changes; rates of return on assets of the company's defined benefit retirement plans; pension changes; uncertainties surrounding the U.S. government budget, sequestration and debt limit; reduced cash flow; ability to achieve cost-out initiatives; interest rates affecting our debt.

Photo - <http://photos.prnewswire.com/prnh/20141121/160266>

Logo - <http://photos.prnewswire.com/prnh/20130108/LA39163LOGO>

SOURCE Ball Aerospace & Technologies Corp.

<http://ball.mediaroom.com/2014-11-21-Ball-Aerospace-Equips-Lockheed-Martins-Inaugural-Orion-Mission-with-Key-Avionics-and-Antenna-Hardware>