## Ball Aerospace Delivers NASA's X-Ray Observatory to Kennedy Space Center for Launch

The Imaging X-Ray Polarimetry Explorer will study exotic objects in the universe, including black holes

BROOMFIELD, Colo., Nov. 10, 2021 /PRNewswire/ -- NASA's Imaging X-Ray Polarimetry Explorer (IXPE), built by Ball Aerospace, safely arrived Friday at Cape Canaveral in Fla. A collaboration between Ball, NASA, and the Italian Space Agency (ASI), IXPE is an astrophysics observatory set to launch from NASA's Kennedy Space Center in December.

Once on orbit, IXPE will measure the polarization of cosmic X-rays to improve our understanding of the fundamental physics of extreme objects in the universe, such as neutron stars, quasars and supermassive black holes. IXPE will tackle such mysteries as the sources of magnetic fields, how they formed, and the inner workings of celestial objects, including whether a black hole is spinning and the rate of spin. These answers will provide valuable insight into how the universe works.



"It has been exciting to be part of a program that is going to provide new and important insights into the formation of the universe by observing some of its

rarest and most mysterious celestial objects," said Dr. Makenzie Lystrup, vice president and general manager, Ball Aerospace. "Of course, there is still a lot of work to be done upon its arrival at Kennedy, but like every part of this program, we are looking forward to continuing to work hand-in-hand with our government and academic partners to ensure success before, during and after launch."

IXPE is a Small Explorer, or SMEX mission, which is part of NASA's Astrophysics Explorer Program. The IXPE mission is led by NASA's Marshall Space Flight Center in Huntsville, Alabama, with support from Ball Aerospace, ASI, Laboratory for Atmospheric and Space Physics (LASP) at University of Colorado Boulder and other partners. Dr. Martin C. Weisskopf is the principal investigator for the mission.

Ball Aerospace provided the IXPE spacecraft, mechanical and structural elements of the payload, observatory assembly, and integration and test. The spacecraft is based on the smallest Ball Configurable Platform (BCP) model. As part of Ball Aerospace's commitment to sustainability, a similar BCP was developed for NASA's Green Propellant Infusion Mission (GPIM).

Powered by endlessly curious people with an unwavering mission focus, **Ball Aerospace** pioneers discoveries that enable our customers to perform beyond expectation and protect what matters most. We create innovative space solutions, enable more accurate weather forecasts, drive insightful observations of our planet, deliver actionable data and intelligence, and ensure those who defend our freedom go forward bravely and return home safely. Go Beyond with Ball.® For more information, visit <a href="https://www.ball.com/aerospace">www.ball.com/aerospace</a> or connect with us on <a href="mailto:Facebook">Facebook</a> or <a href="mailto:Twitter">Twitter</a>.

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Ball Corporation (NYSE: BLL) supplies innovative, sustainable aluminum packaging solutions for beverage, personal care 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 21,500 people worldwide and reported 2020 net sales of \$11.8 billion. For more information, visit <a href="https://www.ball.com">www.ball.com</a>, or connect with us on <a href="https://www.ball.com">Facebook</a> or <a href="https://www.ball.com">Twitter</a>.

## **Forward-Looking Statements**

This release contains "forward-looking" statements concerning future events and financial performance. Words such as "expects," "anticipates," "estimates," "believes," and similar expressions typically identify forward-looking statements, which are generally any statements other than statements of historical fact. Such statements are based on current expectations or views of the future and are subject to risks and uncertainties, which could cause actual results or events to differ materially from those expressed or implied. You should therefore not place undue reliance upon any forward-looking statements and any such statements should be read in conjunction with, and qualified in their entirety by, the cautionary statements referenced below. 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 factors, risks and uncertainties that could cause actual outcomes and results to be different 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 <a href="https://www.sec.gov">www.sec.gov</a>.

Additional factors that might affect: a) our packaging segments include product capacity, supply, and demand constraints and fluctuations and changes in consumption patterns; availability/cost of raw materials, equipment, and logistics; competitive packaging, pricing and substitution; changes in climate and weather; footprint adjustments and other manufacturing changes, including the startup of new facilities and lines; failure to achieve synergies, productivity improvements or cost reductions; unfavorable mandatory deposit or packaging laws; customer and supplier consolidation; power and supply chain interruptions; changes in major customer or supplier contracts or loss of a major customer or supplier; political instability and sanctions; currency controls; changes in foreign exchange or tax rates; and tariffs, trade actions, or other governmental actions, including business restrictions and shelter-in-place orders in any country or jurisdiction affecting goods produced by us or in our supply chain, including imported raw materials; 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 above plus: the extent to which sustainability-related opportunities arise and can be capitalized upon; changes in senior management, succession, and the ability to attract and retain skilled labor; regulatory actions or issues including those related to tax, ESG reporting, competition, 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; the ability to manage cyber threats; litigation; strikes; disease; pandemic; labor cost changes; rates of return on assets of the Company's defined benefit retirement plans; pension changes; uncertainties surrounding geopolitical events and governmental policies both in the U.S. and in other countries, including policies, orders, and actions related to COVID-19; reduced cash flow; interest rates affecting our debt; and successful or unsuccessful joint ventures, acquisitions and divestitures, and their effects on our operating results and business generally.

## SOURCE Ball Aerospace

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