

Ball Aerospace Selected for Two NOAA Weather Instrument Studies

One instrument design would measure atmospheric composition the other ocean color

BROOMFIELD, Colo., July 28, 2022 /PRNewswire/ -- In a one-week period, Ball Aerospace was selected by NASA to complete two 20-month studies on new instruments to support the National Oceanic and Atmospheric Administration's (NOAA's) Geostationary Extended Observations (GeoXO) program: one to measure Atmospheric Composition (ACX) and one to measure Ocean Color (OCX).

Overall, three 20-month studies have been awarded to Ball for the GeoXO program, NOAA's next-generation constellation of geostationary weather satellites to address critical operational environmental prediction requirements prioritized by NOAA and their stakeholders, as well as major environmental challenges of the future in support of U.S. weather, ocean, and climate operations. In October 2021, Ball was selected for NOAA's GeoXO Phase A Sounder (GXS) study.

"These studies are just the first steps in NOAA's efforts to improve the nation's ability to monitor, forecast and understand the conditions impacting weather, climate and health; from air and water quality to coastline health," said Dr. Makenzie Lystrup, vice president and general manager, Civil Space, Ball Aerospace. "As weather events become increasingly unpredictable and extreme, we need to keep building better monitoring and forecasting tools. The instruments we are helping to define and design will be critical in NOAA's commitment to building a weather-ready nation."



The three 20-month studies will be based on Ball Operational Weather Instrument Evolution (BOWIE), a series of innovative environmental sensing systems to meet next generation space-based observation needs identified by customers. Both BOWIE-Ocean Color (BOWIE-OCX) and BOWIE-Atmospheric Composition (BOWIE-ACX) are hyperspectral passive imaging instruments.

- The BOWIE-OCX is a radiometer designed to collect ultraviolet near-infrared imagery and identify harmful algal blooms, water turbidity and general water quality to support and assess fisheries management, habitat quality, pollution tracking and biogeochemical processing in coastal regions.
- The BOWIE-ACX is an ultraviolet visible spectrometer that is designed to enable measurements of trace gases and aerosols with high-temporal frequency and spatial resolution to make air quality predictions across the continental United States.
- Ball's hyperspectral IR sounder, BOWIE-GXS, is designed to provide temperature and moisture profiles through the atmosphere with high spectral and temporal resolution in the mid-wave through long-wave infrared wavebands in a compact form. Data from such a system will provide continuous monitoring over the continental United States and coastal ocean areas, providing early warning of extreme weather conditions due to hurricanes, tornadoes, winter storms.

These will join multiple programs the company developed in recent years to precisely measure atmospheric conditions, including the Geostationary Environment Monitoring Spectrometer (GEMS) for the Korea Aerospace Research Institute (KARI), which launched in February 2020 to measure air pollution across the greater Asia-Pacific region, and NASA's Tropospheric Emissions: Monitoring of Pollution (TEMPO) instrument designed and built by Ball, which once launched will measure and track individual air pollutants across North America. Ball also designed and is currently building the methane monitoring instrument for MethaneSAT, LLC, a subsidiary of Environmental Defense Fund.

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 www.ball.com/aerospace or connect with us on [Facebook](#) or [Twitter](#).

About Ball Corporation

Ball Corporation (NYSE: BALL) 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 24,300 people worldwide and reported 2021 net sales of \$13.8 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," "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 they 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 www.sec.gov. 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; inability to pass through increased costs; war, political instability and sanctions, including relating to the situation in Russia and Ukraine and its impact on our supply chain and our ability to operate in Russia and the EMEA region generally; 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; inflation; rates of return on assets of the Company's defined benefit retirement plans; pension changes; uncertainties surrounding geopolitical events and governmental policies, 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, including the announced sale of our Russian business, and their effects on our operating results and business generally.

SOURCE Ball Aerospace

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

<https://ball.mediaroom.com/2022-07-28-Ball-Aerospace-Selected-for-Two-NOAA-Weather-Instrument-Studies>