

## Ball Aerospace Selected for NOAA Geostationary Extended Observations Sounder Instrument Study

**BROOMFIELD, Colo.,** Oct. 28, 2021 — Ball Aerospace was selected by NASA for a 20-month contract for the National Oceanic and Atmospheric Administration's (NOAA's) Geostationary Extended Observations (GeoXO) Phase A sounder (GXS) study within NOAA's GeoXO program.

Ball will study hyperspectral infrared (IR) sounder instrument design options. Hyperspectral IR sounder observations from GEO will provide a new 3-D atmospheric data set for U.S. forecasters and emergency managers and will fulfill a decades' long goal of providing such a capability.

"In addition to providing real-time situational awareness, early warning of damaging weather events and high-temporal resolution measurements from geostationary orbit, our instrument concept has the potential to improve air quality monitoring, which will help mitigate health impacts from severe pollution and wildfire events," said Dr. Makenzie Lystrup, vice president and general manager, Civil Space, Ball Aerospace. "Actionable environmental intelligence, such as atmospheric measurements from space, are essential for informing decision makers to help improve the lives of people here on Earth."

Ball's hyperspectral IR sounder for GEO, the Ball Operational Weather Instrument Evolution-GXS (BOWIE-GXS), is part of BOWIE, a series of innovative environmental sensing systems being designed at Ball to meet next generation space-based observation needs identified by our customers. BOWIE-GXS will 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. The compact form is a common attribute of the BOWIE line of observing systems. The instrument will also leverage Ball's proven cryogenic system to provide cooling power for a longer than 10-year mission life.

Ball Aerospace has key roles in the development and production of space-based systems to precisely measure physical properties of the atmosphere, ocean and land surface, including air quality measuring instruments, such as the Geostationary Environment Monitoring Spectrometer (GEMS) for the Korea Aerospace Research Institute (KARI), which launched in February 2020 and is currently gathering hourly pollution data over southeast Asia. Ball also built and delivered NASA's Tropospheric Emissions: Monitoring of Pollution (TEMPO) instrument, which is scheduled to launch next year to measure and track individual air pollutants across North America. Additionally, Ball designed and is building a methane monitoring instrument for MethaneSAT, LLC, a subsidiary of Environmental Defense Fund (EDF), which once launched will measure and track global methane emissions.

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

### About Ball Corporation

Ball Corporation 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 [www.ball.com](http://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 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 [www.sec.gov](http://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; 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.

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

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