Ball Aerospace Remote Sensing Technology Detects Methane Leaks During Mobile Monitoring Challenge

BOULDER, Colo., June 18, 2018 /<u>PRNewswire</u>/ -- Ball Aerospace demonstrated its methane remote sensing technology flying on board a piloted aircraft during the Stanford University and Environmental Defense Fund (EDF) Mobile Monitoring Challenge, resulting in high-resolution, geo-referenced imagery of simulated methane leaks in near real-time.

The Mobile Monitoring Challenge is a new competition co-sponsored by Stanford University's Natural Gas Initiative and the EDF that involves select teams that take part in a single-partial blind study of controlled methane releases over a three-week period in May.

"Ball has been testing and conducting pilot trials of its Methane Monitor technology with end users for the past 18 months," said Brad Tousley, vice president, Commercial Aerospace and Strategic Technology, Ball Aerospace. "With an excellent leak detection threshold and widearea survey capability, our Methane Monitor enables operators to map entire infrastructures with extreme sensitivity to find and source individual leaks."

During the challenge, the Ball Methane Monitor was flown on a twin-engine aircraft flying at 125 miles per hour at an altitude of up to 3,500 feet. This rapid and long-range flight enables an efficient, accurate and cost-effective survey of widely dispersed facilities without the speed and range limitations of today's unmanned aerial vehicles or ground-based mobile systems. Initial results were returned to the Stanford and EDF test conductors within 6 hours after flight, with a full report delivered within 24 hours.

Leveraging Ball's more than 30 years of experience developing proven laser technologies, the Methane Monitor uses active laser spectroscopy techniques to identify atmospheric methane. With this remote sensing technology, Ball can gather excellent spatial resolution column measurements down to 50 ppm-m of methane above background and deliver rapid results to enable visual assessment of leak sources. An individual sensor allows for daily surveillance of up to 100 square miles of oil and gas production regions, or 375 miles of transmission pipeline. The Ball Methane Monitor has multiple applications, including enabling safety evaluations of pipeline operations as well as offering a cost-effective commercial technology capable of rapidly monitoring large areas of oil and gas production facilities and miles of pipeline to detect methane leaks.

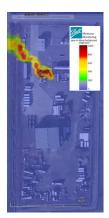
Ball Aerospace pioneers discoveries that enable our customers to perform beyond expectation and protect what matters most. We create innovative space solutions, enable more accurate weather forecasts, drive insightful observations of our planet, deliver actionable data and intelligence, and ensure those 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: 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 18,300 people worldwide and reported 2017 net sales of \$11 billion. For more information, visit <u>www.ball.com</u>, or connect with us on <u>Facebook</u> or <u>Twitter</u>.

Forward-Looking Statements

This release contains "forward-looking" statements concerning future events and financial performance. Words such as "expects," "anticipates," "estimates," "believes," "targets," "likely" 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 of 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. Additional 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; competitive activity; failure to achieve synergies, 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 a loss of a major customer or supplier; political instability and sanctions; currency controls; changes in foreign exchange or tax rates, including due to the effects of the 2017 U.S. Tax Cuts and Jobs Act; and tariffs or other governmental actions in any country affecting goods produced by us or in our supply chain, including imported raw materials, such as pursuant to section 232 of the U.S. Trade Expansion Act of 1962; 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; 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 geopolitical events and governmental policies both in the U.S. and in other countries, including the U.S. government elections, budget, sequestration and debt limit; reduced cash flow; ability to achieve cost-out initiatives and synergies; interest rates affecting our debt; and successful or unsuccessful joint ventures, acquisitions and divestitures, including with respect to the Rexam PLC acquisition and its integration, or the associated divestiture; the effect of the acquisition or the divestiture on our business relationships, operating results and business generally.

SOURCE Ball Aerospace

For further information: Media, Joanna Climer, (303) 939-7041, jclimer@ball.com, or Ball Investor Relations, Ann Scott, (303) 460-3537, ascott@ball.com

https://ball.mediaroom.com/2018-06-18-Ball-Aerospace-Remote-Sensing-Technology-Detects-Methane-Leaks-During-Mobile-Monitoring-Challenge

