Embark Trucks Completes Industry-First Autonomous Testing in Winter Conditions

May 9, 2022

On-road autonomous winter testing demonstrates that in approximately 90% of runs through snowy conditions, Embark's Vision Map Fusion system should operate successfully, or pause and resume travel within acceptable shipper delivery windows.

SAN FRANCISCO, May 09, 2022 (GLOBE NEWSWIRE) -- Embark Trucks, Inc. (Nasdaq: EMBK, "Embark"), a leading developer of autonomous technology for the trucking industry, today announced the successful completion of on-road testing in snowy conditions in Montana. The testing, which Embark announced earlier this year, was conducted to demonstrate the performance and safety of Embark's patent-pending Vision Map Fusion (VMF) technology in geographies that experience severe winter weather. Results from the testing demonstrate that in approximately 90% of runs through the snowy conditions under study – which could result in delays for HD map-based autonomous driving systems – VMF should operate successfully, or pause and resume travel within acceptable shipper delivery windows.

Beginning in February, the company's testing in Montana utilized Embark-powered trucks traveling on a 60-mile round trip route on public roads between Clinton and Missoula, Montana in varying winter weather situations. In addition to on-road testing, Embark developed a comprehensive weather model using over 8 billion historical weather data points – dating back over 10 years on all major US routes – to analyze the impact of snow at a lane level across the US.

The testing and weather analysis show significant technical and commercial promise: Embark's testing and performance review indicated that VMF worked within tolerance thresholds for safe operation in snowfall rates up to one-sixth inch per hour and with snow accumulation of 1 inch on the road over 3 hours, conditions that cover the vast majority of snowy weather based on Embark's analysis. The favorable test results represent a milestone in the development of autonomous trucking technology, as well as a major achievement for Embark made possible with VMF. Embark plans to continue to study the impact of snowy conditions on other elements of the Embark Driver.

Combining these performance results with historical weather patterns and typical shipper delivery timelines, Embark was able to estimate expected delivery performance. On northern lanes – those starting or ending outside of the Sunbelt – historical data shows that roughly 1 in 5 runs will experience some snowy conditions. Embark estimates its VMF system will operate within acceptable shipper delivery windows approximately 90% of the time on such runs. Embark will look to refine these initial findings in time through additional modeling and partner insights in order to account for associated considerations such as ice formation, sleet and heavy winds.

Embark's proprietary, patent-pending VMF technology has enabled this progress by moving beyond lidar-centric mapping and localization solutions. By relying heavily on the camera-based sensing modality in snowy conditions, while also understanding and accounting for the degraded states of lidar returns and map conditions, VMF is capable of filling in the gaps and mitigating the uncertainty created by accumulating snow on the roadway, unlocking critical shipping lanes and increasing uptime beyond the Sunbelt where inclement weather can hamper operations.

Embark plans to expand its class-leading autonomous driving capabilities and continue its northward national expansion following its anticipated Phase I Sunbelt rollout in 2024. Throughout this testing process, the company worked with a number of partners to better understand the impacts of inclement weather on truck uptime and dispatching, gaining a deep appreciation for the difficult driving conditions that truck drivers must navigate on a regular basis during US winters.

Embark successfully completed on-road testing in snowy conditions.

Testing was completed in Montana.

Embark-powered trucks traveled on a 60-mile round trip route on public roads between Clinton and Missoula.

Testing was conducted to demonstrate the performance and safety of Embark's patent-pending Vision Map Fusion (VMF) technology.

"When we set out to develop our autonomous truck solutions, we planned to create a system that is capable of operating safely across America in all kinds of road conditions, broadening our scope to serve parts of the country that may be limited by snow or inclement weather," said Alex Rodrigues, CEO of Embark. "While we continue to focus on our existing commercialization timeline, the validation of our VMF technology for use in northern states and regions that regularly experience seasonal snowy weather will prepare us for long-term deployments and growth, and help us provide the most flexible solution possible for our carrier partners."

About Embark Trucks, Inc.

Embark Trucks, Inc., a wholly owned subsidiary of Nasdaq-listed Embark Technology, Inc. (Nasdaq: EMBK), is an autonomous vehicle company building the software powering autonomous trucks, focused on improving the safety, efficiency, and sustainability of the nearly $730 billion a year trucking market. Headquartered in San Francisco, CA since its founding in 2016, Embark is America's longest-running self-driving truck program and partners with some of the largest shippers and carriers in the nation.

Embark's mission is to realize a world where consumers pay less for the things they need, drivers stay close to the homes they cherish, and roads are safer for the people we love. To learn more about Embark, visit embarktrucks.com.

Forward-Looking Statements

This press release includes "forward-looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Embark's actual results may differ from their expectations, estimates and projections and consequently, you should not rely on these forward-looking statements as predictions of future events. Words such as "expect," "estimate," "project," "budget," "forecast," "anticipate," "intend," "plan," "may," "will," "could," "should," "believes," "predicts," "potential," "continue," and similar expressions are intended to identify such forward-looking statements. These forward-looking statements include, without limitation, Embark's expectations with respect to future performance. These forward-looking statements also involve significant risks and uncertainties that could cause the actual results to differ materially from the expected results. Factors that may cause such differences include, but are not limited to: (1) ability to expand into new markets; (2) changes in the applicable laws or regulations; (3) the possibility that Embark may be adversely affected by other economic, business, and/or competitive factors; (4) the impact of the global COVID-19 pandemic; and (5) other risks and uncertainties separately provided to you and indicated from time to time described in filings and potential filings by Embark with the U.S. Securities and Exchange Commission (the "SEC"), including those discussed in the registration statement on Form S-4 and definitive proxy statement/prospectus and other documents filed with the SEC from time to time. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Embark cautions that the foregoing list of factors is not exhaustive and not to place undue reliance upon any forward-looking statements, including projections, which speak only as of the date made. Embark undertakes no obligation to and accepts no obligation to release publicly any updates or revisions to any forward-looking statements to reflect any change in its expectations or any change in events, conditions or circumstances on which any such statement is based.

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