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## **Cummins and Achates Power to Develop Advanced Combat Vehicle Engine to Improve Protection and Performance of U.S. Armed Forces**

COLUMBUS, Ind.--(BUSINESS WIRE)-- UNCLASSIFIED: Distribution Statement A.  
Approved for public release

Cummins Inc. (NYSE: CMI) announced today that it has executed a \$47.4 million contract, awarded by the National Advanced Mobility Consortium, to develop and demonstrate a technologically advanced engine for the next generation of U.S. combat vehicles.

The Advanced Combat Engine (ACE) project, led by Cummins Corporate Research and Technology and supported by Achates Power, aligns well with the research and development work of the U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC). ACE is a key component of the Army's 30 year strategy to modernize tactical and combat vehicles, with potential for future production configurations being used in the Bradley Family of Vehicles and the Next Generation Combat Vehicle.

"Cummins is pleased to partner with Achates Power to employ our technological expertise to create the most advanced combat vehicle powertrains for our Armed Forces," said Wayne Eckerle, Vice President, Corporate Research and Technology, Cummins Inc. "We are confident we can achieve significant improvements in mobility, power, range and fuel economy, creating combat vehicles that are safer, faster and have clear advantages in the field. Our technical teams are looking forward to leading a project that can make a difference in the lives of men and women who serve our country."

The goal of the project is to significantly improve the performance, survivability, and range of ground combat vehicles while reducing fleet fuel use. Cummins and Achates plan to reach these goals by reducing heat rejection by 21 percent versus current Cummins-supplied combat vehicle engines, as well as improving power density by more than 50 percent, and reducing fuel use by 13 percent, versus current typical combat vehicle engines.

"This award builds upon 14 years of extensive development by Achates Power to modernize and optimize the opposed-piston engine," said David Johnson, CEO, Achates Power. "We

are pleased to support Cummins on the Multi-Cylinder Advanced Combat Engine Technology Demonstrator program with our strengths in opposed-piston engine technology to deliver a superior engine for combat and tactical vehicles for the U.S. Army.”

An overarching project integrating and validating ACE as part of a system of other key innovative powertrain technologies will be conducted by TARDEC’s Ground Vehicle Power and Mobility technology focus group in 2019. Along with ACE, the system will incorporate an Integrated Starter/Generator, Advanced Combat Transmission, Advanced Thermal Management System, and other key components of the Advanced Powertrain Demonstrator. Results of this program will position the Army and the defense industrial base for future generations of combat vehicles.

### **About Cummins**

Cummins Inc., a global power leader, is a corporation of complementary business units that design, manufacture, distribute and service diesel and natural gas engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems. Headquartered in Columbus, Indiana, (USA) Cummins currently employs approximately 55,400 people worldwide and serves customers in approximately 190 countries and territories through a network of approximately 600 company-owned and independent distributor locations and approximately 7,400 dealer locations. Cummins earned \$1.39 billion on sales of \$17.5 billion in 2016. Press releases can be found on the Web at [www.cummins.com](http://www.cummins.com). Follow Cummins on Twitter at [www.twitter.com/cummins](http://www.twitter.com/cummins) and on YouTube at [www.youtube.com/cumminsinc](http://www.youtube.com/cumminsinc).

### **About Achates Power**

Achates Power, Inc. has developed radically improved internal combustion engines that increase fuel efficiency, reduce greenhouse gas emissions and are lower cost. Founded in 2004 with the mission to build cleaner, more efficient engines, the San Diego-based company has an experienced staff of engineers and scientists focused on applying their proven technical know-how and expertise, coupled with the industry’s leading-edge testing, simulation and analysis tools. It is backed by top private equity firms Sequoia Capital Partners, RockPort Capital Partners, Madrone Capital Partners, InterWest Partners and Triangle Peak Partners. For more information, visit [www.achatespower.com](http://www.achatespower.com), [www.facebook.com/AchatesPowerInc](https://www.facebook.com/AchatesPowerInc), [www.twitter.com/achatespower](http://www.twitter.com/achatespower) and [www.youtube.com/achatespowerinc](http://www.youtube.com/achatespowerinc).

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