



Nov. 27, 2010

For Immediate Release

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Release # 1034

Nine-Ton Autonomous Robot, Tactical Vehicle with 50 Integrated Survivability Technologies among U.S. Army TARDEC Display at 2010 Army Science Conference

ORLANDO – The U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC) is bringing some of its most forward-looking technologies to 27th Army Science Conference, which starts Monday, Nov. 29. The conference features exhibits of the latest scientific discoveries as well as the latest equipment, technologies, products, and services available – including TARDEC’s Autonomous Platform Demonstrator (APD) and Tactical Wheeled Vehicle Survivability (TWVS) Army Technology Objective (ATO) Integrated Survivability Demonstrator (ISD).

APD – GVW: 9.3 tons; 0-30 mph: 10.5 seconds; max. speed: 50 mph

The APD is a six-wheel drive, skid-steer, hybrid-electric vehicle containing lithium-ion batteries that provide power to six in-hub electric drive motors. Additionally, the APD has an onboard diesel generator that can alternatively be used to provide power to the drive motors and/or charge the batteries. The APD is capable of 50 mph on road and 30 mph cross-country.



The APD has served as the unmanned ground vehicle (UGV) integration platform-of-choice for technologies developed under the Robotic Vehicle Control Architecture Army Technology Objective (RCVA ATO). RCVA developed an end-to-end UGV control architecture to reduce future integration risk and demonstrated the viability of autonomous UGV operations in a relevant environment using Program Executive Office Integration representative system-of-systems hardware and software components.

TWVS ATO ISD – Integrated armor solutions; non-armor tech; modeling/simulation tools

With military trucks exposed to new and increasingly powerful threats, the Army is researching defensive countermeasures to increase survivability. For the last four years, government engineers and their collaborative partners have conducted research for the TWVS ATO program that is now used to reach more informed design decisions when building and integrating technology onto military tactical trucks.



TARDEC worked with the Army Research Laboratory, Defense Advanced Research Projects Agency, Program Executive Office Combat Support and Combat Service Support, PEO Command Control Communications-Tactical and other government organizations to create ISDs through the

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TWVS ATO. The ISDs use a Medium Tactical Vehicle platform to demonstrate 50 survivability technologies.

The theme of the ASC is “Transformational Science and Technology – Enabling Full Spectrum Operations.”

Sponsored by the Assistant Secretary of the Army (Acquisition, Logistics and Technology), the ASC is a biennial event inaugurated in 1957 to provide a forum for the presentation and open exchange of ideas and results, and for recognition of accomplishments by Army scientists and engineers. Over the past decade the ASC has grown into a world-class science and technology event that attracts scientists and engineers from across the Globe who are working on issues of relevance to the Army. More than 1,500 representatives from the U.S. Government, academia, industry, and 25 Nations are expected to attend the 27th ASC.

ASC takes place Nov. 29 to Dec. 2, 2010, at the J.W. Marriott Grande Lakes Orlando.

ABOUT TARDEC

Headquartered at the Detroit Arsenal in Warren, MI, TARDEC is the Nation’s laboratory for advanced military automotive technology and serves as the Ground Systems Integrator for all Department of Defense (DOD) manned and unmanned ground vehicle systems. With roots dating back to the World War II era, TARDEC is a full life-cycle, systems engineering support provider-of-first-choice for all DOD ground combat and combat support weapons, equipment and vehicle systems. TARDEC develops and integrates the right technology solutions to improve Current Force effectiveness and provides superior capabilities for Future Force integration. TARDEC’s technical, scientific and engineering staff lead cutting-edge research and development in Ground Systems Survivability; Power and Mobility; Intelligent Ground Systems; Force Projection; and Vehicle Electronics and Architecture.

TARDEC is a major research, development and engineering center for Research, Development and Engineering Command and an enterprise partner in the TACOM Life Cycle Management Command.

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