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## **For Immediate Release**

Contact: Bruce J. Huffman  
bruce.j.huffman.civ@mail.mil  
586.215.8763

## **Army Fuel Efficient Concept Vehicle Making Public Debut at Society of Automotive Engineers World Congress in Detroit**

- Army display focused on effective energy security
- Hybrid vehicle designed by students at Detroit's College for Creative Studies
- New energy security laboratory, microgrid technology also on display

U.S. ARMY DETROIT ARSENAL, WARREN, Mich. – Following last week's grand opening of its high-tech energy lab in Warren, the Army will publicly debut a new fuel efficient concept vehicle that significantly improves fuel economy and has the capability to generate and export power for Soldiers in austere places like Afghanistan.

The Fuel Efficient ground vehicle Demonstrator (FED) Bravo will be on display at the Society of Automotive Engineers 2012 World Congress April 24-26 at Cobo Center in Detroit.

True to this year's SAE 2012 theme, Get Connected, the FED Bravo ventured into uncharted territory when the Army collaborated with students at the College for Creative Studies (CCS) in Detroit, to design the new concept vehicle. CCS has a thriving, highly respected automotive design program to feed the styling studios of the Big Three car companies. A group of 18 CCS students designed the vehicle to meet specific Army requirements for fuel economy, performance, protection, payload and interior layout.

The Army's Tank Automotive Research, Development and Engineering Center (TARDEC) in Warren, Mich., will have a significant presence at the show. In addition to the public debut of the FED Bravo vehicle, the display will also feature a small TM3 microgrid system. When the FED Bravo plugs into the TM3, it is capable of providing power for Forward Operating Bases (FOBs) and other small military outposts, significantly reducing power requirements, making Soldiers more efficient and safer. There will also be a scale model of the Army's new Ground Systems Power and Energy Laboratory (GSPeL) on display at SAE. The Army's green energy future is now!



*The Army's FED Bravo concept vehicle will be on display at the SAE 2012 World Congress.*

– more –

**TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.**

## **ABOUT FED BRAVO**

FED Bravo was funded by the Secretary of Defense and developed by TARDEC engineers in conjunction with industry partner WTSI. It features:

- Road-coupled parallel hybrid drive system. The front axle is powered by an electric motor, while the rear-wheel-drive is linked to a hybrid fuel-powered and electric system.
- Ford 4.4-liter twin turbocharged V8 diesel engine, capable of producing 268 hp providing ample power and mobility for military operations.
- Integrated starter-generator that shuts off the engine during idle time and restarts it when the driver touches the accelerator, which improves fuel economy and reduces emissions.
- Six-speed automatic transmission coupled with an advanced lithium-ion battery with high energy and power density.
- The full-power hydraulic brake system with antilock brakes is combined with the vehicle's steering system to supply the hydraulic pressure demands for the steering, eliminating a second pump and improving efficiency.
- Carbon ceramic brake rotors with advanced coating for durability, plus low-drag aluminum brake calipers.
- Tubular space frame chassis for better rigidity-to-weight ratio combined with armored cab and V-shaped hull for protection from blasts.

*The Army's FED Bravo  
"window sticker."*

## **ABOUT TARDEC**

Headquartered at the U.S. Army Detroit Arsenal in Warren, MI, TARDEC is a major research, development and engineering center for the Army Materiel Command's Research, Development and Engineering Command and an enterprise partner in the TACOM Life Cycle Management Command. 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; Ground Vehicle Robotics; Force Projection; and Vehicle Electronics and Architecture. [www.tardec.army.mil](http://www.tardec.army.mil).

Companies interested in partnering with the Army or testing in the GSPeL can contact TARDEC through the Ground Vehicle Gateway: [www.groundvehiclegateway.com](http://www.groundvehiclegateway.com).