

# Press Release



**Dec. 1, 2009**

**For Immediate Release**

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Release # 0964

## **Army Vice Chief of Staff Tours TARDEC at Detroit Arsenal**

DETROIT ARSENAL, WARREN, MI — Further solidifying the Department of Defense's (DOD's) view that the U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC) is a critical military and economic driver in Michigan and the Nation, U.S. Army Vice Chief of Staff General Peter Chiarelli toured TARDEC's facilities.

During his Nov. 24 visit, General Chiarelli experienced a first-hand account of how TARDEC is addressing its top priority – delivering the most advanced ground vehicle technology solutions to warfighters.

Over the course of a six-hour tour, General Chiarelli spent time discussing advanced vehicle ground system technologies with TARDEC's Director Dr. Grace Bochenek and her team of scientists, researchers and engineers.

“TARDEC is important to the Army and is providing the military with the kind of ground vehicle systems leadership to make complex product development decisions,” said General Chiarelli. “The organization's capabilities are impressive, especially at the systems level. Work being done here in southeastern Michigan is bringing forward the assets the U.S. Army needs around the world.”

TARDEC employs a community of world-class research and development experts who are working on vehicle technology areas including modeling and simulation, powertrain systems, robotics, advanced batteries, alternate energy, lightweight materials, and fuel consumption and efficiencies. In addition, TARDEC currently has Test Service Agreements with a number of local companies. Under these agreements, the firms can access TARDEC's one-of-a-kind laboratories for testing. TARDEC is open to exploring more of these arrangements going forward.

“Everyone at TARDEC is proud that General Chiarelli could meet the talented people, be exposed to our knowledge base, and hear about the research and testing capabilities contained here,” explained Bochenek. “By bringing the people, the expertise and the laboratory research space together, we are compressing development cycles and delivering the most technologically-advanced and integrated ground vehicle systems to our Nation's warfighters.”

**TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.**

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Highlights of the General's tour included:

- TARDEC's Modeling and Simulation, Testing and Validation (MSTV) laboratory: At the heart of everything TARDEC does, MSTV serves as the analytical foundation upon which all of the organizations' work is based. The advanced technology solutions TARDEC provides begin as cutting-edge concepts that must undergo rigorous testing and analysis to ensure they meet the Army's exacting requirements. TARDEC's MSTV programs significantly shorten the development cycle, which leads to faster technology integration into the vehicles themselves.
- Autonomous Platform Demonstrator (APD) demonstration: The APD – which is the Robotic Vehicle Control Architecture's integration platform – tests hybrid-electric drive, advanced suspension and thermal management systems. It is capable of reaching speeds of up to 50 miles per hour and is helping engineers to develop, integrate and test next-generation UGV mobility technologies.
- TARDEC's Prototype Integration Facility: TARDEC's one-stop shop for design, machining, metalworking, coating and assembly capabilities, the shop develops system and subsystem designs and prototypes and integrates advanced technology in current and future ground systems, bridging the gap between research and development and production and fielding, then through rapid prototyping.
- TARDEC's Power and Energy (P&E) initiatives: Power demands on the battlefield have risen at an exponential rate. It is more important than ever to make sure the military's ground vehicles are both high-powered and energy efficient. TARDEC is taking on the challenges through its advanced P&E initiatives such as the development of advanced lithium-ion batteries that improve energy storage capabilities; research into electric, hybrid and fuel cell technologies; and much more. The strategies TARDEC is developing have the potential to change how the military uses fuel and energy.

In addition to work currently underway, General Chiarelli was updated on the progress of the new 30,000-square-foot Ground Systems Power and Energy Lab (GSPEL). Last August, TARDEC broke ground on the DOD's revolutionary laboratory complex that will serve as the cornerstone for the Army's next generation of advanced ground vehicle power and energy solutions.

TARDEC's GSPEL will be an eight-labs-in-one complex and will have capabilities unlike any other facility in the world, including the ability to test entire vehicles along with individual vehicle system components in a wide variety of environmental conditions.

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*Photos: Four images are available for use with this release. Caption information follows. To download photos, go to [www.tardec.info/pressreleases/](http://www.tardec.info/pressreleases/).*

## **091124-A-2361D-078**

Ground Vehicle Power and Mobility Associate Director Chuck Coutteau, foreground left, details TARDEC's Power and Energy initiatives to Army Vice Chief of Staff General Peter Chiarelli, TARDEC Director Dr. Grace Bochenek and Military Deputy COL Robert Fletcher Nov. 24. (U.S. Army TARDEC photo by Bill Dowell.)

## **091124-A-2361D-093**

Energy Storage Team Leader Sonya Zanardelli, right, explains TARDEC's Power and Energy initiatives such as the development of advanced lithium-ion batteries that improve energy storage capabilities to Army Vice Chief of Staff General Peter Chiarelli, center. TARDEC Director Dr. Grace Bochenek, third from left, and Military Deputy COL Robert Fletcher, left, escorted the general around TARDEC, a critical military and economic driver in Michigan and the Nation, Nov. 24. The general experienced a first-hand account of how TARDEC is addressing its top priority – delivering the most advanced ground vehicle technology solutions to warfighters. (U.S. Army TARDEC photo by Bill Dowell.)

## **091124-A-2361D-150**

Army Vice Chief of Staff General Peter Chiarelli, fifth from left, and his entourage watch a TARDEC-developed Autonomous Platform Demonstrator during his visit to the Detroit Arsenal in Warren, MI, Nov. 24. (U.S. Army TARDEC photo by Bill Dowell.)

## **20091124-A-7182N044**

Army Vice Chief of Staff General Peter Chiarelli, third from left asks TARDEC Engineer Kevin Kauth, left, a question concerning ongoing engine testing as TARDEC Director Dr. Grace M. Bochenek second from left, Ground Vehicle Power and Mobility Laboratory Director Mike Reid, second from right, and TARDEC Military Deputy COL Robert Fletcher, right, look on. General Chiarelli experienced a first-hand account of how TARDEC is addressing its top priority – delivering the most advanced ground vehicle technology solutions to warfighters during a visit to the Detroit Arsenal, Warren, MI, Nov. 24. (U.S. Army photo by SSG Margaret Nelson.)

## **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 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 provide superior capabilities for Future Force integration. TARDEC's technical, scientific and engineering staff lead cutting-edge research and development in

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Ground Systems Survivability; Power and Mobility; Intelligent Ground Systems; Force Projection; and Vehicle Electronics and Architecture.

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