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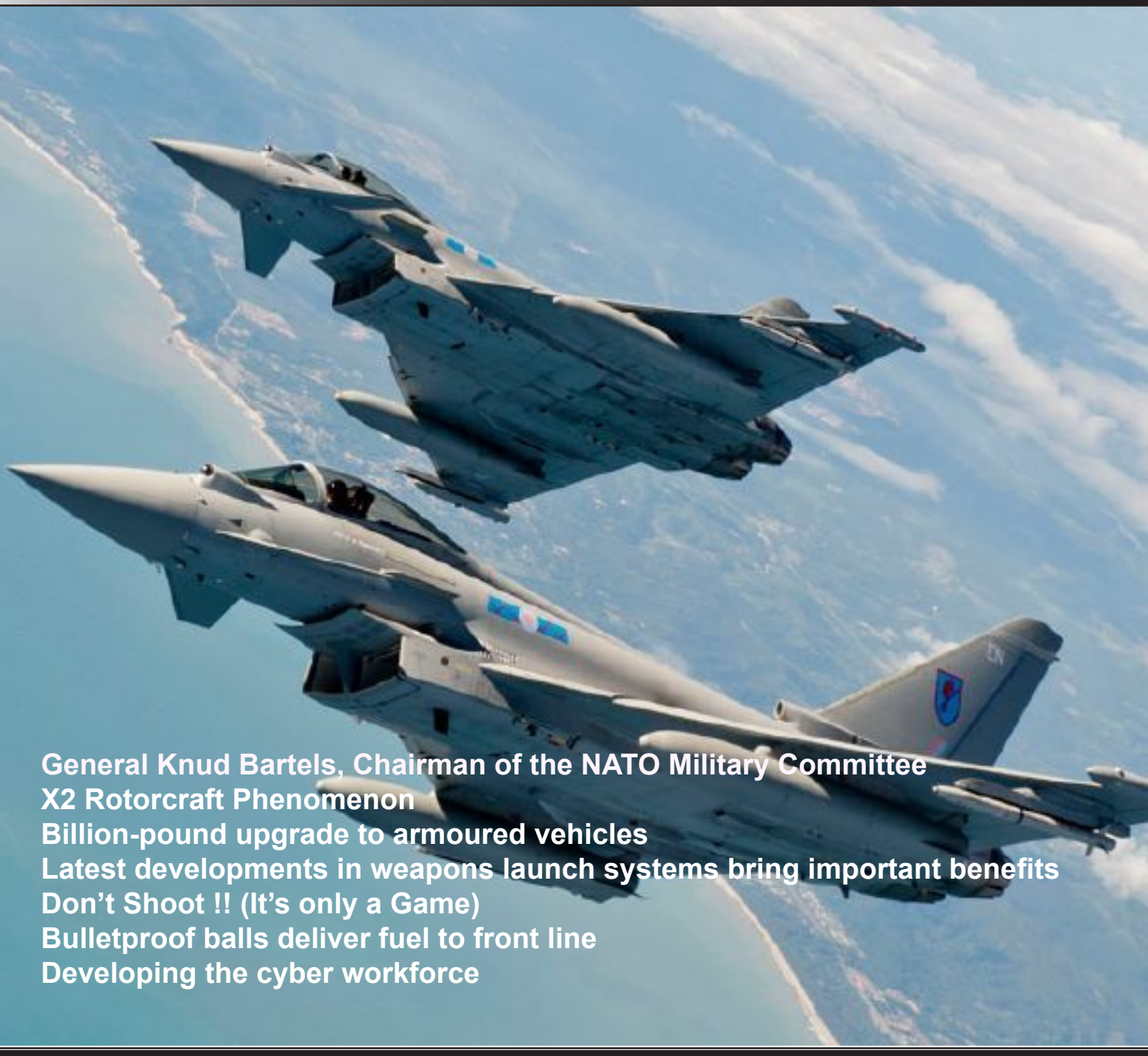

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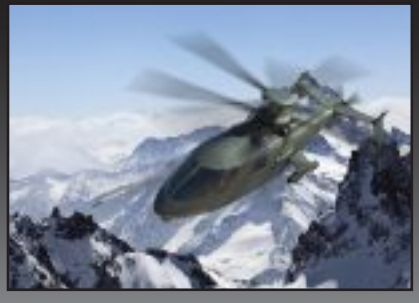

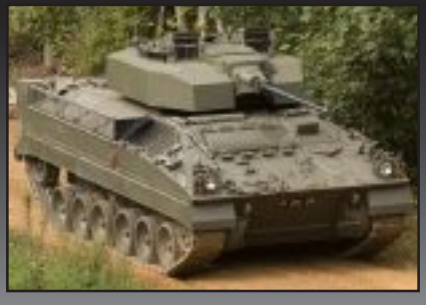

The Efficiencies of Teamwork

By Kristen A. McCullough U.S. Army PEO STRI Public Affairs Officer

Even before organizations across the Army and Department of Defense were asked to "do more without more," the U.S Army Program Executive Office for Simulation, Training and Instrumentation (PEO STRI) was realizing savings through a simple yet multifaceted concept: teamwork.

"As you know, the Army is a 'we' organization, not a 'me' organization. PEO STRI is one element of the Army team working to ensure our military is the best trained fighting force in the world," Dr. James Blake, the program executive officer for PEO STRI, said.

Working with other Army elements and with other military services toward a common goal has produced fiscal efficiencies through reduced manpower, elimination of duplicative efforts and subsequent lower costs, Blake said. Different approaches to teamwork yield different benefits, yet all can lead to high-quality products for warfighters at demonstrably lower costs than if the products had been undertaken by PEO STRI alone.

ONE DESIGN, MANY USES

PEO STRI's egress assistance trainer programs are key examples. When PEO STRI received an Operational Needs Statement in July 2006 to procure a training device to limit injuries sustained during vehicular rollovers, a joint effort was launched to rapidly develop the HMMWV Egress Assistance Trainer (HEAT), which instructs Soldiers how to safely get out of an overturned vehicle. Working with PEO Combat Support and Combat Service Support, engineering assistance from the Research, Development and Engineering Command's Tank Automotive Research, Development and Engineering Center and manufacturing capability at Red River Army Depot, the HEAT was developed in five months and deployed around the globe, to include locations in the theaters of operation, by September 2007. Using the same construct and design premise for the HEAT, PEO STRI soon after developed the MRAP Egress Assistance Trainer (MET) to teach Soldiers how to properly exit a rolled-over MRAP vehicle.

"By adding the additional design capabilities of the the eight different MRAP vehicle cabs to the already proven HEAT system, the team provided a training capability in nine short months from concept development to the first fielding location at Camp Buehring, Kuwait," Frank Schlemmer, project director for the HEAT and MET devices, said.

The HMMWV Egress Assistance Trainer (HEAT), pictured above, teaches Soldiers how to quickly and safely exit an overturned vehicle. Using the same construct and design platform as the HEAT, the MRAP Egress Assistance Trainer teaches Soldiers how to properly exit a rolled-over MRAP vehicle. Since April 2010, all Warfighters, civilians, contractors and foreign nationals have been required to train on the egress trainer before deploying to theater.

The HMMWV and MRAP egress trainers, both of which are Army solutions for Army problems, not only train Soldiers but Warfighters from the other services that are getting ready to deploy to the combat zone.

"A U.S. Central Command message from April 17, 2010 requires all troops, civilians, contractors and foreign nationals that are required to ride in an MRAP vehicle to go through the training drills on the MET," Schlemmer noted. Back in November 2010, the trainers at Camp Buehring alone trained 100,000 service members prior to their deployment to Iraq. To date, each of the military services has the following number of MET devices: Army - 47, Air Force - 20, Marine Corps - 18, and Navy - 10, each training hundreds and thousands of combat-bound personnel worldwide. "We know we are not in this alone. Just like our Soldiers are working hand-in-hand with their fellow Marines, Sailors and Airmen in Iraq and Afghanistan, we in the simulation and training community - military, contractors and academia alike, are one force supporting the strongest armed forces in the world," Blake commented.

INDUSTRY PARTNERS

Much like PEO STRI's teaming with other Army groups, the organization also partners with those in the modeling and simulation industry to ensure our Warfighters are receiving the best possible training, even in this era of budgetary constraints. Although government partnering with industry is not an efficiency in and of itself, it certainly proves to be a wise way to do business.

For instance, PEO STRI, in partnership with its industry partners, enhanced the Common Driver Trainer program to include the MRAP All Terrain Vehicle (M-ATV). With guidance from the Department of the Army, and the expertise from industry, PEO STRI was able to field M-ATV driver trainers quickly and affordably. The M-ATV variant for the Common Driver Trainer allows Soldiers to drive these vehicles before they get to Afghanistan and under a number of hazardous driving conditions like narrow roadways and inclement weather.

"The M-ATV Common Driver Trainer was tasked to PEO STRI June 26, 2009 and we fielded the first system November 19, 2009," Maj. Cassandra Forrester, the project director, said noting a mere 147 day turnaround from receiving the requirement to getting the trainer into the hands of the warfighter.

PEO STRI looks at the Common Driver Trainer program as a prime example of efficiency. This family of simulators has stepped up to the plate time and time again to meet the training requirements of our Army. Using common components, the simulator can be transformed to train Soldiers to drive everything from a Stryker to a tank to an MRAP.

"The cost avoidance yielded by using the existing Common Driver Trainer design is valued at approximately

$24.3 million," Forrester advised.

Additionally, PEO STRI recently integrated the geo-specific terrain database for Afghanistan into the Common Driver Trainer program. Because of these efforts, Soldiers can virtually "drive" on the actual streets in Afghanistan. Similarly, they added the Afghanistan database into other simulators, like the Close Combat Tactical Trainer, Call for Fire Trainer, Advanced Gunnery Training System, Common Driver Trainer and Aviation Combined Arms Tactical Trainer, thereby allowing Soldiers to virtually train in their actual assigned deployment locations. As one can imagine, the imagery significantly adds to the fidelity of the training, and the technology reuse undeniably decreases the expense of the realism.

GEOGRAPHIC EFFICIENCY

The ease at which PEO STRI teams with other organizations can often be attributed to its location in Central Florida, known to many as the mecca for military modeling and simulation. As part of "Team Orlando," PEO STRI sits alongside all of the military services' primary simulation and training providers, academic institutions that focus on simulation and industry partners that provide expertise to the military and universities.

This collaborative spirit dates back to 1950 when the Army and Navy simulation components signed an agreement to work in partnership on training and simulation systems that train our service members. The signing of the document launched a lasting training partnership that recently reached its 60-year anniversary and is the longest known standing agreement between any of the U.S. military services. The strong relationship between the services continues to yield fiscal efficiencies. For example, PEO STRI signed an agreement with the Marine Corps' Program Manager for Training Systems to work together on live training systems. When the Marine Corps saw that nearly 80 percent of their requirements were already being met by the Army through the Homestation Instrumentation Training System program, they piggybacked on the Army to get the training into the hands of Marines more quickly and save program dollars.

"The Marine Corps' estimated cost and schedule for building a new alternative system would be approximately $19 million and nine years," Michael Dillon, the PEO STRI project director for the effort, said. The Marine Corps' actual cost of leveraging the Army's 80-percent solution was $8 million and the actual time spent from concept development to fielding was two years. Because of the time and money saved, the Marine Corps reimbursed the Army $300,000.

AGENCY COLLABORATION

Collaboration also provides interagency efficiencies. The Department of Homeland Security uses PEO STRI's Intelligence Electronic Warfare Tactical Proficiency Trainer to help law enforcement students with their interviewing skills. The technology reuse reduces the cost of creating a new, but similar technology, and the high expense of hiring instructors and role players.

"The Department of Homeland Security realized cost benefits by reducing the number of instructor hours because the system is made available to students in a self-operated mode for after-hour use," Rick Jimenez, the system's lead engineer, said."Students practice basic interviewing skills in a virtual environment which prepares the student for a more productive engagement in front of live role players, thereby reducing the number of role-player hours required for training."

Soldiers use PEO STRI's Intelligence Electronic Warfare Tactical Proficiency Trainer to practice their tactical questioning skills. The Department of Homeland Security also uses this system to hone its law enforcement students' interviewing skills. By using PEO STRI's technology, DHS has saved time and money; the saved resources were used to create new scenarios to train Army and law enforcement personnel.

Due to the savings yielded from the acquisition approach of leveraging an existing contract and training capabilities, PEO STRI and the Department of Homeland Security were able to apply those resources to scenario and content generation for the system.

"The effort resulted in a quicker, more affordable production of training capabilities for our non-Department of Defense customer," Jimenez noted. It also led to the content creation of scenarios that are of use to Army Soldiers and "greatly enhanced the original product at a significantly reduced and shared cost."

Although partnership and teamwork does have its challenges, like the time it takes to spend coordinating efforts, the concern about control and each party upholding their end of the bargain, PEO STRI senior leaders and program managers alike agree that the rewards greatly outweigh the trials.

"When meeting the demands of our uniformed service members, we see an immense value in collaborating, coordinating and cooperating with the joint community, our industry partners and academia," Blake concluded. "Shared education and experience fosters expertise, and we use that expertise to provide efficiencies in the products and services we provide to our customers."

About the author:
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