

From the Army Acquisition Executive Test and Evaluation



This edition of *Army AL&T* Magazine highlights the important role of test and evaluation (T&E) in fielding the safest, most reliable weapon systems and equipment to our warfighters based on operational effectiveness, suitability, and survivability on the battlefield. The T&E community is a major stakeholder in providing our warfighters with the equipment they need, when they need it. Also, T&E is an integral part of the process that enables the acquisition community to equip and sustain the world's most capable, powerful, and respected Army.

The acquisition community is indeed fortunate to enjoy a close working relationship with the T&E community, including MG Roger A. Nadeau, Commanding General of the U.S. Army Test and Evaluation Command (ATEC), and James C. Cooke, Director of the U.S. Army Test and Evaluation Office, which directly supports the acquisition process at headquarters. Their dynamic leadership significantly enhances the process of providing world-class capabilities to our warfighters throughout the entire acquisition life cycle.

Because of the need for continuous assessments throughout the life cycle of Army weapon systems and equipment, there are test events taking place at the Army's test ranges within the United States and in Afghanistan and Iraq every single day. T&E provides knowledge to assist decision makers in managing the risks involved in developing, producing, operating, and sustaining weapon systems and equipment. These T&Es provide knowledge of system capabilities and limitations to the acquisition community for use in improving the system performance and to the user community for optimizing system use in operations.

In the Army, T&E has taken on increased importance during the last 7-plus years as we continue to meet the urgent needs of our warfighters in Afghanistan and Iraq. We learned quickly that rapid acquisition could not be accomplished the old-fashioned way. Rapid acquisition requires quick assessments with ATEC's Capability and Limitation (C&L) reports that provide decision makers with a performance analysis of the system or equipment, along with its strengths and weaknesses. For the acquisition community, the C&L data allows us to make procurement and fielding decisions, as well as to pinpoint where further testing is essential. It also allows the user community to better understand where the system or equipment best fits into its mission. Fielding programs rapidly to today's warfighters is our top priority, and ATEC is ready to provide the T&E support to ensure systems are effective, suitable, and survivable.

It is clear that T&E must have a seat at the table from the very beginning of the system life cycle to examine design options, identify potential problems, and eliminate redundancy and duplicative testing. The goal is early identification of technical, operational, and system deficiencies so that appropriate and timely corrective actions can be developed to reduce program risk, developmental timelines, and program costs.

As with all of our endeavors, we find that our people are our most important asset. It is the expertise of our T&E workforce and our acquisition workforce, coupled with their continuous education and training, that allows us to meet the challenges of equipping and sustaining an Army deployed to two theaters and nearly 80 countries worldwide. As we work to test and evaluate weapon systems and equipment for the acquisition and user communities, we are challenged to make better use of modeling and simulation in the T&E process. We are further challenged to integrate developmental testing (DT) and operational testing (OT) when and where appropriate. DT encompasses models, simulation, and engineering-type tests to verify that design risks are minimized, system safety is certified, achievement of system technical performance is substantiated, and readiness for OT is certified. OT is the field test with real users of a system or equipment under realistic operational conditions. Effective integration of DT and OT means use in the evaluation of all available, relevant information and data from both contractor and government sources, as well as the collaborative use of DT and OT resources to learn as much as possible, as early as possible.

There are many significant T&E success stories for the acquisition community. From the test-fix-test cycle of the Mine Resistant Ambush Protected Vehicle; to the CH-47F's standardized reliability, availability, and maintainability data collection methodology and software application from the first flight forward; to T&E of a wide range of improvised explosive device jammers, it is clear that mission capability and operational support were both enhanced by early involvement on these programs.

The continued close cooperation between the T&E community and the acquisition community ensures that our warfighters will always have what they need, when they need it. The adage that "we never want to send our Soldiers into a fair fight" is at the core of our mutual efforts.

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