

Director's Introduction



In 2023 this office celebrated 40 years of service to the Department of Defense and Congress. While we honor our past, we are continuing our efforts to meet our strategic intent to *transform test and evaluation to enable delivery of the world's greatest warfighting capability at the speed of need*. U.S. systems are growing more complex, and those of our adversaries are becoming more sophisticated, demanding on-par test and evaluation capabilities, tools, methods, and processes. In April of this year, we issued the DOT&E Strategy Implementation Plan – 2023. This plan is designed to capitalize on the latest advances in science and technology to modernize our craft, enable our agility and efficiency, and continue to inspire trust and confidence in system performance under wartime conditions.

ENHANCING OPERATIONAL EVALUATIONS

To enable adequate representation of the operational environment in test and support the evaluation of the operational performance of DoD systems and capabilities in multi-domain operations, operational and live fire test and evaluation must lean more aggressively on automation, digital tools, and technologies. This includes evaluations throughout operations and sustainment as our systems and those of our adversaries as they both continue to evolve more dynamically over time. DOT&E's advocacy for multi-domain, realistic threat environments – live, virtual, and constructive – to support adequate operational and live fire test and evaluation continues to be a priority.

Digital tools were effectively used to inject combat-realistic target scenes into the live Patriot batteries to support operational testing of the Army's Patriot missile defense system. The fully accredited digital tool suite immersed the system and its operators into simulated, full-scale conflict; this enabled us to understand the Patriot system's performance under a wide variety of combat conditions, including simultaneous missile, cyber, and electronic warfare attacks. Similarly, operational testing of the most recent variants of the Aegis Weapon System relied on a simultaneous anti-air warfare and ballistic missile defense scenario with challenging digital threat surrogates, advancing the warfighter's confidence in Aegis under today's combat conditions.

The Joint Simulation Environment (JSE) – which provides a digital representation of test environments and integrates additional modern threat types, in greater densities, with threat capabilities not available on the open-air ranges – was critical to completing the F-35 initial operational test and evaluation (IOT&E), culminating in the final 42 percent of the required mission trial events. Testing in the JSE was accomplished after a thorough verification, validation, and accreditation (VV&A) process, setting a baseline that must continue to be updated as new F-35 capabilities and other weapons platforms such as the Navy’s F/A-18E/F Super Hornets, the Air Force’s F-22 Raptors, and the Air Force’s Next Generation Air Dominance (NGAD) system are delivered to the warfighter.

ADDRESSING ADVANCED, PERSISTENT THREATS

Operational and live fire test and evaluation of DoD systems and warfighting capabilities in contested, congested, and constrained operations is key to enabling the *operational effectiveness, suitability, survivability, and lethality* of our joint force. Operational and live fire testing identifies problems prior to fielding and supports improvements in systems to avoid operational failures in battle.

The Russia-Ukraine war, while tragic, is a real-world validation of the value of operational and live fire test and evaluation. U.S. systems such as the Javelin Anti-Tank Weapon System and the HIMARS M142 High Mobility Artillery Rocket System have proven themselves on the world-stage by providing force protection and bringing overwhelming firepower and mobility. The operational performance observed in this conflict is a testament to our acquisition process and the significance of adequate operational and live fire test and evaluation. This data, collected against the operationally representative and relevant advanced and persistent threats, provide the DoD’s leadership, Congress, our Service members, and the public with direct insight into whether our systems and capabilities can deter wars and ensure national security.

PRIORITIZING CHINA AS THE PACING CHALLENGE

As the 2022 National Defense Strategy states, “China will remain our most consequential strategic competitor,” for decades to come. FY23 marked the re-establishment of DOT&E’s Joint Test and Evaluation (JT&E) Program critical to the support of joint warfighting concepts, mission engineering, and development and validation of new data-based tactics, techniques, and procedures. JT&E is committed to identifying innovative joint test concepts and approaches intended to accelerate and advance the support to U.S. Indo-Pacific Command’s (USINDOPACOM) *Blind, See, Kill* initiatives.

Our Joint Technical Coordinating Group for Munition Effectiveness (JTCEG/ME) program reached a major achievement this year. JTCEG/ME was invited to support the Department-wide Joint Targeting Intelligence Modernization initiative to accelerate and optimize the selection, analysis, and prioritization of targets while enabling targeting at scale and integration of kinetic and non-kinetic fires across all domains. This not only supports USINDOPACOM but other combatant commands as well.

Our Cyber Assessment Program (CAP) continued the support to USINDOPACOM and the other combatant commands by increasing the threat realism of their exercises, affording warfighters and defenders with excellent opportunities to fight through realistic contested environments. These assessments also underscore the importance of Zero Trust best practices, and the survivability of cross domain solutions needed to counter the escalating offensive capabilities of our potential adversaries.

TAKING CARE OF OUR PEOPLE

Rapid technological changes are shifting the skills and scale required to conduct operational and live fire test and evaluation. To build resilience and readiness, we must update and maintain the workforce competencies, establish a complementary continuous learning campaign, and enhance the talent

management and talent acquisition initiatives to meet future mission demands. We look forward to teaming with USD(P&R) to leverage their Advanced Distributed Learning platform and USD(A&S) to leverage their Defense Civilian Training Corps.

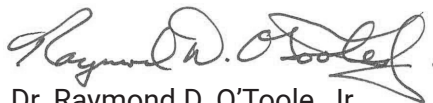
SUCCEEDING THROUGH TEAMWORK

I want to thank our partners within DoD and across industry, academia, national laboratories, and federally funded research and development centers for supporting our strategic initiatives and actions. While there is still work to be done, we have made significant progress this year towards meeting our strategic objectives. I also want to thank Congress for their continued support, and for encouraging us to innovate. Our global allies and partners who join us on the test and evaluation transformation journey deserve our gratitude as well. Finally, thank you to my staff and our warfighters for working as a formidable team to serve and defend our Nation.

WAY AHEAD

In December of 2023, I was honored to start serving as the Acting Director of DOT&E when the former Director of DOT&E, HON Nickolas Guertin, transitioned to become Assistant Secretary of the Navy for Research, Development, and Acquisition. On behalf of DOT&E and the larger Operational and Live Fire Test and Evaluation community, we applaud the numerous exemplary accomplishments of HON Guertin during his two years leading DOT&E.

I will serve in my new role until a new DOT&E Director is appointed by the President following Senate confirmation. In the meantime, I am confident DOT&E will continue to serve the Department of Defense and Congress, and my staff will give me their best efforts as we embrace the opportunities ahead.



Dr. Raymond D. O'Toole, Jr.
Acting Director

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