Global Security Office collaborates with Weapons Program to develop next-gen DFEAT tool; receives DOE accolades

April 13, 2020

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In the aftermath of a U.S. Government response to an incident involving a radiological dispersal device (RDD) or an improvised nuclear device (IND), the National Nuclear Security Administration’s (NNSA) Disposition and Forensic Evidence Analysis Team (DFEAT), a component of the Nuclear Emergency Support Team (NEST), provides technical expertise in support of the disassembly and analysis of such devices. DFEAT is a key element of the NNSA Office of Counterterrorism and Counterproliferation’s (CTCP) nuclear forensics mission. DFEAT leverages the technical expertise of emergency response volunteers from within the national laboratories and production plants to assist with the safe disassembly or destruction and forensic analysis of threat devices.

The DFEAT Program, formerly known as the Disposition Program, was originally stood up in 2010. During the initial stages of the program’s development, there were critical lessons learned from unsuccessful device disassembly exercises. DFEAT determined that the disposition tooling was not readily adaptable for mission requirements and required an overhaul.

Since the early days of development, Brian Olsen, a Weapon Engineer Skill Set Manager from Los Alamos National Laboratory, has been the driving force in the analysis, engineering, development, testing, and production of the highly specialized tooling that supports DFEAT’s mission. In this role, his commitment and personal initiative to overcome the gaps and limitations of the early rudimentary tooling has led to the development of superior equipment.

In addition to leading the advancement of DFEAT’s current tooling equipment, Brian’s efforts have also paved the way for new processes and procedures that provide greater flexibility for complex configurations, while simultaneously addressing the broad range of possible assemblies that might be encountered. As a result, DFEAT’s current tooling configuration has closed all previously identified gaps, maintained the highest standards of operational safety, and strengthened our capability to support this vital U.S. national security mission.
Brian continues to employ innovative solutions, tackling the dynamic requirements that DFEAT’s unique tooling capabilities must meet. By leveraging graduate students for outside-the-box solutions, applying a common sense approach, and understanding of the limitations of training, Brian’s forward thinking achieved solutions that are easily applicable to the CTCP environment, all while saving dollars for the improvement of other critical capabilities.