

Operational Experimentation of a Diverse Research Portfolio: USAISR Strategic Planning

Todd S. Hall¹, Holly H. Pavlisca, BS, MHSA¹, Jeanette R. Little, BS, MS¹, LTC(P) Christopher H. Moon, MD², LTC(P) Gary L. Legault, MD²

¹United States Army Institute for Surgical Research, Fort Gordon, Georgia, ²United States Army Institute for Surgical Research, Fort Sam Houston, Texas

Introduction

The establishment of the US Army Transformation and Training Command (T2COM) in October 2025 has shifted the pattern of operational experimentation to Combat Training Center (CTC) events.

While CTCs provide high-fidelity robust operational scenarios, this has reduced opportunities for iterative refinement and early-stage prototype testing.

To adapt, USAISR has reorganized to ensure that the outputs of the research portfolios are properly prepared for future CTC events. This model has prioritized lab-focused, limited objective, and unit training events as the foundational steps to prepare for CTC events.



ISR Team Members Training Service Members How to Use a Telemedicine Application with Tactical Radios

Methods

Internal focused assessments will evaluate baseline performance, usability, and technical feasibility. Controlled environments enable rapid iteration and refinement before technologies are introduced into more complex settings. Following lab-level testing, technologies transition to limited objective and unit training events to identify immediate shortcomings and allow for on-the-spot adjustments.

Results

Once the lessons learned from limited objective/unit training events are concluded, USAISR intends to leverage joint staff and theater level events (e.g., Bold Quest, Yama Sakura 87, and Arcane Thunder) as risk reduction events, prior to CTCs.



Autonomous Sensor Based Data Collection Event at Fort Detrick

By embedding experimentation earlier in the lifecycle, USAISR will ensure that technologies are mature and better aligned with operational needs before CTC exercises.

These efforts are expected to demonstrate the value of lab-focused and limited objective experimentation in accelerating development, identifying critical gaps, and ensuring operational relevance.



Field Use of the Cerigard+ Antimicrobial Barrier Foam Roll at AEWE

Discussion

USAISR encounters two key considerations under this migration: securing adequate resources and fostering strategic partnerships. Specifically, partnerships with individual military units, relevant Future Capability Directorates (FCDs), and operational Programs of Record (POR) are essential to success.



Training Autonomous Casualty Care Technologies with DARPA

While these considerations require careful planning and coordination, this strategic shift aligns seamlessly with broader military transformation efforts, which emphasize speed, flexibility, and iterative development.

By leveraging historical data, predictive analytics, and real-time feedback, the new model supports rapid development and ensures that military medical technologies are operationally relevant and resilient. This approach aligns with the broader acquisition transformation strategy, to deliver impactful capabilities to the Warfighter.

Acknowledgements: The following individuals are acknowledged for their support to ISR operational experimentation efforts: Mr. Jonathan Abercrombie, Dr. Omar Badawi, SSG Lam Bui, Dr. Jonathan Chambers, Mr. Valmik Desai, Ms. Alix Donnelly, Mr. Nate Fisher, SFC Kwanisha Jones, Mr. Zach Lattimore, Dr. Jaeyeon Lee, Dr. Kai Leung, Mr. Larry Markins, Ms. Moriah Newman, Mr. Matt Quinn, Mr. Ethan Quist, Dr. Ericka Stoor-Burning, Mr. Jeff Robbins, Mr. Jesse Steffens, and SPC Dustin Turner



To learn more, visit:
usaISR.health.mil