Military Intelligence Readiness Command Processing, Exploitation, and Dissemination: Success in Establishing Global Reach Intelligence Support

by Chief Warrant Officer 3 Scotty Stock

Introduction

In 2019, LTG Scott Berrier, then-Army Deputy Chief of Staff, G-2, wrote in the foreword to the *United States Army Intelligence Processing, Exploitation, and Dissemination (PED) Concept of Operations,* "The Army Processing, Exploitation, and Dissemination (PED) Enterprise must modernize to enable the Joint Force to compete short of armed conflict, penetrate and disintegrate adversary stand-off capabilities, exploit windows of opportunity, and return to competition."[1] To meet this objective, the Military Intelligence Readiness Command (MIRC) established four operational Army PED reach sites at selected Army Reserve Intelligence Support Centers (ARISCs). These locations allow MIRC personnel to integrate into the Army's PED enterprise to provide stakeholders with the necessary capabilities to support forces globally. From these PED reach sites, MIRC analysts provide critical information to support the requirements of the combatant commands. The MIRC adopted the Army's geospatial intelligence program of record software and training strategies to meet the Army's PED requirements. The intelligence architecture and software solution allow the MIRC PED reach sites to integrate into the multidomain intelligence infrastructure.

Background

The MIRC is the U.S. Army Reserve's premier functional command for intelligence. It comprises over 70 percent of the Army Reserve's military intelligence force and manages intelligence training and operations throughout the continental United States. The four PED reach sites provide operational and training support to meet the Army's PED mission requirements. The MIRC is currently operating its fourth mission from a MIRC PED reach site in support of U.S. Army Forces Command (FORSCOM). The MIRC has leveraged the lessons learned from these efforts to develop training pipelines to meet future and emerging PED requirements. To establish the Army Reserve PED reach sites, the MIRC employed the U.S. Army Intelligence and Security Command's (INSCOM) Converged Infrastructure Network and software-defined workstation for the Distributed-PED. The MIRC's Fixed-PED workstation uses the Geospatial eXploitation Products (GXP) Platform™ and SOCET GXP®.

Strategic Value

As a key Army PED stakeholder, the MIRC supports operations through mobilization and as contingency sites. The key to establishing a full operational capability PED reach site was ensuring network redundancy. This redundancy provides the site with a primary and alternate capability to remain operational and is critical to establishing an effective primary, alternate, contingency, and emergency (PACE) plan. This ability enables the Army PED enterprise to incorporate the MIRC PED sites into the holistic enterprise PACE plan. The MIRC PED reach sites provide the Army PED enterprise

with more than 130 analyst positions to support PED operations. These sites have also been used as continuity of operations plan sites in support of global reach operations.

Connectivity

To install the necessary connections to sustain PED operations, the MIRC partnered with the Defense Information Systems Agency (DISA), the Unified Video Dissemination Services (UVDS) team, INSCOM, and FORSCOM. Each of these partners provides a critical piece for the PED connectivity. DISA provides the circuit connectivity, and its UVDS team provides connection to full motion video services over a redundant Layer 3 Virtual Private Network. The UVDS connection provides the video for the MIRC's Fixed-PED workstations. DISA also provides the connectivity for the Distributed-PED, and INSCOM provides the services necessary to conduct PED on the software-defined workstation. These diverse PED connections meet FORSCOM's requirements to be a full operational capability PED reach site. The diversity is key to maintaining a PACE plan at the reach sites that can be executed to minimize any loss in support. In November 2019, at the MIRC's second evaluation of the full operational capability PED reach site, the FORSCOM PED chief identified the MIRC's PED reach ability to switch between mission networks within seconds as the "gold standard." To match the facility capability, the MIRC demonstrated its ability to train and mobilize Soldiers in support of operations at the PED reach sites.

Unified Video Dissemination Services

The DISA UVDS architecture is a next-generation full motion video PED system that provides persistent, focused, real-time, operational information flow to tactical and enterprise end users worldwide. Its six globally dispersed hubs provide dynamic, proximity-based access to real-time full motion video through the unified video portals. Its data-agnostic network connects multiple Department of Defense gateways, combatant commands, military Services, operation centers, and intelligence agencies.[2]

Software

To support the missions, the MIRC employs a variety of software across both the Fixed-PED and the Distributed-PED. The Fixed-PED workstations use the GXP Xplorer® and GXP InMotion™ Video Server plugins on the GXP Platform™ for data management and video streaming. The MIRC was the first Army organization to use this solution for its PED reach sites to meet FORSCOM's full operational capability requirement. To exploit the full motion video and data on the Fixed-PED workstations, the MIRC uses SOCET GXP® and GXP InMotion™ Video Desktop. The exploitation systems are used in the Distributed Common Ground System-Army,

the Army's program of record for the intelligence warfighter. The Distributed-PED, supported by the software-defined workstation, uses the Advanced Intelligence Multimedia Exploitation Suite (AIMES) to exploit and INSCOM services managed under the Converged Infrastructure Network. To publish the finished intelligence, the MIRC uses the Geospatial Intelligence Enterprise Tasking, Processing, Exploitation, and Dissemination Services (GETS). The mission manager choses the PED solution the team will use to conduct the mission.

Overview of the Software

GXP Platform™—creates software applications in the geospatial intelligence domain. The platform uses the GXP Xplorer® and GXP InMotion™ software products.[3]

GXP Xplorer®—is a data management application used to locate, retrieve, and share geospatial data.[4]

GXP InMotion™ Video Server—manages video exploitation tasks in an enterprise environment, allowing organizations to scale based on the number of video missions and analysts required.[5]

GXP InMotion™ Video Desktop—is a video analysis application.[6]

SOCET GXP®—is a geospatial-intelligence software product that uses imagery from satellite and aerial sources to identify, analyze, and extract ground features for product creation.[7] It combines image analysis, advanced photogrammetric techniques, remote sensing, and feature collection workflows into one package.[8]

Advanced Intelligence Multimedia Exploitation Suite (AIMES)—is a motion imagery exploitation system that enables intelligence analysts to fuse, exploit, and report on motion imagery data from a full range of sources. It helps break down single-source stovepipes to enable near-real-time and forensic fusion of full motion video and all-source intelligence information, as well as synchronized visualization of raw data, chat, and processed intelligence.[9]

Geospatial Intelligence Enterprise Tasking, Processing, Exploitation, and Dissemination Services (GETS)—improves situational awareness through a common, web-enabled geospatial intelligence and measurement and signature intelligence reporting and dissemination capability with a geodatabase, Google Earth, and GIS map servers.[10]

Operational Support

ARISCs are the MIRC's primary training platforms. When designated as PED sites, ARISCs shift focus and resources toward the management of the sites and support to PED missions. With additional contracting and active duty operational support resources, ARISCs have successfully maintained their PED sites and supported live operations multiple times. The MIRC provides 24/7 PED support to the

warfighter using an assigned 20-person mission through one of the MIRC's four expeditionary-military intelligence battalions. All four of the MIRC's expeditionary-military intelligence battalion formations have taken a turn at PED execution through this mission assignment, with the potential for expansion to a second PED line as Component 1 undergoes transformation in fiscal year 2023. The MIRC also developed the necessary instructors to complete the Army's job qualification standard required for all Soldiers mobilizing in support of PED operations.

The expeditionary-military intelligence brigades are the primary force support to PED missions. These organizations work directly with the MIRC's training team and ARISCs to meet the mobilization training and deployment requirements. This synergy between all elements has led the MIRC to deploy four teams in support of global PED operations for FORSCOM and more than 10 teams in support of special operations. The MIRC developed a facility and training capacity to meet the current fight but constantly looks to the future to sustain viability of support to PED operations. Training for large-scale ground combat operations remains a primary focus. Always Engaged is a MIRC-focused local training exercise held annually for its expeditionary-military intelligence brigades to complete Tier 3 and Tier 2 evaluations in support of large-scale ground combat operations. Globally Engaged increases the exercise complexity by challenging MIRC formations to employ and exercise their intelligence architecture in a remote environment. This series of exercises, coupled with the PED reach site's robust capability, enables the MIRC to aggressively modernize training and provide valuable intelligence to the warfighter.

Exercise Always Engaged

This Army Reserve military intelligence (MI) exercise develops and sustains MI Soldier technical skills by focusing on corps and theater-level intelligence operations. It is designed to train and evaluate rotational MI modified table of organization and equipment units and low-density sections/teams from non-rotational MI units in a fully integrated, multi-site, multi-discipline training environment.[11]

Exercise Globally Engaged

This Army Reserve MI exercise focuses on operational/non-rotational MI units'…capability to plan and execute tactical to strategic intelligence operations using current intelligence architecture. This exercise is designed to improve training readiness of MIRC formations and Soldiers through execution of operational intelligence support, live environment training, and reach-back support using MI weapons systems pointed at real-world, regionally focused mission data, in support of combatant commands and the intelligence community worldwide.[12]

Conclusion

PED operations continue to grow and evolve. The MIRC leverages its adaptability and innovation to meet emerging requirements for PED. As the operational environment evolves, the MIRC will be ready to meet the intelligence requirements to support the warfighter wherever the need occurs. Incorporating effective PACE plans, adopting Army solutions in innovative ways, and training Soldiers makes the MIRC ready to face future challenges. Always Engaged and Globally Engaged events will continue to challenge MIRC formations to better prepare them for large-scale ground combat operations. The MIRC stands ready to support the multi-domain intelligence infrastructure and ensure combatant command requirements are answered. It is Always Engaged!

Endnotes

1. Department of the Army, *United States Army Processing, Exploitation, and Dissemination (PED) Concept of Operations Version 3* (Washington, DC, 18 September 2019), 4.

2. "Cubic Awarded Contract from DISA to Continue Support for Unified Video Dissemination System," BusinessWire, March 5, 2020, https://www.businesswire.com/news/home/20200305005251/en/.

3. BAE Systems, *Geospatial eXploitation Products™ GXP Platform™* (2016), 1–2.

4. "GXP Xplorer® Overview," BAE Systems website, accessed 18 March 2021, https://www.geospatialexploitationproducts.com/content/product-videos/video-gxp-xplorer/.

5. "GXP InMotion™ Overview," BAE Systems website, accessed 18 March 2021, https://www.geospatialexploitationproducts.com/content/product-videos/video-gxp-inmotion/.

6. Ibid.

7. "SOCET GXP® Overview," BAE Systems website, accessed 18 March 2021, https://www.geospatialexploitationproducts.com/content/product-videos/video-socet-gxp/.

8. "SOCET GXP® v4.4," BAE Systems website, accessed 18 March 2021, https://www.geospatialexploitationproducts.com/content/socet-gxp/.

9. "SAIC Launches Advanced Intelligence Multimedia Exploitation Suite (AIMES)," Leidos website, https://investors.leidos.com/news-and-events/news-releases/press-release-details/2010/SAIC-Launches-Advanced-Intelligence-Multimedia-Exploitation-Suite-AIMES/default.aspx.

10. "MacAulay-Brown, Inc. Awarded Army Intelligence Analysis Contract," GlobeNewswire, August 5, 2013, https://www.globenewswire.com/news-release/2013/08/05/564591/10043223/en/MacAulay-Brown-Inc-Awarded-Army-Intelligence-Analysis-Contract.html.

11. Ernesto Clark, "Taking MI Professionals from 'Provide, Trained, and Ready' to 'Provide an Operational MI Army Reserve'," *Military Intelligence Professional Bulletin* 41, no. 3 (July–September 2015): 14.

12. Ibid.

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U.S. Army photo by SSG Kenneth Burkhart

The 259th Expeditionary-Military Intelligence Brigade Commander speaks candidly with key leaders in the tactical operations center during a battle update brief for exercise Always Engaged 18 at Joint Base Lewis-McChord, WA, July 12, 2018.