



# **How We Fight 1st Cavalry Division, Division Air and Missile Defense**

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# REQUEST FOR INFORMATION

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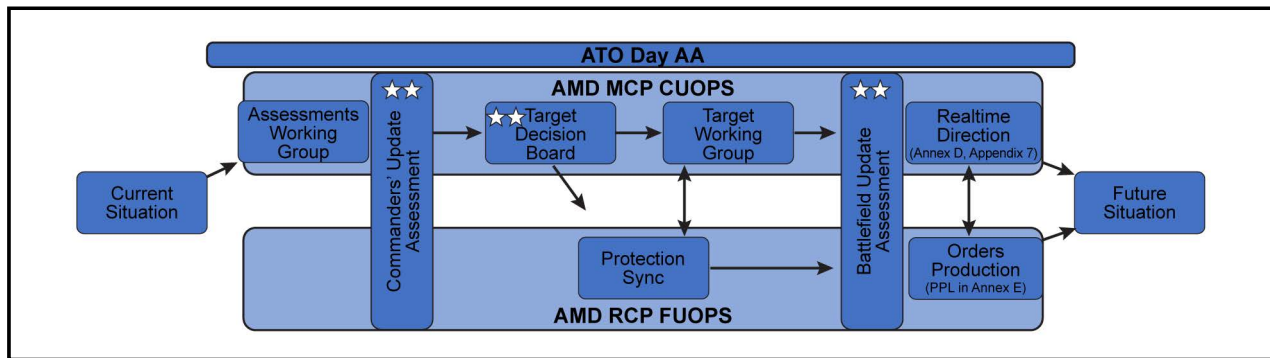
**Figure 1-1 1st Cavalry Division Commanding General poses with Sentinel Team after receiving a Radar Briefing during Remagen Ready, 7 November 2023**

The 1st Cavalry Division (1CD) is the first Division to stand up a co-located Maneuver Short-Range Air Defense (M-SHORAD) battalion to provide air defense to the division. The successful employment of this capability requires synchronization and integration between the division and battalion staff.

The current modified table of organization and equipment (MTOE) for Division Air and Missile Defense (DIVAMD) is designed around the Joint Air Ground Integration Center (JAGIC) with a minimal footprint of personnel serving in the main command post (MCP)/rear command post (RCP). Preparing for operations against a peer threat in contested airspace required the DIVAMD cell to revamp the current personnel layout.

The required adjustment will ensure the six warfighting functions (WfFs) are synchronized regarding enemy capabilities and friendly protection. Command Post Exercise (CPX) 2 (Remagen Ready) served as the test bed to enable current operations (CUOPS) and future operations (FUOPS) to achieve a shared understanding and effectively tie into the WfFs. The below graphic depicts how DIVAMD conducted the planning process of each air tasking order (ATO) day based on this construct.





**Figure 1-2 Planning Process of Each Air Tasking Order Day**

A consistent question that the ICD DIVAMD team asked during our military decision-making process (MDMP) was which warfighting function does DIVAMD fall under: fires or protection? Our answer was that DIVAMD belongs to both. We recommend a structure of personnel that allows the RCP to focus on FUOPS while the MCP focuses on CUOPS.

**Rear Command Post (AMD FUOPS and Protection WfF)**

The RCP AMD element served as the lead Officer in Charge (OIC) for the protection WfF, adjacent division coordination, III Armored Corps integration, and FUOPS planning.

DIVAMD developed the division protection priority list (PPL) within the protection WfF in conjunction with the provost marshal office (PMO); chemical, biological, radiological, nuclear, and high yield explosives (CBRNE) element; and division engineers (DIVENGs). The cell also planned for the employment of AMD assets (primarily 6-56 RADAR M-SHORAD) across the division area of operations.

The RCP establishes and maintains the PPL with a current battlefield framework provided by the MCP (through the assessment working group) and coordinated adjustments during the division protection synchronization. The RCP facilitates and runs the division protection synchronization where division staff and subordinate units coordinate the current protection overview based on assessments from the WfF and unit combat postures. This overview produces: risks to mission, risks to force, and mitigation criteria which are considered in the development of the PPL by ATO day. The recommended PPL is then produced for approval at the battle update assessment to the division commander. This information is additionally compiled into request for forces and request for information, and the RCP served as the coordination point with the III Armored Corps Protection Cell during the corps protection working group.

CPX 2 allowed the opportunity to conduct a unique experiment with the addition of a 14G (Air Defense Battle Management System Operator) in the RCP. This Soldier served as an air and missile defense workstation (AMDWS) operator providing a current air picture to the deputy commanding general- support to conduct terrain analysis to develop future locations for radar position areas and assessed enemy air avenues of approach to anticipate gaps in coverage within the division area of operations and adjacent divisions. This capability allowed the RCP to provide detailed planning considerations in the daily published division fragmentary orders and provided the M-SHORAD battalion the ability to focus on CUOPs while providing a jumpstart for FUOPs planning.

**Main Command Post (AMD CUOPS and Fires WfF)**

The MCP AMD element served in the JAGIC, the CUOPS cell (branch and sequel operation planning with the G3-5/G5), and the assessments working group and participated in the target working group/targeting decision board.

The assessments working group initiates the critical path for the ATO day with the current situation based on data from the division operations research and systems analysis (ORSA) and G-2. The AMD cell validates current statuses of ADA assets with the ORSA and validates whether the division can protect items on the PPL with AMD assets against aerial threats. It is equally important to assess what is affecting combat power in the division and how we can protect the force against these threats. The outputs from the assessments working group provide the inputs for the targeting working group and protection synchronization and drives the remainder of planning events for that ATO day.

The AMD cell in the MCP is split between the JAGIC and CUOPS integration cell. The JAGIC oversees all AMD operations, maintains situational awareness of enemy aircraft, assists identification of unknown aircraft in coordination with the Air Support Operations Center (ASOC) and Airspace Command and Control, maintains the tactical air picture (via the AMDWS) to protect friendly forces and preserve combat power. The AMD JAGIC monitors and updates all battle drills, two specifically pertaining to AMD operations: 1) tactical ballistic missiles (TBMs) affecting the division area of operations and 2) aerial threats (fixed wing, rotary wing, and unmanned aircraft systems). The AMD and G-2 sections collaborate to provide enemy air avenue of approach assessments to the help prioritize intelligence assets and array air defense assets. Based on these air track trends, they can assist the G-3 Fires section in targeting and destroying enemy airfields, forward arming and refueling points, and ground control stations. This process enabled the First Team to proactively protect the division from aerial threats by neutralizing them on the ground through fires.

In the targeting working group, the AMD cell discusses which aerial threats are operating in the operations area and which air avenue of approach the enemy is utilizing or assessed to utilize to attack high-value targets. Additionally, the targeting working group is used to make recommendations for changes in the division high-payoff target list and the PPL based on the current ATO Cycle. In the targeting decision board, the AMD cell briefs the outputs from the targeting working group and protection synchronization to the commanding general on the arrangement of AMD assets across the battlefield, how we anticipate the enemy will fight, risk to mission, and risk to forces from aerial threats. This information is compiled and codified into the orders process through the DIVSPECIAL or division field artillery fighting document along with any changes to Annex D (Fires), Appendix 7 (Air Defense), or Annex E (Protection).

### **Shortfalls**

We fought through several challenges captured in our after-action review and are sharing with the Center for Army Lesson's Learned (CALL), but overall, we saw success with the adjusted modified table of organization and equipment (MTOE) configuration. There are two primary adjustments identified during CPX 2 that the AMD cell is looking to modify in the future.

### **Division Tactical Command Post (DTAC) Operations**

Although the unit established and exercised the DTAC multiple times throughout the CPX, the JAGIC was not exercised in the same manner. When the MCP exercised their ability to jump to an alternate location, the JAGIC co-located with division artillery until conditions were met at the MCP to regain control of the JAGIC. This worked well but showed the benefit of the current MTOE structure as well as the current equipment requirement.

## **JAGIC**

Not discussed in this paper is beyond-line-of-sight (BLOS) surface-to-air systems (i.e., Coyote Interceptor), will the JAGIC chief remain the approving authority for all fires, or will the deputy AMD chief be required to approve surface-to-air engagements? If the latter, our current concept of how the DIVAMD fights is no longer feasible with current manning. We will provide our thoughts on the best way to integrate this process into an already established identification and kill chain in a later paper.

## **Conclusion**

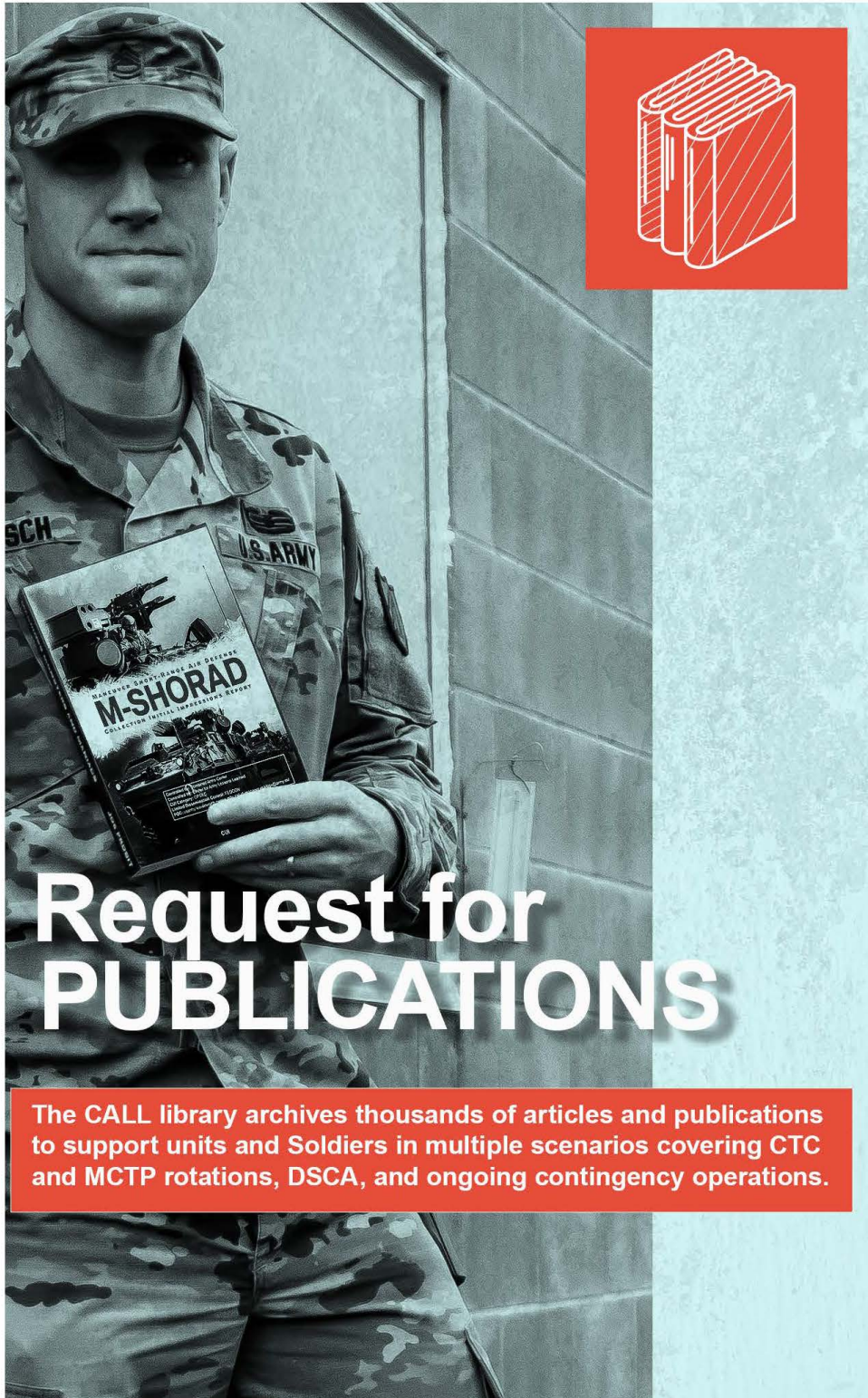
The importance of AMD in division combat operations is not going away while preparing for operations against a peer threat in a contested airspace with unmanned aircraft systems, rotary-wing aircraft, fixed-wing aircraft, and TBM threats. AMD operations must remain flexible and continue to adapt based on the experiences seen in recent conflicts (Ukraine/Russia or Israel/Hamas) to provide capability to protect friendly combat forces. The AMD cell's integration with all WfFs is required and a layered and weighted air defense posture must be maintained when possible.

### **Authors' Biographical Sketches**

MAJ Joe Van Valkenburg serves as the Deputy AMD Chief for 1st Cavalry Division, Fort Cavazos, TX. Previous experiences include Avenger and Patriot positions at the battery and battalion level, and as an Instructor in the Department of Military Instruction at the United States Military Academy. His military schools include the Air Defense Artillery Basic Officer Leadership Course, Captains Career Course, and the Command and General Staff Officer Course. He holds a bachelor's degree from Texas A&M University and master's degrees from the University of Texas at El Paso, and the Command and General Staff College.

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