## Improving Infantry Defenses Against Enemy Air

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15 April 1953. No U.S. Soldier has died from enemy aircraft since that date. For nearly 70 years, the U.S. Army has operated in environments in which the air arm dominates. However, those days are fleeting. That the Army gets this is evident in the design of decisive action training environment (DATE) rotations at Combat Training Centers (CTCs) like the National Training Center and Joint Readiness Training Center. Soldiers face "red air" in the form of attack and reconnaissance via opposing force (OPFOR) helicopters and unmanned aircraft systems (UAS). Yet, I believe the infantry platoon lacks basic doctrine, equipment, and organization to deal with the threat, and Infantry officers do not receive adequate air defense employment education. The Infantry must solve this prior to the next conflict.

The 2022 war in Ukraine has driven home that our great and emerging power adversaries have robust rotary-wing assets; it has also driven home the value in possessing handheld and highly mobile air defenses. The Army's current doctrine for infantry squads and platoons, Army Techniques Publication (ATP) 3-21.8, *Infantry Platoon and Squad*, needs better solutions to close range air threats. Appendix F offers that the machine gun can provide defensive fires for low-flying, low-performing aircraft within 800 meters and provides a few generic considerations for employment in this role. Otherwise, the infantry platoon leader is left without much recourse.

Company commanders are left wanting as well. ATP 3-21.10, *Infantry Rifle Company*, offers only that when a column on the march is attacked, all machine guns should engage the aircraft while everyone else seeks cover. While a helicopter likely does not want to fly through a hail of bullets, this solution is problematic. First, it is devoid of accuracy. Second, it is not a core task requiring training. Third, there is no deterrent nature to this solution. Infantry leaders have no means of countering enemy air that puts them on level playing ground and forces enemy pilots to consider avoiding their formations.



Soldiers defend against an enemy air attack during Decisive Action Rotation 21-09 at the National Training Center at Fort Irwin, CA, on 15 September 2021. (Photo by CPT Khari Bridges)

Machine guns have been the infantry solution to enemy air for decades. CPT Anthony O'Connor and CPT Robert Kilmer Jr. each discussed training for machine guns in their air defense role in these pages four decades ago.<sup>1</sup> Yet, the concept of air defense at the small unit level does not appear to have received any attention in this professional bulletin since 1989. That year, CPT Michael Parietti argued that the Army should cross-train the company's anti-armor gunners as Stinger gunners. In his article, CPT Parietti advocated for what is essentially an arms room concept where commanders could outfit their anti-armor section with air defense or anti-armor weapons to fit the mission.<sup>2</sup>

Parietti's offering is worthy of rekindling, altering, and expanding. Today, there is no anti-armor section at the company level. Light infantry battalions have heavy weapons companies which move via wheeled vehicle and carry tube-launched, optically tracked, wire-guided (TOW) missiles. Company commanders have six anti-armor teams armed with Javelins all resident within their infantry platoons. This assumes the company is fully manned or that the command prioritizes fill of anti-armor roles over other positions when manning is limited. This does not always occur. A commander could task organize the anti-armor teams under the headquarters for training and employment purposes, but this is a command decision.

Regardless, Parietti's arms room concept is not the best solution. Making Javelin gunners dual-hat as Stinger gunners detracts from their training which also includes rifle qualification among myriad other tasks and drills. Additionally, a light infantry organization has little in the way of transport and storage in the offense to carry unused weapons systems. Choosing one or the other likely would have down-trace effects on future operations. Finally, an enemy is likely to employ armored vehicles and aerial systems in tandem or in close proximity to each other. Commanders should not have to choose what threat to protect themselves against.

Infantry organizations are air defense poor at echelon. There are no organic air defense systems at battalion, brigade, or division level. The first air defense Soldiers an infantry commander encounters are on the brigade staff where a small air defense cell provides coordination and planning support to the brigade commander. None of these Soldiers has any systems. In practice and in accordance with doctrine, units in a DATE scenario receive air defense units as part of their task organization. However, brigades typically employ these systems to protect their critical assets such as fuel points and command posts. They are not for offensive action nor given to forward units.

Thus, the infantry commander is left to shoot bullets against the grain of gravity at a moving target. The Army needs to do better. Rotary-wing aircraft and medium UAS similar to the car-sized Shadow (in its role as an observer) can do vast damage to a brigade combat team (BCT) and blunt an offensive. Simply put, the infantry leader needs a solution.

Stingers are the obvious answer. Stingers are cheap compared to many other weapons systems to include the Javelin. They are relatively light coming in at roughly 16 pounds lighter than the Javelin. And, they are easy to train on. The U.S. has issued Stinger missiles to fighters from the contra rebels in Nicaragua to the mujahadeen in Afghanistan to the soldiers in Ukraine with great success. Many infantry commanders already choose to train their Soldiers on the system prior to CTC rotations so they can equip their Soldiers with them during the rotation. However, these are Soldiers who have no doctrinal or organizational imperative to train; therefore, their skills can vanish quickly following a rotation. Thus, equipping cannot be the sole response to the problem. In fact, it is the easy part of the solution.

The Army must update the modified table of organization and equipment (MTOE) to reflect anti-air gunners. There are four possible options. First, the battalion's heavy weapons company could take on an air defense platoon. This platoon would be the central training hub for the battalion, overseen by a company commander. The advantages of this would be standardized training and dedicated training time. When something is a platoon's core task, the unit will make training time and become proficient. The disadvantage of this is that rifle company commanders and platoon leaders lack organic assets. They would need the battalion commander or operations officer to provide air defenders from the weapons company for training and operations. This increases the chance a battalion commander would prioritize these assets away from the platoon and company. Additionally, the solution is not exportable across BCTs. Stryker and armored BCT formations do not have battalion weapons companies and thus cannot employ this solution.

A possible second solution is to create an air defense section at the company level. This gives commanders maxi-



Paratroopers assigned to the 173rd Airborne Brigade practice acquiring a target with a FIM-92 Stinger near Medulin, Croatia, on 8 April 2022. (Photo by SSG John Yountz)

mum flexibility in employment and ensures consistent training within the company. However, it does place the onus on company commanders to prepare their forces against the backdrop of myriad competing priorities. Light infantry commanders already possess mortars and a UAS section at the company level, so they have the means to train specialized elements. Still, mortars have a centralized hub for training support in the battalion mortar platoon. Similarly, the company and platoon medics and forward observers have a higher echelon that trains them. A BCT's air defense cell couldn't provide this level of oversight as currently manned. Due to the need to identify aircraft as hostile, any air defender would need to be highly trained.

The third option would be to create anti-air teams within the weapons squad of each platoon. This reduces the company commander's options but provides flexibility to platoons which can find themselves away from the direct fire support of other elements. These are the elements most likely to have chance encounters with low performance aircraft. However, a weapons squad leader would be given the burden of training two machine-gun teams, two anti-armor teams, and one or two air defense teams. Even though weapons squad leaders tend to be the most experienced in the platoon, providing them with three diverse training missions could induce challenges in creating fully trained teams. Even if the air defense teams thrived, the other two teams might suffer.

A fourth option would be to designate one rifleman in every rifle squad as a Stinger gunner. ATP 3-21.8 asserts that one rifleman in each squad is a designated marksman while the other is an anti-armor specialist. Employing this option would mean dual-hatting either the anti-armor specialist or the designated marksman. The anti-armor specialist could not carry all the weaponry required to do both jobs and be a rifleman, thus requiring the arms room concept. The designated marksman makes more sense. While not a sniper, a designated marksman should be trained in aspects important to an air defense specialist such as aircraft identification, tracking of a moving target, and accuracy. They would not need to carry the Stinger in operating mode on patrol and thus could perform both functions. However, the average Soldier could likely only carry one missile. Therefore, the squad would be left with one shot or would need to cross-load ammo. Also, in pushing the air defender further down, there is even less institutional knowledge to pull from and a greater chance the training gets short changed.

The best solution is likely to create a battalion air defense platoon. In light infantry battalions, this would be resident in the weapons company. Stryker and heavy battalions may need to place this in the headquarters and head-

quarters company. While training on the use of a Stinger is relatively simple, there are many aspects that are more complicated such as target identification, battle drills, and integration with the rest of the organization. To ensure company commanders get their slice, the platoon should be organized like a forward observer section or medical platoon. Each squad would have habitual responsibilities to a line company, leaving the battalion commander with a squad to employ as needed.

However, as the Army considers additional end strength cuts in the face of modernization, recruiting shortfalls, and tightening budgets, the short-term solution may be to dual-hat designated marksmen as air defenders. This would have to come through an update to the MTOE reflecting the position of an anti-air gunner and Stinger system. While infantry doctrine currently calls for a designated marksman and anti-armor specialist per squad, the Army's MTOE does not reflect this. The rifle squad does not have specialized equipment organic to it for either mission. Therefore, it is easy to overlook training for designated marksmen and squad anti-armor specialists when a unit is not resourced nor driven through reporting metrics to conduct the training. For an anti-air concept to work, the Army would need to update its MTOE to reflect the position and the equipment.

Assigning anti-air specialists to squads would get the concept rolling and enable continuous assessment at monthly CTC rotations. To enable this, the Infantry needs to make doctrinal updates that detail training and employment of Stingers at the platoon and company level. Further, the Defense Training Management System (DTMS), the Army's system of record for training and qualification, would need to add Stinger qualification as required training for infantry companies. This way, commanders at echelon could enforce and oversee training. The Infantry could borrow most of its training doctrine from existing manuals but would need to develop employment doctrine unique to its mission. As successive rotations pile up, the Infantry could use data from these events to shape permanent doctrinal updates as well as work with the Center for Army Lessons Learned to spread best practices.

Naturally, the air defense artillery community would likely push back on the concept of arming 11-series Soldiers with Stingers. This would be especially true if the solution is creating an air defense platoon within battalions manned by 11Bs. This is not only because Infantry Soldiers would be conducting a core mission of a different



Soldiers with the 173rd Airborne Brigade fire a FIM-92 Stinger during an air defense live-fire exercise alongside soldiers with the Croatian Air Defense Regiment on 8 April 2022. (Photo by SSG John Yountz)

branch, but also due to the high risk of fratricide when employing air defense assets. Air defenders as a military occupational specialty are certainly the best trained in employing air defense assets. However, making this a mission of the 14 series is complicated. While the Army intends to grow the air defense community, the focus will naturally be on systems that defend critical assets and not Stinger gunners. Thus, branch and Army priorities could leave infantry units habitually undermanned. It is likely the Army will prioritize long-range Patriot systems and short-range Avenger systems due to their need to protect critical assets on the battlefield. Placing the organization of air defenders in the Infantry's hands ensures that infantry commanders make decisions on priorities.

The key is to make air defense an organic mission of small infantry units without significantly increasing the burden on already overworked commanders and companies. This requires equipment, organization, and doctrinal solutions. It also requires education. Infantry leaders in the Infantry Basic Officer Leader Course and Maneuver Captains Career Course need to learn to employ Stinger missiles in the offense and defense and how to train these teams. In general, this is a small lift compared to many other pressing requirements. Protecting infantry units from the sky not only preserves infantry combat power but likely protects the fires, sustainment, and command elements that exist behind their lines.

It is incumbent on infantry leaders to develop a solution to the problem of enemy red air. This must be a branchwide solution. Today, enterprising company commanders are developing solutions. However, these solutions are not universal, nor are they necessarily the best solutions. Providing a standardized equipping, doctrinal, and organizational solution will help infantry leaders face what may be a significant threat in the next conflict. It will save lives, preserve combat power, and keep the Infantry doing what it does best: closing with and destroying the enemy.

## Notes

<sup>1</sup> CPT Anthony J. O'Connor, "Air Defense with Small Arms," Infantry 77/3 (May-June 1987): 36-38; CPT Robert Kilmer Jr., "Air Defense Training," *Infantry* 72/1 (January-February 1982): 26-27.

<sup>2</sup> CPT Michael I. Parietti, "Organic Air Defense for a Light Infantry Company," *Infantry* 79/5 (September-October 1989): 38-40.

**Editor's Note:** As with all Infantry articles, the views expressed in this article are those of the author and do not reflect the official policy or position of the U.S. government, Department of Defense, or any element of it.

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