Force Protection: A Need Not a Want

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Force Protection: A Need Not a Want
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Introduction

Since President George Bush announced the end to major combat operations in Iraq and Afghanistan, there have been several thousand combat related casualties in both countries. The combat losses from insurgent Rockets, Artillery, and Mortars (RAM) attacks are extremely high. Second to Improvised Explosive Devices (IEDs), RAM attacks comprise the largest cause of all Soldiers Killed in Action (KIA) and/or Wounded in Action (WIA). Insurgent RAM attacks have the potential to create a national notable event provided a direct hit on a high-density troop location occurs. “Consolidating soldier services in one location, like a large dining facility, enhances physical security but also presents unique target opportunities.”[1] In order to mitigate future instances such as this, and save the lives of American servicemen and women, the Marine Corps must incorporate the Counter-Rocket, Artillery, and Mortar (C-RAM) system into the Marine Air and Ground Task Force (MAGTF) in order to maximize their force protection capabilities during expeditionary operations.

The mortar has become an insurgent weapon of choice for attacking coalition bases in Iraq and Afghanistan. Insurgents realize that by employing “Shoot and scoot”

tactics, it makes the coalition ground (quick reaction force) response more difficult. An example of this tactic involves an insurgent placing rounds on the ground, propped up with a make-shift aiming device (i.e. rocks, boards) and setting them off with hammers or timed devices. This tactic enables the insurgent to lob several rounds into friendly areas and quickly evading friendly forces.

As Rules of Engagement (ROE) dictate, collateral damage and political considerations during stability operations make overwhelming counter fire unusable. Insurgent take advantage of these constraints as most Points of Origin (POI, point in which a projectile is launched) are tactically set up in populated areas. Insurgents are aware that the area surrounding the firing position precludes a traditional counter-fire response from the coalition forces.

As of now, coalition forward operating bases have no force protection asset that can counter these types of attacks. However, the use of counter mortar systems would protect bases from mortar fire despite ROE constraints and operational conditions. The following quote from the Director of the Army Joint Defeat Improvised Explosive Device Task Force, exemplifies the need to immediately identify enemy tactics, techniques and procedures and

quickly develop a means in which to counter them. "Conventional units lacking the ability to quickly identify asymmetric tactics and devise effective countermeasures may intentionally or unintentionally change mission focus from killing the enemy to protecting the force."[2]

The Commanding General Coalition Forces Iraq sent an Operational Need Statement to the pentagon requesting support to counter the RAM threats. As a result, in May of 2004, the Chief of Staff of the Army (CSA) directed that a C-RAM capability be developed and rapidly provided for operational use.[3] The Army Air Defense Artillery branch began working diligently with the Field Artillery school to develop the system. Experiments have proven there may be a near-term capability but how large the initial deployment will be and how many systems they will buy is still unknown.[4] If the C-RAM capability proves to be successful, manning of the interceptor system and its supporting command sections will be an Air Defense Artillery mission.

This paper will address the need for a C-RAM system in the Marine Corps by evaluating the current enemy threat, future enemy threat, C-RAM system capabilities, its feasibility, and its integration into the current structured force.

Capabilities

The C-RAM system has six basic functions:

DENY – Conduct real-time operations in order to deny insurgents the opportunity to conduct RAM attacks

SENSE – Achieve timely, reliable, and accurate sensing (through radar nodes) in order to support DENY, WARN, INTERCEPT, and RESPOND operations

WARN – Achieve timely, reliable, accurate, and localized troop warning (through FAADC4I systems)for impending RAM attacks

INTERCEPT - RAM munitions for in-flight destruction

PROTECT – Hardened shelters for high density troop locations

RESPOND – To real and non-real time, accurate response operations to defeat RAM insurgent personnel / teams

COMMAND and CONTROL(C2) - Effective battle command structure to support timely and accurate C-RAM operations[5]

The 20mm Phalanx Close in Weapon System, a Navy anti-ship missile defense system has been modified to become the new ground based C-RAM system. It is a Navy 20mm gun with an attached multi-frequency, ku band radar for surveillance and tracking. The radar range is up to 5 km with a potential area defense against threat mortars of 1 – 1.5

km. The system spins a burst of 100 rounds per target. The system has achieved routine successful shots against 155mm projectiles.[6]

Proposed Force Structure

The current Marine Corps LAAD (Low Altitude Air Defense) structure will allow for a smooth transition into the C-RAM program because it mirrors the Army's SHORAD (Short Range Air Defense) unit MTOE (Modification Tables of Organization and Equipment). The system calls for six officers, one warrant officer, and 119 enlisted personnel per firing battery. These numbers are almost identical to the current LAAD TOE. Out of the three LAAD batteries at the Marine Air Control Group (MACG), two should transition into the proposed Complementary Low Altitude Weapon System (CLAWS) weapon system and one should be dedicated to the C-RAM. This will enable the MACG to retain its air defense capability, while providing the team with an additional force protection asset.

As with current LAAD training at Ft. Bliss, Texas, the C-RAM training can be conducted by the Army in a joint venture. This will save money in trying to procure new training facilities, instructors, and training resources

and will allow the Army to be the lead proponent in developing the doctrine for the employment of the system.

Paycheck

The current cost of the C-RAM system is eighteen million dollars per battery, which includes all of the associated equipment to operate the system (vehicles, communications equipment, computer systems, etc…).[7] Because funding is always an argument when it comes to the Marine Corps, the procurement of new weapon systems is a feat near impossible. It is imperative that the Department of Defense lobby congress for additional funds to support the implementation of the C-RAM and the associated costs with the weapon system that include training, logistics, new facilities for personnel and equipment and other support requirements. If the Corps is able to acquire at least one C-RAM system per Marine Expeditionary Unit and one per Marine Expeditionary Force, the initial baseline cost will be near $120 million dollars for six functional batteries.

Argument

Some would argue that this system is too costly to chase a current threat when the battlefield is ever-changing. This is because enemy tactics, techniques and

procedures (TTPs) change as they adapt to friendly forces TTPs. The worry among opponents of the system is that this type of threat may or may not be faced again in the future and by spending the money to implement it now, the Marine Corps might find itself faced with a technology “cat-and-mouse game” such as the one currently seen in Iraq with Improvised Explosive Devices (IEDs).

The following paragraph is the counter-argument as to why the C-RAM is necessary and relevant now in order to defeat the present and future threat.

Future Threat

As the United States has arguably became the last remaining military superpower in the world, no other military will profit by entering into a head to head fight against us. Instead, the guerilla-like tactics that is seen with the current insurgency in Iraq will likely be the face of the enemy in future conflicts. The enemy has provided the rest of the world with “lessons learned” regarding the ability to kill American soldiers while keeping a safe standoff distance from American weaponry.

On the Afghanistan/Pakistan border, the American Forward Operating Bases (FOBs) face precision fires from Pakistan by mortar and artillery pieces. As mentioned

earlier, most of the enemy tactics inside of Afghanistan involve rounds being either detonated manually or by timer through crudely built launch tubes. Through these means of fire, the rounds tend to be errant and most of them do not hit their intended target. However, due to the use of soviet-style artillery pieces and forward observers, the enemy is able to target FOBs along the border without fear of counter-fire due to ROE and political restrictions. In order to protect the force and equipment, the C-RAM system must be used.

Summary

When called to perform its expeditionary duties, the Corps is most likely to face an asymetrical battlefield with the threat being a guerilla force, not an Army. Rockets, Mortars, and Artillery give the “poor” fighter more bang for his buck and a chance to fight another day by creating stand-off distance between him and his enemy. The C-RAM’s system capabilities closes that stand-off distance to effectively counter guerilla/insurgent attacks and makes FOBs “hard targets” against third dimensional infiltration.

It is important to remember that counter-battery fire merely neutralizes artillery/mortar weapon systems at the point of origin. The Counter-Rocket, Artillery and Mortar

system will defeat those rounds already shot off and ensure that American lives are saved until counter-battery fire or a quick reaction force does its job. No amount of money is too large if it is able to purchase a force protection system that could save hundreds of lives.

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Notes

1. LTG James J. Lovelace Jr.and BG Joseph L.Votel, *The Asymmetric Warfare Group: Closing the Capability Gaps*, March 2004,<http://www.army.mil/professionalwriting/volumes/volume3/april_2005/4_05_4.htm>,

2. Lovelace and Votel

3. USAADCG, AMD C-RAM Intercept Battery (Separate) Force Design Update Junior, August 2005, Washington D.C.

4. Counter Rocket, Artillery, and Mortar (C-RAM), 13 June 2005, <http://www.globalsecurity.org/military/systems/ground/cram.htm>

5. USAADCG

6. USAADCG

7. USAADCG

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Counter Rocket, Artillery, and Mortar (C-RAM), 13 June 2005, <http://www.globalsecurity.org/military/systems/ground/cram.htm>

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USAADCG, AMD C-RAM Intercept Battery (Separate) Force Design Update Junior, August 2005, Wa