

Are Engineers Conducting EOD Missions?

EWS 2005

Subject Area Strategic Issues

Are Engineers Conducting EOD Missions?

EWS Contemporary Issue Paper

Submitted By:
Capt R. E. Scott

To:
Maj B. J. Nownes
7 February 2005

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 07 FEB 2005		2. REPORT TYPE		3. DATES COVERED 00-00-2005 to 00-00-2005	
4. TITLE AND SUBTITLE Are Engineers Conducting EOD Missions				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) United States Marine Corps,Command and Staff College, Marine Corps Combat Development,Marine Corps University, 2076 South Street,Quantico,VA,22134-5068				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 11	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Introduction

Operation Iraqi Freedom has found many U.S. Marine Corps units routinely locating suspected explosives, resulting in an unsafe situation where the leadership is unsure what to do. Unfortunately, depending on whom the units ask they will be provided a number of solutions on how to properly handle these situations. These solutions have resulted in a community wide disagreement on the mission and capabilities of the two most identified units to call: Marine Combat Engineers (CE) and Explosive Ordnance Disposal (EOD) Teams. The engineers say that handling these situations is within their capabilities and is thus a mission that they can support. Conversely EOD says that dealing with explosives is solely their realm and that CE are not authorized or trained to conduct these operations. Marine Corps doctrine is clear that the CE community is required to conduct IED and other munition clearing operations.

EOD Concerns of CE Conducting Explosive Missions

There are six main themes or statements made by EOD when arguing that the CE should not be conducting clearing operations. These are: CE are not trained in disposal operations and that only EOD can dispose of enemy munitions, that CE simply rename items to fit into their mission statements, that only EOD is trained to identify munitions, that the overwhelming number of fuse and munition types is beyond the CE knowledge, and finally, that only

EOD can properly identify and safely conduct disposal operations. Each of these "reasons" is unfortunately only an opinion based upon what can only be described as occupational-centrism, being so focused on one's own military occupation specialty that the abilities of another are so unknown that a belief becomes a fact.

The most heard EOD argument is that "Combat Engineers are not trained in ordnance disposal operations and should not conduct these type missions."¹ This argument attempt to broadcast that only EOD can handle explosives located by operating units. While it is true that engineers are not authorized to conduct explosive ordnance disposal operations, detonating an IED in place is not considered a disposal operation. This becomes an example of the misuse of terminology and operational actions in order to convince higher that the engineers are conducting unauthorized operations.

A disposal operation has six steps: detection, identification, on site evaluation, render safe procedures, recovery, and final disposal. Only EOD is authorized to render safe a munition for recovery.² However, engineers can conduct a clearing operation, which requires only four step: detection, identification, on site evaluation, and destruction. While very similar, the distinct difference is the render safe procedures and recovery of the explosive item. While EOD can render safe, engineers can only destroy or clear.³ The main concern in this situation becomes identification. If the engineer cannot

positively identify the item, then EOD must be called.⁴ When responding, EOD "must render safe any UXO that cannot be destroyed by detonation."⁵ The explosives that are safe to detonate in place can therefore be detonated by engineers.

Another misnomer presented by EOD is that only EOD can dispose of enemy munition caches. According to the EOD ITS, they are responsible for the destruction of unserviceable munitions and the emergency destruction of munitions.⁶ This statement has been distorted to mean that only they can handle the destruction of enemy munition caches. However, nowhere in the EOD ITS does it state that they are responsible for the destruction of enemy munition caches. However, combat engineers, under their ITS, are required them to clear routes of mines, unexploded ordnance or booby traps.⁷ There still remains the requirement to identify the munition, and if the engineer cannot do this than EOD is required to be called.

Engineers have been accused of simply "renaming items to fit their mission. For example: calling a UXO -- a mine, calling an IED -- a booby trapped mine."⁸ While this is possibly true (no specific evidence was given), it undermines the intent and shows a simple misunderstanding of the issue. While UXOs and mines are clearly different, an IED can in fact be a booby trap.⁹ What needs to be understood is that terms evolve over time. The concept of making an explosive device that can be detonated by remote or

triggered by some type of disturbance has been around for as long as there have been explosives, however the term IED is a relatively new term, made popular during the 1990's when the term "booby-trap" took on a negative connotation. What is important is that the term be understood, and that the object be identified. If CE are not capable of identifying the explosive material or device, then the results of detonation cannot be determined. If this is the case, EOD must be called to handle the item.

A seemingly common belief is that only the EOD School properly trains personnel in ordnance identification. An EOD officer is quoted with saying, "In order for engineers to become fluent in ordnance identification is for them to be properly trained in ORD ID and the hazards associated ordnance in a formal setting. This is only accomplished at EOD School. Once they complete the course, they are no longer engineers, but EOD Techs."¹⁰ This argument demonstrates that the EOD community does not understand the formal schooling of combat engineers. While it is unquestionable that the EOD school goes into great detail training EOD technicians on how to identify a vast number of ordnance items, other military schools do in fact teach the identification of specific ordnance items. The Army and the Marine Engineer schools both instruct students on common ordnance items that engineers may see used as mines, IED, or find as UXO. The difference between the two is the number of items and detail that

the instruction covers. While the EOD school teaches identification with the end result being the ability to render safe and dispose, the engineer schools teach to a level of identification for determining the result of detonation and the means to destruct. These different levels of detail are a result of the follow-on actions that can be taken by the associated personnel.

Several statements have been made that attempt to present the number of possible munition types to which the engineers in OIF may come across as an astronomical number. A statement made in a May 2004 Marine Corps Gazette article says "How does one go about making this most critical determination? There are, quite literally, tens of thousands of different fuses on and in ordnance items throughout the world."¹¹ While this is a true statement, it sensationalizes the issue. In this case the attempt is being made to say that there is no way engineers can be ready to handle the munitions they locate. In reality the chances of coming across an example of all tens of thousands of fuse types is impossible within the OIF theater of operations. What is being seen is a cross section, or a fairly set standard in the types of munition and associated fuses being used. Therefore, the ability to train engineers to identify the majority of the munitions and understand how to clear them is quite probable.

Statements provided by several EOD officers state that only EOD has the ability to identify and safely conduct disposal operations. While this is a nice assumption, it is clearly unrealistic. During OIF from late 2003 to early 2004 "five EOD technicians [where] killed within the last couple of months in Iraq. These were trained EOD technicians, some having more than eleven years of experience in the field."¹² This fact proves that EOD is as susceptible to injury or death as an engineer working to clear an IED. The belief that EOD is the only properly trained MOS is also hampered by an incident in earlier 2004 when an infantry unit (with engineer attachment) located a large rocket in a warehouse.

According to Capt Carr, "EOD was called, who responded in a short period of time. The techs could not ID the rocket, so calls were made to their higher. When verbal descriptions didn't work, photos were taken and sent. After several hours, no determination was made as to what the item was. The EOD techs reported that they had exhausted all means to ID this thing, so they were going to wing it. They approached the rocket, guessing where they believed the propellant stopped and the remainder of the rocket began. They then took an axe and began to hack away at the side of the rocket until they exposed the interior."¹³

The action taken by those EOD techs is obviously not the proper way to render safe an ordnance item that has not been identified.

Counter Argument

The Marine Corps engineer community has the doctrinal requirement to conduct munition-clearing operations, regardless of what EOD personnel say. However, doctrine is nothing more than a piece a paper. While the engineers should be able to handle these missions, their formal training prevents them from conducting these missions safely. USMC engineers can only be assumed to have attended the basic combat engineer course or engineer officer course. These are three-month courses that cover the vast range of engineer missions. Less than one month is spent on explosives, mines, and countermine operations. The exposure to IED and booby-traps is less than one week.¹⁴ One week of training does not a Marine an expert in the clearing of IED or booby traps. Conversely, EOD spends six months at their basic course, with the entire course focused on the safe handling and render safe procedures to be used on a vast number of explosive devices.

Additionally, during the research of this subject a survey was conducted that presented thirty-four terms relating to explosives, clearing and disposal operations to 43 engineers of varying ranks from private first class to captain with the intent to gain a general idea of the competence of the MOS. Only twenty-five percent accurately defined at three-quarters or more of the

terms; only fifty percent accurately defined at least one half of the terms. This shows it is impractical to believe that engineers can safely handle these missions when engineers of all ranks are incapable of identifying the mission terms associated. This information alone supports the EOD belief that only they can safely handle the IED threat or destruction of munitions.

Conclusion

While written doctrine can disprove every point made by EOD technicians that engineers are not capable of safely conducting IED and munition clearing operations, doctrine does not always equate to actual capability. Until such time that the engineer community either increases the training spent on explosives clearing procedures, or removes these requirements from their doctrinal mission, the clearing or disposing of the IED threat, caches, and UXO should be left to the trained experts in the EOD community.

Notes

-
- ¹ Capt Mark Tarter, EOD Officer, OIF After Action Report, 28 June 2003.
- ² Joint Publication 1-02, "DOD Dictionary of Military and Associated Terms", (12 Apr 2001).
- ³ Combat Engineer Officer Period Of Instruction, "Ordnance Destruction", Marine Corps Engineer School, (September 04), 130.
- ⁴ MCES CEO POI, 134.
- ⁵ Field Manual 9-15 "EOD Service", 8 May 1996,
- ⁶ EOD ITS, MCO 1510.78A.
- ⁷ Engr ITS, MCO 1510.95A.
- ⁸ Capt Jeffrey Hackett, "EOD assistance", December 2004, personal email, (18 December 2004).
- ⁹ JP 1-02,
- ¹⁰ Capt JP Miller, "EOD assistance", December 2004, personal email, (18 December 2004).
- ¹¹ GySgt A. C. Higgins, "Safety of Combat Engineers", Marine Corps Gazette, (May 2004), 54.
- ¹² Higgins, 55.
- ¹³ Capt Carr, personal interview, October 2004.
- ¹⁴ MCES CEO POI, 128.

Bibliography

After Action Report, 1st EOD Plt, 9 July 2003

After Action Report, 2nd EOD Plt, 28 June 2003

Engineer Period Of Instruction, MCES, Jun 2004

Field Manual 20-23 Mine / Countermine Operations, 2 Feb 2004

Field Manual 5-250 Explosives and Demolitions, 30 Jun 1999

Field Manual 5-34 Engineer Field Data Book, 16 Jan 2004

Field Manual 9-15, EOD Service, 8 May 1996

Fleet Marine Field Manual 3-18/MCWP 3-17.2 MAGTF Explosive Ordnance Disposal, 20 Dec 1993

Fryer, CW02 K. T., EOD, December 2004, Personal email (17 December 2004).

Hackett, Capt J. C., EOD, December 2004, Personal email (16 December 2004).

Higgins, GySgt Alan. "Safety of Combat Engineers" (Marine Corps Gazette), May 2004.

Martindale, 1stLt E. J., Engr, December 2004, Personal email (8 January 2005).

Marine Corps Warfighting Publication 3-17 Engineer Operations, 14 Feb 2000.

Miller, Capt J. P., EOD, December 2004, Personal email, (20 December 2004)

Tarter, Capt M., EOD, December 2004, Personal email (20 December 2004)

Williams, WO W. C., EOD, December 2004, Personal email (18 December 2004)

Joint Pub 1-02, DOD Dictionary of Military and Associated Terms, 12 Apr 2001

Survey conducted on engineer Marines from I MEF and II MEF, developed and conducted by Capt R. E. Scott, December 2004