The Marine Corps should be planning to operate in future IED-laden environments; the question is whether or not we will retain and continue to develop the hard-earned C-IED capability that we now have or let it degrade as is a frequent pattern in history. The IED, while it is not a new tool, has been employed against us in a new and powerful way in Iraq and Afghanistan, and our potential adversaries have no doubt taken notice. Politically-motivated IED campaigns like those in Nigeria and Mexico are indicative of the IED’s global proliferation and should serve as fair warning to us that our future adversaries will likely employ an IED campaign against us.

Considering our institution’s C-IED related organizations, doctrine, lessons learned are indicative of the Marine Corps’ focus on IEDs in the future. Further, consideration of ongoing ground vehicle acquisitions as well as MPF planning will more concretely indicate our institutional seriousness regarding IEDs.

The analysis is clear: the USMC has taken some extraordinary steps to focus the institution in a long-term sense against the IED threat. There is room for improvement, but our current trajectory is promising.
FUTURE WAR PAPER

TITLE:
Assessing the USMC’s Future C-IED Capability

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF OPERATIONAL STUDIES

AUTHOR:
MAJOR P. N. WILSON

AY 2010-11

Mentor: Brad Meyer, Ph.D.

Approved: _______________________

Date: _________________________
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISCLAIMER</td>
<td>iii</td>
</tr>
<tr>
<td>I. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>II. The IED Campaign as an Emergent Phenomenon</td>
<td>3</td>
</tr>
<tr>
<td>A New Global Threat</td>
<td>3</td>
</tr>
<tr>
<td>Operation Littoral Chaos: A (Dated) Worst Case Scenario</td>
<td>5</td>
</tr>
<tr>
<td>III. Assessing the USMC C-IED Posture</td>
<td>6</td>
</tr>
<tr>
<td>Organization</td>
<td>7</td>
</tr>
<tr>
<td>Doctrine</td>
<td>7</td>
</tr>
<tr>
<td>Lessons Learned</td>
<td>8</td>
</tr>
<tr>
<td>Ground Vehicle Portfolio</td>
<td>9</td>
</tr>
<tr>
<td>Maritime Prepositioning Force</td>
<td>10</td>
</tr>
<tr>
<td>Continuing Challenges</td>
<td>12</td>
</tr>
<tr>
<td>IV. Conclusion</td>
<td>13</td>
</tr>
<tr>
<td>NOTES</td>
<td>15</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>19</td>
</tr>
</tbody>
</table>
DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF THE MARINE CORPS SCHOOL OF ADVANCED WARFIGHTING OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

QUOTATION FROM, ABSTRACTION FROM, OR REPRODUCTION OF ALL OR ANY PART OF THIS DOCUMENT IS PERMITTED PROVIDED PROPER ACKNOWLEDGEMENT IS MADE.
"The IED threat will persist. We will see them in a combat theater for many years to come and IEDs or their derivatives will find their way into civilized society in greater numbers. In future wars, IEDs will be more sophisticated and the technologies of these devices will become more difficult to defeat."

LTG Michael Oates, CG of JIEDDO, 11 May 2010

I. Introduction

Improvised Explosive Devices (IEDs) are not new. They became increasingly common after Alfred Nobel invented dynamite in the 1860’s. In fact, one of the most significant early examples is the assassination of Tsar Alexander II, the Emperor of Russia on 1 March 1881. Even before that, it is likely that belligerents fabricated deadly devices using black powder, which the Chinese had invented in the 9th century. The appeal of IEDs is, and has always been, the asymmetrical effect a weaker force achieves against a mightier opponent, especially when considering the minimal personal risk and financial cost involved in their employment.

If used at random and with no significant frequency against a conventional military, IEDs pose a tactical, albeit considerable, challenge. However, if they are employed with great frequency, challenging the opponent’s mobility at every turn and causing him significant casualties, IEDs can pose a much greater problem and have potentially strategic effects. Contemporary insurgencies in Iraq and Afghanistan have done precisely that, using IED as their primary method of engagement in a campaign to erode the American political will to fight in the Middle East. While American support for the wars in Iraq and Afghanistan has generally declined over the last several years, that decline has yet to force a conclusion to the conflict in the insurgent’s favor. A poll conducted in Jan 2011 shows that even now, almost ten years since OEF began, 40% of American people still favor the war in Afghanistan. This is only 3.5% lower than the 5-year average (2006 to the present) on that same question and indicates, among other things, an ambient level of national will to fight Islamic extremists in the Middle East.
despite the financial and personnel costs involved. Though there is no guarantee that this national support will continue indefinitely, it is clear that the enemy’s strategic goal behind its IED campaign has yet to be met.

However, though the enemy has not won, it would be ill-advised not to acknowledge the considerable success he has had through IEDs. The American military paid a hefty price for its tactical mobility in Iraq and continues to do so in Afghanistan. Without a doubt, America’s potential adversaries the world over have taken note of the strain that IEDs have had on our campaigns and will be ready to employ them against us in the future. Making this scenario even more likely is the already-apparent trend of IED campaigns as a global phenomenon. They are becoming a major problem the world over, and as our experience in the Middle East makes clear, there is no easy financial or material answer to them.

Author Frank G. Hoffman notes, “In just about every decade of the last half of the twentieth century, the American military has learned, forgotten, and repackaged the hard-earned lessons of small wars and counter-insurgency.” Are we doomed to repeat this? Is the USMC executing a cogent C-IED campaign plan so as to prevent the tragic recurrence of a lesson recorded and lost? This paper will seek to answer that by considering the USMC’s current C-IED posture and its ongoing long-range planning in order to assess our future C-IED capability.

In order to believe that this concern is valid, one must appreciate the IED as much more than just a nuisance or, as it is sometimes described, “Simply a condition of the battlefield.” The IED is, especially in the context of an IED campaign, far more than that. It is a game-changing threat that affects, in one way or another, every member of the Marine Air Ground Task Force (MAGTF) and, if left unmitigated, constitutes (as one former MEB operations officer
put it), "a complete risk to mission". Thus, the ability to counter it today and on tomorrow's battlefields is of great significance and should be a central institutional concern hereafter.

II. The IED Campaign as an Emergent Phenomenon

"It has become the weapon of choice for the insurgents and the signature weapon of this war. It's to the war in Iraq what the machine gun was to World War I."

Rick Atkinson, September 2007

A New Global Threat

The following chart shows the numerical realities of the IED campaign in Afghanistan.

While the overall rise in casualties during the last three years corresponds to the massive buildup of NATO troops, it should be noted that the percentage of those casualties attributable to IEDs remains high and is, in fact, increasing. From 2001 to 2010, IEDs on average accounted for 31.8% of the total hostile fatalities for any given year. During the last two and a half years, however, they average 58.1% of the total hostile fatalities. Thus, the IED campaign remains highly lethal, and the enemy is clearly focusing his efforts toward exploiting this asymmetric vulnerability. While he has yet to achieve his strategic ends, the enemy is at least continuing to
challenge NATO’s supremacy and bid for the support of the Afghan people. As long as he does that, he remains a legitimate danger to mission accomplishment.

The Afghan insurgency is not alone. In Nigeria, insurgents with the Movement for the Emancipation of the Niger Delta (MEND), frustrated with a low quality of life despite a sizable oil and natural gas export economy, are waging an IED campaign to undermine the legitimate government’s political clout.\textsuperscript{18} Though the grievances began in the 1970s, the nature of the unrest had traditionally been non-violent. But, in 2004, insurgents began conducting spectacular IED attacks against the oil infrastructure to draw attention to their cause.\textsuperscript{19} Recently, the IED campaign has become more personal. On 1 October 2010, MEND deployed two IEDs at an Independence Day celebration in Abuja, Nigeria’s capital, killing 12 bystanders and wounding scores more.\textsuperscript{20} In December 2010, a series of catastrophic IEDs killed over 80 persons in the city of Jos, and on 1 January 2011, another blast in Abuja killed four civilians in a market frequented by Christians and government soldiers.\textsuperscript{21} Thus, MEND and other extremist groups in Nigeria are turning increasingly to the IED as a mechanism to achieve their political objectives. They are not the only ones in the world doing so.

In Mexico, drug cartels have rapidly expanded their use of IEDs against the legitimate Mexican government to challenge its rule of law. The trend has been especially negative since July 2010, when the Juarez cartel killed four law enforcement agents with an IED in Ciudad Juarez, Mexico. Encouraged by their competitor’s success, the Gulf cartel detonated six IEDs in the months that followed in the port city of Matamoros.\textsuperscript{22} According to NATO’s Center of Excellence Defence Against Terrorism, Mexico’s and Nigeria’s ongoing IED campaigns are on par with similar campaigns in Pakistan, Somalia, Russia, India, Thailand, and Colombia.\textsuperscript{23}
The examples above are indicative not just of the popularity of IEDs amongst insurgents, but of the remarkable speed at which the skills to employ them seem to move. Alec Barker, a researcher for the New America Foundation, commented in a recent forum:

It took the Irish Republican Army 30 years to progress from command wire bombs to remotely triggered devices. By contrast, it took about six years for militants to make the same improvements in Chechnya, three year for fighters in Gaza, and about 12 months for insurgents in Iraq.\(^{24}\)

Sitting next to Mr Barker at the same forum, retired General Montgomery Meigs said plainly, “The IED threat has gone global.”\(^{25}\)

IED campaigns like those mentioned above might be considered *emergent phenomena* in that they could not have been predicted by their antecedent conditions.\(^{26}\) In hindsight, their evolution seems logical, even inevitable, but USMC doctrine indicates that the possibility of an IED campaign was notably absent from our future war planning just 13 years ago.

**Operation Littoral Chaos: A (Dated) Worst Case Scenario**

In the foreword of Marine Corps Doctrinal Publication 3, Expeditionary Operations, then Commandant of the Marine Corps General C. C. Krulak notes that, “This publication establishes versatility and adaptability as critical capabilities in a broad range of circumstances for expeditionary operations in an uncertain world.”\(^{27}\) The theme throughout is preparedness for any contingency, anywhere in the world, on short notice. The first two chapters describe the wide variety of operational environments to which USMC forces may be deployed in the future. The second two chapters describe current Marine Corps structure and expeditionary concepts. Arguing that historical examples are insufficient to show how those concepts (the last two chapters) relate to the envisioned operating environments (the first two chapters), the publication
includes an eleven page epilogue that describes a fictional future conflict called Operation Littoral Chaos on the west coast of Africa in 2017. It is telling that during the eleven month campaign during which MEU, coalition, and MPF MEB forces go ashore and conduct everything from humanitarian assistance to fully kinetic street-to-street fighting to security operations, IEDs are not mentioned once. Our mobility is never seriously challenged by the enemy. The enemy’s only significant asymmetrical action is in employing a homemade chemical device, but that threat is quickly mitigated by the use of Mission Oriented Protective Posture (MOPP) gear and the speedy deployment of a Chemical-Biological Incident Response Team (CBIRT). Thus in 1998, just 5 years before insurgents in Iraq began a full-fledged IED campaign against American forces, the concept was not on our institutional radar. This should serve as a reminder what a genuine surprise the IED campaign in Iraq was. That similar campaigns will be a part of the future warfighting landscape is imminently logical. The question then is whether or not we are taking the appropriate actions now to ensure our success against them.

III. Assessing the USMC C-IED Posture

"The Marines learned early into OIF that the abandonment of the Small Wars Manual was a mistake. With over 9 years of lessons learned in OIF/OEF, the real issue is what current capabilities does the Marine Corps need to preserve and institutionalize, and how does it want to organize based in an era of persistent engagement and conflict?"

LTC Reyes Cole, USAR, Marine Corps Gazette, October 2010

On 13 May 2004, the Marine Corps lost its first Marine to an IED. Private First Class (PFC) Brandon C. Sturdy, an 0331 machine gunner with Fox Co, 2nd Battalion, 1st Marine Regiment was a passenger in a HMMWV that was struck while driving on the outskirts of Fallujah, Iraq. At that time, US forces had already lost a total of 774 personnel since OIF had begun, 149 of which had been caused by IEDs. This type of fatality, then, did not come as
a great surprise to the Marine Corps, who had already initiated a multi-faceted, institutional adjustment to face the emerging threat.

Organization

The C-IED Working Group (WG) was created by the Commanding General of the Marine Corps Combat Development Command (CG MCCDC) in December 2003. This small, ad hoc staff served as the institution’s lead on C-IED concerns for the next few years, eventually growing to over 20 personnel and falling under the Marine Corps Warfighting Lab (MCWL). But it was not until 12 October 2010 that the Deputy Commandant for Capabilities Development and Integration (DC CD&I) properly institutionalized the WG by expanding it to a formal division of MCWL. During that same time period, the CG CD&I published a charter for the new C-IED Operational Advisory Group (OAG) whose stated mission is, “[To] lead, advocate, and coordinate the development of USMC C-IED DOTLMPF capabilities across the C-IED lines of operation in support of the operating forces.” Thus, through very recent organizational changes, C-IED is now on an institutional par with other traditional communities and has a staff dedicated to its development and preservation.

Doctrine

One of the C-IED Division’s recent accomplishments indicates another essential step in solidifying C-IED as a permanent part of the warfighting landscape: the publication of Marine Corps Information Publication (MCIP) 3-17.2 “MAGTF C-IED Operations” in January 2011. Previously, the two most applicable Marine Corps publications regarding the IED threat were MCIP 3-17.01 “Combined Arms Improvised Explosive Device Defeat” published in September
2007, and MCRP 3-17.2A “Unexploded Ordnance Procedures” published in July 2006. Both publications are almost entirely tactical in their approach. The former purports to be, “Designed primarily to assist Soldiers and Marines at all echelons in planning and coordinating IED defeat operations at the strategic, operational, and tactical levels”, yet nowhere in the document does it describe how to organize a regimental or brigade level staff for C-IED planning. Thus, the recent publication of MCIP 3-17.02, with its focus on the MAGTF as a whole and its explicit description of higher-level C-IED staff sections, bridged a significant gap in our C-IED doctrine. That it is now codified means that our best practices and lessons-learned are readily available, in a formal format, for all the operating forces—it further means that C-IED, as a MAGTF problem, has been given a permanent place in our institutional approach to warfighting.

**Lessons Learned**

For less formal, but more efficient, distribution of lessons-learned, the Marine Corps Center for Lessons Learned (MCCLL) manages a database of 259 separate collections that have been growing exponentially since the program’s inception on 31 July 2006. A quick search for “IED” in all documents yields a telling result. Over 2,400 products are available including individual lessons as well as unit after action reports, many of which from within the last year. This implies that there is a grass-roots aspect to this institutional focus on C-IED as well. It appears that most units are not only learning significant lessons in battling IEDs, but they are making the extra effort to capture those lessons on paper and submit them for consideration to the institution as a whole. Given that so many of the available products were written in the last 12 months, it further implies that C-IED is actually growing in overall institutional concern. In considering our future C-IED capability, this is an encouraging trend.
But, the staff organization and processes, doctrine, and captured lessons learned will only preserve the capability on paper. What matters most, of course, is where the Marine Corps chooses to invest its limited resources. Close consideration of two particular programs will be instructive: the ongoing acquisition of new ground mobility vehicles, and the current planning for Maritime Prepositioning Force (MPF) operations.

**Ground Vehicle Portfolio**

"We are focusing our efforts on developing and fielding a family of vehicles with a balance of performance, protection, payload, transportability, fuel efficiency, and affordability."

Commandant of the Marine Corps, 1 March 2011

The Marine Corps is presently designing its future family of ground vehicles as part of a "synchronized mobility strategy". Three vehicles will comprise that family, each distinct in design and purpose yet complimentary toward an overall mobility capability: the Joint Light Tactical Vehicle (J-LTV) will replace the majority of the HMMWV fleet and provide general purpose transportation; the Marine Personnel Carrier (MPC) will provide all-terrain mobility for Marine units en masse; and the new Amphibious Assault Vehicle (AAV) will replace the existing AAV, providing traditional amphibious mobility. From a C-IED perspective, the
design of the vehicles is a primary concern. While the J-LTV and MPC are still in the technical design (TD) phase (and thus their final design requirements have not been solidified) the initial design parameters put a premium on force protection. Some of the resulting prototypes of the J-LTV, for instance, include v-shaped hulls to deflect underbelly blasts, adjustable suspensions to provide additional clearance for the same purpose, and additional bolt-on armor packages that will greatly enhance survivability from flanking ballistic threats.44 Meanwhile, the prototype MPC includes a v-shaped hull as well, but because its drive-train supports a more complicated 8-wheel design, an adjustable-height suspension is less likely.45 With Secretary Gates' recent canceling of the Expeditionary Fighting Vehicle, the AAV replacement plan is less developed. Nonetheless, its final design requirements will include much stronger underbelly protection than the current fleet of AAVs has.46 It would appear, then, that in accordance with the Commandant's statement cited above, each vehicle's design is satisfactorily conscious of the possibility of a future IED threat. While encouraging, it is also worth noting that the designs are not finalized; with competing concerns like overall weight and (of course) cost, the finished products' C-IED features remain to be seen.

Maritime Prepositioning Force
Cost is also one of the most significant factors in the embarkation of assets aboard Maritime Prepositioning Force (MPF) ships. Ostensibly, the NAVMC 2907, as of its latest update on 31 March 2011, puts a high premium on Route Reconnaissance and Clearance (R2C) capabilities since it establishes a prepositioning objective (PO) of two R2C units (consisting of one Buffalo Mine Protected Vehicle (MPV) and two Vehicle Mounted Mine Detectors (VMMD) each) to be loaded onto every MPF squadron (MPSRON) and four R2C units to be stored in the Marine Corps Preposition Program-Norway (MCPP-N) caves. But, there are currently no R2C assets on any of the three MPSRONs or in MCPP-N, and as long as the USMC is heavily committed in Afghanistan, that situation is bound to continue. The issue is cost. In order to embark those assets, one of two actions must be taken: those already on the Marine Corps inventory would have to be taken out of Afghanistan or away from units conducting home-
station training, or the Marine Corps would have to purchase more. Because the USMC's enterprise acquisition goal has already been met, purchasing additional Buffalo MPVs and VMMDs would result in an eventual surplus when OEF ends. So, HQMC has taken a deliberate, planned risk in not meeting its own PO.49 This does not mean that a future MPF operation will necessarily be without R2C assets. In the case of a major contingency operation, R2C assets could be sourced from OEF or home stations on short notice.50

R2C capability is but one insight into the MPF program's preparedness to operate against an IED campaign. Planned manpower, in terms of task organization, is equally telling. Annually, the Marine Corps updates Marine Corps Bulletin (MCBUL) 3501, "MPF Force List". The most recent version calls for a MEB staff with a 163-man command element organized along traditional staff lines. Missing are personnel dedicated to a C-IED Cell, 51 the very staff function so specifically detailed and called for in the MCIP 3-17.02 (discussed earlier). This would appear to be a significant shortfall in the MPF MEB's C-IED capability, but as a senior Combat Engineer officer noted, "[Should an IED campaign be expected] the MEB (when activated---and it wouldn't be overnight), could be task organized with a C-IED staff cell."52 The same officer further noted that this kind of rapid staff organization was precisely what was done in early 2009 when MEB-Afghanistan, with its 15-man C-IED cell, was formed from across the Marine Corps on short notice.53 In other words, while MCBUL 3501 does not explicitly call for a MAGTF C-IED cell, the Marine Corps has already demonstrated its capacity to quickly organize a C-IED staff suited to the task. Thus, though not recordable on any document or budget, one aspect of the Marine Corps' current C-IED capability is in its institutional flexibility. So long as this mindset continues, that part of the capability will as well.
Continuing Challenges

To conclude this section regarding the Marine Corps' current C-IED capabilities and trends, it is worthwhile to note that even now, despite billions of dollars spent on equipment and training, the after-action reports (AARs) from units returning from combat contain familiar, yet discouraging, themes. Regimental Combat Team (RCT) 7, having just completed a 13-month combat tour in Afghanistan, noted the following in a post-deployment lessons-learned conference:

Although IED's represent the most common and prevalent method of Marines getting injured or killed, the institutional focus on C-IED training across the force remains segmented and less than the top priority. The Marine Corps needs to recognize the enduring nature of this asymmetric threat and institutionalize training focused on its defeat.54

RCT-7's following recommendation is to introduce C-IED training at officer and enlisted entry-level schools and continue it throughout the training and education continuum.55 This should serve as a sobering reminder that despite the monumental effort undertaken thus far, IEDs continue to be the number one killer of deployed Marines and a primary concern of deployed staffs.

There will always be a cost associated with carrying out US foreign policy. If our enemies cannot defeat us outright, they will strive to make that cost as high as possible with the intention of eroding the American will to fight. With that as their only true remaining strategy, a robust, well-maintained C-IED capability will serve to protect our nation's interests, and Marines like PFC Brandon C. Sturdy, from harm.
IV. Conclusion

The author began researching this paper with a hypothesis: that the USMC was presently making significant long-range decisions that would lead to the eventual, and unintentional, unraveling of our hard-earned C-IED capability. In seeking to confirm or deny that hypothesis, the author has learned much about our present capability and recent institutional decisions that, in fact, have led him to conclude that the hypothesis was mostly incorrect. The USMC has, by and large, accepted the IED as a significant danger now and in future operations: among other things, it has created a permanent advocacy for C-IED programs; it has solidified new C-IED doctrine; it has updated MPF planning to reflect a need for R2C in contingency operations; and most significantly, it is pursuing a family of ground mobility vehicles designed for force protection in an IED environment.

Still, there should be a call to vigilance. Due to the dispersed nature of C-IED concerns, almost any programmatic decision across the institution could impact the overall capability. While C-IED advocacy by MCWL is a strong step in the right direction, all functional staffs within the Capabilities Development Directorate should consider their role in its preservation. Next, C-IED training needs to be continually improved and expanded; this will be particularly difficult as our commitment in Afghanistan comes to an end and the IED threat loses its immediacy. Last, despite the tightening purse strings, the Marine Corps needs to continue to work with the Joint IED Defeat Organization (JIEDDO) to develop effective and efficient technological solutions to the IED problem.

In 2026, should the Marine Corps find itself in another security and stabilization operation, it will almost assuredly face an IED campaign by a conventionally outmatched
opponent. If the Marine Corps continues on its present course, and if the lessons of the last 10 years remain fresh in our institutional mind, we will be well prepared.
Notes


2 This paper will focus solely on IEDs vice conventional landmines. While their effect may be similar, the IED’s developmental history and employment is distinct from the landmine and warrants particular attention.

3 Encyclopedia Britannica Online, s.v. ”Assassination of Tsar Alexander II.”

4 Encyclopedia Britannica Online, s.v. “Black Powder.”


8 Ibid.

9 Ibid.


12 Thomas Connally, Col, USMC, Chief of Staff, JIEDDO, interviewed by author, 11 August 2010.

13 Michael Killion, Col, USMC, former Operations Officer, MEB-Afghanistan, interviewed by author 15 November 2010.


16 This number was calculated by averaging the percentages of IED related hostile deaths each year from 2001 to 2010. Derived from data on iCasualties.org, “Afghanistan Fatalities,” website updated daily, iCasualties.org/OEF/Fatalities.aspx (1 May 2011).

17 This number was calculated by averaging the percentages of IED related hostile deaths each year from 2009 to 2010. Derived from data on iCasualties.org, “Afghanistan Fatalities,” website updated daily, iCasualties.org/OEF/Fatalities.aspx (1 May 2011).


26 Encyclopedia Britannica Online, s.v. “emergent phenomena.”


30. PFC Sturdy determined to be the first US Marine killed by an IED by sorting OIF fatalities by year, then cause of death, then service. iCasualties.org, “Iraq Fatalities,” website updated daily, iCasualties.org/OIF/Fatalities.aspx (1 May 2011).


35. AMHS, “MCWL Refresh,” 12 October 2010, received via email (2 November 2010).

36. DOTLMPF: Doctrine, Organization, Training, Leadership, Manpower, Facilities.

37. AMHS, “C-IED OAG Charter,” 14 September 2010, received via email (2 November 2010).

38. MCIP 3-17.01, IED Defeat, (US Government Printing Office, 6 August 2008), vii.


40. Marine Corps Order 3504.1, Marine Corps Lessons Learned Program, 31 July 2006. It should be noted, however, that MCCLL has a repository of lessons that pre-date its official inception. According to an action officer who presently works there, their oldest recorded lesson regards riverine ops in Vietnam. It was submitted 1 July 1968.


43 Ibid.


45 Kevin McConnell, Director, FMID, interviewed by author, 8 March 2011.

46 Ibid.

47 NAVMC 2907, “Prepositioning Objective,” 31 March 2011. This document is not considered SECRET, but is not available for distribution. The author was made aware of the PO goals in an interview with Mr. Ric Story (cited in bibliography).

48 Shon Brodie, shon.brodie.ctr@usmc.mil, MAGTF Planning Branch, CD&I. "Preposition Objective." 26 April 2011, personal email (26 April 2011).

49 Ibid.

50 Ibid.


52 James Flowers, Director I MEF G-7 Engineer Office, james.flowers@usmc.mil, “MPF MEB/MEU Considerations,” 26 April 2011, personal email (26 April 2011).

53 Ibid.


55 Ibid.

Automated Message Handling Service (AMHS). “C-IED OAG Charter.” 14 September 2010. Received Via Email (2 November 2010).

Automated Message Handling Service (AMHS). “MCWL Refresh.” 12 October 2010. Received Via Email (2 November 2010).


Connally, Thomas. Col, USMC. Chief of Staff, JIEDDO. Thomas.connally@usmc.mil. Interviewed by author, 11 Aug 2010.


McConnell, Kevin. Director, Fires and Maneuver Integration Division, Combat Development Directorate. Kevin.mcconnell@usmc.mil. Interviewed by author, 8 March 2011.


Meigs, Montgomery. As quoted in “Afghan IEDs Show Rapid Adaptation.” DOD Buzz.


