
# Infantry Battalion Operations in Afghanistan
# 2nd Battalion, 7th Marines

## Lessons and Observations
## From Operation Enduring Freedom (OEF)
## April – October 2008

*"Smaller is not necessarily more expeditionary, bigger is not necessarily less expeditionary. The ability to push support forward to meet requirements is expeditionary."*

Capt Michael Vincent, S-4, 2/7

30 January 2009

## Executive Summary

The 2nd Battalion, 7th Marines (Task Force 2/7) deployed to southern Afghanistan from April to October 2008, on short notice in order to fill a critical request for forces in support of U.S. Central Command.

**Bottom Line Up Front: The mission of training and mentoring Afghani police was complicated by (1) the need to establish and occupy nine forward operating bases (FOBs) spread over an area of approximately 28,700 square kilometers, while (2) simultaneously maintaining a level of security that (3) permitted identification of suitable candidates for police and training them, since a police force did not exist yet in the areas in which 2/7 operated and (4) accomplishing this without any established support network. The operational environment was more kinetic and austere than conditions generally experienced by recent veterans of Operation Iraqi Freedom (OIF). Companies and platoons were widely dispersed and follow-on units deploying to such areas in Afghanistan must be prepared to operate in a semi-autonomous manner. Training and organization need to be tailored to those conditions and their specific area of operations (AO), and consideration should be given to the proven utility of the MAGTF in such an environment. Battalion operations were viewed as effective in establishing a foundation for follow-on units in the following areas: FOB construction, logistics processes, communications infrastructure, initiation of civil military operations, a mentoring and training process, and disrupting insurgent control of areas previously unoccupied by coalition forces.**

**Pre-Deployment Training Program (PTP)**

- Unit officers indicated that small unit leadership training and a significant number of live-fire exercises were the key elements of their preparation for deployment.
- Mojave Viper, with modifications, was viewed as an excellent training venue despite the focus on preparing units for deployment to Iraq. Training at 29 Palms, CA was appropriate to prepare the unit for assignment to southern Afghanistan because of the similarity in terrain. This might not be the case for units assigned to northern or western Afghanistan because the terrain in those areas is much more mountainous.
- Driver training in preparation for operations in Afghanistan should focus on off-road driving. Marines assigned to logistical convoys must train for, and expect to be engaged in combat operations.
- Because of the large size of the AO, companies and platoons operate with much greater autonomy than in Iraq. Units should train extensively for dispersed operations, be proficient with company level operations centers (CLOCs) and company level intelligence cells (CLICs), but also take these functions down to the platoon level. Captains, lieutenants, staff NCOs and sergeants must be prepared to operate independently.
- Blue Force Tracker (BFT) was the primary communications means for operations on the move, not satellite communications (SATCOM). Units must train extensively with all capabilities of BFT prior to deployment.

**Operations**

- Elements of the battalion were dispersed throughout nine different districts, two Provinces, two Regional Commands and occupied 14 fixed site forward operating bases and combat outposts (FOBs and COPs).
- Parallel North Atlantic Treaty Organization (NATO) International Security and Assistance Force (ISAF) and Central Command (CENTCOM) and Combined Security Transition Command - Afghanistan (CSTC-A) chains of command exist in Afghanistan, with different support capabilities. Units must be familiar with these relationships and know how they will affect their command and control, medical evacuation (MEDEVAC) requests, logistics, close air support (CAS), fire support and intelligence operations.
- Forward air controllers (FACs) or joint terminal attack controllers (JTACs) need to be positioned at every FOB or maneuver unit. Their actions cannot be effectively controlled by the battalion combat operations center (COC) due to distances between FOBs. These personnel must be fully qualified before they deploy and be prepared to conduct Type 2 and 3 controls [1] as soon as they arrive in theater.

**Organization and Personnel**

- Interviewees stated that the capabilities of a Marine air ground task force (MAGTF) would be better suited to the mission assigned to the reinforced battalion.
- Due to dispersion of units, Headquarters Company personnel and battalion attachments such as communications, motor transport, engineers, helicopter support teams (HST), and medical personnel were task organized to the company and platoon levels in order to function in a more self–sustained manner. Additional medical augmentation was requested and a Shock Trauma Platoon (STP) was sourced to permit stabilization of severely injured individuals awaiting CASEVAC.
- The CO stated that while the impact of civil military operations was apparent, a greater civil affairs presence than the two teams working in the 2/7 area was needed.

**Logistics**

- While common item support, e.g., water, food, fuel, construction materials, and medical supplies, was provided by a U.S. Army combat service support battalion in Afghanistan, 2/7 received USMC-unique supply support in many cases directly from the U.S. The logistics officer stated that frequently the items he requisitioned were in stock at the Supply Management Unit (SMU) at Taqaddum, Iraq, and suggested that transportation and lead times for requisitioning USMC specific items could be considerably shortened by permitting USMC units in Afghanistan to order material from that SMU.
- The battalion planned to make greater use of contracted logistics support for FOB construction, but this was almost entirely unreliable due in part to the security environment.

**Equipment**

- Because of the extremely poor road conditions in Afghanistan, the Medium Tactical Vehicle Replacement (MTVR) 7.5 ton truck was the most capable and useful of vehicles in theater due to its power, cargo handling capacity, off-road capabilities and survivability record.

- Organically controlled ISR assets such as the Scan Eagle unmanned aerial vehicle (UAV) were viewed as essential and could be a significant asset employed down to the company level.

The remainder of this report contains more detailed background, rationale and recommendations on the above and other topics.

# Prologue

The observations, analyses and assessments summarized in this document are based on comments and reports by Marines and Sailors of varying ranks and experience levels who led, participated in, or supported forces participating in Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Just as the enemy changes their tactics, techniques and procedures (TTPs), we too must quickly change and adapt to the fight at hand. The Marine Corps has a reputation for innovation and adaptation, and maintains the highest standards of excellence in the art of warfare. It is with a conscious intent to maintain this reputation that the Marine Corps Center for Lessons Learned (MCCLL) offers the observations and commentary within this report. Please take the information provided, build on it, and report back on its applicability. Comments and feedback are welcomed and encouraged.

This is one of many documents and briefings covering a wide variety of topics that have been put together by the MCCLL. The MCCLL library of lessons and observations are not sole source or authoritative, but are intended as a means of informing the decision making process and effecting needed changes in our institution. These observations are not service level decisions. Observations highlight potential shortfalls, risks or issues experienced by units that may suggest a need for institutional change or corrective action. The intent is to pass these observations to those responsible for how Marine forces are organized, trained, equipped and provided to combatant commanders.

It is of the utmost importance that individuals and units continue to provide their lessons and observations so we can ensure the next unit to deploy has the benefit of hard-earned experience prior to crossing the line of departure. Getting your observations and lessons into the Lesson Management System early enough to impact pre-deployment training is crucial to increasing the effectiveness of follow on units and saving the lives of our Marines.

M. E. Dunard
Colonel, United States Marine Corps Reserve
Director, Marine Corps Center for Lessons Learned

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## Purpose

Inform Deputy Commandant (DC), Combat Development and Integration (CD&I), the Commanding General (CG), Training and Education Command (TECOM), advocates, operating forces and others on results of this MCCLL collection.

## Background

In early January 2008, United States Marine Corps Forces Central Command (USMARCENT) received a warning order from Central Command (CENTCOM) directing planning for the deployment of a Marine Infantry Battalion, 15 April through 15 November 2008, in support of Commander International Security Assistance Force (COMISAF) operations in Afghanistan. Headquarters Marine Corps identified 2nd Battalion, 7th Marines (2/7) as the deploying unit and USMARCENT immediately advised them on the deployment details. Upon receipt of the CENTCOM Fragmentary Order (FRAGO) in February 2008 directing the deployment of 2/7, USMARCENT released a subsequent FRAGO further directing 2/7's deployment in support of Commander, Combined Security Transition Command – Afghanistan (CSTC-A) with a mission to provide security for Afghan National Police (ANP) mentors and assist in training, within capabilities, conduct training and mentoring of AFN forces in order to assist the Government of the Islamic Republic of Afghanistan (GIRoA) to extend its authority and influence over security, stability, and regional development. [2]

At the time 2/7 was notified of the pending Afghanistan deployment, they were well into their training cycle for a subsequent Iraq deployment. The leadership at CENTCOM, USMARCENT, and the Marine Corps were well aware that this short notice course of action was not optimal and would require a monumental effort by the battalion and component command to coordinate the required support. The battalion had to rapidly change its focus to prepare for the new destination and mission. After less than three months of Afghanistan-focused training and preparation, the unit deployed to Helmand and Fara Provinces, Afghanistan. Concurrently, USMARCENT positioned key staff members in Afghanistan, who would remain in country for the duration of 2/7's deployment to plan and coordinate the formidable support effort.

During August and September 2008 (at the request of MARCENT) a MCCLL collection team traveled to Afghanistan and conducted 45 interviews with commanders, staff officers, key personnel and senior enlisted Marines of 2/7. The battalion redeployed to CONUS in November and December 2008.[3]

## Training

The battalion conducted pre-deployment training primarily at 29 Palms, CA, in preparation for an anticipated deployment to Iraq. The terrain was remarkably similar to southern Afghanistan and was viewed as an appropriate training venue for the battalion's assigned AO. This would not have been the case if the unit had conducted operations in northern or eastern regions of Afghanistan. MCCLL note: Units operating in other areas of Afghanistan have stated that 29 Palms is not necessarily the best training terrain for the mountainous regions of eastern and northern Afghanistan. Some training at Mountain Warfare Training Center (MWTC) Bridgeport is recommended for units deploying to those areas. [4]

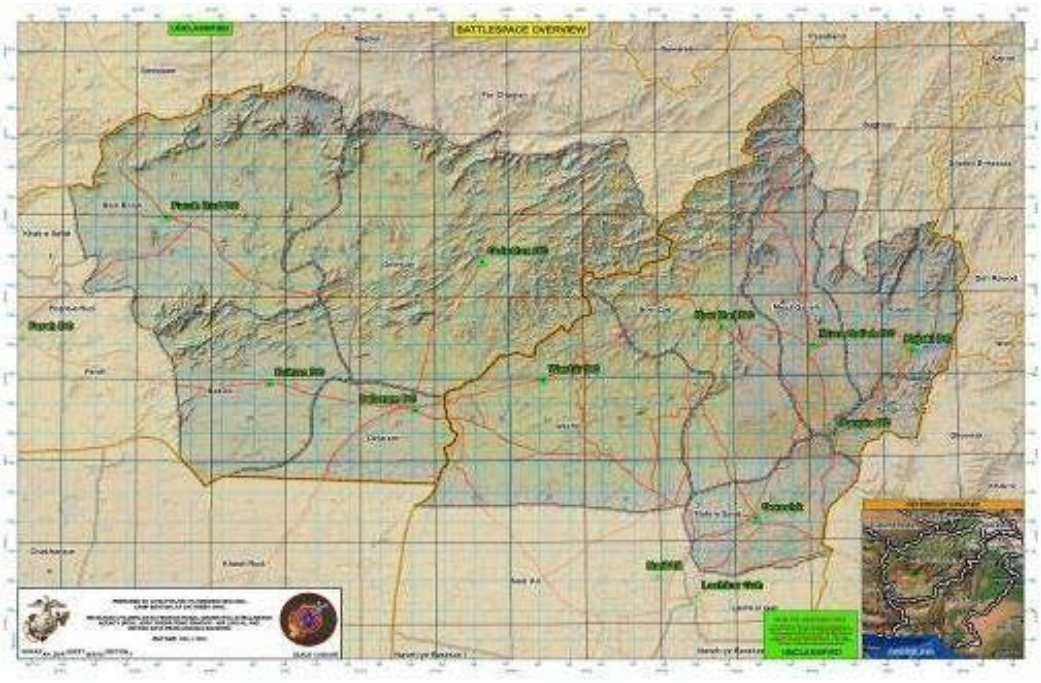


**Figure 1: Area of Operations. The shaded area above in which 2/7 conducted operations is approximately 200 km wide and 100 km north to south, an area of 28,700 square kms.**

## Pre-Deployment Training Program (PTP)

The PTP syllabus at 29 Palms was generally described in positive terms by members of the battalion. Most of the aviation related training took place in Yuma, Arizona, with exception of the Tactical Air Control Party (TACP) course for the JTACs and FACs taught at Coronado, CA.

## Training Emphasis

The pre-deployment site survey (PDSS) conducted three months prior to deployment aided the commanders and staff in focusing training in a variety of ways:

- Information and observations during the PDSS indicated a much larger enemy presence in their AO than was originally expected.[5] This reoriented the battalion toward a more kinetic environment than veterans had experienced in Iraq, and the change resulted in more weapons and direct combat operations training. The battalion dramatically increased focus on enhanced marksmanship training (EMP) and live fire exercises.
- The FOBs that the battalion units planned to occupy had not yet been built. This refocused logistical support training towards FOB construction and maintenance.[6]
- The large AO assigned to 2/7 was an indication that most operations would be conducted at the company and platoon level. Special emphasis was put on pushing responsibility down the chain of command and thoroughly training small unit leaders.[7]

## Organizational Changes to Facilitate Training

Command and control (C2) systems were used as much as possible during PTP, even for "garrison" or administrative issues, to minimize on-the-job training once in theater. [8] The battalion conference room became a COC and the Officer of the Day (OOD) became a watch officer.[9] In anticipation of widely dispersed operations, training was also focused on company size mission rehearsal exercises (MRXs). *"There was never a battalion event to get the COC*

*operating and functioning together. The first time that we really started operating as a COC was in Afghanistan."* [10] A considerable amount of on-the-job learning occurred once in theater and it took a while for the COC staff to become comfortable with C2 technology.[11]

Based on mission analysis, terrain and distances, and the likely requirement to support at least nine locations once they deployed, the 2/7 logistics section organized into two combat trains during PTP. Vehicles, including the attached truck platoon, were assigned to those two trains with the intent of operating as they would in theater. The motor transport section leader became officer in charge (OIC) of one combat train, and the truck platoon commander the OIC of the second. The logistics officer stated that this was effective in sustaining sufficient supply runs to keep eight FOBs operating with what was initially minimal air support.[12]

Training of the Marines who would man convoys was combat oriented, making them proficient and responsible for their own security while on the move. *"This fostered a distinct sense of being more closely associated with the Marines at the FOBs than with the HQ Marines at Camp Bastion even though they were based there."* [13]

**Combat Hunter.** The operations officer credited the Combat Hunter program with providing learned observation skills that led to the discovery of numerous improvised explosive devices (IEDs), in particular, enhancing observation skills (profiling, tracking, use of binoculars or 'glassing'). The battalion gunner stated that this training should be sustained. [14]

**Weapons and Marksmanship**

Battalion leadership decided early in the training cycle that emphasis on live fire experience in training would provide individual Marines the expertise and confidence to use and employ weapons effectively in combat. *"We emphasized a lot of firing and … got quite a bit of a reputation for expending a lot of ammo. But we knew it was necessary based on all the intel briefs that we had received while we were over here."* This emphasis on live fire training with individual and crew-served weapons on a variety of ranges under a variety of circumstances was viewed as beneficial.[15] In addition to completing almost every possible range at 29 Palms, Marines in 2/7 completed Enhanced Marksmanship Training (EMT) before deploying, and unit leaders recommend this for follow-on forces. The battalion staff was confident at the time of deployment that their Marines had mastered their weapons and were ready to use them in combat.

The Weapons Company CO noted that his mortar men benefited from the Infantry Mortar Leaders Course, however more training on executing vertical interval and certifying untrained observers as Forward Observers would have been beneficial.[16] He also recommended that platoon and combined anti-armor team (CAAT) section leaders be sent to the formal Scout Leaders Course during Block I training to better enable them to support security operations they conducted later in theater.[17]

Specific training on vehicle mounting and dismounting procedures would have improved 2/7's overall capabilities to destroy the threats they encountered in their AO.[18]

At the battalion's request, Tactical Training and Exercise Control Group (TTECG) provided some customized range scenarios based on what was observed during the 2/7 PDSS to Afghanistan. TTECG assembled a range scenario that focused on movement to contact transitioning into urban terrain. This proved useful during the deployment and is recommended for units coming to southern Afghanistan.[19]

**Driver Training**

Extensive driver and recovery training in off-road conditions was essential due to the vast distances on unimproved road or off-road conditions needing to be covered. The battalion commander determined that only off-road driver training was useful during PTP because of the lack of paved roads in Afghanistan.[20]

- Because the distances in Afghanistan greatly exceed the typical driver training circuits in CONUS, the logistics officer recommended that at least two long convoy operations be added to Mojave Viper (MV) to provide basic understanding of a combat train on a standard length mission in Afghanistan. [21]
- Convoy training should include IED encounters, complex enemy ambushes and disabled/ recovery vehicle events. Small unit leaders need to practice the rapid decision-making required in the cases of disabled convoy assets. This should cover everything from rapid recovery operations to counter-ambush drills to calling in an air strike to scuttling a disabled vehicle loaded with supplies useful to the enemy.
- *"Recovery operations should receive extensive attention as many convoys end up towing a broken vehicle either to the FOB or back to base."* [22] MCCLL note: An earlier report recommended that, "Prior to deployment, training needs to reflect situations experienced in the theater of operations. A "combat recovery" course should be added to pre-deployment training that employs damaged vehicles to include all variants of Mine Resistant Ambush Protected (MRAP) vehicles." [23]

**Heavy Equipment Operators**

The volume of heavy lifting required for FOB construction overly stresses equipment resulting in an increased failure rate. All FOBs contained deadlined heavy equipment that could not keep up with the constant demands of constructing Hesco barriers and the loading and off-loading of heavy equipment.

Operating heavy equipment in austere conditions and constantly pushing the operational and maintenance limits of the equipment requires good judgment and experience. Heavy equipment operators interviewed stated that their PTP training and what they were taught in their operator courses did not resemble the situations and operating conditions they encountered in Afghanistan.[24] Heavy equipment operator training needs to be adjusted to reflect terrain and weight realities that Marines will encounter.

**Air Delivery**

The S-4 stated that they anticipated helicopter support team (HST) requirements, sourced landing support specialists who "rig" sling loads for helicopter delivery and conducted HST operations during pre-deployment training. However, they had not familiarized themselves with container delivery system (CDS) air delivery. CDS bundles are rigged with parachutes and air delivered, in 2/7's experience, typically from C-17 or C-130 aircraft. [25]

The S-4 stated that training in CDS and working with the HST would have received more emphasis during training if the unit had been aware of the efficiency of air delivery and the extent to which they would use it. CDS became a primary means of resupplying the FOBs, and he encouraged follow-on units to become familiar with air delivery concepts and operations during PTP. [26]

**Explosive Ordnance Disposal (EOD)**

The three EOD teams that initially deployed with 2/7 had completed the Explosive Ordnance Disposal Response Operators Course (EROC). Interviewees stated that EROC was uniquely suited to prepare EOD to support the battalion.

The EOD teams also participated with 2/7 in Mojave Viper and were well integrated into the battalion by the time they departed.

EOD team members should be familiar with the "Schiebel" manual metal detectors, which were generally viewed as the best handheld device available. [27]

**Communications**

Battalion staff members stated that that in terms of complexity, few support mechanisms rival the communication architecture employed by highly dispersed units operating in a joint and allied environment. To prepare for the deployment, 2/7 participated in a Support Wide Area Network (SWAN) communications exercise (COMMEX) during Block III PTP, which allowed them to pre-configure the routers and ensure that the communications architecture was supportable. The S-6 made the following observations related to their preparation for deployment. [28]

- The COMMEX prior to deployment did not address protocol and interface issues as a result of the joint and allied environment in which 2/7 would operate in Afghanistan. *"Such an exercise should stress the global allied interconnectivity protocols and allow units to work through those issues at least once in a training environment. Without practicing to interconnect with the coalition grid, getting familiar with their standards and protocols and successfully testing that network node interfaces (NNIs) will function, the practical use of a pre-deployment COMMEX is somewhat diminished."* [29]
- There was little training in CONUS with the complex technologies associated with satellite communications (SATCOM), CISCO call manager/call router, high performance waveform (HPW) and wireless message terminal (WMT).[30]
- The rifle companies had much more communications equipment in theater than during the training scenario at MV. Company commanders had VHF, HF, SATCOM, a HPW link, wireless messaging systems, text and data transfer capabilities, HF data transfer, Blue Force Tracker (BFT) and a ROVER remote viewing terminal for ISR in their COCs. Previously, this would have been located in the battalion COC, but it was routinely employed at the company level in Afghanistan. Pre-deployment training did not address these capabilities at the company level.[31]

**Medical Staff**

The Operation Emergency Medical Skills (OEMS) and Combat Trauma Management (CTM) courses were viewed as the most important training that doctors, Shock Trauma Platoon (STP) staff, and independent duty corpsmen received during PTP. *"These courses have saved lives"* [32]

> *"The fact that the STP came together at 29 Palms during pre-deployment training was a huge factor in its success."* [33]

**Personnel/manning prior to PTP**

Although the majority of 2/7's assigned personnel joined the battalion in time to conduct PTP, attachments such as Law Enforcement Professional (LEP) program personnel, radio battalion staff, explosive ordnance disposal, medical personnel did not. Many of these enablers did not train with the unit at all and simply joined after Mojave Viper. Interviewees said that some of the late "joins" were a result of identifying the requirements for enablers only after the PDSS. [34] Respondents emphasized:

- Integrate medical, route clearance platoon, radio battalion, heavy equipment operators, embarkation, civil affairs, network and data technician personnel into the overall training package and train them as part of the unit as early as possible. *"You should not have to try to build cohesion in combat, working out the kinks as you conduct the fight."*[35]
- Civilian staff such as LEPs or interpreters should join the unit during PTP and deploy with the unit rather than joining them in theater. The battalion commander said that one civilian individual who joined the unit in theater and *"…it was clear after a five minute conversation that he could provide very little of what was expected of him. There is a much better chance to get a replacement when the contractor is still in CONUS. Once he is in theater he is contractually bound to stay even if he does not add value and there will probably not be a replacement since the slot is filled."* [36]

## Operations

The battalion entered their operational area in southern Afghanistan in April 2008, and immediately commenced operations to occupy a 28,700 square kilometer area with a reinforced infantry battalion (approximately 1,300 Marines). [37] Their AO was part of battlespace owned by two regional commands (RC): RC South, a NATO (Canadian) command, which included the areas of Helmand Province where 2/7 operated; and RC West, a NATO (Spanish and Italian) command, which included the areas of Farah Province where 2/7 operated. Their mission was to create the necessary security and other conditions that would allow the mentoring and training of Afghan National Police (ANP) via programs called Focused District Development (FDD) and In District Reform (IDR). The Battalion Commander stated that the two most significant issues that affected 2/7's deployment were the ambiguous mission, and the added mission of In District Reform (IDR).[38]

IDR was an offshoot of the Focus District Development program developed by Combined Security Transition Command - Afghanistan (CSTC-A). IDR was designed specifically to take advantage of the added security that was provided by the presence of 2/7. This added security would eliminate the need for the ANP to be backfilled by the Afghan National Civil Order Police (ANCOP) while they attended training which is standard for FDD and also the limiting factor with the FDD program. Both programs focused on finding suitable candidates for police work and training these volunteers in basic police skills. One of the largest failures of the program was the recruiting effort—recruiting from one or several districts only to return the ANP graduates to a completely different district (which is not what they signed up for).

Because 2/7 was initially sourced as a one-time deployment of forces, the IDR program was designed to take place completely within their deployment timeline which required 2/7 to occupy their eight districts simultaneously vice sequentially as initially planned. As a result, the ensuing construction and initial supply effort for each FOB was extremely challenging. The battalion planned to make heavy use of contracted logistics support for FOB construction, but this was

almost completely unreliable due in part to the security environment. [39] *"To turn over the completed FOBs to the next unit would be accomplishment enough for any unit, but that is only the most visible piece of our setting of conditions for follow-on forces."* [40]

Police mentoring and training efforts were hampered by ongoing anti-coalition activities. *"It's like doing Fallujah before Al Fajr. We're in the midst of it and trying to fight Taliban while doing civil-military operations (CMO) and while trying to train police and mentor them, because they're learning as they go. You're doing everything concurrently. The mantra is 'clear, hold, build.' We're trying to do it all at the same time. …We should be clearing. … certainly to a point of creating a stable, more secured, environment. When you bring in a police force, that's the building piece. When you're doing CMO, that's building, but you've got to hold your ground. We don't really hold much ground outside of our FOB. We go out there and influence it. We disrupt, but we don't hold it. And the reason we don't hold it is because we haven't cleared it, and by providing that security buffer through clearing and then establishing the security footprint to hold it, you're more able to effectively build. However, during that transition piece, you're going to get the willing assistance of the people themselves. … I use the term, 'turning four into forty', and a four-man fire team now become 40 local citizens in addition to them, that's now enabling security and taking an interest in their own prosperity."* [41]

The command relationship for 2/7 was in line with their mentoring mission, which placed them under Afghan Regional Security Integration Command (ARSIC) who is under TF Phoenix which reported to CSTC-A, who in turn reported to CENTCOM. This command structure was outside International Security and Assistance Force (ISAF) control. Most of the warfighting capabilities in Afghanistan resided with ISAF, which reported to NATO.[42] The CSTC-A command relationship had significant consequences for 2/7 and impacted on their operations and logistics. *"ISAF has the ability to source equipment. ISAF has the priority for all the capabilities whether it is air support, air assets in particular, ISR assets; they are the operational arm. CSTCA is … a train and mentor organization and there is a mindset – because of how they've operated in the last few years – that CSTCA will go to established FOBs. They will benefit from the battle space manager's generosity to host them at their FOBs and then they will take the mission of training that Army and police force. That hasn't been 2/7's experience. …. We went to the most austere location of the country … and established a footprint where there wasn't one previously. That puts us in kind of a problem there because … the equipment, the air support, the war fighting capabilities – exist in ISAF and we were not an ISAF unit, we were a CSTCA unit. A lot of people in the beginning felt 'You're just training and mentoring Army and police. Why do you need close air support? Why do you need Predator feeds? Why do you need ISR capabilities? Why do you need all this ammo? This doesn't make sense. This isn't how CSTCA has operated' …We turned to our higher headquarters and said 'I need you to be a source of supply for me for ammunition, for more equipment, for better force protection measures' – camera systems, new technologies whatever it may be – as we determined our requirements."* The logistics officer stated that they quickly learned that TF Phoenix and CSTCA had little of the support capabilities needed, and approached the U.S. Army Combat Service Support Battalion (CSSB) 189 at Kandahar, part of Combined Joint Task Force 101 in the ISAF chain of command, who provided them common item support such as water, fuel, construction materials, and medical supplies. The Army CSSB also served as an ammunition supply point for USMC provided ammunition, but the CSSB did not have other USMC unique items, which in many cases had to be ordered from CONUS. [43]

The battalion was dispersed over nine different districts and 14 fixed site FOBs with a force lay down as depicted in Figure 2. [44]

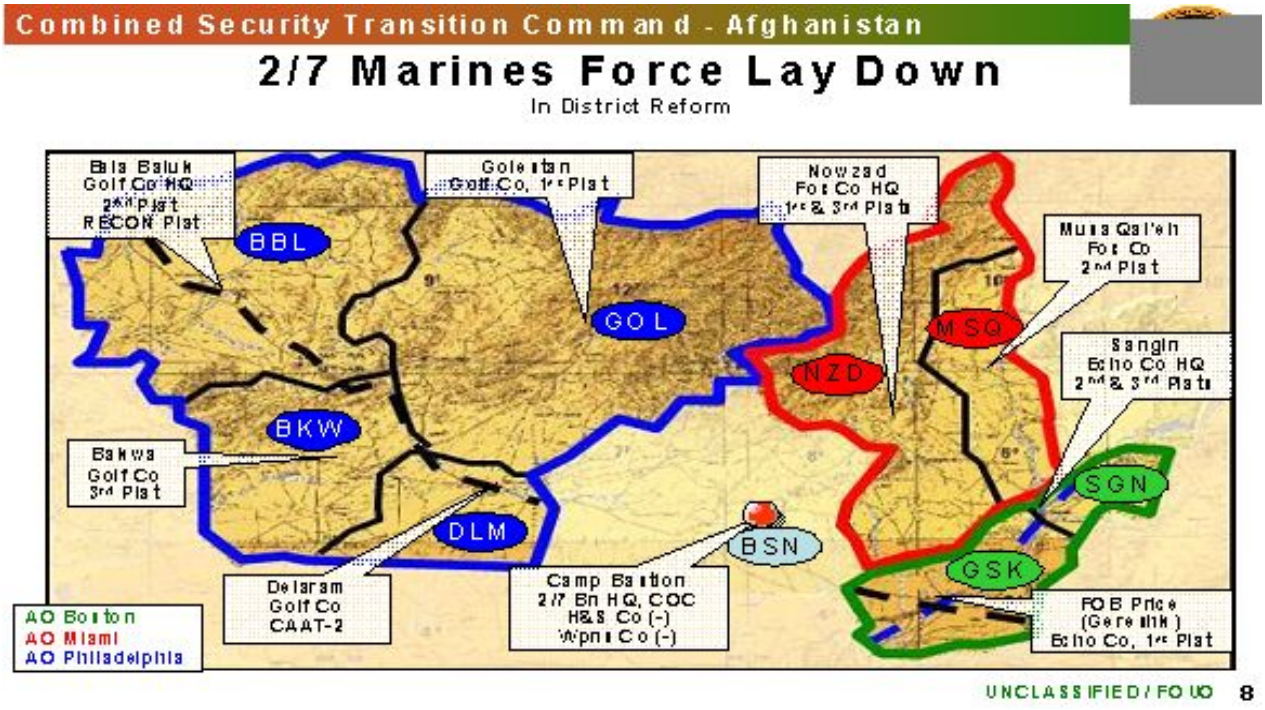


**Figure 2: 2/7 Force Lay down**

Since 2/7's assigned mission was a mentoring role within the CSTCA model, it was not assigned "ownership" of any battlespace, even though it quickly became the main combat force in that area. The battlespace was officially controlled by RC West and RC South to whom the battalion did not directly report. [45]

## Command and Control

With elements widely dispersed over 14 FOBs, the intent was that each FOB would be as self-sustaining as possible. This required dispersion of Headquarters and Service Company personnel as well as adding specialized enablers to each FOB. Each location was assigned a medical officer, an independent duty corpsman, or a shock trauma platoon nurse. Each FOB had organic motor transport, a data communications technician, a weapons maintenance capability, elements for a platoon level intelligence cell, unmanned aerial systems (UAS) capability, ammunition storage capacity, HUMINT Exploitation Team (HET) assets, EOD and a tactical surveillance capability. [46]

The large distances between FOBs required a great degree of independent, dispersed operations and made the companies and platoons the key operational units. The battalion COC was often in an observing and coordinating role rather than a controlling one. Such operations, based on mission type orders, desired end state, and shared situational awareness, enabled a greater number of operations to be conducted than would have been possible with rigid control at the battalion level. *"Captains functioned like battalion commanders and lieutenants functioned like company commanders."* [47]

For "U.S. only" patrols, the battalion adhered to a minimum patrol size of nine men, with the capability to self-recover, maintain long range communications, man a medium machine gun or larger, and operate a Counter Radio-Controlled Improvised Explosive Device Electronic Warfare (CREW) system. For patrols with coalition forces, the minimum was four Marines in two vehicles, in order to have a self-recovery capability. [48]

Battlespace management proved challenging because of the aforementioned command relationships. The battalion was not an "official" battlespace owner. Though it might be the most active operator in a space, it was often not consulted by Special Forces units and other coalition partners who traversed the area or conducted civil affairs and information operations activities without coordination. Battalion leaders strongly recommend that follow-on forces be assigned responsibility for their AO, especially if the mission continues to entail a significant amount of combat activity. [49]

In order to reduce friction and potential for fratricide, 2/7 developed, in conjunction with TF Helmand, RC South and RC North, an operations box or "Op Box" which was loosely defined as a maneuver control measure requiring all units wishing to enter or depart the box to coordinate with 2/7. To retain control of fires and the effects of fires that originated and terminated within the confines of the Op Box, they established the doctrinal and three dimensional restricted operating zone (ROZ) directly upon the two dimensional "OpBox".[50]

**Intelligence**

The dispersed company and platoon operations at separate FOBs required intelligence cells of at least two Marines at each FOB. Battalion S-2 assigned one MOS 0231 intelligence analyst to each company, but would have preferred to have one 0231 at each FOB.[51]

The information gathered at the small unit level should also be processed at the company level intelligence cell (CLIC) and reported to battalion for further processing and link analysis.[52]

One of the critical aspects of supporting intelligence collection, analysis and dissemination at the platoon level was the need for reliable secure internet (SIPR) connectivity at each FOB. This proved to be one of the biggest obstacles the S-2 section had to overcome.[53] *"Bandwidth availability does not have to be huge in spite of the flood of graphical data generated but it has to be reliable. It is much better to deal with slow connections than not being able to pass timely intel up and down the chain at all."* [54]

**Explosive Ordnance Disposal**

EOD support for 2/7 initially consisted of three separate EOD teams, each consisting of three technicians and one corpsman for the team. At mid-deployment, an EOD section of one officer and eight technicians was added to the battalion. Battalion officers expressed the opinion that with the large number of IEDs encountered, this still seemed to be insufficient. "*Follow-on forces might want to bring two or even three EOD sections."* [55]

**Fire Support**

The primary source of fire support used by 2/7 was close air support (CAS) from NATO coalition and U.S. sources. Aviation also provided the most responsive quick reaction force (QRF) available to the unit.

When 2/7 operated near the British TF Helmand, a 105mm artillery battery as well as a Guided Multiple Launch Rocket System (GMLRS) battery was available. This fire support allowed the

battalion to employ the preponderance of its organic indirect fire assets in the western parts of the AO. [56]

Late in the deployment, 2/7 was issued and used four 120 mm mortar systems immediately affecting most Taliban assets firing just outside of 81mm mortar range. Battalion officers said that 120 mm mortars were very useful and effective. *"It is highly recommended to follow-on forces [to] retain this non-organic fire support capability."* [57]

[MARCENT Note: 2/7 identified the requirement for improved fire support at their FOBs to MARCENT based on the frequency of rocket attacks and the limited range of their organic 81mm mortars. After being validated by MARCENT a request for 120mm Mortars was sent to HQMC. MARCENT coordinated with ARCENT to obtain ten 120mm mortars and ammunition for temp-loan to 2/7. 2/7 utilized their Battalion Gunner to develop refresher training for their mortar men who had been trained on the US Army 120mm system at the Army Mortar Leaders Course. COMUSMARCENT approved the request to employ these non-organic systems by 2/7. MARCENT coordinated with II MEF to ensure that 3/8, the replacement battalion for 2/7, was trained on the 120mm mortar as part of the Pre-deployment Training.][58]

Each fixed location required the support and capability of the Lightweight Counter Mortar Radar (LCMR). Units who will operate independently from small unit fixed positions should gain a rudimentary understanding of basic operation and maintenance of this system prior to deployment. Detailed knowledge of this system and its capabilities increases the likelihood that the system will be able to sense the lower trajectory of incoming enemy rockets.[59]

In view of the more kinetic operating environment, the battalion reconfigured its mobile assault company and effectively employed its combined anti-armor team (CAAT) and mortar teams in their traditional roles. [60]

**Air Operations, Forward Air Control and Joint Terminal Air Control**

If a battalion TF is to continue to operate in a similar manner as 2/7, the air officer said you would need additional controllers to sustain operations. He advocated five forward air controllers (FACs) and ten joint tactical air controllers (JTACs) in support of a battalion TF with a similar mission. This configuration would provide a FAC to serve as an advisor and air officer for each company commander. The JTACs, who must qualify once entering theater and will receive a theater call sign and dedicated frequencies, would then support each platoon or company fixed location. [61]

Microsoft Internet Relay Chat (mIRC) was viewed as the most effective system available to the TF for coordinating air operations. An "AO chat room" within the data network served as the Support Wide Area Network (SWAN)-enabled TACP local net. A battalion operating under similar circumstances should be comparably equipped and that the JTACs and FACs receive adequate training on this technology during their PTP Block IV. [62]

FACs and JTACs were effectively used at the company level to eliminate identified threats via air delivered, primarily global positioning system (GPS), guided ordnance. The air officer emphasized the importance of FACs and JTACs completing their respective training courses prior to joining the unit for pre-deployment training. [63]

FACs and JTACs almost exclusively used Type 2 and 3 controls [64] in order to put ordinance on target. Follow-on forces should ensure that their controllers are well versed in Type 2 and 3 controls before the deployment because there is no venue for qualification in Afghanistan.

**Civil Affairs (CA)**

The battalion used individual augments assigned from 3rd Civil Affairs Group (CAG) to satisfy their CA requirements. CA activity had a strong positive impact on the attitude and mood of the local population toward the coalition presence. However, there were only two FOBs with full time CA officers, and not every FOB had CAG representation.

By mid-deployment, CA had spent approximately $300,000 on projects, and it was forecasted that over $600,000 would be spent in CA projects by the end of their deployment.[65]

- *"Every FOB should have full time CAG representation in order to operate a mini civil military operations center (CMOC) for the local population. Locals do not want to wait for weeks in order to see a CA Marine. Opportunities to interact, cooperate and to obtain passive intelligence were lost due to non-availability."* [66]
- 2/7 had only one female CA Marine assigned which was a limiting factor in coordination of women's engagement or family related CA activities.
- *"The Taliban in Helmand Province were running a very effective counter civil affairs program using murder and intimidation which has to be taken into consideration when planning CA efforts. This is especially true in the Sangin area."* [67]
- *"It was often better to be just available for conversation and discourse but not to suggest a project outright. It was much better when projects were proposed by the local community or a local elder."* [68]

**Information Operations**

Information operations (IO) was assigned to the Weapons Company executive officer as an additional duty. The IO officer stated that developing and managing an overall IO plan and coordinating with civil affairs, psychological operations (PSYOP) and combat camera personnel to execute it is a full time job.

In the rural areas of Afghanistan, radio was the most effective means to get the IO messages to the people. Handbills were not as effective due to the low literacy rate amongst the population.[69]

The battalion developed a plan to expand on a concept called the "radio in a box (RIAB)" *"We have a radio station at each district – its own personal radio station, the 'radio in a box' – a transmitter. Currently it generally plays music throughout the day and the reason it's only playing music is that we don't really have the staff to produce a large amount of IO messages. But when we do, it's for an important incident. The other reason we are just playing music is, prior to us coming here, the people had really no capability to listen to music, and when they got that with these 'RIABs', we're seeing the listener base expand. What that does from an IO perspective is a year from now when people have listened to this radio station and …enjoy it and do it frequently, when we do send an IO message out, more people will get it."* Intent was to reach an increasing share of the population with a programming mix specially suited for the local area, consisting of local music, quizzes, updates on what was happening in the local economy and regular religious messages from mullahs supportive of the coalition. Ultimately, the battalion was able to effectively add: safety messages (escalation of force procedures and responses), public service announcements (forthcoming MEDCAP dates/locations), wheat producing alternatives/procedures to poppy crops, etc.

The radio in a box can be fed remotely with pre-recorded programming and has a storage capacity that will keep the radio running for a week. [70]

**Police Mentoring and Training**

Experienced civilian law enforcement personnel were assigned to the battalion through the Law Enforcement Professionals (LEP) program,[71] whose expertise was viewed as helpful to mission accomplishment. The LEP individuals that supported 2/7 did not train with the battalion. The qualifications and ability to integrate into the unit's mission varied greatly between individuals as did the level of support they provided. Battalion officers said that it would be beneficial for these personnel to participate in PTP training with the battalion staff. This will better integrate them into the organization and also serve as a screening means to ensure they are suitable and fit to support the mission. LEPs that joined a unit in theater and did not work out were usually not replaced.[72]

Battalion leadership strongly recommended that battalion level personnel associated with headquarters tactical partnership be familiar with the Government of the Islamic Republic of Afghanistan (GOIRA) constitution pertaining to the Rule of Law, and Ministry of Interior directives regarding the establishment and maintenance of ANP. This recommendation included DynCorps, a US State Department contractor charged with oversight of the Afghan National Police training and development. along with LEP augments, staff judge advocate (SJA), battalion staff and company commanders[73]

Interviewees also recommended that all personnel whose duties entail close tactical partnership with ANSF receive pre-deployment training in the areas of language and culture sufficient to enable them to adequately mentor and instruct their target audience. [74]

## Organization and Personnel

A special purpose Marine air ground task force (SPMAGTF) would be better suited to the mission assigned the battalion, according to interviewees. *"They're going to be able to do much more focused operations than we've been able do because we're only a battalion staff and we're spread so thin across so much area. Each war fighting function consumes your day. Take intelligence; you are literally trying to learn all the red, green, blue forces, the human terrain …mapping of all these different, unique AOs and then trying to 'divine' what the enemy's intent is, what coalition forces' agendas are, and what the peoples' needs are, and try to work the magic of all that together into some kind of strategy. [As a MAGTF,] you would have a larger force that could … do future planning and let the battalion run the current ops. We only spend a limited amount of time thinking ahead on strategy because we're 'putting out fires' every single day. That's going to be a big dividend that the special purpose MAGTF is going to have. Furthermore, we all work logistics, not just the S-4, because it ties to operations, and the intel picture. We cross every war fighting function, collectively, and the special purpose MAGTF is going to have that logistics element that can focus its efforts on sustaining the force, while current operations are working what they need to be doing. CMO can be focused on its operations and you're working to pay the Commander's Emergency Response Program (CERP)… funds …. Right now, it's literally just three or four of us that do the preponderance of that. All those things consume hours of a day, because everybody needs that information and certainly follow-on forces need it in order to better enable them to come here and operate."* [75]

The operations officer stated that assigning a MAGTF to the mission assigned the battalion would provide greater depth for planning. The MAGTF staff would permit the battalion

operations officer to "*be able to focus on battalion and company level operations simply because he'll have a headquarters that will be able to deal with reports, meetings, visitors, etc. He'll have those issues off his plate, so he'll be able to focus more on the police training and mentoring …. That is one thing that I think I have definitely fallen short on … making sure that there were training plans established … and there [were] program milestones that each of these FOBs have. They are doing police training and mentoring there. Each platoon is probably doing it differently to an extent. I did not have the ability to put together a coherent plan for the battalion to follow; … Each one of the districts is going to be different, but they will have a basic plan to follow. Each one may be at a different point along that plan…"* [76]

On the utility of a MAGTF, the S-4 said: *"We have recommended that the follow on force bring all of those support enablers, and there's no need to reinvent the wheel. The MAGTFs table of organization is already designed for this type of operation, the recommendation that we have is that this is a job for a MAGTF that's task organized for all those requirements from the very beginning. No need to create a table of organization out of thin air, no need to 'reverse engineer' … some amazing logistics combat element. MAGTFs are already task organized. We have successfully reversed engineered a MAGTF here at 2/7 We have reverse engineered from scratch and there was no need to do that. That's why we organize that ground combat element with a logistics combat element. That LCE already has …a template for its table of organization and it covers all functions of combat service support … bulk fuel, electricity, general engineering, construction, contracting, disbursing, postal, all of those things that we've been trying to create a new capability for 2/7. It existed all along if we had been organized with a logistics combat element."* [77]

Similarly, the logistics officer stated that their equipment density list evolved into one more resembling a MEU than a battalion, and that it would have been much more efficient to start with a MEU table of equipment. [78]

Due to dispersion of units, Headquarters Company personnel and battalion attachments such as communications, motor transport, engineers, and medical personnel were task organized to company and platoon levels in order for those units to function in a more self–sustained manner. The logistics officer said that sourcing of an additional 10 to 12 MTVR drivers to replace those provided to the companies and platoons would have permitted him to better manage driver requirements for combat trains, particularly during "surges" to support the establishment of FOBs. [79]

Additional medical augmentation was requested and a Shock Trauma Platoon (STP) was sourced. Two of the STP surgeons were assigned to two of the line companies. This permitted stabilization of severely injured individuals while awaiting CASEVAC.

The CO stated that while the impact of civil military operations, even on a limited scale, was apparent, a greater civil affairs presence than the two teams working in the 2/7 area was needed.

The additional duty of information operations was a full time job for an experienced officer, working in concert with civil affairs and combat camera to develop products.

## Logistics

The battalion had to build more than a dozen FOBs before they could be occupied; and there was no alternative force protection or overhead cover during construction. With elements of the

battalion widely dispersed over a 28,700 square kilometer area, it took a month and a half to build up supplies to run regular operations from all of its FOBs.

Logistics personnel initially worked on establishing a stockage objective of 21 days of supplies at each FOB. However, it was determined early in deployment that with demanding convoy conditions and reliance on helicopter or air delivery with potential for weather delay, a 30-day level of supplies was prudent. [80]

In the eastern part of the AO, 2/7 aligned itself with existing British forces which facilitated mutual sustainment and support, primarily transportation. In the west, several locations were selected based on tactical considerations. In the less secure environment, contract support of FOB construction was unreliable. Resources to construct those FOBs had to come from capabilities organic to the reinforced battalion, such as use of combat engineers to perform limited general engineering tasks. The logistics officer said that in such an environment, *"Local contractor support cannot be counted on, and it should not be part of the planning process for logistics…The follow on force needs to bring the organic general engineering capability…at least two different groups who can do two simultaneous projects …and accomplish these general engineering tasks that we contract.* [81]

The operational chain of command complicated logistical and resupply challenges. The S-4 said that required items were often in stock at the large supply management unit supporting Multi-National Force – Iraq at Taqaddum (TQ), Iraq, under MARCENT control, but that 2/7 was required to backorder most Marine Corps peculiar supplies directly from the United States. This increased lead-time to receive parts as well as freight costs. *"MARCENT is Tampa is also in Iraq– the Marine Corps is in Iraq and MARCENT is in Iraq and Kuwait. It's the largest supply management unit [outside of CONUS] in the Marine Corps. There are 13,000 national stock numbers (NSNs) on hand in Iraq. As a logistics officer in Afghanistan, I'm not very far away from Iraq and whenever I need something and I can look up Taqaddam's stock of what is on hand. But we were unable to draw items from Iraq. MARCENT's response to that was, 'They are supporting Marine units in Iraq not Afghanistan.'"* [82]

MCCLL note: Commenting on a draft of this report, the MARCENT Chief of Operations stated that at the time of the deployment, the emphasis from CENTCOM and HQMC was that OIF, not OEF, was the number one priority. Additionally, I MEF FWD was in the process of relieving II MEF FWD as MNF-W. They didn't have the personnel and were concerned about not being able to support the additional requirements from 2/7. MARCENT worked with ARCENT to establish an OEF supply "bridge" to enable 2/7 supply requisitions to flow from the 2/7 organic supply account to the Army OEF SARSS account for like item requisition fill. Items filled were shipped (some airdropped) to 2/7. Items not filled from OEF SARSS were passed to through OIF DLA (DDKS) and ultimately to CONUS,][83]

**Sources of Supply**

The main source of common item supply support such as food, water, fuel, ammunition, construction materials, and medical supplies for 2/7 was a U.S. Army Combat Service Support Battalion (CSSB-189) at Kandahar, part of Task Force 101 in Bagram and in the ISAF chain, not 2/7's CSTCA chain.

USMC unique equipment and parts were shipped directly from the U.S. [84] A change to this operation-impacting situation would be to require that the accumulated part usage data of a battalion or SPMAGTF be incorporated into the stockage levels at TQ and that the SMU be

directed to support requests from Afghanistan-based units. This would greatly reduce the turn-around time from order to delivery and save money by benefiting from the economies of scale possible with Afghanistan-based units operating as satellite units supported by the TQ SASSY Management Unit (SMU).[85] Alternatively, a parallel or satellite SMU would need to be established in Afghanistan. Logistics officers from follow-on forces should become familiar with this issue and continue working it because a satisfactory resolution would make logistical support significantly easier for them.

**Contracting**

The S-4 stated that the battalion arranged training for platoon commanders as contracting officer representatives (COR) in anticipation of relying on contract support of the FOB construction efforts. *"Essentially each platoon commander was a COR and had the authority to validate a contractor's work and authorize his payment. The tough part was communicating with the FOB that a contractor is coming to your FOB to do this work, and he'll be here on this day. We had a lot of problems because we didn't have a real direct link with the contracting office at Kabul. The incoming unit should have a dedicated contracting capability within your organization. More than one person who can travel to Kandahar and Kabul frequently and stay tied in with what's going on; what contracts are being awarded that we may not know about. What's the name of the company, what's the name of the individual? Do you have a photo of him? What's his equipment going to be like? What time is he going to be there?"* [86]

Contracted support of the construction of FOBs was not reliable due in part to the security environment. *"Our heavy reliance on … contracted support did not yield the results we had hoped. In fact, the increased coalition force presence and contractor presence had a subsequent increase in enemy activity that created new problems with regards to that infrastructure development. As we went to go build a FOB and we leveraged contracted support to do that; many of those contractors failed in their mission due to kidnapping, failure to arrive with the proper equipment or inability to complete the job on time."* The combat engineer and heavy equipment capabilities assigned to the battalion were "surged" to sequentially build required FOB infrastructure, and that incoming battalions should be aware that they may have to do the same, given a like security environment, *"Be prepared to do everything yourself with organic resources or via cooperative agreements with coalition forces."* [87]

**Maintenance**

The battalion relied heavily on the Support Wide Area Network (SWAN) for SIPR/NIPR connectivity. Due to heat and dust, the operating environment required more frequent preventative maintenance (PM) on equipment than manufacturer recommended schedules. High Performance Waveform (HPW) radio was also instrumental in the 2/7 communications plan. There was no on-site warranty for most of the equipment. This, coupled with limited third echelon capability in support of the communications platoon maintenance effort forced a three-month turnaround once these items were inducted into the maintenance cycle.[88]

**Enablers added to the Battalion**

Because 2/7 lacked the "enabler" capabilities of a MEU or a SPMAGTF, numerous 'work-arounds' and special requests for support were required for its sustainment. In the process of trying to become self-sustaining, 2/7 had to add many of the logistics capabilities resident in a MAGTF during its first month in Afghanistan.[89]

**Combat Train Organization**

The task of supporting the FOBs with combat trains was arduous and time consuming and the challenging terrain strained the cargo hauling equipment. Because there was no air support up until September, almost all logistics was accomplished via Combat Trains.

The combat trains were effective in supporting enough supply sorties to keep eight separate FOBs operating despite what was initially limited air support. The two combat trains resupplied every FOB at least once every two weeks and built up and maintained a stockage level at each of those FOBs of 27-30 days of supplies.

Each convoy was a combat operation requiring well-trained Marines with little time for other duties. Members of the combat trains were "in harms way" daily, and solid participation in the PTP prepared them to provide their own security and function as infantry Marines. *"The men and women of the combat trains knew their importance to the overall mission and they felt …challenged as never before."* [90]

Supplies were pushed to the FOBs based on usage data and logistics status reports passed via HPW file transfer capabilities of the PRC 117 radio. *"HPW was used to deliver LOGSTATS and to deliver rapid requests from the FOBs to 2/7. It's something that we did not implement into our training at Mojave Viper. …After coming to Afghanistan and seeing just how much we relied on it, looking back I certainly would have implemented HPW much more in the operations of our logistics operation center so that all the Marines got comfortable with using it before coming out here."* The S-4 also said that logistics systems such as Battle Command Sustainment Support System (BCS3), Transportation Capacity Planning Tool (TCPT) and those supported by radio frequency identification (RFID) were not used due to limited time to train and gain familiarity with the systems prior to deployment and limited bandwidth availability once in theater. [91]

The combat trains were augmented by air support. Initially, air support came from NATO assets. On some occasions, supplies were delivered by parachute. In the latter stages of the deployment, four Cobra and four CH-53 helicopters were attached to 2/7. The added lift capability was effective in the sustainment of the outlying FOBs. The logistics officer said that by the end of the deployment, aviation delivered resupply provided more sustainment to the outlying FOBs than the overland convoys: *"I believe the exact numbers are 29% sustainment by containerized delivery system (CDS), 26% sustainment delivered by ground convoy. The remaining percentage there is helicopter support through the UK helicopters, and 'pull logistics' …meaning the platoon came back and pulled their own sustainment at one point or another, and a couple other things. That being said, CDS was used just as much as ground re-supply methods were.* [92]

## Equipment

**MRAP vehicles**. *"MRAPs are incredibly survivable vehicles,"* but their availability is hindered by supply support that is not yet mature. *"They came to 2/7 at the very beginning of our deployment straight from Marine Corps Logistics Command through Kuwait, but they did not come with a repair parts block. …There are some things that we already know we're going to need. We're going to need spare tires, we're going to need jacks to lift those vehicles, lug nuts, belts, oil filters, headlight bulbs, all the things that what you're going to need to maintain a fleet of vehicles. Those little things didn't come with these MRAPs. So though we were fielded great vehicles, within a very short period of time things started to break and we were just out of luck."*[93] MCCLL note: Efforts were undertaken to improve the MRAP support, however these

efforts were initially outpaced by the rate at which MRAPS were being damaged and destroyed.[94]

**MTVR.** The 7-ton MTVR was viewed as reliable, survivable and more maneuverable in the off-road environment than the MRAP. Combat trains employing MRAPS were often limited in their ability to navigate rough terrain. [95] *"The MTVR is by far the most reliable piece of equipment. … All the times we've had broken down vehicles here, it's never the MTVR, and that's telling about how great that piece of gear is." "The MTVR is the only vehicle… that is suitable for this terrain. It's survivable – we have no casualties in MTVRs right now for IED blasts. It's got a powerful…oversized engine. An MTVR has pulled out numerous MRAPs out of IED craters when no other vehicle would have done that."* [96] Each combat train had a 7-ton MTVR wrecker whenever it left a FOB and it was frequently employed during convoys.

The S-4 suggested that with modifications such as the installation of Marine Corps Transparent Armor Gunner's Shield (MCTAGS) turrets, the 7-ton MTVR could replace the MRAP, and the addition of a V shaped hull could make it more survivable. The addition of a communications suite and BFT would permit the use of MTVRs for functions currently performed by up-armored HMMWVs. *"It should be built upon, to add new variants …of that MTVR chassis, transmission and suspension to increase capability. I believe it could replace the MRAP and the UAH and provide all the same capabilities."* [97]

The Light Armored Vehicle (LAV) would have been an ideal asset in the AO. Overall, tracked vehicles would have been an improvement throughout the battalion's AO overall because of their ability to go off road drastically decreasing the IED threat if used in conjunction with route clearance capabilities.

**Armored Ambulance Capability.** A Shock Trauma Platoon physician stated that they improvised a CASEVAC vehicle using an MTVR and a shipping container as a mobile operating room/CASEVAC vehicle (Mobile Trauma Bay, or "Doc-in-the box"). They also removed seats and structural items from inside a standard category II MRAP to make room for a stretcher. Both improvised vehicles allowed medical personnel to be transported to the injured and administer medical assistance more quickly. Drawbacks to the improvised vehicles were that the category II MRAP did not provide enough room for the surgeon to work and the converted shipping container provided limited protection from small arms or other fire. Armored ambulances were requested but were not available.

MCCLL note: A previous MCCLL report noted that, "thin-skinned unarmored ambulances and refuelers are particularly vulnerable targets. A hardened ambulance is needed…" The need for an armored ambulance was also mentioned in two other MCCLL reports and a Navy Operational Medicine Institute (NOMI) report. [98] A Joint Urgent Operational Needs statement signed in January 2007 resulted in the fielding as of May 2008, of 16 ambulance variants of the category II, RC-33L MRAP, called the Heavy Armored Ground Ambulance (HAGA) to the CENTCOM AOR. The five HAGA fielded to the Marine Corps were sent to OIF. [99] MTVRs fitted with Marine Armor System (MAS) were also locally modified into the "Santee" ambulance for use in OIF, [100] and based on request and concurrence of Marine Forces, CENTCOM, efforts are underway to procure ten MRAP ambulances to be allocated to the Marine Corps specifically for OEF. [101]

**PRC -117.** The VHF-FM PRC-117 was the most effective and heavily used man-packed radio, and was often cited as the only reliable means of communication with remote FOBs.

**PRC-152.** The VHF/UHF AM and FM PRC-152 vehicle-mounted radio was also used extensively in convoys. The radio was considered very reliable with excellent range.

**Scan Eagle Unmanned Aerial Vehicle (UAV).** This small UAV was an easily manageable, reliable, and effective ISR tool, but the requirement to swap out day and night sensors and the time that took was frustrating. *"By far one of the most critical assets used by TF 2/7; highly recommend increasing fielding in order to create 'UAS constellations.' Very effective in identifying/eliminating IED emplacers in the Afghanistan open urban and rural environments."* [102]

**Blue Force Tracker (BFT).** Along with its primary function of displaying position of friendly force vehicles, this device quickly turned into the de facto on-the-move communications system. BFT was reliable when other means were not available and was easy to operate. A similar capability is needed that is interoperable with allied/coalition equipment and will permit identification of those vehicles.

**Container Delivery System (CDS).** The CDS enabled the battalion to build and maintain stocking objectives at each FOB. Each bundle was packaged and rigged with the G-12E parachute, and typically dropped from a C-130. C-17s were used occasionally if multiple FOBs were being resupplied. GPS guided parachutes were not used due to inability to retrograde the chutes. The G-12Es were retrograded when possible.

**IBM T60 Thinkpad.** The laptop computer held up well in the harsh climate of Afghanistan. It had enough computing power to handle most COC operations, and had a decent graphics package. The battalion S-2 preferred this machine and had all his analysts work on an IBM T60 attached to a SIPR cable.[103]

**IZLID Infrared (IR) Pointer.** This IR pointer was viewed as a very effective tool for designating targets. It had an effective range of several kilometers. FACs stated that it was very reliable and also useful at close ranges (150 meters).

## Recommendations

1. Continue to tailor training and organizational capabilities of units deploying to Afghanistan, taking into consideration differences in terrain and environment, security, infrastructure, and road network. In similarly austere and unsecure environments, consider the MAGTF as a point of departure for planning.

2. Continue development and fielding of an armored ambulance capability. Consider medical and command and control variants of the MTVR.

3. Examine and address differences in the logistic support chain between the Iraq and Afghan AOs to facilitate more timely supply support of USMC unique material to forces in Afghanistan.

## Summary and Way Ahead

This report will be distributed to appropriate advocates, proponents and the operating forces in the interests of improving how Marine forces are organized, trained, equipped and provided to combatant commanders.

## Endnotes

[1] Type 2 control occurs when the JTAC controlling the attack cannot either visually acquire the attacking aircraft or the aircraft cannot acquire the target or mark prior to release. Type 3 control occurs when the tactical risk

assessment indicates the CAS attack imposes low risk of fratricide. - Joint Pub 3-09.3, "Joint TTP for CAS," 3 September 2003.

[2] Roberts, Col Patrick B., Chief of Operations, U.S. Marine Corps Forces, Central Command (MARCENT), "RE: 2/7 OEF Report," personal email to Col Mark Silvia, MCCLL and others, 23 January 2009. Cited hereafter as Roberts email.

[3] Roberts email.

[4] See MCCLL report, "Operations In Afghanistan Compilation," 10 March 2008; "Pre-deployment Training for Units deploying to Afghanistan," 8 November 2006; "Distributed Operations in Afghanistan," 14 November 2006; "COIN Operations in Afghanistan," 27 March 2006. This point is also noted in interviews with the executive officer and others with Battalion Landing Team, 1st Battalion, 6th Marines in August 2008.

[5] Hall, LtCol Richard, USMC, Commanding Officer, 2/7, interview with LtCol Carl Friedrich, MCCLL, 4 September 2008. Cited hereafter as Hall, Friedrich interview.

[6] Hall, Friedrich interview.

[7] Hall, Friedrich interview.

[8] Hall, Friedrich interview.

[9] Hall, Friedrich interview.

[10] Nichols, Major Rory L, Operations Officer, 2/7, interview with LtCol Carl Friedrich, MCCLL, 8 September 2008.

[11] Nichols, Friedrich interview.

[12] Vincent, Capt Michael, S-4 Officer, 2/7, interview with LtCol Carl Friedrich, MCCLL, 20 August 2008.

[13] Bustamente, Sgt, Combat Train NCOIC, 2/7, interview with LtCol Carl Friedrich, MCCLL 22 August 2008.

[14] Good, Major Matt T., MCCLL, notes from discussion with Maj Rory Nichols, Operations Officer, 2/7, 21 August 2008. Turek, CWO2 Brett A, USMC, Battalion Gunner, 2/7, interview with Maj Matt Good, MCCLL, 20 August 2008.

[15] Hall, Friedrich interview.

[16] Cruz, Maj Urbano, CO, Weapons Company, 2/7, interview with Maj Matt Good, MCCLL, 20 August 2008.

[17] Cruz - Good interview.

[18] Hall editing addition 9 Jan 2009.

[19] Hall, Friedrich interview.

[20] Hall, Friedrich interview.

[21] Vincent, Friedrich interview.

[22] Vincent, Friedrich interview.

[23] MCCLL report, "Vehicle Recovery Operations," 28 September 2007.

[24] Jones, Cpl, heavy equipment operator, 2/7, interview with LtCol Friedrich, MCCLL, 22 August 2008.

[25] Vincent, Friedrich interview.

[26] Vincent, Friedrich interview.

[27] Perry, WO-1 Jason, EOD Officer, 2/7, interview with LtCol Carl Friedrich, MCCLL, 9 Sep 2008.

[28] Mounger, 1stLt, S-6 Officer, 2/7, interview with LtCol Carl Friedrich, MCCLL, 21 August 2008.

[29] Mounger, Friedrich interview.

[30] Mounger, Friedrich interview.

[31] O'Donnell, Capt Matthew, CO Company E, 2/7, interview with LtCol Carl Friedrich, MCCLL, 2 Sep 2008.

[32] Crabill, CDR John, Physician, Shock Trauma Platoon, 2/7, interview with LtCol Carl Friedrich, MCCLL, 22 August 2008.

[33] Hancock, CDR James, Medical Officer, 2/7, interview with LtCol Carl Friedrich, MCCLL LNO, 22 August 2008.

[34] Hall, Friedrich interview.

[35] McNeil, 1stLt Stephen, S-1 Officer, 2/7, interview with LtCol Carl Friedrich, MCCLL, 6 September2008.

[36] Hall, Friedrich interview.

[37] McNeil, Friedrich interview.

[38] Hall, LtCol Richard, USMC, Commanding Officer, 2/7, editing addition 9 Jan 2009.

[39] Vincent, Friedrich interview.

[40] Hall, Friedrich interview.

[41] Hall, Friedrich interview.

[42] Vincent, Friedrich interview.

[43] Vincent, Capt Michael, S-4 Officer, 2/7, interview with LtCol Carl Friedrich, MCCLL, 20 August 2008.

[44] Nichols, Major Rory, Operations Officer, 2/7, interview with Major Matt T. Good, MCCLL, 21 August 2008. Cited herafter as Nichols, Good interview

[45] CSTCA Operations Overview Brief, 14 Oct 2008.

[46] Nichols, Good interview.

[47] Hall, Friedrich interview.

[48] Nichols, Good interview.

[49] Hall, Friedrich interview.

[50] Nichols, Good interview.

[51] Osborne, Capt Van, S-2 Officer, 2/7, interview with LtCol Carl Friedrich, MCCLL, 6 September2008.

[52] Turek, CWO2 Brett A, Battalion Gunner, 2/7, interview with Maj Matt Good, MCCLL, 20 August 2008.

[53] Osborne, Friedrich interview.

[54] Osborne, Friedrich interview.

[55] Perry, Friedrich interview.

[56] Nichols, Friedrich interview.

[57] Meckendree, 1stLt James, Platoon Commander, Company E, 2/7, interview with LtCol Carl Friedrich, MCCLL, 2 Sepember 2008.

[58] Roberts email.

[59] Nichols, Good interview.

[60] Hall, Friedrich interview.

[61] Myer, Capt John, Air Officer, 2/7, interview with Maj Matt Good, MCCLL, 20 August 2008.

[62] Myer, Good interview.

[63] Nichols, Good interview.

[64] Type 2 control occurs when the JTAC controlling the attack cannot either visually acquire the attacking aircraft or the aircraft cannot acquire the target or mark prior to release. Type 3 control occurs when the tactical risk assessment indicates the CAS attack imposes low risk of fratricide. - Joint Pub 3-09.3, “Joint TTP for CAS,” 3 September 2003.

[65] Gonzales, SSgt Christopher, CMO Chief, 2/7, interview with LtCol Carl Friedrich, MCCLL, 23 August 2008.

[66] Gonzales, Friedrich interview.

[67] Gonzales, Friedrich interview.

[68] Gonzales, Friedrich interview.

[69] Wilkins, 1stLt Jon, I/O Officer, 2/7, interview with LtCol Carl Friedrich, MCCLL, 30 August 2008.

[70] Wilkins, Friedrich interview.

[71] Law Enforcement Professionals (LEP) is a program created by the Joint Improvised Explosive Device Defeat Organization (JIEDDO). "After noting strong similarities between American organized crime and IED networks, JIEDDO created the LEP program to leverage the knowledge and skill of former law enforcement experts in its attack of IED network activities. The LEP program provides commanders in Iraq and Afghanistan with retired agents from the Federal Bureau of Investigation (FBI), the Drug Enforcement Agency (DEA), the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), and several major metropolitan police departments to assist in identifying, monitoring, penetrating, and suppressing IED networks." Source: JIEDDO Fiscal Year 07 Annual Report, last viewed on 9 December 2008 at https://www.jieddo.dod.mil/ANNUALREPORTS/20080130_FULL_Annual%20Report%20UNCLS%208.5%20x%2011_v6.pdf .

[72] Hall, Friedrich interview.

[73] Hall, Friedrich interview and Nichols, Good interview.

[74] Hall, Friedrich interview and Nichols, Good interview.

[75] Hall, Friedrich interview.

[76] Nichols, Friedrich interview.

[77] Vincent, Friedrich interview.

[78] Vincent, Friedrich interview.

[79] Vincent, Friedrich interview.

[80] Vincent, Friedrich interview.

[81] Vincent, Friedrich interview.

[82] Vincent, Friedrich interview.

[83] Roberts email.

[84] Vincent, Friedrich interview.

[85] Vincent, Friedrich interview.

[86] Vincent, Friedrich interview.

[87] Vincent, Friedrich interview.

[88] Mounger, Friedrich interview.

[89] Vincent, Friedrich interview.

[90] Bustamante, Friedrich, interview.

[91] Vincent, Friedrich interview.

[92] Vincent, Friedrich interview.

[93] Vincent, Friedrich interview.

[94] Roberts email.

[95] Vincent, Friedrich interview. Also, Nichols, Friedrich interview.

[96] Vincent, Friedrich interview.

[97] Vincent, Friedrich interview.

[98] MCCLL reports: "Combat Service Support Element (CSSE) Commanders Lessons Learned Conference, 15-17 August 2005;" Marine Logistics Group Operations, OIF 05-07.1," 30 March 2007. "After Action Report: Ambulance Shortcomings," January 2004, Naval Operational Medical Institute (NOMI) Issue #17, also documented

in the Navy Warfare Development Command's Lessons Learned database as LLDBO-02603, 15 January 2004. Several earlier Lesson Management System (LMS) entries also discuss this capability gap and use of amphibious assault vehicles (AAVs) or M88 tank retrievers as makeshift armored ambulances.

[99] Ortiz, Mr. Alex A., MRAP Requirements Analyst, Logistics Integration Division (LID), MCCDC, "RE: HAGA," personal email to LCdr James C. Quick, Health Services Requirements and Doctrine Officer, LID, MCCDC, 3 December 2008.

[100] See MCCLL Lesson Management System entry 42824, "Armored Ambulance Support MTVR Conversion, 2nd MLG (Fwd), OIF 06-08, 18 July 2007. Several earlier Lesson Management System (LMS) entries discuss this capability gap and use of amphibious assault vehicles (AAVs) or M88 tank retrievers as makeshift armored ambulances.

[101] Hull Mr. Jon, Deputy Director, Logistics Integration Division, MCCDC, "RE: Armored Ambulance," personal email to Mr. Patrick J. Mullin, MCCLL Liaison to MCCDC and others, 11 December 2008.

[102] Hall email 9 Aug 2009.comment

[103] Osborne, Friedrich interview.