



DEPARTMENT OF THE NAVY

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From: Commanding Officer, Naval Mobile Construction Battalion 23
To: Distribution

Subj: SUBMISSION OF DEPLOYMENT COMPLETION REPORT

Ref: (a) COMSECONDNCB/COMTHIRDNCBINST 3121.1A
(b) I MEG OPERATION IRAQI FREEDOM II OPORD of 23 Feb 04

Encl: (1) NMCB 23 Deployment Completion Report

1. Enclosure (1) is forwarded per reference (a).

2. Per reference (b), NMCB 23 deployed to Ar Ramadi, Iraq, from 25 September 2004 to 26 March 2005, with detachments deployed to Al Asad, Iraq, and Al Taqqadum, Iraq.

A handwritten signature in black ink, appearing to be "W. LIN", written over a horizontal line.

W. LIN

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NMCB 24

NMCB 23 DEPLOYMENT COMPLETION REPORT

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CHAPTER ONE

EXECUTIVE SUMMARY

1. GENERAL. Naval Mobile Construction Battalion 23 (NMCB 23) deployed to Iraq from 25 September 2004 to 26 March 2005 as Task Force Tango (TF-T) during Operation Iraqi Freedom II. TF-T reported to the First Marine Expeditionary Force (I MEF) Engineer Group (I MEG). During the deployment, NMCB 23 successfully completed tasked projects and missions critical to the war effort and rehabilitation of Iraq. Throughout the deployment, NMCB 23 operated with numerous units from the Army and Marine Corps. The numerous successful operations with Marine units provided clear demonstration of the effectiveness of the Seabee-Marine Corps team.

2. ADMINISTRATION. NMCB 23's Administration Department played a key role before and during deployment. Personnel located in Port Hueneme and at deployed locations across Iraq combined efforts to: (a) write 360 orders; (b) administer 378 advancement exams over two cycles; and (c) process 186 awards, 1,100 travel vouchers, and 360 fitness reports and evaluations. While deployed, the Administration Department also successfully tracked and reported daily the location of 360 deployed members and processed 20 Red Cross Messages and Personnel Casualty Reports.

3. TRAINING/READINESS. Between mobilization and deployment, NMCB 23 conducted an extensive training program in Port Hueneme. Training was conducted in construction, communication, mobility, fleet support operations, weapons, and combat and tactics. NMCB 23 gained over 1,500 skills, achieving 87% readiness, and most importantly, was certified "ready to deploy." During deployment, NMCB 23 executed mission-specific training, weapons training, warfare training, and safety training. Mission-specific training included project site over-watch training and explosives hazard awareness training. Weapons training was continuously conducted and resulted in safe and effective operation of all weapons. Warfare training resulted in 51 Seabee Combat Warfare (SCW) Qualifications, 13 enlisted Fleet Marine Force (FMF) Warfare Qualifications and 10 officer FMF Warfare Qualifications.

4. OPERATIONS

a. NMCB 23 completed 23,073 mandays of tasking that included: (1) 18 tasked projects, (2) CO and OIC Discretionary projects, (3) force protection projects, (4) camp maintenance, (5) Iraqi Construction Apprentice Program (ICAP) instruction, (6) convoy security, (7) election security support, (8) site assessments, and (9) logistics support. This resulted in a total cost avoidance to customers of \$4,530,050 for tasked projects. NMCB 23 also provided augment personnel to Task Force Echo (NMCB 4), I MEG, and Task Force Charlie (120th Engineer Battalion (Army)). NMCB 23 successfully accomplished all tasking, which included numerous high-visibility projects, five of which were number one I MEF priority projects discussed below.

b. The most significant two number one I MEF priority projects were the two phase repair of 31 large battle-inflicted craters on a runway and taxiways at Al Asad Air Base. Timely completion of this project required 24-hour operations and doubled the capacity of the air base, allowed the basing of an additional tactical fighter squadron, and allowed tactical aircraft to remain on station longer.

c. A third number one I MEF priority project was an auxiliary supply route repair project that was needed to restore and ensure the passability of a heavily used, critical supply route through Al Anbar Province. The repairs included: (1) construction of a 400 linear foot elevated roadway across a stream, (2) repair of severe shoulder damage along 1,200 linear feet of roadway, (3) construction of a 600 linear foot bypass around a bridge, and (4) repair of potholes in a two-mile section of roadway. To complete this project ahead of schedule and prior to the rainy season, work crews camped at the construction sites and worked 24 hours a day.

d. A fourth number one I MEF priority project was the construction of a 100-cell detention facility in an existing hangar at Al Asad Air Base. Despite material delays and the need to fabricate all cell frames and gates, the facility was completed on time. The facility provided significantly more security than the expeditionary facility it replaced.

e. The fifth number one I MEF priority project was construction of a 1,250 person bed-down area and other quality of life improvements in Western Al Anbar province. Despite material delays and the need to haul material and equipment hundreds of miles, the project remained on schedule until turnover.

f. In addition to tasked projects, NMCB 23 performed camp maintenance and executed numerous discretionary and force protection projects. Examples of discretionary projects were erection of Southwest Asia (SWA) huts and other wood-framed buildings. Examples of force protection projects were erection and filling of Hesco barriers, uparmoring of vehicles, and construction of berms, all of which helped protect personnel and save lives.

g. Other significant missions included election construction support and election security support. NMCB 23 transported, erected, and helped secure polling stations in four cities in Western Al Anbar Province and provided augment security in Ar Ramadi. This effort was integral to the first free elections in Iraq since 1952.

h. The safety program was effective as demonstrated by the few serious incidents that occurred despite operating in a hostile environment with numerous hazards at a high operational tempo for six months. NMCB 23's commitment to safety was reinforced constantly and was evident.

i. NMCB 23 was able to complete all projects on time despite chronic material delays and problems. Through aggressiveness and ingenuity, NMCB 23 was able to obtain needed materials or develop work-arounds. Whether retrieving aggregate from uncooperative quarries or finding and obtaining materials from abandoned factories, NMCB 23 never let material issues impact a project.

j. Despite operating in a contingency environment, often with substandard materials, NMCB 23 was able to complete all projects with the highest quality. Customers continually praised the quality of work, technical expertise and professionalism of NMCB 23.

5. SUPPLY/LOGISTICS/EQUIPMENT

a. The NMCB 23 Supply Department provided critical logistics support to the main body, two detachments, and several off-camp project locations. With limited personnel, the Supply Department provided a full range of support services including the central storeroom, central tool room, automotive

repair parts room, material liaison office, post office, and table of allowance (TOA) and container management. They also provided key management, oversight and implementation of the Field Ordering Officer Program, Government Travel Charge Card Program, and travel funding.

b. The NMCB 23 Supply Department managed a total of 6,800 line items of TOA valued in excess of \$8,000,000 and received, inventoried, and managed 104 containers of TOA. The department processed more than 1,250 requisitions for materials worth more than \$128,000, and received, inventoried, staged, and issued construction materials valued at more than \$5,000,000. The department managed over 100 demand-based line items valued in excess of \$5,000 and managed over 1,400 line items of automotive repair parts. Finally, they processed and distributed postal mail comprised of more than 2,500 boxes and 1,500 letters and provided barber services at one location until contractor-operated services were established.

c. Throughout the deployment, NMCB 23 maintained between 238 and 296 pieces of equipment. Across all locations, equipment availability ranged from 92% to 100%. Cretemobiles played a critical role in executing tasked projects during which they were used to place 6,000 cubic yards of concrete. Medium Tactical Vehicle Replacements (MTVRs), 20-ton "Paystar" tractors, and 12K forklifts were used heavily and were critical to loading, transporting, and unloading materials and equipment. Vehicles were armored at turnover, had armor kits installed or had fabricated armor installed as required by the tactical situation and use of equipment.

CHAPTER TWO

ADMINISTRATION

1. In preparation for deployment, the Administration Department: (a) processed over 1,100 travel vouchers; (b) transferred 365 members from reserve pay status to active pay status; (c) verified and activated all entitlements; (d) verified, copied and scanned 365 Records of Emergency Data and transferred them to compact disk for use on deployment; (e) coordinated with 23 reserve centers and administered 150 advancement examinations; (f) processed 60 fitness reports; (g) wrote 360 orders; and (h) created and maintained a command database and next of kin (NOK) forms for use on deployment. Each NOK form was scanned into electronic format for use at the NMCB 23 Readiness Support Site (RSS), Port Hueneme, and at the deployment sites.

2. While deployed, the Administration Department: (a) managed administration of 228 advancement exams at five separate locations across Kuwait and Iraq; (b) processed 160 command awards, 26 I MEG approved awards and 50 SCW citations; and (c) processed 300 fitness reports and evaluations for timely submission. The department also: (a) reported daily to I MEG on the location of the 360 deployed personnel, (b) reported weekly to I MEG on awards status, and (c) submitted monthly to I MEG an extensive War Diary comprised of presentation-quality summaries from every department and company. Finally, the department also processed and submitted 20 Red Cross Messages and Personnel Casualty Reports in a timely manner and developed extensive standard operating procedures and a turnover electronic file system of documents to ensure the NMCB 24 Administration Department began their deployment with success and confidence.

3. The tables below show advancement and retention statistics for the deployment.

ADVANCEMENTS

| | E3 | E4 | E5 | E6 |
|------------------------------|-----------|-----------|-----------|-----------|
| Time in Rate Eligible | 6 | 56 | 98 | 65 |
| Participated | 6 | 56 | 98 | 65 |
| Selected | N/A* | N/A* | N/A* | N/A* |
| % Selected | N/A* | N/A* | N/A* | N/A* |
| Navy Wide % Selected | N/A* | N/A* | N/A* | N/A* |

*Participation based on February 2005 exams, the results of which were not released prior to the end of deployment.

RETENTION

| | Eligible | Not Eligible | Reenlist | GRS | | Navy Goal |
|----------------------------|-----------------|---------------------|-----------------|------------|---------------------------------|------------------|
| 1st Term | N/A* | N/A* | N/A* | N/A* | 1st Term Goal | N/A* |
| 2nd Term | N/A* | N/A* | N/A* | N/A* | 2nd Term Goal | N/A* |
| Career | 1 | N/A* | 1 | N/A* | Career Goal | N/A* |

*Not applicable because of reserve mobilization. All personnel with enlistments set to expire during deployment either reenlisted or extended prior to mobilization.

CHAPTER THREE

TRAINING

1. Between mobilization and deployment, NMCB 23 conducted an extensive training program in Port Hueneme in coordination with the Thirty-First Seabee Readiness Group, which provided invaluable training and support. Training focused on required operational capabilities (ROC) and mission specific warfare skills. ROC training included construction, communication, mobility, fleet support operations, and weapons training, to ensure NMCB 23 could support any operational requirement. Mission specific warfare training included tactical movement team (TMT), personal security detachment and military operations in urban terrain training. The pre-deployment training program resulted in NMCB 23 gaining over 1,500 skills, achieving 87% readiness, and most importantly, being certified "ready to deploy."

2. On deployment, NMCB 23 executed mission-specific training, weapons training, warfare training, and safety training. Mission-specific training was designed to allow personnel to execute missions in the face of ever-evolving enemy tactics. Examples included project site over-watch training and explosives hazard awareness training. Weapons training was continuously conducted and included weapons operation, cleaning, and clearing; muzzle awareness; and force escalation and rules of engagement. Warfare training included SCW, FMF, coalition force capabilities, intelligence, and insurgency warfare training. As a result of this training, 51 officers and enlisted earned the SCW qualification, 13 enlisted earned the FMF warfare pin and 10 officers earned the FMF ribbon. The below table summarizes the SCW qualifications of personnel assigned to NMCB 23 on deployment.

SCW QUALIFICATION REPORT

| | Number Pers Assigned | Previously SCW Qualified | Qualified SCW on Deployment | Number SCW Qualified on Board at Deployment Completion |
|--------------|-----------------------------|---------------------------------|------------------------------------|---|
| E1-E6 | 252 | 67 | 40 | 107 |
| E7-E9 | 31 | 15 | 7 | 22 |
| 01-05 | 16 | 7 | 4 | 11 |

CHAPTER FOUR

OPERATIONS

1. GENERAL. NMCB 23's deployment and operations at the main body and all detachment sites were in support of a contingency operation, Operation Iraqi Freedom. Therefore, there is no separate section for contingency operations and this report acts as an after-action report.

2. SAFETY

a. NMCB 23's Safety Program emphasized four items during this deployment: (1) improving and maintaining work place safety, (2) proper use of personal protective equipment, (3) weapons safety, and (4) motor vehicle safety. Other areas of focus included proper reporting and investigating of all mishaps as well as site habitability and health concerns. Safety was a command priority as required by the Commanding Officer who stated, "The priority now and throughout our deployment is safety."

b. Given the numerous hazards and the extremely high operational tempo throughout the deployment, the number of serious safety incidents was low as shown in the tables below. All hands deserve a Bravo Zulu for doing their part in a team effort to make the deployment as safe as possible.

SAFETY SUMMARY

| | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Total |
|----------------------------------|--------|--------|--------|--------|--------|--------|---------|
| Fatalities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| # Lost Days | 0 | 1 | 0 | 1 | 15 | 0 | 17 |
| # Lost Day Cases | 0 | 1 | 0 | 1 | 5 | 0 | 7 |
| # Light Duty Days | 45 | 30 | 14 | 2 | 11 | 0 | 102 |
| # Light Duty Cases | 2 | 2 | 4 | 1 | 4 | 0 | 13 |
| # First Aid Mishaps | 0 | 4 | 3 | 1 | 10 | 0 | 18 |
| # Govt Vehicle Mishaps | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Number Mishaps | 2 | 7 | 7 | 3 | 19 | 0 | 38 |
| Govt Vehicle Repair Costs | NA | NA | NA | NA | NA | NA | NA |
| Govt Vehicle Miles Driven | 35,261 | 91,491 | 54,570 | 97,760 | 77,794 | 16,533 | 373,409 |

ON-DUTY MISHAPS

| | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Total |
|-----------------------------|--------|--------|--------|--------|--------|--------|-------|
| First Aid Mishaps | 0 | 4 | 3 | 1 | 10 | 0 | 18 |
| Cases Light Duty | 2 | 2 | 4 | 1 | 4 | 0 | 13 |
| Light Duty Days | 45 | 30 | 14 | 2 | 11 | 0 | 102 |
| Cases Lost Work Days | 0 | 1 | 0 | 1 | 4 | 0 | 6 |
| Lost Work Days | 0 | 1 | 0 | 1 | 10 | 0 | 12 |
| Fatalities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

OFF-DUTY MISHAPS

| | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Total |
|-----------------------------|--------|--------|--------|--------|--------|--------|-------|
| First Aid Mishaps | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cases Light Duty | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Light Duty Days | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cases Lost Work Days | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Lost Work Days | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| Fatalities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3. MAINBODY - AR RAMADI, IRAQ

a. OPERATIONS SUMMARY. NMCB 23 expended 13,701 mandays at the main body site. 10,236 mandays are summarized below. The remaining 3,465 mandays were CO Discretionary (IZ4-300, 2,125 mandays), Camp Maintenance (IZ4-301, 690 mandays), and Force Protection (IZ5-302, 650 mandays), which are not listed below but are summarized in paragraph 3.b below as required by reference (a).

MAIN BODY - AR RAMADI, IRAQ

| Proj # | Total Project Mandays | Total Project Material Cost | Mandays Tasked | Tasked % | Final WIP | Mandays Expended by prior NMCBs | Mandays Expended this Deployment |
|----------|-----------------------|-----------------------------|----------------|----------|-----------|---------------------------------|----------------------------------|
| IZ4-308* | 6,708 | \$0 | 6,708 | 0-100% | 100% | 0 | 6,708 |
| IZ5-215 | 4,805 | \$3,158,000 | 1,646 | 0-34% | 34% | 0 | 1,646 |
| IZ4-311 | 577 | \$0 | 577 | 0-100% | 100% | 0 | 577 |
| IZ4-313 | 793 | \$19,000 | 401 | 49-100% | 100% | 392 | 401 |
| IZ5-405* | 240 | \$0 | 240 | 0-100% | 100% | 0 | 240 |
| IZ5-532* | 172 | \$0 | 172 | 0-100% | 100% | 0 | 172 |
| IZ4-331* | 155 | \$0 | 155 | 0-100% | 100% | 0 | 155 |
| IZ5-330 | 177 | \$94,000 | 125 | 29-100% | 100% | 52 | 125 |
| IZ5-531 | 81 | \$0 | 81 | 0-100% | 100% | 0 | 81 |
| IZ5-543 | 47 | \$0 | 47 | 0-100% | 100% | 0 | 47 |
| IZ5-219+ | 42 | \$19,000 | 42 | 0-100% | 100% | 0 | 42 |
| IZ5-334+ | 42 | \$69,000 | 42 | 0-100% | 100% | 0 | 42 |
| IZ5-329+ | 925 | \$124,000 | 0 | 0% | 0% | 4 | 0 |

* non-project tasking, no project summary (IZ4-308: TMT/SERT; IZ5-405: Election Security Support; IZ5-532: Logistics Support; IZ4-331: Relocation and Turnover)

+ no project summary (IZ5-219: Engineering Augment at Habbiniyah, see Detachment Al Taqaddum section for project summary; IZ5-334: Blue Diamond Force Protection - Phase 2; IZ5-329: TOC Renovations, see narrative below)

(1) NMCB 23's main body was located at Camp Ramadi, Iraq, during the first five months of its deployment. The main body site was manned by approximately 125 personnel from NMCB 23 and 24 personnel from NMCB 7. At Ar Ramadi, NMCB 23 performed headquarters functions; executed tasked projects; performed CO Discretionary work, camp maintenance, and force protection work; and provided logistics support for projects at other locations. NMCB 23 supported four Marine units (2/5 Infantry, 2/11 Field Artillery, 3rd LAR, 4th Civil Affairs Group); six Army units (2nd Brigade Combat Team, 44th Engineers, 2/17 Field Artillery, 1/9 Infantry, 1/503 Infantry, 1/22 Signal Corps); and Special Operations Forces operating in the area.

(2) A significant highlight was supporting the first democratic elections held in Iraq since 1952. NMCB 23 utilized Ar Ramadi as the staging point for movements to western Al Anbar Province to erect polling stations and force protection measures and provide augment security at four polling stations in four cities. Personnel from Ar Ramadi and Al Asad participated in this mission. NMCB 23 was augmented by TMTs from NMCB 4. Materials did not arrive until the morning of convoy departure and only three days prior to the elections so Seabees worked around the clock to support this mission. This mission required close coordination with and operation with Marine Task Force Naha. The combined Seabee-Marine Corps effort was critical to the

elections. NMCB 23 expended 482 mandays (81 from Ar Ramadi and 401 from Al Asad) to execute this mission.

(3) A second task NMCB 23 performed in support of the Iraqi elections was to provide 50 personnel as part of a Provisional Support Battalion, which was assigned to the 2nd Brigade Combat Team (2BCT). 30 Seabees from Ar Ramadi were assigned to 2/5 Infantry (Marines) and 20 Seabees from Al Asad were assigned to 1/503 Infantry (Army) for one week. These Seabees were used to provide perimeter security at three places in Ar Ramadi occupied by those units, which freed Marines and Soldiers to provide security at polling sites in Ar Ramadi. NMCB 23 Seabees integrated seamlessly with both units during this critical event and were vital to making the elections a success. NMCB 23 expended 462 mandays (240 from Ar Ramadi and 222 from Al Asad) to execute this mission.

(4) NMCB 23 was assigned a number one I MEF priority project to perform quality of life improvements at Camp Korean Village. This project consisted of constructing 125 16' x 32' SWA huts to be used for berthing by Marines who had been berthing in temporary quarters. The project also included placement of 4,000 tons of gravel for dust control on the landing zone and installation of four shower trailers, four generators, and over seven miles of distribution cable. This project was managed from the main body location at Ar Ramadi and staffed with a detail of 30 Seabees. Since most of the materials were delivered to the wrong city, NMCB 23 had to transport the materials hundreds of miles to the project site. NMCB 23 received support from the 120th Engineer Battalion (Army) to haul gravel for this project and from NMCB 4 for crane operations to set the generators and shower trailers. At turnover, NMCB 23 had executed 34% of the project (1,646 of 4,805 mandays).

(5) NMCB 23 conducted the ICAP at Ar Ramadi and Al Asad during its deployment. The purpose of this program was to provide construction skill training to Iraqi civilians. NMCB 23 maintained the only ICAPs in I MEG. Classes of 10 to 20 students received classroom and practical training. The below discusses ICAP at Ar Ramadi. A discussion of ICAP at Al Asad is included in the Al Asad section. At Ar Ramadi, ICAP constructed a battalion aid station for and renovated buildings on an Iraqi National Guard (ING) camp. NMCB 23 provided four instructors with advanced skills. In addition, four personnel were assigned as security at all times during instruction because work was outside Camp Ramadi. ICAP ended in February 2005 when changing mission requirements and local threat conditions made the program no longer viable. At the conclusion of one successful class, the students formed a construction company and began contracting work at the ING camp. 30 students graduated from ICAP. NMCB 23 expended 577 mandays on this program at Ar Ramadi.

(6) NMCB 23 completed a small arms range at Ar Ramadi that was turned over from NMCB 14. The four-lane 300-meter range allowed weapons training and qualification for Coalition Forces and Iraqi Security Forces (ISF). The project at turnover included excavation of over 5,000 of the 13,000 cubic yards of dirt excavated, fine grading of approximately 20 acres, fabrication and erection of two steel range towers, and construction of 45 target stands. This project was performed outside Camp Ramadi, requiring security personnel and armor on equipment. Guardian Angels, which were trained at the beginning of the deployment, provided over-watch on the project and foiled emplacement of an improvised explosive device by insurgent forces. NMCB 23 executed the final 401 of 793 mandays.

(7) NMCB 23 completed the Camp Ramadi Laundry Facility, a 16' x 48' wood-frame SWA hut complete with electricity, washers, dryers, plumbing, supply tanks, and waste tanks. The facility was badly needed to serve a 1,000 person camp expansion previously built by NMCB 14. The original building for the facility, also built by NMCB 14, was mistakenly occupied by a unit prior to the arrival of the plumbing materials requiring construction of a new SWA hut. Because the plumbing materials were procured from multiple vendors, NMCB 23 encountered many challenges in making leak-free connections with incompatible materials. Using great ingenuity, Seabees were able to correct the leaks and put the laundry facility into service. NMCB 23 executed the final 125 of 177 mandays.

(8) NMCB 23 received tasking near the end of its deployment to construct a 900 linear foot bypass around a U.S. military base in Al Anbar province. The purpose of this project was to improve standoff distance and reduce risk to personnel from vehicle-borne improvised explosive devices. The project included design and construction of approximately 900 linear feet of two-lane road, placement of approximately 2,000 cubic yards of gravel road base and preparation of the road for pavement. Phase 1 included: (a) grading approximately 15 acres to remove mounds and holes adjacent to the road to increase observability, (b) excavating anti-vehicle ditches for traffic control, and (c) staging fill for road construction to be completed in Phase 2. Phase 2 was turned over to NMCB 24. Work was outside the camp in an area subject to occasional sniper fire and other insurgent activity. As such, steel plate armor was installed on all equipment and Marines were assigned to provide security. NMCB 23 successfully and safely completed the first phase of this project, executing 47 mandays.

(9) The 2BCT Tactical Operations Center project, turned over to NMCB 23 from NMCB 14, was not executed during this deployment. Delays in project funding prevented materials from being received before the end of NMCB 23's deployment. Materials began arriving at the end of the deployment and the project was turned over to NMCB 24.

(10) CO Discretionary Work included Camp Ramadi sustainment (fuel, water, etc.); camp maintenance and miscellaneous projects for other units; construction of six SWA huts, a battalion aid station, and other wood-frame buildings; and numerous other projects listed on the CO Discretionary project listing that follows. To help customers in light of scarce labor resources, CO Discretionary was also used to provide Seabee training, direction, and oversight to customer-provided laborers. In addition, prior to being given a project number or assigning logistic support to a specific project, CO Discretionary was used to account for the direct labor, non-TMT, personnel used on convoys for logistics runs. This turned out to be a very large mission because of the tens of thousands of miles driven to move construction materials throughout Al Anbar province. NMCB 23 expended 2,125 mandays on CO Discretionary Work.

(11) NMCB 23 expended 690 mandays of maintenance on its camp but also made every effort to support adjacent units with camp maintenance and miscellaneous projects performed using CO Discretionary as discussed above. Maintenance tasks commonly performed by NMCB 23 included repairs to military and commercial generators, heating/ventilation/air-conditioning (HVAC) installation and repair, electrical ground system repair, and plumbing repairs. Having many highly skilled tradesmen, NMCB 23 quickly became the unit of choice for technical work at Ar Ramadi. While NMCB 23 worked with

many units as stated, it worked particularly closely with 2/5 Infantry (Marines) in repairing steel fences, generators, and waterlines damaged by explosions, and repairing HVAC in berthing areas, shower plumbing, and many other items at numerous posts throughout Ar Ramadi. NMCB 23's close relationship with 2/5 Infantry (Marines) was a tremendous success.

(12) Due to continuous insurgent attacks (indirect fire, small arms fire, etc.) at Ar Ramadi, NMCB 23 was tasked to provide force protection support to adjacent units. Phase 2 of force protection enhancements at Camp Blue Diamond (42 mandays) were specifically tasked and are listed in the table above. All other force protection (650 mandays) is listed in the force protection project listing that follows and includes placement and filling of 4,000 linear feet of Hesco barriers with over 5,000 cubic yards of dirt, vehicle uparmoring, hardening with bunkers and sandbags, and fabrication of steel traffic control devices. Force protection was provided for 10 units.

(13) NMCB 23 operated throughout Al Anbar province at locations hundreds of miles from one another. As such, movement of personnel, materials, and equipment was vital to the execution of the construction and missions discussed above. Because of insurgent attacks and lack of security all movements required security escort, which was provided by TMTs. NMCB 23 deployed with three 24-person teams, one of which remained with NMCB 23, one of which was assigned to NMCB 4, and one of which was assigned to the 120th Engineer Battalion (Army) for all but 6 weeks of the deployment. A Seabee Engineer Reconnaissance Team (SERT) from NMCB 7 was assigned to NMCB 23 and acted as a TMT as well as a SERT. Despite traveling through hostile territory, often at night, and withstanding insurgent attacks with mines, small arms fire, and improvised explosive devices, the TMTs and SERT successfully executed 112 long distance tactical convoys, hauling 2,000 tons of material and escorting 1,000 vehicles a combined distance of 21,000 miles.

(14) When not providing convoy security, the TMTs and SERT assisted in the above discussed construction. They also performed assessments of nine bases, camps and facilities throughout Al Anbar province. During these assessments, they also provided repairs and construction to the greatest extent possible. The assessments covered all infrastructure considerations including electricity, water, waste/sewer, structures, and force protection. These assessments resulted in work scopes and bills of material used to plan and execute badly needed repairs and construction at the assessed sites.

(15) NMCB 23's Embarkation Department located in Ar Ramadi successfully planned, requested, executed and tracked 350 ground movements and 80 air movements. Ground movements included approximately 6,200 passenger movements and 2,400 vehicle movements. Air movements included 200 passenger movements. Embarkation was an around the clock operation. Days were spent planning and coordinating, while the nights were spent supporting air and ground movements. Ground movement planning was often under very limited time constraints due to short-fused tasking and emergent requirements. Planning a movement in most cases involved active brainstorming and comprehensive teamwork to properly develop a safe and effective convoy meeting all requirements. Much coordination with higher authority and adjacent units was required particularly when NMCB 23 personnel were on other unit's convoys as "ride-alongs." Flights were often unpredictable and required extreme flexibility and patience. Because air travel was not dependable, if critical passenger movements were required, an alternate ground movement was planned as a contingency.

b. PROJECT SUMMARIES. The following pages provide details on tasked projects, discretionary projects, camp maintenance, and force protection projects executed.

At left, framing floor systems. Below, first phase of SWA huts complete.



KOREAN VILLAGE QUALITY OF LIFE PROJECT KOREAN VILLAGE - IZ5-215

The purpose of this number one I MEF priority project started by NMCB 23 was to make quality of life improvements primarily through construction of SWA huts to be used to replace tent berthing and expand overall berthing capacity for Marines at Korean Village.

Project Data

Project Scope: Construct 125 16' x 32' wood-frame SWA huts including wiring and HVAC. Set four shower trailers and replace all plumbing damaged during trailer delivery. Grade approximately eight acres to prepare site for SWA huts. Erect and fill 2,000 seven foot HESCO bastions for force protection. Spread 4,000 tons of gravel for dust control at landing zone and throughout camp. Place and wire four 275 kVA generators, install fuel tanks, and lay 35,000 linear feet of distribution cabling to service the SWA huts and shower trailers.

Personnel: 30

Duration: January 2005 - March 2005

Mandays Expended: NMCB 23: 1646

Tasking:

| | | |
|-------------------------------|------|-----|
| WIP at turnover: | 0% | |
| WIP at deployment completion: | | 34% |
| MD tasked to NMCB: | 1646 | |
| Total project MD: | 4805 | |

Material Cost: \$3,158,000

Cost Savings: \$1,681,750 (4,805 MD x 350 \$/MD)

Significant Safety Issues: Crane operations to set generators and shower trailers.

Significant QC Issues: None

Significant Design Issues: Phasing to prevent unnecessary relocation of berthing tents.

Significant Material Issues: Materials often delivered by vendors to wrong place, resulting in NMCB 23 having to line haul materials by tactical convoy 250 miles to site.

At left, Seabee directing ICAP students in sidewalk construction. Below, battalion aid station built through ICAP program.



IRAQI CONSTRUCTION APPRENTICE PROGRAM (ICAP) AR RAMADI - IZ4-311

The purpose of this program was to provide construction skill training to Iraqi civilians. Classes of 10 to 20 students received classroom and practical training while constructing facilities at an Iraqi National Guard camp. Because work was outside the camp, security was required at all times during training. The classes constructed a battalion aid station at the camp and renovated numerous buildings.

Project Data

Project Scope: Develop curriculum and provide classroom instruction and practical instruction to Iraqi civilians using locally procured materials.

Personnel: 4 instructors and 4 security personnel

Duration: October 2004 - February 2005

Mandays Expended: NMCB 23: 577

Tasking:

| | | |
|-------------------------------|-----|------|
| WIP at turnover: | 0% | |
| WIP at deployment completion: | | 100% |
| MD tasked to NMCB: | 577 | |
| Total project MD: | 577 | |

Material Cost: \$0 - materials procured locally by others at no cost to Navy.

Cost Savings: N/A - labor primarily performed by students.

Significant Safety Issues: Insurgent activity

Significant QC Issues: None

Significant Design Issues: None

Significant Material Issues: Material procurement was difficult due to insurgent activity. Students and Iraqi National Guard personnel stole materials.

At left, grading in progress with armored dozers. Below, completed range lanes.



SMALL ARMS RANGE AR RAMADI - IZ4-313

The purpose of this turnover project completed by NMCB 23 was to construct a range at Camp Ramadi to be used by Coalition Forces and Iraqi Security Forces for training. The project was outside the camp, thereby requiring security personnel and armor on equipment.

Project Data

Project Scope: Construct small arms range consisting of four 300 m firing lanes and berms. Project included excavation of over 13,000 cubic yards of dirt, fine grading of approximately 20 acres, fabrication and erection of two steel range towers, and construction of 45 target stands.

Personnel: 10 construction personnel and 4 security personnel

Duration: NMCB 14: June 2004 - September 2004
NMCB 23: January 2005 - February 2005

Mandays Expended:

| | |
|-------------|-----|
| NMCB 14: | 392 |
| NMCB 23: | 401 |
| Cumulative: | 793 |

Tasking:

| | | |
|-------------------------------|------|--|
| WIP at turnover: | 49% | |
| WIP at deployment completion: | 100% | |
| MD Tasked to NMCB: | 401 | |
| Total Project MD: | 793 | |

Material Cost: \$19,000

Cost Savings: \$277,550 (793 MD x 350 \$/MD)

Significant Safety Issues: Insurgent activity

Significant QC Issues: None

Significant Design Issues: None

Significant Material Issues: None

At left, exterior of completed facility. Below, interior of laundry facility.



CAMP RAMADI LAUNDRY FACILITY AR RAMADI - IZ5-330

The purpose of this turnover project completed by NMCB 23 was to construct a laundry facility to serve the SWA hut village at Camp Ramadi. Project required construction of a second SWA hut as a unit mistakenly occupied the first SWA hut after its completion but prior to arrival of plumbing and electrical materials.

Project Data

Project Scope: Construct 16' x 48' wood frame SWA hut. Install plumbing, electrical service, water storage tanks and vents needed for 10 washers and 10 dryers.

| | | | |
|-------------------------------------|--|-----|------|
| Personnel: | 6 | | |
| Duration: | October 2004 - December 2004 | | |
| Mandays Expended: | NMCB 14: | 52 | |
| | NMCB 23: | 125 | |
| | Cumulative: | 177 | |
| Tasking: | WIP at turnover: | 29% | |
| | WIP at deployment completion: | | 100% |
| | MD tasked to NMCB: | 125 | |
| | Total project MD: | 177 | |
| Material Cost: | \$94,000 | | |
| Cost Savings: | \$61,950 (177 MD x 350 \$/MD) | | |
| Significant Safety Issues: | Insurgent activity | | |
| Significant QC Issues: | Difficulty preventing leaks due to incompatible materials of poor quality. | | |
| Significant Design Issues: | None | | |
| Significant Material Issues: | Incompatibility of plumbing materials procured from multiple vendors. | | |

At left, Seabees unloading polling site materials. Below, a Seabee constructs an anti-vehicle berm.



ELECTION CONSTRUCTION SUPPORT AR RUTBAH, TREBIL, WALEED, AKASHAT - IZ5-531

The purpose of this project was to support Iraqi national elections by transporting and erecting election polling site materials at four locations in western Al Anbar Province. The project required significant coordination with 31st MEU, who had overall responsibility for the polling sites.

Project Data

Project Scope: Transport and place 120 concrete jersey barriers, concertina wire, generators, polling stations, and life support equipment. Construct force protection measures at polling locations. Retrograde equipment after elections.

Personnel: 95 personnel from Ar Ramadi and Al Asad

Duration: January 2005 - February 2005

Mandays Expended: NMCB 23: 482 (81 from Ar Ramadi, 401 from Al Asad)

Tasking:

| | |
|-------------------------------|------|
| WIP at turnover: | 0% |
| WIP at deployment completion: | 100% |
| MD tasked to NMCB: | 482 |
| Total project MD: | 482 |

Material Cost: \$0 - materials provided by 1MARDIV at no cost to Navy.

Cost Savings: \$168,700 (482 MD x 350 \$/MD)

Significant Safety Issues: Insurgent activity

Significant QC Issues: None

Significant Design Issues: None

Significant Material Issues: Materials arrived at Ar Ramadi very late, which compressed construction schedule considerably.

At left, site prior to grading. Below, site with fill staged for road construction, site grading complete.



BYPASS ROAD PHASE 1 AR RAMADI - IZ5-543

The purpose of this turnover project started by NMCB 23 was to construct a bypass road adjacent to a military base to improve stand-off distance and reduce the risk from vehicle-borne improvised explosive devices. Work was outside the camp in an area of sniper fire.

Project Data

Project Scope: Overall project scope included design and construction of approximately 900 linear feet of two-lane road, placement of approximately 2,000 cubic yards of gravel road base and preparation of road for pavement. Phase 1 included: 1) grading approximately 15 acres to remove mounds and holes adjacent to the road to increase observability, 2) excavating anti-vehicle ditches for traffic control, and 3) staging fill for road construction to be completed in Phase 2. Phase 2 was to be completed by NMCB 24.

Personnel: 4

Duration: February 2005 - March 2005

Mandays Expended: NMCB 23: 47

Tasking: WIP at turnover: 0%
 WIP at deployment completion: 100%
 MD Tasked to NMCB: 47
 Total Project MD: 47

Material Cost: \$0 - no materials were required

Cost Savings: \$16,450 (47 MD x 350 \$/MD)

Significant Safety Issues: Insurgent activity

Significant QC Issues: None

Significant Design Issues: Maintenance of traffic on existing road, avoiding existing utilities.

Significant Material Issues: None

CO DISCRETIONARY MAINBODY

PROJECT LISTING

| | |
|--|------|
| Convoy/Logistics Runs | 1170 |
| Camp Sustainment | 292 |
| Camp Maintenance/Misc Projects for Other Units | 188 |
| Construct 2 SWA huts for 1/9 Infantry (Army) | 75 |
| Korean Village Battalion Aid Station | 50 |
| Bravo Company SWA Hut | 45 |
| Landing Zone Improvements | 42 |
| Construct 2 SWA Huts for Camp Ramadi | 40 |
| Central Tool Room SWA Hut | 40 |
| Passenger Holding Bldg at Blue Diamond | 24 |
| Alfa Company Mechanics Shop Renovation | 24 |
| Hurricane Point & Snake Pit Camp Improvement | 24 |
| Drainage Improvements | 23 |
| Charlie Medical Partition and Shelves | 18 |
| Seabee Camp Laundry Facility | 16 |
| Camp Ramadi Shower Facility | 15 |
| MCPX Dispersing Office Renovation | 12 |
| Alfa Yard Drainage and Retention Pond | 10 |
| Exam Table for Charlie Med | 8 |
| Workspace Shelving | 6 |
| 2/5 Infantry (Marine) Motor Dispatch | 3 |

TOTAL MANDAYS EXPENDED

2125



Erecting a SWA hut



Using an excavator to improve drainage

CAMP MAINTENANCE / FORCE PROTECTION MAINBODY

CAMP MAINTENANCE

| | |
|------|-----|
| ESAs | 258 |
| SJs | 218 |
| WOs | 214 |

TOTAL MANDAYS EXPENDED 690

FORCE PROTECTION

| | |
|--|-----|
| Hesco Barrier Placement and Filling | 225 |
| Vehicle Uparmoring and Traffic Devices | 146 |
| Hardening With Bunkers and Sandbags | 98 |
| AT/FP Enhancements at Shark Base | 68 |
| AT/FP Enhancements at Blue Diamond – Phase 1 | 48 |
| Harden Headquarters Second Floor Balconies | 30 |
| Ammunition Supply Point Relocation | 20 |
| Alfa Yard Upgrades | 15 |

TOTAL MANDAYS EXPENDED 650



Placing Hesco barriers for force protection



Steel traffic devices fabricated for 2/5 Marines



Welding steel armor on Marine vehicle

c. LABOR DISTRIBUTION SUMMARY

MAINBODY - AR RAMADI, IRAQ

| Month | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Total | %Total |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------|--------|
| Direct Labor MD's | 1693 | 2491 | 2412 | 2762 | 3065 | 1277 | 13700 | 100% |
| Indirect Labor MD's* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Readiness/Training** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total MD's Exp | 1693 | 2491 | 2412 | 2762 | 3065 | 1277 | 13700 | 100% |
| # Total Personnel | 154 | 145 | 145 | 163 | 174 | 130 | N/A | |
| # Direct Labor | 92 | 83 | 80 | 87 | 109 | 65 | N/A | |
| # Workdays | 17 | 27 | 28 | 28 | 26 | 20 | 146 | |
| % Direct Labor | 59% | 57% | 55% | 53% | 63% | 50% | N/A | |
| Ideal Capability | 1760 | 2521 | 2520 | 2740 | 3188 | 1463 | 14192 | |
| Availability Factor | 96% | 99% | 96% | 101% | 96% | 87% | 97% | |

* As required by higher authority indirect tasking was considered direct tasking and reported as such.

** There was no formal readiness/training tasking. Training was conducted after hours.

4. DETACHMENT - AL ASAD, IRAQ

a. OPERATIONS SUMMARY. NMCB 23 expended 8,381 mandays at the detachment site. 6,997 mandays are summarized below. The remaining 1,384 mandays were OIC Discretionary (IZ4-500, 746 mandays), Camp Maintenance (IZ4-501, 449 mandays), and Force Protection (IZ5-502, 189 mandays), which are not listed below but are summarized at the end of paragraph 4.b below as required by reference (a).

DETACHMENT - AL ASAD, IRAQ

| Proj # | Total Project Mandays | Total Project Material Cost | Mandays Tasked | Tasked % | Final WIP | Mandays Expended by prior NMCBs | Mandays Expended this Deployment |
|----------|-----------------------|-----------------------------|----------------|----------|-----------|---------------------------------|----------------------------------|
| IZ4-522 | 2,468 | \$435,000 | 2,468 | 0-100% | 99% | 0 | 2,434 |
| IZ4-529 | 1,712 | \$599,000 | 1,712 | 0-100% | 98% | 0 | 1,683 |
| IZ5-527 | 737 | \$430,000 | 737 | 0-100% | 100% | 0 | 737 |
| IZ4-331* | 621 | \$0 | 621 | 0-100% | 100% | 0 | 621 |
| IZ4-521 | 584 | \$168,000 | 403 | 32-100% | 100% | 181 | 403 |
| IZ5-531+ | 401 | \$0 | 401 | 0-100% | 100% | 0 | 401 |
| IZ5-405* | 222 | \$0 | 222 | 0-100% | 100% | 0 | 222 |
| IZ4-704 | 532 | \$260,000 | 159 | 71-100% | 100% | 373 | 159 |
| IZ4-517 | 96 | \$0 | 96 | 0-100% | 100% | 0 | 96 |
| IZ4-706 | 185 | \$95,000 | 94 | 50-100% | 100% | 91 | 94 |
| IZ5-532* | 82 | \$0 | 82 | 0-100% | 100% | 0 | 82 |
| IZ5-530 | 65 | \$2,000 | 65 | 0-100% | 100% | 0 | 65 |

* non-project tasking, no project summary (IZ5-405: Election Security Support; IZ5-532: Logistics Support; IZ4-331: Relocation and Turnover)
 + no project summary (IZ5-531: Election Construction Support, see Main Body section for project summary)

(1) NMCB 23 maintained a detachment at Al Asad throughout the deployment with an average of 85 personnel assigned. NMCB 23 relocated its headquarters to Al Asad during the fifth month of deployment as ordered. NMCB 23 completed numerous high-visibility projects at Al Asad during its deployment including four number one I MEF priority projects.

(2) The largest and probably most significant project completed by NMCB 23 was the repair of 31 80-foot diameter, battle-inflicted craters on a runway and various taxiways at Al Asad Air Base. This project was broken into two phases both of which were number one I MEF priority projects. The project was extremely challenging and required: (a) excavation of 10,600 cubic yards of debris, (b) placement of 6,000 cubic yards of concrete using 6 cubic yard capacity cretemobiles, (c) locating and hauling of over 600 truck loads of aggregate from uncooperative local quarries, (d) line-hauling 20,000 bags of cement over 100 miles from a supply point to the site, and (e) working 24 hours a day for 6 weeks. The variability in the aggregate required ingenuity to ensure sufficient quality concrete. An Air Force assessment of the concrete showed it to be of equal or better quality than the existing concrete. NMCB 23 was supported by three Marine units (Marine Wing Support Group 37, Marine Wing Support Squadron 472 and Al Asad Base Defense). Those units provided equipment used throughout the project and provided security used during aggregate recovery from local quarries. On-time completion of this project would not have been possible without a combined Seabee-Marine Corps effort. Project completion allowed 3rd Marine

Aircraft Wing to open the runway and taxiways to tactical aircraft including a newly arrived F-18 squadron. The project doubled the capacity of the air base and allowed tactical aircraft to remain on station significantly longer. NMCB 23 executed 4,180 mandays on this project.

(3) NMCB 23 completed a third number one I MEF priority project, repair of a critical supply route running through Al Anbar province that is used by military and civilian vehicles. The route had deteriorated to the point that vehicles were being damaged. This project was needed to restore and ensure the route's passability particularly during the rainy season. The repairs included: (a) construction of a 400 linear foot elevated roadway across a stream, (b) repair of severe shoulder damage along 1,200 linear feet of roadway, (c) construction of a 600 linear foot bypass around a bridge, and (d) repair of potholes in a two-mile section of roadway. The construction crew camped on the project sites, which were away from Al Asad Air Base. Therefore, a security detail was provided by 1/23 Infantry (Marines). Since the Al Asad detachment did not have a TMT, 1/23 also provided a convoy security element that escorted the 36 convoys that moved equipment and material to the job sites. This project demonstrated the excellent interoperability of Seabees and Marines. NMCB 23 executed 737 mandays on this project.

(4) NMCB 23 completed a fourth number one I MEF priority project, construction a 100-cell detention facility in an existing hangar at Al Asad Air Base. This project was turned over from NMCB 14. During this project, NMCB 23 personnel demonstrated their excellent construction skills by: (a) fabricating gates and cell frames using 15,000 welds and 7,800 feet of steel tubing, and (b) installing 23,000 square feet of fence fabric. Facing delays in delivery of expanded metal needed for the catwalks, NMCB 23 located and recovered required material at an abandoned factory in Ar Ramadi. The high quality and timely completion of the project resulted in a highly satisfied customer and permitted relocation of detainees from an expeditionary facility to a much more secure facility. NMCB 23 executed 403 of 584 mandays on this project.

(5) NMCB 23 completed two projects turned over from the 120th Engineer Battalion (Army). The first was a 10,500 linear foot chain link security fence. NMCB 23 executed 159 of 532 mandays on this project. The second was two 20' x 64' SWA huts for use by the Al Asad Police Academy. NMCB 23 executed 94 of 185 mandays on this project.

(6) NMCB 23 executed four other tasked projects: election construction support (401 mandays) and election security support (222 mandays) which are discussed in detail in the Ar Ramadi section, construction of boat ramps and access roads at Haditha Dam (65 mandays), and headquarters relocation and turnover (621 mandays). The relocation required so much labor because significant work and office space had to be built and reconfigured to allow the camp to go from 83 personnel to as many as 200 personnel with corresponding increases in equipment and supplies.

(7) NMCB 23 conducted ICAP at Al Asad. The purpose of this program was to provide construction skill training to Iraqi civilians. Classes of 10 to 20 students received classroom and practical training. ICAP students worked on a community outreach center. NMCB 23 provided one to four instructors with advanced skills. ICAP ended in January 2005 when changing mission requirements and local threat conditions made the program no longer

viable. 20 students graduated from ICAP. NMCB 23 expended 96 mandays on this program at Al Asad.

(8) OIC Discretionary Work included Al Asad Air Base sustainment (fuel, water, etc.); camp maintenance and miscellaneous projects for other units; construction of 10 Turkish toilets; camp electrical upgrades; construction of strong-back tents; and numerous other projects listed on the OIC Discretionary project listing that follows. To help customers in light of scarce labor resources, OIC Discretionary was also used to provide Seabee training, direction, and oversight to customer-provided laborers. In addition, prior to being given a project number or assigning logistic support to a specific project, OIC Discretionary was used to account for the direct labor personnel used on convoys for logistics runs. This turned out to be a significant mission because of the thousands of miles driven to move materials throughout Al Anbar province. NMCB 23 expended 746 mandays on OIC Discretionary Work.

(9) NMCB 23 expended 449 mandays of maintenance on its camp but also made every effort to support adjacent units with camp maintenance and miscellaneous projects performed using OIC Discretionary as discussed above. Maintenance tasks commonly performed by NMCB 23 included repairs to military and commercial generators, HVAC installation and repair, electrical ground system repair, and plumbing repairs.

(10) Due to insurgent attacks (indirect fire, small arms fire, etc.) at Al Asad, NMCB 23 was tasked to provide force protection support to adjacent units. NMCB 23 expended 189 mandays which included Hesco barrier placement and filling, berm construction, recovery of fill for Hesco barriers, and vehicle uparmoring.

b. PROJECT SUMMARIES. The following pages provide details on tasked projects, discretionary projects, camp maintenance, and force protection projects executed.

At left, Seabees removing formwork from new concrete. Below, mission complete with AV-8B Harrier taking off from newly opened runway.



CRATER REPAIRS PHASE 1 AL ASAD - IZ4-522

The purpose of this number one I MEF priority project was to allow Al Asad Air Base to open a runway, which was severely damaged by coalition force bombing. Expeditionary repairs, which were previously made to the 80-foot diameter craters, were inadequate for use by most military and civilian aircraft. This project included permanent repairs to 19 large craters using concrete pavement.

Project Data

Project Scope: Saw cut craters and excavate 7,000 cubic yards of debris from 19 craters. Backfill and compact craters. To cap craters, place 3,600 cubic yards of concrete utilizing 21,600 bags of cement, 2,000 cubic yards of sand, and 2,200 cubic yards of gravel. Obtain sand and gravel from local quarries.

| | |
|-------------------------------------|---|
| Personnel: | 45 |
| Duration: | October 2004 - December 2004 |
| Mandays Expended: | NMCB 23: 2434 |
| Tasking: | WIP at turnover: 0% |
| | WIP at deployment completion: 99% |
| | MD tasked to NMCB: 2468 |
| | Total project MD: 2468 |
| Material Cost: | \$435,000 |
| Cost Savings: | \$863,800 (2,468 MD x 350 \$/MD) |
| Significant Safety Issues: | None |
| Significant QC Issues: | Difficulty achieving good concrete quality due to poor and inadequate materials. Air Force airfield assessment stated placed concrete was of equal or higher quality than existing concrete. |
| Significant Design Issues: | None |
| Significant Material Issues: | 20,000 bags of cement had to be line-hauled by tactical convoy 100 miles to project site. Sand and gravel had to be procured and hauled from uncooperative local quarries. Wrong joint sealant was delivered three times and correct material did not arrive during deployment. |

At left, Seabees placing formwork at crater site. Below, Seabees place concrete on last crater.



CRATER REPAIRS PHASE 2 AL ASAD - IZ4-529

The purpose of this number one I MEF priority project was to allow Al Asad Air Base to use two taxiways severely damaged by coalition force bombing. Expeditionary repairs, which were previously made to the 80-foot diameter craters were inadequate for use by most military and civilian aircraft. This project included permanent repairs to 12 large craters using concrete pavement.

Project Data

Project Scope: Saw cut craters and excavate 3,600 cubic yards of debris from 12 craters. Backfill and compact craters. To cap craters, place 2,400 cubic yards of concrete utilizing 14,600 bags of cement, 1,500 cubic yards of sand, and 1,200 cubic yards of gravel. Obtain sand and gravel from local quarries.

Personnel: 25

Duration: December 2004 - February 2005

Mandays Expended: NMCB 23: 1683

Tasking:
 WIP at turnover: 0%
 WIP at deployment completion: 98%
 MD tasked to NMCB: 1712
 Total project MD: 1712

Material Cost: \$599,000

Cost Savings: \$599,200 (1,712 MD x 350 \$/MD)

Significant Safety Issues: None

Significant QC Issues: Difficulty achieving good concrete quality due to poor and inadequate materials. Air Force airfield assessment stated placed concrete was of equal or higher quality than existing concrete.

Significant Design Issues: None

Significant Material Issues: Sand and gravel had to be procured and hauled from uncooperative local quarries. Wrong joint sealant was delivered three times and correct material did not arrive during NMCB 23's deployment.

At left, road crossing prior to construction. Below, completed crossing in use.



ASR REPAIRS AL ASAD - IZ5-527

The purpose of this number one I MEF priority project was to improve conditions on a heavily used supply route prior to arrival of seasonal rains. Work included elevating the road at a stream crossing, and other repairs to make the road passable to coalition convoys. Security at the site was provided by Marines and the crew camped on site during the project.

Project Data

Project Scope: Install 208 linear feet of 36 inch culvert pipe and elevate and pave 400 linear feet of roadway at stream crossing. Repair damaged shoulder and regrade area adjacent to approximately 1,200 linear feet of road. Construct 600-foot bypass around damaged bridge. Repair potholes on a two-mile section of roadway. Project required over 5500 cubic yards of gravel, sand, and indigenous material and 250 cubic yards of concrete.

Personnel: 24

Duration: November 2004 - December 2004

Mandays Expended: NMCB 23: 737

Tasking:
 WIP at turnover: 0%
 WIP at deployment completion: 100%
 MD tasked to NMCB: 737
 Total project MD: 737

Material Cost: \$430,000

Cost Savings: \$257,950 (737 MD x 350 \$/MD)

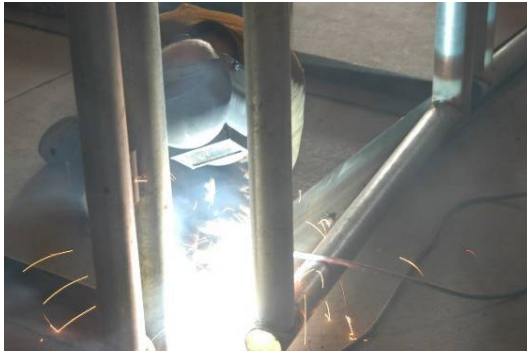
Significant Safety Issues: Insurgent activity

Significant QC Issues: Obtaining good compaction with native materials.

Significant Design Issues: None

Significant Material Issues: Sand and gravel had to be procured and hauled from local quarries.

At left, a Seabee fabricating gate frame. Below, interior of detention facility near completion.



DETENTION FACILITY AL ASAD - IZ4-521

The purpose of this number one I MEF priority turnover project was to provide a permanent detention facility at Al Asad to replace temporary facilities. The project converted an existing hangar into a detention facility.

Project Data

Project Scope: Build 100-cell detention facility with catwalks. Project included extensive on-site fabrication of cell frames and gate frames, which required over 150 welds per cell, 23,000 square feet of fence fabric and 7,800 feet of steel tubing.

Personnel: 7

Duration: NMCB 14: August 2004 - September 2004
NMCB 23: October 2004 - December 2004

Mandays Expended: NMCB 14: 181
NMCB 23: 403
Cumulative: 584

Tasking: WIP at turnover: 31%
WIP at deployment completion: 100%
MD tasked to NMCB: 403
Total project MD: 584

Material Cost: \$168,000

Cost Savings: \$204,400 (584 MD x 350 \$/MD)

Significant Safety Issues: None

Significant QC Issues: None

Significant Design Issues: None

Significant Material Issues: Expanded metal did not arrive on time so Seabees procured from local sources.

At left, fence under construction. Below, fence completed.



AL ASAD PERIMETER FENCE AL ASAD - IZ4-704

The purpose of this turnover project was to improve security at Al Asad by installing a perimeter fence.

Project Data

Project Scope: Set 1,325 posts and install 10,500 linear feet of chain link security fencing with triple strand barbed wire on top.

| | | | |
|-------------------------------------|--------------------------------|-----|------|
| Personnel: | 6 | | |
| Duration: | September 2004 - February 2005 | | |
| Mandays Expended: | USA 120 th ENG BN: | 373 | |
| | NMCB 23: | 159 | |
| | Cumulative: | 532 | |
| Tasking: | WIP at turnover: | 70% | |
| | WIP at deployment completion: | | 100% |
| | MD tasked to NMCB: | 159 | |
| | Total project MD: | 532 | |
| Material Cost: | \$260,000 | | |
| Cost Savings: | \$186,200 (532 MD x 350 \$/MD) | | |
| Significant Safety Issues: | None | | |
| Significant QC Issues: | None | | |
| Significant Design Issues: | None | | |
| Significant Material Issues: | None | | |

At left, Community Outreach Center under construction.
Below, students graduating from the ICAP program.



IRAQI CONSTRUCTION APPRENTICE PROGRAM (ICAP) AL ASAD - IZ4-517

The purpose of this program was to provide construction skill training to Iraqi civilians. Classes of 10 to 20 students received classroom and practical training while constructing facilities at Al Asad like the community outreach center shown above.

Project Data

Project Scope: Develop curriculum and provide classroom instruction and practical instruction to Iraqi civilians using locally procured materials.

Personnel: 1 - 4 instructors

Duration: October 2004 - January 2005

Mandays Expended: NMCB 23: 96

Tasking:

| | | |
|-------------------------------|----|------|
| WIP at turnover: | 0% | |
| WIP at deployment completion: | | 100% |
| MD tasked to NMCB: | 96 | |
| Total project MD: | 96 | |

Material Cost: \$0 - materials procured locally at no cost to Navy

Cost Savings: N/A - labor primarily performed by students

Significant Safety Issues: None

Significant QC Issues: None

Significant Design Issues: None

Significant Material Issues: None

At left, SWA hut framing in progress. Below, completed SWA huts.



POLICE ACADEMY SWA HUTS AL ASAD - IZ4-706

The purpose of this turnover project was to construct two buildings (oversized SWA huts) for use by the Al Asad Police Academy.

Project Data

Project Scope: Construct two 20' x 64' SWA huts, including electrical and HVAC systems.

Personnel: 4

Duration: January 2005 - February 2005

Mandays Expended: USA 120th ENG BN: 91
 NMCB 23: 94
 Cumulative: 185

Tasking: WIP at turnover: 49%
 WIP at deployment completion: 100%
 MD Tasked to NMCB: 94
 Total Project MD: 185

Material Cost: \$95,000

Cost Savings: \$64,750 (185 MD x 350\$/MD)

Significant Safety Issues: None

Significant QC Issues: None

Significant Design Issues: None

Significant Material Issues: None

At left, grading boat ramp. Below, launching Small Craft Company boat at new boat ramp.



HADITHA BOAT RAMP HADITHA - IZ5-530

The purpose of this project was to construct a boat ramp to be used to facilitate launching of patrol boats by a Marine Small Craft Company. The ramp contributed to improved security of Haditha Dam, whose hydroelectric generators provide a significant amount of electricity to Iraq.

Project Data

Project Scope: Construct two boat ramps along the Euphrates River, grade an 800 linear foot access road, and install access gates.

Personnel: 5

Duration: January 2005 – January 2005

Mandays Expended: NMCB 23: 65

Tasking: WIP at turnover: 0%
 WIP at deployment completion: 100%
 MD tasked to NMCB: 65
 Total project MD: 65

Material Cost: \$2,000

Cost Savings: \$22,750 (65 MD x 350 \$/MD)

Significant Safety Issues: Insurgent activity

Significant QC Issues: None

Significant Design Issues: None

Significant Material Issues: None

OIC DISCRETIONARY / CAMP MAINTENANCE / FORCE PROTECTION AL ASAD

OIC DISCRETIONARY

| | |
|---|-----|
| Convoy/Logistics Runs | 230 |
| Camp Sustainment | 146 |
| Camp Maintenance/Miscellaneous Projects for Other Units | 122 |
| Construct Turkish Toilets | 96 |
| Install Generators/Upgrade Electrical on Camp | 54 |
| Construct Strong Back Tents for RIP Transient Berthing | 30 |
| Install Hazardous Location Lighting for F-18 HAS | 28 |
| BDOC Builder Support | 24 |
| Alfa Surgical Sump Pump Repairs | 10 |
| Manufacture Table, Counters, and Shelves for Postal Warehouse | 6 |

TOTAL MANDAYS EXPENDED **746**

CAMP MAINTENANCE

| | |
|------|-----|
| ESAs | 29 |
| SJs | 131 |
| WOs | 289 |

TOTAL MANDAYS EXPENDED **449**

FORCE PROTECTION

| | |
|-------------------------------------|----|
| Hesco Barrier Placement and Filling | 70 |
| Berm Construction | 47 |
| Recovery of Fill for Hesco Barriers | 39 |
| Vehicle Uparmoring | 33 |

TOTAL MANDAYS EXPENDED **189**



Uparmoring vehicles



Trenching for electrical upgrades

c. LABOR DISTRIBUTION SUMMARY

DETACHMENT - AL ASAD, IRAQ

| Month | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Total | %Total |
|----------------------------------|------------|-------------|-------------|-------------|------------|------------|-------------|-------------|
| Direct Labor MD's | 931 | 2191 | 2021 | 1880 | 948 | 410 | 8381 | 100% |
| Indirect Labor MD's* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Readiness/Training** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total MD's Exp | 931 | 2191 | 2021 | 1880 | 948 | 410 | 8381 | 100% |
| # Total Personnel | 75 | 84 | 85 | 81 | 92 | 50 | N/A | |
| # Direct Labor | 42 | 51 | 52 | 46 | 41 | 20 | N/A | |
| # Workdays | 17 | 27 | 28 | 28 | 26 | 20 | 146 | |
| % Direct Labor | 56% | 61% | 61% | 57% | 45% | 40% | N/A | |
| Ideal Capability | 803 | 1549 | 1638 | 1449 | 1199 | 450 | 7088 | |
| Availability Factor ⁺ | 116% | 141% | 123% | 130% | 79% | 91% | 118% | |

* As required by higher authority indirect tasking was considered direct tasking and reported as such.

** There was no formal readiness/training tasking. Training was conducted after hours.

+ To meet tasking, crews worked long and sometimes double shifts.

5. DETACHMENT - AL TAQADDUM, IRAQ

a. OPERATIONS SUMMARY. NMCB 23 expended 991 mandays at the detachment site. 937 mandays are summarized below. The remaining 54 mandays were OIC Discretionary (IZ4-500, 36 mandays) and Camp Maintenance (IZ4-501, 18 mandays), which are not listed below but are summarized at the end of paragraph 5.b below as required by reference (a). All force protection work was accomplished as a portion of other projects and is not listed separately.

DETACHMENT - AL TAQADDUM, IRAQ

| Proj # | Total Project Mandays | Total Project Material Cost | Mandays Tasked | Tasked % | Final WIP | Mandays Expended by prior NMCBs | Mandays Expended this Deployment |
|----------|-----------------------|-----------------------------|----------------|----------|-----------|---------------------------------|----------------------------------|
| IZ4-308* | 608 | \$0 | 608 | 0-100% | 100% | 0 | 608 |
| IZ5-536 | 262 | \$120,000 | 262 | 0-100% | 100% | 0 | 262 |
| IZ5-219 | 53 | \$16,000 | 53 | 0-100% | 100% | 0 | 53 |
| IZ5-220+ | 14 | \$10,000 | 14 | 0-100% | 100% | 0 | 14 |

* non-project tasking, no project summary (IZ4-308: TMT/SERT)

+ no project summary due to small project (IZ5-219: Crater Repair Support)

(1) Four months into its deployment, NMCB 23 was ordered to establish a detachment at Al Taqaddum in preparation for the arrival of NMCB 24. The 120th Engineer Battalion (Army, subordinate to I MEG) was headquartered at Al Taqaddum and was relieved in February 2005 by the 8th Engineer Support Battalion (8th ESB) (Marines, not subordinate to I MEG). NMCB 23 was able to obtain 8th ESB agreement to allow the detachment to be co-located with 8th ESB. 8th ESB was very supportive of NMCB 23's presence and generous in giving NMCB 23 space and facilities. 33 personnel were assigned to the detachment.

(2) The primary mission of the detachment was to prepare the site for use as a 100-man detachment site by NMCB 24. Working with labor and tools from 8th ESB, NMCB 23 constructed a total of eight 16' x 32' SWA huts to be used for berthing and work spaces. NMCB 23 reconfigured spaces in existing structures and established an Alfa Yard, Bravo Shops, a Central Tool Room, and a Central Storeroom. NMCB 23 worked closely with several adjacent units to obtain DSN, SIPRNET, and NIPRNET resources within the camp and upon completion of the deployment left the detachment site fully prepared for NMCB 24. NMCB 23 expended 262 mandays on this project.

(3) When contractors were unable to complete renovations at Camp Habbaniyah in time to receive ISF assigned to the camp, I MEG directed NMCB 23 to provide engineering assistance. ISF emplacement was I MEF's highest priority at the time. Eight personnel from Al Taqaddum worked with six personnel from Ar Ramadi to: (a) relocate and make extensive repairs to a shower trailer and associated tanks, (b) construct partitions for working spaces and doors, and (c) construct window covers and frames. Materials for the shower trailer repairs were gathered from various locations within the area of operations and as such were not all compatible with each other. NMCB 23 Seabees overcame these challenges and managed to make the shower trailer fully functional. All work was completed on schedule and directly enabled the emplacement of ISF personnel at Camp Habbaniyah. NMCB 23 expended 95 mandays (42 from Ar Ramadi and 53 from Al Taqaddum) on this project.

(4) The detachment included a 20 person TMT that had been previously assigned to the 120th Engineer Battalion (Army). Upon its return to NMCB 23 it became a battalion asset and as required was used extensively for convoy security particularly for logistic runs to projects sites. When not providing convoy support the TMT performed direct labor on the detachment's other tasking.

(5) As work on the detachment site ended, NMCB 23 was able to expend 14 mandays to provide equipment support and supervision to Marine Wing Support Squadron 373 in making concrete repairs to the airfield at Al Taqaddum. Concurrently, NMCB 23 expended 36 mandays of OIC Discretionary and 18 mandays of camp maintenance. The OIC Discretionary included providing four dump trucks and drivers to the Force Service Support Group for seven days to haul over 2,000 cubic yards of aggregate to be used for concrete production at Al Taqaddum.

b. PROJECT SUMMARIES. The following pages provide details on tasked projects, discretionary projects, camp maintenance, and force protection projects executed.

At left, framing for SWA huts. Bottom, roofing SWA huts.



ESTABLISH DETACHMENT SITE AL TAQADDUM - IZ5-536

The purpose of this project was to establish a detachment site on an existing Marine camp at Al Taqaddum.

Project Data

Project Scope: Build eight SWA huts to be used for berthing and office space. Reconfigure spaces in existing structures. Establish Alfa Yard, Bravo Shops, Central Tool Room, Central Storeroom, and all other working and office spaces required for a detachment site.

| | | | |
|-------------------------------------|-------------------------------|------|--|
| Personnel: | 10 | | |
| Duration: | February 2005 - March 2005 | | |
| Mandays Expended: | NMCB 23: | 262 | |
| Tasking: | WIP at turnover: | 0% | |
| | WIP at deployment completion: | 100% | |
| | MD tasked to NMCB: | 262 | |
| | Total project MD: | 262 | |
| Material Cost: | \$120,000 | | |
| Cost Savings: | \$91,350 (261 MD x 350 \$/MD) | | |
| Significant Safety Issues: | None | | |
| Significant QC Issues: | None | | |
| Significant Design Issues: | None | | |
| Significant Material Issues: | None | | |

At left, new shower trailer water supply system. Below, interior of building.



ENGINEERING AUGMENT AT HABBINIYAH HABBINIYAH - IZ5-219

The purpose of this project was to prepare Camp Habbiniyah with bed-down and working spaces for Iraqi Security Force personnel being relocated. Relocation of these personnel was a I MEF priority.

Project Data

Project Scope: Relocate shower trailer and repair plumbing in trailer, install supply and waste piping and tanks, relocate generator. Construct partitions for working spaces and doors and construct window covers and frames to support sand bags for force protection.

Personnel: 14 personnel from Ar Ramadi and from Al Taqaddum

Duration: February 2005 - February 2005

Mandays Expended: NMCB 23: 95 (42 from Ar Ramadi, 53 from Al Taqaddum)

Tasking:

| | | |
|-------------------------------|----|------|
| WIP at turnover: | 0% | |
| WIP at deployment completion: | | 100% |
| MD tasked to NMCB: | 95 | |
| Total project MD: | 95 | |

Material Cost: \$35,000 (\$19,000 from Ar Ramadi, \$16,000 from Al Taqaddum)

Cost Savings: \$33,250 (95 MD x 350 \$/MD)

Significant Safety Issues: None

Significant QC Issues: Difficulty preventing leaks due to incompatible materials of poor quality.

Significant Design Issues: None

Significant Material Issues: Incompatibility of plumbing materials procured from multiple vendors.

**OIC DISCRETIONARY / CAMP MAINTENANCE
AL TAQADDUM**

OIC DISCRETIONARY

| | |
|--|----|
| Assist FSSG with Gravel Haul | 28 |
| Miscellaneous Projects for 8 th ESB | 8 |

TOTAL MANDAYS EXPENDED 36

CAMP MAINTENANCE

| | |
|------|----|
| ESAs | 4 |
| SJs | 4 |
| WOs | 10 |

TOTAL MANDAYS EXPENDED 18

c. LABOR DISTRIBUTION SUMMARY

DETACHMENT - AL TAQADDUM, IRAQ

| Month | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Total | %Total |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------|--------|
| Direct Labor MD's | 0 | 0 | 0 | 0 | 655 | 336 | 991 | 100% |
| Indirect Labor MD's* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Readiness/Training** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total MD's Exp | 0 | 0 | 0 | 0 | 655 | 336 | 991 | 100% |
| # Total Personnel | 0 | 0 | 0 | 0 | 33 | 30 | N/A | |
| # Direct Labor | 0 | 0 | 0 | 0 | 23 | 17 | N/A | |
| # Workdays | 0 | 0 | 0 | 0 | 26 | 20 | 46 | |
| % Direct Labor | N/A | N/A | N/A | N/A | 70% | 56% | N/A | |
| Ideal Capability | N/A | N/A | N/A | N/A | 673 | 383 | 1056 | |
| Availability Factor | N/A | N/A | N/A | N/A | 97% | 88% | 94% | |

* As required by higher authority indirect tasking was considered direct tasking and reported as such.

** There was no formal readiness/training tasking. Training was conducted after hours.

CHAPTER FIVE

SUPPLY/LOGISTICS/EQUIPMENT

1. GENERAL.

a. The Supply Department and Equipment Company (Alfa Company) provided logistical support and equipment support at the main body site and two detachment sites. Manning constraints limited the number of personnel assigned to the Supply Department. Despite manning limitations all supply functions were executed correctly and effectively.

b. The NMCB 23 Supply Department managed a total of 6,800 line items of TOA valued in excess of \$8,000,000 and received, inventoried, and managed 104 containers of essential TOA. The department processed more than 1,250 requisitions for materials worth more than \$128,000, and received, inventoried, staged, and issued construction materials valued at more than \$5,000,000. They managed over 100 demand-based line items valued in excess of \$5,000 and managed over 1,400 line items of automotive repair parts.

2. CENTRAL STOREROOM. The Central Storeroom was operated by one or two storekeepers at each site.

a. Requisitioning and receiving was centralized in the Central Storeroom at all locations. All supply outlets directed requisitions to the Central Storeroom for assignment of a requisition number and forwarding to I MEG. Issues were documented on NAVSUP Form 1250s.

b. Micro-SNAP and WINSALTS were not available. Therefore, requisitions were entered and tracked in a spreadsheet and e-mailed to I MEG. Once I MEG received the requisitions, the data were entered into the Marine Corps ATLAS system. Status of items ordered through I MEG was added to the spreadsheet and emailed back to NMCB 23 for tracking purposes.

c. NORS/ANORS requisitions were filled within three weeks if the repair parts were in theater. If not, requisition filling took considerably longer. Non-repair part items and consumables took between 30 and 120 days to be delivered.

3. CENTRAL TOOL ROOM. The central tool room was operated by one storekeeper at each site.

a. Each tool kit had its own folder which contained inventory data and NAVSUP Form 1250-1s used to track custody and replenishment. Augment tools and hand tools were issued via logbook.

b. Users inspected the tools before, during, and after each use. If a tool showed signs of excessive wear or damage it was set aside for inspection by qualified personnel. This process stood in place of a preventative maintenance program, which was not possible due to limited manning.

c. Tool kit inventories were conducted at checkout and return. If the tool kit was checked-out for an extended period, an inventory was requested from the tool kit custodian every two weeks. Spot inventories were conducted throughout the deployment to maintain inventory validity.

4. MATERIAL LIAISON OFFICE (MLO). At the main body site, the MLO was staffed by an MLO Chief, an MLO petty officer, and one storekeeper. At Detachment Al Asad, the MLO was staffed by two storekeepers. At Detachment Al Taqaddum, the MLO was staffed by one storekeeper. Construction materials were purchased by I MEG, and either delivered to NMCB 23 sites or delivered to a supply point for pick up by NMCB 23. All delivered material was compared to shipping documents and all discrepancies were documented. When delivered material had no documentation and did not match a bill of materials, a receipt was created. Delivered material often was unpalletized and arrived at the wrong location. All material was placed in the MLO yard by project. All material draws were tracked and appropriately documented.

5. FINANCIALS

a. One storekeeper was assigned as the OPTAR Storekeeper for the entire battalion including detachment sites. Only travel funds were granted at the battalion level. The ATOS system was used to manage travel funds and write travel orders. During deployment, the Administration Department wrote travel orders. Transmittal Letters and Budget OPTAR Reports were sent to the Comptroller's Office at First Naval Construction Division via email.

b. The Battalion Supply Officer was assigned as the Marine Ordering Officer (MOO)/Field Ordering Officer (FOO) and the Project Purchasing Officer (PPO) at the main body site. The Detachment Supply Chief was similarly assigned at Detachment Al Asad. There was no one assigned at Detachment Al Taqaddum because of the short duration NMCB 23 manned that detachment. Funding was granted via DD Form 1149. Payment to vendors was authorized via SF Form 44. Cash payments to vendors were made by I MEF Disbursing at the main body site and by I FSSG Disbursing at the detachment sites. Audits and recharge of funds was conducted by Contracting Officers at each site.

6. DISBURSING. Disbursing was handled at Personnel Support Detachment (PSD) Port Hueneme. Three disbursing clerks and a personnelman were assigned to support over 360 personnel. At each location, disbursing questions and issues were directed to the Supply Department, which sent them to PSD Port Hueneme via email for resolution.

7. POSTAL OPERATIONS. One person at each site was designated as the Postal Clerk and authorized to pick-up and distribute mail. Mail was picked-up at the base post office and then sorted, distributed, and stored in a secure space. Misdirected mail was relabeled and either sent back to the post office for rerouting or placed on an NMCB 23 convoy going to the correct location. More than 2,500 boxes and 1,500 letters were processed and distributed.

8. BARBER SHOP. The main body site used a storekeeper and designated barber-shop space until a contract barber shop opened mid-deployment. Contract barber shops were used at each detachment site for the entire deployment.

9. LAUNDRY SERVICE. The main body site used residential washers and dryers installed at the camp. The detachment sites used base laundry services or residential washers and dryers.

10. EQUIPMENT

a. Throughout the deployment, NMCB 23 maintained between 238 and 296 pieces of equipment, most of which was in A4 condition (serviceable/used good) or better at turnover from NMCB 14. Equipment availability ranged from 96 to 98% at the main body site, 92 to 100% at Detachment Al Asad, and 97 to 100% at Detachment Al Taqaddum. At turnover with NMCB 24, most equipment was in A4 or better condition. The equipment in worse condition was identified to I MEG for disposition.

b. Cretemobiles played a critical role in executing tasked projects during which they were used to place 6,000 cubic yards of concrete. They were extremely stressed, particularly during the Crater Repair Projects at Al Asad. During those projects, they broke down regularly and required constant repair and maintenance because they were often operated 24 hours a day and subjected to debris in poor quality aggregate. By the end of deployment, three cretemobiles were in need of overhaul.

c. MTRVs, 20-ton "Paystar" tractors, and 12K forklifts were used heavily and were critical to loading, transporting, and unloading materials and equipment. MTRVs proved particularly valuable because of their reliability in all conditions, their towing capability, and the protection they provided operators.

d. All MTRVs, most High-Mobility Multipurpose Wheeled Vehicles (HMMWVs), and some tractors were armored upon turnover from NMCB 14 to NMCB 23. Most of the armor on this equipment was in the form of armor kits that performed well. NMCB 23 fabricated and installed armor for several pieces of earthmoving equipment used on projects outside of camp.

e. The following pages contain equipment statistics and summary tables at each location. Detachment Al Taqaddum was not established until February 2005 so N/A appears in data blocks for earlier months.

EQUIPMENT POPULATION - MAIN BODY - AR RAMADI, IRAQ

| Vehicles | Beep | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Beep |
|-----------------|------|--------|--------|--------|--------|--------|--------|------|
| In Service | 142 | 142 | 122 | 122 | 124 | 128 | 128 | 128 |
| In Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 142 | 142 | 122 | 122 | 124 | 128 | 128 | 128 |

PM & INTERIM REPAIR ERO SUMMARY - MAIN BODY - AR RAMADI, IRAQ

| Month | Repairs | Type A | Type B | Type C | Total | PM:INT Ratio |
|--------------|---------|--------|--------|--------|-------|--------------|
| Oct 04 | 28 | 26 | 4 | 0 | 58 | 1.07:1 |
| Nov 04 | 15 | 59 | 12 | 0 | 86 | 4.73:1 |
| Dec 04 | 16 | 58 | 10 | 0 | 84 | 4.25:1 |
| Jan 05 | 3 | 37 | 14 | 0 | 54 | 17.00:1 |
| Feb 05 | 13 | 43 | 18 | 3 | 77 | 4.92:1 |
| Mar 05 | 40 | 3 | 5 | 0 | 48 | 0.20:1 |
| Total | 115 | 226 | 63 | 3 | 407 | 2.53:1 |

EQUIPMENT AVAILABILITY STATUS - MAIN BODY - AR RAMADI, IRAQ

| | Beep | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Beep |
|----------------------------|------|--------|--------|--------|--------|--------|--------|------|
| <u>On Deadline</u> | | | | | | | | |
| Auto | 1 | 1 | 2 | 2 | 3 | 1 | 1 | 1 |
| Construction | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 |
| MHE | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Total | 3 | 3 | 4 | 3 | 5 | 3 | 5 | 5 |
| Total EQ in Service | 142 | 142 | 122 | 122 | 124 | 128 | 128 | 128 |
| % Availability | 98% | 98% | 97% | 98% | 96% | 98% | 96% | 96% |

EQUIPMENT POPULATION - DETACHMENT AL ASAD, IRAQ

| Vehicles | Beep | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Beep |
|-----------------|------|--------|--------|--------|--------|--------|--------|------|
| In Service | 96 | 96 | 104 | 107 | 106 | 104 | 109 | 109 |
| In Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 96 | 96 | 104 | 107 | 106 | 104 | 109 | 109 |

PM & INTERIM REPAIR ERO SUMMARY - DETACHMENT AL ASAD, IRAQ

| Month | Repairs | Type A | Type B | Type C | Total | PM:INT Ratio |
|--------------|---------|--------|--------|--------|-------|--------------|
| Oct 04 | 9 | 10 | 2 | 0 | 21 | 1.33:1 |
| Nov 04 | 34 | 38 | 22 | 0 | 94 | 1.76:1 |
| Dec 04 | 48 | 41 | 25 | 0 | 114 | 1.38:1 |
| Jan 05 | 40 | 45 | 14 | 0 | 99 | 1.48:1 |
| Feb 05 | 34 | 53 | 10 | 0 | 97 | 1.85:1 |
| Mar 05 | 10 | 10 | 5 | 0 | 25 | 1.50:1 |
| Total | 175 | 197 | 78 | 0 | 450 | 1.58:1 |

EQUIPMENT AVAILABILITY STATUS - DETACHMENT AL ASAD, IRAQ

| | Beep | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Beep |
|----------------------------|------|--------|--------|--------|--------|--------|--------|------|
| <u>On Deadline</u> | | | | | | | | |
| Auto | 0 | 1 | 0 | 3 | 3 | 2 | 2 | 2 |
| Construction | 0 | 0 | 2 | 6 | 5 | 5 | 5 | 5 |
| MHE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 2 | 9 | 8 | 7 | 7 | 7 |
| Total EQ in Service | 96 | 96 | 104 | 107 | 106 | 104 | 109 | 109 |
| % Availability | 100% | 99% | 98% | 92% | 92% | 93% | 94% | 94% |

EQUIPMENT POPULATION - DETACHMENT AL TAQADDUM, IRAQ

| Vehicles | Beep | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Beep |
|-----------------|------|--------|--------|--------|--------|--------|--------|------|
| In Service | 35 | N/A | N/A | N/A | N/A | 58 | 59 | 59 |
| In Preservation | 0 | N/A | N/A | N/A | N/A | 0 | 0 | 0 |
| Total | 35 | N/A | N/A | N/A | N/A | 58 | 59 | 59 |

PM & INTERIM REPAIR ERO SUMMARY - DETACHMENT AL TAQADDUM, IRAQ

| Month | Repairs | Type A | Type B | Type C | Total | PM:INT Ratio |
|--------------|---------|--------|--------|--------|-------|--------------|
| Oct 04 | N/A | N/A | N/A | N/A | N/A | N/A |
| Nov 04 | N/A | N/A | N/A | N/A | N/A | N/A |
| Dec 04 | N/A | N/A | N/A | N/A | N/A | N/A |
| Jan 05 | N/A | N/A | N/A | N/A | N/A | N/A |
| Feb 05 | 3 | 22 | 10 | 0 | 35 | 10.67:1 |
| Mar 05 | 2 | 15 | 6 | 0 | 23 | 10.50:1 |
| Total | 5 | 37 | 16 | 0 | 58 | 10.60:1 |

EQUIPMENT AVAILABILITY STATUS - DETACHMENT AL TAQADDUM, IRAQ

| | Beep | Oct 04 | Nov 04 | Dec 04 | Jan 05 | Feb 05 | Mar 05 | Beep |
|----------------------------|------|--------|--------|--------|--------|--------|--------|------|
| <u>On Deadline</u> | | | | | | | | |
| Auto | 0 | N/A | N/A | N/A | N/A | 1 | 1 | 1 |
| Construction | 0 | N/A | N/A | N/A | N/A | 1 | 1 | 1 |
| MHE | 0 | N/A | N/A | N/A | N/A | 0 | 0 | 0 |
| Total | 0 | N/A | N/A | N/A | N/A | 2 | 2 | 2 |
| Total EQ in Service | 35 | N/A | N/A | N/A | N/A | 58 | 59 | 59 |
| % Availability | 100% | N/A | N/A | N/A | N/A | 97% | 97% | 97% |

APPENDIX 1

LESSONS LEARNED

1. KEYWORD: ADMINISTRATION

a. ITEM: PERSONNEL DOCUMENTS

b. DISCUSSION: With command dispersion it is difficult to have all personnel documents in a centralized, easily accessible location.

c. RECOMMENDATION: Scan to compact disk mobilization and deployment orders, Records of Emergency Data and Next-of-Kin/Personal Information Forms. Assemble and bring an updated database of personal awards and date of enlistment. Make back-up copies of documents and distribute to Readiness Support Site, PSD Support Team, and Administration Department representatives at detachment sites.

2. KEYWORD: ADMINISTRATION

a. ITEM: ATOS ORDERS

b. DISCUSSION: ATOS orders will only print on a parallel port printer.

c. RECOMMENDATION: Bring a parallel port printer.

3. KEYWORD: ADMINISTRATION

a. ITEM: RESERVE EVALUATIONS AND FITNESS REPORTS

b. DISCUSSION: Evaluations and fitness reports are done in the usual manner for reservists with a few exceptions.

c. RECOMMENDATION: Fill in evaluation and fitness report blocks as follows:

Block 5: Should be marked as AT/ADSW/265.

Block 21: Should be marked as RESAC6 if deployed for 6 months or more.

Block 29: Should include the statement "One Year Recall" even if recall is expected to be 6 months.

Block 43: Should include a statement that the member is deployed. For example, "BU1 Jones was mobilized to Port Hueneme, CA, in support of Operations Noble Eagle and Enduring Freedom. He is forward deployed to South West Asia in support of Operation Iraqi Freedom."

4. KEYWORD: ADMINISTRATION

a. ITEM: PERSONNEL STATUS

b. DISCUSSION: Personnel movements result in changes to personnel status.

c. RECOMMENDATION: Continually check manifests and consult Operations Department for changes.

5. KEYWORD: ADMINISTRATION

a. ITEM: PAY

b. DISCUSSION: Moving location of unit identification code (UIC) may cause pay problems, such as discontinuation of basic allowance for housing.

c. RECOMMENDATION: Maintain close contact with the PSD to ensure smooth transfer of pay records. Ensure each person's home zip code is transferred at the time of UIC transfer.

6. KEYWORD: TRAINING

a. ITEM: PREDEPLOYMENT TRAINING

b. DISCUSSION: Seabees have a more tactical role in combat and need more tactical training than they typically receive. For example, some TMT training should be given to all hands. Physical fitness training needs to prepare personnel for a combat environment. Regular fitness training may not be adequate to do that.

c. RECOMMENDATION: Train people to do what they will be tasked with to the greatest extent possible. For example, if convoying on deployment, practice real convoys and all actions that may be required like operating weapons, changing tires, towing vehicles, etc. Obtain as many crew-served weapons skills as possible. Execute a physical fitness program with a qualified instructor who uses thoughtful and effective methods. More closely monitor physical fitness of reservists while in reserve status to ensure they are able to deploy on short notice with less "ramping up" required.

7. KEYWORD: TRAINING

a. ITEM: INTELLIGENCE PERSONNEL

b. DISCUSSION: Intelligence Officers and Chiefs entered the theater with insufficient training, which increased risks to units in the early stages of their deployment.

c. RECOMMENDATION: Identify intelligence personnel early and train them to manage and interpret intelligence documents. Establish SIPR accounts in homeport to allow intelligence personnel access to classified intelligence data and information sources.

8. KEYWORD: OPERATIONS

a. ITEM: TASK IDENTIFICATION AND ORGANIZATION

b. DISCUSSION: In a contingency, it is expected that missions and tasking are very fluid. However, whatever information can be passed to a battalion in homeport is very useful to making deployment preparations including assignment of personnel and staffing at deployment locations.

c. RECOMMENDATION: To the extent possible, provide any information about potential tasking to a battalion making predeployment preparations.

9. KEYWORD: OPERATIONS

a. ITEM: TACTICAL MOVEMENT TEAMS (TMTs)

b. DISCUSSION: High tempo and geographically dispersed operations required significant convoying to move personnel, equipment, and materials. Convoy security in the form of TMTs is critical to operations. The teams must be fully trained, professional, committed, and possess the tactical skills required of a combat environment. The teams should also be well rounded in construction skills so they give the battalion greatest flexibility to meet tasking.

c. RECOMMENDATION: Ensure a sufficient number of TMTs are fully trained and available. If possible, have at least one team at each deployment location.

10. KEYWORD: OPERATIONS

a. ITEM: ASSESSMENT TEAMS

b. DISCUSSION: Due to the poor condition of most bases and camps, NMCB 23 was tasked with performing detailed assessments to identify work and materials needed to improve bases and camps. These assessments were performed by a SERT and a TMT as both had the requisite skills and could transport themselves.

c. RECOMMENDATION: Establish assessment teams, ideally embedded in a SERT or TMT.

11. KEYWORD: OPERATIONS

a. ITEM: CRANE CREWS

b. DISCUSSION: There is great need for crane operations. As a reserve unit, NMCB 23 was not allowed to have a crane crew despite having numerous qualified crane operators that trained in homeport.

c. RECOMMENDATION: Have at least one qualified crane crew. Allow reserve battalions to have qualified crane crews.

12. KEYWORD: OPERATIONS

a. ITEM: CONVOYS

b. DISCUSSION: As stated elsewhere, convoy and logistic support was a significant mission. Convoys and logistic support required significant manpower in the form of drivers and assistant drivers who came from all companies but primarily from Alfa Company.

c. RECOMMENDATION: Be prepared to dedicate significant manpower to convoys and logistic support.

13. KEYWORD: OPERATIONS

a. ITEM: BASE MAYOR AND CONTRACTOR RELATIONS

b. DISCUSSION: At each deployment location, there was a base mayor that was responsible for overall base maintenance and operations. As members of the base maintenance teams it was critical for NMCB 23 to maintain positive relationships and work closely with base mayors and the contractors that worked for them. Doing so proved mutually beneficial.

c. RECOMMENDATION: Develop positive relationships with base mayors and contractors. Stay in constant communication and meet regularly with base mayors and contractors being mindful not to do work that contractors are being paid for to the extent possible.

14. KEYWORD: OPERATIONS

a. ITEM: EMERGENT SUPPORT OF OTHER UNITS

b. DISCUSSION: Adjacent units often request support for problems requiring immediate attention. These problems were typically maintenance and facilities issues, for example, disabled generators, broken water mains, etc. Often the problems were off camp requiring coordination with the supported unit for transportation, berthing, messing, etc.

c. RECOMMENDATION: Be prepared to respond to very-short fused work requests off camp. Identify highly skilled personnel that can handle maintenance and facilities issues quickly and independently.

15. KEYWORD: OPERATIONS

a. ITEM: ELECTRIC POWER GENERATION, DISTRIBUTION, AND GROUNDING

b. DISCUSSION: Throughout the area of operations, electric power was generated by military and commercial generators and distributed across expeditionary distribution systems. Contractors often failed to maintain the commercial generators and distribution systems were often in very poor condition. Grounding was typically inadequate, causing serious safety hazards. As such, NMCB 23 performed significant maintenance, repair, and replacement of generators and distribution systems.

c. RECOMMENDATION: Ensure that each deployment location has skilled mechanics and electricians in sufficient numbers. Ensure camp working stock has sufficient electrical materials.

16. KEYWORD: OPERATIONS

a. ITEM: HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

b. DISCUSSION: Temperatures vary widely in Iraq from cold in the winter to extremely hot in the summer. This makes HVAC critical. Due to a lack of technical expertise, vacuum pumps, and gauges, HVAC units were typically being installed incorrectly and therefore failing prematurely. Furthermore, the extreme temperatures stressed HVAC units significantly. As such, NMCB 23 performed many repairs and replacements of HVAC units.

c. RECOMMENDATION: Ensure that each deployment location has sufficient personnel skilled in HVAC, vacuum pumps, gauges, and refrigerant.

17. KEYWORD: OPERATIONS/SUPPLY

a. ITEM: CONCRETE

b. DISCUSSION: Concrete was in great demand but had to be produced in low-capacity cretemobiles. Furthermore, sand and gravel were difficult to obtain and were often of poor quality.

c. RECOMMENDATION: Establish a concrete batch plant to support large concrete projects. Improve the availability of high-quality sand and gravel. Ensure there are sufficient personnel to effectively operate and maintain cretemobiles.

18. KEYWORD: OPERATIONS/SUPPLY

a. ITEM: CONSTRUCTION MATERIALS DELIVERY

b. DISCUSSION: Civilian contractors often delivered materials to the wrong location requiring the later use of military assets to move them to the correct location. Furthermore, there was often no prior notification of delivery and often no documentation, which led to confusion and often resulted in other units signing for NMCB 23 materials. NMCB 23 had no involvement or control over contractor deliveries. Finally, many materials had to be picked up from supply points by NMCB 23, which was a drain on manpower but avoided the above problems.

c. RECOMMENDATION: Ensure higher authority or NMCB 23 is given sufficient control of contractors to ensure they deliver to the correct location with appropriate notification and documentation. Be prepared to pick up construction materials from supply points.

19. KEYWORD: OPERATIONS/SUPPLY

a. ITEM: DELIVERY TIME OF CONSTRUCTION MATERIALS

b. DISCUSSION: It would take weeks and often months for construction materials to be delivered after submission of bills of material. This complicated planning and execution and made it difficult to respond to short-fused tasking which is so common in a contingency.

c. RECOMMENDATION: Streamline the funding approval, material ordering, contract placement, and material delivery processes. Establish centralized locations that maintain large quantities of common construction materials like lumber, plywood, electrical materials, etc. These materials could be delivered to subordinate units quickly. Ensure that working stock of common construction materials is maintained in sufficient quantities at all deployment locations.

20. KEYWORD: OPERATIONS/SUPPLY

a. ITEM: INCOMPATIBILITY OF MATERIALS

b. DISCUSSION: Construction materials, particularly plumbing and electrical materials, were incompatible with one another, which complicated project completion and camp maintenance.

c. RECOMMENDATION: Use single vendors or establish a standard material and parts list with sufficient specifications to ensure materials are compatible.

21. KEYWORD: SUPPLY

a. ITEM: SUPPLY OPERATIONS

b. DISCUSSION:

(1) Expeditionary operations and extended lead times on deliveries required forward planning and adjustments in expectations of the supply chain. The battalion had no operating target funds under its direct control and all requisitions were processed through higher authority for pricing and procurement.

(2) Consumables were difficult to keep in stock. Some bases had support organizations such as Combat Service Support Detachments and Combat Logistics Battalions from which supplies could be obtained on short notice. Other bases did not have these units.

(3) The MLO was critical to operations. Tracking materials and their delivery was a fulltime job. Material delivery was complicated by attacks on convoys and intimidation of civilian drivers. Military convoys were often required to get material on-site.

(4) The Central Storeroom is critical and requires a well-trained, organized manager. Timely requisition submissions and a well-organized tracking system were critical. The Central Tool Room requires occupational field 13 support to the extent possible to ensure tools are maintained and operational.

c. RECOMMENDATION: Plan for and understand the requirements and limitations of supply functions in a contingency environment.

22. KEYWORD: SUPPLY

a. ITEM: DISBURSING PROBLEMS

b. DISCUSSION: Geographic separation and limited communication assets between the deployment site and the supporting PSD complicated timely resolution of disbursing problems.

c. RECOMMENDATION: All personnel should be enrolled in MYPAY prior to departing CONUS. All personnel should monitor MYPAY monthly to keep track of pay, allotments, etc. Experienced and dedicated support should be mobilized early and remain at the PSD throughout the deployment. An effective pay problem tracker must be developed and used.

23. KEYWORD: SUPPLY

a. ITEM: POSTAL OPERATIONS

b. DISCUSSION: Establishing deployed mailing addresses and ensuring smooth flow of mail was a challenge.

c. RECOMMENDATION: Establish deployed addresses immediately upon mobilization. Ensure mail routing instructions are properly formatted and distributed early. Once deployed, clarify and coordinate mail routing and establish points of contact at key nodes in the mail route.

24. KEYWORD: SUPPLY

a. ITEM: MANNING

b. DISCUSSION: Higher authority required use of NMCB 23 supply personnel.

c. RECOMMENDATION: Identify as early as possible what supply personnel may be assigned to other units and be prepared to operate with fewer supply personnel.

25. KEYWORD: SUPPLY

a. ITEM: ATOS ORDERS

b. DISCUSSION: The Supply Department managed ATOS funding provided by the First Naval Construction Division.

c. RECOMMENDATION: Assign ATOS responsibilities as a collateral duty to a person with financial background. Obtain ATOS training for that person and two to three others as soon as possible.

26. KEYWORD: SUPPLY

a. ITEM: GEAR ISSUE

b. DISCUSSION: NMCB 23 personnel were issued and deployed with a poncho, poncho liner, camel backs and canteens. Thereafter, NMCB 23 personnel were issued goretex foul weather gear.

c. RECOMMENDATION: Issue goretex foul weather gear in lieu of ponchos and poncho liners. Consider issuing CBR-ready camel backs in lieu of canteens.

27. KEYWORD: SUPPLY

a. ITEM: GOVERNMENT TRAVEL CREDIT CARDS (GTCCs)

b. DISCUSSION: Managing GTCC issues on deployment is made difficult by limitations in communications.

c. RECOMMENDATION: Assign someone in the home support organization to monitor and track GTCC issues. This person must be trained and have access to the EAGLS tracking system.

28. KEYWORD: SUPPLY

a. ITEM: INITIAL PROVISIONS LIST (IPL)

b. DISCUSSION: Early identification, ordering, and distribution of IPL items is critical to deployment success. Aggressive justification is vital to obtaining funding approval.

c. RECOMMENDATION: Engage departments early to establish IPL items. Dedicate a storekeeper to acquire IPL items as soon as funding is secured. Ensure there is sufficient space and pallet positions available to transport IPL items.

29. KEYWORD: EQUIPMENT

a. ITEM: DISPATCHER

b. DISCUSSION: The Alfa Company Dispatcher was central to NMCB 23 operations.

c. RECOMMENDATION: Ensure the dispatcher is highly organized and has good oral and written communication skills and a thorough understanding of spreadsheet software. Ensure there are enough forms (hard cards, trip tickets, logbooks) on hand for the entire deployment. Ensure all tracking and reporting methods are in place. To the extent possible, do not assign the dispatcher to other duties.

30. KEYWORD: EQUIPMENT

a. ITEM: YARD BOSS

b. DISCUSSION: The Yard Boss was the key to proper checkin, checkout, and maintenance of all equipment.

c. RECOMMENDATION: Ensure the Yard Boss and Dispatcher maintain a close working relationship. Ensure the Yard Boss: (1) is very knowledgeable of all equipment, (2) assigns parking spaces to each piece of equipment, (3) works closely with the PM Clerk, and (4) remains active in the yard and ensures all operators are operating equipment appropriately.

31. KEYWORD: EQUIPMENT

a. ITEM: TRAINING AND LICENSING

b. DISCUSSION: It is vital that all equipment operators are trained and licensed on as many pieces of equipment as possible. This includes but is not limited to: tractor-trailers, fork lifts, front-end loaders, bulldozers, graders, scrapers, cretemobiles, dump trucks, excavators, rollers, MTRVs, and fuel and water trucks.

c. RECOMMENDATION: Prior to deployment, train and license as many operators on as many pieces of equipment as possible. If possible, train and license non-Alfa Company personnel to provide back up to Alfa Company. Ensure all Supply Department personnel are trained and licensed on forklifts. Interview all operators and understand their skill levels and proficiency. To extent possible, determine the equipment skills that will be needed to meet specific deployment tasking. On deployment, establish training areas so operators may maintain and increase proficiency.

32. KEYWORD: EQUIPMENT

a. ITEM: CONVOYS

b. DISCUSSION: Moving personnel, material, and equipment on convoys was a significant tasking for Alfa Company.

c. RECOMMENDATION: Prior to deployment practice convoy procedures (staging, spacing, emergency stopping, vehicle repairs, etc.) and train all operators on use of communications equipment and operation of equipment using night-vision goggles. On deployment: (1) establish convoy staging areas, (2) assign two-person crews to each vehicle that load and operate vehicles, and (3) move slow-moving equipment on trailers vice over the road.

33. KEYWORD: EQUIPMENT

a. ITEM: VEHICLE LOADING

b. DISCUSSION: Loads performed better when the drivers and assistant drivers assisted with and/or supervised loading of their vehicles.

c. RECOMMENDATION: Ensure drivers and assistant drivers assist with the loading of their vehicles.

34. KEYWORD: EQUIPMENT

a. ITEM: REPAIR PARTS AND CONSUMABLES

b. DISCUSSION: Replenishment of repair parts and equipment consumables took too long in some cases. The most extreme situation was with tires, which were failing quickly under the harsh operating environments they were exposed to. The supply system could not deliver tires quickly enough.

c. RECOMMENDATION: For units deployed in contingencies: (1) increase the quantity of repair parts, (2) give highest priority for parts replenishment, and (3) stock-pile tires for all vehicles.

35. KEYWORD: EQUIPMENT

a. ITEM: VEHICLE ARMORING

b. DISCUSSION: Many vehicles required installation of armor kits. The number of different armor kits required learning new techniques, which slowed kit installation. Furthermore, armor kits were not available for some equipment, which required fabricating armor and welding plate steel in lieu of using an appropriately designed and tested kit. In the case of earth-moving equipment the welded steel significantly reduced operator visibility.

c. RECOMMENDATION: To the extent possible, use vehicles armored during manufacture. When kit installation is required, use the same armor kits particularly for the same type of equipment. Avoid fabricating armor if possible but do so if required by the tactical situation to ensure operator safety.

36. KEYWORD: EQUIPMENT

a. ITEM: WRECKERS

b. DISCUSSION: During tactical movements, wreckers are essential for vehicle recovery and should be included on every convoy particularly those that include MTRVs or tractor-trailers. An MTRV can tow an MTRV or tractor-trailer only if the front-axle is undamaged thereby making the wrecker necessary. There were insufficient wreckers to have one on each convoy.

c. RECOMMENDATION: Assign at least one and preferably two wreckers to each deployment location.

37. KEYWORD: COMMUNICATIONS

a. ITEM: ELECTRONIC MAIL MANAGEMENT

b. DISCUSSION: Access speed, file size, and email storage were limited.

c. RECOMMENDATION: Make personal folders to clear the inbox. Empty sent and deleted items boxes regularly. Save scanned items into portable document format (PDF) to reduce file size. Ensure appropriate software is available to create PDF files. Maintain separate thumb drives for SIPRNET and NIPRNET.

38. KEYWORD: COMMUNICATIONS

a. ITEM: COMPUTERS, SIPRNET AND NIPRNET

b. DISCUSSION: Shortage of computers and printers and limited access to SIPRNET and NIPRNET complicated operating and managing the battalion and meeting reporting requirements.

c. RECOMMENDATION: Obtain more computers, printers, and network equipment.

39. KEYWORD: WEAPONS

a. ITEM: INDIVIDUAL WEAPONS

b. DISCUSSION: (1) It is difficult to maneuver the M16 rifle in close quarters like inside a vehicle. (2) The M16 rifle's effective range is about 500 meters and sometimes personnel providing overwatch must engage targets greater than 500 meters away. (3) Personnel providing overwatch and standing guard duty need range finders to determine accurate distances for reporting, calling for fire, and guiding reaction forces.

c. RECOMMENDATION: (1) Issue M4 rifles to personnel operating in close quarters particularly those operating in vehicles including TMT personnel, truck drivers, and equipment operators. (2) Issue a high-powered rifle like an M14 or M21 to personnel providing overwatch. (3) Issue range finders to personnel providing overwatch and standing guard duty.

40. KEYWORD: WEAPONS

a. ITEM: REPAIR PARTS FOR WEAPONS

b. DISCUSSION: There were repair parts for weapons NMCB 23 did not have but insufficient quantities of repair parts for some weapons NMCB 23 did have (M9 pistol, M240 machine gun, and M500 shotgun). Repair parts for those weapons were given to NMCB 23 by a Marine service support unit.

c. RECOMMENDATION: Ensures sufficient quantities of repair parts are available for the weapons being used.

41. KEYWORD: WEAPONS

a. ITEM: MK93 WEAPONS MOUNT

b. DISCUSSION: The MK93 weapons mount provides ballistic protection. This mount receives the M2 machine gun and the MK19 machine gun but does not receive the M240 machine gun, thereby requiring use of the MK105 mount, which does not provide ballistic protection.

c. RECOMMENDATION: Create an adapter for the MK93 weapons mount so it receives the M240 machine gun or develop a new mount that receives the M240 machine gun and provides ballistic protection.

APPENDIX 2COMMENDATORY CORRESPONDENCE

RATUZYUW RUCOHAG0598 0751843-UUUU--RUDJADB.
 ZNR UUUUU ZUI RUCOMCB4456 0771147
 R 161843Z MAR 05 PSN 383608I28
 FM COMFIRSTNCD LITTLE CREEK VA//N00//
 TO RUBDPLA/COM SEVEN NCR//R00/R02//
 RUDJADB/NMCB TWO THREE
 INFO RUENAAA/CNO WASHINGTON DC//N4/N434//
 HMFIIU/CDR USJFCOM NORFOLK VA//00/01/J44//
 RUCBACM/CDR USJFCOM NORFOLK VA//00/01/J44//
 RHMFISS/CDR USCENTCOM MACDILL AFB FL//00/01//
 RUCBCLF/COMFLTFORCOM NORFOLK VA//N00/N01/N3//
 HRVAKS/COMUSNAVCENT//00/01/N44//
 RHMFISS/COMUSMARCENT//G00/G01//
 RHMFIUU/CG I MEF//G00/G01//
 RHMFIUU/COMNAVFACENCOM WASHINGTON DC//00/008//
 RUCOHAG/COMFIRSTNCD LITTLE CREEK VA//N02/N008/N3//
 RHMFIUU/FIRST NCD FORWARD PEARL HARBOR HI//NF02//
 RUBDPLA/PACNAVFACENCOM PEARL HARBOR HI//00//
 RHMFIUU/CBC GULFPORT MS//00/01//
 RHMFIUU/NFELC PORT HUENEME CA//00/01//
 RHMFIUU/TWO ZERO SEABEE READINESS GROUP GULFPORT MS//R00/R02//
 RHMFIUU/THREE ONE SEABEE READINESS GROUP PORT HUENEME
 CA//R00/R02//
 PAGE 02 RUCOHAG0598 UNCLAS
 RHFJSAX/COM TWO TWO NCR//R00/R02//
 RUBDPLA/COM THREE NCR//R00/R02//
 BT
 UNCLAS //N01418//
 MSGID/GENADMIN/COMFIRSTNCD/-/MAR//
 SUBJ/SEABEE DEPLOYMENT BRAVO ZULU//
 RMKS/1. CONGRATULATIONS TO THE MEN AND WOMEN OF THE SEVENTH NAVAL
 CONSTRUCTION REGIMENT AND NAVAL MOBILE CONSTRUCTION BATTALION TWENTY-THREE AS
 YOU COMPLETE A PHENOMENAL DEPLOYMENT. THROUGHOUT THIS DYNAMIC 6 MONTH TOUR,
 YOU COMPLETED NUMEROUS CONSTRUCTION PROJECTS, DEMONSTRATED EXCEPTIONAL
 COMMAND AND CONTROL, AND BECAME COMBAT MULTIPLIERS FOR THE FIRST MARINE
 EXPEDITIONARY FORCE, GREATLY ENHANCING FORCE PROTECTION AND QUALITY OF
 SERVICE IN IRAQ.
 2. THE DEPLOYMENT BEGAN WITH AN AGGRESSIVE MOBILIZATION AND PRE-DEPLOYMENT
 TRAINING SCHEDULE. FROM THE BEGINNING, YOU DEMONSTRATED EXCEPTIONAL COMMAND
 AND CONTROL AS YOU DEPLOYED FORCES FROM BOTH COASTS INTO THE THEATER AND
 RAPIDLY EXECUTED RECEPTION, STAGING, ONWARD MOVEMENT AND INTEGRATION
 OPERATIONS. GIVEN ONLY A FEW SHORT WEEKS, YOUR ABILITY TO ORGANIZE, TRAIN AND
 PREPARE YOUR TROOPS TO BE FULLY COMBAT READY WAS TRULY REMARKABLE.
 3. YOU SHOULD BE EXCEPTIONALLY PROUD OF YOUR ACCOMPLISHMENTS DURING THE
 DEPLOYMENT. YOUR TALENTED SEABEES WERE DIRECTLY RESPONSIBLE FOR AIRFIELD
 IMPROVEMENTS AND MAIN SUPPLY ROUTE MAINTENANCE THROUGHOUT THE MEF'S AREA OF
 OPERATIONS. THESE CRITICAL MOBILITY IMPROVEMENTS GREATLY ENHANCED AIR
 MOBILITY AND GROUND MANEUVERABILITY WITHIN WESTERN IRAQ.
 4. YOUR SUPERB CONSTRUCTION SKILLS DRAMATICALLY IMPROVED FORWARD OPERATING
 BASES THROUGHOUT THE MEF AREA OF OPERATIONS. WHETHER CONSTRUCTING SWA-HUTS,
 UPGRADING AND HARDENING DINING FACILITIES OR INSTALLING ELECTRICAL SYSTEMS,
 YOU ALWAYS DELIVERED QUALITY CONSTRUCTION WITH A CAN DO ATTITUDE.

5. YOUR DEPLOYMENT TO IRAQ PRECIPITATED SEVERAL HISTORICAL LANDMARKS COVERING THE FULL SPECTRUM OF STABILITY AND SUPPORT OPERATIONS. SEABEES SUPPORTED EVERYTHING FROM THE MAJOR COUNTER-INSURGENCY VICTORY AND SEIZURE OF FALLUJAH TO THE FREE ELECTIONS OF JANUARY 2005. BE PROUD TO HAVE PLAYED AN INSTRUMENTAL ROLE IN THE SHAPING OF IRAQ'S FLEDGLING DEMOCRACY.

6. YOUR HIGHLY SUCCESSFUL DEPLOYMENT IS A REFLECTION OF YOUR LOYAL DEDICATION TO THE SEABEES, THE NAVY, AND OUR GREAT NATION. EVERY MEMBER OF YOUR UNITS SHOULD BE EXCEPTIONALLY PROUD OF YOUR ACCOMPLISHMENTS. THANK YOU FOR YOUR UNTIRING EFFORTS AND SELFLESS DEDICATION. RADM PHILLIPS SENDS.//

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