



AFTER ACTION REPORT

OPERATION ENDURING FREEDOM

OPERATION IRAQI FREEDOM

2002-2003

NMCB 74

NAVAL MOBILE CONSTRUCTION BATTALION SEVENTY-FOUR

Table of Contents

	<u>Page Number</u>
I. Executive Summary	1
II. Operation ENDURING FREEDOM	
a. Introduction	5
b. Embarkation	8
c. Operations	
i. Projects	9
ii. CESE	14
d. Safety	15
e. Supply/Logistics	16
f. Communications	17
g. Medical	18
Appendix A- Chronology of Events	19
III. Operation IRAQI FREEDOM	
a. Introduction	32
b. Embarkation	34
c. Training	36
d. Operations	
i. Task Force Mike	
1. Chronology of events	40
2. Projects	49
3. CESE	70
ii. Task Force Charlie	

1. Chronology of events	72
2. Projects	79
3. CESE	85
e. Safety	86
f. Supply/Logistics	87
g. Communications	89
h. Medical	92
i. Retrograde	94
IV. Appendices	
a. Lessons Learned	95
b. SERT AAR	112
c. Media Coverage	130
d. Commendatory Comments	132

EXECUTIVE SUMMARY

The Fearless Battalion's 2002/2003 deployment was one of the most dynamic in the history of the battalion. Naval Mobile Construction Battalion SEVENTY-FOUR made significant and critical contributions to FIRST Marine Expeditionary Force's (I MEF) successful campaign to topple Saddam Hussein's regime and liberate the people of Iraq. The battalion: completed the largest, pre-hostilities construction project in the entire operational theater; played a defining role in shaping the Naval Construction Force's operational scheme of maneuver for contingency, non-standard bridging; and provided superb contingency engineering support to First Marine Division during the war, enhancing mobility for assault forces' logistics and constructing countless force protection and battle space sustainment improvement projects.

Shortly after deploying to Guam in early October, the battalion's Air Det Heavy redeployed to Ahmed Al Jaber Air Base in central Kuwait. The primary tasking was the construction of the F/A-18 Parking Apron and Taxiway project for the 3rd Marine Air Wing. The enormous 22-acre project had a mission critical, operational ready date of mid-January, 2003. Following the early November rollback of Details: Lemoore, San Diego and Hawaii, an additional 170 battalion personnel and equipment were redeployed from Guam to assist in completing the project.

By early January, the battalion completed the 12,000 man-day Aircraft Parking Apron project. Working around the clock for 60 days, save Christmas day, the Fearless Seabees placed 38,500 cubic yards of concrete, rolled and compacted 210,000 cubic yards of select fill and gravel, constructed 55,000 feet of steel rebar cages and saw-cut over 23 miles of concrete construction joints. This amazing accomplishment was the largest single battalion project in the last 30 years.

Simultaneous with the construction efforts at Al Jaber Air Base, a select group of NMCB 74 Chiefs and Officers participated in three Operational Planning Teams (OPTs), hosted by the 30th NCR at Ali Al Salem Air Base. They made critical and substantial contributions to the analysis of the mobility issues facing the Marine's plan for an extremely fast scheme of maneuver through the river-laden battle space. Ultimately, the Courses of Actions (COAs) selected for rapid, non-standard bridging were those proposed and defended by the Fearless khaki.

Concurrent with 3rd MAW Aircraft arrival into the region, most of the remaining battalion members also arrived in Kuwait. At this time, the battalion coordinated the off-load of the assigned TOA and CESE from MPSRON 2 and began military training. NMCB 74 conducted the NCF's first MPF off-load, which included 327 units of CESE and 119 TOA containers. The MPF Organization performed a Joint Limited Technical Inspection (JLTI) on each unit of CESE. Through 18 convoys, 38 equipment operators and construction mechanics transported CESE and containers from the Kuwait Port of Ash Shuaybah to Tactical Assembly Area Coyote.

In late January, the battalion personnel were divided between two Task Forces. 325 personnel including the Commanding Officer, Command Master Chief and Operations Officer were assigned to the I MEF Engineer Group, (MEG) Task Force MIKE. The mission of Task Force MIKE was to ensure mobility is maintained for the I MEF logistical convoys. Remaining battalion personnel were assigned to the MEG's Task Force CHARLIE.

During February and March, the battalion focused on military tactics training and contingency bridge construction procedures. Military evolutions included, small arms and crew served ranges, convoy immediate action drills, tactical communication set-up, and first-aid Medevac procedures. Construction training concentrated on erecting non-standard bridging systems. While Charlie Company personnel erected various configurations of Medium Girder Bridges (MGB) and Mabey-Johnson Bridges (MJB), Alfa Company personnel constructed abutment and piers made of steel culvert sections and steel sheet piles. Also during this period, the battalion developed and began training the first Seabee Engineering and Reconnaissance Team (SERT).

In late March, April and early May, the battalion played an instrumental role in supporting 1st MARDIV during Operation IRAQI FREEDOM. 325 troops were assigned to the MEF Engineering Group's (MEG) Task Force MIKE. During the campaign, battalion members of Task Force MIKE convoyed over 9,000 miles and completed countless contingency construction projects. Projects including Mabey Johnson bridges, main supply route repairs, aircraft runway improvements and operating camp infrastructure improvements were expeditiously completed.

After entering Phase IV B of the operation, the Coalition forces, including the Marines and Task Force MIKE, shifted focus to Humanitarian Assistance (HA). Within the community of An Numaniyah, the battalion assisted Marine Civil Affair Teams by identifying and executing short duration construction projects including: repairs to the city's hospital's two generators, school classroom repairs, the grading of community playgrounds and the removal of battle damaged vehicles from city streets.

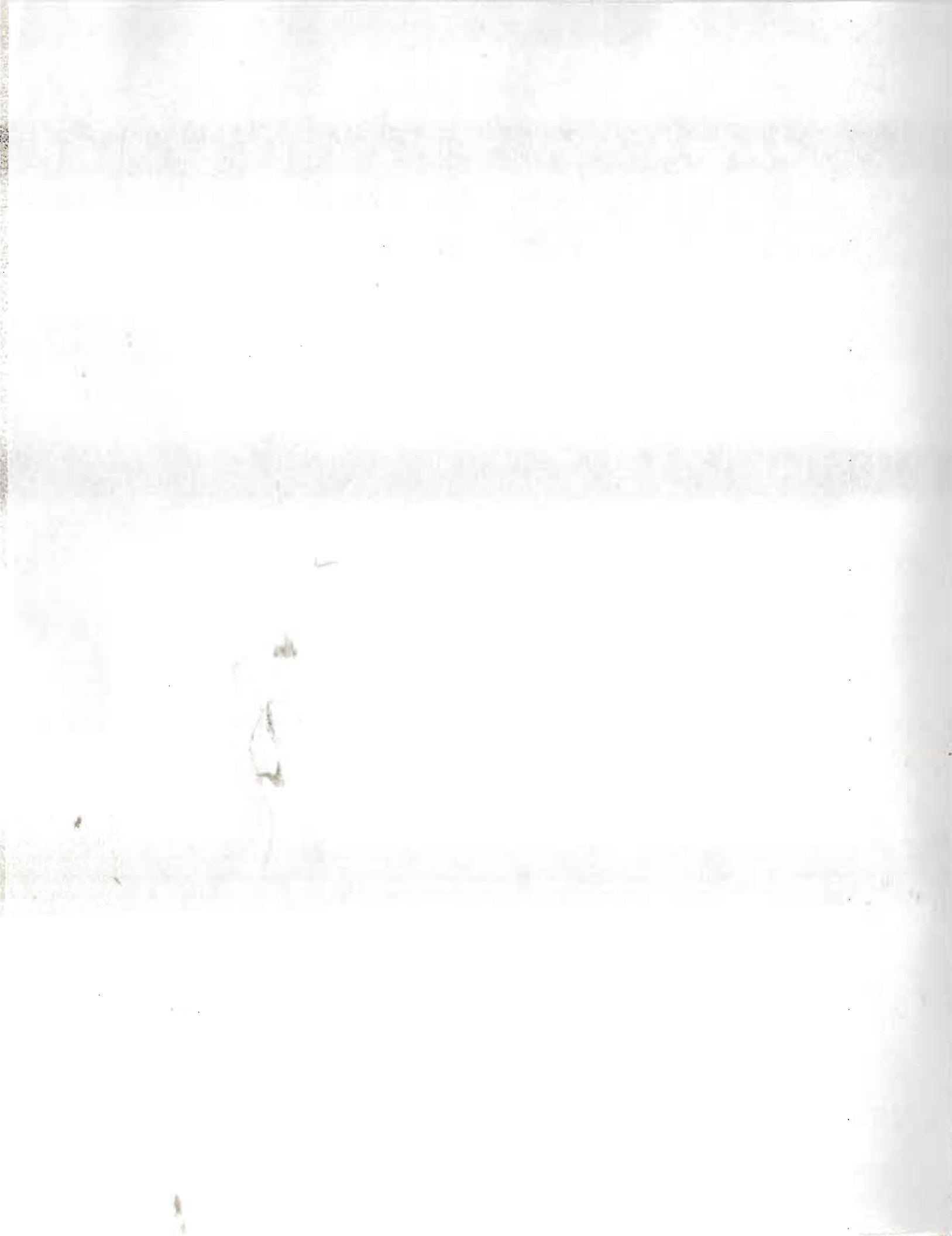
In early May, the battalion began retrograde operations. All battalion personnel were physically out of Iraq by 06 May 2003 and reunited as one unit within Task Force CHARLIE. A Joint Limited Technical Inspection (JLTI) and a PM was conducted on all CESE. The TOA equipment and supplies were cleaned, inventoried and repacked. Following a customs agricultural and contraband inspection, the TOA was staged and turned over to NCFSU TWO for reloading on the MPSRON ships at a later date.

TASKING	OCT		NOV			DEC			JAN			FEB			MAR			APR			MAY			JUN	
	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	
OEF																									
CO/OIC Dis.																									
C-130 Pad																									

TASKING	OCT		NOV				DEC				JAN				FEB				MAR				APR				MAY				JUN	
	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2				
OIF																																
MPSRON																																
Training																																
Contingency																																
Retrograde																																

While delivering high quality, on time, contingency construction support to the Marines, the Fearless Seabees never had to rely on any resources or logistics support from outside the NCF. Even though the enemy threat was substantial within the battle space, NMCB 74 successfully provided their own security for all unit movements and Construction Element campsites, with the one exception of SA Chesty, which was a large, forward, base of operations, where the Marines provided ample perimeter security for all residing units. The battalion's professionalism created a "hard-target" presence that dissuaded enemy attacks, despite being scouted and observed by enemy personnel on several occasions.

NMCB SEVENTY-FOUR's deployment to Southwest Asia in support of Operations ENDURING FREEDOM and IRAQI FREEDOM opened a new chapter in the long and distinguished legacy of the U.S. Navy Seabees. The battalion proved high speed, operational maneuver, can be used to position, fully capable Seabees, in close trace to the Marine, assault forces. There, Seabees leveraged the latest in communications technologies to make rapid field, engineering decisions, based on COAs that were developed only weeks and months prior, using real-time intelligence gathering capabilities. Tailored personnel and equipment were positioned to receive just-in-time logistics; thereby reducing the core logistics load with the maneuver unit. The outcome was a robust construction capability that met the Marines every requirement, and ultimately, a resounding victory.



OPERATION ENDURING FREEDOM



INTRODUCTION

In July 2002, the battalion Operation's Department began preparing to send a Detail to Kuwait. Early plans and specifications suggested the Detail would construct several smaller aircraft support projects at the east end of the runway at Ahmed Al Jaber Air Base in central Kuwait. Project funding was to be available at the beginning of Fiscal Year 2003 and construction would start at that time. Working with NAVFAC's Pacific Division and the Army Corps of Engineers, the smaller projects were consolidated into two major projects; Hot-Pit Refueling Area, assigned to NMCB 5 and the Aircraft Parking Apron and Taxiway Project, assigned to NMCB 74. The Aircraft Apron project was initially designed for U.S. Marine F/A-18 Aircraft; however, the post-war usage will be for parking Kuwaiti C-130 aircraft.

Late in homeport, the concept suggested deploying an Air Det Heavy directly from Gulfport to Kuwait in late September. Because of funding delays, it was decided to deploy the entire battalion to Guam, on schedule, in early October and subsequently redeploy the Air Det Heavy from Anderson Air Force Base in Guam after completion of the Camp Covington Turnover with NMCB 40. Air Det Heavy op-checked and prepared communications equipment, issued and inspected 782 and CBR gear and battle zeroed TOA weapons during the first week in Guam. By mid-October, aircraft pallets had been constructed, chinks had been staged and the Air Det was prepared to redeploy.

On 18 October, 125 members deployed to Kuwait aboard a contracted commercial L1011 aircraft from Anderson Air Force Base, Guam. Following several days of delay due to mechanical difficulties, an additional C-5 carrying weapons, communications equipment, CBR gear and 2 additional personnel departed Guam. Landing at the Kuwaiti Air Force Base, co-located at the Kuwait City International Airport (KCIA), Air Det was met by members of NMCB 5. Personnel were bussed to the U.S. Air Force Compound within Ahmed Al Jaber Air Base, Kuwait.

Earlier in October, the 30th NCR established Task Force CHARLIE, which included both Air Dets from NMCB 5 and NMCB 74, as well as members from the 30th NCR from Hawaii and the Pacific Seabee Readiness Group (SRGPAC), Port Hueneme, CA. As the Task Force had been established at Al Jaber for several weeks, most of Air Det's arrangements had been completed. Billeting and messing were provided in the U.S. compound. Staff offices were located in a modular trailer located near the Task Force CHARLIE office. Operations were co-located with NMCB 5's Air Det in a similar trailer positioned near the flight line and Apron Project. Because of airlift assets and future planning concepts, Air Det initially deployed with little TOA and no CESE. NMCB 5 deployed from Camp Mitchell, Rota, Spain, with CESE required to complete all NCF projects at Al Jaber Air Base. As a result, they were responsible for providing NMCB 74 with CESE for both the project and personnel transportation. Additional personnel CESE was rented by Task Force CHARLIE and assigned to the Air Det. Once construction began and the extensive amount of earthwork was determined, TOA CESE was augmented by local equipment rentals. At the peak of horizontal construction, over

50 rental pieces of CESE including rollers, graders, dozers and light plants were assigned to the project.

Following a force protection briefing and an air station orientation, Air Det began accepting CESE, inventorying tool kits and finalizing the apron's project package. Because funding was not available and host nation site approval had not been granted, the start of construction was delayed. As a result, Air Det personnel assisted in completing several OIC discretionary projects. In addition to the requirement to locate 60 of the 3rd Marine Air Wing's F/A-18 aircraft at Al Jaber, the construction of a 3,000 person base camp would also be necessary. The Air Det assisted in base camp construction by building an exterior perimeter berm and installing perimeter concertina wire. Other projects located within the U.S. compound included construction of wood tent decks, fabrication and placement of guard shacks and installation of an interior partition in the Air Force Civil Engineer Building.

By early November, the Kuwait Government approved the Aircraft Apron project and the funding was approved and available for use. The construction schedule was aggressive. Although the project completion date remained in early January 2003, the delays in obtaining site approval, receiving projects funding and unprecedented foul weather severally impacted the project's initial schedule requiring alternatives to be researched.

Because of the time sensitive nature of the project more personnel were required to staff the crews than were originally brought in with the heavy Air-Det. On the 2nd of November ten more Alfa company personnel arrived from Guam to assist with the massive amount of earthwork that the project required. By the date of the first concrete placement, 25 Nov 02, the earthwork crews were two days ahead of the crews placing the concrete. The project construction sequence required 24 identical concrete pads, measuring 30' x 1,156', to be placed side by side, to create a parking apron 720' x 1,156'. In order to ensure that there was proper drainage on the site, the entire apron was built with 0.5% slope. This small slope required the west end of the apron to be elevated more than five feet above initial grade. The equipment operators filled and compacted in six-inch lifts and final graded more than 100,000 cubic meters of fill to the site.

One major, unexpected factor of the project was the substantial security requirement. The US Air Force required every contractor entering the facility to be searched and escorted with the contractor's sponsor. During the early phases of the project, this requirement severely impacted the schedule by taking personnel that would otherwise be assigned to crews on the project and instead using them as security escorts. The security requirement became such a large impact to the project manning, that on the 23rd of November, another 150 battalion members redeployed to Kuwait, leaving behind a detail in Guam and 125 personnel in Puerto Rico.

The project suffered delays in material delivery, rental equipment availability and from the effects of frigid, rainy weather. The crews always found a way to meet their weekly goals. At one point during the project, in order to stay on schedule, there were four concrete contractors supplying concrete to the project. Amazing still is that the Seabees

of SEVENTY-FOUR were able to place the concrete faster by hand than it could be delivered, totaling more than 1200 cubic yards a day. As the project reached its final stages, crews doing earthwork, placing concrete, saw cutting, joint sealing, and electrical grounding teams were working night and day on the monstrous 22-acre site. On the 9th of January, the last concrete truck rolled off the site marking a significant milestone in the completion of the project. Yet much more work remained, crews continued on for another 24 days completing over 23 miles of saw cuts and joint sealing. On the 2nd of February 2003 the ribbon cutting for the largest single battalion Seabee project since Vietnam took place putting Naval Mobile Construction Battalion SEVENTY-FOUR fearlessly in the history books.

EMBARKATION

The Detachment embarked Air Det Heavy to Kuwait on 18 October via an L1011 from Andersen AFB, Guam, to Ahmed Al Jaber AB, Kuwait. Arriving in Kuwait on 19 October the Det prepared for additional C-5 flights carrying more troops and equipment.



Photo: Loading an MTVR, Andersen AFB, Guam

In November, four C-5 aircraft transported 10 MTVR's.

Departure Date	Type of Plane	No. Pax	Equipment/ Pallet	Weight (lbs)	Route
17-Oct-02	L1011	127	0	41,078	Guam, Bangkok, Kuwait
22-Oct-02	C-5	2	4	25,005	Guam, Kedina, Diego Garcia, Kuwait
1-Nov-02	Commercial	10	0		Guam, Japan, Singapore, Kuwait
13-Nov-02	C-5	2	4 MTVR	126,770	Guam, Bangkok, Diego Garcia, Kuwait
14-Nov-02	C-5	9	3 MTVR	96,665	Guam, Bangkok, Diego Garcia, Kuwait
15-Nov-02	C-5	8	3 MTVR	96,380	Guam, Bangkok, Diego Garcia, Kuwait
22-Nov-02	MD-11	150	0	48,467	Guam, Bangkok, Kuwait
22-Jan-03	C-5	73	12k Forklift, 6 HMMWV's	125,555	Guam, Bangkok, Kuwait
29-Jan-03	C-5	73	4 HMMWV	75,550	Guam, Bangkok, Kuwait
Retrograde		No. Pax			Route
19-May-03	Commercial	200		51,000	Kuwait, Italy, Atlanta, Gulfport
19-May-03	Commercial	120		42,000	Kuwait, Ireland, Maine, Gulfport
29-May-03	Commercial	218		62,000	Kuwait Int., Cyprus, Italy, Ireland, New Foundland, Maine, Gulfport
29-May-03	Commercial		Weapons	5900	Kuwait, Cyprus, Ireland, Maine, Gulfport

During the support operations in Guam, additional personnel redeployed from Puerto Rico, San Diego, Lemoore and Hawaii Details. The battalion embarked 150 personnel to Kuwait on 22 November via an MD-11 from Andersen AFB, Guam, to Ahmed Al Jaber AB, Kuwait. Arriving in Kuwait on 23 November, with the command element. On 22 January 2003, 73 additional personnel flew to Kuwait from Guam on a C-5 and an additional 73 personnel flew on another C-5 on 29 January.

PROJECTS (OEF):

SW3-840 C130 PARKING APRON

AHMED AL JABER AIR BASE, KUWAIT

Scope of Work Summary:

Construct a 1,156' x 720' concrete aircraft parking ramp with two 450' x 75' Taxiways. Horizontal construction included hauling, spreading and compacting over 209,000 cubic yards of fill. Reinforced concrete construction included 38,500 cubic yards of 5,000 psi concrete, 55,000 feet of reinforcing steel and 23 miles of saw cutting expansion joints. Addition horizontal construction included preparing an 1,156' x 360' area for AM2 matting.

Project Start Date:	26 Oct 02	Project Completion:	31 Jan 03
Average Crew Size:	140 personnel	Total Project Man-days (MDs):	10,430



Specifications:

Original drawings and specifications were completed by the Army Corps of Engineers. Minor subsequent changes were made by Pacific Engineering Division in Hawaii.

Significant QC/Safety Issues:

Quality:

- The slope and orientation of the pad was a major concern during construction. To eliminate runoff onto the runway, the pad was designed in one plane sloping away from the runway. Although the yearly rainfall in Kuwait is minimal, the extensive amount of square footage of impervious surface in this area could cause runoff concerns. Additionally, the design included a temporary AM2 matting section located adjacent to the rear of the pad. With the concrete pad sloping to the rear, runoff had to pass over the AM2 matting. To minimize the impact to the site, a swale and retention pond was integrated into the site.
- Local fill did not always meet soil specifications. Several of the quarry sites produced a fill called "gatch" that did not meet specification standards. Many soil samples had to be obtained throughout the project to ensure specifications were maintained.
- Several methods were attempted to determine the quickest means to obtain soil compaction. With the extremely tight construction schedule, the most expedient way to achieve compaction was necessary to remain on schedule. During the initial phases of clearing and grubbing, several attempts were made to scarify the top layers of sand to get to a suitable sub-grade. After determining sand layers were several feet deep in some locations, locating a suitable compacted sub grade would be impractical. As a result, the first step was getting the in-situ soil stabilized by blending and wetting the top 6 inches of existing soil with 50 % gatch soil. This provided a base that could accept additional lifts of gatch and gravel and achieve the required 95% soil compaction for the sub-base.
- Ensuring quality concrete. With a 1,300 cubic yard (1,000 cubic meters) concrete per day requirement, several local vendors were required to deliver concrete. A very aggressive QC monitoring program was developed to track and time each transit mixer.
- Proper concrete curing. Dramatic diurnal temperature swings, excessive winds and rain made it difficult to cure the concrete properly. Water saturated burlap covered with plastic had to be maintained for a minimum of 3 days.
- Sim 1,000 was used to seal the concrete expansion joints. The manufacturer's recommended application was difficult due to cold temperatures.

Safety:

- Dust caused by operating equipment-limited visibility.
- Lime burns from continual exposure to concrete created an industrial hygiene issue.

- Fatigue became a significant safety issue. With crews working an average of 18 hours per day, in either cold or hot temperatures, exhaustion was a concern.

Significant Material/Equipment Issues:

- Closed fill quarries caused delay in the procurement of select fill. Early in the project, all quarries in Kuwait were closed for environmental permitting issues. After several days of negotiations, the quarries were reopened.
- Security concerns delaying work. The project was located on the Kuwait side of Ahmed Al Jaber. The Kuwait military required a vehicle escort for each contractor vehicle. This severely impacted the planned direct labor capability.
- Availability of concrete saws. With 23 miles of concrete expansion joints to cut and fill, saw cutting quickly became the critical path activity. After exhausting every local vendor source, saws were air lifted in from Spain and Japan.



Top left: Project in early phases
Top right: Compactor operations
Middle left: Two concrete pump trucks were used to place 1,000 cubic yards per day
Middle right: With concrete containing a high lime content, double eye protection is required
Bottom left: Concrete finishing
Bottom right: 1st Naval Construction Division Commander, RADM C. Kubic, presents the project to the 3rd Marine Air Wing and the Kuwaiti Air Force

OIC DISCRETIONARY (OEF)

AHMED AL JABER AIR BASE, KUWAIT

Scope of Work Summary:

Host Facility Improvements: Improve Ahmed Al Jaber Air Base facilities. Furniture was removed from temper tents and wood decks were constructed. Other improvements included constructing civil engineering tool room and conference room, security guard shacks and entryway canopies.



Project Start Date:	26 Oct 02	Average Crew Size:	13 personnel
Project Completion:	11 Nov 02	Total Project Man-days (MDs):	1,634

Scope of Work Summary:

SW3-842 MSA: Construct a triple strand concertina fence approximately 4,100'. Install steel pickets staggered every 10' with 18" ground stakes in between.



Project Start Date:	24 Oct 02	Average Crew Size:	13 personnel
Project Completion:	28 Oct 02	Total Project Man-days (MDs):	81

CESE MANAGEMENT AND EQUIPMENT MAINTENANCE

Air Det Heavy did not deploy with CESE. Upon arrival in Kuwait, Air Det was assigned several rental vehicles and a core of CESE from NMCB 5's TOA from Camp Mitchell, Rota, Spain. Rental CESE included a Suburban and Pajero (SUV) for the staff and a bus and van for shuttling troops to the project.

Although the CESE was assigned to NMCB 74, a BEEP was not conducted. Both battalions conducted all maintenance in a shared mechanic facility and parts support remained the responsibility of the supply department in Rota, Spain.

Alfa administrative programs were stressed throughout the operation. All CESE, including rental vehicles, were dispatched, pre-started and maintained in accordance with standard NCF equipment maintenance standards.

ALFA COMPANY TRACKING ITEMS	
DESCRIPTION	QUANTITY
CESE Hours operated	8,643 hrs
Auto miles driven	44,775 mi
Rental auto miles driven	25,722 mi
*Rental CESE	-
# of PMs (01 & 02)	175 ea
# of interims	104 ea
# of 07s	10 ea
# of 12s	10 ea
ERO cost	\$20,862
ARP cost	\$20,804
DTO cost	\$32,357
**Fuel	-
Availability	90%
PM to iterim ratio	1.7 : 1

*Rental construction equipment hours could not be tracked accurately. The equipment was continuously switched out due to break downs or turned in to minimize rental fees. **All fuel provided by the Air Force at no cost.

SAFETY

Operation risk management and jobsite safety remained a top priority. To help reduce the risk of injuries, all personnel maintained constant situational awareness and used required safety equipment, Operation Risk Management (ORM) and construction guidelines were implemented at all levels contributing significantly to reduction of work injuries.

Early in the deployment, several studies were initiated. With the enormous amount of horizontal construction effort, equipment operations were a focus area. An ORM study was completed on operating equipment at night. It was determined that with extra light plants, slower vehicle speeds and proper work/rest cycles, the project could safely continue at night.

An additional ORM analysis was conducted regarding the use of earthwork equipment without roll over protection (ROPS). The local CESE rental contractor had several compactors (rollers) in his inventory that did not have ROPS equipment. After discussing standard roller speeds, the Det determined to use the leased rollers with several stipulations. The contractor's rollers had to be operated by an experienced operator and could only be used on the flat surfaces of the parking apron.

During the first several weeks of construction, the requirement to wear hard hats was discussed. With temperatures reaching 115 degrees in the afternoon, the olive drab hard hat would become very warm and start to lose rigidity. After discussing with safety and regimental personnel, it was determined that this project, like many Seabee projects, contains many hazards that could cause head injury if protection is not worn. The decision was made to continue to wear hardhats.

As the project progressed, several injury trends started to appear including back injuries, eye injuries and lime burns. Back injuries became prevalent from working with the concrete and SIM 1000 joint sealant. Eye injuries resulted from concrete splatter getting under eye protection and lime burns from the massive amounts of concrete that was being placed. By carefully monitoring the jobsite, construction practices were modified to minimize additional injuries. Using proper bending and lifting methods, back injuries were reduced and wearing face shields and goggles minimized eye injuries. An industrial hygienist recommended methods of covering all exposed skin to reduce lime burns.

Despite a strenuous work schedule, harsh weather conditions and significantly hazardous work conditions, the battalion had a very safe deployment.

SUPPLY/LOGISTICS

Air Det Heavy deployed to Kuwait with limited TOA and minimal supplies. Most logistic needs were either provided by host station support, NMCB 5 or the 30th NCR. The battalion berthed in temper tents located at Ahmed Al Jaber. Messing was provided by a contracted dining facility also located at Ahmed Al Jaber. Initially when the Air Det deployed, administrative trailers and furniture were locally purchased.

CONSUMABLES

Office supplies and other consumable items were purchased using several methods. If items were in direct support of the project and assisted in tracking and managing the project, the MLO staff would purchase them using project funds. Supplies were also purchased using the battalion's Supply Office located in Guam. Desert steel-toed boots were purchased by the Guam supply office from a vendor in South Dakota and shipped to Kuwait. For minor office items, the Air Station Servmart was used. After the regiment sent a MIPR to the Air Force, the battalion had approval to buy office supplies locally from Servmart.

MLO

Project material was purchased using a I MEF Contracting Officer in Kuwait City. The regiment established an on-site MLO staff with an expeditor from the battalion. Upon receipt of material, the battalion's MLO staff would inventory, store and issue.

POST OFFICE

The Ahmed Al Jaber Air Station's Post Office was used for all Postal needs, with the battalion providing a Postal Clerk to assist daily operations. Because the Air Base mission was in direct support of Operation Southern Watch, mailing letters and small boxes was free.

BARBER

Air Det deployed with a barber. After building a facility near the project, the barber provided outstanding support by operating 14-16 hours per day, varying hours of operation to provide services to all the crews.

COMMUNICATIONS:

Communication requirements for the battalion during Operation Enduring Freedom, consisted of local communications at Al Jaber Air Base and eventually communications with the 30th Regiment located at Ali Al Salem Air Base approximately 35 miles from the battalion.

Once the 30th NCR redeployed to Ali Al Salem Air Base, constant communication was required. VHF voice, HF voice, and HF data communications were established. During the first several weeks, it was determined that because of static and crypto garble, HF data worked the best for passing messages to higher.

EQUIPMENT

Air Det Heavy deployed with Guam's fly-in-echelon communication of equipment and the remaining TOA was shipped with the subsequent battalion personnel in November.

INFORMATION TECHNOLOGY

The battalion was linked to the Al Jaber Air Base network. Every member of the battalion was provided a NIPR NET e-mail account. SIPR accounts were opened for the Commanding Officer and the Operations Officer.

MEDICAL

Air Det Heavy deployed with an IDC corpsman and one other corpsman. Working from the Ahmed Al Jaber Medical Facility, the corpsmen were able to assist the Air Force with daily sick call as well as provide the battalion personnel with sufficient facilities for care.

IMMUNIZATIONS

Immunizations were a major part of the medical department tasking during the first several months of the deployment. The anthrax vaccinations started in Guam but battalion medical personnel completed the remaining shots in Kuwait. While the Air Det Heavy was in Ahmed Al Jaber, the determination to require military members to take the small pox vaccination was made. The medical department provided required training sessions, assessed the health records of the personnel and administered the vaccination.

INJURIES

Although battalion personnel were remarkably healthy during the deployment to Ahmed Al Jaber, four personnel were medevaced. Medevacs included an acute lumbar herniation, a penetrating eye injury, a suspected stroke and one case of unexplained weight loss. Additionally, one person was placed on limited duty from ankylosing spondylitis refractory to non-steroidal anti-inflammatory medications. All members expect a full recovery.

Operation ENDURING FREEDOM NMCB 74 Daily Chronology of Events

SEPTEMBER 2002

30-SEP - Pre-Advanced Party (pre-AP) departed Gulfport, Mississippi for Guam.

OCTOBER 2002

- 01-OCT - Pre-AP arrived in Guam and prepares for Air Detail Table of Allowance (Air Det TOA) inspection.
- 02-04OCT - Pre-AP conducted Air Det TOA inspection and inventory. Alfa Company representatives conducted pre-Battalion Equipment Evaluation Program (BEEP).
- 06-OCT - AP departed Gulfport, Mississippi for Guam.
- 07-OCT - AP arrived in Guam.
- 08-17OCT - Weapons, Desert Utility Uniforms (DUU's), and 782 gear issued.
- Convoyed to Orote Point, Guam to BZO weapons.
- Weapons, organizational gear, seabags are collected in preparation for Southwest Asia (SWA) deployment.
- 18-OCT - Air Det Heavy (125 personnel) departed Guam for Kuwait.
- 19-OCT - Air Det Heavy arrived in Kuwait and convoys to Ahmed Al Jaber Airbase.
- 20-OCT - Air-Det Heavy moved into the Air Force "Tent-City" at Ahmed Al Jaber Airbase.
- 21-OCT - Conducted Operational Security (OPSEC) and Orientation brief.
- Assisted NMCB 5 with TOA inventory on the two MCA's shipped from Camp Mitchell, Rota, Spain to Kuwait.
- 22-OCT - Completed inventory on MCA's 1 and 2 from the Rota pack-out.
- 23-OCT - A battalion armorer and security personnel arrived in Kuwait with weapons and communications/computer assets.
- Ground breaking held for F/A-18 pad project. Power lines are connected to administration trailer.
- 24-OCT - Earthwork continued on F/A-18 pad project.
- Started construction on 4100 LF of triple strand concertina wire and 10 FT earth berm around a bed-down area to be used by the Marine Corps at Ahmed Al Jaber Airbase.
- Phone lines are connected to administration trailer.
- Began constructing 3 guard shacks for Air Force Security.

- 25-OCT - Earthwork continued on F/A-18 pad project
 - Completed guard shacks for Air Force.
 - Networked administration trailer computers and operations begin.

- 26-OCT - Earthwork continued on F/A-18 pad project.
 - Started OIC discretionary tasking for the Air Force Base Engineering Forces.
 - United Through Reading program started.

- 27-OCT - Earthwork continued on F/A-18 pad project.
 - SWA Seabee Combat Warfare (SCW) program standard operating procedures (SOP) completed.
 - Ramadan began.

- 28-OCT - Earthwork continued on F/A-18 pad project.
 - First trucks of select fill arrived on site.
 - Finished construction of triple strand concertina wire and berm around Marine Corps bed-down area.
 - Petty Officer Indoctrination began.

- 29-OCT - Earthwork continued on F/A-18 pad project.
 - Assisted NMCB 5 with hot pit refueling pad project.
 - Petty Officer Indoctrination continued.
 - Submitted security force training requirements to 30th NCR

- 30-OCT - Earthwork continued on F/A-18 pad project.
 - Petty Officer Indoctrination concludes.

- 31-OCT - Earthwork continued on F/A-18 pad project.
 - First convoy to Camp Doha and Ali Al Salem Airbase.

NOVEMBER 2002

- 01-NOV - Cut, fill and grading work started on F/A-18 pad project.
 - First official day of the F/A-18 pad project- funding has arrived.
 - Heavy rain and dust storm.
 - Safety stand down meeting conducted.

- 02-NOV - Cut, fill and grading work continued on F/A-18 pad project.
 - 10 additional Alfa Company personnel arrived in Kuwait from Guam.
 - Light rain continued.

- 03-NOV - Group photo was taken with military engineers at Ahmed Al Jaber Airbase. Represented units included Air Force Prime Beef, Air Force Red Horse, NMCB 5 Heavy Air Det and NMCB 74 Heavy Air Det.
 - Cut, fill and grading work continued on F/A-18 pad project.
 - Light rain continued.

- 04-NOV - Cut, fill and grading work continued on F/A-18 pad project.
 - Air Det weigh-in for PRT.
 - Unloaded and cleaned weapons.

- 05-NOV - Cut, fill and grading work continued on F/A-18 pad project.
- Weapons cleaning continued.
- 06-NOV - Cut, fill and grading work continued on F/A-18 pad project.
- Delivery of select fill to project stopped due to all quarries in Kuwait being closed for environmental reasons.
- Weapons cleaning continued.
- 07-NOV - Received no fill today- Saturday afternoon will be the soonest any significant quantity of select fill can be obtained.
- Estimated F/A-18 pad project is 5 days behind schedule. Start review of recovery plan based on major impacts including insufficient material, rollers, light-plants and graders.
- Project closed at 2,200 this evening and shift to a daytime operation until fill delivery resumes.
- Modification to 90% compaction of sub-grade materials will expedite construction, but it is not entire recovery plan.
- Crew began to excavate low tension line under taxiways, final location of ductbanks will be determined by 30th Regiment engineer after wire is exposed.
- 08-NOV - Received 150 CM of fill in morning.
- CE's located low tension wires under taxiways.
- Project schedule continued to be impacted by slow delivery of fill.
- EO3 Vehrs twisted ankle last night, avulsion fracture of right foot.
- 09-NOV - Received 238 CM of fill today- delivery of fill is slow. Contractor ran 3 trucks until sunset; received about 400 CM total today.
- 21,000 gallons of water was delivered to the site.
- Stockpile of material at the gate is very small. If a large amount of material was to be delivered, it could be stockpiled on site and spread by battalion.
- 2 light plants went down for bulbs. Mechanics have bulbs on order.
- To date, 3 grader tires have been punctured by debris in fill, these tires have been replaced, but no additional tires are in stock.
- Project is 6 days behind schedule and recovery plan was being developed. Key element to recovery plan was contract to deliver light plants and rollers to project.
- 10-NOV - Received 1,615 CM of fill today. Fill was available at stockpile and project could support additional deliveries. Fill deliveries halted at 1530 local.
- 2 personnel are on site measuring each dump load- calculated 16.5 CM was average truck load of fill.
- In effort to improve delivery of fill, Concap contract was awarded to procure fill.
- USMC birthday celebration.
- 11-NOV - Received 2,300 CM of fill at the project site.
- EO's are keeping up with delivery rate, but not enough rollers to keep up with compaction.
- Estimated total delivery of material to be 3600CM if the vendor hauls until 1800.
- Used 22,000 gallons of water as of 1400L.
- Soil density tests taken at 1600L.
- No rollers or lightplants were delivered to the project.
- Concap has delivered 1,600 CM of fill has been delivered to the gate since 0700 yesterday.

- 12-NOV - Received 2,550 CM of fill.
 - Soil density tests were not taken today, but are scheduled for tomorrow morning.
 - Used 16,000 gal H₂O.
 - Received 3 light plants today, but are in the shop for initial inspection.
 - Rollers were at the gate earlier, but were not delivered to the project yet.
 - Fill delivery stopped at 1500L.
- 13-NOV - Received 2,832 CM of fill (177 trucks @ 16.6 CM).
 - All material delivered today is in place, but not compacted yet.
 - Fill delivery stopped at 1500; drivers told escorts they will not deliver until Saturday.
 - Soil density tests passed in Section 1.
 - Used 24,000 gallons of water.
 - Conducted MOPP gear inspection
 - Battalion hauled 330 CM of fill at night.
- 14-NOV - Received 301 loads of fill for a total of 4,846 (average load was 16.1 CM).
 - Concap delivered 4,800 CM of fill at the gate and expected to deliver an additional 3,200 to the stockpile that night.
 - Kamal's (a local contractor) stockpile was empty.
 - Fill delivery stopped at 1415.
 - Night crew rolled and watered new fill.
 - Soil density tests in Section 1 passed, Soil density tests in section 5 failed in morning and were retested after compacting and watering.
 - 42,000 gal H₂O used.
- 15-NOV - No Soil Density Test's passed.
 - Section 5 was scarified, watered, rolled and retested this evening.
 - Received 217 truckloads of fill with an average volume of 19CM per truck, and 35 trucks at 16.5cm.
 - Fill delivery stopped at 1330.
 - Total volume received is 4,700 CM.
 - Concap has 3,800 CM of getch, Kamal has no getch at this time, but was working on developing a stockpile of select fill.
 - 32,000 gal of water used.
 - Working party convoyed to Camp Commando to begin USMC construction tasking.
- 16-NOV - Cut, fill, and grading work continued, received 7,000 CM of fill.
 - 30th NCR staff relocates to Ali Al Salem Airbase.
 - Received 1 additional compactor from Det Bahrain.
 - 2 battalion personnel arrive in Kuwait from Guam.
- 17-NOV - Half day of work.
 - Battalion continued to place material delivered yesterday.
- 18-NOV - 4,522 CM of select fill delivered today.
 - Air Det Chief travels to Arifjan to check on 11 troops helping off load SU2 gear from the ship.
 - Det Project Ops occupies former 30th NCR space.

- 19-NOV - Received 4,300 CM of material today. 3,978 CM went to the stockpile, 325 CM of select fill was delivered to Taxiway B.
- 300 CM of getch was taken from the stockpile and used on section 2.
 - 32,000 gal of water used.
 - If Soil density tests on the select fill pass, BU's will immediately begin to set forms for Thursday's concrete placement.
 - Equipment on site includes 5 graders, 7 rollers, 2 scrapers, 2 dozers, 1 loader, 8 light plants.
- 20-NOV - Received 4,637 CM of material today. All material delivered was added to the stockpile.
- Soil density tests in taxiway 1A and 1B passed.
 - 2,800 CM of material was taken from stockpile for a 6" lift on taxiway 1A.
 - 500 CM of material was placed on Section 2 and is being compacted, another lift will be added this evening.
 - 34,000 gal of water was used.
 - Concrete formwork and reinforcement begins.
- 21-NOV - Concrete form work and reinforcement continued.
- Base security secures all off-base movements after receiving word of a shooting outside a nearby base.
 - Heightened base security restricts local concrete contractor from entering and first concrete placement is postponed.
- 22-NOV - Received 4,824 CM of fill material.
- 407 CM was placed in section 2 and compacted, Soil density tests passed and a lift of material is being placed over the entire section.
 - Taxiway B1 received it's final lift of getch, rough grading is being done and select fill will be spread tomorrow afternoon.
 - No concrete was delivered today due to Force Protection Measures.
 - BU/SW completed the formwork in Taxiway A1.
 - Ductbank on Taxiway A1 is being cut and placed, runway is being marked for areas to be cut out and removed.
 - Dowel chairs are being prefabbed.
 - 30th Regiment Commodor and 30th Regiment CMDCM visit camp and project.
- 23-NOV - Placed 4,280 CM of getch. 3,536 CM came from Kamal and 745 CM taken from the stockpile.
- Placed first concrete (270 CM).
 - Used 34,000 gal of water.
 - Taxiway B1 passed Soil density tests over 95% and is being final graded prior to placing select fill.
 - Select fill will be brought in tomorrow morning.
 - Project is 17% complete.
 - Battalion CO and Mainbody arrived in Kuwait.
- 24-NOV - Placed 168 CM of getch today from the stockpile.
- 2,975 CM of Base coarse added to stock pile 435 CM placed on taxiway B1.
 - Placed 270 CM of concrete on taxiway A1.
- 25-NOV - Placed 772 CM of getch today from the stockpile.
- 3,126 CM of Base coarse added to stock pile.

- Placed 270 CM of concrete on taxiway A1.
 - Used 22,000 gal of water.
 - Taxiway B1 is being prepared for form-work.
 - Operational Planning Team (OPT) staff departs to AAS for meetings.
- 26-NOV
- Received 2,923 CM select fill at the stockpile.
 - Concrete on taxiway B was cancelled because of wrong elevations.
 - BU/SW's are setting forms on taxiway B for 0800 placement tomorrow.
 - An area approximately 50' x 100' did not meet specified lift thickness. This area was removed to proper depth and being re-compacted.
 - Used 28,000 gal of water.
 - Section 2 received a 6" lift in the first 50' against the taxiways.
 - This area will be finish graded and compacted before getting select fill.
 - Mainbody weapons and communications gear arrive in Kuwait.
 - Established VHF communications with AAS.
- 27-NOV
- Placed 5,345 CM of getch today from the stockpile.
 - 2,500 CM of Base coarse added to stock pile.
 - Placed 540 CM of concrete on taxiway B1.
 - Used 8,000 gal of water.
 - Taxiway A1 is being prepared for form-work at the nose.
 - Operational Planning Team (OPT) staff returns from Ali Al Salem (AAS).
 - Began serialized and inventory of weapons.
 - Work for Marines at Camp Commando completed.
- 28-NOV
- Thanksgiving Day. RADM Kubic visits for Thanksgiving Day celebration.
 - Galley provided Thanksgiving Day dinner.
 - Battalion worked a half-day in the morning placing 4,491 CM of getch from the stockpile.
 - 1,638 CM of Base coarse added to stock pile.
 - Placed 145 CM of concrete on taxiway B1 completed at 1330.
 - Forming end sections on taxiway A1 and B1.
- 29-NOV
- Concrete placement continued, placed 133 CM on taxiway B1.
 - Concrete form work and reinforcement continued.
 - Displace Alfa Company personnel to AAS.
 - Site visit by Lt Gen Conway, Lt Gen Hailston, Maj Gen Amos, RADM Kubic, Maj Gen Mattis.
- 30-NOV
- Currently replenishing Gutch stockpile.
 - Placing 540 CM of concrete on taxiways A1 and B. The center sections will be placed tomorrow.
 - Used 26,000 gal of water.
 - Concrete today is surface plastic cracking on two of the four sections poured. The crew is working hard to keep the surface hydrated. Contributing factors are high winds, not enough burlap and one curing compound machine. The crew has been moving the curing machine back and forth between pours but, it is difficult to get the compound on and worked into the surface with the bowl float given the distance separating the placement. This will become even more critical on Monday when the crews will be separated by as much as 1,100 feet. Pulled the burlap and plastic off sections placed on the 27th and 28th early to cover today's concrete placement.
 - Project is 19% complete.

DECEMBER 2002

- 01-DEC - Currently replenishing Gutch stockpile 2,074 CM added yesterday, 1,156 CM added today.
- 2,465 CM of Base coarse added to stockpile.
- Placing 145 CM of concrete on taxiways A1 and B.
- The first 30' x 1156' pass (First 1000CM pour) on section 2 will be made tomorrow. EO's are still preparing the second pass for formwork today. The concrete placement plan for tomorrow is to start at one end of the run and work to the other. This placement option will best support the 23 Transit Mixer cycle.
- CO, CMDCM attend OPT meeting at AAS.
- Security of project is augmented by a squad of Marines from 3MAW.
- 02-DEC - Gutch added to stockpile 2,682 CM.
- 1,105 CM of Base coarse added to stockpile.
- Placing 1,000 CM of concrete on Section 2. Placement rate is approximately 60/hr. At 1700L concrete placement stopped due to problems at batch plant. Concrete formwork and reinforcement continued.
- Obtained Host Nation approval to allow local concrete contractors easier access to pad site via "Charlie" gate.
- 03-DEC - Finishing placing concrete on Section 2, 621 CM placed yesterday 300 CM to be placed today.
- Section 2.2 will be placed tomorrow.
- Began security modifications to "Charlie" gate.
- Received 2,000 rounds of 7.62mm from Ammo Supply Point (ASP).
- 04-DEC - Placing concrete on Section 2, 300 CM placed yesterday 1,000 CM to be placed today.
Section 2.3 will be placed Friday.
- Continued security modifications to "Charlie" gate.
- 05-DEC - Ramadan "Ede" today.
- No fill or concrete delivered to the site.
- 8,000 gallons of water used.
- Concrete placement finished about 0300 this morning. Crew will return to work this afternoon to do site clean up and set forms. Two sets of forms will be in place by tomorrow. Concrete will be placed in one direction tomorrow; batch plant operations will be stopped at 2000L.
- Rain expected intermittently for the next 5 to 10 days, with 1/2" expected in the next 24hrs.
- 06-DEC - No fill delivered to the site today drivers did not show up after yesterday's festivities.
- No water used today because of rains over the past two days.
- 300' of concrete placed today. Crews are also doing site clean up and set forms. Another set of forms will be in place by tomorrow morning. Rain expected to continue for the next 10 to 12 days now, with 1/2" expected in the next 24hrs. Completed security modifications to "Charlie" gate. CO, CMDCM, and CWO2 Tyler attend meeting at AAS.
- Rain expected to continue for the next 10 to 12 days now, with 1/2" expected in the next 24hrs.
- Completed security modifications to "Charlie" gate.
- CO, CMDCM, and Security Officer attend meeting at AAS.

- 07-DEC - 1,062 CM of of getch delivered, 3,978 CM of select fill delivered. 270 CM of concrete delivered, 30 trucks in the cycle (16 Ali Mar/ 14 Mahlia the two concrete contractors), batch plants stopped at 1800.
 - Crews are also doing site clean up and set forms. Another set of forms will be in place by tomorrow morning.
- 08-DEC - Placed 800 CM of concrete.
 - Rain continued to hamper operations.
 - Chiefs and Officers spend the day placing concrete with the troops.
- 09-DEC - Concrete delivered but heavy rain and lightning delays work.
 - No fill delivered.
 - Finishing placing pad 5, 200'-250' of pad 6 placed by the end of the day.
 - 36 trucks in the cycle (17 Ali Mar/ 19 Mahlia).
 - Crews are also doing site clean up and set forms. Another set of forms will be in place by tomorrow morning.
 - PACDIV project designer, Kirby Hong visits site.
 - "Charlie" gate officially opens.
- 10-DEC - Heavy rains yesterday prevent concrete placement this morning.
 - Discussion made to attempt concrete placement this afternoon; however, concrete operations are quickly halted due to concrete forms failing because of rain damage.
- 11-DEC - Today, 2,176 CM of select-fill was delivered and battalion used 16K gal of water.
 - Placing the remainder of Pad #6 (expecting 800 CM of concrete to be delivered by 1800).
 - Project cook out.
 - Forge Blast exercise begins.
- 12-DEC - Finished placing Pad #7 of 24.
 - Project starting to get back on track after several days of heavy rain.
 - Much of the sub-base preparation completed before the rain had to be redone due to being washed out.
 - Project is 37% complete.
- 13-DEC - Concrete placement continued today; started placement of Pad #8.
 - At current work rate crews are completing 2.5% of the project per day.
 - More personnel attend Forge Blast exercise at AAS.
- 14-DEC - Concrete delivering slow today we only received 500 CM of the required 1,000 CM per day.
 - Crews are able to place more concrete than the two concrete contractors can deliver.
 - Heavy rain is predicted for the next 36hrs, never expected so much foul weather in the desert.
 - CO, CMDCM, and Security Officer return from AAS.
- 15-DEC - No rain today, which is good because we order 1,200 CM of concrete to be delivered hoping that the contractors will free up some of there delivery assets to support our project.
 - Material delivery delays continued to set project behind schedule.
 - Temperatures continue to fall, the troops are getting very cold and the concrete is not setting in time for the forms to be removed by the start of the next morning's concrete placement.
 - Project 42% complete.

- 16-DEC - Finished placing Pad #9 (112') and starting #10 (ordered 1,200 CM of concrete to be batched by 1800).
 - There are 14 trucks in the cycle from Mahalyia and 21 from Ali Mar, with 35 trucks in the cycle it is predicted that the contractors can deliver a maximum of 945 CM by 1800.
 - Mahalyia has switched plastiziers to a noticeably better product for the cooler temperatures. The crew is finding that they are able to work the concrete from Mahalyia quicker than that from Ali Mar.
 - Temperatures continue to be bitter cold.
- 17-DEC - Battalion is finishing placing Pad #10.
 - National Industries, a third concrete contractor, came online today, concrete quality and delivery is very good but they can only deliver 200 CM per day.
 - Battalion stopped batching today at 1300 due to weather concerns.
 - Major rain storm.
- 18-DEC - Recovering from major rainstorm. Crews took the morning off. The afternoon is being spent on site clean up.
- 19-DEC - Continued placing Pad #11.
 - EO's are preparing the taxiway tie-in to Runway 15R on taxiways A1 and B1.
 - Formwork set for Pad #12.
 - EO's are drying out existing fill and replacing it with dry fill from stockpiles in Section 4.
 - Site visit by I MEF Commander, Lieutenant General Conway.
- 20-DEC - Finished placing Pad #11 and started Pad #12.
 - Project is 46% complete.
 - Crane crew displaces to AAS.
- 21-DEC - Visit by 1st Naval Construction Division Commander, RADM Kubic.
 - Finished Pad #12 and started Pad #13.
 - Working with Kuwaiti electricians on air field lighting splice for the taxiway tie-ins.
- 22-DEC - Air field lighting splice was completed this morning.
 - Placing runway tie-ins.
 - EO's are working finished grade for getch material in section 5.
- 23-DEC - Placing Pad #13, Pad #14 and runway tie-ins.
 - EO's start subgrade for AM2 area at the end of the project.
- 24-DEC - Placing section 14 and runway tie-ins.
 - EO's finish grade for material in section 5.
 - Chaplain Massie holds a midnight service at the project.
- 25-DEC - Worked secured for Christmas Holiday.
 - RADM Kubic visits.
 - Chiefs and Officers serve holiday meal.
- 26-DEC - Placed concrete on Pad #14, Pad #15 and taxiway.

- EO's are working select fill material for section 5.
 - Prep subgrade for AM2.
 - Project 59% complete.
 - Personnel attend OPT meeting at AAS.
- 27-DEC - Placed concrete on Pads #14 and #15.
- Seabee Engineering Reconnaissance Team (SERT) training started at AAS.
- 28-DEC - Placed concrete on Pad #16 and Pad #17.
- Started landscaping work.
- Concrete formwork and reinforcement continued on F/A-18 pad project.
- CO, CMDCM, and A4 depart for Bahrain.
- 29-DEC - Crews work half day.
- Concrete deliveries secured for the day.
- Work continued on AM2 subgrade preparation and site landscaping.
- Weapons cleaning
- CO, CMDCM and A4 return from Bahrain.
- 30-DEC - Concrete placement resumes on Pad #17 of 24.
- Project is 67% complete.
- 31-DEC - Concrete placement continued on Pad #17 and started on Pad #18.
- Crews start preparing earthwork grade transitions around taxiways.
- Personnel return from OPT meeting at AAS.
- More personnel leave for SERT training at AAS.

JANUARY 2003

- 01-JAN - Concrete placed on Pads #18 and #19.
- Work continued on site restoration around taxiways.
- RADM Kubic visits for New Years day celebration.
- 02-JAN - Concrete placement continued on Pad #19 and started on Pad #20.
- Project is 70% complete.
- 03-JAN - Placing concrete on Pad #20. Work continued on site landscaping between and around taxiways.
- Conducted traffic court.
- Work continued on site landscaping between and around taxiways.
- Combat Camera arrives in camp from Bahrain.
- Conducted traffic court.
- 04-JAN - Concrete delayed approx 1.5 hrs for morning rain showers.
- Placing concrete on Pad #21.
- Compacting and rough grading AM2 section.
- Work continued on site landscaping between and around taxiways.
- Preparing for placement of duct bank manholes.
- 05-JAN - No concrete placed.

- No fill received.
 - No water used.
 - Crews taking 1/2 day off.
 - Crews concentrating on joint cutting, cleaning and sealing.
 - Work continued on site landscaping between and around taxiways and preparing for placement of duct bank manholes.
 - Project is 74% complete.
 - Conducted weapons cleaning, communications training, and SCW awards ceremony.
- 06-JAN
- Placing concrete on Pads 21 and 22.
 - Compacting, rough grading and blending getch on AM2 section.
 - Preparing shoulders and placing SF on south sections of same.
 - Ready for placement of duct bank manholes.
 - Conducted CBR drill.
- 07-JAN
- Placing concrete on Pads 22 and 23.
 - Compacting, rough grading and blending getch on AM2 section.
 - Preparing shoulders and placing select fill on south sections of same.
 - Project is 78% complete.
 - Conducted Ability to Survive exercise.
- 08-JAN
- Placing concrete on Pads 23 and 24.
 - Many EOs working on joint cleaning and sealing, others are preparing shoulders and placing select fill on runway side sections of same.
 - Ready for contractor to place duct bank manholes.
- 09-JAN
- Final truckloads of concrete placed for F/A-18 pad project.
 - Project is 82% complete.
- 10-JAN
- Cutting joints, cleaning pad, pouring joint sealant, and repairing blemishes.
 - EOs are preparing shoulders and placing select fill on runway side sections.
- 11-JAN
- Over-the-Hump party for all Battalion personnel.
 - Joint cutting crews continue to work.
- 12-JAN
- Stripping forms, joint sealing, and site clean-up continued.
 - Begin saw-cutting and repairs of surface blemishes.
 - Camp 93 is established at TAA Coyote.
- 13-JAN
- Stripping forms, joint sealing, site clean-up, and surface blemish repairs continue on F/A-18 pad project.
 - Operations trailer transported to Camp 93 to establish Mount Out Control Center (MOCC) for MPSRON offload.
- 14-JAN
- Stripping forms, joint sealing, site clean-up, and surface blemish repairs continue on F/A-18 pad project.
 - EO's start work on taxiway to hot-pit refueling point.
 - Project is 87% complete.

- 15-JAN - Stripping forms, joint sealing, site clean-up, and surface blemish repairs continue on F/A-18 pad project.
- Started operations for the 5th large saw on the project.
- Crane arrives to place duct-bank manholes.
- MPF offload personnel displace to Camp 93 to establish arrival and assembly areas.
- 16-JAN - Received 2,376 CM of getch fill material.
- 16,000 gallons of water used.
- Cut joints, cleaned pad, poured joint sealant, and repaired blemishes.
- EO's compacted AM2 pad, and started to bring in rock.
- Battalion continued to work on shoulders, starting the hot-pit taxiway, supporting other assigned tasking off the project.
- 17-JAN - Cutting joints, cleaning pad, pouring joint sealant, and repairing blemishes.
- EOs are compacting AM2 pad, and beginning to bring in rock.
- They are continuing work on shoulders, and the hot-pit taxiway and supporting other assigned tasking off the project.
- Started major saw cut.
- 18-JAN - Crew taking this week's 1/2 day off today and receiving smallpox vaccination.
- Cutting joints, cleaning pad, pouring joint sealant, and repairing blemishes.
- Project is 90% complete.
- 19-JAN - Cutting joints, cleaning pad, pouring joint sealant, and repairing blemishes.
- EOs are compacting AM2 pad, and bringing in rock.
- They are continuing to support other assigned tasking off the project.
- 20-JAN - Stripping forms, joint sealing, site clean-up, and surface blemish repairs continue on F/A-18 pad project.
- Project is 91% complete.
- 21-JAN - Cutting joints, cleaning pad, pouring joint sealant, and repairing blemishes continued.
- EOs are clearing spoils from the site and loading equipment for retrograde while the site dried this morning.
- This afternoon they will be compacting AM2 pad, and bringing in rock.
- 22-JAN - Stripping forms, joint sealing, site clean-up, and surface blemish repairs continue on F/A-18 pad project.
- EOs are loading equipment for retrograde, compacting AM2 pad area, and bringing in rock.
- Continued to support other assigned tasking off the project.
- Project is 94% complete.
- 23-JAN - Cutting joints complete.
- Significant rainfall last night and today.
- EOs are attempting to drain water from the site.
- 24-JAN - Significant rainfall from yesterday is still delaying work on AM2 pad.
- Crews are cleaning joints, placing backer rod and joint sealant on last 60' of pad as well as cleaning and repairing blemishes.

- EOs are draining water from the site, receiving select fill material and hauling spoils.
- 25-JAN - Crews are cleaning pad eyes and sealant over-spillage and retrograding materials and tools to MLO yard.
- EOs are removing saturated select fill from AM2 area and replacing with dry select fill.
- Project is 95% complete.
- 26-JAN - Work continued on pad eyes and sealant over-spillage cleanup.
- 27-JAN - EO's continued final grading, compacting select fill and reworked first sections of AM2.
- Received getch material.
- USMC HE operators have constructed 5th fuel berm in the hot-pit refueling area and they are assisting in removal of spoils material from the job site.
- 28-JAN - Crews are cleaning up FOD, working on punch list and retrograding tools, materials and equipment.
- EOs are final grading and compacting select fill on AM2 section.
- USMC started installation of AM2.
- 29-JAN - Crews are cutting back edge of pad in three spots for AM2 matting transition and retrograding tools, materials and equipment.
- EOs are rolling surface materials off of first section of AM2 mat area, due to rain last night.
- Section will be ready for AM2 installation by tomorrow morning.
- USMC crews are positing AM2 and drilling holes in mats for anchors.
- 30-JAN - Crews cleaned FOD and jobsite area, retrograded tools, materials and equipment.
- EO's completed first 30' section of AM2 area.
- EO's blended getch into surface of next sections for final grade and compaction of same.
- Work on Hot Pit taxiway preparation resumes and removal of rubble and spoils material from the site continued.
- 31-JAN -Retrograde of tools and materials continued.
- Project is 99% complete.

FEBRUARY 2003

- 01-FEB - Started retrograde of CESE and tools to AAS.
- Punchlist for AAJ F/A-18 Pad project continued in preparation for project turnover.
- 02-FEB - F/A-18 Pad Project completed.
- Completed retrograde of CESE and tools to AAS.
- Camp 93 improvements started in preparation to receive Battalion personnel.
- Punchlist for AAJ F/A-18 Pad project wraps up and ready for turn over
- 03 FEB -Remaining personnel at AAJ prepare for movement to AAS and Camp 93
- AAJ F/A-18 Pad project is turned over

OPERATION IRAQI FREEDOM



INTRODUCTION

As the F/A-18 Parking Apron Project concluded, NMCB 74 transitioned into Operation IRAQI FREEDOM. 146 additional personnel were redeployed from Guam to Kuwait. Personnel training became a priority as planning and preparations started for future contingencies. Initial training was block military training to reinforce basic requirements.

As planning proceeded and contingency operations were identified, specific training was conducted. With the introduction of the Mabey-Johnson Bridge (MJB) to the NCF, an emphasis was placed on MJB training. MJB representatives were brought in to provide specialized training on construction and retraction of different size bridges as well as span vs. float bridges. Mole pier rehearsals were conducted using both sheet piles and sand pile culvert modules (SPCM).

Continuous convoy training was conducted. As contingency plans were refined and implementations of task forces started, convoy rehearsals reflected actual loads and configurations that would be used during contingency operations.

NMCB 74 segregated into two components with the transition to Task Force MIKE and Task Force CHARLIE. At this juncture, emphasis shifted from training to preparations for contingency operations. Vehicles were prepared; equipment and materials loaded and final rehearsals were conducted. On 19 March 2003, Task Force MIKE personnel and equipment, with an embedded Task Force CHARLIE convoy of bridging material, departed for Dispersal Area Stethem.

Within 18 hours of the start of Operation IRAQI FREEDOM hostilities, Task Force MIKE and the bridge augment crossed the line of departure and started contingency operations. Upon arrival at Assembly Area Shields, Task Force MIKE established a 360° perimeter defense became the norm.

A 53-meter MJB at MSR Tampa Gap 5 on Route 1 was the battalion's first contingency construction effort. Task Force MIKE Construction Element 74 continued contingency construction while Task Force CHARLIE ensured Class IV material was delivered.

Extended convoy routes and isolated camps stretched the battalion's defensive positions. With insufficient hard back HMMWV's, crew serve weapons were mounted on 15 ton dump trucks, MTRV's and soft back HMMWV's to provide the required convoy security. As a result of short stays at each camp, crew serve weapons became the backbone of the battalion's defense. Concertina wire, trip flares and man-made obstacles were limited in their use as a result of the time constraints. Therefore, fields of fire for crew serve weapons became a key element in the selection of every camp location.

Support Area Chesty at the An Numaniyah Air Field turned into the battalion's longest stay during contingency operations and more closely reflected Seabee doctrine. Over 60 projects were completed to support IMEF operations. Several Details were launched from this site. One to complete a MJB over the Saddam Canal and others to provide

security and construction support at SA Daily, debris clearing at Rasheed Air Field, waterline repairs near Rasheed Air Field, MSR repairs as well as humanitarian assistance.

After completing mole pier repairs at the ASR Hueneme MJB and construction of 2-hole burnouts for 1st MARDIV, the battalion started the retrograde process. Task Force MIKE Construction Element 74 returned to Camp 93, Kuwait on 1 May 2003. At Camp 93 and Camp Morecell, Kuwait, CESE was cleaned, preventative maintenance performed and vehicles turned over to Naval Construction Force Support Unit 2. Similarly, TOA supplies were cleaned, inventoried, containerized, inspected and sealed for MPSRON on load in August 2003. NMCB 74 completed retrograde and support of Operation IRAQI FREEDOM when the main body returned to Gulfport, MS on 29 May 2003.

EMBARKATION

PLANNING

Throughout the planning process, Operational Planning Teams (OPT's) were used when critical design and construction solutions were required. OPT's were composed of key personnel from the 30th NCR and each of the NMCB's in theater. OPT's were formed for the Euphrates Bridge Crossing, MSR's, Route 1 Connector and various future missions. Engineering and construction theories were tested using realistic constraints of extremely restricted time, limited material availability and utilization of only Tab A CESE.

Results from OPT's were used to develop the CESE Tab A, bills of material for various projects, concepts of construction, and illustrate NCF capabilities to higher headquarters.

EMBARKATION TRAINING

The embarkation staff conducted training for the pallet building crews, security/wash rack crew and vehicle/equipment crew anticipation of using large working parties to expedite loading during Southwest Asia (SWA) mount outs. Embarkation training continued with each of the 9 mount outs to SWA because personnel from the crews departed on various flights and new personnel had to be trained.

In order to achieve a clear understanding of the MPSRON theory and offload process, NMCB 74 wardroom toured the MPF ship USNS Lummus during the Guam deployment, prior to the SWA redeployment.



MPSRON II OFFLOAD

A major step in preparations for contingency operations was the arrival of the MPSRON 2 to Southwest Asia. In addition to sending the offload preparation party (OPP) to Diego Garcia, the battalion offloaded the MV Lopez, MV Anderson and the USNS Stockham.

A marshalling yard was established at the Port of Ash Shuaybah, Kuwait where equipment and material was staged, mobile loaded and lined up for transport to Tactical Assembly Area (TAA) Coyote. Equipment and materials were scanned prior to departing the staging area and upon arrival at the assembly area. Camp 93, located approximately 50 miles from the port, was identified as the NCF's assembly area within TAA Coyote. Using 18 convoys, a group of 38 equipment operators and construction mechanics transported 327 units of CESE and 117 TOA containers to Camp 93, TAA Coyote.

Upon arrival at Camp 93, CESE was positioned in an Alfa yard and containers were staged in the supply yard. Each unit of CESE received a Joint Limited Technical Inspection (JLTI) where the majority of deficiencies identified by the inspections were leaks, power steering pumps, PTO cables, light switches, missing fuel sensors and minor body damage.

TRAINING

CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL WARFARE TRAINING

Designated personnel were assigned to a CBR team and received training on the proper set up and operation of both Detailed Troop (DTD) and Equipment (DED) Decontamination Lines. Also, Survey and Monitor teams received training on the proper use of survey monitor equipment to include M22 and M10 alarms, M256 kits, and NBC Marking kits. All Battalion personnel received training on NMCB SEVENTY-FOUR Chemical, Biological and Radiological signals and correct actions to taken during a MOPP situation.

Task Force CHARLIE, which comprised of NMCB SEVENTY FOUR, NMCB FOUR, and NCFSU TWO conducted two bunker drills prior to the start of OIF to evaluate Command and Control and to train all camp personnel on the alarm sequence, and "All Clear" procedures during a CBR attack.



Photo: Bunker Drill inside MLO Bunker, Camp 93, Kuwait

In conjunction with the drills, both CBR teams from NMCB SEVENTY FOUR and NMCB FOUR formed into one team and trained on CBR operations, survey and monitoring and unmasking procedures in preparation for contingency operations.

During Operation IRAQI FREEDOM, CBR teams were dispatched six times over a three-day period. In response to possible chemical attack, the teams conducted chemical testing and unmasking procedures to ensure no agents were present. The M22, which was placed forward of the entry control point, gave no positive test results.

COMBAT SKILLS TRAINING

Nine combat skills topics were selected and prioritized. The training plan was based on platoon size classes covering each topic in approximately seven hours. Communications was a high priority with every member of the Battalion receiving instruction how to load fill, call in a Medevac request, and trouble shoot and set up all NCF communication equipment. Navigators were trained in the use of the AN/PVS 11 GPS. During CBR training, all members of the battalion were taught self-decon and the basics of setting up a DTD and DED. The Battalion medical department conducted combat first aid training with all personnel, including the use of litters and the correct procedures for a mass casualty situation. Also, one member of every squad was sent to the Combat Life Saving Course at Ahmed Al Jaber Airbase. Convoy immediate action drills were conducted to cover all aspects of near and far ambushes, breaching obstacles, and actions used during vehicle unloading procedures. Rear area security training covered the proper placement of hasty, two-man, and crew served fighting positions. Squad leaders were placed in fighting positions with their squads and performed ADDRAC fire commands. The squad leader issued all commands while firing at designated targets. Inner-camp security covered, ECP, searches of vehicles and EPW's, TACSOP actions during intruder in camp, breaching of the lines, and react team activation. Crew served weapons instruction included the proper usages of the weapons misfire procedures, cleaning of the weapons and the proper rates of fire during hostilities. All members of the Battalion were taken to the Udairi Range and Battle Site Zeroed (BZO) their M16A2E3. All personnel in Security Company conducted a familiarization fire of the M500 shotgun. Crew served weapon teams were trained in-depth. Any member of the Battalion with a previous crew served weapon qualification was re-trained and re-qualified with their weapon. Training using the AN/PVS 7C night vision goggles during driving operations was conducted in conjunction with a night driver's course. Personnel were instructed in Security Sweep Formations and immediate action drills for patrols. The proper use of HMMWV's during roving patrols and the different formations used during security sweeps was also completed.

CONVOY REHEARSALS

Recognizing that contingency operations would involve convoys over significant distances it became quickly apparent that convoy training would be critical to the battalion's success. Building upon the above training, NMCB 74 engaged in convoy training. Initial training involved command and control practice to move large vehicle convoys across unimproved roads with limited terrain features. Training progressively built to incorporate additional contingency operational requirements. Various size convoys were conducted during daytime and nighttime hours. Training included using NVG's, PLGR's, immediate action rehearsals, breakdowns, and command and control. Vehicles were loaded during the Bridge EX and convoys conducted to identify load improvements. Convoy dispersal and assembly formations were practiced.

The pre-hostilities training and rehearsals clearly improved convoy performances during Operation IRAQI FREEDOM.

BRIDGE REHEARSALS

Knowing bridge construction and repair would be a primary mission of the battalion; an aggressive bridge training program was developed. Various size and types of bridges were constructed in the bridge yard in Camp 93, Kuwait. Bridge construction included training on both the Medium Girder Bridge (MGB) and Mabey-Johnson Bridge (MJB). Mission requirements dictated the battaion's ability to construct a mole pier or use a pontoon/flexi-float system to bridge various distance gaps. Mole pier construction was based on using either sand pile culvert module (SPCM) or sheet piles to stabilize the mole pier.

In addition to the static bridge training, a Bridge Exercise was identified to practice the skills learned in Camp 93. SERT performed a site reconnaissance to identify an ideal bridge exercise location. Based on this location, the battalion convoyed to the remote site, conducted a security sweep, established perimeter security and started construction of a 43-meter Mabey-Johnson Bridge. In addition to the 43-meter Mabey-Johnson bridge, a 30m Medium Girder Bridge was completed during the 48 hour bridge exercise period. The bridge exercise included construction of a mole pier-using sheet piling and culvert installation.

Bridge training and mole pier training proved to be invaluable during the contingency operations. Construction speeds were dramatically improved from the training periods, which reflected actual field conditions.

SEABEE COMBAT WARFARE (SCW) TRAINING

During the SWA deployment, 59 enlisted personnel and 2 officers successfully qualified as Seabee Combat Warfare Specialist (SCW). A Robust SCW training program not only proved itself most beneficial to individual professional development, it also honed the skills of the many subject matter experts who played active roles in the training and board preparation process.

PHYSICAL TRAINING

Although physical training was discontinued during Southwest Asia deployment due to mission requirements, members were encouraged to conduct physical training on their own. Physical stamina was developed during training periods by wearing full combat loads.

CONTINGENCY OPERATIONS

Operation IRAQI FREEDOM presented new challenges for how Seabees train for defensive operations. Instead of having adjacent units and remaining in one central camp for extended durations, NMCB 74 was continuously on the move. Most camps were used for only a couple of days and prevented the utilization of time intensive defensive emplacements. NMCB 74 was tasked with defending a 360° perimeter at almost every site. Location selection was paramount to defensive positions. With the open terrain in many areas, foot patrols were replaced by vehicular patrols and proper placement of crew served weapons to cover the additional distances required. Primary enemy threats included terrorist actions such as vehicle or suicide bombers, enemy forces up to battalion strength and potential chemical and biological attacks. Each location presented a different set of force protection concerns that resulted in different defenses.

Leader's Reconnaissance was conducted at every camp to ensure optimum camp locations were selected. Force protection and construction site proximity/force protection were typically the governing criteria. Most prevalent enemy threats were used to determine placement of crew served weapons, which were the backbone of the defensive perimeters. ADDRAC and crew served weapons training was invaluable in the 360° defensive perimeters. Additional fighting positions were usually required at night due to reduced visibility. NVG's and trip flares greatly improved defensive capabilities during night hours.

Operation IRAQI FREEDOM

NMCB 74 Task Force MIKE Daily Chronology of Events

FEBRUARY 2003

- 01 FEB - Prepared Guam CESE for movement to Ali Al Salem AB (AAS) from Ahmed Al Jaber AB (AAJ).
- Task Force CHARLIE (TF C) and Task Force MIKE (TF M) personnel prepare to displace to AAS (TF C Personnel) and Camp 93 (TF C and TF M personnel).
- 02 FEB - Began transporting CESE from AAJ to AAS.
- Personnel displace to AAS and Camp 93.
- 03 FEB - Remaining personnel at AAJ prepared for movement to AAS and Camp 93.
- 04-05 FEB - CO, XO, and the remaining personnel displaced from AAJ to Camp 93.
- Plan and prepare schedule for Military Block Rehearsals.
- 06 FEB - Conducted Seabee Engineering Reconnaissance Team (SERT) training at AAS.
- Continue to make preparations for Military Block Rehearsals at Camp 93.
- Established Camp 93 COC tent and Antenna Farm (Ant Farm) capable of sending both HF voice and data messages.
- 07 FEB - Block rehearsals began, covering such topics as weapons handling, convoy immediate action drills, CBR decontamination, communications, and GPS navigation.
- 08 FEB - Continued block rehearsals.
- 09 FEB - Continued block rehearsals.
- 15 40-foot iso-containers of Mabey-Johnson bridge (MJB) parts arrived at Camp 93.
- Began unloading MJB parts in Camp 93 bridge staging area.
- Preventive Maintenance (PM) conducted on all CESE in preparation for future convoy operations.
- 10 FEB - Completed final day of block rehearsal.
- Continued to unload and stage MJB parts.
- Continued PM of CESE in preparation for future convoy operations.
- 11 FEB - Continued to unload and stage MJB parts.
- Continued PM of CESE in preparation for future convoy operations.
- 12 FEB - Conducted crane training and certification sessions in preparation for combat cargo loading and off-loading operations.
- SERT designated a MJB construction rehearsal site located in the TAA Coyote vicinity.
- Bridge team began MJB construction rehearsal in Camp 93.

- Operations developed plans to relocate COC tent to a more mobile Command Post (CP).
- 13 FEB - Continued crane training and certification sessions at Camp 93.
 - Bridge team continued MJB construction rehearsal in Camp 93.
 - Began vacating COC tent and performed minor modifications to Ant Farm tri-con.
- 14 FEB - Bridge team continued MJB construction rehearsal.
 - Berm breaching team began rehearsing at Camp 93.
 - Began construction of a mobile or "Jump" CP by securing two tri-cons on an MTRV flatbed.
 - Made preparations to convoy to Udari Range for small arms and crew serve weapons training.
- 15 FEB - Bridge and berm breaching teams continued rehearsals at Camp 93.
 - Practiced convoy operations en route to Udari Range.
 - Upon arrival at range, communications platoon assembled Ant Farm and established mobile HF voice and data communications.
 - Conducted small arms, crew serve weapons, communications, navigation, and temporary berthing (half-shelter) set up training.
- 16 FEB - Bridge and berm breaching teams continued rehearsals at Camp 93.
 - Training concluded at Udari Range.
 - Practiced convoy operations en route to Camp 93.
 - More modifications are made to Jump CP.
- 17 FEB - Bridge team completed rehearsals and began loading parts and CESE in preparation for bridge rehearsal at nearby site.
 - Continued berm breaching rehearsal at Camp 93.
 - Continued modifying Jump CP.
 - Cleaned weapons.
- 18 FEB - Bridge team continued to load parts and CESE in preparation for bridge rehearsal at nearby site.
 - Continued berm breaching rehearsal at Camp 93.
 - Completed final modifications to Jump CP.
 - Watch officers and communicators stood watch in new Jump CP.
 - Cleaned weapons.
- 19 FEB - Serials lined up in preparation for bridge rehearsal convoy.
 - Continued berm breaching rehearsal at Camp 93.
 - MOVAX hammer arrived and sheet pile driving training began at Camp 93.
 - CBR gear is inspected.
 - Stenciled "74" logo on all CESE.
- 20 FEB - Serials continued to prepare for bridge rehearsal convoy.
 - Continued berm breaching rehearsal at Camp 93.
 - Continued sheet pile driving training using MOVAX hammer attachment.
 - CBR gear is inspected.

- 21 FEB - Serials are finalized for bridge rehearsal convoy.
- Continued berm breaching rehearsal at Camp 93.
- Security convoy conducted security sweep of bridge rehearsal site.
- Mole pier crew departed to bridge site early to commence mole pier construction.
- 22 FEB - Remaining serials departed Camp 93 to bridge site at night to rehearse NVG convoy driving.
- Arrived at bridge site and set up Jump CP and Ant Farm for the first time outside of Camp 93.
- Security perimeter established at bridge site.
- Mole pier construction, Medium Girder Bridge (MGB), SPCM, and sheet piling continued.
- Completed berm breaching exercises at Camp 93.
- 23 FEB - Security team reinforced perimeter and interior force protection measures.
- 90-foot MGB completed and disassembled for pack up.
- Conducted CBR and MEDEVAC drills.
- Conducted litter bearer training.
- Received and offloaded MJB parts and began construction.
- 24 FEB - Reinforced security perimeter.
- Staged and loaded MGB parts for retrograde by TF C back to Camp 93.
- Personnel performed MEDEVAC and litter bearer exercises.
- Completed 40-meter MJB and began disassembly and pack up.
- 25 FEB - Finished staging bridge parts for TF C.
- Comms crew disassembled Jump CP and Ant Farm.
- Detached MSR repair crew from convoy back to Camp 93 for road repair training.
- Also detached a working party to remain at bridge site to assist TF C with retrograde.
- 26 FEB - Working party returned from bridge site.
- Performed PM on all CESE and bridge materials and parts at Camp 93.
- 27 FEB - Alfa and Charlie companies continued to PM CESE and bridge parts.
- Rehearsals continued with more NVG driving.
- Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.
- 28 FEB - Alfa and Charlie companies continued to PM CESE and bridge parts.
- Rehearsals continued with more NVG driving.
- Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.

MARCH 2003

- 01 MAR - Alfa and Charlie companies continued to PM CESE and bridge parts.
- Rehearsals continued with more NVG driving.

- Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.

02 MAR - MEG held a ROC drill brief at Camp 93.

- Alfa and Charlie companies continued to PM CESE and bridge parts.

- Rehearsals continued with more NVG driving.

- Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.

03 MAR - Conducted an hour-long camp-wide CBR drill.

- Leaders reconnaissance team surveyed Dispersal Area (DA) Stethem near the Line of Departure (the Iraqi-Kuwait border).

- Crew serve teams and designated squad leaders conducted grenade and crew serve weapons training.

- Alfa and Charlie companies continued to PM CESE and bridge parts.

- Rehearsals continued with more NVG driving.

- Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.

04 MAR - Conducted mandatory Rules Of Engagement (ROE) training for all troops.

- Leaders recon continued survey of DA Stethem.

- Grenade and crew serve weapons training continued.

- Alfa and Charlie companies continued to PM CESE and bridge parts.

- Rehearsals continued with more NVG driving.

- Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.

05 MAR - Conducted an hour-long camp-wide CBR drill.

- Alfa and Charlie companies continued to PM CESE and bridge parts.

- Rehearsals continued with more NVG driving.

- Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.

06 MAR - Conducted CBR gas mask drill.

- Alfa and Charlie companies continued to PM CESE and bridge parts.

- Rehearsals continued with more NVG driving.

- Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.

07 MAR - Conducted CBR and bunker drill.

- Distributed CBR suits and gear to ensure 100% CBR readiness.

- Alfa and Charlie companies continued to PM CESE and bridge parts.

- Rehearsals continued with more NVG driving.

- Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.

08 MAR - Alfa and Charlie companies continued to PM CESE and bridge parts.

- Rehearsals continued with more NVG driving.

- Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.
- 09 MAR - Completed ROE briefings.
- CO and CMDCM held personnel calls to address the troops.
 - Conducted the second and final leaders recon of DA Stethem.
 - Bridge team conducted flexifloat training and welding.
 - NVG training concluded.
 - Alfa and Charlie companies continued to PM CESE and bridge parts.
 - Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.
- 10 MAR - Beach Masters Unit 2 (BMU2) arrived in Camp 93.
- Bridge team continued with flexifloat training and welding.
 - Provided NMCB 4 with MJB roller and dunnage layout instruction.
 - Alfa and Charlie companies continued to PM CESE and bridge parts.
 - Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.
- 11 MAR - Conducted embedded media escort training.
- Bridge team continued with flexifloat training and welding.
 - Alfa and Charlie companies continued to PM CESE and bridge parts.
 - Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.
- 12 MAR - Received two embedded media personnel from Fox News and conducted OPSEC and safety briefs.
- Bridge team continued flexifloat training and welding.
 - Alfa and Charlie companies continued to PM CESE and bridge parts.
 - Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.
- 13 MAR - Held confirmation briefings.
- Modified Jump CP to minimize dust infiltration during heavy dust storms.
 - Alfa and Charlie companies continued to PM CESE and bridge parts.
 - Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.
- 14 MAR - Practiced convoy vehicle pre-start routines and Herringbone dispersion formation in preparation for DA Stethem.
- Bridge team continued flexifloat training and welding.
 - Alfa and Charlie companies continued to PM CESE and bridge parts.
 - Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.
- 15 MAR - Secured work for the day to participate in a sports and recreation day.
- 16 MAR - Bridge team continued with flexifloat training and welding.

- Alfa and Charlie companies continued to PM CESE and bridge parts.
 - Combat cargo and personnel loads of CESE are reevaluated and rearranged in preparation for contingency convoy operations.
- 17 MAR - Conducted final driver qualification session.
- Bridge team completed flexifloat training and welding.
 - Alfa Company completed CESE PM and reports 100% operational readiness of CESE.
 - Charlie Company completed their PM and loading of all bridging materials.
 - Combat cargo and personnel loads of CESE are finalized in preparation for contingency convoy operations.
- 18 MAR - Supply department collected remaining excess personal and resupply gear.
- BMU2 personnel and CESE are incorporated into convoy serials.
 - Combat cargo and personnel loads of CESE are finalized and inspected preparation for convoy to DA Stethem.
- 19 MAR - Received movement order to launch convoy to DA Stethem.
- Departed Camp 93 to DA Stethem following a delay caused by excessive convoy traffic.
- 20 MAR - Convoy arrived at DA Stethem early in the morning and disperses in the Herringbone formation.
- The Jump CP, Ant Farm, CBR monitors, and BAS are set up.
 - Doxycycline medication cycles are initiated.
 - Embedded media prepared a story for release.
 - Missile strikes cluttered the sky during evening hours and marked the beginning of hostilities in Iraq.
- 21 MAR - Contingency ammo issued to all personnel.
- All loads and manifests checked.
 - PM checks and pre-starts conducted on all vehicles.
 - Convoy departed DA Stethem during mid-day and continued movement throughout the following day.
- 22 MAR - Security team arrived at Assembly Area Shields and prepared and secured the area for main convoy.
- Convoy arrived at AA Shields after several hours of driving on unpaved roads.
 - The Jump CP, Ant Farm, CBR monitors, and BAS were set up.
- 23 MAR - Alfa Company PM'd all vehicles and CESE.
- Embedded media successfully released first story.
 - Reviewed course of action for MSR repairs along Highway 1.
- 24 MAR - Alfa Company continued to PM all vehicles and CESE.
- Detail sent out to a re-supply point to retrieve more Class 1.
 - Serials reviewed and adjusted in preparation for next convoy movement.
- 25 MAR - Severe storm prohibited movement.

-Continued maintenance operations.

- 26 MAR -Convoys departed AA Shields for Gap 5 on Hwy 1 at 0300.
-Arrived at Gap 5 and immediately begin MJB construction over a 50-meter dry gap.
-Security perimeters were established but certain parts of camp obstructed a main thoroughfare used by the local shepherders and farmers requiring security personnel to escort the local traffic through our camp.
- 27 MAR -Bridge crews worked through the night even as intelligence reports warned coalition forces of a 1,000-man group of enemy troops heading in our direction. Intel report was later found to be false but necessary security measures were taken and force protection was increased.
-Embedded media broadcasted live coverage of the bridge construction and an interview with Charlie Company Commander.
- 28 MAR -Bridge crew completed the 53-meter long Mabey Johnson Bridge.
-Received additional tasking to perform road repairs along MSR Tampa and later that day detached the MSR repair crew.
- 29 MAR -Embedded media recorded video of battalion convoy departing the Gap 5 site over the newly constructed MJB.
-MSR crew continued to make repairs.
-Convoy arrived at Wrigley Field and security and communications were established.
- 30 MAR -Crews continued to work on MSR culvert crossing repairs, Medium Girder Bridge improvements, and road height clearances at two locations.
-Dispatched more re-supply convoys.
- 31 MAR -MSR and MGB crews continued their tasking.
-Alfa company began preparing CESE and arranging serials for the next convoy movement.

APRIL 2003

- 01 APR -MGB Improvements completed.
-Improved culvert crossing at TF M location.
-Improved service road height bypass on gaps 3 and 4.
-Completed bridge height southbound bypass roads on Gaps 1 and 2.
- 02 APR -Convoy departed Wrigley Field and arrives at Staging Area (SA) Chesty.
-Commenced site improvements for berthing and laydown areas immediately upon arrival.
-MSR crew continued to work in the vicinity of Wrigley Field.
- 03 APR -Adjacent units at SA Chesty provided various camp improvement taskings.
-MSR crew continued to work near Wrigley Field.
-Began I MEF headquarters improvements.
-Provided scraper assistance for an ongoing AM2 matting project at An Numinayah Airfield.

- 04 APR - Detached the MJB bridge crew to construct the second MJB across the Saddam Canal on Hwy 27.
- MSR crew returned from Wrigley Field.
 - Additional crew sent to MSR repairs along MSR Pearl.
 - Main body continued to assist adjacent units and complete I MEF headquarters improvements.
- 05 APR - Main body continued to assist adjacent units with camp and facilities improvements.
- MJB crew began construction of mole piers using sheet piles and MOVAX hammers.
- 06 APR - Main body continued to assist adjacent units with camp and facilities improvements including ground work for a USMC shock/trauma medical unit helicopter landing pad.
- Alfa company assisted in the recovery of two downed Cobra Helicopters and one damaged MTRV.
 - MJB crew continued to build mole pier and assemble the bridge bays.
 - MSR Pearl crew continued their tasking.
- 07 APR - Alfa company assisted with berm improvements to a Patriot missile battery just north of our location.
- Began dust suppression for An Numinayah runway and adjacent units at SA Chesty.
 - MJB crew progressed much faster than expected and looks to be completed within a couple days.
 - MSR Pearl crew stops work and returned to SA Chesty as the AGSOC scope of work continued to change.
 - Main body continued to assist adjacent units with camp and facilities improvements.
- 08 APR - Dust suppression for An Numinayah runway and adjacent units at SA Chesty continued using an asphalt emulsion mixture.
- Patriot missile battery berm work also continued.
 - Saddam Canal MJB neared completion as the final bridge bays are installed and approach ramps are completed.
 - Camp improvements and miscellaneous tasking for adjacent units continued.
- 09 APR - The second MJB at Saddam Canal is completed.
- Began Humanitarian Assistance (HA) at the nearby town of An Numinayah by repairing a hospital generator.
 - Dust suppression, missile battery berm work, and AM2 matting earthwork continued.
- 10 APR - Patriot missile battery berm completed.
- HA at An Numinayah hospital continued.
 - Dust suppression and AM2 matting earthwork continued.
- 11 APR - Shortages of dust suppression mixture and environmental concerns results in the creation of a new mixture called "Rhino-snot".
- Began tasking to improve access road for MPs at SA Chesty.
 - Detached a detail to NMCB 4 to provide clean-up assistance at LSA Daly.
 - AM2 matting earth work and HA at An Numinayah hospital continued.

- 12 APR -Dust suppression, AM2 matting earthwork and HA at An Numinayah hospital continued.
 -Began tasking to improve access road for MPs at SA Chesty.
 -Constructed body pit and latrine holes for CSSB 135.
- 13 APR -HA at An Numinayah hospital continued with the construction of a ramp for wheelchair access.
 -Rhino-snot dust suppression and AM2 matting surface preparation continued.
 -Blue Force tracking system is installed in Headquarters' HMMWV.
- 14 APR -Two NMCB 74 personnel attended a civil affairs meeting to discuss pending HA work in An Numinayah.
 -Additional personnel detached to assist NMCB 4 at LSA Daly and Rasheed Airfield.
 -Continued clearing Rasheed Airfield runway and taxiway.
 -AM2 matting surface preparation completed and Rhino-snot dust suppression continued.
- 15-19 APR -All detached NMCB 74 personnel with NMCB 4 displaced to Rasheed Airfield where they removed truckloads of war-damaged aircraft and debris making the runways usable by coalition forces.
 -Several TF C convoys passing through An Numinayah delivered needed supplies and mail to personnel at SA Chesty.
 -Tasking continued at SA Chesty with dust suppression and the construction of more shower and head facilities.
- 20 APR -Chaplain conducted an Easter Service and RADM Kubic stopped by to speak to the battalion.
 -The majority of the Rasheed Airfield clean-up detachment returned to SA Chesty.
 -The remaining personnel stayed behind pending a FRAGO to repair a broken water line
 -Dust suppression continued.
- 21 APR -HA resumed in An Numinayah with the removal of several damaged vehicles from a soccer field.
 -The remaining personnel at Rasheed Airfield began repair of a broken water line.
 -Battalion doctor identifies a recent outbreak in SA Chesty as "Norwalk Virus", a gastro-intestinal virus that takes an average of two days to fully pass through a person's system once contracted.
 -Dust suppression continued.
- 22-23 APR -HA efforts continued both in Rasheed with the waterline repair and in An Numinayah as vehicle wrecks are removed.
 -Dust suppression continued.
 -The Norwalk Virus continued to run its course throughout SA Chesty.
- 24 APR -A large Detachment was sent out to Bridge Park (BP) Davisville to construct shower and toilet facilities and to perform mole pier reinforcement at ASR Hucneme.

- HA efforts wrapped up in Rasheed as water lines were restored and An Numinayah soccer field was cleared of all vehicle wrecks and graded.
 - Dust suppression crew completed their tasking and all remaining CESE underwent PM checks and repair in preparation for main body convoy to BP Davisville.
- 25 APR - Alfa Company finished final serial reviews and vehicle loading.
- Heavy dust storm persisted throughout the day as personnel pack up and dismantle GP Medium tents.
 - Det at BP Davisville continued to construct shower and toilet facilities.
- 26 APR - Battalion conducted final clean-up sweep of SA Chesty camp area and turned over a few pieces of CESE to NMCB 4.
- Convoy departed SA Chesty and arrived at BP Davisville two hours ahead of schedule. Upon arrival, the medical staff was flooded with several cases of the Norwalk Virus. Later that night, the mole pier crew completed necessary tasking and returned to BP Davisville from ASR Hueneme.
- 27 APR - The medical staff continued to treat and turnover more Norwalk patients.
- Alfa company dispatched the first wave of convoys of slow-moving CESE back to Camp 93 and AAS for retrograde.
 - Shower and toilet facilities completed and ready for delivery.
- 28 APR - Convoy dispatched to Ad Diwaniyah to deliver shower and head facilities and to continue north to retrieve two pieces of CESE from Babylon.
- Continued to dispatch more slow-moving CESE back to Camp 93 and AAS for retrograde.
- 29 APR - Conducted a SCW pinning ceremony for recently qualified personnel.
- Observed decrease in Norwalk Virus cases.
 - Performed necessary PM of all remaining CESE.
 - Dispatched the final convoy of slow-moving CESE back to Camp 93 and AAS for retrograde.
- 30 APR - Conducted camp retrograde in preparation for final convoy to Camp 93 in Kuwait.
- Performed necessary PM of all remaining CESE and prepared serials for departure.

MAY 2003

- 01 MAY - Security element sent north to assist Babylon convoy in retrieving CESE.
- After the last HF data messages were sent, the communication crew dismantled the antenna farm and Jump CP and took their place in the serials.
 - Convoys departed BP Davisville, Iraq, by noon and arrive at Camp 93, Kuwait, later that evening.
 - Timeline continues in OIF Task Force Charlie Chronology of Events.

OPERATION IRAQI FREEDOM TASKING

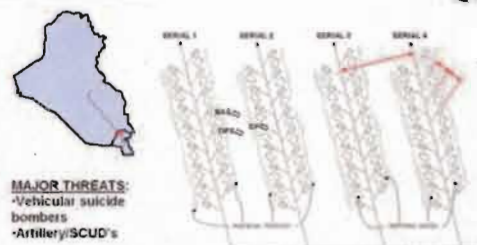
ASSEMBLY AREA STETHEM, (AA HAWKINS, KUWAIT)

AA STETHEM, IRAQ

FRAGO #: 054 & 048



AA STETHEM



MAJOR THREATS:
-Vehicular suicide bombers
-Artillery/SCUD's

PROTECTIVE MEASURES:
-Crew serve weapons covering 360 perimeter in conjunction with NMCB 4
-Adjacent units in dispersal area including NMCB 4 & TF M
-Vehicular & foot patrols with react force

Scope of Work Summary:

Provide tactical dispersion from enemy indirect weapons, by staging CESE in a herringbone formation with approximately 70 meters between each vehicle. Security is maintained using eight HMMWV's manned with seven M60 machine guns and one M2 50 cal machine gun set security to the west and east. Two adjacent units were on the north and south side. Provide two HMMWV's with M60's as a roving patrol along the adjacent units and six HMMWV's to the west and east. Vehicular patrols were used for react force and intercepting approaching personnel. Roving fire team sized patrols were established on the interior of the camp. LP/OP's were dispatched with M22 chemical alarms to assist in early detection.

Start date: 20 Mar 03
Completion date: 21 Mar 03

DISPERSAL AREA SHIELDS, (LSA VIPER, IRAQ)

DA SHIELDS, IRAQ

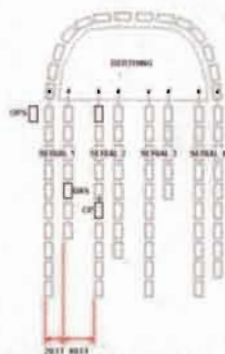
AA SHIELDS



GRID COORDINATES:
38RPU61658334

DATES:
22 - 26MAR03

PROJECTS / INTENT:
-PREPARE FOR BRIDGE MISSION.
-ESTABLISH 360 DEGREE SECURITY PERIMETER.



Above: Location in Kuwait

Right: Region's most severe sandstorm in 20 years hinders operations

Scope of Work Summary:

Dispersion Area Shields location was chosen by Task Force MIKE Command Element. NMCB 74 was tasked with the Security of the area. Security Company set a 360° perimeter with the use of eight HMMWV's outfitted with a crew serve weapon/team and established twenty two-man fighting positions utilizing Alfa and Charlie Company personnel. Two trenches were dug around the perimeter of the dispersion area at 25 meters and 100 meters to prevent the use of suicide truck bombers. Two ground mounted MK-19's were placed to the North and South, a ground mounted M2 50 cal to the east, and two ground mounted M60 machine guns to the west. The eight HMMWV's were displaced on a 270° perimeter and NMCB 4 assisted with 90° from the North to East. NMCB 4 utilized three HMMWV's with M60 machine guns and a M2 50 cal machine gun emplacement. The crew serve weapons utilized on the NMCB 74 HMMWV's were seven M60's and one M2 50 cal machine gun. Fire team's conducted roving patrols for inner camp security.

Start Date:	22 Mar 03
Completion date:	26 Mar 03

HIGHWAY ONE, MABEY- JOHNSON BRIDGE

MSR TAMPA, IRAQ



Scope of Work Summary:

Construct 54 meter Mabey-Johnson over existing highway gap. Iraqi Highway 1 (MSR Tampa) was used as a key logistical re-supply route during IRAQI FREEDOM. Still under construction, the highway had several unfinished sections of roadway and numerous canal-crossing gaps that were not completed. These gaps had to be bypassed using service roads - some of which were nearly impassable to non-tactical vehicles - causing delays and choke points for logistics supply convoys. Gap 5 was an unfinished bridge irrigation canal crossing.

Project Start Date:	27 Mar 03	Average Crew Size:	135 personnel
Project Completion:	30 Mar 03	Total Project Man-days (MDs):	540

Specifications:

- The crew erected a 54-meter Mabey-Johnson non-standard bridge to span the uncompleted sections of the existing bridge. They also constructed earthen approach ramps on each side of the completed bridge.

Force Protection Issues:

- 360° defensive perimeter and construction site security was required throughout contingency operations

Significant QC/Safety Issues:

- Most soil in the area was not compactable. With a significant amount of clay and silts from the dredging operation, soil had to be hauled from other nearby locations to achieve satisfactory compaction

Significant Material/Equipment Issues:

- Weapons had to be cleaned with every security shift change due to high level of dust.

HIGHWAY ONE CAMP (GAP 5)

MSR TAMPA, IRAQ

ROUTE 1 GAP 5

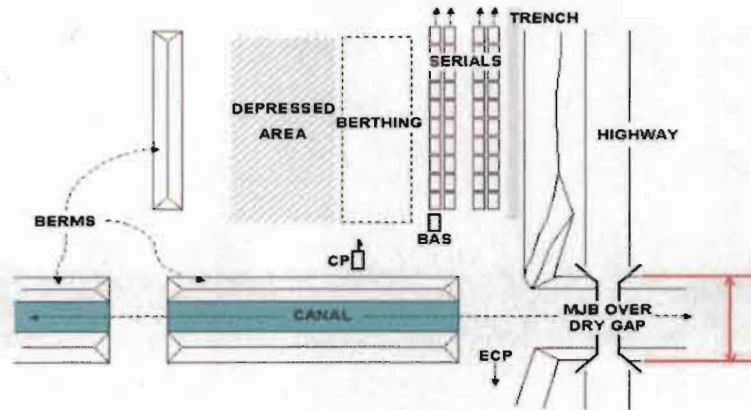


GRID COORDINATES:
38RNV89655060

DATES:
26 - 29MAR03

PROJECTS / INTENT:

- CONSTRUCT 1ST MJB FOR OPERATION IRAQI FREEDOM.
- ESTABLISH 360 DEGREE SECURITY PERIMETER.
- ASSIST MARINES WITH TANK RECOVERY.



Scope of Work Summary:

The camp was divided into sectors using a clock face as a template. North was twelve o'clock. Security Company was responsible for the twelve to three and the six to nine. Charlie Company was responsible for the three to six and Alfa Company was responsible for nine to twelve o'clock. Security Company established a 360-degree perimeter using eight HMMWV's with M60 machine guns and one M2 50 cal. Charlie Company used a MK-19 grenade launcher and two M60 machine guns and Alfa utilized two M2 50 cal machine guns and a MK-19 grenade launcher. Inter security was established by fire team sized roving patrols. LP/OP's were placed up and down the river and ECP's were established North and South on the roadway. Trip Flares were placed around the defensive perimeter.

Start date: 26 Mar 03
Completion date: 29 Mar 03

WRIGLEY FIELD STAGING CAMP

WRIGLEY FIELD, IRAQ

CAMP WRIGLEY FIELD

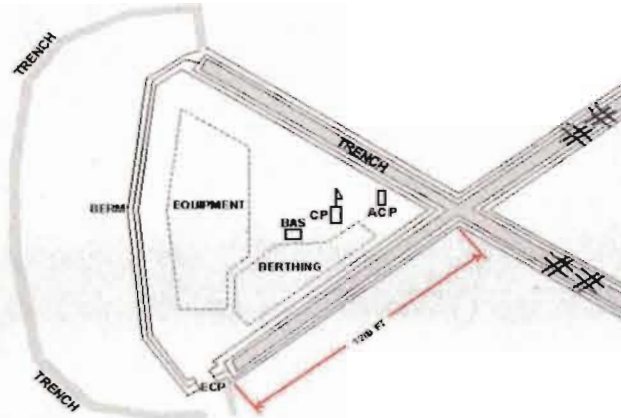


MAJOR THREATS:

- Vehicular suicide bombers
- Enemy forces from ditches or Route 1

PROTECTIVE MEASURES:

- Utilization of existing trenches & berms plus new western trench
- Crew serve weapons covering primary avenues of approaches w/ trip flairs in trenches
- ECP with check point



Scope of Work Summary:

The Main Supply Route tasking required the battalion to select the site along a 20 kilometer section of highway 1. As a result, the camp was positioned adjacent to an existing berm and irrigation canal. The triangle-shaped camp included two long sides of the camp with a ten-foot berm followed by a twelve foot deep by 15-foot wide trench and then another ten-foot berm. Security Company at the base of the triangle set security to the North with four HMMWV's and eight fighting positions. An Entry Control Point was established on the northwest side. Five M60's were used to secure this area. Alternate and supplementary positions were also dug. Alfa Company manned the east side with two M2 50 cal machine guns and one MK-19 grenade launcher. Charlie Company covered the west with a MK-19 grenade launcher, M2 50 cal machine gun and two M60's. Trip flares were placed in front of the perimeter. A vehicle trench was dug to eliminate possible vehicles entering the defensive perimeter. Security Company provided all security for convoys and all detachments that were tasked to NMCB 74.

Start date: 29 Mar 03
Completion date: 02 Apr 03

MAIN SUPPLY ROUTE TAMPA - IMPROVEMENTS

WRIGLEY FIELD, IRAQ



Scope of Work Summary:

To support the advancing assault forces, log train supply convoys needed to be able to travel the supply routes faster than the original conditions allowed. MSR Tampa (HWY 1) is an unfinished 6-lane highway that connects An Nasariyah to Baghdad. An 80 km stretch of this Highway from The Euphrates River North contained 5 gaps and 8 culvert crossings. Four of the gaps were bypassed and all 8 culverts were filled and compacted by NMCB 74 to allow the logistical convoys to travel the road faster.

Project Start Date:	27Mar03	Average Crew Size:	22 personnel
Project Completion:	30Mar03	Total Project Man-days (MDs):	540

Specifications:

- The crews graded and compacted bypasses for the 4 gaps and filled in 8 culverts by moving 8,000 CY from the adjacent areas to the roadway. The result of this work increased the average speed through this stretch of highway from 20 mph to 35 mph.

Force Protection Issues:

- Drive by fire from enemy troops traveling in vehicles down Route 1.

Significant QC/Safety Issues:

- Threat of personnel being hit by passing vehicles due to heavy traffic and continuous dust clouds.

Significant Material/Equipment Issues:

- Operator PM's were critical to ensuring vehicles were mission ready.
- Crew served weapons had to be cleaned with every security shift change due to high level of dust.

**WRIGLEY FORWARD ARMING AND REFUELING POINT (FARP) BY-PASS
CONSTRUCTION**

WRIGLEY FIELD, IRAQ



Scope of Work Summary:

Wrigley FARP was created by using a paved section of Highway 1 as a landing strip creating the need for a by-pass road. Heavy traffic from logistic convoys degenerated the original by-pass roads. The Wrigley Field By-Pass Project intended to create an improved by-pass road. Construction included grading pulverized areas, hauling in over 1,100 CD of fill over a 3 km section of road. Project was halted at approximately 50% completion when FARP was closed.

Project Start Date:	02 Apr 03	Average Crew Size:	20 personnel
Project Completion:	04 Apr 03	Total Project Man-days (MDs):	40

Specifications:

- By-pass road needed to support heavy traffic from logistic convoys.

Force Protection Issues:

- The threat was possible terrorist bombers in pick-up trucks and small squad sized paramilitary units.

Significant QC/Safety Issues:

- N/A

Significant Material/Equipment Issues:

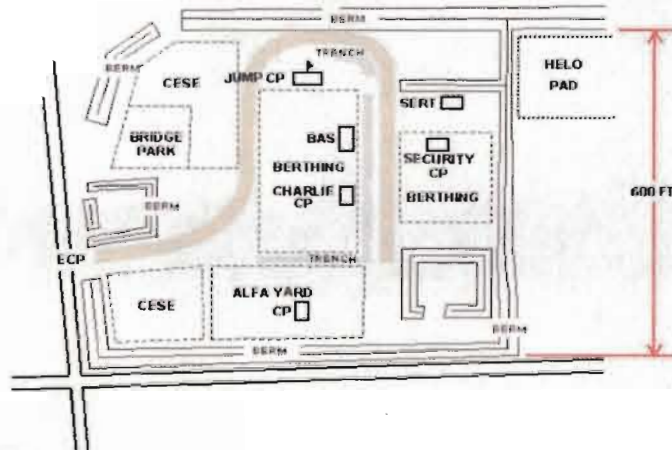
- Operator PM's were critical to ensuring vehicles were mission ready.
- Crew serve weapons had to be cleaned with every security shift change due to high level of dust.

SA CHESTY CAMP

AN NUMANIYAH, IRAQ

FRAGO #: 025

SA CHESTY



MAJOR THREATS:

- Vehicular suicide bombers
- Initial chemical/biological threat

PROTECTIVE MEASURES:

- 2 meter high perimeter berm and inner berm
- Meandering ECP w/ check point
- Bunkers

Scope of Work Summary:

Adjacent units surrounded the camp's position. When in Support Area (SA) Chesty located at An Numaniyah Air Field, security Company provided fire team sized roving patrols for inner camp security and established an entry control point to limit vehicle traffic and control weapon's conditions. Security Company personnel were fraged to NMCB 4 to assist in the security of their position at Camp Daily and at their project site. Sixty personnel were sent from Security and Charlie Company to augment NMCB 4's security forces. Security personnel also continued to escort all battalion personnel and equipment on convoy missions.

Project Start Date:	04 Apr 03	Average Crew Size:	70 personnel
Project Completion:	24 Apr 03	Total Project Man-days (MDs):	200

SADDAM CANAL, MABEY- JOHNSON BRIDGE

AN NUMANIYAH, IRAQ

FRAGO #: 053



Scope of Work Summary:

Existing Route 27 Saddam Canal crossing bridge was classified MLC 20 and determined unsafe for use by most military vehicles. Located near Staging Area Chesty/An Numaniyah Airfield and along a key connector route between Highways 1 and 7 and 1 and 6 the route was critically important for coalition forces. The USMC 8th Engineer Support Battalion placed a ribbon bridge across the canal permitted flow of forces and supplies in the region until a permanent non-standard bridge could be erected.

Project Start Date:	03 Apr 03	Average Crew Size:	180 personnel
Project Completion:	07 Apr 03	Total Project Man-days (MDs):	560

Specifications:

- A 73-meter gap at the road level, a 15-meter sheet pile and whaler with concrete barrier anchor mole pier was constructed on each side of the river. Backfilled with building debris and on-site soil, the mole piers narrowed the gap to 44 meters and a 54-meter Mabey-Johnson MLC 80 non-standard bridge was erected adjacent to the existing MLC 20 bridge. Finally, a Mabey-Johnson emergency ramp set with earth foundation was constructed for both bridge approaches.

Force Protection Issues:

- Heavy traffic by local citizens on existing bridge, created significant security threat. Vehicles were stopped, searched and monitored.
- Area was recent site of USMC/Iraqi firefight and still considered high threat area.

Significant QC/Safety Issues:

- Fall hazard from bridgework. Personal floatation devices were issued to personnel working near water.
- High temperatures and heat related injuries were concern.

Significant Material/Equipment Issues:

- Bridge had to be delivered from Davisville.
- MOVAX kept rupturing hydraulic lines while driving sheet pile.

AIRFIELD DUST SUPPRESSION

SUPPORT AREA (SA) CHESTY

FRAGO #: 053 & 044



Scope of Work Summary:

As a result of a few mishaps associated with dust during the take-off and landing of aircraft throughout the 1 MEF AOR, dust suppression became critical to improving the safety of flight operations. At the An Numaniyah Airfield, NMCB 74 significantly reduced the dust created during takeoffs and landings by grading, compacting, and encapsulating the areas adjacent to the runway and taxiways. Aircraft stationed at the airfield included: CH-46, Medevac, Cobra helicopters, C-130s and Harriers.

Project Start Date:	04 Apr 03	Average Crew Size:	5-10 personnel
Project Completion:	24 Apr 03	Total Project Man-days (MDs):	200

Specifications:

- The crew graded, compacted and stabilized 1,101,000 SF area that included a 30' wide section along all of the paved surfaces at the airfield. 16,000 gallons of MC 70, 2,255 gallons of Capsoil, and 4,400 gallons of JP8/oil mixture with a 2:1 mixture were used to suppress the dust created during aircraft operations.

Force Protection Issues:

- Project was located in a secure runway within SA Chesty. As a result, local security at the jobsite was not required.

Significant QC/Safety Issues:

- "Rhino Snot" would not bond enough for dust suppression.

Significant Material/Equipment Issues:

- "Rhino Snot," MC 74 and oil were not readily available.

AL RASHEED AIRFIELD CLEARING

BP DAVISVILLE, IRAQ

FRAGO #: 052



Scope of Work Summary:

Airfields within Iraqi cities, were damaged and blocked to prevent use by coalition aircraft. Barriers, berms, large aircraft parts (wings, fuselages, etc), and abandoned vehicles were staged on the runways and taxiways. In support of Phase IV operations, the debris was to be removed and minor improvements completed to make the airfield operational for future supply, personnel, and equipment deliveries. NMCB 74 was tasked to remove and dispose of the obstacles and debris on Al Rasheed Airfield.

Project Start Date:	15 Apr 03	Average Crew Size:	12 personnel
Project Completion:	20 Apr 03	Total Project Man-days (MDs):	81

Specifications:

- The crew removed and disposed 85 tons of debris on the 8,000 foot long Al Rasheed Airfield. Debris included aircraft fuselages, wings, tails, metal desks, file cabinets, and trucks. Crew also cleared and cleaned a 50' x 80' warehouse to be used for storage.

Force Protection Issues:

- 360° defensive perimeter was required throughout contingency operations.

Significant QC/Safety Issues:

- Debris presented a health and personal injury concern.

Significant Material/Equipment Issues:

- Operator PM's were critical to ensuring vehicles were mission ready.

DIYALA WATERLINE PROJECT

AL RASHEED AIR FIELD, IRAQ

FRAGO #: 053



Scope of Work Summary:

A main waterline crossing the Diyala River in East Baghdad runs under Bridge No. 3. During the coalition advance on Baghdad, it was partially destroyed by Iraqi forces hoping to delay any advance into the city. A 90' length of the waterline was destroyed along with the partial bridge destruction. Using civilian equipment and locally available materials, the detail reconnected the waterline until more permanent repairs could be made to both the bridge and water line.

Project Start Date: 19 Apr 03
Project Completion: 21 Apr 03

Average Crew Size: 10 personnel
Total Project Man-days (MDs): 60

Specifications:

- The destroyed section of 12" steel waterline ran from the West bridge abutment base, rose approximately 20' and continued horizontally east under the bridge's edge for 90'. TFM CE 74 had to clear away approximately 2500 cubic yards of twisted and tangled concrete, rebar, electrical lines and fallen roadway to clear the work site. Then, using bolted and welded fittings and sections of pipe they constructed the pipeline splice and supporting braces needed to reconnect the water main and help restore flow to a key section of the City's water distribution network.

Force Protection Issues:

- The threat was artillery attack and possible paramilitary and or terrorist activity.

Significant QC/Safety Issues:

- The water line was suspended from the bridge making safety a real challenge; therefore, harnesses were used to suspend personnel from the bridge to work on the piping.

Significant Material/Equipment Issues:

- Parts and materials to make necessary repairs were difficult to locate and procure causing minor delays.
- Oxygen and acetylene used for welding were scarce.
- As this project was later in the deployment, the crew had expended the majority of the battalion's oxygen and acetylene. Bottles acquired locally had metric fittings, which were not compatible with TOA welders. The machine repairmen fabricated special adapters to fit the metric bottles.

HUMANITARIAN ASSISTANCE

AN NUMANIYAH, IRAQ

FRAGO #: 055



Scope of Work Summary:

The battalion's Task Force MIKE element was tasked to coordinate with the 3rd Battalion 2nd Marines (3/2) to provide humanitarian assistance in the city of An Numaniyah. Several meetings were held with Civil Affairs Group (CAG), whose mission was to get city workers back to work teaching, collecting trash, fixing electrical lines and transformers and running other city government functions. During these meetings, CAG indicated the ideal Seabees assistance would be providing technical assistance to city workers and provide materials and machinery in areas where the city's assets were insufficient. After attending several city council meetings and school board meetings, three major sources of Seabee assistance were identified, pending the arrival of Class IV material and civilian engineers.

First priority, re-energizing power to essential buildings including the fire station, water pump station and hospital. 3/2 Marines located a 1 MW generator while city engineers analyzed how to connect to An Numaniyah's existing power grid. A successful installation resulted in restoring city water and providing power to the hospital and fire station. In addition, battalion mechanics provided support to complete a major overhaul on An Numaniyah's hospital emergency generator.

Cleaning and repairing elementary schools in An Numaniyah was also completed. Pressure washing the walls and ceilings from smoke damage and clearing debris from the classrooms enabled the schools to open.

Using a 30T hydraulic crane, dump trucks and flatbed trailers, 15 vehicles and multiple pieces of vehicles were removed from the city. The removal of an armored tank from under power lines was vital, enabling electricians to gain access and repair the damaged power lines. With the exception of two vehicles that had not been cleared by EOD, all

military vehicles had been removed from the city of An Numaniyah and transported to the local landfill.

Regarding long-range infrastructure development, a baseline assessment matrix was computed. Sewage systems, power distribution and water system upgrades were identified as necessary projects.

Project Start Date:	15 Apr 03	Average Crew Size:	12 personnel
Project Completion:	20 Apr 03	Total Project Man-days (MDs):	81

Specifications:

- N/A

Force Protection Issues:

- Local civilians were working and gathering in HA construction areas.

Significant QC/Safety Issues:

- N/A

Significant Material/Equipment Issues:

- No Class IV material was available so level of humanitarian assistance was limited.

3RD BN 2ND MARINES FORCE PROTECTION IMPROVEMENTS

AN NUMANIYAH, IRAQ

FRAGO #: N/A



Scope of Work Summary:

3rd Battalion 2nd Marines Regiment (3/2) was assigned to maintain security in An Numaniyah. The battalion was tasked to support the 3/2 with a perimeter berm, HMMWV fighting positions, an access road, and other requested tasks.

Project Start Date:	19 Apr 03	Average Crew Size:	4 personnel
Project Completion:	25 Apr 03	Total Project Man-days (MDs):	24

Specifications:

- Using a dozer, grader, and Front End Loader, the crew constructed: a security berm 6' tall 900' long, three 10' x 10' HMMWV fighting positions, an 1,800' x 20' access road, two 5' x 20' dirt pads for water bladders, and a 150' x 150' level area for physical training.

Force Protection Issues:

- Force Protection improvements were mainly along perimeter of 3/2 Marines' position in An Numaniyah city. Heightened security awareness was required throughout construction activities.

Significant QC/Safety Issues:

- Excessive heat and sun required close monitoring.
- Work was conducted around remnants of fighting including destroyed Iraqi vehicles.

Significant Material/Equipment Issues:

- Operator PM's were critical to ensuring vehicles were mission ready.

SUPPORT AREA CHESTY, CO DISCRETIONARY PROJECTS

AN NUMANIYAH, IRAQ

FRAGO #: N/A



Scope of Work Summary:

The battalion Task Force MIKE element received FRAGO 025 to displace to SA Chesty, located at An Numaniyah Airfield, to remove over 165,000 CD of dirt piles that were placed on the runway according to intel depicted on various photos. Upon arriving, the dirt piles turned out to be misinformation. Unsure what missions were awaiting, TF M CE 74 set up and started taking daily tasks from adjacent units, entering the area. This location became the battalion's longest stay. Every day, Task Force Mike's tasks were prioritized according to MEF mission needs and available personnel, equipment and Class IV materials. While at SA Chesty, 69 projects for 39 different commands were completed. Projects included a wide range of services from construction of 2-hole burnouts, installation of culverts, construction of roads, force protection improvements, debris removal, helicopter recovery, ramp for medical personnel, shelving for PX and dust suppression.

As a result of the heat, dry condition and wind, a major issue was dust suppression. Dust was affecting mission readiness of all units including the airfield, hospital units even MEF HQ. As a result, a robust dust suppression effort was implemented. Even with three USMC Engineering Support Battalions (ESB) and two Marine Wing Support Squadron's (MWSS), the battalion turned out to have the only capability of implementing a dust control program. Based on the availability of products and equipment, gravel, water, Capsoil, a fuel/oil mixture and petroleum cutback was used to fight the dust. With limited amounts of each type of product, application had to be tailored to each need and what was available. Capsoil was used in high dust areas with no traffic, petroleum cutback was used in high dust areas with high traffic and fuel/oil mixture was used in medium dust and medium traffic areas. Gravel was used in high vehicle traffic areas away from the airfield. Water was used on lower mission areas to provide some level of dust control.

Project Start Date:	04 Apr 03	Average Crew Size:	Various
Project Completion:	26 Apr 03	Total Project Man-days (MDs):	677

Specifications:

- The battalion completed 69 projects for 39 clients over 22 days were completed. 2-Hole burnout plans were modified to allow individual stalls, more stability for transportation and less class IV material requirements. Modified 2-hole burnouts were constructed providing better transportability, privacy and sturdiness. Individual shower stalls were constructed. Grounds were graded and rolled for a variety of units. Helo pad was graded and rolled. Crane operations included helicopter recovery at various locations, removal of stripped vehicles and offloading of various containers throughout SA Chesty. Culverts were installed to provide water flow for ROPU's, local population and dust suppression. Force protection projects included berms, egress roads, debris clearing and SPCM placement. Gravel was hauled daily and placed at various high traffic areas around SA Chesty.

Force Protection Issues:

- N/A

Significant QC/Safety Issues:

- Extreme heat, dust storms and Norwalk virus.

Significant Material/Equipment Issues:

- Operator PM's were critical to ensuring vehicles were mission ready.

1st MARINE DIVISION SUSTAINMENT SUPPORT

BP DAVISVILLE, IRAQ

FRAGO #: 059 & 055



Scope of work summary

Phase IV operations during IRAQI FREEDOM necessitated a shift from maneuver warfare to occupation, security and humanitarian assistance operations. To support this, the battalion was tasked to build two-hole burnouts for Marines operating from base camps in the Ad Diwaniyah region of Iraq.

Project Start Date:	22 Apr 03	Average Crew Size:	30 – 36 personnel
Project Completion:	24 Apr 03	Total Project Man-days (MDs):	200

Specifications:

- The crew constructed 100 two-hole burnouts using standard 2 x 4 framing and plywood.

Significant QC/Safety Issues

- Design of 2-hole burnouts was modified to minimize damages during transportation and additional privacy.
- Excessive heat and sun required close monitoring.
- Frequent dust storms require goggles and reduced visibility greatly.

Significant Material/Equipment Issues:

- Non-availability of Class IV materials created significant delays in the completion of this project. Pre-fabrication could only proceed on available Class IV materials and eventually had to be halted until additional Class IV arrived.

SADDAM CANAL, MOLE PIER REINFORCEMENT PROJECT

SADDAM CANAL & ASR HUENEME, IRAQ

FRAGO #: 055



Scope of Work Summary:

The Saddam Canal Mole Pier Reinforcement project included reshaping the flow of the canal and placing sheet pile to protect the abutments. NMCB 4 had previously constructed the 51-meter Mabey-Johnson Bridge. To ensure longevity of the bridge NMCB 74 was tasked with reinforcing the areas around the abutments. To eliminate the potential abutment failure, fill was placed upstream of the bridge to divert the running water and 120-sheet pile were driven to prevent the water from scouring the soil beneath the abutments.

Project Start Date:	24 Apr 03	Average Crew Size:	15 personnel
Project Completion:	27 Apr 03	Total Project Man-days (MDs):	80

Specifications:

- The crew reinforced both bridge abutments by placing 15,000 CY of fill and driving 1840 LF of sheet pile. Fill operations consisted of four-20 ton rock dumps averaging 20 loads per hour, with 15 CY per load. 120 sticks of sheet pile were driven to depths ranging from 10-25 feet. Material- 46 sheets of 40' long, 24" wide pile

Force Protection Issues:

- Area contained many locals that frequently came up to defensive positions.

Significant QC/Safety Issues:

- Work was conducted on Saddam Canal requiring use of personal floatation devices.

Significant Material/Equipment Issues:

- Operator PM's were critical to ensuring vehicles were mission ready.

TASK FORCE MIKE CESE

CESE was selected primarily to construct a mole pier and Mabey-Johnson bridge across the Euphrates River near An Nasariyah. In addition to the planned mission, considerations for versatility and maneuverability were major factors in CESE selection. Also, main supply route (MSR) repair and maintenance as well as runway clearing were taken into consideration. After extensive planning it was determined that the following CESE would be used:

DESCRIPTION	FUNCTION	QTY
Rolling		
HMMWV	Security & Convoy control	13
MTVR	PAX & Cargo	11
Tractor	Line haul	21
Dump truck	Material transport	29
Maintenance truck	Support	5
Water truck	Decon & distribution	4
Crane	Support	1
Grader	Construction	3
Front End Loader	Construction	4
Excavator	Construction	2
Dozer	Construction	4
Fork lift	Material loading	4
Rollers	Construction	2
Trailer Highboy	Material/Equipment transport	5
Trailer Lowboy	Equipment transport	16
MR trailer	Support	1
		sub-total 125
Support		
Light Plant	Power supply/ lighting	8
Water Bull	Potable water storage	7
Air Compressor	Support	3
Welder	Support	1
Saw Trailer	Construction	1
Dolly	Hual support	2
Fuel Sixcon	Fuel storage	12
Water Sixcon	Potable water storage	10
15 KW Generator	Power supply	2
M-17	Decon	4
Mud pump	Water resupply	2
3000-D	Water purification	1
		sub-total 53
		TOTAL 178

Maneuverability was also a very important factor to consider while choosing the CESE to take forward, and it prevented the option of taking redundant or extra equipment.

By not having the luxury of extra equipment readily available, the requirement for a high availability factor was crucial. Through diligent first echelon maintenance and an aggressive PM cycle the unit achieved a 99% availability factor and was able to complete every assigned mission and assist in countless discretionary projects.

In order to concentrate on the critical items of CESE, the preventative maintenance program was modified from the standard 40-day cycle to the manufacturer's recommendations for the hot, dry, dusty environment. This plan was very successful, and every unit of CESE was returned from the operation.

In addition to the 135, 01 and 02 repairs, the maintenance shop completed 100 interim repairs. Despite limited supply parts, major repairs including a damaged alternator, a failed starter, and five broken drive trains were repaired while deployed in Iraq. If these items had not been repaired, the mission capabilities would have been decreased significantly.

Operation IRAQI FREEDOM

NMCB 74 Task Force CHARLIE Daily Chronology of Events

JANUARY 2003

- 30 Jan** -TF-C established by MSG COM IMEF ENG GRP/260915Z/JAN/03.
-Situation Overview at Establishment: Task Force Charlie is deployed to Al Jaber and Ali Al Salem airbases OPCON to MEG with NMCB 74 Det as a major subordinate element. Task Force Charlie assumed MARCENT prep tasks from Task Force Mike, facilitating bed down, and training for 1003v operations.
- 31 Jan** -TF-C personnel assisted TF-M in finishing MARCENT prep tasks at Al Jaber.

FEBRUARY 2003

- 01 Feb** -Key personnel attended ROC drill at Camp Morecell.
-Personnel assisted TF M in finishing MARCENT prep tasks at Al Jaber.
- 02 Feb** -Personnel assisted TF M in finishing MARCENT prep tasks at Al Jaber.
- 03 Feb** -Personnel assisted TF M in finishing MARCENT prep tasks at Al Jaber and moving to Camp 93.
-Sent one E7 to oversee camp construction at Assembly Area Fox.
-Sent roller and grader to prepare and maintain roads at Assembly Area Fox.
- 04 Feb** -Personnel assisted TF M in finishing MARCENT prep tasks at Al Jaber and moving to Camp 93.
- 05 Feb** -Began Exercise Forge Blast. Exercised NMCB 5, 74 and 133 response cells located at Camp Morecell.
-Continued move from Al Jaber to Camp 93.
- 06 Feb** -Continued move from Al Jaber to Camp 93.
-TF-C took over security and camp maintenance of Camp 93.
- 07 Feb** -Concluded Exercise Forge Blast.
- 08-10 Feb** -Continued security and maintenance of Camp 93.
- 11 Feb** -Conducted operational planning for line haul mission.
-Developed standard equipment and personnel requirements.
- 12 Feb** -Completed hasty fighting positions and medical strongback at Camp 93.
- 13 Feb** -Conducted operational planning for main supply route repair and maintenance mission.
-Began berm construction for the Patriot Missile Battery, project KUF-001, located south of Camp 93.

- Separated CESE between TF-M and TF-C.
 - Submitted training plan for TF-C personnel.
- 14 Feb** - Began construction of the TF-C forward COC Seahut.
- Continued work on the Patriot missile battery berm.
- 15 Feb** - Conducted synchronization planning for TF-C.
- 16 Feb** - Continued security and maintenance of Camp 93.
- 17 Feb** - Completed Patriot Berm.
- 18 Feb** - Continued security and maintenance of Camp 93.
- 19 Feb** - Completed BZO and crew serve range.
- Moved D7 and tractor-trailer operators from Camp Moreell to Camp 93 to support berm reduction exercise.
- 20 Feb** - Reorganized Camp 93 organization to include elements of NMCB 74, NMCB 5, NCFSU-2, and NMCB 133.
- 21 Feb** - Relocated equipment from Camp Moreell to Camp 93 where it was accepted by NMCB 74 and NMCB 5 to perform future missions.
- 22 Feb** - Participated in berm reduction exercise.
- Provided line haul support for bridging exercise.
- Prepared TF-C (Fwd) COC at Camp 93 for 24-hour watch stand-up.
- 23 Feb** - Completed punch list on TF-C COC Seahut.
- Continuing to reposition CESE assets to Camp 93 in preparation for future ops.
- Utilized 5 NCF graders to complete grading at Equipment Operator training site (airstrip) behind Camp 93; watering and compacting in preparation for AM-2 installation by others.
- Participating in berm reduction exercise.
- Provided line haul support for bridging exercise.
- 24 Feb** - Completing punch list on TF-C Seahuts.
- Continuing to reposition CESE assets to Camp 93 in preparation for future ops.
- Completed grading at Equipment Operator training site (airstrip) behind Camp 93; project turned over to Marines for AM-2 Installation and completion.
- Participated in berm reduction exercise.
- Provided line haul support for bridging exercise.
- 25 Feb** - Completed TF-C Seahuts.
- Continued to reposition CESE assets to Camp 93 in preparation for future ops.
- Participated in berm reduction exercise.
- Provided line haul support for bridging exercise.
- 26 Feb** - Continuing to reposition CESE assets to Camp 93 in preparation for future ops.

- Provided line haul support for bridging exercise.
- Participated in ROC rehearsal at Camp 93.
- TF-C (fwd) conducted NVG training.

27 Feb - Continued security and maintenance of Camp 93.

- 28 Feb**
- Senior leadership participated in MARDIV ROC drill.
 - Repositioned CESE assets to Camp 93 in preparation for future ops.
 - Provided line haul support for bridging exercise.
 - Accepted additional crew serve weapons and mounts from NCFSU-2.
 - Conducted bunker training.

MARCH 2003

- 01 Mar**
- Repositioned CESE assets to Camp 93 in preparation for future ops.
 - Provided line haul support for bridging exercise.
 - Conducted personnel decon training, night driving training, and ROE training at the command element.

- 02 Mar**
- Conducted CBR meds training – use of NAAK kit and CANA.
 - Conducted communication exercise to prepare for future operations.

03 Mar - TF-C leadership participated in the MEG ROC drill.

04 Mar - Continued security and maintenance of Camp 93.

- 05 Mar**
- Repositioned CESE assets and personnel to Camp 93 in preparation for future ops.
 - Dedicated two 15-ton stakes and one highboy tractor/trailer to moving Class IV from LSA Fox to Camp 93. Will utilize same assets to pick up 7 containers at the port as per MEG direction.

06 Mar - Received and transported seven D-7 dozers from the Army to Camp 93.

- 07 Mar**
- Continued to move Class IV from LSA Fox to Camp 93.
 - Conducted TF-C ROC drill.

08 Mar - TF-C Dozer Team moved to RCT-5 and RCT-7 for detailed rehearsals.

- 09 Mar**
- TF-C forward CP operational at Camp 93.
 - Dozer teams attached to TF-M.

10 Mar - Completed ROE training.

11 Mar - TF-C Berm Maintenance Team continued training with RCT 5 and 7.

- 12 Mar**
- Received embedded media personnel.
 - Continued to move Class IV from LSA Fox to Camp 93.
 - TF-C Berm Maintenance Team continued training with RCT 5 and 7.
 - Made improvements to the leach field and bunkers at Camp 93.

- 13 Mar** - Conducted OPTs on MSR Maintenance and Line Haul missions.
- Conducted training for line haul and berm reduction missions.
- TF-C provided welding support at the Bridge Park.
- 14 Mar** - Conducted mission planning.
- Conducted training for line haul and berm reduction missions.
- Participated in Ali Al Salem Air Base SCUD attack/bunker drill.
- Conducted OPT for RRR and reviewed CBR requirements for TF-C with the MEG.
- 15-16 Mar** - Continued security and maintenance of Camp 93.
- 17 Mar** - TF-C CE participated in MEG War Council at Camp Commando.
- Continued transition from NMCB 5 to NMCB 4.
- 18 Mar** - Moved TF-C forward CP to Camp 93.
- Convoy 1 integrated into TF-M (NMCB 74).
- Standing by for movement to dispersal area.
- Continued transition from NMCB 5 to NMCB 4.
- 19 Mar** - TF-C embedded convoy stands by for movement.
- 20 Mar** - 0115 TF-C embedded convoy departed with TF-M to dispersal area.
- TF-C elements at Ali Al Salem and Camp 93 ordered to bunkers numerous times today in response to missile attacks. Current condition is Green/MOPP 1.
- Completed transition from NMCB 5 to NMCB 4. NMCB 4 conducted rehearsals.
- 21 Mar** - Seabee elements cross the LD and preparation began for follow on resupply convoys.
- 22 Mar** - Continued security and maintenance of Camp 93.
- 23 Mar** - Tracked convoy status.
- Awaited requirements for follow on convoys.
- 24 Mar** - TF-C MSR team worked at the KU/IZ border making repairs to improve the border crossing.
- 25 Mar** - MSR #3 improved/maintained 3 lanes through the berm. The first is completed and has excellent compaction. The second one is almost complete. Work has not started on the third lane, which has British mobility matting in place. The MSR crew will remove the matting this afternoon if the British have not already gotten to it. The crew is also maintaining the two-lane roadway north of the obstacle course for 5 KMs. Estimate 45% complete done with the breach lane improvements and 95% complete on the maintenance of the 5KM of two-lane road. ECD 27 Mar. All convoys are active.
- 26 Mar** - MSR #3 performed breach lane repair at DALLAS and returned to camp 93. NMCB 74
- Convoy joined TF-M at Bridge Park south of the Euphrates.

TASK FORCE CHARLIE PROJECTS

CAMP 93, KUWAIT

CONSTRUCT SEABEE SHOWER TENT

Install Seabee TOA shower tent. Construct drainage leach field, decking, benches and shelves for dressing area to provide preliminary shower facilities for personnel during camp buildup.



Project Start Date: 25 Jan 03
Project Completion: 02 Feb 03

Average Crew Size: 10 personnel
Total Project Man-days (MDs): 45

CAMP 93 SECURITY:

Provide an adequate force protection posture at Camp 93 to protect personnel and equipment from the enemy. Accomplished by occupying all fighting positions, LP/OP positions, an ECP, Security CP, Third Country National (TCN) watches, and camp roving patrols.



Project Start Date: 01 Feb 03
Project Completion: 26 Apr 03

Average Crew Size: 44 personnel
Total Project Man-days (MDs): 5445

- 27 Mar** - Will resume MSR maintenance tomorrow and provide a more detailed road condition assessment per MEG guidance.
- MEG reports some impairment on Dallas; most likely near the KU/IZ border.
- 28 Mar** - Continued security and maintenance of Camp 93.
- 29 Mar** - Reached a steady state on convoy turn around.
- As convoys arrive they are greeted, their vehicles are taken to the Alfa yard for maintenance and drivers and A-drivers are able to rest for the next trip.
- 30 Mar** - NMCB 74 TF-C Dallas Berm team moved to berm area to repair border area and evaluate/execute more deliberate improvements.
- 31 Mar** - Dallas MSR team continued to place, grade, and compact fill from a local borrow pit.

APRIL 2003

- 01 Apr** - Dallas work continued.
- Local borrow material was inadequate.
- Team hauled fill material from Camp 93 to finish work.
- 02 Apr** - Continued security and maintenance of Camp 93.
- 03 Apr** - Work complete on MSR Dallas.
- 04 Apr** - Transported additional CESE from Camp 93 to support increased mission requirements.
- 05 Apr** - Continued security and maintenance of Camp 93.
- 06 Apr** - Continued maintenance of convoy CESE.
- 07 Apr** - Received and helped place 8 additional shower trailers at Camp 93.
- 08 Apr** - Prepared convoy for MEG Fwd jump COC.
- 09 Apr** - Continued to receive and launch class IV convoys.
- Excavated hole for shower trailer septic tanks.
- 10 Apr** - Continued critical maintenance on convoy CESE.
- 11 Apr** - Continued security and maintenance of Camp 93.
- 12 Apr** - Continued convoy turn around operations.
- 13 Apr** - Convoy CESE repair is beginning to take more time.
- The units are taking a beating due to continuous use and rough road conditions.
- 14 Apr** - Communication with forward units is beginning to affect operations.

- Our convoys continue to deliver items that were asked for days in advance.
- By the time they receive the items they are no longer needed.

- 15 Apr** -Began improvements to the Camp 93 ASP.
- 16 Apr** -Safety stand-down held at Camp 93 due to negligent discharge by a member of the 478th Engineering Battalion.
- 17 Apr** -Continued interim maintenance of convoy CESE.
- 18 Apr** -Camp 93 ASP improvement complete.
- 19 Apr** -Continued interim maintenance of convoy CESE.
- 20 Apr** -Continued conveying class IV, additional CESE, and TOA items forward to TF-M.
-Continued interim maintenance of convoy CESE.
- 21 Apr** -Change of command between TF C Commanding Officers.
-Began planning for return of battalion's TF-M and return to homeport.
-Continued interim maintenance of convoy CESE.
- 22 Apr** -Battalion's TF-C personnel relieved of convoy duties to prepare TOA for turnover.
-Continued interim maintenance of convoy CESE.
- 23 Apr** -TF-C Forward Camp 93 operations turned over to NMCB 4.
-TF-C turned in 782 gear, except for security personnel.
-Continued interim maintenance of convoy CESE.
- 24 Apr** -Began working TF-C end of deployment awards.
-Continued interim maintenance of convoy CESE.
-Began turnover of Camp 93 security and camp maintenance.
- 25 Apr** -Began movement of personnel to Camp Moreell.
-Stood down from Camp 93 security.
-Security personnel turned in 782 gear.
- 26 Apr** -Began planning for battalion's Task Force Mike return to Kuwait.
- 27 Apr** -Mustered battalion's TF-C.
-Planned for TF-M turn in of 782 gear, weapons, and communications gear.
- 28 Apr** -Moved 101 personnel to Camp Moreell.
- 29 Apr** -Transported 31 personnel to Camp Moreell, leaving 60 at Camp 93, mostly Alfa Company.
- 30 Apr** -Prepared berthing arrangements for personnel.
-Relocated TF-M bag containers into camp.

- 17 May** - Performed retrograde operations.
- Conducted Headquarters/Charlie Company Delayed Party (DP) GMT.
- Completed Bravo/Charlie Company Seahut construction.
- 18 May** - Performed retrograde operations.
- Conducted Alfa/Bravo/X-ray Company Delayed Party GMT.
- Completed Advanced Party Baggage turn in.
- Advanced Party 1 departed AAS and arrived at KCIA.
- 19 May** - Performed retrograde operations.
- Advanced Party 2 departed AAS and arrived at KCIA.
- Advanced Party 1 departed KCIA and arrived in Gulfport, MS.
- Advanced Party 2 departed KCIA.
- 20 May** - Performed retrograde operations.
- Advanced Party 2 arrived in Gulfport, MS.
- 21 May** - Performed retrograde operations.
- Detail Guam arrived in Gulfport, MS.
- 22 May** - Performed retrograde operations.
- Held Advanced Party company muster in Gulfport, MS.
- 23 May** - Completed retrograde operations.
- Advanced Party started 96-hour liberty.
- 24 May** - Completed CESE turnover.
- 26 May** - Memorial Day Observed - Liberty
- 27 May** - Advanced Party returned from 96-hour Liberty.
- Delayed Party turned in org gear.
- 28 May** - Completed DP baggage turn-in.
- Delayed Party 1 departed AAS and arrived at KCIA.
- 29 May** - Delayed Party 2 departed AAS and arrived at KCIA.
- Delayed Party 1 and Delayed Party 2 departed KCIA.
- 30 May** - Delayed Party 1 and Delayed Party 2 arrived at Gulfport, MS.

MAY 2003

- 01 May** - Battalion's TF-M returned to Camp 93 at 1900.
- 02 May** - Battalion's TF-M started turn in of 782 gear, cleaned weapons and turned in ammunition.
 - The battalion reorganized into one unit.
- 03 May** - Completed 782 gear, weapons and ammunition turn in.
 - Charlie Company departed Camp 93 and arrived at AAS.
- 04 May** - Alfa Company performed CESE JLTIs and transported equipment to AAS.
 - Packed up FIE Armory and Communication assets.
 - Bravo Company departed Camp 93 and arrived at AAS.
- 05 May** - Headquarters Company departed Camp 93 and arrived at AAS.
 - Headquarters/Charlie Company filled out post deployment forms and turned in CBR medication.
- 06 May** - Bravo Company filled out post deployment forms and turned in CBR medication.
- 07 May** - Worked on Task Force Mike administrative paper work.
- 08 May** - Alfa Company filled out post deployment forms and turned in CBR medication.
 - All companies completed NOK, Recall Roster and administrative tasks.
- 09 May** - Began retrograde operations.
 - Began Construction of Operations seahut.
- 10 May** - Performed retrograde operations.
- 11 May** - Performed retrograde operations.
- 12 May** - Performed retrograde operations.
 - Completed Operations seahut construction.
- 13 May** - Performed retrograde operations.
 - Began Construction of Bravo/Charlie Company seahut.
- 14 May** - Performed retrograde operations.
 - Completed AP/DP reorganization.
- 15 May** - Performed retrograde operations.
 - Conducted Headquarters/Charlie Company Advanced Party (AP) GMT.
- 16 May** - Performed retrograde operations.
 - Performed Task Force Mike PFA weigh ins.
 - Conducted Alfa/Bravo/X-ray Company AP GMT.

CAMP 93, KUWAIT

CAMP 93 OUTER BERM

Construct a 4-meter high force protection berm around the camp perimeter, approximately 5 km in total length.



Project Start Date: 15 Jan 03
Project Completion: 01 Feb 03

Average Crew Size: 6 personnel
Total Project Man-days (MDs): 82

CONSTRUCT TENSION FABRIC STRUCTURE (TFS)

Construct TOA 80'x100' TFS building for Alfa company maintenance.



Project Start Date: 09 Feb 03
Project Completion: 01 Mar 03

Average Crew Size: 4 personnel
Total Project Man-days (MDs): 90

CONSTRUCT (8) GP MED TENT DECKS

Construct eight wood decks for Camp 93 admin tents to reduce dust, improve working conditions and prolong longevity of critical ADP assets.



Project Start Date:	22 Feb 03	Average Crew Size:	14 personnel
Project Completion:	01 Mar 03	Total Project Man-days (MDs):	20

ECP CONSTRUCTION/ RECONFIGURATION

Improve force protection posture by constructing a hardened entrance to Camp 93. Provide inspection areas for both vehicles and personnel with barrels for weapons clearing.



Project Start Date:	28 Mar 03	Average Crew Size:	4 personnel
Project Completion:	05 Apr 03	Total Project Man-days (MDs):	35

STRONG BACK CONSTRUCTION

Construct 25 strong back tents to be used for galley line, supply, berthing, and administrative spaces.



Project Start Date:
Project Completion:

04 Feb 03
16 Feb 03

Average Crew Size: 18 personnel
Total Project Man-days (MDs): 216

INSTALL POWER DISTRIBUTION

Install power distribution to administrative tents because the 1st MARDIV contract did not include these facilities. Scope of work included burying power lines for safety and maintaining generators.



Project Start Date:
Project Completion:

05 Feb 03
16 Mar 03

Average Crew Size: 4 personnel
Total Project Man-days (MDs): 50

CONSTRUCT SUPER SEA HUT FOR TASK FORCE CHARLIE

Construct Task Force Charlie Camp 93 Combat Operations Center. Project scope included constructing super seahut, including interior finish, exterior fixtures and HVAC system.



Project Start Date:	23 Feb 03	Average Crew Size:	8 personnel
Project Completion:	05 Mar 03	Total Project Man-days (MDs):	96

CONSTRUCT INTERIOR BERM AROUND BERTHING AREA

Construct a one-meter high, 1,200-meter long berm around the perimeter of the berthing area. Inner berm served as an additional force protection measure against potential terrorist actions and indirect weapon attacks.



Project Start Date:	20 Feb 03	Average Crew Size:	3 personnel
Project Completion:	26 Feb 03	Total Project Man-days (MDs):	21

RENOVATE CAMP 93 AMMUNITION SUPPLY POINT

Renovate Ammunition Supply Point (ASP) cells to provide maximum personnel safety and to comply with OPNAVINST OP-5, Ammunition Storage Regulations. Cell depth was increased by 12 inches bringing total surface depth to approximately 20 inches below ground level. Within each cell individual bunkers were built by placing two rows of sandbags interlocked 4 rows high, 80 inches long and 6 feet apart. On top of each pair of sandbags a 6-foot diameter culvert was placed to provide sun and heat protection.



Project Start Date: 14 Apr 03
Project Completion: 17 Apr 03

Average Crew Size: 4 personnel
Total Project Man-days (MDs): 16

TASK FORCE CHARLIE CESE:

Task Force CHARLIE Construction Echelon 74's CESE was based on the remaining P-25 TOA with an augment from Naval Construction Force Support Unit (NCFSU) 2 CESE. Task Force CHARLIE's (TF C) mission was based on line haul support of bridging material and class IV material. Additional tasking included construction of EPW facilities and rear-area camp sustainment. Throughout March, TF C higher headquarters reallocated CESE custody to NMCB 74 from four other TOA's (MPSRON 1, NMCB 7, NMCB 133, NCFSU 2). The TF C component gradually increased its CESE total to 250 units, ensuring convoy mission completion throughout Operation IRAQI FREEDOM in April. Following the start of the war, normal PM cycles ceased due to the extensive utilization of line haul equipment and minimal use of other types of equipment. When tactical convoys returned from forward positions, Alfa Company (TF C component) operated a service line, inspecting and servicing each piece of CESE, in often less than 12 hours. This maintenance effort kept equipment availability high.

TF C was also tasked with recovery and repair of all Task Force MIKE CESE that could not be repaired. One tractor-trailer was recovered from the line of departure, an excavator from Gap 5 and a dump truck from Davisville.

# of units of CESE	Offload	Feb	TF Split	Mar	Apr	Retrograde
TF C	327	327	152	250	200	327
TF M	N/A	N/A	153	178	178	N/A

PM & INTERIM REPAIR ERO SUMMARY

# of EROs (by type)	01	02	04	07	12
TF C	51	96	341	327	01
TF M	73	62	100	04	06
Totals	124	158	441	331	07

TOTAL PM/INT RATIO 0.63:1

EQUIPMENT AVAILABILITY STATUS

# of Deadline	Feb	Mar	Apr	Turnover
TF C	11	17	16	14
TF M	12	0	1	N/A
% Availability	Feb	Mar	Apr	Turnover
TF C	85%	85%	88%	96%
TF M	93%	100%	99%	97%

SAFETY

Completion of the mission was vital; however, all reasonable safety standards were met. Safety equipment was procured and used during all operations. Medium Girder Bridge (MGB) and Mabey Johnson Bridge Construction exposed personnel to a variety of safety hazards, including falling from bolting on brace frames and fastening the decking to the transoms; head and body crushing injuries from hoisting bridge components, sand pile culvert material (SPCM) and sheet piling into place; foot and hand injuries from handling bridge components; and 24 hour heavy equipment operations were assessed to be the major hazards. To help reduce the risk of injuries, all personnel practiced constant situational awareness of their surroundings. Supervisors and crew leaders enforcing strict bridge construction guidelines, was a major factor in reducing the risk of injuries. Heat injuries also had the potential to be a major safety hazard. To help eliminate this, Camel Back hydration systems and the constant reminder to have personnel drink fluids helped to reduce heat related injuries. Wind goggles, Uvex safety glasses, PFD's (personal flotation devices), hearing protection, leather gloves, Kevlar helmets, and steel toe boots were the primary personal protective equipment used.

Category	Feb	Mar	Apr	May	Totals
Total Mishaps	18	11	5	3	37
Total Mishaps On Duty	18	7	3	2	30
Total Mishaps Off Duty	0	4	2	1	7
Fatality	0	0	0	0	0
Lost Time Cases	1	1	1	0	3
Lost Work Days	1	5	2	0	8
Light Duty Cases	8	1	0	1	10
Light Duty Days	64	7	0	7	78
Vehicle Mishaps w/o injuries	0	4	2	0	6
No Lost Time Cases	9	6	2	2	9

SUPPLY/LOGISTICS

Prior to the land invasion of Iraq, the First Marine Expeditionary Force I-MEF provided material support for Class I-IX material through Combat Service Support Battalions Twelve (CSSB-12) and Eighteen (CSSB-18). Supply personnel would prepare and directly submit requirements to the CSSB using Marine Corps logistics software "ATLAS". Material available for immediate issue at CSSB would process in most cases the same day. Not in Stock (NIS) requirements were filled in as little as two days or as much as four weeks depending on demand for material. Material requirements not filled by CSSB for Not Operationally Ready Supply (NORS) or Anticipated Not Operationally Ready Supply (ANORS) were submitted to CBC Gulfport (P95). As Marine Corps units moved forward during the land invasion, CSSB-18 relocated to Viper to support forces operating within Iraq.

PERSONNEL SUPPORT ITEMS

CSSB's support to Seabee camps severely lacked availability. Phones, banking, postal, and Base Exchange support were available at USMC Camps but were not available at Seabee Camps. Following the conflict in Iraq MEF made arrangements to set up a small retail operation at Camp 93 and AT&T Phone service at Camp Moreell. Satellite TV systems were placed in all Seabee Camps as soon as possible. Arrangements were made with AFN to have a receiver and satellite dish for Camp Morrell. The system arrived in time for the Super Bowl game and has afforded troops the opportunity to watch American sporting events as often as possible. In addition to the regular satellite service at Camp 93 a digital package with access to American channels was also provided.

P-25 NMCB TOA

MPSRON 2 NON-CESE TOA included 394 Facilities and Assemblies loaded into 117 International Standards Organization (ISO) containers consisting of 20-foot Bulk containers, 20-foot Half-height Open containers, 20-foot Full-height Open Rack Containers and 8-foot TRICON containers. All material was received in excellent condition. Not all containers had the "As Packed" listing packed within the container, which prevented completed validation of the container contents. Some material appeared in unrecorded locations suggesting that the material may have been moved after final as packed listings were produced due to space limitations. A matrix of the P-25 would have been helpful (i.e. MC, MCA, MH). Two weeks after receipt and issue of TOA material, supply personnel located the electronic data information and listings by chance in a container with no exterior markings indicating "Master Documents Inside" all material and inventory status. In order to benefit from the full capability of the database provided, one had to be Microsoft Access literate. Prepared queries and reports should have been delivered with the software to allow even the novice user to produce inventory and control reports as required. No indication of material deficiencies or shipment status. Inadequate TOA and Marine Expeditionary Force (MEF) homeport training resulted in

Storekeeper personnel struggling to both execute daily business and maintain accountability.

PROCUREMENT CAPABILITIES

All local Open Purchase material requirements (i.e. 220V electrical/electronic equip) were processed through I-MEF contracting officers. Requirements were processed in most cases under 48 hours. A considerable amount of effort was directed to material and local source of supply identification due in part to a language barrier and no single point of contact such as a dedicated ship handler. A single point of contact would have eliminated the lead-time and confusion for all requirements.

CONTRACTED SERVICES

All required food service, berthing tents, showers, porto-lets and trash removal were included under a consolidated contract let by I-MEF. The food service portion of the service contracts left much to be desired. Though it continually improved over the three-month period, the most noticeable improvements were towards the end. The ongoing issue with contract support was the reluctance on the part of the MEF to provide a copy of service contracts to Battalion S4's so they could hold the contractor to the contract.

COMMUNICATIONS

Wartime activities included two major parts- 1) operations at Camp 93 and 2) operations past the line of departure.

1. **Camp 93 Operations:** Mobility was identified as a critical communications requirement from early in the planning stages. It was anticipated that the battalion would move frequently and follow the Marine Corps. To meet these requirements, the battalion's communication plans stressed minimal set up and tear down time. The Antenna Farm (Antfarm) was set up in a tri-con with shelves and a combination seat/workbench/storage box was constructed to optimize space and set up/tear down efficiency. Wires and power cables were run and labeled so they could remain connected to ensure the 2 HF nets and 2 VHF nets up within an hour after arriving at a site.

The COC was also configured in a tri-con. The COC tri-con and ant farm tri-con were then chained down to the bed of an MTRV facing each other with enough room in between to open the doors. The Ops tent was set up adjacent to the MTRV with S2, Ops, movement control and syscon/techcon operations. An AN-GRA 39 was run to the Ops tent from the comm tri-con to remote the battalion tac net which was also used for camp security. This collocation of the administrative and communication functions greatly decreased the number of AN-GRA's required, saving D-cell batteries life. A limited local area network, using an 8-port switch, was setup between the COC and the ops tent, linking four computers in the ops tent to computers in the COC and communication tri-cons. Files were then shared and printed via the network instead of using disks, which minimized the problems created by dust as well as eliminated multiple files on different computers.

In addition to minimizing set up and teardown time, efforts were made to minimize communication efforts. Reports required by higher and the associated amount of data that would have to be passed over HF data and voice nets were reviewed and steps taken to minimize the byte size of reports.

Block training was identified to improve personnel efficiency on communications gear including the PLGR. Benefits from this training were immediately noticeable companies were able to assume more communications duties, including trouble shooting radios and splicing wires.

Unfortunately, only 5 PLGR batteries were available for contingency operations and re-supply was not available. In addition to PLGR batteries, VRC-90 kits, VHF and HF vehicular antenna mounts and a wireless hub were unavailable. Saber batteries that were ordered and delivered just in time for contingency operations turned were defective and would not hold charge more than 2 hours.

Communication gear from the MPSRON was quickly put into use. The vacuum cleaner included in the MPSRON turned out to be invaluable for removing dust from computers. 10 VRC-90 mount kits and antennas were installed.

2. Operations Past the Line of Departure: Operations past the line of departure fall into several categories- battalion site communications, DET communications, and convoy communications.

Battalion communications were developed around three scenarios: less than one day, one to three days and greater than three days. Communications were maintained in the HMMWV's for stops less than one day. When stops exceeded one day, full battalion communications were established using the mobile CP. For stops greater than 3 days, communications were expanded to include the operations tent.

Full battalion communications involved setting up the mobile CP, which included digging in the mobile CP, putting up VHF and HF antennas, supplying power from a generator, 5KW (<1 day) or 15KW (>1 day), and rolling out camouflage netting and tarps. The mobile CP could be set up in less than three hours, including digging in the MTRV, and teardown could be accomplished in under 1 hour when using the 5KW generator and 2 hours when using the 15KW generator. To expedite set up time, all network, radio and power cables were labeled.

All battalion communication equipment was used with the exception of the PRC-117's because no satellite channels were available. All three HF antennas were erected at various times with both the RT-1694 and RT-5022 for HF. Wire communications included TA-312's by company CP's and TA-1's in fighting positions; SB-22 was used in the operations tent for ease of set up and troubleshooting; tactical network was established between mobile CP and Operation's tent.

HF data could have been improved by further abbreviating reports to minimize the amount of data to be transmitted. With 13 daily reports and OPSUMS every four hours, HF data was stretched to its capacity.

During operations, there were several occurrences where the battalion had Details outside VHF range. In one case, MSR repairs were conducted along a 40-mile stretch of road, with a base camp at one end, a Det at the other, and Task Force MIKE command element in the middle. Communications were maintained by establishing a retransmission station at Task Force MIKE's location, which extended communications to the Det and all convoys and groups working on the road. The Det at the opposite end of the 40-mile stretch used a PRC-150 on an AT-1011 resulting in reliable communications. In another situation, a GRC-231 with an AS-2259 was used where the range was approximately 60 miles, allowing the battalion to maintain very reliable communications.

Several different systems were used for convoy communications. Main movements were done as one single convoy with four serials. Each serial had it's own serial commander to maintain command and control if separated from the rest of the convoy. Each HMMWV had a VRC-90 with a man pack placed in the top slot on a 3-foot tape antenna. This provided a secondary radio if the first one failed and another for communications to adjacent units if necessary. Unfortunately, the battalion only had enough amplifiers and

10-foot antennas to make one HMMWV and VRC-92, which were placed in the CO's so that he could communicate with Task Force MIKE when they moved with the battalion's convoys. Communications with higher and SERT 74 were maintained on convoys and in base camps using the battalion's Iridium Satellite Telephone. One vehicle was configured with a VRC-231 for vehicle HF in case the battalion had to stop and contact higher or support units. A communications platoon person was placed in each serial's lead, trail and serial commander vehicle for en-route trouble shooting. Company man-pack radios were spread to key vehicles, such as maintenance, troop carriers, medical personnel and recovery vehicles, enabling an additional 35 vehicles to maintain mobile communications.

Environmental Concerns-Heat and dust were a large factor for communications. Power supplies had to be cleaned out once a week. The dust ruined: several disk drives, about 60 disks, a printer, and possibly one laptop that blew it's circuit board. The vacuum cleaner was essential, but could not keep computers and components from being affected by the dust. Dolch computers withstood the heat and dust much better than the commercial grade Dell computers. To solve the temperature problem in the mobile CP, an air conditioner was installed between the tri-cons and canvas tenting was used to build an enclosure over the tri-cons. This worked well and kept the operating temperatures of the radios and computers down. Desert camouflage netting was placed over the two boxes for concealment and additional temperature control.

MEDICAL

IMMUNIZATION/MEDICAL READINESS

The medical department completed vaccination of Smallpox, JEV and Anthrax (minimum of 3 shots) for 100% of personnel deployed to SWA. The department conducted the DoD required Anthrax and Smallpox briefs for all personnel, performed DoD required screenings and kept records of all signed consent forms. Prior to deployment, the battalion had an overall medical readiness of 92%. During operations in SWA, neither the SAMS medical database nor other resources for updating medical readiness (e.g. access to immunizations, HIV tests, ability to perform non-urgent diagnostic tests) were available.

NORWALK VIRUS

During operations over 250 personnel (80%) of the battalion's Task Force Mike contracted a gastrointestinal viral illness attributed to a theater wide outbreak of Norwalk virus. The virus is believed to have spread from contact with the Iraqi civilian population. Norwalk virus is a DNA virus usually transmitted by the fecal-oral route, although it is occasionally airborne. The viral illness lasted from 24 to 48 hours and caused any combination of the following symptoms: nausea, vomiting, diarrhea and extreme fatigue. An average of one workday was lost per each person affected.

The medical department provided the appropriate symptomatic treatment including intravenous fluids, anti-diarrhea and anti-nausea medication. A re-supply of intravenous fluids and medicines was necessary. Despite aggressive efforts to improve sanitation and personal hygiene, spread of the virus continued. The virus spread to Camp 93 and Camp Moreell when battalion members returned from Iraq.

MEDEVACS/LIMITED DUTY

Four personnel were medevaced from Camp 93, Kuwait: 1 for idiopathic status epilepticus, 1 for a second degree burn, 1 for severe GERD associated with weight loss and 1 for chest pain. Four others were sent back to Gulfport on a routine basis to be placed on Limited Duty for 1) GERD 2) Torn medial meniscus 3) Severe ankle sprain 4) Chronic lower back pain.

During operations in Iraq, NMCB 74 TFM CE had two (routine) ground medevacs out of Iraq and no helicopter medevacs. The ground medevacs were for an ankle fracture and a severe case of eczema.

DENTAL

During the 2002-2003 Pacific Deployment, the Battalion's Overall Dental Readiness dropped from 100% to 93% and the Dental Health Index changed from 63% to 52% over the course of the 8-month deployment. The vast majority of the change resulted from the conversion of 93 personnel to Class 4 for expiration of their annual exam and need for annual routine cleanings. There were no dental-related evacuations of battalion members from inside Iraq.

RETROGRADE

NMCB 74's retrograde from Operation IRAQI FREEDOM presented several obstacles as a result of having the P-25 CESE divided among the Marine Engineer Group (MEG), Task Force MIKE, Task Force MIKE Construction Element 74 and Task Force CHARLIE. This meant equipment and material was spread throughout Kuwait and Iraq. As a result of careful record keeping, CESE location was easy; however, it required considerable coordination to get the CESE returned for retrograde.

Similar to CESE, supplies from the P-25 and FIE's were scattered throughout various locations and commands. Again, identifying the location was not difficult; however, many of the supplies were still in use. To minimize the impact, turn-over letters were prepared for these supplies to ensure positive accountability was maintained.

As material, equipment and personnel returned for retrograde, it was brought to Camp 93 and Camp Moreell for collection, cleaning, inventorying and packing. After containers were prepared and inventories complete, detailed inspections were performed by US Army Custom Inspectors.

Below is the breakdown of personnel, material and equipment that NMCB 74 had to retrograde from Kuwait:

Personnel:

AP1	200
AP2	122
DP	219
Total=	541

Weight

AP	140,000 lbs
DP	92,000 lbs
Total=	232,000 lbs

CESE:

MPSRON II	327
FIE	25
Total=	352

Containers:

Tri-cons	28
Tricon (armory)	03
Standard 20'	69
Flat 20'	15
½ Height	02
Refrigeration	02
Total=	119

LESSONS LEARNED

1. KEY WORD: ADMINISTRATIVE

(a) ITEM: PERSONNEL ACCOUNTABILITY

(b) DISCUSSION: During operations where many organizations within one command are dispatched to various locations, maintaining an accurate PERSTAT becomes a challenge. Throughout the operation, keeping track of the exact location of every member in the command was a time consuming, labor-intensive program.

(c) RECOMMENDATION: A clear, understandable program must be established prior to deployment. Designated personnel within the CP and in each company must be trained in reporting requirements and the entire chain of command must understand the importance and impact of proper and timely notification of changes.

2. KEYWORD: COMMAND AND CONTROL

(a) ITEM: FRAG ORDERS WERE OFTEN ISSUED WITH INSUFFICIENT PLANNING TIME FOR THE RECEIVING UNIT TO PROPERLY PREPARE FOR, AND EXECUTE THE MISSION.

(b) DISCUSSION: Throughout the Operation, Frag Orders were received, requiring almost immediate reaction to comply with the specified execution parameters. Use of the BAMCIS planning process, which includes the issuance of a 5 paragraph order (SMEAC) is a tried and proven method to ensure all relevant matters are properly addressed prior to stepping off, thereby, ensuring a higher probability of a successful mission.

(c) RECOMMENDATION: Higher headquarters should use Warning Orders as soon as a potential mission has better than a 50 – 70% confidence level.

(a) ITEM: ADVERSE WEATHER CONDITIONS CAN, AND WILL, HAVE HUGE IMPACTS ON A UNIT'S C4I CAPABILITY.

(b) DISCUSSION: During OEF/OIF dust and sand storms were a frequent occurrence. They severely degraded the ability to operate and maintain electronic equipment, including: comm. gear, computers, printers. An environmentally secure command and control structure, which is spacious enough to run basic C2 and Ops is a necessity. The DRASH tent assembly, with HVAC and trailer is a made-to-order solution for this issue.

(c) RECOMMENDATION: Add 2 DRASH tent assemblies to the P-25. (The 2nd DRASH tent would be used as the Battalion Aid Station (BAS).)

3. **KEYWORD: OPERATIONS**

(a) ITEM: BRIDGING CONSTRUCTABILITY

(b) DISCUSSION: In a contingency environment, construction speed can be critical to mission accomplishment. During bridging operations, the process of 'jacking down' or 'grounding' the Mabey Johnson bridge accounted for 20 to 25% of the total erection time. One of the significant reasons for this was the limited length of ram travel of the 35-ton hydraulic jacks provided. The short travel of the ram, limited the crews to a lowering rate of 1/2" between each jack removal and dunnage repositioning. The entire process lasted 4 to 5 hours on each end of the bridge.

(c) RECOMMENDATION: If the Mabey Johnson Bridge becomes integrated into NCF, more efficient jacks should be researched.

(a) ITEM: ADDITIONAL MABEY-JOHNSON BRIDGING PARTS

(b) DISCUSSION: While erecting five bridges during the operation and training, the crews consumed tools and dunnage and damaged a few minor parts. Based on the nature of the bridging and the pace that was set, some items were lost or damaged.

(c) RECOMMENDATION: Develop a very defined MLO/CTR operation designed specifically for Mabey-Johnson tools and parts. This will greatly reduce the potential for material and tool shortages. Additionally, if the operation requires erecting several bridges, order more critical items that may be damaged or lost.

(a) ITEM: VOLTAGE

(b) DISCUSSION: Throughout Kuwait Air bases, including the US Air Force compound, a mixture of 110 and 220 Voltage sources as well as a mix of 110 and 220V appliances was discovered.

(c) RECOMMENDATION: Plan ahead and purchase a sufficient number of transformers and educate members to avoid damaging equipment.

4. **KEYWORD: MPSRON**

(a) ITEM: ASSEMBLY AREA CONVOYS

(b) DISCUSSION: The first NCF convoy departing the port was integrated with a Marine unit. Because both Seabee and Marine equipment needed to be offloaded in the Tactical Assembly Area (TAA) Coyote, the Landing Force Support Party (LFSP) provided a single security team. After the Seabee CESE was staged at Camp 93, the LFSP security element escorted the Marines to their staging area. Problems with offloading the Marine equipment resulted in a 16-hour delay before returning to Camp 93.

(c) RECOMMENDATION: If available, use battalion convoy security to perform convoys from the port to the unit assembly area.

(a) ITEM: MPSRON OFFLOAD PREPARATION PARTY

(b) DISCUSSION: The battalion's Offload Preparation Team deployed on the USNS Stockham and remained aboard this single ship until docking in Kuwait. During off-load, numerous problems were encountered with the mechanical readiness of CESE on the other three ships.

(c) RECOMMENDATION: As doctrine suggests, OPP personnel must be placed on all ships to ensure equipment is ready for offload and scanning.

5. KEYWORD: TRAINING

(a) ITEM: CBR SUPPLIES/TOA

(b) DISCUSSION: NMCB's could potentially operate in a contaminated environment. At the time the battalion deployed, there were significant CBR deficiencies with both Guam's fly-in-echelon and the MPSRON's P-25. Many of the Saratoga suits in Guam were expired and the P-25 gear was deferred. Once identified as a critical shortfall, the replacements were slow in arriving.

(c) RECOMMENDATIONS: A complete CBR TOA should be maintained and appropriately managed. Shelf lives should be monitored and expired gear should be surveyed and used for training.

(a) ITEM: WEAPONS TRANSPORTATION

(b) DISCUSSION: Transported weapons must be stored properly. Guam's weapons were placed and shipped in wood boxes causing them rust almost immediately.

(c) RECOMMENDATION: If wood boxes have to be used, ensure weapons are removed and cleaned immediately. Investigate wrapping with shrink wrap and including desiccant packs.

6. KEYWORD: CESE

(a) ITEM: HMMWVS SHOULD HAVE ONE SPARE TIRE, PER SERIAL.

(b) DISCUSSION: HMMWVs do not have spares because they are capable of traveling for some distance on a flat tire (~60 Kms). During large convoy movements, this is not practical. HMMWVs typically fill the role as security, or command and control, vehicles. They need to be fully mobile and operational.

(c) RECOMMENDATION: Carry one full-up, HMMWV, spare tire per serial. (Approximately, one spare per four HMMWVs.) Spare tires can either be affixed to one of the HMMWVs or mobile loaded on one of the cargo trucks or dumps.

(a) ITEM: ONE SPARE TIRE, PER CONVOY, SHOULD BE CARRIED FOR THE WATER BULLS.

(b) DISCUSSION: Water bulls do not have spare tires. They are carrying life essential water; having to "drop" a water bull due to a flat could adversely impact mission readiness.

(c) RECOMMENDATION: Carry one full-up, water bull, spare tire per convoy. (Approximately, one spare per four water bulls.) The spare should be positioned in the final serial or mounted on water bull.

(a) ITEM: NMCBS DO NOT HAVE AN ORGANIC, VIBRATORY, SHEET PILE HAMMER IN THE TOA.

(b) DISCUSSION: The Movax Robotic Hammer quickly attaches to TE excavators and provides reliable sheet pile driving capability. The hammer proved itself during OIF.

(c) RECOMMENDATION: Add Movax Robotic Hammer (vibratory sheet pile hammer) to the NMCB Table of Equipment (TE).

(a) ITEM: THE NMCB TOA 35T LATTICE BOOM CRANES WERE PURPOSELY NOT INCLUDED IN THE TASK FORCE MIKE, NMCB 74 CE, SUITE OF EQUIPMENT. IN THEIR PLACE WAS A NCFSU 30T, WHEELED, HYDRAULIC CRANE.

(b) DISCUSSION: Neither crane travels very efficiently, especially in rough field conditions, however, the 30T hydraulic crane can be loaded on a lowboy trailer if one is available. The 35T lattice boom crane is a relatively fragile piece of equipment. It functions well as a "yard crane" for prolonged operations (> 4mos.) in one location. It does not travel well or lend itself to easy set-up and take down. The 30T hydraulic crane performed well in these areas, often being called upon by the Marine Corps for helicopter recovery and/or repair.

(c) RECOMMENDATION: Add at least one 30T or 35T hydraulic crane to the NMCB TOA.

(a) ITEM: FUNDING AND LOGISTIC SUPPORT

(b) DISCUSSION: Early in the deployment local funding was not available for CESE repairs. Required parts had to be requested and procured through Rota, Spain.

(c) RECOMMENDATION: Coordinate CESE maintenance funding and establish a direct Logistic Cell. This will allow for local procurement and expedite the process of critical requisitions.

(a) ARP

(b) DISCUSSION: CESE on MPF ships are supported with O level maintenance repair parts. As a result, units did not have the required parts to perform minor repairs.

(c) RECOMMENDATION: The repair parts pack-up must contain H level and be staged and ready for immediate shipment to a forward deployed location when requested.

(a) ITEM: DRIVING / OPERATING HOURS

(b) DISCUSSION: During periods of heavy Alfa Company construction, drivers for simple to operate CESE, such as rollers, water trucks and fork-lifts were typically operated by an EO or CM. With proper licensing, these could have been driven by non-Alfa ratings.

(c) RECOMMENDATION: Ensure Alfa Company uses trained personnel from other companies for support during critical periods.

(a) ITEM: REPAIR PARTS FOR MPSRON CESE

(b) DISCUSSION: Repair parts contained on MPSRON 2's ships were limited to "O" level. Based on the tempo of the operation, G or H level parts were required to maintain the level of CESE readiness to accomplish the mission. Although ordering the required level of necessary parts from Gulfport was discussed, there was not ample time to order, ship and receive the additional parts.

(c) RECOMMENDATION: Identify, order and configure MPSRON ships to carry the necessary repair and maintenance parts.

(a) ITEM: SPARE TIRES

(b) DISCUSSION: During tactical convoys in a hostile environment, it is imperative to keep the convoy moving. On several convoys on unimproved roads, the convoy was stopped to repair flat tires.

(c) RECOMMENDATION: On critical, frequently used units of CESE, a spare tire and rim needs to be staged on the convoy. At a minimum, one HMMWV spare should be loaded on each serial and if available several spare MTRV spares should also be loaded.

7. **KEYWORD: SECURITY**

(a) ITEM: THE PERMANENT SECURITY COMPANY CONCEPT WORKED WELL.

(b) DISCUSSION: A core Security Company was established which was shielded from the Operations Officer as direct labor source. Security personnel were responsible for: lead and trail security on each convoy or serial (hardback HMMWV), initial securing of new site, primary defensive perimeter establishment and coordination. The Security Co. was augmented, as necessary, depending on the THREATCON. Security Co. personnel became very proficient in all their duties. As a result, they were able to respond to unplanned security requirements, such as no-notice convoy requests.

(c) RECOMMENDATION: Adopt Security Co. organizational concept as an NCF SOP for contingency operations.

(a) ITEM: AN/PVS 7C, NIGHT VISION GOGGLES (NVG'S)

(b) DISCUSSION: The P-25 TOA has 32 pair of night vision goggles. Because of black-out conditions during enemy threat the battalion was augmented with 86 additional pairs of goggles. With this requirement, every driver and every crew served gunner had been issued a set of goggles.

(c) RECOMMENDATION: Submit Allowance Change Request (ACR) to increase the NVG's currently in the TOA from 32 to 64.

(a) ITEM: MTRV GUN MOUNTS

(b) DISCUSSION: Convoy operations were a major program for all coalition forces. Typical convoy security included a front and rear hardback HMMWV with mounted crew served weapons. Because there are minimal hardback HMMWVs in the P25, MTRVs were often used to augment the battalion's HMMWVs. Although the MTRV turret provided a feasible alternative, gun mounts were not provided. Since MTRVs are relatively new to the P25, provisions have not been made to increase the weapons collateral equipage.

(c) RECOMMENDATION: Submit Allowance Change Request (ACR) to add gun mounts to all MTRV's.

(a) ITEM: MK-64 GUN MOUNTS KITS

(b) DISCUSSION: Currently in the P25 TOA there are 6 MK-64 mounts that are assigned to the MK-19 40mm weapon system. These kits are required to mount the MK-19 in a ground position or in a mobile position on a HMMWV. This same kit is required to mount all crew serve weapons in the turret of a hardback HMMWV. With the current number of eight hardback HMMWV's in the TOA, this number of MK-64 mounts is insufficient. If MK-19's on MK-64 mounts are used in a camp defense, no crew serve weapons can be mounted on a HMMWV.

(c) RECOMMENDATION: Submit an Allowance Change Request (ACR) to change the current number of MK-64 gun mount kits to 14.

8. KEYWORD: CBR

(a) ITEM: CHEMICAL DOWNWIND MESSAGES

(b) DISCUSSION: Chemical Downwind Messages (CDM) were intermittently provided. Doctrine states, CDM's should be forwarded every six hours. During the operation, occasionally several days would pass between CDM messages. If there

been an actual chemical attack, the CBR staff would not have been able to properly assess the hazard.

(c) RECOMMENDATIONS: During operations where a significant CBR threats exists, place a higher priority on ensuring these messages are available in a timely fashion.

(a) ITEM: REFRIGERATION UNIT

(b) DISCUSSION: The NCF TOA does not contain a refrigeration unit designed to hold the Dry Filter Unit (DFU) Hand Held Assays (HHA's). Although the battalion deployed with a small refrigerator, it was not continually powered. During long duration convoys, the HHA's would not remained chilled. As a result, false readings on HHA's for DFU's were more likely due to the inability to maintain the proper temperature.

(c) RECOMMENDATIONS: When operating in an AOR with a potential chemical/biological threat with a DFU, ensure there is a self-contained refrigeration unit and power source available.

(a) ITEM: NBC DETECTION

(b) DISCUSSION: Dry Filter Units (DFU's) and Hand Held Assays (HHA) are used to detect ambient biological agents. M22's are used to detect G and H nerve and blister chemical agents. It was suspected that both of these units were not functioning correctly in the extreme heat and dusty conditions.

(c) RECOMMENDATION: Dry Filter Units, HHA's and M22's need to be configured to handle a hot, dusty environment. Until new units are available, precautions should be made to implement a dust screening device and environmental controls if they are to be used in hot, desert climates.

(a) ITEM: WASHING SARATOGA SUITS

(b) DISCUSSION: MOPP Level 1 was set and maintained for 20 consecutive days before the condition was reduced to MOPP Level 0. After almost 3 consecutive weeks of wearing these specialized suits, they became extremely dirty, negatively affecting troop health and sanitization. No provisions to wash the suits, including laundry equipment or a MOPP replacement were made.

(c) RECOMMENDATIONS: Laundry equipment to wash MOPP suits should be identified in the P-25 and staged when extended MOPP gear wear is anticipated.

Include this as part of future training and Field Exercises (i.e. using Camp Maintenance and Supply to support laundry operations).

(a) ITEM: CHEMICAL DETECTION SUPPORT EQUIPMENT

(b) DISCUSSION: M22 Chemical Agent Detectors are connected to the M42 Alarm components using WD-1 wire. M22 detectors use BB390 rechargeable batteries and M10 Improved Chemical Agent Monitors (ICAMS) use PLGR type lithium batteries. WD-1 wire, BB-390s, and PLGR batteries are not part of the P-25 for CBR defense. Although they are part of the P-25 for communications, there was not enough to cover CBR defense requirements. Sharing wire and batteries between CBR and communications equipment made covering both critical operations difficult.

(c) RECOMMENDATION: Increase the P-25's required WD-1 wire, BB-390 batteries and lithium PLGR batteries to include supporting all chemical detection equipment and communications gear.

9. KEYWORD: SUPPLY

(a) ITEM: CAMOUFLAGE NETTING

(b) DISCUSSION: In desert operations, camouflage netting is used to provide shade for personnel, shade for water bulls and to mask vehicles and facilities from aerial attack. The current amount of netting is insufficient to conduct operations in a desert environment. In the P25 TOA, 8 sets of desert netting are provided. At a minimum, desert netting needs to be doubled to assist in concealing facilities and preventing potable water from reaching extreme temperatures.

(c) RECOMMENDATION: An Allowance Change Request needs to be submitted to increase the number of desert camouflage netting to 20 in the P25 TOA.

(a) ITEM: AN/PVS 11 GLOBAL POSITIONING SYSTEM (GPS)

(b) DISCUSSION: Currently, the P25 TOA has ten PLGR/GPS's assigned to a battalion. With SERT requiring two, each of the battalion's task force elements had 4 PLGR's for navigation. All adjacent units have PLGR/GPS capability and provide grid coordinates as the method of navigation. The PLGR/GPS had become the instrument to navigate. In order to find re-supply points, MSR tasking and operate traditional convoys, ten PLGR units were insufficient to meet battalion requirements. The PLGR also has to be operated from the outside of the vehicle. Making navigation more difficult. The PLGR has an optional HMMWV mount kit that provides power from the HMMWV and an external antenna so the unit can be

used from inside the vehicle while convoying. This option would also provide a solution to the hard-to-locate PLGR battery.

(c) RECOMMENDATION: An Allowance Change Request should be submitted to increase the number of PLGR's to 14. The optional external antenna and HMMWV power source should be procured to meet any and all future missions.

(a) ITEM: AMMO ALLOCATION

(b) DISCUSSION: Ammunition allocation was a tiresome and unorganized process. Ammunition procurement and issuing did not have an effective system causing ammunition to arrive without notice and in the wrong quantities.

(c) RECOMMENDATION: A clear procedure should be established in advance of delivery. Ammunition should be allocated by either the P25 allowance or by the task force.

(a) ITEM: MPF OFF- LOAD

(b) DISCUSSION: Limited Fly-In-Echelon (FIE) items including CESE, communications gear and CBR equipment were shipped from Guam. Some important administrative items such as Alfa Companies CESE management forms, which are included within the standard FIE inventory, were not included within Guam's shipment.

(c) RECOMMENDATION: Ensure all subject matter personnel understand what is in the FIE packout and plan accordingly. Battalions must have complete FIE TOAs and validate what will be required to execute their mission correctly and make adjustments if certain FIE equipment is needed but not shipped.

(a) ITEM: FUNDING SOURCE IDENTIFICATION

(b) DISCUSSION: During the early phases of the deployment, while the battalion's Air Det Heavy was deployed in Kuwait, the method of purchasing necessary office supplies and consumables was not defined. Because a line of accounting was not established for the detail, typical IMPAC card purchases were not authorized. Additionally, funding was not provided for main-body procurement or for local Air Force supply using a MIPR.

(c) RECOMMENDATION: Prior to deployment, define, develop and explain the various methods of procurement. Ensure OIC's, Operations and Logistics personnel understand the funding limitations and capabilities.

(a) ITEM: UNIFORM APPEARANCE

(b) DISCUSSION: Desert Utility Uniforms (DUUs) are lighter in color than the standard Camouflage Utility Uniform (CUUs). As a result, project personnel and Alfa mechanics had difficulty keeping their DUU uniforms clean.

(c) RECOMMENDATION: Purchase protective coveralls for necessary personnel. If the operation is in winter months, consider purchasing a heavier weight coverall similar to "Carhartts". During the hot summer months, a lightweight disposable suit may be more suitable than standard coveralls.

10. KEYWORD: COMMUNICATIONS/ADP

(a) ITEM: INTERNAL COMMUNICATIONS ARE REQUIRED FOR CONVOY OPERATIONS.

(b) DISCUSSION: One of the Seabees largest threats is during convoy operations. The security vehicles, serial command vehicles and senior officers have VHF communications (VRC 90 or 92). A few other vehicles have PRC 119 manpacks, but there are insufficient assets for each vehicle to have communication equipment. During periods of heightened terrorist threat, or enemy aggression, and especially, during hours of darkness, internal communications with each driver, or A-driver, is necessary for force protection and efficiency of movement.

(c) RECOMMENDATION: The Marines use commercial, short-range VHF radios. The radios are relatively inexpensive and would be considered a consumable item after the operation. These radios have very limited range (2 – 4 Kms) and are not encrypted. Frequencies would be assigned, serial specific. The radio would remain with the vehicle, not the operator. OPSEC would have to be used, however, the limited range, and non-stealth characteristic of Seabee equipment convoys lessens the requirement for plain text EMCON.

(a) ITEM: SATELLITE PHONE CAPABILITY TO COVER VHF AND HF COMMUNICATIONS GAPS.

(b) DISCUSSION: The Iridium satellite phone was often the only means of reliable communication between the battalion and higher. Because military satellite net access was not provided to lower units, use of the PRC 117 was not possible. Although transmitting in a secure mode was not always possible, the Iridium proved to be reliable.

(c) RECOMMENDATION: NCF should continue to support use of Government Iridium contract and push for more bandwidth in the secure range.

(a) ITEM: MOBILE CP CONFIGURATION FOR A NMCB(-), WHERE FULL COC OPERATIONS ARE NOT PRACTICAL.

(b) DISCUSSION: A configuration of two tricon boxes, doors facing inward, on the front and back positions of a MTVR, long-bed, proved to meet all requirements. The configuration had the aft box filled with all communication gear assets, installed on rack against one wall with a radio operator's bench on the other side. The forward box was the watch officer's box, with a computer, printer, a workbench, maps, status boards, and important reference manuals. In between the two boxes was a frame for a small heat pump/air conditioner unit. Also draped between the two were heavy tarpaulins for light discipline and to create a plenum for the heat and A/C. The separate boxes allowed Electronic Technicians access to the radios without disturbing CP operations in the other box. When traveling, a 5K diesel generator and the wooden stairs were also placed on the truck bed between the two boxes. En route communications, on all nets, could be established within 20 minutes. Once arriving at a more permanent location (length of stay > 18hrs), the initial setup would be accomplished in under 30 minutes, to be followed by more permanent adjustments. These included, tying the communication suite to a 10K generator and digging a trench for the MTVR to back down into, to make the bed and floor of the CP level with the ground.

(c) RECOMMENDATION: If NMCB(-) operations are anticipated in the future, improve this design with prefabricated benches, racks, tables and equipment for ease of set-up and use.

(a) ITEM: COMMAND POST (CP)

(b) DISCUSSION: Most field exercise command operation centers are constructed using a series of configured strongback GP medium tents. Although these tents provide a functional environment for a battalion size tactical, long-term environment, strongbacks could not have been used during the initial weeks of Operation IRAQI FREEDOM. With an average duration of 5 days at each location, the command post must be fully functional within the first several hours of arrival. A method of quickly establishing command and control is imperative.

(c) RECOMMENDATION: Research and procure a durable, self-contained tent for CP operations. Tents similar to a "Drash" are erected within minutes. Features include a geodesic space frame structure, thick rubber flooring system and an integrated HVAC unit.

(a) ITEM: COMMUNICATION WITH OTHER UNITS

(b) DISCUSSION: Tactical VHF communications with other units was difficult because of differences in radio ID capabilities. Other units use radios with 3 digit net ID. While most of the battalion's radios have 2 digit ID capability, making contact impossible.

(c) RECOMMENDATION: Update all PRC-119's to have 3 digit ID capability.

(a) ITEM: TOA EQUIPMENT DURABILITY

(b) DISCUSSION: During the rehearsals in Kuwait and the contingency operation in Iraq, the harsh environment was detrimental to ADP gear. Dust storms and severe heat damaged most of the hardware including lap-top computers, printers and disks. These conditions made installing a local area network difficult. As a result, the time consuming and antiquated process of sharing information using floppy and zip disks had to be used. The rugged Dolch lap-tops seemed to withstand the environment. The "office" type Del lap-tops and Hewlett Packard computers and printers were not made for desert conditions.

(c) RECOMMENDATION: Equip the TOA with durable, rugged computer gear. Although not every computer or printer needs to be replaced, a significant percentage of our assets must be durable enough to withstand operating in a field environment.

(a) ITEM: SABER RADIOS

(b) DISCUSSION: An important communications option within the battalion's TOA is the portable hand-held Motorola Saber radio. Typically, these dependable VHF radios are used for internal convoy and camp communications. The current model the NCF is using is several years old and while operating encrypted, will only last for a few hours on one battery charge. In addition, if the radio is not turned off after the initial low-battery warning, the krypto is deleted and must be reloaded. With a limited number of batteries and chargers, it is difficult to effectively use these radios.

(c) RECOMMENDATION: Replace the current inventory with more advanced Motorola Radios. The 3500 series Motorola have a battery life of over 12 hours while operating in the encrypted mode.

12. KEYWORD: INTELLIGENCE

(a) ITEM: NMCB'S HAVE NO ORGANIC ASSETS FOR OBTAINING NEWS/MEDIA REPORTS WHEN IN REMOTE LOCATIONS.

(b) DISCUSSION: In today's information rich media, events on the fast-moving battlefield are reported with greater accuracy and on a constant basis (CNN, FOX News, BBC). The military member of today is accustomed to staying closely abreast to current events. Without requisite equipment, the entire battalion is dependent upon INSUM reports from higher, which are typically focused on the unit's specific requirements, rather than the broad picture. Large scheme situational awareness and morale suffers without access to mainstream media. (e.g. The battalion was unable to listen to the President's address to the country, 48 hrs prior to the commencement of forces entering Iraq.)

(c) RECOMMENDATION: Purchase a portable short-wave radio and one television with a satellite dish and required service contract.

13. KEYWORD: MEDICAL/DENTAL

(a) ITEM: AN ENVIRONMENTALLY SECURE AREA IS NEEDED TO PROVIDE PROPER MEDICAL CARE, ESPECIALLY, WHEN OPERATING IN HARSH ENVIRONMENTS.

(b) DISCUSSION: The SOP for NMCB Battalion Aid Stations (BAS) is to construct a Southeast Asia (SEA) Hut. During high mobility operations, it is impractical, if not impossible to construct and use a SEA Hut. A DRASH tent assembly would provide the necessary sanitary conditions for a BAS. Because the DRASH has a floor and can achieve a relative level of positive pressure, it can provide contaminant free medical spaces during medical treatment and during a CBR attack.

(c) RECOMMENDATION: Add 2 DRASH tent assemblies to the P-25 (The 2nd DRASH tent would be used as the Combat Operations Center (COC) or Command Post (CP).)

(a) ITEM: SHOWER UNIT

(b) DISCUSSION: Field hygiene is a concern. The TOA shower assembly is too bulky to haul and too cumbersome to set up during expeditionary missions.

(c) RECOMMENDATION: Alternative methods of providing showers should be considered for future missions. Additionally, a six-con or water truck adapter attachment could provide a quick field shower facility.

(a) ITEM: 4 HOLE BURN-OUTS

(b) DISCUSSION: The four-hole burn-out assemblies were not appropriate for Task Force MIKE operations. With the task force moving every several days, the standard ABFC four-hole burn-out was difficult to move and did hold up to loading and unloading. After the second camp, the prefabricated four-hole was replaced with a more efficient, smaller 2 hole burn-out, making loading and transporting significantly easier.

(c) RECOMMENDATION: If mobility is part of the operation, construct a modified 2-hole burn-out. If line haul space is limited, consider replacing nails with lag-bolts. This will strengthen the structure and allow disassembly if necessary.

(a) ITEM: DENTAL EQUIPMENT CONDITION

(b) DISCUSSION: Various pieces of equipment from the MPRSON 2 TOA were either missing or incomplete. Equipment including high and low speed hand tools and components such as light-blocking sleeves for x-ray film developer was missing.

(c) RECOMMENDATION: Using appropriate personnel, conduct a comprehensive TOA inventory and order necessary shortages. Based on the possible date of the operation, make sure there is ample time for ordering and shipping.

(a) ITEM: DENTAL DEFERRED TOA ITEMS

(b) DISCUSSION: The prescribed supply items deferred from the shipboard TOA, but required for the operation of a comprehensive dental facility, did not arrive. The dental staff was forced to borrow the necessary items to provide even minimal care.

(c) RECOMMENDATION: Review the timeline of ordering MPSRON deferred TOA items. Validate the minimum timeline required to augment the TOA with deferred items and plan accordingly.

(a) ITEM: AMBULANCE/MEDICAL SUPPLIES

(b) DISCUSSION: The TOA ambulance was a soft back HMMWV. Although it was sufficient to transport injured patients, it was difficult to treat patients and store medicines as a temporary BAS.

(c) RECOMMENDATION: Include a four litter, hardened "cracker box" type HMMWV ambulance in the TOA. This ambulance has a four-litter capacity and space for a provider to maneuver and administer treatment. The cracker box also has air conditioning, CBR protective capability and adequate space to carry trauma equipment and sick call medicines.

(a) ITEM: FIELD HYGIENE

(b) DISCUSSION: During the operation, the majority of battalion personnel contracted gastrointestinal viral illness. The number of cases might have been less with improved facilities for hygiene and pest control. Improved fly control would also positively affect quality of life at long-term base camps.

(c) RECOMMENDATION: Ensure hand washing facilities adjacent to latrine burn-outs and in front of every galley are provided at every base camp. Construct burnouts with perimeter screens to minimize flies. Lime should be added to burnouts daily. Make urinal areas using PVC pipes and gravel. Deposit pesticide fly bait around burnouts and water bulls.

(a) ITEM: AMMAL CONSUMMABLES

(b) DISCUSSION: The AMMAL consumables did not arrive on a timely basis. When they did arrive, only 60% of items were present and several critical items were missing including oxygen bottles and narcotic medications. These items had to be sourced through alternate means.

(c) RECOMMENDATION: Ensure critical medical consumables are purchased, tracked and delivered prior to beginning the operation. This may require increasing the delivery time or expediting the shipment. Although forecasting or expediting may result in some additional costs, medical consumables must be handled as mission critical items.

(a) ITEM: MEDICAL RECORDS/ADMINISTRATIVE FUNCTIONS

(b) DISCUSSION: The medical department needs a way to continue to update and access medical records information using the SAMS system. Medical reports are generated daily and need to be printed.

(c) RECOMMENDATION: Dedicate a laptop computer loaded with SAMS and a printer to the medical department. The computer must have sufficient memory and speed for this purpose (suggest 1 GHz processor with 512 MB).

14. KEYWORD: EMBARK

(a) ITEM: INTERMEDIATE STOPS

(b) DISCUSSION: Bangkok, Thailand was an intermediate stop on the contracted flights from Guam to Kuwait. During refueling, the flight crew required troops to deplane, walk through the main concourse and wait in one of the large lobby areas. According to the aircraft supervisor, the position of the plane at the airport required all passengers to exit the plane during refueling operations. Walking through the airport in Desert Utility Uniforms presented a significant force protection concern. Although the areas were secured, there was an increased element of risk that could have been avoided if the troops were allowed to remain on the flight.

(c) RECOMMENDATION: Make provisions during the planning phase of embarkation to respond to airport regulations. Contact the carrier, research the plan and adjust accordingly.

04 MAY 03

**From: Officer in Charge, Naval Mobile Construction Battalion
SEVENTY-FOUR Seabee Engineering Reconnaissance Team**
To: Commander, Task Force Mike

Subj: AFTER ACTION REPORT FOR NAVAL MOBILE CONSTRUCTION BATTALION
SEVENTY-FOUR SEABEE ENGINEERING RECONNAISSANCE TEAM OPERATION IRAQI
FREEDOM, OPLAN 1003V.

Ref: (a) TASK FORCE MIKE SERTEX INITIATING FRAGO

1. Per reference (a), NMCB SEVENTY-FOUR SERT participated in
OPERATION IRAQI FREEDOM from 19 March to 04 May 2003.

C. K. KENNEDY
LT, CEC, USN

Copy to:
OPERATIONS OFFICER TASKFORCE MIKE
CO NMCB 74
OPERATIONS OFFICER NMCB 74

TABLE OF CONTENTS

<u>CHAPTER</u>		<u>PAGE</u>
I	Executive Summary	114
II	Communications	115
III	Operations	116
	Mission Summaries	
	West An Nasiriyah Euphrates Bridge Site Survey	117
	Route 1 to Route 7 Connector Survey	118
	Route 27 Saddam Canal Bridge Site Survey	119
	Route Pearl Connector Site Survey	120
	Muwaffaqiyah Bridge Site Survey	121
	Zubaydiayah Bridge Site Survey	122
	West Ad Diwaniyah Bridge Site Survey	123
	Al Kut Bridges Site Survey	124
IV	Supply / Logistics / Equipment	125
V	Security	126
 <u>APPENDIX</u>		
1	Lessons Learned	127

CHAPTER ONE

EXECUTIVE SUMMARY

During Operation IRAQI FREEDOM Naval, Mobile Construction Battalion (NMCB) SEVENTY-FOUR Seabee Engineering Reconnaissance Team (SERT) provided engineering reconnaissance and data transmission back to the battalion, and other Naval Construction Forces for engineering missions throughout the I Marine Expeditionary Force area of operations. The 74 SERT was comprised of a seven man reconnaissance element, a three man Liaison Officer (LNO) cell, and a four man dive augment from Underwater Construction Team (UCT) TWO.

The 74 SERT was attached to Crossing Area Engineer (CAE) Team ONE which is part of the Marine Corps 8th Engineering Support Battalion (ESB). Attached to CAE 1 facilitated moving SERT to the first primary objective located west of An Nasiriyah at the Euphrates River Bridge on Highway 1 and the subsequent logistic supply routes up Highway 1 and east on Highway 27

Missions for 74 SERT, included the reconnaissance of the West An Nasiriyah Euphrates River Bridge on Highway 1, the Highway 1 to Highway 7 connector and Saddam Canal crossing, route reconnaissance of Highways 1 and 7, and the Highway 27 bridge over the Saddam Canal. During all of these missions, SERT and the LNO were co-located with CAE 1 and the LNO was responsible for sending the engineering reconnaissance data via HF-Data to Task Force Mike (TF-M).

After the reconnaissance of the Highway 27 Bridge was completed, SERT traveled to the An Numiniya Airfield where they were reattached to the NMCB 74. During the time at the An Numiniya Airfield, SERT provided engineering reconnaissance of bridges at Muwaffaqiyah, Zubaydiyah, West Ad Diwaniyah, and Al Kut.

74 SERT was reattached to TF-M on 20 April to provide engineering reconnaissance for Humanitarian Aid and Civil Military Affairs projects in An Diwaniyah and An Najaf. Reconnaissance conducted was of critical public works and infrastructure items including power lines, water and sewer systems, schools, and hospitals.

The table of equipment designated for SERT was sufficient for all tasked missions. The skills and knowledge the SERT members brought to the team, coupled with the just-in-time training received in the weeks leading up to OIF, proved adequate to ensure all technical aspect of mission tasking were successfully accomplished. Two areas that had rough spots were command and control with the host unit to which SERT was attached and communications (Note: tactical communications were an issue for many units within the Iraq AOR).

To summary, SERT provided engineering reconnaissance and engineering data reach back support for the Naval Construction Forces of three major highways, two connector routes, seven bridges, and numerous public works and infrastructural items.

CHAPTER TWO

COMMUNICATIONS

The success of the SERT relies solely on the ability to pass timely information. Data regarding site characteristics, soil conditions and battle damage status must be immediately forwarded for assessment.

SERT was equipped with communications assets for transmitting HF voice, HF data, and VHF voice. The only means for the SERT to pass data to higher via HF data. However, HF data transmission of gathered information took up to eighteen hours. Hence the information gathered was not timely. The recon element was able to perform engineering recon of tasked missions in three or less hours. Thus, the long pole in the tent of sending data to the rear is and will always be transferring the data via HF. It is frustrating to know that the SERT is forced to use HF when technologies exist, such as UHF/Satcom that would allow data to be transferred at a faster more reliable rate about existing site conditions to the rear so battlefield commanders can make informed tactical and logistical decisions.

VHF communications remained the only reliable source of communications throughout the operation. However, the SERT was for a large portion of the operation outside of VHF range from Task-Force Mike, the LNO cell, and parent command NMCB 74. Using VHF primary means of communication with adjacent units.

The SERT used a combination of IRIDIUM and INMARSAT phones. Most communications between SERT, Task-Force Mike, the LNO and NMCB 74 was via IRIDIUM phone. The SERT recon used the IRIDIUM phone due to the mobility and small size of the phone while the LNO used the INMARSAT. These phones were fairly reliable, however when on the move the INMARSAT could not be used due to the requirement for it to remain stationary, while the IRIDIUM phone had difficulty maintaining good signal strength. Also, it was difficult to achieve secure communications on the IRIDIUM, most often having to "talk around" OPSEC issues in an unsecured mode

Another important variable within SERT tactical communications includes understanding critical elements of information and transmitting precise and correct data. Communicators and watch standers within each organization must fully comprehend the information being transmitted and ensure that exact translations are conveyed. Several times data had to be re-transmitted because watch standers and communicators did not understand the priority of the information or the routing directions for reconnaissance data.

CHAPTER THREE

OPERATIONS

1. Operations Summary

SERT conducted engineering reconnaissance throughout the entire 1MEF area of operations. Below is a map indicating major cities and site of engineering reconnaissance performed by SERT. Also this section includes highlights of individual recon missions conducted by SERT.



WEST AN NASIRIYAH EUPHRATES BRIDGE SITE SURVEY

Mission Summary

GENERAL. Provide general engineering reconnaissance the existing Highway 1 Bridge over the Euphrates River west of An Nasiriyah. Obtain grids and critical site information for a Non-Standard Bridge (NSB) if required.

Personel: (3) Engineering Recon, (4) Security

Duration: (Recon) 45 Minutes, (Data Transfer) 25 hrs

Findings: Once on site the RECON element determined that there was no need to put divers in the water due to the fact that the existing bridge was intact and there was no need to install a non-standard bridge. The SERT completed the survey of the bridge and concluded that the bridge was capable of supporting MLC 80 tracked and wheeled traffic. In order to support flow of traffic it was determined that the approaches on both ends of the bridge needed to be filled and maintained. In addition to the survey, numerous photos where taken in order to paint a clear picture of the general condition of the bridge to higher.



ROUTE 1 TO ROUTE 7 CONNECTOR SURVEY

Mission Summary

GENERAL. Given planning information from OPT on 1003V possible connector routes find best possible route from Highway 1 to Highway 7. Addition recon data required for a crossing site over Saddam Canal either via an existing bridge or obtainment of critical information for a NSB.

Personnel: (5) Reconnaissance, remaining personnel stayed with LNO and CAE 1, while RECON personnel travel with Marine Corps Force Recon to the objective.

Duration: (Recon) 40 hr, (Data Transfer) 18 hrs

Findings: The RECON was conducted during a severe sandstorm, which significantly slowed the progress of the route RECON due to visibility. Once the sandstorm subsided, the route RECON went well due to the existence of several roads leading to the purposed crossing site over the Saddam Canal. SERT determined that the existing roads leading to the crossing site were in relatively good condition and required minimal work to sustain traffic flow. The purposed crossing site had a wet gap distance of 72 meters, which was determined to be a good location for the construction of the mole pier/Mabey Johnson Bridge.



ROUTE 27 SADDAM CANNEL BRIDGE SITE SURVEY

Mission Summary

GENERAL. Execute engineering reconnaissance of existing bridge over Saddam Canal on Route 27. Gather information for NSB if required.

Personnel: (3) Engineering, (4) Security, (4) Divers

Duration: (Recon) 45 Minutes, (Data Transfer) 2 hrs

Findings: It was determined once on site that there was no need to put divers in the water due to the presence of an existing bridge and the relatively short gap distance. The SERT completed a survey of the existing bridge and determined that the MLC was 40 tracked and wheeled, however tanks rolled across the existing bridge while we were on site causing the bridge to start to fail in shear and reducing the MLC. The 8th ESB had placed assault ribbon bridging on the southern side of the bridge to accommodate flow of forces. The SERT determined that the best location for a non-standard bridge was also on the southern side of the existing bridge due to the relatively clear and flat approaches to the canal.



ROUTE PEARL CONNECTOR ROUTE SURVEY

Mission Summary

GENERAL. Execute engineering reconnaissance of Route Pearl from Highway 27 to Tigris River. Develop a Route Map with legend/key for route repairs and upgrades required in order provide maximum trainability to military convoys.

Personnel: (3) Engineering, (4) Security

Duration: (Recon) 2 hr, (Data Transfer) 4hrs

Findings: By the time SERT surveyed the route most of the combat forces had already flowed beyond the route and paved routes between Highway 27 and Highway 6 had been opened for logistics trains. SERT was able to provide TF-M with suggestions for improvements to the connector route in order to maintain the ASR.



MUWAFFAQIYAH BRIDGE SITE SURVEY

Mission Summary

GENERAL. Execute engineering reconnaissance of existing bridge over Shaffad Gharraf River near Muwaffiaqiyah. Gather information for NSB if required.

Personnel: (3) Engineering, (4) Security

Duration: (Recon) 1hr, (Data Transfer) 4hrs

Findings: The bridge on site was determined MLC 20 maximum. The bridge had structural damage between the 5th and 6th span from the north end. There has been two steel plates (3ft x 6ft) welded to the decking over the hole but the stringer underneath is missing as a result of the initial damage. Rust was evident on all piles and stringers. There are also no solid connections that exist between any steel member only tack welds appear to hold the steel in-place. The site was determined to be not suitable for non-standard bridging as no suitable assembly area and borrow pit could be located. Additionally, operating at this site, which was located in the center of the city presented a security concern. While conducting the bridge recon, many of the local populace crowded the site to observe the reconnaissance. At one point there were between 200-300 civilians located in and around the bridge site.



ZUBAYDIYAH BRIDGE SITE SURVEY

Mission Summary

GENERAL. Execute engineering reconnaissance of existing bridge over Tigris River near Ah Zubaydiyah. Gather information for NSB if required.

Personnel: (3) Engineering, (4) Security

Duration: (Recon) 1hr, (Data Transfer) 4hrs

Findings: Bridge was recently destroyed by US Forces. Original bridge appeared to be a floating span Maybe Johnson that provided the trafficablity across the Tigris River for the citizens of Zubaydiyah. SERT recommend to TF-M that a Maybe Johnson Flex Float system be installed at this site for humanitarian purposes as this route provided no military advantage to US Forces in have a bridge in place at this site.



WEST AD DIWANIYAH BRIDGE SITE SURVEY

Mission Summary

GENERAL. Execute engineering reconnaissance of existing bridge over canal west of Ad Diwaniyah. Gather information for NSB if required.

Personnel: (3) Engineering, (4) Security

Duration: (Recon) 1hr, (Data Transfer) 4hrs

Findings: The bridge had sustained sufficient damage on the 2nd span (from west to east) resulting in a 15ft gap. The remainder of the bridge was in good condition with a classification of MLC 80. Currently there are two Medium Girder Bridges spanning the gap. The Medium Girder bridges were placed such that their bearing surfaces were not directly over undamaged bents and caps of the existing bridge reducing the MLC of the bridge to MLC 30. There appears to be no damage to the piles or bent caps. A Mabey-Johnson Bridge could be placed on the 2nd span of the bridge or on either side. SERT recommend to TF-M that if bridge is only for civilian traffic the two MGB in place will work. Otherwise, the existing bridge must have the 2nd span "over-bridged" with a Maybe Johnson.



AL KUT BRIDGES SITE SURVEY

Mission Summary

GENERAL. Execute engineering reconnaissance of existing bridge over canal south of Al Kut and Tigris River east of Al Kut. Gather information for NSB if required.

Personnel: (3) Engineering, (4) Security

Duration: (Recon) 1hr, (Data Transfer) 4hrs

Problems Areas: At the first bridge no alternate site existed in the area for a NSB. Bridge was classified as MLC 30 for tracked and wheeled vehicles. Bridge was also part of the dam onsite. The width of the bridge was only 10ft and traffic could only operate in one direction at a time. The recommendation to TF-M was no improvements required at this site. The second bridge was over the Tigris River leading to and from the city of Al Kut proper and was rated at MLC 70 with the exception of the 1st span. The bridge had a drivable width of 25ft and 27ft between trusses. There was damage to the bridge resulting from the removal of 30ft of decking from the 1st span. Some structural bolts were missing along with some supports being bent. Locals were onsite attempting to repair the bridge (not all pieces of the decking were present). SERT recommended to TF-M that if there is further military need for this bridge that Seabees repair the first span (42 m) with a Maybe Johnson.



CHAPTER FOUR

SUPPLY / LOGISTICS / EQUIPMENT

During OPERATION IRAQI FREEDOM, SERT obtained resupply on all Class I and Class III supplies from units they were attached to. SERT deployed with the following classes of supply:

1. Supplies

Class I. SERT deployed with 3 days of MRE's and water and the LNO cell deployed with 5 days of MRE's and water. MEG and Regimental staff provided this sustainment guidance.

Class II. Soil sieves, engineering transit, a penetrometer, and tape measure for determining site conditions was included in the pack out. The Battalion and Regiment provided these items.

Class III. JP-8 was stored and distributed via 5-gallon cans mounted on SERT vehicles. Petroleum, Oils and Lubricants (POL) for generators and CESE was also mounted and carried in vehicles.

Class IV. N/A

Class V. TOA weapons (M-16's, M-9's, MK-19, and M60E3) were checked out from the battalion armory.

Class VI. The SERT deployed with approximately 30-days personal demand items, anticipating no means of re-supply for duration of operation.

Class VII. The Security and RECON element deployed with two hardback HMMWV's, UCT augment with one soft-back HMMWV and the LNO with a cargo HMMWV mounted with a communications box.

Class VIII. SERT carried a medical bag with essential medical supplies.

Class IX. SERT deployed with a small amount of ARP for minimal vehicle repairs. The kit contained belts, oil filters and grease.

Services. N/A

CHAPTER FIVE

SECURITY

Security remains a major concern while conducting RECON missions. When Intel is not possible regarding specific security postures at RECON sites, the SERT must prepare for the worst-case scenario. It was evident during our bridge and route RECON missions that maintaining a secure RECON site with a four to nine person Security element was difficult without assistance. There were many avenues of approach at bridge sites. Maintaining a secure site to conduct the mission was difficult because of the limited security assists. The Mobile Construction Seabees typically do not train in small units and unit security tactics training is a must for SERT missions to succeed.

During the first two weeks of the operation, SERT was augmented with augment security, either from the 8th ESB or from Marine Corps Force RECON. The SERT's need for augment security is an issue that will develop better clarity once Marine units and Seabees (SERT) have more experience operating together. Thus, the Marines will better understand the extent and limitations of Seabee skills in a forward recon environment.

LESSONS LEARNED

1. KEYWORD: Communications

a. ITEM: HF Data Transfer

b. DISCUSSION: HF Data Transfer is slow cumbersome and otherwise completely ineffective means of communications for a small fast moving unit such as SERT. Once the unit is setup and troubleshot, data can be transferred rather quickly, however setup and troubleshooting takes several hours.

c. RECOMMENDATIONS: There is technology available to the military that would allow data transfer via UHF/Satcom. Funding should be allocated to purchase the means to transfer data via UHF/Satcom.

a. ITEM: VHF Communications

b. DISCUSSION: The current direction of VHF voice communications is frequency hopping. In order to be able to communicate via freq hop, the operator needs to be able to program a net ID into the VHF radio. The radios that were issued to the SERT are older RT1523's only capable of two-digit net ID's. All the net ID's that were published in the CEOI were three-digit net ID's, making the older RT1523A that were issued to the SERT obsolete.

c. RECOMMENDATIONS: Replace the RT1523A with RT1523B or newer.

a. ITEM: Iridium/INMARSAT

b. DISCUSSION: The quickest and most preferred means of communications with other units was via Iridium/INMARSAT phone.

c. RECOMMENDATIONS: SERT must be outfitted with organic communications gear. In addition, the SERT cannot continue to tie up a large percentage of the limited communications battalion assets. The gear must be lightweight and efficient instead of the large unwieldy "garrison style" communications gear that is part of the battalion's TOA.

a. ITEM: HF Data Net Prioritization

b. DISCUSSION: On several occasions after the LNO had been given permission to transmit HF data to TF-Mike the link was dropped as a result of other stations with stronger signals being given permission by the TF-M radio watch to send HF-Data at the same time.

c. RECOMMENDATIONS: Task Force Mike needs to establish a HF-data net solely for the purpose of SERT data transfer. Once this net is established, the radio watch needs to be aware of the priorities SERT operations.

a. ITEM: Site Information

b. DISCUSSION: Often times during Operation IRAQI FREEDOM the SERT executed missions with Marine units. During these missions the SERT OIC and SERT Chief worked with their Marine Corps counterparts. This relationship produced valuable information for TF Mike regarding future Operations for the Marines. Information included things such as when assault bridging would be

removed and which MSR's and ASR's would be the primary focus for the Marine Corps. This information was forwarded to higher, but appeared to be never used.

c. RECOMMENDATIONS: Feedback from higher to the SERT team in the future would be valuable in deciding the proper course of action on given objectives.

2. KEYWORD: Training

a. ITEM: Training Plans

b. DISCUSSION: Since the training started late last year, it has been up to the individual SERT responsibilities to develop, coordinate and execute all training plans. Without the appropriate resources and guidance from subject matter experts, much of the training was based around the battalion's military tactics training plans. Not knowing the needed training curriculum made it difficult to ensure that personnel are trained for various types of missions. If SERTs are to be forward as individual RECON elements, a more directed course of training must be established. SME's from Force Recon and Navy SEAL's would expand the SERT's mission capabilities.

c. RECOMMENDATIONS: Identify SERT members for long term and focus training on force RECON tactics.

a. ITEM: Hasty Engineering RECON

b. DISCUSSION: After meeting with Engineering RECON experts from the 8th ESB and the Army's 5th Corps Headquarters, it is evident that there is an immense amount of training and practice required to become proficient in the field of engineering RECON. SERT has not attended any formal schools or been given a sufficient amount of time to be considered capable of conducting the type of hasty engineering recon that the Army and the Marine Corps can conduct.

SERT needs to be trained specifically in field engineering recon. Although the requirement for a professional engineer is important, specific training on structural engineering analysis is imperative. This is a highly specialized field and specific, in-depth training is required in order to be successful.

c. RECOMMENDATION: Send all SERT members to formal training at the Army Corps of Engineers Recon School in Fort Leonard Wood.

3. KEYWORD: Security

a. ITEM: Small Unit Tactics

b. DISCUSSION: SERT Members are familiar with conducting operations within a large defensive battalion posture. Based on previous NCF training, SERT members are uncomfortable operating in a small unit.

c. RECOMMENDATIONS: Provide small unit battlefield leadership training opportunities and courses to all SERT members. Give SERT members time to organize and train in homeport and on deployment.

a. ITEM: Link-Up

b. **DISCUSSION:** On many occasions during Operation IRAQI FREEDOM SERT was given a mission from TF Mike to RECON various sites. In the FRAGO the SERT was tasked with linking up with an adjacent unit in order to execute the mission. Often times the FRAGO had no POC for link up or NET ID's. This made it very difficult to fulfill the requirements of the FRAGO. SERT spent hours looking for individuals that knew about our mission.

c. **RECOMMENDATIONS:** Higher must be more specific in their FRAGO's, POC's and NET ID's need to be provided prior to the execution of SERT missions.

3. **KEYWORD:** Supply

a. **ITEM:** SERT TOA

b. **DISCUSSION:** In order to outfit the SERT, the parent battalion had to provide critical TOA items to establish the teams. The amount of CESE, Crew Serve weapons and Communications gear that was taken from the battalions TOA impacted their ability to operate.

c. **RECOMMENDATIONS:** Identify and procure TOA specifically for SERT.

5. **KEYWORD:** Doctrine/Concept of OPS

a. **ITEM:** Written doctrine

b. **DISCUSSION:** It is difficult to plan, train and execute operations when there is not an established doctrine or concept of OPS. To date, there has been limited written direction regarding training parameters and mission specifics. Until written doctrine is established, allow SERT members to explore different means of techniques and procedures to adapt to potential operating environments.

c. **RECOMMENDATIONS:** Publish a written SERT doctrine.

a. **ITEM:** Concept of OPS

b. **DISCUSSION:** Several times during this operation, the 8th ESB determined sending the entire SERT team out to conduct an operation was not needed. SERT was able to conduct missions with only the RECON element attached with Marine Security. This relationship worked out very well.

c. **RECOMMENDATIONS:** Future SERT missions may require team composition tailoring based on the complexity, duration and threat condition of the mission. Coordination by higher must be executed in order to determine the right number of individuals to send.

APPENDIX C- MEDIA COVERAGE: Operation IRAQI FREEDOM demonstrated a different relationship between the military and media. The concept of embedded media allowed reporters from various forms of media to integrate with combat units. NMCB 74 received three embedded media, two FOX News reporters attached to Task Force MIKE, and one Radio SAWA attached to Task Force CHARLIE. These media personnel lived, ate and traveled with the battalion. Media personnel filmed and transmitted stories as the battalion proceeded through Iraq. Below is a synopsis of the stories released:

Radio SAWA

Reporter: Emad Alkafhaji

- **Daily updates of activities (Live)-** **12 March- 07 April 2003**
Daily Arabic radio broadcasts on a variety of topics related to activities during Operation IRAQ FREEDOM.

FOX News

Reporter: Christian Jack

Cameraman: Steve Shelton

- **Training Before the War (Live)-** **12 March 2003**
A description of the convoy and patrol training conducted by NMCB 74 in preparation for Operation IRAQ FREEDOM.
- **How Troops Relax-** **13 March 2003**
An overview on how troops in NMCB 74 were relaxing including a sports day used to unwind personnel.
- **The Night it all Began-** **19 March 2003**
An account of NMCB 74's convoy to the dispersal area in preparation for crossing the line of departure into Iraq and coping with the first night.
- **SCUD Attacks** **20 March 2003**
Transitions from describing the TLAMS and SCUD attacks as the air war begins to NMCB 74's movement across the line of departure and into Iraq.
- **Sand Storm** **25 March 2003**
Walks the viewer through a Seabee's experiences during a major sand storm.
- **Reaching the First Mission** **26 March 2003**
Provides an overview of NMCB 74 arriving at the first Mabey-Johnson bridge site on Highway 1 north of An Nasariyah.
- **Field Hygiene** **27 March 2003**
Demonstrates how a Seabee lives without showers and continues to maintain proper field hygiene.

- **Working Night and Day (Live)** **27 March 2003**
Shows how NMCB 74 conducted 24-hour operations during its first Mabey-Johnson bridging project inside Iraq.
 - **The First Bridge to Baghdad Done (LIVE)** **28 March 2003**
Describes how NMCB 74 completed the first bridge project and turned north toward Baghdad to conduct further operations.
 - **Gifts from Home (Live)** **30 March 2003**
Receiving a box of goodies from home, showing the morale boost that such a gift brings to a troop in the field.
 - **Troops and Their Weapons** **01 April 2003**
As a potentially vital tool to save their lives, this story explains how each Seabee develops a personal attachment to his/her weapon and struggles to keep it clean and functioning in a desert environment.
 - **Convoy** **02 April 2003**
How a Naval Mobile Construction Battalion executes convoy missions and the inherent dangers associated with them.
 - **Bridging the Saddam Canal** **03 April 2003**
The story of NMCB 74's construction of its second bridge built over dangerous waters.
 - **Women on the Front** **05 April 2003**
A day in the life of a female service member aboard NMCB 74 inside Iraq during wartime.
 - **Ambushes** **05 April 2003**
Information about ambushes and the feelings and understanding of assorted personnel toward them.
 - **The Airfield Outside Baghdad (Live)** **06 April 2003**
Information regarding the cleanup work being performed at Rasheed Airfield, a prior Iraqi military training camp, on the outskirts of Baghdad.
- ENR Reporter: Andrew Wright
- **Giving Water to Southern Baghdad-** **12 April- 16 April 2003**
Written article on the engineering and construction techniques used by NMCB 74 to provide water to Southern Baghdad.

APPENDIX D- COMMENDATORY CORRESPONDENCE

FM CG I MEF
TO 30TH NAVAL CONSTRUCTION REGIMENT//CO//
INFO LtGen HAILSTON
RADM KUBIC
MGEN AMOS
MGEN MATTIS

BT
UNCLAS PERSONAL FOR WILLIAM L. RUDICH FROM LTGEN JAMES
CONWAY//N00000//
MSGID/GENADMIN/GC I MEF FWD//
SUBJ/ BRAVO ZULU TF M//
RMKS/ BILL, AS ELEMENTS OF TF M RETURN TO PARENT COMMANDS AND
REINFORCE TF C, I WISH TO EXPRESS APPRECIATION ON BEHALF OF YOUR
FELLOW AMERICAN AND BRITISH TROOPS WHO CONSTITUTE I MARINE
EXPEDITIONARY FORCE. THE DETERMINATION AND SKILL THAT YOUR
SAILORS DISPLAYED WAS NOTHING SHORT OF MAGNIFICENT. THE SPEED
AND PRECISION YOUR TASK FORCE DEMONSTRATED DURING THE
CONSTRUCTION OF THE HUGE CONCRETE PAD AT JABER, AND SIX
MABEY-JOHNSON BRIDGES REFLECTS THE HIGHEST CALIBER OF
TRAINING AND TECHNICAL PROFICIENCY. YOUR UNIT'S DEDICATION AND
HARD WORK KEPT LINES OF COMMUNICATION GOING THROUGHOUT THE
THEATER. IN SUBSEQUENT ACTIONS, TASK FORCE MIKE'S WORK TO
IMPROVE SECURITY POSITIONS AND ADD TO THE QUALITY OF LIFE FOR
SERVICEMEMBERS AT LSA CHESTY, SALMAN PARK AND AT DIWANIYAH
WAS EXEMPLARY AND CONTRIBUTED GREATLY TO THE STABILIZATION
OF THE BATTLEFIELD. AS MANY OF YOUR SAILORS DESERVEDLY RETURN
TO HOME PORT AND LOVED ONES, WE WISH FAIR WINDS AND FOLLOWING
SEAS TO ALL THE GREAT MEN AND WOMEN OF TASK FORCE MIKE.
SEMPER FIDELIS, BOLD EAGLE SIX//

-----Original Message-----

From: Angelella Sam COL 332 AEW/CC
Sent: Monday, December 02, 2002 11:26 AM
To: McNelis Sean P 0-3 30NCR
Subject: RE: Seabees who helped with tent lights last Monday

thanks for ALL you're doing here. Keep up the good work.
SAA

Colonel Sam Angelella, USAF
Commander, 332 Air Expeditionary Wing
DSN 318-441-2000
Command Post 441-2025

R 150525Z NOV 02
FROM: TASK FORCE CHARLIE//00//

TO: NMCB SEVEN FOUR DET//00//
NMCB FIVE DET//00//

INFO: TF CHARLIE//BWC/R1/R3/R3C/R3E/R35/R4/R41/R43/R46/R6//
COM THREE ZERO NCR//00//
NMCB SEVEN FOUR//00//
NMCB FIVE//00//

UNCLAS//N03000//

SUBJ: BRAVO ZULU TO TF CHARLIE CONSTRUCTION MECHANICS AND
EQUIPMENT OPERATORS

1. OICS, PLEASE EXTEND MY SINCERE APPRECIATION AND "BRAVO ZULU" TO THE OUTSTANDING MECHANICS AND OPERATORS OF TASK FORCE CHARLIE. DESPITE THE AUSTERE CONDITIONS, HIGH OPERATIONAL TEMPO, AND LONG PARTS LEAD TIME, THEY HAVE MAINTAINED AN EXCEPTIONAL CESE AVAILABILITY OF 93%.
2. THEIR OUTSTANDING PROFESSIONALISM AND SUPERB EQUIPMENT AVAILABILITY RATE HAS ENABLED TASK FORCE CHARLIE TO MAINTAIN EXCELLENT MOMENTUM ON OUR CRITICAL CONSTRUCTION PROJECTS. THEIR EFFORTS CONTRIBUTE SIGNIFICANTLY TO THE PRE-WAR CONSTRUCTION PROJECTS FOR 3D MARINE AIR WING.
3. KEEP UP THE GREAT WORK, STAY SAFE, KEEP CHARGING.
4. CDR J.A. CAMPBELL SEND