

OPERATION JOINT ENDEAVOR BOSNIA-HERZEGOVINA

OCT - DEC 1996

AFTER ACTION REPORT



TABLE OF CONTENTS

Executive Summary	2
Functional Areas	
Administration	3
Organization	
Command and Control	
Communications	
Public Affairs	
Medical and Dental	
Safety Summary	7
Training	8
Security	10
Embarkation	12
Operations	14
Supply and Logistics	35
Equipment	39
Camp Maintenance	42

EXECUTIVE SUMMARY

Naval Mobile Construction Battalion FORTY deployed 335 Seabees from Camp Mitchell, Rota, Spain and Kesan, Turkey to Bosnia-Herzegovina in support of Operation JOINT ENDEAVOR. The Battalion (minus) was OPCON initially to the Army's 1st Armored Division (1AD), and then following transfer of authority which occurred mid-deployment, to the 1st Infantry Division (1ID). Seabees performed in excess of 18,770 mandays of effort, accomplishing camp disestablishment and retrograde crucial to the re-deployment of 1AD, and critical force sustainment construction supporting 1ID.

NMCB FORTY received official tasking to redeploy a Battalion (minus) to Bosnia on 13 September 1996, following several weeks of increasingly credible, preliminary notification. A one week site visit was conducted to clarify mission scope and to identify the Battalion requirements. On September 24th through 26th, a tailored Table of Allowance, (Civil Engineer Support Equipment (CESE)-191, ISO containers-98, sixcons-27, and break bulk pallets-44) was loaded onboard the lift on/lift off vessel, SS Wilson. The embarkation process involved movement by sea to Livorno, Italy, by rail (7 trains) to the Intermediate Staging Base (ISB) at Tazsar, Hungary, then tactical convoy and commercial line haul to Camp, Colt, Bosnia. A second phase of embarkation involving 39 personnel and 31 pieces of CESE was similarly conducted from Kesan, Turkey, where NMCB FORTY had a Deployment for Training (DFT) participating in Exercise DYNAMIC MIX, to Camp Colt.

The Battalion was assigned primary tasking of base camp disestablishment for the 1st Brigade Combat Team (1BCT), which was operating in the northern U.S. sector of Task Force Eagle (TFE). Secondary mission tasking included force sustainment operations, Main Supply Route (MSR) maintenance and repairs, snow removal operations and construction-engineering tasks as assigned. The initial tactical convoy entered Bosnia on 09 Oct 96. Accomplishment of TFE tasking commenced on 14 Oct 96. NMCB FORTY's concept of operations was to maintain a central operation with a command post at Camp Colt, which was a TFE enduring camp located 20 miles west of the Bosnian town of Brcko, and deploy task organized details to accomplish assigned missions. All movement within Bosnia required tactical convoys (minimum of four vehicles, two persons per vehicle and one crew served weapon). Personnel wore flack jackets and kevlar helmets at all times when outdoors; they also carried their assigned weapon and ammunition. Magazines were loaded, with no rounds chambered, when outside secure base camps. A security/react platoon was maintained to provide expert security, navigation, communications and immediate action response for convoy operations.

NMCB FORTY disassembled and retrograded 14 base camps, completed 19 tasked sustainment projects, ranging from tension fabric structure disassembly and erection to the construction of a one kilometer improved road, maintained all Battalion support functions, including significant Camp Colt projects, and conducted over 290 tactical convoys, accumulating more than 220,000 vehicle miles. All tasking was completed on, or ahead of, required schedules, despite weather conditions that were often severe. Seabee discipline and professionalism were maintained at the highest levels; over 7000 individual weapons clearing evolutions, conducted every time a convoy entered a secure base camp, resulted in no negligent discharges.

Mission success was most succinctly expressed by the commander of the 1BCT who said, "The Seabees have proven themselves as the military construction force of choice."

ADMINISTRATION

1. Organization: Upon receipt of tasking from U.S. European Command (EUCOM) and conclusion of the NMCB FORTY pre-deployment site visit to the TFE AOR, the decision was made to deploy the battalion in two echelons. All European details were rolled-back to the Rota, Spain mainbody site, with small elements remaining at Details Sigonella and Souda Bay for the purpose of camp and equipment maintenance as well as critical project execution at the Souda Bay location. Detail personnel were divided amongst the security/react platoon which was assigned to Headquarters Company, and the remainder formed a fourth line company: Delta Company. The first echelon included all equipment, tools, materials and organizational gear necessary to accomplish the tasking as identified, which included the assumption that the Seabees may have to disestablish all camps in the northern AOR, thereby requiring self-sufficiency status by the later stages of the mission. Each echelon contained roughly half the battalion's personnel. The number of personnel in the first echelon was primarily driven by Camp Colt's surge capacity limit, capping the Seabee's initial manning at 350. Tasking demanded heavy concentrations of OF13 direct labor assets, with the exception of CEs and UTs, (camp services and maintenance was generally provided, with good response, by the Logistics Civil Augmentation Program (LOGCAP) contractor, Brown and Root Service Corporation (BRSC)). The leadership breakout was as follows:

	<u>First Echelon</u>	<u>Second Echelon</u>
Staff:	Commanding Officer Command Master Chief Operations Officer & Chief Supply Officer & Chief Intelligence Officer Medical Officer Asst. Ops/Embarkation Officer Admin./Legal Officer Gunnery Sergeant	Executive Officer Material Liaison Officer Disbursing/Food Services Officer Dental Officer Chaplain Medical Chief Personnel Chief Training Chief
Co. Cdrs & Co. Chfs	H, A, C, D	B
Liaison Officers	LT - assigned to USAREUR (FWD) CW03 - assigned to Engineer Brigade, 1AD ENS - assigned to 1BCT & 23rd EN BN (Sappers)	

The battalion was poised to launch the second echelon within 48 hours of notification for the first thirty days of the redeployment. After thirty days elapsed, the decision was made that the second echelon would not be redeployed; therefore, they were assigned tasking at Rota, Sigonella and Souda Bay. As dental needs increased, midway through the operation, the battalion dental

officer and one dental technician were redeployed to Camp Colt. Over the course of the operation, 9 cases of Emergency Leave, funded and non-funded, ranging from 14 to 25 days each were approved, and affected personnel were sent to CONUS.

2. Command and Control: The battalion shifted OPCON to the U.S. Army's Fifth Corps on 03 Oct 96, while at the ISB in Taszar, Hungary and then to TFE upon entering of the TFE AOR on 09 Oct 96. Daily "Commander's Assessment" reports were filed to NMCB FORTY's direct higher, Commander, Engineer Brigade, 1AD (Division Engineer) then the 11D DIV ENG after Transfer of Authority, 10 Nov 96. Twice daily, a report of personnel and sensitive items (communications gear, weapons and ammunition) accountability was filed to the Camp Colt tactical commander, Cdr, 519th Military Police Battalion.

3. Communications: As normally is the case in contingency operations, communications was a significant challenge. The challenge to the Seabees was amplified by having to integrate with an exclusively Army operation. The principal means of communication in TFE was a digital phone system which utilized Digital Nonsecure Voice Telephones (DNVTs). DNVTs are controlled equipment for each Army unit. There are two general types of DNVTs: 1) Multiple Subscriber Equipment (MSE), which are used in stationary locations and 2) Mobile Subscriber Radio Telephones (MSRTs) which are mounted in vehicles. The digital system had DSN access capability. The system was generally reliable until 1AD redeployed and 11D significantly downgraded the system's capability upon arrival. The major difficulty for Seabees was obtaining the MSE and MSRT equipment. For half of the deployment, NMCB FORTY only had access to one MSE phone. Eventually two additional MSEs and accompanying communication lines were assigned. NMCB FORTY was never able to utilize MSRT communication in the vehicles.

NMCB FORTY maintained a watch from 0600 - 2400 in the Camp Colt Tactical Operations Center (TOC). Here additional MSE units/lines were available, as well as PRC119 FM assets which were used for communication with convoys and detail sites. FM communication was highly dependent on weather conditions and terrain features between the TOC and the receiving unit. An alternative means of communication with detail locations, especially utilized after the digital phone service had been removed at each closure site due to retrograde operations, was the INMARSAT. The battalion deployed with three units. The only disadvantage to use of the INMARSAT was that it had to be constantly guarded, for both incoming calls and security reasons.

Correspondence between the element at Camp Mitchell (Det Rota) and Camp Colt was conducted by way of e-mail, regular mail, DSN phone lines, Harris Line (pre-paid, commercial telephone access), and satellite communications using the battalion's INMARSAT. E-mail communication was also loaded and downloaded through the INMARSAT. AT&T Direct Access phone lines were available for outgoing calls only. Message traffic was received at the battalion Combat Operations Center (COC) by attaching electronic files to e-mails from the Det Rota location.

4. Public Affairs: The battalion deployed its temporarily assigned PH3 and was augmented for four weeks with the Naval Facilities Engineering Command Public Affairs Officer (LCDR). The battalion has no assigned journalist. The PAO made great efforts to conduct hometown

news interviews with as many Seabees as possible, utilizing the INMARSAT for communications. The timezone difference, 6 hours to America's east coast, dictated most interviews be conducted later in the evening.

5. Medical and Dental: NMCB FORTY's medical staff augmented the existing Battalion Aid Station (BAS) located at Camp Colt. By having a medical doctor and five corpsman, two of which were independent duty corpsman, the services provided by the BAS substantially increased. The battalion's medical staff provided equally as much or more medical service to Army personnel than to Navy Seabees. Each detail sent out of Camp Colt had a corpsman assigned. The Army had a portable telecommunications system (video teleconferencing) that provided electronic real-time consultation capabilities with facilities both abroad and in-country. This capability dramatically reduced the number of MEDEVACs required. Daily preventive medicine inspections on site and weekly visits to remote camps were conducted to ensure compliance with standards.

The battalion's dental officer and dental technician were originally assigned to the second echelon. After four weeks into the operation a few dental cases arose that justified redeployment of this team to Bosnia, (the Army had emergency dental care available, however, it was difficult to schedule and required a MEDEVAC). The dental officer's presence was a notable improvement for the Army, especially reserve personnel whose dental readiness was generally deficient.

On 30 October, a YNSA fatally shot himself with his assigned M-16A2E3 service rifle. The case was investigated by the Army CID, with a preliminary finding of suicide; investigation still ongoing.

6. Lessons Learned:

a. Item: Communication Guard

Discussion: The battalion (minus) did not have the capability to directly download message traffic in Bosnia.

Recommendation: Any redeployment that involves the battalion's command element should bring GATEGUARD software. This can be incorporated utilizing INMARSAT, commercial or DSN communications assets.

b. Item: Armed Forces Identification Cards

Discussion: ID card losses/damage will happen. Had the Army not had the capability to produce them at USAREUR(FWD) HQ in Kaposvar, Hungary and at Eagle Main, Tuzla, Bosnia, Seabees would not have had this service. This is a critical security issue when operating in an environment such as Bosnia. When entering/exiting checkpoints and base camps specific identification was required.

Recommendation: TOA needs a Polaroid style camera for taking 1" ID card photos, a laminating machine and materials for contingency operations. The Battalion can then obtain an adequate supply of blank ID cards by subcustodying them from the deployed location PSD.

c. Item: Correspondence courses and Rate training manuals

Discussion: Because the battalion was essentially divided in half, it was determined that one RTM, per rating, and selected other correspondence courses were necessary. Both locations, Det Rota and Bosnia, had need for those items.

Recommendation: The remotely deployed location should utilize the battalions "traveling stock" of RTM and professional development material, including answer keys. The element remaining at the established base should utilize PSD to provide grading of RTMs and correspondence courses.

d. Item: Medical training

Discussion: The contingency operation environment poses very real potential for mass casualties and/or serious and life threatening injuries on a daily basis. It also presents an environment which exposes military members to long, arduous work days, gruesome scenes of human deprivation, cessation of liberty and normal "time to oneself."

Recommendation: At a minimum all independent duty corpsman should have: Advanced Trauma Life Support (ATLS), Advanced Cardiac Life Support (ACLS) and Emergency Medical Technician (EMT) training. The medical and dental officers and senior corpsmen should have formal training in Combat Stress identification and treatment.

e. Item: Contingency communications equipment at mainbody deployment locations

Discussion: Current military operations tempo demands that Seabees deploy more frequently to joint exercises and operations. The proper communications equipment is essential for mission success. Because there was uncertainty about the delivery time of INMARSAT assets that were held in Gulfport, MS, the Battalion had to deploy DFT Turkey personnel to a remote location, that did not have reliable communications, without the INMARSAT, to ensure there was one available for deployment to Bosnia. The Army's communication equipment is controlled equipage for each individual unit, they have no extra on hand to lend Seabees who deploy to their theater of operations.

Recommendation: Prestage the following communications equipment at each mainbody deployment location to be used in the event of a joint exercise or operation:

2 INMARSATs
1 TACSAT

6 MSEs
4 MSRTs

SAFETY SUMMARY

	OCT	NOV	DEC	TOTAL
CASES OF FAM	6	4	1	11
CASES OF LDD	2	3	0	5
NUMBER OF DAYS LDD	4	11	0	15
CASES LWD	0	0	0	0
NUMBER OF DAYS LWD	0	0	0	0
FATALITIES	0	0	0	0
GOVERNMENT VEHICLES MISHAPS	4	4	2	10
VEHICLE REPAIR COSTS	\$1,200.00	\$750.00	\$245.00	\$2,195.00
VEHICLE MILES DRIVEN	113,945	77,390	57,452	248,787

TRAINING

1. Predeployment: Prior to NMCB FORTY's deployment to the European theater of operations it was identified that there was a possibility the Battalion, or some portion of it, would have to redeploy to Operation JOINT ENDEAVOR. Three personnel were sent to Fort Bragg for one week of the Army's Implementation Force (IFOR) training. Having completed this course, they were then qualified to be instructors to the battalion personnel. All battalion personnel were trained either in the last two months of homeport or within the first three months of deployment. Training topics included:

- a. Bosnia-Herzegovina history and specific information regarding the civil war
- b. Operational Security (OPSEC) and Rules of Engagement (ROE)
- c. Mine awareness
- d. Cold weather survival

Each individual deployed to Bosnia was required to Battle-site Zero (BZO) their assigned weapon, or familiarization fire their weapon, in the cases where the weapon did not have adjustable sites.

2. Training upon arrival in Bosnia: Because of the inherent dangers presented by the IFOR mission, existing units in the TFE AOR provided the following training to NMCB FORTY immediately upon arrival in Bosnia:

- a. Cdr, 1BCT: Situational overview, Soldier/Sailor conduct, Rules of engagement
- b. C Co., 23rd EN BN, Sappers: Mine awareness, specific mine intelligence
- c. 519th MP BN: Tactical convoy operations and communications
- d. Cdr, 23rd EN BN: History of Posavina Corridor, situational overview

3. Functional training: From the beginning of the deployment phase to the end of redeployment, the operation covered 16 weeks. During this time the amount of On-the-Job Training (OJT) was too sizable to enumerate, however, general areas of training included:

- a. Tactical convoy planning and execution
- b. Communications
- c. Five paragraph order preparation and delivery
- d. Weapons employment and immediate action response
- e. Joint operational environment
- f. Contingency construction: timber towers, bunkers and fighting positions
- g. Horizontal construction of roads and hardstands
- h. Intelligence briefing and gathering
- i. Embarkation (all aspects: ship, train, air)

Some specific training included:

- a. Disassembly and erection of Clamshell tension fabric structures
- b. Minefield identification and procedures
- c. Range coaches and .45 cal. pistol qualifications
- d. Layout of camp defensive perimeters

SECURITY

1. Camp Colt Security: The tactical commander for Camp Colt was the Task Force 519th MP commander. He was responsible for ensuring adequate force protection, operation of the two camp gates and publishing the individual protective gear requirements for Camp Colt. NMCB FORTY augmented the guard force with six personnel. When situational requirements dictated, this number was increased. All convoys had to be coordinated through the Camp TOC prior to departure. At the gate, convoy commanders had to present a list of all convoy vehicles, members with social security numbers, and weapons' numbers. Each vehicle had to have a valid dispatch trip ticket. For the entire period NMCB FORTY was deployed to Camp Colt, personal protective gear requirements included: flack vest, assigned weapon, three magazines and kevlar helmet. This gear had to be worn any time the service member was out doors, this included late night trips to the shower or head. Magazines were not inserted when the member was within the perimeter of a secured camp. Once the member departed a camp's perimeter gate, a full magazine was inserted, but no round was chambered and the weapon was to remain on SAFE.

2. NMCB FORTY Security/React Force: Force protection was the number one priority of TFE. Considering the highest potential for terrorist or security incidents lied in convoy operations, the decision was made to create a separate security/react force whose primary duty would be to plan and execute convoy security. The security/react force was a platoon size team, headed by a chief petty officer. The TFE minimum requirements for convoy operations included: four vehicles, two persons per vehicle and one crew served weapon. The members of the security/react force were selected for their ability to demonstrate strong situational awareness, evaluate situations that are out of the ordinary, make prudent operational decisions which may involve the use of deadly force in quickly accelerating and stressful conditions, and exhibit a keen sense of fire discipline. The members quickly mastered the art of convoy operations, including: preparation, route navigation, communication and entry/exit procedures. One of the major problems that plagued TFE units was negligent discharges of rounds during weapons clearing procedures when convoys were entering secure camps. The security/react force develop a standard procedure where every member proceeded to a clearing barrel that was manned by the convoy commander who witnessed them go through the following four step process:

- a. Drop magazine
- b. Pull bolt/slide to the rear three times in succession
- c. Member, then convoy commander, visually inspect barrel to ensure it is empty
- d. Point weapon into clearing barrel and pull trigger

Vigilance with regards to this standard operating procedure resulted in no negligent discharges for over 7000 individual clearing evolutions.

3. Lessons Learned:

a. Item: Navigation in a foreign country

Discussion: Bosnia does not have a well laid out system of roads. Convoy members were unable to get directions from locals and maps were often incorrect, signage was often either incorrect or not present.

Recommendation: (Action taken) Security/react personnel were trained on how to properly read maps and prepare maps for specific convoy execution. They learned how to compute mileage between checkpoints and identify markers that could be used while "dead reckoning" during convoy operations. Global Positioning System (GPS) equipment was loaned to the Seabees; however, it often proved to be inaccurate. It was used only as a last resort.

b. Item: The HMMWV turret gunner had no close-in protection.

Discussion: If the HMMWV gunner was required to protect themselves, they would be unable to draw their M-16 out of the vehicle, therefore, they would have to use the heavy weapon: M2, M60 or MK19, for personal protection.

Recommendation: Issue gunners service pistols.

c. Item: Personnel having to remain overnight (RON) at other camps.

Discussion: With fluctuating security posture, road conditions, vehicle break-downs and mission changes there was always a chance that a convoy would have to do an unplanned RON.

Recommendation: (Action taken) All personnel took a sleeping bag, clothes, personal items on every mission.

d. Item: Maps

Discussion: Maps are a consumable item.

Recommendation: Maintain an adequate supply and laminate maps to extend life.

EMBARKATION

1. Deployment to Bosnia: On 13 September 1996 NMCB FORTY received an Execution Order to re-deploy in support of OJE. Advance notice of potential Rota Alert Battalion Deployment to OJE was received on 20 August. The Execution Order called for a Battalion (minus) tailored to mission requirements. Priority tasking identification was base camp closure.

Upon notification of potential re-deployment, NMCB FORTY began advance equipment preparation, TOA inventories, and personnel readiness procedures based upon theater of operation's intelligence and published rules of engagement. Around the clock operations commenced in four stages: Alfa Company on 13 September, Embark on 17 September, and Supply Organization on 18 September; all other service outlets routine working hours were adjusted to provide customer service until 2200.

Details at Edzell, Naples, St. Mawgan, Sigonella, and Souda Bay began rollback operations on 17 September. Operations were completely closed at all detail sites except Sigonella and Souda Bay, which retained 9 and 21 personnel, respectively. Personnel were flown back to Rota via seven sorties between 18-26 September. The entire Table of Allowance (minus TA-41) was prepared, inventoried, containerized, marshaled, and staged on Pier I, Naval Station, Rota, Spain pending arrival of the SS Wilson, a lift on/lift off vessel. The Battalion Mount-Out Control Center began 24-hour operations at 0001, 17 September and remained in operation until all CESE, containers and the first echelon of 334 personnel arrived at Camp Colt, Bosnia-Herzegovina. The movement of the TOA consisted of 191 pieces of CESE, 98 containers, 27 sixcons, 44 breakbulk loads, and 295 personnel. In addition, 39 personnel and 31 pieces of CESE were retrograded directly from Exercise DYNAMIC MIX to OJE.

Movement to OJE, Camp Colt, Bosnia-Herzegovina from Camp Mitchell, Rota, Spain included ship, rail, commercial and military aircraft, and tactical convoy. The TOA departed Rota by ship 0055, 27 September and arrived Livorno, Italy, at 0330, 29 September. From that Seaport of Debarkation (SPOD), the TOA was railed to Taszar, Hungary for off-load and staging. Twenty-five pieces of oversized equipment had to be line hauled to Taszar. Personnel were transferred from Taszar to Camp Colt, Bosnia-Herzegovina to begin assigned tasking.

2. Redeployment to Camp Mitchell, Rota, Spain: Upon completion of tasking, mount-out back to Spain began on 04 December with containers being line hauled to the Intermediate Staging Base (ISB), Taszar, Hungary and Redeployment Staging Base, Slavonski Brod, Croatia. The final convoy of equipment and personnel departed Camp Colt on 14 Dec 96. Equipment and containers were moved via commercial line haul and rail to Livorno, and subsequently uploaded on the roll on/roll off vessel SS Cape Wrath for transport to Spain. Redeployment of Seabees from the ISB to Rota was conducted on three sorties of C-17 military transport aircraft, on 20, 21 and 22 December. Movement of all equipment, containers, personnel and cargo was completed on 30 December with 11 pieces of oversize CESE departing the ISB for Rota via commercial line haul on 5 January 1997.

3. Lessons Learned:

a. MOCC Operations

- Only one khaki watchstander on duty is required for a six day mount-out.
- Battalion operations department establishes and assigns priorities.
- Embark staff: arranges transportation, packs, configures, and loads materials.
- Timeline must be adjusted to ensure accurate SITREP input.
- E-mail capability in the MOCC enhanced SITREP and watch officer accessibility.

b. Embarkation

- Embark Chief and LPO should be divided into port and starboard shifts at the pier to supervise and complete data entry functions.
- Embark Chief and LPO need two-way communication with MOCC, Quarterdeck and Pier/Flightline.
- Pallet builders should be redirected as drivers or statisticians for embark evolutions where the material is containerized, not palletized.
- The TOA does not have adequate lifting assets to adequately handle the ISO containers when loaded.
- The TOA does not have a piece of equipment that can move loaded containers from inside warehouses such as 6101, configured containers, or ABFC flatracks.
- Advance teams and liaisons are necessary at each point along the embarkation chain. It is essential to mission success that battalion embarkation representatives meet face-to-face with movement control organizations to ensure proper handling, routing and priority for our equipment, personnel and materials.

c. Equipment

- CESE reduction needs to start as early as possible, especially oversized equipment if rail transport is required, ie. Dozer blades take an inordinate length of time to remove.
- The Mantis cranes are incapable of swinging loaded containers.

d. Keys to Success

- 24 hour operations were necessary to meet tasking deadlines
- Daily senior staff meetings kept the battalion leadership informed of progress and provided a forum for open discussion and information exchange.

OPERATIONS

1. Scope and Coordination: The official command structure dictated that NMCB FORTY reported to the Commander, Engineer Brigade, 1AD, who was also the Division Engineer. Mission guidance was not always clear; however the Seabees' primary mission was clearly to disestablish base camps in support of 1AD's redeployment from the northern AOR, secondary mission requirements were to: maintain and repair MSRs (brigade and higher), provide snow and ice removal capability and provide construction and engineering support for force sustainment, as directed. During the site visit and upon the initial deployment, the U.S. policy for commitment to the IFOR mission had not been decided beyond the original Dayton Peace Accord conclusion date of 20 Dec 96. General elections in Bosnia had been conducted in early September and municipal elections were scheduled for late October. After NMCB FORTY's deployment, municipal elections were postponed until 1997. The battalion deployed with nearly a complete TA01 based on the possibility that the Seabees would be required to disestablish all camps in the northern AOR, thereby requiring complete self sufficiency near the end of their mission in the harshest weather conditions, or that the "force sustainment" portion of the mission would grow substantially based on the very real possibility of adverse reactions to municipal election results. Either case would require substantial TA01 assets, which frankly, are not easily tailored from the containerized pack-out.

The operations chief was assigned to the 1BCT as a planning/liaison officer immediately upon the battalion's arrival in Hungary. For ten days, the operations chief worked closely with the assistant brigade engineer to lay out an intricate plan, synchronizing 1AD forces departure from camps, Seabee capability to disestablish, package and retrograde camp assets and ensure force protection was always provided. This plan, which by the nature of the operation, was updated continually, established the framework for the Seabee's primary mission. Eleven camps for Seabee disestablishment. This number ultimately grew to fourteen.

The Commander of the 23rd EN BN (Sappers) was most familiar with the redeployment plan for the 1BCT AOR: he was delegated by the DIV ENG to be NMCB FORTY's direct point of contact for coordination and direction concerning camp closure operations. The working relationship established between these two engineering battalions, from different services, was superb. The NMCB FORTY operations officer participated in the daily morning radio staff call of the 23rd EN BN, as well as twice weekly construction conferences (radio).

All construction tasking not directly involving camp closures was assigned and coordinated by the Engineering Brigade operations officer. Once Seabees established their ability to disassemble camps and produced a Level I schedule of resource allocation, the EN BDE S3 and NMCB FORTY S3 coordinated complete utilization of personnel and equipment resources through undertaking force sustainment projects. As time progressed and U.S. policy on American Forces long range commitment to the Bosnian peacekeeping mission became more clear, authorization for reuse of salvaged Class IV material to support sustaining forces was more commonplace: After departure of 1AD and subsequent Transfer of Authority to the IID, NMCB FORTY coordinated directly

with northern AOR units for contingency construction requirements, and then coordinated tasking and material needs with the Division Engineer's staff.

2. Camp Closure: The battalion maintained all staff and support functions through a base camp concept, and deployed tailored details task organized to accomplish assigned tasking. Each detail had a khaki OIC, officers for large evolutions and chiefs for medium and smaller requirements.

The execution order required NMCB FORTY to obtain Initial Operational Capability (IOC) by 15 Oct 96. On 14 Oct 96 NMCB FORTY's first camp closure detail (platoon size) was deployed from Camp Colt to Camp Burke: the following day a company size detail was sent to Camp Sneed, and on the 16th another company size detail was dispatched to Camp Hampton. From that point further, there was no time in which NMCB FORTY did not have at least one detail actively engaged in camp disestablishment until the final camp (Stephens) was completed on 05 Dec 96.

Typical camp disestablishment work involved:

- a. Disassembly and palletization of:
 - Tier III tent structures (frames, walls, decking and piers)
 - Timber towers
 - Timber fighting positions
 - Timber walkways
 - Hesco-Bastion galvanized, grid steel, protective structures
- b. Leveling earthen perimeter berms
- c. Removal and palletization of: concertina wire, barbed wire, and engineering stakes
- d. Removal and palletization of sandbags.
- e. Reclamation of gravel laydown areas
- f. Removal and salvage of electrical wiring
- g. Site grading and restoration

Camps closed by NMCB FORTY:

Burke	Gentry Complex:	Kime Complex:
Hampton	Sneed	Brigade
Grizzly LSA	Kuntz	Fuels
OP 123	Wellington	Gilmore
Walker	Zeugner	Field Artillery (Gunner)
Stephens		

3. Tasked Projects: NMCB FORTY took a very proactive approach to maximize construction capability utilization throughout the time in the AOR. Because command priorities at the DIV ENG level resided in redeployment and deployment for 1AD and 1ID, respectively, often the responsibility to identify and coordinate project requirements fell directly upon the battalion.

Initially, any excess construction capability was applied to improving living conditions, specifically for Seabees at Camp Colt. Immediate requirements included:

- Establishment of an equipment laydown yard and a maintenance area
- Erection of a Life Support Area (LSA), 29 GP mediums and 6 Temper Tents
- Grading and cribbing for ISO container laydown area
- Construction of operations and administration spaces
- Erection and operation of the Seabee shower tent assembly

As the deployment progressed, the size and complexity of tasked projects increased. A listing of the major tasked projects is as follows:

- Camp Colt decks and tents (44)
- Gravel recovery (Gentry to Colt and then Kime to McGovern)
- Construct 1,010 m x 14 m improved gravel road and two access culverts (MLC 40) at Ammunition Handling Area (AHA), Slavonski Brod, Croatia (NATO funded project)
- Camp Colt timber bridges and walkways
- Hill 722 camp upgrade (timber tower, site work, decking)
- Zupanja Assault Float Bridge access road repairs
- AHA, Slavonski Brod, timber tower erection (4)
- Camp Colt gate access culvert, (MLC 70)
- Camp Colt FAST site construction
- Battle damage repair of Route Missouri Bridge
- Tampa Trailer Transfer Point (TTP) site improvements
- Disassembly of Camp Molly clamshell tension fabric structure
- Construct fuel berms (Camp McGovern (2), Camp Colt (1))
- Erect clamshells at Tuzla Main (2)
- Guardian TTP line haul support
- McGovern tier III temper tents (5)
- Check Point A2 upgrade (tier III tents, electrical)
- Observation Post 9 upgrade (tier III tents (5), shower area, enclose bldg, guard tower)

In addition to these specific tasked projects the Seabees provided construction assistance and "extras" at every site they worked. If it was possible, it got done.

4. Convoy Operations: The strict convoy requirements made equipment assets and licensed drivers one of the most critical factors in conducting operations in the TFE AOR. Convoys were initiated by the operations department. There was a regularly scheduled meeting every morning and final plans for the following day were finalized each evening. A mission commander was assigned and coordinated with the security element. The mission commander was responsible for ensuring all non-react personnel were present at rally time and all vehicles pre-started, with a valid trip ticket. The evening prior to the convoy, the convoy commander would plan the route and make the rounds in the TOC,

gathering the latest road, intelligence and fire support information. Prior to departure another check was made for any situational changes. The mission commander then conducted a convoy brief to all convoy members, immediately before the convoy's departure.

Often having enough personnel to "ride shotgun" was a concern. Many Headquarters Company personnel were used in this capacity when numbers were tight. In addition to fulfilling the unwaiverable convoy requirements, it afforded the opportunity for personnel, who typically would not leave the camp, due to their support roles, to experience tactical convoy operations and get a better appreciation for the entire mission of which they were a part.

CAMP GENTRY DISESTABLISHMENT

1. **General.** Project encompassed disestablishment of Camp Gentry Complex (Camps Sneed, Kuntz, Wellington, and Zeugner) to include: demolition of a 300 person barracks area, removal of 20,000 sf of plywood, 160 fluorescent light fixtures and associated wiring, 7,500 sf of partitions in vehicle maintenance shop and supply warehouse, 6000m of concertina wire, disassembled as kits eight 15 foot observation towers and six bunkers, leveling of 800m of berm, and backblade all work areas. This four camp disestablishment project required an inordinate amount of coordination with the Army and BRSC. The detail size was reduced as a majority of the tasking was completed, so members could be redeployed to other locations.

2. **Direct Labor Expended:**

484 mandays

3. **Composition of Work Force:**

BU - 35 SW - 2

4. **Status of Project:**

Start date: 15 Oct 96
Completed: 15 Nov 96

5. **Material:** Extensive Army, Seabee and commercial line haul was required to remove rubbish and usable Class IV material. Seabees completed 35 tactical convoys to assist in this task.

6. **Engineering:** No problems encountered.

7. **Problem Areas:** Site conditions rapidly deteriorated as the Bosnia winter deepened. Conditions were very wet and muddy and delayed productivity.

BURKE BASE TAKEDOWN

1. **General.** Project included disestablishment and retrograde of Camp Burke force protection materials, reclamation of 165 tons of gravel and transportation to Camp McGovern; removal of 7 9' x 20' concrete turning pads and transportation to Camp McGovern; removal and palletization of 400 meters of concertina wire; move 60 cubic meters of Hesco-Bastion fill to lower motor pool area; grade level all roads and lower motor pool area.

2. **Direct Labor Expended:**

80 mandays

3. **Composition of Work Force:**

BU - 9	EO - 3
SW - 1	CM - 1

4. **Status of Project:**

Start Date: 14 Oct 96
Completed: 21 Oct 96

5. **Materials:** No problems encountered.

6. **Engineering:** No problems encountered.

7. **Problems Areas:** No problems encountered.

CAMP HAMPTON DISESTABLISHMENT

1. **General.** Project included disestablishment and retrograde of force protection materials to include: band/palletize 600 Hesco-Bastions, disassemble 2 guard towers and 5 bunkers, remove 13,000 sandbags, band/palletize 12,000m of concertina wire, level 3000m of berm, disassemble 1 clamshell tension fabric structure, reclaim 1000m gravel road, and recover 13,000 sf tent decking and sidewalks

2. **Direct Labor Expended:**

497 mandays

3. **Composition of Work Force:**

BU - 11	EO - 10
SW - 6	CM - 2
CE - 7	UT - 3

4. **Status of Project:**

Start Date: 16 Oct 96
Completed: 30 Oct 96

5. **Materials:** Consumables needed for similar tasking are welding rods and concertina wire gloves. The welding machine efficiently cut through the front face of each Hesco-Bastion.

6. **Engineering:** No engineering problems were encountered.

7. **Problems Encountered:**

a. Convoys - convoy routes need to reflect convoy needs.

b. Communications - detail had to fully depend on Army supplied MSE phone and convoy messenger communications.

c. Tools and Working Supplies - The detail was required to depart before adequate tools and supplies could be procured. Wire gloves were borrowed from the U.S. Army. Rain gear should be provided for the wire crews, since the Gortex suits tear easily when working around wire. Because of operational requirements the clamshell had to be disassembled without the custom designed tools and equipment.

GRIZZLY LSA DISESTABLISHMENT

1. **General.** Project included disestablishment and palletization of 65 Tier III elevated tent decks, 6 strong back tents, 300 Panzer Plates and 1,000m concertina wire.

2. **Direct Labor Expended:**

90 mandays

3. **Composition of Work Force:**

BU - 12	EO - 5
SW - 7	CE - 4
UT - 2	

4. **Status of Project:**

Start Date: 25 Oct 96
Completed: 27 Oct 96

5. **Materials:** No material problems were encountered.

6. **Engineering:** No engineering problems were encountered.

7. **Problem Areas:** No problems were encountered.

AMMUNITION HANDLING AREA (AHA) ROAD AND CULVERT CONSTRUCTION AND SITE SECURITY UPGRADE

1. **General.** Project included expansion of a roadway from an existing 6m x 1010m single lane to a 14m x 1010m two lane with 4% sloped shoulders. Construct two entranceways over an existing drainage ditch (depth 3 - 4 m) from new roadway to AHA that are 6 - 8m wide with compacted fill and culverts for drainage. The road required installation of geotextile fabric and gravel subbase, base and wearing course. The culvert was constructed of hardened (cement/sand mixture) sandbag walls. Erected 4 guard towers. Placed 877 Panzer Plats, constructed expedient bypass road and re-established interior compound drainage.

2. **Direct Labor Expended:**

239 mandays

3. **Composition of Work Force:**

EO - 9	EA - 2
BU - 12	CM - 2

4. **Status of Project:**

Start Date:	26 Oct 96
Completed:	15 Nov 96

5. **Materials:** No material problems were encountered.

6. **Engineering:** No engineering problems were encountered.

7. **Problem areas:** Civilian material delivery delays. Communication gap with no translator. Inexperienced crew in geotextile procedures and hardening. Sandbags with expedient field conditions. Extremely wet and muddy environment. Non-stop civilian traffic. Equipment breakdowns. Fuel re-supply.

OUT POST #123 DISESTABLISHMENT

1. **General.** Project included disassembly of remote hilltop out-post and removal of one (10'x10'x20') Timber Tower, 1 Bunker, 3 Fighting Positions, 215 Hesco-Bastions, 5,000m Concertina Wire, and 7,000 Sandbags. Materials to be removed utilizing Army line haul assets.

2. **Direct Labor Expended:**

72 mandays

3. **Composition of Work Force.**

EO - 3 SW - 2
BU - 8

4. **Status of Project:**

Start Date: 29 Oct 96
Completed: 03 Nov 96

5. **Materials:** No material problems were encountered.

6. **Engineering:** No engineering problems were encountered.

7. **Problem Areas:** The project began without a Frag Order, on verbal authority from NMCB FORTY CO. Until 02 Nov there was no ownership claimed of the site to aid in the disestablishment sequence. Coordination of line haul assets were arranged to begin on 29 Oct, but did not start until 31 Oct, which delayed project completion.

TAMPA TRAILER TRANSFER POINT (TTP) SITE WORK

1. **General.** Project included alleviating mud and drainage problems at Tampa TTP by cutting, shaping and compacting platform to drain. Cut 600' of drainage/relief ditches, drainage canal and sump, place mud lift station, drain the lower lake (200' x 75' x 3.5') and build 20' x 100' settling pond for heavy mud (liquid 3/4" minus).

2. **Direct Labor Expended:**

60 mandays

3. **Composition of Work Force:**

EO - 5 CM - 1

4. **Status of Project:**

Start Date: 2 Nov 96
Completed: 10 Nov 96

5. **Materials:** In place shale.

6. **Engineering:** Required expedient field engineering without the use of engineering aide equipment or computers.

7. **Problem Areas:** Uncoordinated Army line haul and lack of container yard operation's flexibility caused delays.

HILL 722 CAMP IMPROVEMENTS

1. **General.** Project included dismantling existing UN Security Tower and sandbags. Relocate and construct timber tower and sandbags. Install Plexiglas around relocated timber tower and existing timber tower. Relocate an Australian shower unit and expand existing decking (16' x 16') to accommodate a GP medium tent. Layout and construct elevated wood decking for GP medium tent (16' x 32'). Improve road way to include parking area for Gate Security vehicles and cut drainage on existing road (approximately 800 yards). Dismantle existing rear gate and design replacement gate that can be operated by one individual.

2. **Direct Labor Expended:**

77 mandays

3. **Composition of Work Force:**

BU - 6 SW - 1
EO - 2

4. **Status of Project:**

Start Date: 04 Nov 96
Completed: 09 Nov 96

5. **Materials:** All materials were previously recovered from other camps.

6. **Engineering:** Tasking required crew to design rear gate to enable use by one individual.

7. **Problem Areas:** All materials were handled manually due to site constraints.

MISSOURI BRIDGE BATTLE DAMAGE REPAIR

1. **General.** Project consisted of repairing a 1.5 x 1.5m x .30m thick hole (caused by mortar fire) in a concrete bridge. Work consisted of testing concrete for soundness, removing all loose pieces, installing additional reinforcement, forming and beveling the edges of concrete to receive a 2m x 2m concrete patch.

2. **Direct Labor Expended:**

13 mandays

3. **Composition of Work Force:**

BU - 4	BU - 4
SW - 1	SW - 2
UT - 1	CE - 1

4. **Status of Project:**

Start Date: 05 Nov 96
Completed: 08 Nov 96

5. **Materials:** All materials were provided by Brown and Root. As the gravel provided for concrete mix had a maximum diameter of 3/8" and a large amount of sand already in it, no further sand was added. The mix used for the concrete was 1 1/2 parts cement to 5 parts aggregate.

6. **Engineering:** No engineering problems were encountered.

7. **Problems Encountered:** Civilian traffic had to be routed and there was continuous civilian foot traffic over the structure.

CAMP KIME DISESTABLISHMENT

1. **General.** Project encompassed disestablishment of Camp Kime Complex (Camps: Brigade, Field Artillery, Gilmore, and Fuel Farm, plus the nearby Routes Arizona and Pear Traffic Control Point) to include: removal of 123 strongback tents, 8 double temper tent decks, 35 strongback tent decks, 5,000 m of sidewalk sections, 715 Hesco-Bastions, 10,400 m of concertina wire, palletize 41,500 sandbags, disassembled as kits, seven 15 foot guard towers, one rooftop tower, 20 timber bunkers and 47 timber fighting positions, leveling of 3,700m of berm, and removal and transportation of ten 16,000 lb concrete turnpads to McGovern Base.

2. **Direct Labor Expended:**

795 mandays

3. **Composition of Work Force:**

BU - 46	EO - 10
SW - 8	CM - 2
CE - 7	UT - 3

4. **Status of Project:**

Start Date: 10 Nov 96
Completed: 01 Dec 96

5. **Material:** Extensive U.S. Army and commercial line haul was required to relocate rubbish and usable Class IV material.

6. **Engineering:** No engineering problems were encountered.

7. **Problems Areas:** No problem areas were encountered.

CAMP WALKER TAKEDOWN

1. General. Project included disestablishment of basecamps to include: cut, empty and transport 300 Hesco-Bastions to Boyington Field; remove 900 cubic yards of Hesco fill; level/spread dirt mounds at Motor Pool; and scrape all pavement parking areas.

2. Direct Labor Expended:

62 mandays

3. Composition of Work Force:

BU - 9 SW - 1
EO - 2

4. Status of Project:

Start Date: 12 Nov 96
Completed: 17 Nov 96

5. Materials: No materials problems were encountered.

6. Engineering: No engineering problems were encountered.

7. Problem Areas: No problems were encountered.

McGOVERN FUEL CONTAINMENT BERMS/FOOT BRIDGE

1. **General.** Project included construction of two 50,000 gal fuel bladder containment berms measuring (88'x54'x5') with slope of 1:2, and construction of a 22' x 4' footbridge for refueling hose access.

2. **Direct Labor Expended:**

30 mandays

3. **Composition of Work Force:**

EO - 4 BU - 2
CM - 1

4. **Status of Project:**

Start Date: 13 Nov 96
Completed: 21 Nov 96

5. **Materials:** All materials were previously recovered from other camps.

6. **Engineering:** No engineering problems were encountered.

7. **Problem Areas:** Exact dimensions and location were not determined until detail arrived on-site. 144 cubic yards select fill were required to stabilize site prior to work.

CAMP COLT AVLB GATE CULVERT AND ACCESS ROAD CONSTRUCTION

1. **General.** Project included construction of a permanent roadway across an existing drainage ditch, excavate and reshape the ditch, stabilize existing base, place a double barrel culvert, backfill to grade of existing roadway (using reclaimed material), and construct head and discharge walls using hardened sandbags (filled with sand and mortar mix). Re-locate existing gate.

2. **Direct Labor Expended:**

50 mandays

3. **Composition of Work Force.**

EO - 7 BU - 14

4. **Status of Project:**

Start Date: 16 Nov 96

Completed: 21 Nov 96

5. **Materials:** No material problems were encountered.

6. **Engineering:** No engineering problems were encountered.

7. **Problem Areas:** No problems were encountered.

GUARDIAN BASE

1. General. Rock hauling project included transportation of 585 cubic yards rock from Camp Molly to Guardian Base, and excavation of 2 ditches (one 75m and one 150m).

2. Direct Labor Expended:

14 mandays

3. Composition of Work Force:

EO - 7 CM - 1

4. Status of Project:

Start Date: 22 Nov 96

Completed: 27 Nov 96

5. Materials: No material problems were encountered.

6. Engineering: No engineering problems were encountered.

7. Problem Areas: No problems were encountered.

STEPHENS BASE CAMP AND MOTOR POOL DISESTABLISHMENT

1. General: Removed and palletized 5 timber towers, 6,000 sandbags, 42 tent decks, 160 Hesco-Bastions, 3,000 m of concertina wire, struck down and folded 42 GP Medium tents, leveled parking lot and 500 m of berm.

2. Direct labor expended:

217 mandays

3. Composition of Work Force:

SW - 8	UT - 3
BU - 5	EO - 10
CE - 5	

4. Status of Project:

Start Date: 29 Nov 96
Completed: 05 Dec 96

5. Materials: U.S. Army line haul was required to transport all useable Class IV material.

6. Engineering: No engineering problems were encountered.

7. Problem Areas: No problems areas were encountered.

CAMP KIME GRAVEL RECLAMATION

1. General. Maximize gravel reclamation from Camp Kime then transport/stockpile at Camp McGovern.

2. Direct Labor Expended.

78 mandays

3. Composition of Work Force:

EO - 9 EA - 2
CM - 1

4. Status of Project.

Start Date: 29 Nov 96
Completed: 06 Dec 96

5. Materials: No materials problems were encountered.

6. Engineering: No engineering problems were encountered.

7. Problem areas: The weather slowed the process for the first two days and gravel caused 11 flat tires.

OBSERVATION POST #9 UPGRADE

1. General: Project included construction of four temper tents, one strongback, one guard tower, 1,200lf of sidewalk, one shower repair unit, installation of two concrete turn pads, perform landscaping and improve drainage. This project was conducted as an urgent contingency project with no prior notice or planning time allotted. The conditions were abhorrent: harsh, cold, snow/freezing rain/rain, excessive mud and standing water.

2. Direct labor expended:

100 mandays

3. Composition of Work Force:

BU - 7	CE - 1
EO - 1	UT - 1

4. Status of Project:

Start Date:	30 Nov 96
Completed:	06 Dec 96

5. Materials: No material problems were encountered.

6. Engineering: No engineering problems were encountered.

7. Problem Areas:

- Lack of Army support and coordination.
- Adverse weather.
- Non-availability of electrical power.
- Chainsaws inadequate.
- Kit 19 did not fully support mission requirements.

SUPPLY AND LOGISTICS

1. Narrative: Based on the site visit, it was determined that most supply department outlets would be required with the notable exceptions of material liaison and principal galley operations, (mobile kitchen trailer (MKT) support would be necessary at some detail sites when the camps were in the later stages of disestablishment, as well as the possible end of deployment requirement to be totally self sufficient (which never did occur)). Outlets established at Camp Colt included Automotive Repair Parts; Central Storeroom; Central Toolroom; Greens Issue; Barber Shop; Disbursing and Post Office.

a. Table of Allowance: In preparation for redeployment, NMCB-40 procured additional materials, supplies and repair parts valued at \$205,000. Approximately 90% of materials were received prior to mount-out of the TOA. A total of 75 ISO containers (standard 20s), 7 Tricons, 12 flatracks, 2 halfheights, 27 sixcons and 44 break bulk pallets of the TA01 were deployed upon receipt of the tasking order. Within 3 days of the off-load, at Camp Colt, all the outlets were operational, issuing tools, tool kits and equipment to support projects.

b. Automotive Repair Parts: An SK2 and a CM3 were assigned to the 6101 outlet to include the Mod 98's 13 ISO containers (organic CESE) and tailored MOD 97 ISO containers (augment). Procured \$15,000 worth of additional repair parts. Provided 24hr service for repair part support.

c. Greens/782 Gear Issue: The Battalion was outfitted with 782 gear and extreme cold weather (ECW) gear in 3 days. For the most part, standard organization clothing and the ECW gear provided ample protection from the elements. Two notable exceptions were gloves and boots. The standard work gloves did not provide warmth and were certainly not water proof. As soon as gloves got wet, which occurred almost immediately in the very wet and muddy Bosnian environment, they accelerated loss of heat from the hands. It was not uncommon for Seabees to be working in standing water that was 6" - 18" deep. The standard issue construction boots provide no protection from cold or wetness and the steel toe created a frostbite hazard during freezing conditions. The ECW boot, which was issued for cold weather, does provide water proof protection, however it is too bulky and too hot for construction operations. Members have a very real possibility of contracting immersion foot or trench foot if the boots are worn for any length of time without continuously changing socks (which was neither practical or even possible in most locations). The Army issued the Seabees one pair each of Gortex, intermediate cold weather boots, which for the most part performed very well in the Bosnian environment. However, they too were ill-suited for the standing water conditions. The best combination for work in deep mud and/or standing water would have been Gortex boots with a rubber overboot (knee high). When Gortex boots got wet, they needed to be dried for at least a day, which force Seabees back into either the standard issue boot or the ECW boot.

d. Barber Shop: One Ship's Servicemen Third Class provided haircuts to 335 Battalion personnel with a weekly average of 103 haircuts.

e. Financial: Supply Department implemented, for the first time, MICRO SNAP II in a contingency operation. SALTs was utilized to receive reports from different detail sites and requisitions status from DAAS. Other responsibilities included:

- Screen, identify and make the necessary stock check for requirements using fedlog and micro snap. Process non-nsn requisitions.
- Maintain outstanding file by making required follow-ups
- Process financial reports and generate required listings.
- Receive and send SALTs messages daily.
- Perform administrative functions as required.
- Battalion records keeper.
- Maintain three OPTAR logs for CCG 01, 04 and 08.
- Responsible for preparing per diem orders, issuing tango number for emergency leave, admin travel, MEDEVAC and training travel.
- Process difference listings.

f. Disbursing Officer: All services remained in Rota, Spain. Disbursing Clerks in Bosnia cashed checks, processed payrolls and computed/paid per diem for the deployed troops. Cash funds were provided by the Army's Finance Center at Camp McGovern, Bosnia.

g. Post Office: Complete postal services to 335 NMCB 40 personnel and approximately 900 Army personnel were maintained. Sold an average of \$1,000 of money orders/postage stamps daily. Picked up mail daily at Camp McGovern and held mail call. NMCB FORTY was sole unit in the northern AOR to maintain complete postal operations. This was a huge morale booster for Navy and Army service personnel.

2. Lessons Learned:

- a. Item: TOA items were not packed according to the master packing plan
Discussion: During redeployment there were problems locating TOA items utilizing the master packing list. Items were not located in the correct container.
Recommendation: Rota TOA should be ILO completely and replaced with a newly assembled TOA. Presently the TOA has been used in many contingencies and contains many items which are missing, obsolete or no longer in use. Both retrograde containers that were shipped to Gulfport and Rota, Spain should be ILO and to be done by the ISOT team. Send the team to Rota to perform the ILO of the remaining TOA or return everything to Gulfport and replace with the new TOA. A copy of the master packing plan should be inside the container for easy identification and accountability.

b. Item: Limited number of CBR Boot sizes.

Discussion: During the issue of CBR Boots it was discovered that only size 11 CBR boots were in the TOA packout. The Decontamination Assembly is not ready for deployment in a contingency operation that requires CBR gear.

Recommendation: CBR Boot sizes need to be distributed based on plus two size over the actual boot size to wear over the safety boots. The TOA should be filled with all CBR boot sizes available in the supply system. During turnover when random inventory is being done, sample boxes to ensure a proper distribution.

c. Item: Appropriate Cold Weather Gear availability

Discussion: Some of the gear was not appropriate to wear and did not withstand harsh weather and working conditions. The extreme cold weather boots were bulky and difficult to use in mud. The shoes were too hot for the weather conditions and caused foot casualties. Additionally, extra glove/inserts are needed due to frequent replacement/inclement weather.

Recommendation: Determine if the ECW and ICW can be separated into two segments of Cold Weather Gear. Separate sets of ICW and ECW should be held in the TOA, to prevent taking unnecessary items. Half of the ECW gear was not used in Bosnia. The Gortex ICW boots were appropriate to wear rather than the ECW boots. Rubber overboots were necessary where working conditions required Seabees to work in standing water.

d. Item: Uniform clothing sizes.

Discussion: Uniform size distribution in the TOA was not compatible with average personnel sizes. As a result, many extreme sizes are considered excess, especially ECW and ICW gear.

Recommendation: Modify size allowances of uniform items including special clothing and shoe sizes in the TOA. Conduct a survey of sizes within the NCF and establish a new size distribution and reorder the necessary items. This will save additional funds to buy items and will provide a short fuse capability to outfit a battalion in a contingency.

e. Item: In short notice mount-out situations, the containerized TOA cannot be readily tailored to meet a requirement that falls in-between a purely TA41 and a full TA01 requirement.

Discussion: It takes a significant amount of time to unpack, inventory, document and repack containers in a different configuration to meet the tailored needs of specific tasking. Another consideration is that the persons required to conduct this work often have personal and departmental responsibilities that must also be carried-out concurrently to readying the containers for shipment. In short-fused situations tailoring container contents to the mission is not possible, thereby forcing the battalion to take more than needed.

Recommendation: Restructure the master packing plan that the containers are configured for support of 150 person increments. That would result in four separate, identically packed sets. This would be advantageous for both redeployments of less than the entire battalion and phased deployments where there is a significant time span between the arrival of two or more echelons.

EQUIPMENT

1. Narrative: Deployed 191 pieces of equipment from Rota, Spain to Camp Colt, Bosnia. Upon completion of tasking, DFT Turkey redeployed to Bosnia bringing the total number of CESE to 221. Midway through deployment, five 5 ton tactical tractors were delivered to the ISB from the Army's central region DRMO. These tractors were retrieved by NMCB FORTY and incorporated into the Tab A. Despite austere and arduous conditions, an aggressive maintenance program was implemented. Alfa Company erected a field expedient shop and working spaces supporting Cost Control, Tech Library, ARP, DTO, and administration. The SAMMS EO and EM programs were utilized. A 4 PM Group per week schedule was established due to lack of adequate shop spaces and unyielding weather conditions. 243 PM and Interim repairs were performed and 28 pieces of CESE were turned into DRMO, Kaposulak, Hungary upon conclusion of tasking at the direction of 2nd Naval Construction Brigade Equipment Officer.

The conditions in Bosnia challenged the equipment. Roads were narrow and heavily potholed. All unpaved areas were plagued with deep mud. The commercial equipment was not effective in the mud and could not withstand the heavy pounding of the rugged roads. Tactical equipment performed much better under these conditions, however, at times its large size, especially width, did create problems on the narrow roads.

2. Lessons Learned:

a. Item: Inadequate Maintenance Facility.

Discussion: The 40 x 100 Troop Messing Tent (circus tent) is insufficient as a maintenance facility.

Recommendation: Procure Field Expedient Structure facilities with self contained heating and fiberglass/ Kevlar lightweight flooring. This facility should be able to accommodate the largest piece of CESE in the TOA.

b. Item: Insufficient Computer Assets.

Discussion: Due to limited computer assets, Cost Control, Tech Library, and ARP operations were impeded. No Fed Log was available to Tech Library for parts research. The ARP custodian issued parts during the day and updated SNAP II input at night. Double effort was required, again detracting from overall efficiency and productivity. An old version of Fed Log was acquired and eventually set up on the Cost Control computer. Although this allowed the Tech Librarian to do tasks, it impaired the Cost Control portion of the program by utilizing the computer for hours at a time.

Recommendation: Battalions must earmark assets to solely support these functions adequately or revert back to the handwritten forms. The two means of recording/researching data are incompatible thus are ineffective in tracking historical data and recording costs. These assets should not be utilized for anything other than managing CESE.

c. Item: CESE Suitability.

Discussion: Battalions are equipped with many varieties of commercial vehicles vice tactical vehicles. The cost to maintain the commercial fleet compounded by the excessive down time and intensive maintenance required by these vehicles throughout their life expectancy effectively nullifies the initial purchase cost savings.

Recommendation: Brigades, CESO, and NAVFAC make a unified approach to replace commercial vehicles with similar tactical vehicles. This would make Seabees more effective in performing their missions and ease the mechanic workload by adopting a one chassis concept (common M-series 5 ton truck chassis and drive train fitted with multiple applications ie. Dump, Wrecker, Stake, Fuel, Water, etc...) enabling mechanics to specialize in the repair of a common vehicle chassis vice the six presently in use. This would also lessen the weight and cost of ARP.

d. Item: Hazardous Spill Response Package/Materials

Discussion: The probability of encountering hazardous spills during contingency operations is high. Such spills require immediate response and corrective action. Current TOA has minimal/inadequate spill response materials to perform recovery efforts. Depending upon the nature/scope of the spill, untimely response (due to waiting on outside source/recovery efforts) could result in costly litigation as well as irreparable damage to the environment.

Recommendation: Initiate an Allowance Change Request and forward to CESO requesting an adequate spill response kit be added to the TOA. In addition, an intensive hazardous spill recovery training effort be put into effect to train spill response teams Battalion-wide.

STATUS OF ASSIGNED EQUIPMENT

	OCT	NOV	DEC
ACTIVE UNITS	221	221	221
TOTAL UNITS	221	221	221
D/L UNITS	10	11	13
AVG AVAILABILITY	96	81	94
TOTAL MILEAGE	113945	77390	57,452
TOTAL HOURS	606	1190	5,485
MAINTENANCE COST	7368	16721	0.00

PM AND INTERIM REPAIR ERO SUMMARY

MONTH	INTERIM REPAIRS	PM TYPE A	PM TYPE B	PM TYPE C	TOTAL	PM TO INT RATIO
OCT	33	6	4	0	43	0.3:1
NOV	73	43	36	0	152	1.1:1
DEC	0	0	0	0	0	0:0

CAMP MAINTENANCE

1. Narrative. The NMCB FORTY Camp Maintenance organization included a UTCS as the Camp Maintenance Officer and a CEC as the Camp Maintenance Chief. The crew was comprised of 4 BU's, 6 CE's and 6 UT's. Duties and responsibilities were shared with the Camp Colt service contractor, BRSC. NMCB FORTY's responsibilities included the maintenance and repair of facilities and equipment in the Seabee Life Support Area (LSA), Combat Operations Center (COC), and the Supply/Admin trailer. An aggressive daily zone inspection program was implemented and an emergency/non-emergency service, quick response system was established to correct deficiencies and attend to trouble calls. The Maintenance Control Division developed and planned all project execution. All work requests for Camp Colt projects were routed to the Camp Mayor for approval. Materials for the projects were provided by the Camp Mayor through the contractor, Brown and Root.

2. Standing Job Orders:

- a. Tent maintenance. Tent holes patching and repair. Tighten tent ropes and install sandbags as needed.
- b. Daily electrical safety inspection.
- c. Generator and shower unit operation and watch.

3. Projects Completed:

- a. Admin/Supply, COC and Company Office electrical and wall partitions.
- b. 9 man shower tent. Construct decking and erect 2 GP medium tents for a shower and changing room. Install plumbing for the shower unit.
- c. Receptacle and lighting; reinforce decking for 6 temper tents.
- d. Seabee LSA electrical power distribution system. Installed over 1500 ft. of wire for the berthing area and shower lighting and receptacle circuits.
- e. Electrical and plywood partition for the MWR/Barber Shop.
- f. Construct canopy for the Armory, ET Shop and the Post Office.
- g. Fabricate 16 fuel containments for the tent heater fuel cans in the Seabee LSA.
- h. Construct 4 boot wash racks.
- i. Construct tent sign stand for the Seabee LSA.
- j. Construct medical shelves for the Battalion Aid Station.
- k. Construct a 24 ft. span bridge for the Helo pad.
- l. Firing Range. Install 3 GP Medium tents, 12 shooting platforms, and 12 target stands.
- m. Construct a 21 ft. span bridge and 500' walkway for Radar Operations.
- n. Install a shed over ALFA Co. POL.
- o. Install tent flies over the GP medium tents in the Seabee LSA.
- p. Reinforce the firing table bracing in 4 Camp Colt watch towers.

4. Lessons Learned:

a. Item: 120V Electrical Requirement

Discussion: The 240V electrical supply in the camps was incompatible with the 120V requirements of most of the NMCB equipment.

Recommendation: Include step-down transformers in the TOA. The need for transformers are inherent during contingency operations, especially in the European theater.

b. Item: Material Shortage for Camp Projects

Discussion: FRAGO's clearly define camp tasking but provide inadequate information on material source. The Camp Mayor serves as the POC but sometimes materials are unavailable and alternate sources or methods of procurement were ill-defined.

Recommendation: Close logistical coordination among camp mayors will assist in identifying material availability.

c. Item: Tent Leaks.

Discussion: The tent repair kit was utilized to patch holes in the berthing tents, however, some of the patches peeled off and most of the holes were beyond repair

Recommendation: Drape tent flies over the leaking tents. They should be included in the TOA.

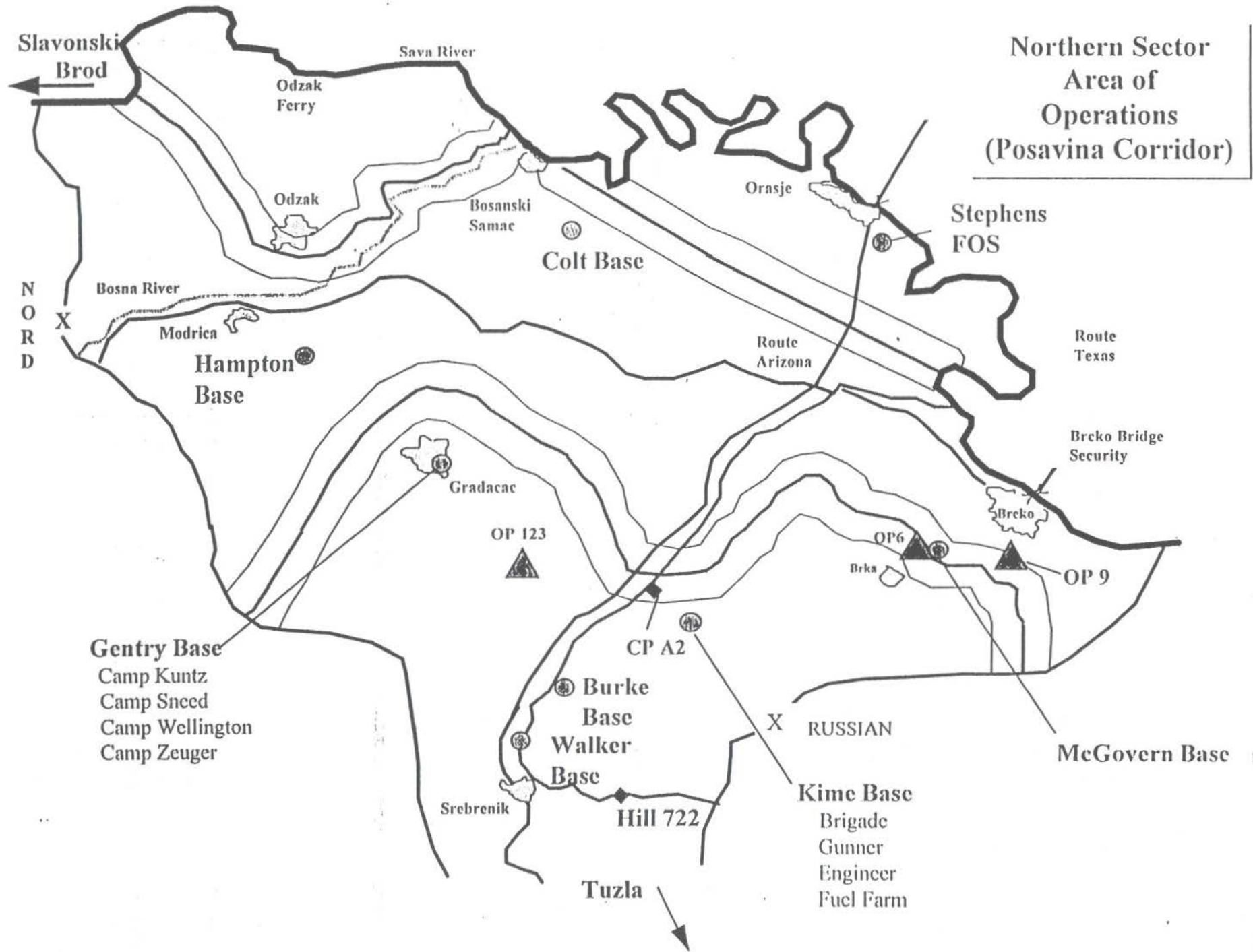
d. Item: Insufficient light switches for the tents.

Discussion: The NMCB TOA does not provide sufficient amount of light switches for the berthing tents.

Recommendation: Increase the number of waterproof switches in the TOA.

5. Commendatory Item: A close working relationship with the Camp Mayor and the Brown & Root Service Corporation contractors gave Camp Maintenance easy access to technical expertise, materials, tools and construction assistance for the various projects.





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Slavonski
Brod

Northern Sector
Area of
Operations
(Posavina Corridor)

Gentry Base
Camp Kuntz
Camp Sneed
Camp Wellington
Camp Zeuger

Burke Base
Walker Base

Kime Base
Brigade
Gunner
Engineer
Fuel Farm

McGovern Base

Colt Base

Hampton Base

Stephens FOS

Srebrenik

Tuzla

RUSSIAN

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

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Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123

Brka

OP 6

OP 9

CP A2

Gradacac

Breko Bridge Security

Breko

Route Arizona

Route Texas

Sava River

Bosna River

Odzak Ferry

Odzak

Bosanski Samac

Orasje

Modrica

Route Arizona

Gradacac

OP 123