# Return to Somalia:
## The Construction of Victory Base

*By Lieutenant Colonel Robert L. Davis and Major Mark D. Feierstein*

On 12 March 1993, the rear detachment of the 43d Engineer Combat Battalion (Heavy) departed Mogadishu, Somalia, leaving a vertical construction platoon as part of the residual engineer force. When the platoon returned to Fort Benning on 26 May, our soldiers thought their mission in Somalia was over. However, events on 3 and 4 October changed all that. After the President announced that an armored task force would be sent to Somalia to protect U.S. forces, we were alerted to deploy a company (-) to "bed down the task force." That requirement quickly grew into providing a task-organized combat heavy battalion. The following is a summary of the 43d's experiences on our second deployment to Somalia, in support of Operation Continue Hope. The article focuses on our main effort, the construction of Victory Base, a 1,700-soldier base camp.

### Deployment

The battalion was alerted on 8 October, with the initial requirement to deploy a company (-), departure date unknown. The battalion staff quickly prepared Alpha Company for deployment, but within hours the requirement increased to a battalion (-). More changes followed. By change number three, the battalion staff conservatively decided to prepare for the worst-case scenario: prepare the full battalion for immediate deployment. By the end of the weekend that assumption was close to fact; our equipment was enroute to the port of Savannah by rail and commercial line haul.

Each line company deployed vertical heavy and horizontal light, taking all vertical construction assets and enough horizontal equipment to clear, grub, and build roads for the base camp. Included were two D7 dozers, two graders, two 2 1/2-cubic-yard loaders, and one small emplacement excavator (SEE) per company. Each company also deployed with eight 20-foot MILVANs with chassis to hold sets, kits and outfits, tents, and other supplies. Based on experience gained from our first deployment to Somalia, we painted 1-foot equilateral triangles on the sides of all containers, including the top, to uniquely mark them for rapid identification.

Because Class IV construction materials were not available in Somalia, the Army component of Central Command (ARCENT) contracted with Brown and Root to ship $1.7 million (about 60 MILVANs) of Class IV items. This estimate was based on our bill of materials from Operation Restore Hope. We purchased an additional seven MILVANs of Class IV material to build latrines and showers to meet the task force's immediate needs. These containers deployed with Alpha Company.

On 17 October, Alpha Company's advance party flew to Somalia aboard a C5A. The battalion's advance party and the rest of Alpha Company departed three days later on a commercial charter plane. We flew into Mogadishu on KC-10s from Cairo because the increased threat prevented commercial aircraft from landing in Somalia. The battalion's main body departed 10 November, also on commercial charter, to arrive at the same time as its equipment.

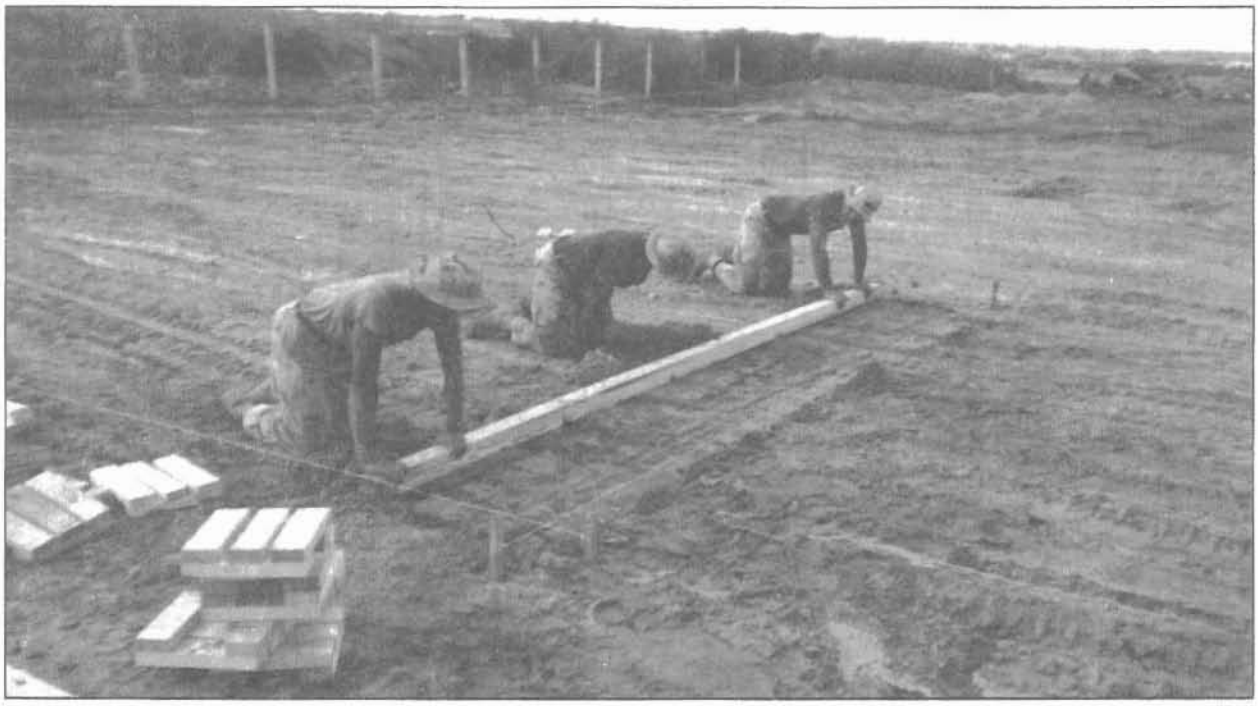
## Missions in Somalia

***Situation.*** The probability of random attacks against coalition forces or of being drawn into fighting among clans was high. Force protection was our top priority, and we continually stressed rules of engagement to soldiers before they deployed and while they remained in Somalia. When we left secure areas, we wore helmets, body armor, and load-bearing equipment and carried loaded weapons. Convoys consisted of three or more vehicles with sandbagged floors. One vehicle was a "gun truck," which was armed with at least one M60 machine gun. Redundant communication with all convoys was essential, as was reflexive knowledge of fire support, MEDEVAC, and SALUTE procedures.

Victory Base was secured with a perimeter berm and wire network. Our innermost protective barrier was an 8 to 10-foot high berm that had an outer perimeter road directly outside for mounted patrols. The innermost ring of triple-standard concertina was just outside that road, followed by a double-apron fence and one last layer of triple-standard concertina. This dead zone was 40 meters wide, was illuminated with 3,000-watt perimeter lights placed 50 meters apart, and was overwatched by MILVAN guard towers embedded in the berm.

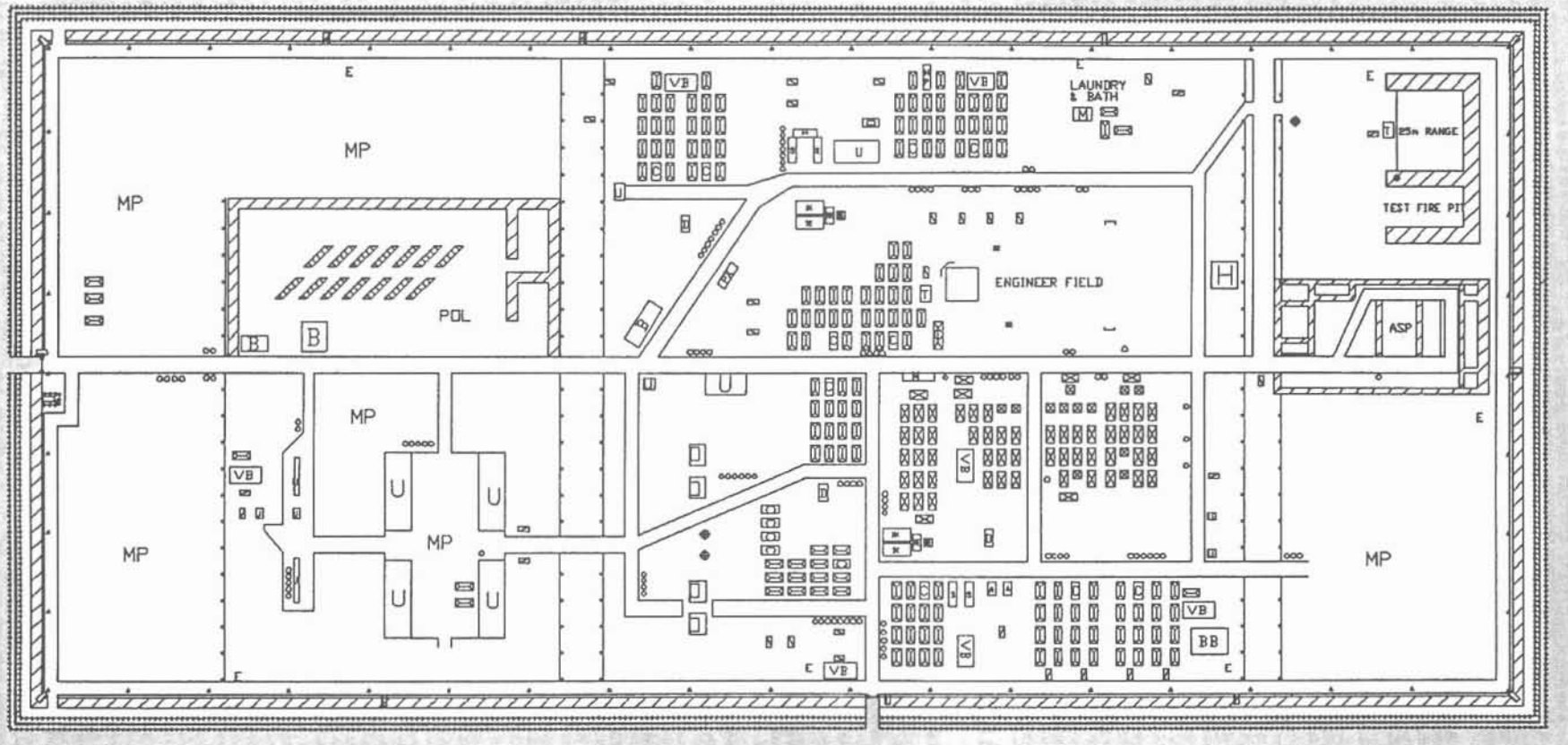
Inside the base camp, the enemy threat was evening 60-mm mortar attacks, so we sandbagged tents and wore helmets and body armor after dark. Because vector-borne diseases were rampant, we religiously took mefloquine once a week to sustain our health. We also used insect repellents and sunscreen, slept on cots with mosquito netting, and avoided local food and water.

***Mission.*** The 43d was attached to the Falcon Brigade, 10th Mountain Division, which was part of Joint Task Force (JTF) Somalia. We were in direct support (DS) of Task Force 1-64 Armor to bed them down, while maximizing force protection and quality of life. Mission creep was minimal, and the



**SPC Martin, SPC Fullwood and SPC Massey (left to right) of 1st platoon, B Company, level the ground prior to placing strongback footings.**

# 43d Engineer Combat Battalion (Heavy)
## Power for Service
## Victory Base, Mogadishu, Somalia




LEGEND

- Strongback (162)
- Frame tent (71)
- S.E.A. hut (15)
- Dayroom (4)
- 30'x40' Wooden building (4)
- Enclosed existing metal structure (2)
- Improved existing building (3)
- AAFES (1)
- Unimproved bldg or hardstand (13)
- Dining facility (2)
- Shower trailer (5)
- Ablution trailer (2)
- Portalet (120)
- Flagpole (3)
- Volleyball court (8)
- Basketball court (1)
- Horse shoe pit (1)
- Baseball field (1)
- Soccer goal (2)
- Bleachers (2)
- Bunker (29)
- Milvan guard tower (12)
- Securtiy gate (2)
- Perimeter security lighting
- Berm (4000 m)
- Triple std concertina (6000 m)
- Double apron (3000 m)
- Existing barbed wire fence
- Detention facility (1)
- Observation tower (2)
- Strongback chapel (1)
- E Fitness trial station (7)
- MP Motorpool area (5)
- Helipad (1)

S3 Construction

| DRAWN BY | SUPERVISED BY |
|---|---|
| SPC GONTZ<br>SPC CLARK | ILT RUIZ |
| DATE | SCALE |
| 10 DEC 93 | 0 50 0 100 IN FEET |

PV2 Mebane of 1st platoon, B Company, marks floor joist positions on a strongback tent beam.

battalion directed almost all its efforts to Victory Base.

Task organization under the JTF, as opposed to the United Nations Logistics Support Command (UNLSC), worked well because it linked us directly to the units we were sent to support and precluded potential conflicts of interest from competing UNLSC priorities. Charlie Company, 3d Engineer Battalion, the habitually associated divisional engineer company, built Victory Base's perimeter berm and wire system. The 535th Prime Power Detachment established the electrical grid and was the only UNLSC engineer unit on Victory Base. Brown and Root provided contracted support.

***Execution.*** A viable site for Victory Base had not been identified when the battalion advance party arrived on 21 October. The 43d Commander and S3 reconnoitered the proposed site and determined that it lacked sufficient drainage and trafficability. The search for a new site began immediately. A joint effort between the 43d and TF 1-64 identified an abandoned Soviet missile site just 3 kilometers north of Mogadishu. That site seemed perfect—it had good drainage and an existing road network, was easy to secure and defend, was just the right size, and was out of range of 60-mm mortar shells launched from the city's dingy back alleys. Falcon Brigade Civil Affairs had even concluded favorable negotiations for the land (you couldn't just take what you wanted in Somalia).

The problem was that the site contained more than 90,000 pounds of warheads and rocket propellant from abandoned missiles. The explosive ordnance detachment was immediately notified, and they determined that the ordnance was too unstable to move and had to be destroyed in place. Unfortunately, the propellant and warheads were located in the best five of ten salvageable structures.

While EOD planned the big bang, our S3 section planned construction, and Alpha Company worked at Sword Base prefabricating latrines and staging equipment from the first ship. Satellite and aerial photographs of the site were not available, so our construction officer boarded a helicopter to "shoot" some. That night he drafted a scaled layout from those images to make a planning board. We conducted detailed coordination with TF 1-64 at this point to ascertain specific needs and desires. We then made scaled vehicle cutouts and generic task force company "footprints," each of which contained 12 strongback tents and one Southeast Asia (SEA) hut, and arranged them on the board to determine optimal billeting and motorpool locations. All other base-camp facilities (showers, administrative buildings, dining facilities, bunkers) logically followed.

Once the task force was satisfied with the base layout, we completed construction estimates and assigned each of our companies specific areas of responsibility (AORs). The AORs were selected to maximize use of the battalion's resources by optimally allocating company workloads while simultaneously giving each company a wide spectrum of construction missions and training. The AOR concept was also used to promote unit pride by giving each company a sense of ownership for its assigned work areas.

The S3 wrote an operation order (OPORD) to integrate resources and clearly define, by phase of

construction, exactly what needed to be done, in what priority, how, and by whom (the 43d, C/3, 535th, and Brown and Root). All changes, refinements, and additions to the base OPORD were specified in subsequent written fragmentary orders (FRAGOs). The S3 also provided designs for all work to be accomplished.

***Base Construction.*** Victory Base was constructed in four overlapping phases. Phase I, horizontal construction, began with site occupation on 30 October, after the ordnance was detonated. It included clearing and grubbing operations (3.7 million square feet); emplacing crushed coral (880,000 cubic feet); and constructing a perimeter berm, roads, motorpools, an ammunition supply point (ASP), a test fire pit and a petroleum, oil and lubricants (POL) yard. Phase I ended on 8 December.

Phase II, vertical construction, began on 5 November with the start of the first company footprint. Before starting construction, we removed hundreds of tons of twisted metal and rubble left by EOD's blast. Force protection work included the perimeter wire obstacle system, perimeter lights, and 12 MILVAN guard towers. Quality of life construction included building 162 strongbacks (16 feet by 32 feet), 15 SEA huts (16 feet by 32 feet), and 4 SEA huts (30 feet by 40 feet), all equipped with electricity and lights; a GP large strongback tent chapel; a laundry and bath facility; and a power grid. Phase II ended on 10 December.

Phase III, bunker construction, also involved both vertical and horizontal efforts. However, it was different from Phases I and II because we executed it as assets were freed from those phases. The threat determined the priority we placed on Phase III. Phase III ended on 10 December when the last MILVAN bunker was completed.

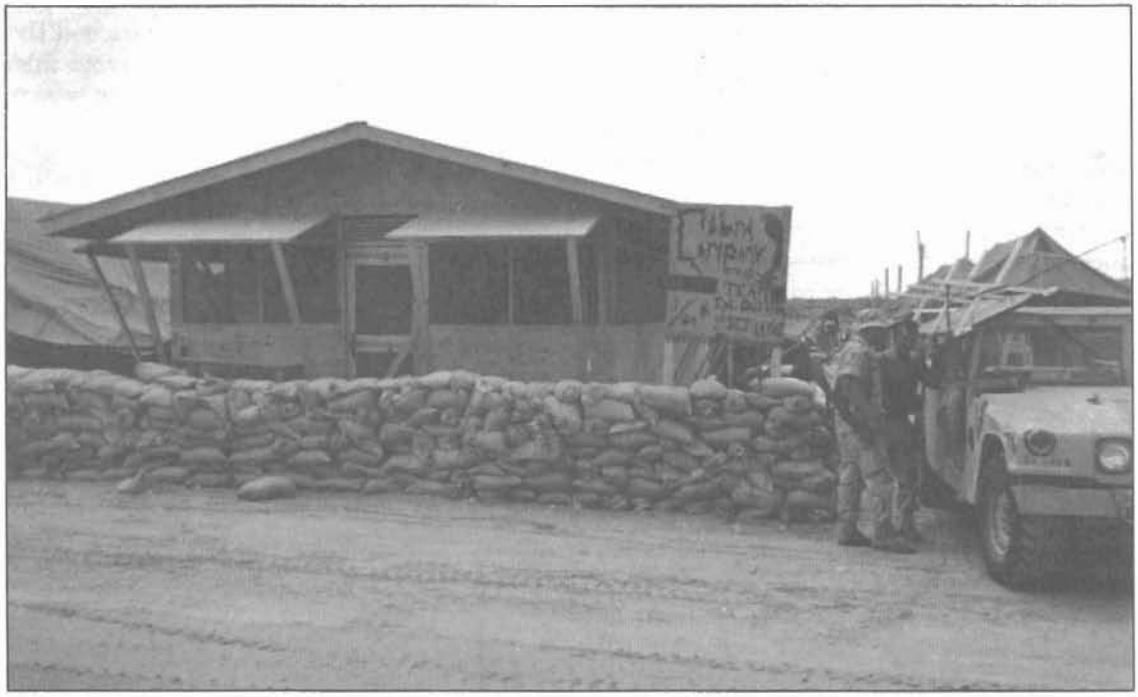
Phase IV's purpose was to continually improve on work performed in Phases I through III and to do new projects to enhance base-camp efficiency and quality of life. Phase IV projects included a 25-meter qualification range; a detention facility; an air conditioned PX; decks, benches, and privacy screens for shower trailers; over 200 pieces of modular furniture; a fitness trail with seven exercise stations; and baseball and soccer fields complete with a backstop, goalposts, bleachers and a line chalker. Phase IV ended when the battalion left Somalia on 18 December.

Victory Base construction was a highly dynamic process. Not everything went as planned—we completed some projects earlier than anticipated and some later. There were also plenty of fresh ideas for improvements and new projects, the best of which were implemented in Phase IV. Examples include counterweighted I-beam gates and hedgehogs for base-camp entrances, SEA hut window shutters and five-roll paper holders for portalets. We expected such changes and effectively managed them while keeping workloads balanced with clear, concise mission orders (FRAGOs). Active quality control at the company level and quality assurance at the battalion level were also important to ensure that work was done right the first time. Additionally the companies, platoons, and squads learned lessons daily, which they shared each evening at the battalion command and staff meeting, to minimize learning curves.

Military engineers did not build Victory Base by themselves. Brown and Root played an integral role by providing contracted equipment, services, material, and construction. When we first occupied Victory Base, not all of our earth-moving equipment had arrived, so we relied on Somali dozers and compactors to assist with initial clearing and site preparation. Contracted Somali labor cleared brush, filled sandbags, removed waste from portalets, and disposed of trash. Somali carriers hauled most of the 880,000 cubic feet of crushed coral that we emplaced in motorpools and around company areas to improve trafficability and control dust.

Brown and Root also provided Victory Base with five 18-head shower trailers and two 3-head units with water tanks and pumps, five reefer vans, several chest freezers, ice machines, and air conditioners. Brown and Root also built two dining facilities, four dayrooms, and the base's 3-kilometer perimeter lighting system. Working with Brown and Root and their Somali subcontractors highlighted the importance of proactive civil-affairs operations when inter- and intra-clan fighting stopped crushed coral deliveries for more than a week.

The battalion executed several smaller missions while constructing Victory Base. They include work performed at the boat factory, the JTF Headquarters, Checkpoint 31, Gotham City and the Mogadishu Airport. The boat factory was an abandoned works on the coastline southwest of Victory Base. We prepared it for occupation by friendly forces by clearing it; establishing drainage; wiring two existing warehouses and an administrative building for electricity; and constructing a dining facility, six guard towers, two bunkers, a 25-meter range, a test-fire pit, and several berms. We built bunkers, mortar-blast shields, and tent floors for the JTF Headquarters; constructed a guard tower at Checkpoint 31; and cleared a holding area for Somali refugees near Gotham City. Finally, at the airport, we conducted site preparation for future construction, waterproofed the terminal roof to increase usable space in the passenger holding area (PHA), and built picnic tables for use in the PHA.



Each company footprint contained one SEA-hut for administration. B Company built this one for Cobra Company, Task Force 1-64 Armor.

***Service Support.*** With the exception of Class IV, assistance from Brown and Root and laundry and bath service (furnished on-site by the 16th Field Service Company, UNLSC), the 224th Forward Support Battalion (FSB) provided all the battalion's logistical support. The 224th was attached to TF 1-64 and received its support from the UNLSC. The theater had matured considerably from the time of our first visit and, excluding Classes IV and IX (repair parts), obtaining routine support was no longer an ordeal. Construction material shortages were recognized, which is why ARCENT furnished our Class IV. Repair parts nonavailability, especially for low-density engineer equipment, was just as broken as during Restore Hope. Units in country could more easily acquire Class IX by calling back to home station than by requisitioning it in theater. Even though we were in Somalia a total of only two months, the Class IX situation was so desperate that our group commander brought all the parts he could carry when he came to visit.

***Command and Signal.*** Confusing theater command relationships made routine duties much more trying than necessary. Our task organization under the JTF and Falcon Brigade greatly clarified our mission requirements, but the lack of a theater engineer made engineer coordination outside of the JTF difficult and burdensome. Out of frustration and the desire to facilitate our work, we met weekly with all key engineers in country. This was very successful in that it expedited actions, corrected miscommunications, and prevented duplications of effort.

The battalion experienced many communication challenges during Continue Hope. Single-channel, ground airborne radio systems (SINCGARS) were our organic and primary means of communication. We operated in single-channel mode because many U.S. and all allied units could not frequency hop. Although we had no organic mobile subscriber equipment (MSE), we employed devices borrowed from other units. Five mobile subscriber radio terminals were used throughout the battalion. Nine digital, nonsecure voice terminals were used at Victory Base for operational control and morale, welfare, and recreational purposes. We used a UXC-7 secure tactical facsimile device to send and receive classified situation reports (SITREPs), OPORDs, and FRAGOs to and from Falcon Brigade Headquarters at the embassy.

Two electronic-mail tactical terminal adaptors allowed us to send unclassified reports to other headquarters and to update our rear detachment and family support-group network at Fort Benning. These daily progress reports were recorded on a Somalia hotline that the battalion's friends and family members could access by dialing a toll-free (800) number. Commercial hand-held and AN/PRC-127 radios facilitated communication between the battalion tactical operations center and worksites. A TA-312 network provided reliable and redundant communication in the base camp. The major problem that persisted to the very end was the apparent lack of compatibility between the digitally grouped multiplexed (DGM) system and MSE. This problem plagued not only the 43d, but all of Victory Base. All other communication challenges were surmountable.

## Redeployment

The battalion completed the enormous task of constructing Victory Base in a little over two months after our initial alert in garrison. Due to the drawdown of U.S. forces in theater, we turned much of our engineer equipment over to Brown and Root. We transferred our remaining Class IV to the 224th FSB, and provided Brown and Root with a memorandum delineating base-camp maintenance requirements. As we prepared our remaining equipment for shipment, we experienced one final reminder of Somali hospitality: Aidid strongholds in the city forced us to convoy on a circuitous route from the washracks to the port along a dusty main supply route. The battalion returned to Fort Benning on 19 December.

## Lessons Learned

We learned many lessons during Operation Continue Hope. Some carried over from our first Somalia deployment and were reinforced, while others were specific to this deployment.

- Make force protection your number one priority. It should drive all planning and execution and is ultimately achieved through continuous command emphasis. It ranges from base-defense planning that is commensurate with the threat, to squad leaders ensuring that their soldiers keep their flack vests closed while on long, hot convoys.
- Distinctively mark containers before shipping to facilitate recognition at destination. Mark all sides and the top with a symbol that can be seen from a distance.
- Try to find out about Class IV availability. You may have to bring your own. If you don't, you may end up sitting in theater waiting for materials. Ship it in 20-foot MILVANs with chassis to ease transportation. Deploy with a supplementary, command-directed prescribed load list, especially for low-density equipment, based on anticipated missions and theater conditions, such as hot, dusty roads and jagged rocks.
- If you can influence task organization, try to work directly for those you will support to preclude competing priorities.
- Ensure you understand your customer's needs and desires and meet often to stay attuned to them. Once you know your customer's expectations, use scaled site layouts, OPORDs, and FRAGOs to manage the details and maximize efforts so you can exceed those expectations. Use these tools to avoid mistakes and wasted effort, even if there is pressure to produce quick results.
- Bring any special tools you think may help. For example, pneumatic nail guns are great when you have a lot of carpentry work, and a K-SPAN machine is the most efficient way to roof most existing structures.
- Perform meticulous quality control and quality assurance to catch mistakes early. Share lessons learned at all levels daily.
- Use contractors for whatever you can, whenever you can. Start planning the engineer end state early by focusing on transition to the contractor when possible. When you do transition, do so clearly and in writing. Until you put it in writing, you probably haven't thought it through. Be aware, however, that civil disturbances and unrest can hinder or even stop contracted support so have a strong civil affairs program and back-up plans.
- Finally, meet at least weekly with fellow engineers in theater, military and civilian, to synchronize efforts.

## Conclusion

The true keys to the phenomenal success of the 43d Battalion during its second trip to Somalia were the speed and versatility of construction in support of combat operations. The experience gained from the first deployment allowed the battalion to exceed all task force expectations and safely redeploy soldiers once the mission was accomplished. The lessons learned will serve engineers well in the future and help ensure that we represent the Corps with distinction, by continuing to prove that engineers are vital to the Army in its changing roles.

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