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From: Commanding Officer, U.S. Naval Mobile Construction  
Battalion SEVEN

To: Distribution

Subj: SUBMISSION OF DEPLOYMENT COMPLETION REPORT

Ref: (a) COMCBPAC/COMCBLANTINST 3121.1B  
(b) NMCB SEVEN OPORDER 04-98  
(c) NMCB SEVEN FRAGORDER 05-98

Encl: (1) NMCB SEVEN Deployment Completion Report

1. Enclosure (1) is forwarded in accordance with reference (a).
2. Per reference (b), NMCB SEVEN deployed to Camp Moscrip, Puerto Rico from 05 Jun 1998 to 15 Jan 1999, with details deployed to Andros Island, Bahamas; Vieques Island, Puerto Rico; Guantanamo Bay, Cuba; Norfolk, VA; and Jacksonville and Mayport, Florida. NMCB SEVEN also deployed two Deployments-for-Training to the Dominican Republic and Saint Lucia.
3. Per reference (c), NMCB SEVEN deployed to Honduras in support of Hurricane Mitch relief efforts from 07 Nov 98 to 15 Jan 99. Details Andros, Guantanamo Bay, and Norfolk were rolled back into the main body for redeployment to Honduras.

G. E. EICHERT

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**U.S. NAVAL MOBILE CONSTRUCTION BATTALION SEVEN**

**COMMANDING OFFICER: CDR G. E. EICHERT  
EXECUTIVE OFFICER: LCDR P. J. GIBBONS  
COMMAND MASTER CHIEF: UCCM (SCW) B. F. JOHNSON**

**DEPLOYMENT COMPLETION REPORT**



**CARIBBEAN DEPLOYMENT**

**JUNE 1998 TO JANUARY 1999**



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## **EXECUTIVE SUMMARY**

### **ADMINISTRATION**

The department successfully maintained service records for the 600-person battalion and processed more than 100 reservists on ADT and AT orders. Legal assistance, passport services, TAD order processing, and administration of 400 Reserve and Active Duty Navy Wide Examinations were additional services provided by the department. Following Hurricane Georges in late September, all services were sporadically disrupted for approximately 30 days due to an unstable power supply for telephones and computers. The Administration Department redeployed to Honduras and all services were provided in an austere field environment.

### **TRAINING**

NMCB SEVEN completed 3,152 mandays of training during the deployment, concentrating on practical application of military skills and physical fitness. The vast majority of scheduled training occurred during the first ten weeks of deployment. The destruction caused by Hurricanes Georges in Puerto Rico and Mitch in Honduras offered an exceptional opportunity for the battalion to conduct disaster recovery operations. Crew served and small arms ranges were cancelled due to contingency operations.

The Battalion was fortunate to have the opportunity to work with the USMC 8<sup>th</sup> Engineering Support Battalion to erect Medium Girder Bridges (MGB) on three separate occasions. This helped the Battalion hone specialty skills required to support a MAGTF in the event of contingency operations. The air and sea embarkation skills, disaster recovery expertise, convoy procedures, and joint operations knowledge learned during Hurricane Mitch relief operations proved to be invaluable training.

### **OPERATIONS**

NMCB SEVEN completed 40,804 mandays of project tasking in Puerto Rico, Honduras, and detail sites in Mayport and Jacksonville, FL; Norfolk, VA; Andros Island; Vieques Island; Guantanamo Bay, Cuba; and Deployments for Training to Cabeza de Toro, Dominican Republic, and Vieux Fort, St. Lucia. NMCB SEVEN supported Puerto Rico during Hurricane Georges preparation and disaster recovery operations and utilities restoration in late September and October 99. In support of OPERATION FUERTE APOYO in Honduras, the battalion mainbody displaced to San Pedro Sula, and supported details in Soto Cano, La Ceiba, La Guacamaya, Morazan, Rio Hondo, and Talanga. Five personnel were assigned to US Support Group Haiti for engineering assistance.

On 07 November, a heavy Air Detachment (AIR DET) of 126 personnel and 43 pieces of Civil Engineer Support Equipment (CESE) was mounted out in 36 hours. The Air and Sea Echelons arrived via barge on 26 November. The TWENTY SECOND Naval Construction Regiment (Forward) was stood up on 16 November and given operational control of the USMC Combat Services Support Detachment 68, the USA 68<sup>th</sup> Combat Support Element, and Honduran forces from the 105<sup>th</sup> Infantry Brigade.

All battalion CESE and Table of Allowance (TOA) assets were retrograded and prepared for sea embarkation in early January. With assistance from NMCB 74, a ship was loaded on 12 January for transit back to Puerto Rico.

### **SUPPLY AND LOGISTICS**

The Supply Department processed 228 NORS requisitions valued at \$117,563 and procured \$2,998,000 of materials. IMPAC cards were utilized at all the detail sites and to support both DFTs. The total of all IMPAC purchases was \$161,000. Contracting in support of the DFTs totaled \$114,000.

Hurricane Georges disrupted supply functions for approximately 30 days due to unstable power sources. The Supply Department performed superbly during the redeployment of the battalion to Honduras. Accountability was maintained for all TOA assets during the contingency operation.

# ADMINISTRATION/SPECIAL STAFFS

## ADMINISTRATION

### 1. LESSONS LEARNED:

a. PROBLEM/ITEM: Message Traffic with Details in Jacksonville, Mayport, and Norfolk.

DISCUSSION: Per COMTHIRD/COMSECONDNCB INST 2000.2 each detail site Plain Language Address (PLA) has been established. However, message connectivity between mainbody and Jacksonville, Mayport, and Norfolk exists only through the local Construction Battalion Units (CBU). The detail sites do not have established PLAs because they do not have Unit Identification Codes (UIC). UICs are required for a PLA. Receiving message traffic was a constant challenge, especially after CBU working hours.

ACTION TAKEN/RECOMMENDATION: Establish UICs and PLAs for the three detail sites to allow for message traffic flow.

b. PROBLEM/ITEM: Classified fax.

DISCUSSION: Status Of Resources Training System (SORTS) requires the submission of classified information via fax. Accessibility in Puerto Rico was limited and nonexistent in Honduras.

ACTION TAKEN/RECOMMENDATION: While the Naval Communication Station allowed utilization of their classified fax, it was highly inefficient. Procurement of a classified fax increases the Battalion's self-sufficiency.

c. PROBLEM/ITEM: Fax and copier machines in Honduras.

DISCUSSION: The S1 department is heavily dependent upon fax and copier capability, even in an austere field environment under contingency conditions. Neither was available solely for administration purposes and severely impacted services.

ACTION TAKEN/RECOMMENDATION: Add fax and copying machines to the TOA or provide additional funding for rental or procurement during contingency operations.

d. PROBLEM/ITEM: Foreign Clearance Guide Requirements.

DISCUSSION: The Foreign Clearance Guide provides specific guidance and procedures for entering foreign countries. During the

redeployment of the battalion to Honduras, rosters were changing constantly due to operational requirements. These personnel changes required new clearance requests and created an administrative challenge to maintain strict timelines. The Administration Department could have utilized their resources more effectively if these requests were not required for every personnel movement.

**ACTION TAKEN/RECOMMENDATION:** Army units deploying to Soto Cano Air Base received a waiver from The State Department relieving individual commands of Foreign Clearance Guide requirements due to the urgency of the disaster crisis. Recommend Brigade investigate the procedures for requesting waiver approval so that subsequent battalions going to a contingency in a foreign country not repeat our inefficiencies. While it may appear simple in nature, administrative reports are burdensome when considering all the other evolutions involved in mounting out a full battalion.

e. **PROBLEM/ITEM:** Scanner.

**DISCUSSION:** Our scanner proved to be a force multiplier for the staff and significantly reduced the administrative burden of reproducing instructions, notices, and SSIC files. Having access to a scanner was indispensable during the deployment and will pay big dividends for the Okinawa deployment. Documents are now placed on an electronic bulletin board, accessible to all, and paper product usage has been reduced.

**ACTION TAKEN/RECOMMENDATION:** Funds to procure scanners for major detail sites as well as homeport will be well spent. The weight, and therefore cost, associated with moving a battalion will decrease as more documents are stored electronically instead of on paper.

f. **PROBLEM/ITEM:** Orders for Reservists.

**DISCUSSION:** Seabee Reservists completing their Annual Active Duty for Training arrived in Puerto Rico with orders ordering them to either 'Naval Station Roosevelt Roads, PR', 'NMCB SEVEN Gulfport, MS' or 'NMCB SEVEN'. This created confusion and difficulties during in-processing and out-processing settlement of claims.

**ACTION TAKEN/RECOMMENDATION:** The Reserve Centers responsible for preparing orders were contacted and informed that in order for NMCB SEVEN to liquidate claims for the reservist, orders addressed to Gulfport had to be modified, and orders addressed to Naval Station Roosevelt Roads had to be modified or be processed by PSD Roosevelt Roads. The only orders we could process

were the ones addressed to NMCB SEVEN. Proper order writing will facilitate payment of the reservists and enhance the battalion's level of customer service provided to the reservist.



## CHAPLAIN

1. **NARRATIVE**: A variety of bible studies and worship services were available to the Seabees in Puerto Rico. Catholic services were held at the Naval Station. The Safe Harbor Christian Service Center provided Friday night fellowship meals and Sunday dinner to those wishing to participate.

In Honduras, volunteers built benches, a podium, and an altar to serve as the chapel. The chapel shared a room with the companies and the embark organization. Relief missions included the distribution of humanitarian supplies, the repair of an orphanage roof, and sponsoring a Christmas party for orphans.

### 2. **LESSONS LEARNED:**

a. **PROBLEM/ITEM**: Chapel facilities at Camp Moscrip.

**DISCUSSION**: The chapel is dark, small, and musty. Mildew is a constant irritation. Books, bibles, and hymnals have to be sprayed with Lysol and wiped clean frequently.

**ACTION TAKEN/RECOMMENDATION**: None. For information purposes only.

b. **PROBLEM/ITEM**: Chapel services in Honduras.

**DISCUSSION**: Catholic and Protestant services were readily available at Soto Cano Air Base. Locating an English-speaking Priest to provide services at the mainbody site proved difficult. The remote details did not have any type of chapel service available. Attendance at local churches was prohibited due to liberty restrictions.

**ACTION TAKEN/RECOMMENDATION**: None. For information only.

## DENTAL

1. **NARRATIVE**: Dental readiness remained above 96% with no major dental emergencies. The Department remained in contact with the details/DFTs ensuring dental treatment was available and all required treatment was accomplished.

Contacts with Roosevelt Roads Dental Clinic was established enabling treatment for every dental situation. A wide variety of dental prosthesis was fabricated for battalion personnel at the Camp Moscrip facility.

When deployed to Honduras, the battalion deployed with the capability to provide routine dental care. Due to inadequate safe water supplies, dental care was not provided in Honduras.

### 2. **LESSONS LEARNED**:

a. **PROBLEM/ITEM**: Unable to perform surgical extractions at Camp Moscrip.

**DISCUSSION**: Lack of a surgical hand piece prevented the performance of extractions. Subsequent referrals required multiple additional appointments and resulted in lost mandays.

**ACTION TAKEN/RECOMMENDATION**: We referred extraction patients to Roosevelt Roads Naval Hospital. Recommendation has been made to Captain Reams, Medical Officer at SECOND Naval Construction Brigade, to purchase an electrical surgical hand piece.

b. **PROBLEM/ITEM**: Inadequate funds for FY98.

**DISCUSSION**: The entire annual dental budget plus an additional \$500 had been expended before the end of the third quarter. An additional \$1,000 was needed to continue dental care for FY98.

**ACTION TAKEN/RECOMMENDATION**: A recommendation was forwarded to the SECOND Naval Construction Brigade to increase the annual dental budget from \$4,000 to \$6,000.

## MEDICAL

### 1. NARRATIVE:

Total patient visits: 3,600  
Total immunizations: 860  
Total prescriptions: 735

The Medical Officer, 1 Independent Duty Corpsman, and 9 Seabees provided support and assistance during the Naval Hospital Roosevelt Roads Mass Casualty Drill on 02 SEP serving as observers and patients. The department initiated monthly Wellness topics in August. Monthly topics were illustrated on the Medical Bulletin Board, discussed in handouts located in the clinic, and repeated in the Plan of the Week. Planning began on a joint effort with the Command Fitness Coordinator on a Wellness agenda in support of the Physical Readiness Program.

The department supported camp and base cleanup efforts after Hurricane Georges struck Naval Station Roosevelt Roads. The X4 staff deployed to Honduras in November as part of a joint service humanitarian effort in the aftermath of Hurricane Mitch. Hurricane Georges and the battalion deployment to Honduras interrupted many of the Wellness initiatives.

The Medical Department undertook an extensive preventive medicine campaign prior to and during the deployment to Honduras to control transmission of various tropical diseases. These preventive efforts included chemoprophylaxis for malaria and leptospirosis, distribution of DEET, inspections to ensure use of mosquito netting, monitoring of camp sanitation, and control of mosquito habitats. Medical evacuation routes out of Camp Can Do were established, and JTF-Bravo medical liaisons were contacted to establish sources for emergency care at nearby medical facilities in San Pedro Sula. Five NMCB SEVEN personnel acquired dengue fever at San Pedro Sula, and two personnel with a viral infection were mistakenly diagnosed with malaria at JTF-Bravo in Soto Cano. These personnel fully recovered in Soto Cano.

### 2. LESSONS LEARNED:

- a. PROBLEM/ITEM: Medical Physical Readiness Test screening.

DISCUSSION: The medical screening for the PRT should be started as far in advance as possible, preferably the 10-12 weeks as prescribed by the OPNAVINST. 6000.1E. This allows time for additional work up as needed at other facilities. The addition of the daily tobacco usage question as of first quarter FY99 dramatically increased the number of required screenings.

**ACTION TAKEN/RECOMMENDATION:** Plan for the tests far enough in advance to allow for these screenings. Both Hurricanes Georges and Mitch disrupted this process during the deployment.

**b. PROBLEM/ITEM:** Supply of malaria prophylaxis.

**DISCUSSION:** In the event of unexpected deployments to malaria endemic areas and to support planned detachments and DFT's, a supply of malaria prophylaxis and DEET topical should be available in Camp Moscrip. The amount on hand only covered the Air Det for a few weeks.

**ACTION TAKEN/RECOMMENDATION:** Have sufficient quantities of the prophylaxis and DEET in the TOA, at least enough for 250 people for 1 month.

**c. PROBLEM/ITEM:** Inconsistencies in the Medical TOA.

**DISCUSSION:** Accountability becomes difficult when the Supply and Medical Department are not operating off the same TOA inventory. Replacement is difficult for high price items due to funding.

**ACTION TAKEN/RECOMMENDATION:** Recommend battalion wide Medical TOA for use. Changes would be submitted through the chain of command and not implemented until approved. Separate funds not affecting routine consumable OPTAR funds should be used to replace TOA items.

**d. PROBLEM/ITEM:** Cooperation with Naval Hospital Roosevelt Roads. The Emergency Department at the hospital sometimes objected when the battalion officer was unavailable for duty due to on-going battalion activities. The ER director did not seem to understand that battalion requirements took precedence.

**DISCUSSION:** The two parties need written clarification on the level of assistance required by the battalion, specifically the availability of the Medical Officer working in the Emergency Department and utilization of OPTAR funds.

**ACTION TAKEN/RECOMMENDATION:** A written Memorandum of Understanding between the Naval Hospital and the deployed NMCB. Each incoming battalion should review the document as part of the turnover.

**SAFETY**

1. **NARRATIVE**: Safety is the battalion's number one priority and efforts were put forth to reemphasize its importance on a daily basis. No significant accidents occurred during this fast paced deployment. Safety statistics are provided as follows:

	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	TOTAL
Number of Fatalities	0	0	0	0	0	0	0	0	0
Days of Lost Time	0	0	34	13	0	5	2	3	57
Lost Time Cases	0	3	3	5	0	2	2	1	16
Light Duty Days	65	87	231	275	256	51	30	14	1009
Light Duty Cases	7	13	17	19	15	2	1	1	75
First Aid Mishaps	9	16	11	19	7	3	3	1	69
Total On Duty Mishaps	12	22	18	22	15	6	3	3	101
Total Off Duty Mishaps	4	10	8	9	7	1	0	0	39
Gov. Vehicle Mishaps	3	5	6	7	3	0	1	2	27
Gov. Vehicle Repair Costs	\$305	\$1,400	\$1,380	\$1,290	\$500	\$0	\$3,000	\$5,200	\$ 12,575

2. **LESSONS LEARNED**:

a. **PROBLEM/ITEM**: Difficulty visiting every jobsite every day.

**DISCUSSION**: Job sites were located at remote locations on base and the El Yunque rain forest. Combined with CESE availability, it was impossible to visit each site everyday. This became more difficult while in Honduras because of the detail remoteness. Det Safety Petty Officer became very important.

**ACTION TAKEN/RECOMMENDATION**: Safety should have a "B" assigned vehicle to ensure daily vehicle availability. Other solutions are traveling with QC personnel and having QC personnel with the 6021 NEC perform some safety inspections.

b. **PROBLEM/ITEM**: Ordering and receiving materials.

**DISCUSSION**: Ear plug cases and hearing protection were not ordered immediately following the homeport FEX due to a miscommunication between Safety and Supply. They were ordered again in Puerto Rico; however, when the SNAP system went down the requisition was purged and cancelled. A reorder was placed and the supplies were received eight months after the initial order.

**ACTION TAKEN/RECOMMENDATION**: Carry these items in CSR. Ensure Supply does not cancel outstanding requisitions when SNAP goes down. Follow-up frequently!

## COMMUNICATIONS AND ADP

1. **NARRATIVE:** The S6 staff provided outstanding support during the two contingency operations this deployment. During Hurricane Georges, saber radios were extensively utilized to task crews and receive critical information. When NMCB SEVEN relocated its mainbody site to San Pedro Sula, Honduras, communications were established within hours. Within 48 hours after the arrival of computers via barge, all computers had been issued and were being effectively utilized.

### 2. **LESSONS LEARNED:**

a. **PROBLEM/ITEMS:** Delivery of keying material (keymat) at the beginning of deployment may include duplication of short titles/editions turned over from the outgoing battalion.

**DISCUSSION:** Initiation of keymat delivery should include coordination with the outgoing battalion to avoid duplication of holdings.

**ACTIONS TAKEN/RECOMMENDED:** Coordinate initiation of keymat delivery with the outgoing battalion.

b. **PROBLEM/ITEMS:** Software versions on deployment may not be the same as those used in homeport or on previous deployments.

**DISCUSSION:** Some of the detail sites had different hardware suites and/or versions installed than what was utilized in homeport.

**ACTIONS TAKEN/RECOMMENDED:** Two months prior to deployment (or redeployment to homeport) contact the outgoing battalion's ADP division to get a listing of software. In many cases, it may make sense for them to upgrade prior to your arrival. Avoid making upgrades in the first few weeks of deployment, as things are already hectic enough.

c. **PROBLEM/ITEMS:** Repair of CCI gear may involve items being sent away from the local area.

**DISCUSSION:** When the repair of CCI gear involves shipment to Gulfport or another repair facility, the holding account should be concerned with inventories or turnovers taking place while the gear is still away. Transfer or inventory should not be done if the gear cannot be sited.

**ACTIONS TAKEN/RECOMMENDED:** Do an account-to-account transfer whenever CCI gear is being repaired remotely from the deployment site.

**d. PROBLEM/ITEMS:** Replacement parts for computers are needed for routine repairs.

**DISCUSSION:** Computer hardware components routinely fail. Immediate repair can usually be effected if repair parts are available. As there are no "extra computers", it's important to be able to repair broken systems quickly. Waiting to order parts makes for an unnecessary delay.

**ACTIONS TAKEN/RECOMMENDED:** Stock ADP repair parts in sufficient quantity/variety to solve most routine hardware failures. Include these expenses as part of the Communications Budget - use historical data for amounts. NMCB SEVEN spent approximately \$2,500 each fiscal quarter on ADP repair parts, including systems that were broken on arrival.

**e. PROBLEM/ITEMS:** Asset tracking is critical for accountability management.

**DISCUSSION:** In order to track asset location/responsibility (and therefore accountability), an effective database is invaluable as a management tool. At Camp Moscrip, ADP tracks over 500 items and the Comm Shop tracks over 650 items. The database will allow you to track and generate reports. NMCB SEVEN designed Access databases for each division.

**ACTIONS TAKEN/RECOMMENDED:** Use the NMCB SEVEN databases or modify/implement new databases using Microsoft Access for asset tracking.

### **3. INFORMATION SYSTEMS**

**a. ISSUE:** Mount-out of computer assets was difficult due to lack of available containers.

**RECOMMENDATION:** Prefabricate mount-out boxes with proper dimensions for compartmentalization of CPUs and monitors or use configured Seabee Containers.

**b. ISSUE:** No planning was done for Internet services prior to arrival in Honduras.

**RECOMMENDATION:** Plan for connection to an Internet service provider prior to entering the AOR. Designate specific computers (with modems installed and tested) and install all required

software. Arrange for at least three separate accounts to support Admin, Supply, Training, CCC, and ADP.

#### 4. COMMUNICATIONS

a. **ISSUE**: Over-the-horizon communication equipment was not available in sufficient quantity. The current TOA focuses on VHF (line-of-sight) radio gear suited for field use. HF radio functionality at short range was limited, likely due to magnetic interference from ore deposits.

**RECOMMENDATION**: Increase the number of TACSAT transceivers available in the TOA. With only two TACSAT transceivers in the TOA, it is difficult to communicate with anyone other than higher headquarters.

b. **ISSUE**: VHF radios did not transmit to expected "field" distances due to urban development.

**RECOMMENDATION**: This is a known consequence of urban operations. Implement repeater nets if feasible - depending on coverage area required and granted permission. In Honduras, a repeater net was already implemented but because of Problem 5, access wasn't possible. It is possible that frequencies may not be available for a repeater net.

c. **ISSUE**: Handheld VHF radios were not completely compatible with adjacent units and higher headquarters. Frequency bands were not identical, making repeater access impossible in this specific case.

**RECOMMENDATION**: There is no solution. TOA Sabers are "special purchase" radios from Motorola with a specific designed frequency band. Non-NCF units' radios do not necessarily have similar bandwidths. In this case, the Army repeater net was running outside of the NCF Saber frequency range, making access impossible.

d. **ISSUE**: Commercial telephone access was not identified as a requirement until after arriving in the AOR. This delayed the initiation of service, resulting in poor communications at the beginning of operations. A significant number of cellular telephones was required for remote operation of details and especially for convoy security. Their purchase was delayed while arranging for funding.

**RECOMMENDATION**: Commercial telephones are important and necessary in an urban environment. Wired telephones are cheap, but installation depends on liaison with local telephone companies.



This can create significant delays in implementation of service. Cellular telephones are quick to implement, but are significantly more expensive than wired telephones. Cellular phones should be included in the TOA for non-tactical urban operations. Compatibility with various international cell nets should be examined.

e. **ISSUE**: There is no multi-purpose radio/TACSAT/telephone asset in the TOA.

**RECOMMENDATION**: Examine the feasibility of a dual-mode cell/satellite telephone. Such assets (also capable of secure communications) are available from Motorola according to GSGT Arrington (R72).

f. **ISSUE**: No secure fax was available for the transmission of classified graphic information.

**RECOMMENDATION**: Purchase TOA tactical fax machines. TACSAT can send secure data, but without a classified scanner there is no method of converting the image to a digital format.

g. **ISSUE**: The dissemination of unclassified and classified message traffic was not completely planned prior to arrival in the AOR.

**RECOMMENDATION**: When the administration function of the battalion deploys, it's necessary to arrange for the dissemination of message traffic. Rerouting traffic to the nearest message center is easy; arranging for the distribution is difficult. Unclassified messages can be sent via fax, e-mail, or delivered in person; internet e-mail worked extremely well. Classified messages can only be delivered in person or via a secure net; TACSAT worked well.

## 5. **CMS**

a. **ISSUE**: Secure voice/data communications was not available within the battalion.

**RECOMMENDATION**: While TACSAT secure communications was available with higher headquarters, assets weren't available to outfit all detail sites for data transmission.

b. **ISSUE**: Keying material was not needed.

**RECOMMENDATION**: Although the battalion went through the difficulty of rerouting automatic ROB keymat deliveries and transporting all keymat, radio fill was never needed. Whenever

using secure voice assets, fills were acquired from the Army; keymat support from higher headquarters appears to be a likely scenario. The effort of maintaining keymat deliveries and transporting keymat could have been avoided. This raises the question of why a deployed battalion even needs effective keymat and/or ROB. See Problem 13 for additional discussion.

**c. ISSUE:** Each issue of CCI gear was not accompanied by a hand receipt.

**RECOMMENDATION:** Despite the significant number of issue transactions (over 600 in a one-month period), the benefit of issuing hand receipts for each transaction is tangible. A logbook meets CMS 1A accountability requirements, but doesn't leave the user with a "reminder" of gear they're responsible for. ANCRS prints hand receipts - use the field computer for all issuing, despite the increased effort.

**d. ISSUE:** Transport of classified information (including CMS material) outside of the US, its territories, or Canada requires advance approval. All movements must be coordinated through the Brigade.

**RECOMMENDATION:** The solution is obvious, but the need to even transport the classified material should be examined initially. The battalion did not need the keymat in Honduras; all material could have transferred to the Puerto Rico NCTS and the automatic distribution of ROB stopped.

## TRAINING

1. **NARRATIVE:** Although the original deployed training plan was cut short by operations involved with Hurricanes Georges and Mitch, NMCB SEVEN completed 3,152 mandays of training during the deployment, concentrating on practical application of military skills. Small unit integrity and leadership was developed through the training system that allowed platoon and squad leaders to grow as leaders as they trained their own personnel. Hurricanes Georges and Mitch enabled the battalion to vastly improve embarkation, contingency construction, base camp construction, and disaster recovery skills.

a. **Embarkation Training:** The Battalion initially deployed six details and two DFT's to sites throughout Caribbean and Eastern United States. In November, the Battalion deployed a heavy Air Det in only 36 hours. Mainbody personnel were airlifted to Honduras within two weeks and more than 225 pieces of CESE and 800 tons of TOA assets were transported by sealift. All CESE and TOA gear were retrograded and prepared for sea embarkation in early January. With assistance from NMCB 74, a ship was loaded for transport back to Puerto Rico on 12 January 99. The real world air and sea embarkation training received by members of the Battalion was outstanding.

b. **Combat Skills Training:** Mainbody and Detail training plans concentrated on practical application of basic combat skills obtained during homeport at a small unit level. The companies and platoons were allowed to tailor their training to their needs. The battalion conducted Medium Girder Bridge training in Vieques, in Puerto Rico, and in Honduras with the USMC 8<sup>th</sup> Engineer Support Battalion Bridge Company. Additionally, numerous personnel received advanced base construction with practical application during OPERATION FUERTE APOYO and the two DFT's (Dominican Republic and St. Lucia). The start of the SeRT program in July helped to maintain readiness and allowed the battalion to concentrate on more advanced training throughout the deployment.

c. **Communications Training:** The S6 department had training for the communication platoon on one Saturday every month. They concentrated on the basics of combat communications. They received valuable hands-on training during the operation of the MOCC throughout the mount-out to and from Honduras. While in Honduras, the S6 Department maintained a Tactical Network and cross-trained with the USA 93<sup>rd</sup> Signal Brigade. Joint Task Force Bravo assigned two communications specialists to the Communications Department at Camp Can Do, San Pedro Sula, Honduras.

**d. Seabee Combat Warfare Specialist Training:** All detail sites and mainbody maintained a rigorous SCWS class schedule. Classes were taught 3 to 4 days a week, starting within two weeks of the arrival of the mainbody. Thirty-five personnel achieved qualifications during the deployment.

**e. General Military Training:** GMT was conducted in accordance with OPNAV instructions. Topics included Sexual Harassment, Fraternization, Financial Responsibility, Operation Security, Information Security, Smoking Cessation, Voting, Traffic Safety, Naval Tradition, and Alcohol Awareness. A series of Safety classes including Back Injury Prevention, Hearing Conservation, Sight Protection, Asbestos Awareness, and Hazardous Communication was given in conjunction with GMT.

**f. Technical Training:** Formal Technical Training was arranged in the following areas: Anti-Terrorism, DJMS Administration, Integrated Automated Travel System, Steelworker C-1 Advanced, Mishap Reporting, and General Industry Safety Standards.

**g. Career Counselor:** The Battalion Career Counselor coordinated two-week Command Indoctrination Classes throughout the deployment. The indoctrination ensured all new personnel received required uniform items, 782 gear, GMT, familiarization lectures, and key information.

## **2. LESSONS LEARNED:**

**a. PROBLEM/ITEM:** Local support for crew serve and small arms ranges.

**DISCUSSION:** The rifle and pistol ranges at Roosevelt Roads are used by several tenant commands. The base required that a qualified representative from the NAVSTA Weapons Department be present for all ranges. Scheduling ranges required close coordination. Because of limited manning, the NAVSTA Weapons Department cannot operate the rifle and pistol ranges simultaneously. The crew serve ranges are on Vieques. The remote location causes logistical challenges and the political environment requires ammunition be flown directly to the range.

**ACTION TAKEN/RECOMMENDATION:** Plan and schedule all ranges before deploying, or at least 6 to 8 weeks out. The NAVSTA Weapons Department personnel do not usually operate the ranges on weekends. We submitted documentation through the NAVSTA Weapons Department and the NAVSTA Commanding Officer to have our Range Safety Officer approved to operate the NAVSTA ranges. He was

approved; however, we were not able to use the range due to damage from Hurricane Georges.

## SUPPLY AND LOGISTICS

### 1. NARRATIVE:

a. GENERAL SUPPLY: The Supply department carefully monitored and controlled the battalion's purchasing. Purchasing contracts, MIPR's, and IMPAC cards were used to procure required tools and supplies for the projects and camp support for both DFTs. In Honduras, our IMPAC cards were not accepted; only the JTF-Bravo Purchasing Office IMPAC cards were accepted, a minor inconvenience.

b. STORES MANAGEMENT: Routine tool kit inventories were performed every payday. NMCB SEVEN coordinated with COMSECONDNCB to obtain project material status reports, repair parts, and uniform items for mainbody operations, detail sites, and both DFTs.

c. FOOD SERVICE: The Camp Moscrip Galley in Puerto Rico provided three hot meals per day and operated a Chief's Mess and Officer's Wardroom. The Galley, Mess, and Wardroom were closed during the redeployment of the battalion to Honduras. The Naval Station Galley serviced personnel remaining at Camp Moscrip.

At the mainbody site in Honduras, a field galley was established in an open-air facility and operated on a daily T-rations-MRE-T-rations food cycle. The food service operation provided subsistence to Army, Marine Corps, and Honduras forces. All details, except Soto Cano, subsided on only MREs. The forward operating base in San Pedro Sula was limited in its ability to provide fresh fruits and vegetables to the troops. This was due to the only authorized military vendor being located six hours away in Tegucigalpa. In Soto Cano, the Army Dining Facility provided outstanding food service for personnel in Soto Cano.

d. DISBURSING: All NMCB SEVEN members were mandated to enroll and participate in the Direct Deposit System for military pay. The battalion began utilizing the DJMS system on 01 Oct 98. Difficulties have been encountered and problems are being addressed on a case basis. Routine check cashing services were available in Puerto Rico until the redeployment of the battalion. In Honduras, routine check cashing services and ATM capability were available only in Soto Cano. All E1-E9 members were eligible for foreign duty pay.

e. LAUNDRY: In Puerto Rico, the camp's laundry facilities were utilized. When the battalion redeployed to Honduras, the battalion deployed with 12 washers and 10 dryers. Existing laundry facilities were available in Soto Cano. A washer and

dryer were provided to each remote detail site. At the mainbody site in San Pedro Sula, troops could either wash their own laundry or utilize a local vendor that provided same-day washing, drying, and folding services six days a week for a cost of 10 limpira (\$3 US)/10 lb.

**f. MAIL:** In Honduras, the battalion experienced late delivery of mail, as the mail was being routed to Miami, then to Puerto Rico before coming to Honduras; this caused many troops to pay bills late. An investigation revealed that temporary-hired employees in Miami were not properly forwarding mail to Honduras. Another mail routing message was released and the mail situation improved greatly. The confusion was due to the number of addresses in the original mail routing message.

## **2. LESSONS LEARNED:**

### **a. PROBLEM/ITEMS: IMPAC cards.**

**DISCUSSION:** IMPAC cards for details and DFTs require continuous coordination to ensure all charges are properly documented. The AO must consolidate all cardholder statements for submission for payment.

**ACTION TAKEN/RECOMMENDATION:** Consider appointing detail OICs as the AO for their detail and responsible for the consolidation of cardholder monthly statements.

### **b. PROBLEM/ITEMS: MICRO-SNAP II maintenance.**

**DISCUSSION:** Micro-Snap requires daily back-ups and general maintenance on a daily basis. Using the Windows NT LAN, the Micro-Snap administrator can not control access to the system from the Supply office.

**ACTION TAKEN/RECOMMENDATION:** The Micro-Snap coordinator needs to bring the system down in the evening to perform daily back-ups and run reports. No one can be in the system during the back up and during the pack and re-indexing of the database.

### **c. PROBLEM/ITEMS: STARS FL transmittals.**

**DISCUSSION:** Not all STARS FL transmittals are being received at OPLOC Oakland.

**ACTION TAKEN/RECOMMENDATION:** NMCB SEVEN has used SALTS and FED-EX to submit the obligation documents to OPLOC. OPLOC continues to miss transmittals and BORs. Utilization of the Internet may provide a solution to this problem.

**d. PROBLEM/ITEMS:** Logistic Support

**DISCUSSION:** Requisitions submitted to CBC Gulfport are often lost in the shipping pipeline. Average turn-around for stock materials is 100 days. CBC Gulfport does not have IMPAC cards in place for local purchases of materials in support of the deployed battalions.

**ACTION TAKEN/RECOMMENDATION:** Requisition submitted to CBC Gulfport should be issued and shipped in smaller units, Tri-walls vice Mil-Vans. TCNs should be forwarded to the deployed NMCB for tracking purposes. CBC Gulfport provides excellent service for NORS and ANORS tracking. POLs and other general materials should be requisitioned from the nearest FISC or DOD depot to ensure complete tracking of material.

**e. PROBLEM/ITEMS:** Food Service Support of other units from Camp Moscrip assets.

**DISCUSSION:** MRE's and T-rations issued to support NMCB SEVEN were utilized to also support Joint Task Force Bravo forces.

**ACTION TAKEN/RECOMMENDATION:** S4 aggressively worked the support issue and developed Controls to account for all meals issued from The Forward Operating Base San Pedro Sula. As per verbal authorization from higher headquarters, all units based at San Pedro Sula were fed and a reimbursement request for the Navy's Food Service Fund would be forwarded to DOD for payment in support of this joint humanitarian relief effort. NMCB SEVEN Food Service Staff implemented a sign-in sheet for all personnel utilizing Camp "Can Do" Food Service Facilities.

**f. PROBLEM/ITEMS:** Forklift support.



**DISCUSSION:** Supply Department requires dedicated material handling equipment. Forklifts were not available to properly arrange and store materials and equipment. Hand truck and other cargo handling equipment were required to support the rapid setup of field outlets.

**ACTION TAKEN/RECOMMENDATION:** One warehouse 6K forklift is desired to support the rapid setup of logistic support facilities. ARP, CTR, CSR are vital outlets and could not be established without additional material handling equipment. When practical, S4 personnel man-handled materials into storage locations. Additionally, extra building material should be available to repair damaged boxes as soon as possible.

## EQUIPMENT

	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98
<b>Miles</b>	29,963	38,571	35,877	44,112	48,343	4,130	28,758
<b>Hours</b>	216	257	312	1,217	1,428	70	121

### Status of Assigned Equipment

	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98
<b>Active</b>	181	135	131	152	148	236	236
<b>Storage</b>	88	86	84	75	75	0	0
<b>Deadline</b>	8	10	16	14	38	3	5
<b>Total</b>	269	221	215	227	223	236	236

### PM and Interim Repair ERO Summary

Month	INT	1	2	3	9	Total	PM:INT
<b>Jun</b>	27	92	13	10	0	142	4.3
<b>Jul</b>	46	19	29	1	4	99	1.2
<b>Aug</b>	29	30	23	1	21	104	2.6
<b>Sep</b>	33	34	11	2	13	93	1.8
<b>Oct</b>	49	77	16	0	23	165	2.4
<b>Nov</b>	31	13	1	0	5	50	0.6
<b>Dec</b>	40	54	8	0	0	102	1.6
<b>Total</b>	255	319	101	17	66	755	2.0

### Non-Availability Status

	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98
<b>Auto</b>	1	0	1	1	7	0	0
<b>Const.</b>	5	8	14	12	30	3	5
<b>MHE</b>	1	1	0	0	0	0	0
<b>WHE</b>	1	1	1	1	1	0	0
<b>Total</b>	8	10	16	14	38	3	5
<b>D/L %</b>	4.4	7.4	12.2	9.2	25.6	1.2	2.1

#### 1. LESSONS LEARNED

a. **PROBLEM/ITEM:** Equipment returned from DFT Azores was prepped and reassigned to DFT DOMREP without complete repairs.

**DISCUSSION:** Equipment returned from DFT Azores and reassigned for DFT DOMREP was in poor condition. The short period

of time between DFT Azores and DFT Dominican Republic did not allow for proper repairs to be made. A 15-Ton stake truck required repairs to the lighting system, windshield wipers, body and bed. All collateral equipment assigned to Azores was missing.

**ACTION/RECOMMENDATION:** For short fused DFT mount-outs, substitute like ECC's instead of being USN specific in order to provide adequate repairs be made before deployment.

**b. PROBLEM/ITEM:** 15-Ton International tractors do not have enough power to handle hilly terrain.

**DISCUSSION:** On steep inclines (10% grades and above), the Internationals performed poorly. This problem was encountered in both the Dominican Republic and Honduras.

**ACTION/RECOMMENDATION:** Phase out the commercial International 15-Ton Tractor and stock the warehoused M series tactical tractors at main deployment sites.

**c. PROBLEM/ITEM:** Lack of COSAL support and accurate COSAL.

**DISCUSSION:** The lack of COSAL support to the DFTs was significant due to the simultaneous deployment period of DFTs DOMREP and St. Lucia. ARP did not stock an adequate supply of repair parts to support the mission.

**ACTION/RECOMMENDATION:** When possible, provide a time delay between DFT deployments to allow time for resupply of ARP. Review all COSALs and submit 1220-2's to make any necessary COSAL changes and expedite.

**d. PROBLEM/ITEM:** Disruption of PM cycle.

**DISCUSSION:** The PM cycle was halted during recovery operations following Hurricane Georges. Due to a limited number of generators, Alfa Company shops and spaces did not have electrical power for 30 days. The PM cycle was restarted seven days before the Air Detachment was launched to Honduras. The PM cycle was again halted to mount out the Air Det. The original warning order stated the entire battalion would be transported via air vice sea. Due to other military evolutions in the Middle East, aircraft availability was reduced and the TFFDD altered to sea embarkation. Military Sealift Command had a ship under contract in five days and the ship arrived in Puerto Rico within 10 days. One hundred percent of MOD 96, 98 percent of MOD 98, and 100 percent of the deferred POLs were loaded. The vessel

arrived in Puerto Cortez, Honduras on 26 Nov 98. The PM cycle was started again on 02 Dec 98.

**ACTION/RECOMMENDATION:** Communicate with higher headquarters on a regular basis, daily if required, to keep them informed of delays in restarting the PM cycle.

e. **PROBLEM/ITEM:** Completion of SF-91s.

**DISCUSSION:** SF-91s were not completed in a timely manner.

**ACTION/RECOMMENDATION:** Through constant training, reinforce to all levels of the chain of command that proper reporting and record keeping is required in contingency situations. This is the most valuable lesson learned by Alfa Company and the Operations Department.

f. **PROBLEM/ITEM:** EO/CM Support in Puerto Rico after re-deployment to Honduras.

**DISCUSSION:** An inadequate number of mechanic support was left behind in Puerto Rico to execute the required maintenance schedule in Puerto Rico and Vieques, as nearly 80 pieces of CESE were left in Puerto Rico. Hurricane Georges disrupted the maintenance cycle, and then the battalion re-deployment further disrupted the maintenance cycle. Due to the austere working conditions in Honduras, more mechanics were required to maintain equipment than during normal operations. We did not have enough mechanics to support both Honduras during Operation Fuerte Opoyo and Puerto Rico.

**ACTION TAKEN/RECOMMENDATION:** This would have been a great opportunity to augment and backfill Puerto Rico with Reserve mechanic support.

## CAMP MAINTENANCE

1. **NARRATIVE:** Although the original deployment was disrupted by Hurricane Georges and Mitch, Bravo Company Maintenance Platoon completed 3,962 mandays of camp maintenance. This included 767 mandays of ESA work, 651 mandays of other MCD work and 1,673 mandays of SJO work.

2. **LESSONS LEARNED:**

a. **PROBLEM/ITEM:** A/C&R Shop personnel requirements.

**DISCUSSION:** The A/C&R Shop needs to be staffed with more than the required two personnel. The workload requires two trained A/C&R Technicians and two Refrigerant Certified Utilitiesman. The camp has more than three hundred individual air conditioning units that require continuous maintenance due to the high-salt environment and extreme humidity.

**ACTIONS TAKEN/RECOMMENDATIONS:** The A/C&R Shop was staffed with one UT1 and one UT2 who were both trained technicians. Once aboard Camp Moscrip two UTCN's and one CECN were added to assist. This kept our SJO program on schedule and ensured maximum life-span of the equipment. In Camp Moscrip, most air conditioners run 24 hours a day, seven days a week and need constant maintenance attention.

b. **PROBLEM/ITEM:** In-camp transportation assets.

**DISCUSSION:** It was difficult to move tools, equipment, parts and personnel around the camp efficiently due to lack of transportation assets. One proposal made to rectify the situation was to procure some "golf cart" style electric carts with flat beds for use by the shop's personnel. These carts would enable rapid transport of numerous and/or bulky tools and repair parts around the camp without using already short supplies of CESE.

**ACTIONS TAKEN/RECOMMENDATIONS:** Estimates were turned in to the 2NCB DET OIC; however, due to the deployment interruption by Hurricane Georges, they were never purchased. Strongly recommend the procurement of a total of nine carts to be issued as follows; one for each maintenance shop (6), two for Supply Department, and one for the Galley (for transporting rations between the main galley and both the BOQ and the Chief's Galley). Alfa Company would perform mechanical maintenance and the Camp Maintenance Electrical Shop would perform the electrical maintenance. A recharging station could be constructed in the yard behind Bravo Company shops.

## OPERATIONS

1. **NARRATIVE:** NMCB SEVEN completed the following number of mandays at each site listed below:

Puerto Rico/Hurricane Georges	9557
Detail Vieques	686
Detail Guantanamo Bay	3317
Detail Andros	1643
Detail Norfolk	2573
Detail Jacksonville	2515
Detail Mayport	1648
DFT Dominican Republic	1208
DFT Saint Lucia	2095
Honduras	15562
<u>Total:</u>	<u>40804</u>

### 2. **LESSONS LEARNED:**

a. **PROBLEM/ITEM:** Status of Resources and Training System

**DISCUSSION:** A new SORTS instruction requires a classified fax and PRCP information from reserve augment.

**ACTIONS TAKEN/RECOMMENDATION:** Procure classified FAX and coordinate information flow with Reserve Augment OIC.

b. **PROBLEM/ITEM:** Photo Sitreps/Email

**DISCUSSION:** The Caribbean deployment was the first deployment that NMCB SEVEN used digital cameras. Consequently, many lessons for methods of compiling, categorizing, and filing were learned. Photo sitreps provided immediate and timely feedback if email was working properly; however, the email was not always reliable between the mainbody at Puerto Rico, DFTs, and detail sites. Hurricane Georges significantly disrupted email capability for nearly a month. When the battalion redeployed to Honduras, email reliability continued to be a problem.

When email was inaccessible, it was generally either because the 2NCB or NNCB SEVEN mail server was down. The Internet is a reliable means of transmitting email and is generally available.

**ACTIONS TAKEN/RECOMMENDATION:** Recommend utilization of Internet for backup email capability.

3. Lessons-learned during OPERATION FUERTE APOYO are addressed starting on page 7-L-1.

# ROOSEVELT ROADS, PUERTO RICO

## RR6-420: SENIOR ENLISTED DINING FACILITY

1. **GENERAL**: Tasking consisted of completing exterior electrical, structural CMU, window and door openings, jamb installation and roof frame construction. Project execution was stopped early due to Hurricane Georges recovery efforts.

2. **DIRECT LABOR EXPENDED**: NMCB SEVEN 286  
Cumulative to Date: 1308

3. **COMPOSITION OF WORK FORCE**: 8-BU, 1-CE, 1-UT

### **STATUS OF PROJECT**:

Start Date:	Turnover
WIP Percent at takeover:	44
WIP Percent at turnover:	56
Completion Date:	Turnover

5. **MATERIALS**: The original procurement of CMU block was made from CONUS. The second order was made locally from Puerto Rico. The Puerto Rican block was of poor quality and had a different casting pattern. This created a visual eyesore once put in place.

6. **ENGINEERING**: LANTDIV provided design. Roofing system that was ordered was incompatible with new roof design change.

7. **PROBLEMS**: None.





**RR6-805: REPAIR MOLINDERO ROAD**

1. **GENERAL:** Project scope consisted of repair and improvement of a road through the El Yunque Rain Forest servicing FAA radar.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 118  
Cumulative to Date: 1099

3. **COMPOSITION OF WORK FORCE:** 6-E0

4. **STATUS OF PROJECT:**

Start Date:	Turnover
WIP Percent at takeover:	64
WIP Percent at turnover:	72
Completion Date:	Project terminated due to severe hurricane damage

5. **MATERIALS:** Material storage and transport was difficult due to the steep grade of the road. Also, the nearest large material storage area was located a good distance from the jobsite.

6. **ENGINEERING:** LANTDIV provided the design. Construction proceeded in three phases: phase 1 included compaction, bedrock, geotextile, asphalt, and a concrete drainage gutter; phase 2 was exactly like phase 1 with a rock and soil drainage ditch; and phase 3 consisted of only roadbed.

7. **PROBLEMS:** The drainage design for phase 2 was discovered to be inadequate for the volume of runoff. This caused several delays during construction. The bedrock had to be re-compacted daily, creating extensive rework. Also, the site was located 25 miles from Camp Moscrip. This meant 2 ½ hr total transit time for the crews. Bag lunches were prepared daily for the crew. Communication was also difficult.

RR6-805: REPAIR MOLINDERO ROAD



Before  
(Phase I)



After  
(Phase I)

**RR7-814: RENOVATE BUNDY BARRACKS**

1. **GENERAL:** Project scope included interior and exterior renovation to an existing two wing, three story barracks building.
  
2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 1398  
Cumulative to Date: 2693
  
3. **COMPOSITION OF WORK FORCE:** 25-BU, 6-CE, 6-UT
  
4. **STATUS OF PROJECT:**  
  
Start Date: Turnover  
WIP Percent at takeover: 32  
WIP Percent at turnover: 67  
Completion Date: Turnover
  
5. **MATERIALS:** An incorrect flue stack was sent which required reorder, adding additional mandays.
  
6. **ENGINEERING:** LANTDIV provided the design.
  
7. **PROBLEMS:** Several unforeseen site conditions impacted this project. It was discovered during construction that the window-opening sizes were inconsistent. This required the construction of special frames to install the new windows. The 4 inch block required for the heads was difficult to work with for Seabees with little CMU experience and training. Asbestos was discovered in the boiler room causing a delay for abatement. Debris removal was another unexpected problem. Due to the nature of the demolition, high volumes of debris accumulated very quickly and could not be removed daily due to scheduling of contracted debris removal.

New Interior Finish of Barracks



CMU Construction in Head Area



**RR7-823: RENOVATE HOUSING WAREHOUSE**

1. **General:** Project scope consisted of lead paint abatement (by contract), replacement of structural members, installation of a head, construction of office spaces and replacement of siding.

2. **Direct Labor Expended:** NMCB SEVEN 251  
Cumulative to Date: 409

3. **Composition of Work Force:** 4-BU, 1-CE, 1-UT

4. **Status of Project:**

Start Date:	Turnover
WIP Percent at takeover:	11
WIP Percent at turnover:	29
Completion Date:	Turnover

5. **Materials:** No significant problems were encountered with materials for the project.

6. **Engineering:** LANTDIV provided the project design. A new parking lot had been recently completed where the waste water line was to be placed. After several attempts to redesign the path to avoid the new construction, it was decided that NMCB SEVEN would not install the line while ROICC determined a beneficial solution.

7. **Problems:** The contractor for an adjacent project located his office trailers in the path of the proposed waste water line. Several attempts to relocate the contractor failed and the line was not completed.

Stripped Warehouse





**RR7-824: OVERLAY FORRESTAL ROAD**

1. **General:** Project scope included replacement of damaged road sections and construction of parking apron in front of an office building.

2. **Direct Labor Expended:** NMCB SEVEN 23  
Cumulative to Date: 734

3. **Composition of Work Force:** 3-E0

4. **Status of Project:**

Start Date: Turnover  
WIP Percent at takeover: 92  
WIP Percent at turnover: 95  
Completion Date: Turnover

5. **Materials:** No significant problems were encountered with materials for the project.

6. **Engineering:** LANTDIV provided the drawings for the construction project. No problems or discrepancies were encountered during the construction phase.

7. **Problems:** None.

Initial Phase of Parking Apron Construction



**RR7-835: CONSTRUCT REFUEL SHOP**

1. **General:** Project scope included construction of a new refueling facility for PWD.

2. **Direct Labor Expended:** NMCB SEVEN 165  
Cumulative to Date: 2745

3. **Composition of Work Force:** 3-BU, 1-CE, 1-UT

4. **Status of Project:**

Start Date:	Turnover
WIP Percent at takeover:	94
WIP Percent at turnover:	100
Completion Date:	Sep 98

5. **Materials:** No significant problems were encountered with materials for the project.

6. **Engineering:** LANTDIV provided the drawings for the construction project.

7. **Problems:** None

Facility Nearing Completion



HURRICANE GEORGES RELIEF EFFORT IN PUERTO RICO

1. **General:** NMCB SEVEN provided NAVSTA Roosevelt Roads with 2050 mandays of recovery effort after Hurricane Georges from late September until November 1998. Work included the following:

**1200 MDS in support of NAVSTA**

225 MDS Emergency Response  
250 MDS Emergency structural repairs (excluding roofs)  
300 MDS Emergency roof repairs  
425 MDS Other base repair (electrical, housing, etc)

**800 MDS in support of Camp Moscrip Operations**

250 MDS General camp cleanup  
550 MDS Camp repair (electrical, structural, mechanical)

**50 MDS of Humanitarian Aid**

40 MDS Road Clearing/Clean-up  
10 MDS Water Delivery to Vieques and Culebra Islands (9100 Gal)

2. **Direct Labor Expended:** NMCB SEVEN 2250  
Cumulative to Date: 2250

3. **Composition of Work Force:** Various

4. **Status of Project:**

Start Date: Sept 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: Nov 98

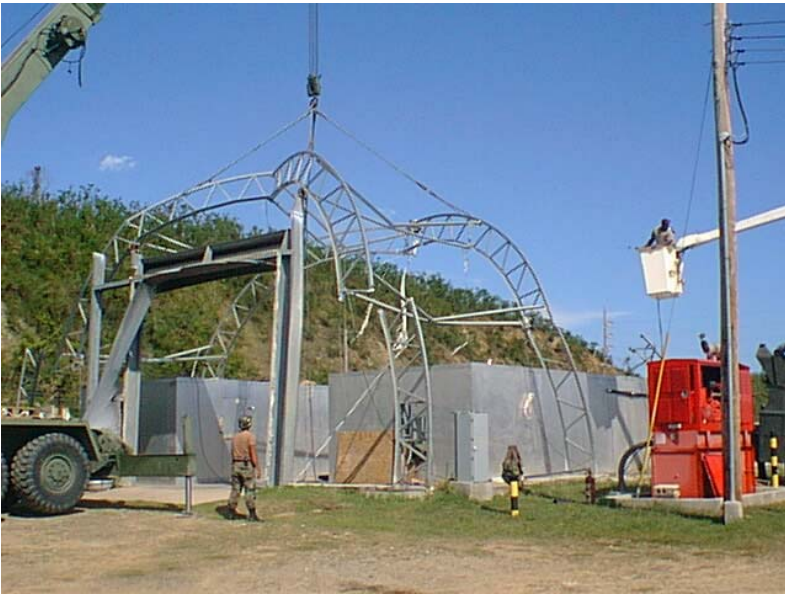
5. **Materials:** Excess and PW materials were used for emergency repairs.

6. **Engineering:** None.

7. **Problems:** There were a myriad of problems as expected after a hurricane including power outages, shortages of specialized manpower (electricians), and material shortages.



HURRICANE GEORGES RECOVERY EFFORTS





## DETAIL VIEQUES

1. **NARRATIVE:** Detail Vieques deployed from June 1998 to January 1999 with 21 enlisted with an original tasking of 1078 mandays. All projects that NMCB SEVEN started were turnover projects. In October an additional 14 personnel were assigned to the Detail. After Hurricane George the Detail contributed 69 mandays of clearing debris and aid to the local electric and water companies.

During the first week in November, the detail executed a rollback to the mainbody for Hurricane Mitch relief efforts. The Detail OIC was reassigned as Assistant Embark Chief. A CM2 and UT3 were left as caretakers of the detail spaces and CESE. The remaining 23 personnel were reassigned to the Air Detachment and mainbody.

As a result of the rollback to mainbody, all projects were turned over to NASD Public Works Department.

The AOIC returned to Vieques from Honduras to assist NMCB SEVENTY FOUR with turnover.

### 2. **LESSONS LEARNED:**

#### a. **PROBLEM/ITEM:** CESE Parts/Support

**DISCUSSION** As a satellite site, the detail has to compete with mainbody Alfa Company for repair parts.

**ACTION TAKEN/RECOMMENDATION:** Mainbody Alfa Company should ensure that Vieques continues to stay informed regarding the priority of funding for battalion maintenance program.

#### b. **PROBLEM/ITEM:** Rollback

**DISCUSSION:** The two personnel left behind in a caretaker status were inadequate to continue equipment maintenance.

**ACTION TAKEN/RECOMMENDATIONS:** None.

**VI6-811: CONNECT PRASA POTABLE WATERLINE**

1. **General:** Project scope consisted of installing a potable waterline and making the main line tap.

2. **Direct Labor Expended:** NMCB SEVEN 18  
Cumulative to Date: 95

3. **Composition of Work Force:** 1-SW, 1-UT, 1-EO

4. **Status of Project:**

Start Date: Turnover  
WIP Percent at takeover: 66  
WIP Percent at turnover: 82  
Completion Date: Turnover

5. **Materials:** No significant problems were encountered with materials for the project.

6. **Engineering:** LANTDIV provided the drawings for the construction project. No problems or discrepancies were encountered during the construction phase.

7. **Problems:** Coordination with the water company was difficult and resulted in tie-in delays.

Tap Area



**VI-400: QUARRY AND CRUSHER OPS**

1. **General:** Project scope included crushing 2000 cubic yards (CY) of ¾ inch rock and 200 CY of #4 fine rock for asphalt paving project.

2. **Direct Labor Expended:** NMCB SEVEN 120  
Cumulative to Date: N/A

3. **Composition of Work Force:** 5-E0

4. **Status of Project:** Started in Jun 98, a total of 400 CY of ¾ inch rock and 200 CY of #4 fine rock were crushed by end of Oct 98. Spent first month performing maintenance repairs to crusher. Turned over 1538 CY of #68 rock, 175 CY of 1 inch rock, 3707 CY of ¾ inch rock, 203 CY of #7 rock, 485 CY of #9 washed rock, and 298 CY of Fines.

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: Oct 98

5. **Materials:** Adequate supply of rock in quarry.

6. **Engineering:** None.

7. **Problems:** Crusher experienced several maintenance problems during deployment, which limited the amount of rock ultimately crushed.

**VI8-817: REPLACE BRIDGE**

1. **General**: Project scope consisted of replacing a collapsed bridge with a medium girder bridge. This project was a joint exercise between NMCB SEVEN and the USMC 8<sup>th</sup> Engineer Support Battalion Bridge Company.

2. **Direct Labor Expended**: NMCB SEVEN 58  
Cumulative to Date: 58

3. **Composition of Work Force**: 1-CE, 1-SW, 1-UT, 8-EO, 2-CM

4. **Status of Project**:

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: Aug 98

5. **Materials**: No significant problems.

6. **Engineering**: Directed by Marine Bridge Company.

7. **Problems**: None.

New MGB Awaiting Handrail Installation



**VI9-810: REPAIR ROADS, NASD**

1. **General:** Project scope included repair potholes, prep tack coat and lay 2" hot mix asphalt overlay on Naval Ammunition Supply Depot, Vieques Island , P.R.

2. **Direct Labor Expended:** NMCB SEVEN 34  
Cumulative to Date: 873

3. **Composition of Work Force:** 7-EO

4. **Status of Project:**

Start Date: Turnover  
WIP Percent at takeover: 78  
WIP Percent at turnover: 81  
Completion Date: Turnover

5. **Materials:** No significant problems were encountered with materials for the project.

6. **Engineering:** Drawings prepared by NAVSTA Public Works.

7. **Problems:** Construction was difficult due to the steep grades and varying alignment of the perimeter roads.

Repair Area



**VI9-813: CONSTRUCT PERIMETER ROADS**

2. **General:** Project scope included constructing perimeter road, Eastern Maneuver Area Vieques Island.

2. **Direct Labor Expended:** NMCB SEVEN 39  
Cumulative to Date: 6875

3. **Composition of Work Force:** 5-E0

4. **Status of Project:**

Start Date: Turnover  
WIP Percent at takeover: 98  
WIP Percent at turnover: 98  
Completion Date: Turnover

5. **Materials:** The detail experienced difficulties in establishing a contract for emulsion. Only one distributor exists in Puerto Rico.

6. **Engineering:** LANTDIV provided the design. No problems were encountered.

7. **Problems:** Delays in starting the project resulted from problems with the distributor truck and roller.

Repair Area





## DETAIL GUANTANAMO BAY



1. **NARRATIVE:** Detail Guantanamo Bay deployed from June 1998 to January 1999 with 57 enlisted and 1 officer with an original tasking of 5875 mandays. All projects that NMCB SEVEN started were new projects, with only one scheduled turnover project, Demo/Construct Carports. Three personnel were reassigned in July and August, and 20 additional personnel were reassigned to Puerto Rico after Hurricane Georges in early October. The Detail contributed 79 mandays of efforts after Hurricane Georges clearing debris and grading perimeter roads for NAVSTA Guantanamo Bay.

During the first week in November, the Detail executed a rollback to the mainbody for Hurricane Mitch relief efforts. The Detail OIC was reassigned as AOIC of the Air Detachment. The Detail AOIC was reassigned as AOIC in Puerto Rico. A CM1 and CMCN were left as caretakers of the detail spaces and CESE in Guantanamo Bay, and the BUCS and remaining 29 personnel rejoined the mainbody in Honduras. A total of 6 pieces of CESE and 130 GP medium tents were embarked directly from Guantanamo Bay to Honduras.

Completed projects included replacement of BOQ Kitchen Lighting Fixtures, repair of Seawall Lima/Victor, installation of new spotlight with transformer and electrical service to MOP 34, two spill containment structures, disassembly and packaging of 5 tension fabric structures, road grading along the base perimeter, a new porch and roof at a local MWR restaurant, and a sidewalk at the Community Center.

As a result of the rollback to mainbody, several projects were turned over NAVSTA Guantanamo Bay Public Works Department in Nov 98. These projects included the CDC roof, demolition and disposal of 5 concrete pads at McCalla airfield, 2 carports in Deerpoint Housing, and an unresolved manufacturer issue at the VOR generator. The planned turnover project, Demo/Construct Carports, was turned over at 33 percent, with 10 of 32 carport units constructed.

Three personnel returned to the Detail site from Honduras to assist NMCB SEVEN FOUR with turnover. A BUCS returned for OPS/ADMIN, SK1 for Supply/Optar accounts, and UT3 for MLO/CTR.

## **2. LESSONS LEARNED:**

### **b. PROBLEM/ITEM:** CESE Parts/Support

**DISCUSSION:** The detail was continuously challenged by delays in delivery of ARP. Seabee specific items do not get visibility, and therefore, priority, on flights into Guantanamo Bay. Due to funding constraints, Alfa Company waited for opportune air or sea-lift from Roosevelt Roads. This delay forced several pieces of equipment to be deadlined for months for extremely minor/routine repairs.

**ACTION TAKEN/RECOMMENDATION:** Coordinate with Guantanamo Bay Supply and Public Works and brief the impact of deadlined equipment and the urgency of the issue. Solicit NAVSTA assistance in increasing priority of Seabee specific items.

### **b. PROBLEM/ITEM:** Computers/ADP

**DISCUSSION:** Mainbody ADP support for the detail was not adequate. Several 486 computers and a laserjet printer were obtained from Public Works, but did not have enough copies of licensed software. The detail has only one Pentium computer that has software compatible with the mainbody (ie, Microsoft Office 97/Windows 95).

**ACTION TAKEN/RECOMMENDATIONS:** Five workstations with current hardware/software packages are recommended as a minimum to keep up with the mainbody, including OIC, AOIC, OPS, QC/Safety, and Supply.

### **c. PROBLEM/ITEM:** Public Works Equipment Support

**DISCUSSION:** Public Works equipment, especially the bucket truck and grader, enabled the detail to accomplish its tasking.



The PW transportation division was outsourced 01 Oct 98. A long term concern is future requests from the contractor for additional reimbursement for maintaining equipment operated by Seabees. Additionally, the six pieces of equipment sent to Honduras, including a 15T tractor, dresser/loader, and roller, were retrograded to Puerto Rico.

**ACTION TAKEN/RECOMMENDATION:** Ensure higher headquarters is informed of all equipment shortages for current and planned projects.

d. **PROBLEM/ITEM:** ISSA

**DISCUSSION:** Currently, the ISSA is out of date; however, no disputes were encountered between the detail and NAVSTA.

**ACTION TAKEN/RECOMMENDATION:** Rewrite ISSA, specifically addressing BEQ requirements and forward to higher headquarters.

**GB7-827: REGRADE SECONDARY ROADS**

1. **GENERAL:** Project scope included regrading of secondary roads along the Windward perimeter of the base. Repairs also included dumping of riprap and other erosion control measures.
2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 50
3. **COMPOSITION OF WORK FORCE:** 2-EO
4. **STATUS OF PROJECT:**  
  
Start Date: Jun 98  
WIP Percent: 0-100%  
Completed: Nov 98
5. **MATERIAL:** All materials were on hand or on base upon arrival.
6. **ENGINEERING:** None.
7. **PROBLEM AREAS:** The grader used for this tasking blew a head gasket early into this project and it took several months to receive right parts. Public Works' two graders were also on deadline during a large portion of the deployment for various reasons.



**GB7-828: DEMO/CONSTRUCT CARPORTS**

1. **GENERAL:** Construct 20 double carports and 12 single carports. Work to include concrete pads and footers, block, wood framed walls and trusses, shingles, and vinyl siding.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 1481  
Cumulative to Date: 1481

3. **COMPOSITION OF WORK FORCE:** 6-BU, 1-SW, 3-EO, 2-CE, 1-EA

4. **STATUS OF PROJECT:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 33 percent  
Completion Date: Turnover

5. **MATERIALS:** Most materials were on hand or on base upon arrival. Materials continued arriving for several months after arrival. Identified electrical add-on items, which delayed full functioning of the units.

6. **ENGINEERING:** NAVSTA PW design with R35 material procurement. Several on-site modifications had to be made for location and other design-related deficiencies. Project delays were encountered while PW removed asbestos and secured utilities.

7. **PROBLEMS:** No significant problems.

New Marina Housing Double Carport

Side of Completed Carport Unit





**GB7-830: REPAIR SEAWALL PIERS V AND L**

1. **GENERAL:** Project scope included repairing seawall to include cutting recently driven sheet piles, forming and placing a 115 foot concrete cap and sidewalk over sheet piles.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 311  
Cumulative to Date: 311

3. **COMPOSITION OF WORK FORCE:** 4-BU, 1-CE, 2-SW, 1-EO

4. **STATUS OF PROJECT:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: Sep 98

5. **MATERIALS:** No significant problems were encountered with materials for the project.

6. **ENGINEERING:** Minor revisions to engineering plan, including deletion of 3 H-piles for lateral seawall support. Width of seawall cap extended from 24 inches to 32 inches to provide minimum cover over sheet piles.

7. **PROBLEMS:** None.

Seawall Before



Seawall After



**GB7-832: MARINA POINT CDC ROOF**

1. **GENERAL:** Project scope included replacing a 4,700 square foot sheet metal roof with foam insulation with new plywood decking and shingle roof. Additionally, new blanket insulation was installed on top of the drop ceiling system.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 285  
Cumulative to Date: 285

3. **COMPOSITION OF WORK FORCE:** 6-BU, 3-EO, 1-SW

4. **STATUS OF PROJECT:**

Start Date: Sep 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 75  
Completion Date: Turnover

5. **MATERIALS:** No significant problems were encountered with materials for the project.

6. **ENGINEERING:** NAVSTA Public Works provided design.

7. **PROBLEMS:** None. Project unexpectedly turned over due to detail redeployment to Honduras.

CDC Roof Before

CDC Roof After



**GB7-835: SECONDARY SPILL CONTAINMENT**

1. **GENERAL:** Project scope included placement of a secondary spill containment system.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 50  
Cumulative to Date: 50

3. **COMPOSITION OF WORK FORCE:** 2-BU, 1-EO, 1-UT

4. **STATUS OF PROJECT:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: Jul 98

5. **MATERIALS:** No significant problems were encountered with materials for the project.

6. **ENGINEERING:** NAVSTA base design.

7. **PROBLEMS:** None noted.

Spill Containment Before



Spill Containment After





**GB8-837: REMOVE TFS SLAB**

1. **GENERAL:** Project scope included disassembly, packing, cleaning, and inventory of 5 tensile fabric structures(TFS) and demo of seven concrete pads on McCalla airfield. The TFSs were remaining from OPERATION SEA SIGNAL in 1995-96.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 214  
Cumulative to Date: 214

3. **COMPOSITION OF WORK FORCE:** 2-E0, 1-CM

4. **STATUS OF PROJECT:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 65  
Completion Date: Turnover

5. **MATERIALS:** No significant problems were encountered with materials for the project.

6. **ENGINEERING:** None.

7. **PROBLEMS:** Disassembly and repackaging of TFSs completed and 2 of 7 concrete pads demolished before detail redeployment to Honduras.

During & After

Before



**GB8-839: REPLACE LIGHTS/BEQ SINKS**

1. **GENERAL:** Project scope included replacement of sinks and lighting.
2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 23  
Cumulative to Date: 23
3. **COMPOSITION OF WORK FORCE:** 2-CE
4. **STATUS OF PROJECT:**  
  
Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: Jul 98
5. **MATERIALS:** NAVSTA PW provided materials.
6. **ENGINEERING:** NAVSTA PW provided specifications.
7. **PROBLEMS:** None. Barracks staff was helpful with access to each room.





**GB8-840: REPLACE VOR GENERATORS**

1. **GENERAL:** Project scope included replacement of backup generator for VHF Omni-Range, installation of new steel door, blocking up of existing vent openings, painting the building, and installation transfer switch.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 78  
Cumulative to Date: 78

3. **COMPOSITION OF WORK FORCE:** 2-BU, 2-CE, 1-UT

4. **STATUS OF PROJECT:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 82  
Completion Date: Turnover

5. **MATERIALS:** No significant problems were encountered with materials for the project.

6. **ENGINEERING:** During final power outage before original BOD, the automatic transfer switch and the generator were found to be incompatible, as the transfer switch was three-phase and the generator single-phase. Base engineer was working solution with manufacturer.

7. **PROBLEMS:** New parts had not been received from manufacturer when the detail redeployed to Honduras.

Repairs to VOR Generator Building



New Generator



**GB8-841: MOP 34 ELECTRICAL**

1. **GENERAL:** Project scope included installation of high tech spotlight with new electrical service to Marine Observation Post (MOP 34). Electrical service included 1600 feet of underground cable and new transformer.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 85  
Cumulative to Date: 85

3. **COMPOSITION OF WORK FORCE:** 1-CE, 2-EO, 1-CM

4. **STATUS OF PROJECT:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: Nov 98

5. **MATERIALS:** No significant problems were encountered with materials for the project.

6. **ENGINEERING:** Base design.

7. **PROBLEMS:** Actual testing of the transformer and spotlight was delayed for 2 months due to base change to underground power.



**GB0-500: OIC DISCRETIONARY (HURRICANE GEORGES RELIEF)**

1. **GENERAL:** Project scope included disaster recovery efforts after Hurricane Georges. Projects included tree clearing in various housing areas, debris removal, road grading along tactical perimeter roads, and cleaning up mud in detail camp spaces.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 79  
Cumulative to Date: 79

3. **COMPOSITION OF WORK FORCE:** 20-BU, 3-SW, 2-EO, 3-CM

4. **STATUS OF PROJECT:**

Start Date: Sept 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: Oct 98

5. **MATERIALS:** None.

6. **ENGINEERING:** None.

7. **PROBLEMS:** None.



## DETAIL ANDROS

1. **NARRATIVE:** Detail Andros deployed from June to November 1998 with 38 enlisted personnel. Original tasking of 3500 mandays included a BEQ facility, a BEQ/Mess facility, and a waterline replacement.

The detail executed a rollback to mainbody the first week of November in support of Hurricane Mitch relief efforts. No personnel remained behind to act as a caretaker. The detail completed the waterline project and turned over the two BEQ projects to the host command. The detail OIC returned for turnover in January 99.

### 2. **LESSONS LEARNED:**

#### a. **PROBLEM/ITEM:** CESE PARTS/SUPPORT

**DISCUSSION:** The detail faced several funding and availability challenges for repair parts from mainbody. Some of the delays kept pieces of equipment on deadline for minor and routine repairs.

**ACTION TAKEN/RECOMMENDATION:** Continue to coordinate with AUTEK vehicle maintenance department to utilize their assets in West Palm Beach, FL.

#### b. **PROBLEM/ITEM:** Construction Materials

**DISCUSSION:** Material support was inconsistent, with an unreliable barge delivery schedule. Experienced difficulties with materials not being delivered per critical time-phased construction activities.

**ACTION TAKEN/RECOMMENDATIONS:** Raytheon should adapt their material tracking to follow our BM format.

#### c. **PROBLEM/ITEM:** Communication with Mainbody

**DISCUSSION:** Telephone line communications with Personnel, Disbursing and Admin were ineffective, causing delays for routine matters. Many of these problems are inherent with the inadequacies of the telephone system on Puerto Rico. The phone lines are often busy during regular working hours.

**ACTION TAKEN/RECOMMENDATION:** The battalion should continue to brainstorm methods to improve communication, to

include internet access and set-aside hours outside regular working hours for detail business.

d. **PROBLEM/ITEM:** Written Correspondence with Mainbody

**DISCUSSION:** The mail delivery was very slow between Andros and Puerto Rico.

**ACTION TAKEN/RECOMMENDATION:** Mail delivery utilizing the local detail address was received up to two weeks faster than using the battalion-generated address.

**AD4-806: REPLACE WATER LINES**

1. **General:** Project scope included waterline replacement and excavation of coral limestone.

2. **Direct Labor Expended:** NMCB SEVEN 199  
Cumulative to Date: 1807

3. **Composition of Work Force:** 4-EO, 1-UT

4. **Status of Project:**

Start Date:	Turnover
WIP Percent at takeover:	89
WIP Percent at turnover:	100
Completion Date:	Oct 98

5. **Materials:** None.

6. **Engineering:** LANTDIV provided the drawings for the construction project. No problems or discrepancies were encountered during the construction phase.

7. **Problems:** Excavation of the coral/limestone rock was labor intensive had to be done by hand in many locations where CESE could not operate.



**AD5-808: CONSTRUCT BQ1**

1. **General:** Project scope included constructing CMU walls, roofing system, and electrical and mechanical systems.

2. **Direct Labor Expended:** NMCB SEVEN 453  
Cumulative to Date: 453

3. **Composition of Work Force:** 3-BU, 2-CE, 2-SW, 1-UT, 2-EO

4. **Status of Project:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 22  
Completion Date: Turnover

5. **Materials:** Delivery delays consistently hampered the project.

6. **Engineering:** LANTDIV provided the drawings for the construction project. No problems or discrepancies were encountered during the construction phase.

7. **Problems:** Material delivery concerns were repeatedly addressed to the AUTECH OIC.



**AD7-816: SITE II CBH/MESS**

1. **General:** Project scope included constructing CMU walls, roofing system, electrical, mechanical systems, and galley equipment.

2. **Direct Labor Expended:** NMCB SEVEN 660  
Cumulative to Date: 1198

3. **Composition of Work Force:** 6-BU, 2-CE, 1-SW, 2-UT

4. **Status of Project:**

Start Date:	Turnover
WIP Percent at takeover:	28
WIP Percent at turnover:	64
Completion Date:	Turnover

5. **Materials:** Delivery delays consistently hampered the project.

6. **Engineering:** LANTDIV provided the drawings for the construction project. No problems or discrepancies were encountered during the construction phase.

7. **Problems:** The site was located thirty miles from AUTEK. During the first two months of deployment, the crew berthed at the job site. This created friction within the detail, and the crew was returned to AUTEK. Travel time decreased effectiveness.





## DETAIL NORFOLK



### **1. NARRATIVE:**

Detail Norfolk deployed on 04 Jun 98 with 44 personnel tasked with 10 projects, Camp Maintenance, OIC Discretionary, and Direct-Labor Training. During the 45-day review, tasking was reduced to 11 projects totaling 3944 mandays. During the course of the deployment 1 additional project was added and 1 project was deleted. Projects were widely spread throughout the Hampton Roads area at the CINCLANTFLT compound; Naval Station, Norfolk; Naval Air Station, Oceana; Fleet Combat Training Center Atlantic, Dam Neck; and Naval Security Group Activity Northwest, Chesapeake, VA. Extensive travel distance to each project site presented special challenges to the Safety PO and the Quality Control Inspector. Each customer activity coordinated crew berthing at respective sites, which saved valuable daily-travel time. One (1) Storekeeper was reassigned to Detail Mayport/Jacksonville and six (6) personnel were returned to mainbody to assist with Hurricane Georges recovery. The Detail was recalled to the mainbody site in Puerto Rico on 16 Nov 98 for redeployment to Honduras to assist with Hurricane Mitch relief efforts as part of Operation FUERTE APOYO. At the time of recall, the Detail had completed one (1) of nine (9) construction projects in progress, expended 2792 mandays and earned 2573 mandays. All Detail members were dispersed into respective Company structures to complete the remainder of the deployment.

## **2. LESSONS LEARNED:**

### **a. ISSUE:** CBU/Detail relationship

**DISCUSSION:** Several positions in the CBU structure are supported by detail personnel with ambiguous job descriptions/functions.

**RECOMMENDATION:** Review the governing 3000.1 Brigade Instruction and revise with more detailed guidance on specific billet requirements and functions.

### **b. ISSUE:** CESE availability

**DISCUSSION:** The Detail has 14 pieces of CESE specifically assigned by the Brigade which is part of an 80 piece allowance centrally managed by the CBU. All remaining Equipment is shared by the Detail, Reserves, and CBU for project support. CESE program management was frequently interpreted as ownership by CBU personnel. This situation occasionally presented planning and execution difficulties for the Detail OIC.

**RECOMMENDATION:** Review the governing 3000.1 Brigade Instruction and revise with more specific policy on individual unit responsibilities.

### **c. ISSUE:** Detail Budget Control

**DISCUSSION:** The Detail operating budget is provided to the CBU on a combined funding document for subsequent distribution by the CBU Storekeeper. The Detail OIC does not receive regular reports on account status.

**RECOMMENDATION:** The Detail should receive its own funding document or have a Detail Storekeeper to ensure checks and balances for receipts, obligations, and account reconciliation.

### **d. ISSUE:** Official Mail

**DISCUSSION:** The CBU normally takes official mail to the post office for the Detail. The Post Office does not recognize the Detail return Mailing Address as a valid account and continually returned mail to the Detail.

**RECOMMENDATION:** Formally task the CBU, by instruction, to add the Detail to their account or authorize the Detail to establish its own account.

### **e. ISSUE:** ADP

**DISCUSSION:** The Detail has sufficient assets, but could benefit from a building LAN and more than one Email account. Repair and troubleshooting services were not available to the Detail.

**RECOMMENDATION:** Brigade could include the Detail site in its regular ADP visit schedule for troubleshooting/repair and upgrades.

**f. ISSUE:** Camp Maintenance

**DISCUSSION:** The current Detail spaces are shared in a building owned by the CBU. Most exterior maintenance is completed by the CBU or PWC Norfolk. Interior maintenance of Detail spaces is completed by the Detail.

**RECOMMENDATION:** Reduce Camp Maintenance tasking.

**g. ISSUE:** ROICC

**DISCUSSION:** Local ROICCs are not currently involved in any Seabee projects which forces the Detail to conduct all QA on behalf of the customer. This situation does not ensure objectivity and puts the Detail in an awkward position in the event of warranty work.

**RECOMMENDATION:** Negotiate with LANTDIV to officially task ROICCs to be in the construction process for Detail projects.

**h. ISSUE:** Host Activity Support

**DISCUSSION:** The current 2NCB/COMNAVBASE agreement is out of date. Norfolk area Navy Bases have recently undergone many regionalization changes which have impacted support to the Detail in the specific areas of billeting, messing, and personnel support services. Previous agreements are null and void. Many subordinate COMNAVBASE Activities do not recognize responsibility to support the Detail in the above mentioned areas.

**RECOMMENDATION:** Brigade should re-negotiate the current MOU to reflect current conditions and add this MOU to the review tickler to ensure it remains current.

**NVO-500: OIC DISCRETIONARY**

1. **GENERAL:** Perform projects as directed by the OIC.
2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 120  
Cumulative to Date: 120
3. **COMPOSITION OF WORK FORCES:** Various.
4. **STATUS OF REPPORT:**  
  
Start Date: Jun 98  
WIP Percent at takeover: N/A  
WIP Percent at turnover: 36  
Completion Date: Oct 98
5. **MATERIAL:** No significant problems.
6. **ENGINEERING:** No significant problems.
7. **PROBLEM AREAS:** No significant problems.



Demolition of Bldg LF-60A at NAS Norfolk

**NV7-850: CINCLANTFLT, SELF HELP**

1. **GENERAL:** Provide one P02 to coordinate self-elp work for Commander in Chief, Atlantic Fleet, Staff Civil Engineer office.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 90  
Cumulative to Date: 90

3. **COMPOSITION OF WORK FORCE:** 1-E0

4. **STATUS OF REPORT:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: Nov 98

5. **MATERIAL:** No significant problems.

6. **ENGINEERING:** No significant problems.

7. **PROBLEM AREAS:** Billet is not strictly leading self-help projects. Majority of work is coordinating and performing in non-skilled working parties.



**NV7-852: CONVERT WAREHOUSE SPACE, BLDG NH-35**

1. **GENERAL:** Convert existing NEX Mini Mart into Warehouse/Office spaces for Headquarters Support Activity, Staff Civil Engineer and First Lieutenant Division. Work includes demolition of interior walls, loft, fire-suppression system, and electrical fixtures/conduit. Reconstruct interior wood-framed sheetrock walls with associated office electrical; brick in 2 existing windows; and install concrete loading ramp.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 101  
Cumulative to Date: 101

3. **COMPOSITION OF WORK FORCE:** 2-SW, 1-CE, 1-EA, 3-BU

4. **STATUS OF REPORT:**

Start Date:	Jul 98
WIP Percent at takeover:	0
WIP Percent at turnover:	36
Completion Date:	Turnover

5. **MATERIAL:** See below.

6. **ENGINEERING:** Plans and specifications were provided to the Battalion after arrival at the deployment site. Planning and Estimating had to be performed on site.

7. **PROBLEM AREAS:** Funding for material was promised by the customer and not available to support ordering and delivery per the Project schedule. Work on project was suspended after the demolition phase while awaiting funding. Resumed construction shortly after the beginning of the fiscal year.



**NV8-862 CONSTRUCT OPERATIONS FACILITY**

1. **GENERAL:** Construct 3000 SF (50' X 60') Pre-engineered building for Naval Security Group Activity, Northwest in Chesapeake, VA. Work included interior wood-framed sheetrock walls, interior chain-linked fencing partitions, and minor electrical.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 550  
Cumulative to Date: 550

3. **COMPOSITION OF WORK FORCE:** 4-BU, 2-CE, 2-UT, 2-EO

4. **STATUS OF REPORT:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 90  
Completed Date: Turnover

5. **MATERIAL:** Customer-supplied material available upon arrival.

6. **ENGINEERING:** Public Works Department Technical Representative available at the job site regularly. Close interface precluded many potential problems.

7. **PROBLEM AREAS:** Encountered significant construction activity duration increase while making foundation preparations. Soil density failed test procedures which required removing existing soil and replacing with select fill for compaction. Soil instability was anticipated by the customer and added \$10K to the total project cost for fill.

New NW Operations PEB



**NV8-864 CONSTRUCT AIMD SUPPORT FACILITY**

1. **GENERAL:** Construct a 4000 SF (40' X 100') Pre-engineered building as Cryogenics Facility for Aircraft Intermediate Maintenance Department at Naval Air Station, Oceana. Work included interior wood-framed sheetrock walls, bathrooms, electrical, mechanical, HVAC, and concrete access drive/ramp.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 623  
Cumulative to date 623

3. **COMPOSITION OF WORK FORCE:** 4-BU, 2-CE, 1-EO, 1-SW, 1-UT.

4. **STATUS OF REPORT:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 69  
Completed Date: Turnover

5. **MATERIAL:** Customer-supplied material available upon arrival.

6. **ENGINEERING:** Base Civil Engineer provided technical assistance throughout construction. No significant problems.

7. **PROBLEM AREAS:** No significant problems.

AIMD Facility Construction





**NV8-865 REPLACE ROOF/REPAIR CORNICE, BLDG E-26**

1. **GENERAL:** Repair Hightower Hall roof by replacement for Naval Station, Norfolk. Work included removal/replacement of 130 squares of asphalt-composite shingles with vapor barrier and flashing; intermittent repair of roof sheathing and cornice sub-base; replacing 1100 LF of cornice and gutter with downspouts; and repair/replacement of wood door transom and architectural building trim.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 457  
Cumulative to Date: 457

3. **COMPOSITION OF WORK FORCE:** 7-BU

4. **STATUS OF REPORT:**

Start Date: Jul 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: Nov 98

5. **MATERIAL:** All material was provided by PWC Norfolk. Minimal difficulty encountered, no negative impact to the schedule.

6. **ENGINEERING:** No major problems encountered.

7. **PROBLEM AREAS:** Availability of additional scaffolding would have improved the work flow by allowing more work to be executed simultaneously. Customer budget could not accommodate the increase and the Detail site does not have scaffolding readily available from any local NCF unit.

Exterior Repairs in Progress



**NV8-868: EXTERIOR UPGRADE, BLDG 585**

1. **GENERAL:** Upgrade exterior of Staff Civil Engineer/Public Works Officer building at Fleet Combat Training Center, Atlantic, Dam Neck. Work included application of 4000 SF of EZ|Wall Brick Panel System over existing exterior metal surface of Pre-engineered building. System comprised of plywood overlay, vapor barrier, tabbed-metal sub-panel sheathing, and mastic adhered brick veneer with grouted joints. Wood window, door, and eave trim manufactured and installed by crewmembers on the job site.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 259  
Cumulative to Date: 259

3. **COMPOSITION OF WORK FORCE:** 2-BU, 2-UT

4. **STATUS OF REPORT:**

Start Date: Jul 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 72  
Completed Date: Turnover

5. **MATERIAL:** All material was open-purchased by the base. No problems encountered.

6. **ENGINEERING:** A technical representative was present during the initial phases of brick application to train the crew in proper methods. Window/door openings and Entrance Canopy Roof details were not engineered prior to starting the project. The FCTCL Dam Neck SCE/PW staff provided guidance to the crew during construction of the respective phase.

7. **PROBLEM AREAS:** No significant problems.



## DETAIL JACKSONVILLE

1. **NARRATIVE:** Detail Jacksonville deployed from June 1998 to January 1999 with 32 enlisted and 1 officer. The officer was also responsible for Detail Mayport. Tasking from the 45-day review was set at 2681 mandays. This included 3 turnover projects: Construct New Training Center, Construct Bathhouse, and the S3 Run-up Pad. An SK3 and a BU3 were responsible for maintaining MLO/CTR and supply. They established the SAMMS system and updated all projects both current and future and set up new OPTARS for NMCB projects. Tool requirements were handled through the detail CTR or by the following units: CBU-412, CBU-420, CBU-410 and NMCB 14. Tools not available at the above locations were rented or purchased locally. The CESE allowance of 5 pieces was maintained by 1 CM within average availability of 85 percent.

### 2. **LESSONS LEARNED:**

#### a. **PROBLEM/ITEM:** IMPAC card.

**DISCUSSION:** The detail SK is required to attend IMPAC class conducted by NAS Jacksonville supply before being issued a card for project material purchase. The length of time between arrival at site and issue of IMPAC card can be lengthy.

**ACTION TAKEN/RECOMMENDATION:** Identify all material required for first 90-120 days of deployment for early purchase by the outgoing battalion. Coordinate with project representative assigned from the Facilities Engineering Department (FED) for purchase of materials not identified.

#### b. **PROBLEM/ITEM:** Support from the local Construction Battalion Unit.

**DISCUSSION:** The Construction Battalion Unit supports the detail for tool and CESE requirements. They normally try to support our needs but scheduling conflicts arise due to their projects and work schedule.

**ACTION TAKEN/RECOMMENDATIONS:** The battalion should closely coordinate their requirements with the CBUs to identify shortfalls or conflicts. If the CBU is not able to provide support, rental of tools or CESE should be considered.

#### c. **PROBLEM/ITEM:** Design changes on projects.

**DISCUSSION:** Designs for MWR projects constantly changed during construction on request from the customer. MWR changed design and usage of building from a pool shower facility to a snack bar facility. This change was done after construction had started and resulted in rework and slowdowns. In addition, after changes were made final design and prints were delayed due to conflicts between Facilities Engineering Department and MWR.

**ACTION TAKEN/RECOMMENDATION:** Ensure scope of work is understood and clear and design reviews complete by customer and FED prior to start of construction.

**d. PROBLEM/ITEM:** CESE management and funding.

**DISCUSSION:** Although 5 pieces of CESE are assigned to the detail, for accounting purposes the maintenance funds are given to CBU-410. This causes delays in processing ERO's and parts orders through the CBU, which could be processed faster through the detail. Different work schedules (4-day versus 6-day workweek) caused further delays when detail mechanics were unable to work on CESE because of lack of parts.

**ACTION TAKEN/RECOMMENDATION:** Ensure MOU clearly states responsibilities of both CBU and NMCB. Allow NMCB detail to maintain OPTAR for CESE to allow detail CM's to purchase parts and services on the detail schedule vice the CBU schedule.

**e. PROBLEM/ITEM:** Material from R-35 was delivered with incorrect quantities or did not match specifications and prints.

**DISCUSSION:** Material received from CONUS (R-35) was often times in the incorrect quantities or did not match the specifications and prints. The boiler for the training facility did not fit into the room for which it was designed; this caused the expansion of the room and additional mandays. In addition, several BM line items received did not match the quantities estimated by the onsite battalion. This resulted in reorder and add-on BM's that had to be purchased locally.

**ACTION TAKEN/RECOMMENDATION:** Consider local purchase of more material to ensure that it matches quantity and specifications. While R-35 is the purchasing agent and maintains the prints and specifications, they do not have the most complete and up to date information concerning as-built's and revisions.

**f. PROBLEM/ITEM:** Prints and shop drawings were not clear.

**DISCUSSION:** Prints for the training center project were unclear; several details were incorrect as to dimensions and

material requirements. In addition, the standing seam metal roof system received did not have shop drawings or erection manuals. A reserve SW1 was requested to assist with erection but problems persisted.

**ACTION TAKEN/RECOMMENDATION:** Battalions should be involved in design reviews. Ensure the supplier provides installation guides and shop drawings. Addresses, phone numbers, and points of contact for major suppliers should be provided to NMCB's to assist in the installation of new products.

**JX7-803: S3 RUN-UP PAD**

1. **GENERAL:** Project scope consisted of constructing a 58' x 125' concrete pad with 4 steel embedments and a steel jet blast deflector.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN: 313  
Cumulative to Date: 467

3. **COMPOSITION OF WORK FORCE:** 2-BU, 2-EO, 1-SW

4. **STATUS OF PROJECT:**

Start Date: Jun 98  
WIP Percent at takeover: 33  
WIP Percent at turnover: 100  
Completed Date: Dec 98

5. **MATERIAL:** Delays were caused by late delivery of steel embedments.

6. **ENGINEERING:** None.

7. **PROBLEM AREAS:** Delivery of aggregate and concrete to the job site was delayed due to operations on the surrounding airfield.



**JX7-804: CONSTRUCT NEW TRAINING CENTER**

1. **GENERAL:** Project scope consisted of constructing a 4000 SF CMU building with a standing seam metal roof, electrical, and mechanical subsystems.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN: 1307  
Cumulative to Date: 2690

3. **COMPOSITION OF WORK FORCE:** 4-BU, 1-SW, 2-CE, 1-UT, 4-EO

4. **STATUS OF PROJECT:**

Start Date:	Jun 98
WIP Percentage at takeover:	50
WIP Percentage at turnover:	97
Completed Date:	Turnover

5. **MATERIAL:** Manufactured steel trusses received were incorrect which caused delays and changes to duct system. The intrusion detection system and fire alarm system material was not received from R-35 prior to the end of deployment. No shop drawings were received for roof trusses, which caused delays in installation.

6. **ENGINEERING:** The prefabricated metal roof trusses were received with incorrect deflection. Trusses were shifted to allow for correct pitch. This caused problems with installation of AC ductwork and changes in ceiling height in the lobby and bathroom areas.

7. **PROBLEM AREAS:** Supply problems with CONUS material included deficient quantities as well as the design of products not meeting specifications and print design. The boiler received from R-35 was too large to be placed in the mechanical room with the air handler unit. This required the boiler to be expanded.



JX7-804: CONSTRUCT NEW TRAINING CENTER





**JX7-805: CONSTRUCT BATHHOUSE**

1. **GENERAL:** Project scope consisted of a 2500 SF CMU building with a composite shingle roof.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 476  
Cumulative to Date: 607

3. **COMPOSITION OF WORK FORCE:** 2-SW, 2-BU, 1-UT, 1-CE

4. **STATUS OF PROJECT:**

Start Date: Jun 98  
WIP Percent at takeover: 19  
WIP Percent at turnover: 88  
Completed Date: Turnover

5. **MATERIAL:** All materials were purchased locally.

6. **ENGINEERING:** The customer changed the intended usage of the building from a shower and head facility to a full kitchen facility. This caused design changes and installation of full mechanical and electrical systems in the new kitchen area.

7. **PROBLEM AREAS:** Manufactured trusses were delayed due to local supply and open purchase problems. After locating a supplier, paperwork was turned in to NAS Supply for contracting. After the contract was awarded, delays were caused by severe storms which increased the backlog of vendor work orders.



## DETAIL MAYPORT

1. **NARRATIVE:** Detail Mayport deployed from June 1998 to January 1999 with 18 enlisted and 1 officer. The officer was also responsible for Detail Jacksonville. The original manday estimate for the dental clinic construction project was 2311. Tasking from the 45-day review was set at 1292 mandays. A BU1 and SK2 were responsible for the expediting and accounting of the project material. They established the SAMMS system and updated all files. CBU-420 and the Naval Station Self-Help Office provided most required tools. Major material delays were experienced with the entire roof system. The roof and wall panels were delayed by two months. CESE is owned and maintained by CBU-420. The detail augmented CBU-420 with a CM3 to support the maintenance of all CESE.

### 2. **LESSONS LEARNED:**

a. **PROBLEM/ITEM:** Support from the local Construction Battalion Unit.

**DISCUSSION:** The Construction Battalion Unit supports the detail for tool and CESE requirements. They normally try to support our needs but scheduling conflicts arise due to their projects and work schedule.

**ACTION TAKEN/RECOMMENDATIONS:** The battalion should closely coordinate their requirements with the CBU to identify shortfalls or conflicts. If the CBU is not able to provide support, rental of tools or equipment should be considered.

b. **PROBLEM/ITEM:** CONUS Material and submittals.

**DISCUSSION:** Most CONUS materials were delivered on time. There were several items such as the roof panels, wall panels, and trusses that were delayed. In some cases, the EDD was set but the submittals had not been approved. The battalion also coordinated with ROICC to track submittals but in some cases the submittals were not forwarded from R35 to the ROICC.

**ACTION TAKEN/RECOMMENDATION:** The submittal process should be closely monitored. R35 and/or A/E forward the submittals to ROICC which will forward them to the battalion after review and approval/disapproval. ROICC needs to push the submittal process with the A/E to avoid delays. The battalion, ROICC, and R35 should frequently communicate and closely track CONUS material.

c. **PROBLEM/ITEM:** Sewer and Water Permits.

**DISCUSSION:** Per new Florida state regulations, the base is required to go through the city agencies for approval to tap into the existing sewer and/or water lines. This requires a minimum of three months to clear. Since this was a new regulation, PWC and ROICC did not understand the steps to get the permits approved.

**ACTION TAKEN/RECOMMENDATIONS:** During the design review process, the permits should be submitted by the A/E through PWC to the appropriate city agencies to expedite the process.

**MP8-801: CONSTRUCT NEW DENTAL CLINIC (MAYPORT)**

1. **GENERAL:** Project scope consisted of the construction of a 63' X 69' metal-clad dental facility with a standing seam roof. Work to include all site prep, electrical, HVAC, plumbing, oral EVAC system, and fire protection system.

2. **DIRECT LABOR EXPENDED:** NMCB SEVEN 1428  
Cumulative to Date: 1428

3. **COMPOSITION OF WORK FORCE:** 5-BU, 3-CE, 2-UT, 2-SW, 1-EO, 1-EA

4. **STATUS OF PROJECT:**

Start Date: Jun 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 62  
Completed Date: Turnover

5. **MATERIAL:** NMCB FIVE ordered and received material prior to our arrival (30 line-items received). NMCB SEVEN received 80% of CONUS material and 87% of local material. The BMs for the hazardous materials were submitted and delivery scheduled for February. Late material deliveries adversely affected construction progress.

6. **ENGINEERING:** The existing water main valve was not located as per the drawings. This resulted in the re-location of the water feed to the building. The handicap toilet in the female locker room was re-located due to sanitary sewer lines running through the spread footer.

7. **PROBLEM AREAS:** The use and availability of CESE and tools from the local CBU was limited.



MP8-801 CONSTRUCT DENTAL CLINIC

## DFT DOMINICAN REPUBLIC

### DF8-DOM: CONSTRUCT FOUR ROOM SCHOOLHOUSE

1. **General:** Project scope included fill and site work, placement of 20' x 60' reinforced concrete pad, placement of 1,280 CMU block, and fabrication and installation of an insulated, concrete roof system.

2. **Direct Labor Expended:** NMCB SEVEN 400  
Cumulative to Date: 400

3. **Composition of Work Force:** 12-BU, 2-CE, 1-SW, 1-UT, 1-EO

4. **Status of Project:**

Start Date: 8 Jul 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 15 Sep 98

5. **Materials:** There were specific problems with regards to the timeliness and quality of locally procured material.

a. Timeliness of delivery - While most materials were purchased from Puerto Rican suppliers, some major items such as CMU block and concrete were procured locally in Dominican Republic. During the construction phase, the DFT became subject to the delivery schedules of contractors. The nature of the Dominican culture does not allow for "rushing" on account of work schedules.

b. Quality of locally procured material - The major items procured locally, such as CMU blocks and concrete, were also of quality standards below the expected norm. Many CMU blocks were defective, breaking easily upon routine handling. The concrete for the schoolhouse slab hydrated at an accelerated rate, leaving the crew little to no time to screed and trowel the slab. Fortunately, material quality did not hinder satisfactory construction.

6. **Engineering:** LANTDIV provided the drawings for the schoolhouse construction project. Due to different site conditions, three Field Adjustment Requests (FARs) were generated.

7. **Problems:** An early breakdown of communication and coordination efforts between the Dominican Department of Education and Punta Cana Group, a local private company, during

the pre-deployment planning phase led to a week-long delay during the course of construction. Specifically, a significant problem emerged over ownership of the school site and whether the DFT could continue building the school on the property. Fortunately, Group Punta Cana decided to donate the land, which enabled the DFT to continue construction and finish the project by the scheduled completion date.



Schoolhouse Under Construction



Completed Schoolhouse



**DF8-DOM: CONSTRUCT 200' PIER**

1. **General:** Project scope included construction of a 200' heavy timber pier with access pier.

2. **Direct Labor Expended:** NMCB SEVEN 160  
Cumulative to Date: 160

3. **Composition of Work Force:** 6-BU, 2-CE, 2-EO, 2-CM

4. **Status of Project:**

Start Date: 12 Aug 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 15 Sep 98

5. **Materials:** No significant problems were encountered with materials for the project.

6. **Engineering:** LANTDIV provided the drawings for the pier construction project. No problems or discrepancies were encountered during the construction phase.

7. **Problems:** Some of the piles placed by a local contractor were not in alignment per the contract. Some adjustments on the bracing and pile caps were necessary to construct the pier. This does not affect the pier structurally.



Pier prior to construction



Completed Pier



## DFT SAINT LUCIA

### DF8-STL: RENOVATE VIEUX FORT HEALTH CENTER

1. **General:** Project scope included replacing the existing corrugated metal roof and deteriorated structural components, interior electrical, interior plumbing (13 bathrooms), interior and exterior painting, construction of interior partition walls, door repair and replacement, installing 14 ceiling fans, and repairs/tiling of the floor on the Main Building (8,300 square feet) and Nurses Quarters (400 square feet).

2. **Direct Labor Expended:** NMCB SEVEN 817  
Cumulative to Date: 817

3. **Composition of Work Force:** 8-BU, 2-CE, 2-SW, 2-UT, 2-EO,  
1-EA, 2-MWSS Engineers

4. **Status of Project:**

Start Date: 3 Jul 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: 8 Sep 98

5. **Materials:** All materials were purchased locally by the Detail Storekeeper using HCA funds.

6. **Engineering:** DFT personnel developed the scope and designed the entire renovation. The DFT Engineering Aide developed floor plans as well as electrical and mechanical system diagrams for the facility since there weren't any existing drawings. As-built drawings and Operation/Maintenance manuals were prepared and provided to the customer.

7. **Problems:**

a. Site - The site was located on top of a congested area in the center of town. Access was limited to pick-up trucks, which made hauling of debris difficult. The customer used the facility's back yard as a burning area for medical waste. The backyard was placed off-limits due to the large amount of hypodermic needles and other waste. Top soil to cover the waste was promised by the Ministry of Health but was never delivered.

b. Asbestos - Several sections of the roof contain cementitious corrugated roof tile that was suspected to contain asbestos. The Ministry of Health was to remove the asbestos sections prior to our arrival. Upon arrival, the asbestos

sections were still on the roof. The Vieux Fort Police removed the asbestos sections. The Ministry of Health certified the site safe, but one week of construction was lost to delays in certifying the building safe for occupation.

c. Unforeseen Conditions - Seventeen roof rafters and joists were found to be termite infested and water damaged. The ceiling was water damaged and required complete replacement. The floor was rotten and uneven and required complete overlay prior to tile placement.

d. Materials - Vendors could not keep up with the required delivery times and they would often deliver the wrong materials or misquote the materials. Three personnel were dedicated to expedite and deliver materials.



## CONSTRUCT COAST GUARD OPERATIONS FACILITY

1. **General:** Project scope included raising the existing elevation three feet, extensive site work, construction of a 2,500 square foot concrete masonry unit building with stucco overlay, concrete slab, treated wood rafters and plywood decking with corrugated metal roofing. The facility included electrical power, lighting, ventilating fans, toilets, showers, locker space, and stand-alone septic system.

2. **Direct Labor Expended:** NMCB SEVEN 1,288  
Cumulative to Date: 1,288

3. **Composition of Work Force:** 8-BU, 2-CE, 2-SW, 2-UT, 2-EO, 1-EA, 2-MWSS Engineers

4. **Status of Project:**

Start Date: 3 Jul 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 19 Sep 98

5. **Materials:** TWENTIETH NCR Code R35 purchased structural materials. The detail storekeeper purchased all mineral products, CMU, electrical and mechanical materials locally.

6. **Engineering:** The architectural and structural designs were completed by LANTDIV. DFT personnel completed the electrical/mechanical drawings.

7. **Problems:** The site elevation was low and had to be raised three feet. The fill material supplied by the local vendor did not meet requirements. After refusing to accept the poor quality fill, satisfactory fill was brought to the site. It was a constant battle. Vendors could not keep up with the required delivery times and they would often deliver the wrong materials. Two personnel were dedicated to expedite and deliver materials. CMU block was poorly manufactured and not of consistent size. Also, it rained nearly every day. During the below-grade construction, three construction days were lost. After the slab was placed, the rain was a nuisance but did not have a significant impact of progress.

CONSTRUCT COAST GUARD OPERATIONS FACILITY



**DF8-STL: CONSTRUCT HEAVY TIMBER PIER**

1. **General:** Project scope included installation of 13 pairs of piles (contractor), pile caps, bents and bracing, stringers, deck boards, two concrete abutments, curbing, fender system, water supply, electrical service, and lighting.

2. **Direct Labor Expended:** NMCB SEVEN 204  
Cumulative to Date: 204

3. **Composition of Work Force:** 2-BU, 2-CE, 2-SW, 2-UT, 2-EO

4. **Status of Project:**

Start Date: 19 Jul 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 14 Aug 98

5. **Materials:** TWENTIETH NCR Code R35 purchased all materials except those for the concrete abutment. Material support was outstanding.

6. **Engineering:** The pier was designed by Atlantic Division, Naval Facilities Engineering Command.

7. **Problems:** None.

Completed Pier



## USSPTGRP HAITI SUPPORT

1. **General:** NMCB SEVEN provided facilities staff support to the US Support Group in Haiti (USSUPGRP) with the following personnel:

- Engineering Operations Chief (E8)
- Material Manager (E7)
- Construction Operations Chief (E7)
- Construction Inspector/Safety (E6)
- Maintenance Chief (E7)

2. **Problems:** The battalion suffered from the loss of four Chief Petty Officers. This became significant during the redeployment to Honduras, where senior enlisted leadership was stretched thin.

**OPERATION FUERTE APOYO IN HONDURAS**  
**HURRICANE MITCH RELIEF**

1. **NARRATIVE:** As the battalion was returning to its original construction tasking at Roosevelt Roads following Hurricane Georges, NMCB SEVEN was ordered to deploy a heavy air detachment tailored for humanitarian assistance to Soto Cano Air Base, Republic of Honduras in early November 1998. Within thirty-six hours of the order, NMCB SEVEN received additional orders to mobilize the entire battalion. All detail sites (except Mayport and Jacksonville) were recalled and the battalion deployed to Honduras. A rear echelon detail remained in Puerto Rico to maintain Camp Moscrip and continue work on the high priority Bundy Barracks rehabilitation.

The original detail site at Soto Cano remained staffed with a contingent of 150 Seabees tasked with providing detail support in the southern area of operations, base recovery, convoy operations and other support functions. Major tasking at Soto Cano included construction of a 500 personnel expansion camp to support field forces. The mainbody established a Forward Operating Base at a Honduran infantry base in San Pedro Sula, Honduras. From San Pedro Sula, the battalion deployed out humanitarian details to Morazan, Rio Hondo, Talanga, La Lima, La Ceiba, and La Guacamaya. Mainbody functions included maintaining the command element, normal operating and administrative functions, and execution of battalion support functions. NMCB SEVEN expended 15,562 MDS in Honduras of which 6417 MDS were associated with embark and mount-out functions.

2. **LESSONS LEARNED:**

a. **PROBLEM/ITEM:** Planning and obtaining needed panel bridging (Bailey type bridges) took more time than anticipated. This has a direct correlation to planning required for contingency engineering operations associated with both current OPLANS as well as future humanitarian missions.

**DISCUSSION:** It was discovered over a period of a couple of weeks in November 1998 that the Honduran government had ordered their panel bridges based on the total length of **all** river gaps to be crossed, and not based on an engineering assessment of each crossing. This simplification of the panel bridge requirement resulted in having the wrong, or inadequate numbers and types of, bridge parts for proper bridge assembly for the required gaps. Some of the considerations ignored when the bridges were ordered include:



- 1) Determining what type of vehicles needed to use the bridge (the design load).
- 2) Deciding whether it was to be a single lane or double lane bridge.
- 3) Determining the maximum span required (e.g. either between abutments or the spacing of an intermediate pier).

Consequently there were significant delays in erecting panel bridges (in this case made by a U.S. company called ACROW) since the additional parts had to be determined after engineering analysis, and then ordered and shipped.

In recent OPLAN engineering planning, it has been assumed that adequate panel bridges would be provided by the host nation for military engineers to rapidly erect. These bridges will be essential to maintaining lines of communication for friendly forces. However, in the past the host nation has not been forthcoming with information regarding panel bridge part locations or specifications. Without this information to develop the engineering confidence that the right bridge sections will be in the vicinity of each gap it is problematic whether or not mission timelines can be met.

**ACTION TAKEN/RECOMMENDATION:** Engineers should analyze in more detail the panel bridge requirement for all potential gaps that do not have acceptable alternative crossings (e.g. bypasses, culvert crossings, etc.). Using this information, the unified CINC staff should press the host nation for additional information and coordinate accordingly.

**b. PROBLEM/ITEM:** Both deployable Naval Construction Regiments should have one or two civil and structural engineers, who have field experience with river crossings and bridging, assigned.

**DISCUSSION:** The two LANTDIV engineers provided superb field engineering services to the 22 NCR (FWD) and Joint Task Force - Bravo. They arrived fully prepared to provide expedient contingency engineering. After quickly assessing many crossings where bridges had failed throughout the country, determining what materials were locally available or could be rapidly procured and delivered, and evaluating military engineer capability, they quickly provided sound practical design solutions for each crossing. They also provided consulting services during and subsequent to construction.

Deliberate planning can provide/ensure a rapid engineering response for crossing anticipated gaps. However, most planners believe that in executing any OPLAN that there will be unforeseen engineering requirements and additional gaps to cross.

Consequently, Seabees should expect to have to rapidly field engineer and build expeditionary bridges to cross both wet and dry gaps. In order to provide a sound capability to do this, each Regiment should have on their staff military and/or civilian engineers with field experience. They need to have the necessary design tools (engineer reference materials including river flow information for selected country rivers and streams, a laptop with Autocad, etc.) to be able to evaluate available construction materials, crossing field conditions, construction time requirements, and engineering capability.

**ACTION TAKEN/RECOMMENDATION:** Select appropriate individuals to become a part of the deployable NCR staff and have them train at least annually with the staff in field conditions. Depending on selecting ad hoc engineers from an Engineering Field Division worked for this operation but is too risky based on the importance of having this skill in the NCR staff inventory. Once the individuals are trained they can be outfitted properly and kept medically and dentally ready.

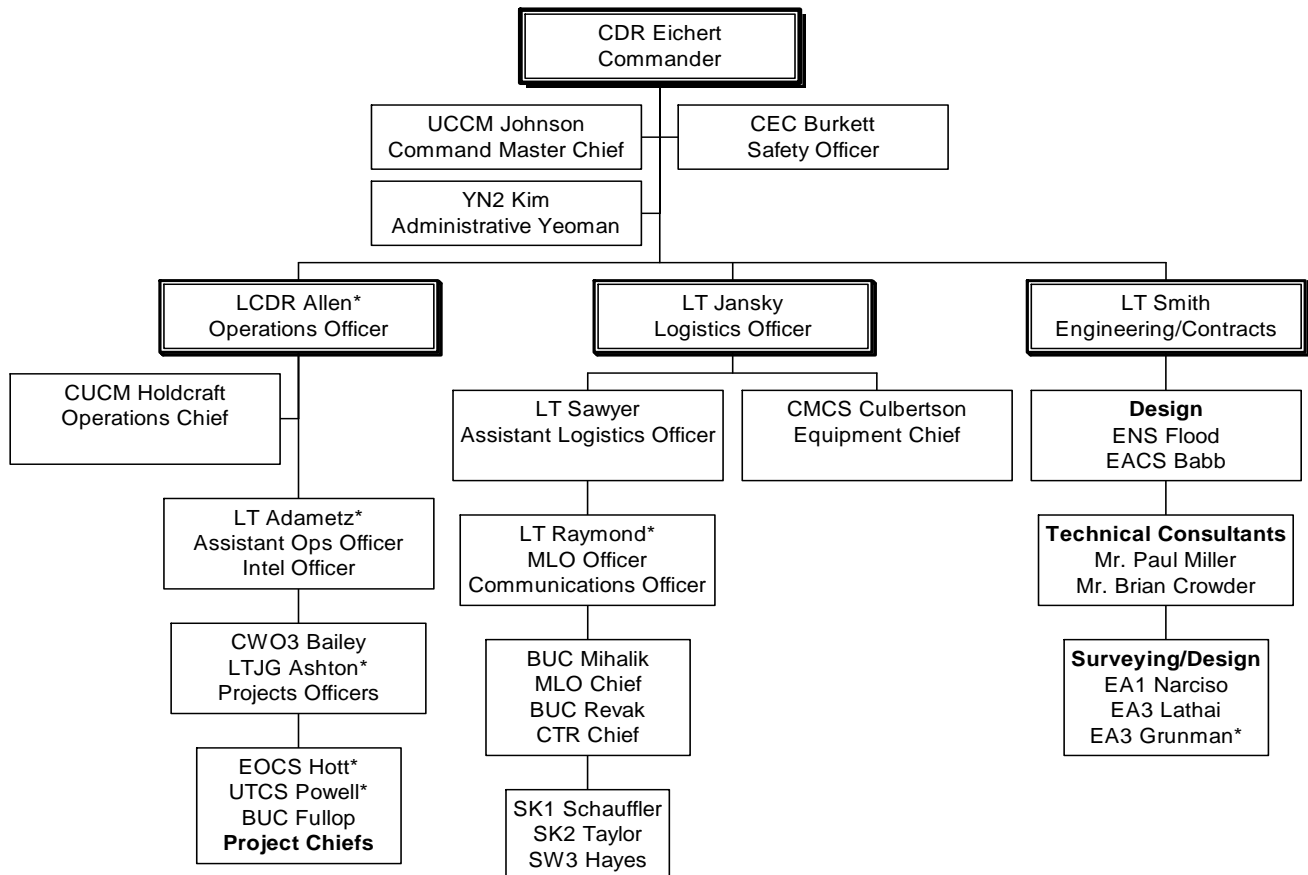
**c. PROBLEM/ITEM:** The 22nd Naval Construction Regiment (Forward) staff was too small to meet all Joint Task Force expectations.

**DISCUSSION:** Joint Task Force - Bravo originally requested an Army Engineering Headquarters element that consists of more than 100 personal. However, SOUTHCOM (or possibly ACOM) instead offered the 22 NCR (FWD) element based upon the successful Guantanamo Bay Sea Signal operation. Subsequently, and after the operation was well underway, JTF-B believed that this was to save money. Consequently, JTF-B was expecting the 22 NCR (FWD) to be a heavy, fully outfitted, engineering headquarters element with a deep engineering, and large command and control, staff.

Prior to deploying, the battalion Commanding Officer contacted the J7 engineer to discuss the overall mission, priority of effort, deployment timing and organization. However, they never discussed his expectations of the 22 NCR (FWD). In hindsight that was an important oversight. After discussions with SECOND Brigade, the 22 NCR (FWD) was based on Sea Signal. At the time there was a concern that the battalion would have to manage construction operations over a large geographical area versus one area as in Guantanamo Bay, but the specific staffing consequences were not foreseen.

Following is the organization the 22 NCR (FWD) deployed with, although the entire staff did not deploy at the same time. Based on battalion needs and the decision to establish details at several remote sites several of these officers were moved from their initial 22 NCR (FWD) billets to battalion billets. Essentially all the highlighted officers (marked with an asterisk) became full time, or near full time, battalion officers and did not provide a significant Regimental level of effort. As noted in the following lesson learned, if these officers and chiefs had remained full time Regimental officers and chiefs 22nd NCR (FWD) performance would have closer met JTF-B expectations with respect to providing timely and more complete staff work (Powerpoint presentations, updated charts showing progress, etc.). In addition, we would have been able to provide complete operations orders and frag orders (based on available staff we relied on verbal explanations and sketches as operational direction) and could have provided additional engineering command and control.

### 22NCR Forward Organization Chart



**ACTION TAKEN/RECOMMENDATION:** Establish during the operational planning stages the supported command's expectations for engineering command and control and staff accordingly.

d. **PROBLEM/ITEM**: The battalion staff was spread too thin attempting to assume both Regimental and battalion roles.

**DISCUSSION**: Covering a relatively large geographical area such as Honduras stretched the battalion's leadership (officers and chiefs) as we created details in three remote areas (Talanga/Hondo, Morazan, and La Ceiba) and operated remote jobsites in the San Pedro Sula area. The battalion mainbody was in San Pedro Sula and there was the equivalent of a heavy air detail at Soto Cano AB. Consequently, absorbing additional officers and chiefs to operate the Regimental functions diluted the battalion's leadership. The specific consequences associated with this is difficult to determine, although it was clear based on the typical level of effort of the officers and chiefs that most were challenged and stretched thin. The leadership and coordination requirements associated with operating over large areas can usually be met by the battalion leadership structure. However, also using battalion leadership to staff the Regimental functional decreases battalion effectiveness.

Similarly, the 22<sup>nd</sup> NCR Forward Commander was spread too thin because of the geographical distances getting to detail jobsites, which was time consuming and transportation intensive. When possible, helicopters were used to save time, although in most cases it was necessary to travel by vehicle. Additionally, having to handle battalion business simultaneously (e.g. planning for homeport, first class petty officer evaluations, personnel issues, etc.) diluted efforts to coordinate the entire engineering field effort. Balancing time between job site visits, handling battalion business (in conjunction with job site visits) at San Pedro Sula, and being available to the JTF-B staff and Commander in Soto Cano was a continuous challenge.

**ACTION TAKEN/RECOMMENDATION**: In order to ensure mission accomplishment, troop safety, and overall accountability it is best to not use battalion personnel, including the battalion CO, to staff the Regiment under conditions where the battalion will be geographically dispersed.

e. **PROBLEM/ITEM**: The Regimental headquarters element should arrive in country no later than the first construction element.

**DISCUSSION**: The sequence of how units arrived in country was not conducive to quickly organizing the entire engineering effort. On 07 November the NMCB SEVEN Air Detachment arrived at Soto Cano. Shortly thereafter they began to construct a 500-man tent camp facility at Soto Cano for the expected additional disaster relief manpower to arrive in country. In addition, the Air Detachment sent out two road reconnaissance teams to begin

identifying possible further engineering work and gather information to be used to determine subsequent engineering priorities. On 16 November many of the 22 NCR (FWD) command element, including the Commander, arrived in country.

While this delay was not catastrophic, it would have been advantageous if the reconnaissance element and operations staff had arrived simultaneous with the Air Detachment. This would have allowed them to more quickly determine and evaluate the work, and to become better organized in anticipation of the battalion and other engineering units. Losing the nine days (from the 7<sup>th</sup> to the 16<sup>th</sup>) delayed the engineering assessment and forced the Regiment staff to be catching up in creating the engineering tasking level one, operation orders, and associated planning, reporting, and management structure.

Likewise, by the time the 22 NCR (FWD) arrived there was no additional headquarters space available and they had to share an office area with NMCB SEVEN. The overcrowding made coordination and preparing plans difficult. Since possession is "nine tenths of the law" it would have been best if both units arrived simultaneously so each could have claimed suitable space before other units arrived.

In some situations, moving the deployable Regiment early may present logistical challenges associated with camp, transportation, and personnel support. However, in this instance the Soto Cano AB could provide essentially all required support such as berthing, messing, sanitary facilities, utilities, and rudimentary office facilities.

**ACTION TAKEN/RECOMMENDATION:** (1) In the future insist that the Regimental Headquarters element arrive in country as early as possible, consistent with internal TOA and required camp and logistics support. (2) Re-examine the Regiment TOA to ensure it has the right equipment, facilities, and manpower to enable it to deploy early.

**f. PROBLEM/ITEM:** The battalion TOA communication gear is not adequate for operating over large distances throughout a country such as Honduras.

**DISCUSSION:** NMCB SEVEN was required to send details throughout Honduras to build river crossings and to repair or construct facilities. Distances typically varied from 15 to 100 miles from either Soto Cano or the NMCB SEVEN Forward Operating Base (FOB) at San Pedro Sula. Consequently, we requested and received extensive communication support from Joint Task Force - Bravo for our Details. This support consisted of a variety of satellite communication sets and TACSATs being distributed to and

used by our Details. Nevertheless, because of the mountainous terrain and distances, reliable communication remained a challenge throughout the deployment.

In addition, 14 cell phones were purchased by the Brigade to augment the Seabee communication suite. JTF-B, as supported by the 22 NCR (FWD), required that convoys have two forms of communication. This was normally a Saber radio (the JTF-B Sabers covered much of the country because they have placed repeaters in many areas) and a cell phone. Likewise, as a safety precaution each detail was required to have two methods of communication in the event one failed. Despite these measures there were significant gaps in communication coverage and our people took measured risks.

**ACTION TAKEN/RECOMMENDATION:** The NCF Operations QMB should first review the scenarios that we need communication equipment to support. Then the Communications QMB should review the NCF communications suite and recommend appropriate adjustments to either the battalion TOA or consider purchasing an augment communications suite for each Brigade to support operations such as Honduras.

**g. PROBLEM/ITEM:** Using battalion mobility equipment for Regimental needs diluted the battalion effort and hindered Regimental operations.

**DISCUSSION:** The 22 NCR (FWD) had no TOA mobility equipment and needed to use HUMMVs and other equipment to conduct reconnaissance and command and control. The JTF provided two Ford Explorers to help; however, it was inadequate and a general lack of vehicle availability hindered Regimental operations and oversight. Likewise, the reduction of vehicles available to the battalion potentially hindered their ability; however, more typically the lack of sufficient communications gear reduced the number of convoys or details.

**ACTION TAKEN/RECOMMENDATION:** Review the Regimental TOA and ensure adequate people moving CESE is included.

**h. PROBLEM/ITEM:** Seabee ADP laptops were unreliable and did not reliably interact with the JTF LAN at Soto Cano AB.

**DISCUSSION:** It is unclear whether our ADP problems were associated directly with the laptops and/or their network cards. Some problems were directly attributed to the JTF-B LAN and server. Nevertheless, the end result was significant extra effort (with the associated frustration) for the staff to produce routine management reports and documents.

To support the Regiment, NMCB SEVEN, with Brigade concurrence, deployed with relatively new Hyperdata Laptops that had been delivered to Camp Moscrip in the September timeframe. These laptops had had some reliability problems at Moscrip and continued to have them in Honduras.

Some computer problems developed because of viruses. Floppies and attached files over the LAN were frequently used in order to distribute information between task force staff members, the NCR, and the battalion. Every user did not have the most current anti-virus software and viruses corrupted many files and damaged some computer software.

**ACTION TAKEN/RECOMMENDATION:** (1) Purchase and bring to the field only equipment that has previously demonstrated that it is reliable. (2) Every battalion needs to have the most current anti-virus software and an established SOP to first update it over the internet and then distribute the update to all users. (3) The Honduras operation reconfirmed that adding one or two ADP experts to the battalion billet structure is needed. Likewise, the Regimental staff needs at least one ADP expert to run their LAN and troubleshoot problems.

i. **PROBLEM/ITEM:** Lack of office equipment in the TOA, or to make available ASAP, hindered the ability of the 22 NCR (FWD) and battalion to carry out routine administrative tasks.

**DISCUSSION:** The battalion had no copiers and only one fax machine. Obtaining office supplies was far more difficult than expected as toner for our machines was not on the local economy. Obtaining approval for purchasing or leasing a copier was slow. The consequence was delayed administrative work and difficulty passing information from Soto Cano to San Pedro Sula.

**ACTION TAKEN/RECOMMENDATION:** Units should deploy with copiers and fax machines, along with a 45 day supply of toner and other supplies.

j. **PROBLEM/ITEM:** The 3000D water purification unit does not filter out bacteria and therefore, was inadequate for purifying local Honduran water.

**DISCUSSION:** In order to provide potable drinking water, NMCB SEVEN was required to request assistance from the 68 CSSD Marines. They provided a ROWPU.

**ACTION TAKEN/RECOMMENDATION:** The 95 Battalion TOA has a ROWPU versus the 3000D water purification unit. Working in



Honduras confirms that ROWPUs are far superior to the 3000D and without the ROWPUs it would have been difficult meeting all health and sanitation requirements to establish an FOB in San Pedro Sula.

**3. SOUTHCOM ENGINEER DISCUSSION ITEMS:** The following issues were addressed at a hot-wash meeting at SOUTHCOM headquarters in March 99:

**a. Issue:** What tasks should the Task Force Engineer Staff need to be trained on? What is the correct composition of a Task Force Engineer Staff?

**Comments:** Both deployable Seabee Naval Construction Regiments need civil and structural engineers assigned that have field experience with river crossings, bridging, and road construction. In some instances field engineering needs to be accomplished on an almost daily basis as conditions change. This was true for the Morazan to Yoro Road project and we would have made better progress if we had left design engineers on site to survey and design on demand. Drawings and sketches could not be provided for the entire project. In this instance, where distances prevented frequent visit by designers, assigning an experienced field engineer with the necessary design tools and references to the remote detail full time, in addition to a junior officer who ran the day to day operation, would have produced a better end result.

The primary lesson learned is it is best to deploy a heavy engineering staff initially and, once the operation reaches a steady state, to subsequently reduce staff as the situation allows. In addition, when the span of control is over a large area "double hatting" an operational unit with also providing engineering command and control may be too demanding and not produce optimum results.

**b. Issue:** Were there problems with interoperability between services? Did we assign the right unit(s) for each mission? Is it best to mix services to optimize capability? Do we have sufficient doctrine for when we do decide to operate jointly?

**COMMENTS:** (1) Seabee VHF Saber radios did not transmit to expected "field" distances due to urban development in the San Pedro Sula area. The most significant interoperability issue was the fact that Seabee Saber radios operated at a different frequency spectrum from the JTF-B Sabers and consequently could not take advantage of the repeater network which had been established over much of the country. Since Seabee TOA Sabers are "special purchase" radios from Motorola with a specific designed

frequency band non-Seabee radios do not necessarily have similar bandwidths. In this case, the Army repeater net was running outside of the Seabee Saber frequency range, making access impossible.

There was no other significant interoperability issue with the other services. Parts support was from either commercial sources or logistics flights. If Seabees had remained in country longer, spare part interoperability may have been more important.

(2) We believe the mix of units was appropriate for the mission. The vertical capacity of NMCB SEVEN was underutilized until disaster relief funds were used to purchase materials for HCA type projects.

**c. ISSUE:** What skills/equipment did units need more of? What should they have left behind?

**COMMENTS:** (1) Over-the-horizon communication equipment was not available in sufficient quantity. The current NMCB TOA focuses on VHF (line-of-sight) radio gear adapted for field use. HF radio functionality at short range was limited, possibly because of magnetic interference from ore deposits. To correct this we need to increase the number of TACSAT transceivers available to the NCF. Currently there are only two TACSAT transceivers in the TOA, so it is difficult to communicate with anyone other than higher headquarters.

(2) Based on actual mission tasking much of the battalion's equipment, such as cranes and waterwell equipment was not used. However, if the operation had continued or further expanded as originally expected more would have been used. Under the circumstances, the exact engineering missions could not be determined until additional assessments had been completed; therefore, mobilizing the additional equipment was the best decision under the circumstances.

**d. ISSUE:** Is there equipment that we should add to unit sets? Is our equipment sufficiently deployable? Is it supportable in theater?

**COMMENTS:** Except for communications gear and a ROWPU, NMCB SEVEN provided all equipment it needed to accomplish the mission. All equipment is fully deployable by either air or sea and is supportable in theater.

**e. Issue:** Were there problems with contracting and material procurement? How did we get materials and services? At what level of command should we have contracting officers?

**COMMENTS:** The 22nd NCR deployed with a CEC LT who had a \$1M construction-contracting warrant. However, it was determined that this Contracting Officer's skills were not compatible with the JTF-B Contracting Office's staff. Based on their knowledge of local contractors, once the 22nd NCR understood local administrative Contracting Office requirements, procurement of construction material, general parts and supplies, and a variety of services such as line haul was timely. The FOB in San Pedro Sula received contracting support from the Contracting Office in Soto Cano. An Army Contracting Officer was sent to San Pedro Sula for approximately four weeks, but did not have the authority to write or sign contracts, so this did not significantly improve the contracting process.

**f. ISSUE:** Do we have sufficient design capability? Is it at the right level?

**COMMENTS:** Sufficient design capability exists within The Army Corps of Engineers; Naval Facilities Engineering Command, Atlantic Division; or through Architect/Engineering firms. As stated in issue A above, placing design capability at remote locations would have improved productivity and efficiency. It should also be noted that this design capability is mostly through civilian (civil service or private) and consequently may not be readily available during a hot contingency.

**g. ISSUE:** Are units properly trained for the types of projects they performed in this deployment?

**COMMENTS:** NMCB SEVEN was properly trained to execute all tasked projects.

**h. ISSUE:** Were there are problems with support? Which items should be service responsibilities and which should be common user?

**COMMENTS:** During the establishment of the FOB in San Pedro Sula, initials delays with the local phone company were extensive and decreased efficiency. Other support problems included interruptions in cellular phone service, food delivery, and space requirements at the Port. The Civil Affairs support was outstanding in resolving these problems.

#### **4. HONDURAS EMBARK LESSONS LEARNED**

a. **EMBARK ISSUE & DISCUSSION:** The battalion worked through a shortage of pallets, dunnage, netting, and pallet bags during the embark to Honduras.

**RECOMMENDATION:** The lack of pallets, nets, dunnage and bags came from having to mount out part of the air echelon. The battalion is only required to maintain enough pallets, netting, dunnage, and bags necessary to mount out the TA-41.

b. **EMBARK ISSUE & DISCUSSION:** The battalion could have used additional equipment operators to upload the barge.

**RECOMMENDATION:** The battalion should use a minimum of 30-40 qualified operators to assist in the barge upload.

c. **EMBARK ISSUE:** Miscommunication among the crews.

**RECOMMENDATION:** Relocating the load planners, weight and balance, Hazmat, and pallet building crews to the airfield really enhanced the communication skills between the crews and provided a better quality product.

d. **EMBARK ISSUE & DISCUSSION:** **MOCC Watchbill.** All watches turning over at the same time without an adequate turnover caused some loss of continuity and communication between shifts.

**RECOMMENDATION:** For future embark evolutions, watches (Pallet builders, Hazmat, Weight and Balance, Load Planners, etc.) need to turnover at different time frames to assist maintaining continuity.

## DETAIL SOTO CANO

### SCV-001: CONSTRUCT SURGE CITY TENT CAMP

1. **General:** Project scope involved constructing one 500-man tent camp, with 50 berthing tents, two organic shower units and two laundry facilities permanently installed to base utilities, and 8 admin tents. ABFC galley facility was deleted.
2. **Direct Labor Expended:** NMCB SEVEN 1784  
Cumulative to Date: 1784
3. **Composition of Work Force:** 40-BU, 20-CE, 20-SW, 15-UT, 6-EO,  
2-CM
4. **Status of Project:**  
  
Start Date: 8 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 18 Dec 98
5. **Materials:** Materials were initially borrowed from Soto Cano contractor while awaiting COMSECONDNCB delivery of materials from Gulfport. 22NCR provided materials for organic facilities and NMCB SEVEN performed the material takeoffs and designs for all permanent utilities connections.
6. **Engineering:** Provided by 22 NCR (Fwd) and NMCB SEVEN.
7. **Problems:** Organic shower units were not ready for delivery to Honduras until 5 weeks after deployment.



**SCV-002: CONSTRUCT SPILLWAY AT RAMIREZ POND**

1. **General:** Project scope involved installation of 6 inch pipe with splashguard to divert Ramirez Pond overflow and prevent back-flooding of Joint Task Force Bravo berthing and office spaces.

2. **Direct Labor Expended:** NMCB SEVEN 55  
Cumulative to Date: 55

3. **Composition of Work Force:** 7-BU

4. **Status of Project:**

Start Date: 24 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 3 Dec 98

5. **Materials:** Materials procured by Joint Task Force Bravo.

6. **Engineering:** Design provided by 22<sup>nd</sup> NCR (Fwd).

7. **Problems:** None.





**SCV-003: CONSTRUCT DYNACORP FORD**

1. **General:** Project scope involved constructing a low water crossing with 24 inch concrete culverts spanning 35 meters.

2. **Direct Labor Expended:** NMCB SEVEN 232  
Cumulative to Date: 232

3. **Composition of Work Force:** 9-BU, 3-SW, 6-EO, 2-CM

4. **Status of Project:**

Start Date: 15 Nov 98  
WIP at Takeover 0  
WIP Percent at turnover: 100  
Completion Date: 30 Dec 98

5. **Materials:** Materials procured by Joint Task Force Bravo.

6. **Engineering:** Design provided by Army COE.

7. **Problems:** None.





**SCV-005: REPAIR FENCE AB PERIMETER**

1. **General**: Project scope involved completing fence repairs along the Soto Cano base perimeter.

2. **Direct Labor Expended**: NMCB SEVEN 159  
Cumulative to Date: 159

3. **Composition of Work Force**: 6-CM, 3-SW, 2-EO

4. **Status of Project**:

Start Date: 25 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 22 Dec 98

5. **Materials**: Materials procured by Joint Task Force Bravo.

6. **Engineering**: None.

7. **Problems**: None.



**SCV-008: CONSTRUCT HEAD FACILITIES FOR SURGE CITY**

1. **General:** Project scope included construction of a permanent 22' x 56' head facility with male and female sides, fourteen showers, fourteen sinks, eight latrines, and two urinals. Project turned over to base contractor at 50%, with roofing, interior plumbing, and electrical remaining.

2. **Direct Labor Expended:** NMCB SEVEN 181  
Cumulative to Date: 181

3. **Composition of Work Force:** 8-BU, 2-CE, 2-SW, 2-EO, 2-EA

4. **Status of Project:**

Start Date: 7 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 50  
Completed Date: 22 Dec 98

5. **Materials:** Materials procured by Joint Task Force Bravo.

6. **Engineering:** NMCB SEVEN based design and material take-off on building K-201 at Soto Cano base.

7. **Problems:** Construction was halted when overhead electrical lines were identified as a safety hazard during roof construction. A power outage to complete roof was not arranged while NMCB Seven was deployed due to scheduling conflict with Honduran power company.



**SCV-017: CONSTRUCT BRIDGE AT SW CORNER SOTO CANO AB**

1. **General:** Project scope included construction of an earthen bridge spanning 75 feet with two 60-inch metal culverts and sandbagged wingwalls.

2. **Direct Labor Expended:** NMCB SEVEN 292  
Cumulative to Date: 292

3. **Composition of Work Force:** 2-BU, 1-SW, 7-EO, 1-CM

4. **Status of Project:**

Start Date: 17 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 15 Dec 98

5. **Materials:** Materials procured by Joint Task Force Bravo.

6. **Engineering:** Design provided by 22 NCR(Fwd).

7. **Problems:** None.





**SCV-039: INSTALL 2 CLAMSHELLS AND PADS AT AIRFIELD**

1. **General:** Project scope involved relocation of two existing 16'x32' seahuts and demolition of CSP matting, ground preparation, placement of two concrete 80' x165' pads (645 CY), and installation of two clamshells aircraft storage facilities at the Soto Cano airfield.

2. **Direct Labor Expended:** NMCB SEVEN 560  
Cumulative to Date: 560

3. **Composition of Work Force:** 32-BU, 4-CE, 12-SW, 4-EO, 2-CM,  
2-EA

The work force was a joint effort between the Navy, Marines, and Air Force, with 7 personnel from NMCB SEVEN FOUR, 7 personnel from CSSD-68, and 2 civilian supervisors from Howard AFB in Panama.

4. **Status of Project:**

Start Date: 4 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 95  
Completed Date: Turnover

5. **Materials:** Concrete was procured by base and clamshells were delivered from Howard AFB in Panama.

6. **Engineering:** Howard AFB provided technical representatives during construction.

7. **Problems:** None.



**SCV-046: CONSTRUCT SEAHUTS FOR 228ARMY AT AIRFIELD**

1. **General:** Project scope to construct three seahuts for new helicopter squadron coming to Soto Cano. Project turned over to base contractor at 60 percent, with interior wallboard, doors, and finish electrical remaining.

2. **Direct Labor Expended:** NMCB SEVEN 57  
Cumulative to Date: 57

3. **Composition of Work Force:** 8-BU, 1-CE, 1-UT

4. **Status of Project:**

Start Date: 21 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 60  
Completed Date: 31 Dec 98

5. **Materials:** Materials procured by Joint Task Force Bravo for a total of 7 seahuts.

6. **Engineering:** Design based on existing base seahuts.

7. **Problems:** None.



**SCH-009: REPAIR SOTO CANO AB PERIMETER ROADS**

1. **General:** Project scope to regrade roads around perimeter of Soto Cano Air Base.

2. **Direct Labor Expended:** NMCB SEVEN 18  
Cumulative to Date: 18

3. **Composition of Work Force:** 4-E0

4. **Status of Project:**

Start Date: 9 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 15 Dec 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** None.

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**SCH-015: EXPAND HQ PARKING LOT**

1. **General:** Project scope to create gravel parking lot and culvert crossing with headwalls adjacent to HQ building at Soto Cano Air Base.

2. **Direct Labor Expended:** NMCB SEVEN 14  
Cumulative to Date: 14

3. **Composition of Work Force:** 2-BU, 3-E0, 1-CM

4. **Status of Project:**

Start Date: 23 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 12 Dec 98

5. **Materials:** Materials procured by Joint Task Force Bravo and delivered by Honduran workers.

6. **Engineering:** None.

**SCH-010: REPAIR SEWAGE TREATMENT FACILITY**

1. **General:** Project scope included pulling three sewage tanks out of the river and disassembling a metal bridge with wood planking that was knocked into the river during hurricane.

2. **Direct Labor Expended:** NMCB SEVEN 46  
Cumulative to Date: 46

3. **Composition of Work Force:** 4-EO

4. **Status of Project:**

Start Date: 15 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 7 Dec 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** None.

After Hurricane Mitch



After Tank Removal





**SCV-049: PREFABRICATE CRIBBAGE FOR 4 ACROW BRIDGES**

1. **General:** Project scope involved welding plate steel and steel tubing into base plates for acrow bridge and cutting cribbing timbers to size.
  2. **Direct Labor Expended:** NMCB SEVEN 40  
Cumulative to Date: 40
  3. **Composition of Work Force:**
  4. **Status of Project:**  
Start Date: 12 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 11 Jan 98
  5. **Materials:** Materials provided by base contractor.
  6. **Engineering:** Design provided by 22 NCR (Fwd).
  7. **Problems:** None.
- 

**SCH-011: EMBARK AT SOTO CANO**

1. **General:** Project scope included offloading aircraft and unloading, inventorying, and uncrating pallets and equipment.
2. **Direct Labor Expended:** NMCB SEVEN 431  
Cumulative to Date: 431
3. **Composition of Work Force:** 10-BU, 10-SW, 24-EO
4. **Status of Project:**  
Start Date: 6 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 0  
Completed Date: 14 Jan 99
5. **Materials:** N/A.
6. **Engineering:** N/A.
7. **Problems:** None.

**SCH-012: EXPAND HELICOPTER RAMP AT CHARLIE SOUTH**

1. **General:** Project scope included removing 400 feet of fencing and grading a 400 by 600 foot area. Grading was in anticipation of AM2 matting, which was never procured.

2. **Direct Labor Expended:** NMCB SEVEN 101  
Cumulative to Date: 101

3. **Composition of Work Force:** 1-BU, 4-EO

4. **Status of Project:**

Start Date: 15 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 25 Nov 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** None.



**SCH-013: REPAIR HELICOPTER TAXIWAY AT X-RAY AREA**

1. **General:** Project scope includes grading at X-ray area of Soto Cano airfield. NMCB SEVEN utilized a large magnet provided by Dyncorp to clear area of nails and debris. Subsequent grading of area followed.

2. **Direct Labor Expended:** NMCB SEVEN 2  
Cumulative to Date: 2

3. **Composition of Work Force:** 2-E0

4. **Status of Project:**

Start Date: 11 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 13 Nov 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** None.



**SCH-016: REINFORCE/RESTORE RIVER CHANNEL**

1. **General:** Project scope included restoration of Soto Cano Air Base river to original path before Hurricane Mitch. This included construction of a 90 foot berm and other erosion control measures.

2. **Direct Labor Expended:** NMCB SEVEN 88  
Cumulative to date: 88

3. **Composition of Work Force:** 10-EO, 2-CM

4. **Status of Project:**

Start Date: 10 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 30 Dec 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** None.

River Flowing through new Riverbed



Berm Constructed to Divert River to Original Path





**CH-022: GRADE SAN JERONIMO ROUTE**

1. **General:** Project scope included repairs to routes between the villages of Ajalteca and Manzana, Honduras.

2. **Direct Labor Expended:** NMCB SEVEN 22  
Cumulative to Date: 22

3. **Composition of Work Force:** 5-E0

4. **Status of Project:**

Start Date: 14 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 19 Nov 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** None.



**CH-020: IMPROVE CERO VOLCAN ROAD**

1. **General:** Project scope included regrading seven miles of roads and adding low water culvert crossings near Comayagua, Honduras.

2. **Direct Labor Expended:** NMCB SEVEN 27  
Cumulative to Date: 27

3. **Composition of Work Force:** 4-E0

4. **Status of Project:**

Start Date: 10 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: 16 Nov 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** None.



**CV-056: SAN JERONIMO SCHOOL REPAIRS AT LA UNION**

**1. General:** Project scope included roofing and miscellaneous repairs to two schools in La Union and San Jeronimo, Honduras.

**2. Direct Labor Expended:** NMCB SEVEN 60  
Cumulative to date 60

**3. Composition of work force:** 4-BU, 1-EA, 1-SW, 1-CE, 1-UT  
Joint effort with CSSD-68 Marines.

**4. Status of project:**

Start date: 21 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completion Date: 29 Dec 98

**5. Materials:** Materials were procured by Joint Task Force Bravo.

**6. Engineering:** None.

**7. Problems:** None.

**Before**

**After**





## SAN PEDRO SULA (FORWARD OPERATING BASE)

### NV-018: CONSTRUCT TENT CAMP AT SAN PEDRO SULA

1. **General:** Project scope involved erection of 48 berthing tents, 2 shower tents, and galley.
2. **Direct Labor Expended:** NMCB SEVEN 1043  
Cumulative to Date: 1043
3. **Composition of Work Force:** 9-BU, 4-CE, 1-SW, 5-UT, 2-EO,  
2-CM
4. **Status of Project:**

Start Date: 20 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 31 Dec 98

5. **Materials:** Materials procured by COMSECONDNCB. Locally procured materials were of poor quality and were difficult to obtain. Purchased local materials with cash under contracting arrangement by JTF-Bravo Contracting. This proved an invaluable asset to find and obtain local materials in a timely manner.

6. **Engineering:** Contingency Construction.

7. **Problems:** Elevation of camp site was low and prone to collecting water. Mud became a serious problem; eventually, the battalion was unable to operate MHE in the TOA storage areas.



**NH-042: REMOVE MUD AT LA LIMA**

1. **General:** Project scope was to remove debris throughout the town square.

2. **Direct Labor Expended:** NMCB SEVEN 118  
Cumulative to Date: 118

3. **Composition of Work Force:** 12-BU, 7-CE, 8-SW, 7-UT, 3-SK

4. **Status of Project:**

Start Date: 1 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 12 Dec 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** This project was undertaken because funds for vertical construction projects had not yet been made available. The purpose of the project was to develop additional "good will" and keep Seabees busy while vertical construction material and projects were coordinated.

**NV-052: IMPROVEMENTS AT JOSE ANTONIO PERASA SCHOOL**

1. **General:** Project scope involved painting interior/exterior walls and miscellaneous repairs.

2. **Direct Labor Expended:** NMCB SEVEN 47  
Cumulative to Date: 47

3. **Composition of Work Force:** 6-EO, 2-CE, 3-SW, 1-UT,  
3-EA

4. **Status of Project:**

Start Date: 8 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 29 Dec 98

5. **Materials:** Locally procured.

6. **Engineering:** None.

7. **Problems:** None.



**NV-053: IMPROVEMENTS AT PADRE CLARE SCHOOL**

1. **General:** Project scope involved painting interior/exterior walls and miscellaneous repairs.

2. **Direct Labor Expended:** NMCB SEVEN 68  
Cumulative to Date: 68

3. **Composition of Work Force:** 6-BU, 2-CE, 3-SW, 1-UT, 3-EA

4. **Status of Project:**

Start Date: 14 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 31 Dec 98

5. **Materials:** Locally procured.

6. **Engineering:** None.

7. **Problems:** None.

Making Shelves for the Classrooms



**NV-054: LA LIMA MEDICAL CLINIC**

1. **General:** Project scope involved miscellaneous plumbing and electrical repairs.

2. **Direct Labor Expended:** NMCB SEVEN 29  
Cumulative to Date: 29

3. **Composition of Work Force:** 2-CE, 2-UT

4. **Status of Project:**

Start Date: 14 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 20 Dec 98

5. **Materials:** Locally procured.

6. **Engineering:** None.

7. **Problems:** None.





**NV-055: PLANETA MEDICAL CLINIC**

1. **General:** Project scope involved plumbing and fixture repairs and new connection to a water main.

2. **Direct Labor Expended:** NMCB SEVEN 31  
Cumulative to Date: 31

3. **Composition of Work Force:** 4-CE, 3-UT, 2-EA

4. **Status of Project:**

Start Date: 17Dec98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 24 Dec 98

5. **Materials:** Locally procured.

6. **Engineering:** None.

7. **Problems:** None.  
Connecting to Water Main





**NH-050: GRADING AT BARACOA**

1. **General:** Project scope involved grading 5 miles with scrapers and grader at Baracoa.

2. **Direct Labor Expended:** NMCB SEVEN 47  
Cumulative to Date: 47

3. **Composition of Work Force:** 6-EO, 1-CM

4. **Status of Project:**

Start Date: 3 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 11 Dec 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** None.



**NH-051: GRADING AT BAJA MAR**

1. **General:** Project scope involved grading roads with scrapers and grader at Baja Mar.

2. **Direct Labor Expended:** NMCB SEVEN 121  
Cumulative to Date: 121

3. **Composition of Work Force:** 12-EO

4. **Status of Project:**

Start Date: 14 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 3 Jan 99

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** None.



## DETAIL MORAZAN

### NH-023: REPAIR ROADS AT LA GUACAMAYA

1. **General:** Project scope involved debris removal from town and diversion of the river around town.
2. **Direct Labor Expended:** NMCB SEVEN 185  
Cumulative to Date: 185
3. **Composition of Work Force:** 8-EO, 4-BU, 3-CE
4. **Status of Project:**  
  
Start Date: 13 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 25 Nov 98
5. **Materials:** None.
6. **Engineering:** None.
7. **Problems:** Muddy conditions hampered the efficiency of the cleanup project. The crew also encountered heavy rains that made the river redirection more difficult. Locals were enthusiastic and wanted to help, but local children would often interfere with construction efforts.



**NH-024: REPAIR ROAD FROM MORAZAN TO YORO**

1. **General:** Clear and make temporary repairs sufficient enough to reopen a 25km trade route.

2. **Direct Labor Expended:** NMCB SEVEN 99  
Cumulative to Date: 99

3. **Composition of Work Force:** 2-BU, 1-CE, 1-UT, 10-EO, 2-CM

4. **Status of Project:**

Start Date: 22 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 28 Dec 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** Design conditions changed daily due to weather conditions and local contractors.





**NH-043: REPAIR ROADS IN THE MORAZAN AREA**

1. **General:** Project scope involved removal mud and debris from Morazan to neighboring villages and within Morazan main roads.

2. **Direct Labor Expended:** NMCB SEVEN 736  
Cumulative to Date: 736

3. **Composition of Work Force:** 3-BU, 2-CE, 1-SW, 2-UT

4. **Status of Project:**

Start Date: 24 Nov 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 28 Dec 98

5. **Materials:** None.

6. **Engineering:** None.

7. **Problems:** None.



## DETAIL LA CEIBA

### NH-025: PREPARE CROSSING SITE AT RIO CONGREJAL

1. **General:** Project scope consisted of preparing a culvert crossing site and bridge abutments.
2. **Direct Labor Expended:**

NMCB SEVEN	524
Cumulative to Date:	524
3. **Composition of Work Force:** 8-EO, 5-BU, 1-UT, 1-CE, 1-EA.
4. **Status of Project:**  

Start Date:	29 Nov 98
WIP Percent at takeover:	0
WIP Percent at turnover:	100
Completed Date:	31 Dec 98
5. **Materials:** Locally procured; delivered on site.
6. **Engineering:** LANTDIV provided the drawings for the construction project.
7. **Problems:** When the project was nearly complete, the region experienced a period of rainfall equivalent to  $\frac{1}{2}$  of the water flow associated with Hurricane Mitch. The entire project was washed-out. Reconstruction efforts were being evaluated.





## DETAIL RIO HONDO

### SH-045: ERECT CULVERT CROSSING AT RIO HONDO

1. **General:** Project scope consisted of constructing a 150 ft. culvert crossing to provide a detour around a washed out bridge on a major trade route.

2. **Direct Labor Expended:** NMCB SEVEN 169  
Cumulative to Date: 169

3. **Composition of Work Force:** 22 Seabees, 8 Marines, 4 Honduran Army.

4. **Status of Project:**

Start Date: 4 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 19 Dec 98

5. **Materials:** Locally procured; delivered on site.

6. **Engineering:** LANTDIV provided the drawings for the construction project. No problems or discrepancies were encountered during the construction phase.

7. **Problems:** Communication was difficult due to the remote nature and topography of the site. The detail had extremely limited cell phone, TACSAT and Planet 1 phone capability. The nearest location for reliable cell phone service was 45 minutes away. Once construction was completed, the storage of excess materials was difficult. The detail relied on a local security officer to guard the materials once the detail relocated.

**SH-045: ERECT CULVERT CROSSING AT RIO HONDO**

During Construction



Completed Low Water Culvert Crossing



## DETAIL TALANGA

### SH-044: REPAIR CROSSING SITE AT TALANGA

1. **General:** Project scope consisted of constructing a 450 ft. culvert causeway to provide a detour around a washed out bridge along a major trade route.

2. **Direct Labor Expended:** NMCB SEVEN 282  
Cumulative to Date: 282

3. **Composition of Work Force:** 28 Seabees, 5 Honduran Army, 8 Marines.

4. **Status of Project:**

Start Date: 21 Dec 98  
WIP Percent at takeover: 0  
WIP Percent at turnover: 100  
Completed Date: 3 Jan 99

5. **Materials:** None.

6. **Engineering:** LANTDIV provided the drawings for the construction project. The original BM and design had underestimated the required span of the causeway. An additional 15 rows of culverts and supporting material was procured to complete the project.

7. **Problems:** Due to time constraints, once the additional culverts were ordered the detail began working 18 hour shifts/24 hours a day to complete the project on time. The detail was augmented with 8 Marines and utilized the Honduran security to aid in construction. Communication was only available via TACSAT and PLANET 1 Phone (call out only). At the end of the project, most mainbody repair parts and POLs had been pre-staged at the port for embark out. This required us to locally procure all support items including POLs.

**SH-044: REPAIR CROSSING SITE AT TALANGA**





## LABOR DISTRIBUTION SUMMARY

### DIRECT LABOR DISTRIBUTION SUMMARY FOR DETAIL ANDROS

MONTH	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98	TOTAL	AVE	%Total
DIRECT	186	300	316	324	256	0	0	0	1382		49%
INDIRECT	158	270	259	259	259	0	0	0	1204		42%
TRAINING	47	66	53	43	52	0	0	0	261		9%
TOTAL	391	636	628	626	567	0	0	0	2847		100%
#PERS	37	37	37	35	34	0	0	0		36	
#DL	27	27	27	25	24	0	0	0		26	
WORKDAYS	14	24	23	23	23	0	0	0	107		
% DL	48%	47%	50%	52%	45%	0%	0%	0%			49%
% EFF	44%	41%	45%	50%	41%	0%	0%	0%			44%

### DIRECT LABOR DISTRIBUTION SUMMARY FOR DETAIL GUANTANAMO BAY

MONTH	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98	TOTAL	AVE	%Total
DIRECT	303	759	657	590	588	0	0	0	2897		57%
INDIRECT	236	405	388	388	388	0	0	0	1806		35%
TRAINING	72	105	90	112	41	0	0	0	420		8%
TOTAL	611	1269	1135	1090	1017	0	0	0	5123		100%
#PERS	57	58	58	55	35	2	2	2		53	
#DL	42	43	43	40	20	0	0	0		38	
WORKDAYS	14	24	23	23	23	0	0	0	107		
% DL	50%	60%	58%	54%	58%	0%	0%	0%			57%
% EFF	46%	65%	59%	57%	114%	0%	0%	0%			64%

### DIRECT LABOR DISTRIBUTION SUMMARY FOR DETAIL JACKSONVILLE

MONTH	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98	TOTAL	AVE	%Total
DIRECT	196	346	342	349	281	332	285	85	2216		50%
INDIRECT	189	324	311	311	311	224	257	32	1958		44%
TRAINING	34	56	78	74	33	10	10	4	299		7%
TOTAL	419	726	731	734	625	566	552	121	4473		100%
#PERS	33	33	33	33	34	30	30	30		32	
#DL	21	21	21	21	22	20.5	20.5	20.5		21	
WORKDAYS	14	24	23	23	23	21	24	3	155		
% DL	47%	48%	47%	48%	45%	59%	52%	70%			50%
% EFF	59%	61%	63%	64%	49%	69%	51%	123%			61%





**DIRECT LABOR DISTRIBUTION SUMMARY FOR DETAIL MAYPORT**

MONTH	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98	TOTAL	AVE	%Total
DIRECT	105	179	234	254	257	224	180	50	1483		63%
INDIRECT	63	108	104	104	104	106	122	15	725		31%
TRAINING	19	16	70	29	19	0	10	2	165		7%
TOTAL	187	303	408	387	380	330	312	67	2373		100%
#PERS	18	18	18	20	20	19	19	19		19	
#DL	14	14	14	16	16	14.5	14.5	14.5		15	
WORKDAYS	14	24	23	23	23	21	24	3	155		
% DL	56%	59%	57%	66%	68%	68%	58%	74%			63%
% EFF	48%	47%	65%	61%	62%	65%	46%	102%			58%

**DIRECT LABOR DISTRIBUTION SUMMARY FOR DETAIL NORFOLK**

MONTH	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98	TOTAL	AVE	%Total
DIRECT	161	542	547	534	491	0	0	0	2275		58%
INDIRECT	173	297	285	311	311	0	0	0	1376		35%
TRAINING	60	66	33	75	64	0	0	0	298		8%
TOTAL	394	905	865	920	866	0	0	0	3949		100%
#PERS	45	45	45	44	40	2	2	2		44	
#DL	34	34	34	32	28	0	0	0		32	
WORKDAYS	14	24	23	23	23	0	0	0	107		
% DL	41%	60%	63%	58%	57%	0%	0%	0%			58%
% EFF	30%	59%	62%	64%	68%	0%	0%	0%			58%

**DIRECT LABOR DISTRIBUTION SUMMARY FOR DETAIL VIEQUES ISLAND**

MONTH	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98	TOTAL	AVE	%Total
DIRECT	49	188	120	150	92	0	0	0	599		26%
INDIRECT	213	365	349	349	349	0	0	0	1625		70%
TRAINING	11	21	15	20	20	0	0	0	87		4%
TOTAL	273	574	484	519	461	0	0	0	2311		100%
#PERS	22	22	22	22	34	2	2	2		24	
#DL	8.5	8.5	8.5	8.5	20.5	0	0	0		11	
WORKDAYS	14	24	23	23	23	0	0	0	107		
% DL	18%	33%	25%	29%	20%	0%	0%	0%			26%
% EFF	37%	82%	55%	68%	17%	0%	0%	0%			46%

**DIRECT LABOR DISTRIBUTION SUMMARY FOR MAINBODY**

MONTH	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98	TOTAL	AVE	%Total
DIRECT	589	1642	1745	3116	1406	8270	7461	290	24519		1061%
INDIRECT	4174	5913	5667	6650	7142	1800	1800	1800	34945		1512%
TRAINING	121	162	168	99	50	0	0	0	600		26%
TOTAL	4884	7717	7580	9865	8598	10070	9261	2090	60064		2599%
#PERS	379	317	317	374	408	535	535	535		425	
#DL	114	98	98	117	132	375	400	400		217	
WORKDAYS	14	24	23	23	23	10	24	3	144		
% DL	12%	21%	23%	32%	16%	82%	81%	14%			41%
% EFF	33%	62%	69%	103%	41%	196%	69%	21%			70%