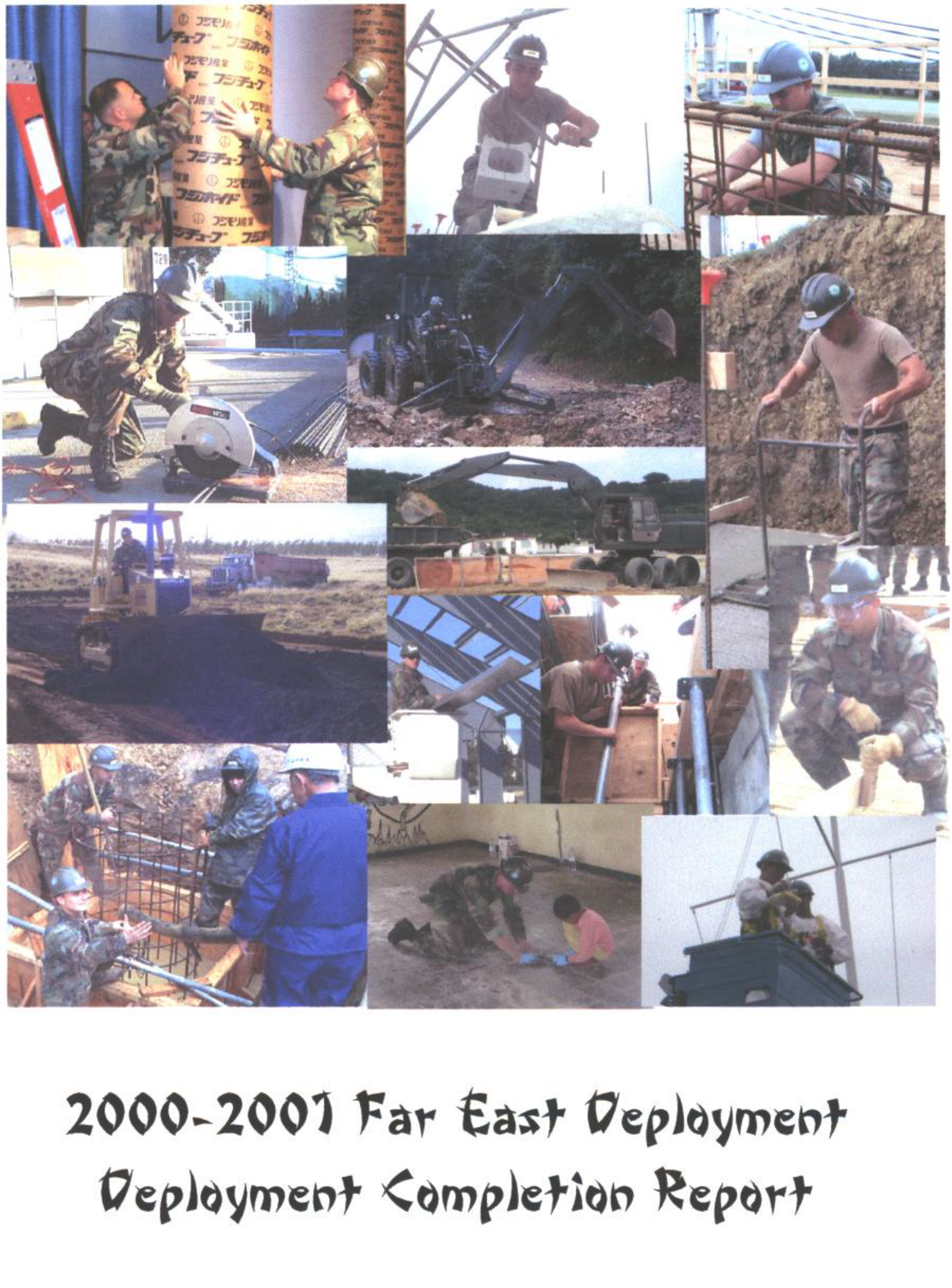
U.S. Naval Mobile Construction Battalion FOUR



2000-2001 Far East Deployment

Deployment Completion Report

DEPARTMENT OF THE NAVY

U.S. NAVAL MOBILE CONSTRUCTION BATTALION FOUR
UNIT 25284
FPO AP 96601-4941

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From: Commanding Officer, U.S. Naval Mobile Construction Battalion FOUR
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Subj: SUBMISSION OF DEPLOYMENT COMPLETION REPORT

Ref: (a) COMSECONDNCB/COMTHIRDNCBINST 3121.1A (draft)
(b) OPERATION ORDER FOR NMCB FOUR (Okinawa Deployment) dtg 100800Z SEP 01

Encl: (1) NMCB FOUR Deployment Completion Report

1. Per reference (a), enclosure (1) is forwarded.

2. Per reference (b), NMCB FOUR deployed to Okinawa, Japan from 4 October 2000 to 15 May 2001. NMCB FOUR deployed details to mainland Japan sites at Atsugi, Iwakuni, Sasebo, and Yokosuka and to Korea sites at Pohang and Chinhae. NMCB FOUR also deployed seven Deployments for Training (DFTs) to Korea (support during Exercise Foal Eagle), Fuji, Hawaii, Sasebo (Water Well), East Timor, Alaska and Blount Island.

S. M. WIRSCHING

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NMCB SEVEN
NMCB SEVEN FOUR

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CHAPTER I- EXECUTIVE SUMMARY

Administrative: The Administrative and Special Staff provided exceptional support to the Battalion's mainbody, six details and seven DFTs during the 2000 Okinawa Deployment. While tracking and supporting over 600 personnel in the Battalion, a wide array of personnel, retention, public affairs, medical, dental, SCWS, educational, MWR, embarkation, legal, and drug and alcohol abuse prevention services were offered. Battalion operations were significantly enhanced through the diligent efforts of all NMCB FOUR support personnel.

Training: NMCB FOUR performed over 5,800 mandays of physical, tactical and general military training. The military training consisted of tactical and defensive measures, classroom and practical application provided by the several Marine units on the island. A four-day Field Exercise (Kennel Bear-01) was held at the Central Training Area, Okinawa, following a week of classroom instruction. During this exercise, both USMC advisors and 3NCB evaluators expressed commendatory remarks for outstanding tactical execution up and down the chain of command. Four Command Post Exercises were executed during deployment, along with several rifle and pistol qualification ranges. Communication Exercises were performed throughout the deployment with significant improvement by the end of the deployment. The deployment's military training included one week of training for 50 Seabees at the Jungle Warfare Training Center. The training improved the attendees' small unit leadership, tactics and integrity and included patrols, land navigation, mines and booby traps, hasty and free rappelling. The training culminated with a squad integrity endurance course.

Operations: NMCB FOUR completed over 32,800 mandays of quality construction and repair projects for customers throughout the Pacific during the 2000 Okinawa Deployment. Operational highlights at the Okinawa Mainbody site included construction of a seawall at Camp Schwab, a retaining wall at White Beach and a Fitness Center at Kadena Air Base.

Construction on the Detail sites was superb, as well. The Range Cover at Detail Atsugi and ball field at Detail Chinhae were high visibility MWR projects. Construction Electricians at Detail Iwakuni gained valuable experience in Transformer Replacement projects. Detail Pohang helped construct a P-3 Exercise Facility which will be used for various exercises held in the Republic of Korea throughout the year. Detail Sasebo demolished outdated Ordnance Facilities and constructed PEBs for Ordnance in their place. A PEB was constructed at Detail Yokosuka as well, for office spaces. These projects and several others highlighted a highly successful Far East Deployment.

The DFTs called upon were a highlight during the deployment. Despite challenges placing concrete in snow and extremely cold weather, the Armory Expansion at DFT Fuji was highly successful. Other DFTs ranged from Sasebo, Japan, where water wells were drilled, to Blount Island, Florida, where the Seabees helped with ship trials. The DFT to East Timor was very rewarding where Seabees helped to rebuild communities as the new nation asserts independence. DFTs Alaska, Foal Eagle and Hawaii all displayed the high quality of construction expected of Seabees.

Supply and Equipment: The 2000 Okinawa Deployment proved to be successful for the Supply Department. A deployment highlight was when the 3rd Naval Construction Brigade inspectors named the NMCB FOUR galley as the best in the Naval Construction Force. The 782/Infantry Gear warehouse also received high accolades from inspectors. Despite ongoing renovations in the Camp Shields BEQ, suitable berthing arrangements were made for all junior personnel. NMCB FOUR also made great advances in disbursing. Extensive material support was provided to the detail sites. These and other services offered by Supply were key elements in the success of the Deployment.

CHAPTER II- ADMINISTRATION

Advancements:

	Sep 00 Advancements to…		
	E4	**E5**	**E6**
Time in Rate Eligible	86	121	42
Participated	74	117	38
Advanced	61	34	11
Success Rate (Participants Only)	82%	29%	29%

	Mar 01 Advancements to…		
	E4	**E5**	**E6**
Time in Rate Eligible	86	128	35
Participated	83	127	33
Advanced	58	43	7
Success Rate (Participants Only)	70%	34%	21%

Retention: NMCB FOUR's retention continues to improve. During the Battalion's INDOC training, new Battalion members were briefed extensively on the detailing process, the enlisted assignment system and important personnel factors such as EAOS and PRD as well as special programs such as Guard 2000.

To focus attention on Seabees at detail sites, the Command Career Counselor made 3 det swings with the Commanding Officer and Command Master Chief. While on det swings, one-on-one contact was established and interviews were conducted with Seabees. While still at the detail site, the CCC contacted detailers to negotiate orders and coordinate re-enlistments. On at least two occasions, wavering Seabees were influenced by the presence of the CO, CMC and CCC and re-enlisted with follow-on orders before the trio left the det site.

CUCM(SCW) Howk, the head Seabee detailer, made a visit to Camp Shields and interviewed 32 Seabees over the course of 3 days. Because his visit coincided with a training Saturday, he visited several companies during the morning GMT time to make his retention pitch to individual companies. Additionally, he spoke to the battalion's khaki about Seabee retention and career progression.

The Battalion increased its participation in a monthly retention team meeting involving the XO, CMC, CCC and representatives from each company. These meetings addressed retention initiatives and reviewed the status of Seabees approaching their EAOS.

Another successful innovation established during the Okinawa deployment was sending personnel to TAP class 14 months (as opposed to 6 months) in advance of their EAOS. The majority of attendees (approximately 70%) have returned from TAP class to re-enlist after learning the pros and cons of both military and civilian life.

	Eligible	Not eligible	Reenlisted
1st Term	50	11	26
2nd Term	07	00	06
Career	10	00	10

Medical: The Battalion Medical Department provided quality and compassionate medical support and consultation to the mainbody as well as details and DFTs throughout the Pacific. A Medical Officer, one HMC, two HM1s, four HM2s and two HM3s provided medical support to more than 400 Mainbody Seabees. An HM1 IDC was deployed to the Detail site in Pohang, Korea, for the entire deployment. Ensuring the Battalion's readiness and good health, the Medical Department treated over 2,200 personnel

during sick call, administered 950 vaccinations, performed 340 audiograms and completed 85 physical exams.

The Medical Department's efficiency was optimized by an aggressive immunization tracking program (SAMS 8.2) and with the establishment of computer access (CHCS) to Okinawa's Naval Medical Clinic for lab results, electronic pharmacy, radiology and specialist consult requests. As a result of aggressive tracking and follow-up, mandatory DNA testing compliance exceeded 95%. This milestone was a 10% improvement over pre-deployment numbers. The medical department also sponsored a Mainbody SHOT-EX to administer over 384 PPD tests and 420 flu vaccines. An HM2 joined the Operations Officer on a det swing, visiting Atsugi, Iwakuni, Sasebo and Yokosuka to perform medical records verifications, administer overdue immunizations and liaison with the local medical facilities for preventive health and medical issues. Through these various efforts, medical readiness reached an all-time high of 94%.

Additionally, the Medical Department initiated a new program in which battalion members with chronic medical issues requiring extended periods of light duty were given the opportunity to train and rehabilitate under close supervision and monitoring during battalion physical training periods. This program was managed by HM2s and was successful in reconditioning recovering patients in preparation for the Spring PFA.

The Medical Department further contributed to the Battalion's readiness by providing a significant amount of medical training that included First Aid, INDOC, HIV/AIDS/STDs and CPR. The medical staff also trained aggressively on deployment. One corpsman received his Audiometric Certification for hearing conservation, one corpsman successfully completed Pre-hospitalization Trauma Life Support training and another corpsman maintained his CPR Instructor qualification. The medical officer was re-certified in Advanced Cardiac Life Support (ACLS) and seven corpsmen were re-certified Class C CPR. Two corpsmen attended the weeklong Jungle Warfare Combat Trauma Management at Okinawa's Jungle Warfare Training Center in addition to the CHART course, a weeklong course geared at humanitarian effort organization.

Medical also coordinated three very successful blood drives that collected over 110 total pints of blood.

Dental: The Dental Department, consisting of one Dental Officer and two DT3s, was responsible for the Battalion exceeding the Navy's dental readiness goal of 95%. During the deployment, Dental raised expectations by maintaining Battalion dental readiness at or above 99%. This high state of readiness was achieved through careful pre-deployment planning efforts: Class III patients were seen and completed and detail personnel were deployed at 100% dental readiness. Dental also raised the Dental Health Index (DHI) of the Battalion from 50% to 59%. The DHI reflects the percentage of the Battalion that has no dental needs and will not require dental treatment within the next year. This was achieved by providing over 200 cleanings and educating patients on proper oral health care. Dental treated over 600 main body personnel, providing over 2,500 dental procedures throughout the deployment, including over 200 annual exams.

The Dental Department was also responsible for maintaining an accurate database recall system known as the Dental Management Information System (DENMIS). Patient reports were generated for all Battalion personnel identifying those individuals requiring their annual dental exam. By projecting appointment requirements ahead one month, unprecedented dental readiness was maintained.

The Dental Officer stood duty at the clinic on camp, providing support to the Seabees for after-hours emergencies. The DTs stood duty in rotation with the medical personnel as duty corpsmen. During FEX (Kennel Bear-01), the Dental Department assisted medical personnel in the operation of the Battalion Aid Station (BAS), treating actual emergencies. Dental personnel also assisted with simulated battle wounds, ranging from minor burns to "expectant" casualties. The Dental Officer provided triage support.

The Dental Department established good rapport with the 3rd Dental Battalion/U.S. Naval Dental Center Okinawa and U. S. Naval Hospital Camp Lester dental departments, allowing more complex treatment in the areas of oral surgery, periodontics, endodontics, and prosthetics. A Memorandum of Understanding (MOU) was established for receipt of supplies and equipment maintenance through the 3rd Dental

Battalion. This agreement ensured an adequate availability of dental supplies and equipment for the Battalion. Requests for dental funds were submitted to 3NCB for approval via the PACFLT NCF Dental Officer. The quarterly OPTAR of $2500 was efficiently used to keep the clinic stocked with consumable materials used for patient care. Third Dental Battalion repair technicians installed two new dental treatment units and a new radiograph machine after renovations to the clinic were completed by Bravo Company. The 3rd Dental Battalion also agreed to add Camp Shields' dental equipment to their preventive maintenance registry system (BIOFAX), and handle all minor repairs.

CHAPTER III- SAFETY

SAFETY SUMMARY

	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total
Fatalities	0	0	0	0	0	0	0	0
# Lost Work Days	0	0	0	0	0	0	0	0
# Lost Day Cases	0	0	0	0	0	0	0	0
# Light Duty Days	80	158	70	159	113	93	60	733
# Light Duty Cases	8	12	9	11	11	5	6	62
# First Aid Mishaps	0	8	9	13	12	6	7	55
#Govt Vehicle Mishaps	4	3	8	1	3	7	2	28
Total Number Mishaps	14	23	26	25	26	20	16	150
Govt Vehicle Repair Costs	$ 100	$ 131	$ 960	$ 23	$ 700	$ 3,516	$ 61	$ 5,491
Govt Vehicle Miles Driven	27,858	38,345	43,513	49,321	57,046	55,232	51,721	323,036

ON-DUTY MISHAPS

	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total
First Aid Mishaps	0	6	3	9	9	5	7	39
Cases Light Duty	3	6	6	7	6	4	3	35
Light Duty Days	35	94	32	110	68	79	24	442
Cases Lost Work Days	0	0	0	0	0	0	0	0
Lost Work Days	0	0	0	0	0	0	0	0
Fatalities	0	0	0	0	0	0	0	0

OFF-DUTY MISHAPS

	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total
First Aid Mishaps	0	2	6	4	3	1	0	16
Cases Light Duty	5	6	3	4	5	1	3	27
Light Duty Days	45	64	38	49	45	14	36	291
Cases Lost Work Days	0	0	0	0	0	0	0	0
Lost Work Days	0	0	0	0	0	0	0	0
Fatalities	0	0	0	0	0	0	0	0

CHAPTER IV- TRAINING

Physical Training: The physical training program underwent major improvements during deployment. On the Physical Fitness Assessment administered in Nov 00, 39 Battalion personnel failed due to either body composition or PRT scores. A team was commissioned by the Executive Steering Committee to study the Battalion's PT program. After a few weeks of regular meetings, the team presented recommendations to ESC. Many of these recommendations were soon implemented. They included:

1. Assigning every member of the Battalion into one of 4 running groups based upon 1.5 mile run times,
2. Intensifying the Fitness Enhancement Program (FEP),
3. Varying exercises at morning calisthenics to provide isolate muscle groups and reduce injury risk,
4. Performing optional aerobics every Friday morning,
5. Exercising injured personnel using personalized regimens developed by the medical officer and closely supervised by the duty corpsman and
6. Providing fun events, such as a Hash House Harriers-style mystery running trail, periodically.

The success of the program was obvious following the Apr 01 PFA. Only 5 personnel failed the PFA and the percentage of personnel scoring Outstanding increased from 5% to 10%.

Military Training: Military training was based on practical application of Seabee Combat Warfare (SCW) skills. The curriculum consisted of defense, land navigation, convoys, patrolling, CBR/first aid, communications, and weapons. Lead instructors were subject matter experts or SCW qualified personnel from within the battalion. These instructors organized and led a staff to execute the training for each of the seven topics.

In the field, military training consisted of tactics, defensive measures, and practical application provided by the Headquarters Battery/3rd Battalion/12th Marines, Alpha Company/3rd Recon Battalion, 2nd Battalion/3rd Marines, and 3rd Marine Division. Equipment support interspersed throughout training came from 9th Engineer Support Battalion and 7th Communications Battalion. A four-day Field Exercise (Kennel Bear-01) was held at the Central Training Area, Okinawa, following a week of classroom instruction. During this exercise both USMC advisors and 3NCB evaluators expressed commendatory remarks for outstanding tactical execution and leadership up and down the chain of command.

Following Kennel Bear-01, a one-day Khaki Tactical Exercise Without Troops (TEWT) in the Central Training Area reinforced tactical knowledge by emphasizing terrain appreciation and land navigation principles. Four Command Post Exercises (CPXs) were executed during deployment, along with five rifle and five pistol ranges. One hundred forty-one Seabees qualified on the M-16 and 40 qualified on the M9 pistol prior to homeport training.

The deployment's military training included a one-week Jungle Warfare Training Course sponsored by the Jungle Warfare Training Center and attended by 50 Battalion personnel. The focus of training was improving small unit tactics and integrity and included patrols, land navigation, mines and booby traps, hasty and free rappelling, and concluded with a squad integrity endurance course.

Near the end of the deployment, the Battalion conducted Battle Skills Demonstrations that focused on Comm utilization and first aid. These demonstrations evaluated the effectiveness of the training program, as well as ability of the individual Seabees to perform various combat skills. Additionally, NMCB FOUR participated in an island-wide, week-long force protection exercise.

Leadership and In-Rate Saturation Training: The Battalion sent 40 personnel to Leadership Continuum Mobile Training Team classes offered through Commander Fleet Activities Okinawa. All members successfully completed the training in order to be promoted to the next requisite paygrade.

In an effort to increase advancement, NMCB FOUR conducted In-Rate Saturation training. This mandatory training, held on training Saturdays, emphasized the critical skills that Seabees need to succeed on Navy advancement exams. Most rates within the Battalion were assigned Subject Matter Experts (SME) to coordinate and conduct training. Less common rates, such as RP and ET, were allowed to participated in rate-training with other Okinawa commands. Training focus areas, common to all rates, included study skills, test taking skills and mathematics fundamentals. Additionally, several rates held voluntary, after-hours rate training for the duration of deployment.

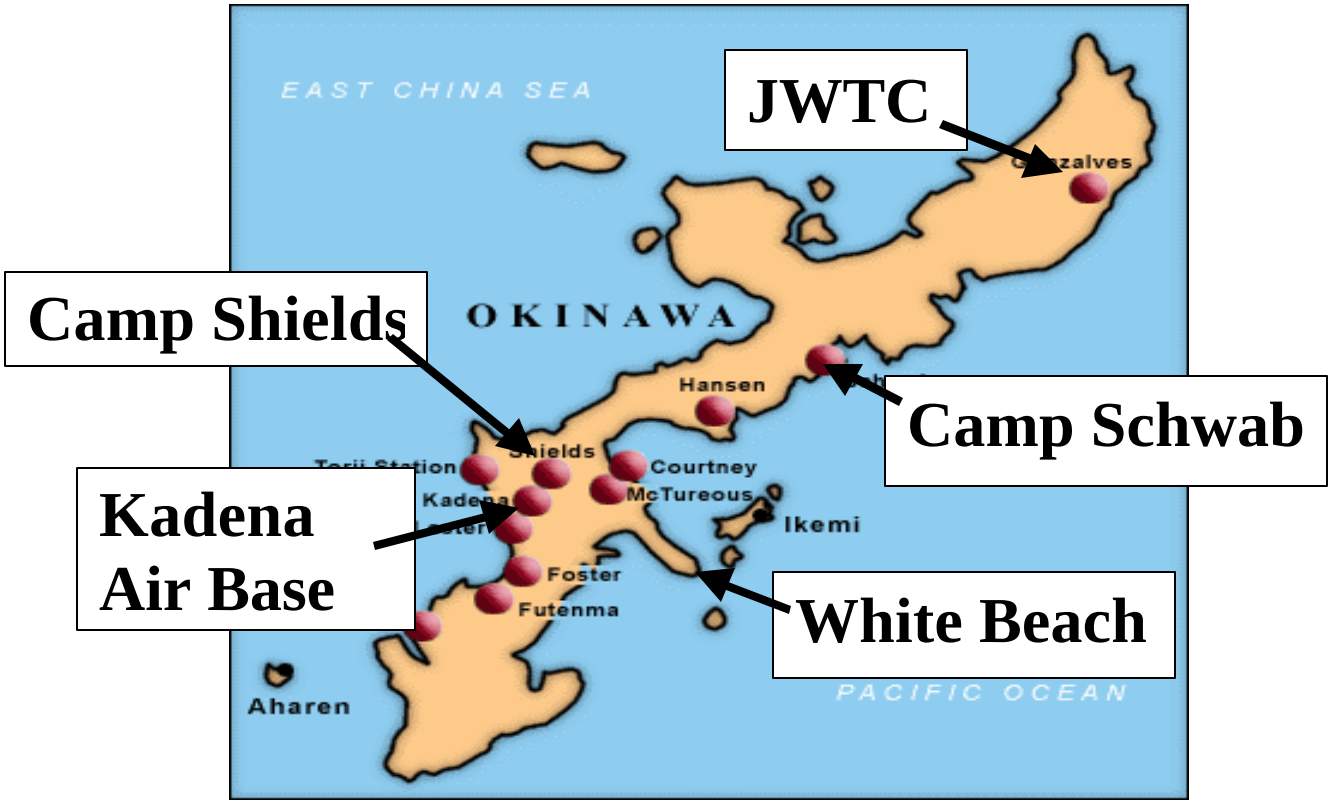
SCWS Program: The Battalion incorporated hands-on SCW training into the deployment training days, orienting Personnel Qualification Standards (PQS) into seven different areas: Land Navigation, Convoys, Defense, Weapons, Communications, Chemical Biological and Radiological, and First Aid. By the end of the deployment, each Seabee had the opportunity to obtain all training and signatures required to complete PQS requirements. A remarkable 96% of NMCB FOUR Seabees are either enrolled in the SCW program or qualified as Seabee Combat Warriors. The Battalion qualified 158 Seabees, exceeding its goal of 150 Seabees, during the 7-month deployment.

	Assigned	Previously Qualified	Qualified on Deployment	Total Qualified at End of Deployment
E1-E6	554	132	131	234
E7-E9	34	36	18	22
O1-O5	21	8	9	15
			158	271

Note: Previously Qualified and Qualified on Deployment do not sum to Total Qualified due to transfer of qualified personnel during deployment.



MAINBODY
OKINAWA, JAPAN





Left: The crew places concrete for the building footers.

Below: Quality Control Representatives inspect the Hazmat Facility following an overhead placement and during door installation.

CONSTRUCT HAZMAT STORAGE FACILITY, JWTC JK0-843

The Hazmat Storage Facility at the Jungle Warfare Training Center (JWTC), Okinawa was constructed to replace the current storage facility in order to comply with current governing regulations. The project, completed by NMCB FOUR, presented many challenges and logistics problems due to the site's remote location and jungle environment.

Project Data

Personnel:	5 personnel
Duration:	October 2000 – April 2001
Mandays:	330
Material Cost:	$ 23,604
Cost Savings:	$ 115,500
Specifications:	Construct a 10-foot by 20-foot Hazmat Storage Facility at JWTC. The work included demolition of an existing concrete slab and placing of reinforced concrete for footers, columns, and an overhead concrete roof. The walls were constructed of concrete block with a metal door entrance.

Left: NMCB FOUR Seabees at JWTC place select fill for u-ditches on the perimeter road enhancement project.

Below: Seabees place base coarse materials for u-ditches at JWTC.

UPGRADE CAMP AND PERIMETER ROADS, PHASE III, JWTC JK0-844

The completed third phase of the perimeter road project at the Jungle Warfare Training Center (JWTC) was a continuation of an on-going Seabee project to provide road improvements to support military training in the jungle environment of northern Okinawa.

Project Data

Personnel:	9 personnel
Duration:	December 2000– April 2001
Mandays:	676
Material Cost:	$ 74,003
Cost Savings:	$ 236,600
Specifications:	Construct 1,600 linear feet of 15-foot wide road to include precast u-ditch and soil stabilization and catch basins.

Left: Seabees at White Beach place a leveling pad for the retaining wall footer.

Below: The Retaining Wall after 7 courses of Kenchi block had been placed.

CONSTRUCT RETAINING WALL
JK3-808

A retaining wall and u-ditch at White Beach, Okinawa, is being installed to improve soil stabilization on the steep hill above the White Beach port facility. The installation of u-ditch and the drainage system will assist in storm water management. The crew was challenged by the requirement to work around existing overhead power lines that will be replaced by a future contract. This project was delayed due to the discovery of an archaeological site on the location of the wall. NMCB FOUR started the project and turned it over to NMCB FIVE at 43%.

Project Data

Personnel:	11 personnel
Duration:	October 2000 – December 2001
Mandays:	1,347 (579 by NMCB FOUR)
Material Cost:	$ 317,556
Cost Savings:	$ 471,450 ($ 202,650 by NMCB FOUR)
Specifications:	Construct a 500 foot long retaining wall varying in height from 10 feet to 16 feet and comprised approximately 12,000 decorative Japanese Kenchi block. Place 750 feet of u-ditch running along the top and bottom of the retaining wall and connect it to an existing v-ditch. Install 100 feet of electrical conduit for future underground utilities under the wall footing.

Left: Removal of existing asphalt along First Street, Camp Shields.

Bottom: Removal of asphalt across from the medical department.

REPAIR/REPLACE PAVEMENT, FIRST STREET JK3-814

This project completed repairs to First Street on Camp Shields. NMCB FOUR was tasked to replace a low section of the project that was not draining properly. NMCB FOUR inherited the project from NMCB SEVEN FOUR at 90%.

Project Data

Personnel:	13 personnel
Duration:	June 2000 – April 2001
Mandays:	1175 (118 by NMCB FOUR)
Material Cost:	$ 9,680
Cost Savings:	$ 411,250 ($ 41,300 by NMCB FOUR)
Specifications:	The project scope consisted of demolition, new asphalt paving and soil restoration with seed placement.

Left: Seabees place wall girders, beams and the roof during an overhead concrete placement.

Below: Building exterior prior to turnover with NMCB FIVE.

CONVERT EAST WING, BLDG. 3597, TO FITNESS CENTER JK6-864

This project provided a concrete- framed CMU block building addition to serve as a fitness center for Commander, Fleet Activities Okinawa. This converted facility will allow CFAO personnel at Kadena Air Base convenient access to a weight room, cardiovascular room and bathroom with showers. This project was technically challenging project and included a complicated overhead concrete pour and installation of a fire alarm system. NMCB FOUR inherited the project from NMCB SEVEN FOUR at 42% and turned it over to NMCB FIVE at 80%.

Project Data

Personnel:	15 personnel
Duration:	February 2000 – August 2001
Mandays:	2,637 (1002 by NMCB FOUR)
Material Cost:	$ 362,360
Cost Savings:	$ 922,950 ($ 350,700 by NMCB FOUR)
Specifications:	Construct an addition to an existing block building. Install rough and finish plumbing for the hot and cold water supply distribution system and drainage. Install rough and finish electrical. Place 1,500 units of CMU block. Install 327 square meters of concrete roof slab with reinforcing steel. Install 3 air conditioning units with concrete pads. Install ceramic wall tile, carpeting, floor carpet, acoustical ceiling tile and drywall ceilings.

Left: A crewmember mixes mortar and installs curb block at the PSC site.

Below: Seabees excavate drainage for parking lot at the Commander, Fleet Activities, Okinawa complex.

REPLACE PAVEMENT, PSC
JK7-881

This project will upgrade paved areas and utility systems for the Commander, Fleet Activities Okinawa complex on Kadena Air Base. The project includes replacement of an existing above ground utility system vulnerable to typhoon damage and will increase electrical capacity with the installation of a new pad-mounted 300 kW transformer. Two parking lots will be replaced, and storm drain systems will be added. NMCB FOUR inherited the project from NMCB SEVEN FOUR at 70% and turned it over to NMCB FIVE at 97%.

Project Data

Personnel:	11 personnel
Duration:	March 2000– June 2001
Mandays:	3,313 (861 by NMCB FOUR)
Material Cost:	$ 247,707
Cost Savings:	$ 1,159,550 ($ 301,350 by NMCB FOUR)
Specifications:	Phase I consists of demolition, repair and construction of new asphalt paving and electrical utilities, construction of new asphalt paving, new electrical utilities, new storm drainage, new curb/gutter and sidewalks, soil restoration and sod placement. Phase II consists of constructing two surface inlets, curb and gutter inlets, new storm drainage and asphalt removal and replacement.

Left, Below: Seabees from NMCB FOUR and NMCB FIFTEEN place RST for an overhead concrete placement.

CONSTRUCT PAVILION, WHITE BEACH
JK8-804

The 32-foot by 20-foot picnic pavilion is being installed next to the single sailor's facility at White Beach, Okinawa. The project is a complete concrete structure consisting of footers and grade beams, concrete columns and a concrete overhead roof. The crew was challenged with the intricate form and steel designs required to install the concrete overhead hip roof. NMCB FOUR and NMCB 15 started the project and turned it over to NMCB FIVE at 80%.

Project Data

Personnel:	8 personnel
Duration:	March 2001 – June 2001
Mandays:	369 (150 by NMCB FOUR)
Material Cost:	$ 18,961
Cost Savings:	$ 129,000 ($ 53,000 by NMCB FOUR)
Specifications:	Construct a 32-foot by 20-foot picnic pavilion to include concrete footers and grade beams, a 6-inch floor slab, six 1-foot by 1-foot concrete columns and a overhead concrete hip roof. Install a French drain around the slab under the drip edge of the roof and finish with two concrete ramps on each end of the structure.

Left: Seabees install 8" PVC pipe inside shoring at the White Beach sewer repair site.

Below: An NMCB FOUR equipment operator removes shoring from the sewer line trench.

REPLACE SEWER LINE, WHITE BEACH
JK8-806

This project is the replacement of a sewer line along Halsey Road at White Beach port facility. When completed, the new 8-inch sewer line will service several White Beach facilities, including the gift shop and the headquarters building. NMCB FOUR inherited the project from NMCB SEVEN FOUR at 3% and turned it over to NMCB FIVE at 45%.

Project Data

Personnel:	10 personnel
Duration:	February 2000 – November 2001
Mandays:	2,143 (900 by NMCB FOUR)
Material Cost:	$ 89,730
Cost Savings:	$ 750,050 ($ 315,000 by NMCB FOUR)
Specifications:	Install 1,200-feet of 8-inch sewer line. Install 9 manholes and remove the existing sewer line. Site work includes trenching, shoring, placing sand base, backfilling, and restoring roads to previous condition. Concrete work includes placing slabs for manholes and trenches. Mechanical work includes pipe installation, manhole installation, tie-in of existing mains and tie-in of lateral lines.

Left: The crew places concrete for the eight catch basins.

Below: Seabees install WWF, tie wire and place high chairs under welded wire fabric preparing for a concrete pad placement at a White Beach staging area.

PAVE STAGING AREA #3
JK9-825

This project, started and completed by NMCB FOUR, provided 20,000 square feet of concrete staging area at Commander, Fleet Activities Okinawa's White Beach port facility. It will serve as a vehicle and equipment staging area for visiting amphibious ships.

Project Data

Personnel:	12 personnel
Duration:	October 2000 - May 2001
Mandays:	1,000
Material Cost:	$ 216,712
Cost Savings:	$ 350,000
Specifications:	The 100-foot by 200-foot concrete pad consists of eight smaller pads. Additionally, a drainage system comprising eight catch basins and associated piping empty into an existing storm drain system.

Left: NMCB FOUR sets forms for concrete. Forms to the left are ready to be stripped.

Below: The crewleader inspects the massive steel forms in place during concrete pour.

EXTEND SEAWALL
JK9-826

This project at Camp Schwab, Okinawa, will extend an existing seawall and add u-ditch storm drains to improve soil stabilization and beach erosion near the base chapel. Varying tides and environmental considerations constantly challenged the project crew. NMCB FOUR started the project and turned it over to NMCB FIVE at 29%.

Project Data

Personnel:	14 personnel
Duration:	October 2000 – November 2001)
Mandays:	2,618 (759 by NMCB FOUR)
Material Cost:	$ 450,036
Cost Savings:	$ 916,300 ($ 265,650 by NMCB FOUR)
Specifications:	Construct a 500-foot long sea wall at a height of 4.5 meters with a 1,500 millimeter radius at the upper half for wave re-direction. Place a total of 1,200 cubic yards of concrete using metal wall forms. Install weep holes in the forms. Place 500 feet of u-ditch running along the topside of the seawall. Backfill and compact behind the wall and landscape around the project site.

Left: A Seabee extends u-ditch to meet new catch basins at JWTC's Perimeter Road.

Below: An NMCB FOUR Mainbody crew compacts JWTC's Perimeter Road and places pre-cast u-ditch.

UPGRADE CAMP AND PERIMETER ROADS, PHASE II
JK9-831

The completed second phase of the perimeter road project at the Jungle Warfare Training Center (JWTC) was a continuation of an on-going Seabee project to provide road improvements to support military training in the jungle environment of northern Okinawa. The project consisted primarily of soil stabilization and u-ditch placement along 2,000 feet of steep, unimproved roads, and installation of four catch basins.

Project Data

Personnel:	9 personnel
Duration:	October 2000– January 2001
Mandays:	208
Material Cost:	$ 248,391
Cost Savings:	$ 72,800
Specifications:	Construct 2,000 linear feet of 15-foot wide road to include precast u-ditch and soil stabilization and catch basins.

Left: Seabees at JWTC place concrete columns at one of two head facilities with the aid of a Japanese concrete contractor.

Below: The building footers are cast in place.

CONSTRUCT HEAD FACILITIES
JK9-834

The head facilities project at the Jungle Warfare Training Center (JWTC), Okinawa, vastly improved sanitation support to two separate bivouac sites. The project, started and completed by NMCB FOUR, had many challenges and logistical problems due to the site's remote location and jungle environment.

Project Data

Personnel:	8 personnel
Duration:	October 2000 - May 2001
Mandays:	718
Material Cost:	$ 57,178
Cost Savings:	$ 251,300
Specifications:	Construct two concrete block buildings 10 foot by 20 foot in size at two bivouac sites at JWTC. Place reinforced concrete for footers, columns and roof. Construct CMU block walls and install a cast-in-place concrete waste collection tank.

Left: A Seabee backfills and compacts the concrete floor sub-base.

Below: The finished project.

EXTEND LOADING DOCK
JK9-838

This project, started and completed by NMCB FOUR at Camp Schwab, Okinawa, extended an existing ammo loading dock to allow more convenient and safer access for the movement of munitions at the Henoko Ammo Depot.

Project Data

Personnel: 6 personnel

Duration: October 2000 – February 2001

Mandays: 232

Material Cost: $ 8,083

Cost Savings: $ 81,200

Specifications: Modify the existing loading dock to include a 30-foot x 5-foot x 5-foot extension. The work consists of demolition of the existing dock and then excavating, compacting, and placing an 8-inch footer. Install a 30-foot x 5-foot stemwall connected to the existing loading dock. In addition, fill the inside of the stemwalls and compact to 100% density for the installation of an 8-inch concrete cap. Install weep holes inside the walls for water seepage. The project required a total of 10 cubic yards of concrete.

Left: An NMCB FOUR electrician installs a fire alarm system at a Kadena AB K-span.

Below: Mainbody electricians install a conduit support system.

MOBILITY K-SPAN, KADENA AIR BASE
JK9-839

This project provided the electrical system for a K-span installed by the 9th Engineer Support Battalion. NMCB FOUR electricians installed rough and finish electrical as well as fire detection systems. The Air Force and Marine Corps will use this facility as a mobilization point during contingency operations. NMCB FOUR inherited the project from NMCB SEVEN FOUR at 60%.

Project Data

Personnel:	5 personnel
Duration:	August 2000 – May 2001
Mandays:	333 (133 by NMCB FOUR)
Material Cost:	$ 208,015
Cost Savings:	$77,675 ($ 46,550 by NMCB FOUR)
Specifications:	Install one 600-Amp main electrical panel, 40 interior and 2 sets of exterior lights, 10,000 linear feet of electrical wire, and 1,500 linear feet of conduit. Install 40 heat detectors and numerous electrical devices including switches, junction boxes, and receptacles.

JK0-511 CO DISCRETIONARY
MAINBODY, OKINAWA

Project Title	MDs
Construct News Studio Set for Armed Forces Network's Island News	166
Construct Community Center for Kinser Towers	60
Construct Office Spaces for 3rd Recon Battalion	134
Move Abandoned Cars on Tsuken Island to Barge	97
Construct a Mock Building for JWTC	13
Construct a Sidewalk for JWTC	15
Patch Cased Openings Between Classrooms at Sterling Heights Elementary School	19
Paint Playgound	24
Install Office Door for 12th Marines	3
Cleanup Sunabe Seawall WWII Memorial	12
TOTAL MANDAYS	540

Above, left: A Seabee puts the finishing touches on monitor props at the AFN news studio renovation.

Above, right: A Seabee finishes drywall to construct office spaces for the 3rd Recon Battalion at Camp Schwab.

Left: A barrel tumbler at a local playground following renovation.

Below: A Seabee removes an abandoned car on Tsuken Island

LABOR DISTRIBUTION SUMMARY
MAINBODY

Month	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total	% Total
Direct Labor MDs	772	1553	1561	1288	1577	2038	2176	10965	51%
Indirect Labor MDs	251	1186	1016	869	954	907	887	6070	28%
Readiness/Training MDs	73	531	343	1844	600	615	478	4484	21%
Total MDs	**1096**	**3270**	**2920**	**4001**	**3131**	**3560**	**3541**	**21519**	**100%**
# Personnel	390	397	402	406	425	403	403		
# Direct Labor	116	116	116	116	116	134	132		
# Workdays	11	25	24	26	22	26	26		
% Direct Labor[1]	77%	64%	65%	78%	70%	75%	75%		
MD Capability[2]	1077	2447	2349	2545	2153	2940	2896		
Actual Availability Factor[3]	78%	85%	81%	123%	101%	90%	92%		

Direct Labor Mandays represents mandays expended on all DL tasking except Training. Total Direct Labor Mandays expended is the sum of Direct Labor MDs and Readiness/Training MDs.

NOTES:

1. $\%\,Direct\ Labor = \dfrac{Direct\ Labor\ MDs + \text{Re}\,adiness\ /\ Training\ MDs}{Total\ MDs}$

2. $MD\,Capability = (\#\,Direct\ Labor)(\#Workdays)(1.125)(0.75)$

3. $Actual\ Availability\ Factor = \left(\dfrac{Direct\,Labor\,MDs + \text{Re}\,adiness\,/\,Training\,MDs}{MD\,Capability}\right)$

DETAIL ATSUGI

Left: A Seabee demolishes the existing concrete pad with a hydraulic hammer

Below: Seabees place the first of 6 concrete pads.

CONSTRUCT HAZMAT PAD
AG0-863

This environmental improvement project, started and completed by NMCB FOUR, will allow NAF Atsugi to remain in compliance with environmental regulations for hazardous material storage. The project provided excellent experience in concrete placement.

Project Data

Personnel:	6 personnel
Duration:	January 2001 – April 2001
Mandays:	220
Material Cost:	$ 31,931
Cost Savings:	$ 77,000
Specifications:	Construct a concrete slab 13 meters x 30 meters x 200 millimeters thick. Construct a concrete u-ditch, gutter with steel grating and a concrete berm.

Left: A Seabee uses a bull float to ensure a smooth finish on the concrete pad.

Below: The completed project.

CONSTRUCT PRACTICE RANGE COVER
AG9-858

A quality-of-life improvement project for NAF Atsugi MWR, this project enhanced facilities at the base golf course. A new overhead cover and lighting system at the course's driving range allows golfers to enjoy the facilities at night and during inclement weather. A challenging project started and completed by NMCB FOUR, it provided the crew with excellent training in concrete placement, steel erection and electrical installation.

Project Data

Personnel:	7 personnel
Duration:	October 2000 – April 2001
Mandays:	530
Material Cost:	$ 76,709
Cost Savings:	$ 185,500
Specifications:	Remove 180 linear feet of concrete walkway. Extend the concrete tee box area by 2 feet. Construct an overhead cantilevered steel frame structure 180 feet long by 18 feet wide with metal roof and wall panels for 19 existing golf practice tee mats. Install 30 new ceiling mounted fluorescent light fixtures.

AG0-511 OIC DISCRETIONARY DETAIL ATSUGI

Project Title	MDs
Sidewalk at Headquarters Building	34
Sidewalk for VF-154	20
Drywall for Girl Scout Spaces	53
TOTAL MANDAYS	107

Above, left: NMCB FOUR Detail Atsugi Seabees place a concrete sidewalk in front of VF-154 Headquarters.

Above, right: NMCB FOUR Seabees measure before cutting drywall on a project to improve Girl Scout spaces at NAF Atsugi.

Left: The completed sidewalk at the Headquarters building.

LABOR DISTRIBUTION SUMMARY
DETAIL ATSUGI

Month	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total	% Total
Direct Labor MDs	138	212	182	188	151	191	198	1260	70%
Indirect Labor MDs	30	37	43	62	75	67	59	373	21%
Readiness/Training MDs	23	54	3	23	27	18	19	167	9%
Total MDs	**191**	**303**	**228**	**273**	**253**	**276**	**276**	**1800**	**100%**
# Personnel	15	14	14	16	15	15	15		
# Direct Labor	10	10	10	11	10	10	10		
# Workdays	11	25	24	26	22	26	24		
% Direct Labor[1]	84%	88%	81%	77%	70%	76%	79%		
MD Capability[2]	99	225	216	257	198	234	216		
Actual Availability Factor[3]	163%	118%	86%	82%	90%	89%	100%		

Direct Labor Mandays represents mandays expended on all DL tasking except Training. Total Direct Labor Mandays expended is the sum of Direct Labor MDs and Readiness/Training MDs.

NOTES:

1. $\%\,Direct\ Labor = \dfrac{Direct\ Labor\ MDs + \text{Re}adiness\ /Training\ MDs}{Total\ MDs}$

2. $MD\ Capability = (\#\,Direct\ Labor)(\#\,Workdays)(1.125)(0.8)$

3. $Actual\ Availability\ Factor = \left(\dfrac{Direct\ Labor\ MDs + \text{Re}adiness\ /Training\ MDs}{MD\ Capability}\right)$



DETAIL CHINHAE



Left: A Seabee adjusts the placement of a CMU block.

Below: A Seabee inspects forms and rebar.

CONSTRUCT DECON STATION AT BALLFIELD KO0-838

This project included the demolition of existing head facilities and construction of a decontamination center. Upon completion, this facility will eliminate the need for construction of temporary head facilities on the ballfield during exercises or actual contingencies. NMCB FOUR started the project and turned it over to NMCB FIVE at 71%.

Project Data

Personnel:	6 personnel
Duration:	December 2000 – July 2001
Mandays:	500 (355 by NMCB FOUR)
Material Cost:	$ 75,000
Cost Savings:	$ 175,000 ($124,250 by NMCB FOUR)
Specifications:	Demolish existing head facility and excavate footers, stem wall and utilities. Backfill and compact. Construct an 18-foot by 25-foot CMU block building. Work includes three commodes, one urinal, two lavatories, a locker room and six showers. Place 1,500 CMU block, doors, partitions, accessories and a Korean tile roof. Install a split AC & heater system and all utilities. Landscape site upon completion.

Left: A Seabee touches up grout in one of four heads.

Below: The finished building exterior.

CONSTRUCT TWO-STORY PEB
KO7-826

The completed facility now serves as the Personnel Support Activity for Commander, Fleet Activities Chinhae and various tenant commands. The second story is used for Transition and Relocation office, providing indoctrination briefs, arranging tours, college courses and transition assistance. NMCB FOUR inherited the project from NMCB SEVEN FOUR at 87%.

Project Data

Personnel: 3 personnel

Duration: October 2000 – January 2001

Mandays: 1,165 (152 by NMCB FOUR)

Material Cost: $ 361,075

Cost savings: $ 407,750 ($ 53,200 by NMCB FOUR)

Specifications: Construct a 20-foot by 60-foot two-story pre-engineered building. Project scope includes the erection of the building complete with three office spaces, a common utilities room, planning room, storage room, male/female heads, electrical system, fire alarm system, intrusion alarm system and exterior steel stairs. Interior and exterior work includes the installation of gypsum board walls, ceramic tile in the heads as well as windows and doors on both decks.

Left: A crewmember places concrete for a bond beam above the window openings.

Below: Finished ballfield in use.

REPAIR BALLFIELD
KO9-835

This project provided repairs and upgrades for the Commander, Fleet Activities Chinhae ballfield, including upgraded dugouts, repaired or replaced fences and painted buildings and bleachers. The project included the construction of a concrete drainage ditch around the outfield fence line. The completed project has greatly enhanced MWR facilities in Chinhae and should prevent future flooding of the facilities.

Project Data

Personnel:	6 personnel
Duration:	October 2000 – April 2001
Mandays:	537
Material Cost:	$ 40,714
Cost Savings:	$ 187,950
Specifications:	Construct two 8-foot high CMU block dugouts with concrete roofs on 4-inch slabs with 18 inch thickened edge slabs. Replace 150 lineal feet of damaged fencing. Construct over 400 lineal feet of steel reinforced concrete ditch with galvanized steel grating covers. Install 200 lineal feet of PVC pipe drain lines and construct 4 by 4 -foot concrete catch basin. Scrape, wire brush and repaint all other existing structures and fences.

KO0-507 OIC DISCRETIONARY DETAIL CHINHAE

Project Title	MDs
Construct Recycle Bin for Commander Fleet Activities Chinhae (CFAC)	69
Construct Haunted House CFAC	12
Construct 30-foot by 4-foot Sidewalk for CFAC	11
Construct CMU blocks for Ballfield	6
Remove Snow for the CFAC	2
TOTAL MANDAYS	100

Left: Two Seabees lay block for garbage/recycling bin screens.

Below, left: A Seabee mixes mortar for the garbage/recycling bin enclosure project.

Below, right: A Seabee begins to dig for the new sidewalk.

LABOR DISTRIBUTION SUMMARY
DETAIL CHINHAE

Month	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total	% Total
Direct Labor MDs	46	183	223	226	210	270	300	1458	77%
Indirect Labor MDs	29	28	43	61	38	42	11	252	13%
Readiness/Training MDs	5	25	41	40	21	26	34	192	10%
Total MDs	**80**	**236**	**307**	**327**	**269**	**338**	**345**	**1902**	**100%**
# Personnel	12	16	16	16	16	16	16		
# Direct Labor	7	8	12	12	12	12	12		
# Workdays	11	25	24	26	22	26	24		
% Direct Labor[1]	64%	88%	86%	81%	86%	88%	97%		
MD Capability[2]	69	180	259	281	238	281	259		
Actual Availability Factor[3]	74%	116%	102%	95%	97%	105%	129%		

Direct Labor Mandays represents mandays expended on all DL tasking except Training. Total Direct Labor Mandays expended is the sum of Direct Labor MDs and Readiness/Training MDs.

NOTES:

1. $\%\,Direct\ Labor = \dfrac{Direct\ Labor\ MDs + \mathrm{Re}adiness\ /Training\ MDs}{Total\ MDs}$

2. $MD\ Capability = (\#\,Direct\ Labor)(\#\,Workdays)(1.125)(0.8)$

3. $Actual\ Availability\ Factor = \left(\dfrac{Direct\ Labor\ MDs + \mathrm{Re}adiness / Training\ MDs}{MD\ Capability}\right)$



DFT FUJI

CAMP FUJI



Left: Two Seabees standing on a temporary catwalk inspect forms for the columns after a recent snow storm.

Below: Seabees erect forms for exterior wall sections.

EXPAND ARMORY BLDG 108
FJ0-806

This expansion to the existing armory will double its size and greatly improve the training capability of Marines at Camp Fuji. Additionally, the overhead steel structure will provide a covered working area for weapons cleaning. A technically challenging project, it provided excellent training opportunities in concrete placement and steelwork. NMCB FOUR started the project and turned it over to NMCB FIVE at 52%.

Project Data

Personnel:	12 personnel
Duration:	October 2000 – August 2001
Mandays:	1,262 (656 by NMCB FOUR)
Material Cost:	$ 311,240
Cost Savings:	$ 441,700 ($ 229,684 by NMCB FOUR)
Specifications:	Construct a 2,000 square foot addition to an existing armory building with reinforced concrete roof, walls, and floor. Restore interior of existing armory `building. Construct overhead steel canopy adjacent to existing building. Relocate existing chain-link fence.

Left: A Seabee applies some finishing touches to the fireplace.

Below: The project at completion. Shown is the bar room with new carpet and the re-finished fireplace.

RENOVATE STAFF/NCO CLUB
FJ1-807

This renovation project provided needed repairs and improvements to the Staff NCO Club for the Marines at Camp Fuji. This was a high visibility project that the Seabees were able to complete well ahead of schedule. The project allowed construction training in a wide variety of renovation and finish work skills while providing the Marine Corps a facility they could not have otherwise been able to afford. All material was excess stock provided by MCB Camp Butler.

Project Data

Personnel:	6 personnel
Duration:	November 2000 – December 2000
Mandays:	100
Material Cost:	$ 0 (MCB Camp Butler excess materials)
Cost Savings:	$ 35,000
Specifications:	Renovate the interior of an existing building. Patch and repaint all walls and ceilings, remove existing tile flooring and replace with new tile and carpet. Refinish existing fireplace.

FJ0-501 OIC DISCRETIONARY
DFT FUJI

Project Title	MDs
Place Concertina Fence Around Temporary Armory	40
Construct Concrete Stairs	10
TOTAL MANDAYS	50

Left: Seabees place the concertina fence.

Below: The newly constructed stairs.

LABOR DISTRIBUTION SUMMARY
DFT FUJI

Month	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total	% Total
Direct Labor MDs	56	243	237	219	175	245	161	1336	72%
Indirect Labor MDs	12	24	38	68	68	49	73	332	18%
Readiness/Training MDs	4	47	39	28	29	20	12	179	10%
Total MDs	**72**	**314**	**314**	**315**	**272**	**314**	**246**	**1847**	**100%**
# Personnel	12	12	11	11	12	12	12		
# Direct Labor	9.5	9.5	9.5	9.5	9.5	9.5	9.5		
# Workdays	11	25	24	26	22	26	24		
% Direct Labor[1]	83%	92%	88%	78%	75%	84%	70%		
MD Capability[2]	106	240	231	250	212	250	231		
Actual Availability Factor[3]	57%	121%	120%	99%	96%	106%	75%		

Direct Labor Mandays represents mandays expended on all DL tasking except Training. Total Direct Labor Mandays expended is the sum of Direct Labor MDs and Readiness/Training MDs.

NOTES:

1. $\%\,Direct\ Labor = \dfrac{Direct\ Labor\ MDs + \text{Re}\,adiness\ /\ Training\ MDs}{Total\ MDs}$

2. $MD\,Capability = (\#\,Direct\ Labor)(\#Workdays)(1.125)(0.9)$

3. $Actual\ Availability\ Factor = \left(\dfrac{Direct\,Labor\,MDs + \text{Re}\,adiness\,/\,Training\,MDs}{MD\,Capability}\right)$

DETAIL IWAKUNI

MCAS IWAKUNI

Left: Seabees excavated the playground in preparation for safety tile installation.

Below: Safety tile installed at the playground.

INSTALL SAFETY TILE AT BLDG 636
IW0-875

This completed project was an excellent opportunity for Seabees to improve the appearance of the base Child Development Center and make its playground safer for children. NMCB FOUR Seabees installed industry-standard safety tile manufactured from shredded rubber tires.

Project Data

Personnel:	5 personnel
Duration:	January 2001 – April 2001
Mandays:	330
Material Cost:	$ 81,250
Cost Savings:	$ 87,850
Specifications:	Remove and dispose of 12,000 square feet of existing safety tile and 1,000 board feet of timber border. Excavate approximately 600 cubic yards of existing soil and replace with 600 cubic yards of sand. Place permeable sheeting between sand and tile. Place 300 square feet of formwork to support 12 cubic yards of concrete curbing and install 12,000 square feet of new safety tile of various colors.

Left: A Seabee compacts soil for a transformer pad.

Below: Project complete.

REPLACE TRANSFORMER, M-7-17 AND M-7-12
IW8-859

This completed project was part of the base-wide transformer upgrade that has been ongoing for many years. Many of the existing transformers contain polychlorinated biphenyls (PCBs), a suspected carcinogen. Although the transformer replaced by this project did not contain PCBs, it was an excellent opportunity for Seabees to acquire experience in high voltage electrical work. NMCB FOUR inherited the project from NMCB SEVEN FOUR at 55%.

Project Data

Personnel:	4 personnel
Duration:	April 2000 – December 2000
Mandays:	450 (203 by NMCB FOUR)
Material Cost:	$ 371,361
Cost Savings:	$ 157,500 ($ 70,875 by NMCB FOUR)
Specifications:	Install a transformer in support of air tower. Demolish an existing 3-phase open-type transformer, air switch, 3-inch rigid conduit runs, pad, grounding and fence. Replace transformer with a new cubicle type 3-phase transformer.

Left: Seabees place RST for a gravel bin pad.

Below: Project complete.

CONSTRUCT CMU GRAVEL BINS
IW9-861

This completed project provided the MCAS Iwakuni facilities department a storage and containment area for aggregate. The project provided excellent block laying experience for NMCB FOUR Seabees.

Project Data

Personnel:	7 personnel
Duration:	October 2000 – December 2000
Mandays:	220
Material Cost:	$ 65,000
Cost Savings:	$ 77,000
Specifications:	Clear and grub a 35-foot by 75-foot area. Excavate 35-cubic yards of compacted earth for footings. Place and finish 38-cubic meters of concrete and 1,000 CMU blocks.

Left: Seabees excavate conduit trenches for a new transformer.

Below: Detail Iwakuni crewmembers place concrete for a transformer manhole.

REPLACE TRANSFORMER, M-3-44
IW9-863

This completed project was part of the base-wide transformer upgrade that has been ongoing for many years. Many of the existing transformers contain polychlorinated biphenyls (PCBs), a suspected carcinogen. Although the transformer replaced by this project did not contain PCBs, it was an excellent opportunity for Seabees to acquire experience in high voltage electrical work.

Project Data

Personnel: 4 personnel

Duration: January 2001 – March 2001

Mandays: 250

Material Cost: $ 95,500

Cost Savings: $ 73,150

Specifications: Remove and replace existing transformer. Install new handholds, conduit for primary and secondary wiring, grounding system and concrete foundation for new transformer. Provide new cubicle type transformer. Install primary and secondary underground wiring. Provide temporary generator for existing sewer lift station. Disconnect the high-tension line and relocate existing air switch. Change power form existing pole to new transformer. Provide new fence for new cubicle. Remove existing pole, supports for overhead high-tension cable, existing fence, transformer, fuse cutouts, panels, insulators, wiring, frames, concrete foundation and other associated materials. Provide new sod at the removed transformer site.

Left: Detail Iwakuni Seabees install furring strips and rough electrical at Building 1301.

Below: Quonset Hut 1301 after renovation.

REHAB QUONSET HUT 1301
IW9-868

This completed project was part of an ongoing initiative to upgrade the working conditions of the facilities for Marine Air Group 12. This quonset hut is used as a workspace for deployed air wings. Structurally, the building was sound, but the wafer board interior was in poor condition with numerous holes. This project provided Seabees excellent training in high quality, interior finish work. One challenge was installing drywall on a curved surface.

Project Data

Personnel:	5 personnel
Duration:	March 2001 – April 2001
Mandays:	250
Material Cost:	$ 65,000
Cost Savings:	$ 71,050
Specifications:	Demolish interior drywall, electrical, phone line, framing, doors, windows and louvers. Install new electrical, phones, framework, drywall, floor tile, doors, mechanical louvers and reinstall old windows with new screens. Clean and prepare exterior skin for new primer and paint. Prime and paint exterior.

Left: Seabees demolish the quonset hut interior.

Below: Seabees insulate quonset hut.

REHAB QUONSET HUT 1303
IW9-869

This completed project was part of an ongoing initiative to upgrade the working conditions of the facilities for Marine Air Group 12. This quonset hut is used as a workspace for deployed air wings. Structurally, the building was sound, but the wafer board interior was in poor condition with numerous holes. This project provided Seabees excellent training in high quality, interior finish work. One challenge was installing drywall on a curved surface.

Project Data

Personnel:	5 personnel
Duration:	October 2000 – April 2001
Mandays:	250
Material Cost:	$ 65,000
Cost Savings:	$ 74,550
Specifications	Demolish interior drywall, electrical, phone line, framing, doors, windows and louvers. Install new electrical, phones, framework, drywall, floor tile, doors, mechanical louvers and reinstall old windows with new screens. Clean and prepare exterior skin for new primer and paint. Prime and paint exterior.

Left: Seabees form and add fill to the playground site.

Below: Detail Iwakuni completed a quality playground that is safe for the air station's children.

INSTALL SAFETY TILE AT BLDG 966
IW9-872

This completed project was an excellent opportunity for Seabees to improve the appearance of the base playgrounds and make them safer for children. NMCB FOUR Seabees installed industry-standard safety tile manufactured from shredded rubber tires.

Project Data

Personnel: 3 personnel

Duration: January 2001 – March 2001

Mandays: 150

Material Cost: $ 81,250

Cost Savings: $ 87,500

Specifications: Remove and dispose of 12,000 square feet of existing safety tile and 1,000 board feet of timber border. Excavate approximately 600 cubic yards of existing soil and replace with 600 cubic yards of sand. Permeable sheeting will be placed between sand and tile. Place 300 square feet of formwork to support 12 cubic yards of concrete curbing and install 12,000 square feet of new safety tile of various colors.

IW0-511 OIC DISCRETIONARY DETAIL IWAKUNI

Project Title	MDs
Mailbox Kiosk	52
TOTAL MANDAYS	52

Above: Seabees install a kiosk canopy for the post office.

LABOR DISTRIBUTION SUMMARY
DETAIL IWAKUNI

Month	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total	% Total
Direct Labor MDs	90	263	215	252	234	265	227	1546	59%
Indirect Labor MDs	43	75	148	162	125	142	111	806	31%
Readiness/Training MDs	25	57	75	45	23	27	22	274	10%
Total MDs	**158**	**395**	**438**	**459**	**382**	**434**	**360**	**2626**	**100%**
# Personnel	21	21	23	23	23	24	22		
# Direct Labor	14.5	14.5	15.5	15.5	15.5	16.5	15.5		
# Workdays	11	25	24	26	22	26	24		
% Direct Labor[1]	73%	81%	66%	65%	67%	67%	69%		
MD Capability[2]	144	326	335	363	307	386	335		
Actual Availability Factor[3]	80%	98%	87%	82%	84%	76%	74%		

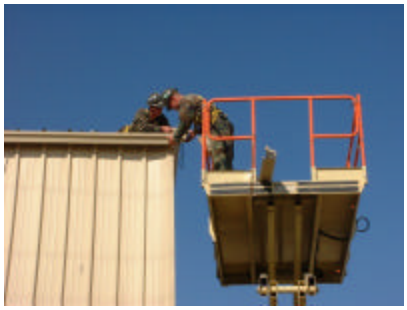
Direct Labor Mandays represents mandays expended on all DL tasking except Training. Total Direct Labor Mandays expended is the sum of Direct Labor MDs and Readiness/Training MDs.

NOTES:

1. $\%\,Direct\ Labor = \dfrac{Direct\ Labor\ MDs + \mathrm{Re}adiness\ / Training\ MDs}{Total\ MDs}$

2. $MD\ Capability = (\#\,Direct\ Labor)(\#\,Workdays)(1.125)(0.8)$

3. $Actual\ Availabilty\ Factor = \left(\dfrac{Direct\ Labor\ MDs + \mathrm{Re}adiness\ / Training\ MDs}{MD\ Capability}\right)$



DETAIL POHANG

MEC POHANG

Left: NMCB Four Det Pohang improves MEC-P by grading and laying down slag on existing dirt roads.

Below: A Pohang steelworker welds a door hinge.

MEC-P MAINTENANCE AND REPAIR
PK0-516

The Marine Expeditionary Camp, Pohang (MEC-P) consists of permanent, semi-permanent and temporary facilities. Most facilities are temporary, including storage and equipment shelters, workshops, exercise field shower and laundry, exercise field mess hall and billeting for the exercise units. The temporary facilities are plywood constructed, with most structures showing evidence of dry rot, unsafe electrical wiring, leaking roofs and a plumbing system that is not insulated. The estimated age of these facilities is between 10-18 years. NMCB FOUR was tasked to provide maintenance and repair support to MEC-P. NMCB FOUR completed 7 maintenance control division (MCD) projects and planned and estimated another 8 MCDs. NMCB FOUR's primary Standing Job Orders (SJOs) were for maintenance of kerosene heaters, BEQ head heaters, washers and dryers, fuel containment areas and galley equipment. NMCB FOUR also completed 200 Emergency Service Authorizations (ESAs), with work ranging from structural preservation to minor work requests.

Project Data

Personnel:	3 personnel
Duration:	October 2000 – April 2001
Mandays:	550
Material Cost:	$ 20,000
Cost savings:	$ 192,500
Specifications:	Provide maintenance and repair to MEC-P and other various exercise support. Develop and execute SJOs, MCDs and ESAs. Create history jackets to include blueprints, completed ESAs, operating manuals for equipment in that facility and SJO inspection sheets for the camp's equipment.

Left: Construction electricians trace a circuit.

Below: A pair of Seabees install secondary at the exercise mess facility.

INVESTIGATE AND REPAIR POWER DISTRIBUTION PK1-846

The secondary power feeding the camp facilities has been an ongoing problem with the transformers and conductors burning out from excessive heat. Improper sizing of the conductors feeding the facility and multiple connection points on the same conductor are the primary causes. The heat causes the conductor insulation to melt and the secondary transformer insulators to become brittle and break. NMCB FOUR investigated and repaired two sections of the system.

Project Data

Personnel:	4 personnel
Duration:	January 2001 – April 2001
Mandays:	75
Material Cost:	$ 60,087
Cost savings:	$ 26,250
Specifications:	Remove two existing service drops and replace with new service conductors. Place copper conductors from the transformers to 2 feet below the transformers. Use this conductor as the connection point for the aluminum conductor to reduce oxidation.

Left: Seabees install siding on the facility using a scissor-lift.

Below: The project nearing completion.

CONSTRUCT P-3 EXERCISE FACILITY
PK7-836

The P-3 Exercise Facility will be the Navy Operations Center for various exercises held in the Republic of Korea throughout the year. It will provide office spaces as well as living quarters for exercise personnel. NMCB FOUR inherited the project from NMCB SEVEN FOUR at 40% and turned it over to NMCB FIVE at 84%.

Project Data

Personnel:	12 personnel
Duration:	March 2000 – August 2001
Mandays:	1,400 (616 by NMCB FOUR)
Material Cost:	$ 424,500
Cost savings:	$ 490,000 ($ 215,600 by NMCB FOUR)
Specifications:	Construct a 40-foot by 100-foot pre-engineered building. Project scope includes the erection of the building, the placement of 210 cubic yards of concrete for the foundation, slabs for first and second deck and stoops. Mechanical work includes the installation of water, sewage, vent lines, a septic tank with associated piping, and a complete fire suppression system. Electrical includes the installation of lighting, receptacles, laundry facility connections, and a fire alarm system. Interior work includes the installation of gypsum board walls, tile in the heads and installation of windows.

Left: A view of the completed service counter.

Below: The completed dining area.

UPGRADE EXERCISE MESS HALL
PK9-841

This completed project upgraded the existing mess facility. The building was divided into two sections: one section for permanent party Marines and Seabees, and the other section for exercise personnel. NMCB FOUR inherited the project from NMCB SEVEN FOUR at 90%.

Project Data

Personnel:	3 personnel
Duration:	March 2000 – April 2001
Mandays:	1,066 (107 by NMCB FOUR)
Material Cost:	$ 467,073
Cost Savings:	$ 373,100 ($ 37,310 by NMCB FOUR)
Specifications:	Construct a 40-foot by 100-foot pre-engineered building including all associated plumbing and electrical. Project scope includes the placement of 80 cubic yards of concrete for foundation and slab, and the erection of the building. Mechanical work includes all under slab water, waste, and vent lines, and the installation of water lines for all galley equipment. Electrical work includes installing all under slab electrical conduit, the placement of three electrical power panels, four main disconnects feeding the panels, lighting and receptacles for all equipment and the installation of a complete fire alarm system.

PK0-515 OIC DISCRETIONARY DETAIL POHANG

Project Title	MDs
Construct Cable Satellite TV Pads for CNFK	14
Construct Cable Satellite TV Pads for MEC-P	50
TOTAL MANDAYS	64

NMCB FOUR Seabees dig trenches and form pads for a new cable satellite system at Pohang.

LABOR DISTRIBUTION SUMMARY
DETAIL POHANG

Month	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total	% Total
Direct Labor MDs	81	213	220	260	268	300	326	1668	74%
Indirect Labor MDs	23	104	108	74	87	69	27	492	22%
Readiness/Training MDs	7	18	16	17	20	20	7	105	5%
Total MDs	**111**	**335**	**344**	**351**	**375**	**389**	**360**	**2265**	**100%**
# Personnel	34	34	25	27	28	30	30		
# Direct Labor	24	24	15	15	15	15	12		
# Workdays	11	25	24	26	22	26	24		
% Direct Labor[1]	79%	69%	69%	79%	77%	82%	93%		
MD Capability[2]	238	540	324	351	297	351	259		
Actual Availability Factor[3]	37%	43%	73%	79%	97%	91%	128%		

Direct Labor Mandays represents mandays expended on all DL tasking except Training. Total Direct Labor Mandays expended is the sum of Direct Labor MDs and Readiness/Training MDs.

NOTES:

1. $\%\,Direct\ Labor = \dfrac{Direct\ Labor\ MDs + \mathrm{Re}\,adiness\ /Training\ MDs}{Total\ MDs}$

2. $MD\ Capability = (\#\,Direct\ Labor)(\#\,Workdays)(1.125)(0.8)$

3. $Actual\ Availabilty\ Factor = \left(\dfrac{Direct\ Labor\ MDs + \mathrm{Re}\,adiness\,/\,Training\ MDs}{MD\ Capability}\right)$



DETAIL SASEBO



Left: A Seabee excavates the gazebo's footers.

Below: The completed project.

CONSTRUCT GAZEBO WITH FENCE, AKASAKI SA0-869

The purpose of this completed project was to provide a gazebo with concrete slab and privacy fence for Fleet Industrial Supply Center Yokosuka, Detail Sasebo. This high visibility project was completed outside the main gate of FISC Yokosuka, Detail Sasebo and provided the customer with a location for their workers to take breaks while being shielded from the sun and rain.

Project Data

Personnel: 4 personnel

Duration: March 2001– February 2001

Mandays: 170

Material Cost: $ 4,903

Cost Savings: $ 59,500

Specifications: Construct a steel gazebo with steel frame including trusses, compression ring, tension member and columns with roof panels. Place a concrete slab 13 feet by 13 feet. Install a screen fence and provide a gravel pavement.

Left: Seabees use a screed to level the pad.

Below: The project prior to turnover with NMCB FIVE.

CONSTRUCT LCAC PEB, SAKIBE
SA0-874

The purpose of this project is to provide a pre-engineered building for storing tools and equipment used for the maintenance of LCACs. NMCB FOUR saved the customer time and money while placing the concrete slab by boxing the locations of 14 footers for a follow-on project to install a mezzanine. NMCB FOUR started the project and turned it over to NMCB FIVE at 57%.

Project Data

Personnel: 10 personnel

Duration: March 2001 – July 2001

Mandays: 675 (385 by NMCB FOUR)

Material Cost: $ 135,481

Cost Savings: $ 236,250 ($ 134,663 by NMCB FOUR)

Specifications: Construct a 4000 square foot pre-engineered building to serve as a storage building. Place a concrete foundation with an 8 inch x 40 foot x 100 foot concrete slab reinforced with RST and WWF. Install one manhole and conduit for the power supply.

Left: A lightning mast is secured in place using a crane.

Below A construction electrician aids a contractor securing the mast to its foundation.

GROUNDING SYSTEM, BUILDING 3013
SA0-882

The purpose of this completed project was to provide a lightning protection system for a newly constructed pre-engineered building, also completed by NMCB FOUR. This project, completed for the Commander, Fleet Activities Sasebo Ordnance Department, brought the newly constructed building into compliance with naval ordnance regulations.

Project Data

Personnel: 7 personnel

Duration: November 2000 – February 2001

Mandays: 260

Material Cost: $ 56,763

Cost Savings: $ 91,000

Specifications: Install four 25-meter lightning masts with a primary and secondary grounding system. Erect each mast on top of 4-foot diameter base resting on a 6 foot square footer reinforced with RST. Run the primary and secondary grounding around the perimeter of the building brazed together, with inspection pockets. Connect the system to the newly constructed pre-engineered building 3013.

Left: A Seabee pumps groundwater from the foundation pit to keep it out of contact with the curing foundation.

Below: A Seabee assists Japanese contractors with aligning a lightning mast with its anchor bolts.

GROUNDING SYSTEM, BUILDING 3018
SA0-883

The purpose of this project was to provide a lightning protection system for a newly constructed pre-engineered building, also completed by NMCB FOUR. This project, completed for the Commander, Fleet Activities Sasebo Ordnance Department, was critical since the building was already being used as an ordnance storage facility.

Project Data

Personnel: 7 personnel

Duration: January 2001 –March 2001

Mandays: 260

Material Cost: $ 69,138

Cost Savings: $ 91,000

Specifications: Install six 25-meter lightning masts with a primary and secondary grounding system. Erect each mast on top of 4-foot diameter base resting on a 6-foot square reinforced concrete foundation. Run the primary and secondary grounding system around the perimeter of the building brazed together, with inspection pockets. Connect the system to the newly constructed pre-engineered building 3018.

Left: A Seabee finishes painting a riser.

Below: Seabees tighten up the fire suppression system.

CONSTRUCT MEZZANINE IN WAREHOUSE 305
SA9-854

The purpose of this completed project was to convert an existing pre-World War II warehouse into a material storage facility meeting current fire codes for the Commander, Fleet Activities Sasebo MWR and Navy Exchange Departments. This conversion included installing a 42-meter by 13-meter steel mezzanine with overhead lighting and a fire alarm and suppression system. This project provided the Seabees with valuable training on the installation of fire alarm and fire suppression systems, work typically performed by contractors. NMCB FOUR inherited this project from NMCB SEVEN FOUR at 76%.

Project Data

Personnel: 7 personnel

Duration: March 2000 – February 2001

Mandays: 1000 (240 by NMCB FOUR)

Material Cost: $ 341,735

Cost Savings: $ 350,000 ($ 84,000 by NMCB FOUR)

Specifications: Complete rough electrical, install panel boxes and emergency exit lights on the first floor. Install approximately 120 meters of pipe for the fire suppression system to include the alarm valve and testing on the second floor. Run approximately 120 meters of electrical conduit for the lighting system and install lights on the second floor. Mount exhaust fans and louvers on both floors.

Left: The old ordnance facility with walls demolished.

Below: Crewmembers load-up a dump truck for hauling.

DEMO HARIO ORDNANCE FACILITY 3007
SA9-855

The purpose of this project was to demolish an existing wooden structure that was no longer suitable to store ordnance. The completion of this project prepared the site for follow-on projects to install a new pre-engineered building with lightning protection system. This project was critical to Commander, Fleet Activities Sasebo Ordnance Department's efforts to replace their aging facilities.

Project Data

Personnel:	15 personnel
Duration:	October 2000
Mandays:	90
Material Cost:	$ 11,575
Cost Savings:	$ 31,500
Specifications:	Demolish existing wooden structure and remove all debris. Separate flammable and non-flammable materials. Cut and remove existing concrete slab to specified dimensions. Grade site to specified elevation and slope.

Left: Seabees demolish the old ordnance facility walls.

Below: Seabees remove roofing materials from the downed structure.

DEMO HARIO ORDNANCE FACILITY 3013
SA9-857

The purpose of this project was to demolish an existing wooden structure that was no longer suitable to store ordnance. The completion of this project prepared the site for follow-on projects to install a new pre-engineered building with lightning protection system, also completed by NMCB FOUR. This project was critical to Commander, Fleet Activities Sasebo Ordnance Department's efforts to replace their aging facilities.

Project Data

Personnel:	15 personnel
Duration:	November 2000
Mandays:	60
Material Cost:	$ 18,623
Cost Savings:	$ 21,000
Specifications:	Demolish existing wooden structure and remove all debris. Separate flammable and non-flammable materials. Cut and remove existing concrete slab to specified dimensions. Grade site to specified elevation and slope.

Left: A Seabee installs the door frames for the entrance.

Below: The completed project.

CONSTUCT PEB HARIO ORDNANCE SITE 3013
SA9-858

The purpose of this completed project was to provide a 50-foot by 80-foot pre-engineered building for the Commander, Fleet Activities Sasebo Ordnance Department. This building will be used to store ordnance and replaced an aging structure that was no longer suitable as an ordnance storage facility. This project also provided the customer with a concrete staging pad and access ramp so forklifts can easily transfer ordnance from the building to vehicles.

Project Data

Personnel: 7 personnel

Duration: November 2000 – April 2001

Mandays: 579

Material Cost: $ 127,919

Cost Savings: $ 202,650

Specifications: Cap an existing slab with a 8-inch by 50-foot by 80-foot concrete slab reinforced with a double layer of RST, stitch-welded for grounding as specified. Build up approximately 15 feet of the slab from the ground with footers and a monolithic grade beam around the perimeter with columns flushed to finish floor line. Construct a ramp and a 30-foot by 39-foot concrete slab sloped to drain the building line. Erect a 50-foot by 80-foot, 16-foot high pre-engineered building to include doors, windows, louvers, roof ventilation, sliding main entry door and panel siding with insulation.

Left: Seabees demolish Bldg. 3018.

Below: Wooden structure is removed and ready to cut and break the concrete.

DEMO HARIO ORDNANCE FACILITY 3018
SA9-859

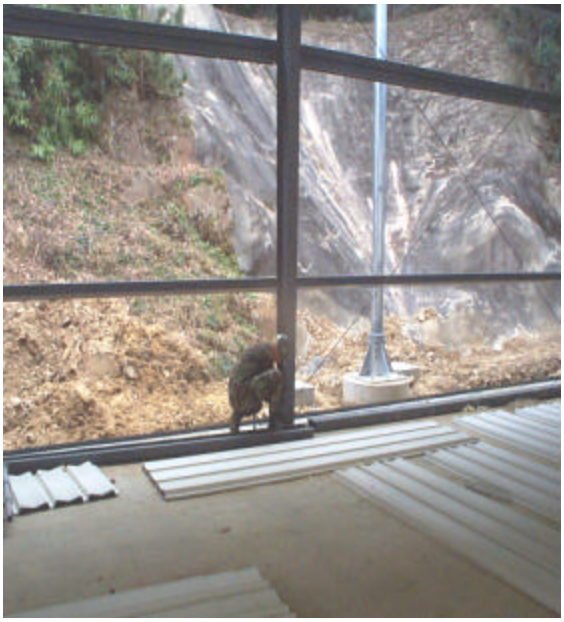
The purpose of this project was to demolish an existing wooden structure that was no longer suitable to store ordnance. The completion of this project prepared the site for follow-on projects to install a new pre-engineered building with lightning protection system, also completed by NMCB FOUR. This project was critical to Commander, Fleet Activities Sasebo Ordnance Department's efforts to replace their aging facilities.

Project Data

Personnel:	12 personnel
Duration:	October 2000 – November 2000
Mandays:	130
Material Cost:	$ 22,693
Cost Savings:	$ 45,500
Specifications:	Demolish existing wooden structure and remove all debris. Separate flammable and non-flammable materials. Cut and remove existing concrete slab to specified dimensions. Grade site to specified elevation and slope.

Left: A Seabee welds the bottom mat of RST to the reinforcing steel protruding from the grade beam.

Below: A Seabee tightens up the PEB's structural bracing.



CONSTRUCT PEB HARIO ORDNANCE SITE 3018
SA9-860

The purpose of this completed project was to provide a 40-foot by 120-foot pre-engineered building for the Commander, Fleet Activities Sasebo Ordnance Department. This building will be used to store ordnance and replaced an aging structure that was no longer suitable as an ordnance storage facility. This project also provided the customer with a concrete staging pad and two access ramps so forklifts can easily transfer ordnance from the building to vehicles.

Project Data

Personnel: 9 personnel

Duration: November 2000 – April 2001

Mandays: 750

Material Cost: $ 144,355

Cost Savings: $ 262,500

Specifications: Construct a 4,800 square foot pre-engineered building. Cap an existing slab with a 8-inch by 40-foot by 120-foot concrete slab reinforced with a double layer of RST, stitch-welded for grounding as specified. Slab will also include footers and a monolithic grade beam around the perimeter with columns flushed to finish floor line. Construct two ramps and an 85-foot by 38-foot concrete slab sloped to drain against the building line. Erect a 40-foot by 120-foot by 16-foot high pre-engineered building to include doors, windows, louvers, roof ventilation, 2 sliding main entry doors and panel siding with insulation.

Left: Crewmembers excavate for the leach field.

Below: A Seabee installs forms for the catch basin.

INSTALL 3 LEACH FIELDS, AKASAKI SA9-864

The purpose of this completed project was to provide leach fields for the Sasebo Public Works Department Environmental Division in various locations throughout the Akasaki Fuel Depot. This project increased the discharge capacity of existing drainage systems. By completing this project, NMCB FOUR assisted the customer in complying with strict environmental standards.

Project Data

Personnel: 4 personnel

Duration: January 2001 –March 2001

Mandays: 100

Material Cost: $ 5,733

Cost Savings: $ 35,000

Specifications: Install three separate leach fields to include a cast in place catch basin to collect water coming directly from the existing septic tank and the installation of 4 inch PVC pipe to control the flow of water into the rock bed and ground below.

Left, below: Seabees demolish concrete for a new leach field.

INSTALL 3 LEACH FIELDS, MAIN BASE
SA9-865

The purpose of this project was to install leach fields for the Sasebo Public Works Department Environmental Division in various locations throughout Commander, Fleet Activities Sasebo main base. This project increased the discharge capacity of existing drainage systems. By completing this project, NMCB FOUR assisted the customer in complying with strict environmental standards.

Project Data

Personnel: 5 personnel

Duration: February 2001 –March 2001

Mandays: 100

Material Cost: $ 4,396

Cost Savings: $ 35,000

Specifications: Install three separate leach fields to include a cast in place catch basin to collect water coming directly from the existing septic tank and the installation of 4 inch PVC pipe to control the flow of water into the rock bed and ground below.

SA0-520 OIC DISCRETIONARY DETAIL SASEBO

Project Title	MDs
Install Door and Concrete Pad for Fire Department	28
Construct Gazebo for Security Department	62
Weld Angles on Gazebo to Provide Extra Support	10
Install Concrete Pad for Port Operations	2
TOTAL MANDAYS	102

Left: A completed gazebo for the CFAS Security Department.

Below: The new door and concrete pad for the Fire Department.

LABOR DISTRIBUTION SUMMARY
DETAIL SASEBO

Month	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total	% Total
Direct Labor MDs	199	480	525	477	462	396	342	2881	57%
Indirect Labor MDs	171	312	254	353	219	156	140	1605	32%
Readiness/Training MDs	42	156	95	87	108	35	52	575	11%
Total MDs	**412**	**948**	**874**	**917**	**789**	**587**	**534**	**5061**	**100%**
# Personnel	46	46	47	44	44	40	37		
# Direct Labor	27	28	29	29	29	27	27		
# Workdays	11	25	24	26	22	26	24		
% Direct Labor[1]	58%	67%	71%	62%	72%	73%	74%		
MD Capability[2]	267	630	626	679	574	632	583		
Actual Availability Factor[3]	90%	101%	99%	83%	99%	68%	68%		

Direct Labor Mandays represents mandays expended on all DL tasking except Training. Total Direct Labor Mandays expended is the sum of Direct Labor MDs and Readiness/Training MDs.

NOTES:

1. $\%\,Direct\ Labor = \dfrac{Direct\ Labor\ MDs + \text{Re}\,adiness\ /Training\ MDs}{Total\ MDs}$

2. $MD\ Capability = (\#\,Direct\ Labor)(\#\,Workdays)(1.125)(0.8)$

3. $Actual\,Availability\,Factor = \left(\dfrac{Direct\,Labor\,MDs + \text{Re}\,adiness\,/\,Training\,MDs}{MD\,Capability}\right)$

DETAIL YOKOSUKA

Left: Seabees set a grade beam form along a string line.

Below: A Seabee installs rough plumbing.

REBUILD BUILDING A-65
YO4-821

The purpose of this turnover project is to construct a new shower and head facility for the employees of the Ship Repair Facility (SRF), Yokosuka, Japan. The project had been on hold for several years awaiting CNO site approval due to its close proximity to ammunition loading docks, but was just recently cleared for construction. The 25-foot by 48-foot pre-engineered building will house separate male and female shower and restroom facilities, as well as a small office space located at one end. NMCB FOUR started the project and turned it over to NMCB FIVE at 87%.

Project Data

Personnel: 11 personnel

Duration: October 2000 – June 2001

Mandays: 1,094 (952 by NMCB FOUR)

Material Cost: $ 252,000

Cost Savings: $ 382,900 ($ 333,123 by NMCB FOUR)

Specifications: Construct a 1,200 square foot shower and restroom facility. Remove existing concrete foundation and septic tank. Place a new concrete foundation and floor slab with anchor bolts and concrete steps. Install urinals, water closets, lavatories, slop sink, kitchen counter sink, shower sets and emergency eye wash station along with associated piping. Install exhaust fans, duct, hot water storage heater, steam convector, circuit breakers, infrared sensors, outlets, telephone outlets and associated wiring.

Left: A pair of Seabees ensure that RST stays in position during a concrete placement.

Below: Seabees place forms along the south side of the building.

CONSTRUCT OFFICE SPACES PEB (TSURUMI) YO8-856

The purpose of this turnover project is to construct a new two-story 40-foot by 100-foot pre-engineered building at the Fleet Industrial Supply Center (FISC) Fuel Depot in Tsurumi, Japan. The new facility will replace five existing structures currently located at the site, providing new offices, restrooms, showers, warehouse storage, and a lunch/breakroom area for the personnel employed at the Depot. NMCB FOUR started the project and turned it over to NMCB FIVE at 38%.

Project Data

Personnel: 9 personnel

Duration: October 2000 – February 2002

Mandays: 2,557 (972 by NMCB FOUR)

Material Cost: $ 373,636

Cost Savings: $ 894,950 ($ 340,081 by NMCB FOUR)

Specifications: Construct a new 4,000 square foot pre-engineered building. Demolish and remove concrete drainage ditch, underground storage tank, and concrete light-pole footer. Place concrete foundation and floor slab with anchor bolts, concrete steps. Place pavement. Relocate an existing four-inch water line. Install new underground site utilities. Install urinals, water closets, lavatories, shower sets, hot water heater and associated piping. Install exhaust fans, ductwork, HVAC system, infrared heaters, interior and exterior lighting, receptacles, switches, panels, conduit, electric motors, telephone conduit, boxes, wiring, computer network conduit, cubicle type transformer station, and overhead exterior electrical wiring.

Left: Seabees pull large generator cables through underground conduit.

Below: The finished project.

INSTALL EMERGENCY BACKUP GENERATOR YO9-866

The purpose of this completed project was to provide an exterior cubicle-type emergency generator for the Navy Exchange (NEX) cold storage warehouse at Yokosuka, Japan. The new generator provides emergency power to run the refrigeration units in the warehouse during shore power outages. Startup of the generator is fully automatic. An automatic transfer switch redirects the electrical power feed into the warehouse.

Project Data

Personnel: 6 personnel

Duration: October 2000 – April 2001

Mandays: 575

Material Cost: $ 482,000

Cost Savings: $ 201,250

Specifications: Install a new 375 KVA, 200-volt, 3-phase, 50-hertz exterior cubicle-type emergency generator. Construct two reinforced concrete pads with containment dikes for the generator and 7,000-liter fuel storage tank. Install all associated fuel piping, transfer pumps, and appurtenances, oil water separator, automatic transfer switch and associated connections. Install step-down transformer, chain-link fence enclosure, underground electrical utilities, and asphalt paved access road.

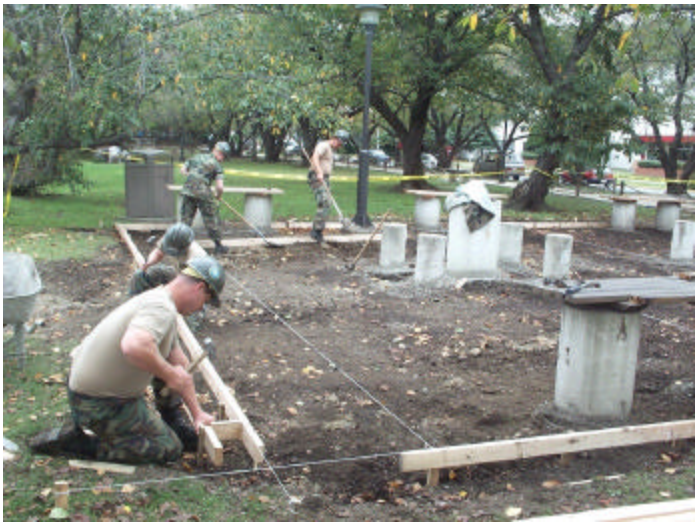
YO0-519 OIC DISCRETIONARY DETAIL YOKOSUKA

Project Title	MDs
Picnic Area Improvements at Kosano Park	130
Paint MWR Single Sailor Center	13
Construct Patrol Boxes for Boy Scouts	4
TOTAL MANDAYS	147

Left: A Seabee lays out the brick pavers.

Below, left: Seabees building forms to replace an old gravel foot path with a new concrete and pavestone sidewalk.

Below, right: The Kosano Park picnic area after installation of a concrete border and over 2,000 brick pavers.



LABOR DISTRIBUTION SUMMARY
DETAIL YOKOSUKA

Month	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Total	% Total
Direct Labor MDs	168	408	416	445	370	455	475	2737	62%
Indirect Labor MDs	98	183	153	196	185	180	244	1239	28%
Readiness/Training MDs	27	56	92	78	53	87	34	427	10%
Total MDs	**293**	**647**	**661**	**719**	**608**	**722**	**753**	**4403**	**100%**
# Personnel	34	34	34	36	35	35	34		
# Direct Labor	25	25	25	26	25	25	25		
# Workdays	11	25	24	26	22	26	24		
% Direct Labor[1]	67%	72%	77%	73%	70%	75%	68%		
MD Capability[2]	248	563	540	608	495	585	540		
Actual Availability Factor[3]	79%	82%	94%	86%	85%	93%	94%		

Direct Labor Mandays represents mandays expended on all DL tasking except Training. Total Direct Labor Mandays expended is the sum of Direct Labor MDs and Readiness/Training MDs.

NOTES:

1. $\%\,Direct\ Labor = \dfrac{Direct\ Labor\ MDs + \text{Re}adiness\ /Training\ MDs}{Total\ MDs}$

2. $MD\ Capability = (\#\,Direct\ Labor)(\#\,Workdays)(1.125)(0.8)$

3. $Actual\ Availability\ Factor = \left(\dfrac{Direct\ Labor\ MDs + \text{Re}adiness\ /Training\ MDs}{MD\ Capability}\right)$

DFT ALASKA

DFT FOAL EAGLE

DFT SASEBO

DEPLOYMENTS FOR TRAINING

DFT HAWAII

DFT EAST TIMOR

DFT BLOUNT ISLAND

Left: Two Seabees rock drilling at one of six drill sites.

Below: The civilian blaster provides critical hands-on rock drill training to the DFT.

DFT ALASKA
JK0-661

The Alaskan Road Project on Annette Island, Alaska, is a multiyear Joint Task Force training program funded by Innovative Readiness Training resources to construct a 14.7 mile road from the Indian community of Metlakatla to a proposed ferry site on the northern-most end of the island. NMCB FOUR worked in this joint task force under arduous weather conditions providing critical support in the form of surveying, equipment operating, drilling and blasting. Annette Island's isolation from material and supply outlets and the project site's distance from berthing and galley facilities made the project even more challenging.

Project Data

Personnel: 20 personnel

Duration: April 2001- May 2001

Mandays: 470

Material Cost: N/A

Cost Savings: $ 164,500

Specifications: Provide surveying, equipment operations, drilling and blasting support for two independent 1,000 meter road sections. Cut and fill various areas along a 1,000 meter section of the proposed location. Relocate debris after blasting operations. Provide slope stakes, clearing limits and benchmarks. Operate six rock drills and perform drilling operations as directed. Design, transport, place and detonate all blasting materials in support of road clearing operations.

Left: Seabees assist with setting up camp.

Below: NMCB FOUR personnel restow a galley tent from Exercise Foal Eagle.

DFT FOAL EAGLE
JK0-678

Nine Seabees from NMCB FOUR participated in Exercise FOAL EAGLE '00. Working with a Task Group and Task Unit from Naval Special Warfare Group ONE, they completed the following support projects: construction of tent camps in Pohang and Pyongtek; a shower and head facility; a field galley; setup of a Mobile Kitchen Trailer (MKT); laundry skids; distribution of power; tactical operations; target construction. The Seabees also provided vehicle maintenance, transportation and embarkation support and received valuable CBR training.

Project Data

Personnel:	9 personnel
Duration:	October 2000 – November 2000
Mandays:	378
Material Cost:	N/A
Cost Savings:	N/A
Specifications:	Support Naval Special Warfare Group ONE with base camp construction and maintenance along with associated tasking including power distribution, vehicle maintenance, transportation, tactical operations and embarkation support.

Left: NMCB FOUR's S3 and S3C are briefed on a runoff containment system devised by the water well team.

Below: Drilling operations were conducted in the worst snowstorm to hit Sasebo in 30 years.

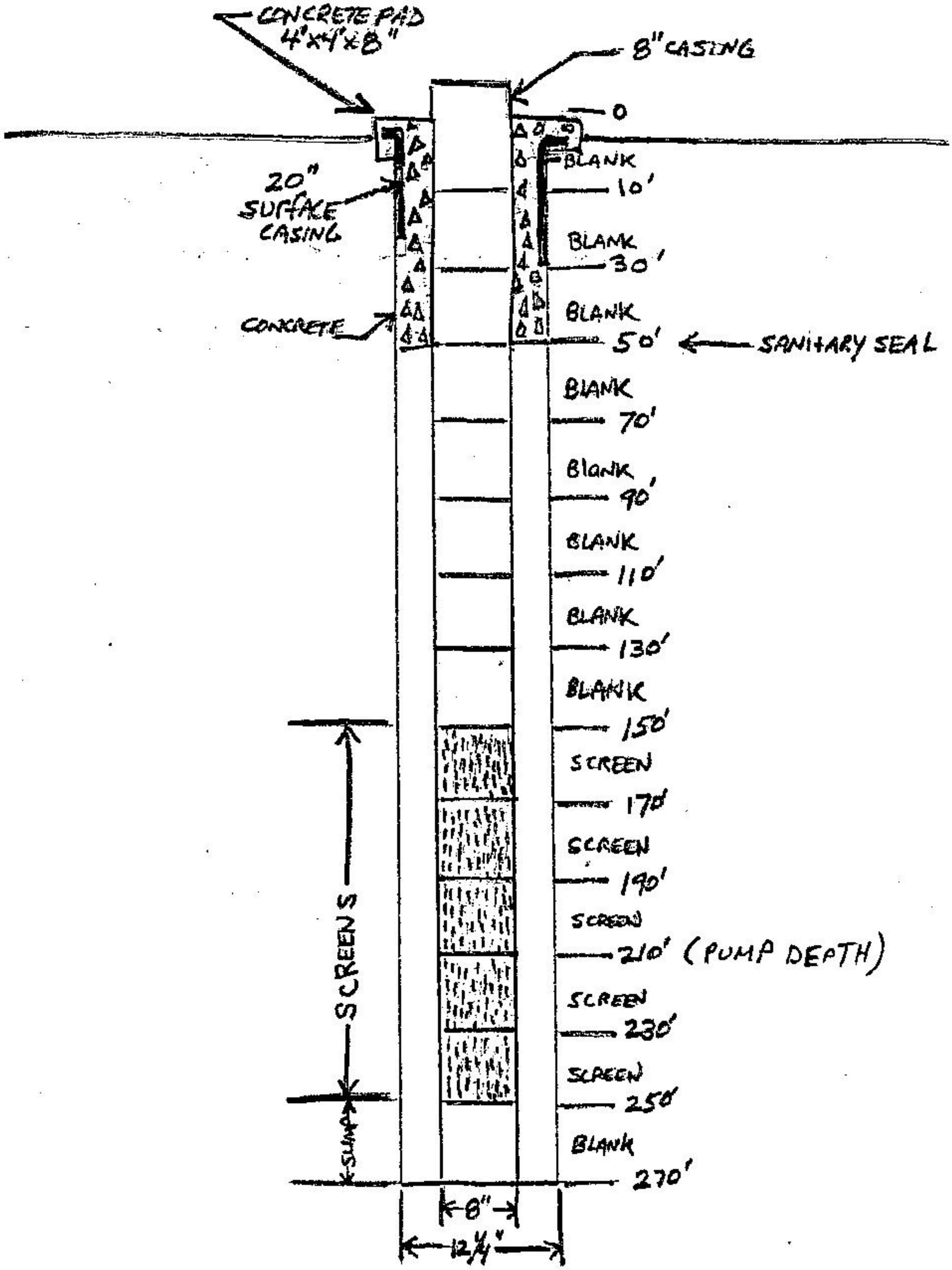
DFT WATER WELLS AT SASEBO
JK9-662

Nine Seabees from NMCB FOUR drilled and developed a water well at Dragonvale Heights base housing in Sasebo. The area has experienced droughts in the past and needed a reserve well until other wells are available. The drill rig was provided from Okinawa. The well was drilled to 270 feet and obtained an output of 89 gallons per minute.

Project Data

Personnel:	9 personnel
Duration:	October 2000 – January 2001
Mandays:	590
Material Cost:	$ 15,000
Cost Savings:	N/A
Specifications:	Drill one well to 600 feet in depth.

JK9-662 WATER WELL DIAGRAM



Left: A Seabee pushes rough grade at Parker Ranch.

Right: The DFT employs a water distributor to aid with compaction in dry conditions.

DFT HAWAII

Seven Seabees from NMCB FOUR were tasked with rebuilding a damaged roadway at Parker Ranch Range Operations. Work included rough grading, compacting, installing base course and installing surface course. Upon completion, the road is capable of supporting wheeled rubber tactical vehicles and farm vehicles. Additionally, the DFT was tasked with grading two existing roads. This work provided excellent training opportunities in road construction methods for both the equipment operators and engineering aides assigned to the project.

Project Data

.

Personnel:	7 personnel
Duration:	March 2001
Mandays:	135
Material Cost:	N/A
Cost Savings:	N/A
Specifications:	Rebuild 6,430 feet of damaged road by rough grading, compacting, installing 6 inch minus base course, and installing 1-1/2 inch surface course. Also grade and flatten two miles of existing roadway.

Left: A Seabee lays out the new water supply line.

Below: A Seabee lays tile with the assistance of an East Timoran child.

DFT EAST TIMOR

Six Seabees from NMCB FOUR assisted the US Support Group, East Timor, during the country's transition to independence. NMCB FOUR performed several engineering projects in East Timor, including the replacement of a deteriorating section of water distribution pipeline and several inoperable valves. The DFT also provided labor to distribute clothing and school supplies to five orphanages in the vicinity of Dili. The Seabees troubleshot and rewired the electrical systems in two Dili schools. Additionally, the Seabees repaired water wells supporting local schools.

Project Data

Personnel:	6 personnel
Duration:	April 2001
Mandays:	150
Material Cost:	Materials provided by Dili district government.
Cost Savings:	$ 52,500
Specifications:	Replace a 300 meter section of water pipeline and several valves. Repair water leaks to improve water supply. Trouble-shoot electrical problems and rewire as needed.

Left: A Seabee performs in Load On/Load Off operations.

Below: A Seabee loads equipment onto the USNS Stockham.

DFT BLOUNT ISLAND

Seven Seabees from NMCB FOUR participated in testing United States Naval Ship *Stockham,* a Maritime Prepositioning Force Ship. The USNS *Stockham* is being considered as the new flag ship for MPSRON 2 in support of 1 MEF in Camp Pendleton, California. The test consisted of performing Roll On/Roll Off and Load On/Load Off Operations with NCF TOA equipment. Other organizations that participated in the test included the test directors from MCOTEA in Quantico, Virginia, 1 MEF and the Maritime Sealift Command. This exercise provided excellent training for NMCB FOUR's equipment operators.

Project Data

Personnel:	7 personnel
Duration:	April 2001
Mandays:	49
Material Cost:	N/A
Cost Savings:	N/A
Specifications:	Test USNS *Stockham* LO/LO and RO/RO capabilities with NCF TOA equipment.

CHAPTER VI- SUPPLY AND LOGISTICS

Supply department personnel operated the following outlets: Enlisted Dining Facility, CPO Mess, Wardroom BEQ, CPOQ, BOQ, CTR, CSR, ARP, 782/Infantry Gear Issue, Supply Office, Disbursing, Barber Shop, MLO, Hazmat material and TOA Warehouse. Extensive material support was provided to Details at Pohang, Chinhae, Sasebo, Iwakuni, Yokosuka and Atsugi. One Storekeeper was provided to support supply operations for Details Chinhae and Pohang, and one each for Detail Yokosuka and Detail Sasebo. The other Details provided an OF-13 to handle their supply operations.

The NMCB FOUR Supply Department had a very successful deployment supporting the Battalion's construction mission. The Battalion achieved a grade of "above average," the highest grade ever given during the Third Naval Construction Brigade's intensive Financial Management Review. The N4 staff gave an overall "outstanding" and several individual accolades to the department after the Logistics Management Review (LMA). The Food Service Department received a Food Management Team visit in conjunction with the LMA. The results here were equally impressive. The NAVSUP inspection team had only superlatives for the Battalion operation and stated that it was five-star in all facets (operation, cleanliness, records, attitude, knowledge, presentation) except material condition (money was obtained for improvements based on the inspection report). The Post Office was two points short of an "outstanding" on the postal inspection despite operating most of deployment with an E-4 LPO in an E-6 billet. The overall operation and impressive knowledge of the junior postal clerks amazed the CFAO inspector. Finally, NMCB FOUR had a very successful MLO MAV.

Supply Office: The Supply Office was the driving force behind the success during the Financial Management visit and Logistics Management Assessment visit in January 2001. Camp Shields was granted $759K for FY01. Five SKs, one SH and three Japanese nationals processed requisitions for construction materials, repair parts and consumable items in support of Camp Shields and various projects throughout Okinawa.

The office processed over 4,535 requisitions in support of mainbody and six detail sites. They processed over 200 high priority NORS and ANORS requisitions in support of Battalion CESE operations.

Details at the four mainland Japan and Korea sites relied upon the Supply Office for consumables, repair parts, tools and CESE parts.

The Supply Office also managed $457K in travel funds and processed over 1,800 deployment per diem orders and 100 travel orders.

Automotive Repair Parts (ARP): The ARP outlet supported Alfa Company's Civil Engineer Support Equipment (CESE) maintenance program. There were three SKs and one CM assigned to this outlet. The inventory consisted of over 9,000 repair part line items, ranging from spark plugs to tires, worth $820K.

A problem with the MOD 96 inventory was identified at the beginning of deployment. The MOD 96 had a validity of 81%, significantly below the 95% Brigade goal. A wall-to-wall inventory of 486 line items valued at $10K was conducted, identifying missing or excess material. All missing items were immediately ordered and excess material turned over to Material Turned into Stores (MTIS) for re-issue. The inventory validity was increased to 95%.

A shelf-life program was also established for the outlet. The program identified 185 items valued at $56K. These items were labeled and status was updated in the SNAP II System.

Weekly inventories were conducted, resulting in validities increasing from 94% to 98% within the first two months of deployment. Brigade inspectors noted this impressive accomplishment during the Logistics Management Assist visit.

Central Storeroom (CSR): Two SKs were responsible for receiving stock, DTO parts, CTR tools, CTR equipment and project material from several locations on Okinawa, including FISC Det Okinawa, DSSC, GAS and the Naha pier. CSR received over 400 pallets of material and equipment valued at $1M in support of Camp Shields projects and 3 Deployments for Training (DFTs).

The CSR staff was also responsible for the Battalion's Field Exercise Table of Allowance (TOA). The TOA consisted of seven 20-foot TRICONs, six DFT TRICONs and two 20-foot Typhoon Kit TRICONs.

CSR did not stock large quantities of consumable items, but instead maintained a small amount of commonly used items for immediate pick-up by company personnel.

CSR staff shipped material to various detail sites and MTIS to stock in Port Hueneme.

782/Infantry Gear: The 782/Infantry Gear warehouse was manned by two SKs. Other SKs augmented the core staff during initial issue and restow of gear. The staff provided 500 active and reserve Seabees with all gear necessary for the field exercise and other deployment training.

Although the majority of the 782 gear at Camp Shields is old and worn, the SKs maintained the gear in the best ready-for-issue condition possible. Items that were unfit for issue were turned in to DRMO at Camp Kinser.

The Battalion's well-maintained warehouse with 100% inventory validity of 782 gear and CBR equipment received commendatory comments from the LMA inspectors. During the deployment, new 782 gear was received, and the quantity of each item was increased from 612 to 812.

Table Of Allowance (TOA): The TOA located at Camp Shields is containerized, with the exception of deferred items and tool kits. The TOA is currently being replaced with the P25M modular TOA.

The TOA is under the cognizance of the 3NCB Det OIC.

Hazardous Material: The HAZMAT staff consisted of two personnel who worked out of the Material Liaison Office. One E-6 served as the full time Battalion HAZMAT representative and, under the direction of the Environmental Chief and Environmental Officer, was responsible for all HAZMAT issues. One E-4 was assigned to oversee Battalion projects. This team supported Alfa/Bravo Company shops and camp maintenance projects. The team also received, stored and issued HAZMAT materials and MSDSs. Funding for HAZWASTE was provided by Commander, Fleet Activities Okinawa (CFAO).

Material Liaison Office (MLO): The Battalion's MLO Department consisted of eight personnel. The outlet was responsible for ordering, tracking, receipt, storage, issue, delivery, inventory and management of all project and camp maintenance material. MLO managed a budget of $1.6M for Mainbody's 16 projects as well as $248K for NMCB FIVE projects. MLO tracked $1.1M in funding for five of the Battalion's detail sites and took the lead in resolving all financial challenges. Establishing effective liaison with 3NCB and 31st NCR, MLO ensured funding and materials, both local and CONUS, arrived at Mainbody and detail sites on or ahead of schedule.

During the Logistic Management Assessment and throughout deployment, MLO received and maintained 100% construction material inventory validity. NMCB FOUR was the first Battalion to work with the new MLO program, a replacement of the former SAMMS program. Through extensive communication with the 31st Regiment, the software was improved. As a result, all NMCB FIVE projects are being managed using this new software. MLO also implemented new methods for tracking project funds, project expenditures, concrete and aggregate deliveries and material procurement status.

Central Tool Room (CTR): The CTR staff comprised six personnel tasked with the support of Mainbody and camp maintenance projects. CTR was responsible for the inventory, preventative maintenance and management of all hand and power tools and tool kits. CTR managed a $1.4M inventory consisting of 205 TOA and 55 augment tool kits, 2,896 shelf stock line items, 424 electrical tools and 80 gas/pneumatic

power tools. During the deployment, CTR completed a wall-to-wall inventory. In addition to their normal workload, CTR supported three Deployments For Training (DFTs). During the Logistic Management Assessment, CTR achieved an inventory validity rate of 100% and accolades for excellent outlet management. The 3NCB TOA manager stated that CTR was in its best condition in recent years.

Post Office: NMCB FOUR offered a full service post office manned by two personnel. They also sold postal money orders and postage stamps. The staff provided shipping materials such as wrapping paper, tape, postal insignia boxes and postal insignia flat envelopes. Outgoing mail was shipped through Kadena Air Terminal (AMT) and took approximately 7 to 10 days to reach stateside destinations. Incoming mail was received from Kadena AMT and CFAO postal facility and took approximately 7 to 10 days to arrive. Space available parcels took anywhere from 14 days to 2 months. The CFAO Postal Inspector was greatly impressed by the operation and was full of praise for the knowledge and attitudes of the staff and for the organization and effectiveness of the overall operation.

Food Service: The Food Service division improved service by leaps and bounds this deployment drawing praise from the 3NCB and NAVSUP inspectors. The 3NCB inspectors were so impressed with the high level of professional knowledge, morale and teamwork that they adopted the NMCB FOUR Food Service Training program as a model for other Battalions to follow. Since adopting full ration credit, the galley has been able to serve a wide variety of healthy and delicious meals. These meals included several special meals ranging from crab legs and lobster to T-bone steaks and shrimp. The galley offered many extra items including a wide choice of beverages and fresh fruit, a multiple item salad bar and a newly added (and very popular) potato bar. Several special meals were also hosted in the Officers' Wardroom. Ceiling fans, stratica tile and new galley equipment were funded and placed on order for follow-on Battalions.

Berthing: Camp Shields continued barracks renovations during the Battalion's deployment as part of the long-range camp improvement plan. The renovations created significant space challenges. The top two decks of building 7216 were completely renovated and outfitted with new furniture. The lower two decks will be overhauled during NMCB FIVE's Deployment. The new rooms are a great improvement in appearance and functionality over the old rooms. The assignment of a Barracks Petty Officer (BPO) and decision to give ownership of the barracks to the residents resulted in significantly improved quality of the common spaces, individual rooms and PSE maintenance.

Disbursing: The disbursing staff processed over 100 travel claims and over 1,800 per diem payments. With pay problems reduced to near-zero levels, the emphasis has been in process improvement and equipment and software upgrades. Process Flowchart Diagrams were developed and implemented to affect a better understanding of the entitlement and pay process for all Seabees.

Barber: One barber provided superb haircuts to over 400 Mainbody personnel. Hours of operation were extended two days per week to provide services for project personnel.

CHAPTER VII- EQUIPMENT

Equipment Population (Organic and Augment):

Vehicles	Beep	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Beep
In Service	153	153	153	150	163	147	147	150	140
In Preservation	131	131	131	120	130	121	121	119	112
Total	284	284	284	270	266	268	269	269	252

PM & Interim Repair ERO Summary:

Month	PM:Interim Ratio
Oct 00	2.27:1
Nov 00	3:1
Dec 00	2.6:1
Jan 01	7:1
Feb 01	2.65:1
Mar 01	5.1:1
Apr 01	3.5:1
Total	3.7:1

Equipment Availability Status:

On Deadline	Beep	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Beep
Auto	0	1	2	4	4	5	6	2	2
Construction	4	4	2	5	6	6	7	8	10
MHE	1	1	3	3	2	1	0	0	0
Total	5	6	7	12	12	12	13	10	12
Availability (Organic)	97.5%	94.7%	82%	80%	78.2%	79.5%	82.8%	86.5%	87.1%
Availability (Augment)	100%	91.7%	93%	95.3%	85.9%	89.7%	90.6%	86.8%	97.1%

Equipment Deployed Away From Mainbody Site:

	Beep	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	Beep
Pohang, Korea	0	0	0	14	14	14	14	14	14
Iwakuni, Japan	0	0	0	0	2	2	2	2	2
DFT Tandem Thrust	0	0	0	0	0	0	0	16	16
Cobra Gold	0	0	0	0	0	0	0	5	5
Water Well	3	3	3	3	3	3	3	3	3
Total	3	3	3	17	19	19	19	40	40

CHAPTER VIII- CAMP MAINTENANCE

Mainbody Camp Maintenance Tasking:

Maintenance Type	MDs
ESA	948
SJO	780
MCD	879
TOTAL	2607

Mainbody MCD Projects:

MCD Project	MDs	MCD Project	MDs
Install Name Plates and Directional Signs	5	Install Picnic Tables	7
Replace Wall Tile	1	Repaint Lines	5
Replace Hydraulic Pump	1	Install Ductwork	7
Replace Copper 3	1	Install Steam Table	5
Replace Tables/Lamps	1	Paint Tilt Grill	8
Install Freezer	1	Install Drainage	8
Install Suggestion Boxes	1	Clean Drain in Wardroom	8
Install Boot Brushes	2	Supply Concrete	8
Place Chairs	2	Repair Fans	9
Replace Batteries	4	Install Outlet Covers	9
Install Bulletin Board	2	Replace Ceiling Tile in Training Bldg.	10
Install Ice Machine	2	Refinish Doors	10
Repair Laundry Room	3	Paint/Repair Chair Rail	10
Install Emergency Lights	3	Replace Drywall on Ceiling	10
Replace Vent Filter	3	Repair Washrack	14
Replace Non-Skid Floor	3	Construct Steel Tank	16
Paint Interior Floor	4	Caulk Windows in Barracks	16
Install and Paint Eyewash	20	Paint Flag Poles	24
Paint Handrails	4	Install Sidewalk	25
Install Eyebolts	4	Repaint Curbs	36
Replace Door	4	Remove Furniture	66
Install GFCIs and Outlet Covers	14	Paint Warning Posts	98
Construct Metal Frames	5	Rehab Interior of Medical Bldg.	198
Paint Guardhouse	5	Patch/Paint Interior Walls and Doors of 7100-series Barracks Bldgs.	111
Install New Dryers	6	Cancelled Projects	37
Replace Floor Tile in Galley	23		
		TOTAL MANDAYS	879

Atsugi MCD Projects:

MCD Project	MDs
Install U-Ditch and Sidewalk	73
Replace Ridge Cap and Repair Ceiling Tiles	40
TOTAL MANDAYS	113

Left: Atsugi Seabees place concrete for a sidewalk/u-ditch project.

Below: Seabees replace the ridge cap to the PEB detail building.

Chinhae MCD Projects:

MCD Project	MDs
Barracks Painting	5
Construct Shed Roof	2
Construct MLO Fence	13
Remove Barracks Furniture	25
Construct Shelves for 782 Gear Storage	5
TOTAL MANDAYS	50

Left: A Seabee at Chinhae helps move furniture.

Iwakuni MCD Projects:

MCD Project	MDs
Controlled Inspection of Bldg 277	2
Paint OIC Office	3
Replace Door in SW Shop	4
Place Project Signs and Detail Boards	30
Minor Camp Maintenance	7
TOTAL MANDAYS	46

Sasebo MCD Projects:

MCD Project	MDs
Repaint Office Spaces/Head	40
Repaint Safety Zones on Floor	2
Repair Windows in Dispatch and CM Offices	8
TOTAL MANDAYS	50

Left: A Seabee paints window trim around newly installed windows in the Yokosuka's Alfa shops.

Yokosuka MCD Projects:

MCD Project	MDs
Monthly Camp Housekeeping	7
Construct Air Compressor Baffle in CM Shop	5
Repair MLO Gate	6
Construct Storage Shelves in MLO	4
Repair Alfa Yard Fence	4
Install Siding Around Flam Storage Locker	4
Install Landscaping in Front of Spaces	3
Repair Personnel Doors at Main Building	3
Repair Manhole Cover in Front of Spaces	2
Install Bulleting Boards in Office Spaces	2
Repair Alfa Yard Security Lighting	2
Repair Fan in Male Head	2
Repair Plumbing in CM Shop Head	2
Repair Electrical Panel in CM Shop	1
Miscellaneous Other Repairs	6
TOTAL MANDAYS	53

Right: Seabees spread topsoil and plant flowers and shrubs in front of the Det spaces.

Left: A Seabee forms up a damaged manhole cover in front of the Det spaces.

APPENDIX 1- LESSONS LEARNED

Mainbody, Okinawa, Japan

KEYWORD: Administration

ITEM: Message Traffic

(1) Discussion: Throughout deployment, message traffic required a long time to reach the command. The SAHAR system is totally different from what most non-Air Force personnel use for message traffic. The Navy programs output messages in a different format (modified ACP 126) than what the SARAH system takes. This difference required Admin to convert the messages to the SARAH format. Depending on the message and the skill level of the user, this conversion could be a lengthy process. The SARAH system also has a tendency to reformat the Navy messages (SDS diary messages) which would cause them to be rejected. Other problems included notification of high precedence or special handling messages, and timely delivery and receipt of messages.

The Air Force made the transition to DMS for its unclassified messages and will soon be making the move to DMS for its classified traffic. The Navy's POA&M does not currently have tactical DMS.

With the Camp Shields servers going behind the Marine Corps firewall, the Battalion will have to shift their message traffic (guard shift) to the Marine Corps DMS facility (LCC). The Air Force's security system will not allow the Battalion to remotely retrieve its messages from Camp Shields. Until the switch over is complete, messages will have to go through the 18th COMM Squadron. After the switch (if the Battalion wishes to use DMS) a guard shift will have to be made to the Marine Corps COMM facilities.

(2) Recommendation: The Battalion should investigate switching to NTCSFE (Yokosuka) and dial in for their message traffic.

ITEM: Data Transfer

(1) Discussion: There are currently two 6-gigabyte (GB) hard drives that are used to transport the Battalion's operational data files between homeport and deployment sites. One hard drive goes with AP and the other hard drive goes with DP. Some of the Battalion's senior users have PSTs that are 2 GB in size that quickly fills up the removable hard drives.

(2) Recommendation: Provide 2 minimum 30 GB hard drives to store user PST and files that are used on the "G" and "S" drives. The current cost of a 30 GB hard drive is approximately $250 per drive or $2,000 for four battalions.

ITEM: Domain Controller Servers

(1) Discussion: Both the Primary Domain Controller (PDC) and Backup Domain Controller (BDC) have crashed due to hardware problems. The BDC had a motherboard failure and the PDC had a Hard Drive and a CPU Processor failure. With the current conditions and usage, the servers are likely to crash again.

(2) Recommendation: Purchase 3 new servers (PDC, BDC and Exchange Server) and configure them to industry standards.

ITEM: LAN File Server

(1) Discussion: The current file server system at Camp Shields is inadequate to handle the demands of storing and processing the vast quantities of electronic data (files) of an active battalion.

(2) Recommendation: Upgrade current file server to handle increased workloads, reduce file processing time, and system lockups.

ITEM: Radio Frequencies

(1) Discussion: No frequencies were allotted for battalion exercises upon arrival.

(2) Recommendation: Coordinate with Spectrum Management on the island for assignment of frequencies or request permanent frequency set and Frequency Hopping loads for SINCGARS radios. The POC for temporary frequencies is III MEF G6 Frequency Coordinator who can be reached at 622-7720.

ITEM: Communication Funding

(1) Discussion: No funds were allotted for communications repairs or repair parts.

(2) Recommendation: Ensure that funding is allocated to site for repairs through ELMACO. Budget a minimum of $5,000 for miscellaneous repair parts to be ordered for internal communications equipment repair.

ITEM: Printer Access

(1) Discussion: Chaplain and RP's computers are mapped to printers in Administration and Training Departments. Both of these offices are located in Building 8201. Distance between computers and printers increases risk of losing control of confidential or sensitive information documents.

(2) Recommendation: Install printer in Chaplain Office for Command Religious Program use.

ITEM: Personal E-Mail Accounts

(1) Discussion: There are limited resources for personnel to access free e-mail accounts to correspond with friends and family. Easy access is a positive and powerful morale multiplier.

(2) Recommendation: Install more computers in the library designated for personnel e-mail usage. Sign-up and management would be controlled by the Camp Librarian, Religious Programs Specialist.

ITEM: Library Books:

(1) Discussion: The majority of new books received from the Chief of Naval Education and Training (CNET) are paperbacks of a general entertainment nature. Regular requests are made by personnel for up to date resources to assist in preparing for a college entrance exams and other higher learning measurement tools (ACT, SAT, ASVAB, GRE, GMAT, GED, CLEP). Additionally, most professional books on such topics as Naval History, English Composition and Literature, Mathematics, Engineering, and Social Sciences are at least 15 years old.

(2) Recommendation: The Camp Shields Library should receive additional allocation of $5,000 to purchase new professional books, with a dedicated annual budget of $1,500 for future years.

ITEM: Printing Battalion Familygram

(1) Discussion: On prior deployments to Okinawa the monthly Familygram was sent to the homeport California DAPS center for printing and then mailed by the Family Support Chief. In a cost comparison with the Kadena DAPS it was found that the same product could be printed for 50% less with negligible loss of quality. Even with the expense of mailing the printed Familygrams back to the FSC for final mailing, a significant cost savings was realized.

(2) Recommendation: For Battalions deployed to Okinawa and involved in printing newsletters, Battalion PAO should use the Kadena DAPS for print orders.

ITEM: Digital Cameras

(1) Discussion: Pacific Fleet Seabee battalions received new Nikon Cool Pix 990 digital camera kits. It was found that the Universal Service Bus (USB) was rendered incompatible with Windows NT systems. Attempts were made to use the PCMCIA slots on the shop computers but this method was also unsuccessful.

(2) Recommendation: Digital cameras ordered by Brigade should be equipped with both USB and Serial port cables for transfer of digital photos to avoid software or hardware issues associated with the Windows NT program.

ITEM: CD-R/RW for Public Affairs Office

(1) Discussion: The Public Affairs staff takes and files hundreds of digital photos monthly. Keeping these images on a computer or on a shared drive puts them at risk of accidental or intentional erasure, malicious viruses or removal from the photo section completely. Also, cataloging our expansive collection of photos is inefficient when the only way to label a photo is by file name.

(2) Recommendation: The Public Affairs Office should have a dedicated CD-R/RW device to regularly back up photo files, and other extensive, irreplaceable files. This change will eliminate the potential of accidental erasure, viruses and digital manipulation. Brigade should procure a photo database management system for each Battalion. Such programs, such as Lynx, allow immense data (such as location, photographer, caption, keywords, etc.) to be attached to photos. This data would allow the Battalion to perform searches and queries for photos.

KEYWORD: Training

ITEM: Radio Frequencies

(1) Discussion: No training was available for frequency hopping on SINCGARS.

(2) Recommendation: Incorporate frequency hopping training into the homeport Communications class, and into COMM Exercise, Command Post Exercises and Field Exercises.

ITEM: Radio Frequency Requests

(1) Discussion: Securing permission to utilize radio frequencies on Okinawa can be a lengthy process. The training for full frequency hopping requires a minimum of 6 frequencies.

(2) Recommendation: Requesting radio frequencies for all scheduled training days during the entire deployment prior to departing or immediately upon arrival in Okinawa. This request is easily submitted and will maximize training options.

ITEM: Classroom Use

(1) Discussion: The training classrooms on Camp Shields are utilized by several organizations on Okinawa. The increased use by Navy Campus and local universities has led to outside agencies expecting and requesting to have classrooms dedicated for their use. The primary mission for the training classrooms is to support deployed battalion training evolutions. Priority use must be maintained by the Battalion to accommodate varying training needs.

(2) Recommendation: Maintain close control and ownership of the classroom spaces with a single reservation schedule.

ITEM: Training Opportunities

(1) Discussion: The operation tempo and number of Marine units on island afford many opportunities to observe training evolutions. The Marine units on Okinawa spend the majority of their time training. After establishing several contacts at local Marine units through the Battalion Military Advisor, the Battalion was able to participate as observers in several Marine exercises.

(2) Recommendation: Ensure the Military Advisor establishes contact with locally deployed units as early as possible to determine local Marine training which Seabees can observe or participate.

ITEM: Firing Mortars

(1) Discussion: Firing mortars on Okinawa requires approval by several local agencies. The approval process can take a great deal of time.

(2) Recommendation: Immediately upon arrival in Okinawa complete all paperwork for firing mortars.

ITEM: Japanese Construction Techniques

(1) Discussion: Locally procured material and construction techniques in Okinawa vary significantly from the standard training Seabees receive in "A" and "C" schools. The potential for slower production and increased rework exists.

(2) Recommendation: Use civilian personnel from ROICC or Public Works as on-site advisors until the crew is comfortable with the unfamiliar techniques. Both organizations employ nationals with significant experience in Japanese construction techniques. ROICC was particularly helpful assisting the crew with hands-on training on JK3-808 "Construct Retaining Wall," a project that required tedious "kenchi" block installation.

ITEM: Specialized Skills

(1) Discussion: Inadequate training was available to perform specialized skills successfully such as a fire suppression system.

(2) Recommendation: Obtain more training skill courses necessary to complete upcoming projects.

KEYWORD: Operations

ITEM: Interpretation of Plans

(1) Discussion: Many of the project plans were incomplete and project specifications were not provided or were of poor quality.

(2) Recommendation: Continue to have a consistent, proactive communication dialogue with Public Works/ROICC to ensure that the project is constructed according to the plans. Detailed project specifications also help.

ITEM: Planning and Estimating (P&E)

(1) Discussion: Due to lack of training and experience in planning and estimating, BM and manday estimates were inaccurate.

(2) Recommendation: Provide additional training in planning and estimating.

ITEM: Japanese Holidays

(1) Discussion: Most Japanese businesses are closed for the two weeks surrounding New Year's Day (one week before and one week after). There is another holiday in May that closes all Japanese businesses. It is extremely difficult, if not impossible, to get concrete or other material deliveries during these times.

(2) Recommendation: Careful planning must be done to ensure all required materials are on-hand prior to the start of the holiday periods.

ITEM: Equipment Resource Leveling

(1) Discussion: CESE assets in Okinawa are based upon the contingency mission of an NMCB. However, project tasking may rely heavily on certain types of equipment. For instance, NMCB FOUR's tasking required extensive excavation in several locations on Okinawa. Despite the best efforts of Operations, Alfa Company and project personnel to resource level, the two excavators provided in the NMCB TOA were not adequate for the amount of excavating required.

(2) Recommendation: Set aside funds on project BMs for equipment rentals to execute project tasking when the TOA cannot be resource-leveled or consider augmenting Camp Shields' CESE assets with equipment that is used most frequently in the execution of deployment projects.

ITEM: Administrative Vehicles

(1) Discussion: Administrative vehicle assets at Camp Shields are inadequate. QC inspections, safety visits, engineering services, mail and supply runs, local material procurement, hospital appointments, message traffic and VIP project tours required frequent use of administrative vehicles. The efficiency of Battalion support functions was negatively impacted.

(2) Recommendation: Consider augmenting Camp Shields' fleet of administrative vehicles.

ITEM: Dig Permits

(1) Discussion: Approval of digging permits required up to one month to obtain.

(2) Recommendation: Ensure that digging permit requests are submitted as soon as a requirement is recognized.

ITEM: Troublecall Desk

(1) Discussion: There are many external points of contacts for different types of work throughout Camp Shields. Each service has a different point of contact for the appropriate maintenance contractor.

(2) Recommendation: Utilize the new troublecall desk for CFAO. They will submit the request through all of the services and provide a tracking number. The e-mail address is publicworkstroubledesk@cfao.navy.mil.

ITEM: Concrete Ordering Procedures

(1) Discussion: Concrete orders had to be made at least 5 days prior to the concrete placement date. Projecting concrete by 5 days is difficult in Okinawa. Unforeseen rains often prevented crews from achieving required compaction in time for the placement. Common practice is 48-hours notice to order concrete in most of the United States.

(2) Recommendation: Establish an IDQ contract for concrete with the ROICC office or Marine Corps Contracting office. Ensure the IDQ contract allows a 48-hour notice for delivery of concrete.

ITEM: Cell Phones

(1) Discussion: Numerous times during the deployment, crew leaders on remote project sites needed immediate contact with Battalion spaces or MLO.

(2) Recommendation: Consider providing crew leaders and QC inspectors on remote sites cell phones to ease project communications.

KEYWORD: Supply

ITEM: Medical Equipment

(1) Discussion: The Medical Department at Camp Shields is currently without several key equipment items. There is no functioning suction device to secure airways obstructed by blood, saliva, etc. Medical is also without a pulse oximeter to evaluate patients with breathing problems and has only one Automated Electrical Defibrillator (AED). A deployed Air Detachment would require its own AED. Because the medical building does not have its own fax machine, all faxes must be sent during Battalion working hours to allow a corpsman to receive them at the Headquarters building. This is inefficient and risks personal medical data being seen by non-medical personnel. In addition, the Medical Department has no gurney in the trauma room and there are no HM or IDC packs.

(2) Recommendation: The BAS needs to purchase a suctioning device, a portable pulse oximeter, an automated electrical defillator, a gurney, HM/IDC packs and a fax machine.

ITEM: Bill of Materials Estimates

(1) Discussion: Material costs estimated in homeport were not very accurate for materials purchased locally in Japan. Additionally, some items readily available in the United States were not available in Japan. Further, standard dimensions varied due to use of the metric system.

(2) Recommendation: A material liaison familiar with local vendors and products could ensure more accurate estimates by producing BMs for local purchase materials in Japan. This would reduce FARs (for material substitution or scope change) and material add-ons.

ITEM: Local Purchases

(1) Discussion: Certain items that were slated as local purchases should have been coded for CONUS acquisition due to local procurement challenges.

(2) Recommendation: Request all electrical and hazardous materials be purchased though CONUS.

ITEM: Fixed Credit Account

(1) Discussion: There are currently 4 deployment sites, and before every deployment, the Post Office has to issue a stamp credit to the Custodian of Postal Effects (COPE) of each Battalion. Then after every deployment, the COPE has to return the stamp credit to the office.

(2) Recommendation: To eliminate the issuing and returning of the stamp stock, there should be a fixed credit already established at the deployment site and each outgoing COPE will then turnover the stamp credit to the incoming COPE. Additionally, postal meters can be turned over and remain at the deployment site.

ITEM: Unisys III

(1) Discussion: Currently all transactions are done manually at the post office. All postage rates and other services must be performed manually, slowing down customer service significantly.

(2) Recommendation: Install and use the Unisys III system.

ITEM: Security in Post Office

(1) Discussion: There are currently three safes in the Camp Shields post office. Only two of these safes are operable yet very old. Additionally, the door hardware on both the front and rear doors is unreliable, posing a possible security risk.

(2) Recommendation: Replace the safes and install door hardware that locks automatically from outside.

Detail Atsugi, Japan

KEYWORD: Operations

ITEM: Vehicle Availability in Atsugi

(1) Discussion: Currently, the Detail has no CESE and all vehicle support is provided by Public Works Center, Yokosuka. Support has been good, however there are times when equipment is unavailable, and it would be much more efficient if there were some assets that were dedicated to the detail, such as a 5-ton dump, 5-ton flat bed and a backhoe. Also, there was often not enough money set aside for equipment rental.

(2) Recommendation: To have dedicated CESE assets for the Detail, either from Public Works, or Augment CESE from Brigade for common use items such as a dump truck, stake truck and a backhoe.

KEYWORD: Supply

ITEM: Small Purchase Items

(1) Discussion: Detail Atsugi did not have the authority to make small purchases. The detail could not procure materials that were not available at the NAF Atsugi GSA. The NAF Atsugi Supply Department was not willing to make small purchases and often purchased small items, such as drill bits, in bulk quantities. The detail was regularly required to purchase much more of an item than required.

(3) Recommendation: Each detail should have one person with the authority to use a government credit card for small purchases.

ITEM: Japanese Material Liaison

(1) Discussion: Detail Atsugi worked directly with NAF Atsugi Supply Department to requisition locally purchased materials. The NAF Atsugi supply personnel were not familiar with construction materials and Seabees were not familiar with local Japanese vendors.

(2) Recommendation: A material liaison, fluent in Japanese, should be assigned to assist the Seabees with local purchases. This person must also be familiar with local construction materials.

Detail Chinhae, Korea

KEYWORD: Supply

ITEM: Central Tool Room

(1) Discussion: Detail Chinhae generated a tool list in the beginning of deployment. However, at deployment's end, not all tools had been received.

(2) Recommendation: Funding should be provided to each detail to replace critical tools through local purchase with a credit card.

DFT Foal Eagle, Korea

KEYWORD: Supply

Item: Meals

(1) Discussion: Operational commitments during Exercise Foal Eagle required extensive travel from Chinhae, Pohang and Pyongtek. This caused DFT personnel to miss meals and live out of pocket for approximately 2 weeks.

(2) Recommendation: Require the Combat Service Support Group (CSSG) to provide advanced per diem or Partial Meal Rate (PMR). These funds should be provided to the DFT personnel prior to their departure from mainbody.

DFT Fuji, Japan

KEYWORD: Operations

ITEM: Vehicle Availability in Fuji

(1) Discussion: Currently, the Public Works transportation department in Atsugi provides all vehicle support for DFT Fuji. Due to the recent regionalization of the transportation departments under PWC Yokosuka, NAF Atsugi pays rental fees for all vehicles it checks out. PW Atsugi is willing to pay the fees for the vehicles in Atsugi, but is reluctant to pay for vehicles in Fuji.

(2) Recommendation: Either the NCF reimburses NAF Atsugi or the Marines at Camp Fuji pay the cost of the vehicles through project funds to provide Seabees vehicles.

DFT Hawaii

KEYWORD: Operations

ITEM: Equipment Rental

(1) Discussion: Renting equipment had a very negative impact on DFT Hawaii. Equipment suppliers had little experience providing equipment and maintenance support. On several occasions the DFT was delayed due to equipment breakdown. The DFT had to borrow a grader from the Army to complete its tasking.

(2) Recommendation: A minimum response time to repair equipment should be specified in equipment rental contracts. A daily visit by a competent mechanic should solve the problems of lost production.

Detail Iwakuni, Japan

KEYWORD: Supply

ITEM: Regimental BMs in Homeport

(1) Discussion: Detail Iwakuni used Regimental bills of material (BMs) during the homeport project-planning phase. Regiment's BM was used in homeport to run the BM/MTO bounce and generate add-on BMs. Once the Detail arrived in Iwakuni, they were furnished with local BMs only. Regimental BMs are not used in Iwakuni to order materials. The base uses local Japanese employees to plan and estimate all Seabee tasked projects. These P&E personnel generate a local BM and all material is ordered from this local BM. Using the Regiment's BM is misleading, as this is not the material that is ordered. Project Material Status Reports (PMSRs) are inaccurate in Iwakuni, also. The local BM numbers are also different than the Regiment's BM numbers.

(2) Recommendation: Obtain the local BMs from the Iwakuni Facilities Operations Chief early in the planning phase and utilize these to build add-on BMs. Materials ordered in Iwakuni are ordered off the local BM and the most effective way to P&E the project is using the local BM. Normally, all projects in Iwakuni are funded directly by the station.

Detail Pohang, Korea

KEYWORD: Administration

ITEM: HVAC Repair

(1) Discussion: Contractors were slow correcting problems with the HVAC units in the Pohang barracks or galley.

(2) Recommendation: When problems exist, continue to contact the Marine Corps liaison at Camp Walker for action.

ITEM: Vehicle Licensing

(1) Discussion: All drivers assigned to Detail Pohang must have a Korean stamp on their licenses. Additionally, they must get a winter stamp.

(2) Recommendation: Before the winter months set in, the Licensing Examiner must go to the Provost Marshal office in Taegu to get a video tape on winter driving. After watching the video, the Examiner will stamp all licenses. Without the stamp, entry will be denied to all bases in Korea.

KEYWORD: Operations

ITEM: Project Funds Availability

(1) Discussion: Because a project at Detail Pohang was started with an inaccurate BM and the scope of work changed, some materials were double-ordered.

(2) Recommendation: Insure an accurate BM is finalized before the start of a project. Additionally, any changes in project scope need to be closely coordinated with the 31st Regiment MLO personnel to alleviate

double ordering.

KEYWORD: Supply

ITEM: Galley Equipment

(1) Discussion: Detail Pohang completed a new galley but the old galley equipment has not been replaced. The grill, mixers, electric kettles, dispensers, AC units and dishwashers do not work properly.

(2) Recommendation: Request funds to replace old equipment.

ITEM: Hazmat Storage Space

(1) Discussion: Limited Hazmat storage containers were available at Detail Pohang. Additionally, extremely cold winter weather caused problems with Hazmat due to a lack of a heat in the containers.

(2) Recommendation: Obtain additional Hazmat containers with heat capacity.

Detail Sasebo, Japan

KEYWORD: Administration

ITEM: Female Head

(1) Discussion: There is only one head facility in the Detail Sasebo spaces, which is shared by both males and females. The personnel in the Detail did not have a problem; however, some visitors were uncomfortable with the arrangements.

(2) Recommendation: Brigade should task a detail with a project to convert the adjoining janitor closet/shower into a female head.

KEYWORD: Operations

ITEM: Poor Communication with Project Sites

(1) Discussion: Since most of the sites for the Sasebo projects are on remote bases, communication with the project sites was difficult. On a few occasions when a message had to be relayed to the project sites, personnel were required to travel to the site to deliver the message.

(2) Recommendation: Two cell phones should be purchased for any on-going projects at Hario-Shima Ordnance Facility and Sakibe. These phones could also be used for the frequent trips to the airport.

Detail Yokosuka, Japan

KEYWORD: Operations

ITEM: Language Barrier

(1) Discussion: The Yokosuka Detail relied heavily on PWC Code 800 (Supply) and Code 530 (Planning & Estimating) for material and logistic support. Despite the outstanding efforts made by PWC personnel to meet our schedule and material requirements, the persistent difficulty in communication between the Seabees and MLC personnel created numerous problems. The MLC personnel simply did not speak English well enough to fully understand many of our requirements. As a result, a great deal of time and money was wasted on reordering materials and tools.

(2) Recommendation: If possible, send a Seabee with the detail who can speak Japanese.

KEYWORD: Supply

ITEM: Add-On/Reorder BMs

(1) Discussion: When project crews first arrived on site, they conducted an inventory of materials on-hand, bounced that against the BM, and generated an Add-On/Reorder BM to cover the discrepancies. These Add-On/Reorder BMs were then sent to PWC Code 530 (P&E) who subsequently generated ordering documents for the required material. Many times, however, the local PWC personnel either did not fully understand what was wanted or the needed item was not available in Japan. Items that were eventually received did not match the items that were ordered (or was incompatible with existing project material). This problem occurred most frequently on projects where at least some of the material was shipped previously from CONUS.

(2) Recommendation: Use 100% Japanese materials on all projects constructed in Japan.

ATTENTION INVITED TO ADMINISTRATIVE MESSAGE

ROUTINE

R 111400Z DEC 00 ZYB

FM COMNAVSPECWARGRU ONE

TO NMCB FOUR
INFO COMSOCPAC HONOLULU HI//00//
COMSOCKOR SEOUL KOR//00//
COMSOCKOR SEOUL KOR//00//
THIRD NCB DET GU
SPECBOATRON ONE

BT

UNCLAS //N00000//

MSGID/GENADMIN/COMNAVSPECWARGRU ONE/00/NOV//

SUBJ/FOAL EAGLE 00 EXERCISE SEABEE BATALLION SUPPORT BRAVO ZULU//

RMKS/1. FOLLOWING EXERCISE FOAL EAGLE 00, I WANT TO FORMALLY RECOGNIZE THE CONTRIBUTION MADE BY THE SEABEES OF NAVAL MOBILE CONSTRUCTION BATTALION (NMCB) FOUR TO THE SUCCESS OF NAVAL SPECIAL WARFARE OPERATIONS.

2. FOAL EAGLE IS AN EXTREMELY COMPLEX COMBINED FORCES EXERCISE INVOLVING U.S. AND ROK UNITS. IT IS NAVAL SPECIAL WARFARE'S (NSW) LARGEST AND MOST DEMANDING FIELD TRAINING EXERCISE. THE SEABEES WERE ABSOLUTELY INVALUABLE IN PROVIDING SUPPORT TO THE NSW TASK GROUP AND TASK UNITS IN THEIR RESPECTIVE LOCATIONS.

3. THESE SEABEES BUILT THREE DIFFERENT EXPEDITIONARY CAMPS AND RELOCATED TWO OF THEM, BUILT AND INSTALLED A SUPERBLY REALISTIC TARGET AT SU SONG RI RANGE, AND SUSTAINED FIELD OPERATIONS THROUGHOUT THE EXERCISE. THEY EXECISED MANY OF THEIR FIELD SKILLS AND PROVED ONCE AGAIN THAT THE SEABEES REALLY KNOW HOW TO LIVE AND WORK IN AN EXPEDITIONARY ENVIRONMENT. I WAS EXTREMELY IMPRESSED BY THEIR DEDICATION AND HARD WORK, THEY TRULY EXEMPLIFIED NMCB FOUR'S MOTTO OF 'BE MORE IN FOUR.'

4. THEIR TECHNICAL SKILLS, INGENUITY AND MOST OF ALL THEIR CAN DO ATTITUDES MADE EVEN THE DIFFICULT TASKS LOOK EASY. PLEASE CONVEY MY PERSONAL THANKS TO ALL WHO PARTICIPATED FOR THEIR EXTRAORDINARY EFFORTS. COMMODORE BILL MCRAVEN AND MASTER CHIEF STEVE CHAMBERLIN SEND.//

BT

#2284

NNNN

PATUZYUW RUHEHMS0265 1040408-UUUU--RUHBABA.
ZNR UUUUU ZUI RHHMMCA2030 1040417
P 140001Z APR 01 ZYB PSN 813206Y20

FM COMMARFORPAC//COMDR//

TO RUHPBXR/USS BOXER
RUHPBXR/ELEVENTH MEU SOC//JJJ//
RUHBABA/COMUSGET//JJJ//
RHAKAAA/NMCB FOUR//JJJ//
INFO RUEHJA/AMEMBASSY JAKARTA
RHMFIUU/CMC WASHINGTON DC//CMC/ACMC/PP&O/P&R/PA//
RUEACMC/CMC WASHINGTON DC//CMC/ACMC/PP&O/P&R/PA//
RHHMUNA/USCINCPAC HONOLULU HI//J00/J01/J3/J4/J5//
RHHMHAA/CINCPACFLT PEARL HARBOR HI//N00//
RHHMHBA/CINCPACFLT PEARL HARBOR HI//N00//
RHMFIUU/CG I MEF//CG/G3//
RUWICBE/CG I MEF//CG/G3//
RUHEMCS/COM THIRD NCB PEARL HARBOR HI//N00//
RUWFPCF/COM THIRD NCB PEARL HARBOR HI//N00//
RUHPOAA/COMSEVENTHFLT//N00//
RUHPBXR/COMPHIBRON SEVEN//N00//
RHMFIUU/CG FIRST FSSG//CG//
RUWICBD/CG FIRST FSSG//CG//
PAGE 02 RUHEHMS0265 UNCLAS
RHMFIUU/CG THIRD MAW//CG//
RUWIKBC/CG THIRD MAW//CG//
RUHBVMA/CTF 76//JJJ//
RHODACP/USS HARPERS FERRY
RHODCLV/USS CLEVELAND
RUHPBXR/BLT TWO SLANT ONE//CO//
RUHPBXR/HMM TWO SIX EIGHT//CO//
RHODACP/MSSG ELEVEN//CO//
RHMFIUU/COMMARFORPAC//COMDR/
RUHEHMS/COMMARFORPAC//COMDR/

BT

UNCLAS //N01000//

MSGID/GENADMIN/COMMARFORPAC CMDR//

SUBJ/BRAVO ZULU FOR BOXER ARG/11 MEU IN EAST TIMOR.//

RMKS/1. PLEASE PASS TO ALL MARINES AND SAILORS OF THE BOXER ARG/11 MEU, AS WELL AS THE SEABEES FROM NMCB-4, MY SINCEREST THANKS AND ADMIRATION FOR THE TREMENDOUS WORK YOU ACCOMPLISHED DURING YOUR RECENT VISIT TO EAST TIMOR.

2. HAVING RECENTLY VISITED EAST TIMOR MYSELF, I KNOW HOW MUCH THERE IS TO DO THERE AND HOW MUCH YOUR EFFORTS WILL MAKE A DIFFERENCE IN THE LIVES OF THOUSANDS OF PEOPLE. THE COMPLETION OF THE DARE SCHOOL WILL PROVIDE A LASTING REMINDER TO THE PEOPLE OF EAST TIMOR OF THE PRIDE THEY FELT WORKING SIDE BY SIDE WITH U.S. MARINES AND SAILORS TO BETTER THEIR COMMUNITY. ADDITIONALLY, I KNOW THERE ARE HUNDREDS OF UNTOLD STORIES OF CHARITABLE ACTS PERFORMED BY OUR MARINES AND SAILORS DURING THE VISIT THAT WILL FURTHER STREGTHEN OUR NATION'S EFFORTS TO PROMOTE PEACE AND DEMOCRACY IN EAST TIMOR.

3. FOR COL HOARN AND LTCOL MARR, THANK YOU AND YOUR STAFF FOR SUPPORTING THE ARG/MEU DURING THEIR VISIT. YOUR WORK SET THE STAGE FOR A SUCCESSFUL EVOLUTION.

4. I AM CONFIDENT THAT THE NAVY AND MARINE CORPS TEAM OF THE BOXER ARG AND 11 MEU WILL CONTINUE TO EXCEL IN ALL FUTURE MISSIONS DURING THIS DEPLOYMENT. AGAIN, THANK YOU FOR A JOB WELL DONE.

5. SEMPER FIDELIS, LTGEN LIBUTTI SENDS.//

BT

#0265

NNNN

ADMINISTRATIVE MESSAGE

ROUTINE

R 081435Z MAY 01 ZYB PSN 265423E22

FM COM THIRD NCB PEARL HARBOR HI//N00//

TO NMCB FOUR

INFO CNO WASHINGTON DC//N4/N44/N446//
CNO WASHINGTON DC//N4/N44/N446//
USCINCPAC HONOLULU HI//J00/J01/J3/J4/J5//
USCINCJFCOM NORFOLK VA//J4/J4ENG//
USCINCJFCOM NORFOLK VA//J4/J4ENG//
CINCPACFLT PEARL HARBOR HI//N00/N01/N3/N4/N5/N46/N464//
CINCPACFLT PEARL HARBOR HI//N00/N01/N3/N4/N5/N46/N464//
COMMARFORPAC//CG//
COMMARFORPAC//CG//
COMUSKOREA SEOUL KOR//FKEN//
COMNAVFORJAPAN YOKOSUKA JA//N40//
COMNAVFORJAPAN YOKOSUKA JA//N40//
COMNAVFACENGCOM WASHINGTON DC//00/01/09/OPS/CEG//
COMNAVFACENGCOM WASHINGTON DC//00/01/09/OPS/CEG//
COMUSNAVSO//N00//
COMUSNAVSO//N00//
COM THIRD NCB PEARL HARBOR HI//N3//
COM THIRD NCB PEARL HARBOR HI//N3//
PACNAVFACENGCOM NORFOLK VA//09//
COM SECOND NCB LITTLE CREEK VA//N00/N01/N03//
CBC GULFPORT MS//01//
COM TWO ZERO NCR GULFPORT MS//R00/R01/R30//
ALCOM ELMENDORF AFB AK//CO//
ALCOM ELMENDORF AFB AK//CO//
SEABEE CAMP SHIELDS OKINAWA JA//CO/S3//
COM THREE ONE NCR PORT HUENEME CA//R30/R35//
COM THREE ONE NCR PORT HUENEME CA//R30/R35//

UNCLAS //N05000//

MSGID/GENADMIN/COM THIRD NCB//

SUBJ/PACIFIC DEPLOYMENT BRAVO ZULU//

RMKS/1. CONGRATULATIONS TO THE SEABEES OF NMCB FOUR UPON COMPLETION OF A SUCCESSFUL PACIFIC DEPLOYMENT. YOUR ACCOMPLISHMENTS DURING THIS DEPLOYMENT WERE MANY. YOU IMPROVED WORKING CONDITIONS, MISSION CAPABILITY AND QUALITY OF LIFE FOR MILITARY MEMBERS AND THEIR FAMILIES IN OKINAWA, YOKOSUKA, ATSUGI, CAMP FUJI, IWAKUNI, SASEBO, POHANG, CHINHAE, AND ALASKA. YOU ALSO SUPPORTED FORWARD NAVAL PRESENCE WITH HIGHLY SUCCESSFUL

DEPLOYMENTS FOR TRAINING TO KOREA, HAWAII, ALASKA, FLORIDA AND EAST TIMOR.

2. YOUR QUALITY CONSTRUCTION REMAINS A TESTAMENT TO SEVEN MONTHS OF HARD WORK. OKINAWA WILL BENEFIT FROM IMPROVEMENTS TO THE SEAWALL SYSTEM, BETTER ROADS IN THE JUNGLE WARFARE TRAINING CENTER, AND A NEW STAGING AREA AT WHITE BEACH. YOKOSUKA HAS GAINED CRITICAL EMERGENCY GENERATOR SUPPORT FOR THEIR COLD STORAGE WAREHOUSE AND WILL HAVE NEW PERSONNEL SUPPORT FACILITIES AT THE DRY DOCK AND FUEL STORAGE FARM. ATSUGI NOW HAS ADDITIONAL HAZMAT STORAGE AND A BEAUTIFUL COVERED GOLF DRIVING RANGE. CAMP FUJI WILL HAVE ADDITIONAL ARMORY SPACE AND A RENOVATED SNCO CLUB. IWAKUNI HAS SAFER PLAYGROUNDS FOR CHILDREN, NEW TRANSFORMERS, RENOVATED WORKSPACES AND ADDITIONAL STORAGE FOR GRAVEL AND SAND. SASEBO HAS NEW ORDNANACE STORAGE FACILITIES WITH IMPROVED LIGHTNING PROTECTION, NEW LEACH FIELDS FOR GRAY WATER, A RENOVATED WAREHOUSE WITH MEZZANINE, AND A NEW GAZEBO AT AKASAKI. PERSONNEL DESTINED FOR EXERCISES IN POHANG WILL BE ABLE TO EAT IN COMFORT IN THE RENOVATED GALLEY. SOFTBALL PLAYERS IN CHINHAE HAVE NEW DUGOUTS AND A FIELD TO PLAY ON. THE ALASKAN ROAD PROJECT HAS MADE GREAT STRIDES FORWARD DUE TO THE EFFORTS OF NMCB FOUR SEABEES.

3. YOUR BATTALION'S NOTABLE DEDICATION TO SAFETY AND QUALITY WAS EVIDENCED AT EVERY DEPLOYMENT SITE AND ON EVERY PROJECT. YOUR DEDICATION TO FAMILY AND COMMUNITY WAS SIMILARLY RECOGNIZED WHEN YOU RECEIVED THE CHIEF OF INFORMATION'S FAMILY GRAM MERIT AWARD AND THE NAVY COMMUNITY SERVICE FLAGSHIP AWARDS FOR PERSONAL EXCELLENCE PARTNERSHIP AND ENVIRONMENTAL STEWARDSHIP. CONGRATULATIONS ON A JOB WELL DONE.

4. ACROSS THE PACIFIC, THE "FABULOUS FOUR" HAS ONCE AGAIN PROVED THE ABILITY OF SEABEES TO PERFORM QUALITY, TIMELY CONSTRUCTION IN AUSTERE ENVIRONMENTS WHILE ALSO GOING IN HARMS WAY TO PROVIDE FORWARD NAVAL ENGAGEMENT. AS YOU RETURN HOME TO FAMILY AND FRIENDS, TAKE PRIDE IN YOUR ACCOMPLISHMENTS AND THE LASTING IMPRESSIONS YOU MADE DURING THE PAST SEVEN MONTHS. ONCE AGAIN, THE LEGENDARY "CAN DO" SEABEE SPIRIT WAS DISPLAYED DAY IN AND DAY OUT DURING YOUR OUTSTANDING DEPLOYMENT. THANKS FOR YOUR DEDICATED SERVICE, AND THANKS FOR BEING SEABEES.

5. RADM KUBIC SENDS.//

BT
NNNN

ATTENTION INVITED TO ADMINISTRATIVE MESSAGE

PRIORITY

UNCLAS //N01650//

MSGID/GENADMIN/COMNAVFORKOREA//

SUBJ/NMCB FOUR DEPLOYMENT TO COMNAVFORKOREA AOR//

RMKS/1. UPON RECENT DEPARTURE OF NMCB FOUR DETACHMENT FROM COMNAVFORKOREA AOR AFTER 6 MOS OF OUTSTANDING SUPPORT AND HARD WORK, WOULD LIKE TO CONGRATULATE THE MEN AND WOMEN OF THE DETACHMENT FOR THEIR CONTRIBUTIONS IN IMPROVING QOL, QUALITY OF WORK SPACE AND MISSION READINESS FOR NAVAL FORCES IN THE REGION. THEY ADVANCEDAND/OR COMPLETED 7 SEPARATE PROJECTS AT OUR NAVY AND MARINE CORPS SITES IN POHANG AND CHINHAE CONTRIBUTING 3,463 MANHOURS DURING DEPLOYMENT. UNDER THE LEADERSHIP OF LT CHO, DET OIC, THEIR EXEMPLARY PROFESSIONALISM, MOTIVATION AND "CAN DO" ATTITUDE WERE CLEARLY EVIDENT AND APPRECIATED.

2. I WELCOME THE ARRIVAL OF NMCB FIVE DETACHMENT AND LOOK FORWARD TO CONTINUED SUPERB SUPPORT TO SAILORS AND MARINES IN THE REGION. BZ!

3. RADM SULLIVAN SENDS.//

BT
#1997
NNNN

JOINT FORCE ENGINEER COMPONENT COMMAND
JOINT TASK FORCE ALASKAN ROAD
P.O. BOX 6418
KETCHIKAN, ALASKA 99901-1418

JFECC CDR

12 May 01

MEMORANDUM THRU COMMANDER, Naval Mobile Construction Battalion Four, FPO AP 96601 - 4941

FOR Commanding Officer, DFT Alaska, NMCB FOUR UNIT 25284 FPO AP 96601 - 4941

Subject: OPERATION ALASKAN ROAD, AFTER ACTION REVIEW

1. DFT Alaska, Naval Mobile Construction Battalion Four accomplished an extremely challenging real world training mission on the Operation Alaskan Road Project located on Annette Island, Alaska. The project provides an excellent training opportunity in a very demanding environment. The basic geomorphologies consist of granite rock overlaid with muskeg, a layer of exclusively organic material. Construction in this type of terrain, which includes a temperate rain forest, hazardous road conditions, and precipitous, steeply sloping terrain is unlike most training projects the unit normally performs.

2. During the deployment for training, they drilled 609 holes with a total of 13,527 linear feet and conducted nine blasts to produce 4,837 cubic yards of shot rock. This was outstanding training and performance for DFT Alaska, NMCB 4 and reflects a significant accomplishment in support of the overall mission.

3. The command can be proud of the members of DFT Alaska. Their professionalism and dedication to duty was an inspiration to all involved in the production of the Alaskan Road. Their participation in this Joint Force Engineer Component Command, to include operations, maintenance and other support services, has been instrumental in the Operation Alaskan Road TY 2001. The members of this unit demonstrated great flexibility and superb initiative. The JFECC staff greatly appreciates the service of NMCB 4 and their contributions to the mission on Annette Island.

JERRY WEST
LTC, EN, MOARNG
JFECC Commander