U.S. NAVAL MOBILE CONSTRUCTION BATTALION FOUR

DEPLOYMENT COMPLETION REPORT

AUG 2014 – FEB 2015

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CHAPTER I

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

US Naval Mobile Construction Battalion (NMCB) FOUR deployed a full battalion of 600 personnel from Port Hueneme, California to the US Pacific Command (PACOM) Area of Responsibility (AOR) and NORTHCOM AOR from August 2014 to February 2015 in order to support PACOM Phase 0 operations, exercises (TEMPEST WIND 2014, HARRI HAMUTUK 2015, and COBRA GOLD 2015), maintain an NMCB Table of Allowance (TOA) to combat-ready standards, and conduct Theater Security Cooperation (TSC) and Construction Readiness Operations (CRO).

The 600 NMCB FOUR personnel were task organized into details and deployed to nine geographically dispersed locations within the PACOM and NORTHCOM AORs to meet peace keeping construction and engineering requirements, provide humanitarian/civil assistance construction projects and conduct joint exercises with Host Nation personnel and other military services. A main body site remained in Okinawa, Japan to maintain the forward deployed NMCB TOA and support Major Combat Operation (MCO) and Humanitarian Assistance/Disaster Relief (HA/DR) operations. Details were task organized and deployed to South Korea, Japan, Diego Garcia, Cambodia, Timor Leste, and Philippines (PACOM), and China Lake and San Clemente Island (NORTHCOM).

NMCB FOUR executed a wide variety of construction projects including schools, clinics, storage facilities, airfield parking aprons, landing zones, maternity wards, concrete pads, warehouses, hospitals, community centers, and in addition operated a rock quarry. In total, the Battalion performed over 20,000 man-days of high-quality construction valued at $2.5M in new and improved facility infrastructure in support of host nation partners and Navy, Marine Corps, and Air Force supported commanders.

ADMINISTRATIVE

The NMCB FOUR Administration Department (S1) supported the Battalion with administrative, personnel, and legal support to personnel dispersed to seven countries throughout the PACOM and NORTHCOM AORs. Headquartered at Camp Shields in Okinawa, Japan, the S1 staff processed awards, evaluations, fitness reports, travel orders, and provided support to identify and resolve pay discrepancies for all personnel assigned to NMCB FOUR.

TRAINING / READINESS

NMCB FOUR leveraged small unit leadership to accomplish Unit Driven Training (UDT). The focus was not only to maintain a high level of individual skills readiness, and also to cultivate small unit leadership through engagement in the planning and execution of training events. Every alternate Saturday was designated as a training day, and each was planned to maximize the use of time and resources. The focus of these "Training Saturdays" included rifle and pistol ranges, General Military Training requirements, in-rate skills, embarkation, communication, medical, 3M, and other military/tactical skills. The detail sites executed a similar effort during Training Saturdays, with more focus on technical construction skills particular to the respective projects. In addition to these individual skills topics, NMCB FOUR executed three internal exercises; a 48-Hour Mount Out Exercise, a Command Post Exercise, and a Field Training Exercise. These events sharpened individual skills and offered an opportunity for professional development of small unit leaders and maintained Battalion readiness.

NMCB FOUR completed its Readiness and Training Conference with Naval Construction Group (NCG) ONE from 17-21 November 2014. The purpose of the conference was to present to NCG ONE the results of the Commander's Assessment of Readiness and Training (CART) and identify requirements to successfully plan and execute the Optimized Fleet Response Training Plan (OFRTP). The event was immensely successful, and enabled transparency and situational awareness of our homeport training plan at all levels of the command.

OPERATIONS

The NMCB FOUR Operations Department coordinated over 20,000 man-days of construction projects, camp maintenance, and OIC discretionary projects in support of PACOM Phase 0 operations. The Battalion's main

efforts were concentrated on TOA maintenance to combat-ready standards in Okinawa, PACOM exercises that focused on Host Nation/Mil-to-Mil engagement, Unit Driven Training, Exercises (MOX, CPX, FTX) that ensured that Battalion was prepared for MCO and HA/DR, TSC, and CRO.

In addition, Operations supported nine details in various locations throughout the PACOM and NORTHCOM AORs while also preparing, coordinating, and executing the movement of details to support Pacific exercises to include PACIFIC PARTNERSHIP 2014, TEMPEST WIND 2014, HARII HAMUTUK 2015 and COBRA GOLD 2015.

CAMP MAINTENANCE

NMCB FOUR Bravo Company was tasked with camp maintenance, typhoon preparations and clean-up, trouble calls, and OIC discretionary projects on Camp Shields and White Beach, Okinawa, Japan. Bravo Company completed 555 Emergency Service Actions, 6 Maintenance Control Directives projects, contractor facilities support, berthing renovations and upgrades, and camp wide zone inspections. Camp maintenance personnel earned 2,157 man-days during the deployment.

SAFETY

NMCB FOUR created a robust Safety Organization by training-in-depth and driving home a culture of safety. As a part of the deployment organization, the Battalion took great care in selecting the Detail/Company Safety representatives, Temporary Power certifiers, Lock-out/Tag-out custodians, Fire wardens, HAZMAT/HAZWASTE coordinators, Competent persons, and jobsite Safety Petty Officers. The Safety Organization consisted of 72 personnel acting in various safety related capacities.

LOGISTICS

Supply provided superior logistical support to NMCB FOUR main body site and nine geographically dispersed locations throughout the PACOM and NORTHCOM AOR. The specific focuses were on improving accountability processes and the overall health of the Supply Department at Camp Shields. The Supply Team provided the necessary materials and equipment for various operations, including travel to and from the various project and detail sites, while managing all applicable financial systems.

EQUIPMENT MANAGEMENT

Alfa Company was responsible for 396 units of Civil Engineer Support Equipment (CESE) spread across four different deployment locations. This included major sites such as Okinawa, China Lake, Chinhae and San Clemente Island. In addition, Alfa Company projects supported Public Works Department Okinawa, Marine Wing Support Squadron-172, 18th Civil Engineer Squadron, Commander Fleet Activities Okinawa, III MEF and a joint-nation special warfare Exercise TEMPEST WIND 2014.

MAINTENANCE MATERIAL MANAGEMENT (3M) SYSTEM

NMCB FOUR provided efficient uniform Maintenance and Material Management through the 3M system. The 3M team accomplished 12,896 preventative maintenance actions and 428 spot checks and achieved a 99.53% Accomplishment Confidence Factor (ACF) and a 97.07% PMS Performance Rate.

EMBARK

NMCB FOUR's Embark staff executed the deployment of personnel to Okinawa and all detail sites. Embark managed the movements of arriving and departing battalion personnel from Camp Shields, assisted with VIP guest visits, and supported NMCB ONE's Main Body redeployment movement, and the Naval Special Warfare (NSW) Exercise TEMPEST WIND 14. The Embark Leading Petty Officer deployed to Tacloban, Philippines on short

notice to provide mission critical redeployment support to ACB ONE during PACIFIC PARTNERSHIP 2014. For the 48-Hr Mount-Out Exercise, the Embark organization successfully managed the preparation, documentation, and staging of 42 units of CESE and 30 pallets. During the Battalion's re-deployment, Embark submitted all Navy Air Logistics Office (NALO) requests involving all detail sites redeployment to Port Hueneme and NMCB FIVE's deployment to their respective detail sites.

CHAPTER II

ADMINISTRATION

ADMINISTRATION

The Administration Department supported the Battalion with administrative, personnel, and legal support to personnel dispersed to nine detail sites throughout the PACOM and NORTHCOM AORs. Headquartered at Camp Shields Okinawa, Japan, the S1 staff processed awards, evaluations, fitness reports, travel orders, and provided support to identify and resolve pay discrepancies for all personnel.

Throughout the deployment, reenlistments, award ceremonies, advancement frockings, and Seabee Combat Warfare (SCW) pinning ceremonies were held at the main body and detail sites. During the course of the deployment, 77 personnel were selected to advance to the next pay grade, 26 members reenlisted and 104 members qualified as Seabee Combat Warfare Specialists.

Awards:

- Meritorious Service Medal – 1
- Navy Commendation Medal - 1 (Pending approval from the NCG ONE) - 7
- Navy Achievement Medal – 85
- Seabee Combat Warfare Certificate - 104
- Seabee Combat Warfare Requalification - 32
- Military Outstanding Volunteer Service Medal - 1
- Meritorious Mast - 0
- Sailor of the Quarter - 6
- Sailor of the Year – 1

ADMINISTRATION

ADDITIONAL	GAIN/LOSSES	TEMPORARY ORDERS	NON-JUDICIAL PUNISHMENTS	ADMINISTRATIVE SEPARATIONS	EVALUATIONS/ FITNESS REPORTS
E1-E6	67/53	0	14	2	167
E7-E9	5/3	0	0	1	42
O1-O5	6/0	1	0	0	14

ADVANCEMENTS

	E2	E3	E4	E5	E6	E7	E8	E9
Time-in-rate Eligible	12	13	119	94	38	59		
Participated	12	13	119	93	38	59		
Selected	12	13	35	13	4			
Percent Selected	100%	100%	29.4%	13.8%	10.5%			
Navy Wide Percent Selected	---	---	37.5%	24.8%	19.7%	---	---	---

RETENTION

	ELIGIBLE	NOT ELIGIBLE	REENLIST	GRS (%)		NAVY GOAL (%)
ZONE A	37	9	13	35.1%	ZONE A	40%
ZONE B	4	0	1	25%	ZONE B	50%
ZONE C	8	2	7	87.5%	ZONE C	63%

PUBLIC AFFAIRS

The PAO staff worked together diligently to document the history NMCB FOUR made in the PACOM and NORTHCOM AOR. They coordinated with Public Affairs representatives across the detail sites to capture significant events, community relations, project completions, awards and advancements.

Seabee impacts across the AOR were recorded with photos, captions, and articles that were published on Facebook, navy.mil, and the Military Engineer.

PAO Totals	Captured/Created	Published
Articles	18	14
Photographs	1,530	113

The PAO team began working new ways to bring Seabees into the spotlight for the Navy, families, and general public to reach a broader audience to show the public everything that the Seabees can do.

Some Details received more recognition in publications due to regular submission of articles and photos for major projects and events. It was also challenging to capture all the work being performed by the Companies in Okinawa due to the multitude of projects being executed and the small PAO staff. The PAO staff's goal is to recognize and capture all the outstanding work the Seabees perform around the world and to engage leadership, at all levels, to do the same.**DENTAL**

Dental Department maintained a dental readiness of 99%; 9% above the Navy standard of 90% for all PACOM. Coordination with US Naval Hospital Yokosuka, Naval Branch Clinic China Lake and US Naval Hospital Diego Garcia was imperative to dental readiness maintenance. Treatments were conducted through the end of deployment, raising overall dental health and decreasing Class III, non-deployable status numbers.

Remote Detail sites in Philippines, Chinhae, Cambodia and Timor Leste had access to International SOS (ISOS) clinics for urgent or emergent dental needs. NMCB FOUR dental department projected individuals requiring dental exams and follow-up care upon arrival to homeport and coordinated with OICs to ensure treatment is scheduled.

A high priority item for FY15 at Camp Shields was the purchase and installation of a new air/ vacuum compressor unit required for dental chair operations. NECCPAC funded the compressors with a NLT installation date of 01May15. Panoramic capability has been an additional focus; U.S. Naval Hospital Okinawa (USNHO) Biomed team is currently coordinating with GENDEX X-ray cooperation to reinstall software for the Orthoralix X-ray unit and achieve full operational status, enabling the clinic to perform comprehensive treatment.

Procedures performed during deployment include: oral diagnosis and treatment planning, hygiene, operative, fixed prosthodontics and oral surgery. USNHO and 3rd Dental Battalion, located on Camp Foster, provided NMCB FOUR with specialty treatment including Periodontal, Endodontal and complex Oral surgery treatment, as well as laboratory support.

MEDICAL

Medical Department supported Battalion operations at various sites during deployment throughout the PACOM and NORTHCOM AORs. During deployment, the medical department of Main Body coordinated to provide medical oversight of NMCB FOUR medical assets deployed throughout PACOM as well as to provide logistical medical support for the non-HM-supported NORTHCOM Details.

<u>MEDICAL SUPPORT FOR DETAILS</u>

Det Timor Leste was staffed by an HM1 IDC, operating as the sole medical provider for 33 Seabees. This included treating a wide range of illnesses from musculoskeletal injuries to infectious disease, practicing medicine in both the urban environment of Dili and an austere rural environment.

Det Cambodia was supported by an HM2 (8404) responsible for the medical care of 23 Sailors as well as occupational, preventive, and force health protection medical issues.

Det Philippines was assigned an HMC IDC, responsible for providing primary care, preventive health measures, and force health protection implementation for 30 sailors, as well as identifying higher levels of care required in case of

an emergency.

MEDICAL READINESS

Medical Department maintained and improved medical readiness through continuous pushes at Main Body and all Details. This included immunizations, Periodic Health Assessments (PHAs), laboratory tests, and periodic physical exams.

BATTLE AID STATION OPERATIONS

Medical Department was responsible for the operation and maintenance of a robust BAS at Camp Shields. This aid station allows providers to give Seabees basic primary and preventive care and stock a sufficient supply of non-controlled medications in the pharmacy. Upon arrival, sick-call hours were established, and alternate sick call hours set to accommodate project personnel. The duty HM had an XTS-5000 radio and was available 24/7 for emergencies, along with a duty provider phone, carried by the Medical Officer. The Medical Officer reported medical CCIRs to CO/XO/CMDCM as they arose, and gave weekly medical briefs on high visibility medical situations of injuries and illnesses. A Disease and Non-Battle Injury (DNBI) report was sent to the 30NCR Surgeon to inform him of the health status of Seabees at HM-supported Details. Malaria Chemoprophylaxis was confirmed weekly through Direct Observed Therapy (DOT) reports from the Det OICs, which were forwarded to 30NCR to ensure compliance with the Battalion's malaria prevention SOP.

COMMAND RELIGIOUS MINISTRIES

The Command Religious Ministry Team (RMT) consisted of the command chaplain, Chaplain Stiles, and RP2 Zheng. The command chaplain and RP2 deployed with the Main Body to Okinawa, Japan for the entirety of the deployment.

The Battalion Chaplain conducted Wednesday night worship services in Okinawa in order to better serve the troops and found it to be well attended. Due to the Battalion work schedule, Sunday was often the only day for MWR trips and other recreational events.

Worship Service at the Chapel

The battalion chaplain posted religious services available locally and on board Kadena Air Base. This required coordination with Alfa Company to provide transportation to these services. The RMT managed the library, which was available to troops as a quiet place to study and also to prepare for SCW boards.

Camp Shields Library

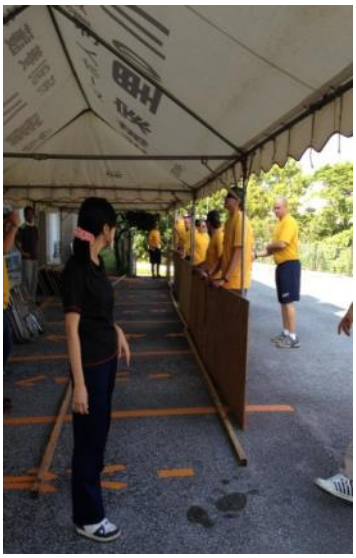
The majority of religious ministry was accomplished through pastoral care, counseling, and deck plate ministry, which included making visits to all Construction Civic Action Detail (CCAD) sites and the CRO sites in Yokosuka, Japan and Chinhae, South Korea.

The Chaplain gave the religious ministries and suicide awareness and prevention briefs at every Battalion indoctrination program. He also coordinated the implementation of the return and reunion program across all Detail sites by using Fleet and Family Support Center, Marine Corps Community Services and other chaplains.

The RMT spearheaded the battalion's COMREL efforts during the deployment. Many Seabees were able to participate in helping the local community through building needed animal pens at the Okinawa Zoo, remodeling a local charity's facilities, volunteering at local annual festival, and teaching English at local schools..

Construction project at the ministry of Cadence International

Construction project at the ministry of Cadence International



Troops volunteering at a local annual festival

CHAPTER III

TRAINING/ARMORY/COMMUNICATIONS

TRAINING / READINESS

CP Watch Station Training

During its PACOM/NORTHCOM deployment, NMCB FOUR leveraged small unit leadership to accomplish Unit Driven Training (UDT). The focus was not only to maintain high proficiency on individual skills, but also to cultivate small unit leadership through engagement in the planning and execution of training events. Every alternate Saturday was designated as a training day, and each was planned to maximize the use of time and resources. The focus of these "Training Saturdays" included rifle and pistol ranges, General Military Training requirements, in-rating skills, embarkation, communication, medical, 3M, and other military/tactical skills. In addition to these individual skills topics, NMCB FOUR executed three internal exercises, a 48-Hour Mount Out Exercise, a Command Post Exercise, and a Field Training Exercise. These events sharpened skills, and offered an opportunity for professional development of small unit leaders. Also, the Commander's Assessment of readiness and Training (CART) was executed in preparation for the Readiness and Training Conference (RTC), setting the stage for a successful homeport.

The Commander's guidance for the 48-Hour Mount Out Exercise was to go beyond fulfilling the evaluation criteria for each Navy Tactical Task (NTA). In October 2014, the Battalion fully demonstrated the capability to successfully deploy the Air Detachment, including the full embark process, as well as mission planning and personal preparations for Air Detachment personnel. The Battalion leveraged the guidance and expertise of the NCG ONE Embark staff present, not only completing the task at hand, but also developing new skills and leadership within the Battalion for future missions. This was more than a training event. It served as a true dress rehearsal, reminding all hands of the Battalion's top priority missions: Major Combat Operations (MCO) response and Humanitarian Aid / Disaster Relief (HA/DR) response.

Weighing and Marking during 48 Hour Mount Out Exercise

NMCB FOUR planned and executed a Command Post Exercise (CPX) in December 2014 to ensure the battalion's Company and Headquarters organizations maintained proficiency in executing command and control functions in an expeditionary environment. This evolution enhanced the command's ability to execute a scenario-based training exercise and self-assess internal capabilities. A Combat Operations Center (COC) and three Company Command Posts (CPs) were established and 36 hours of scenario based command and control between and within the COC and CPs was executed. Each outlet conducted staff planning, held training on and rehearsed watch standing procedures, and trained on communications equipment and procedures. In addition, four patrols were planned and briefed. The CPX greatly increased COC and CP watch-standing experience levels, built familiarity amongst watch-standing teams, and identified strengths and weakness to be addressed in future training.

COC Watch Standing during FTX

NMCB FOUR completed its Readiness and Training Conference with NCG ONE from 17-21 November 2014. The purpose of the conference was to present to NCG ONE the results of the Commander's Assessment of Readiness

and Training (CART) and identify requirements to successfully plan and execute the Optimized Fleet Response Training Plan (OFRTP). Topics of discussion focused on the areas of TOA acceptance/turnover, Seabee Technical Trainer utilization, FTX concept of operations, 3M, medical, safety, and a multitude of other topics. The conference assisted the Training Department in shaping the Battalion's homeport training plan IOT meet the Commanding Officer's priorities.

In January, NMCB FOUR executed a field training exercise with 135 participants and a 20 person staff. The focus of this event was to sharpen military tactical skills and exercise small unit leadership at the Fire Team, Squad, Platoon, and Company level. The event included two days of classroom training on board Camp Shields, one day of transition to the field, and two days and nights of hands-on field training at Camp Hansen. NMCB FOUR's military advisor led the development of the curriculum, and provided a substantial amount of one-on-one mentoring to squad leaders. The curriculum was built around patrol planning and execution, design and construction of defensive positions, employment of concertina wire, proper use of night vision optics, proper small arms weapons handling, and the development of range cards and sector sketches. The line Companies were tasked to provide a mix of experienced and inexperienced personnel in order to maximize training value. Many of the less experienced personnel had never participated in an FTX, and are now better prepared for full-scale battalion exercises in homeport, as well as for MCO response. Those with more experience were challenged to perform at a higher level of leadership and were given an opportunity to practice tactical control in a field environment. They also had the opportunity to pass on to their subordinates their knowledge and experience not easily captured in a classroom or in a publication.

Establishing Fighting Positions

Concertina Wire Emplacement Training

SEABEE COMBAT WARFARE (SCW) TRAINING

NMCB FOUR SCW's program was extremely effective during deployment. A total of 136 personnel qualified or re-qualified as SCW Enlisted and Officer during the course of the deployment. The current SCW qualification breakdown is as follows:

Paygrade	Number of Personnel Assigned	Previously Qualified	Qualified or Re-qualified on Deployment	Qualified On Board at Deployment Completion	Percent Qualified
E1 - E6	509	180	117	297	58%
E7 - E9	41	23	9	32	78%
O1- O5	39	15	10	25	64%
Total	589	218	136	354	60%

EMBARKATION TRAINING

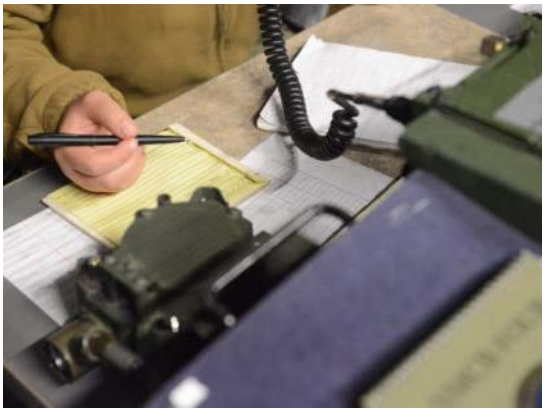
During the course of the deployment, the Embark Staff trained the 70-person Embark Organization, plus assisted in training the Air Detachment on cargo preparation, weighing & marking equipment, load planning, and HAZMAT declarations. The focus of the training was to maintain a high state of readiness and to prepare the Embark organization for the 48-Hour Mount Out Exercise in October. In addition, the training provided the Air Detachment with the familiarity and skills to successfully operate in a re-deployment from potential deployments.

Pallets during 48-Hour Mount Out Exercise

In addition to the hands-on training, Embark held a classroom lecture on embarkation fundamentals during a Training Saturday in October. The primary focus was to cover the questions on the Personal Qualification Standard (PQS) books and to have personnel leave the training with a greater understanding of embark fundamentals and with specific information that will be valuable during preparation for the Seabee Combat Warfare (SCW) test and qualification board.

COMMUNICATIONS TRAINING

In addition to supporting the three major battalion exercises (MOX/CPX/FTX), NMCB FOUR Communications Department diligently provided individual skills training, both internally and to the battalion. The staff consistently met the monthly required Electronic Key Management System (EKMS) training set forth by 30NCR/NCG ONE. Additional training classes were conducted for newly reporting Sailors. The training topics included Secure Room Open Storage Secret, SKL procedures, Two Person Integrity, requirements for traveling with CCI gear and procedures for destruction, Emergency Action and Destruction Plan, Electronic Data Interchange Personal Identifier (EDI-PI) and Personal Identifiable Information (PII). Internal departmental training included Information Assurance, ID card integrity, EKMS 1B procedure reviews, operational capabilities of various COMMs equipment in the TOA (RT-1523E, RT-1796, and AN/PRC-152), network principles, radio frequency, Tactical Data Network (TDN) operation and administration, switch configuration, and message formats.



Comm Operator Training during FTX

NMCB FOUR Communications Department regularly led SCW communications training sessions for all communications assets. Training included hands-on communications gear familiarity, radio and antenna operation, COMSEC procedures, and RDSAT demonstrations. Additionally, training was conducted on radio etiquette, proper radio telephone procedures in accordance with ACP 125, and proper set-up and teardown of the OE-254 antenna.

GENERAL MILITARY TRAINING (GMT)

NMCB FOUR main body and Detail sites optimized the use of allotted training days to conduct Navy wide GMTs via NKO and instructor led training. Fiscal Year 15 GMT Category I topics included Alcohol, Drugs, and Tobacco Awareness, Equal Opportunity / Sexual Harassment / Grievance Procedures, Personal Financial Management, and Stress Management (FY15 revisions of Sexual Assault Prevention and Response Awareness and Suicide Awareness and Prevention were not available until after the completion of the deployment). Category II topics included Antiterrorism Level I Awareness, Combating Trafficking in Persons (CTIP) General Awareness, Counterintelligence Awareness and Reporting, Cyber Security Awareness, Domestic Violence Prevention and Reporting, Operational Risk Management, Operational Security (Uncle Sam's OPSEC), Privacy and Personally Identifiable Information , and Records Management .

In addition, 24 personnel (20 in Okinawa and 4 in Port Hueneme) were trained as facilitators for the new Bystander Intervention to the Fleet (BI2F) GMT. BI2F was developed to cover topics such as fraternization, hazing, physical readiness and sexual health. The facilitator training became available in late January 2015, which allowed training to the Battalion to be conducted at the beginning of homeport.

WEAPONS TRAINING

Establishing CSW Pits

NMCB FOUR Armory team conducted weapons training classes multiple times per week, enabling Sailors the opportunity to receive first hand weapons training to further their development in military tactics and Seabee Combat Warfare. The Armory staff worked with the Companies for more tailored instruction during Training Saturdays. These efforts raised proficiency and knowledge throughout the command, which became most evident in SCW qualifications. Two M9 and M16 live fire qualification ranges were conducted on the 8th and 22th of November, respectively, during which nine units of CESE, 111 personnel, 69 weapons were successfully transported to Marine Corps Base Camp Hansen, Range 174. Led by GM1 Hourieh, NMCB FOUR's only Small Arms Marksmanship Instructor, and GySgt Golden, Armory LCPO, 89 personnel were trained in weapons safety, handling, and marksmanship during these evolutions. Although challenged by large class sizes and inclement weather, a 70% qualification rate was attained and 6,200 rounds of ammunition were expended, with zero mishaps.

MEDICAL TRAINING

In preparation for deployment, NMCB FOUR Medical Department conducted regular medical training sessions during homeport. Preventive medicine briefs were provided by each CCAD Detail site's corpsman for all personnel at that site. Combat Life Saver (CLS) qualified personnel were refreshed on the basics. The medical officer for all Detail OICs/AOICs conducted medical training, and each was provided with a detailed medical checklist by which to prepare their troops for deployment. The checklist encompassed all PACOM Force Health Protection requirements, in addition to medical guidelines from 30NCR's OPORD (Annex Q & Appendix 7). Additional guidance was provided to ensure each OIC understood the process for medical evacuation using International SOS, the overseas TriCare affiliate.

During deployment, NMCB FOUR Medical Department conducted intradepartmental training that consisted of medical officer-led discussions on STDs, common pharmaceutical treatments and cautions, as well as various physical examinations of gastro-intestinal, neurological, cardiovascular, and pulmonary systems. The Hospital Corpsmen (HMs) taught several refresher courses on ENT and musculoskeletal examinations, as well as valuable insight on immunizations, oral infections, EKG reading, and SSID code training. In-house training included review of Tactical Combat Casualty Care in preparation for possible Mass Casualties, as well as TCCOR protocols for Camp Shields.

In addition to internal training, HMs conducted SCW basic first aid medical training for the line Companies, in order to assist with SCW qualifications. Air Detachment HMs conducted refresher basic first aid training to equip the Battalion for contingency environments. After coordinating with Kadena Air Force Base to attain American Heart Association Basic Life Support (BLS) instructor certification, four HMs conducted BLS training for the battalion, resulting in 36 personnel qualified as Heart Savers with the necessary skills to perform CPR and effectively use an Automated External Defibrillator. The Battalion's Preventative Med Tech (PMT) reinforced the importance of general health and hygiene at small-group training sessions on nutrition, drug and alcohol awareness, tobacco

cessation, anger management, suicide prevention, and tattoo information. Additionally, the PMT gave a well-received battalion-wide lecture on sexually transmitted infections, and spoke about safe sexual practices.

The Medical Officer led training for the Wardroom on medical topics, to include: common administrative medical terminology, patient tracking and expectations, and SCW board preparation.

SAFETY TRAINING

NMCB FOUR's Safety staff ensured safety was the battalion's first priority. The primary goal of NMCB FOUR's safety program was to provide a safe and healthy environment for every Seabee. Utilizing the Command and Navy Safety Policies as guiding principles, the battalion pursued an aggressive and comprehensive Navy Occupational Safety and Health (NAVOSH) program ensuring the safest possible work practices and conditions. The safety training focused on the Enterprise Safety Applications Management System (ESAMS), as well as training conducted by the Company, Detail, and Department Safety Representatives every training day, along with monthly safety topic training through ESAMS.

A safety training brief for all new members reporting to the Command was given during Command Indoctrination. A clear message was set on the importance of safety. This indoctrination training included Operational Risk Management (ORM), hearing and sight conservation, traffic safety, lock out/tag out procedures, and additional training and discussions involving the Command's philosophy on the importance of safety for all personnel on and off duty. Globally Harmonized System (GHS) into the Navy Hazard Communication Program was also implemented into the Command Indoctrination.

PHYSICAL TRAINING (PT)

While deployed to PACOM, NMCB FOUR carried out a PT regiment of battalion wide, company led PT three days per week. On Training Saturdays, all-hands command PT was conducted. The Command Fitness Leader (CFL) and Assistant Command Fitness Leaders (ACFL) led all PT sessions. Main Body Okinawa also had gymnasium facilities on Camp Shields allowing Sailors easy access to muscle and functional fitness training, while still incorporating proper stretching and workouts through the use of dynamic exercises and weight training. The Fitness Enhancement Program (FEP) was incorporated in the battle rhythm on Tuesday and Thursday, placing emphasis on nutrition and physical conditioning in preparation for upcoming Physical Fitness Assessments (PFA) cycles.

NMCB FOUR conducted a Fall 2014 PFA in October 2014. The cycle was administered at seven locations, consisting of the Body Composition Analysis (BCA) and the standard Upper Body (push-ups), Core (sit-ups) and Cardio (run) events. Due to mission constraints, three locations received DEP/OP waiver for the Upper Body, Core and Cardio events and were only required to perform BCA. Due to an aggressive Command Physical Training Program, overall BCA failures decreased significantly from 26 in Cycle 14-1 to 15 in Cycle 14-2, a 57% decrease. While there have been great results in the BCA portion, there has also been a 1.3% increase of overall Outstanding scores of from Cycle 14-1 to Cycle 14-2.

COMMAND INDOCTRINATION TRAINING

NMCB FOUR held four command indoctrinations for newly reporting personnel throughout the PACOM deployment. The main purpose was to provide new personnel with the appropriate tools necessary for a successful deployment and ultimately successful tour with NMCB FOUR. Various topics including Training, Admin, Supply, SCW, Embark, Safety, Alfa Company, career development utilizing the First Term Success Workshop, Right Start Brief, Navy Pride & Professionalism, Suicide Awareness and Prevention, Stress Management, Sexual Assault Prevention and Response, Alcohol Abuse Prevention and Control, Equal Opportunity/Sexual Harassment/Grievance Procedures, Hazing Policy and Prevention, Personal Financial Management, and 3M training were covered during a

five day evolution. Most importantly, this was the opportunity for the new personnel to meet the Commanding Officer, Executive Officer, and Command Master Chief.

MAINTENANCE MATERIAL MANAGEMENT (3M) SYSTEMS TRAINING

In order to maintain proficiency and meet training requirements, the 3M office provided training on all 3M qualifications throughout the deployment. The 301 Maintenance Person course conducted during indoctrination provides the basic knowledge for maintenance personnel to perform standard maintenance on TOA assets, including CESE, weapons, and communication equipment. Formal classroom training on 302, 303, 304 and 306 was conducted in order for leadership to maintain a high level of 3M readiness and versatility within the organization. The following qualifications were achieved:

3M SYSTEM TRAINING QUALIFICATION	QUALIFIED IN HOMEPORT	QUALIFIED ON DEPLOYMENT	TOTAL PERSONNEL QUALIFIED
3M 301 LEVEL QUALIFICATION	92	98	190
3M 302 RPPO QUALIFICATION	51	50	111
3M 303 WCS QUALIFICATION	43	48	101
3M 304 QUALIFICATION	22	16	38
3M 305 QUALIFICATION	9	15	24
3M 306 QUALIFICATION	18	20	38

ARMORY

In addition to the weapons training and support described earlier in this chapter, the NMCB FOUR executed proper maintenance of assigned TOA using the 3M system; ensuring the Battalion was prepared for contingency operations if necessary. In order to ensure maintenance was in compliance with applicable operating instructions, 1,428 maintenance actions were completed and the PMS periodicity for 907 TOA weapons were updated.

The Armory successfully passed the Operational Readiness Inspection (ORI) and Limited Technical Inspection (LTI) conducted by NCG ONE, demonstrating proficiency in training and organizational skills. The Armory also played a major role in the successful completion of the Immediate Superior In Command (ISIC) 3M inspection by providing technical proficiency and accurate records keeping.

The Armory proved to be a critical component of NMCB FOUR's posture in PACOM. The staff worked tirelessly to maintain 100% operational readiness of the weapons systems and provided readiness enhancing training opportunities to personnel across the Battalion.

COMMUNICATIONS DEPARTMENT

After turnover, many challenges and tasks remained for the NMCB FOUR Communications Department (S6 shop). A non-operational satellite communications system critical for Command and Control (C2) in the event of a 48 hour MCO or HA/DR response presented itself as the most challenging, with both the Ruggedized Deployable SATCOM (RDSAT) and Tactical Data Network (TDN) having serious deficiencies. However, through proactive efforts and technical know-how the issues were resolved. Additionally, SIPR services through the TDN were established for the first time to enable the use of classified email services in the field.

During turnover, the RDSAT/TDN operational test was cancelled due to a rejection of the satellite access request, therefore, no issues could be detected. Following turnover in September, operational tests revealed RDSAT hardware issues. The RDSAT satellite dish was not able to move when directed and multiple fault codes were displayed. Replacement parts were identified and installed with the assistance of NCG ONE/30NCR N6 personnel and Harris contractor technical support. Parts replaced included a data-box, deicer module, and an X-band feed cone. By the time of the COMMEX in early October 2014, the RDSAT was fully operational and tracking the

satellite. However, the RDSAT is one part of the satellite communications system working in conjunction with the TDN. The TDN was not operational as a result of non-compliance with network requirements due to lack of software updates. Updates were severely outdated due to not having been connected to the NCF network for approximately one year, making all basic services afforded by the TDN non-operational, including Video Tele-Conference (VTC) capabilities.

There were two available methods to update the TDN: through limited satellite access time windows and a dedicated fiber optic network. Since the TDN required multiple updates, the required amount of time estimated would exceed the allowable satellite access time windows. Additionally, the dedicated fiber optic network connection was delayed on multiple occasions for many months without an estimated activation date. The fiber optic network would have been the ideal method of TDN updates, as it would have provided continuous uninterrupted updates, thus precluding the absolute reliance on satellite access requests for TDN updates. Unfortunately, Expeditionary Service Support Center (ESSC) depended on a connection to a dedicated T1 line to bring the TDN into compliance. This resulted in the sustained non-compliance of the TDN under the watch of NCG ONE/30NCR N6. Finally, on Nov 6, 2014, the dedicated T1 line was activated. Despite the operational dedicated T1 line, TDN critical updates were not possible as a result of a non-operational router. A severely outdated TDN continued to be a critical issue for satellite communications in the event of a 48 hour MCO or HA/DR response. In fact, there were two warning orders issued during typhoon events for possible HA/DR responses where the RDSAT/TDN would not have been operational in time. With an impending CPX and COMMEX scheduled from December 1-5 in addition to the impacted 48 hour MCO response, ESSC shipped a hard drive with critical TDN virtual servers and a replacement router. With both pieces of hardware received, the TDN was brought to full compliance by mid-December 2014 and remained in compliance with the dedicated T1 line ready for 48 hour MCO or HA/DR response requirements. In addition to an operational TDN and RDSAT, SIPR services were enabled for the first time through the TDN in a coordinated effort with ESSC. ESSC shipped a SIPR laptop image that was subsequently installed on a GETAC and placed onto the domain. This enabled classified email services in the field through the TDN and RDSAT.

In addition to the aforementioned success in NMCB FOUR C2 with the repair of the RDSAT and TDN, NMCB FOUR Communications Department supported the Battalion's day-to-day IT operations. The S6 shop created and processed 395 SAAR-N NIPR ONE-NET accounts and 16 SIPR accounts. Twenty-nine SAAR-N NCF accounts were processed for CCAD site members. All Information Assurance (IA) certificates were completed for all deployers. Upon arrival, the Communications Department inventoried 704 line items in the TOA, 264 CCI items, and 134 ONE-NET assets. After turnover was complete and NMCB ONE departed, 24 minor discrepancies were noted. The NMCB FOUR S6 shop created a service ticket database and processed 132 service tickets, as well as managed cell phone assets to ensure seamless C2 among leadership, qualified four personnel in SCW, conducted 654 hours worth of maintenance checks, 100 hours of 78 green gear spot-checks, and six flawless Controlled Cryptographic Information (CCI) spot-checks. Working closely with PC refresh contractors, S6 shop assisted during the refresh of 133 ONE-NET desktop computer assets, earning effusive praise from Commander Fleet Activities Okinawa (CFAO). The S6 shop also oversaw the refresh of 130 monitors in coordination with 30NCR personnel. S6 shop conducted 17 VTC/SVTC and four phone conferences and imaged and shipped three laptops with NCF-provided images to CCAD Philippines to counter quickly degrading IT capabilities in support of their mission. Support for CCAD Philippines also included repairing two inoperable laptops sent back to Main Body via an S2/Chaplain Detail swing. One laptop was imaged and shipped to CCAD Cambodia to introduce an NCF network capable laptop into their non-TOA inventory. Four laptops were imaged and shipped to improve a severely degraded IT capability for CCAD Timor Leste. Twenty inoperable IT assets from CCAD Timor Leste were removed and submitted to the Defense Reutilization Management Officer (DRMO). The S6 shop supported communication plans for Air Detachment, Embark, Alfa yard, and MOCC during the 48 hour Mount-Out Exercise held on October 8, 2014. Support was provided for TCCOR 2 COMMs requirements during Typhoon Vongfong. UHF voice communications was established with Guam and 30NCR/NCG ONE during a COMMEX held in October 2014. NMCB FOUR's S6 shop fully supported battalion COMMs requirements and established successful satellite communications connection during the Dec 1-5 COMMEX/CPX and Jan 6-9 FTX. The BGAN satellite

communications platform was confirmed operational and used during the Jan 6-9 FTX. VOIP and OWA email services were also confirmed operational through the BGAN.

CHAPTER IV

OPERATIONS

SAFETY

NMCB FOUR created a very robust Safety Organization by training-in-depth and assigning the right personnel to the Safety Organization. As a part of the deployment organization, the Battalion took great care in selecting the Safety Organization to include Detail/Company Safety Representatives, Temporary Power Certifiers, Lock-out/Tag-out Custodians, Fire Wardens, HAZMAT/HAZWASTE Coordinators, Competent Persons and jobsite Safety Petty Officers. The Safety Organization consisted of 72 personnel, almost 12% of the Battalion, acting in various safety related capacities.

In order to accomplish the PACOM mission, the focus of the Safety Program was back to the basics in order to be flexible enough to be safe in modern or austere conditions. Construction is inherently dangerous; construction in a third-world country can be even more dangerous. The development of a formal Operation Risk Management Program which allowed risk management to become engrained into the mission planning phase was a key to success. Operation risk assessments were developed for areas of operation which are not covered by construction safety manuals. This tool was invaluable during our Field Training Exercise and throughout the PACOM deployment.

The Battalion believes that all mishaps and near misses are reportable and created an environment that encourages reporting. While this significantly increased the number of reports, it provided the ability to get to the root causes of our mishaps and provided insight to the Battalion leadership on where to focus our efforts. The implementation of a Mishap Review Board for all mishaps resulted in a keener awareness of hazards facing the Battalion. Weekly Operational Risk Management Updates were developed for all mishaps and distributed to the Battalion in order to inform the troops and leadership of the hazards that were present and actions to take in order to mitigate such hazards.

SAFETY SUMMARY

	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	Total
Fatalities	0	0	0	0	0	0		0
# Lost Days	0	6	0	0	2	1		9
# Lost Day Cases	0	2	0	0	1	1		4
# Light Duty Days	51	110	73	111	115	38		515
# Light Duty Cases	5	11	9	10	11	3		49
# First Aid Mishaps	5	4	4	2	4	8		27
# Gov't Vehicle Mishaps	0	0	0	0	0	0		0
Total Number Mishaps	10	17	13	12	16	12		80
Gov't Vehicle Repair Costs	0	0	0	0	0	0		0
Gov't Vehicle Miles Driven	0	0	0	0	0	0		0

ON-DUTY MISHAPS

	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	Total
Cases Lost Work Days	0	2	0	0	1	1		4
Lost Work Days	0	6	0	0	2	1		9
Cases Light Duty	2	4	5	5	4	2		22
Light Duty Days	14	80	24	45	76	24		263
First Aid Mishaps	4	3	3	1	4	3		18
Fatalities	0	0	0	0	0	0		0

OFF-DUTY MISHAPS

	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	Total
Cases Lost Work Days	0	0	0	0	0	0		0
Lost Work Days	0	0	0	0	0	0		0
Cases Light Duty	3	7	4	5	7	1		27
Light Duty Days	37	30	49	83	39	14		252
First Aid Mishaps	1	1	1	1	0	5		9
Fatalities	0	0	0	0	0	0		0

OPERATIONS SUMMARY

NMCB FOUR deployed a battalion element of 600 personnel from Port Hueneme, California to the PACOM AOR and NORTHCOM AOR from August 2014 to February 2015 in order to support PACOM Phase 0 operations, exercises (TEMPEST WIND 2014, HARI HAMUTUK 2015, and COBRA GOLD 2015), maintain an NMCB TOA to combat-ready standards, and conduct both theater security cooperation and construction readiness operations in PACOM/NORTHCOM.

Initially, the 600 NMCB FOUR personnel were task organized into details and deployed to nine geographically dispersed locations in seven countries throughout the PACOM and NORTHCOM AORs to meet peace keeping construction and engineering requirements, provide humanitarian/civil assistance construction projects and conduct joint exercises with Host Nation personnel and other military services. A main body site remained in Okinawa, Japan to maintain the forward deployed NMCB TOA and support MCO and HA/DR operations. Details were task organized and deployed to South Korea, Japan, Diego Garcia, Cambodia, Timor Leste, Philippines, China Lake (NORTHCOM), and San Clemente Island (NORTHCOM).

NMCB FOUR Details executed a wide variety of construction projects including schools, clinics, storage facilities, airfield parking aprons, landing zones, maternity wards, concrete pads, warehouses, hospitals, community centers, and also operated a rock quarry. In total, the Battalion provided over 20,000 man-days of high quality construction valued at $2.5 million in new and improved facility infrastructure to host nation partners and Navy, Marine Corps, and Air Force supported commanders.

The Battalion's main efforts were concentrated towards TOA maintenance to combat-ready standards in Okinawa, exercises (HN/Mil-Mil engagement), theater security cooperation, construction readiness operations, and construction projects in direct support of humanitarian assistance.

DETAIL OKINAWA / MAIN BODY

NMCB FOUR deployed a large detail to Okinawa, Japan in August 2014 in order to support ongoing PACOM Construction Readiness Operations, Camp Maintenance, CESE, TOA maintenance, and Exercises. Alfa, Bravo, and Charlie Companies completed 4,000 man-days of construction on five tasked projects and numerous CO discretionary projects.

DETAIL CHINA LAKE (CRO)

Detail China Lake deployed 28 personnel to complete Construction Readiness Operations in the NORTHCOM AOR. Detail China Lake completed project CL08-807 installing 12,680 linear feet of backer rod and joint sealant, cutting 19,300 linear feet of control joints, moving 1,254 linear feet of barricades, cleaning out and grinding 243 individual mooring eyes, completing rework of damaged sections of concrete, demolishing a five cubic yard concrete oil and water separator and grindings, and cleaning and moving 225 square feet of curbs. Upon completion, Detail China Lake closed out the Detail site by executing retrograde and redeploying all Detail personnel to NMCB FOUR locations in the PACOM and NORTHCOM AOR. In total, Detail China Lake completed 1380 man-days of quality construction in a four month timespan greatly increasing the operational capabilities of Naval Air Wing Station (NAWS) China Lake and its tenant commands.

DETAIL CHINHAE (CRO)

NMCB FOUR deployed a 22 person detail to Chinhae, Korea in August, 2014, tasked with both the construction of KO13-805 Construct Cold Storage Facility and support of the annual ULCHI FREEDOM GUARDIAN Exercise. The Detail worked diligently to adapt and overcome significant delays due to funding, weather conditions, and unforeseen site conditions throughout the duration of deployment. Although work did not began on-site until 20 Sep 2014, the Detail was successfully able to reach compaction and place both the slab on grade and the first of three wall sections resulting in 1316 man-days toward the project completion. Detail Chinhae's quality initial construction, project management, and record-keeping enabled a quality and successful turnover with NMCB FIVE.

DETAIL DIEGO GARCIA (CRO)

NMCB FOUR deployed a 10 personnel Detail to British Indian Ocean Territory (BIOT) Diego Garcia in August 2014 to conduct Construction Readiness Operations in support of Naval Facilities and Engineering Command (NAVFAC) Far East (FE) Public Works Department (PWD) Diego Garcia, as well the host and tenant commands aboard Diego Garcia. The Detail conducted the planning, estimating, and material procurement for project DG14-814: Compressed Gas Cylinder Storage Facility and DG14-816: Repair Dog Kennel totaling 539 man-days of construction valued at $621K. Simultaneously, the Detail executed 499 man-days of Camp Maintenance and OIC-Discretionary Construction saving the Navy, Air Force and British Forces over $777K in materials and contractor fees, and greatly enhancing both operational effectiveness and morale/quality of life for the 2,500 United States and United Kingdom Government personnel in Diego Garcia.

DETAIL SAN CLEMENTE ISLAND (CRO)

NMCB FOUR deployed a 35-man detail to Naval Auxiliary Landing Field (NALF) San Clemente Island (SCI), CA in August 2014. Over the course of the deployment the Detail size increased to 40 personnel. The Detail conducted 724 man-days of mineral products production at the SCI Mid-Island Quarry including the first blast on the island in over five years. The Detail also repaired six miles of unimproved roads that are essential for meeting Third Fleet training requirements and constructed a CMU facility to be used as a Military Operations on Urban Terrain (MOUT) facility by Naval Special Warfare Group (NSWG) ONE.

DETAIL YOKOSUKA (CRO)

NMCB FOUR deployed a 30-personnel detail to Yokosuka, Japan in support of Commander Fleet Activities Yokosuka. Detail Yokosuka assumed work on 2 Pre-Engineered Building (PEB) projects. At the Navy-owned Ikego Housing area, the Detail was tasked with completing the construction of a 50'x56' PEB to provide MWR with a youth activity center and administrative spaces, including multiple interior rooms and offices. Work included interior finish work, rough and finish electrical, rough and finish plumbing, a fire suppression system, and the installation of a drop ceiling. At Azuma Island, the Detail was tasked with completing the construction of a 40'x77' PEB for Fleet and Industrial Supply Center (FISC) Fuels Department to provide the Terminal Director with new office spaces, employee showers, and a break room. Scope of work included interior finish work, finish electrical, and finish plumbing. The detail successfully completed both projects.

DETAIL CAMBODIA (CCAD)

CCAD Cambodia deployed 23 personnel to Cambodia in August 2014 in order to provide humanitarian assistance and support theater security cooperation objectives throughout the Kingdom of Cambodia. The Detail's scope of work included the construction of four 5-stall head facilities and one maternity ward in direct support of US Embassy and United States Agency for International Development (USAID) initiatives to improve sanitation conditions and maternity care throughout the Kingdom. The head facilities were completed at four schools; two in Sihanoukville, one in Kampot, and one in Kep. A maternity ward was constructed at a local health center in Kampot.

DETAIL PHILIPPINES (CCAD)

CCAD Philippines deployed 30 personnel to the Philippines in August 2014 to conduct Theater Security Cooperation tasking in support of Department of State, Commander, Task Force 75 and PACFLT objectives. Coordinated and executed alongside the Armed Forces of the Philippines (AFP), this Detail enhanced interoperability between AFP and USN engineering forces and supported the Philippine "Bayanihan" Internal Peace and Security Plan. The Detail completed facility renovations which served to increase functionality and quality of life at rehabilitation centers for sexually trafficked women, abused girls, and people with disabilities. The schools were constructed to the Philippine Department of Education 2014 standards and designed to withstand typhoon weather. The Detail fought logistics challenges and weather delays to complete the most challenging construction activities of the projects and lay the foundation for future details.

DETAIL TIMORE LESTE (CCAD)

NMCB FOUR deployed a Detail of 33 personnel to Camp Lenhoff, in Timor-Leste in order to partner with the Timor military, complete humanitarian construction, and execute a tri-lateral exercise. The Detail completed two projects outside of Dili: a 227 man-day health and maternity clinic renovation at Manatutu and a 738 man-day, 2-room school at Tibar. Joining with Timorese, Australian, and U.S. Marine Corps engineers, the Detail completed exercise HARII HAMUTUK 15 which included the construction of two 40-man barracks units for the Timorese military, a complete renovation of a local community center, and five minor projects. Additionally, the Detail executed 169 man-days of OIC-Discretionary work and 162 man-hours of community relations activities to support the local community in Dili.

COBRA GOLD 15 (EXERCISE – THAILAND)

NMCB FOUR deployed Detail COBRA GOLD in January 2015 to support supported Exercise COBRA GOLD 2015, a bi-lateral, multinational, combined air, land, maritime, civil-military, and special operations exercise, incorporating 14 countries. The Seabees were tasked with completing an Engineering Civic Action Program (ENCAP) project. The scope of the project was to build a new, one-room school house building to be used as a library and community center. The project site was located at Ban Chanta Kream School, in the Chanthaburi Province of Eastern Thailand. The school taught 900 students and served the local population of 5,250 personnel in 11 neighboring villages.

DETAIL OKINAWA / MAIN BODY

NMCB FOUR OKINAWA DEPLOYMENT SUMMARY

NMCB FOUR Main Body forward deployed to Okinawa, Japan in August 2014 in the PACOM area of responsibility in order to support ongoing Construction Readiness Operations. Charlie Company was assigned seven tasked projects with a total of 6,945 man-days, executing 4 of these projects for a total of 944 man-days expended.

Charlie Company completed four Commanding Officer Discretionary Projects with a total of 800 man-days. Projects included: renovation of the Kadena AFB "Wired Bean" liberty lounge, augment work with the 18th Civil Engineer Support Squadron at Kadena AFB, command suite renovation for Marine Wing Headquarters Squadron One at Camp Foster, and concrete pad placement for Camp Foster's Gunners Gym. In addition, Charlie Company successfully executed a command post exercise, an abbreviated field training exercise, and support to the Battalion 48 hour mount-out exercise.

Material procurement remained the largest hurdle to overcome throughout the deployment. Charlie Company worked with MLO extensively to provide construction material requirements. Due to the extensive timelines to procure materials, it proved to be extremely difficult to be able to order and receive materials in a timely manner over the course of a Battalion's deployment. In future operations, it would greatly enhance the Battalion's ability to execute construction, if materials were ordered by the previous Battalion in preparation for the next Battalion's deployment.

Alfa Company had no tasked projects going into deployment; however they were called upon to support beach cleanups in support of the local population, trench work in support of local Air Force commands, and other CO-Discretionary projects in support of the host and local tenant commands in Okinawa Japan. Alfa Company supported III MEF in various projects, to include acting as the subcontractor for the Landing Zone Phoenix project, and acting as the prime contractor for the Landing Zone Falcon and Range 10 Road Repair projects. Through active engagement with adjacent units, Alfa Company was able to create lasting relationships in Okinawa to ensure ongoing opportunities to practice and maintain skills through project execution while deployed.

PROJECT SUMMARY

Project Number	Total Project Man-days	Total Project Material Cost	Man-days Tasked	Tasked %	Final WIP (%)	Man-days Expended by Prior NMCBs	Man-days Expended This Deployment
JK06-838	2204	$511,301	399	46%	62%	1060	492
JK09-813	1400	$692,361	96	29%	93%	2067	395
JK14-837	989	$734,119	465	20%	95%	575	879
JWTC	30	$30,000	30	1%	100%	0	30
LZ Phoenix	57	NA	LOE	1%	100%	0	57
Range 10	110	NA	LOE	2%	100%	0	110
LZ Falcon	45	NA	LOE	1%	100%	0	45
Total	4,835	$1,967,781	990			3702	2,008

White Beach CTF 76 Warehouse

Repaired parapet

WHITE BEACH CTF 76 WAREHOUSE
JK06-838

Project Purpose: Construct storage facility at White Beach Naval Base, Okinawa Japan in support of CTF 76

Project Data

Project Scope: Construct a 37ft x 60ft reinforced CMU storage facility at White Beach Naval Base. The warehouse will include offices, (1) telephone and communication room, (1) unisex bathroom, and (1) kitchenette. This project will serve as a warehouse and office facility for CTF 76 Command Operations at White Beach.

Personnel:	15	
Duration:	Aug 14 – Feb 15	
Man-days Expended:	NMCB FOUR	492 MDs
	Prior NMCBs	1060 MDs
Tasking:	WIP at Deployment Completion	62%
	Total Project MDs	2270 MDs
Material Cost:	$601,449	
Cost Avoidance:	$669,200	

Significant Safety Issues: None
Significant QC Issues: Concrete masonry units (CMU) were not properly core filled. NAVFAC PAC designer of record (DOR) directed the complete demolition of CMU in place. CMU demolition and rebar repair was completed.
Significant Design Issues: None.
Significant Material Issues: CMU block was locally procured and is on-site. Remaining project material has not been delivered and is in the procurement process.

Tengan Pier Facility site overview

Seabee's install refrigerant lines

Tengan Pier Ordnance Facility
JK09-813

Project Purpose: Construct Ordnance Facility Pre-Engineered Building.

Project Data

Project Scope: Construct a 38ft x 103ft Pre-Engineered Building (PEB) with (2) electric roll-up doors, (1) four forklift charging bay, (1) 36ft x 53ft maintenance area, (1) office space/conference room with communications lines, (1) unisex restroom, (1) septic tank, 500ft of new waterline, and (1) fire hydrant.

Personnel:	10	
Duration:	Aug 14 – Feb 15	
Man-days Expended:	NMCB FOUR	395 MDs
	Prior NMCBs	2067 MDs
Tasking:	WIP at Deployment Completion	93%
	Total Project MDs	1357 MDs
Material Cost:	$670,763	
Cost Avoidance:	$475,650	

Significant Safety Issues: None
Significant QC Issues: Several construction activities were not executed in accordance with design and specification, thus requiring significant rework. Rework included: in place electrical work, miscellaneous plumbing work and roofing work.
Significant Design Issues: None
Significant Material Issues: Project was not completed by NMCB FOUR due slow material procurement. Material required to complete open CASS sheets (electrical & plumbing) has been ordered and is awaiting delivery.

Site Overview

Bollard Installation

Communications Pad Site "A" Camp Courtney
JK14-837

Project Purpose: Construct communications pad at Site "A".

Project Data

Project Scope: Construct (1) 38m x 53m pad with electrical grounding system connected throughout the slabs totaling 530 cubic meters of concrete. New 2.84m tall chain link security fence to be constructed around both sites with vehicle access gates. Install new power distribution system with pad mounted transformers.

Personnel:	15	
Duration:	Aug 14 – Feb 15	
Man-days Expended:	NMCB FOUR	936 MDs
	Prior NMCBs	575 MDs
Tasking:	WIP at Deployment Completion	95%
	Total Project MDs	1454 MDs
Material Cost:	$300,411	
Cost Avoidance:	$283,150	

Significant Safety Issues: None.
Significant QC Issues: Direct bury secondary conduit was previously installed in the incorrect location conflicting with fence post installation. Conduit and associated manholes were relocated to correct location.
Significant Design Issues: None.
Significant Material Issues: NMCB FOUR will not complete this project due to slow material procurement. Expansions joint sealant and minor miscellaneous electrical material have been purchased and are awaiting delivery.

Site Overview

Completed Tower

Observation Tower, Jungle Warfare Training Center
JK14-837

Project Purpose: Construct observation tower and conduct camp maintenance.

Project Data

Project Scope: Construct (1) 15 ft observation tower and minor camp repairs onboard Camp Gonsalves to provide enhanced training capabilities in support of the Jungle Warfare Training Center. Work consisted of the construction of (1) observation tower, repairing (1) SWA hut, and inventorying and palletizing CMU block.

Personnel:	6	
Duration:	12 – 16 Jan 15	
Man-days Expended:	NMCB FOUR	30MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	30 MDs
Material Cost:	$30,000	
Cost Avoidance:	$8,000	

Significant Safety Issues: None.
Significant QC Issues: None.
Significant Design Issues: None.
Significant Material Issues: NMCB FOUR will complete a limited scope due to material procurement delays and required permitting.

Landing pad location prior to construction **Landing pad after AM2 placement**

LZ Phoenix on Camp Schwab

Project Purpose: Construct two landing pads capable of supporting VM-22 Osprey flight operations.

Project Data

Project Scope: Grade and compact two landing pads with select fill provided by MWSS-172. Construct drainage swales in accordance with the site drainage plan. AM2 matting placement and final pad certification conducted by MWSS-172.

Personnel:	NMCB FOUR – 10 MWSS-172 - 24	
Duration:	03 – 18 Nov 14	
Man-days Expended:	NMCB FOUR Prior NMCBs	56.4 MDs 0 MDs
Tasking:	WIP at Deployment Completion Total Project MDs	100% 56.4 MDs
Material Cost:	$0	
Cost Avoidance:	$11,280	

Significant Safety Issues: CESE movements within jobsite and adjacent roadway. Controls put in place to mitigate any safety mishaps.
Significant QC Issues: Achieving thorough compaction of first lift was priority during construction. Compaction was achieved by no less than four passes with vibratory roller.
Significant Design Issues: Red clay runoff management was a significant concern. Mitigated by construction of drainage swales, installation of rock-filters and hydro-seeding the surrounding soil.
Significant Material Issues. None

Range 10 road prior to construction

Range 10 road post construction

Range 10 Repairs on Camp Schwab

Project Purpose: Conduct repairs to six Range 10 service roads, improve site conditions on GP 509 and Demo 3 in order to improve the training facilities directly supporting III MEF.

Project Data

Project Scope: Repairs consisted of clearing, grading, shaping, and compacting roads. GP509 and Demo 3 were graded to improve site drainage. Additionally, removed 12 years of sediment buildup at Demo 3 sediment pond.

Personnel:	NMCB FOUR – 13	
Duration:	08 Dec 14 – 15 Jan 15	
Man-days Expended:	NMCB FOUR	110 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	110 MDs
Material Cost:	$0	
Cost Avoidance:	$22,000	

Significant Safety Issues: CESE movements within jobsite and adjacent roadway. Controls put in place to mitigate any safety mishaps.
Significant QC Issues: Achieving complete and uniform compaction with vibratory roller. Ensured grading is uniform and achieves a smooth driving surface.
Significant Design Issues: None
Significant Material Issues. None

LZ Falcon before earthwork

LZ Falcon after final grading

LZ Falcon Improvements on Camp Hansen

Project Purpose: Conduct earthwork on LZ Falcon to create a level landing area in support of Camp Hansen Range Control.

Project Data

Project Scope: Scrape and bulldoze the large, prevailing high spots, finish grading and compacting.

Personnel:	NMCB FOUR – 6	
Duration:	10 – 31 Dec 14	
Man-days Expended:	NMCB FOUR	45 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	45 MDs
Material Cost:	$0	
Cost Avoidance:	$9,000	

Significant Safety Issues: CESE movements within jobsite and adjacent roadway. Controls put in place to mitigate any safety mishaps.
Significant QC Issues: Engineering Aids conducted site survey to ensure area has a minimum of 1% grade away from roadway. Spread material consistent with existing grade.
Significant Design Issues: None
Significant Material Issues. None

CAMP MAINTENANCE

NMCB FOUR's Bravo Company was tasked with camp maintenance, typhoon preparations and after action, trouble calls, and OIC discretionary projects on Camp Shields and White Beach, Okinawa, Japan. Bravo Company completed over 555 Emergency Service Actions, six Maintenance Control Directives projects, contractor facilities support, berthing renovations and upgrades, and camp wide zone inspections. Camp maintenance personnel earned 2157 man-days during the deployment

CAMP MAINTENANCE PROJECTS
AUGUST 2014–JANUARY 2015

Project Data

Emergency/Service Calls (ESA)	900 MDs
Standing Job Orders (SJO)	372 MDs
Specific Job Orders (MCD)	587 MDs
025-13 Barber Shop Wall 7145	12 MDs
034-14 Jogging Traffic Signs	100 MDs
035-14 Fence Repair (awaiting materials)	7 MDs
055-14 MWR Pad (1)	62 MDs
036-14 Smoke Pit Sidewalk (awaiting materials)	8 MDs
037-14 Crow's Nest Sidewalk (awaiting materials)	10 MDs
038-14 Alfa yard Sidewalk, 7216 Gazebo ramp, NEX sidewalk (materials)	9 MDs
039-14 Medical/Tire Pad and Supply Stairs (awaiting materials)	11 MDs
040-14 Pressure Washing of Camp Shields sidewalks	163MDs
045-14 Painting of Camp Shields crosswalks (awaiting materials)	210 MDs
052-14 Gym Children's enclosure	12 MDs
041-14 Dumpster Enclosure (awaiting material)	55 MDs
060-14 MWR Pad (2) (Awaiting funding)	50 MDs
056-14 Bicycle Pad (awaiting Funding)	45 MDs
046-14 CTR Shop Wall	9 MDs
059-14 Repaint Parking Stalls	31 MDs
Total Man-days Expended:	428 MDs
Total Material Costs:	$97,787.38
Total Cost Avoidance:	$1,083,244.00

CAMP MAINTENANCE
LABOR DISTRIBUTION SUMMARY CHART

Month	14-Aug	14-Sep	14-Oct	14-Nov	14-Dec	15-Jan	15-Feb	Total
Direct Labor MDs[1]	180	378	366	491	482	260	0	2157
Indirect Labor MDs[1,2]	6	6	399	356	356	138	93	1354
Readiness/Training[1]	18	36	198	249	212	151	2	856
Total MDs Exp	204	420	963	1125	1050	549	95	4406
# Total Personnel	31	31	41	41	42	42	13	
# Direct Labor	24	24	36	36	38	29	8	
# Workdays[3]	10	21	20	25	22	20	11	
% Direct Labor[4]	77%	77%	87%	90%	90%	70%	61%	
Ideal Capability[5]	1.125	1.125	1.125	1.125	1.125	1.125	1.125	
Availability Factor[6]	0.75	0.75	0.75	0.75	0.75	0.75	0.75	

Notes:
(1) Direct and Readiness/ Training MDs are *expended* man-days, not earned.
(2) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.
(3) Number of Workdays = DL workdays + DL training days
(4) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)
(5) MD Capability = (ME * DL * Workdays) = 1 x DL x (# workdays)
(6) Actual Availability Factor = (Direct Labor MDs + Readiness/Training MDs) / (MD Capability).

Labor Distribution Summary

Main Body Okinawa

Month	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Total
Direct Labor MDs[1]	0	47	214	763	782	717	2523
Indirect Labor MDs[1,2]	186	514	687	1,617	1,097	1724	5825
Readiness/Training[1]	21	20	29	142	375	35	622
Total MDs Exp	207	581	930	2,522	2,254	2,476	8,970
# Total Personnel	81	83	107	61	66	66	
# Direct Labor	21	21	24	47	52	52	
# Workdays[3]	10	23	24	24	24	25	
% Direct Labor[4]	26%	25%	22%	78%	79%	79%	
Ideal Capability[5]	1.070	1.070	1.125	1.125	1.125	1.125	
Availability Factor[6]	.70	.70	.75	.75	.75	.75	

Notes:

(6) Direct and Readiness/ Training MDs are *expended* man-days, not earned.

(7) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.

(8) Number of Workdays = DL workdays + DL training days

(9) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)

(10) MD Capability = (ME * DL * Workdays) = 1.125 x DL x (# workdays)

(6) Actual Availability Factor = (Direct Labor MDs + Readiness/Training MDs) / (MD Capability).

DETAIL CHINA LAKE

DETAIL CHINA LAKE DEPLOYMENT SUMMARY

NMCB FOUR Detail China Lake deployed to Naval Air Weapons Station (NAWS) China Lake. NAWS China Lake is located in the Mojave Desert region of Eastern California. Detail China Lake was tasked with the construction of CL08-807 Complete Airfield Apron. The tasking called for the construction of a 402'x225'x11" concrete parking apron that will support 5,000 psi compression strength with 243 aircraft mooring eyes.

Detail China Lake expended 1143 man-days and completed CL08-807 Construct Parking Apron, CH10-800 Demolition of Headwall, Tension Fabric Structure Disassembly, Mineral Products Training Platform Wash Ponds filling, and various OIC-D projects. NMCB FOUR Detail China Lake successfully completed the Battalion equipment evaluation program (BEEP) with 26 units of CESE. Detail China Lake completed 19,300 LF of control joint cuts and 12,684 LF of backer rod placement and joint sealant installation. Detail China Lake completed the demolition of a five cubic yard concrete oil/fuel separator that was unearthed in the excavation of the apron. Detail China Lake completed the demolition, excavation, compaction, and placement of a 4'x14' section of concrete that cracked and posed a foreign object debris threat. Additionally, at the Mineral Products Training Platform Detail China Lake completed the demolition of a 16' tall 53 cubic yard concrete headwall that was inhibiting future crusher operations, the filling of two 1.5 million gallon wash ponds allowing for wash plant operations, and the disassembly of a 75' X 100' tension fabric structure as part of the closeout of the Detail site.

Project Number	Total Project Man-days	Total Project Material cost	Man-days Tasked	Tasked %	Final WIP (%)	Man-Days Expended by Prior NMCBs	Man-days Expended This Deployment
CL08-807	1567	$591,245.89	1567	100%	100%	1105	388
CH10-800	145	$1,809.48	145	100%	100%	0	72
TFS	91	$0	91	100%	100%	0	64
PONDS	148	$0	148	100%	100%	0	148
TOTAL	1951	$593,055.37	1951	100%	100%	1105	672

View of Apron from the southwest corner

Concrete placement in northwest corner

Construct Aircraft Parking Apron
CL08-807

Project Purpose: Construct parking apron for NAWS China Lake airfield between hangars 1 and 2 in order to create additional room for F-18 parking for VX-9 and VX-31 while reducing the hazard of foreign object debris.

Project Data

Project Scope: Project consists of demolition and removal of existing 2"thick asphalt pavement 225 'x 337' and 9 thick concrete pavements 50' x 225'. Excavate existing sub-base material, fill and compact suitable existing sub-base material to 17" below finish grade, input 6" lifts, and remove excess subbase material to an off-site location. Transport fill, place and compact specified type II base material to 11" below finish grade. Form, place, and finish 5000psi concrete pavement. Pavement shall have 18 equally spaced joints along 225' length and 23 equally spaced joints along 387' length. Aircraft tie downs shall be embedded in pavement sections per design. Scope modified to include 16 additional sections along the East boundary of project.

Personnel:	13.5 personnel	
Duration:	Aug – Oct 14	
Mandays Expended:	NMCB FOUR	381 MD's
	Prior NMCBs	1112 MD's
Tasking:	WIP at completion	100%
	Total Project MDs	1566 MD's

Material Cost: $632,112

Cost Savings: $522,550

Significant Safety Issues: None
Significant QC Issues: None
Significant Design Issues: None
Significant Material issues: None

View of headwall prior to demolition

View of existing pad after demolition of Headwall

Demolition of Headwall
CH10-800

Project Purpose: Demolish existing concrete headwall at the Mineral Products Training Platform and leave existing concrete slab intact and usable for future crusher operations that do not require a headwall.

Project Data

Project Scope: Project consists of demolition and removal of existing 55 cubic yards of concrete crusher wall to leave the existing slab smooth and usable for future crusher that does not utilize a rear head wall.

Personnel:	8 personnel	
Duration:	Oct – Nov 14	
Mandays Expended:	NMCB FOUR	72 MD's
	Prior NMCBs	0 MD's
Tasking:	WIP at completion	100%
	Total Project MDs	145 MD's

Material Cost: $1,809.48

Cost Savings: $25,200

Significant Safety Issues: None
Significant QC Issues: None
Significant Design Issues: None
Significant Material issues: None

View of Tension Fabric Structure Prior to Disassembly

Removal of one of the bays

Tension Fabric Structure Disassembly

Project Purpose: Disassemble Tension Fabric structure that had been used as a mechanic shop by the Seabee unit deployed to China Lake. With the close out of the Seabee Det there is no longer a need for the Tension Fabric Structure there and it may be repurposed for other uses.

Project Data

Project Scope: Disassemble Tension Fabric Structure at Mineral Products Training Platform and store as directed by China Lake Public Works Facilities Engineering and Acquisition.

Personnel:	8 personnel	
Duration:	21 Oct – 06 Nov 14	
Mandays Expended:	NMCB FOUR	64 MD's
	Prior NMCBs	0 MD's
Tasking:	WIP at completion	100%
	Total Project MDs	91 MD's

Material Cost: $0

Cost Savings: $12,800

Significant Safety Issues: None
Significant QC Issues: None
Significant Design Issues: None
Significant Material issues: None

One of the ponds being filled showing connecting pipe

View of 8,000 gallon water truck filling a pond

Mineral Products Pond Filling

Project Purpose: Fill two 1.5M gallon wash ponds to a usable level in order to allow Naval Construction Group One to conduct wash plant operations that require use of two filled and connected wash ponds.

Project Data

Project Scope: Project consists of filling of two 1.5 million gallon wash ponds until water level in the ponds is approximately halfway up the connecting pipe allowing for adequate wash plant operations.

Personnel:	6 personnel	
Duration:	Sep – Nov 14	
Mandays Expended:	NMCB FOUR	148 MD's
	Prior NMCBs	0 MD's
Tasking:	WIP at completion	100%
	Total Project MDs	148 MD's

Material Cost: $0

Cost Savings: $29,600

Significant Safety Issues: None
Significant QC Issues: None
Significant Design Issues: None
Significant Material issues: None

Labor Distribution Summary

Detail China Lake

Month	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Total
Direct Labor MDs[1]	122	261	280	237	243	1143
Indirect Labor MDs[1,2]	91	157	139	77	65	529
Readiness/Training[1]	56	112	114	93	57	432
Total MDs Exp	269	530	533	407	365	2104
# Total Personnel	28	28	27	25	25	
# Direct Labor	17	17	16	13	13	
# Workdays[3]	7	23	24	19	16	
% Direct Labor[4]	61	61	59	52	52	
Ideal Capability[5]	134	440	432	278	234	
Availability Factor[6]	1.33	0.85	0.91	1.19	1.28	

Notes:
(1) Direct and Readiness/ Training MDs are *expended* man-days, not earned.
(2) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.
(3) Number of Workdays = DL workdays + DL training days
(4) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)
(5) MD Capability = (ME * DL * Workdays) = 1.125 x DL x (# Workdays)
(6) Actual Availability Factor = (Direct Labor MDs + Readiness/Training MDs) / (MD Capability).

DETAIL CHINHAE

DETAIL CHINHAE DEPLOYMENT SUMMARY

NMCB FOUR Detail Chinhae AP arrived at Commander Fleet Activity Chinhae (COMFLEACT Chinhae) on August 12 2014, and began the turnover process with NMCB ONE. Three and a half days were allotted for turnover to include: Quality Control, Controlled Equipage, Safety Program, Central Control Room (CTR), OPTAR, Excess Material, ALFA Company Facility Keys, Hazardous Material, CESE Maintenance Program, ALFA Company Equipment Operations, and 3M Work Center AM11. The Detail's delayed party arrived August 16, 2014.

Detail Chinhae conducted 104 man-days of Direct Labor Training. A cultural awareness Korean Indoctrination training class including a brief on local customs, food, and culture was held. During the safety stand down, three hours of training on environmental and HAZMAT safety training was conducted. Alcohol awareness and suicide prevention training, along with various other safety training topics were covered, as well. Seabee Combat Warfare classes were held two nights per week for the duration of deployment, resulting in 6 qualifications.

COMFLEACT Chinhae was hit with extensive rain in the beginning of deployment. As a result, the Detail provided support to the base to prevent flooding in various locations. Due to budget issues and end of the fiscal year limitations, funds requested by the prior Battalion (NMCB ONE) for project material were not able to be obligated. Construction did not begin until September 20, 2014, putting the Detail 20 days behind schedule. CTR was inventoried for 100% accountability for all tool kits. MLO was organized, and the project's bill of materials was reassessed in order to identify discrepancies and possible add-ons. This effort resulted in a more efficient material procurement process once the funding became available.

In order to keep moving forward on the project, the crew worked float activities, such as prefabrication of the formwork for the walls and fabrication of the handrails to be installed on the retaining wall. In total, 50% of the select fill used for compaction to place the slab on grade was procured and placed. Additionally, the crew effectively executed minor rework items on the project such as installing the correct weep holes barrier material and executing the backfill for the retaining wall.

The retaining wall was measured to layout the location of the building and it was determined substantial rework would be required due to the incorrect placement of the west retaining wall. After discussion with COMFLEACT Chinhae Public Works department, a Field Adjustment Request (FAR #14 demolition of six meters of wall) was approved to execute the rework. A QDR for the rework was processed through 30NCR on October 14, 2014. The crew began working on the retaining wall rework immediately upon approval, completing the work on October 24, 2014. The Detail's funding issues were resolved on October 27th and subsequently the Bill of Materials (BOM) was quoted through the Prime vendor. The remaining select fill for compaction was in place by November 5th. Placement of forms and RST for the slab on grade began November 21st and the concrete slab on grade was placed on December 10th. The placement of the wall sections were reassessed and new calculations were done to improve the quality and safety of their placement. Wall Section 1 was placed on January 15, 2015 with no significant issues, and the concrete curb for the street was placed on January 23.

Project Number	Total Project Man-days	Total Project Material cost	Man-days Tasked	Tasked %	Final WIP (%)	Man-Days Expended by Prior NMCBs	Man-days Expended This Deployment on Project
KO13-804	1532	$604,674	1052	77%	50%	197	767
TOTAL	1532	$604,674	1052	77%	50%	197	767

KO13-804 Site overview from the south

KO13-804 Site overview from the north

Cold Storage Facility
KO13-804

Two battalions worked steadily on the Cold Storage Facility. A technically challenging project, the building will provide a major improvement to base life and highlight the skilled work of which the Seabees are capable.

Project Data

Project Scope: Construct a 22,700mm X 7,700mm solid concrete Cold Storage Facility with a concrete retaining wall, two exterior insulated doors, one interior insulated door, a loading dock with an automatic thermal insulated overhung sliding door with a protected metal canopy, one transformer and cable junction box, 50mm water line with hose bib, and the connection of the water main.

Personnel: 9 – 13 personnel from each Command Fleet Activity Chinhae Detail

Duration: Aug 14 – Feb 15

Man-days Expended:	NMCB ONE:	733
	NMCB FOUR:	763
	Cumulative:	1496

Tasking:	WIP at turnover:	17%
	WIP at deployment completion:	50%
	MD Tasked to NMCB FOUR:	1052
	Total Project MD:	1532

Material Cost: $252,709.19

Cost Savings: $487,500

Significant Safety Issues: None
Significant QC Issues: QDR for placement of retaining wall was processed
Significant Design Issues: None
Significant Material Issues: Mixing of standard and metric sizes from Korean and USA vendors

Finish product of the Repainted Gate

Front side of Finished Gate

OICD COMFLETACT Chinhae Gate Project

Project Data

List of Projects:	Front Gate Rehab	25 MD's
Total Mandays Expended:	25 MD's	
Total Material Costs:	N/A	
Total Cost Savings:	N/A	

Labor Distribution Summary

Detail Chinhae

Month	Aug14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Total	%Total
Direct Labor MDs[1]	82	179	149	109	86	143	519	65%
Indirect Labor MDs[1,2]	15	63	72	51	57	69	201	25%
Readiness/Training[1]	0	22	44	22	22	44	88	10%
Total MDs Exp	97	264	265	182	165	256	808	100%
# Total Personnel	22	22	22	22	22	22	22	100%
# Direct Labor	13	13	13	13	13	13	13	100%
# Workdays[3]	5	18	24	17	19	23	74	100%
% Direct Labor[4]	59%	59%	59%	59%	59%	59%	59%	
Ideal Capability[5]	62	223	280	199	115	286		
Availability Factor[6]	89%	67%	75%	73%	70%	62%		

Notes:

(6) Direct and Readiness/ Training MDs are *expended* man-days, not earned.

(7) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.

(8) Number of Workdays = DL workdays + DL training days

(9) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)

(10) MD Capability = (ME * DL * Workdays) = 1.125 x DL x (# Workdays)

(6) Actual Availability Factor = (Direct Labor MDs + Readiness/Training MDs) / (MD Capability).

DETAIL DIEGO GARCIA

DETAIL DIEGO GARCIA DEPLOYMENT SUMMARY

NMCB FOUR deployed a 10 person detail to British Indian Ocean Territory (BIOT) Diego Garcia in August 2014 to conduct Construction Readiness Operations in support of Naval Facilities and Engineering Command (NAVFAC) Far East (FE) Public Works Department (PWD) Diego Garcia, as well the host and tenant commands aboard Diego Garcia. The Detail conducted the planning, estimating, and material procurement for project DG14-814: Compressed Gas Cylinder Storage Facility and DG14-816: Repair Dog Kennel totaling 539 man-days of construction valued at $621K. Simultaneously, the Detail executed 499 man-days of Camp Maintenance and OIC-Discretionary Construction saving the Navy, Air Force and British Forces over $777K in materials and contractor fees, and greatly enhancing both operational effectiveness and morale/quality of life for the 2,500 United States and United Kingdom Government personnel in Diego Garcia.

Detail Diego Garcia placed approximately five cubic yards of concrete, finished 260 square feet of concrete and 160 square feet of Gypsum paneling, fabricated 650 linear feet of angle steel and 866 square feet of sheet steel totaling 1.2 tons, installed 80 feet of electrical conduit, 120 linear feet of utility piping, 256 square feet of gypsum paneling, and demolished and removed 21 tons of debris in the execution of 15 separate OIC-Discretionary construction projects.

OVERALL DEPLOYMENT SUMMARY

Project Description	Total Project Man-days	Total Project Material Cost	Man-days Tasked	Tasked %	Final WIP (%)	Man-days Expended by Prior NMCBs	Man-days Expended This Deployment
OIC Discretionary	352	0	150	56%	100%	226	359
P&E Compressed Gas Cylinder Storage	176	0	176	27%	100%	0	160
Camp Maintenance	106	0	106	17%	100%	0	140
Total	634	N/A	432			226	659

Prior to Installation

New Bicycle Awning installed

FEAD Building Bicycle Awning
OICD 001

Project Purpose: This project provided a needed area for NAVFAC FE FEAD and Public Works personnel to park bicycles out of the inclement weather. Project provided the opportunity for Seabee Steelworkers and Builders to draft structural drawings for review and approval by the FEAD structural engineer. The work provided for more than 60 combined man hours of fabricating and welding on-the-job training.

Project Data

Project Scope: Construct 6' x 13' steel bicycle awning. Work to include drafting design for approval, fabrication and assembly of angle steel frame, painting, and installing corrugated steel roof panels.

Personnel:	Average of 3 Personnel	
Duration:	Sep 14	
Man-days Expended:	NMCB FOUR	27 MDs
	Prior NMCBs	N/A
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	27 MDs
Material Cost:	N/A	
Cost Avoidance:	$13,800	

Significant Safety Issues: None.
Significant QC Issues: None.
Significant Design Issues: None.
Significant Material Issues: All materials obtained through excess material on hand.

Before Demolition **After Demolition and Removal**

Demolish Amateur Radio Station BLDG 1078 and Facility #944
OICD 002A

Project Purpose: Demolish and remove Amateur Radio Station BLDG 1078 in order to eliminate the potential safety hazards posed by the decrepit structure.

Project Data

Project Scope: Demolish 16'x32' Amateur Radio Station Sea-hut. Dismantle, segregate, stage, palletize, and deliver all materials to Diego Garcia Solid Waste Facility.

Personnel:	Average of 5 Personnel	
Duration:	Oct 14	
Man-days Expended:	NMCB FOUR Prior NMCBs	31 MDs N/A
Tasking:	WIP at Deployment Completion Total Project MDs	100% 31 MDs
Material Cost:	N/A	
Cost Avoidance:	$6800.00	

Significant Safety Issues: None.
Significant QC Issues: None.
Significant Design Issues: None.
Significant Material Issues: All consumable materials obtained through excess material on island.

Fabricated Light Base

Light Installed

Temporary Solar Aviation Lighting
OICD 009

Project Purpose: To provide temporary, emergency, solar-powered airfield lighting, significantly reducing existing emergency lighting contract costs, enabling continuous Diego Garcia Air Operations and rapid replacement of failed runway lighting, ultimately enhancing overall operational capability.

Project Data

Project Scope: Fabricate and install 93, 9”x18” steel solar aviation light bases. Light bases to be installed 300’ O.C. spanning a combined distance of 24,000LF.

Personnel:	Average of 3 Personnel	
Duration:	Nov 14	
Man-days Expended:	NMCB FOUR	47 MDs
	Prior NMCBs	N/A
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	26 MDs
Material Cost:	N/A	
Cost Avoidance:	$711,454.03	

Significant Safety Issues: None.
Significant QC Issues: None.
Significant Design Issues: None.
Significant Material Issues: All consumable materials obtained through excess material on island

Pre-construction

Concrete slab and bike shelter installed

Construct Bike Shelter at Galley
OICD 016

Project Purpose: To provide an area where Diego Garcia Galley patrons and employees can safely park bicycles out of the inclement weather. New facility increased morale for more than 1,100 DOD, Contractors and civilians on the island.

Project Data

Project Scope: Layout, excavate and place concrete for an 8'x21' light broom finished concrete slab on grade. Assemble pre-manufactured 2-bay bicycle shelter. Work to include the retro-fitting of existing bike racks.

Personnel:	Average of 4 Personnel	
Duration:	Dec 14	
Man-days Expended:	NMCB FOUR	42 MDs
	Prior NMCBs	N/A
	G4S Parsons Contractor	1
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	42 MDs
Material Cost:	N/A	
Cost Avoidance:	$7,100.00	

Significant Safety Issues: None.
Significant QC Issues: None.
Significant Design Issues: None.
Significant Material Issues: None.

Pre-construction

New Structure Completed

Construct COMPSRON 2 Gazebo
OICD 006

Project Purpose: Project provided a much needed upgrade to the Composite Squadron 2 and Military Sealift Command function area. This project enabled more than 600 combined on-the-job training hours in the areas of building layout and excavation, soil stabilization, concrete batching and placing, carpentry, and framing fundamentals for five personnel.

Project Data

Project Scope: Construct 12'x20' gazebo with wooden deck. Work includes excavation and installation of 18" x 18" concrete footings, 6"x6" wooden column posts with wooden framed trusses and corrugated metal roof sheeting. Work to include the painting of all structural members and fabrication of steel connecting brackets.

Personnel:	Average of 5 Personnel	
Duration:	Dec 14 – Jan 15	
Man-days Expended:	NMCB FOUR	79 MDs
	Prior NMCBs	N/A
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	79 MDs
Material Cost:	N/A	
Cost Avoidance:	$27,000.00	

Significant Safety Issues: None.
Significant QC Issues: None.
Significant Design Issues: None.
Significant Material Issues: None.

OIC DISCRETIONARY PROJECTS
AUG 14 – FEB 15

Project Data

List of Projects:

SEP	FEAD Building Bicycle Awning	27 MDs
SEP	Renovate American Forces Network Studio	16 MDs
SEP	Fabricate and Install Security Bar for Post Office	2 MDs
OCT	Partition Wall BLDG 111	6 MDs
OCT	Demolish Amateur Radio Station BLDG 1078	31 MDs
NOV	Demolish Airfield Hazmat Storage Facility #944	3 MDs
NOV	Construct Bike Shelter for Ships Store	6 MDs
NOV	Temporary Solar Aviation Lighting	47 MDs
DEC	Renovate Chapel Fence	12 MDs
DEC	Construct Bike Shelter at Galley	42 MDs
DEC	FEAD Building Bicycle Awning #2	14 MDs
JAN	Construct COMPSRON 2 Gazebo	79 MDs
JAN	Install Sink and Waterline at Brit Club	31MDs
JAN	Construct HAZMAT Shelving for Unaccompanied Personnel Housing	4MDs
JAN	Post Office Lighting Energy Saving Lighting Re-Configuration	2MDs
AUG-FEB	OICD Planning and Estimating	37MDs
Total OICD		359MDs

ADDITIONAL SUPPORT OPERATIONS

AUG-OCT	Planning and Estimating Compressed Gas Cylinder Storage	160MDs
AUG-FEB	Camp Maintenance & Warehouse	140MDs

Total Man-days Expended: 659 MDs
Total Material Costs: **$**0
Total Cost Savings: **$**777,874.03

Labor Distribution Summary

Detail Diego Garcia

Month	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	Total
Direct Labor MDs[1]	66	73	175	78	111	121	35	659
Indirect Labor MDs[1,2]	9	18	23	11	17	22	4	104
Readiness/Training[1]	13	13	27	38	13	13	0	117
Total MDs Exp	88	104	240	127	141	156	39	880
# Total Personnel	8	8	8	8	8	8	8	
# Direct Labor	7	7	7	7	7	7	7	
# Workdays[3]	10	19	24	12	18	23	5	
% Direct Labor[4]	88	88	88	88	88	88	88	
Ideal Capability[5]	67	127	161	80	120	154	33	
Availability Factor[6]	.99	.57	1	.97	.92	.79	1	

Notes:
(1) Direct and Readiness/ Training MDs are *expended* man-days, not earned.
(2) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.
(3) Number of Workdays = DL workdays + DL training days
(4) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)
(5) Ideal Capability = # of Direct Labor * # of Workdays * 1.125 * .85 (Det Site AF)
(6) Actual Availability Factor = Direct Labor MDs / Ideal Capability.

DETAIL SAN CLEMENTE ISLAND

DETAIL SAN CLEMENTE ISLAND DEPLOYMENT SUMMARY

NMCB FOUR deployed a 35 personnel detail to NALF San Clemente Island (SCI) on August 4, 2014 to support the base through quarry operations, road repairs, and the construction of a MOUT facility. Move-in and turnover from NMCB ONE was completed on August 13. After turnover, one crew member relocated to Naval Base San Diego to serve as the Detail parts expeditor supported by CBMU 303. Throughout deployment, eight additional crew members joined the Detail in order to accomplish additional road repairs. The Detail executed a total of 1469 man-days on tasked projects, 360 man-days on OIC-Discretionary projects and camp maintenance combined, and 87 man-days of planning and estimating.

Detail SCI operated the Mid-Island Quarry to include blasting, mucking, hauling, crushing, and drilling. Five blasts were conducted during the deployment averaging 500lbs of explosives per blast. These blasts allowed the quarry crew to muck 13,000 CD of material from the quarry, establishing functional benches, and to crush over 7715 CD of ¾" minus aggregate. At the end of deployment, 3060 CD of ¾" minus material was stockpiled at the quarry. In addition to operating the quarry, the crew improved the site by leveling and grading an area for the Pioneer Crusher which is expected to arrive in the summer of 2015 and mark the quarry boundaries.

Detail SCI repaired and maintained eight miles of the island unimproved roads. The road repair crew improved 4.7 miles of West Shore Road with two, 2 inch lifts of ¾'' minus aggregate from the quarry compacted to 95% as measured by sand cone test. The crew also replaced 4 collapsed culverts. The road looping around SCORE's Range Control Center was re-graded and compacted to remove wash boarding caused by traffic and time. The road's drainage system was inverted to flow towards a V ditch, aiding against annual flooding of the Range Control facilities during the rainy season.

The road repair crew conducted repairs to an offshoot of Hillsite road allowing PW access to power lines. A distance of 100' was graded, filled with 4" fill, watered and compacted. Prior to the repairs, the road was unpassable due to erosion, including a 5' deep x 12' wide hole. Twelve cubic yards of fill was used to fill the gap and spread along the road. The road crew placed boulders along the road leading to Air Operations to prevent vehicles from driving off the road. A total of ten truck loads were used to accomplish this task. Additionally, the crew cleared a 100' x 150' area of debris behind the Alfa Shop. Crew coordinated with island waste manager to ensure all debris was disposed of properly, in accordance with environmental regulations. The road crew also conducted repairs to MAROPs blasting zone, which included; grading, filling, and rolling operations on existing erosion damaged roads. 500 meters of road was repaired. All materials were provided by MAROP, eliminating the haul time from the quarry.

CESE population expanded from 48 to 57 units. Two CASE Loaders were shipped off island for DRMO, and 11 units of CESE were gained. Units gained include five HMMWVs, a track loader, articulating dump, backhoe, skid steer, 250 CFM compressor, and arc welder. Two 15T International dump trucks were submitted for DRMO prescreening.

Detail SCI constructed a 40' x 20' CMU building for MAROPs. The project, SC15-824: Construct Townhouse Bldg "U" included 2 rooms divided by CMU walls. This facility will be utilized by SEAL teams and other special operation forces for training during close quarter combat drills. The Detail also developed a project package for SC15-818: Construct Comfort Station at Quarry. This project is a head facility with water storage tank, septic tank, and leach field.

Vertical crew members conducted several OIC-D projects for MAROPS including a Block wall range entrance, BBQ shed build out, steel worker room, and a MAROP builder shop extension. The crew placed 8 CD of concrete for a dumpster pad, and placed 189 CMU blocks to enclose and contain any debris for the waste receptacle. All materials were provided by MAROPs.

OIC-D projects for other units include a 12' x 24' deck patio with railing to accommodate recreational activities by island personnel. The lumber was excess from MLO and weather sealant and stain were provided by the island Self-Help office. Another project supported the San Diego Zoo's Institute for Conservation Research by priming, painting, and installing plywood sheets onto metal frame bird cages. The crew reconstructed a lean-to roof on a storage facility for Federal Fire Department. Another crew installed 180 square feet of wood flooring for the

island's CPO mess. Another OIC-D project repaired the 200 square foot roof on the EA shop to prevent leaks from rain. For this project, the crew removed the corrugated steel roof paneling, placed ¾" plywood and felt paper, then reinstalled corrugated panels to seal the roof.

PROJECT SUMMARY

Project Number	Total Project Man-days	Total Project Material Cost	Man-days Tasked	Tasked %	Final WIP (%)	Man-days Expended by Prior NMCBs	Man-days Expended This Deployment
SC10-816	539	0	539	100%	90%	0	483
SC14-417	834	0	834	100%	51%	0	724
SC15-824	246	0	246	100%	100%	0	364
OIC-D	150	0	150	100%	174%	0	261
Camp Maint	75	0	75	100%	132%	0	99
P&E	150	0	150	100%	58%	0	87
Total							2018

Initial Photo **Completion Photo**

Quarry and Crushing Operations
SC14-417

Project Purpose: Conduct Quarry Operations at the SCI Mid-Island Quarry in order to support the road infrastructure needed for daily Naval training missions.

Project Data

Project Scope:	Conduct quarry and crushing operations. Crush 15,000 CY of ¾" minus material.	
Personnel:	Average of 8 Personnel	
Duration:	Aug 14 – Feb 14	
Man-days Expended:	NMCB FOUR	724 MDs
Tasking:	WIP at Deployment Completion	51%
	Total Project MDs	724 MDs
Material Cost:	$0	
Cost Avoidance:	$253,400	

Significant Safety Issues: None

Significant QC Issues: None

Significant Design Issues: None

Significant Material Issues: Due to the age and complexity of the crushing equipment, corrective repairs were often needed. Repair parts often took several weeks to obtain. During these periods the crew focused on site improvements, drilling, blasting, mucking, hauling, and sorting.

The WIP of 51% is based on only crushing 51% of the tasked 15,000 cubic yards of aggregate. However, the project was planned as a level of effort project.

Initial Photo

Completion Photo

West Shore Road Repair
SC10-816

Project Purpose: Repair roads on training ranges to increase effectiveness of training and ensure all sites are accessible by emergency vehicles.

Project Data

Project Scope: Repair and maintain an unpaved road approximately 4.7 miles long by 18 feet wide. Remove any wash boards or erosion by grading. Place select fill and watered and rolled to 95% compaction in two, two-inch lifts. Replace three metal culverts that had collapsed.

Personnel:	Average of six Personnel	
Duration:	16 Aug – 29 Nov 14	
Man-days Expended:	NMCB FOUR	333 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Project Segment MDs	333 MDs
	Total Project MDs	333 MDs
Material Cost:	$0	
Cost Avoidance:	$116,550	

Significant Safety Issues: None

Significant QC Issues: None

Significant Design Issues: Road is damaged during rains due to erosion. Environmental policies prohibit adding new culverts to the road. This project replaced four existing culverts that had collapsed.

Significant Material Issues: None

Initial Photo

Completion Photo

MAROPS Townhouse Building "U"
SC15-824

Project Purpose: Construct Training building for SEAL teams.

Project Data

Project Scope: Project involves construction of new single story CMU training facility. Construction to consist of concrete foundation, slab on grade, reinforced masonry units, wood roof framing, and pre-finished metal roof panels. Building facility will consist of two separate rooms (approx. 300SQFT EA.) With non-bearing interior walls.

Personnel:	Average of nine Personnel	
Duration:	10 Oct 14 – 15 Jan 15	
Man-days Expended:	NMCB FOUR	364 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	262 MDs
Material Cost:	~$80,000. Cost estimate was $80K. Materials provided by NSWG 1 and actual cost was not tracked.	
Cost Avoidance:	$91,700	

Significant Safety Issues: NONE

Significant QC Issues: The concrete for the footers and slab did not meet the required compressive strength. The concrete was batched by the end user (MAROPS). An RFI to determine if the concrete could remain was approved.

Significant Design Issues: None

Significant Material Issues: MAROPS had ~80% of the material on hand when the project began. However, work stopped multiple times due to a lack of materials. Concrete for the project was batched by MAROPS personnel who frequently left the island for several days at a time, especially around the holidays.

Typical Road Prior to Grading

Road After Grading And Compacting

Road Repair
SC10-816

Project Purpose: Repair roads on different locations throughout the island. Clearing, grading, filling and compacting according to island OIC priorities.

Project Data

Project Scope: Repair and maintain an unpaved roads in various locations. Remove any wash boards or erosion by grading. Place select fill and watered and rolled to 95% compaction in two, two-inch lifts.

Personnel:	Average of six Personnel	
Duration:	16 Aug 14 – 15 Feb 15	
Man-days Expended:	NMCB FOUR	150 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Project Segment MDs	150 MDs
	Total Project MDs	483 MDs
Material Cost:	$0	
Cost Avoidance:	$169,050	

Significant Safety Issues: None

Significant QC Issues: None

Significant Design Issues: Roads are damaged during rains due to erosion. Environmental policies are enforced and are approved prior to starting tasks.

Significant Material Issues: None

OIC DISCRETIONARY PROJECTS

Siding to the Builder shop build out for MAROPs.

The addition of a 30'x15' Builder shop.

Project Data

List of Projects:

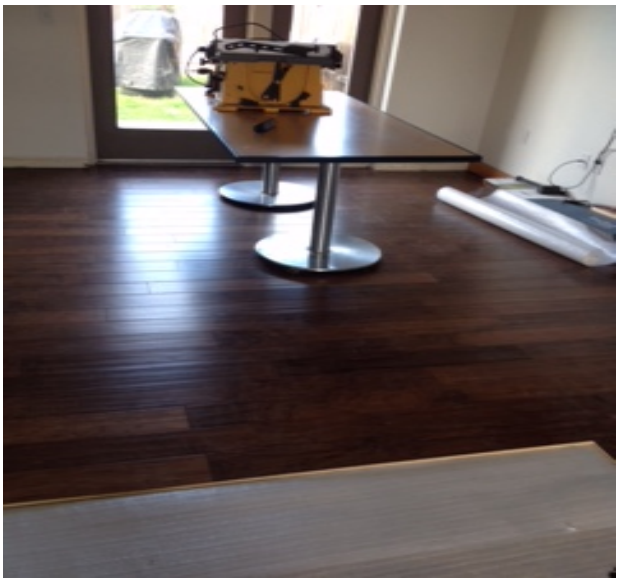
AUG	Concrete placement for BU shop	9 MDs
AUG	CMU wall entrance for shooting range	17 MDs
AUG	Demo/removal of siding for prep work	6 MDs
AUG	SW Shop Room build out	10 MDs
SEP	BBQ shed extension	20 MDs
SEP	BU shop addition	62 MDs
OCT	Lower Level Salty Crab Deck	30 MDs
NOV	Dumpster Pad for MAROPS	28 MDs
DEC	Metal frame cages	16MDs
JAN	Fed Fire Roof	20MDs
JAN	CMU for dumpster pad	17MDs
JAN	BU shop sheathing	12MDs
JAN	EA shop roof repair	12MDs
JAN	CPO Mess flooring	2 MDs

Total Man-days Expended:	**261 MDs**
Total Material Costs:	**N/A***
Total Cost Savings:	**$91,350**

***All materials for OIC-D provided by customer. Cost is unknown.**

CAMP MAINTENANCE

Detail SCI Chain of Command header.



The inside of the CPO mess completed wood floor.

Project Data

List of Projects:

AUG	Det signs/boards	12 MDs
SEP	Alfa spaces sign	8 MDs
SEP	Quarry safety board	8 MDs
SEP	Work tables for CTR	7 MDs
NOV	Flooring in Seabee Offices	12 MDs
JAN	Alfa yard cleaning	37 MDs
JAN	MWR cleaning	15 MDs

Total Man-days Expended:	**99 MDs**
Total Material Costs:	**N/A***
Total Cost Savings:	**$34,650**

***All material is already at hand at MLO from excess.**

Labor Distribution Summary

Detail San Clemente Island

Month	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Total
Direct Labor MDs[1]	199	344	397	364	313	401	2018
Indirect Labor MDs[1,2]	47	92	113	152	335	175	914
Readiness/Training[1]	25	47	25	51	27	35	210
Total MDs Exp	271	483	535	567	675	611	3142
# Total Personnel	35	35	37	40	40	43	
# Direct Labor	22	21	22	22	23	23	
# Workdays[3]	11.5	22.5	22	20	22.5	20.5	
% Direct Labor[4]	63%	63%	59%	55%	58%	53%	
Ideal Capability[5]	285	531	544	495	582	530	
Availability Factor[6]	79%	74%	78%	84%	58%	82%	

Notes:
(1) Direct and Readiness/ Training MDs are *expended* man-days, not earned.
(2) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.
(3) Number of Workdays = DL workdays + DL training days
(4) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)
(5) MD Capability = (ME * DL * Workdays) = 1.125 x DL x (# Workdays)
(6) Actual Availability Factor = (Direct Labor MDs + Readiness/Training MDs) / (MD Capability).

DETAIL YOKOSUKA

DETAIL YOKOSUKA DEPLOYMENT SUMMARY

NMCB FOUR deployed a 24-personnel detail to Yokosuka, Japan in support of Commander Fleet Activities Yokosuka. Detail Yokosuka's Advanced Party (AP) and Delayed Party (DP) arrived at Yokosuka 08 Aug and 23 Aug from Los Angeles via commercial air, respectively. AP immediately began the turnover process and finished 16AUG. AP and DP participated in the required week long Area Orientation Brief/Intercultural Relations training during the weeks of 18-22 Aug and 25-29 Aug, respectively.

Detail Yokosuka assumed work on two Pre-Engineered Building (PEB) projects, located at the Navy-owned Ikego Housing area and Azuma Island. At Ikego, the Detail was tasked with completing the construction of a 50 foot by 56 foot PEB to provide MWR with a youth activity center and administrative spaces. This facility includes multiple interior rooms and offices. AP began work on the project site 25 Aug and was joined by DP personnel 02 Sep.

The Detail was immediately faced with on-site and procurement challenges. During the turnover process, surface growth was noted on the interior walls. The Detail coordinated with CFAY Safety as well as the CFAY Industrial Hygienist to determine a solution, participated in training, and cleaned the affected walls. The Detail then began identifying, recording, correcting, and removing quality issues and code violations. After initially being delayed, funding was received 27 Aug to establish a line of accounting that allowed the Detail to begin soliciting quotes from local vendors. After two weeks, local quotes began to come in and materials were ordered. In typical Seabee "Can Do" fashion, the Detail overcame the issues and began demolishing code and quality deficient work and constructing the interior walls, rough plumbing, and rough electrical.

The Detail began receiving materials and identified most of the building's code and quality deficiencies by 01 Oct. The additional deficiency findings led to a comprehensive revision of the project plan that adjusted the schedule and initial cost estimate. The revised plan was reviewed by 30NCR personnel during the Construction Quality Inspection (CQI). The Detail passed with many positive remarks from the revisiting staff members.

After a delay in funding caused by a recoupment at the start of the new fiscal year, the Detail was able to restart material procurement of critical items on 17 Oct. While waiting for the funding, the Detail continued working on the reprioritized construction activities that required no material or that had material available. While completing exterior work in preparation for the cold months ahead, the Detail discovered additional construction deficiencies including an incorrectly installed lift station, a damaged lift station control panel, an oversized force main, and improperly located backflow preventer.

To repair the lift station, the Detail contracted a local vendor experienced with the system. The vendor recommended that the most cost and time efficient solution was to replace the force main with the correct diameter PVC pipe and replace the panel.

The Detail discovered water damage throughout the building on 17 Dec. The water damage resulted from the valves on the backflow preventer being opened overnight and was determined to be an act of vandalism. The Detail was able to salvage the majority of the drywall in the building one wall in breakroom required replacing. Materials required to complete rough plumbing were received on 23 Dec. The Detail immediately performed a vertical stack test on the under slab sanitary sewer and the sewer failed. The Detail took immediate action to remove the minimum necessary slab, remove and replace the damaged sewer, and place concrete. The repair was completed on 06 Jan.

After the completion of the repair, the Detail immediately began working to complete the building. Substantial completion was obtained on 05 Feb and a pre-final walk down with FEAD was completed. After working on the punchlist items, the Detail conducted a final walkdown with FEAD and MWR representatives. All Seabee work was completed on 06 Feb with the only remaining items to be completed being contracted fire alarm and communications installation.

The Detail was also tasked with performing an Engineering Assessment to determine the amount of work required to complete the open punchlist items. During the course of the assessment, the Detail discovered code violations above the ceiling. The Detail was tasked with repairing the code violations to complete the construction of the 40 foot by 77 foot PEB for FISC Fuels Department. The PEB will provide the Terminal Director with new office spaces, employee showers, and a break room.

Six personnel arrived from Main Body in Okinawa 08 Nov to repair the code violations at Azuma. The personnel spent the week after arrival visiting the site and completing their project plan to correct the above ceiling deficiencies while minimizing the impact to the ceiling structure. The Azuma crew completed the work 16 Jan, performed a final walkthrough 20 Jan, rehung the overhead lights, and turned the building over 23 Jan.

The Detail actively sought officer-in-charge discretionary projects to supplement their work load and to sharpen the planning and execution skills of the Seabees. The Detail installed speed signs for DLA on 17 Sep to reduce the safety hazards by speeding forklifts and cargo trucks inside the DLA storage facility. The detail planned projects to install AED signs and correct a temporary power safety violation but did not execute due to the work load of the tasked projects.

The Detail learned many lessons on this deployment. On future turnover projects, receiving a complete set of FARs and RFIs at the beginning of the planning process and developing a set of red lines would ensure an accurate BOM and reduce rework. Prints should be compared to locally available materials prior to deployment to determine if FARs should be submitted to change the design to ensure it's locally procurable. Detail's should not leave homeport without a GCE or a line of accounting to allow the Detail's to immediately begin material procurement if the outgoing battalion has not already begun the process. To ensure a quality project, Detail's should immediately reach out to their FEAD counterparts and start a quality assurance program if one is not already in place. When ordering local materials, a BOM with attached local cut sheets in the local language ensures quicker delivery and lessens the possibility of confusion. If possible, request that local vendors come to Detail spaces for difficult to describe items to explain examples through local expeditors.

PROJECT SUMMARY

Project Number	Total Project Man-days	Total Project Material Cost	Man-days Tasked	Tasked %	Final WIP (%)	Man-days Expended by Prior NMCBs	Man-days Expended This Deployment
YO05-894	1850	$736,795	81	0	100	2582	73
YO14-801	1975	$753,193	747	62	100	1714	1328
OIC Discretionary	8	$0	8	0	100	0	8
Total	3833	$1,489,988	836	N/A	N/A	4296	1409

Azuma Project Site

Resloped Condensate Drain

Azuma Fuels PEB
YO05-894

Project Purpose: Construct PEB on Azuma Island for FISC Fuels Department

Project Data

Project Scope: Construct a 40 ft x 77 ft PEB on Azuma Island for FISC Fuels Dept. Project construction is in support of Commander Fleet Activity Yokosuka, Japan to provide the Terminal Director with new office spaces, employee showers, and a break room. Work includes interior finish work, finish electrical, and finish plumbing.

Personnel:	Average of 4 Personnel	
Duration:	Dec 14 – Jan 15	
Man-days Expended:	NMCB FOUR	73 MDs
	Prior NMCBs	2582 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	1850 MDs
Material Cost:	$736,795	
Cost Avoidance:	$25,550	

Significant Safety Issues: None

Significant QC Issues: Condensate drain line not sloped per drawings. Diffusers not installed on returns. Junction boxes not covered and knock outs not capped. Conduit not connected to lighting fixtures. Conduit runs unsupported and conduit bends incorrectly bent causing frayed wiring.

Significant Design Issues: None

Yokosuka Project Site

BUCA Pedersen cuts metal track

Ikego MWR PEB
YO14-801

Project Purpose: Construct PEB for Ikego MWR Youth Center

Project Data

Project Scope: Construct a 50 ft x 56 ft PEB on the Ikego housing installation, which will provide a MWR youth activity center and a needed MWR admin space on Ikego. This facility will include multiple interior rooms and offices. Work includes interior finish work, finish electrical, finish plumbing, a fire suppression system, and installation of a drop ceiling.

Personnel:	Average of 16 Personnel	
Duration:	Aug 14 – Feb 15	
Man-days Expended:	NMCB FOUR Prior NMCBs	1328 MDs 1714 MDs
Tasking:	WIP at Deployment Completion Total Project MDs	100% 747 MDs
Material Cost:	$753,193	
Cost Avoidance:	$601,228	

Significant Safety Issues: None.

Significant QC Issues: Upon arrival, NMCB FOUR noted code and quality deficiencies in rough electrical, rough plumbing, windows, doors, and finishes. The lift station and force main were incorrectly sized and installed. The underslab sewer was improperly installed and crushed.

Significant Design Issues: NMCB FOUR noted deficiencies with the drawing package. Specific examples include incorrect scales on the civil drawings, critical information missing from lift station details, and uncoordinated mechanical and architectural drawings resulting in three heat pumps not being able to drain their condensate lines. Also, the structural, architectural, and electrical drawings were designed with hard metric while civil, plumbing, and mechanical were designed with soft metric, leading to errors during planning and executing. Items specified in the drawings were a mix of Japanese and American products, which made procurement in Japan a challenge to find equivalents.

Labor Distribution Summary

Detail Yokosuka

Month	Aug 14[7]	Sep 14	Oct 14	Nov 14[8]	Dec 14	Jan 15	Total
Direct Labor MDs[1]	15	281	273	234	427	383	1619
Indirect Labor MDs[1,2]	11	60	68	68	80	79	366
Readiness/Training[1]	110	37	37	69	42	63	358
Total MDs Exp	136	378	378	371	549	525	2337
# Total Personnel	24	24	24	30	30	30	
# Direct Labor	15	15	15	21	21	21	
# Workdays[3]	11	23	23	18	24	23	
% Direct Labor[4]	63%	63%	63%	70%	70%	70%	
Ideal Capability[5]	132	375	375	371	548	525	
Availability Factor[6]	0.88	0.85	0.83	0.82	0.86	0.85	

Notes:

(1) Direct and Readiness/ Training MDs are *expended* man-days, not earned.

(2) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.

(3) Number of Workdays = DL workdays + DL training days

(4) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)

(5) MD Capability = (ME * DL * Workdays) = 1.0875 x DL x (# Workdays)

(6) Actual Availability Factor = (Direct Labor MDs + Readiness/Training MDs) / (MD Capability).

(7) AP arrived with 5 DL and performed 11 WDs in August. DP arrived with 11 DL and performed 6 WDs in August. 6 of the WDs in August were required training days (Area Orientation Brief/Intercultural Brief) for both AP and DP. All calculations were performed to account for differences in WDs between AP and DP.

(8) 6 DL arrived from Main Body on 08 NOV to perform work at Azuma. Crew spent the week of 10-14NOV planning and estimating project and 17-21NOV in AOB/ICR. Ideal Capacity and Availability factor have been adjusted to calculate the only the time the 6 personnel were on the ground by subtracting 5 work days and 1 training day of DL expended from the ideal capacity.

DETAIL CAMBODIA

CONSTRUCTION CIVIC ACTION DETAIL CAMBODIA
DEPLOYMENT SUMMARY

NMCB FOUR deployed to Cambodia in August 2014 in order to provide humanitarian aid, civil assistance and support theater security cooperation objectives throughout the Kingdom of Cambodia. The Detail's scope of work included the construction of four 5-stall head facilities and one maternity ward in direct support of US Embassy and United States Agency for International Development (USAID) initiatives to improve sanitation conditions and maternity care throughout the Kingdom. The head facilities were completed at schools in Sihanoukville (two Schools), Kampot and Kep and the maternity ward was constructed at a local health center in Kampot.

The Detail arrived in two groups with 13 personnel arriving on 9 August and nine personnel arriving 23 August by military flight via Okinawa. Upon arrival, NMCB FOUR conducted an efficient turnover with NMCB ONE and began working. Working from their initial berthing location in Sihanoukville at the Emario Beach Bungalows, the Detail began construction on August 14 at the Samdech Chea Sim Primary School Head Facility (Project # 22841-1). The project provided a quality bathroom facility to a school serving over 1,200 students. The Detail worked through the country's wettest month and quickly adapted to Cambodian construction materials and practices, successfully executing the 255 man-day facility. They also developed a relationship with the NAVFAC-provided life support contractor that supported the Detail with material procurement and transportation. In conjunction with the head facility, the Detail assisted the school through community relations (COMREL) projects and donation distributions. The Detail refurbished the school playground's long jump pit and steel playground set, enhancing the image of Seabees in the region. In coordination with the US Embassy, the Detail provided 300 English vocabulary books to the school and distributed hundreds of toys and school supplies to students. The crew completed the head facility September 26 and properly concluded all efforts with a well-deserved ribbon-cutting event on October 2 attended by 150 local community members.

After completion of the first head facility, the Detail deployed to the province of Kep on October 3 to construct a head facility at the Hun Sen Chamkar Daung Primary School (Project #22841-2) in Kep and a maternity ward at the Russey Srok Health Center (Project #25487-1) in Kampot. The 5-stall head facility provided improved sanitary toilets for 866 students. The 2-room standalone maternity ward augmented the existing health center serving 15,000 people across 10 villages. Beginning October 6, the Seabees were joined by 11 Army engineers from the Royal Cambodian Armed Forces (RCAF) to assist with construction. The combined teams split into two crews to complete the projects concurrently. Working hand in hand with their American counterparts, the RCAF Army engineers integrated in nearly all activities to include safety briefs, construction efforts, weekly PT sessions, and off-duty MWR events. The units at each site worked together seamlessly and exchanged expertise and best practices during all construction phases. Their mil to mil engagement and coordination was paramount to the successful completion of both projects. The head facility completed November 21, expending 152 Seabee man-days over 31 duration days. The maternity ward completed December 3, expending 194 Seabee man-days over 41 duration days. The construction efforts in Kep and Kampot concluded with ribbon cutting events at both facilities on December 5. Turnout was high and VIPs in attendance included Ms. Julie Chung, US Embassy Deputy Chief of Mission, and LtGen Pen Ra, Deputy Commander of Royal Cambodian Armed Forces Engineering Command. In November the Detail hosted a team from NMCB FIVE conducting a PDSS with CCAD Cambodia in preparation for their deployment in February 2015.

Immediately following the ribbon cutting events, the Detail moved back to Sihanoukville with their RCAF counterparts to complete construction efforts with two final head facilities at Prek Thnot High School, serving 230 students, in Kampot and Kamkor Primary School, serving 1,000 students, in Sihanoukville. Working again with RCAF engineers, the integrated crews began construction at Prek Thnot High School Head Facility (Project #22841-3) November 24 and at Kamkor Primary School Head Facility (Project #22841-4) December 8. The crews berthed in Sihanoukville and deployed daily to the job sites, adjusting their daily battle rhythm to accommodate the 75 minute drive time to Prek Thnot. At this point of the deployment, the well-seasoned and experienced crews were inherently familiar with head facility construction, proficient with Cambodian building materials and working with their RCAF counterparts. Due to this experience, the crew completed the Prek Thnot High School head facility in 27 duration days and the Kamkor Primary School head facility in 21 duration days. NMCB FOUR's Commanding Officer, CDR Lengkeek, as well as local village chiefs and government officials from the different Ministries of Education attended ribbon-cutting ceremonies for the two facilities, which were held on January 12, 2015.

Concurrent to their efforts at the final two head facilities, a small contingent of personnel from the Detail began working at Ream Naval Base to consolidate the Detail's equipment and footprint in preparation for a move to the RCAF Engineering Headquarters in Phnom Penh. The Detail received formal approval in October 2014 from the Ministry of Defense to execute the long delayed movement of the Detail's laydown area from Ream to Phnom Penh that better positions the Seabees for future execution plans across Cambodia. Led by the Detail's 2 construction mechanics, work was completed throughout December at Ream to consolidate and prepare for the transportation of all CESE, tools and containers. Additionally, legacy water well material was turned over to a local water agency and the Cambodian Naval Base for their re-utilization. All consolidation efforts were completed by January 1 and the Detail's equipment was ready for deployment to its new location approximately 200 km away.

At the beginning of the new-year, CCAD Cambodia began fully focusing their efforts on the movement of assets from Ream to Phnom Penh. During the second week of January, a small fire team completed a week's worth of improvements at the RCAF Engineering HQ to prepare the existing warehouse for future use. The fire team element completed outdoor site improvements, erected fencing and storage cages, and made minor concrete and wall repairs to the warehouse space. The following week, the Detail facilitated the movement of all assets from Ream to RCAF Engineer HQ with the support of the life support contractor. By January 23, all equipment was moved from Ream to Phnom Penh and organized in its new location.

Prior to final retrograde and turnover, the Detail was afforded a special opportunity to complete discretionary work in Siem Reap, a city renowned for its sightseeing and Cambodia's most popular tourism destination. Coordinating small scopes of work at both the Angkor Children's Hospital and Siem Reap Health Center, the Seabees were able to improve living conditions for some of the most vulnerable populations in Cambodia. The Detail completed minor improvements including painting, door installation, bathroom refurbishment, and the construction of a new entrance ramp to improve handicapped access to the Health Center. As an added bonus, the deployment to Siem Reap allowed the Detail to visit Angkor Wat, Cambodia's most well known destination and one of the Seven Wonders of the World.

The Detail made its way back to Sihanoukville to finalize preparations at the Emario for move-out. On February 4, the Advanced Party of 13 personnel moved to Phnom Penh to depart Cambodia the following day. On February 8, the Detail received NMCB FIVE's AP team and began turnover at their first site location in Takeo Province. Turnover was completed on February 11 and the Delayed Party team of 10 personnel departed Cambodia on February 13 to cap a highly successful 2014 deployment for NMCB FOUR.

PROJECT SUMMARY

Project Number	Total Project Man-days	Total Project Material Cost	Man-days Tasked	Tasked %	Final WIP (%)	Man-days Expended by Prior NMCBs	Man-days Expended This Deployment
22841-1	323	$23,321	323	100	100	0	314
TOTAL	323	$23,321	323	100	100	0	314
22841-2	251	$24,428	251	100	100	0	152
TOTAL	574	$47,749	574	100	100	0	466
23027-1	643	$43,703	643	100	100	0	194
TOTAL	1217	$91,452	1217	100	100	0	660
22841-3	251	$17,568	251	100	100	0	121
TOTAL	1468	$109,020	1468	100	100	0	781
22841-4	251	$16,708	251	100	100	0	127
TOTAL	1719	$125,728	1719			0	908

Initial Photo **Completion Photo**

SAM DECH CHEA SIM PRIMARY SCHOOL 5 STALL HEAD FACILITY
NCF PROJECT #: 22841-1
OHASIS PROJECT #: 22841
DSCA #: CB-HA-2013-0022841

Project Purpose: Conduct HCA construction at Samdech Chea Sim Primary School in Sihanoukville, Cambodia.

Project Data

Project Scope: New construction of a 9'x24' head facility building with five individual head-stalls. Construction consisted of an 8-inch concrete floor with rebar and CMU block walls tied together with lintel blocks and rebar. Each stall was separated by a CMU block divider wall and the overall the project consisted of approximately 600 CMU blocks. The roof consisted of 5 pre-fabricated metal trusses overlaid with a fiber cooled roofing system. The detail designed/built a 2000L rain water catchment system to provide water to two sinks and five stalls and five wooden doors were installed for each stall.

Personnel:	Average of 13 Personnel	
Duration:	14 Aug 14 – 29 Sep 14	
Man-days Expended:	NMCB FOUR	314 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	323 MDs
Material Cost:	$23,321	
Cost Avoidance:	$14,130	

Significant Safety Issues: None

Significant QC Issues:

1. Local CMU block quality was low and varied in dimensions. Variances made achieving plumb and level for all walls and corners difficult for the inexperienced crew. Block placed to achieve plumb/level on the exterior affected the quality of interior work.

2. Crew was inexperienced with stucco application and faced a large learning curve. Extensive on the job training was required during execution and the crew learned valuable lessons for future application.

Significant Design Issues:

1. A standard, approved set of drawings and specifications were not provided prior to construction. Most planning and estimating came from pass down, RFIs, and utilization of various sketch-up and redline drawings. Lack of drawings forced the Detail to utilize best practices for many activities with minimal impact to operations.

2. Head facility location was originally a grassy, garden plot in the corner of a school yard. This area was also the lowest point of the school grounds and therefore frequently flooded during the rainy season. To mitigate, the Detail placed and compacted numerous lifts of 6" rock and ¾" aggregate. In addition, the Detail formed and placed a thickened 1' edge for the pad to mitigate impacts of rain.

3. Two sinks were added to the exterior of the facility to provide a sanitary wash basin for the students.

Significant Material Issues:

1. CMU block was 8" actual vice 8" nominal and varied in dimensions up to ½".

Initial Photo **Completion Photo**

RUSSEY SROK HEALTH CENTER MATERNITY CLINIC
NCF PROJECT #: 23027-1
OHASIS PROJECT #: 23027
DSCA #: CB-APR-2014-00023027

Project Purpose: Conduct HCA construction at Russey Srok Health Clinic in Kampot, Cambodia.

Project Data

Project Scope: New construction of a CMU block, 20' x 24' two room facility. Construction consisted of a floating 4-inch thick concrete floor with footers and a thickened edge. Eight concrete columns were placed with core-filled CMU block walls tied together with lintel blocks and rebar. The roof system consisted of nine steel trusses overlaid with fiber cooled roofing and gutters feeding a 2000L rain water catchment system designed/built by the Detail. Finish work included two doors, two windows, tile flooring and a 12/200 volt independent solar system installed by a local contractor.

Personnel:	Average of 12 Personnel (6 Seabees and 6 Army Engineers from the Royal Cambodian Armed Forces)	
Duration:	06 Oct 14 – 03 Dec 14	
Man-days Expended:	NMCB FOUR	194 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	643 MDs
Material Cost:	$43,700	
Cost Avoidance:	$17,460	

Significant Safety Issues:

1. Extra precaution required when moving materials and using the portable toilets due to the prevalence of wildlife on site; most notably snakes and centipedes.

2. The Seabees incorporated six Army Engineers from the Royal Cambodian Armed Forces (RCAF) into their crew for the project duration. RCAF personnel quickly adopted and adhered to Seabee safety standards and practices with limited push back and completed the project with zero safety mishaps.

Significant QC Issues:

1. None.

Significant Design Issues:

1. Drawings provided were for a 1-room classroom and required modification to construct the 2-room maternity ward. Modifications to the design were derived from pass down and best practices and were captured in as-built drawings.

Significant Material Issues:

1. Seabees were unfamiliar with the drop ceiling material common to the local area. The plastic, puzzle like material required significant on the job training and instruction from Royal Cambodian Armed Forces (RCAF) to install.

Initial Photo **Completion Photo**

HUN SEN CHAMKAR DAUNG PRIMARY SCHOOL 5 STALL HEAD FACILITY
NCF PROJECT #: 22841-2
OHASIS PROJECT #: 22841
DSCA #: CB-HA-2013-0022841

Project Purpose: Conduct HCA construction at Hun Sen Chamkar Daung Primary School in Kep, Cambodia.

Project Data

Project Scope: New construction of a 9'x24' head facility building with five individual head stalls. Construction consisted of an 8-inch concrete floor with rebar and CMU block walls tied together with lintel blocks and rebar. Each stall was separated by a CMU block divider wall and the overall the project consisted of approximately 600 CMU blocks. The roof consisted of five pre-fabricated metal trusses overlaid with a fiber cooled roofing system. The detail designed/built a 2000L rain water catchment system to provide water to two sinks and five stalls and five wooden doors were installed for each stall.

Personnel:	Average of 11 Personnel (6 Seabees and 5 Army Engineers from the Royal Cambodian Armed Forces)	
Duration:	06 Oct 14 – 21 Nov 14	
Man-days Expended:	NMCB FOUR Prior NMCBs	152 MDs 0 MDs
Tasking:	WIP at Deployment Completion Total Project MDs	100% 251 MDs
Material Cost:	$24,428	
Cost Avoidance:	$13,680	

Significant Safety Issues:

1. Seabees incorporated six Army Engineers from the Royal Cambodian Armed Forces (RCAF) into their crew for the project duration. RCAF personnel quickly adopted and adhered to Seabee safety standards and practices with limited push back and project completed with zero safety mishaps.

Significant QC Issues:

1. Subsurface was highly saturated due to rainy season and initially unsuitable for construction. To mitigate, crew excavated to a depth of approximately 3' and backfilled with large rock and 3/4" aggregate to form a stable base for construction.

2. Saturated access roads to and from the site created logistical challenges for material deliveries and site improvements. During the last week of construction, the crew received and spread large rock and ¾" aggregate along the access roads to improve their viability.

Significant Design Issues: None.

Significant Material Issues:

1. Roof ridge cap system is labor intensive to install and final product leaves room for improvement. Detail worked with contractor to identify new material or system to utilize for ridge cap to use in future designs.

Initial Photo **Completion Photo**

PREK THNOT HIGH SCHOOL 5 STALL HEAD FACILITY
NCF PROJECT #: 22841-3
OHASIS PROJECT #: 22841
DSCA #: CB-HA-2013-0022841

Project Purpose: Conduct HCA construction at Prek Thnot High School in Kampot, Cambodia.

Project Data

Project Scope: New construction of a 9'x24' head facility building with five individual head stalls. Construction consisted of an 8-inch concrete floor with rebar and CMU block walls tied together with lintel blocks and rebar. Each stall was separated by a CMU block divider wall and the overall the project consisted of approximately 600 CMU blocks. The roof consisted of five pre-fabricated metal trusses overlaid with a fiber cooled roofing system. The detail designed/built a 2000L rain water catchment system to provide water to two sinks and five stalls and five wooden doors were installed for each stall.

Personnel:	Average of 11 Personnel (6 Seabees and 5 RCAF Army Engineers)	
Duration:	24 Nov – 07 Jan 15	
Man-days Expended:	NMCB FOUR	121 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	251 MDs
Material Cost:	$17,568	
Cost Avoidance:	$10,890	

Significant Safety Issues:

1. High winds with up to 50 mph gusts presented safety and quality concerns to the crew. Elevated work was many times restricted or required additional safety monitors during high gust periods. Some activities such as painting were secured during periods of high winds to maintain quality standards.

Significant QC Issues: None.

Significant Design Issues:

1. Two additional courses were added to the facility to increase the overall height of the building, thus increasing the elevation of the gutters and the elevation at which the catchment tank could be mounted. The elevated catchment tank, built on four courses of block, provided improved water pressure to each stall and sink.

2. The head facility's water catchment system was connected to a water well recently completed on site by a private contractor funded by PACOM and contracted through NAVFAC Bangkok. The water well will supply the facility during periods of little or no rain.

Significant Material Issues: None.

Initial Photo **Completion Photo**

KAMKOR PRIMARY SCHOOL 5 STALL HEAD FACILITY
NCF PROJECT #: 22841-4
OHASIS PROJECT #: 22841
DSCA #: CB-HA-2013-0022841

Project Purpose: Conduct HCA construction at Kamkor Primary School in Sihanoukville, Cambodia.

Project Data

Project Scope: New construction of a 9'x24' head facility building with five individual head stalls. Construction consisted of an 8-inch concrete floor with rebar and CMU block walls tied together with lintel blocks and rebar. Each stall was separated by a CMU block divider wall and the overall the project consisted of approximately 600 CMU blocks. The roof consisted of five pre-fabricated metal trusses overlaid with a fiber cooled roofing system. The detail designed/built a 2000L rain water catchment system to provide water to two sinks and five stalls and five wooden doors were installed for each stall.

Personnel:	Average of 11 Personnel (6 Seabees and 5 RCAF Army Engineers)	
Duration:	8 Dec 14 – 08 Jan 15	
Man-days Expended:	NMCB FOUR	127 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	251 MDs
Material Cost:	$16,708	
Cost Avoidance:	$11,430	

Significant Safety Issues:

1. Student safety on site was a primary concern due to the high population of students at the school and the extended distance between the job site and equipment/material laydown area. Orange fencing was placed around the project site and a corridor was fenced off for CESE movements between the job site and laydown area to help keep students away. Two ground guides were utilized for CESE movements as well as frequent communication with the school director to remind students to stay away from the orange fencing.

Significant QC Issues: None.

Significant Design Issues:

1. Two additional courses were added to the facility to increase the overall height of the building, thus increasing the elevation of the gutters and the elevation at which the catchment tank could be mounted. The elevated catchment tank, built on four courses of block, provided improved water pressure to each stall and sink.

2. A sidewalk was placed around the bathroom to improve the ease of access and the aesthetics of the facility. The placement was done in two pours due to its complexity and size resulting in a high quality final product.

Significant Material Issues: None.

Initial Photo **Completion Photo**

RCAF ENGINEERING HQ WAREHOUSE IMPROVEMENT & MOVE-IN
NCF PROJECT#: FRAGO 15-002
OHASIS#: N/A
DSC#: N/A

Project Purpose: Conduct site improvements to existing warehouse structure at RCAF Engineering HQ base in Phnom Penh and move-in all CCAD Cambodia equipment and gear for future use.

Project Data

Project Scope: Repairs and site improvements to CCAD Cambodia's future equipment laydown area at the Royal Cambodian Armed Forces (RCAF) Engineering Headquarters in Phnom Penh. Improvements to warehouse included construction of four 10'x10' and one 20'x10' chain link cages, erection of an 8' high chain link fence, and replacement of a 6'x6' square area of broken concrete. Outdoor improvements included minor road repairs, clear and grub operations, and placement of approximately 200 cubic meters of gravel to create a container laydown area and improve access roads.

Personnel:	Average of 8 Seabee personnel	
Duration:	13 January 2015 to 20 January 2015 (6 Duration Days)	
Man-days Expended:	NMCB FOUR	30 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	30 MDs
Material Cost:	$12,404	
Cost Avoidance:	$0	

Significant Safety Issues:

1. Site improvements and move-in operations required an extensive number of contractor vehicles and trucks to support. Dump truck deliveries of ¾" aggregate and delivery of 10 shipping containers required an increased awareness on the job site and multiple ground guides to ensure safe execution.

Significant QC Issues: None.

Significant Design Issues:

1. Steel cages for secure storage were designed and built by Detail personnel. Final product was satisfactory and provides safe storage for Detail equipment.

2. Future battalions will better assess the impact of rain and water during the rainy season and continue site improvements as necessary.

Significant Material Issues: None.

OIC DISCRETIONARY PROJECTS
AUGUST 2014 – FEBRUARY 2015

Project Data

List of Projects:	
Samdech Chea Sim Primary School Playground	5 MD
Samdech Chea Sim Primary School Doors & Window Refurbishment	5 MD
Samdech Chea Sim Primary School Building Repairs	20 MD
Angkor's Children Hospital Workspace Remodeling	20 MD
Chong Kneas Health Center Ramp Construction	36 MD
Total Man-days Expended:	86
Total Material Costs:	$4,640
Total Cost Avoidance:	

Samdech Chea Sim School Playground: Excavated an old, compacted long jump area and spread three CY of new sand fill. Grinded, cut and sanded the playground's jungle gym to mitigate hazards from rusted and jagged edges.

Replaced 45 hinges on doors and windows throughout buildings at Samdech Chea Sim Primary School and completed minor repairs to classrooms to include furniture repairs and hanging posters and boards on the walls.

Completed minor upgrades and repairs to the head facility completed by Detail Cambodia in September 2014 to include new sinks, tile, and re-painting the exterior. Completed maintenance items to other school buildings as well.

Angkor's Children Hospital: Expanded on site workshop for technicians that maintain and troubleshoot hospital equipment. Scope of work included demo of existing wall to create a 5' x 7' opening to connect adjacent work spaces and construction of a 20' x 20' wall to enclose the garage workshop. The improvements supported the Angkor's Children Hospital, a non-profit organization that provides free health care to nearly 600 children daily from Siem Reap Province and surrounding areas.

Chong Kneas Health Center: Constructed a handicapped accessible ramp to connect the health center to the main access road. The ramp, constructed of CMU blocks and concrete, included steps and a ramp for improved ease of access to the clinic that serves 6,000 Cambodians in Siem Reap Province.

LABOR DISTRIBUTION SUMMARY CHART

Month	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 14	Total
Direct Labor MDs[1]	67	247	192	145	180	159	990
Indirect Labor MDs[1,2]	69	151	189	126	157	138	830
Readiness/Training[1]	0	48	48	48	42	63	249
Total MDs Exp	136	446	429	319	379	360	2,069
# Total Personnel	13	22	22	22	22	22	
# Direct Labor	8	13	11	11	11	11	
# Workdays[3]	12	22	20	18.5	21.5	20	
% Direct Labor[4]	62	59	50	50	50	50	
Ideal Capability[5]	108	321	248	229	266	248	
Availability Factor[6]	.62	.92	.97	.84	.83	.90	

Notes:

(1) Direct and Readiness/ Training MDs are *expended* man-days, not earned.
(2) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.
(3) Number of Workdays = DL workdays + DL training days
(4) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)
(5) MD Capability = (ME * DL * Workdays) = 1.125 x DL x (# Workdays)
(6) Actual Availability Factor = (Direct Labor MDs + Readiness/Training MDs) / (MD Capability).

DETAIL PHILIPPINES

CONSTRUCTION CIVIC ACTION DETAIL PHILIPPINES
DEPLOYMENT SUMMARY

NMCB FOUR deployed Construction Civic Action Detail (CCAD) Philippines in August 2014 to conduct Theater Security Cooperation (TSC) Operations and Exercise Related Construction (ERC) as part of NMCB FOUR 2014 PACOM Deployment. Immediately upon arrival in Cebu Island, Philippines, the CCAD sent a team of 10 Seabees to Tacloban, Leyte to participate in ERC as part of the Naval Construction Force's role in Pacific Partnership 2014. The team worked with the Armed Forces of the Philippines (AFP) Army Engineers, NMCB ONE, and ACB ONE to complete a 4-room schoolhouse. Meanwhile the remainder of the CCAD established relationships with AFP counterparts and coordinated support with local Philippine government officials in advance of commencing tasked construction. The CCAD reconstituted in Cebu and began their two tasked schoolhouse projects. The projects conformed to Philippine Department of Education 2014 specifications for new school construction. At Aloguinsan Central Elementary School in Aloguinsan, the CCAD was charged with construction of a 3-room schoolhouse and a separate 2-room comfort room (bathroom) facility. At Poog Elementary School in Toledo City, the CCAD began construction of a 5-room schoolhouse.

The CCAD was also tasked with renovating facilities for the Department of Social Welfare and Development (DSWD). At the Youth Rehabilitation Center in Argao, the CCAD performed major structural reinforcement of the facility's roof and improvement to its electrical system. Additionally, it completed cosmetic repairs to buildings walls and utilities. The CCAD was also tasked with renovation and repair of four facilities in the DSWD complex in Labangon. The complex includes centers for abused women and children, vocational rehabilitation for persons with disabilities, and orphaned and runaway children and a home for the blind. The scope of work included minor electrical, utilities, and cosmetic repairs to all facilities in addition to full replacement of shade structures for kitchen and laundry facilities.

As part of its TSC mission to increase interoperability between US and Philippine forces, the CCAD's crews partnered with members of the 53rd Engineer Brigade and 5th Special Forces Company of the Philippine Army during construction of the projects. Additionally, the CCAD engaged local government units (LGUs), especially barangay (township) officials, to encourage community participation in construction efforts. This interaction enhanced communication between the AFP, CCAD, and LGUs and produced opportunities for the partnership to give back to the community. These OIC Discretionary projects included leveling of a town commons used for community events, demolition of weather damaged government facilities, and construction of four "make-shift" classrooms.

All members of CCAD Philippines arrived in Cebu 11 August 2014. The CCAD completed the renovation of the Regional Rehabilitation Center for Youth in Argao (#26166) on 20 January 2015 and the renovation of the DSWD Region 7 Complex (#24403) on 30 January 2015. The NMCB FOUR CCAD turned over the Construct School House Aloguinsan Elementary School (#: 24583) at 25% work in place and Construct School House Poog Elementary School (#: 24638) at 15% work in place to NMCB FIVE's CCAD on 14 February 2015 as part of the RIPTOA. CCAD Philippines redeployed an AP to Port Hueneme, CA (16 PAXs) on 06 February 2015 and redeployed DP to Port Hueneme, CA (13 PAXs) on 13 February 2015.

PROJECT SUMMARY

Project Number	Total Project Man-days	Total Project Material Cost	Man-days Tasked	Tasked %	Final WIP (%)	Man-days Expended by Prior NMCBs	Man-days Expended This Deployment
PI-0001	680	$123,140.35	77	4.1	100	603	77
OHASIS ID#24583	592	$93,655.84	644	34.7	25	0	592
OHASIS ID#24638	560	$148,806.71	676	36.4	15	0	560
OHASIS ID#24403	254	$13,263.40	207	11.1	100	0	254
OHASIS ID#26166	191	$13,271.10	254	13.7	100	0	191
Total	2,277	$392137.00	1,858			603	2,277

Initial Photo **Completion Photo**

CONSTRUCT SCHOOL HOUSE
ALOGUINSAN ELEMENTARY SCHOOL
OHASIS PROJECT #: 24583

Project Purpose: Provide additional classrooms for an overburdened elementary school and conduct training with AFP to increase interoperability and develop construction skills.

Project Data

Project Scope: Construct 3-room school house consisting of clearing area, forming pad and vertical construction with block and finish with metal roof. Construct a 3-room comfort room adjacent to the schoolhouse.

Personnel:	Average of 8 DL	
Duration:	06 Oct 14 – 31 Jan 15	
Man-days Expended:	NMCB FOUR	592 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	25%
	Total Project MDs	644 MDs
Material Cost:	$93,655	
Cost Avoidance:	$58,553	

Significant Safety Issues: None

Significant QC Issues: None

Significant Design Issues: After excavation of the site, the crew discovered a significant amount of clay unsuitable for construction and had to import a significant amount of select fill. Therefore, the project had to be descoped in order to meet budgetary restrictions. The facility does not include soffits, a drop ceiling or finish electrical.

Significant Material Issues: Materials were not procured until 2 months after planned start date.

Initial Photo **Completion Photo**

CONDUCT MINOR RENOVATION OF DSWD REGIONAL REHABILITATION CENTER FOR YOUTH OHASIS PROJECT #: 26166

Project Purpose: Conduct minor renovation of a boys' center for rehabilitation to improve quality of life, integrity of building against rain and wind, and security on site.

Project Data

Project Scope: Conduct minor electrical repair, interior repainting and wall repair, roof repairs on berthing, and comfort room repairs. Provide window grates in boys' dormitory, shower heads and wall repairs in main shower, and pest control (termites).

Personnel:	Average of 8 DL	
Duration:	15 Nov 14 – 07 Jan 15	
Man-days Expended:	NMCB FOUR	191 MDs
Tasking:	WIP at Deployment Completion Total Project MDs	100% 191 MDs
Material Cost:	$13,271	
Cost Avoidance:	$9,797	

Significant Safety Issues: Roof of structure is steep with limited tie off points. Structural integrity of roof was questionable when work began and transiting roof require increased ORM.

Significant QC Issues: The project experienced 2 major storms, Typhoon Hagupit and Tropical Storm Jangmi, which caused unpreventable water damage to project and required rework.

Significant Design Issues: The facility did not have a design for existing trusses which needed to be repaired.

Significant Material Issues: None.

Initial Photo **Completion Photo**

CONDUCT MINOR RENOVATION OF DSWD GIRLS AND SPECIAL NEEDS DORMITORY OHASIS PROJECT #: 24582

Project Purpose: Conduct minor renovation of four buildings that support the Philippine Department of Social Welfare and Development facilities. The facilities support education of persons with disabilities, protection of orphaned girls, and rehabilitation of abused and sexually trafficked women and girls.

Project Data

Project Scope:
Home for Girls Dormitory– Minor electrical work, comfort room repair, interior repainting and wall repair.
Children with Special Needs Dormitory– Minor electrical, floor and stair repairs, interior repainting and wall repairs, repair laundry room roof.
Original Women's Haven– Fix Comfort Room 1, interior repainting and wall repair, replace carpet and window mounted AC in Meditation Room, minor electrical.
Training Center for Children with Special Needs– Touch-up of columns, interior repainting and wall repairs, roof repair of canteen room, minor electrical.
Basketball Court– Re-level goals and provide nets, provide sidewalk for wheel chair access, provide benches for seating.

Personnel:	Average of 8 Personnel DL + 4 Philippine Army Engineers	
Duration:	15 Dec 14 – 20 Jan 15	
Man-days Expended:	NMCB FOUR	191 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	191 MDs
Material Cost:	$13,263	
Cost Avoidance:	**$**10,232	

Significant Safety Issues: Working near raw sewage required PREVMED assessment and demarcation of "no work" areas. Additionally, shoddy and piecemealed electrical work significantly increased risk of shock, which was mitigated through extensive ORM, lock out/tag out, and testing.

Significant QC Issues: Local construction standards are not up to IBC. However, the facilities lack the ability to properly maintain or repair to IBC. Therefore in certain instances, the crew adhered to local building standards.

Significant Design Issues: None

Significant Material Issues: None.

Initial Photo **Completion Photo**

CONSTRUCT SCHOOL HOUSE
POOG ELEMENTARY SCHOOL
OHASIS PROJECT #: 24638

Project Purpose: Provide additional classrooms for an overburdened elementary school and conduct training with AFP to increase interoperability and develop construction skills.

Project Data

Project Scope: Construct a 5-classroom school house consisting of clearing area, forming pad and vertical construction with block and finish with metal roof.

Personnel:	Average of 7 Personnel DL + 13 Philippine Army Engineers (6 DL + 7 Security)	
Duration:	Aug 14 – Feb 15	
Man-days Expended:	NMCB FOUR Prior NMCBs	560 MDs 0 MDs
Tasking:	WIP at Deployment Completion Total Project MDs	15% 676 MDs
Material Cost:	$148,806	
Cost Avoidance:	**$**57,362	

Significant Safety Issues: None.

Significant QC Issues: None.

Significant Design Issues: None

Significant Material Issues: Materials were not procured until 1 month beyond planned start date.

Labor Distribution Summary

Detail Philippines

Month	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Total
Direct Labor MDs[1]	234	380	480	347	385	451	2277
Indirect Labor MDs[1,2]	68	142	149	115	107	129	859
Readiness/Training[1]	34	68	68	68	65	97	400
Total MDs Exp	336	590	697	530	557	686	3396
# Total Personnel	30	30	30	30	29	29	
# Direct Labor	21	21	21	21	21	21	
# Workdays[3]	10	21	22	17	19	23	
% Direct Labor[4]	70%	70%	70%	70%	72%	72%	
Ideal Capability[5]	237	496	520	402	449	543	
Availability Factor[6]	.85	.85	.85	.85	.85	.85	

Notes:

(1) Direct and Readiness/ Training MDs are *expended* man-days, not earned.
(2) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.
(3) Number of Workdays = DL workdays + DL training days
(4) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)
(5) MD Capability = (ME * DL * Workdays) = 1.125 x DL x (# Workdays)

DETAIL TIMOR-LESTE

CONSTRUCTION CIVIC ACTION DETAIL TIMOR-LESTE
DEPLOYMENT SUMMARY

NMCB FOUR Detail Timor-Leste's deployment included two major projects, one joint exercise, and numerous OIC-D projects and COMRELS. Upon successful turnover with NMCB ONE on August 14, NMCB FOUR Detail Timor-Leste started the construction on two projects: the Tibar Kindergarten School and the Manatutu Health Clinic. The Tibar Kindergarten School totaled 738 man-days and consisted of a new 2-room school house. The U.S. Chargé D 'Affairs and Timor Ministry of Education both visited the site and were satisfied with the project which was completed Jan 2015. With regard to the Manatutu Health Clinic, the project was broken into two phases and the first phase, consisting of electrical and plumbing work, was completed in September.

In October and November 2014, Detail Timor-Leste supported HARII HAMUTUK 15, a combined joint engineering exercise that included engineers from Timor, Australia, the U.S. Marine Corps, and 12 Seabees. The exercise was an overall success. Two 40-man barracks units were constructed for the Timorese military, a community center was renovated for the local village chief, 6 minor projects were completed, and the Timorese engineers gained valuable experience in project management. The closing ceremony on November 6 included representatives from each country that participated in the exercise.

The last half of the deployment consisted of the completion of the second phase of Manatutu Health Clinics, finishing the construction of the Tibar Kindergarten School, and completing 5 OIC'D projects. The second phase of Manatutu included building improvements to the health clinic and utility renovations to the nearby maternity clinic. Due to funding, several punch list items will be completed by NMCB FIVE during their deployment. However, USAID and the Timor Ministry of Health were satisfied with the overall project and renovation work.

Additionally, the detail supported numerous OIC-D and COMREL initiatives to include teaching English classes, training local ambulance mechanics, installing new water tanks, fixing plumbing issues at local clinics, and installing new handrails at a local health clinic.

Overall, the Detail successfully completed two major projects, one exercise, and supported overall 30NCR objectives of increasing interoperability between host nation military forces and execute humanitarian assistance construction.

PROJECT SUMMARY

Project Number	Total Project Man-days	Total Project Material Cost	Man-days Tasked	Tasked %	Final WIP (%)	Man-days Expended by Prior NMCBs	Man-days Expended This Deployment
TL-0001[1]	167	$0.00	167	7%	TBD	0	167
OHASIS ID#21876 [2]	738	$67,323.13	738	32%	100%	0	863
OHASIS ID#21876 [3]	777	$193,183.09	777	34%	0%	0	0
OHASIS ID#22853	227	$73,782.83	227	10%	100%	5	186
OHASIS ID#22921	387	$41,757.46	387	17%	100%	0	387
Total	2296	$376,046.51	2296			5	1603

Initial Photo **Completion Photo**

CONSTRUCT TWO ROOM SCHOOL HOUSE
TIBAR KINDERGARTEN SCHOOL
OHASIS PROJECT #: 21876

Project Purpose: Provide additional classrooms for an overburdened kindergarten and primary school and conduct training with F-FDTL to increase interoperability and develop construction skills.

Project Data

Project Scope: Construct a 2-room school house consisting of clearing area, placing a foundation, building block walls, and finishing with a metal roof.

Personnel:	10 DL + 4-8 F-FDTL Engineers (during portion of project)	
Duration:	25 Aug 14 – 24 Jan 15	
Man-days Expended:	NMCB FOUR	836 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	738 MDs
Material Cost:	$74,067	
Cost Avoidance:	$0	

Significant Safety Issues: None

Significant QC Issues: None

Significant Design Issues: None.

Significant Material Issues: Material for project was borrowed from Tibar Primary School BOM. Add-On BOM was submitted in order to fully complete Tibar Primary School.

Initial Photo **Completion Photo**

RENOVATE MANATUTU HEALTH AND MATERNITY CENTER OHASIS PROJECT #: 26166

Project Purpose: Perform electrical, plumbing, and carpentry renovation of Manatutu Health and Maternity Clinic to bring project to Timor-Leste Ministry of Health standards. Also, build a waiting room structure for Health Clinic.

Project Data

Project Scope: Re wire electrical and make electrical repairs, perform plumbing repair and re-plumb main line to health clinic, retile bathrooms, complete interior and exterior painting, complete minor building repairs, install mosquito netting, build a waiting room structure.

Personnel:	Average of 5 DL	
Duration:	08 – 26 Sep 14; 17 Nov – 19 Dec 14	
Man-days Expended:	NMCB FOUR	186 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	227 MDs
Material Cost:	$72,923	
Cost Avoidance:	**$**0	

Significant Safety Issues: Clinic treats patients with Tuberculosis. Seabees were issued required mask to protect against exposure. Paint in clinics could contain lead. Seabees painted over interior paint but were not able to complete exterior paint until further testing was completed. Paint samples were sent to U.S. for testing.

Significant QC Issues: None

Significant Design Issues: The facility did not have a design for existing trusses that needed to be repaired.

Significant Material Issues: All material needed to complete project is not currently funded. Consequently, NMCB FOUR completed majority of scope using existing funding and borrowing material from Tibar Primary School. Add-On BOM was submitted in order to request additional funding.

Completion Photo Project 1 **Completion Photo Project 2**

Note: only one project show

EXERCISE HARI'I HAMUTUK 14 (SAPPER 14)
OHASIS PROJECT #: 22921

Project Purpose: Focus of exercise: 1) interoperability with Fantil-Forças de Defesa de Timor Leste (F-FDTL), U.S. Marine, and Australian engineers 2) Conduct SME exchange between participants 3) Enable access to Timor-Leste. Dual focus in construction: 1) humanitarian assistance 2) military support. Exercise included 2 major projects and 6 minor projects where all four participants at least led one project.

Project Data

Project Scope:
Hera Community Center– Renovate community center to include stucco, interior/exterior paint, new roof, new ceiling, minor building repairs. (Seabee led)
Port Hera Accommodation Blocks– Construct 2 new 40 man barracks units for F-FDTL on Port Hera. (AUS led)
Fusilier HQ Repair– Re-wire electrical for Fusilier HQ building. (AUS led)
Hera Classroom Buildout: – Complete interior framing, wall, and ceiling. Add 1 partition with door. Install electrical and A.C. (Seabee led)
Combat Town Project– Set-up urban training facility for Fire team + to Squad size unit to include grading and leveling area, constructing perimeter wall, organizing containers, and fitting out combat town. (USMC led)
Metinaro Equipment Repair – Conduct maintenance on F-FDTL equipment and set up preventive maintenance plan. (AUS led)
Metinaro Warehouse: - Renovate supply warehouse to include paint, partition improvement, A.C. installation, and minor building improvements (USMC led)
Accommodation Block Steps – Construct steps to accommodation blocks (F-FDTL led)

Personnel:	Average of 12 Personnel DL + 1 USMC PLT, 1 AUS PLT, 1 F-FDTL PLT	
Duration:	06 Oct 14 – 07 Nov 14	
Man-days Expended:	NMCB FOUR	387 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	387 MDs

Material Cost: $41,757.46

Cost Avoidance: **$**0

Significant Safety Issues: Working with different units and with different languages caused communication concerns. Translators were provided at each project to mitigate risk of poor translation.

Significant QC Issues: None.

Significant Design Issues: None

Significant Material Issues: Material for major US led project was not available until 2 weeks into the exercise due to funding unavailability.

Labor Distribution Summary

Detail Timor Leste

Month	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Total
Direct Labor MDs[1]	59	306	665	219	232	228	1708
Indirect Labor MDs[1,2]	30	48	54	48	42	38	260
Readiness/Training[1]	14	32	4	34	34	30	147
Total MDs Exp	102	386	723	301	308	296	2116
# Total Personnel	27	27	32	32	32	32	
# Direct Labor	15	15	20	20	20	20	
# Workdays[3]	10	21	24	17	21	21	
% Direct Labor[4]	56%	56%	63%	63%	63%	63%	
Ideal Capability[5]	168.8	354.4	540	382.5	472.5	472.5	
Availability Factor[6]	0.85	0.85	0.85	0.85	0.85	0.85	

Notes:

(6) Direct and Readiness/ Training MDs are *expended* man-days, not earned.
(7) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.
(8) Number of Workdays = DL workdays + DL training days
(9) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)
(10) MD Capability = (ME * DL * Workdays) = 1.125 x DL x (# Workdays)

DETAIL COBRA GOLD 15
THAILAND

EXERCISE COBRA GOLD DEPLOYMENT SUMMARY

NMCB FOUR deployed Detail COBRA GOLD in Jan 2015 to support Exercise COBRA GOLD 2015, a bilateral, multinational, combined air, land, maritime, civil-military, and special operations exercise, incorporating 14 countries. The Seabees were tasked with completing an Engineering Civic Action Program (ENCAP) project. The project site was located at Ban Chanta Kream School, in the Chanthaburi Province of Eastern Thailand. The school taught 900 students and served the local population of 5,250 personnel in 11 neighboring villages. The scope of the project was to build a new one-room school house building to be used as a library and community center.

NMCB FOUR Detail COBRA GOLD deployed personnel in two movements on NALO flights. The ADVON, led by the AOIC, arrived January 17 and consisted of eight personnel. They worked to ensure all Bill of Materials, equipment rentals, and Life Support requirements were in place in time for the arrival of the Delayed Party. Delayed Party arrived on 20 January, and construction began that date. Berthing was in school classrooms located on site. Meals were UGRs for breakfast and dinner, with MREs for lunch. All other life support equipment was delivered to the site. Due to shipping delays, the containers with Class I and Class VII arrived a week late, Detail COBRA GOLD stayed in a hotel for the first seven days of the project. The hotel was a 60 minute drive from the school. While in the hotel, Seabees received full per diem, and after moving berthing to the site, the Seabees received Incidental per diem.

The exercise was an overall success; a library/community center was completed for a village school, the Thai Marines gained valuable experience, and regional partnerships were enhanced, supporting the 30NCR intent to train local military forces and complete humanitarian construction operations. The closing ceremony, held 19 Feb included representatives from each country that participated in the exercise. Detail COBRA GOLD departed Thailand February 20, capping a successful exercise for NMCB FOUR.

PROJECT SUMMARY

Project Number	Total Project Man-days	Total Project Material Cost	Man-days Tasked	Tasked %	Final WIP (%)	Man-days Expended by Prior NMCBs	Man-days Expended This Deployment
TH-0001	593	$56,701.91	593	100%	100%	0	593

Initial Photo **Completion Photo**

EXERCISE COBRA GOLD 15
PROJECT #: COBRA GOLD SITE #4 Ban Chanta Kream School

Project Purpose: Focus of exercise: 1) Increase interoperability with Royal Thai Marine Corps (RTMC) and the Indian Armed Forces (IAF) 2) Conduct SME exchange between participants 3) Enable access to Thailand. Focus of construction was humanitarian civic assistance (HCA) and providing the school with a much needed community center and library.

Project Data

Project Scope:
Construct new 7.2 x 20 meter library/community center. Construction consisted of a six inch concrete floor reinforced with rebar, precast concrete columns, and CMU block walls tied together with bond beams and rebar. The overall the project consisted of approximately 3,300 CMU blocks. The roof consisted of ten pre-fabricated metal trusses overlaid with a fiber-cement roofing system. The building was surrounded by a 1.5 meter wide sidewalk.

Personnel:	Average of 15 Personnel DL + 1 RTMC PLT, 1 IAF Fire Team	
Duration:	18 Jan – 20 Feb 15	
Man-days Expended:	NMCB FOUR	593 MDs
	Prior NMCBs	0 MDs
Tasking:	WIP at Deployment Completion	100%
	Total Project MDs	593 MDs
Material Cost:	$56,701.91	
Cost Avoidance:	**$**0	

Significant Safety Issues: Working with different units and with different languages caused communication concerns. Translator was provided at the project to mitigate risk of poor translation. Thai and Indian personnel do not follow Seabees safety standards, therefore constant partnering and monitoring of safety was necessary to ensure that no workers were injured during construction. Daily safety talks were led in multiple languages to avoid hazards and reduce risk while working with counterparts who spoke different languages.

Significant QC Issues: Locally procured materials were of low quality. Decorative block was extremely delicate and broke easily, requiring extra care during installation. Concrete delivered had very high water content, and required special attention to guarantee a proper finish and maximum strength.

Significant Design Issues: None

Significant Material Issues: Material for major U.S. led project was not available until two weeks before the exercise started due to funding delays. Contracts to deliver certain items needed adjustments and schedule needed to remain flexible to account for conflicts with contractor deliveries. Class I and Class VII delayed arrival forced Detail to stay in a hotel for an additional week. However Thai Marines and Indian Armed forces were able to provide tools and equipment to keep the project on schedule.

Labor Distribution Summary

Exercise COBRA GOLD 15

Month	Jan 15	Feb 15	Total
Direct Labor MDs[1]	189		100%
Indirect Labor MDs[1,2]	0		0%
Readiness/Training[1]	0	0	0%
Total MDs Exp			100%
# Total Personnel	20	20	
# Direct Labor	14	15	
# Workdays[3]	12	17	
% Direct Labor[4]	70%	75%	
Ideal Capability[5]	189	286.875	
Availability Factor[6]	1.00		

Notes:

(1) Direct and Readiness/ Training MDs are *expended* man-days, not earned.
(2) Indirect Labor MDs are MDs spent (expended) on indirect activities by DL personnel. This reflects "X" coded time from timecards.
(3) Number of Workdays = DL workdays + DL training days
(4) Percentage of Direct Labor (%DL) = 100% * (Direct Labor/Total Personnel)
(5) MD Capability = (ME * DL * Workdays) = 1.125 x DL x (# Workdays)
(6) Actual Availability Factor = (Direct Labor MDs + Readiness/Training MDs) / (MD Capability).

CHAPTER V

INTELLIGENCE

INTELLIGENCE OVERVIEW

The S2 department provided Intel support to NMCB FOUR forces deployed across PACOM AOR. Prior to deployment, the S2 shop authored ten country/threat briefs to the commander and detail personnel. The Kennedy Irregular Warfare Center (KIWC) deployed one intelligence officer to Okinawa with NMCB FOUR main body. The S2 provided weekly intelligence summaries and reach back support from NCG ONE.

PRODUCTS

Produced 180 Open Source Intelligence (OSINT) Reports, conducted planning for three potential Humanitarian Assistance/Disaster Relief (HADR) missions, developed language cards and cultural awareness briefs for six Detachments, authored 11 Intelligence Information Reports supporting the FORMICA mission, and developed a written Standard Operating Procedure for PACOM deployed NMCB.

EXERCISE SUPPORT

COBRA GOLD 15 exercise support: provided threat briefs to respective Detail personnel. Provided scenario development and Intelligence support to NMCB FOUR Air Detachment embarkation exercise and Battalion Command Post Exercise.

TRAINING

Produced and presented Counter Intelligence, Operational Security, Prostitution, and Personnel Security training to NMCB FOUR personnel.

COORDINATION

The Intel Department collaborated with: III MEF/3rd Intel Battalion to leverage their organic capabilities; NEIC for FORMICA support and mentorship; CTF-76 for MCO support; NCIS for information on local threats affecting CCAD sites. Ensured throughout deployment that CCAD OICs were connected to proper ATFP resources such as NCIS and Marine CI support for continuous Intel updates.

CHAPTER VI

LOGISTICS

SUPPLY

Immediately upon turnover, the Supply Department began improving shortfalls found in several functional areas. Every effort was made to improve accountability and efficiencies in Camp Shields Supply Department operations. NMCB FOUR Supply team worked tirelessly in order to improve business practices and processes resulting in improved logistic operations for the Battalion and future relieving units.

Initially, the Logistic Specialists (LS) recognized that the Open Purchase Request and Government Credit Purchase Card programs did not have all of the required documentation to properly certify previous purchases. The LS team diligently tracked and corrected certifications to assure proper accountability.

Central Storeroom (CSR)

A tracking system that used shelf labeling was implemented during deployment, resulting in improved organization and accountability of over $100K of consumable goods. The Central Store Room (CSR) LS reorganized available space by categories in an effort to streamline inventories. A log was incorporated in the day-to-day operations to assist in accurately monitoring stock quantities and demand.

Automotive Repair Parts (ARP)

The ARP warehouse faced challenging obstacles at the beginning of deployment. Immediately upon completion of turnover, five pallets of materials needed to be processed and received. While processing the items, the ARP team discovered discrepancies in R-Supply. Many locations listed for line items in R-Supply were either incorrect or did not exist. This created a delay in the business process as the discrepancies were corrected.

The Supply team assist visit in November identified a significant, long-standing error that had gone previously undetected. When the supply system was updated from MicroSnap to R-Supply, line items were switched manually

from one system to the next. In this process, over 1,000 line items were overlooked, resulting in over 100,000 line items in "excess" material.

The battalion provided a tiger team to aggressively act to resolve the problem. ARP had previously completed 33% inventory through regular spot checks in the first four months of deployment. With support provided from the Companies, the Supply team completed 100% inventory of 11,119 line items to identify 2,084 discrepancies.

The Supply team made every effort to research the history and proper disposition of as many items as time would allow. When given a difficult situation, the immediate course of action was to act swiftly in order to support the Battalion and provide a better turnover for the relieving unit.

During deployment, ARP issued 784 items worth $58,755.17 in support of Alfa Company.

Small Arms Protective Insert (SAPI) Plates

3,973 SAPI plates were turned over to Supply. Their statuses were unknown at the time of turnover. An LS was assigned to sort through all 3,973 to separate them by plates that were cleared for issue, plates that needed to go to a local base for examination to determine suitability for field use, and plates that were known to be of deficient quality requiring submission to the Defense Reutilization Material Office (DRMO).

With 2 months of hard work, the plates were identified and processed, completing a meticulous, time-consuming task that greatly contributed to Battalion readiness.

Financials

The Supply team worked diligently to revamp the supply system to increase the inventory system and provide better service to the Battalion. Efforts initially raised the net effectiveness (issues divided by total demands minus not carried items) to 89.27% and the gross effectiveness (issues divided by total demands) to 50.12%. This upward trend could not be sustained, however, due to lack of funds. Funds were allocated in small portions to begin FY15. This did not allow for the reorder of material for stock and greatly hindered the Supply Department's ability to fulfill orders, thus affecting overall effectiveness.

Requisitions	Estimated Value
ARP (Tires, filters, etc.)	$104,073.76
Consumables	$135,089.81

NMCB FOUR Turnover Statistics

Cog	Total Demands	Demands Carried	Demands Issued	Demands Not In Stock	Net Eff.	Gross Eff.
9B	466	184	144	40	78.14%	31.29%
9G	1	0	0	0	0.00%	0.00%
9O	127	33	22	11	66.67%	17.32%
9Q	31	2	2	0	100.00%	7.69%
9X	5	0	0	0	0.00%	0.00%
Total	630	219	168	51	76.61%	27.15%

NMCB FOUR Turnover Statistics

Cog	Total Demands	Demands Carried	Demands Issued	Demands Not In Stock	Net Eff.	Gross Eff.
3B	3	3	0	3	0.00%	0.00%
9B	305	160	129	31	80.62%	42.86%
9BF	2	2	1	1	50%	50%
9C	1	1	1	0	100%	100%
9O	80	12	9	3	75%	75%
9Q	12	2	1	1	50%	50%
Total	403	180	141	39	78.33%	35.43%

Defense Travel System

DTS staff managed a travel budget of $4.9M and completed 1,199 authorizations for NMCB FOUR in support of detail swings, service member emergency leave travel, and mission-related travel. The team also completed new authorizations for every member of the command after the fiscal year changeover to update orders to the correct lines of accounting. The lead LS for DTS consistently assisted travelers who faced issues and ensured that all issues were handled in a timely manner.

Defense Reutilization Material Office (DRMO)

Six Connex boxes and nine Tricons full of items for DRMO had accumulated in the Supply yard. The Supply team worked diligently to process the items and coordinate their delivery to DRMO. In total, 172 line items were returned to government possession, recouping $1.8M.

Detail Support

The shop supported eight details with funding, supplies, Meals-Ready-to-Eat, travel orders, financials, services, contracts, shipping and receiving, logs, and records. 451 items worth $12,267.20 were shipped in support of the detachments. In response to 30NCR Fragmentary Order 14-024, an LS2 was sent to Guam to temporarily fill a gap billet in order to provide support in the areas of logistics and financial management.

Non-CESE Table of Allowance


NMCB FOUR took custody of 179 Tricons of non-CESE TOA. The Supply Department was responsible for having all modules of the TOA ready and available for emergency use. Ten percent of TOA inventories were conducted for five months, totaling 87 Tricons. Of the 4,813 line items inventoried, 210 discrepancies were identified for 96% validity.

Material Liaison Office / Class IV

During turnover, MLO staff successfully accounted for over 2,101 Class IV project line items valued over $2M, $100K worth of excess material, and achieved a 98% validity of all material for which they were accountable. NMCB FOUR MLO came prepared and well-staffed for the turnover process and the deployment tasking execution. In preparation for the turnover and project start up, 78% (7 of 9) of the MLO crew was sent advanced party. NMCB ONE's turnover staff consisted of 4 personnel. The advance party completed a 100% inventory based upon NMCB ONE records of all Class IV material on hand for three active projects in Okinawa, as well as collecting information for the three additional local projects that NMCB FOUR was tasked with during the deployment.

During turnover, it was found material accountability was only maintained via the Project Material Status Report (PMSR) and was not properly maintained using 1114 Stock Record Cards, as per the 4400.3A Seabee Supply Manual. Per a Statement of Agreement established pre-deployment, all issued material not utilized on the project sites was to be returned to the MLO. While this did happen, it was discovered post-turnover that due to inaccurate records keeping material was not properly received and simply placed returned items randomly in the MLO warehouse. These items were not accounted for during the turnover, which resulted in complete wall-to-wall inventory in October.

During NMCB FOUR's deployment, MLO identified much inefficiency with Class IV procurement in Okinawa resulting in in increased awareness of issues involving material procurement in Okinawa.

MLO's first challenge was to identify the status for over 1,200 Class IV items out for procurement through the Prime Vendor (PV) Supply Core (SC). MLO worked with the PV to get accurate status of material believed to be already out for quote or on order. During this inquiry it was identified that the PV could not provide status of the line items and their "Inventory-In-Motion" (IIM) Online Procurement System could not be correlated with the Project Material Status Report (PMSR). The MLO team engaged with the PV on modifications needed to the IIM system in order to better track and identity the status of quotes. After feedback was provided, the best way forward was to cancel line items which were "dead in the water" and reenter them into the PV's system.

Another barrier to overcome was for the MLO and PV to develop a common language in order to better communicate the needs of the customer in direct correlation to the services the PV provides. MLO provided detailed briefs to the prime vendor in the processes it was required to follow. At the same time, the PV discussed its own internal tracking processes, giving hands on training on how to best utilize the IIM system. MLO was initially able to provide input that resulted in all BOMs and line items being tracked in accordance with the needs of both the MLO and the PV.

Immediately following RIP/TOA, MLO submitted over 30 BOMs to the PV for procurement. Concurrently, Defense Logistics Agency (DLA) via Supply Core instituted a requirement to use an "MRO Checklist" which detailed a requirement to provide manufacturer and part number for all line items requested. This required a reworking of all BOMs by MLO and the project crew while delaying the acceptance of all BOMs by the PV. MLO engaged with 30NCR, DLA Troop Support, and PV management regarding requirements of the MRO checklist as a result this requirement was rescinded.

During the BOM submittal process, MLO communicated to the PV concerns about improving delivery times once BOMs were approved for purchase. The PV stated that location of procurement was strictly driven upon the Required Delivery Date (RDD). Materials required within 30 days would be procured locally in Japan, after 30 days would be procured CONUS. At the time, NMCB was tasked to execute three new start projects in Okinawa. Materials in each BOM were identified as either a 30 or 60 day delivery requirement.

Once BOMs were accepted into the IIM system, the PV began sending Material Requests for Information (MRFI). For most of the deployment this was executed via email. The PV would receive a question from either a sourcer or vendor, and then forward the question on to the MLO. Based upon the question, MLO would then either answer the MRFI or forward the MRFI to the project for further information or clarification. In the beginning of the process, the PV would send spec sheets inquiring if item XXX found in the local Japanese market was an acceptable substitute. Usually the spec sheet was written in Kanji, so MLO would respond the sheet was unreadable and request the PV provide a translated copy. Another issue was due to the initial requirement to provide manufacture and part number, the PV would only seek that exact item and would require confirmation from MLO to source a substitute, due to either unavailability on the local market or issues with the Country of Origin (COO).

Additionally, the tracking of the MRFIs proved to be quite cumbersome, especially when trying to identify which entity had a response for action. In many times there existed a difference in what the PV saw as a MRFI status, what the PV had provided to MLO, and what feedback MLO had provided for a MRFI. Feedback was provided to the PV to make improvements to the IIM system in order to have one central source for reviewing and tracking MRFIs. This is now done internally in the IIM system, vice email.

Due to untimely quotation response by the PV, MLO developed a modified short Material Status Report (MSR) for distribution to and review by PV, DLA, and 30NCR; however it was found that the IIM system could generate a more dynamic report on demand. This aided in providing valuable detailed timeline information for the continued discussion of PV's responsiveness and delay in quotation, which ultimately resulted in the attention of and direct support at the NECC level.

Feedback was provided to 30NCR Project Development Program Department and N3D. 30NCR develops initial BoM based upon historical interaction with the CONUS PV, Graybar. Graybar procurement is solely executed based upon material description, not manufacture or part number. MLO recommends that all BOM developed in the future be based upon the historical descriptions, manufacturer and part number developed solely from transactions with the Supply Core Prime Vendor. As per the PV, this will also speed up the process as a whole while procuring materials for Okinawa projects.

During deployment 30NCR conducted an Operational Readiness Inspection (ORI). MLO conducted a Pre-ORI, which helped prepare and ultimately led to an overall outstanding assessment score. Positive feedback was given by 30NCR and all recommendations were taken onboard by MLO and executed.

Central Tool Room (CTR)

MLO completed a joint 100% inspection of the inventory at turnover using 75% of assigned personnel from NMCB FOUR and one from NMCB ONE. The CTR is an unsupported Augment TOA asset, completely independent of the TOA. The CTR was found to be in above average condition, with all paperwork in order. NMCB ONE turned over existing outstanding transactions awaiting delivery from 30NCR. All kits were found to be at a minimum 95% complete, with documentation of tools on order.

Minor reevaluation and allocation of space usage was implemented by CTR. Removing 50 kits from outside storage in ISO Containers both improved the accessibility of kits and allowed CTR to issue more containers to the projects. These changes allowed projects to decrease the frequency of material check out and improve the long-term material and tool storage capacity on the job sites.

During the deployment, NMCB FOUR ordered 169 line items, valued at $109,444.68. A majority of the orders were to either replace existing worn tools, replenish consumables in kits or to increase the mission capability of the resident NMCB.

As a 3M work center, CTR continued to make improvements throughout the deployment, mostly due to a Force Revision which reduced the work load by 70%, reducing the number of Scheduled Maintenance Checks from 102 to 30. There were many small engine tools that previous battalions had declared un-usable and had scheduled for DRMO. Utilizing the on-staff Small Engine Mechanic, CTR was able to repair many of the DRMO marked tools and return them to useable circulation.

NMCB FOUR also implemented the use of Naval Calibration Labs located at Kadena, AFB. An account had been previously established in January 2014, however, had not been utilized. NMCB FOUR utilized this opportunity to have NAVCALLAB perform 79 checks on various tools found on Camp Shields. CTR also established a regular schedule IOT perform 97 required periodical calibration checks.

Barracks Management

NMCB FOUR's Supply Department managed 309 lodging spaces in seven buildings on Camp Shields. During turnover, the team also accommodated 54 NMCB ONE personnel. In the time since deployment, the building managers have tracked and corrected 299 outstanding material condition deficiencies, ensuring maximum availability of space for Seabees and maintaining their quality of life.

The Supply team also coordinated the replacement of seven washers and four dryers with the Camp OIC.

Postal

NMCB FOUR provided efficient postal service to members, helping to keep them in touch with family and friends. This service was especially important to Seabees during the holiday season when 1,314 packages were received in December alone. In total, 2,664 packages and letters were received and distributed.

Food Service

As per the deployment Operation Order, 15 days worth of MREs for 500 personnel were maintained at all times. However, due to high stock level and lack of use, the MREs were rotated regularly. The current stock was extended. Supply CS team took advantage of every opportunity to use MREs to encourage rotation.

MREs are currently on the books in FSM to include MREs already at Detail sites. Per 30NCR N4 shop guidance, MREs no longer on Camp Shields need to be expended from the books.

Due to insufficient space, a lack of flexibility in the galley hours, and the unavailability of the wardroom, a partnership with Bravo Company was formed in order to transform the first deck lounge in building 7146 into a mess area. After many hours of hard work, the food service team in concert with Bravo Company successfully converted the space into a usable serving area. The new converted space alleviated some of the strain being placed on the base galley due to the number of personnel.

NMCB FOUR subsisted from the Camp Shields Galley. Over 130K well-balanced meals were served during the deployment. The food service team managed an average of $251,683 worth of stores. The average validity of 4 spot inventories was 97.8%. The team also conducted the mandatory quarterly wall-to-wall inventory of all items with a validity of 99%. Service to the command was extremely responsive to the requests of service members. Accommodations were made to support more options for vegetarians and for people seeking lean sources of protein. The CS team submitted a revised 21-day cycle menu to NAVSUP to provide more variety at Camp Shields while maintaining healthy standards required of a Navy galley. The proposed menu received a perfect 100 grade from NAVSUP. The division also coordinated with camps across Okinawa to support Seabees with galley service while working away from camp for Alfa and Charlie Company projects.

EQUIPMENT MANAGEMENT

Alfa Company was manned with 114 personnel at Camp Shields attaining a 7:1 CESE to mechanic ratio, which sustained 95% equipment availability for 376 units of CESE. To achieve the highest readiness of CESE multiple actions were taken. First, NMCB FOUR was able to receive the last of 13 units processed in 2014 through the Corrosion Repair Facility at Camp Kinser. The facility continues to produce exceptional results providing the Okinawa TOA with renewed units of CESE ready for tasking. NMCB FOUR also drove to cycle many under-utilized units of CESE at earth-moving construction projects across Okinawa.

The White Beach Restoration Project supporting Commander Fleet Activities Okinawa, LZ Phoenix Project supporting Marine Wing Support Squadron-172 and the combined Range 10 and LZ Falcon Projects supporting III Marine Expeditionary Force enabled nearly all of the heavy CESE to be employed on major earth moving projects. 200 hours of earth moving were accomplished, which revealed many material deficiencies not previously identified.

Other major evolutions conducted by Alfa Company included supporting Exercise TEMPEST WIND 2014, a joint-nation Special Warfare exercise in Okinawa. Alfa Company expertly responded to a dynamic training schedule and moved 96,000 lbs of critical gear 1,550 miles throughout Okinawa. The crane team conducted a multitude of lifts that directly supported Public Works – Okinawa and 18th Civil Engineer Squadron through installation and removal of heating and air conditioning units. In total 19 separate crane lift packages were planned and executed achieving 106 hours of safe crane operations.

EQUIPMENT MAINTENANCE REPORT

CESE - OKINAWA TOA

	BEEP 2014	SEP 14	OCT 14	NOV 14	DEC 14	JAN 15	BEEP 2015
Active	99	79	94	113	113	113	113
IEM	268	297	278	240	240	240	240
Total CESE	367	376	372	353	353	353	353

DEADLINE CESE-OKINAWA TOA

ON DEADLINE	BEEP 2014	SEP 14	OCT 14	NOV 14	DEC 14	JAN 15	BEEP 2015
Total	22	15	16	12	18	19	
Percent Availability	88%	90%	88%	95%	95%	90%	

CESE POPULATION – Detail San Clemente Island

EQUIPMENT AVAILABILITY STATUS – Detail San Clemente Island

	BEEP	AUG	SEP	OCT	NOV	DEC	JAN	BEEP
On Deadline								
Auto	0	0	0	1	0	0		
Construction	2	2	4	4	5	5		
MHE	0	0	1	2	0	0		
Total	2	2	5	7	5	5		
Total EQ in Service	46	46	44	43	48	48		
% Availability	96%	96%	89%	84%	90%	90%		

MAINTENANCE AND MATERIAL MANAGEMENT

NMCB FOUR provided quality Maintenance, Material, Management through the 3-M system. The 3M team accomplished 12,896 preventative maintenance actions resulting in 11,840 man hours of maintenance and an overall 97.07% PMS Performance Rate. All work centers were brought into compliance with COMNECCINST 4790.3B with the realignment of seven work centers codes. The 3M team also passed the ISIC inspection with an above average score.

Battalion RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED		PREVENTATIVE MAINTENANCE HOURS
AUG-FEB	**15929**	**15892**	**99.77%**	**2633**	**1862**		**17310.6**

OKINAWA

AC01

Work Center RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED	WC >30 DAYS	PREVENTATIVE MAINTENANCE HOURS
Aug-14	9	9	100.00%	1	0	1	18
Sep-14	20	18	90.00%	2	4	0	47
Oct-14	27	25	92.59%	5	1	0	20
Nov-14	25	25	100.00%	2	1	4	55
Dec-14	19	19	100.00%	9	7	2	48
Jan-15	18	18	100.00%	2	2	4	45
Feb-15	2	2	100.00%	0	1	5	4

AM01

Work Center RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED	WC >30 DAYS	PREVENTATIVE MAINTENANCE HOURS
Aug-14	534	534	100.00%	77	4	66	851
Sep-14	1096	1085	99.00%	50	189	0	1177
Oct-14	1486	1417	95.36%	52	2	0	1303
Nov-14	1095	1095	100.00%	110	61	22	1202
Dec-14	1024	1023	99.90%	42	54	57	1055
Jan-15	878	864	98.41%	100	30	63	927
Feb-15	26	26	100.00%	20	50	40	102

AM11

Work Center RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED	WC >30 DAYS	PREVENTATIVE MAINTENANCE HOURS
Aug-14	46	46	100.00%	3	1	6	27
Sep-14	139	139	100.00%	0	9	0	74
Oct-14	157	153	97.45%	26	0	0	83
Nov-14	88	88	100.00%	6	18	8	60
Dec-14	86	85	98.84%	13	7	4	58
Jan-15	39	39	100.00%	1	5	13	25
Feb-15	6	6	100.00%	2	5	9	9

AM21

Work Center RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED	WC >30 DAYS	PREVENTATIVE MAINTENANCE HOURS
Aug-14	195	195	100.00%	12	2	32	247
Sep-14	401	381	95.01%	17	61	0	520
Oct-14	671	599	89.27%	57	2	0	545
Nov-14	479	475	99.16%	29	37	18	511
Dec-14	162	160	98.77%	5	22	15	229
Jan-15	135	132	97.78%	41	14	5	192
Feb-15	47	44	93.62%	15	30	14	87

AM31

Work Center RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED	WC >30 DAYS	PREVENTATIVE MAINTENANCE HOURS
Aug-14	68	64	94.12%	2	0	12	105
Sep-14	130	124	95.38%	0	14	0	163
Oct-14	189	185	97.88%	27	0	0	227
Nov-14	114	107	93.86%	0	1	26	132
Dec-14	29	29	100.00%	0	26	0	49
Jan-15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Feb-15	N/A	N/A	N/A	N/A	N/A	N/A	N/A

BE01

Work Center RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED	WC >30 DAYS	PREVENTATIVE MAINTENANCE HOURS
Aug-14	78	78	100.00%	0	0	0	12
Sep-14	156	156	100.00%	0	0	0	24
Oct-14	195	195	100.00%	0	0	0	30
Nov-14	156	156	100.00%	0	0	0	24
Dec-14	156	156	100.00%	0	0	0	24
Jan-15	195	195	100.00%	0	0	0	30
Feb-15	78	78	100.00%	0	0	0	12

CS01

Work Center RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED	WC >30 DAYS	PREVENTATIVE MAINTENANCE HOURS
Aug-14	98	98	100.00%	2	0	1	74
Sep-14	204	204	100.00%	0	3	0	153
Oct-14	99	90	90.91%	4	0	0	68
Nov-14	172	167	97.09%	1	0	4	125
Dec-14	190	190	100.00%	1	2	3	143
Jan-15	353	288	81.59%	1	3	1	216
Feb-15	0	0	100.00%	0	0	1	0

MM01

Work Center RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED	WC >30 DAYS	PREVENTATIVE MAINTENANCE HOURS
Aug-14	2	2	100.00%	0	0	0	1
Sep-14	4	4	100.00%	0	0	0	2
Oct-14	11	11	100.00%	0	0	0	5
Nov-14	9	7	77.78%	0	0	0	4
Dec-14	18	18	100.00%	0	0	0	9
Jan-15	0	0	100.00%	0	0	0	0
Feb-15	0	0	100.00%	0	0	0	0

SC01

Work Center RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED	WC >30 DAYS	PREVENTATIVE MAINTENANCE HOURS
Aug-14	3	3	100.00%	0	0	0	2
Sep-14	52	47	90.38%	0	0	0	35
Oct-14	57	45	78.95%	0	0	0	34
Nov-14	22	22	100.00%	0	0	0	17
Dec-14	4	4	100.00%	0	0	0	3
Jan-15	18	18	100.00%	0	0	0	14
Feb-15	0	0	100.00%	0	0	0	0

WG01

Work Center RAR / Work Candidate

MONTH	REQUIRED CHECKS	CHECKS PERFORMED	RAR	OPENED WC	CLOSED	WC >30 DAYS	PREVENTATIVE MAINTENANCE HOURS
Aug-14	65	65	100.00%	0	0	0	26
Sep-14	382	382	100.00%	0	0	0	153
Oct-14	208	208	100.00%	0	0	0	83
Nov-14	248	248	100.00%	0	0	0	99
Dec-14	14	14	100.00%	0	0	0	6
Jan-15	487	487	100.00%	0	0	0	195
Feb-15	49	49	100.00%	0	0	0	20

EMBARKATION

NMCB FOUR's Embark staff was at fast paced tempo after assuming operational control from NMCB ONE. In preparation for the PACOM deployment, Embark collaborated with the Supply Department, to collect and track personnel's unaccompanied baggage (cruise boxes) that were shipped in 4 TRICONS, 2 Tri-walls, two 20' ISO containers to their respective deployment locations. Embark was also involved in ensuring proper delivery of 4 TRICONs filled with Advanced Party's (AP) and Main Body's (MB) Personal Gear Issue (PGI) to Camp Shields. On the day of AP's departure, not all PGI bags were able to fit inside the Boeing 767 aircraft operated by OMNI-AIR, because it had met the cargo capacity. The issue was unforeseen mainly because the configuration of the aircraft cannot be determined prior to arrival. In order to mitigate the possibility of MB's bags not fitting in the plane, the decision was made to also send their PGI bags inside the TRICONS and ship via a scheduled channel flight through Travis AFB.

During deployment, the Embark staff managed the movements of arriving/departing Battalion personnel from Camp Shields. Embark successfully coordinated the transportation for 282 flights, both commercial and MILAIR, to account for over 2,270 passengers. The Battalion hosted multiple VIPs during the deployment. Special guests on Camp Shields included Commodore Meyer/CMDCM Teart (30NCR), Commodore Kurgan/CMDCM Heinrich (NCG ONE), and key leadership from Combined Task Force (CTF-75). In addition, a total of 21 IATP/APACS requests for both personnel going on leave or on official business travel outside the AOR were submitted. The staff continually coordinated the transportation of Prospective Gains (PG) and Prospective Losses (PL) to the Battalion, in addition to assisting with VIP guest visits to Camp Shields. Main Body Okinawa received 59 PGs, with 89% of the personnel traveling via commercial travel with arrival into Naha International Airport. Itineraries were typically reserved through NAVPTO/SATO utilizing the Defense Travel System (DTS). At the day of their travel, the originating flight was operated by ANA (All Nippon Airways), which applied an excess baggage fee for all bags. This brought many complications and delays for the PGs coming to Camp Shields. In order to alleviate many of these issues, the battalion realigned flights to go on a United Airlines flight from LAX to Seattle/Tacoma (SEATAC), and transfer the passengers to the military terminal just adjacent to the commercial terminal. This means of travel offered less restrictions with overall baggage weight and allowed prospective gains to bring all personal gear issue as required.

Embark was tasked to support NMCB ONE's Main Body redeployment movement of 91 personnel back to Gulfport, MS. A 25 man working party was employed to transfer baggage from Camp Shields to Kadena Air Base and stow the gear in the cargo hold of the A330 Airbus. Detail's Chinhae, Philippines, Yokosuka, Timor Leste, Cambodia, and Diego Garcia, were all sent through Kadena Air Base with no delay to mission. The Embark Leading Petty Officer was sent to the Philippines in August to assist Amphibious Construction Battalion (ACB) ONE with retrograde to homeport. He completed the required hazardous material documentation in order to ensure the unit was prepared for the Joint Inspection of mission essential cargo prior to the aircraft's arrival. For the TEMPEST WIND 14 Exercise in September, the staff was involved in tracking 14 equipment convoy movements,

in support of Naval Special Warfare (NSW) covering four different sites. The Convoy Commanders reported to Embark all departures and arrivals to each destination, to ensure safety and productivity were met during the line-haul process.

In October, NMCB FOUR conducted a 48-Hour Air Detachment Mount-Out Unit Lead Training (ULT) to ensure the Battalion's Embark and Air Detachment organizations maintain operational readiness for any mission tasking throughout the deployment. In the same week, Typhoon Vongfong was forecast to reach Okinawa. Due to the upcoming typhoon, the decision was made to push the Joint Inspection (JI) 9 hours earlier, forcing an earlier JI and retrograde of all the equipment and containers. Prior to the exercise, Embark went through organizational changes due to the homeport org members assigned to details, separating, or transferring. With the majority of the Embark organization fairly new, the staff had to train the new members in Pallet Construction and Weighing and Marking in order to meet operational requirements and complete the exercise. Even with a new organization and an early JI, Embark successfully managed the preparation, documentation, and staging of 42 units of CESE and 30 pallets. The exercise was a success, solidifying the Battalion's capability of mounting out the Air Detachment.

In the second half of deployment, the start of the redeployment planning began. NMCB FIVE's Pre-Deployment Site Survey (PDSS) group came to Camp Shields to learn about daily operations on Camp Shields. The visit proved to be of great value to both battalions, increasing the overall effectiveness of the upcoming BEEP, and RIP/TOA. The initial planning step Embark took was to collect the AP and MB numbers and personnel names from all the companies and detail sites prior to the 45-day message submission date. Once the numbers were submitted, they were heavily monitored throughout the Operations Department. Any changes made were based on a one-for-one swap to reflect the numbers sent to Force Movement Control Center (FMCC).

In December, the Embark staff submitted three Navy Air Logistics Office (NALO) requests, which involved the closing of Detail China Lake and Detail COBRA GOLD's movements to Thailand. Detail China Lake, after having completed all assigned tasking and retrograde movements to NBVC Port Hueneme, redeployed from Naval Air Base Point Mugu to Okinawa to reintegrate with Main Body. Also, the redeployment Cruise Box Letter of Instruction (LOI) was issued to ensure battalion personnel were well prepared for the collection of cruise boxes on 2 and 6 Jan. The first collection date was primarily planned for collecting cruise boxes from personnel assigned to participate in the deployment Field Training Exercise (FTX) at Camp Hansen. The second date's intent was to collect the remaining cruise boxes. The Supply Department was able to provide two 20' ISO containers that were used to store and ship the cruise boxes. There were additional cruise boxes that did not fit, that had to be placed into an additional TRICON.

For redeployment, the embarkation plan was for all CCAD sites to fly commercial to LAX, and Detail San Clemente fly out via NALO to NBVC Point Mugu. Details Diego Garcia, Chinhae, Yokosuka redeployed to Okinawa via NALO flight and then transit with Okinawa's AP/MB to NBVC Point Mugu. With that plan set, 13 NALO airlift request to support detail's redeployment to Okinawa and NMCB FIVE Detail's deployment to their respective sites were submitted. The NALO flights were scheduled well ahead of time to allow for adjustments by the individual Squadrons performing the airlift.

In preparation for the shipment of PGI from the Okinawa to Port Hueneme, Embark in coordination with the Supply Department acquired an additional TRICON, from the original 4 that were shipped to Okinawa, for storage and shipment. Five TRICONs were then sent via a channel flight to Travis AFB on 5 February. Prior to the MB deployment, Alfa Company supported the transfer of TRICONs from Port Hueneme to Travis AFB. This time around, Defense Logistics Agency (DLA) in conjunction with ground transportation services provided the transportation of the containers directly to the DLA yard on NBVC Port Hueneme.

In coordinating the movement of the AP to the airfield, it quickly became evident that there was a shortage of buses that could support the movements of all personnel, therefore, 30NCR scheduled, via Public Works Department, two contracted 30 PAX buses. In addition to those buses, MWR funds had to be used to rent more buses from MWR. NMCB FIVE's AP movement arrived on 5 February and on the same day NMCB FOUR's AP movement of 243 personnel departed Okinawa. A 35-man working party was employed to transfer baggage from to Kadena Air Base and Camp Shields and vice versa. NMCB THREE's Embark staff provided transportation support in NMCB FOUR's redeployment to Port Hueneme. NMCB FIVE's MB movement arrived on 16 February and on the same day NMCB FOUR's MB movement of 170 personnel departed Okinawa.