Amphibious Operational Readiness



. Little Creek, Va.

The formal Operational Readiness Inspection (ORI) has been a fact of life within the operating forces for years, and unfortunately (at least in the author's view) it has not often come into full play within the Naval Construction Force and Navy Special Operating Units.

However, during January and thereafter, the Commander, Naval Beach Group TWO, conducted a major battle problem and a series of graded "selected readiness exercises" which involved nearly total commitment of his assets.

These exercises tested every mission area and represented the first time of record that the full spectrum of capabilities of Amphibious Construction Battalion Two (ACB-2) was demonstrated.

A properly conducted ORI is a hard-nosed test of a unit's readiness to perform its total job. Response must be accomplished in strict accordance with standard operating procedures (SOP) and safely within the allowed time. Failure to adhere to the SOP, excess use of time, or any significant safety violation results in an "UNSAT" for the entire operation with a retest required.

The ORI is usually divided into phases which match the unit's mission and closely approximate those actions necessary to become combat effective.

To initiate the ORI, the com-

mander conducting the exercise issues a letter of instruction (LOI) and usually without prior notice. This LOI spells out in detail the readiness exercises to be conducted, area of operations (actual deployment may be required), schedule of events, supporting units (who may or may not be concurrently inspected), responsibilities of all participants, command relationships and specific areas for evaluation. The letter is issued approximately ten days prior to execution.

The first phase which the unit must perform is planning. Detailed information must be added to the operation order for the conduct of assigned tasks. Developed under an extreme but realistic press of time the information must contain all planning data for embarkation (i.e., checkoff lists of personnel, equipment and supplies). This is closely examined for adequacy by evaluators.

After completion of the planning, publishing of the operation order, and preparation of all assets for deployment, the embarkation phase begins with the staging of personnel and gear, formal inspection and actual embarkation for transport to the objective.

Upon arrival in the operations area, the "bottom line" is really whether or not the unit can "do its thing." The umbilical cord to a parent unit or another for outside support is cut for the exercise. As

stated by a chief observer - "If you didn't bring it with you--forget it!"

For ACB-2, operations consisted of participation in a coordinated ship-to-shore logistics and beach support exercise plus specific problems such as causeway operations, buoyant and bottom laid fuel systems, side-loading pontoon causeways, pontoon causeway connections, communications and security.

The actual battle problem was conducted during heavy icing conditions and sub-freezing temperatures. The weather presented unusual problems and an interesting parallel to last year's North Atlantic operations.

Particularily taxing for all units was the perimeter defense problem which involved attempted (and in some cases successful) penetration by highly trained Seal Team personnel during hours of darkness. Deficiencies in military training, especially in weapons, sentry discipline, field communications, and small unit tactics, quickly come to the fore under the realistic test. The overall battle problem demands the accomplishment of stated operations. The "selected readiness exercise" requires each step to be completed successfully in strict accordance with procedures, time constraints and without safety violation.

Each evolution is closely monitored by astute observers armed





. Port Hueneme, Callf.

"Peace through Readiness" was this year's Armed Forces Day theme. Inherent in the mission of a Naval Mobile Construction Battalion (NMCB) is just that readiness. And this position is thoroughly tested when a battalion is designated as an "alert" unit. The battalion is required to be in high readiness - permitting it to move within six days. Six days to move tons of organic materials, supplies and equipment and nearly 600 Seabees, doesn't just happen! Training for quick dispatch of men and material begins long before the battalion assumes its alerted role.

In August 1976, NMCB-40 set its homeport goal to assume its role as the Pacific Alert Battalion immediately upon arrival in Guam.

With critical jobs changing hands the first job was to stabilize assignments of key personnel and to identify and train an air detachment as the forerunning unit.

The embarkation staff developed plans for contingencies including constructing standardized shipping containers that would be used in all of the battalion administrative areas. Concurrently, the Seabees underwent both military and technical training in classrooms and field exercises. Extensive qualification in the battalion's weaponry was required.

As the homeport training period moved forward, the battalion was strengthened with trained personnel. In early December a test of the battalion's ability to alertly respond was held. The exercise included an actual deployment to a site distant from the homeport,

The 89-man air detachment was sent to Bridgeport, Calif., (located in the High Sierras northeast of Yosemite) to establish the camp for the main body which would be arriving within 48 hours. While preparing for the scheduled arrival, a message was received that dangerous winter weather threatened and the air detachment would redeploy to Broome Ranch, located in Camarillo, Calif., a distance of 300 miles.

The detachment had 36 hours to pack up gear, close out the construction projects, and convoy to Broome Ranch preparing a new base camp. The tired but highly spirited group of men completed the movement and the new camp on



SEABEES OF FORTY load 106mm recoilless rifle for firing at range of the Marine Corps' Camp Pendleton, Calif. In training and combat the Marines and Seabees are closely associated.



81mm MORTAR is included in Seabee's defensive arsenal. The Navy constructionmen are trained to defend themselves and their works.



Naval Mobile Construction Battalion 3 (NMCB-3)

Naval Mobile Construction Battalion 3 (NMCB-3)

1976 when Typhnons

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QUESTION: Cdr McNeill, as commanding officer of NMCB 3 on Guam, can you describe the task of the battalion in preparing for the arrival of typhoon Pamela?

CDR McNEILL: The operation orders from the commander, Construction Battalions, Pacific, for our deployment to Guam specified that we would provide local emergency support when needed. Typhoons are part of life on Guam.

Prior to arrival on Guam the battalion had prepared a destructive weather plan which specified actions to be taken by the battalion during normal typhoon conditions on Guam and each of the increased readiness conditions. These actions included proper securing of buildings, projects, equipment and material, and positioning of emergency equipment and supplies. Each company and staff element was assigned certain tasks for each storm condition. For instance, Alfa company, the equipment company, tasks for Typhoon Condition II, meaning typhoon strength winds expected within 24 hours were:

To provide working parties for emergency repairs and for securing of areas as directed by the command post; ensure that areas including job sites, barracks and offices be prepared for destructive weather; secure all window louvers; positively secure all exterior doors and brace as necessary; if required, brace windows with mattresses and furniture to prevent leakage.

Provide for continuous manning and communications in offices or company command post.

Ensure that individuals take adequate precautions to prevent damage to personal property.

Fill at least two trash containers with water and place in heads as emergency flushing water.

Move all available fuel trucks, water buffaloes, generators, and water trucks to locations in Camp Covington designated by the command post. Have vehicle operators available in the company command post. Arrange heavy equipment to provide maximum protection. Position portable generators as directed by the operations officer to provide emergency power. Double check to see that all vehicles are fueled. Empty and secure all loose trash containers in Camp Covington.

QUESTION: Once you were advised that Typhoon Pamela could possibly hit Guam, what actions did the battalion take to prepare for the storm?

CDR McNEILL: Pamela was identified on 15 May as a tropical storm with the potential of

NMCB-3 vs Typhoon Pamela

By CDR J. E. McNEILL, CEC, USN

Commanding Officer

Naval Mobile Construction Battalion 3

PE, Penn.

upgrading to a typhoon with Guam being in its potential track. At that time we began to review carefully our destructive weather plan and took action to ensure rapid transition through each of the typhoon conditions. Typhoon Condition III was set on 19 May followed by Condition II and Condition I on 20 May, with the storm striking Guam on 21 May.

QUESTION: Were you called upon to assist other commands in preparing for the storm?

corr McNeill: Yes, on 20 May, the day before the storm struck, we were called upon to assist the Public Works Center (PWC) Guam in securing windows in the family housing areas. For these efforts we utilized one of the normal military work squads in the Charlie Company structure. At this point we had established the battalion command post and activated the typhoon recovery radio communications net which ties the island commands together on a common frequency. All requests for assistance were channeled to the battalion through the PWC Guam command post, where 30th Naval construction regiment representatives had established a watch. PWC

resources.

QUESTION: After the typhoon passed, when did you send out your first teams and what were their duties?

Guam is assigned responsibility under the destructive

weather plans as the overall coordinator of engineer

CDR McNEILL: The strong winds associated with the storm lasted through the early hours of 22 May. It was obvious from reports received through the night, that the opening of roads and restoring utility services would be the first priority.

While the winds were still blowing on early 22 May we dispatched three teams, each having a construction electrician and mechanic to assist the PWC in operating water pumps.

At 0530 on 22 May two damage survey teams were dispatched to inspect the main island roads. Clearing of island roads commenced and was completed at 1715 that day. This operation included use of chain saws to remove fallen power and telephone poles, removal of such debris from the roads. Simultaneous with this effort we commenced our own internal damage surveys. As other naval activities assessed damage and scheduled their emergency work, continuous requests for Seabee assistance flowed into the battalion command post.

QUESTION: What communications systems did your teams have?









CDR McNEILL: The winds from the typhoon caused severe damage to the utilities system on the island. All camp telephone service was lost. Camp power was lost at 1110 on 21 May with all island power lost at 1410 on 21 May.

The lack of telephones was more of a problem for internal battalion communications. We relied upon the handheld units for internal communications until telephone service was restored.

During the period of the Memorial Day weekend the battalion coordinated support to the 1,000 Navy men in the cleanup in the civilian community. To coordinate this work one officer was positioned aboard the flagship of the Commander, Amphibious Squadron, and senior enlisted personnel with PRC 77's were in the field to coordinate men and equipment. The battalion primary frequency was used for all these operations. With other operations going on simultaneously, the airways were crowded. In order to communicate between the dispersed groups, marine corps personnel from the Amphibious Squadron set up a mobile relay station.

QUESTION: Did you have any problems with supplies for your teams?

CDR McNEILL: Our immediate job was to restore the operational capabilities of vital facil-

ities. A number of critical facilities had lost portions of roof or siding. Some of the most urgent jobs were therefore geared to ensure temporary water tightness of structures. Many structures requiring repair were preengineered or structural steel buildings with metal roofing and siding. The non-availability of metal roofing and siding matching that on the buildings resulted in our designing other expedient means to provide water tight integrity. For instance, we used felt type roofing over plywood on warehouses and hangars where sheetmetal matching the existing was not available. These temporary repairs were later replaced with permanent repairs.

QUESTION: Commander, did the battalion suffer any casualties during the storm?

CDR McNEILL: No, the designated shelters within the camp, the bachelor enlisted and of-

ficers quarters held up quite well. These pre-engineered buildings were designed for 150 knot winds. As with all structures on the island, there was some minor water damage. The only personnel not in quarters during the storm were those on watch at the armory, which was located in a large wood frame, tin roofed structure. This structure which housed battalion headquarters received

severe damage. Most of the roof was blown away with consequent interior damage. In fact, as a result of the storm, we had to relocate all the battalion administrative spaces. Temporary shops were set up to maintain our equipment until the building was returned to safe operation.

QUESTION: How severe were the working conditions after the storm?

CDR McNEILL: Within the camp, as I have already noted, the most severe damage was to

the admin and shop spaces structure. With large chunks of the wood frame and metal roof still attached at one end and swinging in the wind, we had to wait until the winds abated before we could safely begin recovery work. Even then, we had to be extremely careful of falling debris.

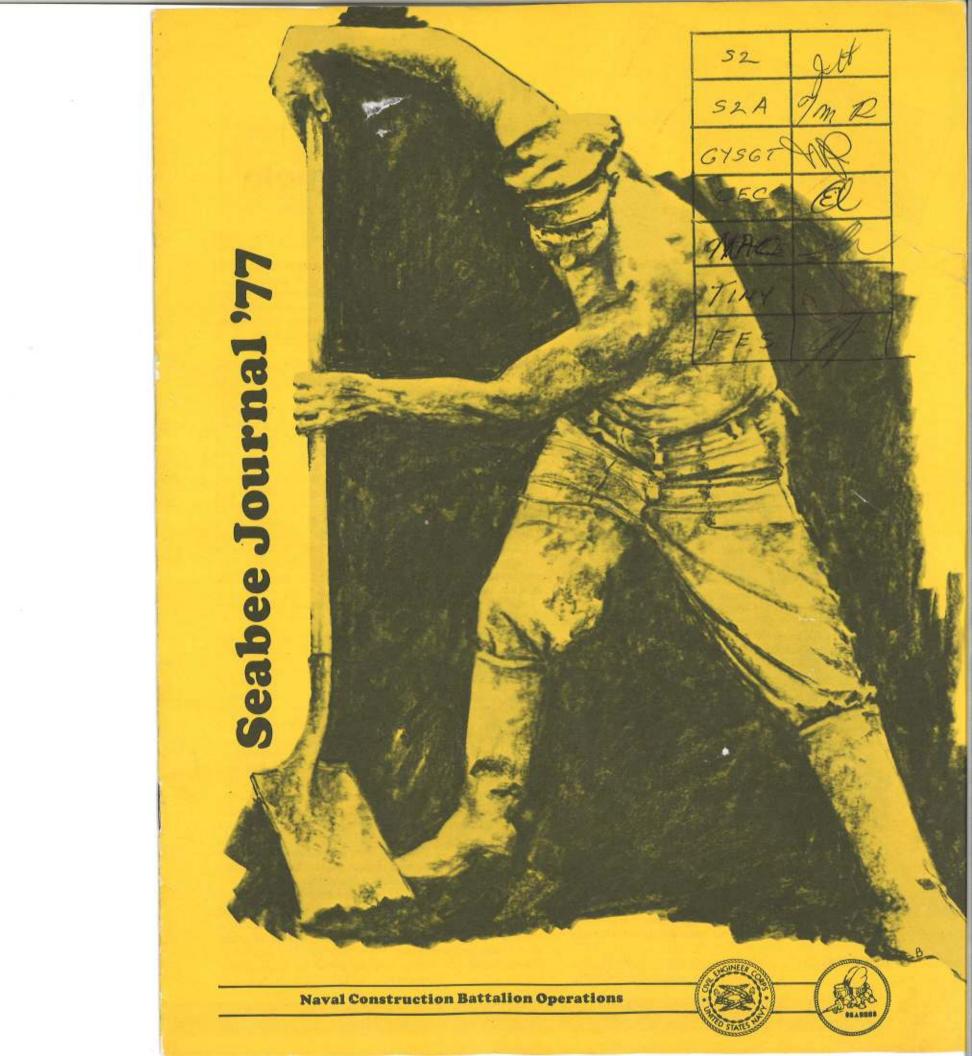
QUESTION: What suggestions do you have for other commanding officers that might be faced with the same situation?

completely familiar with their designated responsibilities. Familiarity and training to strengthen this plan must begin at homeport. Training should include various methods of securing materials, equipment and facilities. In some of the deployed camps we have permanently positioned emergency generators at critical facilities such as the dispensary. The destructive weather plan should include positioning of other units at areas such as the battalion command post (CP) and company CPs.

The number of generators may not be sufficient to operate all these facilities, particularly if there is a total power outage. Availability of assets held by others that could be available in a contingency should be explored.

Secondly, a list of items to be included in each CP must be developed. And the camp must be examined carefully to ensure that it can be "buttoned-up" quickly to withstand a typhoon.

One final observation — Organizationally, the NMCB is well suited for disaster recovery. The command and control network of the battalion gives the needed versatility in movement, skill, logistical base, and control required to cope with the varied disaster situations. On Guam the unique capabilities of the battalion were instrumental in minimizing damage by its effective action and by providing immediate response capability for the earliest recovery efforts despite severe damage to our areas, shop and administrative facilities.





Thousands Complete Gulfport's Naval Construction Training

JO2 DOUGLAS D. DAVIS Naval Construction Training Center

· Gulfport, Miss.

The increasing commitments in Southeast Asia in 1967 required additional Naval Mobile Construction Battalions (NMCB) and generated need for experienced petty officers to man the ranks.

To meet shortages, the Direct Procurement Petty Officer Program was instituted. To indoctrinate and properly prepare these directly procured petty officers special schooling was required. The Secretary of the Navy established Naval Construction Training Unit, Gulfport, Miss., for that purpose in June 1967. The unit was placed under the command of LT Joseph B. Leap, CEC, USNR, and was granted \$32,700.00 for the first two quarters of FY68, to establish and operate the command.

The first job was to establish a thorough training schedule. This program provided five weeks of intense academic instruction in general Navy and Seabee subjects preparing the directly procured petty officers for early usefulness to the Naval Construction Force.

In January 1968 the staff consisted of 62 military and civilian personnel. This was the year of growth, as Naval Construction Training Unit-Gulfport expanded its basic mission to include training of individuals from Gulfport-home-ported battalions in Special Seabee Training Courses, providing them with additional knowledge and skill necessary to expedite construction at deployment sites abroad.

By August 1968 the staff had

increased to a total of 129 personnel and the first formal course, a Construction Mechanic "C" Course, Automatic Transmissions, was developed and added to the curriculum. The first automatic transmission class graduated in February 1969.

In 1970 there were over 4,100 graduates of Special Seabee Training and in February 1971, the Direct Procurement Petty Officer Program was terminated after having trained 10,304 men.

In April of that year a pilot 22-week training program for 4X10 Reserve Recruits was initiated. Two hundred thirty-nine men completed this program before it was shifted to the larger training commands.

A four-week Construction Apprentice Indoctrination Course was established in July 1972. This course was designed to provide an overall Seabee indoctrination to recent recruit training graduates who would be entering the Naval Construction Force without the benefit of an "A" School. At the same time, Construction Training Unit Gulfport moved into new applied instruction and administrative buildings. During the remainder of 1972, over 700 students graduated from the Construction Apprentice School.

Also during 1972, command and support responsibility for Construction Training Unit Gulfport was shifted from the Chief of Naval Personnel to the Chief of Naval Technical Training. The Chief of Naval Training (now the Chief of Naval Education and Training), Pensacola, Fla., became the major claimant in lieu of the Commandant, Sixth Naval District.

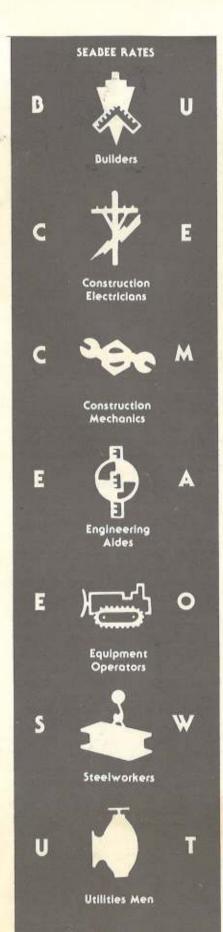
From August 1971 to March 1974, LCDR J. T. Prather, CEC, USN, was commanding officer. During this time, Naval Schools Construction, Davisville, R.I., was disestablished, Construction Training Unit, Gulfport was redesignated as Naval Construction Training Center (NCTC), and the "Mirror Image" concept of training was conceived.

The "Mirror Image" concept of training is a program designed to provide identical training in virtually all courses offered at both Naval Construction Training Center, Gulfport and Naval Construction Training Center, Port Hueneme, with the exception of five courses single sited at Gulfport and four at Port Hueneme.

October 1976, brought the transfer of Disaster Recovery Department functions from the Construction Battalion Center (CBC) to the NCTC. Disaster recovery, along with other subjects not specifically applicable to any one rating, were incorporated into the Special Schools department.

In December 1975, Naval Construction Training Center, Gulfport received accreditation credentials from the Southern Association of Colleges and Schools-









Commander **Naval Facilities Engineering Command** And





Rear Admiral Neal W. Clements, CEC, USN Commander, Construction Battallons, Pacific And Commander, Pacific Division, NAVFAC





Rear Admiral Kenneth P. Sears, CEC, USN Vice Commander **Naval Facilities Engineering Command** And Deputy Chief of Civil Engineers



Capt. John Paul Jones, Jr., CEC, USN Commander **Construction Battalions** Atlantic

Seabee Journal '77 Was Produced By The Editors



with myriad checklists and evaluation forms. "Murphy's law" often comes into play adding elements of mental strain and fatigue to the testing process.

The rigorous character of the evaluation process makes satisfactory completion by a unit of all evolutions the first time extremely difficult. To fail, to retrain and then pass reexamination professionally matures a unit. Combat and combat support units need to be tested beyond their structured capabilities and endurance. Too often units are not truly tested by the admin/material inspections, mount-out exercises or similar tests

CDR. J. L. CLEARWATER, CEC, USN

Commanding Officer Amphibious Construction Battalion TWO P.E. - Delaware

which do not demand total commitment to a war-related scenario and the realistic action under pressure if not actual duress.

Based on the author's observations, a well planned and coordinated ORI may be equally useful to Navy Special Operating Units and the Navy Construction Force as it is to the tactically oriented units such as ships of the line.

The primary problem stems from difficulties in deciding which of the unit's missions can and should be tested and what parameters should be used to establish pass/fail criteria. It is very easy to rationalize and decide that many tasks are not amenable to rigid performance evaluation or that the ORI process is simply not applicable to certain types of units. In the author's view, if the unit in question must operate in a hostile environment in a combat or combat support role a prima facie case exists for subjecting that command to the often feared but most beneficial ORI.



AMPHIBIOUS SEABEES ready to 'beach' their equipment during ORI — operational readiness inspection.



INSTALLATION of amphibious assault bulk fuel system. Omnipresent ORI evaluator is in white hat.



FUEL ELEMENT places power tong to begin pipe assembly for the bottom lay fuel system.



BARGE FERRY with bottom lay fuel system arrives at beach for Seabee installation.



a view from out

Gulfport, Miss

A regular Seabee battalion has one and only one Captain. There is one battalion, however, Naval Mobile Construction Battalion 74, which has two captains whose Commanding Officer likes to say, "there is a Captain and the Captain."

There is little doubt that the Commanding Officer means that he is "THE Captain."

But who or what is "A Captain?"

The answer to that one often causes more questions, than it answers. "A Captain" refers to me, Captain Gerald McMahon, United States Air Force.

But let me explain before all those questions come rushing forth.

I am an Air Force Civil Engineering Officer serving a two-year tour with the Seabees as part of a continuous Air Force/Navy Officer Exchange Program. The program calls for a number of Navy Civil Engineer Corps officers to crossover to the Air Force for two years to serve in a variety of civil engineering duties. A like number of Air Force Civil Engineers join the Navy for two years, filling billets in either a Public Works Center, a ROICC Office, or the Seabees.

NMCB-74 has been designated as the host Seabee command for the program. The program's hoped for result is a cross pollination of ideas between the services and a better mutual understanding of how each service operates.

For the past two years, I have been assigned to NMCB-74 as the only Air Force Seabee in the whole wide world!

Quite a distinction and privilege, as I was to learn subsequent to my initial shock. During the two years I have gained a great deal of practical experience and I hope that I have contributed at least a little to the battalion and to the Seabees.

But let me now return to the beginning and tell my story.

It was early May 1975 when I received notification that I was being reassigned from the 4500th Civil Engineering Squadron at Langley, AFB, Va., to the Air Force/Navy Exchange Program.

Where exactly was I going?

"Some place called Gulfport, Miss., to be a Seabee, but I wasn't going to spend much time there." Something about an eight and six deployment rotation cycle, whatever that was!

By mid-May I had made my move and arrived in Gulfport, a quiet and sedate place compared to the air bases with their brisk flying activity to which I had become accustomed. I checked into the battalion and was told that I was to be the assistant operations officer during the upcoming European deployment.

I figured I was in for a hectic time because the incumbent was all too anxious to turn over the job, and everyone else just smiled upon learning of my assignment. But even before I could really get settled into the job there was a severe case of culture shock to overcome.

Imagine green utility uniforms starched so you couldn't move in them, those garters (or blousing straps), and buttons — not zipper flies. And there were those morning formations and a very strict military structure. All these are very foreign to an Air Force Officer accustomed to the much more relaxed but business-like environment of the Air Force.

But the time for adjusting was short, for the last two months of the battalion's homeport quickly passed and it was soon time to depart for Europe and the deployment site at Rota, Spain.

Once on Seabee deployment in Rota, the complex and widespread nature of a battalion's activities became very apparent. Besides the expected construction effort, there were the requirements to run a separate disbursing office, a separate galley, a separate yet complete supply department, and even a laundry. This was quite different than in the Air Force where these functions are consolidated and provided by specialists. At times the diversion of trained Seabees to such functions as

special services, the master-at-arms force, and the laundry seemed a senseless waste of skilled manpower, but the realization was that such support functions are necessary to make the unit self-sufficient.

As assistant operations officer, I was lucky to be exposed to the many and varied pressures and problems which affected the day-to-day activities of the battalion. Shortages of materials, design errors, lack of available manpower, unavailability of equipment, and special training requirements, all influenced what was, in fact, accomplished.

Again, the battalion is looked upon to be self-sufficient and to work out many of these problems.

There was the opportunity to visit detachment sites in Greece, Italy, and Scotland and observe their operations in environments very much independent from that of the main body.

Of course there was the inevitable paperwork in which any battalion officer finds himself immersed. Reports and messages were sent to and from nearly everywhere, and the daily need for photos and slides that were necessary to keep the higher headquarters aware of onsite construction progress. Those darn situation reports seemed to be due as soon as the last one was completed.

But all was not work. There were the weekend tours to see Seville, Granada, Cordoba, and the many other sites of southern Spain. Bullfights and fiestas, trips to bodegas (wineries), and ancient cathedrals, all these were available to anyone who sought them out. And while I didn't get a chance to go (a situation report was due, you see), some Seabees made it to Innsbruck to see the 1976 Winter Olympics. More than enough opportunities were there for those who took advantage of them.

It was a busy eight months and all too soon it was time to prepare the flight manifests for the home trip to Gulfport, Miss., and homeport routine, preparing for another

of the blue

deployment.

Homeport proved to be the least spectacular of my months with the Seabees — to say the least. Often it seemed like I was treading water for six months, trying to keep myself above the sea of paperwork, and ready for next deployment when there would again be a chance to be productive and active.

Of course, part of the frustration with homeport was brought on by my knowledge that I was to have my own detachment at Subic Bay, Republic of the Philippines, during the next deployment.

What organizational structure should I use? Whom should I select to be in the detachment? What should the distribution of responsibilities be? What projects would we be tasked with? What problems would we encounter? What condition would the equipment be in? Would we have the types of equipment we needed?

All these questions and more had to be answered before we left homeport.

August 18, 1976, arrived and I set out with 37 other Seabees on the advance party to take over the Subic Bay deployment site from NMCB-62. Lt. Don Keith, officerin-charge of NMCB-62's Subic detachment, had everything in good shape and the turnover went smoothly. On September 1, we took over the site and the whole show was ours.

For the next eight months, I was to enjoy what must be one of the most challenging and rewarding billets to a Civil Engineer Corps lieutenant. The Subic detachment site is unique in that it has its own camp and manages its own expense operation budget. The magnitude of the operation required full efforts by each man.

Chief petty officers (CPOs) filled company commander jobs usually held by commissioned officers within the battalion's main body.

First class petty officers filled jobs of CPOs, and second class petty officers served as the crew leaders on the jobs. This resulted in a very definite growth experience for all involved.

For me, as officer-in-charge, there was the chance to try out all those ideas on management and leadership that I would never have been able to do if within the more constrained environment of the Battalion Main Body — or in the Air Force. The development of an esprit de corps among members of the detachment and fostering goal orientation among the individual nail-pounders and leverpullers on each job were big initial challenges.

I basically had an opportunity for doing things my way, and was told to make on-site decisions myself - a very rare and meaningful experience. Projects moved gratifyingly to completion on or ahead of schedule. Crews seemed enthusiastic about the quantity and types of jobs and morale appeared high throughout the deployment. For instance, the flag football and slow pitch softball teams were very successful in their efforts - winning their championships! I will long cherish the memories of the great feeling of accomplishment that all of us had.

But soon, all too soon, it was time to leave. Time to turn loose the reins to those relieving us, and to board the flights homewardbound. And for me it was also time to say farewell to the Seabees.

My two years of exchange duty were over and a new captain, Captain Neil Fravel, USAF, was on board to replace me. I go back to the Air Force much richer for the experience I had with the Seabees.

I will miss all the rapid service that a telephone call started by, "this is Captain McMahon" brings on a naval base. Seems that the Air Force has a few more Captains and knows that I am more likely to be an 0-3 than an 0-6!

But most of all I will miss the people from the non-rate on up, for it is they who make the Seabees what they are. To each of them, I say thanks and best wishes.



CAPT McMAHON's breast pocket says it all —
"the only Air Force Seabee in the whole wide world!"



THE AUTHOR with 'his' Seabees scrambling for muster in the background.



Seabees CAN manage!

(Continued from preceding page)

of the usual building trades, preparation of the forms is a valuable exercise in research of plans and specifications, particularly the latter which are not normally provided on our projects. Basic references for this are provided to each company.

Project superintendents must know the status of their project material at all times, including that of their subcontractors. The important points here are: insuring timely ordering; scheduling deliveries by the material liaison office to the job site; placement of the material to minimize handling and work interference; inspection of materials to verify size, quantity and condition; and follow up on those orders over 30 days old. Much of this work is performed by company expediters, but project superintendents must insure that it is being done and track the status of all materials.

Finally, at the start of each new activity, the project superintendent and crew leaders meet with their crews and review procedures, plans, construction technology, quality control and safety plan. Updates are provided at the close of each work

day to lay out the following day's work.

The small computer is revolutionizing construction project management for the Seabees on Diego Garcia. Project superintendents are able to load their own networks, adjust estimates, alter resources and analyze their progress toward project completion dates. The computer permits them to adjust their planning before getting too far in trouble. It has been enthusiastically adopted by the Seabee managers and with the eventual incorporation of other programs in the system, it will be one of the greatest management tools the Seabees have had available to them.

Battalion project coordination and management are effected through weekly operations meetings conducted by the operations officer and attended by project managers (company commanders), detachment OICs (on Diego Garcia), material liaison officer, safety chief, ROICC and equipment assignment officer. Each company commander reports verbally on progress with written summary reports submitted at the conclusion of the meeting.

Actual progress is monitored through time cards, daily activity reports and activity completion reports for an activity on the network which is 100% complete. With the advent of the computer printout, consideration is being given to eliminating at least one of the two reports.

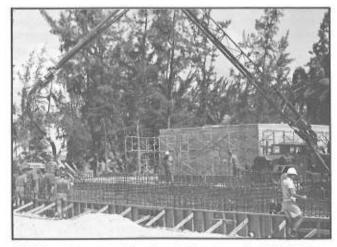
There has been no difficulty getting the networks and CPMs developed. The project superintendent has a direct hand in their development planning and tracking.

There is a tendency for planners to rely on original bills of materials rather than making an independent material take off oriented to individual activities. This practice delays identification of material deficiencies. Getting project superintendents to inventory and "sight" material was slow in evolving; but, once they realized the long period required to obtain materials from the U.S., management interest improved significantly.

Obtaining a thorough review and distribution of the QC and safety plans and the use of QC plans to train and brief crews have met with varying degrees of success. An attempt to complete all plans for a project before submitting them for approval, rather than a phased approach, would be easier to process. This would relate directly to current activities with timely information value to supervisors.

The construction management system that NMCB-62 uses exceeds all original expectations. Company commanders and project superintendents are planning well ahead, have an exceptional understanding of their projects and are using their resources more efficiently.

Seabees can and do learn and employ modern construction management methods!



CONCRETE is pumped into foundation forms for 568,000 liters (150,000 gals.) water storage tank on Diego Garcia site.



PRECAST PANEL is tilted into position as bulkhead for new bachelor's enlisted quarters on the Indian Ocean atoll.





Culfoort Mine

"Fighting Seabee" evokes an image of a big, John Wayne type, building a bridge with one hand and defending the bridge against enemy attackers with his other. This is a glamorous stereotype, but really not too far-fetched as history has recorded many heroic acts of Seabees in battle.

Naval Mobile Construction Battalion (NMCB) 133 has had its share of heroes. In the Pacific Theater during World War II and more recently, in Vietnam, Seabees of the battalion engaged in construction work within combat areas.

And they defended themselves against the enemy forces during their construction mission.

Because of the constant possibility that NMCB-133 will be called upon again to fight while building, battalion personnel undergo steady military training which is a substantial part of the homeport period for all Seabee battalions.

The men of NMCB-133 recently concluded a five-month homeport stay at the Naval Construction Battalion Center (NCBC), Gulfport, Miss., prior to deploying to Rota, Spain. During that period, all hands in the 762-man battalion participated in extended military training.

All personnel fired the M-16 rifle and/or the .45 caliber pistol for qualifying scores at the nearby Keesler Air Force Base small arms range. A working knowledge and proficient firing of these arms are necessary, as they are the basic weapons of individual defense for Seabees.

Firing at the range was a significant, but a small part of the total military training program. The typical NMCB-133 Seabee spent two

Fighting Seabees? They're still with us . . .

By J03 ALAN WESTON

Naval Mobile Construction Battalion 133

weeks sharpening his other military skills, in addition to shooting the range.

A majority participated in a twoweek military training course provided by the Twentieth Naval Construction Regiment (20th NCR). During the course, the men were instructed in weapons handling, defensive combat tactics, and reaction to nuclear, chemical and biological attacks. The course was highlighted by a one-day tactical exercise, in which the men used weapons loaded with blanks to defend positions against "aggressors."

The 20th NCR also conducted two weeks of training with crewserved weapons — the M60 machine gun and the 81mm mortar. A group of 130 men from NMCB-133 trained with the weapons, which are the battalion's heavy armament in combat situations. The training consisted of one week of classroom instruction and practice with dummy rounds, followed by four days of firing with live ammunition in which the gun crews qualified.

In the final month of the battalion's homeport the military training was put to a collective test. A fourday command post exercise (CPX) prepared the officers and chief petty officers for performance in a tactical situation. The week following the CPX, the battalion's field exercise (FEX) was held with all hands participating.

The exercise consisted of 60 hours of simulated combat at Camp Hill, Miss., an area which offered a variety of terrain — hills, valleys, meadows, forests, rock-covered ground and swampland. Under the watchful eyes of 20th NCR observers, the men of NMCB-133 put defensive combat principles into practice.

Seventy men of NMCB-133 had

additional opportunity to sharpen their military skills. They formed a detachment which participated in Exercise Solid Shield '77, a joint services effort conducted in May. As part of the exercise, men of the detachment made an amphibious landing at Camp Lejeune, N. C., and once ashore, proceeded to carry out a construction/defensive combat mission.

LT. William T. Parker, NMCB-133's training officer, summed up the success of the homeport military training:

"The battalion came out of this homeport with an excellent background in military tactics and a familiarity with its weapons. Military training was especially important this past homeport, as we are the Atlantic Alert Battalion and as such are required on short notice to redeploy and carry out whatever construction and military requirements are placed on us."

A testimony to the success of the military training on a personal level came from 19-year-old Seabee Joseph Dias. He reported to NMCB-133 in February, and said, "I really didn't have any military experience. The only gun I'd fired before coming in the service was a BB gun."

Since joining NMCB-133, BUCA Dias has completed the two-week military training course, giving him a basic understanding of defensive combat. He posted a score of 170 shooting the M-16 at the range, earning the designation of expert.

Through military training, he is developing into a fighting man, as through builder's school he began development into a constructionman. Although he may never build a bridge and defend it at the same time, he has learned that a Seabee must be proficient at both tasks.

NMCB-40

(Continued from preceding page)

schedule.

The battalion spent four days at Broome Ranch living in a tent camp, subsisting from field kitchens and conducting military training operations. A mock attack on the command by an "aggressor" force tested the command's defensive perimeter and concluded the training problem. There is still discussion within the command on who "won." With this behind it, the battalion was declared, indeed, ready, and upon arrival in Guam, NMCB-40 was designated the alert battalion.

Within three weeks the Commander, Naval Construction Battalions, U.S. Pacific Fleet, conducted an exercise to further evaluate the battalion's alert capabilities. The battalion was directed to simulate the redeployment of the air detachment to a friendly foreign nation. The main body was to board the USS Durham and the USS Schenectady, arrive at a port of entry, and convoy to an inland site. The battalion was to perform construction and engineering in support of the 1st Marine Air Wing. All action to redeploy was to be taken with the exception that actual redeployment would not be made.

Upon receipt of the "warning order" the mount-out control center (MOCC) and company command posts were established and were manned around the clock.

The battalion then started its "mount-out" exercise. Tools and equipment reclaimed from existing job sites were readied for ship loading. The operations department reviewed the construction requirements, developed work schedules and identified supply needs and potential problems. The supply department determined sources of supply and logistics support thought to exist in the deployment area. Maps and other information pertaining to the site and the proposed convoy route were gathered and analyzed.

The first phase of the operation was to move the 89-man air detachment using a mixture of C130 and C141 aircraft. While equipment and supplies were being transported to the staging area, the Officer in Charge insured that personal affairs of each man were in order. Service records were reviewed, wills and powers of attorney verified, personal effects properly stored, and the detachment briefed on the mission.

With the air detachment deployed within the 48-hour deadline, the battalion concentrated on moving remaining supplies, equipment and personnel. The embarkation staff continued to develop load plans for the ships while concurrently the equipment and materials were being transported to the staging area. Many of the prime movers and trailers had to be loaded on the ships first, but were also required to transport equipment and supplies to the staging area — a dispatcher's nightmare — that was resolved only through hard work and ingenuity.

Company commanders continued to check with last minute surveys and inspections. Finally the operations order was issued, which summarized the mission and the details regarding supply, construction, intelligence, command and control, and administrative matters.

All hands were further briefed by their company commanders. After six continuous days of exhausting work, each man was ready to board the ships and sail for their destination.

The simulated exercise was termed a success. The battalion has proved that it was ready and alert to redeploy upon order within specified time.

After the exercise was completed the battalion settled into performing other missions — that of construction operations at Guam and detachment sites.

Regardless, the readiness posture remains in the forefront and NMCB-40 has proven it is fulfilling its role of the Pacific Alert Battalion.



NMCB-40's equipment and rolling stock is positioned for simulated deployment to overseas site.



BREAKDOWN of small arms with complete inspection and cleaning is everyone's responsibility.





Seabees CAN manage!

By CDR C. E. FEGLEY III, CEC, USN Commanding Officer, NMCB-62 P.E. - Va.

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"SEABEES can't plan or use modern construction management methods because they can't handle the administrative paperwork."

We've heard that statement made more times than we care to recount and nothing could be further from the truth. Our senior enlisted personnel are eager to learn and adopt sound construction management techniques if shown the way, and, encouraged to do so.

The ability to plan, organize, direct and coordinate an entire construction project "efficiently" should be a prerequisite for promotion into our higher enlisted rates.

The first step in project management is organization, and at its most efficient closely parallels a civilian construction firm. NMCB-62 employs a modified project management organization that closely resembles a private contractor. The line company commanders are similar to and function as project managers; chief petty officers and top-flight E-6s are project superintendents and crew leaders are equivalent to trade foremen.

The remainder of the military company serves as a labor force to be assigned to projects without regard to specific crew specialty. Highly specialized crews, such as tex-coating or roofing, remain intact and may subcontract to other military companies.

There are normally no intermediates in the chain of command between the company commander and his project superintendents. Alfa and Bravo companies, because of their size and distinct types of work, do at times employ intermediate levels of supervision.

The assistant company commander and/or company chief are strictly staff assistants to the company commander. The rest of the company staff, material expediter and small project management staff, removes the burden of expediting, making equipment arrangements, ordering concrete deliveries, and smooth network updating from project superintendents.

The next step is training. Company commander, project superintendents and crew leaders must be trained in administrative procedures of construction management. They require training in network analysis, estimating, and material requisitioning procedures. This training is obtained from formal schools, special Seabee training courses and battalion training programs.

Ideally, the battalion knows its project assignments prior to the second month of homeport. The regiment has provided copies of each project's plans and specifications. Company project assignments are made by the operations officer, and companies name the project superintendent and crew leaders. Regardless of project size and whether it is assigned in homeport or on deployment, the same

basic planning process should be followed. Time must be allotted to complete proper planning or the consequence will be hip-pocket, day-to-day management.

Alfa and Bravo companies designate crew leaders to work as subcontractors directly with the prime contractor's (lead company's) planning staff. Senior personnel in Alfa and Bravo companies supervise the technical work of the crew leaders.

The key to successful construction management is placing total responsibility with the project superintendent and giving him the authority to perform.

Now the work begins for the project superintendent and his staff of crew leaders. First, he decides on the network logic and prepares the network in rough format (engineering aides smooth it for him). The logic is reviewed by the company commander and is approved by the operations officer. Once the superintendent has his project's activity breakdown, the remainder of the planning is developed by activity; i.e., manpower estimates, specific rating requirements, special skills, materials, construction equipment, special tools, quality control plan and safety plan.

The quality control (QC) and safety plans are submitted to inspectors and the safety chief who review, modify or approve them. NMCB-62 uses a format which incorporates both plans on one. For our Seabees whose ratings encompass so many



* Roosevelt Roads, P.R.

The move to shift the battalion started March 31st when NMCB-4 dispatched an advance party to Roosevelt Roads, Puerto Rico, to prepare for the arrival of the battalion's main body. Two weeks later, Camp Moscrip was officially turned over to CDR G.J. Bednar, CEC, USN, commanding officer of NMCB-4, by CDR W.A. Simmons, Jr., CEC, USN, commanding officer of NMCB-1.

The following week, NMCB-4 was earnestly engaged in construction work. One of the major projects is building a new commissary replacing that of 1943 vintage. Excavation for the new structure will require the removal of 38,230m3(50,000 yds3) of earth or 10,000 truck loads. The projected completion date is late 1978, and probably by that Seabee unit succeeding NMCB-4. The road near the site, Langley Drive, is being widened to four lanes for easy access to the parking lot. In other areas the road is receiving an asphalt overlay which is scheduled to be finished by NMCB-4.

Other jobs in progress include conversion of the officer's club to a petty officer's club. The basic frames are up and the concrete laid with a new extension to include a large dining room. NMCB-4 plans to finish this assignment in October.

Under renovation is an aircraft parking apron with cracked concrete slabs replaced. Deteriorated

Seabees and the Puerto Rican scene

By JO3 JOE FOUNTAIN
Naval Mobile Construction Battalion 4

joint sealer will also receive remedial treatment.

Projects inside Camp Moscrip include new buildings for special services, supply, administration, berthing, equipment repair and medical facilities. Washroom and toilet facilities will be replaced.

NMCB-4 has also deployed four other units, three in the Western Hemisphere and one, Diego Garcia, located in the Indian Ocean area.

At the base, shared with the British, work is underway to construct a pier in the lagoon. Without towns to visit during liberty hours, the men pass their off-duty time enjoying the excellent recreational facilities.

At Argentia, Newfoundland, the main assignment is to stop serious erosion along the beach. At Andros Island, in the Bahamas, work consists of extending a quaywall, building a supply-administrative building and parking lot, and completing hobby shops. Several projects are also underway to help collect and store rain water.

At Guantanamo Bay, Cuba, the work centers mainly on housing rehabilitation, and living conditions for the Seabees are extremely good. Although there is no liberty in Cuba, recreation facilities are excellent, and trips are available to Haiti.

Liberty is also fairly good in NMCB-4's construction efforts include replacement of aircraft parking apron (left) and new commissary structure.

Puerto Rico, but with considerable distance between the base and San Juan, most personnel remain at the base during the weekdays and reserve their trips for weekends.

There are many attractions in San Juan, the most famous being the old forts at El Morro and San Cristobal with wall construction dating back to the 16th century. Old San Juan, with its historic buildings and narrow streets, was once enclosed by stone walls. Portions of that wall are still standing. In most of the cities are colleges, museums and even hamburgers of golden arch fame. Most Puerto Ricans have a working knowledge of English although the main language is Spanish. Industry and business flourish.

For those who have an aversion to cities and crowded places, peace and quiet can be found in the surrounding countryside. Mountains, dairy farms, cattle, sugar cane fields, crab farms, etc., extend over the island.

In addition to the assigned construction tasks, NMCB-4 Seabees voluntarily worked on several civic action projects in the local communities. The projects include drainage work at the School for the Deaf; rehabilitation of an old peoples' home in Fajardo; and construction of a Catholic retreat house in Naguabo. The men volunteer their weekend free time to do this work showing their concern for their Puerto Rican neighbors.



