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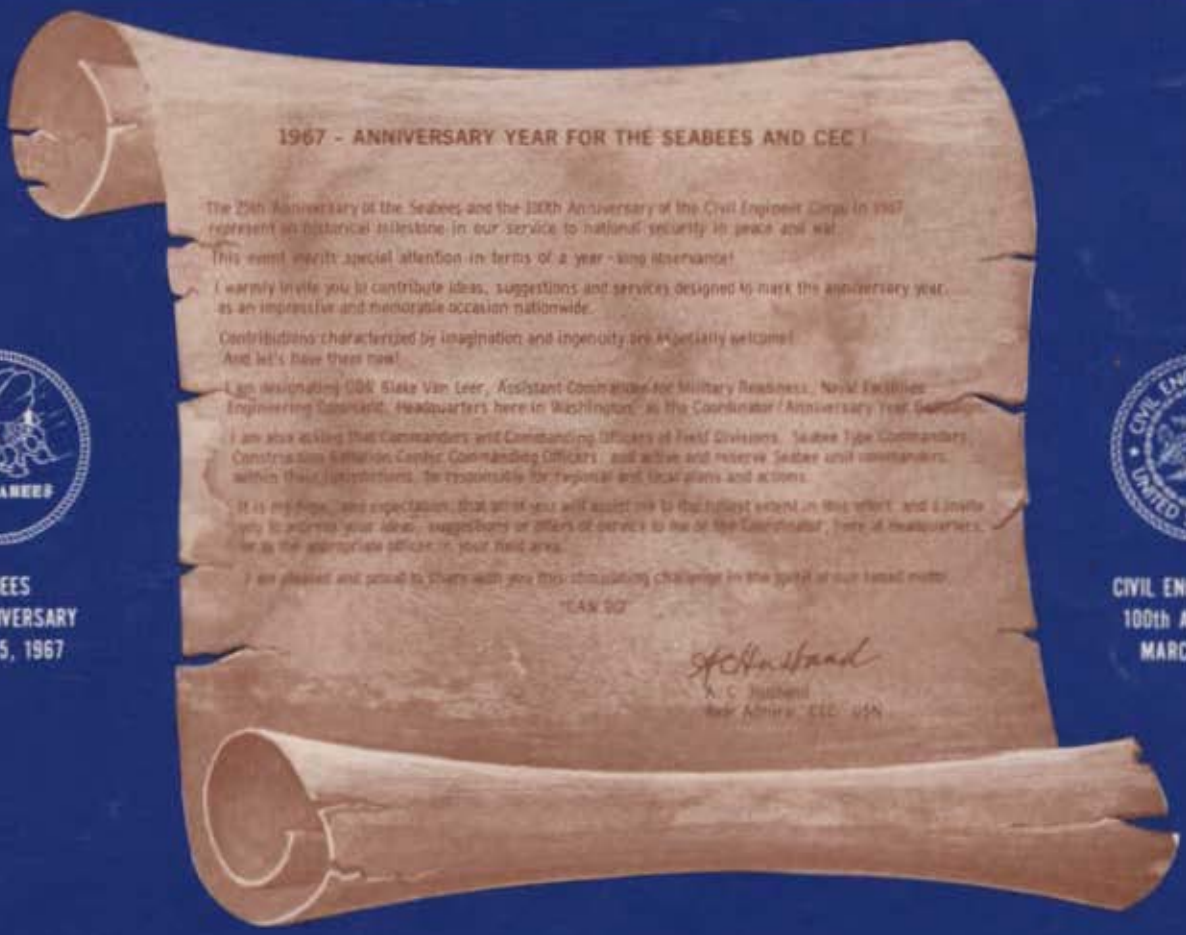
THE SEA BEE

CEC

Seabees

KOREA KWAJALEIN NORMANDY OKINAWA PHILIPPINES SALERNO TARAWA TRINIDAD TULAGI VIET NAM

VOLUME 3 - NUMBER 4 JULY - AUGUST 1966



1967 - ANNIVERSARY YEAR FOR THE SEABEES AND CEC !

The 25th Anniversary of the Seabees and the 100th Anniversary of the Civil Engineer Corps in 1967 represent an historical milestone in our service to national security in peace and war.

This event merits special attention in terms of a year-long observance!

I warmly invite you to contribute ideas, suggestions and services designed to mark this anniversary year as an impressive and memorable occasion nationwide.

Contributions characterized by imagination and ingenuity are especially welcome! And let's have them now!

I am designating CDR Blake Van Leer, Assistant Commander for Military Readiness, Naval Facilities Engineering Command, Headquarters here in Washington, as the Coordinator / Anniversary Year Events.

I am also asking that Commanders and Commanding Officers of Field Divisions, Seabee Type Commanders, Construction Battalion Center Commanding Officers, and active and reserve Seabee unit commanders within their jurisdictions, be responsible for regional and local plans and actions.

It is my hope, and expectation, that all of you will assist me to the fullest extent in this effort, and I invite you to express your ideas, suggestions or offers of service to me or the Coordinator, here at headquarters, or to the appropriate officer in your field area.

I am pleased and proud to share with you this stimulating challenge in the spirit of our based motto:

"CAN DO"

A. C. Husband
Rear Admiral, CEC, USN

SEABEES
25th ANNIVERSARY
MARCH 5, 1967

CIVIL ENGINEER CORPS
100th ANNIVERSARY
MARCH 2, 1967

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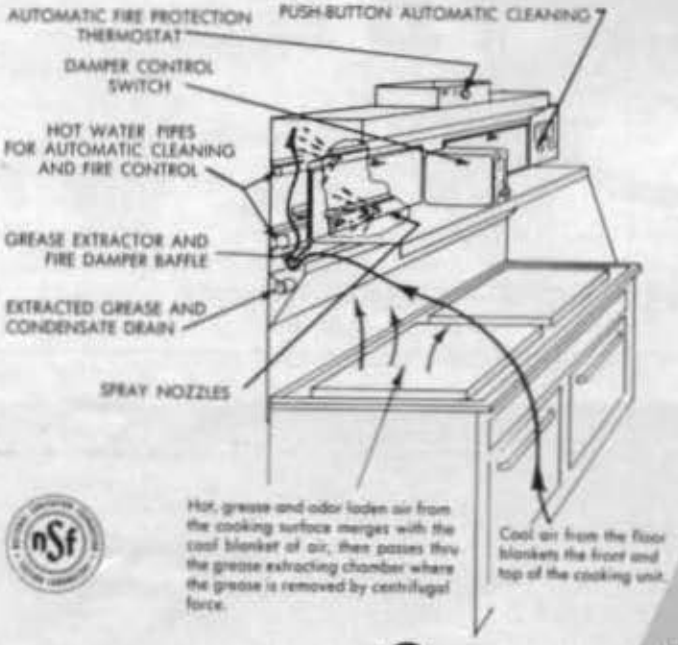

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EDITORIAL

PROGRESS—A journeying forward—To develop a higher stage. We believe that the above best describes the accomplishments of the Seabees and the Civil Engineer Corps as we prepare to celebrate throughout the entire year of 1967. One Hundred years of Progress for the Officers of the Civil Engineer Corps and twenty-five distinguished years of service for the Seabees.

No need to describe here their accomplishments, our pages have been filled with them. We hereby request that every Seabee, ex-Seabee, Seabee Reservist, and Civil Engineer Corps Officer, join in the year long activities planned by the various organizations and offer his services to make these birthdays a huge success: to join with the Chief of Civil Engineers in carrying out his Proclamation.

'THE SEABEE VERSE'

It was a hundred and five in the shade you know,
When I heard a tune on the radio.
Some poor Sgt. trying to earn his pay
Sang a funny song about a green Beret.

I plopped right down in a pool of sweat
Took a little time for a cigarette.

I got to wondering while here I sat
What the hell the Army sees in that goddam Hat

I've been known to spin yarns, I've told tales of woe
About the fighting Seabees, But—never that Gung-Ho

We appreciate the Wonders you Army fellows do
Our whole Construction Crew.

Just send us your blueprints, tell us your desires
Don't—spare the details, We Seabees never tire.

Guns and tools both on hand, We take to each plight
We—usually finish immediately, Sometimes to stop and fight.

Now we'll build you a Village, a place to lay your head
A place to call on nature, out behind the shed.

If we don't get shot down, while laying the welcome mat
You'll even find a coat tree; on which to hang that Goddam hat!

I can't run your business, I know you have your strife
But really Sarge, you worry me. Don't mess up your poor kids life
You fill his head with weird thoughts. About wings upon his Chest—
Good Lord, don't you think he'd be happier—With better than the best?

Let him build his own future, Sarge—Greeting his own liberties—
Tell him to find real glory, Sarge
Fighting with the Seabees.

I guess my time is over now, It's back to work I go
For accomplishments I wish I had—A Green Beret to Show!!!!!

SEABEE VETERANS

CBMU 529 Reunion will be held September 2-3, 1966 at the LaSa'le Hotel, Chicago, Illinois. Write to: JOHN BRISKI, 2749 WEST 83rd PLACE, CHICAGO, ILLINOIS 60652. PHONE 476-7967.

ATTENTION 105th NCB-WWII VETS

Mr. Wayne W. Linton has requested that all members of the 105th NCB-WWII, contact him to bring the 105th NCB roster up to date.
Please write to:
Mr. Wayne W. Linton
448 Colford Avenue
West Chicago, Illinois 60185

THE SEA BEE

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The UNITED STATES NAVY SEABEES
Warmly thank the NATIONAL OBSERVER
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THE NATIONAL OBSERVER

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From Iwo to Da Nang; Continuing Seabee Saga

With Their Old Friends, the Marines, They Battle Enemy While Building Bases

The admiral just dropped around to chat the other night.
Said he, 'Now boys you're here to work, but you've been trained to fight.
So if there's any trouble, don't stop to put on your jeans . . .
Just drop your tools and grab your guns—and protect those poor Marines!'

—Old Seabee Song

DA NANG, SOUTH VIETNAM.

Not long ago, some grimy, shirtless Seabees here were carving a road through dense jungle growth near the crest of Monkey Mountain, a sheer 2,000-foot peak named for the outsized baboons who prowl its flanks, along with Viet Cong probers. It was 130 degrees Fahrenheit in the baking sun, and perspiration was streaming from the Seabees' salt-caked backs. Their weapons, as always, were close at hand. A crudely lettered sign, propped beside a rock crusher, read: "Your tax dollars at work. This road built by the Seabees for the convenience and comfort of the United States Marines."

Suddenly a shiny clean Huey helicopter swooped down in their midst in a swirl of hot dust. Out stepped Lieut. Gen. **Victor H. KRULAK**, commander of the Fleet Marine Force, Pacific, who had come to inspect the Hawk antiaircraft batteries on the mountain and to check on the road's progress.

After a quick briefing, the general singled out a young Seabee on the edge of the group and asked with a straight face: 'How do you tell these Seabees from the baboons?"

"No problem, sir," the Seabee shot back. "The Seabees are smoking cigars."

The general looked around him: Every Seabee in sight was smoking a cigar. The general smiled, climbed into his Huey and was gone.

'Rough, Tough, Loyal'

The young man's insouciance was in the best Seabee tradition. During the second World War, Rear Adm. **O. O. "Scrappy" KESSING** said of the Seabees: 'They're a rough, tough, loyal, efficient bunch of men who don't give a damn for anything but doing the job and getting the war over."

The same can be said of the 5,000 Seabees here in South Vietnam who have been quietly building a reputation as hard workers and hard fighters (one Seabee has been nominated for the Medal of Honor); for being, like their forerunners, masters of improvisation and "scroungers" of materials and equipment to get the job done.

Seabee enlisted men are members of the U.S. Navy's Mobile Construction Battalions or "MCBs," of which there are seven in South Vietnam: Four here in Da Nang, two in Chu Lai, and one in Phu Bai. There are also a number of Seabee technical assistance teams — "the Navy's Peace Corps" — composed of one officer and 12 enlisted men, working in isolated hamlets, building bridges, digging wells, training the villagers in construction techniques, and carrying out other civic-action programs.

These Mobile Construction Battalions are self-sufficient units geared to move at a moment's notice. They contain their own medics, paymasters, chaplains, and the like; they carry their own light construction equipment and weaponry.

The Primary Job

Once the battalion reaches a job site, they dig and man their own bunkers, they patrol, and fight beside other U.S. troops when the occasion calls. Their primary mission, however, is to **build**: Air strips, piers, cantonments, roads, field hospitals, covered storage areas.

Each Seabee — be he steamfitter, steel worker, "construction stiff," plumber — must undergo Marine combat training so that he can, if he must, fight to protect what he builds. Partly because of this, the Seabee enlisted man more closely resembles the U.S. Marine than he does his counterpart in the fleet Navy. Then again, the Seabees' comradeship with the Marines has deep roots, stemming back to the violent island battles of the South Pacific during the last World War. Theirs is an enthusiastic mutual admiration society.

Early in May of 1965, Seabees landed with the Marines on the blinding hot sands south of here, at a spot the Marines were to name Chu Lai. Working night and day, the Seabees laid down a tactical airstrip of aluminum planking. Within three weeks, Marine fighter planes were whistling down the metal runway, screaming into the air just above the heads of Seabees toiling at the far end.

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Because dysentery is such a serious problem, the Marines try to establish, whenever possible, temporary cement-floored mess facilities, even in the midst of search-and-clear operations. Consequently, the Seabees often find themselves building these pedestrian structures while fire fights rage all around them.

A few weeks ago, a group of Seabees volunteered for such an assignment in the foothills north of Chu Lai where the 1st Battalion, 5th Marines, was heavily engaged with the enemy.

'Everything Was Going Off'

'Our second morning on the job, the Marines trapped 200 Viet Cong on the far side of the hill where we were building the galley," recalls **Bill HAVEN,** a Seabee builder first class. "From 8:30 till noon, everything was going off: Mortars, recoilless rifles, howitzers. I had trouble with the men — they kept wanting to lay down their hammers and get in the action."

Haven is a 21-year Seabee veteran from B'uefield, Va., with a chiseled face turned black-tan by the sun. Yet even for the likes of Haven, the heat was almost unbearable on top of the tin-roofed structure at high noon.

"We took dozens of salt tablets all day long and every night our backs were white with salt crust."

Ensign **John WILKINSON** tells of leading a Seabee work gang to repair an eroding air strip at Kham Duc, a U.S. Army Special Forces camp 60 miles west of Chu Lai, near the Laotian border.

"I had read every word of **The Green Berets,"** said the spirited young officer, "and Kham Duc was it in every detail: A triangular-shaped fort with sandbagged walls nestled in a little valley high up in the mountains with peaks sticking up on all sides.

"We dug in with some Nung guards outside the main camp. It was foggy for the first few hours every morning and it was rather hairy out there when there was firing. In order to get sand for the runway, we had to drive down the mountainside to a stream bed. First we put out guards in the bushes all the way down. Then we'd race down, load the sand as fast as we could, and come flying back up."

Ensign Wilkinson and his men completed the job in three weeks, digging mortar pits and extra-deep bunkers for the Special Forces' men in what little spare time they had.

In March of last year, there were 500 U.S. Marines in South Vietnam, controlling an eight-square-mile region around the airstrip here. Today the more than 50,000 Marines of Gen **Lewis WALT's** 3rd Amphibious Force control hundreds of square miles, including the mass of the population that lives along the coast. To support these men, four Seabee battalions of Capt. **Nelson R. "Andy" ANDERSON'S** 30th Naval Construction Regiment (plus private contractors) are fast transforming the port of Da Nang.

The U.S. Naval Support Activity, a logistical unit, will spend nearly $100,000,000 in Da Nang this year, dredging three deep-water piers, constructing LST ramps in the Tourane River, buiding acre upon acre of Butler building covered storage areas.

You find Seabees everywhere you look, involved in an infinite variety of jobs. At the base of a high, bunker-laced hill, which gets constant Viet Cong attention on the far side, Seabees are building a 6,000-man amphitheater, a 1,000-man motion picture theater, an enormous swimming pool, Post Exchange, and other recreational facilities for the Marines fighting nearby. The Seabees have built a 400-bed air-conditioned field hospital, Butler buildings, mess halls, 'hard-back" tents by the hundreds, LST piers.

The Nighty Forays

Chief Petty Officer **Claire HAZEN, Jr.,** of Mobile Construction Battalion 10, was working last week with a group of men in one of the hottest spots hereabouts, headquarters of 2nd Battalion, 9th Marine Regiment, which sits in a patch of woods 13 miles south of Da Nang.

Every night the Viet Cong slip in and mine the dusty dirt road that winds from Route 1 to the headquarters. And every morning, the Marines sweep the road and dig out the mines. Even so, mines have blown up two trucks and a generator, and partially disabled a tank in recent weeks.

The headquarters area is a nasty-looking place, pocked with holes leading to underground tunnels that were once used by the Viet Cong. When the Marines took possession, they removed six booby traps, and the men still move cautiously down the center of the paths.

Two huge Marine tanks stand a quarter-mile away along another woodline, their barrels facing a sweep of open fields where most of the Viet Cong harassment has been coming from. Yet there they were the other afternoon: Hazen and his men, hammering and sawing away in the bright sunshine, constructing tropical huts, shower facilities, and a mess hall, creating a little enclave of sanity and permanence for the Marines.

"As soon as we get the floors down," Hazen noted with satisfaction, "the Marines move in off the ground; they don't wait for us to get the roofs on."

'Subject to Sniper Fire'

Chief Hazen and his men live in tents, with slit trenches nearby, into which they dive when sniper fire gets intense. "We are subject to sniper fire all the time," he says. "The Marines are making a big sweep."

Lieut. Col. **William F. DONAHUE,** the Virginian who commands the Marine unit, relaxed on a makeshift chair in the old stone house that serves as his HQ. He was wearing a T-shirt and fatigue trousers. In one corner, a creaky old fan stirred up the muggy air.

"Each of these hamlets around here, I'd say, has 2 or 3 or maybe 10 or 12 Viet Cong," said the colonel. "We just killed seven of them today. How do we know they are Viet Cong? The only way we can tell they're VC is if they commit a hostile act. When they shoot at us, we consider that a hostile act. In the daytime, we give them the first shot."

The colonel, an unsmiling, serious man, turned toward Chief Hazen. "The Seabees are doing a fabulous job for us. No other way to describe it."

Chief Hazen, mightily pleased, went back to work.

Another Seabee unit, Mobile Construction Battalion 1, which occupies a beautiful white sand beach on Da Nang Bay, has had some interesting times lately. By day they work, by night they man the bunkers and watch towers that ring their compound. Today's Seabees are far younger than their forerunners in the last war — they average about 23 years of age — and some of the Seabees in these bunkers must still be in their teens.

Ready for an Attack

Just about every night, the Marines' "Whiskey" and "Kilo" artillery batteries nearby shell the ridgeline of an adjoining mountain. Flares arc through the air. On the crest of one of the hills last week camped a gang of Seabees from MCB 1, there to build a Hawk missile site for the

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Marines. The two Marine batteries have them bracketed so that they can have immediate fire support in event of a Viet Cong attack.

The other day, the men of MCB 1 witnessed a characteristically ghastly little incident of Viet Cong terrorism. Seabee Lieut. **Frank ADKINS** describes it this way:

"About 3:30 a.m., we heard explosions in the trash dump outside the gates where there are one or two pieces of equipment. Three ARVN soldiers were living out there in a tent with a 17-year-old mentally retarded boy.

"The Cong slipped out of the hills, caught the four guys sleeping, and threw grenades under their cots. The blast killed them all, throwing one through the air, his undersides torn out.

"We found the 17-year-old about eight paces outside the tent, lying face down in the mud. His elbow looked as though a meat cleaver had carved it off.

"One of the ARVN had taken grenade fragments in the head and chest. He had four separate holes in his forehead — as though someone had driven them with a ball-point pen.

"It had been raining, and when we reached them, the blood had collected in a concave section of tin; it was dripping like a pink waterfall. The first of our guys to reach the scene got sick. There were four dud Chinese grenades lying about. It all happened so quickly. The VC got away."

Help for the Villagers

The Seabees cannot figure out the Viet Cong's reasoning. Except that the Seabees and the Marines have grown close to the people in the local villages through their civic-action programs. The Marines are treating the villagers for bubonic plague, which is nearing epidemic proportions. The Seabee doctor and dentist of MCB 1 also take care of the local people, and the South Vietnamese appear to appreciate it. Perhaps the Viet Cong were trying to tell the villagers something.

Every morning a little South Vietnamese boy and his sister join a bunch of other children by the camp wire fence to ask for candy and food, and to joke with the Seabees. "Their left hands were cut off by the Viet Cong," says Lieutenant Adkins, "because their parents refused to pay their 'taxes.'"

For all their hard work, the occasional grisly little vignettes of terror and suffering they witness, and their moments under fire, the Seabees' spirit is high. Which is even more remarkable when you consider that, as yet, they have no recreational facilities: Da Nang has been off-limits for months.

One night last week, a group of MCB 1 chief petty officers got together in a tent beside the beach and broke out a few cases of beer.

Most of them were in their late 40s or mid-50s. (MCB 1 boasts one enlisted man, **Ray C. "Pappy" CRITTENDON,** a Negro from Richmond, Va., who is 66 years old, and a great-grandfather. He was 42 years old when he first joined the Seabees in 1942.) There was **Elbert "Boom Boom" SCHLOESSER,** a bearded, wisecracking man whose nickname derives from the fact that he, like Captain Anderson, was an underwater demolition man during the last war, and explosives are the love of his life. There was **Bob TEEL** and his monkey "Sam," who is quite a character in his own right. Sam bares his teeth angrily at everyone but Teel; he smokes cigarets and laps up warm beer.

Time to Sing

There was **Joe "Doc" CASSIDY,** a medical corpsman, and half a dozen others. And they sang songs with verses like: "Oh mother dear, won't you write our congressman and get me out of this . . . ," and other songs whose words don't bear repeating.

On a recent Sunday morning, Captain Anderson drove me up Monkey Mountain in his Jeep. The captain is wise and he has seen a lot of war. I asked him how this particular war was going. His answer surprised me.

"If you want my personal opinion, which is all I can give you — I'm not sure we haven't already won it. You know the British had it won in Malaya two years before they realized it. Nobody comes out of the bushes to tell you they're licked, you know. Now the situation could change overnight, like it did in Korea. But I'm not convinced that we can't starve 'em out of the woods."

Then his sharp eye caught something of more immediate moment — a rock crusher by the side of the road that had broken down. Like his Seabees, that rock crusher is supposed to be operating seven days a week. Some one would doubtless get a rocket from the captain in the morning for not having it repaired.

It's to be hoped that the Viet Cong, peering through their binoculars at Captain Anderson's men hard at work, sometimes get discouraged. If they don't, they should.

—Peter T. Chew

The SEABEE TRADITION

BY LCDR W. D. MIDDLETON

THE NAVY'S Seabees were less than six months old when their first unit came under fire early in World War II. Only three weeks after the Marines assaulted the beaches of Guadalcanal in August 1942, Seabees of the Sixth Naval Construction Battalion followed them ashore to begin the difficult job of converting a muddy former Japanese landing strip at Henderson Field into an all-weather airfield capable of supporting anything from fighter aircraft to Army B-17's.

The construction job was tough enough, but to make matters worse Henderson Field was under almost constant attack by Japanese artillery and aircraft, and great craters were torn in the airfield every time a bomb or shell scored a hit. As if all this didn't give them enough to do, the Seabees had to be ready to take up positions in the defensive perimeter in the event of Japanese landing against the narrow beachhead.

Typical of Seabee ingenuity at Guadalcanal were the "crater crews" that rushed to repair the damage after every hit on the airfield. Quickly learning from experience, the Seabees stockpiled Marston matting (the pierced steel planking used to surface the field) along the runway in bundles sufficient to repair an average sized hole. Construction equipment and trucks, already loaded with enough sand and gravel to fill a bomb or shell crater, were placed under cover at strategic points along the runway.

Whenever Japanese bombers approached or artillery opened up, the Seabee "crater crews" raced from their foxholes, tore away damaged matting, backfilled the craters, and quickly laid down new matting. Before long the Seabees were doing the job so rapidly that forty minutes after a bomb or shell fell it was impossible to tell that the airfield had ever been hit.

Throughout the three-month battle for Guadalcanal the Seabees performed construction miracles to expand Henderson Field and to keep it open, at one time continuing work even when Japanese troops had pushed the Marine front line to within 150 feet of the field. During one particularly fierce attack, the Japanese put no less than 53 bomb and shell holes in the airfield during a 48-hour period.

But despite the worst efforts of the enemy forces, the Seabees were able to keep Henderson Field open throughout the bitter campaign, and their success in keeping Marine fighter planes in the air played no small part in the eventual U. S. victory at Guadalcanal. Thus was begun the Seabee "Can Do" tradition of World War II.

SEABEES AND MARINES

One of the earliest traditions developed by the Seabees of World War II was an unusually close comradeship with the United States Marines. Although they fought and built almost everywhere in the global conflict, and worked with Army troops and fleet sailors as well as Marines, the Seabees' greatest contribution to World War II victory was the role they shared with Marines in the bitter island-hopping war in the Pacific.

Based upon mutual respect and shared hardships, the Seabee-Marine fellowship was born as early as 1942, when Marines and Seabees worked and fought side-by-side throughout the bloody battle to hold the Guadalcanal beachhead and to keep the Henderson Field airstrip open to Marine fighters and Army bombers. In this and later Pacific campaigns the Seabees learned to admire the Marines' unsurpassed skill as professional fighting men, and the Marines became equally impressed with Seabee skill as professional builders.

As often as not this Seabee-Marine mutual esteem was expressed in good-natured jokes at each other's expense. Recruited largely from the ranks of skilled construction workers, the average Seabee was ten years or more older than the typical Marine. Soon after the first Seabees came ashore at Guadalcanal the Marines were joking, "Never hit a Seabee, he might be some Marine's father." The Seabees quickly retaliated by manufacturing "Junior Seabee" badges, which they awarded to deserving Marines. And the Seabees liked to claim, "Marines only capture territory; it's the Seabees who improve territory."

In a classic piece of one-upmanship on one occasion during the Pacific campaign, the Seabees managed to best the Marines' proud boast of always getting places first. At New Georgia in July of 1943 a detachment of Marines charged ashore from landing craft in a dawn assault and rushed up the beach looking for Japanese troops, only to be greeted by a party of Seabees that had already landed on the enemy-held island to make a reconnaissance for an airfield site.

The close relationship that grew up between Marines and Seabees during World War II has continued throughout the postwar years. As they have ever since the formation of the first construction battalions 24 years ago, Marines still guide and assist Seabees in learning their necessary fighting skills. Much of the Seabee construction effort since the end of the war has been devoted to Marine Corps facilities. And today, in the Republic of Vietnam, the Seabees are devoting almost their entire effort to the construction of advance base facilities to support the operations of the Third Marine Amphibious Corps.

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SEABEE INGENUITY

One of the earliest Seabee traditions to emerge during World War II was the almost legendary ability of a Seabee to improvise. Hastily formed and rushed into the war, the early construction battalions were nowhere near as well equipped as the present-day battalions. Frequently, too, supplies of construction materials and spare parts were insufficient for the job at hand. None of this, however, deterred the resourceful Seabees from getting the job done.

Early in the Solomons campaign, for example, the 15th Construction Battalion was handicapped by a lack of machine tools. A Seabee warrant officer, who had been a machinery salesman before the war, set out on a trip to New Zealand, where he successfully repurchased equipment from his former customers, and the Seabees soon had a well equipped machine shop. More equipment was scrounged from the aircraft carrier Enterprise in return for repair jobs. Before long the Seabees were taking in repair work from the Army and Marines, and were even repairing airplanes.

Lacking a replacement for a blown out bulldozer head gasket, Seabees in the Ellice Islands fashioned a replacement from thin sheets of metal and paper, and quickly put the 'dozer back into service. A Seabee chief on Samoa manufactured a replacement condenser out of waxed paper, tinfoil from cigarette packages, and an old beer can in order to keep one piece of equipment operating. On Guadalcanal another Seabee petty officer kept captured Japanese trucks in operation by improvising replacement radiators out of metal ammo boxes, a method that was soon being used all over the Pacific. Other Seabees learned how to keep tractors running by mounting fuel drums in place of smashed radiators.

The 55-gallon fuel drum, as a matter of fact, proved to be one of the most useful of Seabee construction materials. With the ends cut out and welded together, thousands of drums were converted into culverts. Split down the side and flattened, they made excellent roofing material. One group of Seabees even manufactured a sightseeing canoe from fuel drums.

Worn out tires that would no longer hold inner tubes were kept in service by filling them with a mixture of palm tree sawdust and cement. Beer and Coke bottles were used as insulators for power and telephone lines. Seabees learned how to make replacement watch crystals out of plexiglass from wrecked planes, devised a method of welding broken dental plates with a mixture of ground rubber and cement, and one Seabee machinist even manufactured a pair of silver stars from two quarters for a newly promoted general. Other Seabees made extra money during off-duty hours by manufacturing fake Japanese battle souvenirs and native jewelry for sale to gullible new arrivals.

Perhaps the best-known of all stories of Seabee ingenuity, however, is that of a first class petty officer named **Aurelio TASSONE**, who converted a bulldozer into a piece of combat equipment during the Treasury Islands campaign in 1943. Coming ashore on his bulldozer, Tassone found that a Japanese pillbox was holding up the advance. While a Seabee lieutenant provided covering fire with a carbine, Tassone raised his blade as a shield against enemy fire and advanced on the pillbox. At the last minute Tassone dropped the blade and demolished the emplacement.

SEABEES' MAGIC BOX

Probably the least glamorous in appearance of all the new "weapons" that helped the U.S. to win World War II was the lowly steel pontoon — the Seabees' "magic box" — that became an indispensable tool of a hundred purposes for the U.S. Navy's mighty amphibious forces.

Civil Engineer Corps planning as early as 1936 had forseen a need for a variety of barges, small yard craft, and other miscellaneous floating equipment in the event of a major amphibious war in the Pacific. By 1940 a CEC captain, **John N. LAYCOCK**, had set to work in earnest developing his ideas for a standardized steel pontoon that could be assembled into an almost endless variety of floating equipment. By early 1941 the first experimental pontoons had been successfully tested and soon thousands of them were in production.

The basic pontoon was little more than a steel box five by seven by five feet. The real key to its versatility was the system of heavy steel angles and special hardware, or "jewelry," developed by CAPT Laycock which permitted the pontoons to be assembled in a wide variety of arrangements. Strings of pontoons were assembled for use as barges or piers, and with the addition of a specially developed outboard propulsion unit, the amphibious Seabees had a self-propelled barge or warping tug for work around a harbor or beachhead. Cranes, pile drivers, dredges, and almost any other kind of equipment for waterfront work could be mounted on a pontoon barge. Arranged as a barge with pontoon walls on each side, and equipped with the necessary piping and pumping equipment, a batch of pontoons could be assembled as a floating drydock for PT boats and other small craft.

Seabees, of course, found many more uses for the versatile pontoons than those envisioned by its designers. Many saw service as fuel and water tanks, and a pontoon with the addition of a little piping could be mounted on a flat bed truck to make a water distributor. With the addition of a door a pontoon made a fine paint or gear locker. A Seabee cook in the Russell Islands even converted a pair of the pontoons into an oven and grill.

The pontoon really came into its own, however, in the Allies' 1943 landings in Sicily. The Navy's versatile LST had been designed to approach a steeply sloping beach, drop its ramp, and disgorge its load of tanks and other vehicles directly onto the shore. Since they assumed the LST's and other large landing craft couldn't get close enough to make a landing on the shallow sloping beaches along much of the southern shore of Sicily, the Germans had installed only relatively light defenses.

The ingenious CAPT Laycock, however, had aready gone to work on a new use for his versatile pontoons. Special hardware and fittings were devised that permitted assembly of the pontoons in long two-pontoon wide causeway sections, which were hung on the sides of the LST's. As the landing ships approached the shore the causeway sections were cut loose, dropped into the water, and their momentum carried them into the beach. The intrepid amphibious Seabee crews that rode the pontoons quickly connected the causeway sections, the LST's were "married" to the outer end, and in a matter of minutes vehicles were rolling ashore.

First used in the Sicily landings, where causeways over 300 feet long were employed to land Allied forces where they weren't expected, the new pontoon adaptation was a major factor in the success of the operation, and for the remainder of the war the LST-pontoon causeway combination was used in almost every major amphibious assault.

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Even today, a quarter of a century after its development, the versatile pontoon remains as a workhorse of the amphibious Seabees. Only last May, when MCB-10 and Marine Corps forces landed at Chu Lai, Republic of Vietnam, their equipment and supplies went ashore over the familiar pontoon causeways.

"RHINOS" IN OPERATION OVERLORD

Among the difficult problems faced by planners of "Operation Overlord," the great Allied invasion of Normandy in 1944, was one presented by the character of the beaches where the landings were to take place. At both Utah Beach and Omaha Beach, where the U.S. forces were to land, the slope of the beaches was unusually flat, and the water line moved up or down the beach a half mile or more as the tide rose or fell. Just off the shore and running parallel to the beach, sandbars —whose position shifted constantly with the tide or storm conditions— presented still another problem.

Because of these positions, it would have been almost impossible to use LST's or other amphibious craft in the usual manner. Landings could have been made at high tide, but unless the vessels were quickly unloaded, the rapidly receding tide might leave them stranded high and dry on the beach, exposed to German attack until the tide came back and refloated them. If landings were made at low tide the vessels would ground on the sandbars, leaving troops and vehicles with deep water between them and the shore. Even if they were able to get past this obstacle, the inrushing tide might overtake them before they could get all the way up the beach.

Under these conditions even the Seabees' famous pontoon causeways, first used the year before in Sicily, would have been unable to bridge the gap between ships and shore. The Civil Engineer Corps' CAPT. John Laycock, who had originally developed both the pontoons themselves and the pontoon causeways, quickly came up with still another variation of the Seabees' "magic box" to solve the problem of the Normandy beaches.

One hundred-eighty of the pontoons were assembled into a huge ferry barge, six pontoons wide and thirty pontoons long, powered by two of the large outboard motors developed for use with smaller pontoon barges. A specially developed loading and unloading ramp was placed at one end. Big enough to take half an LST load of supplies and equipment, the pontoon ferries were designed to "marry" an LST safely anchored in deep water. As soon as the ferry was loaded it cast off and headed for the beach under its own power. With its shallow draft the pontoon ferry could easily get over the treacherous sandbars to the beach. Only two trips were needed to unload an LST, and then the ferry proceeded to unload another ship.

To a naval aviator, who happened to fly over one of the first experimental models at Quonset, R.I., the Seabees' pontoon ferry looked more like a rhinoceros than anything else, so before long, "rhino ferry" became their unofficial name.

As the great Normandy invasion grew nearer, Seabees of the 81st and 111th Construction Battalions worked in British shipyards to assemble their rhino ferry fleet, and as soon as they were completed, they took them to sea to practice the tricky job of "marrying" them to LSTs and transferring cargo.

On June 5, 1944, the day before D-Day in Normandy, the rhino ferries and their Seabee crews headed out to sea for the journey to France, each of them on a 300-foot towline behind an LST. Early on D-Day morning the LSTs and the rhinos were off the beaches at Omaha and Utah. Unexpected heavy seas made the task of joining the ferries to the LSTs almost impossible, but after several hours of effort the job was finally completed and the rhinos were on the way to the beaches. It was close to noon before the first rhinos reached the beaches, only to discover that the Germans had planted mines and obstacles all along the beaches that made it almost impossible to land. A few got ashore that day, but many of the Seabee crews had to wait offshore with their ferries for a day and a half or more before demolition teams were able to clear the beaches so they could land.

Throughout the first days of the Normandy invasion, despite the hazards of severe weather, mines, and German gunfire, the Seabees and their rhino ferries shuttled between the invasion fleet and the beaches, landing thousands of trucks, tanks, and other vehicles, and tons of the supplies that sustained the American armies ashore.

Removal of coral "heads" from the runway sites and quarrying of coral for runway surfacing consumed an average of 12 tons of dynamite and 4,800 blasting caps a day. Maintenance crews worked around the clock to keep equipment going despite the ravages of coral dust that wore out moving parts in a fraction of the usual time. Twenty-four welding crews were required just to repair the damage done to power shovels, bulldozers and scrapers by the hard coral.

Except for one runway, which took 73 days to build, none of the B-29 runways took over 53 days to complete, and the entire base was completed in less than a year. Only a few months after the Seabees first started work the Army's B-29 fleet began striking at Japan from the Tinian base. The biggest Seabee job of the war had played a vital part in launching the great bombing raids that speeded victory in the Pacific War.

CUBI POINT

By far the largest peacetime job ever undertaken by the Navy's Seabees was the construction of a major base for the U.S. Seventh Fleet at Cubi Point, on Subic Bay in the Philippine Islands. Required to support the growing U.S. commitments in the Far East, the Cubi Point base was started at the height of the Korean War in 1951.

Overall direction of the project was in the hands of the 30th Naval Construction Regiment, which was set up at Cubi in September 1951. During the next two years the arrival of Mobile Construction Battalions 2, 3, 5, 9 and 11 brought the Cubi Point construction force to a total of some 3,000 Seabees.

Working as many as three shifts a day, six days a week, the Seabees spent five years converting Cubi Point's jungle and mountains into a modern base for Seventh Fleet carriers. Huge trees, sometimes as much as a hundred and fifty feet tall and six to eight feet in diameter had to be blasted out of the way; swamps filled, and even a native village relocated.

A huge hill was removed and Cubi Point itself widened to accomodate the base's airfield. One battalion was given the task of removing 85 feet from the top of a mountain to provide a safe approach to the runway. Over 200,000 cubic yards of rock and earth were moved in the process.

THE GREAT B-29 BASE ON TINIAN

By the summer of 1944, advancing U.S. Forces in the Pacific War against Japan had reached the Marianas Islands, 4,000 miles west of Hawaii and less than 2,000 miles from Japan itself. On June 15, the Marines hit the beaches at Saipan. On July 21, they began the invasion of Guam,

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and only three days later the same Marines that had taken Saipan were swarming ashore on Tinian.

Even before the Marines had officially secured Tinian, Seabees began landing to work on their biggest single job of the entire war—constructing the world's largest air base for the Army Air Corps' B-29 "Superfortress" bombers that would soon begin carrying the war to the Japanese homeland. Tinian, 12 miles long, six miles wide, and fairly flat, provided a good airfield site that placed the new B-29's within range of Japan for the first time.

To support the huge B-29 fleet that was to operate from Tinian the Seabees built six runways, each a mile and a half long. Four were built at North Field, together with 11 miles of connecting taxiway and hardstands for 265 planes. At West Field, an 18-mile taxiway network and 361 hardstands were built to support the remaining two bomber runways, as well as two smaller airstrips. In addition to the airfield facilities themselves, the Seabees constructed nearly a thousand buildings, miles of roads, fuel and ammunition storage, and utility systems for the Tinian base.

To carry out the huge construction task, the Navy organized the Sixth Construction Brigade, made up of three Construction Regiments, each of which in turn was made up of several battalions. Altogether some 15,000 Seabees were involved in the Tinian work. The fleet of well over 1,500 pieces of heavy construction equipment assembled for the job included almost 800 trucks, 173 scrapers, 160 tractors and bulldozers, 60 graders, and 80 power shovels.

Working in two ten-hour shifts daily, the Seabees built the world's largest air base in record time. Although much of the terrain was reasonably level, in places the bomber runways required cuts as deep as 15 feet and fills 30 to 40 feet high. By the time the job was done the Seabees had moved more than 11 million cubic yards of earth and coral.

Once the airfield was done the Seabees built roads, piers, shops, ammunition storage, and barracks to complete the base. By the time the great project was done it was estimated that 20 million manhours of Seabee labor had gone into the building of the Cubi Point base, and that a greater volume of earth had been moved than in the digging of the Panama Canal.

At Cubi Point the Seabees built a major new base for the Navy, but perhaps even more important the project provided a priceless opportunity to develop construction skills and leadership qualities in a whole new postwar generation of Seabees. Hundreds of Seabees who first learned their skills at Cubi Point still serve on active duty. Now senior petty officers and chief petty officers, they provide the indispensable background of experience needed to guide and train the young Seabees of the 1960's.

SEABEES ON THE ICE

This year's 1966-67 Operation Deep Freeze marks the beginning of a second decade of Seabee participation in the continuing U.S. program of scientific study and exploration of the Antarctic continent.

Seabees first landed on Antarctica in 1947 as part of the Navy's Operation High Jump expedition led by RADM **Richard E. BYRD.** Seabee work in this first post-World War II Antarctic expedition included unloading of supplies and equipment and the construction of new facilities near Byrd's 1939-40 Little America base.

Although Operation High Jump lasted only a few months, the Seabees and the Navy returned to the ice to stay in 1955 when the U.S. began constructing permanent scientific outposts in the Antarctic. The Seabees of the first Operation Deep Freeze, as it was called, were part of the newly formed Mobile Construction Battalion (Special) organized at Davisville, Rhode Island and specially trained in cold weather operations. Their Deep Freeze mission included hauling of supplies by tractor and sled across the ice, construction of camp facilities at Little America and McMurdo Station, and construction of a ski-plane airstrip on the ice of McMurdo Sound.

Among a "wintering over" party from the first Deep Freeze II, were nearly 200 Seabees, whose tasks included support of the scientific program and construction of a 6,000 foot ice runway on McMurdo Sound. Working throughout the Antarctic winter in temperatures that often fell to 65 degrees or more below zero, and despite a fierce three-day blizzard that once destroyed the entre project, the Seabees had the new runway ready for arrival of a Deep Freeze II advance party by air from New Zealand in October 1956.

Before the end of October, RADM **DUFEK,** Commander of Deep Freeze II, took off from the Seabees' ice runway to become the first explorer ever to land at the South Pole by plane. A few weeks later, Seabees, sled dogs, construction materials, and equipment followed the admiral to the Pole to commence construction of a permanent camp at South Pole Station.

In the nearly ten years since the first Deep Freeze expeditions, thousands of Seabees have continued to work at Antarctica, building roads, runways and buildings at the American stations on the frozen continent.

In 1962, a milestone in the use of nuclear energy was achieved when the first of several nuclear reactors began to produce electric power and heat, and to distill fresh water, at McMurdo Station. Operating the reactors were crews made up largely of specially trained Seabees.

Although the climatic environment and much of the materials and equipment they work with have been far different from those normally encountered by Seabees, their traditional qualities of ingenuity, skill, energy, and endurance have enabled the Navy's Seabees to establish a distinguished, and still growing, reputation for their many achievements on the Antarctic ice.

SEABEE TEAMS

An important new part of the Seabee tradition in recent years has been the several types of Seabee Teams, which have proven a valuable addition to U.S. programs aimed at strengthening the free world by helping the people of underdeveloped nations help themselves.

Utilizing the construction skills of carefully selected men, Seabee Teams have been deployed to locations as widespread as Southeast Asia, South America and Africa, where their skills have been employed in a wide variety of "civic action" construction missions aimed at improving the living conditions of the people of other nations.

Even more important than the work they have done themselves, the Seabee Teams have helped to train people of these countries in modern construction methods so that they themselves can continue to improve their own living conditions long after departure of the Seabee Teams.

Although Seabees have always been eager to lend a helping hand wherever they have been, the formal Seabee Team program was not born until 1960, when an Atlantic Seabee detachment was deployed to Haiti. Their mission was the construction of a road, causeway, and pontoon bridge at Lake Miragoane, Haiti, when flooding of the lake threatened

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to isolate the southern tip of the island.

Soon after this first venture, other Seabee Teams were sent on a regular basis to other countries for similar missions. Since 1960 Atlantic Seabee Teams have deployed to such countries as Chile, Costa Rica, Santo Domingo, Liberia, the Republic of Chad and the Central African Republic, where they have built farm-to-market roads, taught construction skills, and engaged in disaster relief work.

Since January 1963, teams from the Pacific Seabees have been deploying to Thailand and the Republic of Vietnam, where they have engaged in a wide variety of rural development work, including road, bridge, and school construction. Several teams deployed to the Republic of Vietnam have been engaged in construction of Special Forces camps. One team, Seabee Team 1104, was constructing such a camp when it participated in the heroic defense of Dong Xoai against a heavy Viet Cong attack last June.

In addition to the normal 13-man teams, other special teams from the Pacific battalions have performed similar work in Southeast Asia. Well-drilling teams have helped provide pure water supplies to rural villages in Vietnam, and EO/CM teams have helped in a rural road building program in Northeast Thailand.

RADM **J. R. DAVIS,** former Commander of the Pacific Seabees, recently expressed the comment of the U.S. ambassador to Thailand that no other U.S. aid program has accomplished as much in proportion to its cost as the Seabee Team program.

Thus, in a few short years, the Seabee Teams have become a proud —and continuing—part of the Seabee story.

A NEW CHAPTER

In the spring of 1965, as the U.S. increased its commitment of military forces in support of the war against the Viet Cong in South Vietnam, the Seabees were once again called upon to provide construction support to Navy and Marine Corps forces in a combat area. Not since World War II had the Seabees been committed on such a large scale in support of combat operations.

MCB-10, then deployed on Okinawa as the Pacific "alert battalion", was the first to go. Late in April MCB-10 commenced its mount-out, and within less than ten days the entire battalion, its equipment and supplies, and aluminum matting to construct an 8,000-foot expeditionary airfield, were embarked on amphibious force ships of the U.S. Seventh Fleet.

Early on the morning of May 7, in one of the largest operations of its kind since the Korean War, Marines came ashore in a coordinated amphibious landing to occupy the Chu Lai site. The Seabees of MCB-10 were right behind them with their equipment and supplies to set up a camp and begin work on the Chu Lai runway. In only 21 days time, high performance Marine jets were flying strikes against the Viet Cong from the Seabee-built airfield. During the remainder of its Chu Lai deployment MCB-10 continued to expand and improve the airfield, and constructed a wide variety of roads, cantonments, and other facilities in support of units of the Third Marine Amphibious Force operating in the Chu Lai sector.

MCB-3, deployed on Guam as the Pacific "back-up battalion", was the next to leave for Vietnam. Preceded by an advance party, which started work on a battalion camp at the base of Hill 327 at DaNang, MCB-3 mounted out from Guam in May and commenced construction work at DaNang by the end of the month. Chief among Three's projects was the rebuilding of a road leading to the Marine missile site on Hill 327.

MCB-9, deploying from Port Hueneme early in June, was the third battalion to arrive in Vietnam. Establishing its camp next to the South China Sea at DaNang East, Nine immediately started work on a wide variety of projects, chief among them a large Naval Hospital and an extremely difficult road to a missile site on Monkey Mountain, in DaNang Bay.

In order to coordinate mobile construction batalion work in Vietnam, the 30th Naval Construction Regiment, inactive since the Cubi Point project in the early 1950's, was reestablished at DaNang in May. Initialy, the regiment was under the command of CAPT **Harold F. LIBERTY.** The current commander is CAPT **Nelson R. ANDERSON.**

Seabee strength in Vietnam was increased to four battalions in September, when MCB-8, previously an Atlantic battalion, moved to Port Hueneme and almost immediately deployed to DaNang, where it commenced work on port facilities and other projects.

MCB-5 became the fourth Pacific battalion to deploy to Vietnam in September when it relieved MCB-3 at DaNang. A second Atlantic battalion, MCB-4, moved its home port to Port Hueneme in November, and deployed to Chu Lai a month later to relieve MCB-10. Most recently, MCB-11 deployed to DaNang early in February to relieve MCB-9.

The large scale commitment of Seabees to the war in Vietnam has proven the value of the long, hard peacetime deployments and the continuing emphasis on training, mobility, and self-sufficiency characteristic of the Navy's mobile construction battalions. For each of the seven battalions that have thus taken part in the Southeast Asian conflict has shown the same capability to deploy to a new location, establish itself, and commence production construction with a speed, effectiveness, and flexibility unmatched by any other military engineering unit.

With Seabees in demand as never before since World War II the Navy has commenced a broad build-up of the naval construction force. Each of the ten original battalions has been increased in its officer and enlisted complement and early this year the Navy Department announced the formation of four new battalions at Davisville, Rhode Island. MCB-40 was formally commissioned on Feb. 1, with MCB's 58, 62, and 133 to follow during the next few months.

Clearly, as General **Douglas MACARTHUR** wrote to ADM **Ben MOREELL** during World War II, "the only trouble with your Seabees is that you don't have enough of them!"

ABOUT THE AUTHOR

"The Seabee Tradition" is adapted from a series of articles highlighting Seabee accomplishments originally published in the MCB-11 Stinger during 1965.

The author, LCDR **William D. MIDDLETON,** has been executive officer of MCB-11 since August 1964, and is presently deployed with the battalion at DaNang. His previous naval service includes assignments at Port Lyautey, Morocco; at NAS Minneapolis; as civil engineering adviser to the Turkish Navy on the staff of the U.S. military mission to Turkey; and as planning officer at PWC Norfolk.

During a period of inactive duty he was employed as a structural engineer with firms in California and Wisconsin, and as a bridge designer with the Wisconsin State Highway Commission.

In addition to his engineering duties, LCDR Middleton has long been active as a writer. He has written numerous articles for newspapers and magazines, among them American Heritage, and is the author of two published books of railway history, with a third due for publication later this year.

Legion of Merit Award

Rear Admiral Harry N. Wallin, CEC/USN, received a Gold Star in lieu of the second Legion of Merit from Secretary of the Navy, Paul H. Nitze during a ceremony in the Pentagon.

Secretary of the Navy **Paul H. NITZE** yesterday cited Rear Admiral **Harry N. WALLIN** for opening a "new and enlightened era of Navy Management" while serving as Director of both the Office of Management Information and the Secretary of the Navy's Management Information Center from 1964 to 1966.

Praising him for "exceptionally meritorious service," the Secretary, on behalf of **President Johnson,** presented Rear Admiral Wallin with a gold star in lieu of a second Legion of Merit.

The Secretary said that under Rear Admiral Wallin's leadership, the Management Information Center evo'ved into a most significant instrument of Navy Management and "far exceeded the most optimistic predictions of what could be expected."

Rear Admiral Wallin, a Navy Civil Engineer Corps officer who commanded Seabee units in the Pacific during World War II, received his first Legion of Merit with Combat "V" for representing the Third Naval Construction Brigate Commander and the Commander Service Force SEVENTH Fleet on construction of advance bases in the Southwest Pacific area during 1944.

He is now Deputy Commander for Facilities Engineering at the Naval Facilities Engineering Command (formerly known as the Bureau of Yards and Docks) in Washington, D.C.

He received his Bachelor of Science in Civil Engineering degree and his commission as an Ensign in the Naval Reserve on his graduation from the University of Washington in June 1936. In 1937, he earned his Master of Science degree in Civil Engineering from the Massachusetts Institute of Technology.

In a nation-wide competitive examination for a Navy commission in June 1940, Rear Admiral Wallin was among five applicants selected to be commissioned as a Lieutenant (junior grade) in the Navy Civil Engineer Corps.

Prior to attaining the rank of Rear Admiral in June 1964, he served as: Commanding Officer of the Public Works Center, Guantanamo Bay, Cuba; Assistant Chief of the Bureau of Yards and Docks for Public Works Management; District Public Works Officer, District Civil Engineer and Officer in Charge of Construction in the Fourteenth Naval District; and Deputy Chief of Naval Material (Management and Organization), Navy Department. He has attended the Armed Forces Staff College and the National War College.

Rear Admiral Wallin is a member of the National Society of Professional Engineers, Sigma Xi, Tau Beta Pi, the Society of American Military Engineers and is a Fellow of the American Society of Civil Engineers. He is a Registered Professional Engineer in the State of Cailfornia.

He and his wife, the former **Esther Marie CARLSON,** of Yakima, Washington, have three children: **Kristine Marie, David Nels** and **Janet Ann WALLIN.** They live at 9504 Columbia Blvd., Silver Spring, Md.

CAPT P. E. SEUFER, CEC-USN

SELECTED FOR PROMOTION

Captain **Paul E. SEUFER,** who as Officer in Charge of Construction for the Naval Facilities Engineering Command in the Republic of Vietnam is directing the largest construction job under way anywhere in the world today, has been selected for promotion to Rear Admiral.

A Navy Civil Engineer Corps officer, Captain Seufer directs the efforts of the joint venture of U.S. contractors who are constructing aircraft, personnel and logistic support facilities at more than 30 sites in South Vietnam.

CAPT. P. E. SEUFER, CEC/USN

Captain Seufer won the Bronze

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Mercy Flight

By A. K. Evans JO3

June 6 Navyman **Robert L. MAYFIELD** lay in McMurdo General Hospital, McMurdo Station, Antarctica, critically injured. Two days later, thanks to the skill and courage of a Navy pilot and his crew, and many other Navymen, New Zealanders and Australians, Mayfield was resting comfortably in a Christchurch, New Zealand hospital, his condition listed as good.

UTP 2 Robert L. Mayfield is placed in an ambulance at Christchurch, New Zealand, assisting is LCDR Paul E. Tyler, MC, USN (Wearing Glasses).

His "recovery" came through a chain of events paralleled only once before in the history of Operation DEEP FREEZE, the U.S. Navy's support program for Antarctic scientific research.

It began Wednesday, June 1, when Utility Pipefitter Second Class Mayfield fell, rupturing his bladder. He was admitted to the Naval Dispensary at McMurdo, the main U.S. Antarctic base. The injury would not have been a serious one, had it occurred in the civilized world. But it happened at McMurdo, in the dead of the six-month Antarctic winter night, where men are cut off from the "outside" by the most hostile environment on earth. The McMurdo medical team did all they could with the equipment they had available, but it was not enough.

Early Thursday morning they sent a message to Operation Deep Freeze Headquarters in Washington, D.C., requesting a top-level medical conference for advice. Headquarters sent their reply, advising treatment and a series of tests. The tests were flashed back, with the addition "strongly recommend air evacuation be considered."

Air evacuation — flight into the dark, frozen continent without adequate weather information, navigational aids, or rescue capability should the mercy plane go down. It had been done once before, in 1964 when a seriously injured man was flown out by a ski-equipped C-130 Hercules aircraft of Air Development Squadron Six (VX-6), the Deep Freeze air arm.

Rear Admiral **F. E. BAKUTIS,** the Operation Deep Freeze Commander, made his decision quickly. Commander Naval Air Force, Atlantic, (COMNAVAIRLANT) was contacted and permission to use a VX-6 Hercules obtained.

While the Hercules was being readied for its 12,000 mile trip from Quonset Point, R.I., the New Zealand Naval Board advised that its frigate HMNZS TARANAKI was proceeding into port to load fuel and await further instructions.

Back at McMurdo another problem had arisen. Williams Field, McMurdo's airstrip, was being hurriedly prepared for the Herc's arrival, but the elements seemed to be in conspiracy against the mercy mission. A raw wind was sweeping across the field at 35 miles per hour, blowing snow until visibility was lowered to zero, and outside preparations were forced to a standstill.

Nevertheless, Hercules 321, carrying a supplemental 3,600 gallon internal fuel tank, began the flight halfway across the world. It was now Saturday, 7 a.m. McMurdo time. After picking up Admiral Bakutis, his staff meteorologists and doctor, 321, piloted by Commander **Marion MORRIS,** departed west for Christchurch and McMurdo.

At noon, weather stations at Mc-

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View of Williams Field Skiway, McMURDO Station, Antarctica, showing the lighting of fuel drums used to mark the skiway for the evacuation aircraft.

Landing by the light of burning oil drums, a Navy ski-equipped Hercules aircraft sets down on the Williams Field at McMurdo Station, Antarctica.

I WAS THE FIRST SEABEE OVER JAPAN

An authentic story by **Gardner Ross JAMES** (now deceased). Submitted by his widow—**Grace JAMES**—18 January 1954.

GUAM—MARIANAS

In the afternoon, Naval Construction Battalion Director Captain **HILTABIDDLE** of the Fifth Brigade called me over to his office, he said, "Everything is all set, you're going to Japan on tomorrow's mission. CINCPAC has OKed it. Captain **TAYLOR** at Wing Public Relations will give you the details." I returned the appropriate enthusiastic words. I was going to be officially the first Seabee over Japan in a B-29. 'I wish I was going with you," the Captain added —and I knew he meant it. Every Seabee who has had any part in building the giant B-29 base on Guam, every officer and man from Commodore to each Seaman Second has been itching to follow his labors to their ultimate end, the Japanese homeland. (I was just lucky.)

Permission for any flight was another "thank you" from the Army for the super job the Seabees have done in building super strips for Superforts. Ever since the first B-29 landed on a Seabee built strip in the Marianas the fliers have been generous in their warmhearted praise for the miles of smooth asphalt topped runways and all the facilities at the fields and in the camps plus some Irish luck, I was on my way.

Major General **Curtis LEMAY,** boss of the 20th Air Force and General **POWERS,** Commanding General of the 314th Bomb Armament Wing gave official sanction to my flight as a tribute to Seabees for their part in building the airstrips from which B-29s operate. I feel pretty humble about that, and sort of proud too, of representing all the Seabees, I, Gardner Ross James. And since it was a representative and not as an individual, that I went over Japan, I will try to tell you a complete story of the trip.

First, as it happened, without any frills and hope you'll get an idea of how it would have been if you, instead of me, had been sitting in the nose of that sleek, gleaming B-29 as it roared along the runway with its belly full of bombs and lifted up into the moonlit night sky early in the morning.

After I left Commodore Hiltabiddle, I phoned Captain John Taylor of Cleveland, Ohio, who told me I was slated to fly on "McNamara's Band." A Superfort with 24 missions to her credit, the pilot and plane commander would be **John J. HOGAN** of Newark, New York and the take off would be at 2300. At about 2200 I went to the quonset where the enlisted crew members live. Most of them were in the sack catching a few last winks, but Sgt. **Andrew CALLAHAN,** of Long Island City, New York, central fire control man, was getting out his flight suit and wrapping his Colt in waterproof pliofilm and Sgt. **Richard RYAN** of Jersey City, New Jersey, was writing one more letter to his wife. In a little while it was time for chow so Cally and Ryan woke up the rest of the crew. I borrowed a mess kit and went with them. (Yes, these glamor boys, as somebody has called them, eat out of Infantry mess kits.)

Ryan did not go to chow with us, he wangled a jeep from Transportation and took a run down to the air field. "I want to see if they've found the trouble yet," he said, "one of the super charges has fritzied up." The rest of us sweated out the chow line for fried eggs and bacon, bread, butter and coffee, seconds if you wanted. Two of the crew kept telling me about the swell chow they had eaten at a Seabee mess hall. "They even gave us ice cream," said Callahan.

When we got back to the hut, Ryan was there. "They found the trouble," he said, "and I think they'll fix it in time." To myself, I hoped each member of the ground crew was a mechanical genius. We rode down to the War Room in Ryan's jeep for the first briefing. The War Room, about the size of a mess hall, wasn't big enough to hold the crews of all the squadron at once so the enlisted men attended the first session gunners and **they particularly** were given the lowdown.

Right inside of the door some of the fliers put their billfolds and other valuables into individual white sacks for safe keeping. Like leaving valuables with a cashier before you go in swimming at the bathing beach back home. Hanging on the two side walls were circular maps (relief) some of the principal targets on Japan. A legend over each rescribed the target and a big red X had been painted through each legend indicating destruction of the target.

Colonel **George WORTH,** Commander of the bomb group, opened the briefing by telling us, "This is going to be a big show." The principal briefing officer amplified this by saying, "We're hitting the Empire this time with everything but ground forces and the kitchen sink." Then he went on to tell us, "More Superforts would be used than ever before, over 600. Carrier based planes, planes from Iwo and Okinawa would also take part in the operations. About 2,000 fighters and bombers will be over the Empire tomorrow and maybe," he paused, "and maybe one or two helicopters." That brought a laugh and relieved the tension. Our target would be the Eitoke plant of the Aichi Aircraft Works in Southwest Nagoya, whose principal product was airplane fuselages. Built in 1941, the plant had been 19% destroyed by previous bombings. It was our job to finish it. We would carry demolition bombs, seven 1-ton bombs in each plane. The officers of the briefing team alternated, each giving us new information and each taking up the moment the previous officer stopped. One told us about the timing of the other flights and a cheer went up when he said Iwo-based P-51s would hit Nagoya ground defenses an hour before we were due over the target. He went into the details of our flight plan, altitudes, speeds, assembly points, the formation and the bombing run. Another told us what weather we would hit clouds of various heights and densi-

ties at each stage of the flight, a weather "front" off the coast of Japan; we could expect our particular target to be at least 90% obscured. There was a call for questions. Then every man got to his feet. The Chaplain was on the platform. "It is the great tragedy of humanity," he said, "that when man learned to fly, he reverted living again in caves." He said we were waging a righteous war against the people who sought to return the world to barbarism. Except for his voice there was not a sound in the room as the fliers stood with bowed heads while he uttered a short prayer for everyone's safe return.

The briefing was over. We filed out and outside the room the officers were waiting to come in. It was now 0045, time for the second briefing to start. Ryan quickly introduced me to the officers of the "McNamara's Band's" crew. Lt. **John HOGAN,** Lt. **Robert E. (Jonesey) JONES,** Long Beach, California, Co-pilot, Lt. **Richard SULLIVAN,** Rye, New York, the precision instruments man. Flight officer **McCREADY,** the bombardier, and Lt. **Michael J. McNAMARA,** of New York, the navigator. The members of the crew had named the plane after him, and he was one of the most engaging and popular men it has ever been my privilege to meet. The moment I met him, I felt that here was a man around who there could never be a dull moment, how right I was! His was the job to take us to our target, and more important to get us back.

I went back to the War Room with McNamara. The second briefing was pretty much like the first. Thorough, fast, snappy. Most of the information given orally at the briefings was contained in flimsies handed out as we came in but the effect of the meeting was like that of a coach's pep talk to his men before the game, authough there was no flag waving. There was just straight information. It was the way it was given that was impressive. We then walked briskly out of the room to the waiting trucks. Nothing haphazard here, either, each man was assigned to a specific truck.

At the field the pace seemed to step up. In the personal equipment hut we were given the paraphernalia of protection. Mae West, parachute, rubber dinghy, flak vest and helmet, and that vest of many pockets that holds emergency rations, first aid kits and even fishing lines. The ground crew at the plane reported that the super charger was repaired. "McNamara's Band" was ready to fly! In the last few minutes before we climbed aboard a series of cars dashed up to the plane; the "meat wagon" with a Medic offering last minute equipment, first aid supplies and bensedrine, a truck from the personal equipment hut to furnish anything missed there; a Red Cross mobile Canteen with a cup of hot coffee all around, a Group Officer to see if everything was OK and finally the Chaplain to wish us God speed. At the very last minute, a jeep came speeding up, "Tower says take off to West!" the driver shouted. Previous flight instructions were to take off to the East. There was absolutely no wind. Maybe a slight movement of air from the West had been detected. The fliers like to take off into a stiff wind. With the plane loaded with gasoline and bombs, every inch of "lift" is needed to get the B-29 off the ground. I had seen planes fail to get that "lift" and go crashing over the end of the runway. I remembered the roar as bombs went off! The flash of searing flame and the blessed miracle when one or two of the men aboard escaped death.

Then suddenly we were all in the plane. "Three minutes," the pilot said. Then it was two minutes. Then it was 30 seconds. The engines were turning over and we moved slowly out of the hardstand onto the taxi way. I sat in the bombardier's place foremost in the plexiglass nose, ahead of the pilot and co-pilot. In front of me I saw the sharp line of the high tail and the broad spreading wings of the plane ahead, gleaming in the moonlight, glistening with reflections of the runway lights. And in front of that another and another and another. A long line of giant birds moving forward. "Jonesey," the co-pilot, helped me struggle into my chute. I buckled the safety belt across my waist. I began to wonder what I, a Seabee, was doing in that procession.

Now there was no changing of mind, no turning back. Slowly, steadily, relentlessly and inevitably, we moved forward, ever forward, to the end of the taxiway, I had a feeling of being caught in an impossible and unreal, yet too-current, situation, from which there was no escape. One by one, the planes farthest ahead disappeared from view. Then the one immediately in front swung into position on the runway, roared down the black asphalt, and vanished. There was nothing to do but sit, and watch and hope. Now we were first in line, tense, poised for flight, ahead of us was the strip of black asphalt, and a row of tiny red lights barely visible at the far end, and beyond that nothing but the sky. A bright green light flashed. I felt rather than heard the engine speed up. We moved down the runway faster and faster. I tried not to think of the drop at the end of the strip, just beyond those red lights, and of the seven tons of dynamite in the plane's belly, and what would happen if on this windless night we did not gain enough speed to rise, but went plunging over the bank. The red lights grew bigger and brighter. Surren'y they were right in front of me. For an infinitesimal part of a second I had visions of plowing right through and crashing down the bank. Then they flashed under me. At what instant we left the smooth asphalt and lifted into the air I did not know. But we had cleared the end of the strip. We banked to the right, and headed for Japan, still climbing. "Hey, Jameseyl" said Hogan, "Is it warm enough in here for you?" I was hot. My clothes were soaking through, sweat dropped off my face and arms. I thought it was all from the heat of the cabin. "Sure," I managed to reply, "I'm comfortable, I'm OK" Hogan laughed. "Turn around and look," he said, "if you don't think all of us sweat on the takeoff!" I looked, he and Jonesey were dripping with perspiration as much as I was. I relaxed, then, and looked out over the ocean, now far below. A bright moon hung in the sky to the West and created a sparkling silver river on the sea. White clouds floated below us, drifting past like cottony tufts lighted by moonlight. We reached our required altitude and leveled off. I wriggled around to get more comfortable in my seat and with the vision of the beautiful night before me, I fell asleep.

When I awoke the Eastern sky was fiery red and the clouds around us — there were more of them now — were a lightly tinted pink. I shifted position and tried to stretch to loosen the kinks I had acquired in a couple of hours. 'Good morning," said Hogan. It was no doubt the strangest awakening of my life. We had an apple and a jelly sandwich for breakfast. The B-29 is equipped to cook hot food, but the fliers usually don't bother with such luxuries. They take along a box of sandwiches, fruit, perhaps some canned meat and canned fruit juices, candy packed in red, white and blue boxes and maybe a coke or two. Nobody feels like eating before reaching the target, anyway.

Soon after daylight came, the gunners tested their guns. First came a burst from Ryan sitting all alone back in the tail. A B-29 tail gunner

is often called the Lonesomest guy in the world and I agree in that. Then the left blister gunner Harrison, let go, and Hickey in the right blister. Then Cally Callahan at the central controls squeezed his electric triggers. The plane shuddered with each burst. All guns were in working order, ready for the enemy.

We passed little Iwo, a tiny, drab spot in the blue water below. The magnificent work of the Seabees was visible even from our height. The fighter strips and the long Superfort strip which has saved hundreds of B-29 crews returning from Japan in crippled ships. Many more lives have been saved at Iwo than were lost in taking the island, terrific though the cost of that action was.

I moved out of my forward perch, and "Hank" McCready, the bombardier, climbed in. He lifted the hood from the bomb sight and got it ready to use. I squeezed past the desk where Navigator Machael McNamara continuously plotted our course, and checked our position, and went back to look at the bombs McCready would release. Through the window of the forward bomb bay I saw four of them, four neat packages of trouble for Nagoya, all ready to drop. The other three were in the rear bomb bay.

Cpl. Billy Williams, the static chaser, sat at his radio near the bomb bay, busily taking and decoding messages. "We don't send anything unless we have to but I take everything that comes over the channel," he explained.

We started to climb some more The weather forecast had been damnably accurate. The nearer we got to Japan, the more clouds we hit, and ahead we saw a wall of haze, reaching high into the sky — the weather "front."

I went forward again to take my new place between the pilot and co-pilot, and near the flight engineer's board. Of all the features of the B-29, the fliers rave most about the pressurized, heated cabins. No matter what the altitude, an oxygen mask is needed only in an emergency, and the heavy, fur-lined aviator's uniform is a relic of a by-gone age. Even at that a B-29er wears plenty of clothes when he goes into battle. True, the loose fitting coverall like flight suit is light, but now, as we neared the assembly point, we put on all the things we had picked up at the personal equipment hut. First, the many pocketed vest, filled with things to sustain life for days if necessary. Over this in order went the Mae West, that yellow life jacket which is inflated by pulling a string after hitting the water. Over this we buckled on a parachute, and to this we hooked the rubber dinghy, packed and attached so it formed a seat, the dinghy is equipped for rapid inflation, too. On top of this went the flak vest, literally a coat of steel armor, quickly removable if we had to hit the silk. We fastened one side of the oxygen mask to a leather helmet, which we put on. (If flak pierced the cabin it would only take a second to fasten the mask in place.) And lastly, we donned the flak helmet, like the one you wear on a beachhead except that it has ear flaps. In this most modern of airplanes, fliers revert to the garb of King Arthur's knights, a suit of armor. The most important piece of protective equipment aboard, though, was "Pixilated Pete," the crew's good luck charm. "Pete" is a small, bearded statue, somewhat resembling one of the Seven Dwarfs," and before Johnny Hogan settled down he got it from McNamara, the official custodian, and handed it to Hank McCready. The bombardier carefully and tenderly placed "Pete" in the foremost spot of the plexiglass nose. Now we were ready for anything! THESE IRISH!

As we drew nearer the assembly point, we saw part of the Pacific Fleet, spread out over miles of ocean to our left. It was a reassuring sight, Japan was going to catch hell today.

The automatic pilot had flown us most of the way, but now Hogan took over the controls to fly the plane manually. It is a miracle of Navigation and timing for large numbers of planes, all flying diverse routes, to meet at the same instant at a theoretical spot in the limitless sky over a vast ocean. But that is what meeting at the assembly point requires.

CLOUDS CLOAK JAPAN

We saw a flight forming and Lt. Hogan guided "McNamara's Band" into a rear position in the second element. This movement into our position was accomplished as smoothly as the music of an old Viennese Waltz. In fact, it is done in three long sweeping movements. I found myself humming, one, two, three — one, two, three. A guy thinks of the damndest things!

At over 20,000 feet, I could see the coastline of Honshu through momentary openings in the clouds. The weather forecast had been accurate about conditions here, too. We flew in the sunshine most of the time now, but below us a cloud bank, broken only here and there covered Nippon. A peninsula jutted out into the sea. The land looked as drab as Iwo. Was this the pretty picture card of Japan? It looked dull, almost foreboding. Our height gave it a relief map effect. We were over a rural section now, and I saw what seemed to be a road winding around the hills — a road Yank troops probably will use!

The flight plan called for us to go North, on a course well West of Nagoya until we were in position to make a sharp turn to the Southeast for the bombing run. Lt. Hogan suddenly looked old and haggard. So did Lt. Jones. God, alone, knows what I looked like. An air of tension filled the whole plane. We were flying in formation and bombing would be in formation. This meant that no matter what happened; if the air suddenly filled with fighters and flak, the pilots still must hold their positions. Again we were caught in a powerful and forward surging current from which there was no turning back. The crew now functioned as a taut, highly keyed team, each member with his own job. I felt helpless and very much alone. But back in the tail, lonely Ryan scanned the skies for a plane that might swoop down out of a cloud to attack the formation from the rear. Harrison at the left blister and Hickey at the right blister watched intently for lurking enemies from the sides. High in this seat near the center of the fuselage, "Cally" Callahan swung his keen gaze all around the horizon, and up into the sky above, as he sweat under the baking rays of the sun, beating in through the top blister. Unable to look outside, Sullivan kept a wary eye on his precision instruments. Williams, too, could not look out of the plane, but he was its ears. An emergency message might break the radio silence of the formation and crackle through the ether; he was ready to receive it. Navigator McNamara continued to plot the course — checking, checking, checking. His navigation had brought the plane to the assembly point. Now the flight leader set the course but Mac had to keep his records complete. Lt. Hogan strained to hold the Superfort in formation in the bumpy air. Flying close together—a sudden pocket or thermal could bring Superfort crashing against Superfort. On the opposite side of the plane, Lt. Jones mentally went through every motion of the pilot, ready to take over if something should happen. I was the world's best "back seat driver and kibitzer," I did nothing!

And far up in the nose, Lt. McCready closely watched the lead plane of the formation. Orders were for all the planes to release bombs the moment the lead plane did.

Eleven men, but functioning as though they were coordinated parts of one body, the plane. A wonderful love for that plane seemed to sweep over me, I found I was gently caressing the back of Hogan's seat, as you would fondle a woman's hair.

Over the intercom came Ryan's voice. He had spotted an unidentified plane in the rear. It seemed to be following us—but kept out of range. Suddenly five ugly black puffs blossomed in the sky ahead of the formation—then another to the left. FLAK! The lead plane banked to the right, and the formation followed. It was a hope, quickly acted upon. Maybe we could maneuver out of range. The flak seemed to be coming from the neighborhood of Osaka, far below to our left. We weren't ready for our run over the target. There is something terrifying about the bursts of flak, yet one has a feeling of detachment. The blossoms of smoke, quickly resemble clouds and the sky looks unchanged again. The formation swung around the flak area in a broad arc, then resumed its Northward course. Now beneath us we were able to see only rare glimses of Japan. The cloud cover was becoming heavier and heavier. We banked sharply to the right for the bombing run. The lead plane opened its bomb bays. The rest followed. Now we were nearing the target — the partly ruined Aichi Aircraft factory. But we couldn't see it. Nor could we see what ack-ack guns might be following our course by instruments. Watching the lead plane closely, we saw seven beautiful black bundles of destruction drop from the yawning belly of the first plane. Then all the others in the formation followed almost as though one hand controlled them all. The bombs plunged down, down and disappeared into the solid cloud bank far below. That was all.

We would have to wait until we saw the recon photos to know what damage we had done — whether the remaining 81 per cent of the Aichi plant had been reduced to rubble. The bombs were gone and we passed over the target area safely. We must have caught the Nagoya Nips napping.

My body seemed strained to the bursting point, there were weird drumming sounds in my head — but they were sounds of exhaltation. The tension in the plane did not ease until we were well away from the coast of Japan. Off the coast a way, the formation broke and each plane set its own course for Guam, Saipan and Tinian.

Hogan turned around with a big grin on his Irish kisser — "Right in their laps, Toots," he said. "You look like the old man of the mountains, relax, Hell! I was beginning to feel double jointed in every bone of my body. I felt as if I had been doing this all my life, and hoped for more of it.

Hogan checked with Sullivan, the engineer, before we reached Iwo. Sullivan had kept a running tally of gas consumption and he had the answer ready. We could make it but we wouldn't have too much to spare. The pilot decided not to stop. "We two always fight," he explained to me. "I want to get more power out of the engines, but Sully keeps holding me down. He says it uses too much gas." They both laughed.

Everyone was relaxed now and hungry. Hank opened a can and fixed turkey sandwiches. They tasted good! Later we learned that not all the fighters had been as lucky as ours. Flak over Osaka had been heavy. Even fighters had appeared over some of the targets. Crippled Superforts and their crews had found Iwo a blessed haven in dire need.

But "McNamara's Band" had played one, without the loss of a single note. Maybe "Pixilated Pete" perched up there in the nose, had been responsible for our safety, I, for one, was ready to believe it. "Jonesey" laughed, "you and your little people, I thought Hogan was bad! But you Micks have me believing in them now!" Far be it from me to wonder why, it was enough to know we were on the last lap home.

You can have only great admiration for the brave young men who make this their business, who two or three or more times a week fly 3,000 miles to unload destruction on the enemy — and who in a large measure are responsible for Japan's weakened condition today.

At last, Guam appeared on the horizon, and soon we settled down for a perfect landing. A happy — and relieved ground crew greeted us when we taxied over the hardstand. It was now almost 1800, we had left the same place over 15 hours before.

The crew tumbled into a truck to head for their interrogation session, to report on their mission to intelligence officers and then swallow some hot chow and hit the sack.

I skipped the session, and headed for the sack.

The first Seabee over Japan was tired as hell!

25th Anniversary SEABEES

ONE OFFICER

FIVE MEN

1. One officer and 5 men — how much can they contribute to the U.S. effort in beleagured South Vietnam? At first one might be tempted to shrug and say "an outfit that small couldn't do too much". In reality these six men who make up the staff of the Construction Battalions, Pacific Detachment, located in Saigon, Republic of Vietnam, are accomplishing a staggering amount of work in comparison to the size of their unit. Providing direction and logistic support for four 13 man SEAMEE Teams who are engaged in Vietnam rural construction projects in support of the U.S. Agency for International Development (USAID) civic action program these men, their responsibilities and their accomplishments are as follows:

Lieutenant Commander **Dorwin B. WILE,** Civil Engineer Corps, U.S. Navy

1. LCDR D. B. WILE, the Officer in Charge CBPAC Detachment, Republic of Vietnam/Thailand at work in his Saigon Office.

of Pontiac, Michigan and graduate of the University of Michigan with a Masters Degree in Civil Engineering is the Officer in Charge of the Detachment. His wife the former **Miss Ruby LIPPARD** of Pontiac, Michigan resides with their two children in Pontiac. LCDR Wile's duties as OIC of CBPAC Detachment entail the exercise of operational, technical, administrative and troop control for Commander Construction Battalions, Pacific and U.S. Military Assistance Command, Vietnam over all units and personnel assigned to his Detachment, as well as providing liaison with USAID in coordinating and developing programs for SEABEE Teams, and coordinating all administrative and logistic support provided by other commands. In short, LCDR Wile directs an operation that last year alone saw many miles of roads and bridges constructed and repaired, school houses and medical facilities built and repaired, airstrips developed, hundreds of acres of jungle land cleared for refugee resettlement centers, as well as the complete construction of several Special Forces Military camps in the Provinces for the Army of the Republic of Vietnam (ARVN), which include barracks, mess halls, sanitary facilities and defense earthworks and fortifications.

The second in command and assistant to the Officer in Charge is Senior Chief Steelworker **Roy C. NECESSARY, Jr.,** U.S. Navy, a resident of Port Hueneme, California and the son of **Mr. and Mrs. Roy C. NECESSARY, Sr.,** of Meeker, Okla. Senior Chief Necessary, a veteran of 18 years of service with the SEABEES recently came to CBPAC Detachment RVN from Naval Mobile Construction Battalion ELEVEN. Senior Chief Necessary's principal duties,

2. Senior Chief Steelworker Roy C. NECESSARY, Assistant to the Officer in Charge, CBPAC Detachment, Republic of Vietnam, arriving at Saigon's Tan Son Nhut Air Base, upon returning from a trip to visit the in-country SEABEE Teams.

aside from assisting the OIC in the performance of his job, include control of the Detachment's administration, equipment, supply and fiscal operations, no small task when one considers that the Detachment has under its control approximately 100 pieces of transportation and construction equipment from jeeps up to bulldozers, road graders and 5 ton dump trucks. This equipment needs continuing care and parts replacement that requires a large amount of administrative and supply legwork and Senior Chief Necessary directs these operations in so knowledgeable and competent a manner that the 52 men who use this equipment throughout Vietnam are at all times able to carry out their tasks with little time lost due to breakdowns or lack of materials.

Butter and bullets, screws and scrapers, nails, pens, hammers, pumps, parts — you name it and First Class Petty Officer **George C.**

3. First Class Storekeeper George C. HINES fills an order for supplies at the Detachment warehouse at Tan Son Nhut Air Base.

HINES has it or can get it. Hines, the Detachment storekeeper, is the son of **Mrs. Mildred E. HINES** of Belmont Shores, California. Hines is married to the former **Miss Helen GUGALA** of North Chicago, Illinois, who resides with their two children at Belmont Shores. In the course of his duties as the Detachment supply man Petty Officer Hines is responsible for ordering, receiving and shipping to the Teams in-country all parts and materials; he arranges for in-country air transportation of all personnel, equipment and support material; he establishes and publishes supply stock levels at the SEABEE Warehouse at Tan Son Nhut Air Field in Saigon, and when not occupied in those tasks he maintains repair parts kits for the equipment assigned to the Detachment as well as preparing written instructions for the operation of the Detachment Supply system. A man of many talents, Petty Officer Hines is also the Detachment's number 1 communicator with the SEABEE Teams in the field. Contacting the field units twice a day by voice radio, Hines is advised of their needs and takes action to see that these requirements are reconciled.

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Religion in Vietnam

By Lt. Richard C. Hunkins, CHC, USNR

On Sunday, April 10th the Commanding Officer of U.S. Naval Mobile Construction Battalion THREE, Commander **Richard Lee FOLEY,** with the Battalion Medical Officer, Lieutenant **James Longcope,** MC, USNR, and the Chaplain of the Battalion, Lieutenant **Richard C. HUNKINS,** CHC, USNR, went on a tour of the neighboring Vietnamese villages. The purpose of this visit was to get acquainted with the people of the surrounding area, and to offer up Easter Mass for the Marines and the Villages on the island of Ky Xuan.

The trip started at the closest village to the MCB-THREE camp site; An Hai, whose population consists largely of Vietnamese who have been relocated from the Chu Lai area. At An Hai the party met **Mr. NU,** a Vietnamese who directs the local school, and **Father THOMAS,** a Redemptionist Priest who was preparing to say Mass for the Catholic villagers.

The party then departed by means of a U.S. Marine L.V.T., or (Landing Vehicle Tank), to travel down the Troung Giang river to the island of Ky Xuan.

A two mile hike was taken towards the interior of the island where Father Hunkins said Easter Sunday Mass for the residents on the island. After Mass, the Commanding Officer with the help of an official Vietnamese interpreter and **Doctor Longcope,** who is becoming quite proficient in the Vietnamese language met with **Madame TRI,** the wife of the village chief. Later on the Village Chier, **Mr. CHOW,** was met as he returned from a meeting on defense against the Viet Cong. Mr. Chow's predecessor and his entire family were killed by the Viet Cong a short time ago. . . . Under the direction of Mr. Chow and with the help of the U.S. Marines, the Viet Cong have been driven from their island, and the situation is fairly under control. Should the Viet Cong be allowed to return to the island, however, the fate of Mr. Chow and his countrymen is well known.

It was already dark when the MCB-THREE party returned to Camp on Easter Sunday; the evening meal had already been finished. But somehow, the missed steaks seemed a small price to pay for the new friends that were made and rich experience of meeting just a few of the millions of brave, free Vietnamese struggling against the vicious assault of the North.

Pictured above from (Left) to (Right), are the Commanding Officer of U.S. Naval Mobile Construction Battalion THREE, Commander Richard Lee Foley, Civil Engineer Corps, United States Navy; Father Thomas, a Redemptionest Priest who travels from village to village to hold Catholic Mass for the Vietnamese civilians; and Father Richard C. Hunkins, the Chaplain for U.S. Naval MCB-THREE. Also present is Father Brian Kane, who is the Chaplain from the 1st Medical Battalion, of the 1st Marine Division, here in Chu Lai, South Vietnam. The Commanding Officer and the three Catholic Priests pose with three Vietnamese girls from the village of Sam Hai.—Official U.S. Navy Photograph.

Lieutenant Commander **Thomas Lee LONEGAN,** Civil Engineer Corps, United States Navy, assumed the position of Executive Officer of U.S.

NEW "EXEC"

Lieutenant Commander Thomas Lee Lonegan, Civil Engineer Corps, United States Navy, poses at his desk after assuming the position of Executive Officer of U.S. Naval Mobile Construction Battalion THREE. MCB-3 is currently on deployment near Chu Lai, Republic of South Vietnam.—Official Navy Photograph. By: Hill, R. D., PH2, USN. USN MCB-Three.

Naval Mobile Construction Battalion THREE on May 13.

Before entering the service he attended the General Motors Institute at Flint, Michigan, where a Bachelor Degree in Mechanical Engineering was obtained. He was then employed by the Fisher Body Division of General Motors Corporation in their Kansas City, Missouri Plant as a maintenance foreman until February 1956.

In February of 1956 he entered Officer Candidate School at Newport, Rhode Island, graduated and was commissioned an Ensign on June 1, 1956. Following his graduation from OCS (Officer Candidate School), he attended the Civil Engineer Corps Officers School at Port Hueneme, California.

Prior to reporting to MCB-THREE, he had served with: Fleet Activity, Yokosuka, Japan, as Engineering Director, and Planning and Estimating Manager; U.S. Naval Ammunition Depot, Hawthorne, Nevada, where he served as Shops Engineer; U.S. Naval Supply Center, San Diego, California, where he served as Public Works Officer and Resident Officer-in-Charge of Construction; U.S. Naval Support Activity, Taipei, Taiwan, Republic of China, where he served as Director of Transportation for U.S. Armed Forces in Taiwan.

He attended the U.S. Naval Post Graduate School at Monterey, California where he received a Master of Science (Management) Degree. He has also attended the University of Maryland, and the University of California.

Lieutenant Commander Lonegan re-

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DOCTOR

COUNTRY STYLE

By GERALD R. BOLING, JO1, USN

A 250-pound, round-faced American Navyman may be the nearest thing to a doctor thousands of Vietnamese and Montagnard villagers will ever know.

Back in the hills, 35-miles from Dalat, when you say doctor you are talking about **Larry A. ANDREWS,**

Larry E. ANDREWS, HM1, is the only doctor thousands of Vietnamese and Montagnard villagers may ever know.

Hospital Corpsman First Class. He answers to the name of Andy. He is a part of a 13-man SeaBee Team, known as Team 0507. These men are several miles from the nearest large city and other American forces. They are engaged in civic action projects such as building roads, bridges and schools for the people in the area, 160 miles northeast of Saigon.

The Village of Ta-Ly is typical of

In villages such as this Andy holds sick call weekly. He talks with the villagers about their health problems and tries to convince them of the value of the medicines he gives them. He averages more than 1,000 patients a month.

the villages Andy visits. In this collection of thatch-roofed shacks, boasting a single room woodframe school house, he holds sick call. He repeats the process several times a week in other villages as well.

Andy arrives by Navy truck, wearing a flak jacket with a rifle slung over his shoulder. He drags a long homemade table from the shade of a nearby shack into the village center.

After removing his flak jacket and rifle and placing them within easy reach, he turns his attention to a large steel box. From this he removes an assortment of pills, vitamins, and bandages. Soon a crowd assembles. Sick call is held under the shadow of the cross of the Village church.

During sick call he lances boils, dresses cuts, and dispenses medicine for dysentery, a complaint that attacks both Americans and Vietnamese. Or he may be confronted with a case of smallpox.

He treated a four-year-old child for smallpox during one of these visits. He cleaned and dressed the ugly, puss-filled sores on the child's body. He attempted to explain to

Young Vietnamese Girl being treated during sick call.

the parents the importance of getting the youngster to a hospital. The next day, he pointed out the patient playing in the dirt of the village street.

Much of Andy's work is basic sanitation. "I've tried, for example, to explain the importance of soap and water. I've told these people about germs. They hold up their hands and say they don't see them. They just don't believe it because they can't see the germs," Andy said.

"I can't be sure that these people will even take the medicine I give them. But I give it to them and just hope they use it," he said.

Andy explained that black and white pills are unpopular because they are unhappy colors for the Vietnamese. After giving his patients

Andy checks a young Montagnard girl's throat during sick call. Respiratory troubles are a common problem among the "mountain" people.

various colors of pills, he's seen them off to the side swapping for the colors they like best. He said they really like the red, green and blue pills and call them "happy pills".

"Some of the children come to sick call, more or less, just to get my attention. I always go through the same routine with them as I do with the sick adults. I end up giving the healthy youngsters a candy pill. The kids aren't fooled by this but it makes them feel important for a little while. So it becomes a part of my routine," Andy said.

An average day for Andy amounts to getting out to one of the villages about 8 a.m. He sets up his medical chest at either the village chief's house, in an empty house that serves as a dispensary or on the back of a truck. It doesn't take long for the word to get around. The word goes out that there's an American medical man in the village.

"I see a lot of children during the day. There are a lot of respiratory infections. It seems that the lack of proper clothing and sanitation is the big contributing factor up here in this area," Andy said.

By noon he's seen 60 or 70 patients. He tries to move on to another village in the afternoon.

He carries more than medicines on his rounds. He also passes out bars

(Continued on Page 36)

Philately On Ice

WASHINGTON, D.C. — Philatelists may send covers to be postmarked at South Pole and Byrd Stations in Antarctica and aboard DEEP FREEZE ships which operate a post office, during the 1966-1967 Antarctic season.

Collectors are limited to one cover per person to be postmarked at Byrd Station and South Pole Station, and three covers per person from each DEEP FREEZE ship.

Byrd and South Pole Station postmarks can be obtained by placing two addressed covers bearing United States postage at the letter mail rate in an envelope and mailing them to:

DEEP FREEZE Philatelic Mail
U.S. Naval Construction
Battalion Center
Davisville, Rhode Island 02852

International Reply Coupons may be used by collectors from foreign countries to defray postage costs on covers.

One cover will be sent to Byrd Station and the other to the South Pole for postmarking. If a cancellation is desired from only one station, the word "Byrd" or "Pole" should be written in the lower left corner of the cover.

Philatelic mail to be postmarked at Byrd or South Pole Station must reach Davisville not later than September 1, 1966 in order to be processed during the DEEP FREEZE 67 antarctic winter. The postmarked covers should be received by the collector between October 1967 and April 1968.

Cancellations from participating ships can be obtained by sending covers to:

DEEP FREEZE Philatelic Mail
(Name of ship from which postmark is desired)
(The Fleet Post Office Address)

The following DEEP FREEZE 67 ships operate a post office:

Ship's Name and Address — **Cutoff Date for Covers**

USS MILLS (DER-383) FPO New York, 09501 — Aug 1
USS T. J. GARY (DER-326) FPO New York 09501 — Sept 1
USCGC GLACIER (WAGB-4) FPO San Francisco 96601 — Sept 15
USCGC EASTWIND (WAGB-279) FPO New York 09501 — Sept 15
USCGC WESTWIND (WAGB-281) FPO New York 09501 — Nov 1

Covers postmarked aboard DEEP FREEZE ships should be returned to the philatelist May-June 1967.

Philatelic mail will be returned unprocessed when more than the authorized number of covers is submitted, if it appears that a commercial motive is involved, if covers are received after the cutoff date, or when covers are submitted to DEEP FREEZE ships or units which do not operate a post office.

Well Done

Davisville, R.I. — Four members of Seabee Team 4-4 who served in Bangui, Central African Republic training and helping to rehabilitate an 85-kilometer stretch of road from the summer of 1965 until February 1966, were presented letters of appreciation from the American Ambassador to the Central African Republic for the work they accomplished during their stay in the country.

The men received the letters from **Commander David M. FEINMAN,** Chief Staff Officer for COMCBLANT and Commander 21st Naval Construction Regiment on May 17, 1966.

Attached to the letters from the American Ambassador was a congratulatory message from **Rear Admiral Henry A. RENKEN,** Commander Service Force Atlantic Fleet, and a letter from Commander Feinman which read in part, "The work accomplished by the men of Seabee Team 4-4 again exemplifies the Seabee 'Can Do' spirit in accomplishing the most difficult assignments in an outstanding manner. Your performance has indeed been a credit to the Seabees and the Navy. Congratulations for a job well done."

Men receiving the letters were **Joseph F. LEDGER,** Steelworker Chief; **Edward VOYTKO,** Construction Mechanic Second Class; **Edward W. O'NEILL, JR.,** Construction Mechanic Second Class; and **Joseph R. LALIBERTE,** Builder Third Class.

Island Presidents

Island X-1 Dallas, Texas
Harold G. Stehens
111 Cliffdale
Dallas, Texas

Island X-1 Honolulu, Hawaii
Sigurd H. B. Jensen
744 Sunset Ave.
Honolulu, Hawaii 96816

Island X-1 Long Island, New York
Irving Kraft
39 Birch Lane
Valley Stream, New York 11581

Island X-4 Los Angeles, California
Fr'n'min G. Baker
4323 Allott Ave.
Sherman Oaks, California 91403

Island X-5 Port Hueneme, California
Frank Dasma
1784 Poli Street
Ventura, California

Island X-2 San Diego, California
Larry R. Lyle
6186 Henderson Street
La Mesa, California

National Island
M. Ray Robertson
216 Adaline Ave.
Battle Creek, Mich. 49017

Island X-1 Suburban Chicago, Ill.
William A. Brown
235 Powell Ave.
Clarendon Hills, Ill.

Island X-2 Cook County, Ill.
William A. Polaski
1919 North St. Louis Ave.
Chicago, Ill. 60647

Island X-18 Danville, Ill.
John E. Humerickous
606 South Main Street
Georgetown, Ill. 61846

Island X-8 Macon, Ill.
Joseph D. Gant
1142 West Marietta Street
Decatur, Ill.

Island X-1 Seattle, Washington
Leroy G. Sergent
8004 27th N.W.
Seattle, Washington 98107

Island X-1 Cincinnati, Ohio
Arthur W. Planitz
233 Homeford Street
Cincinnati, Ohio 45216

Island X-3 Cleveland, Ohio
William E. Tobin
12005 Brighton Ave.
Cleveland, Ohio 44111

Island X-16 Canton, Ohio
Don E. Taylor
1312 14th Street N.E.
Canton, Ohio 44705

Island X-2 Portland, Oregon
Don Brumbaugh
9515 N. Kalmar
Portland, Oregon 97203

Island X-3 Salem, Oregon
Arnold Hindley
1045 Oak Street S.E.
Salem, Oregon 97301

Island X-1 St. Louis, Missouri
Al M. Geece
5808 Westminster Place
St. Louis, Missouri 63112

Island X-3
George W. Akers, Jr.
4120 Rexford Drive
St. Louis, Missouri 63125

Island X-15 Milwaukee, Wisconsin
William A. Robb
714 Aspen Street
South Milwaukee, Wisconsin

Island X-1 Philadelphia, Pennsylvania
William Bowman
150 Iron Hill Road
New Belton, Pennsylvania

NCB ASSOCIATIONS

1st NCB
George T. Flaherty
3434 32nd Street
Astoria, Long Island
New York 11106

14th NCB
W. B. Sherrell
210 S. E. 12st Street
Grand Prairie, Texas 75050

3rd SPECIAL
B. G. Parsons
14 Fairview Heights
Rochester, New York 14613

64th NCB
Mel Griffin
5663 So. Pittsburg
Tulsa, Oklahoma

60th NCB
Melvin L. Doll
9791 Manhattan Drive
Cincinnati, Ohio 45239

26th NCB
26th NCB Association
23 Huron Street
Toledo, Ohio

52nd NCB
Mike Giangregorio
1925 Home Avenue
New York, N.Y.

91st NCB
Oliver H. Johnson
1409 Washington Avenue
Racine, Wisconsin

107th NCB
Sam Bodell
956 Brintell Street
Pittsburgh, Pennsylvania

6th NCB
James S. Trainer
Cuba, Missouri

30th NCB
R. S. MacDonough
200 Girard Avenue
Reading, Pennsylvania 19605

35th NCB
A. J. Marino
17 Hunt Avenue
Philipsbury, New Jersey 08865

98th NCB
James Meehan
2145 S. Broadway
Santa Maria, Calif. 93454

59th NCB
Oda W. Nichols
Star Route No. 1
North Beach, Maryland 20831

56th NCB
George J. Lewis
603 Byrne
Houston, Texas 77009

45th NCB
Edward D. Kramer
294 Ridgemont Road
Grosse Point Farms 36, Michigan

83rd NCB
Clarence Anderson
10655 Canterbury Street
Westchester, Illinois

103rd NCB
Tom W. Reside
P.O. Box 6096
Arlington, Virginia 22206

5th Sp NCB
R. M. Kerrison
P.O. Box 643
De Ridder, Louisiana

19th NCB
Herbert McCallen
655 14th St.
New York, N.Y.

15th NCB
Hobart Davis
Huntington, West Virginia

42nd NCB
Thomas L. Hogan
77 Vincent Road
Hicksville, New York

46th NCB
Lewis A. Keller
1625 South Mitchell
Casper, Wyoming

55th NCB
H. L. Jordan
130 N. High Holborn
Lake Forest, Illinois

70th NCB
A. J. Benline
1740 Broadway
New York 19, N. Y.

82nd NCB
Bill Johnson
339 State Street
Albany, New York 12210

86th NCB
W. J. Sheeran
543 W. 211th Street
Inwood 34, New York

111th NCB
Paul E. Erwin
2000 Melrose Avenue
Columbus, Ohio

Third Marine Division
T. O. Kelly CWO, USMC (Ret.)
7222 Valley Crest Blvd.
Annandale, Virginia 22003

105th NCB
Wayne Lintons
448 Colford Ave.
West Chicago, Ill. 60185

Fourth Marine Division
Gerald L. Pines
1732 S. Horne St.
Oceanside, California

40th NCB
Lyle A. Bramson
15 Crane Drive
San Anselmo, California

43rd NCB
Thomas A. Gifford
1000 Ives Street
Waterbury 4, Connecticut

54th NCB
Dewey Swearengin
812 SE 30th Street
Oklahoma City, Oklahoma

64th NCB
R. L. Ellis
Rt. 11, Box 461
Pine Bluff, Arkansas

71st NCB
George C. Vick
Rt. 1, Box 208-A
Stockbridge, Georgia

84th NCB
S. Frank Raftery
1925 K. St. N.W.
Washington, D.C. 20006

(Continued on next page)

REMEMBER 1967!

25th Anniversary SEABEES

NCB ASSOCIATIONS

93rd NCB
Darle Christy
4204 E. 69th Street
Kansas City, Missouri 64132

118th NCB
John L. Johnson
718 N. 16th Avenue
Melrose Park, Illinois 60160

119th NCB
Philip Kaufman
6910 Oxford Avenue
Philadelphia, Pa. 19111

88th NCB
Clyde H. Armstrong
704 N. Ireland
Greenburg, Indiana

29th NCB
Leslie Casler
4722 Winthrop Ave.
Indianapolis, Indiana

61st NCB
Perry N. Harrell
1002 Carlton Court
Leesburg, Florida

5th NCB
L. L. Neal
11901 Oklahoma Avenue
South Gate, California

20th NCB
N. A. Cotner, M.D.
Grove, Oklahoma

97th NCB & 108th NCB
Matt Robben
1939 S. Battin
Wichita, Kansas 67218

302nd NCB
Martin A. Lowe
8441 Bayard St.
Philadelphia, Pa. 19150

66th NCB
John E. Chandler
McLemoresville, Tennessee 38235

16th NCB
G. E. Swan
Route No. 2, Box 783
Gresham, Oregon

33rd NCB
K. Daumen
66 Weston Avenue
Buffalo, New York 14215

108th NCB & 97th
Matt Robben
1939 S. Battin
Wichita, Kansas 67218

ANODIZING.....

A Hard Way To Go!

By Del LUDWIG,
Product Promotion
ADOR/HILITE
Subsidiary of Rusco Industries, Inc.

Salt water and "salt air" give aluminum a hard way to go. The corrosive action of the salt can cause excessive oxidation and pitting. Even the oxygen in the air attacks the untreated metal.

Fortunately, there's a remedy for this troublesome problem: ANODIZING. The anodizing process permanently seals the metal's surface against corrosion, oxidation, and abrasion.

To discern the value of anodizing requires an understanding of the basic chemistry involved. However, this will be reviewed on a nontechnical level. It is better that all concerned understand the important reason for anodizing and what the process does for the metal.

Uutreated aluminum's surface corrodes in the presence of atmospheric oxygen. Additionally, the alloy metals are adversely affected by various atmospheric acids. When the aluminum corrodes it forms aluminum oxide (Al_2O_3), a whitish powdery substance. This unsightly formation is often called "white rust" or some other unfavorable term. It will wash down onto a painted surface and produce streaking. To guard against these conditions, and to protect aluminum from abrasion, anodizing it is recommended.

However, there is another aspect to mention in passing. While it is true that aluminum will form an oxide naturally, on the metal's surface; and the anodizing process is the controlled and rapid formation of aluminum oxide as a protective coating on the metal; still there is a vast and important difference. The buildup of natural oxidation is unsightly, irregular and slow in forming. In time this accumulation will cease and the metal is finally sealed from further corrosion.

Not so with anodizing; here the formation of aluminum oxide is fast, controlled, even and attractive. A thicker coating effectively seals against corrosion, the elements and abrasion. To see just how this is accomplished, consider what anodizing does to aluminum.

Anodizing is an electrolytic or electrochemical transformation of the metal's surface into a file-hard oxide (Al_2O_3). This crystalline surface is virtually impervious to corrosion and discoloration. To understand why this is true, one has only to realize that many sandpapers are made with aluminum oxide crystals! In fact, corundum or aluminum oxide (Al_2O_3) occurring in nature, is used industrially as an abrasive. Only a few substances, as diamonds, are harder. Hence, the surface is hard as a file, but smooth as satin!

Just what is this fantastic surface? One must visualize the surface structure because the size of the crystal is atomic in dimension. In fact atomic measurements are used. The unit of measurement is the angstrom (A°), one ten-billionth of a meter. The crystals that are produced on the surface of anodized aluminum are closely packed, six-sided units or hexahedrons. The top and bottom of each crystal are regular hexagons, about 2700 A° in diameter. The height of the crystal is approximately equal to its diameter.

However one should not imagine the thickness of the coating to be merely 2700 A°, the thickness of one layer of crystals. Rather, the typical commercial coating is approximately 0.2 mils, or 20 layers of these tile-like crystals!

The crystal, in spite of its remarkable hardness, has one weak point. It has a hole in its top; a hole that runs about halfway down into it. This hole can, and does, collect dirt and gives a stained appearance to the anodized surface. To guard against this, anodizers must close this pore-like opening.

Fortunately, it is an easy matter to seal up this tiny hole and prevent the staining effect. This is accomplished in one of the final stages of the anodizing process. The stage is called "sealing" the metal. Boiling watercauses the crystals to swell up and that's the end of thhe hole! Yes, the crystals swell shut and remain in that state. This illustrates the importance of properly sealing the metal.

As previously mentioned, a commercial coating of 0.2 mils comprises approximately 20 layers of the hexahedron crystals. Supposing one desired a coating ten times as thick, or 2.0 mils or 200 layers. This can be accomplished; however, the metal no longer is "aluminum" color—it is now dark brown! In some applications this is desireable, as in certain architectural usage. This is known as hard coating.

A complex equation governs the anodizing process; total area of the metal, voltage, amperage, duration and temperature of the electrolytic solution—these are the factors. A change in any one factor affects the end result. Two examples will illustrate the matter.. Ten amperes per square foot of metal surface at 24 volts with a liquid temperature of 70° F, for 30 minutes produces a coating of 0.4 mils er .0004". If the time factor is doubled to 60 minutes, a coating of 0.8 mil or .0008" is achieved. The finish resembles frosted or silver-satin finish. It should be kept in mind that the etch stage produces the satin appearance, anodizing is actually crystal clear.

Now, let's consider the same equation with vastly differing components: 36 amperes per square foot of metal surface at 70 volts with a liquid temperature of 30° F., for 45 to 60 minutes produces a thick coating of 4 or 5 mils or .004" to .005", plus a dark brown color.

To get a clearer picture of the process, let us follow a typical load of metal through the cycle, step-by-step The metal is stacked in racks and clamped tightly to assure a solid electrical contact throughout the batch. An overhead hoist lifts the rack

(Continued on Page 37)

CONSTRUCTION PROGRAM

FY-66 CONSTRUCTION

NAVAL STATION, SAN DIEGO	
Berthing, Pier B	$ 2,638,000
NAVAL AIR STATION, MIRAMAR	
Airfield Lighting	290,000
Ground Equipment Maintenance Facility	200,000
NAVAL AIR STATION, NORTH ISLAND	
Electric Distribution Line	127,000
NAVAL AUXILIARY AIR STATION, REAM FIELD	
Barracks/504 Man	1,494,000
Mess	530,000
NAVAL AMPHIBIOUS BASE, CORONADO	
Underwater Demolition Unit Facility	396,000
NAVAL TRAINING CENTER, SAN DIEGO	
Recruit Barracks—1st Increment	2,780,000
Service School Barracks	2,366,000
NAVAL HOSPITAL, SAN DIEGO	
Outpatient Clinic	1,433,000
MARINE CORPS AUX. LAND. FIELD, CAMP PENDLETON	
Aircraft Direct Fuel Station	264,000
Aircraft System Training Bldg.	150,000
CAMP HORNO, MCB CAMP PENDLETON	
Electric Distribution to Ranges	30,000
Battalion Instruction Bldg.	92,000
Battalion Combat Vehicle Maintenance Shops	454,000
CAMP SAN MATEO	
Electric Distribution to Ranges	43,000
DIVISION AREA	
Gate Facility, San Luis Rey	63,000
NAVAL SHIPYARD, LONG BEACH	
Weapons Shop Extension	1,950,000
Mechanical Calibration Facility	125,000
Electric Distribution System	499,000
Compressed Air System	177,000
NAVAL STATION, LONG BEACH	
Pier Utilities	870,000
MARINE CORPS AIR STATION, EL TORO	
Airfield Lighting	286,000
Guided Missile Magazine	42,000
Water Distribution System	331,000
MARINE CORPS AIR FACILITY, SANTA ANA	
Barracks	366,000
Squadron Operations Bldg.	263,000
WEAPONS STATION, SEAL BEACH	
Special Weapons Magazine	72,000
NAVAL AIR FACILITY, EL CENTRO	
Recovery Parachute Test Range	2,300,000
MARINE CORPS AIR STATION, YUMA	
Aircraft Operations Bldg.	300,000
Squadron Supply & Maintenance Bldg.	223,000
Road to Target Area	96,000
NAVAL ORDNANCE TEST STATION, CHINA LAKE	
Warhead Research Facility	448,000
MARINE CORPS BASE, TWENTYNINE PALMS	
Communication-Electronic School Phase I	2,912,000
MARINE CORPS SUPPLY CENTER, BARSTOW	
Heating System	200,000

(Continued on next page)

[Continued from preceding page]

POINT MUGU	
Radar Measurement Facility	894,000
Aircraft Power Check Facility	92,000
Auto-Data Switch Facility	853,000
Tele-Comm. Switching Facility	241,000
Sub Total	$26,890,000
OTHER MISCELLANEOUS PROJECTS	
Alter Message Center, NAS North Island	127,000
Boat Facility, Naval Amphibious Base, Coronado	95,000
Conveyor Overpass, Naval Supply Center, San Diego	44,000
Jet Engine Repair Facility, MCAF Santa Ana	199,000
DSP Facility, Deep Submergence Group	198,000
Addn. to Navy Exchange, NAS Miramar	340,000
Exchange Service Station, Naval Sub. Supp. Fac. San Diego	34,000
Rehabilitate USAF Barracks, NAF El Centro	65,000
Addition to Bowling Alley, Naval Hosp. San Diego	80,000
Sub. Assembly Bldg., NASA, Seal Beach	1,896,000
Addn. to Helo Blade Overhaul Shop, North Island	196,000
Addl. Power & Air Conditioning for Data Processing, North Island	126,000
Recruit Barracks (Quonsets) MARCORCRUITDEP	608,000
Training Facility, Division Area, CAMPEN	71,000
Raise Access Roads & Tracks, Supply Center, Long Beach	144,000
Alter Bldgs. for MCB Administration Facilities, NCBC Port Hueneme	119,000
Fleet Training Facilities, NCBC Port Hueneme	410,000
Infrared Systems Michalson Laboratory, NOTS China Lake	170,000
Anti-Radar Missile Guidance Facility, NOTS China Lake	228,000
No Break Power Equipment Communications Station, San Diego	30,000
Filling Station, Ream Field	15,000
Addn. to Officer's Mess, Camp Pendleton	132,000
HOUSING IMPROVEMENT PROJECTS	
Addn. to Commandant Quarters, Naval Base, San Diego	14,000
Community Facilities, Bayview Housing, San Diego	30,000
Modernize Bathrooms, Area 2 Public Qtrs., San Diego	209,000
Erosion Correction, MCAS El Toro	42,000
Increase Electric Service, Santa Ana Housing	31,000
Paving Access Roads and Parking, NOTS China Lake	81,000
Convert Hot Water System, 76 units, NOTS China Lake	100,000
Carports Family Housing, MCB Twentynine Palms	87,000
Modernize Bathrooms, Cabrillo Housing	250,000
Total	$33,061,000

RECAP

FY-66 Construction	$33,061,000
Deferred Construction	22,939,000
	$56,000,000

LETTERS TO THE EDITOR

July 15, 1966

The Sea Bee
PO Box 3116
San Diego, Calif. 92103

Dear Comrades,

As one of the founders of the Seabee Veteran's organization along with Captain **Howard POTTER,** may I take this opportunity to sincerely thank you for the splendid publication that you are bringing to all the men who are so interested in our branch of the service.

Not to be exactly critical, but to call your attention to the cover of the May-June 1966 edition, I have a question.

I know that we all in the Seabees put our group ahead of the common Navy and the other branches of the service, however, with all respect don't you think it would have been proper to place our National Colors where they belong at all times when in line with other banners.

Respectfully your
Ben S. BAYHA
Formerly 56th Batt.

Copy to Washington, D.C. Office

Skil We Boo Boed

STORM DETECTION RADARS SLATED FOR SE ASIA

POWERFUL NEW LONG-RANGE weather radars will soon give Air Force forecasters in Southeast Asia an instant look into the skies almost 15 miles high and more than 200 miles away. Expected to be operational this fall, the new storm detection radars will provide advance knowledge of rainfall and other weather phenomena and assist military commanders in decision-makinn situations. Each of the new units will use a 12-foot diameter parabolic reflector antenna enclosed in a fiber glass radome. The radars will pinpoint and track storms up to 250 miles away, distinguish hail and rain, and indicate the intensity of each in any storm development. A large cathode ray tube display on the console will reveal weather phenomenon. Two smaller tubes will read out range and height and the calibration and adjustment of the set.

ERNIE

By Robert H. McCrary, YN3(SS) USN

Camp Adenir, DaNang, Vietnam—(PAD) Ernie does a lot of monkey'in around at MCB ELEVEN's Camp Adenir, in DaNang, Vietnam — but he can get away with it. **Ernie** is a five

LTJG Gene Swartz, CEC/USN and Ernie

month old Spider Monkey who originally came from Monkey Mountain in the DaNang area. When MCB Eleven took over Camp Adenir in February of this year the tenant Marine Corps company gave him to DELTA Company in care of SWF3 **Bob TORSON** and SWE3 **Edward JENNINGS**. He was only one month old then and has been a part of Delta Company ever since. It was pretty hard to decide what to call him. Somehow the name Ernie popped up. The Delta Company Commander, LT **Ernest BUCKNER** didn't seem to have any major objections, so "Ernie" stuck. So, what does a Seabee do with a monkey? Feed him and take care of him. Ernie is a big morale booster for Delta Company. During the day the Assistant Delta Company Commander, LTJG **Gene SWARTZ**, CEC, USN, gives Ernie as much attention as his duties permit. Often he takes Ernie around to the various job sites so he can see how his protectors are doing. Ernie eats just what the other men do, including his favorite food — bananas. For dessert, and this may seem strange, nonetheless true, he likes to chew gum. Ernie even eats an occasional lizard and of course an apple a day — but don't give him an orange unless you peel it first.

Ernie's serial number is 1814, which is actually his rabies vaccination number. He loves attention and generally has the run of the Camp. LTJG Swartz says the only thing Ernie hates is a bath. Once in a while Ernie does get into mischief. The other day it took four Seabees to get him off the Commanding Officer's office roof.

When MCB Eleven goes home in the fall of this year Ernie will probably be turned over to the relieving Seabee Battalion. Ernie will be missed but until then — there's a little mongey'in 'round Camp Adenir.

MERCY FLIGHT

(Continued from Page 19)

Murdo, Australia's McQuarrie Island, and New Zealand's Campbell Island began feeding information to the Christchurch Operation Deep Freeze Meteorology office.

Members of the Antarctic support activity wintering over party place UTP 2 Robert L. Mayfield aboard aircraft for evacuation.

From Byrd Station, 600 miles inland from McMurdo, came word that the Byrd airstrip could be prepared in time, should the aircraft have to be diverted from McMurdo. At 10 p.m. the Royal New Zealand Air Force reported a Sunderland aircraft and a B-170 Bristol Freighter aircraft on standby at Invercargill, southernmost city of New Zealand. Taranaki was by this time steaming south at 20 knots, gathering weather data while enroute to her at-sea rescue station halfway between McMurdo and Christchurch. From Williams Field came good news — the storm was dying. At 12:30 p.m. Sunday Williams Field reported ready to receive aircraft. 321 was on the next-to-last leg of her trip to the "ice", between the Fiji Islands and Christchurch. The crew had spent 29 of the last 33 hours in the air, and there was still more than 6,000 miles to go before Mayfield would be safe in Christchurch.

At 9:30 Sunday evening 321 landed at Harewood International Airport, Christchurch. A brief rest, weather checks, hurried preparations, and at 7:19 Monday morning the aircraft was back in the air, heading into the Antarctic night. At noon lunch was served aboard, while 321 passed over Taranaki, which had arrived on station less than an hour before.

As the aircraft winged onward, Admiral Bakutis took the opportunity to speak to his men at McMurdo and the other U.S. Antarctic stations, expressing his appreciation for the work they are doing and offering encouragement in the long winter isolation from the rest of the world.

4:10 p.m. McMurdo time. The burning oil drums outlining Williams Field ski-way appeared. Four minutes later the aircraft was on the ice. While fresh fruits and vegetables and mail for the inhabitants of McMurdo were off-loaded, Mayfield was flown by Navy helicopter the six miles across the ice shelf from the McMurdo dispensary to the waiting aircraft. By 7:20 p.m. the "Herc" was on its way back to Christchurch, with Mayfield aboard under the care of the staff doctor.

At 2:22 a.m. Tuesday the big aircraft settled again onto the Harewood runway, and a navy ambulance picked up Mayfield and sped him to Christchurch General hospital for surgery. The report came — "Patient resting well. Progress satisfactory, prognosis good."

Mayfield was alright. The air evacuation was a success. Everyone breathed a sigh of relief and relaxed, for the first time in four days. All that was left now was the long trip back to Quonset Point.

NEW NAVY CRAFT FLOATING ON AIR

THREE NAVY CRAFT THAT "FLOAT" on a cushion of air are in operation in Vietnam. Each of the high-speed patrol boats is powered by a single gas turbine engine which provides both lift and propulsion through a lift fan and an aircraft-type variable pitch propeller. The 39-foot craft can travel over water, swamp and flat land areas at speeds in excess of 50 knots while combat loaded. Each boat is manned by two officers and two enlisted men.

ISLAND NEWS

SEABEE VETERANS OF AMERICA
1966 CONVENTION
INDIVIDUAL EVENTS CHARGES:

Sea Life Park — Polynesian Center Tour including nighttime musical, admissions, but no meal at Polynesian Center . . .
$13.50 Per Person

Queen's Surf Luau . . .
$6.50 Per Person

Special Navy-transported Tour, dedication, lunch . . .
$1.00 Per Person

Breakfast 19 August at Ilikai with speaker Gov. John A. Burns. CB Teams in So East Asia . . .
$2.50 Per Person

Luncheon 19 August at Ilikai with speaker Tregaskis (Guadalcanal Diary) . . .
$3.50 Per Person

Luncheon 20 August at Ilikai with speaker RADM William M. Heaman, CEC, USN, Commander CB Forces, Pacific . . .
$3.50 Per Person

Registration fee . . .
$2.00 Per Person

Japanese Tea House optional event . . .
$5.50 Per Person

Send reservations to:
Seabee Veterans 1966
P.O. Box 1026
Kaneohe, Oahu

This is part of the agenda talked over and some of the plans as set today. This does NOT include the early part of the convention as that is more for sightseeing, etc.

By Tuesday, Aug. 16 most everyone will be in Hawaii that intend to take part in the Convention. Tours, cocktail parties, will be arranged after word is received from **Ray.**

Wed., Aug. 17: 8:00 AM pick-up by Navy busses for tour of Pearl Harbor. During this tour RADM **H. S. PERSONS** will accept the Seabee Plaque for the Arizona Memorial. Lunch will be served on the base. Cost to all for entire trip and lunch $1.00 a head. Ladies invited. As this is limited to four busses tickets will be attached to registration form. It is believed most everyone will want to go. This is called tour "A".

Thurs., Aug. 18: 9:15 pick-up time to Special Kofak "Hula" show. Will give some of the men a chance to learn to do the hula. A two hour show. Also at 8:00 there will be another tour of Pearl Harbor if any had to be left out of first trip. There will be NO presentation at Arizona Memorial. At 2:00 PM all registered Seabees will be picked up for the Polynesian Cultural Center. The trip will go via Sea Life Park where you will see a great show. Then sightseeing up to the Polynesian Village for tour and show. You will get back to hotel about 11:00 PM. This trip is included in registration package thru Tiki Travel. Others that may want to go the cost is $13.50 per head.

Fri., Aug. 19: 8:30 AM organizational breakfast, **Gov. BURNS of** Hawaii, gives welcome. SBPac will give slide show and talk of the "SEABEE TEAMS" working in Southeast Asia. Business sessions get underway at 9:30 AM. At noon lunch I believe the author of **Guadalcanal Dairy, *Mr.* TREGASKIS** will be the speaker. The Navy is working with him to write a book on the SEABEES. He will also be made a TEXAS Admiral at lunch. Business sessions start at 2:00 PM. Installation Dinner with cocktail hour 6:00 to 7:00 and dinner till 10:00 PM. Installation included.

Sat., Aug. 20: Business sessions start at 9:00 AM. Lunch at noon with RADM **Wm. M. HEAMAN,** CEC, Director, Pacific Division, Naval Facilities Engineering Command, and Commander Naval Construction Battalions, Pacific, guest speaker. He will also get a promotion to a Texas Admiral. Business sessions till 4:00. Then get ready for social Luau at the beautiful Queen's Surf Supper Club. This starts at 7:00. Cocktails available earlier. This luau is included in the Tiki registrations. To others the cost is $6.50 each.

Check out Sunday. Arrangements will be available for those wishing to visit outer Islands. Registration, information and secial events booth will be open each day within Convention area. Registrations start Tuesday, August 16 at Ilikai Hotel.

Several static displays will be on exhibition by the Seabees.

More information will be sent out as received.

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1 OFFICER—5MEN

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"Hey, Chief what's wrong with this truck? I can't seem to get it started — That, or similar questions are pretty familiar to Chief Construction Mechanic **Ralph H. BELL,**

4. Chief Mechanic Ralph H. BELL, tests out a piece of equipment that has just been overhauled.

U.S. Navy. Chief Bell, whose wife the former **Miss Sue CARTER** of Horton, Kansas resides at Port Hueneme, California, is the Chief Petty Officer in Charge of equipment support for CBPAC Detachment. He is responsible for the readiness and care of all equipment assigned to the Detachment pool. He is accountable for the cycling, maintenance, overhaul, overhaul contract approval, inspections and reports on all of the nearly 100 pieces of Detachment equipment. He also provides guidance to and insures compliance of all field units with the high level of equipment readiness standards set by the OIC. Chief Bell maintains control of all equipment manuals and forms, establishes local Saigon area procurement contracts and purchases locally, all repair parts, tools, materials and services. The Chief, a veteran of 17 years service with the U.S. Naval Construction Forces, makes numerous trips into the hinterlands of South Vietnam visiting the various in-country SEABEE Teams on-site inspecting their equipment and ensuring it is up to standard as well as advising the Teams of current changes in maintenance procedures. You can bet he'll get that truck running in no time flat.

"I can get it for you cheap". That may not always be the case, but First Class Equipment Operator **Robert L. "Charlie" BOX,** U.S. Navy can usually do what he says. Petty Officer Box, whose wife, the former **Miss Jodell BRANDON** of Nucla, Colorado and their three sons live in Port Hueneme, California, is the Detachment Equipment Support Expediter. His primary function is as an assistant to the Equipment Support Chief, and as such he is mainly concerned with getting things done and necessary items procured in the local Saigon area. Petty Officer Box makes and maintains close contact with local Saigon businesses for the procurement of such goods and services as bottled acetylene and oxygen, gasoline and diesel fuel, photograph developing, open market purchases of office supplies, tires, automotive and equipment repair parts, and ensuring that equipment and machinery that is being repaired by local

5. Equipment Operator First Class Robert L. BOX unloads material from his jeep at the SEABEE Teams Detachment warehouse at Tan Son Nhut Air Base.

establishments is repaired efficiently and economically. Petty Officer Box has done everything in the course of his duties from getting a SEABEE's name tag sewed on his uniform by a local tailor to hauling a concrete mixer by aircraft from one location in Vietnam to another. Yes, if it can be obtained "cheaply" in Vietnam "Charlie" Box is the man to see.

Ever try to run a war without paper? Don't — it can't be done. And although the navy is waging a war of its own on unnecessary paper work there are still minimums that must be maintained in this field. And at the bottom of the stack of paper in the CBPAC Detachment, is First Class Petty Officer **Ronald E. ACKER-**

6. Yeoman First Class Ronald E. ACKERMAN gives instructions to Vietnamese typist in the Detachment's Saigon Office.

MAN, U.S. Navy. Petty Officer Ackerman, who is a veteran of over 12 years of Naval Service, the last two of which have been in the Vietnam area both on ship and with the SEABEES, comes from Abilene, Texas, and is the son of **Mr. and Mrs. Walter E. ACKERMAN** of Longview, Texas. Ackerman is responsible for setting up and maintaining liaison with other agencies in Saigon to insure correct handling of administrative and personnel procedures required for handling of all SEABEE Units assigned to the CBPAC Detachment in Vietnam. He is responsible for correspondence, messages, files on over a hundred different subjects from military and civilian personnel to heavy equipment, classified material, personnel records, travel claims, payment of perdiem, regular pay, travel bookings, orders, accident forms and mail handling. He is responsible for obtaining maps used by the SEABEE Teams in their respective areas of operations and does occasional public information work for the Detachment. As an indication of the magnitude of this job, in 1965 nearly 1000 pieces of unclassified formal correspondence were mailed from Petty Officer Ackerman's office, and the Detachment incoming correspondence runs 3 to 4 times that amount.

How much can six men contribute to the U.S. effort in South Vietnam? Ask any member of the four SEABEE Teams depending on these men and you're sure to get this answer: "A whole lot".

DOCTOR, COUNTRY STYLE

(Continued from Page 26)

of soap. He always has a good supply of candy for the youngsters.

"I've been well accepted in this area by the local Vietnamese", Andy said. "We've had various village chiefs come to the Seabee camp time after time wanting to know when we would be coming back to their villages. Once they begin to believe in you and what you're trying to do there is nothing in the world they wouldn't do for you", he added.

Another important reason for this type of civic action is not realized by many people.

"I think as long as you're here you're representing the United States. But yet you want to get across to these people that you're here because the Vietnamese government has requested you to be here. You're doing this in their behalf. If you get this point across they understand their government has sent you here. They more or less get the idea that

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ANODIZING

(Continued from Page 30)

and lowers it into the first of a line of long vats. Here, the liquid is an alkaline cleaner to remove dirt, grease and stains. The next tank is a water rinse. The third tank contains a solution of sodium hydroxide (NaOH). When the metal hits this it boils like a witch's cauldron as the solution attacks the metal violently. This is the caustic etch stage.

As a result of the etching, a satin finish is achieved and die lines are removed. After another rinsing in the next tank, it is dipped into the deoxidizer to remove all residue of the etching process. Another rinse and it is ready for anodizing.

This is the critical stage, the one previously mentioned in connection with the complex equation. After anodizing, the metal is rinsed again. Then it is sealed. Without proper sealing, the metal stains easily. Sealing is accomplished by submerging the metal in boiling water. Next, the metal is rinsed in cold water to reduce the heat and avoid spotting—an effect of too-rapid drying. Blasts of hot air thoroughly dry the metal; this completes the cycle.

The foregoing is a simplified account of a complex process. A few other facts may enhance one's mental picture of this alchemist's dream—changing base metals to gold. Yes, aluminum can be anodized in gold color, plus a wide variety of other colors. The color is added after anodizing but before seaing. In other words, the metal is submerged in a bath of water containing dye. The color is trapped in the pores—sealing the pores locks in the color.

Another feature of the anodized coating is its high dielectric strength (the coating, NOT the metal, is a very poor conductor of electricity). This holds no interest to those involved in architectural usage of the metal, unless for its curosity value. In other fields, however, aluminum strip can be anodized and then wound into self-insulating coils suitable for strip conductors which have excellent heavy--duty capabilities. Due to the thinness of the insulating film, as compared with other conventional, Bulky insulation, less space in required for the unit. Additionally, the insulating anodic film is highly resistant to heat—the emeny of most insulating materials.

There is one facet of the dielectric feature that directly concerns the architectural users. This characteristic provides for testing and measuring the thickness of the coating. The coating, being a poor conductor, provides

(Continued on next page)

"EXEC"

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ported to MCB-3 from the U.S. Naval Ordnance Test Station, where he served as Public Works Officer, and Officer-in-Charge of Construction for the Laboratories, and Facilities located at Pasadena, Azusa, San Clemente Island, Long Beach, and Seal Beach, California.

Lieutenant Commander Lonegan replaced Lieutenant Commander **Edward R. OSCARSON**, Civil Engineer Corps, United States Navy, as the Executive Officer of MCB-3. Lieutenant Commander Oscarson had received orders to Washington, D.C., where he is now attending School.

ANODIZING

(Continued from preceding page)

a means of testing. Electricity can be used to determine the thickness of the coating by computing the inpedance factor.

In passing, a few words about the type of aluminum alloy are necessery. The formula of the alloy can affect anodizing in various ways, including final color. A typical cast of billet to produce 6063-T5 aluminum alloy might contain the following alloy metals: Silicon .0042%, Iron .002%, Magnesium .0052%, and Zinc.0002 At this point, a word of caution to buyers of aluminum products might be helpful. There are imitation processes which appear to be anodizing but all similarity ends with appearance. These imitations involve merely etching the metal and applying a coating off lacquer or similar paint-type finish. When the lacquer wears off the protection is gone.

A further comparison of the two finishes highlights the shortcomings of the imitators. Anodizing is as hard as sandpaper particles; lacquer is just "paint". Anodizing is a part of the metal (the metal's surface has been altered or changed into a crystal-hard substance), lacquer lays on the surface. Anodizing is impervious to the elements; the elements attack lacquer.

Thus, it can be seen that the integrity of the manufacturer is an important factor when buying fabricated aluminum products. This goes double when those products require anodizing.

If you really want to protect aluminum from salt water or "salt air" of costal regions, just weld 200 layers of sanrpaper particles to its surface! Go the hard way.

DOCTOR. COUNTRY STYLE

(Continued from Page 36)

their government is trying to help them. This is what we attempt to do," Andy said.

This huge 6-foot giant of a man, always with a twinkle in his eye, wears neither the white hat nor the bell-bottom trousers of the Navy. His uniform is the Marine-type fatigue "greens".

He takes no armed escort with him on these village rounds. He said his visits are meant to be friendly.

"This duty is like nothing I've ever done before. I do carry a weapon for my protection as well as my patients' protection if it comes to that. It's a funny feeling being out here in the middle of nowhere. You never really know where the rear, front or flanks of this war are. You've always got to be on the alert," Andy said.

"When I first got here, about six months ago, there was no medical civic action program. So I went out to some of the villages in the mountains and saw some of the village chiefs. With them and some of the public health workers of the villages, we got together and set up some schedules," Andy said.

He would make visits once or twice a week to each village. There are three such villages that he visits regularly each week. Others, farther away, are visited less frequently because of the distance and the chance of Viet Cong in the area.

His primary job is that of keeping the SeaBees of the team healthy. The second job is not a requirement but one he does voluntarily. Andy figures he sees over 1,000 patients a month. His friends will give you odds that it's nearer 2,000.

Before coming to Vietnam, Andy had seven year's experience as a hospital corpsman. He had five months of training preparing him for this deployment before his SeaBee team came to Vietnam. Half of this training was medical and half military and on the country of Vietnam.

When he is not involved with his medical duties he goes out and works on projects with the Seabees. He may operate a bulldozer or use a shovel to dig the foundations for a bridge. Andy seems to have an unlimited supply of energy and one thing you will never find him doing is sitting idle.

Andy is the son of **Mrs. Mable ANDREWS** of 413 23rd Ave., N.W., Birmingham, Ala. His wife **Margaret** and their three children make their home at 930 Addor St., Port Hueneme, Calif.

CAPT. SEUFER

(Continued from Page 18)

Star Medal with Combat "V" in World War II while commanding the Eighty Second Naval Construction Battalion on Okinawa in 1945.

He later served as Maintenance Division Director at Naval Facilities Engineering Command headquarters, Public Works Officer at the Naval Air Station, Alameda, California, and as Commanding Officer of Public Works Center at Norfolk, Virginia. In 1964, he was Assistant Chief for Operations and Maintenance, Naval Facilities Engineering Command. He was Director of Facilities Engineering at Command headquarters in Washington prior assignment to his present post.

Captain Seufer holds Bachelors degrees in Civil Engineering and Management Engineering from Rensselaer Polytechnic Institute and a Masters degree from Harvard University.

He was Assistant Public Health Engineer in the Washington State Health Department before joining the Navy Civil Engineer Corps in 1941. He transferred to the regular Navy in 1946.

A native of Woodcliff, N. J., he now lists Seattle, Washington as his home town. He and his wife have five children. One son, Ensign **Stephen J. SEUFER**, SC, USN, graduated from the Naval Academy last year.

Captain Seufer, who was awarded the Moreell Medal by the Society of American Military Engineers in 1963, is a member of that Society, the American Academy of Sanitary Engineers, American Society of Civil Engineers and the American Water Works Association.

SIMULATED HUMAN TISSUE MEASURES SPACE RADIATION

HUMAN TISSUE-EQUIVALENT ION chambers designed by Air Force scientists are orbiting the earth in the OV3-4 satellite launched from Wallops Island, Va., recently. Eight ion chambers are encased in plastic spheres along with new devices equipped with sensors to measure the amount of radiation that would penetrate and affect a man's skin, blood-forming organs and gastro-intestinal tract. Data collected and telemetered for the next year will be converted to computer codes to predict accurately the kind and degree of radiation space pilots will encounter over long periods and what biological effects may be expected.

MARINES EAT AGAIN

Five thousand Marines at the Chu Lai Combat Base now enjoy spacious new messhalls thanks to the Seabees of Charlie Company, U.S. Naval Mobile Construction FOUR. That is the aggregate number of hungry Marines that can be fed in the 1600 man messhalls recently completed for MAG 12, the First Marine Division and MAG 36.

The building of the first of these structures, the MAG 12 galley, was undertaken with great zeal. Many problems arose on this first galley, but all were deftly overcome by the skillful Seabees. One of the many problems encountered at MAG 12 was that plumbing supplies were lacking when it came time to pour the concrete decks. This was overcome by pouring the wall footers and curbs first and then waiting until the plumbing materials arrived to pour the decks. To add to the problem, all concrete work was done by hand, since transit mix trucks were not available in Chu Lai at that time.

Next came the word to proceed urgently on the First Marine Division galley and messhall and once again Charlie Company was given the go ahead. This time, under the direction of Petty Officer **"Pappy" ALBRIGHT,** BU1, the immense building with 18,000 square feet of floor space went up in record time. It was estimated that the 1st MARDIV galley and messhall would take 800 mandays to complete, but the men of Charlie Company did it in 620. Special credit is due to the Marines of the 1st Engineer Battalion who placed all the concrete for foundations and floor slabs for this structure.

Concurrent with the erection of the 1st MARDIV messhall, a separate crew of Seabees under the direction of Petty Officer **MONSRUD,** BU1, began construction of the MAG 36 galley and messhall. This messhall is the finest structure erected in Chu Lai by MCB 4. Situated on a high bluff near the water, the building was given a special architectural treatment to enhance a beautiful view of the blue South China Sea.

In the process of building these messhall and galley combinations, all Charlie Company personnel were involved including the Company Commander, LTJG **P. E. MELLON,** CEC, USNR, who helped to redesign the form material, structure walls, trusses and gable ends. These revisions saved a great deal of time and material as exemplified by the fact that 34,000 board feet of lumber were used in the construction of the MAG 12 galley while only 28 000 board feet of lumber were used at the MAG 36 location for the same type of structure.

Each of the messhalls was completed in record time with a total of 2200 mandays used for the actual structural erection.

CHAPEL IN THE PINES

By P. CARRIERE, CN

CAMP SHIELDS, CHU LAI, RVN — One year ago, SEABEES stormed ashore on the sandy beach at Chu Lai. Today, the spot is marked by a beautiful chapel built of bamboo and elephant grass. The "Seabee Chapel in the Pines" was built for MCB FOUR by native workers as a part of the People-to-People program to strengthen the Vietnamese economy. The brass choir from the First Marine Division Band trumpeted praises as the structure was recently dedicated to the "Glory of God and the service of man."

A special feature of the unique chapel is the panoramic view of the South China Sea stretching out before the congregation. The orange sun, as it "rises out of the sea", floods the sanctuary with its light, for the entire front wall of the chapel opens out to form a beautiful backdrop for the altar made by the BEES of FOUR.

No other chapel in Vietnam boasts such unique lighting fixtures: nose cones of expended aircraft rocket pods, painted white and suspended from the ceiling rafters. Swaying gently in the ocean breeze, the cones resemble ringing wedding bells.

Outside, a life size cross set amid the pine trees marks the entrance to the chapel. The cross beckons 24 hours a day to the BEES of FOUR urging them to remember their ideals, for at night the cross is illuminated by a huge construction type floodlight. The front doors of the chapel always stand open, revealing the altar which is illuminated by another interior spotlight.

SEABEES on lonely sentry duty at night or returning from hectic days in the field gain inspiration day and night from their Chapel in the Pines.

GOODWILL

By WILLIE STEPHEN JO2 USN

DA NANG, VIETNAM (PAO) — A group of Seabees from Mobile Construction Battalion Six, (MCB-6), now on duty here outside Da Nang, found out last week that "Good-will" missions like many other efforts of this war can be both dangerous and difficult tasks.

The "People to People" assignment for MCB-6 resulted when Vietnamese inhabitants of Son Thoy, a village near the Seabees camp, encountered a serious water problem. Their reservoir, once filled with water for irrigating dry crops and also for their personal use had been mysteriously covered over by the shifting sands or some other unknown reason. The village chief appealed to local authorities for help.

MCB-6 received the humanitarian duty of digging a new reservoir for the villagers. The new water hole would be 5 ft. deep, 21 ft. wide and 57 ft. long. For the Seabees this seemed like a routine job.

However, before the seemingly easy assignment was finished the Seabees had to overcome the misfortunes of a weak helicopter, help move sacred graves, harvest crops, fix a flat tire, move a two ton digging machine around and down a 200 ft. perilous incline to the job site below and one man injured.

With no accessible roads to the valley below the Seabees had to get the two ton back hoe digging machine to the job site. They requested and received the aid of a Marine Corps helicopter. The helicopters job was to deliver the machine 100 yards from the pickup area and lower it onto the work site. The machine was too heavy for the helicopter to lift.

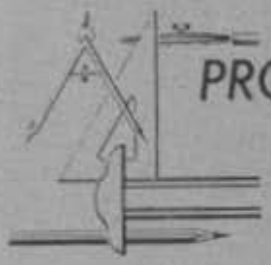
This was the Seabees second misfortune for just the day before, they had through the assistance of Chaplain **David BOWES**, the MCB-6 religious leader helped move 14 graves from the future reservoir area. The Seabees motto is "Can Do" and this group of Seabees would not quit.

Two of the units equipment operators boarded the machine and with guides directing them, started the long, slow and dangerous way around and down the hillside. One mistake and both men and machine would fall 200 ft. to the valley below.

After reaching level ground the Seabees had to dig a path to the job site, fix a flat tire and help the villagers harvest crops of potatoes, rice and other vegetables in danger of destruction by the digging machine.

With armed guards in case of V.C. interference, the Seabees worked into the night and in two days the villagers had their new reservoir. All the Seabees had to do now was get the machine back up the hill. While pulling the "back hoe" up the hill a Seabee Chief Petty Officer received a nasty cut on his hand from a twisted cable and had to get medical attention.

The men soon returned to their regular duties of building and defending various projects in the Da Nang area. The Seabees motto of "Can Do" had been upheld because despite all of their problems, this group of Seabees from MCB-6, proved to the people of Son Thoy that they could "DO"



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