



Bemiell Gfoneg Palisailo Colonalo 81526
Hugh ip, Btoshull 6914 Prospectare Bell Gel 7 IVST


a.g. Rodgus Popoax 1132 dacksonville, ARD 1207 ' $^{\prime}$

Bruce Fields 6656 wadswo th, A-vadr, co 80005
 James Perma 24 BRook Lu. OCAlA 34472



## DANGER

> Sighting Men at Work

Aworli=a=day tale of how
the job was actually alone by the 27th Seabees as told by

## WILLARIG G. TRIEST

COMMANDER (CEC), USNR
to
EDWARD J. DOHERTY


My Dear Commander Truest: anderiences of the 27 th Naval In your story of you have pict the conditions under when Construction Battalion It depicts not only the tremendously interestit tells a tremendously ks were performed,

I was greatly actual stories of ship repair, pontoon bridge as my heartiest congratulations and Please convey to all hand played in prover twentyappreciation for air and the ground pacific. the Fleet and the ar duty in the Sour am certain that we written, I am those of whom we Naval Construction Sincerely yours,
B. NOREELL (CEO), USN Vice Admiral Engineers Chief of Civil

## ACKNOWLEDGMEnTS

The Battalion gratefully acknowledges the efforts of those who have made this book possible:

Comdr. Willard G. Triest, whose idea it was.
Lt. D. D. Duncan, USMCR, who aided in correlating the information.
LT. A. W. Hoy, who compiled a chronological history of the Battalion.
The other officers and men who have contributed so much in time and material.

Lt. W. R. Kalbfleisch
Lt. C. R. Drew
Lt. H. V. Carter
Lt. John F. Poulton
Lr. (JG) O. J. Loeltz
Lt. (JG) R. L. Roath
Lt. (JG) H. H. L. Trudel
Ch. Carp. D. C. Works
Ch. Carp. A. G. Towle
L. L. Byars, CSK
L. F. J. Соок, CY
C. B. Smith, CSF
L. B. Rogers, CBM
O. W. O'Conner, Y1c
R. A. Bennett, SKD1c
B. J. Smith, CM1c
E. B. Johnson, CM1c
J. Fetterman, Y1c
H. A. Kornegay, BM1c
J. H. Siebold, Y2c
J. E. Robinson, SF2c
J. R. RANC, CM3e


## LIST Of ILLUSTRATIONS

Cocoanut Tree ..... 3
Home Again ..... 13
Invasion Maneuvers on Virginia Shores ..... 15
Sunday Morning Muster, Guadalcanal ..... 16
A Typical Tulagi Foxhole ..... 19
Tulagi Camp at Dusk ..... 22
Tulagi Installation ..... 22
Tulagi Harbor ..... 23
"Scrappy" ..... 24
We Squeezed Through the "Cut" ..... 25
John and His Son ..... 25
Tulagi Skyscraper, the Harbor Control Tower ..... 27
The Rocky Bluff ..... 28
A Roadway Cleared ..... 30
Main Highway on Emirau ..... 31
Heavy Equipment Busy ..... 32
Shovels Dig Coral ..... 32
Cutting Hardwood in the Tulagi Sawmill ..... 33
The Diving Crew ..... 35
"Tojo" ..... 37
Open Air Services ..... 39
The Old English Lathe ..... 41
One of Bishop Badeley's Churches ..... 48
There WERE Snakes on the Island ..... 49
Market Day at Siota ..... 51
Native Dwelling of Superior Construction ..... 52
Blue Beach Hospital, Section 1 ..... 56
Camouflage Partially Completed ..... 58
Doctors Hensler and Carter ..... 59
Sick Bay Area ..... 59
Interior of Ward ..... 60
Level Ground for Tank Sites Was Scarce ..... 62
Completed Tank Site ..... 62
Steel Sheets Laid to Form Tank Floor ..... 64
The Floor Is Completed ..... 64
The Walls of a Tank Rise ..... 65
The Walls of a Tank Are Completed ..... 66
Two of the Tanks Are Finished ..... 67
No. 2 Tank Is Camouflaged ..... 67
Company C Slept Here ..... 68
At the Auckland Dance ..... 69
The Original Timber Bridge After the Flood ..... 71
Clearing the Debris ..... 72
Removing the Last of the Wreckage ..... 74
The Strings from "Big Joe" Move to the Job ..... 74
Driving the New Bents ..... 75
The Pile Driving Is Completed ..... 76
The Trial Launching ..... 77
Launching the First String ..... 77
String Operations (4 pictures) ..... 78
The Strings Are Set ..... 79
Testing the Completed Bridge ..... 79
Emirau ..... 80
The Small Craft Come Ashore ..... 81
Supplies Are Unloaded ..... 81
There Is Nothing Like a Cold Shower ..... 82
One of Our Crews Erects a Warehouse at Naval Base ..... 83
The Naval Base Sick Bay ..... 83
Harbor Control Tower ..... 84
The Torpedo Shop ..... 85
P-T Boat Base Machine Shop ..... 85
Coral Causeway and Pontoon Dock for P-T Boats ..... 85
Unloading Bombs from LCT ..... 86
The Heavy Surf Tore Up the Finger Piers ..... 86
27th Battalion Men Stack Pipe ..... 87
A Section of the Lumber Yard ..... 87
The Wrecked Inboard End of Pier ..... 88
Cleaning Holes for Dynamiting ..... 88
Setting Strings for Slips ..... 88
Blasting the Coral End of Slip ..... 88
The "Contraption" Starts to Work ..... 88
The Drydock Nears Completion ..... 88
The Diver Goes Down to Check Progress ..... 90
Installing Vertical Stabilizers ..... 90
Launching String for Pontoon Drydock ..... 91
The Valves Which Control the Flow of Air ..... 91
What We Started With ..... 92
The Conveyor Line to the Hopper ..... 92
How We Finished the Cement Job ..... 95
Parts of the Chuck We Made ..... 98
"Duffy's Torture Machine" ..... 99
Center Map Spread ..... 100
"The Flying Fortress" Comes Home Minus a Wheel 102
The Rifle Range on Emirau Island ..... 103
Chaplain Anderson and the Choir ..... 104
Regular Sunday Services ..... 105
The Main Auditorium ..... 105
Chow Down! ..... 107
Admiral Halsey ..... 109
Bringing in the Mail ..... 110
Our Band ..... 112
Emirau Bowl ..... 112
Bob Hope and Patty Thomas ..... 113
Carol Landis ..... 114
The Ball Team ..... 114
Batter Up! ..... 115
"One With and One Without" ..... 116
It's True . . . We're Going Home! ..... 117


## F O R E U O R D

"Above and beyond the call of duty!" These few words, I sincerely believe, are the highest praise any man can offer another in recognition of his deeds. Knowing this, I here dedicate them to you, the men of the 27 th U. S. Naval Construction Battalion, as your commanding officer. They have been voiced as heartfelt thanks by so many of those Sailors and Soldiers and Marines for whom you have done so much and with whom you have given these two years of your lives.

Not having been an original member of your battalion, I feel that the pride I express in you, and the enthusiasm with which I endorse your story, will be given more credence by the very fact that, for the first year, I shared neither your burdens, your hardships, nor your triumphs.

Here, for the first time, is a story describing you as you are-your part in this war. The story of your work, your problems, your readjustments into an unknown pattern of life, your laughter, jolts and sadness-your story as Seabees, and as men who have given of your bodies and minds and lives that our fight be won.

Other battalions have, I am sure, accomplished results comparable to, or even possibly, more spectacular than yours. Of them we are proud, But it is of your accomplishments, never contemplated in your original assignments, of which I speak when I say "above and beyond the call of duty." Your regular construction assignments, when weighed against your results, seem lightalmost inconsequential.

The story of these accomplishments begins in
the early, haggard days of 1943. It tells of your unceasing work despite many sleepless nights in foxholes-of guns manned and planes downedof the role you played in winning the battle of the Solomon Islands. It was you, in many ways, who helped keep our ships fighting. By constant ship repair, ordnance, and salvage worknever a part of your originally conceived regular duties-you contributed directly to the efficiency of each fleet operation through the Guadalcanal, Russells, New Georgia, Vella La Vella and Bougainville campaigns-all culminating in the reconquering of the British Solomon Islands.

Moving further west in early 1944, you participated in the campaign of the Bismarck Archipelago. There, in the St. Mathias Islands, your tasks were characterized by the speed and efficiency with which they were met and completed. Though unlike those other days, in the Solomons, when even routine jobs were carried on under continuous threat of enemy action, the work here was often exhausting and difficult. Creation ot the roads, and docks, and airfields, to which you dedicated yourselves wholeheartedly, stand today as construction records. Another job finished! Another base won!

I am honored to have been your commanding officer. Your great accomplishments will not be forgotten. "Well Done!"

WILLARD G. TRIEST
Comdr. CEC, USNR
Officer in Charge

# I N T R O D U C I I O n 

## DANGER—FIGHTING MEN AT WORK

Tales of spectacular accomplishments by the United States Naval Construction Battalions have captured the public imagination; still little is known of them beyond the fact that they are a hard-bitten bunch of construction hands recruited by the Navy to service its Fleet, Air and Marine forces on foreign shores. This book tells the story of one battalion, the 27th, a story typical of all battalions, differing only in the conditions which were climatically and geographically imposed upon them.

It is pertinent, then, to relate briefly something of the circumstances which brought these specialized products of a specialized war into being.

The Navy in peacetime had engaged civilian contractors to build its shore facilities both at home and abroad. However, early in 1940, a few far seeing officers of the Bureau of Yards and Docks began thinking about the construction difficulties of an amphibious war. They realized that if we went to war, it would be not only against an European tyranny, as in World War I, but also against the growing forces of menace in the Pacific.
Inevitably, their thoughts turned to the establishment of bases necessary for the conduct of a global war and to the equipment our forces would need to build and operate them. This equipment must include bulldozers, cranes, shovels, scrapers, rollers and trucks and airfield matting, to say nothing of hospitals and housing, with all their accessories; portable generators, refrigerators, water purifiers, galleys and laundries. Also, there would be the problem of transporting cargo from ship to shore and the establishment of landing and transport facilities.
In 1941 the clouds of war grew darker. Lend-lease came into being and the right to negotiate 99 -year leases for island bases near our shores came as a result of the delivery to the British of the famous fifty overage destroyers. Almost at the same time we concluded agreements to build bases in Newfoundland, Greenland, Iceland, Scotland and Ireland. All of these were necessary to protect the shipments of Lend-lease materials to our Allies.

In the Spring of 1941, in connection with the vast number of domestic installations the Navy required for National Defense, a naval air station was ordered to be built at Quonset Point, Davisville, Rhode Island. Shortly after this project was started, the officer in charge, Captain Raymond V. Miller (CEC), USN, was given the added responsibility for the construction of a base at Argentia, Newfoundland, and the furnishing of construction materials to numberless other outposts.

Our allies were impressed with the equipment furnished, which included prefabricated, all-purpose metal huts and hundreds of special items of advance base gear.

In this connection, it is of interest to note that when the first of these portable steel buildings was fabricated at Quonset Point, the contractors followed a design similar to that used by the British, known as the "Nissen Hut." For scme time they were furnished under this name. One day, during a conversation between Captain (then Lieutenant Commander) Everett S. Huntington, CEC, USNR, and Colonel (then Lieutenant Colonel) William C. Purple of the United States Marine Corps, the Colonel asked, "Why do you call them 'Nissen Type' huts? Why not give them a name of your own?" Captain Huntington was enthusiastically in accord. But what to call them? "Call them 'Quonset huts," the Colonel said. "That's where you are making them, isn't it?" And so the famed little corrugated steel buildings which have mushroomed all over the world received their name.

Another interesting development of advance base gear, and one without which the war might have taken a vastly different turn, was the "magic box" of Captain John Laycock, CEC, USN. Back in 1940, Captain Laycock began to consider the difficulties of transporting cargo from ship to shore and of quick establishment of unloading facilities where nothing existed before. He conceived the idea of a steel pontoon which would overcome these problems. For months his desk was littered with cigar boxes which he fastened together in a myriad of ways until he evolved the pontoon structures which the Navy used so successfully in its landings in Africa, at Salerno, on the Normandy coast, Guadalcanal and hundreds of other islands in the South and Central and Western Pacific. They have been used as barges, bridges, wharfs, piers, floating drydocks, and local gasoline and water storage tanks. At Normandy they were an integral part of the prefabricated harbors which insured the success of the invasion of France.

December 7, 1941, galvanized the Bureau of Yards and Docks into action, along with every other agency of our armed forces. It was realized almost at once from our experiences at Wake Island that the Navy could no longer have civilian contractors do its building in time of war, and that our own naval construction forces were necessary.

On December 27, the first "secret" and "urgent" advance base in the Pacific was authorized, and given the code name "Blueberry." It was to have a tank farm with sea loading facilities, an air strip, and housing for five or six thousand personnel. It was to be built and perhaps defended by Naval Construction men.
"Blueberry" was the first of a series of bases which were to be called "Blackberry," "Strawberry," and "Gooseberry." Someone soon foresaw the inevitable "Raspberry" and the name was hurriedly changed to
"Bobcat." The first series of names was thus discarded. Then the fun began. We had Roses, Strawboard, Bleecher, White Poppy, Forearm, Cactus and hundreds more. These were all operational code names. For shipments, though, simpler words had to be found. Thus came Dial, Bevy, Rasi, Emit, Bive, and others, until the desired result was achieved. No one knew anything except those who should.
Just before Pearl Harbor, Captain Miller's organization had made a contract with the Standard Oil Company of New Jersey for the design of fueling facilities for Iceland and the bases in Scotland and Ireland. The designers had barely gotten under way when orders for Bobcat came through and everything else was dropped in its favor.

Neither the Standard Oil engineers nor the Bureau of Yards and Docks knew much about the South Seas, particularly the island of Bora Bora where Bobcat was to be built. The designers were shown an old moving picture, ominously entitled "Tabu," which had been made on the island. From what they saw, and with the aid of an old island map, designs were made and within five days completed plans and specifications for a three-hundred-thousand-barrel tank farm and all pertinent facilities were completed. Simultaneously, the contractors at Quonset Point, through their already quite large TAF (Temporary Advanced Facilities) Section, assembled the gear and within two weeks had it loaded on ships and under way.

In the meantime, the matter of additional personnel for the Bureau of Yards and Docks had received considerable attention. Early in 1941, Commodore (then Commander) John Perry, CEC, USN, was charged with recruiting a vast number of civilian engineers and contractors to augment the handful of officers with which the bureau had been struggling along. Upon the decision to build Bobcat with naval personnel, Commodore Perry began the enormous job of enlisting construction specialists throughout the country for this duty. There was no regular organization at first. In fact, the first naval construction detachment to be sent to Bobcat consisted of only 250 men, who had to be drawn from general service, and a few Civil Engineer Corps officers. Within a short time, however, regular battalions were authorized, consisting of 1,083 men and 32 officers. Fifty battalions were authorized at first, then one hundred and more. Evetuanlly, one hundred and forty-five, plus a multitude of special detachments and maintenance units, were formed and sent into the field. This number has proven enough for the job to be done.

An amusing and dramatic example of the speed with which things were accomplished in those hectic, early days of war is the story of the recruiting of Morris T. Duddleston, a pipe line expert, who was then finishing the job of laying 141 miles of pipe at the rate of a mile a day for the Portland-Montreal Pipe Line Company.
The Navy needed a first class tank farm and pipe line construction engineer to supervise the building of the tank farm at Bobcat. There was no one in the corps at the time and none in prospect. Captain Miller turned to Mr , W. R. Finney and his assistant, Mr. J. B. Adoue, of the
producing department of the Standard Oil Company of New Jersey for suggestions. They nominated Mr. Duddleston. On Friday afternoon, January 2, after two twenty-minute long-distance calls, "Dud" agreed to accept a commission in the Civil Engineer Corps, if it could be gotten for him, and to go overseas. He flew to Washington and bright and early on Sunday, still a civilian, was introduced to the Chief of the Bureau of Yards and Docks, Vice Admiral Ben Moreell, CEC, USN, and others concerned with war plans. On Monday Morning his application for commission was started through the Bureau of Navigation, now Naval Personnel, and, despite his lack of a college degree, a transcript of his school record, required letters of recommendation from responsible civilians or even a copy of his birth certificate, and his need of two or three medical waivers, he was commissioned a Lieutenant Commander at five o'clock that afternoon.

Meanwhile, his measurements had been telephoned to New York, and when he arrived there at seven-thirty, a tailor had his uniforms well under way. By ten o'clock he was completely outfitted and shoved off for St. Louis to say good-bye to his wife and son. Within three weeks, in which time he learned a lot about the Navy and all about our plans for the base, he sailed from Charleston as Executive Officer of the 1st U. S. Naval Construction Detachment.

Subsequently, Lieutenant Commander Duddleston's services became invaluable as a planner of fueling stations throughout the entire South Pacific area as a member of the staff of the Commander Service Squadron, South Pacific Force. Fifteen months later Mr. Duddleston planned the tank farm which this battalion built at Marker "D" in Purvis Bay. Many of the old hands will remember him as he stayed with the 27 th for some little time on Tulagi during the first days of construction.

All branches of the service cherish their traditions. Each has its sagas of glory, its oft-told tales of courage, death and derring-do. The Marines, the Navy, the Armyeach can point with pride to victorious battles and campaigns in the military history of our country. For each of these the present conflict has merely added to its already lengthy annals of fame and glory. To the Seabees, however, lay the task of creating their traditions entirely in this the Second World War. From this conflict must come the tales of adventure; the stories of work and rest, of tears and laughter, of death and life, that will give to this new branch of the service a place in the hearts of the American people. It is for this purpose that this book, the story of the first tour of duty of the 27th U. S. Naval Construction Battalion, has been written.

## WILLARD G. TRIEST Commander, (CEC), USNR

Note: Commander Triest entered the naval service in September, 1941, and was on duty with the Officer in Charge of Construction at Quonset Point, Davisville, Rhode Island, from November, 1941, to November, 1942. From this time forward he has been with the Seabees.


Home Again.

## meat on the table

## PART I

After two years of work and war we have come home.
We have returned from Guadalcanal and Tulagi and Emirau and other South Pacific islands, to rest from the fighting and the toil, to see our families again, to restore our energies and improve our skills, to gather new recruits and new equipment.

And presently we shall shove off to war again, wherever the Seabees are needed most.

We are a thousand men.
We are proud of the work we accomplished, the roads we built through mud and swamp and jungle, the earth and rock and coral we excavated. We are proud of the bridges and docks and hospitals and other buildings we constructed. We are proud of the lumber we produced, the fuel storage tanks and torpedo magazines we finished, and all of the other tasks we completed in spite of bombs, and other hazards of war.
We are proud of what we achieved in the repairing of 145 ships, ours and our Allies', and of
the salvage work done by our divers. We finished 610 repair jobs on these ships-jobs that required from a half a day to a week for a crew to do, and 1,100 other jobs in our shops for a multitude of craft.

We gave the Navy harbor facilities it badly needed for the winning of the war. We kept a fleet of fighting ships in fighting trim.

And we shot down four Japanese planes.
We helped to pave the road to Tokyo. Our story properly begins with the killing of these planes.

We claimed seven. Three were confirmed, and one was listed as partial.
We had some excellent gunners in the outfit, especially Chief Willie Lee Lively, Chief Bernard "Rosey" Rosebrough, Charley Lease, and M. R. "Irish" Kelley.

These were all old Navy men. Kelley and Lease had served on the U.S.S. Nevada at the same time, but had never met until they came out to the islands.

13


Ventru2, 93001

Lively is a wiry little man with a hole in the middle of his haircut. He spent 12 years in the Navy, working in destroyers and submarines most of the time. He had an inexhaustible fund of stories, which he used to relate to the crew at night, lying in the gun pits and waiting for the Nips to come over. His stories helped morale in those dark hours when a man couldn't smoke. The lighting of a match might have made us a target.

It was Lively who organized the armory, selected the gun crews, picked out the positions, built the pits and sandbagged them, and trained the men.
"Rosey," tall and trim and handsome, and dark moustache penciled over his upper lip, and a little gray in his hair, had been a gunner in the Navy. He kept the weapons in constant readiness, and it was he who brought down the first plane.

The rest of us had never seen a gun before we enlisted.
We were novices, but willing to learn all we had to learn about war. One thing nobody had to tell us-that was to fire on every enemy plane heading across Tulagi for Guadalcanal and our cargo ships. We acted as bait, so that the Jap bombs would fall on our island-and Guadalcanal would be spared by just that much.

We went through 150 alerts during five months in the Tulagi area. There were times when many planes came over Guadalcanal and bombs dropped. There were times when planes exploded in the air and fragments fell. A Seabee on the 'Canal, in the 46th camp, picked up a Japanese pilot's glove. It was perfectly all right except it had a hand in it.

We suffered no casualties from air Japanese action. We were fortunate. But we had one man killed by action at sea, John Mansfield.

Night after night our men volunteered for duty with PT squadron 2. They were tired after their long day's work, but never too tired for patrol work. The squadron was short of personnel, and glad to get the help of the Seabees. Mansfield was manning a .50 machine gun aboard the PT one February night. The little craft encountered a fleet of enemy ships; and in the fight that ensued was hit by a shell and sunk.
We were, at first, as awkward a group as any other aggregation to be found in the army and navy camps of America. We were boys just out of trade or high schools. We were men in the first flush of strength and skill. We were men of 25,30 and 40 years. We were men of 50 .

Most of us were carpenters, plumbers, electri-
cians, lathers, surveyors, well-drillers, mechanics, steam-fitters, sand hogs, oil riggers, contractors, lumberjacks, builders of all kinds, men accustomed to the shovel and the wrench and the saw, men who could take apart a bulldozer or an expensive watch and make either run better than it did before.
Most of us were flabby and soft, except for our calloused hands, when we came to Camp Allen, Norfolk, Va., in the last days of August, 1942. The constant and intensive drilling was an ordeal to us. But one thing eased our tired muscles and our burning feet, the knowledge that in the Seabees we could serve our country best.
Some of us were too old for any sort of military service, but we wanted to help out in any way we could. There were men in the outfit who had served in the first World War. They couldn't march five miles now with seventy-pound packs on their backs, nor stand guard on a vessel plowing through wintry seas at night. They couldn't fight, but they could work. And here was the place to show what work they could do. They felt they would be as valuable to Uncle Sam with the tools they knew as others might be with bayonets and guns.
We didn't know the time would come when we would lack the tools we needed most, when we would have to make tools out of scrap metal, barbed wire, parts of Japanese and British machinery that had been wrecked by shells, and many other sorts of junk. But it wouldn't have mattered. We had that "Can Do" spirit of the Seabees, and the determination to repay the enemy, in any way we could, the debt we owed him.

This determination to square accounts was developed early, in the "boot" camp, in the exhaustive training, in the loneliness of detention, in the homesickness that afflicted us all-especially the married men who made up the majority of the battalion-and in the strangeness of this new life.

We resented the fact that the Jap had forced us to leave our homes, our wives and children; and had brought us here to mingle with strangers, to learn new ways of getting tired, to shoulder rifles and heavy packs, and to march and march and march. We chafed under authority, though we were volunteers, and we saw little sense in physical training.

The story of Chief George Cook might have been related of any of us. The chief was a mighty man. He weighed 230 pounds. He went protestingly through all the drills, continually griping.
"Boy somebody's going to pay for this," he assured us again and again.
It was his own platoon that paid-in part. He drilled them to his heart's content, when he had the opportunity.
"Column Left $\qquad$ Harch!"
"Column Left $\qquad$ Harch!"
"Platoon Halt!"
"Forward $\qquad$ Harch !"
"Left-Right-Left."
"Hebe-haw-yur left."
Up and down the field marched the platoon, hour after hour, in the heat of the sun, sweat pouring down each face.
And all the time Cook stood on a little mound of earth, unbudging, motionless as a traffic cop, exercising no part of his anatomy save his tremendous chest and his powerful vocal cords.

We drilled, took part in the showy maneuvers of the parade ground; we were given combat training; we learned to use a rifle. There was no time for other weapons. We learned some things we didn't know about diesel engines, the erection of steel tanks and quonset huts, the operation of field generators, refrigerators, and water purifiers; and we studied the science of
field sanitation and malaria control, and the art of camouflage.

We showed up brilliantly in a test problem in Chesapeake Bay before we sailed. We were supposed to take from the "enemy" a strip of beach and sand dunes entitled "Island X," land our equipment, and build a temporary fighter plane strip 150 feet wide and 3,000 feet long. The "island" was presumed to be protected by our carrier planes for thirty hours. Thereafter, we must have planes operating off our new strip.

Six platoons in Higgins boats made a beachhead on the shore, an area large enough to provide for the construction of a fighter strip. We doubled as stevedores and loaded pontoon barges with the equipment needed, bulldozers, carryalls, motor graders, generators, field floodlights, Marston airfield matting, galley equipment, water distillation units, and everything else required. Electricians installed floodlights so the work could be carried on during the night. Cooks and mess cooks had their stoves burning, and food cooking.

Within a short time after we landed, the distillation units were furnishing fresh water to the thirsty crews, the cat-skinners with their

Invasion maneuvers on Virginia Shores.



Sunday morning muster, Guadalcanal.
great machines were felling trees and leveling the site, and other men were placing the Marston steel matting.
The "enemy" broke through our defenses and hurled flour bombs on some of our equipment, but the referees decided they had been shot before the bombs were thrown. We completed the job three and a half hours ahead of schedule.
We thought we were real fighting men then. We were sure of it after 25 more days of intensive military training. And maybe we were. But men who work to utter weariness sometimes forget their training.
There was a Sunday over there in the islands when Headquarters Company was marching through camp after muster, with Chief Palmer in charge. He commanded "Column left!"

The men obeyed without hesitation, heading into ditches, tents, palm trees, and groups of other men. The embarrassed chief realized he should have said, "Column right," but that wouldn't do now, and he couldn't think of the right command to shout.
"Lord Almighty!" he wailed. "Stop, everybody, stop!"

Yes, we were novices at war, we admit, when
the bombing started. But we had our gun crews. Captain (now Commodore) 0. O. "Scrappy" Kessing organized them early in February, 1943, when the battalion was not yet six months old.

We installed 20 and $40-\mathrm{mm}$. ack-ack guns, and got our armory in operation. We had a little toy lathe in that armory, and we used it to keep the weapons ready for action. We also used it to repair the weapons of the P.T. Base, to overhaul the binoculars of their skippers, repair broken machinery from our heavy equipment department, the Marine garage, the Navy Boat Pool, the Battalion boats, and the ships of the fleet. We bought that lathe with Battalion funds, and put it to a thousand uses. We even used it to repair the dentist's "grinder," and to reshape his tools.
The lathe, one of two in operation on the islands for many months, was "Rosey's" pet; and the boys guessed that he wrote many letters about it to his wife in Oklahoma City.
Rosey helped, too, in the training of the gun crews, perched high up in the hills. His gentle voice had a steadying effect on even the greenest youngster.
"Take it easy, kid. Sure, you're scared. I'm
scared too. I'm always scared until my trigger finger starts to work. Once the Nips get in range, you'll be all right."
There was one among the crews who won the name of "Eagle Eye" because he could spot a plane 30,000 feet up, he said, and could see one coming thirty miles away even on a pitch dark night.
And there was another, a souvenir hunter and trader, who used to beg and plead and pray to the Japs to come a little closer.
"Come on, Baby," he'd cry. "Come on downget in range. We need a lot more souvenirs. We're running low. Oh, please come down, I need you so!"
A gong would sound on a hill top, or a leatherlunged Marine would shout a warning, or maybe a boy at a telephone in one of the pits would send the word that Tojo was coming fast, and coming soon. We had no sirens at that time. We didn't need them.
We got our first plane on March 4. The raid started at 2105. Rosey and his crew, Jack Smith, Lovell Titsworth, and Carpenter Tom Hollingsworth, were ready. They were manning 30 and 50 calibre machine guns. They had orders not to open fire unless they saw the target, and to hold their fire until the 90 's opened up.
"You can't hit what you don't see," Rosey said, looking upward.
There was plenty of noise up there, but it was all of one kind, the pulsating note of Japanese motors not quite synchronized, a sound that we interpreted "more meat, more meat, more meat."
But there was no noise below, until the 90 's across the island tore the silence wide open, firing in the direction of Blue Beach. Every other gun in the area added its thunder. The Japs were speeding toward Guadalcanal.
But Rosey was looking the other way. The fireworks were all behind him. He was watching the untroubled sky. He thought he heard something there, where nothing should be, something that sounded like a Jap.

He saw a shadow against a cloud, a dark smudge wiping across the darkness. He pulled the trigger. Flaming tracers flowered in the dark, shooting up to heaven faster than Jack's beanstalk in the fairy tale.
"Sign on that dotted line," one of the men cried. "Sign, damn you, sign!"
Another burst, and another. The men who were shaking with excitement a moment ago were now steel cool, waiting, listening, searching the clouds.

The full moon came into view, and someone thought he saw a plane spiraling downward.

Marine and naval officers scoffed at the idea when we reported the incident, and added that this particular plane had been coming from Guadalcanal, not going toward it.
"And you got it with a .50 calibre machine gun," one of them said. "Ridiculous. Maybe you killed an elephant with a spit-ball, mister, but you didn't get a plane."

However, a searching party found the plane where we said it had fallen. It was a light Jap bomber, decorated with .50 calibre bullet holes. Thus, we believe, Chief Rosebrough's crew was the first Seabee battery to down an enemy craft in the South Pacific Campaign.

Nobody can ever tell the thrill that went with the firing of each round of combat ammunition. No one who hasn't undergone it can appreciate the feeling-no one can describe it.
Immediately after our most vicious raid, in April, we couldn't remember having heard a plane dive or a gun fire. We didn't remember being warm, but our clothing was soaked in perspiration.

The record of our military work, in print, would be in numbers of guns, men, hours, raids, and planes; but to the men of the battalion it is something else. It is the sharp, tremendous belch of a $.90-\mathrm{mm}$., the deep-throated crack of a .40 , the rustling swish of a falling bomb, the flash of an exploding enemy plane. It is the memory of all those nights, and sounds, and smells of action.

We got another on the night of April 6. He had come in close, evidently for information and pictures. No doubt he obtained a good view of the ships in the harbor, and maybe he took a few pictures. We didn't mind that, not after he had splashed deep into the sea.

## A TOAST

* 

Think of your pal, on Guadalcanal, And drink to his health 'til you're groggy,
But drink one drink and say one prayer, For his pal, who lives on Tulagi.

## PART II

The air raid of April 7th we shall never forget. Lt. (jg) (then Carpenter) Dean C. Works, and Mr. Hollingsworth were on the control circuit, in constant telephone communication with the Marines.
There was an alert at noon. A condition "yellow." The fighting ships in the harbor steamed away. An Australian corvette was taking oil from the U.S.S. Erskine Phelps, and the tanker U.S.S. Kanawa, the oldest of its kind afloat, was making hasty preparations to depart, to join the fleet. She was loaded with fuel.

We waited for something to happen, then went on with our work, all except the boys at the guns.

Along about 3 o'clock we saw planes, tiny black specks in the far blue sky, growing into beautiful shining war machines flying in perfect formation. There were 76 fighters, dive bombers, and torpedo bombers.

Mr. Works clamped the receivers closely to his ears.
"Aircraft at 12,000 feet," he heard. "Friendly."

There was scarcely a Seabee on the island that didn't admire those planes. Some of us cheered, looking up from our work, some of us waved.

It was wonderful to know we had so many planes in the islands. There was a great pride in us, and a great joy. Friends had come.
"Bet you them's P-38's," one of the road crew said. "Yes sir, P-."
At that moment some of those shiny planes peeled off from the formation and dived.
"P-hell!" said his friend, running for shelter. "She just dropped a bomb."
Also at that moment Mr. Works heard the excited voice from the Marine circuit: "Friendly. Hell. Cancel. Cancel. Those are enemy planes. Fire at will."
The U.S.S. Kanawa, on her way to open sea and relative safety, had gotten to a point between Tulagi and the small island of Sing Song. The Corvette was still taking on oil.
The tanker opened with every gun she had, but too late. A bomb had hit her.

Enemy wings sliced through the air from all directions, the torpedo bombers roaring in low, throttles wide open, skidding their missiles across the green-blue water regardless of cost.

The Kanawa got three planes, but a bevy of others nosed in off her port bow and set her afire.

At the same time another plane cut across the tip end of the island and attacked the corvette.

She went down so quickly that no one could say whether she split or went down whole, neither those who watched the action, nor the survivors or her crew.
The Erskine Phelps miraculously escaped destruction, though she was badly damaged.
The Jap planes buzzed angrily all over the island of Tulagi, and we could only watch, and hope. Three of them dived at our No. 16 gun crew, screaming like mad.

It is frightening to see planes dive like that, especially when they dive at your close friends.
Our gun spat fire, and the planes turned in their dive. One came directly over a .50 calibre machine gun manned by a couple of Marines.
One of these two, a Corporal McGinnis, had taken the gun apart and cleaned it sometime before the raiders came over. It was a hot and dirty job, and McGinnis felt he needed a shower. He took one. He was drying himself with a coarse towel when the shooting started. And he had his choice.

He could either dress himself or assemble his gun.

When the dive bomber twisted out of our fire, Corporal McGinnis, naked except for his shoes, raked it from stem to stern. It fell off shore, not far from our armory. (We got some souvenirs from it a day or two later.)

The gun crew of Mr. Hollingsworth got one, at about 1,200 yards, as it pulled out of a dive on the tanker 500 feet above the ship. It went down, screaming as though in frightful agony.

Guns were barking all over the island, and, it seemed to us, Japanese planes were falling everywhere, some of them in flames and smoke.

Chief Walter J. Lyons, who was in charge of a crew grading a road on the far north end of Tulagi, gives a good description of the raid.
"We knew there was a yellow condition," he says, "but nothing came of it, and after lunch we went back to work. We heard thunder and saw lightning over the harbor, but didn't think much about it until we saw the planes.
"About eight or ten of them were diving on the ships, and that was the first time it occurred to us these might not be our planes. We ran the bulldozer against a cliff, and got under it, with the blade in front of us.
"But it still sounded like a storm, the scream of the diving planes and a drone of motors, the banging of guns, the stuttering of machine guns, the crashing of bombs and the roaring of fire-it
was just like you'd hear in the steady downpour, and the sky lightning and thundering."
The Japs had sunk the corvette, set the tanker afire, and damaged the Phelps, but they had scored no hits on Tulagi, and had left 33 of their comrades behind them.
They were speeding away in confusion, there was no longer any formation. They seemed to be everywhere overhead, to be flying in every direction.
One plane came charging full speed into the ack-ack of our No. 43 gun crew, in charge of Chief Tom "Bull Dog" Freeman.
The men, Lee C. Vincent, "Irish Kelley," Bob Cochran, "Little Chief" William Wedding, and William E. "Archibald" Archer, leaped up, to watch the ship crash into the water, and the pilot try to get onto a rubber boat.
Chief Palmer went out in one of our boats to bring him in. There were several Marines on the shore and one of them, in the belief that the man in the water was one of the enemy, said he had half a notion to take a pot shot at that damn Jap.

Palmer and a crew had been making soundings in Gavutu harbor at the time of the raid, and
had come home as quickly as possible, watching the dog fights in the air.
"Don't be crazy," he said to the Marine, "that might be one of our boys. That looked like a Gruman plane to me."

The rescued pilot was Lieut. Sweet of the Marines, who had shot down seven Jap planes and was going after the eighth when he ran into our fire. He had a gash across his nose, but he wasn't worried about that.

Halfway to shore he said, "Say, I lost a pair of gloves in that crack-up. Mind if we go back and look for them? I wouldn't like to lose those gloves."

We helped to rescue the men swimming away from the burning tanker. We cleansed those covered with oil, and took the burned and maimed to the hospital. We clothed the naked and kept some of them with us several days.

Two tugs ventured out in an effort to save the Kanawa. They fought all night, but made no headway against the flames. At 5 o'clock in the morning something exploded deep within her. She slid off a reef and settled in her grave a few yards from where she had been hit.

At 1530 on the next afternoon we attended

A typical Tulagi foxhole . . . Room for eight.

funeral services for the men of her crew. The Anglican Bishop of the Solomon Islands area officiated, standing in his small craft off shore. Many of us prayed with him.

The ship is dead and buried, but she still serves her flag. Our divers, under the command of Lieut. Cy Drew, recovered her eight $.20-\mathrm{mm}$. cannon, our armory overhauled them, and they were installed on PT boats, to fire again at Bougainville and New Georgia and many another stubborn target.

The seventy men who comprised our anti-aircraft batteries, and the ten officers who were on active duty during the alerts, actually thrilled to this sort of work. But they realized, as we all did, that it interfered with the work we had come to do.

There were roads to make, piles to drive, bridges and docks and piers to build, quonset huts and storehouses to put up, buildings of all kinds to erect. There were trees to saw and turn into lumber. Construction of many kinds demanded our entire efforts-but we couldn't give it our full time. We worked when we could, as hard as we could, and often went on working through "yellew" conditions.

It was more fatiguing to scurry into the fox holes and wait for bombs to fall, or a plane to come within gun range, than it was to continue laking roads or building a hospital or a chapel.

Working parties who came in now and then from Gavutu, Tanambogo, or the Floridas, suffered more than the rest of us. They had lived on bad food for days or weeks. They had endured blistering heat, had suffered from jungle rot, tree poison, mosquitoes and other pests, had known dysentery or fever. They wanted rest and quiet, medicines, a good meal, a cup of hot "Joe," a clean shave, a shower, and a decent sleep.

Sometimes they had just returned when the gong sounded, and they had to drag themselves to the shelters.

It was hard on the gunners, too. They remained crouched behind their pieces, squinting into the sun, or trying to pierce the darkness with tired eyes, sometimes for many hours. Sometimes they woke to the alarm, felt a coldness in their stomachs, hurried for shoes, coveralls, and helmets, and sped to their pieces, to lie there shivering half the night.
There were always long hours in the gun pits. The weapons must be kept clean. They must be always ready. The gunners had a fierce pride in their guns; and the battalion had an equal pride in the gunners.
"Raisin Jack" helped on many occasions. Without it, some might not have endured the life we were forced to lead.
It was easily made. A gallon of raisins. Two gallons of cane sugar. Five gallons of water, rain preferred. Stir and leave in the container for four or five days, until it has almost stopped fermenting. Drain and drink, and to hell with Tojo, cold stomach, fatigue, loss of sleep, mosquitoes, and danger.
There was "raisin jack," and there was always something to laugh about. And that helped, too -enormously.

There was the night a former associate of ours, known as the "Brown Bear," found something he'd never drunk before. The Nips were tangled somewhere in the stars above us, and the Bear ran into an unfamiliar shelter. He found a bucket there, and he was satisfied.

He picked it up, threw back his head, closed his eyes, and gulped greedily of the contents.

He came running out of the shelter-let the bombs fall where they might-screaming he had been poisoned. Men rushed to him, one with a stomach pump. They worked over him for hours.
"What did I drink?" the Brown Bear asked the doctor.
"Carbolic acid," said the medico. "That's all. But it was diluted stuff."
There was the day the detachment at Siota saw a crocodile in the bay Some of the men put out in a salvaged whaleboat. They fired at the monster but it didn't seem to mind. Walters, a Texan, lassoed it, tied it behind the boat, and it was towed ashore. It was nine feet long, and gave the detachment excellent steaks.
There was, many a time, a chance to listen in on the conversation of Yankee pilots in combat.

A group of the 27 th salvaged a radio from a wrecked B-17 Flying Fortress, and learned the code by which the fighter pilot conveys information to the operations officers, and to his fellow fighters.

A few of the men had earphones that reached down into their foxholes, and though the sky was full of death and mayhem, it was pleasant here below the surface of the earth, listening in.
"I have four Bogies. I am attacking."
"Roger."
"Give me your position."
"Like hell I will. I found mine. You find yours."
"Sighted six Bogies, but my gas is low. Send someone to take over."
"Chased the Bogies 20 miles. About out of fuel. What's left of us coming home."
"Am bailing out over Florida. Ack-ack ripped hell out of my ship, but I finished my seventh Bogie."

Once we heard a Bogie joining in one of these conversations. An American pilot over Henderson Field was checking his radio with Operations. He asked how he was received.
"Five by five," answered Operations, meaning "strong and clear."
"I receive you also five by five," the pilot said.
And immediately the squeaky voice of a Jap was heard. "Ha, I receive you both five by five."

During the early weeks the Japs came in at night without opposition from night fighters. There were few American planes in our neighborhood then. But one moonlight night there were two interceptors somewhere over Guadalcanal, and we heard one of them calling:
"Cut your ack-ack down there and I'll get those bastards. Your blasts are shaking hell out of me."

Another night we heard the voice of Operations cry, "What are you trying to do, commit suicide? Come down." We saw tracers cut across the sky, and heard a pilot say, "Did you see me get that son of a bitch?"
"I'm going to ground you," we heard. "I told you to come down."
"I got another one."
Again we saw the tracers. And we saw a terrific explosion high above.
"Coming in," the pilot said.
"Roger. But you'll be grounded just the same."
The pilot was grounded, we learned. He was young, and this was his first combat fight. Later he was promoted, and awarded the Air Medal.

There was always something to laugh about after a raid-the scratches, the bruises, the sprained limbs, the black eyes, the results of trying to get into the nearest fox hole in the fastest possible time. If a hole were big enough for only four, there would be a dozen in it.
The diving crew had a beautiful hole, 5 feet square and 6 feet deep, with timbers, runway matting, and two feet of sandbags to roof it. One of the younger men used to squat in the door of this fox hole during the bombardments, and give blow-by-blow descriptions of the fight. He had a natural Radar ear, and a $\$ 900$ radio voice. One night he was silent. It was so light outside, from the firing, a man could read a newspaper, if he cared to.

The Nips layed three eggs quite close. The fox hole jumped.
"Junior, what's happening?" someone asked.
There was no answer.
"Junior, where are you?"
Again and again the call was repeated. But nobody answered.
"Where were you?" somebody asked the boy the next day, surprised at seeing him alive and well. "Where did you go last night?"
"I was down there with you," he replied.
"Then why didn't you answer when we called?"
The young man hesitated. "At that particular moment," he confessed, "I was busy talking to Someone a hell of a lot more important than you."

On another such night, with guns barking, bombs cracking our eardrums, and shrapnel rattling on roofs, some wise guy asked, "What's the condition?"
It was constantly changing from green to yellow to red.
"Anti" Freeze, slightly under the influence of raisin jack, answered in a bellow. "Mighty serious, Mate, mighty goddam serious."
Sure there was always something to laugh about, even in the most tragic times. And there were always opportunities to collect souvenirs.
Our best souvenir was a new type Japanese bomber, seen for the first time in the April 7th raid. It lay intact in "shallow" water, just across the bay from a Jap seaplane base, about 60 miles north of Tulagi.
Mr. Drew and Mr. Hollingsworth accompanied the divers in a Navy salvage tug. A large flight of planes, believed to be enemy craft, was sighted on the way, but the tug never stopped.

The sunken bomber was found on its back in thirty feet of water and was raised up before nightfall; but then it was too late to go home. The Jap planes were starting on their evening runs, and we didn't intend to let any prowler rob us of our prize, not even "Washing Machine Charley," that famous night reconnaissance Nip pilot. His motor sounded to us exactly like a gasoline powered, farm-type washing machine.

We released two pigeons with a message to our base. A hawk got one, but the other went through. We stayed in a cove near a native village, and hurried home the next morning.

There were valuable charts and plans in the bomber, which were turned over to Naval Intelligence.

The plane was crated and sent to the United States to tour the country in a War Bond drive.


Shown above: Tulagi Camp at dusk with the sun setting over Sago Island. Lower: Tulagi, cluttered by installation but still beautiful.

## PART III

We found the islands more beautiful than we had imagined, though not so lazy, nor so idyllic. We worked, as Seabees always work, but we had time to enjoy this new old world, to eat chicken boiled in coconut milk-though the meat was tough the flavor wasn't bad-French-fried bananas, melons that tasted something like a persimmon and something like a canteloupe, yams and other odd fruits and vegetables.

We had time to sample juices with cocoanut milk as a base, to buy grass skirts, war clubs, shells, and other souvenirs.

A few nickles, at first, would buy most anything. Eventually a Seabee made a mistake. He gave a native a dollar for a grass skirt, and told her to keep the change. She wouldn't take the money until she learned its value. After that everything was a dollar at least.
We didn't have much to do with the natives, though they were friendly. The men were rather good looking, strong, and graceful; they were dark, and many wore flowers in their hair.

The WOMEN were incredibly ugly. They were short and squat, and long flat breasts hung down almost to their loin cloths. Their hair was short
and coarse and kinky. There were no girls, it seemed to us. They were only children and old hags.

They were Christians, mostly Seventh Day Adventists and Catholics.
But we weren't exactly touring. We knew there was a war on.

We were transferring from a transport to a destroyer off Lunga Point at Guadalcanal, ready to head for Tulagi, when the war engulfed us. General Quarters was sounded, the signal that raiders were hurrying toward us. Some of us had already scrambled down the nets hung over the side of the transport. Others, laden with packs, rifles, gas masks, were left clinging there with only the green sea below their feet when the destroyer pulled away.
Destroyers cruised about, screening other ships. We could see, in the background, the beautiful blue-green hills of Guadalcanal, the flame and smoke of the Marine artillery, and the planes above, gliding, sliding, floating, turning through the field of flak.
Twenty-two men in charge of Lieut. Clarence Durbin, were left on the 'Canal to care for the

Tulagi Harbor, the entrance to the Maliali River in the distance.


gear we had unloaded there. The rest of us steamed into Tulagi.
When we arrived there, we found five wooden buildings thoroughly shattered by the U. S. Marine fire, a few Higgins boats, a crowd of grinning natives, and "Scrappy" Kessing. The time was 0700 .

The Captain looked us over.
"You can get breakfast at the galley through the cut," he said, "but I want a hundred men back here at 0800 to unload gas."

Our chiefs were wearing .38 calibre sidearms. The Captain had noticed that.
"Have the men throw away those cap pistols," he said. "Tell them to carry . 45 's."

The fuel we were to unload had been shipped in by LCT's in drums. Those drums were heavy. A man could break his back at this job if he didn't know just how.

But we knew how. We worked all day in the broiling sun, day after day. We also unloaded the ship that had taken us from New Caledonia, and we began the construction of a camp.

We were not surprised at the Captain's greeting, nor ruffled. A lot of naval men were dubious about the worth of the Seabees. We were unique.


John and his son.

We squeezed through "The Cut" for our first Tulagi breakfast.


We didn't go in too much for the military part of the job. We weren't exactly sailors nor soldiers, nor yet were we Marines. We had no traditions of service, no history. Naturally we were under suspicion, and had to make good.

We liked Captain Kessing for his untiring energy, his "savvy," his iron determination, and his relentless pursuit of ways to win the war. And after he had watched us working all day in the broiling sun, he came to respect us.

He gave orders that we were not to work so long. Four hours a day in that heat at that job, he said, was reasonable. More than that was unreasonable. We liked him for his reasonableness, too.

Many months later the Captain expressed his opinion of Seabees in a letter to Vice Admiral Ben Moreell, the chief of the Bureau of Yards and Docks.
"I've been on this kind of duty fifteen months," he wrote, "when the going was sometimes tough, and I can honestly say I don't see how we could get along without the Seabees. We could muddle through, of course, but with them things progress.
"They are 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."

He added, "I'm sure the ambition of every bulldozer operator is to take his buggy up the main street of Toyko."

Yes, this was a paradise-for some few days. Then it rained constantly. The heat was frightful, and the humidity was something to wonder at. The Japs began to cross above our heads, going toward the 'Canal-interrupting a card game, or a bull session, or one of Willie Lee's most interesting stories, or some choice "scuttlebutt."

There was a lot of news which passed around the camp as authentic, but which was only scuttlebutt. All the Jap officers on Guadalcanal had deserted, leaving their men to die-submarines were floating barrels of rice ashore for the beleaguered Japs, and the Marines had fun shooting the barrels full of holes-the Japs had a new kind of gun-and so on, and so on.

In spite of the rain and the heat and the yellow or red conditions, we accomplished a lot of the work for which the battalion was created; and in our leisure we had front seats at the battle of Guadalcanal, and those fireworks every night shut out the light of the stars.

Our first bombs were on the night of February 23 rd . We had settled ourselves inside our mosquito nets. The night was clear and lovely and
the moon was out. It was a night made just for sleep. "Sack duty," we called it.

Shortly after midnight we heard the air raid gong sounding on the hill above us. We sprang up and started for cover, trying not to trip each other as we scrambled. But the raid was not for us. It was meant for Guadalcanal. We relaxed and watched the fireworks and listened to the music of the guns.

Presently we heard the off-beat drone of a twomotored "Bogie" somewhere near the moon. A plane had left the raiders and was flying in the direction of Bungana and Little Florida. We heard his bombs exploding somewhere near, and saw a red light leap into the blackness and stay there. Fire over Halavo, across the bay and behind Gavutu.
"The Thirty-fourth," somebody said. "That new colored battalion. They're getting it for sure. They've been unloading at Halavo for the last two days."

It was the 34th.
They had just come from the states, and were in a hurry to get their gear ashore. They had lights going all night to help them in their landing operations. That was a sad mistake. To make matters worse, they had piled their gear next to some ammunition stored there.

The Jap pilot took full advantage of the situation. His first bomb landed between the ship and shore, his second on the beach, among some pontoons, his third in the center of camp-smack on the gear and ammunition.

Shells began exploding, tearing to bits everything above them and around them. Cartridges went off like firecrackers.

A thousand little fires merged into one tremendous conflagration; and a call for help was sounded. We had two Chrysler fire pump trailers in readiness for emergencies, with crews to operate them. But most of these crews were off on other islands at the time. Captain Kessing called for volunteers. When everything was ready he jumped into a LCP with a few of his staff and took off, throwing the spray high.

The pumpers followed immediately, the boats crowded with eager helpers. One was in charge of Joel Kerr. It got away first in an LCV. Among the men aboard were Chief "Little Willie" Urban, Grant White, and Andy Adair.

Lively took the second pump with four officers as his crew.

The moon had disappeared. The water was blacker than the night. There were coral reefs in our path, some of them waiting for us just beneath the surface. We missed them all even
though none of the Coxswains had ever navigated these waters before.

Through the openings in the reefs surrounding Tannambogo and the Floridas the boats proceeded, and straight into Halavo. The shells were still exploding. Tracer shells arched out of the flames and cut queer patterns on the black curtain of the night. Parachute flares came drifting lazily down, lighting up the tops of trees, and everywhere the flames were spreading.

At almost the last moment Lively discovered there were six drums of gasoline aboard the lighter-but the little craft didn't alter her course. She stopped fifty yards from the fire.

The pumpers were hauled ashore, the intake hoses cast into the water, and the engines started. Eager hands seized the nozzles, and the men rushed forward into the searing heat.

Great streams of water soon beat at the flames and the piles of smoldering gear, and doctors and corpsmen were hurrying through camp, using cots as stretchers, carrying away the charred bodies of our friends.

Tons and tons of water were pumped out of the sea before the flames died and the hoses could be turned directly on the smoking mountain of canvas that was the battalion's store of tents and
tarps. Lieutenant (now Lieut. Commander) William F. E. Cabaniss stood on top of this pile, directing the water into holes made by Ensigns (now Lieutenants) George P. O'Rourke and Grattan C. Colvin.
"All three of us got the worst 'hot foot' in history," Mr. Cabaniss said later. "It seemed no amount of water would effect the heat generated deep inside that pile."

The fire-fighters worked until dawn, then the pumps and hoses were turned over to the men of the 34 th. We pitched ourselves into the boats, curled up, and headed home.

Captain Kessing was awarded the Navy-Marine Corps Medal for his efficient organization of the party and the role he played in putting out the fire.
"You fellows did the work," he said. "I got the medal. But it's yours not mine."
"Scrappy" wrote a letter of commendation to Joel for his initiative in laying his pumper close to the fire and maintaining its steady output through the night, unassisted.

Tulagi had been a drowsy little English trading center before the war, and the 100 -foot wharf known as Government dock, had been more than ample for its needs.

Tulagi Skyscraper-the Harbor Control Tower.


Now there was vital need of expansion, and to us fell the assignment of removing rotting timbers, replacing some to the piling, extending the wharf into deeper waters, and lengthening it. Later we built an entire new section, more than doubling the length of the structure and making it adequate to handle any freighter.

In addition we built an auxiliary dock 250 feet long at Pier No. 6, from timber cut and milled by ourselves. We also provided a dock for the little ferry ship which ran back and forth from Guadalcanal, this we called Sturgis dock, after the commanding officer of the 14th Marine Defense Battalion.

We speeded up the work; but the heaviness of native lumber, and the interference of malaria, tended constantly to slow it down.

Chief Louie Rogers, as hard and tough a man as any pile he ever handled, could sink no more than four piles an hour, on an average, with his crew of eight.
"In Houston, Texas, where I come from," he says, "we could handle 120 pilings a day on an ordinary shift; but we didn't have any such stuff to deal with as we got at Tulagi."

Tremendous logs were brought up by the cats, some of them a hundred feet long or more. The average pile weighed about three tons.
"We hooked 'em up to the cranes, put 'em in the leads, and drove 'em with a 2,000 -pound gravity hammer," Rogers says. "But sometimes, and that means most always, we couldn't get 'em in the leads without hewing 'em down, and those piles were harder to hew than anybody'll believe. Mahogany and teak and other native woods were so hard they sank to the bottom if they dropped in the water. Not a one of them floated.
"We worked pretty fast, considering that, and considering also that half the time some of the men were laid up with malaria."
Some native logs were "floated" to the piling crews. That is they were fastened to creosoted logs received from the States, and towed by barges. The creosoted logs buoyed up the native wood-but the men didn't care much about that. The creosote, in the hot sun, burned their hands, ate through their clothes and burned their legs.
Rogers and his men were driving piles when the Jap planes came over on one of the raids.
"We got out of there fast," he says. "We saw a place where a lot of natives were taking shelter. We started to follow them. But they came out faster than they went in, the women screaming. I didn't blame 'em, when I saw the place. It was full of $155-\mathrm{mm}$. shells. We hurried out of there
faster than the natives did, and ducked into what we thought was a ditch. It was one of those revetments thrown up around a tank holding high octane gas. And all we could do was pray no bullets struck that tank."

Carpenter (now Chief Carpenter) Howard Swan, who was a veteran of raids-when he was with the 26th, he and his men had been strafed off many a bridge and pile-driving job in Guadal-canal-and everybody else on the waterfront, sought shelter that day.

Mr . Swan can also testify to the unusual weight of the timbers.
"When we were building the dock at Marker D, we drove 107 -foot piles into 70 or 80 feet of water," he says. "We had a Northwest crane with a 40 -foot boom and 18 -inch leads. We had to lash the machine on the barge to keep the timbers from pulling it into the water."

Yes, those timbers, like everything else, were very different from the smooth product we were accustomed to in the States.


## PART IV

Shortly after reaching Tulagi we began to work on a two-shift, seven-day week basis. We continued to act as the major stevedoring agency for four months, supplying approximately 80 winch operators and hatch-tenders to the work of unloading ships.

During the first seven months, the 26th Seabees on Guadalcanal under Comdr. C. A. Frye, had one company on Tulagi which acted as a public service organization. They operated the distillation units, built water storage tanks, and installed the first telephone system. We helped with part of the phone work, and furnished our own water. When they left we took over their functions.

Partly because of the heat, and partly because of the heavy rains, most of us cut our pants off short. We might as well have no pants, we figured, as have them soaking wet most of the time, and perspiration-wet the rest of the time.

Nobody cared about this. The women on the

## The rocky bluff near Government Wharf.


island were more naked than we were. The mosquitoes might have cared, but we kept them away with smelly salves and oils.
The road work, under the direction of Mr . Cabaniss, was slow.
The island was primarily of volcanic ash formation, rising sharply from the water, for the most part, to an elevation of 250 feet. Half the perimeter of the island consisted of mangrove swamps, gnarled and twisted trees with tangles of big roots. Half had natural coral overlying the island reef. And everywhere was red clay.
We had to blast the ash from the hills, and use it as fill for the swamps-and the sulphuric acid rising from it bothered us.
We almost ruined our reputation on that road job, especially in blasting a rocky bluff a few hundred yards down the beach from Government Wharf. The fault wasn't ours, Chief Lyons swears. It was the faulty dynamite caps we had to use.
"They were wet caps," he says, "and one wouldn't go off. A man would put in another charge of dynamite, and maybe that would set the first one off when it exploded, and then the rocks would fly.
"One of them hit a lieutenant's tent one day, smashing a washing machine. There was plenty of grief about that."
Another time six charges were placed before anything happened; but when it happened there was plenty of excitement. Every officer in the area came running. Some put ashore from ships in the harbor, to complain they had been bombarded by great pieces of rocks, and their decks smeared with acres-acres they said-of foul red mud.

A similar accident happened when we were blasting at Marker D. A great rock sailed into the blue, came down through a roof of the mess hall, and landed on the tray of a man standing in the chow line.
"The fellow," says "Bo Perry," "wasn't even grazed; but the rock sure made a V out of his tray."

Naturally everybody thought that a bomb had fallen, that the Japs were upstairs and more bombs would fall. They scattered. At that time nerves were jumpy, and every sudden loud noise put wings on feet-the falling of a stack of crates, sudden thunder. Anything at all. One of the boys was sleeping in a tent during a storm. The tent blew down. The tent pole hit the sleeper, and a great clap of thunder woke him.

He lay under the canvas for several minutes, shouting he'd been killed.

We enjoyed building some of those roads, especially those in the back of the island. There were Marines there who had to pack food on their backs before our roads were built.

There was one gang of Gyrenes we were especially glad to help. They operated a battery of four 90 's high up an a hill. Supplies used to come to them by boats, standing outside the coral reefs. They had to wade out, carry the stuff ashore, and then get it up to their nest. They had worn a steep, narrow path through the jungle.

Our bulldozers made life much easier for them, and they entertained us, at times, in their recreation hall, which was hidden under a banyan tree. It was there, listening to a radio, that we heard of the landing at Casablanca.

We pushed down forests gladly, and didn't mind too much when hordes of yellow ants fell on us from the tree tops and threatened to eat us alive. Nothing was too much to suffer for the leathernecks.

We were always stripping off in the jungles to rid ourselves and our clothes of yellow ants, some of which were three-quarters of an inch long. "Ants in your pants" was not a funny phrase to us. We had 'em.

We went ahead as fast as we could, slamming through the so-called impenetrable forests. The only time we stopped was when we were hungry, or saw a chance to bargain with a native.
"One day," says Chief Lyons, "I got talking to a big black fellow who wanted something white." The chief comes from Iowa where nobody speaks pidgin English, but he got the general drift. "What he was asking for was a bedsheet. He would have given everything he had for it. He wanted to give it to his girl. I guess she wanted it for a dress. Maybe she'd marry him if she got the sheet. Poor girl, 1 suppose she's still a maiden."

Slowly we cut the hills away. Slowly we drove the big cats and bulldozers through the jungles, felling trees, careful to avoid dead timber or branches that might drop.

Slowly we built wide paths through the swamplands, using rocks and sand and volcanic ash and coral. We had weird experiences with the coral. It was dry as bone dust and hard as granite when we put it down. Then it would begin to get mushy, as though it had melted; and in a week or so it would be hard and firm again, and stay that way.


A roadway cleared and rough grading started on the roadbed.

Raisin jack didn't help much as we worked in the rain on these muddy roads. We looked for something stronger, but couldn't find it. Somebody said that the torpedoes on PT boats were propelled by alcohol, but that a red dye was mixed in it, which made it a sickening if not poisonous beverage.

We tried methods of removing the dye. After listening to a lot of experts give advice, we thought we had the answer. We got a long loaf of bread, cut off the ends, and attempted to strain the juice through it.

After emptying a gallon, which had cost us $\$ 5$, we noticed that only a few drops came through the lower end. We shook the loaf. We petted it. We squeezed it. Nothing happened.

The bread was cooked almost solid. We couldn't do anything with it. We threw it away in disgust, and the big rats rolled in sin and raised merry hell all night.

But we finally found a way. We called the product "Torpedo Juice." It was pretty deadly stuff.

Our still was a crude replica of some of those in the mountains of Tennessee. Instead of using mash, we added water to the torpedo alcohol and re-distilled it. Sometimes a little of the red dye remained after distillation; then we called it "Pink Lady."

On one of the islands the master plan for a naval base had, as one of its top priority projects, a complete system of roads.

We had to build them quickly. And we had no time to survey the ground before we started. A few hours of observation, and several lines drawn quickly on a tracing of an air photo of the island was all the preliminary work.


The main highway on Emirau passed our camp.

Capt. E. R. Wilkinson, Commander Naval Advanced Base, Commander H. G. Clark, construction officer on his staff, and Commander Studdert outlined the program we were to follow.
We started out in the rain over what trails were there. These became so bad we had to spend considerable time and use a lot of equipment to keep them from washing away.

The primary roads were to have a 100 -foot right-of-way, with fifty feet of surface, and deep ditches on both sides. Fortunately, construction was simple.
The island was coral which afforded excellent material, with only two or three inches of humus on top. The coral afforded excellent material for road building.

It was here we discovered the whimsies of this relatively soft, white, chalky material. "The more we rolled it," says Chief J. T. Arney, one of the many Oklahomans in our outfit, "the mushier it got. That's how we learned to let it alone. When it dried, it dried like a flesh wound, from the bottom up."
The chief had spent some time at one of the fighter strips on Guadalcanal keeping Henderson Field in repair. One day he saw a plane wrecked.

It nosed over a little hill and fell into a creek on its back. The pilot was rescued, and Arney knocked off the hill with his bulldozer. "No more of that," he said.
"I didn't care much for that job," Arney says. "There was so little to do. One day I got the jitters, having to stay there. That was the day an ammunition dump not far from our camp exploded. It was about noon when the shells started going off, and the depth charges, and small-arms stuff.
"A shell fragment tore through five of our tents, I learned later, and fell on the floor. Another was found lying on George Fulton's bed. There were duds all over the place the next day. Demolition squads were busy taking them up.
"Yes, sir. I sure wished all that day that I could get back to camp. I had two hundred bucks in my locker, and I didn't know what the hell had happened to it."
Arney was in charge of a crew building a ramp in Turner City, Florida Island, when he got coral poisoning. The ramp was needed as an approach to the dock we built, and as a speed-up facility for unloading barges. Some of the stronger natives were hired to help. They walked through


Shown above: Heavy equipment busy hauling coral for a highway fill. Lower: Shovels dig coral for taxivay construction.
the water over the coral constantly, and not one of them seemed ever to have heard of coral poisoning; but the chief had such a severe case he had to be taken to the hospital.
"I was there on that famous April 7th raid," he says. "I was reading a book when the guns went bang and the planes went boom. I went 'swish' out of the hospital, without a stitch of clothes on me, to bury myself in a fox hole.
"You think that's funny? Let me tell you the story about 'Bo' Perry, the big man from Little Rock.
"This was on Tulagi, and I was officer of the day. It was about midnight, and raining. There was a bomber topside, and it seemed to be lost. It was circling around, and flashing a light now and then.
"Bo was down unloading a ship near a warehouse. The plane picked him up with its light. Bo ran around the warehouse. The plane circled. It put the spot-light on Bo a second time. Again Bo cut and run. He ran like hell. He ran around the warehouse, and the plane played tag with him, picking him up and blinding him every little while. Finally Bo couldn't stand it any more. He came pelting up the hill as fast as he could. He leaned on the rope of his tent and hollered for his pal, a guy named Ross.
"'Ross,' he said, 'he's comin' over again.' And with that he fell on his face. Out.'"

Chief Howard N. Guice, of Sicily Island, Louisiana, was responsible for most of the logs we used in the corduroy roads-as well as for the piles and the lumber we needed in various construction jobs.

We had taken over an old sawmill from the 26 th Seabees, and put Mr. Rossiter in charge. The logs were cut in Tulagi, but they came from brackish mangrove swamps bordering Tulagi Harbor. That's where Guice and his crew worked.
The most desirable trees, the Nollie, a red wood with a texture similar to that of our maple but harder, grew in these mangrove swamps. That's why Guice and his men, R. B. Biddle, B. M. Jones, John Ham, and Norman J. Shantz, logged in the swamps.
At low tide the water was ankle deep, but it was up to a tall man's waist at full tide, which made normal logging methods impossible.
We built a special barge, mounted a winch aboard, and snaked the timbers out. The barge itself was fabricated from pontoon cells formed with a center well. On this we transported the logs that wouldn't float-and none of them would.
We got the logs onto the barge deck, then put


Cutting hardwood in the Tulagi sanmill.
them into the hollow section, and the barge was towed to the mill. We called our craft an LCP (S)-meaning Logging Craft Pontoon (Special).
"We suffered continuously from mosquitoes and yellow ants and other insects," says Guice, who stands and looks like a Huron brave. "And we were constantly annoyed by the parrots and the parakeets. They screamed all day. They sounded like so many devils.
"We cut down trees and skidded them out with cats and winches where we could, and we were always on the lookout for scorpions and lizards. I killed a big-eyed lizard one day that was 52 inches long. I measured him.
"We worked all day long, sometimes with our eyes shut tight by insect bites, and our hands and legs itching with tree poison; and then, like as not, we'd get orders for more piles. They were wanted right away. It was a rush job. So we'd work some more. We'd turn out 20 or 30 piles an hour.
"Many a day we worked long after dark. It was always dark in the swamps and jungles anyway. We'd be going along blind as a bat, when
we'd go over a small bank, and everybody would be spilled out. Nobody ever was really hurt, though.
"One thing, though, there were all kinds of fish in that water; and the colors you can't imagine! They sure were beautiful. And good eating too. They ranged from 2 inches to 2 feet. You couldn't catch them with a line. They wouldn't bite at anything. We threw some explosives into the water sometimes when we were fish-hungry, and caught us a mess of them. The blast brought them to the surface. They were stunned for a moment and you could scoop them up in your hands. But you had to be quick, or they'd get away. You know?-they were the only fresh stuff we had to eat."

Guice also got tree-poison.
"I thought it came from the vines or some sort of fungus, at first," he says, "but I discovered it came from the sap of a tree. I did everything I could to get rid of it, but it didn't clear up until I got back to the States."

The only relaxation Guice and his gang had was during the air raids.
"It was much better watching the planes and the gun fire where we were than it was anywhere else. When the first raiders came over, and I was living in the camp, I tore up a mosquito net, trying to get out of bed, and banged up my knees.
"There in the swamps we could climb onto a rock and watch everything in comfort. We knew the Japs wouldn't be silly enough to bomb a swamp."
In two months the men in the swamps had cut down all the available timber, so we moved the sawmill to Florida Island, near a native labor camp. The stand of timber there was good. It consisted of amo a white wood with the texture of cypress, and mamalo, a medium rough, thinbarked tree, the wood brown with intermittent black streaks.

During all this time we never could get enough saw teeth and belt lacing for the sawmill-but we wouldn't delay the important jobs of driving
piles or building roads on that account. We had the machine shop "build up" the teeth, using electric welding rod applied with an acetylene torch, and shaping them in the lathe and valve grinding machines. For a long time we used wire and nails to make "alligator type" belt lacing.
We were busy with a hundred different jobs, but we wouldn't keep Guice and his gang, or any other crew, too long in the woods and swamps. We rotated the woodsmen, or gave them time off during the week.
K. N. Wellman, an old timberman from the state of Washington gave us an idea which speeded up the work of felling trees, especially those with too many branches growing out at their bases. We built a special type of scaffold, which enabled the men to get above the troublesome roots. We cut those trees high.

We had only one accident. A log rolled onto a man's ankle. And but one embarrassing incident.

We had been warned not to drag our logs through a certain native village, where Australian officers were in charge of a native labor camp. There were complaints. We were endangering the people, especially the children. We were interfering with native life. We were distracting laborers from their work-for everybody turned out to watch the logs go by.

The captain issued orders. Our road crews built a new road for the log expresses, by-passing the village by some little distance. This pleased everybody, especially the natives. It was such a fine road, they thought, they should take advantage of it. So they moved their huts-or built new ones-on either side of our right of way.

The captain saw tractors pulling logs on our by-path, through the huts, and mistook the situation. It was believed we had deliberately disobeyed orders.

Mr. Rossiter was put "in hack" (confined to quarters) for one day "for dragging logs through the native village."

## TO THE DESERUING

Tulagi, Isle of Death,
Where many a comrade perished,
Who gave their all, their very breath
For that they loved and cherished.

Give them the credit they deserve, Pick up your glass-and drink a For banner waving high, Gladly, proudly did they serve, And bravely did they die.
toast
To those who kept you free;
To those who died, deserving most, To live, like you and me.

## PART V

The lights that had burned at Halavo and attracted one Jap flier, punctuated our peaceful workaday existence with an exclamation mark. Work, indeed, remained with us; but anything like peace had fled-to stay far from our fox holes and our camp.
We were no longer spectators at a play. We were actors on a stage of our own, each doing his best to play the part assigned him. Yes, still we witnessed dramas not entirely of our making, dramas within a greater drama.
Th story of the sunken safe is the very soul of drama.
This safe had been dropped in transfer from a tender to a landing barge. A naval ensign, a pay master, had let it splash into the sea. It contained $\$ 5,500$.
He asked the battalion commander to send a diver down for the safe; and, privately, promised the diving crew two cases of beer for their "trouble."
The strong-box lay at 132 feet and Kornegay went down for it-H. A. Kornegay, nicknamed
"Joe," a former football star on the McNeil High School team in Birmingham, Alabama.

Kornegay is 27 now, a tall, muscular, graceful, smiling man with black curly hair, and big dark eyes that look at you gravely and take your mea-sure-eyes that study you as they studied strange fish deep under water. He was in the Alabama National Guard. He worked in a shipyard before he joined the Seabees. He learned to dive after he entered the service.

Five minutes after "Joe" had left the surface, he was on the bottom, asking for more slack.

Ingvald Vespestad obliged.
"How's the visibility down there?" Lieutenant Drew inquired.

## "Better than I expected."

The telephone was passed around to others in the boat, and each had a word or two to say. There were nine men there, besides the officer, and each knew how important it was to keep constant communication with the man below.

Trueman C. Smith, whom everybody called "Smitty," Hollis Weatherly, a Houston, Texas,

The diving crew works on the stern of an LST.

high school boy, Lawrence Choat of Louisiana, J. W. "Junior" Glenn, of Pensacola, Florida, "Snuffy" Sharbutt, from Alabama, Phillip Anderson of Minneapolis, G. S. Coleman, and Dave Newman, Tennesseans.

The crew talked constantly to Kornegay while he searched the bottom. He answered with wise cracks and jokes.
"Oo la la!" he shouted.
The men topside knew then that he'd found the treasure. They waited for further word, became impatient.
"What are you doing down there?"
"I'm trying to open it, of course," Joe answered.

The sirens cut short any rejoinder his mates might have made. There were plenty of sirens on the island then, and they were in full voice.

We had a diver in heavy gear 22 fathoms below, and Japanese bombers were heading our way.

We could bring him up quickly and make a run for the beach; but that might mean his death. A diver must be raised slowly so that he can decompress properly. Otherwise nitrogen bubbles get into the blood stream, causing the agonizing and frequent fatal condition divers call "the bends."
Or, a bomb exploding in the water might kill him horribly.

Of course those topside were in danger too, and well aware of it. Every moment they stayed where they were, their danger-as well as Joe's -increased.
Lieut. Drew could hear the hum of Zeros in the distance. He could see a boy on his knees talking to "Somebody important." And he could feel the sweat seeping out of his forehead, a cold sweat that had nothing to do with the heat of the tropic sun.
"Bring him up to twenty feet," he ordered.
The speaker had been cut so the diver might not hear the sirens.

Through the phone his friends could hear him singing, "I'm dreaming of a White Christmas."
"Quit singing, Joe," Vespestad said, knowing Joe couldn't hear. "I can't take it."
Glenn acted as tender, bringing his buddy up, and talking to himself against the increasing roar of planes.
"Ten minutes?" he asked.

A diver is given ten minutes at the twenty-foot level, ordinarily. But the bombs would be falling long before that time was up.

The lieutenant didn't answer. He kept staring from his watch to the sky, and back to his watch again. The crew kept watching him, nobody saying a word.

There was nothing in the world but the sound of motors-and a man singing of Christmas in a far-off land and a far-off time, singing of children, and glistening trees, and sleigh-bells, and clean, white snow.
"Five minutes gone, sir," Smitty said.
"Haul him up."
Joe was lying on the deck and the boat was ziz-zagging toward the beach before anybody quite realized what had happened. The planes were overhead, but nobody looked up. They were all trying to help Joe out of his gear.
"What happened?" he demanded as soon as his face plate was opened.
"We jumped you to a stop and gave you only five minutes. You all right?"
"Sure. But why-?"
He answered that himself, glancing upward.
"Tojo," (this Tojo was our diving barge) got safely to the beach. Joe suffered no ill effects from his experience. And he brought up the safe in due time.

But the boys who had risked their lives never got a taste of those two cases of beer the ensign promised.
All these men had been schooled by Chief Joe Campbell, of Portland, Ore. In the United States, and overseas, he gave them the theories of diving, warned them of the hazards, and showed them all the tricks he knew.
At one time Campbell was in charge of the crew, under Mr. Drew. He was badly injured in a dive, and spent a year in a hospital before he was discharged. He had gone down into sixty feet of water to examine part of a torpedoed vessel. The ship lay uneasily on her left side, her deck thrust upward at a sharp angle. Campbell slipped on the top of this deck, slid down, banged himself against the rail then fell off into deeper water. He went down so quickly that he couldn't compensate within his suit for the added water pressure, which resulted in a case of the dreaded diver's "squeeze."
"Smitty," the oldest of the divers, succeeded Campbell as chief. A stocky broad-shouldered
man, with the deep seamed face of one who has spent most of his days in the open. That's Smitty. He was bossing a rod and tubing gang in the Texas and Oklahoma oil fields before he enlisted, and he had been an amateur boxer. His home is in Oklahoma City. He is 38 years old now, and married.
"Snuffy," who served with the gun crews more often than he did with the divers, got his name because of the stuff he chewed. His pals declare he even went down into shallow water with a mouthful of snuff-and raised his mask to spit it out.
He spent his leisure time, when he had any, searching for "cat-eyes." A cat-eye is a small stonelike trapdoor which closes the entrance to the shell of a certain snail. They may be picked up at the water's edge or on the coral reefs. They are lustrous, gem-like curiosities, shaped like an eye and colored like one. They have brown or blue or green seemingly lacquered pupils, white areas, and sometimes rings around the white parts.
"They are attached to the snail's house," Snuffy says. "You got to pry them off. Every one was worth at least a dollar over there."

Junior, a slight, black-haired boy with slategrey eyes, the youngest of the crew, said he was 18 when he enlisted; but there were many who thought him younger. The older men looked after him, especially Smitty and Vespestad, a ripe old salt who spent most of his life on pleasure boats and racing yachts.
The boat from which they dived had once been a Japanese tank lighter. The men reconditioned it to suit themselves. They put in a new motor, placed a compressor in the well deck, installed an auxiliary compressor in the engine room, painted the craft, and put their gear up forward.
They placed an A frame on her bow, which could hoist anything up to 600 pounds, fitted hër with air tanks fore and aft, and made places for hanging and storing all their gear. They completed the job by making a work room and repair shop-and a place to keep their souvenirs.
They had a stove, and a coffee pot, and cooked "Joe" four or five times a day. It was nothing for any one of them to drink six cups of coffee during working hours.
When they had acquired everything they needed, including signal flags, and felt themselves
"Tojo."

equipped to handle any situation that might develop, they christened the boat "Tojo."

Mr . Towle was the only officer who was qualified for diving.
"Diving," he says, "is dangerous work, and I couldn't ask those boys to do anything I wasn't able to do myself. Also, I didn't exactly know what was going on below, or what advice to give men working under water. They talked to me about jobs I couldn't see.
"So I qualified. I went down 90 feet and stayed half an hour. I felt the lonesomest man in the world. It was very dark down there, and I couldn't see far, because of the helmet which acts like blinders on a horse so far as vision is concerned.
"Sometimes I'd twist my neck and see a big fish looking at me, and wonder if he were friend or foe. Usually he was afraid of me. Seeing the bubbles going up is enough to frighten most fish."

In shallow water the divers wore contraptions converted from gas masks. Regular helmets were too heavy. The masks were of a naval type, with two air hoses and a cannister worn at the back of the neck. They were more practical than other types, afforded more visibility, and had a better regulation of air. They fitted rather tightly over the head. Water might come into a man's mouth, if there were a wrinkle in the mask but that didn't frighten anybody. He tried not to swallow, and breathed through his nose.

Once, or twice, though, a diver got too much water in the mask. Then he gave the emergency signal.

By shallow water our divers meant "anything up to a hundred feet." It has been said, though, that one diver in the islands managed to lower himself 130 feet, dressed in a mask and a pair of coveralls. A most dangerous and forbidden practice.

Two divers wearing these masks were working in 45 feet of water, salvaging 50 tons of Quonset hut parts that had been thrown overboard by the skipper of a cargo vessel caught on a reef.

The tenders kept careful watch because, in this instance, there were frequent swells. The boat would lift several feet. The lines would become taut. If the tenders were not careful a load might drop on one of the divers, or cut a line. Perhaps 45 tons of the material had been salvaged when the tenders got a frantic signal from both divers.

The deep sea adventurers were so frightened when they came up they could hardly tell what had happened.
"We saw something," said one. "Something terrible."
"Something out of a nightmare," said his pal.
"Horrible! Ghostly! Got any hot joe?"
"But what were they?"
Another diver grinned reassuringly. "Don't get scared, kids. What you saw were mammoth sheepshead fish. In those foggy blue depths, I swear, they do look like all the ghosts a guy dreams in a nightmare. I admit I was scared myself, first time I saw 'em."

During the same salvage job a bundle of corrugated tin, banded with metal thickly rusted, left streamers behind it as it rose. The rust particles sifted down to the divers so that they could not see each other. When the red cloud had cleared away, they were confronted with an octopus squatting over the next bundle. A little lower, another approached, its tentacles weaving. The boys promptly started topside and two hand grenades dropped into the depths drove the monsters away.

But there were always real perils lurking below.

Coleman, working under one of our drydocks off Emirau, fouled his lines against an anchor chain, as he started toward the surface. He let himself down again and tried to release the lines, but couldn't. He tugged. Nothing happened.

Coleman is a big man. He weighs more than 200 pounds, and is six feet two inches tall. There is might in his arms, and he used it all, yanking at the lines. He yanked so hard he cut the air lines. He went up fast.

His lines still held him tight to the chain, however, and it was all he could do to thrust his head above the surface and tread water. He could not release his lead-weighted belt, he could not help himself in any way. He would have drowned had Weatherly not dived from Tojo and swum to the rescue.

Junior and Joe, working together to repair a six-inch submarine hose line, found peril of a different sort.

The hose was used for unloading gasoline laden tankers. It had been cut by a ship's anchor. It was essential it be repaired. Hundreds of planes on Henderson Field got their life blood indirectly through this hose.

The flow of gasoline had been shut off ashore, out there was an accumulation in the pipe. It was seeping from the break, and floating to the surface.
The pipe line was in thirty-foot sections, connected at each section by a ten-inch steel flange and a rubber gasket. The flanges were held secure by nine bolts. The divers had to go to the bottom flange of the third section, 90 feet down.
They made a tackle line fast to the pipe, and pounded on the bolts with their wrenches to free them of barnacles and rust.
Suddenly Kornegay felt his wrench grow heavier. It took on more and more weight. It fell. He felt himself falling. He signaled with his hand to Junior, and noticed that Junior was falling, and signaling to him.
Junior managed to give the emergency signal to those up there in the boat before he passed out -four quick tugs on the line. Joe managed to jerk the line only three times.
Smitty acted quickly, and the divers came up.

They woke side by side, in frightful pain.
"Our bodies were jumping and jerking so badly it took four men to hold us on the stretchers," Junior relates. "I remember I was fighting a whole gang when I came to.
"Pains were going all through me, like so many sharp knives. Finally the feeling sizzled out through the ends of my toes-so many millions of needles.
"Smitty gave me a cigarette. It tasted like gasoline. I couldn't hold it. I had no control over my hands. Nor my body either, for that matter.
"But I knew what had happened. Gas fumes rose directly below the air intake on our compressor. The compressors shot them down to us.
"By the time I figured that out, the lighter was about five feet from shore, an ambulance was waiting, and my pals were wading knee-deep in the surf, carrying Joe and me. Boy, we were lucky. Especially Joe. If it hadn't been for Smitty, and his suspicion that Joe needed help as well as I-good night Joe."

Open Air Chapel Services on Tulagi.


## PART VI

Early in January, 1943, a small flotilla of LCT's -landing craft for tanks-came across Sealark Channel, out of the inferno of Guadalcanal. And it was our privilege to open a hospital for their hurts.
Thereafter, for nearly a year they came to us, the stately ships, the graceful ships, the Noah's Ark affairs, the mighty ships, the little ships, the wounded ships that flew the Stars and Stripes.
Trim lines broken, silhouettes of beauty blurred by battle scars, fast ships crawling painfully, clean decks charred by fire, steel plates filled with holes, they came to the 27 th for repairs and a chance to fight again.
We were not shipfitters when we left America. A great many of us had never seen an oceangoing vessel until we boarded the one that brought us overseas.

But we had technical skills, some facilities, a certain ingenuity, and an overwhelming desire to save our fighting ships. Thus we became, for five months, the sole agency in Tulagi on which the fleet depended. This was distinctly not Seabee work. We were dirt-removers, builders and constructors, but we could also do a fine job of "pinch-hitting."

Two big naval repair vessels arrived, eventually, to take over the work, but neither could cope with the full enormity of the job. Hence we continued in our role.
Two of the early LCI's were badly maimed and crippled. In each the bow had been ripped almost to the water line, ramps and ramp decks were crushed, and ramp davits demolished. They had won glory in a bitter fight, but they would fight no more unless they could get help. If we couldn't fix them, they would be sent to some drydock in the rear-hundreds of miles away. And, they might not get there.

We scurried through the islands, Gavutu, Tanambogo, Macambo, the Floridas, looking for steel, lots of steel, any kind of steel. We found some the Japs had left behind. We found an abandoned marine railway the Japs had used, and took it apart, and carried it away.

This salvaged scrap, this blood plasma of steel ships, we injected freely. We worked from dawn to darkness, since blackout regulations were rigidly enforced.

And we got as big a lift as the ship's crews; kids and men like us, sailors who spoke of towns that made our hearts beat fast and fondly, Chicago, San Francisco, Abilene, Dallas, Little Rock,

Toledo, Sulphur Springs. A lift and sometimes a well-cooked dinner, and a chance to talk of home.

We had figured it would take eight days to make one of the LCI's well enough to walk the seas alone, and twelve days for the other. We finished both in just eight days.

We studied the work thereafter, even as we practiced it. We doctored twenty different types of ships, or more, including submarines and various Allied craft.

Our mechanical department became to be known as "Ship Repair Unit" for this Naval Advanced Base.

We welded, machined parts, patched holes in steel plates, installed electric wiring and plumbing, shifted ballast, changed screws, caulked seams, shored bulkheads, careened a vessel, and did a hundred other sorts of surgery. We also made ordnance parts, occasionally, and worked under water as well as topside.

We had nothing much in the way of a workshop. An Australian officer referred to it as a "beat-up haywire backyard shop where a few Americans make something out of nothing." And an American skipper said the place looked like "the real bottleneck of the war." The mechanical department is still known as "BotNeckSoPac," and its head, Mr. Works, as "ComBotNeckSoPac." (Commander Bottle Neck, South Pacific).

We didn't have much to work with, in that little shop, except one Jap lathe, a large English lathe, a large English drill press, and a Jap motor generator-all salvaged from a shop originally owned by W. R. Carpenter \& Co. of Australia. Yet, it is estimated, we completed a minimum of 1,100 job orders in that place. Six men were kept busy there every day for ten months.

We logged on our books 145 ships on which we completed major operations. Some of them came to us half a dozen times and more.

Two groups of the 27th were responsible for all this vital work. Mr. Drew and later Mr. Loeltz and Mr. Towle, with their small crews under Chiefs Campbell and "Smitty" did all the diving work.

Mr. Works, with his larger staff of mechanics under Chiefs Smith, Inskeep, James, Jackson, White, Nicholson, and Robert L. Burris, shipfitter first class, and Wagner, Boatswain's mate second class, did the ship repair work.

We worked on $90-\mathrm{mm}$., $40-\mathrm{mm}$., $20-\mathrm{mm}$. anti-


The old English Lathe did much of the ship repair work.
aircraft guns, .50 calibre and .30 calibre machine guns, and .03 rifles, and designed, fabricated, and installed some 150 simplified mounts for the AA guns.

At that time the only type of ack-ack armament the ships could procure locally were .50 calibre machine guns, but these had been designed for use as ground weapons, and couldn't be used on shipboard without antiaircraft type mounts. Every skipper had been convinced he was underarmed, after his first contact with enemy aircraft, some of them being unaware that the guns they had were not at their maximum efficiency without proper mounts.
Gunners on the ships told us they liked our product much better than the clumsy stateside mounts we had replaced. Ours were light, compact, and easy to operate.
Our divers changed approximately 160 screws on all types of vessels, including the controllable pitch propellers of LCI's. In addition to this they spent more than 200 diving hours on general hull, propeller and screw inspections, and in making minor repairs. In all they logged 2,550 diving hours, 1,345 of which were classified as "extra hazardous."

It is no easy job to change a screw, and replace it. Some of those screws weigh two thousand pounds, and a diver has to be extra cautious while he's doing the work lest he be injured or killed.
An LST limped into Tulagi, coming from the carnage at Munda. Her port screw had a broken blade, but fortunately she had a spare. This was hung over the side, ready to be lowered at our command.

Our divers were alongside in their boat. Compressors had been tested, the pressure was up, the diving gear ready, the tools at hand-sometimes, though, we had to borrow tools-and the tenders were standing by.
Two of our boys went down, in light diving gear, one after the other, to stand on the "deadman," a nine-inch-wide projection that extends between the hull of the ship and the shaft that holds the rudder-a distance of about four feet.
They were working ten feet or so below the surface of the water, and the ship and "Tojo" both had broken out the "William Dog Baker" pennants to notify other vessels that divers were at work, and warn them to keep away.
The wash of a passing craft, if it comes too
close, may knock the diver off his precarious perch, slam him against a bulkhead or the rudder, or hurl him into the blades of the screw.

It is especially dangerous when the screw has been removed and is hanging in the chainfallsor when some engineer aboard ship forgets the diver is below, starts the engine to test it, and sets the propeller blades whirling.
"The ship is bobbing up and down all the time while you're standing on that deadman," says "Swede" Anderson, who recently became 21 years old and a married man, "but you get used to that. It's different when you get pushed around by the waves or currents of some passing steamer. You bob around like a cork."

There was good visibility where the divers worked, and they didn't need a lamp, though one was available.

Tools were lowered in buckets, and the divers removed the fairwater hub cap from the end of the shaft. Then, with cold chisel and hammer they removed the cement fillings which streamlined and recessed the heads of nine stud bolts. The cap was hoisted up and the wrench was lowered.

The wrench is not a toy. It weighs 80 pounds, it is as big as a growing boy, and it has a fivefoot lever arm which is manipulated by the chain falls.

With this wrench the divers tackle the 75pound back-up nut which secures the screw's position to the shaft. And that is work! Only about one-third of a turn can be made without readjusting the apparatus.

When the nut had been backed away about three-quarters of an inch from the screw, two quarter-stick charges of gelatin dynamite were applied. One was tied to the back of the blade, toward the hull on one side of the shaft; the other on the opposite side.

Blasting caps were wired, then sandbags were lashed to concentrate the effect, and localize it. Then the divers were hoisted up.
Sometimes a skipper has coffee and sandwiches for the divers, or fresh fruit, American cigarettes, candy-even doughnuts. He had one diver who liked to work on British ships, "because they always served rum."
There have been grateful skippers who have given the diving crew a case or two of beer.

When the divers had gone topside, the word was passed that an explosion was imminent.

We were working on a big ship once, and thought everybody had been warned we were
exploding dynamite charges-but a couple deep in the hold were overlooked.

After the blast went off, they came tearing up the companionways. When they hit the deck, one of them shouted, "Lord God, we've been torpedoed. Abandon ship everybody. Abandon ship!"

We noticed that when we were ready to shoot off the charge, the skipper would begin pacing up and down the stern deck; and we imagined we could read his thoughts.
"What do these blamed Seabees know about ships? And what do they know about dynamite? They're using dynamite on my ship. How do I know they won't blow a hole in her?"

This happened so often our divers got the idea that if some skipper did not walk up and down, if he did not look worried, if he did not even scowl at the nearest Seabee, then, certainly something was bound to go wrong.

When the water had settled a little, and the stunned fish had quit rising, the divers went down to look at the results of the blast.

The screw had been forced back on its tapered shaft, against the back-up nut, just as we had calculated. It was fairly easy to remove the nut now, and it was sent up.
The chain falls were secured to a ring bolt further aft, and to the screw-by means of a heavy line sling-and the divers were then able to back the screw off the shaft.

A second set of chain falls, secured directly above the shaft, enabled the men to keep the screw from damaging the threaded part of the shaft. The least little damage to the threads would hold us up for a considerable length of time in replacing the nut.

With the aid of a winch aboard the LST we exchanged the damaged screw for the spare, cautiously maneuvered it into position, inserted the key, affixed the back-up nut, replaced the stud bolts, and put the fair-water hub back on.

The job was typical of many. Sometimes we had to blast more than once because a screw was "frozen" to the shaft. Sometimes we increased the amount of dynamite.
"Boats were always knocking out their screws on the coral niggerheads," says "Junior" Glenn, "and we were forever going down to fix them. We decided to blow to pieces the niggerheads we could get to, not only to save ourselves a job of work, but to save the ships.
"We cleaned up a lot of channels, and we cut the cost of this sort of work by 50 per cent.
"We'd dive with a few sticks of dynamite, place them right, and "Blooey"-no more danger."
During the entire period of our ship-repair operations, there were only five ships-two destroyers, two cruisers, and an LCI-which the battalion wasn't able to help. They were so severely damaged that nothing short of drydocking would suffice.
One of our over-age destroyers, converted into a "Raider Can," came to us with a burst lubrication oil cooler.
The cooler, 7 feet long by 12 inches in diameter, was considered unsafe. The Division Engineering officers believed it would be impossible to make repairs, but we made them. We did a patchwork job, which we considered would last for a little while, but it seems we did a permanent job. Our cooler was giving perfect service months afterwards.
A group of LCI's came in from their first "pay cruise"-the invasion of Munda. Two had been hit by bombs. One had a bad hole below water on the starboard side. Ordinarily she would have been given an entire new section, keel to deck; but we couldn't give her that without a drydock. She had been shored up by the 20th CB's at Munda and we reinforced this work a bit, and saw her on her way to a rear base.
The other LCI had innumerable holes on her port side, all above the water line. She also had suffered serious damage to her troop and crew quarters, her ventilation system, radio room, conning tower, and engine room telegraph.

She had enough timber plugs in her hull to resemble a porcupine.

She had perhaps 900 holes in her, large and small. Some we patched with a single run of the electric arc, others we covered with sections of steel plate. We made her watertight, her crew repainted her, and she went back to the sea.

In the same landing operation at Munda, another LCI developed a split seam in the port side of the transom, below water. Vibration of flank speed operation had broken the weld at this point.
We shifted the fuel and water ballast, and listed her, but not sufficiently to raise the seam above water. We broached the ship to shore, then brought a cable from a bulldozer to her conning tower and careened her; after which our welders went to work on the hole.

Broaching and careening a ship of this character was "strong medicine," but the ship went back into the fighting without a great loss of time.

A dozen of these boats were repaired and re-
turned to service by our shipfitters within a few months, and we were pleased when Admiral T. S. Wilkinson, commander Third Amphibious Force, wrote us a letter of commendation, and Commodore Kessing sent us a commendation for our work on a destroyer.

This latter ship, after contacting the enemy at Kula Gulf, had severe bow damage, a blasted stern turret, and loose depth charge racks. We couldn't give her a new bow, but we did make enough temporary repairs to enable her to proceed in safety to a Navy Yard.

We made a steam piston for a New Zealand warship, which had been disabled. We made it from some salvaged cast steel. We didn't have much confidence in the quality of that steel, so we made a spare piston. We were told a long time afterwards that our first "job" was still working. The spare wasn't needed, but the men felt safer with it aboard.

We made repairs on four submarines, fixing a split high-pressure oil line on one and repairing damaged watertight bulkhead door fastenings, and diesel engine exhaust tubes which had been eaten away by corrosion, and were leady.

This submarine dared not surface at night because flames came from the open exhaust tubes. They would make her a brilliant target for any enemy plane.
The skipper of this sub kept walking up and down the deck as we worked, calling, "Come on, come on; take the lead out-Move! I can't hang around here all day."

He was a lot like other American fighting men, eager to get back into action.

We obliged but were almost not quite fast enough for him. Before we had time to cast off our small boat lines-after finishing our taskhe was under way. We could not have been more surprised had he submerged, dragging us with him.

But this skipper had an extremely good excuse for his seemingly abrupt departure. He had a rendezvous with a surface ship, many leagues away, and he must not be late. He was to pick up some men and land them on an enemy island under the cover of darkness.
For all any of us knew, including himself, the outcome of a carefully planned and most important campaign depended on his keeping his rendezvous on time. The lives of many American fighting men were in the balance. We felt glad, when we learned this, that we had been given the privilege of speeding him on his way.

An LST received a bomb in the officers' coun-
try, which damaged the telemotor steering device, and, to a minor degree, the radar equipment. We were able to patch the bulkheads, repair the telemotor and temporarily restore the radar. There was one bulkhead above deck, though, that bothered us. It had been completely blown out. We didn't have enough steel plate, and couldn't find enough. We substituted wood and canvas, and the ship was able to carry on until she could go to a rear base for permanent repairs.

The skipper of an LCI, just back from Vella La Vella, complained that his fuel tanks were shipping salt water.
"We hit something in the dark," he said. "I don't know what it was, nor how badly it hurt us."
Smitty went down to have a look, and found a ragged gash running along the center of the port fuel tanks, just inside the wing tanks. He followed it.

That gash was 105 feet long.
Caulking materials were scarce, but we improvised with hemp, cedar shingles, and all the oakum we could find. We kept four divers busy at all times, while the crew pumped out the tanks. We progressed along the damaged seam from one end to the other, using oakum here, driving a shingle there, and hemping and caulking the narrow part.

After three days of climbing in and out of fuel tanks while checking for small seepages, we finished the underwater work. We steamed out the tanks to remove the oil fumes, and welded in place parallel strips of plate, about three inches
in height, just enough to clear the highest projection of the torn hull. They ran from bulkhead to bulkhead. These were capped with another ribbon of steel, forming in effect an inverted shipchannel. When completed, the integrity of each compartment was restored.
One torpedoed Allied ship we doctored with a big dose of concrete. She was anchored near the shore at Sessapi. The torpedo had hit just off the No. 2 boiler room, and although she had saved herself by shutting off this compartment it was doubtful she could make drydock.

The bulkheads of the flooded compartment had so much pressure of water against them they could not last. We decided to reinforce and support them by shoring, and by pouring concrete against them.

This involved building forms and pouring concrete in the adjacent compartments. We had barely space enough in which to turn, and the heat was suffocating.

The crew served us tea every time we had a breathing spell, high tea and low, which was pleasant for men who lived on spam, weiners, and beans most of the time. Often a generous skipper would give our divers fresh meat to cook on our boat, "Tojo."

Forty-eight hours after this ship had dropped anchor, we had finished our work. Her temperature was normal, and her condition "As good as could be expected." She waited two days for the concrete to set, then stepped out prettily for home.

Another fighting ship saved to fight again.

## PART VII

We were proud to know we "kept 'em floating," as so many grateful letters said we did.
But we helped in other ways.
We completed a water point at Kukum Beach, for the use of ships pulling into Point Cruz dock. We borrowed a rotary drilling rig from the army, and crews under Smitty and Chief Louie Rogers, each of whom headed a 12 -hour shift, drilled a well 400 feet deep.
Huge quantities of fresh water were taken from that well.
But we did a better job at Purvis Bay.
There were many ships anchored there, thirsty ships that never could find enough fresh water for their crews. It was an ideal anchorage in many ways, except that it needed fresh water and lots of it.

A couple of sailors on the U.S.S. Jamestown went hunting wild pigeons up in the cliffs that bordered the bay, and lost themselves. When they got back to their ship they told a wild story about having seen a cave with a big opening, and a stream of clear, cool water issuing through it, and, somewhere back in the cave, a waterfall.

The story eventually came to the 27 th and Lieuts. Blunt and Trudel went looking for it.

Earthquakes had knocked over some of the cliffs, and made crevices in others. Brush and grass had covered everything, and the two officers couldn't see half a foot ahead. Now one had stumbled into a hole, now the other.

For two days they searched the cliffs and the wild jungle grass. For two days one helped another out of holes, barked their shins, fought mosquitoes, climbed steep grades. They found no sign of any cave.
Mr. Trudel visited the Jamestown and talked to the pigeon hunters.
"Tell me," he said, "just what you could see from the cave."
The boys gave a graphic description of the panorama, and the second expedition set out to find the water.

We had a better idea, now, of the general direction in which to proceed. We wanted to take some natives with us, as guides, but they refused. They had heard of the cave, but they were superstitious, afraid to venture near it. Also, they explained, the cave was high up, and the way too steep.

Our officers found the stream, eventually. It seemed to be issuing from somewhere up a $700-$ foot hill. They started up the grade, slipping and falling on moss-covered rocks, sliding back,
and going on and up again. Finally they reached the cave. The water was gushing from its mouth.

One of the officers swam a distance of about 65 feet through the cave, and discovered there were other caverns connected with the one in which he was, and that many of them contained water. He swam back when it became too dark to see anymore; but he too had heard the waterfall.

Later we tried to measure the water in some of those caves. We failed. There seemed to be no bottoms.

We built a concrete dam, four feet high, to impound the water.

There was only one way to proceed in this busi-ness-to carry the supplies up that grade, over the mossy stones, and through the heavy brush, and to carry it up with the strength of our arms.

So we did it, putting everything into pails.
We did a real Swiss mountain climbing job, hauling ourselves on ropes, and pausing every other panting moment to wrap the rope around the bole of a tree, and rest and take an easy breath or two.

We built the dam. The water raised to six inches over the dam. We had impounded a million gallons of clear pure water, enough to supply an armada.

Then we had to pipe it to the beach, and out to deep water where ships could take it. So we built a steel 4 -inch pipeline 780 feet long.

The piping was unloaded at the shore line, which was about 300 feet from the bottom of the cliff. It had to be carried through a mangrove swamp over a tangle of millions of roots. Much of it had to be dragged up that tortuous ascent, length by length. And each length weighed 300 pounds.

What men will do to win a war!
We built a small pier, 6 feet wide by 20 long, and stretched a catwalk to it from the shore, a distance of 160 feet. On the pier we attached a manifold to the pipeline, and began to water the waiting ships.
An LST was our first customer. It used to take her a whole day to get a full load of water. Her capacity was 80,000 gallons.
We filled her in an hour and twenty minutes!
Four ships could take on water at the same time at this pier, and it could be arranged for twice as many to be accommodated. There was still plenty of water in the caves. It was never less than two inches above the dam.

We had some trouble about two weeks later
when debris washed into the pipe. We made a screen to prevent a recurrence of any sort of clogging. We made it out of an old oil drum, punching it full of holes.

It took only two days for the bucket brigade to haul the concrete and other supplies up that man-killing incline; and only a week to finish the dam, lay the pipe, build the catwalk and the
pier, and install the necessary fittings to give a ship a drink.

Cutting down a ship's watering time from twenty-four hours to eighty minutes is worth while, no matter what the cost in sweat and aching muscles, especially if those ships are ours, and if friends of ours on some far-off island may die if those ships stay away too long.


## A TROPICAL PARADISE

Somewhere in the Pacific, where the sun is like a curse
Where each long day is followed by another slightly worse;
Where the coral dust blows thicker than the shifting desert sands;
Where the white man dreams, and wishes for the greener, fairer lands.
Somewhere in the Pacific, where a girl is never seen;
Where the sky is never cloudy and the grass is always green.
Where the bats nightly howl and rob man of blessed sleep;
Where there isn't any whisky, and the beer is never cheap.
Somewhere in the Pacific, where the nights were made for love;
Where the moon is like a searchlight with the Southern Cross above
Sparkling like a diamond in a balmy tropic night.
It's a shameless waste of beauty, where there's not a girl in sight.
Somewhere in the Pacific, where the mail is always late And a Christmas card in April is considered up-to-date. Where we never have a pay day and never get a cent; But we never miss the money, cause we'd never get it spent.
Somewhere in the Pacific, where the ants and lizards play And a hundred fresh mosquitoes replace the one you slay. So-take me back to Frisco; let me hear that Mission Bell For this God-forsaken outpost is a substitute for hell.

## PART VIII

When we had finished the stevedoring job on Tulagi we were assigned to develop camp sites at Mission Point, on Florida Island, at Gavuhoho and Siota, and on the island of Bungana.
We were to make roads, install water supply systems, and dig gun pits for the Marines. The camps were to range in size from 200 to 1,000 men. The Marines were due to arrive on 20 January. We had just ten days to prepare for them.

Ten days, and we were without our galley gear and our heavy construction equipment. We begged and borrowed all the small tools on the island, such things as hand shovels, axes, and saws. The work was slow, but by the time the Marines landed, we had the situation well in hand. We had cleared out some of the jungle. We had dammed streams for water-supply. And we had done everything else possible to establish camp.

Eight Marines operated an outpost on Bungana. They had salvaged a small wood stove. Our men made a deal for it. Then, rounding up all the tin cans we could find, we made a galley of sorts, and had it operating within a few hours. "Red" Parks made some of the best peach cobbler there you ever tasted.
When our heavy equipment arrived, we were set to work at the assembling of pontoon barges to aid in the unloading of ships, the building of a dock, the establishment of additional camps, the erection of diesel oil and gasoline tanks with sealoading facilities, the building of a road around the island, and access roads to the sites of the various installations.
The men who went to Siota in charge of E. B. Perkins, had three days supply of K rations, two carpenter's kits, half a dozen picks and shovels, and a few brush hooks. They set up housekeeping in a couple of deserted native huts, and went to work.
Fortunately, when their rations and cigarettes were gone, a dozen or more Marines arrived. They had some grub, but it required cooking. The chief and two of his men, R. C. Miller and W. R. Traver, went on a scavenger hunt for metals, which they beat into cook spoons, pots, and pans.
After the supply barge came in, and the waterdistillation apparatus had been set up, operated by S. W. Harris and C. W. Thompson, another salvage hunt was begun for building materials.

Wood was taken from two houses and a spacious hall built by the English and demolished by the Japs. But there were no nails to be found except bent, crooked, fire-ruined, and rusted ones.

Miller and Traver were sent out to reconnoiter, and see that some sort of defense was established for the outpost. We didn't know whether there were Japs around, though we suspected the woods were full of them. And we didn't know then whether any Marines were near to protect us.
The two Seabees took a native guide named David along the beach and along a jungle path, over hills, and through waist-deep waters. They saw nothing more dangerous than a crocodile until, in the middle of the night-
"We stumbled over fallen coconuts, roots, and vines," Miller says. "We tied a white handkerchief to David's back, so we could see him and we walked behind single file, keeping close contact until-abruptly-we saw figures silhouetted against the sky, and observed the shielded glow of a flashlight!"
The Seabees and the guide were sure they had encountered a Jap patrol. Like Indians on the warpath they spread out to ambush the unwary foe. The soft crunching of dry leaves made their hearts beat fast. Had they betrayed themselves?
Miller breathed a prayer. "Dear God, forgive me my sins, and if this is the end of me, please let me get one of those dirty Nips first."

The silhouettes came closer. Two soldiers. Only two. The Seabees challenged, and found two Marines from Brooklyn, U. S. A., one of them a sergeant.
"Say, youse guys is good! We never hoid a t'ing."

An hour or so later, as our heroes entered a friendly native village, they discovered they had been trailed by men they never "hoid" either, fierce looking native warriors carrying the wickedest bolos any Seabee ever beheld.
The men who went to Mission Point, in command of Carpenter (now Lieut. (jg), Hercule H. E. Trudel, had more interesting experiences than the rest of us. Mr. Trudel contracted dengue fever sometime later, and Mr. Hoy relieved him.
This point is one of the most beautiful spots in the world. A peninsula juts out into the water. There is a sandy beach, a coconut grove along the shore, a coral shelf, and high cliffs nearby. The breakers come roaring in here all the time.

Natives came every day across the 23 miles of water between Malaita and this point, two men in a little canoe, or four in a big war boạt. They were laden with fruits and fresh vegetables. One day they brought a priest with them, a Father C. Palmer, S.M., a missionary who had been hiding from the Japanese for two years. He was ragged and underfed. The men filled his little canoe with food and clothes, and took up a collection for him. It amounted to well over a hundred dollars. The priest, incidentally, helped the American forces greatly by bits of information he was able to furnish about the movements of Japanese troops and vessels.

At Mission Point, the Rt. Rev. Bishop Badeley of the Anglican church had his residence. He had dwelt in one of the colonial homes built by English settlers, but at this time he lived in a


One of Bishop Badeley's churches.
grass hut, and was cared for by the natives.

The point, seven miles west of Siota, was converted to Christianity some forty years ago by a Spanish Jesuit. His grave is a shrine to thousands of the islanders.

Bishop Badeley was a tall spare man with a white thin mustache, and was always accompanied by a cocker spaniel. His diocese included the New Hebrides, the Solomon Islands, part of New Guinea, and the islands of the Bismarck Archipelago. He used to cruise from one parish to another in a luxurious yacht, "The Southern Cross." The government took the yacht for the duration of the war, and the bishop had only a little yawl for transportation.
His church, which he called "The Cathedral," a beautiful edifice built of hand-hewn mahogany, and furnished with a hand-carved altar and handcarved pews, had been set afire and badly damaged by the Japs.

"Are there any poisonous reptiles on this island?" Mr. Trudel asked him. "It is important that I know, since my men are going into the woods."
"Dear me, no," said the bishop. "I never heard of one."

Mr. Trudel, short and stocky, comes from New York. He was an engineer in the park department of the Borough of Richmond, under Commissioner Robert Moses. Like most New Yorkers he is something of a skeptic.
"Are you sure?" he demanded.
"Quite sure, quite sure. I say, have a spot of tea and let me tell you of our problems here."

The bishop related how the Japs had shelled the point, ruined the church and set many of the
houses afire. They had even bombed the cricket field. Worse, they had entered his home and thrown away all his books.
"Some of those volumes were priceless," the bishop said.

Mr . Trudel, looking over his excellency's shoulder, saw something at the water's edge.
"Look," he said. "A crocodile."
"Extrawdinry!" exclaimed the prelate.
The two men walked down the road a little way and saw a crowd of natives. One of them had a pole on which hung a long snake.
"That's a coral snake," the American asserted. "It's poisonous, I'm sure." He turned to one of our two native guides, John and David.
"Coral snake bite native, native sick," David


There WERE snakes on the island.
said. "Bite white man, white man die fi' minutes."
"Extrawdinry!" the bishop said.
Together the bishop and the Seabee officer looked at the ghost town, the wrecked clock tower, the bullet-riddled roofs, the court house where the natives used to be fined for non-payment of taxes, the rows and rows of thatched native huts.
"I say," the bishop said, "I'd hate to lose those books."

He didn't lose them. We found all or most of them, washed those that were dirty, dried them, put them on a jeep, and restored them to the bishop. The weight-half a ton!

There were anywhere from 125 to 175 of us here for several months. It was our first line of defense, and manned by units of the army, the Marines, and the Regular Navy. We went armed most of the time. We might carry our rifles on the cat, but we always had belts of ammunition strapped about us.

We built a mess hall and a camp for the Marines, repaired the roofs of the houses, made the places livable, turned the church into a hospital, and made a "stadium" at the cricket field after filling in the bomb craters.

We lived in tents, and in two large native huts.
We built a 15 -mile patrol road from Siota to Salasappi, a town of 1,500 . We had to build 11 timber bridges, tunnel through cliffs, and cut away large sections of jungle to complete the job. It was essential the armed forces have such a road, so that they could rush men and supplies to any part of the coast that might be attacked.

There were plenty of alarms. We had one condition black, meaning invasion imminent, that caused us to stay in the shelters, without sleep, for 24 hours.
We built emplacements for three 155 's, cutting into a mountain side to do it, and making an area wide enough to permit the weapons to swing through an angle of 180 degrees, to cover the strait between Malaita and Florida Islands.
We had cut through volcanic ash. In the hot sun, and in the frequent rain, gas vapors rose and we breathed sulphuric acid. It was more than a little weakening, and gave us all headaches.
Sometimes it was 125 degrees in the sun.
While we were building a bridge on this road, the men's hands and clothing were stained by sap that oozed from logs. We couldn't get those stains out of our clothing. Mr. Trudel, worried, went to see a Marine acquaintance, Major Dunlap, and Capt. Erickson, a geologist.
"This is rubber," the captain said. "You've been cutting rubber trees."

He went with Mr. Trudel, walking four or five miles into the woods. There were thousands of rubber trees. The captain bled one, and examined the liquid.
"Wonderful latex," he said. "Wonder where these trees come from."

Bishop Badeley explained that years ago someone had planted a rubber tree purely as an experiment.
"By the way," he added to Mr. Trudel, "many thanks for the books. Will you have a spot of tea?"

The bishop never drank anything but tea. Also, Mr. Trudel learned, he traveled so much he never had time to learn about the islands. He was actually unaware of the snakes and crocs in which Siota abounded.

We blocked up rivers to make water reservoirs, dammed them and covered the dams with sandbags. We led other streams into the sea. They had been stopped up at their mouths by heaps of sand the waves had built. The water was stagnant, and filled with mosquito larvae.

We passed through seven native villages on our roundabout way, teaching them sanitation. Some of our lessons were gratefully received, but most were ignored.

We killed deadly snakes as we went, and sometimes a man-eating croc. There were two kinds of crocodiles, we learned. One, the big type, six to 16 feet, was scary. The little type came at us with a furious rush. The natives roasted what we shot. It had a pork taste.

One of the most venomous reptiles we encountered was a serpent the natives called "bamba" or "hamba." We took it they were trying to say Mamba. It has a needle-sharp nose, and three fangs, two in its upper jaw, and one in its lower.

We also met a lot of miniature dinosaurs, exact replicas of the pictured animals of ancient days, with long necks, snake-like heads, and long tails. We killed a few before we found out they were harmless. We also learned they were extinct everywhere else in the world. Some of them were four to six feet long. They were rusty in color, but their backs were striated like a turtle's or a lizard's, a protective coloring that blended with the rough bark of a tree.
Small patrols of Seabees and Marines looked for Japs, but were not fortunate enough to find any. Once we saw their campfires in the distance.

During this time we also built gun emplacements for .90 and $.40-\mathrm{mm}$. guns, on a high peak.


Market Day at Siota.

We dug a radar pit. We took charge of the water system. There were 200 men there and 500 more coming, and the supply was short. We found two small streams, diverted one into the other, built a dam, made a reservoir, cemented and sandbagged it-and obtained 200,000 gallons of cold spring water. We built a water line with bomboo stalks that extended 2,000 feet, and the water scarcity was over.

While we were building one of our bridges, Mr. Trudel noticed a large crowd of natives who looked, not at the work we were doing, but at one of the men.

This man was Irish, handsome, and slender. His hair was a golden brown, and his eyes a shining blue. We called him "Cottonhead," or just plain "Cotton."

As this young adonis stooped to pick up a timber, a dozen young girls and middle-aged and old women rushed to help him.
"What goes on?" Mr. Trudel asked.
One of our men stepped forward, grinning. "To these women he is God," he said. "They help him."

The lieutenant didn't quite believe that. But he kept watching. Cotton couldn't even reach for an axe without his adorers rushing to lift it for him.
"I was worried," the officer says, "I thought something might happen because of this fanaticism. I gave orders that no natives were to be admitted to our camp after dark.
"A few days later I had occasion to go to Cotton's tent and saw several native women carrying away a tremendous amount of laundry. It developed they had been washing the boy's dirty clothes ever since he came to this part of the world-and his pals had put their soiled things on his bed so they also would get free laundry service."

The natives not only refused to take any pay for their devout labors; but they furnished their shiny blond deity baskets full of fresh fruit and other gifts.

There is an animal on the island similar to our 'possum. It has teeth like ivory. Beautiful tiny teeth. The natives make necklaces of these jewels, and they are works of art. Cotton had a dozen of them.

Mr. Trudel thought it wise to send the toohandsome Seabee to Gavuhoho-but he was even more fanatically worshipped there.
"Mind you," the lieutenant says, "the boy wouldn't have touched one of these women. They were even uglier than the women on Tulagi. And,


Native dwelling of superior construction and showing originality of design.
poor things, they were a sickly, ulcerous crowd. It seemed to me the natives here were most unfortunate. They excited nothing but pity in us. We shot game for them, because they had so little to eat. Sometimes we took crowds of men out in one of our boats, into a beautiful little cove, and dynamited the waters. Tuna, baby sharks, and sea bass similar to those we know, would rise to the surface stunned. The natives would leap in and get them. Sometimes they took home 300 pounds of fish or more."

In building our road we came upon an area about eight acres in extent, of black, oozy slime. We sank in it to our knees. Mr. Trudel's friend, the geologist, had a look and pronounced it oil. It was in a valley between two ranges of mountains. There was little brush in the valley, yet there were immense trees, some of them 80 feet tall, and their roots spread out for 60 feet or more in every direction. There was no other plant life there. Just trees, and oil oozing out of the ground.

Mr. Trudel wanted to drill an oil well, having a bunch of men from Texas and Oklahoma with him, many of them drillers, but the pressure of other work would not allow this.

Along the right of way we saw thousands of beautiful orchids, and there was a white variety that attracted the eye but not the nose. It was pure white, and its leaves were as big as the leaves of a cabbage.
"It was the loveliest flower I ever saw," Mr. Trudel declared, "with the worst odor I ever smelled."

We scented this bloom long before we saw it.
"Somebody dead around here?" one of the men asked. Another man simply pointed to the orchid.

We discovered, building this road, a vine that exudes a poisonous sap in certain seasons. It will produce temporary blindness if it gets anywhere near the eye, and the blindness may last a week or more. And we discovered Marines with genuine American sense of humor.

The woods were filled with birds of the gaudiest hue. The Marines had captured one, a baby parrot, a cute little fellow. He was pure green in color, and the Marines had taught him to dance.

Col. Charles Muldrow, the officer in command, had asked the men to get him a parrot. They promised him one, but weeks went by and they
did nothing, apparently, to procure the bird for him.
The colonel was annoyed. He came down to the camp and looked around. He saw the little green parrot perched on the limb of a tree. That was the bird we wanted.
"Certainly, sir," said the Marine sergeant. "We'll get him for you."
As soon as the colonel left the sergeant placed the parrot in an ornate cage the men had built, and sent him to the C. O.'s quarters. The officer was extremely pleased. At his leisure he let the parrot out of its cage and watched it dance.
"Pretty pol," he said, in the most winning voice. "Polly want a cracker?"
Polly answered in the only English words he had been taught.
"Go to hell, Charley. Go to hell, Charley. Go to hell, Charley."

The colonel roared for the major. "Get that damned bird out of here," he shouted.
Head hunters used to live along our road. We didn't know it until one of our bulldozers unearthed an immense iron cauldron. It was about 28 or 30 inches in diameter at the top. It bellied out to about 36 inches at the middle, then tapered toward the bottom. It was pock-marked with rather deep holes on the inside, and the iron was of uneven thickness. In some parts it was about three-quarters of an inch thick, in other parts about an inch and a half. It had four iron balls on the bottom, on which it stood. It was three feet high or more. It was crudely made, but it had been so well cast that when our cat hit it the couldron wasn't hurt. It was the cat that bounced back from the collision.
"What is this thing, David?" Mr. Trudel demanded.
David was hesitant, reluctant to answer. It was a pot in which the headhunters used to cook their victims, he admitted finally. Twenty-five years ago, he said, the English had locked up all the headmen in every village where such a pot was found, kept them two years in prison. It was very bad for a village to have this sort of cooking utensil. They disappeared.

Mr . Trudel intended to get a truck-mounted crane and cart the find away. But when the crane arrived on the following morning, the pot had vanished. An intensive search was made for it. All villages were visited. Every hut was examined. But no white man ever saw the iron cauldron again-nor learned by what means it had been taken away.
We came to numerous little tobacco plantations, and thereby made many a native's face turn gray.

The English had put a high tax on tobacco. Therefore the natives grew it in inaccessible places. They feared we would either destroy the crop, or report them to the British authorities, which would mean a fine,-absolute ruin.
We assured them we had no intention of harming them in any way. We by-passed the tobacco. We also by-passed all betel trees-for which the natives thanked us exceedingly.
We learned that betel juice isn't red. The heart of the nut is ground and mixed with a pure white strain of coral, then mashed. The grains of coral make the chewer's gums bleed. It is the blood that stains the juice. The teeth of a betel nut chewer are black, in sharp contrast to the white teeth of other natives.
In Gavuhoho, another defense point, we built a small camp and a mess hall for the Marines, and arranged a fresh water system for their benefit.

The Marines and the Seabees were like brothers on this island. Whenever we didn't have enough men to do a job, the leathernecks would pitch in and help, working like fury, wise-cracking all the time. When they wanted anything from us, it was theirs.

There were Japanese in the vicinity, and none of us took any chances. Seabee sentries were fully armed. It is probable the Marines didn't know that. It is possible they didn't appreciate the fact that our men were far better marksmen than they were. We had more than 200 Texans in the 27th, and nearly every one of them claimed to have been born with a 6 -shooter in one hand and a rifle in the other. We had had many competitive rifle contests with the Marines, and always won.

However, the young Marines decided to play a joke. Two or three covered themselves with sheets, in which they had cut eye holes. Then, in the stillness of a black night, they came up behind one of our guards, and said "Boo."

The Seabee whirled, firing. But he wasn't fast enough. The Marines outran every bullet.

While in Gavuhoho we heard that four men out of a platoon of colored soldiers stationed in Malaita had mysteriously disappeared. Malaita was still head-hunter territory. Incidentally, our guides, David and John, were Malatians born and bred, but professed to know nothing of headhunting tribes.

Marine Lieutenant Woody Adams, a former All-American football star, a young man six feet four inches tall, and weighing 225 pounds, took some men and a few tommy guns, and went to Malaita.

The missing men did not reappear, but no American on Malaita was molested after that.
"During this mission," Mr. Trudel says, "we hired native labor to make up our beds, keep our homes clean, wash our clothes, and do many other things. We paid $\$ 1$ a week, with the understanding we would be given fresh fruits twice a week. We wanted limes especially. It got so we drank lime juice constantly. A pipe would buy anybody's services for a month or more. When the women found I had a dozen of them there was something like a breadline at my tent.
"Everybody smokes on Siota. The little children smoke only cigarettes, however. They are eight or nine before they are allowed a pipe.
"It was in Siota I met Captain Winant, a medical officer serving in the 162nd Infantry Regiment with the 19th Division.
"This army doctor was a young fellow not long out of Connecticut. He was eager to treat the natives. He sent out word he would see them at the sick bay every Friday. The first day he attended about 15 women and boys-but after several weeks or more 1,500 men, women, and children came to him Fridays. They journeyed from all over the islands, the tuberculous, the blind, the crippled, the victims of diseases unknown to most white doctors, the cancerous, the lepers.
"He made them welcome, even the most repulsive, the most malodorous. He treated them all day and into the night. He delivered babies. He cleansed festering wounds. He bound up arms and legs. He performed operations. He did everything a doctor can do-and loved every minute of it.
"A friend once asked him if he weren't afraid of contracting leprosy or some other terrible disease. 'If you get it,' he answered, 'you get it.'
"You know something? I never was more proud to be an American."
We played hard on Siota, when we could. There were softball and volley ball courts on the old cricket field. Before we left we had 21 ball teams, an all-service league, and during the "world series" games we played, much money was won and lost.
We won the championship of the league once. The Navy won once. But the Army won twice. We told the soldiers they beat us only because we had to work so much of the time, while they had nothing to do but practice.

Most every one of us bet on the games. We all had plenty of money. Two fellows would run a race, each betting $\$ 100$ on himself. It was rumored that you could see crap games where $\$ 1,000$ lay on the ground. Sometimes a Seabee
could be seen writing a check for $\$ 500$ or more to settle his debts of honor.
Before we left Siota we witnessed a native ceremony held on the cricket field. About 300 participated, some of them wearing their ancient masks. The musicians played on instruments made out of wood and some kind of skin-human skin, most of us thought.

Each instrument was played by the thumping of a hand or the beating of sticks.
It was music that would have driven us crazy if we'd listened long enough. A few of us had heard African natives beating the tom-toms. This was the same sort of monotonous rhythm, but worse. It was boogie-woogie intensified, but with no music in it. The dancers danced themselves into a trance-like state, and fell, wax-eyed and drooling, to the earth.

It was on Big Florida island we did the impossible.
We were putting a road upward from the beach at an unusually steep angle to the top of a 600foot hill, one of a number of high cliffs that stretched for miles and miles. It was necessary that the road go through, and quickly. From those hill tops our gunners could see planes heading toward Guadalcanal from all directions.

The road was to be two and a half miles long, up and down, mostly up, and the stuff we were working in was the red gumbo-like clay that held water like a sponge. It rained frequently, and the roadbed became stinking, steaming quagmires. Sometimes we had to corduroy the road, pave it with teakwood and mahogany logs, to make them at all passable. Some of those timbers were 80 or 90 feet long.

On one of these cliffs there was a native village. The Japs had made an attack there. We saw their trade-marks everywhere. The people had disappeared. There must have been formerly 400 or 500 of them.

We demolished the deserted huts, for the sake of the sand on which they rested. We also demolished a teakwood and mahogany church. We didn't like to, but we had no choice. We had to have that sand for the road-for the road and the Marines. Before we left that site we had dug up a whole peninsula of sand. The place was two feet under water before we had enough.

Engineers had told us that this task was impossible. Cloudbursts that washed away a whole week's labor, sometimes, also told us it was impossible. But we did it.
Before we left the Floridas we had built a permanent camp for the Marines at Lyons Point. It was adequate for a thousand men. We placed
the officers on the south side of a ridge and the men on the north side, blasting a road 32 feet deep through the cliff, and 300 feet long, as a communications lane. We made this road somewhat snakey so it would not have too steep a grade.

We also made a cantonment for 750 men, and excavated a large communications room in a cliff-it was twenty feet wide by twenty long, and fifteen high and we dug or blasted gun pits for weapons of many calibres.

To give one an idea of the work involved in excavating for gun pits, a $.90-\mathrm{mm}$. pit is thirty feet long by thirty wide, and six feet deep; the 155 's are thirty by forty, and eight feet deep. The radar pit we made was 100 by 200 feet, and

12 feet deep.
We gave Bishop Badeley a new house, furnished and decorated it, and put a canvas roof on it. He let us help ourselves to his pineapples and farm products as we worked. And always there was tea.

Our men on the island of Bungana, in command of Lieut. Ray Blair, built five miles of road through and over steep and rocky territory, built a lookout tower of steel and wood-with scrap material gathered wherever we could find itand placed three 155's on Panama gun mounts allowing them to rotate in a complete circle.

Just before we rejoined the 27th on Tulagi, we built an oven.

We had fresh bread!

## PART IX

Blue Beach, on Tulagi, recalls many things to us-Chief "Chili" Stricklan shivering with chills in the equatorial sun, the first to become acquainted with the malaria "bug" . . . the landslide that wrecked Unit E ward . . . coffee time at the native hut near the toolroom . . . Bradley whizzing by in our Jap truck . . . "Shadow" Basch hunting for crates and bent nails with which to turn out furniture . . . "Scuttlebutt" Crow scuttling from butt to butt to complete a head in record time . . . the mass exodus to the nearby caves each time a condition Red . . . R. B. Mann patching shrapnel holes in pieces of tin salvaged from native huts . . . and the never-ending foxhole stories . . .

Company A's dog that could smell the Japs coming. He was always the first to run to shelter. One night Pop Hughes lost his balance when the dog ran through his legs. He went sprawling into the hole, and the dog sitting in the corner looked at him as though to say, "What in the hell kept you so long?"

The lad who cried out in terror, "Mama, come get your blue-eyed boy"; and the other who said, "When them planes dive, I dive; and usually I dive first."
The sick bay patients during a raid. We remember one who developed a back ailment that bent him double. The first bombing raid straightened him up. He went by the doctor like a tornado.
"Bull Dog" Freeman who used to say, "I got no use for fox-hole religion. If God's checking up on us during a raid, He's not sucker enough to fall for the line most of us pull."

Then there was another who was heard solemnly swearing to mend his ways if he were spared. No more hell-raising. No more gambling. Nothing wicked ever again. That was during a raid. Afterwards he was heard shouting, "Boy, this is my lucky night; where the hell's them dice?"

We built a complete 250 -bed hospital at Blue Beach, with all the essential facilities; and before it was finished we began another. The site was on a flat semi-circular beach on the southern shore. Rock cliffs hemmed it in on three sides. It looked out over a beautiful cove and the distant blue mountains of Guadalcanal. The area was covered with shining white coral sand, and studded with great spreading trees.

We "blacked-out" certain buildings with special louvers developed in our sheet-metal shop. We camouflaged the buildings with paint, and

with the use of natural cover. You could stand on a bluff looking down on the project and perhaps not see the buildings, they blended so indiscernably into the landscape.
We provided the wards and various quarters with metal awnings by bending the lowest sheets of the Quonset huts outward along each side, at a height of four feet above the deck, and covered with screen wire the openings thus created. As


Blue Beach Hospital, Section 1.
usual, we hunted all over for materials, and improvised equipment-including an autopsy table made by "Shadow," bedpans, blades for electric fans, a flush type toilet, and other essentials.

The casualties from the Munda campaign began arriving before we were finished-to spur us on to greater efforts. You can't look at American kids lying on blood-stained litters and smiling at you bravely without wanting to help them,
though that means you work all day and all night and all the next day and the next.

Looking at those kids, we felt that though we had done our utmost, we had not done, and could never do enough.

We felt too that we were pretty lucky in having our own efficient medical unit, and such doctors as William M. Brown, William H. L. Collis, who succeeded him, D. Vosburgh, and those who fol-
lowed, Meredith L. Ostrom, H. Hensler and H. V. Carter.

We cared for our own sick and injured-our men suffered mostly from malaria and fungus infections-but we took care of others too, when we could.
During the Munda campaign, men wounded came to Blue Beach for whom there were no cots. Our sick gave up their bunks to these, and returned to their tents for "medical curb service." A hardship? A privilege!
On one occasion three heroes of the 'Canal were brought in by a destroyer. Their patrol had been landed behind the enemy lines. They were after information concerning the Japs' position and supply problem. The Japs detected their radio signal, jumped their left flank and poured machine gun and rifle fire into them. Seven men made their way toward a native village where a landing party was to pick them up. The Japs surprised the rescue party, killing some before they reached the beach. The seven escaped in a
canoe, and through sheer luck had been found by the destroyer.

When the 34th, at Halavo, sustained casualties from Tojo's birdmen, they hadn't had time to erect adequate medical facilities. They came to us. In our blacked-out surgery hut we worked feverishly all one night, removing shrapnel and treating cuts, abrasions, and shock. And many of our men donated their blood . . . each one getting a good snort of whiskey after the transfusion.

Our casualties suffered from dengue fever, malaria, "jungle rot," and "coral poisoning."

Dengue, which is transmitted by the Aedes Egypti mosquito, not the one that transmits malaria, is prevalent in the tropics and sub-tropics. It is not well known in the United States, though, long ago, it made itself felt in the city of Philadelphia. At that time Benjamin Rush called it "break bone fever." This is an excellent title because it describes exactly how the patient feels.
The disease causes almost no mortality. It lasts about a week. The patient has a high fever.

Camouflage partially completed.


His joints ache. His bones ache. His muscles ache. He feels as if he were being pulled apart, and frequently he is acutely sorry he will not die. He suffers an excruciating headache just behind the eyeballs. He is covered by a rash resembling measles. His fever will abate after four days, then it will return for three or four days.

None of the sulfa drugs seemed to influence the course of the disease. Aspirin in large quantities was the most effective treatment we found. The men went to bed and stayed there when attacked by dengue. They recovered, eventually, and without any permanent ill effects.
"Jungle rot" and wounds made by coral really worried us, they were so difficult to overcome. Coral wounds are local; but there seems to be a continued irritation, perhaps from minute fragments of coral left in the wound, or from secretions or disintegration of the microscopic coral animal that builds the living rock.

These wounds heal slowly-all wounds heal slowly in the tropics, for that matter-and turn


Doctors Hensler and Carter in consultation. Subject: When Are We Going Home?
into open ulcerating sores. These become secondarily infected and blood-poisoning may develop.
"Jungle rot" is the all-inclusive term for all kinds of skin infections that burst like blossoms on men living in the tropics. Most of these skin

General view of the beautifully situated sick bay area.

eruptions are probably caused by fungus. A few may be so disabled it is necessary to evacuate them to temperate zones.
Blisters, scaling and crusting, and maceration of the skin with portions peeling or scaling off to leave raw, red areas oozing serum-all this is known as "jungle rot."
Our battalion had a remarkably low casualty rate, considering the hazards of our work. Perhaps the most serious case was that of a man hit on the head by a falling tree branch. His skull was fractured in two places, and he was close to death for several days, Dr. Carter sitting by his side day and night.
It was due to this fine doctor, largely, that ours became one of the finest Seabee medical units in the forward area.
Dr. Carter treated mental ills as assiduously as those of the body, investigating the causes in each particular case. Sometimes a letter from a fickle sweetheart upset a man, the news of his mother's death, rebuke from an officer, a sudden financial problem that confronted his family back home.
Some of the men had married only a few days or a few weeks before they left for the islands, and wife and home were sacred to them. De-
spite the thousands of miles that separated them, they were still ardent bride-grooms. When they learned their brides had been unfaithful-their mental agony became as acute as any physical illness.

Many man hours were lost to us through the unfaithfulness of wives. Many men had to do double duty. Many a friend was ruined for months, if not for life.
"Unfaithfulness," says a chaplain who has been on many fronts during this war, "is as destructive, sometimes, as an enemy bomber. The men overseas, fighting part of the time, and sitting around the rest of the time waiting to fight, are always thinking of their homes, idealizing them, living in dreams.
"When those ideals, those dreams, are shattered by a letter from home, the man is shattered too, as surely and as horribly as though he'd been hit by a shell fragment, or had stepped on a booby trap. And there's little that even his closest friends can do to help.
"I've talked to many, many of these mental cases, and listened to their stories. It is usually the wife, or the sweetheart, who is at fault. I've read many of the letters they wrote. 'If you don't come home I'm going to divorce you! I just

Interior of Ward.

can't stand it here alone.' 'My dear husbandI know you love me enough to understand that I've fallen in love, terribly in love, with your friend So-and-So, and to let me get a divorce.' 'Dear Bill, I thought as a good friend of yours, it was my duty to tell you that the brazen little thing you married'-and so on and so on.
"In God's name, let somebody tell American women what they are doing to those men fighting for them overseas. Let somebody tell them it is their duty to make sacrifices, even as their husbands and their sweethearts do. Let somebody shout to them from the rooftops that they are traitors to their country when they are traitors to their men."

We did what we could for our wife and sweet-heart-wounded casualties. Some of them recovered. Only some of them.

Dr. Leland R. Rhine joined our medical staff just before we returned home. He had been with another Seabee outfit, and had encountered some rather interesting experiences.

Early in 1943 his ship anchored off a small island in the Solomons. A native canoe came alongside. A note was passed up, asking the doctor to come ashore, to attend to a native woman who lived on the other side of the island.

The writer of the note, an Anglican priest, and two native boys led the doctor along a winding coral path through the jungle gloom.
"This woman," the priest explained, "is the eldest daughter of the chief, a nice old fellow who was educated in Australia. He speaks English and can tell you the history of the island with all its customs, raids, famines, and plagues. He won't object to anything you do."

The woman lay in a grass hut, on a hard bed of poles covered with a woven mat. Her newborn child lay beside her-a dehydrated baby still connected to the mother by the umbilical cord.

The patient had lost a large amount of blood, but had not expelled the placenta.

Fortunately the doctor had taken blood plasma and sulfa drugs with him. These he administered. She responded readily to the treatment. The placenta was removed without further loss of blood. And the baby began to look like a baby.

There were no nursing mothers available, but the doctor wasn't "stumped," He remembered a conversation he had had with a Fiji-trained physician. He made a formula of lime juice, macerated papaya, and green cocoanut milk.

When he returned, three days later, with evaporated milk and a sack of sugar, he found mother and child "doing nicely." The chief gave him a banquet-a rather unsavory one, it seems-and
presented him with an unusual fee, a black, strong war club, made of heavy wood and inlaid with an intricate mother-of-pearl design, a "sacred sceptre" that had belonged to his father.

Before the ship left-the first American vessel to visit the island-a crowd of boys in the regalia of their ancestors danced on the beach, as a gesture of gratitude, then our boys aboard responded with "Anchors Aweigh," and "Springtime in the Rockies."

Malaria control, organized under Mr. Loeltz and Chief H. M. Ham, who was once connected with the Texas Sanitary and Malaria Control, aided our medical units by fighting the anopheles mosquito.

Their weapons were dynamite, oil, netting, instructive posters, and constant work. In August, 1944, the medical officer reported only three cases of malaria in the battalion, two of them recurrent, whereas in the early days 70 per cent of the men in the Purvis Bay area had had it.
"We also used kindness in our work," Chief Ham says, "and, with the help of Australian doctors, and some of our own naval medicos, we treated the natives as well as the men in the 27 th.
"It was a comic sight to see the natives lined up for atabrine tablets, the men here, the women there, the children and babies in a row near the mothers. Each man and woman and child old enough to swallow would be given two pills; and we'd watch as they swallowed.
"For the younger ones the tablets were mashed and given in water. The stuff is bitter, and the faces those babies made was-well, just what you would expect. In their little minds they were ready to murder.
"But it wasn't all fun. We found a little girl living alone in a hut, isolated from all her people. No one would go near enough to give her any food except cocoanuts and sugar cane, and these they hurled from a distance.
"The child had an advanced case of the 'yaws,' very common among the natives. Her arms and legs were full of running sores. A finger and a toe had been eaten off by the disease. Her body was emaciated from hunger. The doctor put her on a diet and gave her a number of shots. In a few weeks she was completely cured, except for the members she had lost.
"The natives liked to visit our sick bay and have the doctors show concern for them. They came in for every tiny cut or scratch. Particularly did they enjoy having adhesive tape placed on their wounds. It showed up white and clean against their brown skin-and obviously it covered "honorable scars."


Level ground for tank sites was scarce and sites such as that shown above were often used. Lower, a completed tank site is shown.

## PART X

One of the biggest and most important jobs we tackled was the Marker D tank farm.
We had built small tank farms before-in Guadalcanal, in Tanambogo, and in Gavutu. But this was a job with hair on its chest.

Marker D was located on Phillips Peninsula, which juts into Purvis Bay on Little Florida. It got its name from a hydrographic marker that had been placed on the top of a bluff.

We were to build tanks that would hold 330,000 barrels of fuel oil and diesel motor oil, thirtythree tanks in all. All were to be connected to two pontoon fueling docks. We were to refuel the fleet anchoring in Purvis Bay, and the docks must be big enough to accommodate all but the largest of the fleet's vessels.

Before we began work we had to have an accurate topography map of the area. Ensign (now Lieut.) Poulton, Chief Palmer and Chief Horton, with their party, were sent to make a survey. Horton carried our transit, which weighed about 35 pounds with its tripod. This instrument was the only one of its kind issued us, and we had to be most careful of it. A single damaging blow might have made mapping impossible.

He must watch his steps, especially on muddy ground, in swamps, in jungles, and on rocky terrain, lest he fall and hurt the instrument. He must see that no branch swung against it, even though he were in the darkest and thickest underbrush.

And when it rained, which it did frequentlywe had 205 inches of rain in ten months-the transit carrier put his coat over the baby and suffered the rain himself.

The two landed first near Buffat's Point. Rotting steps led upward to the top of a bluff. They ascended, and found the ruins of a Colonial English house. A trader named Buffat had lived there, and the surveyors tried to find him. He might have information about the terrain.
"Him gone," a native said. "Him marry native woman. In three moon him die."

From Buffat's Point they traveled through jungle grass five feet high with blades "like the palms you get on Palm Sunday." The edges of the grass were keen as surgeon's knives. The party, like everybody else in that humid region, was dressed in shorts. Their legs were cut and bleeding before they had gone many miles.
During the course of the survey they heard women wailing several feet above them, and
children crying. The men went to investigate, and found several score of natives.
Some days before, they explained, a great wave had come raging up onto the shore. They had fled, taking nothing with them. Their huts had been washed away, with everything they had.

They had been in the hills ever since, afraid to venture down, and had nothing to eat.

The battalion sent a rescue party loaded with food. The fugitives ate voraciously; but they were still afraid of the shore and the sea. It was with great difficulty they were induced to leave the hills and start their lives anew.

The region was all up and down, hills a hundred feet or more apart, with deep canyons between each hill, and jungle growth everywhere.

A site was finally chosen. The ground dropped sharply from the ridges to the swamps along the shore-but it was the best site available in all those miles of hills.

Then it was necessary to cut through many miles of brush to substantiate the selection, and make certain there would be room for all the tanks. To avoid the spread of fire or bomb damage, the tanks had to be at least two hundred feet apart; and each tank location had to be chosen with relation to the other-this in jungle where a man couldn't see twenty feet ahead.

One five-man survey party obtained enough data for a topographic map covering the ground selected. It was completed in ten days. From it, the first twenty tank sites were selected.

The crews on all the various outpost jobs were called in to begin construction.

All of Co. C, and many specialists from the other companies participated. Pipe layers, tank men, dirt movers, and others, worked under the supervision of Mr. Blunt and Mr. Hoy, with Mr. Blair and Mr. Trudel assisting.

There wasn't a level piece of ground on the whole area. All the sites had to be cut into the sides of steep hills, a major project in itself.

From the center of the excavation for one tank, for example, to the top of the cut, the distance was over 200 feet at an angle of more than 45 degrees. The rock blasted and dug from this one cut would have filled a hundred railroad coal cars.

We cleared the brush, we cut down trees, we filled the swamps, we blasted, we dug, we dammed a stream and set up a distillation unit.

And we learned to doubt a lot of natural history picked up in wild adventure books. There


Steel sheets are laid to form tank floor (upper photo). A completed floor is shown lower.
were those tales we had read of the hideous devil fish wrapping their coils about a diver and squeezing him to death; and those about the giant clams whose shells close like a vise on a man's hand or ankle, and hold him prisoner in the depths forever.

Our boys used to spear devil fish around the docks at Marker D, and brought up many giant clams without any danger. They had learned a trick from the natives. If you were caught by a clam, thrust a knife through one of the grooves in the scalloped edge of the shell, dig it deep inside and twist it. The shell will open.
Perhaps there are man-eating devilfish; but they weren't among the varieties we speared. We got clam shells big enough to bathe a baby in.

Our heads ached almost all the time from the fumes the dynamite loosed from the volcanic rock and ash; and some of us had our necks burned by the sun, and our hands by the steel plates of the tanks. The sun beat down on that steel until it would burn through the toughest leather glove. And the bolts were as cruel to handle as red hot rivets.
Out of the pits we had dug the tanks rose. The dikes we had built around them would con-
fine the burning oil, should the tank be destroyed by gun fire or bombs.

Before the camouflage went on, a tank resembled a giant glass standing in a giant saucer.

We worked furiously, worked until we were all but exhausted, worked day and night interrupted only by the call to chow. And then we hiked up a hill and down and up another, or went a long roundabout way to the mess hall.
One of the boys made a short cut for us. He placed a number of planks across one of the gullies, and thus we saved time and energyand extra weariness.
The boy who "invented" that bridge, however, saw a chance to make a profit. Hundreds of native men and women used that shortcut. Each one had to pay the boy a dime for the privilege.
"They charge us for everything, sir," he explained to the officer who detected him at this nefarious business. "First it was a nickel, then a dime, then a dollar. Now everything 'fi dolla.' I'm just getting back a little of the money the natives took from me."
We started the farm in early June. On the first day of July two tanks were filled with fuel oil, and from then until the middle of November

The walls rise.



The walls are completed.
we added tanks to the operating system as they were completed.

We had become used to Chief Lyon's dynamite blasts, but we were still conscious of the Jap, and any unusual noise would put us into motion.

Sometime before we left Marker D, the bull plug came out of an 8 -inch pipe line with a terrific blast-and scores of men began to run, not walk, to the nearest exit.

The task of camouflaging was carefully done. We had made an attempt at camouflage on a tank farm job in Macambo, but hadn't succeeded too well. We had had a few lectures on the art, during our training period, but no actual experience. We didn't excuse ourselves, however. We learned the professional touch, and practiced it until we became as good as the Japs themselves.

Marker D farm, because it fueled the fleet, must be perfectly concealed. Jap pilots should not be able to see anything unnatural.

The large flat tops of the tanks reflect light like mirrors. They would be targets unmistakable even from 20,000 feet or more.

We painted them with thick black bituminous paint in which we had placed sawdust, dead leaves, and small strips of burlap. Then a frame
work of light wood was built all around each top, and heavy wires were attached.

These were strung to stakes on the top of the dikes, or beyond them. On this gigantic spider web of wire we tied panels of camouflage netting. Quite often the net extended for fifty or sixty feet in the air before it was fastened to the stakes, no casy rigging job in itself. Men, crawling over the flimsy surface thirty feet above the ground, learned, for their own sakes, to be expert.

Once the main nets were spread, it was generally necessary to place additional smaller nets over them in order to break up the smooth lines. Other nets, just above the ground, had to be adjusted to the edge of the surrounding foliage, so that nothing would look "funny" to a pilot several thousand feet up.

Raw earth beneath the nets, and in the surrounding areas, had to be jungle green. We discovered the best way to work this miracle was to plant young banana trees and running vines everywhere. Place a little top soil around their roots and they would flourish.

The vines made particularly good camouflage, for they ran not only all over the ground, but all over the nets as well. After three months they


Two of the tanks are finished.
No. 2 tank is camouflaged.



Company C Slept Here.
would blend the whole installation into the surrounding greenery so effectively that the presence of tanks might not even be suspected.

On Christmas Eve we had eight more tanks to finish, and one fueling pier to build. But we never did finish the job. For on that day we had good news. We were to report back to battalion headquarters on Guadalcanal, and go from there to New Zealand for thirty days rest.

We left from Guadalcanal the day after Christ-mas-not as happy as we might have been, for we were not going back to the States as were the men of some other battalions, but happy enough in the thought of having nothing to do for thirty days except enjoy "the bright lights."

We docked at Auckland at 1500 New Year's eve, a little late for those who wanted to celebrate ashore. But by dint of speedy unloading and establishing camps, those who were lucky enough to find their dress blues were off at 1800 - just as the sun crossed the yardarm.

The New Year was properly ushered in! No casualties reported.
The reaction of "Curley" Roberts to this
strange, familiar sense of freedom was typical of many of us.
"Bring me two eggs," he bade a waitress. "See that they're not too fresh. Scratch a fork through both, and cook slightly. Whatever you do, make sure there's part of a shell in one of those eggs. And I want two slices of bacon, one or both burned black as tar. And coffee. Very weak. With a spoonful of ground stirred in.
"Then, when you bring the order, sit down across the table and start nagging me. I'm so homesick I don't know what to do."

We went all over New Zealand. We went to the pubs. And we went to church, some of us every day. We visited Wellington, Hamilton and Rotarua, the Yellowstone Park of the island. We visited New Plymouth. Here service men were not allowed to carry liquor. The law was rigidly enforced.

But two of our mates, at least, acted as millions of other Americans did during prohibition. They managed to buy a bottle, and one of them concealed it in his sock. To keep it from hitting the pavement, he walked with a pronounced limp.

An old lady was deeply touched by the sight.


At the Auckland dance the girls were friendly.
"That poor American," she was overheard to say. "Probably crippled for life!"
We held two battalion dances, financed by our welfare fund. The Red Cross co-operated with Mr. Durbin, our welfare officer, and furnished girls for the men who hadn't dated any. The dance was a success, and a couple of men married girls who attended.
We enjoyed ourselves as well as we could, homesick men on leave in a foreign land, and we departed with a little reluctance. The "thank you" letter written by Commander Triest for publication in the New Zealand papers, reflected the feelings of every one of us. We did like those fine people.
"Greetings: From the moment of landing in Auckland, on New Year's Eve, we members of a United States Naval Construction Battalion who were coming to New Zealand for rest leave, felt instantly at home. The friendly people, smiling faces, beautiful country and cleanliness everywhere made us feel at once glad and welcome.
"During the entire stay here our men have traveled far and wide in this land, have been
accepted and treated everywhere with the utmost kindness and hospitality. It would be impossible to tell you, the people of New Zealand, and more particularly the people of Auckland, how very much this has meant to us all, so many miles from home.
"Particularly have we appreciated the many attractive young ladies who have met us so cordially and danced so many miles to the strains of music, and to their families who have contributed so much to our pleasures.
"Now that we are refreshed and about to leave, be assured that our families and friends at home have already heard many glowing reports of this gracious land, and will hear many more when we return. Thank you one and all in the name of one of Uncle Sam's Seabee battalions. And may victory come soon to our common cause."

When they told us we were to have 30 days leave, they meant 30 days. We sailed out of Auckland harbor early in the morning of 31 January.
Back to our last camp on Guadalcanal. Back to work and war.

## PART XI

Early in November, 1943, Lt. Comdr. Willard G. Triest, now Commander, reported as relief for Commander Louis G. Puls, and took charge of the 27th.

Later that month he requested permission to move the battalion from Tulagi to the 'Canal. We moved into the newly vacated camp site of the 46th Battalion at Tenaru Beach, and shortly thereafter became part of the 18th Naval Construction Regiment formed under Commander W. W. Studdert. Comdr. Studdert had been in charge of the 61st Battalion and was relieved by Comdr. B. M. Bowker.

We received one hundred and two different work orders, large and small in the thirty-three days before Christmas, when the men at Marker D and other projects rejoined us, and we sailed to New Zealand.

We completed work on a camp and living facilities for ComAirSoPac, maintained Henderson Field and two other air strips, finished extensions on fifteen warehouses, arranged shop facilities for a bomber group, built wards and quarters for a large hospital, and did many other odds and ends of work.

When we left our camp it was tidy, clean, orderly, a place to inspire pride in any fighting man. When we returned, in February, we didn't recognize it.

The site was overgrown with weeds and vines and tall grass. Our precious belongings, which had been so carefully packed and stored, were scattered or missing. Inevitably transient units had used our camp in our absence.
We cleaned house, searched for our lost treas-ures-transits, saws, chisels, shovels, axes, drills, and other essential tools-and went to work again.
Some of us, gazing on the devastation that had visited our camp, remembered a day in May, 1943. We had a unit of Company C on the 'Canal then, building a tank farm to service the planes at Carney Field.
They had cleared a space in the jungle and were preparing tor the tank bottoms, when the rains came. A small creek ran by the camp. It rose, as though by magic. It leaped up several feet as Lieut. Terry O'Rourke and his men looked on.

O'Rourke, better known then as " O 'Toole," gave orders to collect all the gear and pile it as high up and as far away from the stream as possible, and to vacate the camp.
The waters poured down from the mountains
to turn the creek into a mighty torrent. The men tried to swim, but the current was too swift. A winch line on one of the trucks was run out. The best swimmer in the unit was given the free end. He managed to get across with it, and make the line secure. The others got over by hanging onto the line.

The marooned Seabees found an abandoned truck, drove to Koli Point, and waited out the flood.

They started back on the second day. They went through fields and jungles, and returned to the camp. The tents were down, covered with mud, and everything in them was ruined. The carefully piled gear had been washed all over the neighborhood. Even some of the tanks had been carried down stream.

That's the sort of mess the camp was in now.
Commander Triest felt as we all did, returning from New Zealand to such a greeting.
"Cheer up," he said. "We might have expected this. But don't let it get you down. We've got work to do. Let's get at it." It was another furious storm with devastating floods that gave us the opportunity to construct and place our bridge. And a he-man bridge it is.

The rains had washed down from the mountains. The jungles couldn't hold all the waters pouring into them; they spilled over, angrily, into all the little rivers. The rivers rose in fury and smashed their bridges, five in all, in just four hours.

The old wooden bridge across the Nalimbu was one of those carried away; and that bridge was essential to our troops. The principal highway along the north shore of the island, indeed the life line of the whole American base on Guadalcanal, was severed, our defense by land troops paralyzed.
Traffic was blocked for miles on both sides of the stream. The movements of men, equipment, guns, tanks, mail and other supplies, was almost at a standstill. Temporary crossings were created, and M.P.'s stood at the bottle necks, blowing whistles, letting the light traffic go one way for a time, then the other way.

Our war activities were slowed.
Major General Maxwell Murray, the island Commander, turned to the Navy in the person of Commodore W. M. Quigley, Commander Naval Bases, Forward Area, and Captain H. H. Houk, his Public Works Officer. Acting on a suggestion from Captain (now Commodore) A. G. Bisset, in charge of the Seabees in the South Pacific, Capt.


The original timber bridge after the flood had subsided.

Houk moved. He ordered a steel pontoon bridge with the maximum clear span possible.

The 27th was ordered to build the bridge, to build it swiftly, and to build it as economically as possible.

The steel section itself was to be 18 pontoons long and three strings wide, or 107 by 21 feet with a clear span of 81 feet.

Mr . Works conceived the idea of launching the strings across the river from one bank, cantilever fashion. Commander Triest liked and approved the scheme, and submitted it to Commander Studdert.

The regimental commander thought it over, and said, "If you think you can, go at it."

Commander Triest, who had been a subway and heavy construction contractor in New York before he was commissioned in the Navy, was familiar with bridge construction. He set to work immediately.

A survey was made, plans were drawn, the debris around the bridge, and in the streams, was cleared away, and many other tasks were begun.

The 44th Seabees, under Commander Thompson, had placed a bridge, such as we wanted
across the Sarakata River on Espiritu Santo; but that had been a different kind of job.

There the pontoon strings were floated up the river to the site, and raised into position by large cranes, one on each bank.

Now we had no cranes, only tractors with Le Tourneau attachments. Also, we couldn't float the pontoon strings up the river which was normally too shallow.

The only pontoons available were those in a giant 250 -ton cargo barge that lay half-submerged off Lunga Beach. "Big Joe" had been used during the initial invasion, and had been driven ashore and wrecked by a storm eight months before.

Some of the pontoons had been ruptured, and were half full of salt, sand, water, and sea weeds. The strings were twisted and bent so that one officer referred to them as "snakes." Most of the bolts securing the angles to the pontoons had worked loose. Most of the assembly jewelrylinks and pins and similar essentials-had disappeared. The angles were rusted and scaly and bent out of shape.

The Skipper looked at the strings with a grave face.
"Can do," he said.
With the help of cats and cables and two Le Tourneau 20 -ton cranes, each string was beached separately-long unsightly pieces of junk weighing 33 tons. The dead fish and salt water were emptied from the ruptured pontoons, and the strings were loaded on a standard lowboy, and a two-axle pipe trailer. Then came a seven-mile haul overland to the bridge.

Shortly thereafter two hundred men or more went to work-and never let up. Twenty-four hours a day, in shifts, the work continued. Sandwiches and coffee were brought to the men. They stopped for a gulp and a bite and went to work again.

Groups of Negro soldiers came from an Army Engineers outfit to help. They came each day in charge of a corporal or a sergeant, and one of the Seabee chiefs showed them the work to be done.

Their job was to beat the rust and scales off the pontoon strings with sledgehammers.

They worked through the heat of the day, beating in rhythm on the hard steel, sweating, singing now and then, and swinging their heavy sledges to the cadence of a song.
"Swing low"-(Bang)-"sweet chariot"(Bang).
"Comin' for to carry me home"-(Bang).
The welders were busy too, welding solid the joints between the pontoon cells and the stringer angles, thus converting pontoon strings to girder beams. They used enough weld to develop as much strength as the original joint. The resulting structure was, of course, not orthodox. Its strength as a girder was impossible to calculate.

Officers and specialists participated in the work, Lieut. Kalbfleisch and Chief Carpenter Swan with their pile driving crews; Lieuts. Hoy and Colvin with riggers, steelmen and transportation crews; Lieut. D. B. Hill, in charge of welding operations, Lieut. Carleton Fyler, who worked out the engineering details, and many others.
New piles were driven for the main piers, new bents framed, new timbers placed where they were needed, new records made for work and speed. Men walked through the muddy waters of the Nalimbu constantly. Men fought mosquitoes, mostly at night, though they were covered with insect-repellants. Men went down with old cases of malaria flared up from overexertion, heat and fatigue. New men took their places. Rain or shine, the work continued.

When the three ugly ducklings had been re-

lieved of their sticky rust and scales, when the sledges had finished massaging and dusting them, and the welders had given them new strength, and the jewelry had been returned-when the twisted shapes had been straightened, and new paint had been applied, the roughneck crews stopped a moment to regard them with admiration.

Then began the preparations for launchingputting the 99 tons of salvaged steel across the


Clearing the debris.
river and making them into a bridge. The story has been told in infinite detail-and in precise technical terms-in military and naval engineering and construction publications.
Falsework was placed on both main piers to bring the working level up to the existing approaches. It had been decided to raise the height of the bridge approximately three feet, to give it added protection against high water.

Each string was placed on standard pontoon launching rollers, so that it could be rolled out across the gap. A tractor was in readiness to roll it to a point at which a Le Tourneau crane from the opposite side could catch the outboard end. To counterbalance the string, to permit us to roll it across farther than the balancing point, we filled the three rear pontoons with water, and superimposed on this heavy stern an extra water-


Removing the last of the wreckage.
The strings of "Big Joe" move to the job.

filled pontoon. It then weighed not 33 but 48 tons.

To add a little additional counterbalancing weight on the land side, we fabricated a tight connection between the last pontoon and the 24ton tractor. If the pontoon string were lost overboard we might as well go whole hog and lose the tractor too.

A double $3 / 4^{\prime \prime}$ cable bridle was fastened to the
forward end of the string and secured to a tractor on the opposite approach. This was a precaution against any accident to the crane.
The string was rolled out over the river. Men watched intently, straining their eyes.
"They'll never make it," one said. "I'll bet a hundred dollars they'll never make it."

The men had various sums due them "on the books." Several had as much as $\$ 1,500$ in this

## Driving the new bents.


sort of credit, and were willing to wager every penny of it.

The string rolled out, slowly, further and further.
"They'll never make it. That string's too damn heavy. Besides, who ever heard of a bridge girder like that? Them 27th guys are crazy. Another hundred says they're crazy."

All the bets were taken. The string continued rolling out, tantalizingly slow, building suspense, increasing the tension in all the spectators, giving the gamblers a higher and higher degree of fever.

Forty feet, fifty, fifty-three, the half-way mark, sixty-three, the rollers were really creaking now.

Nobody was talking. Nobody was moving, save the launchers.

As the string went farther and farther out into the air we removed the rollers over which the stern end had passed, so that during the final stage of operations a weight of approximately 48 tons rested on six small rollers, three on each side.
"Them rollers is brittle things," a man whispered. "They're only castings. Bet you one of them busts."

Few heard him, few paid any attention.
The string had advanced beyond 65 feet.
If one of those rollers had cracked-well, we'd have been in dire trouble.

The string rolled out to a distance of 68 feet.
At this point the Le Tourneau took hold. A cable from its boom was attached to the leading pontoon. A lift of about six tons was applied, which took some of the bending strain off the girder.

Slowly the string advanced again, over the stream, toward the opposite pier, the crane taking more and more of the load.

And the string was landed. Without a scratch, without a jar.

The crane was walked backward until the string was centered on its two piers. Then it was, "Sucker, pay me!"

It took us an hour and a half to put that first string in place. Eleven minutes was enough for the last one.

When the last string was placed, the falsework was removed and the strings rested on the piers proper.

But the job was not yet done. One of the most difficult operations yet remained-the part that

The pile driving is completed.



The Trial Launching-The string has been run to its full cantilevered position and the weight of its free end picked up by the crane.

Below: Launching the first string.


had given Commander Triest and all the other engineers the worst headaches. The pontoon sections must be turned over with the ill-suited equipment at hand.

The strings, as they rested, were 7 feet high and 5 feet in width. We had to launch them across, edgewise, because it was impossible to place them on rollers, "right side up." The assembly bolts interfered.

Now they had to be turned flat side up.
There was a Le Tourneau crane on either end, a rigid boom crane. These could pick up a string and hold it, but were inadequate for the full operation demanded. Let the strings swing too far, let the strain become too great, and cranes and string all would topple into the muck of the mocking Nalimbu.

The betting went on again, but there was little heart in it. The losers were hopeful of getting something back. But they were asking odds.

The cranes lifted the first string, and men were too absorbed to gamble.

Commander Triest had not gambled on the job in any way. He had taken every possible precaution to prevent mishaps.

He had fastened cables from auxiliary rigs, through snatch blocks, to the under angle of the string, thus effecting a transverse pull.

The Le Tourneau cranes were secured to the upper angles. They held the string in the air. The cables on the lower angles tightened. The string was pulled sideways. The cranes lowered their burden, slowly, slowly-and there was the string in place!
The second was turned and bedded down just as easily, just as gently, with the same precision, with the same scientific use of boom and cable and knowledge of stress and strain, and the same nice regard for fulcrums and angles of leverage and all the other lessons learned in engineering.

And, while everybody talked, as men do during any exciting meeting-the third came into place as softly as a snowflake on a drift.
There they were; three pontoon strings rescued from a sunken barge, waste material transformed and made into a bridge strong enough to defy the fiercest storms, rubbish made into a permanent, durable span.

Shown to the left, top to bottom: as the string slides into position the bridle is attached; safely across; the second string is almost set; the delicate process of turning the strings.

The strings were not perfectly straight. They differed from one another in appearances and here and there they were an inch or two out of alignment with the nearest neighbor.
We made no effort to align them vertically where deflection was irregular. We sewed them together with tie rods and links and pins, and welded cover plates to lock them in the position they had assumed under the dead load.

Finally we cut holes in the bottom and on one side of each pontoon, so that if the water ever gets that high it will stay there until the floods abate, then spill out. It will not float the bridge away.

To prove the span was all we hoped it would be, we ran a load of 45 tons across it. There was a deflection of only one and three-quarters inches over the normal.
When this was done we put in three days removing and replacing 150 feet of ramp approaches made necessary by the raised elevation of the span.

Eleven days after the old bridge was washed out, the new one was in operation. And men and guns and tanks and cigarettes and chewing gum


The Strings Set. All that remains is to frame the approaches.
and letters from home were hurrying across it.
We are like the pioneers. Many of them built bridges, too. But we rehearsed our show, and perhaps we are different there. Commander Triest launched the strings first across a road in a dress rehearsal, before we made any attempt to launch them over the Nalimbu.

We knew we couldn't go wrong. That's why we snickered, as we covered every bet-it really wasn't fair.

Testing the completed bridge.


## PART XII

Emirau was our last stop in the Pacific. We sailed to this island from Guadalcanal, going in three echelons. Commander Triest led the first, with Mr. Towle, Lieut. Rollo L. Roath, and 45 enlisted men-tractor operators, demolition men, water specialists, and the survey parties, going ashore when Brig. Gen. A. H. Nobles, USMC, landed.

The second echelon, led by Mr. Cabaniss, shoved off a few days later.
"We went cautiously toward Emirau," says one of the men in this group, "wondering how many Japs there were in our vicinity, and whether we'd find the skipper and the rest of them alive. We climbed down into the ship's boats as we neared the beach, in full battle regalia, and lay crouching wishing it were light enough to see. The boats circled about in the smooth water until just before the sun lifted itself over the dim horizon, then we went stealthily, slowly in.
"The huge ramps were lowered-reminding us of stories we'd read about the brave days of old when drawbridges were forever going up or down as knights rode into castles or out of them -and we waded ashore.
"Then we saw our skipper standing on the beach and heard him say, 'All secured.'
"We stored our gear in a temporary camp Commander Triest had selected, then helped unload cargo. We formed a human chain from shore to reef, passing along supplies from hand to hand. Baby octupuses and various grotesque sea creatures swam around our legs and scurried away.
"The day got hotter and hotter. The glare on the water, and the sweat pouring down our faces almost blinded us; but we kept at the job until dark. The night was cool, and we were exhausted. We slept soundly, some of us in hammocks, to be awakened by the air raid signal. We were wary now for, earlier in the evening, Tokyo Rose, that delightful English voice, had warned-for the fifth time in our career-that we would be bombed off the face of the earth. But no Japs appeared and the old routine was reestablished in the morning."


Emirau.

We sprayed a swamp with oil, and dynamited ditches to drain it. We began to clear the roads and camp sites, start buildings, and deliver supplies.

On "D-plus-two" days we had started a preliminary survey to determine which of three possible airfield locations was the best. Our survey party cut and ran our transverse sections, which involved chopping nearly six miles of trails through extremely heavy jungles.

We used machetes in this job, a very effective tool. Natives could hack a coconut tree in half with these blades before we could with our axes.

This job took three whole days. This site was abandoned because steep hills at either end would delay construction.
Another strip, it was decided, had too steep a grade. Baker strip, however, was found to be sufficiently level, and was the final location.

Altogether we cut twenty-two miles of line.
This work won us the praise of Capt. Bill Painter, who was in charge of the airfield locations, and of Lieuts. Tinsley and Barber, who were working with him, and was the basis of a letter of commendation written to Penrod Northcutt and Chief Palmer.

The toughest feature of the unloading at Emirau had been the 300 feet of water through which we waded from the edge of the reef to shore.

Our first rush job was that of making land fills on the top of this reef from the shore line to its outer edge along a 500 -foot frontage, so that the ships bringing our third echelon-and all the other ships that were to follow-could be unloaded onto dry land.

Those of us standing on the hills felt a great pride, watching the ships come in with the rest of our battalion, our heavy gear, and the 88th under Comdr. E. C. Rowe. Many stood as motionless and silent as we did when we were rookies and the flag was coming down at sunset and the notes of the bugler hovered over the camp, sweet and mellow and infinitely stirring.

This was but a hint of the might of the United States, these LST's and the lesser ships coming toward us, a thrilling hint.


The small craft come ashore (upper photo) and supplies are unloaded.


There is nothing like a cold shower at the end of a hard day's work.

The LST's looked like tremendous whales, and the LCT's like smaller monsters. They came in slowly. The whales opened their jaws wide and vomited out tractors, bulldozers, cranes, trucks, concrete mixers, carryalls, platform trailers, power shovels, jeeps and men with bulky sea bags-a long and seemingly endless parade of machinery and men.
The smaller ships gaped too, and spat out columns of marching men-our pals.

Thanks to the work we had done in filling the shore, the ships were unloaded in two hours and a half!

High above the activity on Blue and Black Beaches, silver barrage balloons floated in majestic serenity, looking down at their images in the clear blue waters, and at the distorted images of ships and moving men.
The third echelon had brought sections of the prefabricated "Tenaru" huts which we had developed experimentally and tested at our camp on Tenaru beach. These 6 feet 4 inches by 4 feet panels were framed of $11 / 2$ inch by $11 / 2$ inch lumber, with a cross brace at the center, and were covered with screening and canvas. They were ideal for tropical buildings. We had sal-
vaged all the materials for them from our camp on Guadalcanal. They were quickly constructed; and they were even more quickly put up.

Five days after the arrival of the third group, we had erected 15 essential buildings. A week later we had completed 13 more. Galleys and mess halls with concrete floors; a hospital with its wards and dispensary; office buildings, heads, and showers. The camp had 31 public structures in all, with 31,000 square feet of floor surface. All this we built in those first two weeks after our regular hours of building roads, stevedoring, and all our other assigned projects.

Work orders arrived by the dozen. Our battalion was to build camps and facilities. Mr. Durbin was assigned as project manager for those jobs with Mr. Roath, Mr. Towle, Mr. Junell, and Carpenter Charles E. Gilbreath assisting.
At the Naval base we were to erect warehouses, a Quonset hut sick bay and dispensary, a mess hall and galley for the enlisted men, a ship's store, a post office, a chapel, office buildings for various departments, frame shop buildings with concrete decks, and remodel two frame buildings, one for the base commander's living quarters, the other for an officers' mess hall and wardroom.


One of our crews erects a warehouse at the Naval Base (upper photo). The Naval Base Sick Bay is shown lower.


The Harbor Control Tower at the Boat Pool Camp.

Also we had to deck, frame, and screen all tents, install lights and water facilities, build an outdoor movie theatre, prepare a baseball field, and construct a coral finger pier with a pontoon barge at the outboard end.

We were busy.
At the P. T. Base, where the little "expendable" ships came home to roost, we built warehouses and huts and mess halls and galleys and torpedo and ammunition igloos, developed a water system, installed generators and wiring, built two coral finger piers, one with a pontoon barge at the end, and one as an approach to three pontoon dry docks.

We stayed busy.
Naval and airforce construction materials and supplies came in constantly, in increasing volume, and the 27 th did most of the early unloading, with the help of the Marines, until the 17 th special battalion arrived.

We were given the responsibility for storing and issuing all this gear. We developed and operated the Black Beach Materials Depot, and ran it as though every item stored therein had been paid for out of our own pockets.


The Torpedo Shop (upper) and Machine Shop at the P-T Boat Base.

Coral causeway and pontoon dock for P.T boats.



Unloading bombs from an LCT.
The heavy surf eventually tore up the finger piers and ramp foundations.


When the figures were finally tabulated, a total of 37,700 tons had been recorded on the books. In addition, $1,180,000$ board feet of state-side lumber and 600,000 board feet cut by island sawmills had been handled.
Mr. Trudel and a staff of men ranging from 145 in the beginning to 50 just before we left, devoted their entire time to this project.
Early in May, as the seasons began to change, the weather swung around the islands. Black Beach, which had been so calm, kicked up five-foot waves that broke over our coral fill, and battered the bottom of the unloading LCT's. It was evident an additional beach must be established immediately somewhere along the opposite shore. A position, in the center of the shoreline of Hamburg Bay, known to us as Purple Beach, was selected, and we built another beach there. It was about 450 feet wide, and extended from the shore to the edge of the reef, about 300 feet.
After this coral fill was finished, the 63rd Battalion, under Comdr. Frank Vighleyman, placed pontoon finger piers perpendicularly outward from the beach. LCT's could then pull alongside and be unloaded by cranes and trucks. Our battalion, at the same time, built heavy ramps which would connect the pontoon bulkheads with the ramps of the LCT's.
To provide for tidal fluctuations, which ranged up to about three and a half feet, the floating wharves were designed to hinge along the line of contact with the beach. Two rows of cells at the beach end of each wharf were filled with water to increase stability; and, as anchorage, steel cables were extended back to deadmen buried some distance inshore.
Pontoon cell wharves, so widely used in the Pacific theatre, have many advantages in addition to the speed with which they can be made ready for service. But in this case they had one serious disadvantage, the necessity for a hinged


In the upper picture, 27th Battalion men are shown stacking pipe. The lower picture covers a section of the lumber yard.
connection at the inshore end. This joint is the weak spot. If the wharf is in an exposed location, the strain and impact of heavy waves may break it.
We found that out.
Three months of savage seas washed away one of these piers; and the others were weakening.
Commander Triest then conceived the idea of cutting slips through the coral fill, excavating and constructing them to accommodate two LCT's. He worked out the design, and early in August we began operations. The first slip was to be 80 feet wide and 120 feet long.
Holes were drilled through the hard coral on


The wrecked inboard end of the piers.

Cleaning holes we have drilled preparatory to setting dynamite charges.

Setting strings which will form edges of the slips.

Blasting the coral end of the slip.

The "contraption" starts to work on reclamation of 31,000 bags of partially spoiled cement.


6 -foot centers, both ways throughout the area of the slip, to a depth approximately 2 feet below the final excavation grade. A $41 / 2$-inch rotary drilling rig was used.

The original fill was removed and strings of pontoons, which we had salvaged from the wrecked piers, were placed along the sides of the slip, shimmed to level grade and ballasted with sand.


The drydock nears completion. The heavy blocks will support the LCT's.

The holes were jetted clean, and the three outermost rows dynamited. The rock was excavated with a large back-hoe, used in conjunction with a shovel. A back-hoe is a power shovel in reverse. It works like a dog digging sand on the beach. The process was repeated for subsequent sections until the entire bottom had been excavated to a depth of 6 feet below low tide.

Concurrently, the slip was line-drilled around
the edges, and the coral blown clear with small charges. This left a clean, straight, vertical line along the side-walls of the excavation.

When the equipment had been removed from the slip, a pontoon string was installed along the inboard face in the same manner as the side strings. Backfill was placed around the entire structure.


Thus we provided a relatively sheltered berth for the LCT's, without making use of any hinged joint.

The idea, developed in an emergency, may prove useful at other locations, we believe, and for larger craft.
The work required approximately 3,500 cubic yards of excavation, 1,800 of which was hard coral.

The day this slip was finished there was a heavy surf, and the other pontoon finger piers were badly wrecked. We dismantled two and repaired the third so it could be used as a barge.

The flotilla of 12 LCT's, which brought all the cargo from ship to shore, had taken such a beating from the heavy surf, it was necessary to assemble a large pontoon drydock in which to repair them.

These drydocks can be lowered below the surface by filling the pontoon cells with water. They sink low enough to allow an LCT to come aboard.

The diver goes down to check progress.

Installing vertical stabilizers.


Then compressed air is driven into the cells. The drydock rises, with the LCT cradled on its deck, and men can go to work on the hulls.

Lieut. Kalbfleisch took charge of this project, and in the record-breaking time of 14 days after the materials arrived, had a drydock 6 cells wide by 24 long completed and anchored in place, together with its tender barge and long pontoon approach. It was located in a lagoon near the naval camp. The base personnel were now able to recondition all the small ships at the island.

Up to now we had built two beaches for cargo handling, but both were exposed and subject to weather conditions. It was therefore decided to develop a third beach where the water was always calm although it was less accessible. We repeated the coral fill job we accomplished at Black Beach, using 10,000 cubic yards of material. This was White Beach. At the same time we started two new slips at Purple Beach.

Ours was a "colorful" life.


Launching a string for a pontoon drydock.

The valves which control the flow of air to and from pontoon cells, thus raising or lowering the dock.



What we started with-the broken sacks inside the warehouse.

The conveyor lines to the hopper.


## PART XIII

We never wasted anything. On the contrary.
At the Purple Beach Depot, on Emirau, Commander Triest investigated the condition of some 31,000 paper bags of cement, and saw that a large percentage had been spoiled by rough handling and heavy rains.
The condition of the bags was such as to prevent their being re-shipped. No one on the island, so far as we could learn, contemplated using it. But we couldn't let it lie there.
Commander Triest proposed to the 18th Regiment that we salvage as much of the material as we could. He proposed we build a machine that would separate the good cement from the bad by sifting. The good could be sealed in 55 -gallon steel drums we had salvaged, and kept indefinitely even under the worst storage conditions.
Mr. Poulton, of the engineering department, and Mr. Works designed the apparatus, and Chief MacDonald and a couple of assistants built it.
Two weeks later the odd-looking machine went to work near the big shed in which the cement was stored.
Around it bustled sweating men, so covered with dust they looked like ghostly monsters. Especially as they wore respirators. Others were cleaning and stenciling drums for shipment. Half a dozen, inside the shed, were placing the bags on a steel roller conveyor system which inclined toward the feed hopper of the machine.
The bags traveled along the conveyor, one immediately after the other-with a wooden box now and then to break the monotony. The boxes were filled with the loose stuff that had spilled out of the bag and covered the deck of the shed.
The bags were slit when they reached the hopper. The cement was passed through a twoinch mesh, which removed the large lumps. It was then carried up a 17 -foot steel drag conveyor. Half way up the good cement fell through a quarter-inch mesh screen, leaving the larger particles to continue to the top. There the cement, what was left of it, was screened again-and all the lumps went into the waste pile.

Hoppers had been built under both screens. Cement dropped from these through a metal tube into the bungholes of a drum. The filled drums were slid out on a ten-foot section of steel rollers, and were automatically tipped up and stacked by a crane.

Each drum held seven and a half sacks of cement. They came from the machine, across the rollers, at an average of twenty-five an hour.

A generator supplied electricity for an ancient English motor. A belt-driven transmission, yanked out of an old jeep, reduced the motor pulley speed to that required by the drag conveyor.
(The conveyor had been salvaged from unused parts of the battalion sawmill.)
By keeping the transmission in "low-low," the conveyor moved up a 45 -degree incline at a velocity of $21 / 2$ feet per second.

The machine was built on skids so it could be moved easily by a truck, to keep abreast of the work along the length of the 300 -foot shed. A canopy was built over the whole affair, so that if it rained it rained, but the work wouldn't stop nor the cement be damaged.

Only ten per cent of the cement, we found, was beyond salvaging.

Lieut. Omar J. Loeltz, who had general supervision of the job, and Carpenter Horace Junell, who was in immediate charge, had finished approximately 2,600 drums in eight days, when the 27 th received notice that the remainder of the cement was to be left in the shed for future use on the island.
We learned early in our career to hold onto everything that came our way, that the most useless looking object might someday prove extremely valuable, and that almost anything could be turned into something else, something you really needed.
But we didn't apply that to water. Not until much later.
There were only two shower baths on Tulagi when we arrived-just two to be shared by several thousand men. One was a trickle that came down the side of a hill on the west end of the island, ran through a gutter, and added some little comfort to the lives of the Marines on guard there. The others came over a concrete dam into a gully, and then through a two-inch pipe. The pipe was fitted with a valve.
If there was plenty of rain, we bathed. If we had three dry days in a row, we didn't.

We caught the rain in tubs so that we might wash our clothes. No rain, no washing.
After we got our quarters we didn't have to bother about the hillside trickle or the dam. We caught the rain in our gutters, shot it into salvaged drums and let it come through the spigots when we wanted it. During our stay on the island those drums were never empty, though they showered us constantly. That's how much it rained.

It didn't occur to us until some time in June, 1943, that water should be salvaged, and not used carelessly. We may have mentioned water now and then, talking about digging wells, or drinks, or irrelevant things, but the subject was unimportant to us.

We had reclaimed an old well dug by the British or the Japs, made it deeper, and used it prodigally. We had a well at the main camp which supplied us with 3,000 gallons a day, and we had two distillation units which gave us 4,000 gallons more.

But in June we were directed to take over the water supply of the island.

A survey of the system showed it to be as fanciful and weird as any invention dreamed up and pictured by our American cartoonists. Rube Goldberg was out-Goldberged.

The only standard equipment in the plant consisted of 8 distillation units, a similar number of puro-pumpers, filter units, and wooden storage tanks. The distribution system, approximately five miles long, contained every conceivable type and size of pipe, reducer, elbow, cross and tee. And these had been put together, in the field, from such materials as could be found-or borrowed. Where fittings had not been available, the joints were welded.

A 4 -inch main began at the plant on the south shore, climbed a 60 -foot bluff, wandered over the highest ridge for a mile or so, and paralleled the long axis of the island. It resembled a huge centipede.

Every few feet, on both sides of the main, a service line ran to a small camp, a group of tents, or the private shower of some soldier or Marine on gun duty. It ran above ground its entire length, and anybody could tap it.

Lieut. Francis A. Rynders, after an inspection, discovered to his amazement that the problem was not distributing the water, but finding enough to supply the demand, and storing it.

We found a well that had been dug at the rear of the main plant. It supplied from 2,000 to 3,000 gallons a day, depending on the rainfall. This well had been pumped too hard, and the water had become brackish. We let it rest a week. The water sweetened, and could be used if pumped in moderate quantities and mixed with water supplied by the distillation units.

Another well, the best in the system, was located about 400 feet east of the plant, in a deep draw. It had been drilled to a depth of 130 feet, and had a capacity of about 10,000 gallons a day. It must have been well sealed from the ocean, because, though constant pumping had lowered
it to twenty feet below sea level, it was not at all salty.

The 26th Seabees had fathered the pump, and were justly proud of it. The child was crude, but it had done a fine job. Its cylinders and valves were salvaged from a small pump once used to pull oil out of steel drums-but they did their jobs well. The pump jack at the top of the well was fashioned out of a bunch of scrap gears and some old hunks of iron-but it was efficient. A small gasoline engine operated the pump jack -adequately.

Another source of water consisted of three small concrete dams located in draws east of the plant. The water here was led by gravity through a 2 -inch pipe into a couple of 15,000 -gallon woodstave tanks. There it was allowed to settle and lose most of its turbidity before being sent to the filters at the plant.

The backbone of the system was a bank of 8 distillation units at the main plant, with a rated capacity of 250 gallons per hour per unit.


But it was a pretty weak spine. The units had seen six months continuous use, and hadn't been stopped for repairs. The demand for water was so great the men of the 26th had neither time nor opportunity to do any overhauling. The units had lost their efficiency. Longer periods were required to distill the needed amount of water.

It became apparent to Mr. Rynders and Chief Freeman that a crew of seventy should be assigned to the water department, and that spare parts must be acquired, somehow, somewhere, to keep the system going.

Seabee ingenuity, which built the main pumping unit out of a discarded pump and a gasoline motor taken from a Jap truck, was not enough to revitalize the entire system.

But we got the parts we needed, nevertheless-V-belts, magnetos and pump impellors. We got them from ships in the harbor, and from army and marine units. We got them wherever we could. We got them in trade. Just what articles were bartered for these vital necessities will
probably never be revealed. Secrecy was the key to success in those days.

We didn't always get the best of the bargain, but we couldn't be choosy. A pump was a pump, no matter what its make or size or type, and a rubber belt was a rubber belt. If the parts didn't fit the system, the system was changed to fit them.

We learned about water, and we kept to a strict enforcement of the water conservation regulations.

Which reminds one of the story of George "Stoneface" O'Donnell, a laboratory technician with the medical department. George had a jeep. He went to get gas for it. There were two hoses at our gas station, a big one and a little one. Not a born Seabee, he figured that the little hose should be used to fill the tank of his little car. To his utter bewilderment the jeep wouldn't leave the gas station. It wouldn't start. Then George discovered that the big hose held gasoline, and the little one water.

How we finished-the cement stowed and ready for shipment.


## PART XIV

The Seabees may well be compared to the pioneers of America who went westward by the thousands a hundred or so years ago, in covered wagons, in ox-drawn carts, on horseback, or afoot.

They went bravely on, against all obstacles. They were armed and ready-even eager-to fight. But fighting was not their prime purpose.

They made roads. They dug excavations. They erected homes and churches and all the other buildings they had need of; they made cities out of virgin forests; they turned waste lands into farms and orchards; they turned waste scrap into a thousand varied uses; they substituted what there was for what they needed, and, through miracles of ingenuity and skill, accomplished the impossible.

We were hampered in our work, not only by the enemy and his constant air raids, but also by torrential rains, insect pests, malaria, dengue and cat fever, poisonous fungi, lack of essential tools, intense heat, and the fact that we were all strangers to each other.

We were hampered, yet time and time again we did the unexpected task, performed the miracle of making the impossible a completed fact.

Our strangeness wore off a few weeks after we were settled in the islands, thanks to the Japs. Many amusing incidents helped weld us.

A man sprinting for a foxhole saw two others crouching against the side of a heavy canvas water tank for shelter.
"Hey," he shouted, "if Tojo drops an egg, you guys are gonna get wet. Come on."

A man had scoffed at his mates for digging foxholes.
"Who's scared? Me, I aim to sleep where I damn please, and I don't please to sleep in no damn foxhole."

The next night he dived into a hole occupied by four or five of his mates. "Hey," he said, "shove over, will you? I'll dig you each a hole tomorrow."

Men who became acquainted this way are never strangers again.

The bombing also helped, paradoxically, to speed up work.

There was some dawdling at first, in building roads, or putting up Quonset huts, or driving piles. The days were sultry. The mosquitoes were vicious. The islands were lovely-and a man wanted to sit down and luxuriate in their beauty, and perhaps catch forty winks.

The battalion was new, not four months old, and not even the men themselves knew their capa-
bilities, nor cared to learn what wonders they could do.

They found out these things after the first raid, when carryalls filled with sand drove up. The men of the battalion filled sand bags furiously. They worked with such zest, and they finished the job in so short a time, they were amazed.

The great lesson they got from the raids was that they were all in the war together, they were a unit; and whatever one man did would have its effect on the entire battalion.

Thereafter they worked and fought, each as one of a group doing his utmost for the welfare of all, himself included.

They even stole for the good of all. Or at times they did. For instance, the thoughtful young man who stole the drag line mats stole them not for himself alone, but for all the other men he knew.

These wooden mats were twelve feet long, five feet wide, and half a foot thick. Two of them made a very good roof for a foxhole, especially if strengthened with coconut logs.

There were endless raids that hammered and hammered the unit into a fine steel weapon.

Of course Pop Chamberlain's coffee had something to do with the battalion's unity. Pop is Guy B. Chamberlain. He's rugged and wrinkled and slightly bald. He is one of our oldest men. He comes from Denver, has four children, two of them in the Navy, and is the grandfather of two little girls.

Pop was one of the props of the machine shop, and always had coffee ready. During a lull in the work or after a raid, many of the boys would slip into Pop's tent and sip his delightful brew.

During our tour of duty we excavated 790,000 cubic yards of earth and coral. We built 73 miles of roads. We produced nearly a million board feet of native lumber. We built 19 docks, 264 Quonset huts and 32 Quonset warehouses. We put up 154 large timber frame buildings. We built tank farms. We installed pipe lines. We cleared and drained camp sites and put in water and electricity.

And we had a good time!
Commander Triest, our present skipper, was the fourth officer to command the battalion. Lieut. Commander H. G. Fortin, formerly a New York contracting broker and one who helped make a success of the World's Fair in that city, brought us overseas.

Lieut. Commander Allan R. Carmichael, once an engineer for the state of Connecticut, succeeded him; and was in turn succeeded by Com-
mander Louis G. Puls, noted for his engineering feats in Russia and the United States. He was with the Bureau of Reclamation in Denver, Colo., in civil life.

Two new officers were welcomed into the battalion while we were yet on Tulagi, Mr. Swan, who had been a contractor in Kansas City, and Mr. Towle of Leominster, Mass.

Both had been attached to the 26th Seabees, and had lived for months through the hell of fighting on the 'Canal. Each had been cited for valor in action.
Three bombs had landed in the camp of the 26th, in February, 1943, one smashing the galley, and setting it afire. Mr. Swan, then a chief, rushed into the fire with Chief Jimmy Eaton. They beat out the flames with sand, ashes and gravel, rags, anything they could get. Gas stoves exploded in the wrecked galley as they worked. And bombs fell. The fire would have made a grand target for the Japs, had they not put it out.
Mr. Towle saw an LST bombed just off the 'Canal. Some of the men were trapped below. A small landing craft put into shore where Mr. Towle was standing. He and several other Seabees climbed into it, and boarded the burning ship. The smoke was so thick they had to link themselves together with a rope. They sent the small craft back for an auxiliary pumping engine, and managed to get the pumps going. A ship alongside provided them with smoke masks. The fire was subdued, but the men in the hold were rescued too late. They had died from the smoke of burning rubber and oil.
One of Mr. Swan's sons is an officer in the Army Air Corps. He flew to Guadalcanal, from Emirau, to see the boy.
There was a father and son reunion on Emirau, too, when Lieut. George P. O'Rourke, Sr., skipper of CBMU 582, dropped in at our camp to see his son, our Lieut. "Terry O'Toole" O'Rourke.

Under the guidance of skillful officers and chiefs, we did amazing things.

About the time of the Halavo fire, the Marines complained that the flash of the $.90-\mathrm{mm}$. guns so blinded their crews at night that they couldn't see their fire control dial, nor even the opening of the breech.
We thought we could help out in this emergency. We fixed the breech difficulty first. We simply put a strip of white paint about the opening, and outlined it sharply enough for the blindest of flashblind men to see.
But we couldn't bring the dial out of the glare that easily. We put a canvas hood over the pointer's head. He could see all right then, but he couldn't hear the bomb swishes-he thought
-and therefore wouldn't know when to duck.
Chief Samuel Halper then made a metal box to fit over the dial. The outer end of the box was open, and was lined, around the edge, with tubing from surveyed gas masks, split and secured to the frame.

This worked so well the Marine ordnance officer made a full report to the Bureau of Ordnance, recommending it as standard equipment for AA pieces, and sent a complimentary letter to Chief Halper and the battalion.

There was always some little thing to keep us occupied.

The main drive shaft on the transfer case of a motor crane broke, and there were no spare parts this side of the United States. Experienced mechanics and machinists examined the crane and said it was impossible to repair. So naturally the 27 th was asked to fix it.

Chief E. B. Fowler had the crane taken to the auto shop, where Chiefs C. C. "Nig" White, J. M. Jackson, and Machinist Mate T. A. Segura, performed a delicate machining and welding operation. The patient was back at work, good as ever, four days later.

We needed a chuck for a South Bend Lathe. There was no pattern to follow, but Charley Jehle, under the guidance of Chief White, made one the equal to any manufactured under the best conditions anywhere in the world. He made it out of parts taken from a disabled crane, a boat, and a crowbar.

Army engineers called on us for help in mounting two 6 -inch Coastal Defense guns on a 50 -foot embankment on Olevuga Island, some 20 miles off the tip of Florida Island. They had worked several weeks, they admitted, and had failed.

Gen. Howard E. Fuller, commanding the army unit on Tulagi, who had had some experience with Seabees, asked us to do the job.

Warrant Officer Bradford, later transferred to the 26 th battalion, H. B. Leach, J. C. Hill, N. P. Hoss, and W. P. Collins, moved the gun barrels, weighing 9 tons each, and the mounts, which weighed 7 tons, up a makeshift path to the crest, with the help of a cat and a few blocks and lines, and mounted the guns without much trouble.

Gen. Fuller expected we would take two weeks. We finished in four and a half days.

The general had been unable to procure his stars of rank anywhere, when he had been promoted from colonel to brigadier, during the invasion of the Solomons. He called in Ernest E. English of our metal shop, gave him some silver, and the stars all but leaped to his shoulders. Ernie has in his record a commendation for casting the first "screw" to be made outside the


United States. It was attached to a rebuilt Jap motor to propel one of our landing boats. Ernie got the metal he needed from a number of spent shells.
Incidentally, he also made collar devices for some of our officers.

Chaplain Roy B. Anderson had requested us to make a cross for him. We gave him the cross, a chalice, two candlesticks, and two vases for the altar, all made out of shell cases. The metal was polished and lacquered to keep the shine. The cross had a removable base, and stood 18 inches high.
W. F. Johantgen of the carpenter shop built the padre a case in which the set could be safely stored and easily carried. He did this in his leisure time. Johantgen, who was manager of our "Comfy Chair Co." on Emirau, was always busy turning out furniture and other products. He made 120 canvas "deluxe" chairs, 60 "lalapaloozers" or super deluxe chairs, 1,500 desk chairs, 130 desks, 800 tables, 200 bedside tables, 150 tenfoot benches, and more than 1,600 "custom-built odds and ends."

One of the most complicated jobs we performed was the manufacture of a "fracture table," probably the first of its type put together in any theatre of war. We called it "Duffy's Torture Machine," after the medical officer who suggested we make it.

Commander Gary and the doctor brought us a sketch of the table needed, added some data on how it should work, and gave us a medical textbook with pictures for our guidance.
"An orthopedic table is essentially a stand on which to lay a patient," the medico explained, "with an apparatus for pulling and straightening the injured member, then holding it in the correct position while the cast is being applied.
"It should be so made that arm, leg, or back injuries may be treated. It should be adjustable through a wide range of angles. And it must, of course, be able to accommodate a very small man, or a very large one."
We understood. American boys with serious fractures had to be sent away from the hospital, in temporary casts, because the doctors couldn't handle them without the right apparatus. Those kids had to be taken to base hospitals somewhere else-with perhaps more serious injuries to their broken bodies before they reached their destination.

We began by measuring the littlest man and the biggest man in the battalion. The shop heads worked out, with the drafting room, a design that could be made with the materials we had, pipe, plywood, and steel plate. Parts of a crane,
an amphibious tank, and various other wreckage, also went into the table.

The frame was made from pipes. The machine shop turned out the central shaft, the base plate, the heavy bearings, and the screws for the telescoping arms. The frame and general assembly was welded, and a plywood top was supplied by the carpenter shop.

Chiefs White, Jackson, and C. B. Smith hurried the job, because of the boys who needed it so badly.

It was acclaimed "perfect in every respect," and has been in operation, saving suffering, for many months.
We put some home-made equipment into our own sick bay. Among these were a special bathtub for the treatment of skin diseases; a "whirlpool" used where hot soaks and massages are needed-made out of an old gasoline drum and a gasoline driven pump-a heat lamp, a water heater, tables, medicine cabinets, heat tents, cooking utensils for the diet kitchen.
We even made some of our own tools. We salvaged a badly battered Japanese "Simamoto" late in Gavutu, rebuilt it in Tulagi, and used it constantly.

We found a motor and some saws in Gavutu, "Made in Japan." In Tulagi we found a discarded American sawtable. We did considerable machining on the saws before they could be used. We needed a pulley for the motor, and took one from a dead bulldozer. We used scrap aluminum to cast a saw mandrel pulley, cast an idler from brass, and got some belts from a junked refrigerator. We added a hand-made ripping fence and cut-off and had a saw we used every day.

When we faced the problem of draining, a
"Duffy's Torture Machine," an orthopedic table designed and built by men of the 27th Battalion.


"The Flying Fortress" comes home minus a wheel.
common practice was resorted to. We made empty oil drums into culverts. However, we didn't chisel off the ends as we had done the first time. That took too long.

We cut them off with a penumatic air hammer. We operated at the rate of a drum a minute. The drums were welded together, and there was the piping we needed. Soon we were building culverts for other camps.
Like the Chicago packing house which "used everything but the squeal," we didn't throw away the drum ends. We had many uses for them. The caps were made of non-corrosive metal. Melted down they became lathe stock for pulleys and other things. The ends themselves became hinges, hasps, shoe-cleats for the ball players, scythes, buckets, and target markers for the rifle range.

We built a 60 -target rifle range on a plateau, more remote from the camp area than we wished, but a perfect site. It was on a peninsula, had a hill for a backstop, and no units living near by.

The operation of a range for high-powered rifles requires that target tenders be at their targets while fire is going on, so they may record the scores, and patch the targets. These men must be protected.

We dug a wide ditch at the base of the hill, and piled coral at the front edge to make a protective embankment 9 feet high. Heavy posts were set in the bottom of the ditch. On these the target frames were mounted, and so provided that they could be swung up into the line of fire, or brought down behind the embankment for checking and patching.

A similar ditch was built along the edge of the range, for safe access to the target line where firing was going on. The firing lines at 100, 200, 300 , and 500 yards, were raised above the ground level in order to allow them to drain. They were graded level, and covered with sand. A complete telephone system for communications between firing line and target pit was provided, and loud speakers for instruction and firing orders. The tower from which the range officers worked was built on skids in order to allow it to be moved from one firing line to another.

We admit that we were good. We could fix anything. We could even drive a truck with only three wheels.

A motor-crane truck which we called "the flying fortress," met with an accident that tore off one of its front wheels. She was doing about 35 miles an hour on a down grade, when the wheel just rolled away, and the "fort" hit the dirt with a skidding jolt.

McManus, the crane operator, and Wisdom, the driver, were not over-concerned because there was no garage near nor any place where a man could buy another wheel.

Mac climbed up into the crane, lowered the hoist line which Wisdom hooked to the front axle, took a little strain on the line-and she was once more on an even keel.

They successfully turned the truck around, and headed homeward. Marines, soldiers and Seabees gaped with open mouths and unbelieving eyes. Wisdom and McManus were riding happily along on the rear wheels, one front wheel, and the thin air.


In the midst of forces bent on destroying half the world, the 27 th, like every other Seabee battalion, labored with all its energy and ingenuity and skill, to repair, to mend, to invent, to create, to bưild.

And living with men whose duty it was to kill, and die if need be, not isolated from them, nor apart from them in spirit, we sought to build character as well as bridges, airfields, tank farms, and roads.
Chief Gordon G. Peery, head of the Master at Arms department, expresses the idea simply.
"The best thing we did in all our tour of duty was to raise the kids."
We had quite a number of 18 -year-old boys with us. Perhaps some of them were even younger. The older men set them an example, taught them, looked after them, shaped them.
"You see," says the chief, "a lot of these kids came out of high schools, and a lot never went to any high school at all. Some replacements we got came out of the poorest districts of our big cities, and they were pretty tough at first, and pretty ignorant. Funny thing to say, but if it weren't for this war, those boys might turn out killers.
"But give them a chance, teach them that society is for them and with them, and not against them, and they'll do their part. A boy gets his ideas, from the very first, in watching men. To many, observation is the only teacher-and if the teacher is bad you can't blame the pupil, can you?"

The chief is a man of many talents, and of many trades. He was a fireman in Oklahoma, a policeman, a painter, a teacher, an athletic coach, a professional baseball player. He has made a study of "juvenile delinquency" and of the problems of youth.
"Our kids were no different than other American boys. Not many of them had known hard work yet. Many an American boy looks for an easy job that'll give him a million dollars quickly.
"But, when a boy gets the idea that working with his hands is a pretty good way of life, and a pretty sure one, his ideas change. When he gets the thrill of satisfaction in a job well done, and knows the happiness of a clean mind and a clean conscience-well, then he begins to be a man. And that's what every boy wants; to be a man!
"There were men in our outfit who had sons the same age as these kids, sons at school, or in Kiska, or Casablanca, or perhaps in the soil of Italy. They sort of 'adopted' the young Seabees and built them into men."

Religion, of course, played a great part in building men.

The chapel was always the center of religious activities, and there were always a great many men present at the services.

On Emirau we built a unique chapel. We made it of logs and thatch prepared by the natives, and we decorated it, spending a lot of time and thought and work. This was the battalion's own

Chaplain Anderson and the Choir.



We held regular Sunday morning services in our chapel.
chapel. It wasn't a cathedral; but Truth, born in a stable, still dwells in humble places.

The 77th Battalion, commanded by Comdr. Charles T. Wende, built another, the largest and most beautiful building on the island. The most striking feature of this structure was a beautiful
stained glass window eight feet wide and twelve feet high. Those of us who were curious about the source of the glass found that it had been made by a Seabee-in water color on tracing cloth. On Sunday, 30 July, it was dedicated in the Catholic faith with a Mass of the Angels. A

The main auditorium and stained glass window.



KOKOMTAMBU I.

SONGONANGONA I.

choir of army and navy men sang the Mass, the servers, guidon bearers, and the guard of honor were selected from all the services.

On August 6, Dr. Daniel A. Poling, sent as special emissary of the President, spoke at the Protestant dedication. At this time Brigadier General L. R. Boyd, the Commanding General at Emirau, presented the plans of the building to Chaplain Ayres of the base. Later Dr. Poling reported to the Feederal Council of Churches-"In the Pacific I found the most complete set-up of chaplains. I visited fine altars under jungle palms on the edge of defense perimeters. I found the largest chapel of any theatre on Emirau Island."

Dr. Poling, a chaplain during the last war, was the father of a chaplain, Rev. Daniel A. Poling, Jr., who lost his life in this war. He went down into the black, icy Atlantic with another Protestant minister, a Rabbi, and a Catholic priest. The four had given their life preservers to others.

We had a little folding GI organ in our battalion chapel. The organist pumped and played it at the same time. We couldn't always be sure of what would come out of it, for sometimes one note would linger through an entire hymn, unless the organist banged on the side of the instrument to release the sticking key.

And we had a choir. It might have started the hymn wrong. It might develop squeaks and rumbles. A tenor voice might break on a note, or go soprano. But the congregation didn't mind.

Memories came close, there in the chapel, memories of old days far away. memories of last night in the fox hole. And men came closer to each other, bowing their heads in prayer, listening to the sermons of Chaplain Roy Anderson, singing hymns their mothers taught them, singing as their fathers sang them.
It wasn't only in the chapel that men felt religion as a vital force, an essential part of the human makeup. They discussed it among themselves in many a bull session. They went to the chaplain frequently, to ask about God and the things of God, and sometimes to ask for Baptism.

We had a Bible class each week for men who desired to study the Scriptures; and a Sunday evening Service Men's Christian League, which was conducted by the men, where religious topics were discussed.

The pews in the chapel were only benches. The floor-the deck, we call it-was carpeted. That is, it was carpeted with sand. The sermon never lasted more than 20 minutes, and the entire service was over in three-quarters of an hour; but it had a profound effect.

Someone has said that America had a secret weapon. We have. It isn't new. It has been used by many nations throughout the centuries. It is belief and trust in God. It is prayer. We used it constantly.

Rest and relaxation helped in the upbuilding of the Seabees, and so did the "Non-Productives," the men who took no part in the work of construction, the repair of ships, or the shooting down of Jap war planes, because they had other things to do.

In their own fashion, they worked as hard and feverishly as all the others. They lived in as much danger. Without them the battalion could not have operated. Yet, that isn't the way they feel about it. They have a cock-eyed view of themselves as expressed in the following paragraphs written by one of them.
"Once upon a time, when the Bureau of Yards and Docks, after twenty-six experimental attempts, finally produced the Immortal 27th, it was obvious the clerical force for the sensitive nerve centers of this organization must be made up of the greatest group of non-commissioned minds ever to master the complex system of Naval Administration.
"Through the history of mankind, whenever liberty-loving, free-thinking men have been called upon to rise and strike at the overwhelming forces of tyranny, a handful of patriots has miraculously appeared to show the way. Our yeomen and storekeepers proved no exception.
"Disbursing: Under the able leadership of Ensign Robert S. O'Boyle, who had just completed an intensive and exhaustive 90 -day research into Supply Corps problems at Harvard University, six Oklahomans, two Nebraskans, and one Louisian were assembled to cope with the mountainous array of legal matters, domestic disturbances and financial embarrassments which followed our Seabees into service.
"This perfectly balanced staff was composed of R. F. Hall, a race-horse handicapper of no little renown; E. R. Cheadle, an even-tempered, docile red-head; G. A. Kennedy, the poor girls' Clark Gable; W. A. Rodman, author of 'From Buzzards to Braid'; R. A. Bennett, the twentieth contury's Sitting Bull; G. H. Hagan, who proved invaluable to Disbursing by his spectacular performance with the baseball team; G. C. Cole, the Ely Culbertson of Harlem Tennis; and R. W. Holcomb, Boys Town's contribution to the Navy. In February, 1943, Ensign R. L. Krill, a Malwaukee brewing heir, relieved Mr . O'Boyle for a well-earned rest.
"Executive Office: The awesome job of work-
ing directly under the voices of authority fell to one man and a boy, whose duties were primarily keeping the Bureau informed of the location of the battalion and the colossal work being performed in the field. The haggard and care-worn faces of these two reflect the story of keeping pace with four changes in command. These two martyrs are L. F. J. Cook, whose intellectual utterances are still shrouded in the fogs of his native San Francisco, and Jack Siebold, a midWestern zoot-suit philosopher.
"Personnel: When the personnel office was set up, it was apparent that the gargantuan task of coordinating should be entrusted to no one but the most qualified man on active duty, it was inevitable that Ensign Grattan C. Colvin be given the responsibility. Mr. Colvin, a far-thinking volunteer from the tidewater of Virginia, surpassed the Bureau's wildest expectation.
"Although the nature of personnel work prohibited the least laxity in its performance, our gallant yeomen managed to find time to give a helping hand to numerous other activities. Sydor, insurance specialist from Rhode Island, found time to assist in the promulgation of Christianity; Jay, scion of the sturdy pioneers who settled around Denver, came forth with a super-
human effort to snatch Public Works, Guadalcanal, from the throes of chaos; O'Connor, honor graduate of Fordham University, revolutionized the science of passive defense by his drastic camouflage innovations; Fetterman, four-time winner of the Headquarters Company Oscar, delved into the gloom of the sub-aqueous world, determining how long our divers could stay under water; Sears, the battalion's youngest and most brilliant chief, valedictorian of the class of 1939 of the Tulsa Night, Cash and Carry School of Taxidermy and Secretarial Science, was prevailed upon to overcome the conditions existing in the personnel office of Advance Naval Base, Tulagi.
"Our stay in Noumea was cut short when word was flashed that the Marines were encountering difficulty in maintaining their beachhead on Guadalcanal. While the civilized world waited with bated breath, the dauntless 27 th steamed northward to shower upon the Jap aggressor the wrath of an indignant republic. For three days, our forces held off the Japs while we were sailing to our first overseas assignment.
"While the fighting was still raging, the 27th unloaded at Tulagi, 20 miles north of the front, as Marines, with tears in their eyes, cheered from their foxholes on the beach.

Chow Down!

or honor us. Among these were Rear Admiral Lewis B. Combs, Deputy Chief of the Bureau of Yards and Docks, Rear Admiral Carl H. Cotter, Director of the Pacific Division of our Bureau, Commodore A. C. Bisset, immediately in command of the Seabees in the South Pacific, Bob Hope, and his troupe-and Frances Langford!

The morale effect of these visits is incalculable.
Possibly nothing helped so much as the letters from home, and the way our post office, in charge of George F. Brightbill, assisted by H. G. Houle and A. O. Jay, handled the mails.

Brightbill, wounded at Belleau Woods in 1918, and awarded the Purple Heart, came to us from the post office at Philadelphia. He doubled in brass, playing the trombone and the oboe in our band.
"I had a fine time," he says, "with fine boys and men; and I enjoyed life in the post office. When Bob Hope came to Emirau and somebody asked if I were going to his show, I said I could have more fun in the post office, talking to the homesick kids.
"Time and time again those kids would come in and stand around.
" 'Any mail for me today?'
"'No. I'm sorry.'
"'No mail at all?'
"'None.'
" 'Then there's nothing for me? Nothing?'
"Poor kids. I had to jolly them a lot sometimes, they were so blue when the mail was delayed, or there was no letter for them. But when the letters came-well, you might think a kid was walking in the stars instead of on a jungle island.
"Of course now and then bad news came. And frequently a letter or a parcel was received with an address we couldn't decipher-or something so badly wrapped it was ruined when it arrived.
"A woman, somewhere in the United States, puts in long hours knitting a sweater for her son, or six pairs of heavy woolen sox-and undoes all that labor of love by a bad wrapping job, or by writing a name nobody could possibly read or make out! There were many tragedies of the sort. We did what he could, but that's small consolation.
"All in all, though, our tour of duty was a grand adventure to me-and good business for Uncle Sam. The men in our battalion bought over $\$ 36,000$ worth of stamps-preferring airmail to the more public V-mail system. And then sent home $\$ 736,000$ in money orders! If you think they gambled away all their money, or

spent it on island knick-knacks, or liquor, remember this: they sent home over three-quarters of a million dollars."

Horace V. Kay, one of the Master at Arms, agrees with Postal Clerk Brightbill that we were "fine men."
"They were big-hearted fellows," he says. "They'd give you their last dollar, or borrow a buck from you. They were men, and acted as men do anywhere. They worked hard, played


Bringing in the mail.
hard, and sometimes a few of them drank hard. But, if you want a tipoff on the kind of men they were, let me tell you this.
"When the air raids started on Tulagi, and everybody was more or less afraid of getting killed, and dugouts were scarce, the natives would dive into the holes with us.
"Now, in the first place these holes were mighty small. There weren't many that would
hold more than six men comfortably ; yet sometimes there would be twenty natives jammed into that hole.
"And in the second place those natives were pitiful specimens of humanity. Some of them had running sores. Some were tattooed all over with ringworm. Some of them were filthy, reeked with offensive odors. Some of them might have been lepers for all we knew.


Our Band-Chief Dennis directing.

Emirau Bowl-smoking in the balcony.

"But there wasn't one of our men, not even the roughest of the roughnecks, who ever had the heart to kick those natives out of their foxholes.
"That's the sort of men they were. They gave no serious trouble to anybody during the entire two years. The worst punishment given any of them was a few hours extra duty."

During our last few weeks on Guadalcanal, Commander Triest organized a band, and Dr. Ostrom, a top-flight musician, gave it the "shot in the arm" it needed. Under the baton of Chief Dennis, the boys practiced a couple of hours daily at Emirau, after their work was done.

They helped, too, many a time when rain fell heavily and mud was everywhere, and there were no letters, and there was nothing to do but gripe and talk of things back home.
We built a theatre on Emirau, a theatre big enough to hold two battalions. The 63rd helped us in the work, and helped us enjoy the pictures. Later we had to enlarge the place, to accommodate men of other battalions.
When we heard Bob Hope was coming, Lieut. Towle and his crew built a stage, and equipped it with dressing rooms, foot lights and back drops. The theatre was well drained too. If it rained
you wouldn't get your feet wet-if you lifted them.

A crowd of almost 7,000 gathered to be entertained by the great comedian on a Monday night in early August.
"The crowd whistled, cheered and applauded," says the Chronicle, "as Hope finally made his appearance. His jokes and antics kept the men in laughter throughout the program. Judging from the acclaim comely Patty Thomas seemed to take top honors for her dancing and beautiful lines. Jerry Colonna, in his usual comical way, pleased the audience with his performance.
"Frances Langford"-the paper gives her a paragraph all to herself-"received a tremendous hand of applause and rightly deserved it for her excellent singing and good spirits."

Then we had Jack Benny, Carole Landis, and Larry Adler who put on a whale of a show. They'll never know how we felt down inside.

It may be mentioned here, in passing, that the men in the 27th-like the men of most other units overseas-hadn't much use for smutty stuff or shady jokes. One audience in the South Pacific walked out of the theatre because a comedian was "raw."

Bob Hope and Patty Thomas.



Carol Landis.
The Ball Team.



Batter Up!

In memory of John Pearl Mansfield, of Port Arthur, Texas, we built a ball field and a stadium, and on July 30, we dedicated it. Mansfield, one of the first members of the battalion, volunteered on the night of 1 February 1943, to man a $.50-$ calibre gun for a work-weary PT crew. The boat encountered a fleet of enemy ships, near the island of Savo, received a direct hit, and exploded. All hands were lost.
"There could be no more appropriate occasion for the dedication of this stadium, for the general welfare of us here, than to remember the first of our shipmates who died in combat," Commander Triest said in making the dedication speech.

It was a little before the time the St. Louis Browns and Cards were playing for the world's championship. We were having our own world's series on Emirau.

Our team had been organized in June, when work had slackened a bit. Mr. Towle, who promoted all sorts of athletic contests for the men, was the moving spirit and coach. We lost the first game, but we'd made a good showing, and many men asked to join the team. We formed an Intramural League, which eventually contained
ten teams. From this league we formed the 27th Seabee nine.

There were volley ball teams, basketball fives, and ping-pong enthusiasts, but the main interest was baseball. So we built two diamonds in a corner of the camp. It was one of these, which had bleachers seating 1,500 , that was christened Mansfield Stadium.

Two games were played on the day of the dedication, and the 27 th won both of them. Andy's Hamburger Stand, one of the many projects which added to the popularity of Chaplain Anderson, and the only one within thousands and thousands of miles, did a tremendous business. Hamburgers cost a quarter apiece, and we made $\$ 680$ profit, which went into the welfare fund. The line waiting for cokes and red-hots and our delectable "specials"-with or without-extended into the far distance, and waited patiently as our band played exciting tunes. Also we sold $\$ 34,640$ worth of war bonds. Men of the 27th bought them for cash with their hamburgers.

An account of one of the Sunday games played in our stadium was written by Mr. Towle.
"The final game brought together our team which had defeated all other championship con-

"One with and one without."
tenders in earlier series, and the 113th Army Ordnance team, the island champions. Due to imperative war demands on our services, we had not found time for organization until ten weeks before. Since that time we had played 47 games, won 40 , tied one, and dropped 6.
"With four of our regulars lost to us, due to injuries, I was not an over-optimistic manager as I selected our starting lineup.
"The band struck up the National Anthem, our C. O. opened the ceremonies with a friendly greeting, General Boyd threw out the first ball, and Umpire Peery called out the batteries.
"For the 113th Ordnance, Jennings pitching and Anderson catching; for the 27th Seabees, Bill Neely pitching, Sonny Hodges catching. Pla-a-a-y Ball!
"In the first two innings, fast, smart play was featured. The score board showed no runs. The crowd was hot for more action, and in the first half of the third it came. Sonny Hodges, who really studies his batters, signalled our fielders into more favorable positions, and got set for Big Bill's pitch.
"Then came the break that set the stands in bedlam. A smart clean single to short center.

A sacrifice, and the man advanced to second. The next batter was retired on a pop-up to our faultless second sacker, Pete Coursey, who held the runner on second. Another beautiful single found a run across, while we limited the hitter to one base. Vitrano on third easily threw out the next batter, to retire the side.
"We came in for our half with plenty of fight and will to even it up, but were unable to make the distance. So it went through to the sixth inning, with neither side improving its position and both playing errorless ball. Al 'Tip' Secord started us off in the last of the sixth with a smart hit off the shortstop who, in a hurried attempt to make the put-out, threw wild. Al continued on to second base. Neely's attempt to advance the runner ended in the pitcher's glove, and the crowd groaned.
"A pitch into the dirt got away from Anderson, with Secord scampering to third on the play. The crowd was really wild in their demands as Vitrano came up to carry out his assignment for a hit and run. He laid down a precision bunt and made first when they elected to make a play for Secord at the plate.
"Al realized his plight and hit the dirt hard.

It's True-We're Going Home!

"'Out,' yelled the Ump.
"But, as 'Tip' slid in, he spilled the catcher, who lost the ball. This saved an argument over a very close decision, which might have cost us the game.
"Capt. Couch was the next one to face Jennings, and both tried to master the unnerving heckling of the mob. Couch sent a screaming grounder to carom off the first base sack into foul territory, where it was not retrieved until 'Big Six' galloped into third and Vitrano had crossed the plate standing up, to put us out in front for the first time.
"Here was a chance to squeeze in another run, just for insurance. 'Flash' Sandlin, taking my signal for a hit and run, laid a slow roller down toward first, which Jennings fielded fast to beat out Sandlin. They whipped it home to catch Couch, but he slid in safely for our third and last tally. Our next batter went down swinging.
"A revitalized 27 th went onto the field and played to a spectacular finish. Neely, unaware two pitchers were warming up, went the distance to win the most creditable game of the year, allowing two hits, while we collected four from the opposition.
"The crowd swarmed onto the field, wildly embracing the players and loudly proclaiming their pride in another of the remarkable accomplishments of the 27th. Our defeated comrades shook hands all around as they expressed their congratulations on our 3 to 1 victory."

Yes, all these things helped, religion, good examples, visitors, generous entertainers, the newspaper, the laundry, the band, the Sunday ball games, and a million other intangibles.

But always, and growing more and more acute in our minds, was the question: "When are we going home?"

At last came a memorable night. An announcement was made at the Emirau bowl. Alr the 27 th men were to remain after the movie. We waited, impatiently.

Commander Triest got up on the stage. He said he had a few things to tell us-but he didn't tell us with words.

In rapid succession he raised three cards. There was a letter on each. They spelled a word. $\mathrm{Y}-\mathrm{E}-\mathrm{S}$.

Yes. The "scuttlebutt" was true.
Our shouting could be heard all over the island. YES. WE WERE GOING HOME!

## SCUTTLEBUTT

"What's the latest scuttlebutt?" starts at break of dawn.
Long before we quit our sack, "What's new?" buddies yawn.
"Someone said we're leaving soon."
"How soon, did they say?"
"Oh, about the first of June."
"Hell, I heard in May."
"What's the latest scuttlebutt?" someone asks at chow
"Hitler wants to end the war; wants to quit it now!"
"Turkey's troops are in the field?"
"Yeah, that's what I hear."
"Wonder what the Japs will do With our fleet all here?"
"What's the latest scuttlebutt?" Never, "what's the news?"
Rumor sweeps from tent to tent, growing as it moves.
"Sack of mail came in today."
"Heard that there were ten."
"Heard so many bags arrived Had to build a pen."
"There will be no chow tonight; all the cooks are ill!"
'Someone saw a Jap last night signal from the hill!'
"Half Battalion's going home-
"Bombings made 'em nuts!"
"Sharks bit through a PT Boat!" Say the Scuttlebutts.
"What's the latest scuttlebutt?" "What the hell you know?"
"When you think we're going home?" "Where you think we'll go?" Even should we meet our Fate, And our lips be shut,
Some will wag with deadened limbs; "What's the scuttlebutt?"

Alphia Hart

## HEADQUARTERS

14TH ANTI-AIRCRAFT ARTILLERY GROUP (S/M)

Subject: Admiration and Commendation.
To: The Commanding Officer, 27th Seabees.

1. En route to this station, we heard all about the Seabees. Everything I have heard concerning them has been of the most complimentary nature. I personally knew very little concerning this fine body of men. I had only seen a camp of theirs over by Virginia Beach.
2. Since our arrival here, the Navy Welfare Officer, with whom I came over to this island, on the same boat, has sent some of them, from your organization up here to help us get our AA Headquarters in shape, several plumbers and several carpenters.
3. This is not any attempt at flattery with a view to obtaining more service. I am not much of a flatterer. I can honestly say that I have never, in twenty-one years' service, seen anything like the Seabees working around our place here. They work. They are very cheerful and very accommodating. They have great spirit and pride in their organization and very rightly so. They are the finest group that I have run into during this war.
4. I wish very much that you would thank the non-commissioned officerin charge of the detail here and the men working under him, in behalf of my officers, men, and myself. But for their fine work what is being accomplished now would take us months to do thereby that much delaying our getting on with our tactical work, which, after all, is our main reason for being.

/s/John H. Pitzer<br>JOHN H. PITZER<br>Colonel AA<br>Commanding AA Defenses<br>Tulagi and Florida Islands

# UNITED STATES PACIFIC FLEET AIRCRAFT SOUTH PACIFIC FORCE 

## From: Commander Aircraft, South Pacific Force.

To: Commanding Officer, 27th Naval Construction Battalion.
Subject: Work executed at Commander Aircraft, South Pacific Force Camp-commendation of.

1. Commander Aircraft, South Pacific Force takes pleasure in highly commending the officers and men of the 27th Naval Construction Battalion for the noteworthy part they have played in the completion of the camp and facilities of this command.
2. Particularly to be commended is Lieutenant Clarence Durbin, project manager, for the resourcefulness and marked ability displayed in architectural design and planning, and for his perseverance and diligent supervision of the work.
3. The specified rehabilitation and new construction of this camp have ben completed in a most satisfactory manner, and the work consummated with extreme dispatch.

/s/Aubrey W. Fitch<br>AUBREY W. FITCH

# 18TH U. S. NAVAL CONSTRUCTION REGIMENT 

 c/o Fleet Post Office, San Francisco, CaliforniaFrom: Officer in Charge, 18th Naval Construction Regiment.
To: Officer in Charge, 27th Naval Construction Battalion.
Subject: Commendation of Performance.

1. Upon your detachment from the 18th U. S. Naval Construction Regiment, the Officer in Charge takes great pleasure in commending the 27th U. S. Naval Construction Battalion for its excellent performance at this base. You and your Battalion's cooperation contributed greatly to the most successful completion of one of the finest air and naval bases in the South Pacific Area.
2. The officers and men of the 27th U. S. Naval Construction Battalion, through their diligence and ability to perform, have won the respect and admiration of all the services stationed at this base.
3. May your next assignment be as pleasant, and may your contributions to the United States Naval Service be as worthwhile there as they have been here. Good luck to one of the finest Seabee Battalions in the Navy.

/s/W. W. Studdert<br>W. W. STUDDERT

# HEADQUARTERS SERVICE COMMAND 

## APO 198

Subject: Commendation.
To: Commanding Officer, Service Command, APO 198.

1. It is desired to express my appreciation to the commanding officer of the 27th U.S.N. Construction Battalion for the voluntary, wholehearted and superior assistance, in addition to technical skill and knowledge in helping to plan, design and fabricate the mechanized conveyor used for the sorting operation on the unloading platform of the Quartermaster Ration Dump.
2. Lt. Commander Triest's personal assistance, guidance and encouragement was mirrored by his civil engineer, Lt. (jg) John F. Poulton, and his officer in charge of heavy equipment, CW/O Dean C. Works.
3. This organization, and in particular the individuals mentioned, are responsible for a device that results in an estimated saving of approximately 6,200 man hours of labor for each thirty days' supply of rations that are received.
4. To borrow a fitting phrase from the Navy, "Well done."
/s/Vernon L. Lewis
VERNON L. LEWIS
Major, QMC
QM Supply Officer

# HEADQUARTERS ISLAND COMMAND 

## Office of the Commanding General, APO 198

San Francisco, Calif.

Subject: Commendation.
To: Lt. Commander Willard G. Triest, 116013, USNR (Through Commander, N. A. B., F. P. O. 3220).

1. The Commanding General, Island Command, APO 198, extends to you his greetings and commendation for your meritorious achievement at this base during the period, 20 March, 1944, to 20 September, 1944. As Commanding Officer of a Naval Construction Battalion, you were responsible for the planning and construction of the Naval Advanced Base, the Motor Torpedo Boat Base, two landing beaches, and a sixty (60) target rifle range. You also organized depots, supervised sawmill operations, issued construction material and completed extensive surveys. In all of these operations you displayed exceptional initiative and resourcefulness, and the ability to complete all tasks well ahead of scheduled time. Your thorough technical knowledge, brilliant leadership, and outstanding accomplishments reflect great credit to yourself and your organization.

/s/ Leonard R. Boyd<br>LEONARD R. BOYD<br>Brigadier General, U. S. Army Commanding

## To: 27th Navy Construction Battalion.

We are at a loss for words in trying to express our heartfelt thanks to the members of the 27th Navy Construction Battalion for the kindness and overwhelming generosity extended to us in our needs. The spontaneous cooperation of the members of your grand organization is indicative of the fine spirit possessed by each man.

To know that we are fighting with men of such calliber helps us go on for a greater end and we are happy to say that we will do our utmost to show our appreciation for all that has been done for us. The mere word "thanks" only half expresses our true feelings and we sincerely hope that one day we may be able to return the favors it has been our pleasure to receive.

We especially wish to thank first class ship's cook Baker who so willingly gave of his time and patience to help us in the many ways too numerous to mention.

As we have no better way to show our appreciation for the moment, we can only humbly say, many, many thanks.

Infantry Casuals from Munda.

## COMSTRUCTION STATISTICS

## (MAJOR ITEMS)

Evacuation, all work-cubic yards ..... 790,000
Roads (all classes) -miles ..... 73
Airfield taxiways-feet ..... 3,800
Native lumber-sawmill-board feet ..... 960,000
Native piles, secured, $35^{\prime}$ to $90^{\prime}$ lengths ..... 720
Docks built (all sizes) ..... 19
Bridges built and repaired (permanent pontoon and timber) ..... 5
Quonset huts-regular and tropical ..... 264
Quonset warehouses $40^{\prime} \times 100^{\prime}$ ..... 32
Magazines, ammunition and torpedo $20^{\prime}$ and $25^{\prime} \times 50^{\prime}$ ..... 20
Reefers, 6,800 cubic feet ..... 11
Buildings, large timber frame ..... 154
Construction Materials Depots, Operation of ..... 2
Fuel storage tanks, 10,000 -barrel ..... 31
Gasoline storage tanks, 1,000-barrel ..... 24
Major repair jobs on 145 ships ..... 450
Propellers changed, large type Landing Craft ..... 160
Diving hours, ship repair and salvage ..... 2,550
MILITARY STATISTICS
Japanese planes shot down-official credit for 3-partial, 1 ..... 7
Number of alerts- 5 months-Tulagi area ..... 150
Riflemen qualified-27th NCB-Emirau:
Marksman ..... 370
Sharpshooter ..... 60
Expert ..... 10

## CONSTRUCTIONLOG

## Work projects of the 27th Naval Construction Battalion

## NOUMEA

ComSoPac
Quonset huts, for officers $16{ }^{\prime} \times 36^{\prime}$. ${ }^{\prime}$. . . . . . . . . . . . . . 3
Quonset huts, for living quarters, $\mathbf{1 6}^{\prime}$ x $36^{\prime}$. . . . . . . . . . . . . . 30
Radio antennaes, erected at Magenta Bay . . . . . . . . . . . . . 2
Dock, pontoon . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
Army Airfield
Runways, lengthen and improve drainage
U.S.N. Mobile Hospital

Landscaping
Water tank, erection . . . . . . . . . . . . . . . . . . . . . 1
Quonset huts, for living quarters, $16^{\prime} \times 36^{\circ}$. . . . . . . . . . 3
Plumbing, installations in existing buildings

## TULAGI

Advanced Naval Base
Government Dock-50' x 400', 35' draft . . . . . . . . . . . . . . . 1
Pier No. 6 Dock- $50^{\prime} \times 180^{\prime}$, $3^{\prime}$ draft . . . . . . . . . . . . . . . . 1
Sturgis Dock-18' x 90', 26' draft . . . . . . . . . . . . . . . . . . 1
Roads, coral sand surfaced-miles ............... . . . . $71 / 2$
Excavation, rock and sand, cubic yards . . . . . . . . . . . . 55,000
Tanks, 10,000-barrel diesel storage . . . . . . . . . . . . . . . . . 4
Tank, 1,000-barrel motor gas storage . . . . . . . . . . . . . . . . 1
Pipe lines and pumping system
Communications inter-island system
Barges, $3 \times 7$ pontoon, with propulsion units . . . . . . . . . . . . . 3
Barges, $5 \times 12$ pontoon, with propulsion units . . . . . . . . . . . . 4
Shore areas cleared, filled, enlarged and graded
Excavation, rock, cubic yards
Post Office, $20^{\prime}$ x $50^{\prime}$ timber framed . . . . . . . . . . . . . . . . . 1
Red Cross, $26{ }^{\prime}$ x $40^{\prime}$ timber framed . . . . . . . . . . . . . . . . 1
Salvage operations, $30^{\prime} \times 60^{\prime}$ timber framed . . . . . . . . . . . . . 1
Quonset huts, junior officers' mess . . . . . . . . . . . . . . . . . . . 1
Theatre, outdoor . . . . . . . . . . . . . . . . . . . . . . . . . . 1
Naval Supply
Quonset Warehouses, $40^{\prime} \times 100^{\prime}$, with cement decks . . . . . . . . . . 8
Reefers, 6,800 cubic feet . . . . . . . . . . . . . . . . . . . . . . 3
Quonset huts, $20^{\prime} \mathrm{x} 48^{\prime}$. . . . . . . . . . . . . . . . . 3
Warehouses, timber framed, $30^{\prime} \times 100^{\circ}$. . . . . . . . . . . . . . . . 1
Ice Cream plant . .. . . . . . . . . . . . . . . . . . . . 1
Supply barge, outfitting of . . . . . . . . . . . . . . . . . . . . . . 1
Boat Base
Docks, timber . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Quonset warehouses, $40 \times 100^{\prime}$, with cement decks . . . . . . . . 3

## COMSTRUCTIONLOG

## Army Quartermaster

Warehouses, $40^{\prime} \times 100$ ', native type ..... 2
Warehouse, $30^{\prime} \times 60^{\prime}$, native tyye ..... 1
Deck, concrete, 40 x 300 ..... 1
Reefers, 600 cubic feet ..... 10
Quonset hut, $16^{\prime} \mathrm{x} 48^{\prime}$ ..... 1
Fencing, around entire area
Naval Ammunition Depot
Magazines, ammunition, $20^{\prime} \times 50$ ..... 8
Quonset warehouse, $40^{\prime} \times 100^{\prime}$, with cement deck ..... 1
Quonset huts, 20 x 48 ..... 3
Building, $20^{\prime} \times 50^{\prime}$ timber framed, with high-pressure air machinery and piping ..... 1
U.S.N. Base Hospital
Blue Beach No. 1-250-bed hospital complete with all utilities
Blue Beach No. 2-250-bed hospital complete with all utilitiesQuonset huts, $20^{\prime} \times 48^{\prime}$, used in construction70
MACAMBO
Boat Base
Tanks, 1,000-barrel aviation gas storage ..... 8
Pipe lines and pumping system Magazines, torpedo, $20^{\prime} \times 50^{\prime}$ ..... 5
Quonset warehouses, $40^{\prime} \times 100^{\prime}$, with cement decks ..... 2
Clear, fill and grade all shore areasDock, repairs to existing concrete deck
Pipe line, floating $6^{\prime \prime}$, lineal feet ..... 600
Roads, miles ..... 1/2
Excavation (estimated), rock and earth, cubic yards ..... 6,000
GAVUTU
Halavo Seaplane Base
Tank, 10,000 -barrel, aviation gas storage ..... 1
Tanks, 1,000 -barrel, aviation gas storage ..... 4
Pipe line, to Tanambogo fueling dock, feet ..... 2,000
Boat Pool
Quonset warehouses, $40^{\prime} \times 100^{\prime}$, with cement deck ..... 2
Railway, marine, for LCP, LCV, and LCM ..... 1
Clear, fill and grade shore areas
Piling driven, for landing craft anchorage ..... 24
Harbor Entrance Control Post
Signal tower and office ..... 1
Mess hall, galley and quarters for 200 men, framedWater and electric system for all units on the islandQuonset huts, 20 ' x 482
Dock, timber, for Picket boats ..... 1
Roads, milesExcavation (estimated), cubic yards8,000

## CONSTRUCIONLOG

TANAMBOGO

## Boat Pool and Halavo Seaplane Base

Clear, fill and grade entire island
Tank, 10,000-barrel, diesel storage . . . . . . . . . . . . . . . . . . 1
Tanks, 1,000-barrel, motor gas storage . . . . . . . . . . . . . . . . 2
Pipe lines and pumping system
Dock, fueling, $45^{\prime}$ draft1
Dolphins, mooring, for tankers ..... 4
Excavation (estimated), cubic yards ..... 7,000
PALM ISLANDNaval Ammunition Depot
Dock, timber ..... 1
Shelter, ammunition, timber frame ..... 1
TURNER CITY
Boat Pool
Pier, coral finger ..... 1
Clear, and grade site for a 400-man camp
Clear, and grade site for a 400-man camp
Galley, mess hall, quarters and all utilities to complete the camp
Buildings, timber frame ..... 6
CARTER CITY
Landing Craft Flotilla Base
Clear and grade site for a 600 -man camp
Quonset huts, $20^{\prime} \times 48^{\prime}$, living quarters ..... 24
Quonset warehouses, $40^{\prime} \times 100^{\prime}$ ..... 3
Towers, Signal, timber .....
Quarters, timber frame
10
Native huts, renovated for living quarters ..... 1
Galley and mess hall, $80^{\prime} \times 80^{\prime}$, timber frame
Galley and mess hall, $80^{\prime} \times 80^{\prime}$, timber frame
1
LCT, outfitting of as a repair and service craft
Roads, miles ..... $1 / 4$
MISSION POINT
Marine Defense Battalion
Clear, grade and drain camp siteGalley, mess hall and all utilitiesOperations room, tunnelled in rockDock, portable, $9^{\prime}$ draft1
Purvis Bay Port Director's Office and QuartersLanding craft watering point-dam, tanks, pipe line, timber dock anddolphins
Roads, miles ..... $11 / 2$
Excavation (estimated), cubic yards ..... 5,000
COMSTRUCTIOn ..... LOG
SIOTAMarine Outpost
Galley, mess hall and utilities Roads, miles ..... 15
Pits, for 90 mm . guns and Radar ..... 5
Excavation (estimated), cubic yards ..... 25,000
BUNGANA
Marine Outpost
Galley, mess hall and utilities Roads, miles ..... 3
Mounts, Panama, for 155 mm . rifles
Mounts, Panama, for 155 mm . rifles ..... 15,000
DESERTED VILLAGEMarine Outpost
Roads, miles ..... $21 / 2$
Pier, coral finger ..... 20,000
PLUMMER'S POINT
Marine Outpost
Mess hall and 5,000-gallon water tank ..... 1
Road, miles ..... $21 / 2$
Pier, coral finger ..... 1
Pits, for $90-\mathrm{mm}$. guns and Radar4,000
PURVIS BAY DEVELOPMENT AND TULAGI
Watering point, dam, dock, pipe line and mooring dolphins ..... 1
Dolphins, for repair ship anchorage ..... 4
Tanks, 10,000 -barrel, fuel storage ..... 20
Tanks, 10,000 -barrel diesel storage ..... 5
Pipe line, $12^{\prime \prime}$, miles ..... 2
Pipe line, $8^{\prime \prime}$, miles ..... 1
Pumping units ..... 25
Roads, miles ..... 5
Excavation (estimated), cubic yards ..... 200,000
Dock, pontoon, fueling, 35 ' draft ..... 1
Dolphins, mooring ..... 4
Camp, complete for 250 men ..... 1
SINGSONG
Ship Degaussing Testing Station
Quonset hut, 20 x 48 ..... 1
Dock, small craft landing ..... 1
COMSTRUCTIO ..... LOG
GUADALCANALU.S.N. Mobile Hospital
Reefer, 6000 cubic feet ..... 1
Laundry, $20^{\prime} \times 100^{\prime}$, frame building, with all equipment and plumbing ..... 1
Deck, concrete, $20^{\prime} \times 100^{\prime}$ ..... 1
Scullery, $20^{\prime} \times 30$ ', installation of all equipment and plumbing ..... 1
Warehouse, $20^{\prime} \times 50^{\prime}$, prefabricated steel ..... 1
Bakery, outfitting of ..... 1
Quarters, 20' x 80', prefabricated steel ..... 2
Wards, $20^{\prime} \times 250^{\prime}$, prefabricated steel ..... 2
Main galley and mess hall, reroofing
Roads, miles ..... 1/2
Extensive open drainage ditches
Enlarged generator building and power capacity
Comairsopac Camp
Remove entire old camp
Quonset huts, $20^{\prime} \times 48$ ..... 13
Laundry, with all plumbing ..... 1
Theatre, outdoor ..... 1
Water system and one incinerator
Sick Bay, $20^{\prime} \times 48^{\prime}$, timber frame building ..... 1
Stockade around vital records building
Landscape, entire camp area
Boat Pool
Quonset waterhouses, $40^{\prime} \times 100$ ..... 3
Quonset huts, $20^{\prime} \times 48$ ..... 2
Henderson Field
Compass Rose ..... 1
Deck concrete $40^{\prime} \times 100^{\prime}$
Deck concrete $40^{\prime} \times 100^{\prime}$ ..... 1
Quonset warehouse, $40^{\prime} \times 100^{\prime}$, with concrete deck ..... 1
Magazines, torpedo, $25^{\prime} \times 50^{\prime}$ ..... 4
Area, parking, $200^{\prime} \times 800$ ..... 1
Maintenance of field
Fighter Strip No. 2
Incinerator, 6 ' x $6^{\prime}$1
Maintenance of field
PAGE 5
Rnzaf
Quonset huts, $20^{\prime} \times 48^{\prime}$ ..... 4
Mess hall, $20^{\prime} \times 120^{\prime}$, timber frame ..... 1

## COnSTRUCTIOMLOG

Air Group
Quonset warehouses, 40 x 100 ..... 2
Quonset huts, $20^{\prime} \times 48^{\prime}$ ..... 2
Deck, concrete, $40^{\prime} \times 60^{\prime}$
Carney Field
Tanks, 1,000-barrel, aviation gas storage9
Roads and Bridges
Lunga Overflow Bridge, 230 ', all native timber
Nalimbu River-replacing center portion of old timber bridge with an83' clear span pontoon section.
Tenaru River-approaches and piersMatanikow River-place main spans of pontoon sections4,000 of roadsTotal (estimated), excavation, cubic yards50,000
Nob
Quonset huts, living quarters, $20^{\prime} \times 48^{\prime}$ ..... 4
Air Group
Bakery, scullery and mess hall alterations
Quonset huts, $20^{\prime} \times 48^{\prime}$
Bomber Group
Quonset huts, $20^{\prime} \times 48$ ..... 4
Warehouse, $20^{\prime} \times 50^{\prime}$ timber frame ..... 1
Camp Crocodile
Antennaes, radio ..... 3
Hut, radio, $20^{\prime} \times 20^{\prime}$ timber frame ..... 1
Kukum Beach
Well, deep water, 532 ..... 1
Army Station Hospital
Well, deep water, $510^{\prime}$ ..... 1
EmirauNab
Clear and drain camp site
Water supply and electric power systems
Quonset warehouses, $40^{\prime} \times 100^{\prime}$ with concrete decks ..... 2
Quonset huts, officers, shops and quarters ..... 29
Tents, for quarters, decks and frames ..... 15
General galley, mess hall, bakery, showers and heads
Hospital chapel, brig, armory and M. A. Hut
Frame buildings, offices and shops ..... 5
Wardroom, heads and showers for officers country
Pier, coral finger, with pontoon wharf ..... 1
Theatre, outdoor ..... 1
Baseball diamond and basketball courts

## COMSTRUCTIONLOG

Boat Pool
Clear and drain camp site
Water supply and electric power systems
General galley, mess hall, showers, heads and shop's storeSignal tower1
Quonset huts, $20^{\prime} \times 48^{\prime}$, offices and shops ..... 10
Docks, pontoon ..... 2
Boat Base
Quonset warehouses, $40^{\prime} \times 100^{\prime}$ with concrete decks ..... 3
Magazines, torpedo, $25^{\prime} \times 50^{\prime}$ ..... 2
Magazine, detonator, $10^{\prime} \times 10^{\prime}$ ..... 1
Water supply system, 2 wells and 3 storage tanksGalley, mess hall, heads and showers to accommodate 1,000 menQuonset huts, $20^{\prime} \times 48^{\prime}$ for quarters28
Quonset huts, $20^{\prime} \times 48^{\prime}$ for shops, offices, sick bay, armory and recreation ..... 16
Mess, officers, $28^{\prime} \times 72^{\prime}$ timber frame ..... 1
Shop, truck repair, $38^{\prime} \times 80^{\prime}$ timber frame ..... 1
Shop, metalsmith, $20^{\prime} \times 50^{\prime}$ timber frame ..... 1
Piers, coral finger, bulkheaded at outboard end ..... 2
Dock, 3 ' x 36', pontoon ..... 1
Tower, signal ..... 1Baseball diamond and basketball court
Bomber Group Camp
Clear siteMess hall, galley, heads, showers to accommodate 1,000 menAccess roadsMarine Air GroupHangar, nose, $90^{\prime} \times 40^{\prime}$ timber1Hangar, nose, $90 \times 20$ timber
Clear area and drain 2 camp sitesWater systems, heads and showers
Navy SupplyReefers, 6,800 cubic feet5
Army Quartermaster
Conveyor, mechanized food, length in feet ..... 510
Ice cream plant ..... 1
Reefer, 6,800 cubic feet ..... 1
LCT and LST Facilities
Dry Dock, 6' x 24 ' pontoon and tender barge ..... 1
Pier, coral finger and pontoon wharf ..... 1
Slip, pontoon, $80^{\prime} \times 120^{\prime}$ opening and $6^{\prime}$ draft, at Purple BeachLanding beaches:1. Black Beach-estimated excavation, cubic yards40,000
2. Blue Beach-estimated excavation, cubic yards ..... 8,000
3. Purple Beach-estimated excavation, cubic yards ..... 35,000
4. White Beach-estimated excavation, cubic yards ..... 60,000
Blast coral heads in Homestead Lagoon and Hamburg Bay
COMSTRUCTIOM ..... LOG
Roads
Class 1, 100' R/W, main arteries, miles ..... 7
Class 2, secondary arteries, miles ..... 15
Class 3, service roads, miles ..... 11
Estimated excavation, cubic yards ..... 36,000
Taxiway
Taxiway, airfield-feet ..... 3,800
Hardstands96,000
Clearing
Army Quartermaster food depot, acres ..... 12
Army Salvage depot, acres ..... 6
Signal Corps Supply depot, acres ..... 3
Purnle Beach unloading area and materials depot ..... 10
Black Beach Construction Materials Depot ..... 10
Estimated excavation, cubic yards ..... 5,000
Rifle Range
Clear and grade a 500 -yard range
Install 60 targets and complete range equipment
Cement Salvage
Devise machinery, salvage and drum, sacks ..... 22,000
Army Field HospitalOutdoor theatreEmirau BowlOutdoor theatreMansfield Stadium
Recreation area-softball fields ..... 2
volley ball courts ..... 2
basketball court ..... 1
Stockade Fencing
Black Beach Depot, Purple Beach Depot and Navy Supply, feet ..... 7,000
Black Beach Depot
Build, operate and maintain the Regimental Construction Materials Depot
Boat Base
Estimated excavation, cubic yards ..... 75,000
Malaria Control DrainageEstimated excavation, cubic yards10,000


HOY B. ANDERSON Lieutenant, ChC-V(G) USNR 1159 S. Kenilworth Ave. Oak Park, Ill.

HARRY V. CARTER Lieutenant, MC-V(G) USNR 5714 N. Christiana

Chicago, IIl.


DARIUS B. HILL, JR. Lieutenant, CEC-V(S) USNR

WILliam F. E. CABANISS Lieutenant Commander CEC-V(S) USNR 2129 McDowell St. Augusta, Ga.

grattan c. Colvin Lieutenant, CEC-V(S) USNR

1301 Wertland St.
Charlottesville, Pa .

CYRIL R. DREW Lieutenant, CEC-V(S) USNR 114 Belvidere St. Waukegan, ml .


ADELBERT W. HOY Lieutenant, CEC-V(S) USNR 2050 Robin Rd. San Marino, Calif.


WILFRED R. KALBFLEISCH
Lieutenant, CEC-V(S) USNR
2104 Kecoughtan Rd Hampton, Va.


CARLETON M. FYLER Lieutenant, CEC-V(S) USNR 1750 Germaine Dr. Toledo, Ohio


OMAR J. LOELTZ
Lieutenant, CEC-V(S) USNR Dedham, Iowa


EDWARD J. NEMECEK Lieutenant, DC-V(G) USNR 1035 Allston Rd.
Cleveland, Ohio


GEORGE P. O'ROURKE, JR. Lieutenant, CEC-V(S) USNR 1121 N. Beckley Ave. Dallas, Tex

JOHN F. POULTON Lieutenant, CEC-V(S) USNR 1300 Grove Ave
Richmond, Va. -h

PAUL D. PRYOR Lieutenant, DC-V(G) USNR 1302 W. 85th St Cleveland, Ohio


DAVIS M. PERKINS
Lieutenant (jg), CEC-V(S) USNR
P. O. Box 95
Canyon City, Ore


Canyon City, Ore

LELAND R. RYAN
Lieutenant, MC-V(G) USNR
${ }^{30 \varepsilon}$ E. Dobbs
Tyler, Tex.

RAY B. BLAIR
Lieutenant (ig), CEC-V(S) USNR 102 N. School St. Fayetteville, Ark.


ROBERT L. KRILL
Lioutonant (jg), CEC-V(S) USNR
742 S. 29th St.
Milwaukee, Wis.


ROLLO L. ROATH
Lieutenant (ig), CEC-V(S) USNR
230 Walnut St.
Greenfield, N. J.

hercule h. L. TRUDEL
Lieutenant (ig), CECCV(S) USNR
16 Lincoln P1.
Fort Wadsworth


DEAN C. WORKS
Lieutenant (jg), CEC-V(S) USNR
No. 7 13th Ave.
San Mateo, Calif.


KARI, G. KING
Ensign, SC-V(G) USNR
2218 Inglewood P1. South Bend, Ind.

WALTER L. CORNELIUS
Ch.Carp., CEC-V(S) USNR
P. O. Box 529

Freer, Tex.


HORACE DEL JUNELL
Ch.Carp., CEC-V(S) USNR
Rt. 1
Sulphur Springs, Tex.


HARRY E. DUGGER Ch.Carp., CEC-V(S) USNR Lytton Springs, Tex.


WILLIAM A. RODMAN Ch.Carp., SC-V(G) USNR 228 N. Thompson St. Vinita, Okla.


Charles h. gilbreath Ch.Carp., CEC-V(S) USNR 523 Craig Ave. Alice, Tex.

HOWARD W. SWAN Ch.Carp., CEC-V(S) USNR 2325 Fieldston St. Kansas City, Kan


THOMAS J. HOLLINGSWORTH Ch.Carp., CEC-V(S) USNR 447 S. Norden St. Los Angeles, Calif.



ARNOLD G. TOWLE Ch.Carp., CEC-V(S) USNR 135 Merrian Ave. Leominster, Mass.


WALTER J. ABBOTT SK2c(T)


RALPH J. ABRAMS
CM2c


FORREST W. ADAMS
MM3e


LIMUEL C. ADAMS
Bkrld,
"Red"


GEORGE S. ALDRICH BMIC


EDWARD L. ALLEN, JR. Cle
"Salty"
 -

Left:
amos g. ADOLPHUS
BM1
"Mooso"
EDWARD P. AHERN
MME2C
"Lightwoight"

## Right:

james e. allen
MM1c
"JIm"
JIMMIE C. AlLEN CM2e

## Left:

ROSCOE T. AKERS
BMAle(T)
" Ma "
CHARLES W. ALBERTS Sle
"Chuck"

## Right:

CLIFFORD E. ALSTON CCM(AA)
ALDEN H. ANDERSON CCM(AA)
"Meat Head"
*
'Meat Head Jr."


DOYLE S. ANDERSON $\operatorname{CSF}(A K)$


EARL A. ANDERSON SKle(T)


MILTON H. ADAMS SK2c(T)



CHARLES R. BARNES CM2c

CHARLES BASSIN MM3c(T) "Chuck"


DONALD J. BECKMAN MM3c


HANSFORD E. BARNETT
MM1c 'Hank"

CHARLES A. BASSO
CM2c
'Chuck"


ERNEST E. BEILE PhM2c

MACK BALLEW, JR.
Sp2c


JACK B. BARTEE CCM

CHOICE E. BATES "BFlc


EDWARD W. BELL SF2c
"Ding Dong"

ALEX J. BANACH


ROBERT O. BASCH CCM(AA) "Shadow"

THEODORE L. BATH, JR. SKlc


EDWARD A. BENEDICT


DONALD J. BETTINGER
MM2e
MM2c ${ }^{\text {Metty" }}$

GERALD W. BITNER S2c

ROY A. BENNETT SKD1c "Bull"

MORRIS B. BERKOVITZ CM3c


PAUL W. BILI
Sle
PAUL F. BEVERIDGE
HA2c
"DA2c"

ROBERT B. BIXLER, JR. SFlc
"Bix"

HUGH A. BLACKWELL EM2c

ROBERT H. BERRY

L. T. BILTON CM2c

ERANKLIN E. BLAKE
SF3c
'Feb"


BILLY L. BLEDSOE
"Green Hornet"
SFle
DONALD G. BLOOMFIELD
"Boot Legger"

DEWARD W. BOATMAN
EM1c
"Casey Jones"


ARTHUR M. BONDURANT CCM(AA)
"Bondy"


JULIUS E. BOSTIC
Ptrle(T)


GEORGE J. BOYLE SF3c

Left:
ClARE W. BODIN
BMIC
ROBERT E. BOLEWARE
SF3c
"Jr."

Right:
WILLIAM C. BOUMAN
LELAND S. BOURLAND
Ptrle
"Little Chiel"

Left:
JOSEPH E. BOLZ
MME2C
"Major"
WILLIAM R. BOMAR
$\operatorname{CCS}(A \mathbb{A})$
"Ray"

## Right:

ELGIN M. BOWEN SF2c "Paddle"
OTTO W. BOWERS
SFle
"Pop"
$\star$


CLIFFORD D. BOWMAN
CMle
"Clif'"




ARNOLD A. BOXMAN MM2c(T)


LAVERN W. BOYD M2c "В11"


HAROLD R. BOYLE MM3c

42



HARRY BURR, JR.
WTlc
"Rip"
EM2c "Gremlin"


JOSHUA B. BYRD

JOHN F. BUINOWSKI MME3c


ROBERT L. BURRIS SFlc

ANDREW W, BUTTLER MM2c

irvin l. CAUSEY, jr. EMle

LEONARD L. BYARS
'Skeeters"


RUSSEL H. CAUGHRON SF2c "Rusty"

ODIS BYERS




HOWARD G. CAMBELL EM2c
"Tex"


HOMER LEE CAMPBELL Bkrle


WILLIAM R. CAFFAL
CM1c


GEORGE A. CAMPBELL
Mic
"John"


VERNON G. CEARLEY SK2c
"Little Ikey"


Charles chimento
SF3c

"Pee Weo"

MARTIN A. CLANCY

-


Left:
EDWIN R. CHEADLE $\operatorname{CSKD}(\mathrm{AA})$
"Sarge"

## JOSEPH M. CHIANTELLA

CM2c
"Joe"

## Right:

AUTHOR D. CLIFTON Sle
ROBERT B. COCHRAN CCM(AA)
"Bob"

## Left:

GUY B. CHAMBERLAIN $\operatorname{CCM}(A A)$
"Pop"
ELLIS E. CHANDLER
$\operatorname{CCM}(A A)(T)$
"Eddie"

Right:
PAUL Y. CLARK
CM2c
" P Y"
ERNEST E. CLEMO CM2e(T)



RAY W. COCKERHAM
MM3c

RICHARD S. COENEN
MM1c


## Left:

WARREN E. COLEMAN PhM2e
"Pango"
William b. collard MM2C
"Sluq"

Right:
CLARENCE H. COLVIN SF3c

LLOYD L. COMEAUX Mle


Right:
JOHN A. COLLIER
CM2c
WILLIAM P. COLLINS CM2e
"Bill"


WALTER P. COMEAUX M1c
"Walt"


GEORGE W. COOK
CM1e
"Geo"

Leslie F. J. COOK
CY(AA)
"Jerry"

WILLIAM P. CONNER MM2c(T)
"Pop"


THOMAS B. COPELAND
Ptr2c
"Tommy"

BEN E. COOK
CM1e(T)
"Geno"


JOHN E. CORKERY
SF3c
"Corky"

GEORGE R. COOK CCM



JOE B, DEAN CEM(AA) "Flash"

ROBERT F. DELLASHMITT "Bob"

VIRGIL. S. DEATER MM3c

LYNDON C. DENHAM CM3c "Dead End"


LEONARD P. DIBELLO Slc Sic

JOHN E. DICKINSON CM2c "Dead Eye"

JESSIE J. DICUS MMEIe

LYLE F. DIEDERICH

"Dago"

CLARENCE L. DIMMICK CEM(AA)


## Left:

DONALD E. DIMMITT SF2c
WILLARD C. DIXON MM2c

## Right:

PHILIP M. DUER SC2c
"Sad Sack"
JOHN H. DUMAS SFle


EARNEST R. DOWNING
BM1
"Earnio"


SAM H. EASTWOOD BM2C


MARVIN J. EATON SFIC


William J. eberle MMB2C


ERNEST G. DUNWOODY CMIC


JOE F. DUWELL CM2e

DANIEL S. DONELSON
EM1c
"Donald Duck"
allen J. Donnaud
SF2c
"Frenchy"

Right:
WESLEY D. DUNBAR
SFle
"Red"
WILLIAM P. DUNGAN
CM2c(T)
"Bill"
$\star$

WILLIAM E. DOYLE CSF


WILLIAM D. ECKERD
SSML1
"Laundryman"


MORRIS EDELMAN CM3
"Cave Dweller"



JACK W. FERGUSON
CM3c
WILLIAM W. FINDLEY ${ }^{\mathrm{SF} 2 \mathrm{e}=(\mathrm{T})}$



CHARLES E. FARMER CMME(AA) "Lardo"


JOHN M. FERSTL BM1c

HOWARD B. FIPPS EM1e "Fipper"

JOHN FETTERMAN
"Honest"

NORMAN A. FISCHER SF2c


WALTER A. FARQUHAR CM1c
"Side Car"


BRUCE T. FIELDS SF3c

ROGER W. FISHER EM2c(T)

JOSEPH FORKAS
MME3c



EEONARD T. FINCH MM3c

PHILO E. FLEMISTER SF1e(T)

"T-M1c
E. B. FOWLER

CMMT


THOMAS E. FREEMAN CSF(AA)
"Bull Dog'

HERMON O. FUCHS EMle Red

LEE A. FOWLER CM3c
Meat Head'


WILLIAM J. FRASER MM2c

ALLEN L. FREEZE CM2c "Anti"

MERLE D. FRAZIER MM2c

RALPH W. FREY
"Cream Boy"

FRANCIS R. FREDERICK SF2c

VICTOR J. FRIEND CM3c


WILLIAM F. FREEMAN CM1e

GEORGE T. FULTON CCM(AA) "Port Side"


HAROLD J. FURLONG Bkr2c "Joe"


JOHN F. GALLAGHER SFlc(T) "Jack"


ARTHUR J. GALUP Slc

Alvin C. GANN
$\underset{\text { Aldin }}{\text { C. GANN }}$ "Doc"



MElVILLE T. GANNAWAY SFle "Ganny"



WESLEY W. GILLEY MM2c

FRED E. GILLHAM CM1c "Sol"


paul m. garcia SC2c
"Charlie Chan"

Left:
austin E. J. GRATTON SF2c
"Lefty"
LAWRENCE GERACI
Slc
"Lolo"."Chi'

Right:
GEORGE P. GILPIN CM1e
"Yank"
ALFRED GIONTA
CM1e
"Algio Boy"

Left:
GARLAND G. GILCHRIST SF2c
"Cotton"
LEE T. GILES
Ptrle

Right:
JOHN M. GISSELL
MM2c
"Foxy"
FRANK L. GLASS SF2c


JOHN W. GLENN
Cox
"Jr."

NICHOLAS R. GLENN MM2c


## Left:

LeROY H. GOEBEL MM3c
"Blabber"
CARY P. GONZALES
SC2c
"Baby Butch"
Right:
JAMES F. GRAHAM
SC3c
"Jimmie"
HENRY E. GRAY
Ptrlc
"Bill"

Left:
JOHN GRABOWSKI SF2c(T)
CARL A. GRAHAM MME2C
"Carl"
Right:
WILLIAM GRAY
SFle
DOMAS P. GRIFFIN CSF


LERO GUNN


JOHN R. GUYER
"Honest John"

FRANKLIN H. GRIFFITHS EM3c



CMIC
"Lea"
ROBERT L. GUILLIATT
SC2e(T)


JOHN P. HADLEY SF3c
"JP"
GEORGE H. HAGAN
SKD1c
"Haig"



ARTHUR H. HARBERT CEM(AA)
"The Idiot'
DONALD R. HARRISON MM1c EM2c
'Dur'
HANSFORD CM3c
Kitty"

SIDNEY W. HARRIS


LEO HATLEY "Hook"

TURNER W. HATTON CEM




GLEN HOLLOWAY CMle "Atlas"



Left:
DAVID E. HILL
SK2c
"Talladega"
GEORGE H. HILL
SFlc
"Curly"

Right:
ANSII, V. HODGES SFlc "Sonny"

RICHARD E. HOFFMAN CM3c
"Dick"
$\star$


FRED F. HOISECK MiM2c(T)

Right:
JOE F. HLAVIK
CM1e
RAYMOND HOAGLAND MME3c "Sonny"



LON W. HOGLE SFlc "Slick"
Sher


HAROLD E. HOLLOWAY MME3c 'Skinner"






Left:
WALTER H. KELLER
Cox
"Wally"
ARTHUR R. KELLEY MMIC

Right:
GERARD M. KELLY
SC3c
"C10"
MALLOY R. KELLY GMIC


## Left:

RALPH L. KELLEY MM2c
EARNEST A. KELLY
SF2c

Right:
MATTHEW E. KELLY CEM(AA)
"Red"
ROBERT F. KELLY $\operatorname{CCM}(\mathrm{AA})$

BOYD R. KEMSLEY
PhM2c
"Red"

LATTY F. KENDALL
$\mathrm{M} 2 \mathrm{e}(\mathrm{T})$
'Pat"


ALFRED W. KENT
MM2c
"Boh"

ROBERT J. KERR EM1e
"Cur-Dog"

FRANK J. KENNEDY
CM3e(T)


JOSEPH J. KERRIGAN
Sle "Joa"
163




WILLIAM LAMBRIGHT
MME1c
"Lamp Lighting"


ADOLPHUS G. LaROSE Sle
"Nigger"


JAMES R. LAMM
CM2c
"Jimmy"

Left:
CARLTON E. LAJOIE
SF2c
"Carl"
LOUIS N. LAMBERT
CMIC
"Aligater"

Right:
VERNON H. LANDFRIED SFle(T)
RICHARD L. LANDIS CM3c

Left:
ROY E. LAMBERT
CM3c
"Zeke"
ALBERT L. LAMBETH
MM2c
"Al"

Right:
William J. Lane SC2c
"Weo"
William J. LANGAN
SC3c
"Bill"
$\star$


LLOYD B. LANGFORD
Sle


JESSE H. LAWRENCE SFle(T)

HAROLD B. LEACH BM1C "Reynard"



PAUL, LUCYK
CM3c
"Polock"
CAROL L. LYNCH
CM3
"Bud"


ORVAL O, MACKEY
MME2e "Slim"

ROBERT G. LONG EM2c "Hughie"


CALVIN LUDESCHER SF2c

WALTER G. LYONS MM2(T)


KENNETH F. MAGEE
MMEIC

Charles v. MAGIL
CSP
"Charley"

EDWARD J. MAGUIRE PhM2c(T) "Duke"




Left:
MARTIN E. McCAFFREY MM3с
"Mac"
WILLIAM M. McCALLUM CMIe
"Cully"

## Right:

ROLLIN T. MeCLAIN CM3c
"Mac"
EARL L. MeCLEOD CCS(T) 'Mac"


Left:
LUKE K. McCARTHY
MM1c(T)
"Mac"
RICHARD F. McCARTNEY SC3c
"Mac"
Right:
CLARENCE C. McCRORY SF3c
'Mac'
GEORGE C. MeCULLOUGH EMIC
"Mac"




STRNSLAUS . Moninve CM3c(T)

RICHARD W. MYERS
SSMC2c(T)
"Navigator"

FRANK L. MOORE
MM1c(T)
"Slim"


CHESLEY P. MORRIS GM2c
'Cigaretto"

CECIL G. NAGY CCM

FRED W. MOORE CCM $(A A)$ "Youngster"


HARRY A. MORROW
CMIC

POLK L. NEELY
MME2c
"Bill"


MILFORD A. NELSON SFlc(T)

LEO F. NEMIER
SF2c

JACOE J. NEUMEIER MM1c

DAVID H. NEWMAN Cox

ervin novak
M1e
"Ernio"


DANIEL B. O'CONNEL
WT2c
"Danny"


JOHN M. OSBORNE CEM(AA) "Johnny"


LELENN OSMUNDSON
CMME
"Ozzio"


EDWARD W. O'TOOLE MM1c


GAMBLE J. PALMER CCM(AA) "Super Man"


JAMES G. PARKER
EM1c
"Shorty"






UNIOR L. SCOTT Y3c
"C B"



ROBERT B. SCOTT EM2c
"Scotty"


LaVERNE EARL SEARS
CY
"Fernado"

MT. VIRSE SEALES
MME3c "Max"


Left:
ROY B. SAWHILL
CM2e
IVAL R. SAWYER
CM1e
'Shad Rack"
Right:
ROBERT SCHEXNAYDER SFle
"Bob"
MM2c(T)
JOHN D. SCHILLING MM2c(T)
"Boot"

Left:
EDMUND H. SCHAFFER, JR.
EMIC
"Swamp Rat"
MIKE F. SCHAFFER EM2c

Right:
GERALD G. SCHWARTZ MM1e
LOUIS T. SCKIETS CM3e "Skeeter"


CHARLES E. SCRUGGS M2c
"Chuck"


ELLSWORTH G. SECORD, JR. CM3c " $\mathrm{A}{ }^{\prime}$ "

TRAVIS A. SEGURA
MM1e
"Cayon"

ANDY ERVIN SEHLKE
Ptrlc "Andy"




ORTH P. STRIPLING $\operatorname{CSF}(A A)$ "Strip"


VAN E. STUART GM2c "Sand Crab"


DUNCAN SUTHERLAND, JR.
EM1c
"Dugan"


ARVID J. SWANSON Sle "Swanio"

Left:
PATRICK T. STORIN
EMle
"Pat"
RAY D. STOUT
MME2c
'R D"

Right:
VERN F. STUTSMAN Y2c
"Stuz"
H. W. STUTZENBURG PhM3c


Left:
benjamin e. strattan MM1e
'Ben"
WILLIE A. Stricklan
$\operatorname{CSF}(\mathrm{AA})$
"Chillio Willie"

Right:
RALPH SUDOLSKY
Sle
"Woll"
JOSEPH S. SULLIVANT $\operatorname{CCM}(A A)$
"Sully"



WILLIAM E. SUMROW CM3 'Summy"


WILLIAM H. SURRATT MME2C


EARL L. SWEIG Sle


RALPH F. SWEINBERGER
CM3e(T)


Charles W. SWindle EM3c


SAMUEL M. THOMAS
Slc


JOSEPH R. THOMPSON MM3c(T)

CLYDE W, THRASHER SFlc
Cub"




JAMES E. THOMPSON

WILSON B. THORNE Slc 'Red'



WALTER W. THOMAS
Ptrlc
Tommy


LLOYD M. THOMPSON "Tommy"

GEORGE R. THROWER



CARL B. THOMPSON
CM3c
"Tommy"


JOSEPH W. TRIPP, JR.


JOHN W. TUZUNEO
CM3e

INGVALD VESPESTAD BM1c

GEORGE W. TROLSEN MM1c


EDWARD W. TYSON Ptr2c
"Tyo"

HOYT G. VICK "Poppy

GEORGE R. TROWBRIDGE MME1C "Big Indian


CHARLES M. UNDERWOOD BMIc
"Undy"

WILLIAM D. VICKERS M2c
"Bill"

HAROLD E. TROY MMIC


JORDAN W. UNDERWOOD "CM1c

LEE C. VINCENT EM1c


FLOYD L. WADDELL. MM1c



Left:
JOSEPH L. WHITAKER SFic
"Lawson
ChARLES C. WHITE, JR.
CMMS
"Nigger"

Right:
HERMAN J. WHITFIELD MME1c
"Whit"
FRANK E. WHITTAKER
MMEIC
"Whit"


Left:
GRANT W. WHITE
SK2c
"Paris"
o. W. WHITE $\operatorname{CCM}(A A)$

Right:
LUTHER E. WHITTLESEY PhM3c "My Boy"
KENNETH E. WILHELM CM3e
"Big Gut"


John d. Williamson
CCM(AA)
"Bama"
BILLY L. WILSON MMEIC

HOWARD WILSON CM2e "Cat Fish"
harold O. williams
SFlc
"Willio"


LYLE C. WILSON MME2C

WALKER G. WILSON MMEIC



Members of the Twenty-Seventh Construction Battalion were recruited from many sections of the United States. On the following pages their names and addresses appear in alphabetical order.

10 5 ?
ABBOTT, WALTER J., SK3c, 174 Burrington St., Providence, R. I. ABRAMS, RALPH J., CM2c, 1105 W . California SD., Oklahoma City, Okla,
ADAIR, ANDREW M., WT3c.
ADAMS, GEORGE I., CM1c.
ADAMS, FORREST W., MM3c, $5651 / 2$ N. Main St., Brewer, Me.
ADAMS, LIMUEL C., Bkrlc, Rt. 1, Northport, Ala. ADAMS, MILTON H., SK3c, 469 Dayton Ave., St. Paul, Minn.
ADOLPHUS, AMOS G., BM1c, Box 46 , Rockport,
AHER. EDWARD P., MME2c, 539 Jackson Ave., New Orleans, La.
AKERS, ROSCOE T., MME2c, Rayland, Ohio.
ALBERTS, CHARLES W., Slc, Rt. 2, Bronte, Tex. ALDRICH, GEORGE S., BM1c, Marine City, Calif. ALDRIDGE, FRANK W., SCIc.
ALLEN, EDWARD L., JR., Slc, 411 E. Amolia St., Orlando, Fla.
ALLEN, JAMES E., MMIc, 204 Fourth St., Alexandria, La.
ALLEN, JIMMIE C., CM2c, Trenton, Tenn.
ALMEIDA, JOSEPH C., Sle,
ANDERSON, ALDEN H., $\operatorname{CCM}(A A), 2506$ Rio
ANDERSON, DOYLE S., $\operatorname{CSF}(A A)$, Rt. 4, Lufkin,
Tex,
ANDERSON, EARL A., SK2c, 4608 E. 57 th St. Maywood, Calif. 1 ANDERSON, EDWARD I.. MME2c, 51 Cyrus, Valparaiso, Ind. Mont.
ANDERSON, FRANCIS M., SK2c, 588 Park Pl., Brooklyn, N. Y.
ANDERSON, HORACE M., CCM.
ANDERSON, JAMES C., SFIc.
ANDERSON, PHILLIP H., BM2c, 2945 Garfield Ave., South Minneapolis, Minn.
ANDERSON, TEX C., CM1c, 3902 Sonora St., Dallas, Tex.
ANZOVINO, JOSEPH A., MMEIc, 23 Beekman Ave., North Tarrytown, N. Y
APRIL, AUTHUR D., MME3c, 272 E. Merrimac
St., Lowell, Mass., MME3c, 272 E. Merrimac
ARCHAMBAULT, ROLAND, MM3c, 264 W. Sixth St., Lowell, Mass.
St., Lowell, Mass.
ARCHIBALD, GLENN N., Bkr3c, 14218 Crescent Dr., Detroit, Mich. A., JR., CM2c, 1810 Alvar St. New Orleans, La.
ARMSDEN, WILLIAM A., M3c, 4 Webber St.
Malden, Mass. CMM, 315 S. Randall, Elk City.
ARNEY, JOHN T., CMM, Okla.
ARNOLD, RANEY L., CM2c.
ARNSPIGER, WILLIAM D., MMIC.
ASHLEY, ALVIN G., MME2e, Orlando, Okela.
ATCHISON, JOHN S. CM1c.
ATWELL, WOODROW W., CM3e.
ASHTON, CHARLES J., M3c, 1007 Fith Ave.
Now Brighton, Pa.
AUSTIN, GIBSON P., MM2c.
AUTON, WILLIAM E., EM2c.
AYERS, JAMES H., JR., CMMA(AA), Box 173
AYERS, JAMES H., JR., CMMA(RA), Box
Pampa, Tex.
BACKES, EDWIN C Ptrle, 2644 Myrlle St., New
BACKES, EDWIN C., Ptrlc, 2644 Myrtle St., New Orleans, La.
BAGBY, GILBERT D., $\operatorname{CSK}(A A), 111$ Suttor St.
BAILEY, WALTER J., CM3c, Rifton, N. Y
BAIRD, STAMPLEY M., SF2c; 638 Graham St.
Stephenville, Tex.
BAKER, ARTHUR E., SF3c, 6912 S.E. 52nd St. Portland, Ore.
BAKER, BROOKS H., CCM.
BAKER, CLARENCE H., SF2c
BAKER, CLARENCE W., SFlc, 1101 N. 48 th St., Milwaukee, Wis. BAKER , CLIFTON W., CM3c, Box 350, Kilgore, Tox.
BAKER, IOE "C," MM2C.
BAKER, KENNETH B., SCIC.
BAKER, KENNETH B., SCIc.
BAKER, ROBERT W., SF3c, Main St., Chatham
Mass.
BANACH, ALEX J., CM3c, Main St.e Housatonic,
BARQNESI, RALPH H., MMEIc, 42 Thames St. Norwich, Conn.
BARNES, ARTHUR L., StM1c
BARNES, CHARLES R., CM2c, Rt. 1, Cartors Creek,
TARNE, MAURICE H., JR., SF2c.
BARNETT, HANSFORD E., MMIC, 633 Jane St. Charleston, W. Va.
BARROW, JOHN R., EM2c. 153 Division Ave., S-n
Antonio, Tex,
$\mathrm{BASCH}, \mathrm{BOBERT}$
O., CCM(AA), Box $210, ~ R t, ~$
I,
BASCH, ROBERT O., CCM(AA), Box 210, Rt, 1,
Pass Christian, Miss.
BASS, DAVID J., CM1c, 1421 17th Ave., Meridian,
BASS, LEONARD C., EMIc.

BASSIN, CHARLES, Slc, 2509 Pingree Ave., Detroit, Mich
BASSO, CHARLES A., CM2c, 935 Migeon Ave.,
BATES, CHOICE E., SFle, 208 Anthony, McKinney,
BATH, THEODORE L., JR., SKlc, 312 W. 13 th St., Tulsa, Okla.
BEALE, WAYNE E., CEM, 1924 Schiller St., Litlle Rock, Ark
BEASLEY, JESSE J., S2c.
BECK, THERON C., CMME(AA), Rt. 3, Ralph, Ala. BECKMAN, DONALD J., MM3c, Rt. 3, Bellevue, Ohio.
BEILE, ERNEST E., PhM2c.
BELEW, JOHN W., SF2c.
BELL, EDWARD W., SF2c, 1002 S. Rock Island St., El Reno, Okla.
BELOTE, JOHN F., EMIc
BENCWENGA, ANTHONY M., CMIc.
BENDIX, PAUL W., CM2c.
BENDIX, PAUL W., CM2c.
BENNEDICT, EDWARD A., CM3c, 201 E. Texas St., Denison, Tex.
BENGLIS, GEORGE A., SF2c.
BENNETT, CLYDE A., SFlc, Des Moines, N. M. BENNETT, RAYMOND M., MME2c, Migratory BENNETT, ROY A., SKDle, Rt. 2, Amber, Olda. BERKOVITZ, MORRIS B., CM3c, 808 Olympic St., Nashville, Tenn.
BERRY, RICHARD L., CM1c
BERRY, ROBERT H., MMEIc, Marietta, Tex
BERRY, WALTER O., CM3c, 449 S. Broad St.,
Fremont, Neb. Flint, Mich
BEVERIDGE, PAUL F., HA2c, 629 Fourth St., Lyndhurst, N. J.
BIBB, GEORGE MATTHEW, CMIc.
BICHSEL, FLOYD L., MME3c, Rt. 2, Box 297, Amarillo, Tex.
BIDDLE, RAY B., CCM.
ILL, PAUL, W., Slc, 801 N.E. Seventh Ave., Ft, Lauderdale, Fla.
BILTON, L. T., CM2c, Gen. Del., Glenrose, Tex, BISENIUS, GEORGE N., Y2c, S02 William St., East Orange, N. J.
BITNER, GERALD W.. Slc, 11212 Vernon Ave., Chicago, III. W.. Slc, 11212 Vernon Ave., Tulsa, Okla.
BLACKBURN, LOUIS F, CM3c.
BLACKWELL, HUGH A., EM2c, 734 S. Olympia, Tulsa, Okla.
KLAKE, FRANKLIN E., SF3c, Rt. 5, Hot Springs,
BLAZER, HENRY H., CCS, 1000 Carolyn Ave., Nashville, Tenn
BLEDSOE, BILLY L., CM2c, 319 Second St., Trenton, Tenn.
BLEES, MATHEW, SFlc, Fred, Tex.
BLOOMFIELD, DONALD G., Cox., 143 S. Orange St., Rialto, Calif.
OOATMAN, DEWARD W., EMIc, 125 Watson St., Corpus Christi, Tex,
EODIN, CLARE W., BM1c, Rt. 2, Washburn, Wis.
BOLEWARE, ROBERT E., SF3c, Box 442, Brewton, Ala.
BOLIVER, CLIFFORD A., WTIC
BOLLAN, CYRIL H., BM2c,
BOLZ, JOSEPH E., MME2c, Rt. 1, Olpe, Kan.
BOMAR, WILLIAM R., CCS(AA), Highway 281,
Three Rivers, Tex. BONDURANT, ARTHUR M., CCM(AA), 720 Tulane St., Houston, Tex.
BOOTHE, CLYDE A., SF2c.
BOSTICK, JULIUS E., Ptr3e, 706 Fourth St., McComb, Miss.
BOSWELL, JAMES W., CCM.
BOUDREAUX, MURPHY J., EM1c.
BOUMAN, WILLIAM C., MME3c, 9612 Croesus Ave., Los Angeles, Calif.
OURLAND, LELAND S., Ptrlc, 408 W. 16 th , Ada, Okla.
BOWEN, ELGIN M., SF2c, Rt. 2, Somerville, Ala. BOWERS, OTTO W., SF1e, 401 Liberty St., Findlay, Ohio.
WMAN, CLIFFORD D., CM1c, Rt. 2, Bogue BOXMAN, ARNOLD A., MME3c, 3039 McDonald St., Bronz, N. Y.
BOYD, ALVIN B., SIc
BOYD, LAVERN W.. M2c, 2135 N.W. 11th St., Oklahoma City, Okla.
BOYLE, GEORGE J., SF3c, 459 61st St., Brooklyn, N. Y.

BOYLE, HAROLD R., MM3c, Levelland, Tex.
BRADFORD, ARRIE, CBM.
BRADLEY, EMILE T., SFlc, 36 Pontchartrain Blvd., New Orleans, La,
BRYAN, ALBERT G., Ptr2c.
RRYAN, CLAUD K., CM2c.
BRYAN, JESSE D., MME3c, Rt. 1. Hamburg. Ark.
BRYANT, WALTON E., CM1c, N. Main St., Grand Saline, Tex.

R 0

## BRYANT, WILLARD L., MM3c

BUCARO, ROY, CM3C
BUCK, JESSIE D., CM2c, Rt. I, Decatur, Tex
BUCY, JOHN T., JR., WT2c, 313 S. Third St, Duquesne, Pa.

JAMES R., EM2c.
BUJNOWSKI, JOHN A., MME3c, 1655 N. Paulina St., Chicago. III.
URCHELL, CECII O., Flc.
BURKS, VERNON W., EM2c, Counce, Tonn.
BURNETT, FARRELL E., EM2c, 1621 Bass Ave, Columbia, Mo.
BURR, HARRY, JR., WTlc, 924 Main St., Boonton,
N. J.
BURRIS, ROBERT L., SFlc, 1118 Utah St., Houston,

Tex, RUTLER, ROLLAND P.. GM2c, Box 34, Bisbee, Ariz.
BUTLER, WARREN E., BMIc, Box 68, Allen, Okla,
BUTTLER, ANDREW W., SF2c, 610 Duncan St., Corpus Christi, Tex.
BYARS, LEONARD L., CSK, Kaufman, Tex.
BYERS, ODIS, QMic, 4303 Poinatta Dr., Forl BYRD, JOHN W., MIc, Rt. 2, Blaine, Tenn.
BYRUM, ARTHUR G., CSF, 3637 New Hampshire
BYRUM, ARTHUR G., CSF,
CADE, RAYMOND W., CCM
CADE, RAYMOND W.
CAGLE, JOEL W.. Slc.
CALHOUN, CORY L., MMIC.
CAMPBELL, GEORGE A., MIc, 510 Eddy St. Quanah, Tex.
CAMPBELL, JOHN W., CMIc.
CAMPBELL, HOMER L., Bkrlc, Box 305, Amherst,
CAMPBELL, HOWARD G., EM2c, 524 N . Maple St. Harrison, Ark.
CAMPBELL. LUDENE B., MM3c, Rt. 2, Emmett. Idaho.
CAMPBELL, TRUETT, PhM2c
CANTRELL, RAYMOND L., SF3c, 235 Boscobel Hgts. Apts., Nashville, Tonn.
CAPELL, LLOYD W., CF3c, 17344 Cardoni, Detroit,
Mich. AZPS
Mi, SF3c,
CAPPS, JAMES W., MMEIc, 335 N. Greenleaf,
CARDOZA, FRANK E., MME3c, Box 643, Rosewood, Calif. Galveston, Tex. CARLISLE, ALBERT B., EMIc, Rt. 1, Collins, Miss. CARLSON, FRANK M., SFlc, 3101 Chapman St., Houston, Tex.
Tex.
CARMICHAEL, EUGENE, CM2c.
CARNIEWSKI, JOHN J., MME3c, Rt. 1, Corry, Pa.
CAROTHERS, FAY L., Ptrle, 1924 S. Main St, Liberty, Tex.
CARR, WILLIAMM W., CCM, Box 25, Shoshone,
CARTER, GEORGE L., CSE, Box 523, Refugio, Tex.
CARTER, WILLIAM L., SFlc, 2387 Sadine Pass, Beaumont, Tex
CARTWRIGHT, CECIL G., MM3c, Rt. 5, Muskogee, Okla. CECIL B., CMIc, 411 Jackson St., Tupelo, Miss. C . CM3c, Rt 5 , Box 316 , Litte CASEY, ELBERT N., CM3c, Rt. 5, Box 316, Litle Rock, Ark.
CASEY, GEORGE K., Y3c.
CASHION, GENE, MMEIc, Hamilton, Ala
CASIDAY, JAMES M., CBM(AA), 1487 Victor St.
Momphis, Tenn.
CASSARLY, WILLIAM A., MME2c, 522 Second St., Piteairn, Pa.
CASWELL, CHARLES N., MME3c, 703 Atantic, Milford, Mich.
CATES, IAMES p., MM2c.
CAUGHRON, RUSSEL H., SF2c, Guymon, Okla.
CAUSEY, IRVIN L., JR., EMIc, Rt. 1, Box 319 , Lake Providence, La.
CEARLEY, VERNON G., SK2c, 4615 Fannin St. Houston, Tex,
CHAMBERLAIN, GUY B., CCM(AA), 1001 S. Atlantic Blvd., Alhambra, Callf, 411 Jerome St. Texarkana, Tex.
CHAPMAN, JASPER N., Ptr3c.
CHARLTON, WILLIAM G. CY
CHEADLE, EDWIN R., $\operatorname{CSKD}(\AA A), 1716$ S. Vietor,
Tulsa, Okla. JOSEPH M., CM2c, 5014 How'rd
CHIANTELLA, Ave., New Orleans, La.
CHIDESTER, CLARENCE, PhM2c.
CHIMENTO, CHARLES, SF3c, Box 42, Harvey, La CHOAT, LAURENCE W. EM2c.
CHRISTNER, GERALD M., CMM.
CLANCY, MARTIN A., MM3c, 328 Circuit Dr, Roseville, Calif.
CLARK, PAUL Y., CM2c, Blue Mountain. Miss.
CLARKE, JAY G., SF2c.
Mountain, Mich, Tenn.

CLOSNER, CROCKETT I. CMIC.
CLYBURN, WOODROW W., FLC
COCHRAN, ROBERT b., CCM(AA). Gen. Del. Boston, Ga.
COCKERHAM, EUGENE V., MME3c, 1315 E. John COCKERHAM, FL, Worth, Tox. W., MME3c. 1113 Kings highway St, Ft. Worth, Tex.
COENEN, RICHARD S., MME1c, 210 w . Seventh St., Kaukauna, Wis.
COFFEY, AUSTIN D., CM3c.
COLL, ELLBERT F., SEJC.
COLE, GIDEON CC.. SKDDe, 2109 New Boston Rd. COLEMAN, GARLAND s., Cox., Chapel Hill, Tenn.
COLEMAN, WARREN E., PhMle, 137 N. Third St. Oskaloosa, Iowa.
COLLARD, WILLIAM B., MME2c, 1330 S. State St., Syracuse N. Y
St., Syracuse, N. Y.
COLLIER, JOHN A., CM2c, Petty, Tex.
COLLIER, JOHN A., CM2c, P
COLLINS, WILLIAM P., CM2c, 61 Grove St., COLVIN, CLARENCE H., SF3c, 569 E St., Linton,
COMEAUX, LLOYD L., MIC, Rt. 1, Box 16 , Maurice, La.
CONDON, IVY J., SF3c.
CONLEY, BENJAMIN C.. CCM
CONNELL, SAMUEL W., JR., MME3c, 1232 Hoyt Ave., Everett, Wash.
CONNER, WILLIAM P., MME3c, Deer Creek, Minn COOK, BEN E., MM2c, 120 Scott St., McComb Miss.
COOK, GEORGE R., CCM, Jewett, Tex.
COOK, GEORGE W., CM1c, Box 3003, Lowell OOOK, HERBERT M., MMIc.
COOK, LESLIE F. I., CY(AA), 10035 N. Burr Ave.,
Portland, Ore, OPELND, Neb.
CORKERY, JOHN E., SF3c, 345 Marion St., Brook
Iyn, N. Y. Del Rio, Tex.
CORNELIUS, WALTER L., CCM.
COTTER, ASHBY M., EM2c, Box 2561, West McDowell Rd., Phoenix, Ariz.
COTTON, RAYMOND D., CCM.
COUCH, BOONE, MMIC.
COUCH, ELBERT, CM2c, Gadsden, Ala.
COUCH, LEONARD I., CM1c, 611 S. Pottenger St Shawnee, Okla.
COURSEY, PETER C., SF1c, 5122 Tchoupitoulas, COWDEN, HUBBARD C., CMIc, 1010 Fondulac, Muskogee, Okla. COX, HOLLIS W., JR., MM1c, 4414 Victor St., Dallas. Tex
Dallas, Tex.
COX, RAMOND R., MM3e.
CRADDOCK, WILLOW W., EMIc, 612 Second St. Jefferson Parish, Rt. 2, Now Orleans, La.
CRAUGHEN, MICHAEL T., CMIC.
CRAWFORD, JAMES C., SC2c, Rt. 3, Ada, Okla. CREAN, PATRICK J., PhM2c.
CREW, ERNEST E., Bkr2c, Rt. 1, Box 11-B, Saladad, Calif.
CROSSNO, JAMES A., CM1c, Box 468, Paris, Ark CROW, MAC HENRY, CCM(AA), Natchitoches, La. CROWE, HANSELL M., SK3c.
CRUM, LEWIS D., Ptr3c, 1014 S. 28th St., Birmingham, Ala.
CRYSLER, GEORGE T., EM1c, Box 1069, EI Paso, Tex.
CULPEPPER, JAMES P., $\operatorname{CCS}(A A), 206$ Fith Ave. Meridian, Miss. CULVER, PAUL C., SF2c, Rt. 2, Box 121, Pratt ville, Ala.
G., CMIc, 311 Carroll St. Youngstown. Ohio,
CUNNINGHAM, EDWARD T., PhM2c, 654 Dahil Rd., Brooklyn, N. Y.
CUPELL, LeROY, GM2c, Tulia Rt., Silverton, Tex. CURLEE, ALVIN L., CM2c, 710 King St., Houston CISSON, LEO A.. SF3c, 6 City View St., Wor Dester, Mass.
DANCY, JAMES H., MME1c, Rt. 1, Stanton, Tenn DANEY, JOEL D., JR., Slc, Albion, Okla.
DANIEL, WAYNE A., EM2c.
DANIELS, ROBERT E., SIc, 250 Baldwin Ave. DARENBAIM, JOHN, CPhM, 46 Brooks Ave., Newtonville, Mass.
DARR, HARRY, IR, S2c.
DAVIS, FRANCIS F., CM2c, 406 S. Cooper, Arling. ton, Tex.
DAVIS, I. B., CCM.
DAVIS, JESA, CCM.
DAVIS, LYNN A., MM3c, 418 N. Prospect St.. Rockford, III.
DAWES, LUTHER, SF3c
DAWKINS, GEORGE C., JR., Sle, Rose Hill, Miss.
DEAN, JOE B., CEM(AA), 300 Hyde St., San Francisco, Calii.
DEAN, JOHN W., CEM.
DEATER, VIRGIL' J. MM3c, Kalkaska, Mich.
DeBONS, EUGENE' J., $\operatorname{CSF}(A A)$, Box 257, Paragould, Ark.
gould, Ark.
chester, N. Y.

DEESER, BYRON E., MME1c, 2339 E. Tusc. St., Canton, Ohio ${ }_{\text {D }}$ DELASHMITT, HOBERT F., Ptrlc, 2833 N.W. 16 th. Oklahoma City, Okla.
DENHAM, LYNDON C., CM3c, Acy, La.
DENI, FRANCIS I., SC3c.
DENNIS, CREIGHTON B.. CEM $(\AA A), 265$ West Hickory, Bastrop, La.
DI BELLO, LEONÁRD P., SIc, 339 Part St., Syracuse, N. Y.
DICK, RUPERT A., CM1c.
DICKINSON, JOHN E., CM2c, Gen. Del., Irving,
Tex.
ville, N, C.
DIEDERICH, LYLE F., CMIc, Box 251, Rockport, Tex.
DIMMICK, CLARENCE L., CEM(AA), I Columbus
Rd., Peabody, Mass.
Calif. WILLARD C., MME2c, Rt. 1, Swanton.
Ohio.
DONELSON, DANIEL S., EM1c, 3815 Monte Vista Dr., Chattanooga, Tenn.
DOUGLAS, WILLIAM E., BMIC
DOWNING, EARNEST R., BMIC, 117 W. Brady St., Tulsa, Okla.
DOWNING, GERALD C., Ptr2c
DOYLE, MARK W., Msmthlc.
DOYLE, WILLIAM E., $\operatorname{CSF}(A A)$, 55 Scofield St., Walden, N. Y.
DRAIMER, ALVIN G., MMIc.
DRAIMER, ALVIN G., MMIc
DUER, PHILIP M., SC2c, 1126 E. Sharp, Nash ville, Tenn.
DUGGER, HARRY E, CCM
DUMAS, JOHN H., SF2c, 1311 S. Eighth St., Lawton, Okla. ${ }^{\text {LUNAGIN, ELMO, CCM, } 1217 \text { Wyoming St., El }}$ Paso, Tex. DUNBAR, WESLEY DON, SFlc, 522 G St., Lawton,
DUNGAN, WILLIAM P., CM3c, Rt. 2, Wesson, Miss.
DUNN, JOHNNIE F., MMIC
DUNWOODY, ERNEST G., P. O. Box 2188, Beaumont, Tex.
DUTKO, PETER, Splc. North End Station, WilkesBarre, Pa.
DUWELL, JOE F., CM2c, Box 484, Vinita, Okla. EASTERLING, JESSE R., CCM
EASTWOOD, SAM H., BM2c, Box 668, Goose EATON, MARVIN J., SFlc. Box 441, Kermit, Tex, EBERLE, WILLIAM J., MME1c, 807 S. Third St., EBERLE, WILLIAM I., MME
Burlington, Iowa.
ECKARD, WILLIAM D., SSM1c, $7191 / 2$ W. Second St., Elk City, Okla. (n), CM2c, 2104 Mohegan Ave., Bronx, N. Y.
EDWARDS, GEORGE D.. IR., EM2c.
EDWARDS, DENVER D., SC2c, $13251 / 2$ N.W. Seventh, Oklahoma City. Okla.
EDWARDS, JOHN H., CCM.
EGELAND, WILLIAM B., SFlc, 135 Crescent Ave, Brighton, Staten Island, $N$. $Y$.
EGNER, WYATT, ( $\mathbf{n}$ ), MMEIc, McHue, Neb
EISENMAN, IRVING, SC1c.
ELDER, CHARLES H.. 303 Stevens St. Marshall,
TLIA, TONY N., MME3c, 113 E. Siventh St., ELLIOT, HARRIS L., SF2c
ELKINS, JAMES E., 31 Detroit Avn., Pittsfield. I1.
ELKINS, JAMES E., 31 Detroit Ave., Pittsfield. T1.
ELLARD, CLARENCE E., Rt. 10, Box 2322, HousELLARD, CLARENCE E., Rt.
ton, Tex.
ELLIS, GUY M., CM2c.
ELLIS, GUY M., CM2c.
ELIIS, NATHAN E., Fle.
ELLISON, JOE C., CM2c, Rt. I, Itasco, Tex
ELMS, JOHN R., CMIe.
EMBRY, CLARENCE A., CM1c, Rt. 1, Maramee.
EMMONS, WILEY C., SF2c, Rt. 1, Moselle, Miss EUGLAND, HENRY E., CMIc. ENGLISH, ERNEST E., SFle, 1 Grant St., Port Dickinson, N. Y.
ENGLISH, LEMUEL T., SF2c, Box 533, Comanche,
ENEX.
Miss.
Monroe, La, ENTWISTLE, JOHN E., PhM2c, 72 England S
Cumberland, R. I.
ERBACK, HARRY J., CCS. El Reno, Okla.
ESTES, LELAND L., CCM, 4105 Colgate St., Houston, Tex.
ETHERIDGE, EAGON A., SFlc, 515 S.E. 35 th Si. Oklahoma City, Okla.
EUBANK, FORREST P., SF2c.
EVANS, HORACE R., CCM, 2030 S. Ninth Ave., Birmingham, Ala
EVANS, WILLIAM E., MME2c, 2610 Cedar St., Abilene, Tex
EWAN, ALEXANDER L., MME1c, 307 Peshine
Ave., Newark, N. J.

FALBO, ALBERT L., CCM(AA), W. Martin Si.. FALIS, CARL T., CM1c, Rt. 3, Box 347. For Worth, Tex. EM1c, 513 S. 101 St Mc FARIAS, SAMUEL, EM1c, 513 S. 10th St., Mc Allen, Tex.
FARMER, CHARLES E., CMME(AA), 209 E. Peters Edinburg. Tex
FARQUHAR, WALTER A., 10812 S. Kingsland St. W, Los Anqeles, Calif.
FEIGENBERG, ERNEST L., CBM.
FEIGLER, ERNEST J., JR.
FEMATT, PAUL
FEMATT, PAUL E., 1204 Bayview, Wilmington,
Calif. FERGUS
FERGUSON, F., CCM
FERGUSON, OSCAR M., SFIc.
FERGUSON, JACK W., CM3c, Talogo, Okla
FERSTL, JOHN M., BMIC. 1124 Barclay, For FETTERMAN, JOHN, Y1c, 424 S. Fourth St., Dan ville, Ky,
FIELDS, BRUCE T., SF3c, $613 ~ F t . ~ W o r t h ~ C l u b ~$ Bldg., Ft. Worth, Tex.
FINCH, LEONARD T., MME3c, 3114 Pillsbur
Ave., S. Minneapolis, Minn.
INDLEY, WILLIAM W., SF3c, 1322 Sixth St,
Loraine, Ohio.
Birmingham, Ala., EMIc, 3428 Ilth Ave., N.
FISCHER, MORMAN A., SF2c, 1310 Elgin Ave.
Forest Park, IIl.
FISHER, ROGER W., EM3c, 422 Woodland Ave.
FLEMISTER, PHILO E., SF2c, 603 W. Waldon St. Fresno, Calif.
Vinita, Okla. $\operatorname{CCM}(A A), 501$ S. Miller Vinita, Okla.
FOISTER. JOHN J. BMIC.
FORD, JOHN L CMIC MME2c, Comanche, Okla
O., CMIC, P, O. Box 145, Crystal

FORKAS, JOSEPH, (n), MME3c, Witherbee, N Y
FOSTER, ORIEN, (n), MME3c, Witherbee, N. Y Detroit, Mich.
FOSTER, PARKER, ( n , Cox., Burnsville, W Va
FOSTER, RUFUS L., MME3c, P. O. Box 33, Piocho
EOUSEL, JOHN C
FOWLER, EDWIN B., CCM.
FOWLER, LEO A., CMle, 309 Mill, Memphis. Tenn.
FRANKLIN, GRADY W., SF2c.
FRASER, WILLIAM J., MME2c, 1310 N. 59th Ave. FRAZIER, MERLO D., MME2c, 1313 N . Independ ence, Oklahoma City, Okla.
FREDERICK, FRANCIS R., 312 S. St. Balerio Abbeville, La.
FREEMAN, THOMAS E., $\operatorname{CSF}(A A), 2004$ Third Ave., Dallas, Tex

## FREEMAN, WILLIAM 'B," CM3c.

FREEZE, ALLEN L., CM2c, 316 S. Fredonia St. Nacagdoches, Tex.
FRENCH, CHARLES H., MMI
FREY, FALPH W., Slc, 3623-A Gustino, St. Louis,
FRIEND, VICTOR J., S1c, 308 Chestnut St., Salem
Va.
FRY, RALPH N., CM1e.
FUCHS, HERMAN O., EM1c, Oxford, Neb
FULTON, GEORGE T., CCM(AA), P, O. Box 273 N. McAlester, Okla.

FURLONG, HAROLD J., Bkr2c, 1710 Religious St. Now Orleans, La.
GAMES, 1
GALLAGHER, JOHN F., SE2c, 405 East Ave.
Perth Amboy, N. J.
GALLOWAY, RAY D., CM2c.
GALUP, ARTHUR J.. SIc. 2206 Madison Sq. Philadelphia, Pa.
GALVIN, ARMIN F, M2c
GANN, ALVIN C., SF2c, Box 84, Muskogee, Okla
GANNAWAY, MELVILLE T., SFlc, 304 W. Ninth
St., Austin, Tex.
GARCIA, ALEXANDER H., SF3c, 2113 N. Calhoun
Ft. Worth, Tex.
GARCIA, EDDIE, (n), SF2c, 1406 Gregg, Houston,
GARCIA, PAUL M., SC2c, 1308 Forsythe St. GAROFALO, ANTHONY, QM2c.
GARR, VERNON C., SC2c.
GARRETT, ALBERT H., SFlc, Ninth and Kauff mann, McCamey, Tex.
GASSIE, JOSEPH H., CMIc, 429 E. Vermillion St. Lafayette, La.
GATTON, AUSTIN E. J., SF2c, Rt. 1. Grandview, Tex.
GELB, SOL, S1c
GENTRY, ADMIRAL D., QM2c
GEORGE, WILLIAM E., Sle.
GERACI, LAWRENCE, (n), Sle, 534 N. Noble Ave. Chicago, 11.
保. CECIL J. SIc.
Gibson, LAWERENCE E., Pirlc
GILBREATH, EZRA W., F3c.
GILCHRIST, GARLAND G., SE2c, Blair, Okla.
GILES, LEE T., Ptrle, Rt. 1, Overton, Tex.
GILLAM, DAVID C., WTIc.
GILLESPIE, CAL G., CMIc.

GILLEY, WESLEY W., MME2c, Azle, Tox
GILLHAM, FRED E., CM1c, Clifton, Tenn
GIIPIN, GEORGE P., CM1c, Mt. Pleasant, Tex.
GIONTA, ALFRED, (n), CClc, 705 S. Muskogee GIPSON, ROBERT L., MMIc.
GISSELL, JOHN M., MM2e, 125 St. Phillip St. Charleston, S. C.
GLASS, FRANK L., SF2c, Gallion, Ala
GLENN, JOHN W., Cox., 1020 E. DeSoto, Pensa-
GLENN, NICHOLAS R., MM2c, 4237 Chippendale
Ave, Philadelphia, Pa.
GLISSON, FELIX, MM2c.
GODDARD, ALEN F., MM1e.
GOEBEL, LeROY H., MME3c, Rt. 4, Cuero, Tex. GONZALES, CARY P., SC2c, Gen. Del., Wharton,
GOODE, GRANVILLE M., CEM, 808 Sylan Ave., Palestine, Tex.
GOODE, GAL E., SF2c
GORDON, ORAL E., CSK, 1950 Foll St., San Francisco, Calif.
GORDY, FRED L., CCM
GOWAN, PAUL C., MMEIc, Pioneer, La.
GRABOWSKI, HOHN, (n), SF3c, 13432 Baltimore
Ave., Chicago, III.
GRAHAM, CARL A., MME2c; Rt. 4 , Scott, Kan
GRAHAM, CARL A., MME2c, Rt. ${ }^{4}$, Scott, Kan. GRAHA.
Ala.
GRANITO, DOMENIC A., MM2C.
GRAY, HENRY E., Ptric, N. Geary St., Oklahoma City, Okla.
GRAY, JACK J., SIe.
GRAY, WILLIAM, ( $n$ ), SFle, Box 161, Lawton,
GREEN, DANIEL W., CMIC.
GREEN, HERSCHEL O., CMIC.
GRIFFIN, DOMAS P., CSF, Health Dept., Livings-
GIor, Ala,
GRIFFIS, HERSCHEL, Y., SFIC, Rt. 1, Potty, Tex. GRIFFITHS, FRANKIIN, EMIc, 137 N. Harris, Columbus, Ohio.
GRIGSBY, GUY, MM2c
GUICE, ED M., CMIC.
GUICE, HOWARD N., CBM, 212 S. Poplar St. GUICE, HOWARD N., CBM, 212 S. Poplar St.، GUILIATT, ROBERT
UILLIATT, ROBERT L., SC3c, 2701 Bristo St., Omaha, Neb.
GUNN, LERO, ( n ), CMIC, Rt, 4, Waco, Tex.
GUYER, JOHN R., GMIC, Box 185, Friona, Tex. GUZEWICZ, EDWARD A., Slc. E. North St., MaqHADLE, Ark.
HAGAN, GEORGE H., SKDle, 114 N. Topola Ave., Wichita, Kan
HALL, RALPH F., 1832 L St., Lincoln, Nob.
HALLIBURTON, BOBERT, CM3c, Box 26, Huther-
HALPER, SAMUEL H., CCM, 805 N . Union St., Natchez, Miss.
HALPERN, IRVING W., CM3e, 623 Casanova St., Bronx, N. Y.
HAM, CLARK F., MM1c, Box 94, Monticello, Miss. HAM, HAMILTON M., $\operatorname{CSF}(A A)$, Jasper, Tex.
HAM, HENRY O., GM3c, Gon. Del., Albany, Tox.
hamby, VERNON E., CSF, Gen. Del., Wolsh, La.
HAMILTON, HAROLD G., CCM.
HAMILTON, JEROME D., CMIC.
HAMM, JOHNNIE E., SF2e. $n$, SIc, 5807 Addison
St., Philadelphia, Pa,
St., Philadelphia, Pa,
HAMMOND, LOUISE, MIc.
HANNA, ROBERT, Fle.
HANSEN, ROBERT J., MME2c, Grant Ave., Plainfield, iv. J.
HANSFORD, " I " "B," Lueders, Tex
HARE, GLEN E., CCM.
HARBERT, ARTHUR H., CEM(AA), 1000 Leo Ave.,
Port Arthur,
HARDIE, CHARLES F.
Ave., New Orieans, La. SMe, Bradshaw, Nob.
HARLOW, WALTER D. SF3,
HARMON, CLAUD I., SIC.
HARPER, JAMES P., CMIC.
HARRIS, CLYDE A., CM2c, RL. 1, Frisco, Tex.
HART, ALPHIA, Ptric. EMIc, 225 N. Harrison St. HARRIS, SIDNE
Camden, Arlc.
HAYS, GREEN L., JR., HAIC.
HAWK, RUSSELL K., PhM3e.
HARRISON, DONALD R. MH1c, 1021 Fairview Ave.. Youngstown, Ohio.
HARRISON, RICHARD P., $\operatorname{CCM}(A A)$ ) Praitie Grove, Ark.
HASTY, JOSEPH W., SFlc, 1235 E. James St., Cleburne, Tex.
HATHCOCK, RUSSELL, BM2c, 610 N. Philadelphia Shawnee, Olcla.
hatley, LEO, ( n ), CM1c, 202 N. Ninth St., Okemah, Okla.
HATTON, TURNER W., CEM(AA), Rt. д, Box 18 , Tait, Tex.
HAUMPO, FAIN M., CM3c, Box 512, Mountain
HAVARD, "A" "G" C., MME2c, Rt. 1, Burke, Tex.
HAVRELLY, JOSEPH A., MM3c, 390 Terhune Ave,
River Edge P.O., Paramus, N. 1 .
HAWK, RUSSELLL K., PhM3e.

HAWKINS, OTIS S., SK2c, 410 Jennings Ave, Ft. Worth, Tex.
HAWKINS, W. O.. CM3c, Kingston, Okla.
HAWLEY, EDWIN, ( n ) CM2c, 304 Victoria St. Brownwood, Tex.
HAYS, NEAL C. EM3c, Box 154, Plains, Tex.
HEARN, JOSEPH W., CM2c, Rt, Oakland, II.
HEBBERT, CLARENCE W., MME2c. Box 553, HEBERT, RICH
HEDGES, ROBERT L., MM2c, Rt. 2, Cook Rd. Ft. Wayne, Ind.
HEFFERON, RUSSELL J., S1c, 327 Crowley Ave. Buffalo, N. Y.
HEFFHON, NILLIAM H., S2c, 613 University,
SYYacuse, N. Y. Ave., Chicago, III.
HENDERSON, COURTENAY B., MM2c.
HENDGES, CHARLES E., MM2c, 1017 Princeton Ave., Lansing, Mich.
HENRICKSEN, LEWIS C., SF2c.
HENKE, GAYLORD S., EM2c, W. Morrell, Jack-
HEND, MIX, ANDRES B., MM2c.
HENRY, FRED R.. SF2c, 3015 Keystone Ave,
HEROD, WALTER P., 816 E. Fourth Ave., Flint Mich
HERRERA, DANIEL D., Cox.
HESTAND, ART R., 1231 Tenth Avo., Bremerton,
Wash.
HERRING, CARROLL R., MM3c, $15011 / 2$ Morgan
St., Aberdeen, Wash.
burg, Mass.
HEWES, CHARLES D., SF2c, Rt. 3, Baton Rouqe.
hickman, james h., Alice, Tex
HICKS, BURNETT W, EM2c.
HICKS, JAMES H., MM2c.
HICKS, ROBERT E.: WT3c, Rt. 5, Stephenville,
HICKS, WILLARD E., CM3c, 108 N. Ash St, Carlsbad, N. M.
Hignight, Eugene V., Mmeic, Gen. Del., Har
lingen, Tex.
HIL., DAVID E., SK2c, RI. 3, Box 238, Talladega,
HILL, GEORGE H., SFIc, 6720 Ave. C, Houstom,
HILL. JAMES C., BMIc, 725 W, Richard St., Kingsville, Tox.
HILLLIARMES G., IR., CCM.
HILLARD, LLOYD C., ČM3c, 5 John Speer, Mason.
MILLMAN DONALD I, GM3C.
HINE, AULDEN E., CEM, 1242 Johnson SI., Jen-
HINKEL, SHELBY, SIMIC.
HIRSCHFELD, JULIAN E., SIC.
HLAVIK, JOE F., CMIE, Mathis, Tex.
HOAGLAND, RAYMOND S., MME3c, 150 Barnt Ave., Trenton, N. J.
HODGES, ANSIL V.. SFlc, Central Power light Co.. Harlingen, Tex.
HODGES, CLAUDE C., SIc.
HODSON, CHARLES W., CMM, 4306 Satro, Los Angeles, Calif.
HOFFMAN, RICHARD E., CMIC, 144 Kilburn Rd.,
Garden City, L. I., N. Y.
HOGAN, JAMES P. CMIc, East Side, Newport,
HOGLE, LON W., SFlc, 1205 Summit, Muskogee,
Okla.
HOISECK, FRED F., MME3c, 7418 S. Oakley Ave.,
Chicago, III.
HOITT, ROBERT J., CM3c. 112 Sagamore St.,
Quincy, Mass.
North, Provo, Utah.
HOLLIS. IAMES, EM2c.
HOLLOWAY, GLEN, CMIc, 1719 Cedar St., Van Buren, Ark.
HOLLOWAY, HAROLD E., MME3c, Línden, Iowa,
HOLLOWAY, SIIVER W.. BMale, 539 E. Main St., Nowbern, Tenn.
HOLLOWELL, LAWRENCE, APtr3c, 431 S . Martinson, Wichita, Kan.
HOLLYWOOD, FRANK E., CM3c, 86.08 57th Ave., Elmhurst, N. Y.
HOLT, GEORGE S.. SF3c, Gen. Del., Safford, Ariz. HOMICKE, ALEXANDER, MM2c, 711 N. First Ave. Duluth, Minn.
HOOVER, GEORGE A., MME2c, Junction, Tex.
TOPK:INS, RAYMOND, CM3e, Hudson, Colo.
HOPKIN, WALTER, SF2c, 118 Phoenix Teir., Sorinqfield, Mass.
HつOPER, CHARLES E., CM3c, Gen. Del., Somerset, Ky .
HOOPER, MILLARD H., CM3c, 815 Wick St,, Corinth, Miss.
HORNE, CLARENCE L., Std3c.
HORTON, ERNEST. MME2c, 4832 Lawnyiew St.,
Jacksonvillo, Fla,
HORTON, WILLIAM E,, CCM(AA), 302 Sycamore St, Abilene, Tex.
HOSS, NELSON P., BMIC, 18 S. 65ih West Ave..
Rt. 6, Box SOS, Tulsa, Okla.
HOULE, HARVEY G., Sp(M)2e, 392 Union Ave.,
Laconic, N. J.
hUBBARD, FRANK W., MMElc, 205 George 5 st , Greenwood, Miss.
HUDDLESTONE, FRED C., MM2c.
HUDNELL, GEORGE W., CM3c, Rt. 1, Elkhart, Tex.
HUFF, FBANK H., CMME, Star Rt., Rock Port
HUFF, JESSIE I., MMEIe, Walnut St., Vicksburg.
HUFF: MAGRUDER W., CCM, 700 Madison St.
N.W., Apt. 201, Washington, D. C.

UfFMAN, BLAZE D., SCIE, 22 W. Second St.
HUFFMAN, WILLIAM C., Sle, Guardian Rt. 6
Box 3890, Fresno, Calif.
HUGHES, ERNEST L., SF2c, Odem, Tex.
HUGHES, STEPHEN, CEM.
HUGHSON, DELBERT W., CM3c, 13054 Race St. S. Rockwood, Mich.

HULCE, SAMUEL RILEY, MME2c, W. Sixth St. Marion, Ind.
HULL, RICHARD K., MM3c, 725 Vanston Ave. Ferndale, Calif.
HULLETT, MELVIN R., CM3c, Rt. 2, Chickasha
Okla.
GUMENSKY, STEPHEN, WT3c, 1515 Boston Rd. Bronx, N.
HUMPHREYS, ROBERT L., SF3c.
HUNSPERGER, JAMES E., CM2c, Koshkonong, Mo.
HUNSPERGER, JAMES E., CM2c, Koshkonong, Mo.
HUNTER, DONALD R., CM3c, Rt. 3. Eufaula.
HUNEER, DONALD F
HUNTER, K. K., SC2c.
HUTCEINS, MITCHELI M., WTIe, P. O. Box 13.
Bradloy Junction. Fla.
HYDER, DONALD E., SFIc, Box 882 , Borger, Tex
IGNACZ, JOSEPH, CM3c, 2341 Valentine St. Toledo, Ohio.
INSKEEP, DOYLE, (n), Gen. Del., Borger, Tex.
IRWIN, HOWARD L., Ptric.
ISLEY, REUBEN J., Slc, 1107 E. Haskell, Tulsa,
JACK, BERNARD W., MMIC, 1133 S. First St..
Jacksonville Beach, Fla.
IACKSON, IOE M., $\operatorname{CSF}(A A)$, Cone, Tex.
JACOBSON, LUDVIG A., MM1e, 3317 97th, S.W., Seatile, Wash.
JAGERS, WILLIS A., उC3c, 419 Bennett St, Bos-
IAMES, ALLEC C., M3c.
JAMES, FORECST, M3C. CMM, Rt. 1, Winters, Tex.
JAMES, FORREST B., CMM, Rt, 1, Winters, Tex.
JAMESON, WILLIE D., Ptr2c. Rt. 5, Abilene, Tex. Southold, N. Y.
Southold, N. Y,
JARCHOW, LESLIE E., EMIc, Main St., Seymour,
Wis.
JARVIS, LEWIS M., Sle.
TARVIS, MAX A., IR., MM3c, Box 1227, Troup. JAY, ALMAN OTIS, CM2e, Rt. 1, Vanalstyne, Tex: JAY, OAKE R., Yle, 1444 Stone Ave,, Pueblo,
Colo IEFFERS, HERMAN D., SIC.
JEFFEREY, LEO P., MME1c, 120 Torrey Ave., Brockton, Mass.
JEHLE, CHARLES J., MMS2c, 116-35 202nd St, St. Albans, N. Y.
IENNINGS, WILLIAM M., CCM, 110 Pacific Ave.. JETER, JACKIE C., EM2c, Oho, Tex
IETER, JACKIE C., EM2 2 ,
MCHA, JOHN C., JR. FIC.
ILLEK, OSCAR G., CMIE.
JOHANSEN, ARVID N.. CM3c, 3527 W. Mclean
JOHANTGEN, WALTER F., CMIC, HL. 4, Box 796,
Tucson, Ariz.., MMEIc, 309 E. Fostor, Pampa, Tex.
Johnson, charles $W$., MMIc
JOhNSON, EARLING W., MME1c, 1120 Main, Sand
JOHNSON, EDWARD J., CMIc, Rt. 1, Brownwood.
JOHNSON, EDWIN B., 427 Murireesboro Rd.,
Nashville, Tenn.
JOHNSON, JOSEPH Y., CCM.
JOHNSON, RAYMOND L., SF3c. Box 217, RL. 7. Birmingham, Ala.
JOHNSON, WALIEA M., CM3c.
IOHNSON, WILLIAM R., CPhoM.
JOINER, BERT F., CCM(AR), Hancevi
JONES, ALLEN 3 ., SCIC,
JONES, ARDELL, MM2c.
JONES, BENSON M., SFle, Longviow Natl Bank,
Longview, Tux. M, SFIc, Longview Narl Bank
ONES, EDWARD F., SF2c, $1211 / 2$ W. 13th S:
JONES, JABEZ R., CCM(AA), Carthage, Ark.
IONES, JAMES H., CSF,
JONES, JULIUS A., CM2c.
JONES, LUTHER D., Msthlc.
IONES, OSWALD T, WT3e, R1, 12, Richmond, Va
JONES, ROBERT C. MM3c, R1. 2, Berwick. Pa.
IONES, ROY V., CMIe, Rt. I, Ponta, Tex.
ORDAN, CLAUDE E., EM2c, Rt. 3, Box 282 ,
JORDON, FRANK B., SFIc, 824 N. College, Shor.
man, Tex.
JOSEY, PAUL C., SF3c, 302 S. 21 st Ave., Hope-
OYCE, LEO A., CM3c, Waldwick Ave., Wald.

IURAK, LUDWIG C., CM3c, Ri, I, Subline, Tex JUREW, JOHN C., JR., SIc, 128 Newark Ave. KAISER, CLARENCE J., CM3c, 767 Jackson Ave. KAISER, CLARENCE J., CM3c, 767 Jackson Ave.
Memphis, Tenn. KAPLAN, PAUL L., 191 E. Third St., New York, KAPRINSKI, IOSEPH, ( n ), MME3c, Walnut St. Greenvale, N. Y
KAPROWSKI, ANTHONY, Cox., 251 Wallington Ave., Wallington, N. J.
KARSCHIMIDT, MICHAEL, CM3c.
KASH, PAUL B., CMle, Frenchburg, Ky.
KAUFFMAN, DOUGLAS J., Slc. Yorktown, Tulsa,
KAY, HORACE V., BMalc, S. Yor
KEARNEY, PHILIP F., SF3c, Box 315, Linden St.
Stoneboro, Pa.
KEATING, GEORGE C., SF3c, Rt. 1, Box 292, Ft. Worth, Tex.
KEELING, DAVID P., Flc
KEELING, EDGAR, ( n ), MME3c, Rt. 4, Akemak, Okla.
KEENEY, CARL E., MM3c, Seth, W. Va
KEESEE, EARL C., SF3c. MME3c, Rt. 1, Bradley.
Okla. RAYMOND W., MIL SFlc, 12 Winchester St Hartford, Conn
KELLER, WALTER H., Cox., 1614 Cornelia St., Brooklyn, N. Y.
KELLEY, ARTHUR R., MME1c, 206 E. Magnolia
KELLEY, MALLOY ROWE, GM1c, 4810 Carey St.,
Dallas, Tex.
KELLEY, RALPH L., MM2c, Box 23, Cherry Valley,
III. KELLY, ERNEST A., SF2c, 604 Louisville Ave. Monroe, La,
KELLY, GERARD M., SC3c, S. Jefferson Ave., New Brunswick, N. J.
KELLY, MATTHEW E., CEM(AA), Borger, Tex. KELLEY, ROBERT F., CCM(AA), 712 Pou St. Goldsboro, N. C,
KEMPER, HERBERT H., SF2c
KENDALL, LATTY F., M3c., 1010 Albany St., InKENNEDY, FRANK J.e Sle, 10 Jamaica Way, Jamaica Plain, Mass.
Oklahoma City, Okla.
KENNEDY, JOHN M., SIc.
KENNEMER, J. D., CM3c.
KENNY, FRANCIS EDMUND, SF2c, 171 Warren St., Glens Falls, N. Y.
W., MM2c, Fairmount Ave., ChatKERR, N. J.
J., EMle, Highland St., Cookeville, Tenn.
KERRIGAN, JOSEPH J., Slc, 14400 Potomac Ave. E., Cleveland, Ohio.

KERSEY, TOMMY K., Slc, 918 Krall St., Boise, Idaho,
KESTNER, JAMES C., MME3c, Rt. 1, Pollock, Pa. KETRON, ISAAC J., SC3c, Rt, 1, Kingsport, Tenn. KEY, RITCHARD B., CM1c, Gurdon, Ark.
IESCHE, GEORGE P., MME3c, Rt., Cleveland, KILLION, LENA C., $\operatorname{CCM}(A A), 1600$ S. Fillmore, (IMBO, CHARLES P., CM2c, 1015 Third Ave., S., Nashville, Tenn.
KING, ISAAC N., MIc.
KING, JOHN H., MM2c, 670 Spring St., Atlanta, GIN. KEMPTON K., EM1C.
KING, ODIS R., CM2c, Henrietta, Tex.
KING, ROBERT F., SF3c, 71 Coffey St., Brooklyn,
KING, ROBERT E., JR., SK3c.
KINLOCH, GEORGE G., CCM
KINNEY, RICHARD P., S1c, 4619 Thorburne St., Cincinnati, Ohio. MME3c, Mountainburg, Arlc.
KINNICK, LEON G., MME3c, Mountainburg, Arlc.
KINSEY, HARRY M., CM3c, 127 W. Sixth St., KINSEY, HARRY M.,
Michigan City, Ind.
KIRK, JAMES R., CMle, Rt, 2, Decatur, Ark
KISSINGER, CARL W., MMEIc, 14441 N. 21st, Ft. Smith, Ark,
KITCHINGS, BREWER C., Sle.
KIVETTE, WILSON, ( $\mathbf{n}$ )., GMIc, 1100 N. 24th St., Birmingham, Ala.
KLEPAC, JOHN A., CM2c.
KLEPAC, RUDOLPH, ( n ), SC2c, R1. 1, Odem, Tex.
KLING, WILLIAM E., SFIc.
Bronx, N. Y.
KLOTZER, SIDNEY, ( n ), CM3c, 51 Sheriff St., New York, N. J.
KNABE, RUBEN C., SF1c, Rt. 6, Little Hock, Ark. KNAPP, ROBERT G. MM2c, 1213 Fourth St., Moline, III.
CNIGHT, FRANK LEE, SK1c, 3524 N.W, 18 th St. Oklahoma City, Okla.
KNIGHT, SAM VAN, JR., Box 262, Rt. 1, McComb, Misa. SAM
KNOWLES, EDWIN L., $\operatorname{CCM}(A A)$, Walton St., KNOWLES, EDWIN L., CCM(AA), Walton St.,
Seabrook, N. H. KNOW, HAROLD L., Slc, 15 Maple Ave., CornWall, N. Y.
KOLBOW, RUSSELL H., 2698 St. Louis St., St. Louis, Mo, tady, N, Y,

KORNEGAY, HAVLE A., BM1c, Box 435, Rt. 3. Bessemer, Ala.
KOTLARSKI, JOHN, (n), CM3c, 66 Pebble St., Fall River, Mass. River, Mass.
KRAINA, WALTER, ( n ), SF3c, 525 17th St., TuscaIoosa, Ala.
KRAMER, WILLIAM J., 23 N. 13th St., Ft. Smith. Ark. FRANCIS K. CM3c, 408 Helen St KREGEL, FRANCIS K., CM3c, 408 Helen St. Camden, Ark,
KRONSCHNABEL, E. F., PhM2c, 734 Third St., Mensasha, Wis.
KRUSE, CARL W., CM3c, Marble Rock, Iowa KRYSZCZAK, STANLEY H., CM3c, 2840 N. Lawn dale Ave., Chicago, III.
KUCKER, HARHY R., MME3c, 339 E. 66th St.. New York, N. Y
KUEHN, LESTER A., Flc
KUHN, EMIL A., CM3c, 552 Essex St., Brooklyn KURTZ, OTTO E., CM3c.
KUTZAH, N., Slc.
LACKEY, CLARENCE W., CM2c, 1209 N.W. 23rd St., Oklahoma City, Okla.
LAGAT, FRANCISCO P., CM3c, Solsona I. N LAJOIE, CARLTON E., SF2c, 401 Chestnut St. Sprinqfield, Mass.
LAMBERT, LOUIS N., CMIC, 3309 W. Gadsden St., Pensacola, Fla.
LAMBERT, ROY E.; CM3c, Rt. 2, Camden, Ark. LAMBERT, ALBERT L., MME3c, 314 Moore St. Sedro-Woolley, Wash.
LAMBRIGHT, WILLIAM G., MMEIc, Rt. 2, Grapeland, Tex.
LAMM, JAMES R., CM2c, Georgewest, Tex.
LANDFRIED, VERNON H,, SF2c, 2608 Manning St., Ambridge, Pa
LANDIS, HAROLD E., CMIC.
LANDIS, RICHARD L.: CM3c, 572 S. 13th St.
LANE, WILLIAM J., SC3c, 181 Stanton St., WilkesBarre, Pa.
LANGAN, WILLIAM J., Sle, $117-59$ 140th St., S Ozone Park, N. Y.
LANGFORD, LLOYD B., Slc, $5221 / 2$ E. Goct St., Pensacola, Fla,
Pensacola, Fla,
LAPLACA, VICTOR M., CM2c, $117-52$ 143rd St. S. Ozone Park, N. Y.
LA HOSE, ADOLPHUS G., Sic, 4310 48th Ave. Woodslde, N. Y. 555 Ninth St Union City LASCO, JOHN F., Sle, 555 Ninth St., Union City
N. J.
LATHROP, LANE K., MM2C.

LAVAGNO, LOUIS E., CM3c, 5713 Hudson Ave. W., New York, N. J. N.E., Cedar Rapids, Iowa.

LAWSON, CARLSON W., GM3c.
LEACH, HAROLD B., BMIc, Box 395, McCamey.
TEAKE, JOHNNIE F., CM2c, Junction City, Ark
LEAKE, JOHNNIE F., CM2c, Junction City, Ark.
LEASE, CHARLES M., GMic, Mill Hollow Rd., LEASE, CHARLES M., GMIc, Mill Hollow Rd.,
Eureka Springs, Ark. Eureka Springs, Ark.
LEBLANC, ALFRED A., MM3c, 15 Webster St., Winchendon, Mass.,
LEE, HOWARD N., MME2c, 272 N. River St., Batavia, Ill.
LEE, PHILL O., Sle.
LEEMAN, GEORGE E., Jr., SF2c, 19 Neponset St. Revere, Mass.
LEFF, RLLAN, ( n ), Slc, 161 Clinton St., New York,
LEITCH, JAMES W., MME3c, 2310 Pacific Ave. Aberdeen, Wash.
LEITER, JACK L., Slc.
LEMON, ROBERT, (n), CM3c, 114 Gilmer St., Sulphur Springs, Tex.
ENLEY, PLUMMER S., CEM.
LENLEY, PLUMMER S., CEM. bury Park, N.J.
LESTER, CURTIS W., SFlc, Rt. 1, Box 2572, W Sacramento, Calif.,
LEWIS, MONTIE E., SF2c.
LIBERTY, GAGE C.: MME1c, 5332 Coney Rd,
LIGHT, IRWIN G.. MIc, 637 Sherman Ave. Evanston, III. G.4 MC, ${ }^{2}$, CMM, 1829 Charles St LILLEY, HUTSO
Houston, Tex.
LIND, EDGAR M., CM3c, RI. 5 , Omaha, Neb.
LINDGREN, ARNOLD "A," CM2c, 62 Front St. Fargo, N. D.
LINDER, JAMES W., MM1c.
LINK, ALFRED I., CM3c, 1041 Gimblin Ave., St. Louis, Mo.
LIVELY, WILLIE L., 2215 Shearn St., Houston, Tex. ILEWELLYN, WILLIAM G., CM3c.
LOBAUGH, FRANKLIN F., CM2c, Gen. Del., Pauls Valley, Okla.
LOCKE, JAMES R., MM2c.
LOCKHART, JOHN P., SFlc
LOCKWOOD, RAYMOND J., CM3c, 912 King Ave, Columbus, Ohio.
LOSEICK, FRANK T., JR., SF2c, 2721 Lavender St., New Orleans, La.
LOE, SAM JOE. St2c, 918 Park Ave., Corpus Christi, Tex.
LOERWALD, HAROLD R., CM3c, Herford, Tex. LOFTIN, PAUL W., CM3c, Rt. 2, Summerland,

LOMBARDI VITO A., CM3c, 331 Niles St., Eliza-
beth, N. I.
LONG, ROBERT G., EM2c, 804 17th St., Ensley.
Ala.
Ala,
LONG, SOLOMON E., F2c.
LOSCIALE, MAURO, SIC
LOVE, WILLIAM, CM1c, 402 S. Third St., MaGhee,
AUk, Bartlesville, Okla.
LUCYK, PAUL, (n), CM3c, 26 E. 104th St., New
York, N. Y.
LUDESCHER, CALVIN, SF2c, 4137 N. Eighth St., Philadelphia, Pa.
LOURD, ALTON I., CCM, 793 Julia St., New Iberia, La.
LUMMUS, BRYANT H., CM3c
LUONGO, JERRY G., Bkr3c, 23 Rose Ave., Newark, N. J.
LUTZ, RUSSELL D., CM3c, 715 Burlington Rd., Martins Ferry, Ohio.
YLE, EPPS ELLIS, CM2c, Cumberland City, Tenn LYNCH, CAROL, LEE, CM3c, 1403 Walnut St., Kenova, W. Va
LYONS, WALTER G., MME3c, 302 Beaumont Ave. YONS, WALTER G., MME3c, 302 Beaumon
Knoxville, Tenn.
YONS, WALTER J., CCM, Bernard, Iowa.
LYONS, WALTER J., CCM, Bernard, Iowa.
MacARTHUR, DAVID D., 68 Waterman Rd., Roslindale, Boston, Mass.
MACEY, MICHAEL E., Slc, 618 Second St., Dun-
MACH, W. J.
Melrose Park, III.
MACKEY, ORVAL
O., MME2c, 4124 Modlin, Et. Worth, Tex.
MAGHEE, KENNETH F., MME1c, 517 Curran Ave. Brookhaven, Miss.
MACDONALD, JOHN W., SIc
MAGILL, CHARLES V., CSF, 1201 18th, Corpus Christi, Tex.
MAGUIRE, EDWARD J., PhM2c, 11816 San Vincente Blvd., Brentwood Hghts., Los Angeles,
MAHAFFEY, BEN M., JR., SF3c.
MAHONEY, MATTHEW P., CM3c, 157 W. 106th St.. New York, N. Y.
MAIDEN, JAMES G., SF2c, 846 N. 15 th St., SeMADEN, Ohio, Gring, SF2c, 846 N. SIc, Box 1496, Jacksonville, Tex. Mille, Ind, ANDREW G., JR., Msmthle.
MALLIK, THOMAS, JR., CM3e, Rt. 1, Pitcairn, Pa MALONE, ERANK N., $\operatorname{CSD}(A A)$, 2505 Bridwell Wichita Falls, Tex.
MANDELL, GERALD, Slc.
MANGNANTI. ANTHONY F., CM3c, 493 Monroe St., Orange, N. J. SFIc, 1416 W. Bell, Houston MANN, GEORGE, MM3c.
MANSELL, ROBERT L., CEM(AA), 313 N, Pendell Cleburne, Tex.
MANZELLA, LOUIS J., CM3c, 114 14th St., BesseMARCZUKOWSKI. STANLEY, SF3c, 29 Sherman Ave., North Arlington, N. J. $11-09$ 33rd Dr MARINO, GEORGE, ( n ), SF3c, $11-09$ 33rd Dr. MARIORIA, VINCENT C., SFIc, 1131 Panama St., Houston, Tex.
MARION, LEE J., MME3c, 1010 25th St., N.W. Washington, D, C.
MARKHAM, CHARLES E., SFIc, Box 233, Spring Hill, W. Va.
MARSOLAIS, HAROLD G., MMEIc, 5 Arch St. Watervliet, N. Y.
MARSTON, SAMUEL J., $\operatorname{CCM}(A A)$, 17 Primrose
Ave., Box 783, Rf. 1, Crichton, Ala.
MARTENS, HARRISON J., Slc.
MARTINS, FINES C., CM2c.
MARTIN, GERALD D., SFIc, Box 217, Marksville, MARTIN, LAWRENCE W., CM3c, 18 Maple Ave. Port Richmond, N. Y.
MARTINDALE, JOHN E., SFle, 1804 Capital Ave. Housfon, Tex.
MARTOF, EDWIN J., CM3c, Box 164, Crucible, Pa. MASON, STANLEY R., MME3c, 39 St. Catherin St., Lakeport, N. H.
MASON, WILLIAM C., SF3c, 520 Ave. C. W. Bismarck, N. D.
MASSENGILL. JESSIE L., MME2c, Rt. 1, Harro gate, Tenn.
MATERA, JAMES D., CM3c, 611 Bay Ridge Ave.,
Brooldyn, N. Y.
MATHEWS, CHARLES T., CM3c.
MATHEWS, GEORGE H., MM1c, Box 412, Mc Camey, Tex.
MATHIS, ALFRED E., SF3c, 69 Belmont Ave. N. Plainfield, N. J.

MATHIS, JOE A., FIC.
MARTIN, GEORGE A., MME3c, 601 Balden Ave., N.E., Canton, Ohio. MARLIN, MURRAY M., SF3c, 671 Hendrix St, Brooklyn, N. Y.
MATTHEWS, CLAY J., MME3c, Rt. I, Smithville, Ark.
MATTHEWS, JOHN V., CM3c, 291 Orange St.
N.ATYI, STEPHEN, (n), MME3c, Ft. 1, Box 20-E. Perth Amboy, N. J.
MAULDIN, MARK J., SF2c, 1426 Berkley Ave. Bessemer, Ala.
MAURONER, FRANK D., CMIc, 201 E. Michigan St., Box 101, Hammond, La.
MAUSER, JOSEPH, ( $\mathbf{n}$ ), CM1c, 1590 Iminois St., LaSalle, III.
MAXWELL, HENRY Y., CMIC.
MAYO, HAROLD H., MME3c, 22 Liberty St., Everett, Mass.
MAYS, THOMAS C., SFlc, Ht. 5, Greenville, Tex. MAZZO, LEON N., CM3c, 501 E. 117 th St., New York, N, Y.
MCBHAYER, WILLIAM E., SIC.
McCAFFERY, ROBERT P., CCM(AA), 3014 Shore MeCAFFEREY, MARTIN E., MM3c, 4140 E. 76th McCAFFEREY, MARTIN
St., Cleveland, Ohio.
St., Cleveland, Ohio, M., CMIc, is Croatan Trail, Rollingwood, Portsmouth, Va
McCARLEY, THOMAS G., MM2c.
MCCARLE ,
MCCARTHY, LUKE K., MM2c, 51 W. Tremlett St., Dorchester, LUKE
McCARTNEY, RICHARD F., SC3c, Box 405, Alexis Rd., Toledo, Ohio.
McCLAIN, ROLLIN T., Massillon, Ohio
McCLUNG, LELAND H.. WTIc.
McCONNELL, CHARLES J.. CSF, 2253 Brentwood Blvd.. Brentwood, Mo.
McCOY, GERALD P., GM1c
McCRORY, CLARENCE C., SF3c, 411 Ave. D Dallas, Tex.
McCROSKY, KENNETH R., EM1c.
McCULLOUGH, GEORGE C., MMle, Ozark, Ark. MCDANIEL, ARTHUR B., CMle, Rosetia, Miss.
McDANIEL, LUTHER B., CM2c, Rt. 2, Pauls Valley
MeDONALD, ARTHUR M., SF1c, $5231 / 2-B$, Inde-
pendence Ave., Enid, Okla.
MeDONALD, CLIVE W., MME2c, 315 S. Eighth
St.. Independence, Kan. WT2c, 718 Hemlock St. Scranton Pa
MCDONALD, WILLIAM H., CMM, Polk, Tenn
McDUFFEY, SAMUEL E., QM3c
McFALLS, ROBERT L., CM3c.
MeGOON, WALLACE L., CM3c, Bristow, Okla.
McGRAW, TROY W., SK2c, Luther, Okla.
MeINTYRE, PHILLIP A., SFIc, 410 N. Broadway Marlow, Okla.
McKINLEY, DONALD M., SF3c, $3171 / 2$ N. Robert St.. Ludington, Mich
McKINNEY, WILLIAM A., Alc, 237 Summit Grove Park, Rochester, N. Y. STe Ri 5 Box 225 McKENZIE, DAV. Worth. Tex.
Ft. Ft. Worth, Tex.
MCLEAN, ANGUS D., MME2c, 7509 Wade Park Ave, Cleveland, Ohip. 1014 S. Edqefield MeLEOD, ERL
Dallas, Tex.
McMANUS, JOHN W MME1c, Mendaville, La
MCMILLAN, DOYLE, MM2c.
MENUTT, EVERETT E., MM2e, 1332 Christine,
Pampa, Tex.
MeQUEEN, JACK G., MM1c, 726-B Hampton Rd.
Dallas, Tex.
McQUILLAN, PATRICK P., SFlc,
MCQUILLAN, PATRICK P., SF1c, Ward St., Hacken Mack, N. J. AUBREY W., WTlc, 1402 N. Col lins, Okmulgee, Okla.
MEDDERS, AUBURN E., MME2c, Box 102, Rose dale, Miss
MEDINA, ELIECER, JR., SF3c, 2010 Beaumon Ave., McAllen, Tex.
MELDE, EDWARD B., MME3c, 933 S. Seventh St. La Crosse, Wis.
La Crosse, Wis. San Francisco, Calif
MENDELSON, ALEX, ( n , SIc, 5510 Stanton Ave. Philadelphia, Pa.
MERRIT, ED BROOKS, MME2c, Rt. 1, Kilgore, Tex METZLER, CLARENCE J., CM2c, Box 84, Rt. 5 Gainesville, Tox.
MEYERS, KELSEY H., SC3c, Ponchatoula, La
MILLER, FRANK E., SK3c, 13988 Prevost, Detroit
Mich. RANDOLPH C., EM1c, 1305 Harrison St.
MILLER, RODNET, Miss. D., MME2c, 210 S. Francisco Chicago, III.
MILLER, SAMUEL J., CCM.
MILLER, THOMAS J., JR., Ptrlc, 905 Denver,
Wichita Falls, Tex. Wichita Falls, Tox. $\quad$ MILZOW, FORREST ${ }^{\text {., }}$ MM2.
MING, FLOYD I.., CSF.
MITCHELL, CLARENCE D., CM3c, Box 389, Jenks. MITCHELL, FORD, CSF, 814 W. Hill St. KnoxMITCHELL, F
ville, Tonn.
MITCHELL, HOUSTON T., MME1c, Russville, AI, MOAK, LARKIN, EM1c, (n), Rt. 4, Bogue Chitio.
MOCCABEE, DEWEY, ( n ), S1c, 233 Wasaon St. Toledo, Ohio.
MOCK, SPENCER W., CCM(AA), Pfaftown, N. C MOFFET, FREDERICK G., MM3c.
MONROE, WILLARD T., SC2c, Rt. 3, Athens, Tenn
MONREE, WRANCIS X., SC2c, Rt, 3, Athons, Tenn Rochester, N, Y.

MOORE, EUEL L., SC3c
MOORE, FRANK L.. MME2c, Box 157, West St., MOORE, FRED W., CCM(AA), 411 Church St. Pelham, Ga
MOORE. HARVEY R., SF2c, 108 Brace St., Houston, Tox.
MOHEHzAD, WILLIAM C., Ptrlc.
MORGAN, DAVID D., F2c.
MOORMEIER, DONALD F., MME3c, Rt. 1 , Cort land, Neb.
MORAVEC, STANISLAUS, Slc, 13317 Durkee Ave. Cleveland, Ohio.
MORRIS, CHESLEY P., GM2c, 707 N. Seventh St. Carmi, III
MORRIS, JAMES K., CSK, 2713 N. Military, Okla-
homa City, Okla. MORROW, HARRY A.,
MOUNCE, McDAWS, (n), CM3c, Greggton, Tex MOUNCE, MCDAWS, (n),
MURDAUGH, EUGENE H., SIMle.
MURPHY, LEWIS C. EMIC.
MURPHY, RICHARD H., M2c, Arcadia, La
MYERS, RICHARD W., SSMC 3 c , 300 Kellis St., Ft. Worth, Tex.
NAGY, CECIL G., CCM, Bowman, Calif.
NEASE, VOLNEY W., CMIC
NEELY, POLK M., CM2c, Hornbeak, Tenn
NEFF, ROY G., SF3c, 1137 S. Garfield Ave., Bur-
NEIGHBORS, JAMES A., SF2c. Coffeen, III.
NELSON, ALLEN A., PhM1c.
NELSON, FRANK J., StMic.
NELSON, MILFORD A., SF2c, Railroad St., Lacona,
N. Y. MIER 416 Rose St

NEUMEIER, JACOB J., MMEIc. 416 Rose St. Kewaunee, Wis.
NEWMAN, A. TVID S2c. Cox., Rt. 3. Dandridge, Tenn.
TICHOLS, DEXTER S., SR., MMIc
NICKELSON, HARRY L., CEM(AA), 2708 Bomar
St. Ft. Worth, Tex. SF2c, 4616 Clendale Ct. Broply N. Y
NOBLES, ChARLES H., Ptrlc.
NOBLES, TREADWELL J., CM1c, 8511 Jeannette St. New Orleans, La,
NORRIS, JAMES L., Flc.
NORRIS, JOHNNIE D., CCM. CM1c, Salem, Ark.
NORTHCUTT, PENROD, (n), CM1c, Salem, Ark.
NOVAK, ERVIN, (n), M1c, Box 152, Pr. 2, Bicknell, Ind.
NUNNELLEY, HERBERT B., MMIC.
O'CONNELL, DANIEL B., WT2c, 1912 Clya Ave., Houston, Tex.
O'CONNOR, JAMES J., Sle, 11620 Buckingham Ave., Cleveland, Ohio. YIc, 33 Osborne St. O'CONNOR, OWEN W
ODMite Plains, N, Y. O., CM3c, 320 S . Oak St., ODOM, RICHARD W
O'DONNELL, GEORGE, PhMlc, 145 Washington St., Perth Amboy, N. J.
OLSON, SEVERT G., SFlc.
O'NEEL, CHARLES B., CMIc.
ONEY, JOHN E., CM3c, Dalhart, Tex
ORR, EDWARD J., Slc.
ORZALLI. THOMAS S., MME2c, 744 Hayes St. San Francisco, Calif.
OSBORNE, IOHN M., CEM(AA), 2109 Ninth Ave., S., Nashville, Tenn.

OSMUNDSON, LELENN N., MMElc, Adams, Minn D'TOOLE, EDWARD W., MMEIc, 8197163 rd St. Jamaica, L. I., N. Y.
PAGLIONE, FRANK T., SF2c.
PALENSKE, HAROLD O., GMIe. $\quad$ PALMER, GAMBLE J., CCM(AA), Rt. 1, Pharr, Tex.
PALMER, GAMBLE J., CCM(AA), Rt. 1, Pharr, Tex.
PARKER, HOMER C.. CM3c.
PARKER, HOMER C.. CM3c.
PARKER, MILO G., JR.. CEM, Fairmont Rd., Signal Mt., Tenn., JR., CE
PARKMAN, WILLIAM H., Ptr3c.
PARKS, JOE E., Ptrlc.
PARKS,
PARKS, WILLIAM C., BM1c, 196 Dress St., Houston, Tex.
PARSONS, CLIFFORD, Westhourne, Tenn, Bronson, Tex
PATTON, JOHN R., MMEIc, Wooster, Ark.
PAUL, ROY V., S2c
PAULSON, PAUUL, MME3c, 2518 Tratman Ave., Bronx, N. Y.
PAYNE, HUBERT L., MME2c, Mounds, Okla
PAYNE, J. C.. Sle.
PEARSON, ROBERT A., CMIc.
PEBSWORTH, LLOYD S., MM1C. 1329 Park St
ECK, EDWARD A., Jr., MME3c, 1329 Park St.
Attleboro, Mass.
MOBER
MME2c,
5144 Richmond St.,
Chicago, III. St, GORDON G., CBMA
PEERY, KENVIN W., Slc, Rt. 1, Payson, Utah. PERRY, THOMAS L., 146 Chestnut St., Rutherford,
N. J. PENNYMAN, EDDIE A., StMIC.
PERKINS, EDWIN B., $\operatorname{CSF}(A A), 2115$ Holliday.
Wichita Falls, Tex. MM3c, Box 91, Rochester, Tox.

PERRY, ERNEST E., MME2c, Rt. 3, BoX 410 PERRY, FLETCHER T., CCM(AA), $7041 / 2$ Wolle St. Little Rock, Ark
PETERSON, HOBERT G., SF2c, 500 N . Ionia St. Albion, Mich.
PETTIGREW, EMERY, BMIC
PEYTON, ROBERT, (n), CCM(AA), 3124 N.W. 26 th St., Oklahoma City, Okla.
PHILLIPS, CLIFTON L., CM3c.
PHILLIPS, PAUL F., MM3c, 335 Okamos St., PHILLIPS, PAUL F., MM3c, 335 Ok
Mason, Mich.
PLANK, ALDEN J., SIc, Middlebury, Ind.
PLANK, ALDEN J., SIc, Middlebury, Ind.
POPE, WINFRED M., CM2c, Arkoma, Okla
POST, LAWRENCE T., MM1c.
POWELL, VERNON F., MMElc, Gen. Del., Alyin
Tex.
POWELL, JAMES W., CM1c, 706 E. Second St Sheffield, Ala.
PRESSLEY, ROBERT C., BMIc.
PRICE, ANDREW M., EM1c, Temple, Okla.
PRINCE, J. W., BM2c.
PRINGLE, WADE R., Flc, Bridgewater. S. D.
PURCELL, RAY M., CCM.
PURSER, ELBERT I., JR., CM3c.
QUACKENBUSH, JOSEPH, SF2C, 67 Sawyer St.
HORNELL, N. Y.
HORNELL, N. Y. CM2c, 3121 Woodland, Kansas
City, Mo.
QUINE, FREDERICK H., GM3c, 33 Crooke St.
Brooklyn, N. Y.
QUINNELLY, FDOLPHAS, CMIc, 1111 212th Ave, Laurel. Miss.
GABON, WILLIAM T., JR., CM3c, Bokoshe, Okla.
AACE, CLAUDE E., CCM, Everman, Tex.
RAMSEY, EVERETT W., EMIC.
RANDALL, FRANK P., CCM(AA), 1513 41st, Rock Island, II. son, Iefferson City, Mo.
RAYFIELD, SEAMAN M., Cox., Eminence, Mo
RAYNARD, REUBEN I., MME2c, 513 Markle St. Pontiac, Mich
REED, DAN B., SFlc.
REED, ELZIE, SC2c.
REED, HERMAN D., CCM(AA), Krotz Springs, La.
REEVES, RAYMOND E., M1c, 2924 Wilkinson St, Ft. Worth, Tex.
REILLY, WILLIAM W., MM3c, 531 Sherwood Ave.
Youngstown, Ohio.
RENEGAR, JOSEPH A., CMJc, 508 S.E. 30th,
Oklahoma City, Okla.
RICE, CLAUD E., CCM, 410 Penn St., Chickasha,
Okla. ENOCH, (n), MM3c, 114 E. Conklin Ave.
Modrow, N. YIILIAM H., BMIc, Box 162, New
RICHARDS, WILLIA
Gloucester, Me.
Gloucester, Me.
RICHARDSON, ANDY, Fle.
RICHARDSON, CHARLES, CM3c, Acy, La,
RICHARDSON, CHARLES, CM3c, Acy, La,
RICHARDSON, JAMES R., CM3c, Rt. 1, Cardwell
Mo.
RICHMAN, NORMAN N., Sle, 4415 Eighth Ave.
Brooklyn, N. Y.
RIDENOUR, MARION W., CM2c, 802 N. Seventh St,. Frederick, Okla.
RIEGLE, IRVIN H., SClc.
RIGDON, DANIEL L., Flc
RILEY, LACEY T., SC3c.
RINGLE, AQUILLA L., CCM(AR). Box 973, Toxon
Tex. Tex.
RISOLO, MICHAEL A., MM2c
ROBERTS, ELI I., CM2c. CEM(AA), 7442 Rusk Æve.
ROBERTS, FRAN
Houston, Tex.
Houston, Tex.
ROBERTS, LAMAR, JR., Matt2c.
ROBERTS, WILLIAM W., CCM.
ROBERTSON, DARSO H., CM1c, 1002 Fairfax Ave.
Bessemer, Ala.
ROBERTSON, REX L., EM3c.
ROBERTSON, WARD R., CBM, 2 University St. Nashville, Tenn.
ROBINSON, JOHN M., CM3e, 530 E. 139th, Bronx
NO, Y,
ton, Me. CLEO A., 1318 S. Maple St., Stutiqari.
ROCHE, JOHN, CMIc
ROCK, JOHN C., SF2c, 5520 Madia St., Philadel
phia, Pa. A. J., EM3c, Rt. 3, Box 90 , Columbus,
Miss. WILLIAM A., CSK(AA), 228 N. Thomp
RODMAN, WILLIAM A., CSK(AA), 228 N. Thomp
son St., Vinita, Okia.
ROGERS, EDUIN F., SFIc, 108 Ave. F, S.E.
Childress, Tex.
ROGERS, JAMES E.r Bkr2c, R1, 6317 Eaqle Pass St. Houston, Tex.
ROGERS, MORRIS J., SClc, Rt. 1, Cleveland
Okla. ROGERS, ROY, ( n ), CEM(AA), 108 S . Abbott St
Hillsboro, Tex. 2639 N, First St
RHODE, KURT G., CSF(AA), 2639 N. First St. ROSE, JAMES G., CSF.

IOSEBROUGH, BERNARD, CMM(AA), 3824 N.W. 10th, Oklahoma City, Okla.
ROSS, JAMES N., CMEIc, 1231 Stocton St., Ada,
OOSS, ROBERT W., MM3c, Rt. I, Box 85, Redford SL., Detroit, Mich.
HOTH, MARTIN J., Y 3 c, 279 Fourth Ave., East Orange, N . J.
RUHLAND, WILLIAM J., CM3c.
RUMBELOW, JOHN L., SF1c, p. O. Box 343, Van,
RUMMEL, RUDOLPH P., S2c.
HUSSELL, JOHN E. CM3c, Hayden, Ala.
RUTHMAN, WILLIAM E., CMM(AA), 145 w. Columbia, Detroit, Mich.
RYAN, CLARENCE E., Phom3c.
RYAN, JOHN E., SFIc, Box 1334, Seminole, Okla. RYAN, WILLIAM L., SFlC.
SABOL, JOSEPH, ( $\mathbf{n}$ ), Slc, Box 228, Now Salem,
SACRA, JOHN R., CMIC.
SALMON, WALTERE., PhoM2cT, 2240 N. Kedzie Ave. Chicago, III .
SAMPLE, JULIAN F., Ir., MME3c, 1934 McKinley Ave., San Antonio, Tex.
SANCHES, JIMMIE, (n), Sle, 219 Howard St., Fairmount, $W$. Va.
SANDERS, ALVIN, ( n ), SFle, Vance Rd., Rt. 1 , Chattanooga, Tenn.
SANDERS, REX G., CCM(AA), Monticello, Miss. SANDERRON, LEE W., Ptr3c, Ware, Mass.
SANDLIN, FALLEHEY, ( n ), CSE(AA), 402 Forrest Hill, Houston, Tex.
SANSOM, JOHN E., MM3c, ML. Savage, Md.
SAVARCSE, JOSEPH D. CM3c.
SAWHILL, ROY B., CM2c, 2601 N. Larronet St
SAWHILL,
Tacoma,
Wash.
SAWYER, IVAL R., CMlc, 1013 G St., Lawton, SCHAFFER, EDMUND H., MMIc, 1503 Marcuss St., Vicksburg, Miss.
SCHAFFERR, MIKE F., EMIC, 1538 N. Springtield Ave., Chicago, III.
SCHANZ, NORMAN J., SEIC.
SCHILLING, JOHN D., MM3C, 377 S. Anderson, Pontiac, Mich.
Pontiac, Mich.
SCHWARTZ, GERALD G., MME1c, 520 Morris St., Albany, N. Y.
SCHIETS, LOUIS T., CM3c, 213 Main St., Hattiesburg, Miss.
SCOTT, JUNIOR L., Y3e, Box 295, Mason, Ohio.
SCOTT, HOBERT B., EM2c, 211 N , 38 th St., Fi.
Smith, Ark.
SCOTT, WILSON W., MME2c, 509 N. 20th, McAllen, Tex.
SCRANTON, ELVIN C., MME3c, Rt. 1, Plainview, Nob.
SCRUGGS, Charles E., M2c, Alto, Tex.
SEALES, LaVERN EARL, CY, Box 52, Macomb,
SEARS, LaVERN EARL, CY, Box 52 , Macomb,
Okla.
SECORD, ELLEWORTH G., CMIC, 13222 Manor Avo., Detroit, Mich,
SEGURA, TRAVIS A., MM1c, Rt. 1. Box 103-D, New Iberia, La,
SCHEXNAYDER, ROBERT, SFle, 1021 Richmond Ave., Port Arthur, Tex.
SEHLKE, ANDY ERVIN, Ptric, Rt, 1. Burton, Tex. SELF, HERBERT G., CM1c, Box 142, Stillwell, SELF, HUGH B., Bkr2c, 904 Jackson, Amarillo, SESSIONS, ERF D., SF2c.
SEXTON, JAMES F., SM2c, RI. 7, Mesquite, Tex. SHAFFENER, GEORGE, ( n ), MM3c, 15601 Morrison St., Van Nuys, Callf.
SHARBUTT, CLIFTON C., BMIC.
SHASTID, JOHN M., CM3c, Fayetteville, Ark.
SHEPERD, GRAYDEN E., MME3c. Howard Rd.,
Watervillo, Ohilo. B., SCle, 2003 Clay Ave., SHERRILL, HIR
SHIELDS, WESLEY B., WTle.
SHIPLEY, THURMAN J., SFle, Kinta. Okla.
SHIPLEY, THARLMAN BMIC.
SHINE, CHELL, ALVA Ä., SK2C.
SHRECKENGAUST, QUINCY, SK1e, 2008 Huldy,
Houston, Tox.
SHURTLEF, JOE, ( n ), CMIC, 3123 Ave. G, Ft. Worth, Tex.
SIEBOLD, JACK H., Y2c, 1121 Thornehill Dr. East Cleveland, Ohio.
SILER, RAYMOND, CSF, 3443 E. Magnolia, Knoxville, Tonn.
SILL, IRA D., F2C.
SIMIER, RALPH T., Fle.
SIMMONS, ANDREW
C., MME3c, Gen. Del., SIMMONS, JAMES K., WT2e.
SIMMONS, JAMES K.,
SIMES, WILLIAC
T., SClc.
SIMES, WILLIAM T., SCle. MM2c, 2254 S. Avers
SIMOLKE, GEORGE W., MM2e, 2254 S. Avers ARv., Chicago, II. EMIc, 27 E. Main St., West Point, Miss.
SMART, WILLIAM J. MME2c, 352 Fairway Dr. Now Orleans, La
SMILEY, CHARLES J., CM3C
SMITH, ALVIN G., MME2c, Rt, 1, Kowaunee Carlton, Wis. smilt, Tex. CHARLES S., Sle.

SMITH, CLAUDE L., MIC
SMITH, CLYDE B., CSF, 3637 Liberty, Oklahoma
SMITY, Okia. GEORGE C., QM2c.
MITH, JACK B., CM3c.
SMITH, LELAND R., CCM.
SMITH, LLOYD C., QM1c, 105 High St., MeMinnville, Tenn.
SMITH, OLIIE W., SF3c.
SMITH, OREN P., CCM(AA), EI Campo, Tex.
SMITH, ROBERT C., Flc.
SMITH, ROY W., CM2C. BMI
SMITH, TRUEMAN C., BM1c, 3824 Fairmont, Dallas, Tex.
SMITH, WOODROW, SF2c, 273524 th Ave., Tusca-
SMOLLAR, NATHAN, CM3c, 4309 Flournoy St.,
Chicago, IIl. L., JR., Sle, 378 High St., Nutley.
Essex, N. I.
SNYDER, FRED D., BM2c.
SPEAK, WILLIAM A., BM2C
SPEARMAN, FRANCIS M., CMME(AA), Second Ave., Houston, Tex.
SPELL, JAMES D., CM3c.
SPENCER, BERT D., GM2
SPERLING, WILLIÄM C., CCM.
SPITZER, EDWIN W., CMIc, 321 Texas Ave., Texarkana, Tex.
STABELL. JOHN E., MM3c, 23 Howard St. E. Norwalk, Conn
STALKER, JAMES H., Slc
STANFORD, LEROY, (n), EM2c, Crossett, Ark
STANLEY, WILLIE H., MM2c, 2816 W. 40th St., Tulsa, Okla
STANSELL, CARL, CM3c, 2812 N. Main St., Fi.
ST. CLAIR, EDWARD W., MME3c, 9801 34th S.W.:. Spattle, Wash. STEELE, VIRGIL C., EMIc, 23 S. Terrace Ave., Columbus, Ohio.
STEIGER, CLYDE E., MM2c, 1809
S. 28 th
St., Terre Haute, Ind,
STEPHENS, WARAEN W., MM3c, 605 E. Third
St., Jerome, Idaho., CM3c, Box 133, Rutherford, STERLE, FRANK, CM3C.
STERLING, KENNETH A., CM3c, 702 S. Third St., Chickasha, Okla.
STEVENS, JAMES M. B., CBM.
STEWART, WILIY W.. EMIC.
TRANGE LOYCE "E,"
STIFF, GUYAN H., MM2c, 1215 Peak St., Denton,
TTiLLINGS, IAMES L., MME3c, Box 57. Kramer,
N. D. STOM, LEM P., SSMB3c, Azle, Tex.
STORIN, PATAICK T., EM1e, Gen. Del., Anselmo, Neb .
STOUT, RAY D., MME2c, Rt. 2, Aubrey, Tex.
STRANGE, LOYCE E., CCM.
STRATTAN, BENIAMIN E., MMIc, 111 Lincoln St., Hobart, Ind.
STRICKLAN, WILLIE A., $\operatorname{CSF}(A A)$, Marble Falls,
STRIPLING, ORTH P., SFle, Box 762, Allce, Tex. STUART, VAN E., CM2e, Pettus, Tex.
STUTENBURG, HENRY W., JR., PhM3c
STUTSMAN, VERN F., JR., Y2c, Box 154, Iowa, La.
SUDOISKY, RALPH, Sle, 1155 Simpson St., Bronx,
NTRENLOW, ARTHUR W., CM2c.
SULLIVAN, PERRY L., SE2C. SURAA), Waverly, Kan,
SUMROW, WILLIAM E., CM3c, 707 N. Main,
Altus, Ókla.
SURRATI, WILLIAM H., MME2C, Baldwyn, Miss.
St., Victoria, Tex.
SWANSON, ARVID J., SIc, 9120 S. D St., Tacoma,

## Wash.

SWEIG, EARL L., 700 Maple St., Nlagara, Wis. SWEINBERGER, RALPH F., Sle, 86 Chapin St.,
Holyoke, Mass.
SWILEY, WILIAM, JR., CM3e.
SWITHENBANK, HAROLD, SIe, 100 Cherry St.,
Linwood, Pa.
SYDOR, STANLEY, ( $n$ ), Y2e, 438 Pine St., Providence, $B$. I.
SYZDEK, KEGE T., SC2c
SZMENDERA, STANLEY, S1c, 210 E. Sixth St, Peru, III.
ACKER, CORDIE H., CCM
TADLOCK, BUCK W., MME1c, 6344 Mercer, HousALBOT, TOMMY F., CM3c.
TALBOT, TOMMY F.. CM3c
TALLEY, JERRY L., SF2c, $3301 / 2$ Indiana, Corpus
TALLON, DEMPSEY E., Sle, Box 641, Hartsville,
S. C. DEMPSY E., Sic, Box

TALLY, GORDON L.. MME2c, 128 Main St. Box ANDY, FRANK H., CM2c.
TARDINO, EDWARD H., 2496 Morris Black PI.. Cleveland, Ohlio. H., 2496 Morris Black Pl., TASSIN, WILLIS j., EM3c, 711 Contral St., Jeflorson Parish, Now Orleans; La.

TAYLOR, CHARLES, Slc, 109 Melrose Ave. Waterbury, Conn. tral Blyd., Elmira, N. Y.
TAYLOR, JMM B., CMIC, Box 645, 1512 Slay St., Easliond, Tex.
TAYLOR, JOHN G., Sle.
TAYLOR, JOHN H.. CEM, 1227 Seventh Ave., Ft. Worth, Tex.
TAYLOR, JOHN T., JR., Sle, Gen, Del., Tago, Tex. TAYLOR, ROBERT E., Slc, 518 Cambridge Ave., Knoxville, Tenn.
TEAGUE, FURMAN E., EMIC, 1615 Stoneman St, Dallas, Tex.
TEARPAK, JAMES A., Jr., 3371 E. 135th St., TEETS, VIRGIL L., SIc, 3344 Alvina, Van Dyke,
tEl.G, OSCAR E., CMIC, Box 218, Rt. 1, Chriesman. Tex. Caney, Kan.
TESTA, BALPH, ( n ), Slc, 1681 55th St., Brooklyn,
N. Y.

Ave., San Francisco, Calif.
THEAUX, LOUIS, CMM.
THEMAS, AUGUSTINE R., CM2c.
THEROUX, LELAND M., SIc, 327 30th St., Manhattan Beach, Calif.
THOMAS, HOBSON D., F2C.
THOMAS, MARION E., Ptr3c.
THOMAS, SAMUEL M., Slc, 2967 Burlington Pl.,
Cincinnati, Ohio. W., Ptrle, 1207 N. R St.,
Brownsville, Fla.
THOMPSON, CARL B., CM3c, Box 427, Naples,
THOMPSON, CARL F., CM3C.
THOMPSON, JAMES, BMIC, 2133 Erie St. Baton Rouqe, La.
THOMPSON, JOSEPH R., Slc, 5031 Gafford St.. Los Angeles, Calif.
THOMPSON, LLOYD M., MME3c, 719 Jewell Ave., Topeka, Kan.
THOMPSON, OLIN V., Sle, 4119 Ferry Rd., Hollidays Cove, W. Va.
THORNE, IKE H., Ir., GM2c, 3815 Northview Dr., lackson, Miss.
THORNE, WILSON B., S1c. 214 Knapp St., Elkin, THORNTO
THORNTON, RALPH H., CM3C.
THRASHER, CLYDE W., SFle, Rt, 3, Albertville,
THROWER, GEORGE R., CM3c, 1516 W. Third,
Pine Bluff, Ark.
THURMOND, HARDING, (n), MMElc, Rt. 2, Altus,
OHWEATT, JOSEPH E., CCM(AA), Gilmer, Tex.
TINKER, LEONOL E., CBM(AA), 120 Husband
St., Stillwater, Okla.
TITSWORTH, LOVELL A., CMIC.
TODD, ROY L. CCM.
TOMPKINS, CLYDE H., sle.
TOWNSEND, LEWIS P .. CCM, Cullon, La,
TOLIVER, BURKE M., CSF. EM2c, 820 Piety St.
New Orleans, La,
TRAVER, WARREN R., Mic, Ri. 2, Neptune, Tenn.
TRAVIS, A. D. CSF,
Corvallis, Ore.
TRICKEY, HORRCE W., BM2c, Rt. 1, Wetumpka. TRIPP, JOSEPH W., JR., SF1c, 4506 Nebraska Ave., Nashyille. Tenn.
TROLSEN, GEORGE W., MMIc, 12 Dupont Ave., ROLSEN, GEORGE W., MMIc, 12 Dupont Ave., Newburqh, N. I.
TROWBRIDGE, GEORGE R., MME2c, 700 East Seventh St., Ada, Okla. ${ }^{2}$., Seventh St., Ada, Mcla. Lackawanna, N. Y. Ark.
Ark.
TURNER, WILIIAM G., Bkr2e, 1812 Hanley Ave., Ft. Worth, Tox.
TUZENEU, JOHN $W$., CM3c, 122 Spring St., Red
Bank, N. I
TYSON, EDWRD W., Ptr2c, 604 E. Third, Big
Soring, Tex.
UNDERWOOD, CHARLES M., CMIc, 802 N. B St., Harlinqen, Tex.
UNDERWOOD, JORDAN W., CMIc, 1509 Forrest Ave., Nashville, Tenn.
URBAN, WILLIAM, JR., CCM
VALLE, DEMETRIO, MM3C.
VAN BUREN, MYRON E., CM3c.
VAN FOSSEN, HABRY R., MM2e.
VAUGHN, LEONARD H., MME2c, RI. 2, Maryville, Tenn. RALPH G., CMIC.
VESPESTAD. INGVÁLD, BMIC, 1408 Polk St.
Houston, Tox. SK3c, Box 267 Begos, Okla,
VICKERS, WILLIAM D., M2e, 432 Bonham St.,
Pris, Tex.
VINCK, BERNARD M., CMM.
VINES, JAMES P., CM3c.
VINSEN, HOWARD W., BM2c.

VETRANO, VINCENT P., EM2c, 829 Roosevelt P1., New Orleans, La.
VOEGGLE, KENNETH C C
VOGRICH, JOHN L., MM3c, 532 W. Chicago St., Elgin, IIl.
VOGT, HAROLD E., CCM
WADDELL, FLOYD L., MM1c, 32 N. Martha St., Akron, Ohio.
WADE, EDGAR D.. JR., Slc
WADE, FRANK E., SF2c, Talihina, Okla.
WAGNER, CHARLES M., BM2c, 734 Independence
Blvd., Chicago, Ill.
WALAINIS, EDWARD D., SFlc, 719 N. Perry St., Pontiac, Mich.
WALKER, H. P., SC3c
WALKER, LESLIE K., SF3c, 1464 S. Third St., Louisville, Ky .

R
WALLACE, WILLIAM T., CM2c,
WALSH, EDWARD J., Slc, Market St., Palmyra,
WALTERS, DARRELL L SFIc, Box 248, Refugio,
WALTERS, WEBBER W., MME2c, Rt. 1, Laurel, Miss.
WALTON, ERNEST D., CM3c, 812 Michigan Ave., Chickasha, Olela.
WALTZ, ADOLPH L., M2c, 1727 Spain St., New Orleans, La.
WARD, GEORGE G., CM1c, 2840 W. Park St., Oklahoma City, Okla.
WARD, IVAN W., JR., Bkr3c.
WARFORD, HOYT G., SF2c, Rt. 2, Abilene, Tex.
WARGO, DANIEL M., MM3c, 936 Peace St., Hazelton, Pa.
WARLICK, ALBERT J., SF2c
WARNKE, ERNEST, SK2c.
WATSON, JACK, (n), CM1c, 96 Christopher St., New York, N. Y.
WATSON, JESSE J., CCM, 758 Meridian, Florence, Ala.
WEATHERLY, HOLLIS, ( n ), SF1c, 1111 Studewood,
Houston, Tex.
WEAVER, PORTER T., CM2c, Decherd, Tenn.

WEDDING, WILLIAM F., CCM(AA), 1209 N. Polk St., Amarillo, Tex.
WEIPERT, CHRISTOPHER, WT3c, 605 Onder donk Ave., Ridgewood, L. I., N. Y. WELLMAN, KENNETH N., CM1c, 2002 Capito Wve., Olympia, Wash.
WENK, RALPH A., EM1c, 1101 D St., N.E., Wash-
WETMORE, BURTON F., MME2c, 514 N. Albany St., Chicago, IIl.
WHATLEY, JOHN S., CM1c, 933 Dorothy St., Houston, Tex.
WHITAKER, JOSEPH L., SFlc, Douglas, Tex.
WHITE, BERYL H., CM2
WHITE, CHARLES C., JR., CMM(AA), 126 W. Sevier St., Kingsport, Tenn
WHITE, ELBRIDGE B., CMM.
WHITE, FRANK E., CSF, 2924 Magnolia Ave.
Beaumont, Tex.
WHITE, FRANT W., SK2c, Lawrence Hotel, Paris, WHITE, FRANT W., SK2
Tex.
WHITE, WAYNE Ẅ, EM2c
WHITFIELD, HERMAN I. MME1c, 2402 New Boston Rd., Texarkana, Ten.
WHITTAKER, FRANK E., MMEIc, 3816 N.W. 24th
St., Oklahoma City, Okla.
WHITTLESEY, LUTHER E., PhM3c, Rt. 2, Bronson, Tex.
WILDER, JACK, CM2c.
WILHELM, KENNETH E., CM3c, Box 556, Short Creek, W. Va.
WILKINS, RALPH A., MM1c, 317 Britain Ave. Benton Harbor, Mich.
WILKINSON, McCONNELL J., CEM, 1200 S. 30th
WILKOSZ, FRANK J., CM3c, Box 131, Curtisville, PILLIAMS, FAW C., S2c.
WILLIAMS, GEORGE T., CM3c, 518 S. Fifth St.,
Waco, Tex.
WILLIAMS, HAROLD O., SF1c, Box 775, Drum-
WILLIAht, Okla, JERRY D., GM1c, Rush Springs, Okla

WILLIAMSON, JOHN D., CMIc, Rt. 2, Torney.
WILSON, BILLY L., MMEIc, Ferris, Tex.
WILSON, BILLY L., MME1c, Ferris, Tex.
WILSON, HOWARD, CM2c, Lake Charles, La.
WILSON, HOWARD, CM2c, Lake Charles, La.
WILSON, JACK C., BM2c.
WILSON, LYLE C., MME2c, Rt. 1, Altus, Okla. WILSON, WALKER G., SFlc, Rt. 1, Box 105 , Providence, Ky.
WIMBERLEY, JAMES O., CM2c.
WINDHAM, AUSTIN E., MM1c.
WINRICH, THEODORE L., MME2c, Box 227, Al-
toona, Wis.
WINTERS, CALVIN M., MM2c, Eunice, La.
WISDOM, CLAUDE R., MMEIc, Gen. Del., Cleveland, Tex.
WOLF, SHERRILL W., SF2c.
WOLFE, CLIFFORD, SF2c.
WOOD, HOWARD E., Slc, 199 N. 11th St., New
ark, N. J. WOOD, JAMES W., PhM1c, 455 W. Polls St., Paxton, III.
WOOD, JOHN C., CCStd.
WOODBURY, SETH E., SK2c
WOODS, HARRY E., MM3c, 402 N. Frederick St. Oelwein, Iowa.
WOODWARD, CICERO G., EM2c
WOOLARD, HAROLD L., MME2c, 104 N. Ross, Sherman, Tex.
WORD, FRANK H., SF3c.
WORLEY, WILLIS A., PhM1c, Ft. Collins, Colo, WRIGHT, JOHN W.. MME2c, Rt. 2, Noxapater. Miss.
WYATT, DUWARD, SF3c.
YARGEE, JAMES E., CCM
YOCHAM, REX M., MME2c, Rt. 2, Haskell, Okla
YOUNCE, DENNIS G., Slc, Reece, N. C.
YOUNG, BEN, CM3C.
YOUNG, CLARENCE H., CEM(AA), Station Charleston, W. Va.
YOUNG, EDWARD P., CMIC.
ZIMMERMAN, DONALD G., CM2c, Box 276, Florence, Ala.

# Typography, Engravings and Printing by <br> ARMY \& NAVY PICTORIAL PUBLISHERS 

Army \& Navy Publishing Co., Bldg.
234 Main Street
Baton Rouge, Louisiana

This book is produced in full compliance with government wartime regulations regarding the conservation of paper and other materials.


