SEABEE
ROADS TO
VICTORY

A Brochure of Maps
depicting the world-wide activities of the
Naval Construction Battalions

Maps by ERVINE METZL
Text by WILLIAM BRADFORD HUIS
OF THIS SPECIAL EDITION OF SEABEE ROADS TO VICTORY 400 COPIES HAVE BEEN MADE, OF WHICH THE FIRST ONE HUNDRED ARE RESERVED FOR VICE-ADmiral BEN MOREELL, CIVIL ENGINEER CORPS, UNITED STATES NAVY, and SIGNED by the AUTHOR & DESIGNER.

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Lt. Bernard Harms
NEW YORK, 1944
THE COVERS—Every Seabee Battalion and Seabee Maintenance Unit has created its own insignia. All the insignia available in the United States at the time of publication are reproduced on the covers.

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THE ARTIST—Ervine Metzl is one of America's most gifted commercial artists. Because of his interest in the story of the Seabees, he volunteered to delineate the story at a nominal fee as a contribution to the Naval Service.

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THE AUTHOR—William Bradford Huie, who wrote the text, is a Lieutenant, junior grade, in the Navy's Civil Engineer Corps. A well-known writer, he is the author of "CAN DO!—The Story of the Seabees."

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THE BROCHURE was generally conceived by L. F. Schenkenberg, a Chief Yeoman in the Seabees, who in private life is a Chicago advertising man.

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THE CARTOUCHE—The oak-leaves insignia at the top of the cartouche on each map is that of the Civil Engineer Corps. The "bee rampant" is that of the Seabees.

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THE PURPOSE of this brochure is to explain the work of the Seabees, but the brochure must not be interpreted as an effort to claim credit for the Seabees which they should share with their companions-in-arms, the Army and Marine Engineers. It should be clearly understood that either the Army or Marine Engineers have worked on every island depicted herein, and on many projects the three engineering services worked together.
“The ingenuity and fortitude of the Seabees have become a legend in the Naval Service. With both tools and tommy-guns they have rendered vital aid on every assignment they have been given.”

ADMIRAL ERNEST J. KING
Commander in Chief,
United States Fleet
ROADS TO VICTORY

Wars are won with roads. Rome ruled a world with roads and gave her world its longest period of peace by maintaining roads over which she could quickly project her might.

Roads may cross land or sea or both. Sea power, no less than land or air power, must project itself along roads. A fleet is no stronger than its bases, and the striking power of fighting ships or planes deteriorates in direct proportion to the distance they are operating from their bases.

When this war began we had no great military highroads. We coveted no territory and depended upon geography to protect us. Our fleet was not a weapon for offense; it was our first line of defense. Except for Pearl Harbor we had no major naval operating bases outside our continental limits.

The approach of war focused attention on five war routes:

1. The North Atlantic Road to the British Isles.
2. The South Atlantic Road to Africa and points East.
3. The Alaska-Aleutian Road to Japan.
4. The Mid-Pacific Road to Japan.
5. The South Pacific Road to the Philippines and Japan.

From 1939 until the attack on Pearl Harbor, the Navy Civil Engineer Corps endeavored to build the Navy’s part of these roads with the only device it was empowered to use: private contract and civilian labor. Civilians were at work in Newfoundland, Iceland and North Ireland on the North Atlantic Road; on several West Indian islands on the South Atlantic Road; at Sitka, Kodiak and Dutch Harbor on the Alaska-Aleutian Road; at Pearl Harbor, Midway, Wake, Guam and Cavite on the Mid-Pacific Road; and in the Samoan Islands on the South Pacific Road.
The bombs which fell on Pearl Harbor crumbled this private-contract-civilian-labor system. The civilians at Cavite, Guam and Wake became prisoners of the Japs; the other civilian units disintegrated. At the gravest crisis in our history not only were we caught without naval road bases, but, much worse, we were caught without a naval construction organization with which to build such bases.

The character of this new war demanded a new type of organization for naval engineering. In past wars our naval bases had been havens never subjected to enemy fire; but in this war naval bases were to be the very center of attack. Instead of its corps of engineering officers, serving only as staff advisers and as supervisors to the private-contract-civilian-labor system, the Navy now needed a complete building-and-fighting organization of officers and enlisted personnel. Thanks to the military airplane, this war's roads would have to be built by men who knew how to use weapons as well as tools.

In this emergency the Navy turned to the construction industry; to men who are natural fighters as well as skilled workers; to the mountain-movers who had built Boulder Dam; to the sandhogs who had tunneled under East River; to the human spiders who had spun a steel web over the Golden Gate; to the timberjacks, catskinners, dockwallopers; to the men who know how to mix America's industrial magic; to strong men capable of licking jungles as well as Japs.

The Navy asked these men to enlist *en masse*. Most of them were safe from the draft, and all of them were besieged with high-wage offers at home. But they enlisted by the thousands. Civilian engineers became officers; civilian foremen became warrant and chief petty officers; machinists, earthmovers and carpenters became rates in the ranks. The Navy simply *absorbed* much of the cream of the construction industry.

The new organization was called the Seabees—the Naval Construction Battalions. The speed with which the Seabees went into action was an American miracle, made possible by the cooperation of both management and union labor and, particularly, by this patriotic willingness of men who were secure from the draft to volunteer in the service of their country.

The Seabees' job: to do the Navy's part in building the roads to victory. To carve roads and airstrips out of steaming jungles and frozen tundra; to drive a million pilings; to bul-
doze mountains and bridge rivers; to assemble quonset huts by the thousand; to hit beaches with Marines and soldiers and then bring the stuff ashore; to endure mud and rain and loneliness and death, yet always be ready to drop the work and grab guns.

Forty days after the Seabees were officially organized the first unit was at work on the South Pacific Road. So pressing was the need for these skilled men that many of them had not been allowed a single night’s liberty before sailing. There had been no time for formal military training, for Bataan was falling and the Japs were rushing to grab and build the very roads which we would need for victory. The Seabees were sworn in, jabbed with needles, handed what equipment could be had, and despatched to throw down the airstrips which might reverse the Japs somewhere along the roads.

Now, within less than three years, the Seabees are a veteran organization, full of legend and tradition. The Atlantic roads are completed; the Pacific ones are nearly so. From their frenzied and ill-equipped beginning the Seabees have grown into a spit-and-polish organization of 235,000 men and 8000 officers, and their engineering equipment is the finest in the world. In every major movement of American forces, from Guadalcanal to Leyete, from North Africa to Normandy, the Seabees have had a brave part. Whenever and wherever Americans have crouched in landing craft and approached an enemy-held shore, a Seabee has crouched beside some soldier or Marine.

Back down the long roads that they have built, the Seabees can look with the satisfaction of free men who have done a big job voluntarily and well. They are men who have asked little, given much. They have asked only for the privilege of serving their country; for the right to be well led by intelligent and courageous men; for the opportunity to work and stay busy and get on with the war. Of all the men in the service, the Seabees are the ones who are the happiest when they are at work on purposeful jobs; they are the most rebellious when they are made to feel that they are wasting their time in idleness or working on non-essential projects.

It takes a lot of sweat to convert a jungle island into an American community; it takes a lot of American know-how to convert frozen tundra into a roadway over which America’s industrial might can be catapulted. To give the folks at home some idea of how much it takes to build three roads to Tokyo and two to Berlin is the purpose of this brochure.
For illustration we have chosen ten typical bases along the roads to victory. The large maps attempt to convey some impression of work done; the smaller maps locate each base within its general area and are indicated in red.

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THE MAPS

OAHU
Pearl Harbor – Hawaii

GUADALCANAL
Tulagi and Florida I.

TRINIDAD

NEW GEORGIA, RENDOVA

ADAK ISLAND

ESPIRITU SANTO, EFATE

ITALY

BOUGAINVILLE
Treasury I. and Green I.

LOS NEGROS
Manus – Admiralty I.

ENGLAND and NORMANDY
The several Hawaiian Islands are the crossroads of our vast Pacific war. They are the first filling station on both the Mid-Pacific and South Pacific Roads to Tokyo. To begin projecting American martial-industrial might toward Japan, we first had to project such might to Hawaii. We had to remove the wreckage of the Pearl Harbor disaster, and then go on to convert these islands into a bulging warehouse; into an unsailable fortress; into a hotel for millions of fighting men; into a hospital for thousands of casualties; into a staging area for all the men and materiel which eventually would be flung against the Jap.

In this conversion process by which storied isles of romance became the bristling pivot for an entire war, the Seabees played a major role. At least forty battalions have worked in the islands by the time the war ends. Here, against the island of Oahu, are depicted some of the types of work that have been done.

1 Destruction, December 7, 1941.
2 Construction, September 7, 1944.
3 One of Hawaii's several Naval Air Stations exemplifies the manner in which the Seabees have restored and expanded the world's most powerful Naval base.
4 Bomber strips, fighter strips, commercial strips. There are more air fields per square mile in Hawaii than in England.
5 Dry dock and traveling crane. Hawaii has more of this equipment than any port in the world.
6 Combination warehouse and armory.
7 Precasting concrete. The Seabees, trained in America's construction industry, use mass-production methods.
8 A half-million-gallon water storage reservoir.
9 Underground gasoline storage. Hawaii's underground tank farms are the most extensive in the world. Fuel for our sea and air fleets is ample and safe from attack.
10 Gun emplacement. Thousands of tons of concrete have been poured into the islands.
11 A four-way manhole for telephone and cable equipment. The great base has a more perfect communications system than the Maginot Line had.
12 It's "line-up" for everything in the islands. With Hawaii more densely populated than Calcutta, service men must line up for pay, chow, beer, muster, movies and medicine.
13 Seabee crane erecting framework for wooden warehouse. Hawaiian warehouse space must be measured by the square mile.
14 Stevedoring operations. Five Seabee stevedore battalions have handled much of the mammoth flow of cargo.
15 Pearl Harbor, World's most powerful operating base—Gibraltar of the Pacific.
16 The natives of Hawaii have proved good and helpful Americans.
17 Laying a cable—the cable is passing through a guide reel.
18 City of Honolulu.
19 The gregarious Seabees will long remember the native feasts.

MIDWAY IS.

J O H N S T O N IS.
GUADALCANAL—Tulagi and Florida I.

The Seabees got their baptism of fire on Guadalcanal. Throughout the first bitter months of fighting they stood shoulder-to-shoulder with the soldiers and Marines. It was the Seabees who won "the Battle of Henderson Field"—the battle to complete and operate the air strip in spite of Jap bombs and shells. In one desperate 24-hour period the Seabees repaired 63 bomb hits on the Henderson runways and thus kept our own planes operating. With makeshift equipment, captured Jap materiel, and with their "know-how" and "can-do," the Seabees helped transform a jungle into a powerful base for our movements northward through the Solomons.

Now Guadalcanal is a modern American community. Many Seabee battalions have had a part in the transformation. The 6th, 14th and 26th battalions did the pioneering; while the 18th, 27th, 34th, 46th, 61st, 63rd, and 9th Special battalions moved in later.

1. Savo Island.
2. Tulagi and Florida Islands.
3. Logging operations. Millions of feet of timber were cut, sawed and converted into warehouses.
4. The landing on Florida Island.
5. Seaplane base.
6. Bringing supplies ashore on pontoon barges.
7. Gasoline barge blown up by Jap bomb. Eight Seabees were killed.
8. Bulldozer clearing jungle. The bulldozer—machine of a thousand uses—is the symbol of the Seabees.
9. Beach markers—colored canvas to guide ships in landing.
10. Marines fought Japs at one end of Henderson Field.
11. Henderson Field. In the first days of our invasion, Seabees camped alongside it, fought to complete it under Jap bombs.
12. Barber shop.
13. Seabees in foxholes, ready to repair damage or fight off invaders.
15. Seabee George Wendelken, New York City, the former "Freckle" of the movies, lay wounded in a foxhole 15 days before he could be moved.
16. Outdoor showers from empty gasoline drums.
17. Floods were a constant hazard in the Solomons.
19. Seabees repaired bomb craters on Henderson Field. Pierced plank—called Marston mat—is laid over a coral base to provide a smooth, hard surface.
20. Metalsmiths at work. A Seabee battalion is a self-sufficient construction unit, being made up of men of 60 different trades.
21. A solid mahogany bridge was built by Seabees under artillery fire.
22. Quonset huts—hundreds were erected by Seabees.
23. Tojo Ice Plant—an example of what Seabees do with captured Jap equipment.
24. Natives traded fruits and handiwork to Seabees for gum and smokes.
26. Lookout tower.
Trinidad is representative of the "islands the Seabees built" along the South Atlantic Road. Several islands in the Caribbean were given this military face-lifting treatment, but as a finished base Trinidad is the most impressive of all. It is one of the bases leased from Great Britain before the start of the war.

Even before Pearl Harbor, the Navy’s Civil Engineer Corps had begun developing Trinidad with civilian labor. Near the end of 1942 the 30th Seabee Battalion moved in, and the 50th was augmented shortly thereafter by the 80th and 83rd Battalions. Several thousand natives aided the Seabees, and by the Summer of 1944 the great base had been completed, and the battalions were relieved by Maintenance Units.

1. Quay under construction.
2. Fuel storage tank. Trinidad’s great tank farms and fueling equipment are almost extensive as those at Pearl Harbor.
3. Maracas Road. Building of this road was the most difficult engineering feat of the Trinidad program. An entire mountain top had to be sheared away. When peace comes, this road will be the island’s principal tourist attraction.
4. Drydocking facilities.
5. Edinburgh Field. Much of the air cargo bound for Africa and the Middle East used this field.
6. Star anchors. At left is the steel form around which concrete is poured to make the completed anchor at right.
7. Native housing and chapel.
8. Chow line and mess hall.
9. Native transport. Gas rationing is no problem among the natives.
10. Outdoor theater. The Seabee carpenters found many unusual types of wood in Trinidad with which they added ornamental effects to all permanent housing.
11. Native vendor on way to market.
12. Anchor from one of Columbus’ ships.
13. Native church. Seabees, in their spare time, have helped natives repair their churches all over the world.
15. Native Indian girl.
NEW GEORGIA
RENOVA

As drawn for the turbulent of the
UNITED STATES NAVY
by Erwin H. H. Heaney, M.S., U.S.N.
NEW GEORGIA, RENDOVA

The conquest and consolidation of Guadalcanal completed, the next American objective was the big Jap air base at Munda on New Georgia Island. The battle plan called for two important Seabee movements. The Seabees would land with soldiers and Marines on the island of Rendova. They would quickly open roads to the northwestern tip of the island, move up 155-mm. guns, and begin shelling the Jap base. Mud, almost too deep to be true, came near defeating this operation. The 24th Seabee Battalion saved the day by corrugating the roads with coconaut trees.

The second Seabee movement was to be a sneak landing on Segi Point, New Georgia. There the Seabees were to rush construction of an air strip from which fighter planes would be able to operate and provide escort for bombers coming up from Guadalcanal to blast the Japs at Munda. The 47th Battalion set a new record for airfield construction by completing the field at Segi in 11 days despite drenching rain.

The 73rd Battalion began rebuilding the Jap base while it was still under enemy fire. The 20th, 24th and 37th Battalions had a part in building the airstrip and other installations. Admiral Halsey called the Munda strip “The finest in the Pacific.”

NEW GEORGIA

1 Building a bridge with coconut logs.
2 Munda airfield: “finest in the Pacific.”
3 The Japs had installed heavy guns around the air strip.
4 Seabee tent city.
5 Natives, whom the Seabees call “gooks,” and who are employed as helpers and bearers
6 Beach marker.
7 Building the air strip at Segi. The strip was completed 11 days after the Seabees hit the beach.
8 Seabees greeting the Marines. This event was widely publicized by the Seabees throughout the Pacific as part of their never-ending argument with the Marines as to which outfit is the “toughest.” Seabees happened to land at Segi before the Marines did, and a Seabee delegation surprised a Marine detachment with the now classic remark: “The Seabees are always glad to welcome the Marines.”
9 Landing operations.
RENDOVA

10 Marines began shelling the Japs at Munda with “Long Tom” on the third day after the landing at Rendova. The guns had been snaked through miles of jungle mud.
11 Landing operations were under fierce Jap bombing and strafing attack. The Seabees took their heaviest casualties on this beach: 24 officers and men killed, many more wounded.
12 Ammunition dump blown up by Jap bomb. This was one of the luckiest Jap hits in this area. Many Seabees, soldiers and Marines died in the explosion.
13 Rain and mud were a constant handicap in the Munda campaign. The Seabees built a corrugated road through waste deep mud from the landing point to the firing line.
ADAK ISLAND

Before the coming of the Seabees the Aleutian Islands were nothing but bare reaches of tundra jutting up out of a thousand fathoms of icy water. There are no trees, not even a bush, west of Dutch Harbor. There is no native population—just bare tundra which is covered with snow and ice much of the year. But the Japs brought the Army Engineers and 25,000 Seabees to the Aleutians, and now the 1000-mile-long island chain stretching west from Dutch Harbor is studded with modern American communities.

The Alaska-Aleutian Road to Tokyo is completed. There are enough airfields along it to accommodate all the air fleets of the world. A fighter plane can roll off an assembly line in California on one day and be ready for action at Attu the next. Along this great military highway are a thousand gun emplacements, many square miles of tank farms, piers, docks, warehouses, hospitals, huts for many regiments of garrison troops, miles of communication lines, plumbing, theaters, and all-year roads to serve the entire plant. In the Aleutians we have created a whole new world where there was nothing.

The island of Adak is typical of the several great Aleutian bases. The labor expended on this island alone could have built Boulder Dam and the pyramids. The 12th, 21st, 22nd, 23rd, 32nd, 38th, 42nd, 45th, 52nd, 66th, and Fifth Stevedore Battalions had a part in this work.

1. A profitable hobby of Seabee woodworkers was the carving of totem poles which they sold to gullible Merchant marines as the genuine articles.
2. Rock quarry at Sand Hill.
3. Three Seabees on a fishing expedition battled an octopus for an hour before the fish loosed its hold on their boat. They swear it had a face just like Tojo's.
4. Caught in a williwaw while building a warehouse, a surprised Seabee was blown a hundred yards through the air on a sheet of corrugated steel.
5. Stringing communication lines.
6. 450-ton dry dock built of pontoon gear.
7. Yanking a 40 mm. gun out of the mud.
8. Camouflaged garage, Happy Valley.
10. Mountains of Adak.
11. Grading machines grind out patterns in the stubborn soil.
12. Winterized tents for living quarters.
13. Bitumul blocks protect fire station.
14. Skillful stevedoring is important in the Aleutians where every article must be brought from the States.
15. Seabees clear ice with dynamite.
16. Uniform of the day.
17. Boat boom, Sweepers Creek.
18. Setting up portable refrigerators or "reefers."
20. Seaplane base.

ALASKA
ESPIRITU SANTO. EFATE

Base building in the New Hebrides was a race between Japs and Americans. The Japs were racing to put Henderson Field on Guadalcanal in operation so that they could bomb us out of the New Hebrides. We were racing to finish air strips in the New Hebrides from which our planes could cover our landing on Guadalcanal.

Seabees landed on Efate early in May, 1942, where they joined Marine air units and Army engineers. All hands, including the natives, assisted in completing an air strip, and the first planes were put in operation before the end of May. There was desperate need for a field even closer to Guadalcanal, so, when no suitable sites could be located in the Santa Cruz Islands, Espiritu Santo was selected. From July 8th to July 28th the Seabees, assisted by Army infantrymen and Marines, toiled around the clock to put the new strip in operation. The speed with which this work was accomplished helped make possible the successful landing on Guadalcanal on August 7th.

During the fighting on Guadalcanal Seabee battalions converted both Efate and Espiritu Santo into modern bases. The 1st, 6th, 7th, 36th, 40th, 44th and 57th battalions handled the job.

ESPIRITU SANTO

- The tip of Espiritu Santo was the closest American-held territory to Guadalcanal.
- Landing operations with pontoon barges.
- A native’s conception of the proper use of a wheelbarrow.
- Bomber strip which helped make possible the Guadalcanal landing.
- Coconut trees were pressed into service for communication wires.
- Diving operations preliminary to the construction of a wharf.
- Lookout tower.
- Bridge abutments.
- Assembling pontoon strings.
- Beach marker.
- Pallikulo Bay Pier constructed of pontoons.
- Blasting coral reefs, first operation in the building of a seaplane or a PT boat anchorage.
- Unloading operations continued day and night.
- Seaplane base.
- Native village.
- Seabees, soldiers, Marines, and natives all worked together on the first bomber strip so that our planes could begin softening up Guadalcanal.
- A 75-ton crane was hastily built on a pontoon barge. The Seabees used this crane to unload the PT boats which took part in the Guadalcanal fighting.
- Natural site for a bomber strip. The gods favored us in the frenzied days before Guadalcanal by leading Seabee engineers to a jungle phenomenon. Hot sulphur springs over a wide area had prevented the growth of jungle, and an airfield was built there.
- Seabee painters spray Quonset huts to blend them with the foliage.
- “Rudy the Rat” made a regular appearance at the outdoor movie. Each night during the picture the rat would emerge from the jungle and proceed cautiously over the entire length of a power line strung between two coconut trees while the audience applauded.
Italy

In the long and bitter Mediterranean campaign the Seabees had a distinguished part. The 54th, 65th, 70th and 120th Battalions landed in North Africa and helped construct our installations at Casablanca, Arzew and Bizerte. But it was in the assault operations at Sicily, Salerno and Anzio that the Seabee demolition and pontoon units saw the most dramatic action.

The famous 1006th Pontoon Detachment led the way to the Sicily and Salerno beaches. Riding their causeway sections through the surf under heavy fire, the men of 1006 laid the causeways over which our tanks and heavy guns rolled to the beaches from the LST's. No American unit suffered heavier casualties in Italy than 1006. At Anzio the 579th Pontoon Detachment handled the causeways, and the 70th Battalion assisted in restoring the harbor at Naples.

Seabees in the demolition units waded ahead of the landing boats, removed underwater mines, and blasted out the obstacles to the landings.

1. The Coliseum.
2. In all three of the landings—Sicily, Salerno and Anzio—the Seabees used their spectacular “momentum breathing” technique for rigging the causeways. The 125-foot causeway sections were towed alongside the LST’s with the men lying flat on the steel pontoons. Then, when the ship grounded at full speed, the causeway sections were cut loose and allowed to drive clear on the beach under their own momentum. The sections were quickly assembled to the required length, the offshore end was made fast to the LST ramp, and the vehicles rolled ashore.
3. Seabees in Italy were accused of working all day, then sneaking up to the front lines at night for a crack at the Germans.
4. The most famous story of Seabee “barter-power” originated in Italy. Several Seabees acquired a pig, and straightway traded the pig to an LST skipper for three dozen eggs. A week later the LST returned from Bizerte and loud squeals could be heard from the ship. The bartered skipper came ashore and gave the Seabees six dozen more eggs to take the pig back. Whereupon Seabee chow was graced by both ham and eggs.
5. The German snipers made excellent use of the silos on the Italian countryside.
6. The Seabee demolition units, later to lead the way to the Normandy beaches, won their spurs in the Mediterranean landings.
7. The landing at Salerno was made on beaches adjacent to the House of Savoy’s Royal Stud Farm. Many of the fine-bred horses and cattle were killed by fright and shock.
8. Seabees landed on both British and American beaches at Salerno.
9. First American vehicle to land on the continent of Europe in this war was a Seabee bulldozer driven by Raymond J. Callahan, MM1/c, Troy, N. Y., who was with a British Hampshire Regiment on the North Beach at Salerno.
10. Italian village.
11. The Sicilian operation was noted for the very flat beaches which caused the Seabees to have to extend the causeways to a length of 300 feet. The LST’s grounded up to 300 feet from the water’s edge, with a full seven feet of water at their ramps.
12. Beach marker.
13. Seabees put some of the Sicilians to work, but were amazed at the country’s mechanical backwardness.

Heaviest Seabee casualties in any landing operation were suffered at Salerno. The Ten-o-Six Pontoon Detachment took thirty percent casualties as they rode the pontoon causeways to both the British and American beaches. One causeway section struck a mine on the run-in, killing a number of the men riding the section. Other Seabees were hit by shells as they were unloading LST’s over the causeways.
BOUGAINVILLE, Treasury and Green Islands

The long march up "the slot of the Solomons" was completed when American forces occupied the island of Bougainville and the tiny Green Islands north of Bougainville. The pattern of conquest was the same here as in every other landing operation from Guadalcanal to the Philippines: either the Army or the Marines moved in and secured a site for an airfield, and the Seabees brought in the heavy equipment and did a face-lifting job on the jungle.

Six Seabee Battalions—the 25th, 36th, 53rd, 71st, 75th and 77th Battalions—worked on Bougainville before the air, sea and ground installations were completed. The bases at Piva and Empress Augusta Bay were part of the "Ring around Rabaul" built by the Seabees to isolate and neutralize that Jap bastion.

The 71st Battalion encountered some of the most difficult terrain in all Seabee experience in building the fighter strip at Torokina Point. The ground was swampy and the rains were unseasonably heavy. A mental hazard for the men was Mt. Bagano, an active volcano, which towered above the scene.

A part of the Bougainville operation was the movement into the Treasury Islands, where the 87th Battalion built one of the finest air strips in the South Pacific.

On February 15, 1944, the 33rd battalion moved into the Green Islands with New Zealand assault forces. The 37th battalion came in shortly thereafter. The two battalions worked around the clock, using floodlights at night, and completed an airstrip in 19 days. The 93rd battalion later aided in the development of this base.

1. After chasing the Japs off of Torokina Point,
2. The Seabees had the novel experience of working beyond our front lines. Riflemen rode on the trucks and bulldozers to protect the drivers from Jap snipers.
3. One of the many plaques erected by the Seabees to the Marines, or vice versa.
4. Beach marker.
5. Marines manned the foxholes surrounding the airstrip.
6. The famous "hatchet-packing" incident. Carl E. Hull, CM1/c, former San Pedro, Calif., policeman, wielded an ax so effectively against a Jap scouting party that he was awarded the Silver Star by Admiral Halsey.
7. The 71st Battalion was in the original landing at Empress Augusta Bay.
8. The sheep's foot roller, one of the most useful tools in the Seabee locker.
10. Seabees traded Spam for grass skirts on Bougainville.
11. Lumbering operations. Seabee battalions carry portable sawmills, complete equipment for lumbering in any climate. By cutting timber on the spot, they have saved thousands of tons of shipping space.

GREEN ISLANDS

13. The fine air strip on Green Islands, built so that fighter planes could more easily escort bombers over Rabaul, was completed by the 33rd Battalion in 19 days.

14. Coral pits throughout the South Pacific have made possible many Seabee construction miracles.

TREASURY ISLANDS

15. The famous "bulldozer blitz" incident occurred on the Treasury Islands October 27, 1943. A Jap pillbox was holding up the advance on Mono Island in the Treasuries. Aurelio Tassone, MM1/c, of Milford, Mass., member of the 87th Battalion, raised the blade on his bulldozer and made it serve as a tank. He rammed into the pillbox and buried 12 Japs alive.
Because the war has moved so fast in the Southwest Pacific, many Americans probably have not been made to realize the importance of the Admiralty Islands to our successes. Yet Manus Island in the Admiralty group is one of the most highly-developed bases in the Pacific, and might justly be called the key to the Philippines.

When Manus Island was secured and the Seabees began its development, the Japs were finished in the Southwest Pacific. The Jap base at Rabaul had been crammed into a jug, and Manus Island was the stopper. Once American planes, PT boats, and radar stations were entrenched on Manus, all the Japs left in New Britain and the Solomons were as surely our prisoners as though they had been behind wire.

The first American attack in the Admiralties was aimed at tiny Los Negros Island which lies just off the eastern tip of Manus. The Japs’ Momote Airfield was located on Los Negros. The 40th Seabee Battalion had the honor of making the assault with the famous First Cavalry Division. On the first day the assault carried the air strip, and the Seabees began repairing the field. But the Japs fought back stubbornly and infiltrated our lines during the night. Hand-to-hand encounters raged until the next day.

As in Bougainville, Seabee riflemen rode the trucks and bulldozers on the air strip to protect the drivers from Jap snipers. Also, sporadic Jap mortar fire continued to hit the air strip during its reconstruction causing a number of Seabee casualties. In all, eight Seabee enlisted men were killed on Los Negros; one officer and 44 men were wounded.

When Manus was secured, several other Seabee battalions moved in and converted it into a major base. The 40th Battalion received the Presidential Citation for valor and efficiency at Momote.

1. Summerized tents, with wooden frames and floors, are used extensively for housing in the South Pacific.
2. The Seabees have handled millions of fuel drums in the Pacific. Always the steel drums are lifted by cranes and stacked in neat rows. When emptied, the drums are cut up and converted into culverts, roofing, etc.
3. Water storage, nurses’ quarters and hospital.
4. The chief Seabee gripe is that their work prevents their killing a satisfying number of the enemy. The 40th Battalion in the Admiralties got the rare opportunity of meeting the Japs face to face.
5. The Seabees are the world’s finest-equipped engineers. They carry complete portable machine shops.
6. Momote airstrip is actually on tiny Los Negros Island. For purposes of picturization, it is shown here as extending over into Manus.
7. The Seabee reputation for sharp souvenir bargaining is world-wide. As they usually work and live near the beach, the Seabees are the middle-men of the souvenir business. By forays of their own or by dealing with soldiers and Marines, they acquire stocks of the most coveted souvenirs and then hawk them to the scalping trade.
8. Seabee surveyors often land in advance of the shock troops.
9. On the Momote airstrip, as elsewhere, the Seabees installed giant floodlights and worked around the clock. Our air power reduces the risk of enemy air attack to a minimum, and what risk is taken is justified by the construction results.
ENGLAND and NORMANDY

For the great landing operations in Normandy, General Eisenhower assigned the Seabees their most responsible roles of the war. It was the Seabees who handled the artificial harbor at Omaha Beach; it was the Seabees who built the big rhino ferries, rode them across the Channel, and operated them at the beaches; it was the Seabees who laid the sunken pontoon causeways at both Omaha and Utah Beaches; and it was the Seabees who handled the Navy's oil installations at all the landing points.

No group of men ever went into battle on stranger contraptions than the Seabees did at Normandy. The 108th Battalion had the responsibility for the artificial harbor. Six-man crews rode each of the huge concrete blocks, called "phoenixes," across the Channel. Similar crews rode the 480-foot floating bridge sections and the grotesque Lobnitz piers.

The 111th Battalion operated the rhino ferries at Omaha Beach, and the 81st Battalion did the similar job at Utah Beach. Twelve-man crews rode each of the 32 rhinos across the Channel in tow from an LST. Some of these crews worked eighty hours without relief.

Separate units of the famous Ten-o-Six Pontoon Detachment handled the pontoon causeways at Omaha and Utah. These veterans of Sicily and Salerno laid three thousand feet of causeway at each beach.

The 146th Battalion was in charge of "POL"—petrol, oil and lubricants—at Omaha, Utah and Cherbourg. These Seabees laid floating oil pipe sections a mile out to sea and enabled tankers to pump high-test fuels directly to our storage on the beaches.

The 29th and 114th Battalions went into Cherbourg and assisted in clearing that great port, while the 30th Special Battalion helped handle cargo.

1 Before the invasion, Seabees in England, in their few spare hours of leisure, assisted British families with their victory gardens.
2 At Exeter the 29th Battalion built the largest American Naval Base in England.
3 English cottage.
4 Westminster Abbey.
5 Seabees aided the British in removing debris.
6 The home guard at Dover.
7 Isle of Wight. Here the Seabees practiced for the invasion, constructed an entire practice artificial harbor.
8 The French Line pier, where the Normandy docked in peacetime, was left a mass of wreckage by the Germans.
9 Approximate site of Utah Beach.
10 Seabees at Utah Beach made toys out of the German "doodlebug" tanks.
11 "Reenforced foxholes" was the mode de habitat in France.
12 One of the most intriguing German devices on the beaches was the "landscaped" gun position. Since so many of the German guns were manned by either Polish or Russian peasants, the Germans had drawn pictures of the various target areas in front of the guns, and the gunners used the pictures as charts for firing.
13 A German SS position on the beach.
14 Dr. Dick Anderson, of the 81st Seabee Battalion, gained immor-
tality in France when he delivered a French baby and the grateful parents promptly named the little girl "Seabee." The full name was "Seabee Paule Fouchard."
15 Devastation on the Normandy countryside.
16 French village.
17 The causeways, too, were successful. Eighty-five percent of the vehicular traffic landed at Utah Beach during the crucial first 10 days moved across the causeways or on the rhinos.
18 Crossing the Channel before H-Hour, the Seabees rode on phoenixes, whalas, Lobnitz piers, and rhino ferries. Operation of the big rhinos, each of which would carry 80 vehicles at a load, was one of the most successful phases in the invasion plan.
WHERE THE SEABEES WORKED

In addition to the battalions and detachments shown here, many others contributed to the building

ALASKA & ALEUTIANS:
ADAK . 12th, 21st, 22nd, 23rd, 32nd, 38th, 42nd, 45th, 52nd, 5th Special
AMCHITKA . 23rd, 42nd
ATTU . 12th, 22nd, 23rd
KUSA . 38th
KODIAK . 12th, 23rd, 38th, 41st, 43rd, 45th
SITKA . 22nd, 45th
ADMIRALTIES . 40th
AFRICA . 54th, 65th, 70th, 120th
BERMUDA . 31st, 49th
BORA BORA . Bobcats
BOUGAINVILLE 25th, 36th, 33rd, 71st, 75th, 77th
CANAL ZONE . 1012th Detachment
CANTON ISLAND . 5th, 10th

EFATE, New Hebrides . 1st
ELICE ISLANDS . 1st, 2nd, 3rd, 6th, 16th
ESPIRITU SANTO, New Hebrides . 1st, 6th, 7th, 36th, 40th, 44th, 57th
FIJIS . 3rd, 58th, 6th Special
GALAPAGOS . 1012th Detachment
GREEN ISLANDS . 33rd, 37th, 93rd
GUADALCANAL, FLORIDA and TULAGI . 6th, 14th, 18th, 26th, 27th, 34th, 46th, 61st, 63rd, 9th Special, 18th Regiment
GUAM
ALONG THE ROADS TO VICTORY

Along the roads to victory, but at this time their numbers and locations cannot be revealed.

HAWAIIANS . . . . 5th, 10th, 13th, 14th, 16th, 39th, 48th, 56th, 59th, 62nd, 72nd, 76th, 90th, 92nd, 94th, 99th
HONDURAS . . . . 1012th Detachment
ICELAND . . . . . . 9th, 28th
JOHNSTON ISLAND . . . . 5th, 10th
MIDWAY . . . . . . . 50th
NEWFOUNDLAND . . . . 17th, 64th, 69th
NEW GEORGIA:
MUNDA . . . . . . . 24th, 73rd
SEGI POINT . . . . . . . 47th
NEW GUINEA . . . . 19th, 40th, 46th, 78th
NICARAGUA . . . . 1012th Detachment
NORMANDY & ENGLAND . . 1006th & 579th Detachments, 28th, 29th, 81st, 108th, 111th, 114th, 146th, 30th Special
NOUMEA, New Caledonia . . 11th, 19th, 20th, 53rd, 78th, 2nd Special
PALAU ISLAND . . . . . . .
PALMYRA ISLAND . . . . . . .
REDOVA . . . . . . . 24th
SAMOA ISLANDS . . . . . . . 2nd
SICILY & ITALY . . . . 1006th Detachment, 70th
TINIAN, Marianas . . . . . . .
TREASURY ISLANDS . . . . . . . 87th
TRINIDAD . . . . . . . 30th, 80th, 83rd
VELLA LAVELLA . . . . . . . 58th
WOODLARK ISLAND . . . . . . . 60th