

## Chapter 4

### Builders at the Front

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“Every time I pass a bulldozer, I want to stop and kiss it.”

—Admiral W. F. Halsey, USN, Guam, 1945

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Principal sources for this chapter are the Department of the Navy, *Building the Navy's Bases in World War II—History of the Bureau of Yards and Docks and the Civil Engineer Corps, 1940–1946*, Vols. 1 and 2 (1947); and Lieutenant (jg) William Bradford Huie, CEC, USNR, *Can Do! The Story of the Seabees* (1944).

In addition to the above sources, special thanks are due the following who provided firsthand accounts of Seabee contributions, both of the construction and stevedore battalions: Lieutenant Mark H. Jordan, CEC, USN (Ret), and former Executive Officer of the famous Sixth Naval Construction Battalion, for furnishing a rare copy of the Battalion's history, “Saga of the Sixth: A History of the Sixth Naval Construction Battalion, 1942–1945”; Captain Larry G. DeVries, CEC, USNR, for sharing both his manuscript, “Builders at the Front,” and *WWII Naval Journal* story, “Seabees on Guadalcanal”; Al Don, USN (Ret), former editor of the Seabee newsletter, “Can Do,” for his critique of an early draft of this manuscript; Claude S. Gulbranson, USNR, and Secretary for the First “Special” Naval Construction Battalion, for furnishing a copy of the privately published, “History of the First Special U.S. Naval Construction Battalion, 1942–1946”; and the Marine Corps Historical Center for copies of “Engineering on Guadalcanal” (1944) and “Building Under Fire—Marine Corps Engineers” (1944).

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Editor's note: This chapter profiles the engineering and construction skills of the U.S. Marine Corps and the U.S. Navy. The U.S. Marine Corps Engineers are profiled as their actions are chronicled on Guadalcanal during America's first offensive of World War II. This is followed by profiles of the two types of U.S. Naval Construction Battalions—or Seabees as they were called: the "NCB" for construction and the "Special" NCB for stevedoring. The chapter concludes with a summary of the many early Advance Base construction projects built in the South Pacific.

Special thanks are due the following authors who contributed firsthand accounts to this chapter: Lieutenant Mark H. Jordan, CEC, USN (Ret), and former Executive Officer of the famous Sixth Naval Construction Battalion; Captain Larry G. DeVries, CEC, USNR; and Claude S. Gulbranson, USNR, and secretary for the First "Special" Naval Construction Battalion.

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### **U.S. Marine Corps** ***"First Ashore, First to Fight!"***

Editor: The following monograph from the U.S. Marine Corps, "Engineering on Guadalcanal," describes the birth of the Marine Corps Engineers and their unsung special Pioneer unit of the First Marine Division. The monograph provides the background to understanding the difference between the young combat engineers trained primarily as infantrymen, and the seasoned Seabees—long on construction skills, but ready to fight when the need arises. It also provides yet another perspective on the Guadalcanal story.

### ***Engineering on Guadalcanal***

Since the founding of the Marine Corps on 10 November 1775, the “Soldiers of the Sea” have been primarily riflemen. But developments in military science forced the creation of special units trained for specialized tasks. Although small Marine Engineer units had been in existence for a number of years, the strength of the Corps was too small to warrant a separate Engineer Service. The early events of WWII, however, indicated the necessity of a larger proportion of engineer troops in combat divisions and so the Marine Corps Engineer Service was born. In the Guadalcanal campaign, components of this newly organized branch received their baptism of fire.

Among the special units comprising the 1st Marine Division were the 1st Pioneer Battalion and the 1st Engineering Battalion. Companies of these units were attached to infantry regiments and distributed throughout the troop transports comprising the Task Force. On the morning of 7 August 1942, the big guns of the escorting combat ships covered the landing of the infantry. In the boats carrying the leading infantry elements were small detachments of Pioneers and Engineers. As the infantrymen moved inland to establish the beachhead, the attached Engineers accompanied them while the Pioneers remained to organize the beach.

Pioneer officers immediately checked the actual terrain along the beach with the mental impressions they had obtained from studying aerial photographs. Markers were landed and set up to indicate the limits of the beach and the unloading points for various types of supplies and equipment.

Pioneer gun crews set up machine guns and prepared to keep hostile dive-bombers at a respectful distance. Very little time elapsed before boatload after boatload of essential materials were being ferried from the transports and cargo ships lying off-shore. When these boats hit the beach the Pioneers took charge and manhandled stores across the soft sand and placed them in the beach dumps under cover of the coconut trees.

Small tractors driven by Pioneer operators were among the first pieces of motorized equipment ashore. These were needed to snake the large trucks and field guns out of the ramp boats and through the shallow water to

the security of solid ground. The ultimate success of the landing operation depended on the rapid and efficient handling of many tons of combat stores in this initial phase of the operation. Pioneers struggled hour after hour under the blazing tropical sun carrying heavy loads through soft sand until they were moving on will power alone. When the Jap planes came over they dropped their loads and manned their guns. They won the admiration of the division by their performance.

In the first few hours after the landing, the Engineers accompanying the infantry threw an improvised bridge across the Ilu River which enabled the supporting heavy weapons and light supply vehicles to cross with no delay. Since the initial landing was made on a beach about four miles east of Lunga Point, and because the Japanese airfield was the key to the whole situation, the infantry units pushed rapidly ahead to secure it. This left the beach-head proper relatively undefended and the Engineer Battalion was called upon to organize a defensive position around it. True, it was a sketchy defense because of the length of the perimeter and the small number of troops to hold it, but it released badly needed infantry to do the more important job.

During the next few days the division moved to the area around the captured airfield, and the mountains of supplies and equipment landed by the Pioneers had to be hauled from the beaches to the supply dumps in the vicinity of Lunga Point. This movement was made by truck and the Engineers were required to erect temporary bridges across one river and to strengthen and rebuild existing bridges across others to enable them to pass the division loads.

The challenges were considerable:

- (1) In the initial landing, the Engineers lay vehicle paths of burlap covered with wire mesh over the sandy beaches.
- (2) The fierce tangle of the jungle was then cleared preparatory to building much needed roads and trails.
- (3) Deep jungle mud made even jeep travel difficult until better roadbeds were available.

- (4) Captured Japanese rollers were pressed into service as the Marine Engineers begin building the airfield.
- (5) As combat conditions permit, the Engineers improve the roads so heavy vehicles and additional traffic can proceed.
- (6) Quickly built pontoon bridges to allow troops and supplies to move forward over many streams.
- (7) Modern equipment soon has the fighter and bomber strips ready to handle the combat traffic soon to arrive.

Japanese attacks by air and sea were increasing in tempo. Our cargo ships and transports were forced to leave before they were completely unloaded. Consequently, only a small percentage of the engineer equipment was landed and, as a result, this unit had to rely on field expedients from the very start. Fortunately the Japs left a generous supply of heavy timber and no time was lost in utilizing it for construction purposes.

The primary job of the Engineer Battalion was to complete the airfield so that our own aircraft could use it. The Japs had done an excellent job on the landing strip, but they had started its construction from the ends and were working toward the center. When the engineers arrived there was a gap to be filled that required the movement of approximately 10,000 cubic yards of earth. A simple job if earth moving machinery had been available, but it wasn't. Engineers turned to with captured hand shovels, a few trucks—none of which were dumps—and a few small gasoline powered rollers. These latter pieces of equipment were found on the field somewhat the worse for wear. Splinters from the bombs and shells so liberally sprinkled over the area by our opening bombardment had completely ruined many of them. But the repair section of the Engineer Battalion salvaged parts from the more seriously damaged and repaired a few. The Jap machinery was pretty poor compared with high grade American made machines but it was better than nothing.

Earth was moved from the borrow pits by using Japanese dynamite to loosen it, shoveling it into trucks by hand, and then shoveling it out where

needed. Working under the broiling tropical sun on short rations day after day was trying. But to this was added the hazards of working in the “V” ring of the bull’s-eye from the Jap bombers point of view. They endeavored to slow up progress by dropping both high explosive and delayed action bombs along the landing strip. It was not possible to stop construction and the probability of casualties had to be accepted. Engineers dug the bombs out when necessary, exploded others in place, and then filled the craters.

About three weeks after the initial landing, work on the airfield had progressed in a satisfactory manner in spite of the Nipponese efforts to stop it. The landing strip was complete enough to take the planes several days ahead of schedule. Toward five o’clock one evening the air was filled with the hum of many motors. Men ran for the shelter of slit trenches. Then, as they gazed heavenward with curses on their lips, their eyes made out the big white stars on the wings of U.S. aircraft, and their curses turned to cheers. Fighter planes circled in perfect formation high overhead as the dive-bombers came sliding gracefully down toward the field. Around the edges of the strip tense-faced Engineers stood holding their breath, and as the wheels of the leading plane touched the ground lightly, an audible sound of relief was heard. As the plane slowed down and swung off the strip to a taxiway many watchers cheered and many throats were tight. After the last plane had landed safely, Engineer working details collected their tools and slowly walked away, but there was a spring to their step which seemed to say, “We did not fail.”

Work continued on the airfield until a contingent of the 6th Naval Construction Battalion (Seabees) arrived September 1, 1942 to relieve the First Engineering Battalions. The engineers gladly relinquished the construction of the landing strip and its appurtenances to the Seabees and turned to their tactical engineering missions so necessary to the support of the infantry.

From the start of the operation, there were several other essential tasks that had to be performed concurrently with the airfield construction. The supply of pure water was an engineer function. The Water Supply Section of the Battalion set up and operated portable and mobile water purification

units. These units filtered and chlorinated the river water which was then pumped into 3,000-gallon canvas storage tanks. Distribution was effected by means of two-wheel water trailers and the standard 5-gallon expeditionary cans. These units in operation supplied on an average of 40,000 gallons per day. The ability of the operators to make repairs under trying conditions with limited tools and improvised parts kept the units in almost constant operation in spite of occasional damage from bomb shell splinters.

Because supplies and ammunition had to move continually, the construction of roads and bridges was a major problem. When the infantry pushed their defensive lines deeper into Japanese territory, new supply roads—commonly called jeep tracks—had to be provided. The two angle-dozers with carryalls, power shovel, and half dozen dump trucks landed late in September for the Engineer Battalion were used extensively in this work. To see the sturdy American machinery cut its way through tropical jungles was a real pleasure. But the heavy demand for all types of work still necessitated lots of hand labor. When the supply of captured construction materiel was exhausted, natural materiel had to be used exclusively. Coconut logs were the handiest and were very plentiful; consequently they were used for every imaginable construction project.

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Road blocks, anti-tank mine fields, land mines, anti-personnel mines, and some barbed wire entanglements were installed and maintained by the Engineer units. Demolition parties assisted the infantry by blasting holes for machine gun emplacements in the rocky ridges. The angle-dozers were occasionally used to clear fields of fire for infantry organizations dug in on jungle defense lines.

The usual procedure for Engineers is to “fight all day and work all night” but that was reversed in this campaign. During the first month and a half both the Engineer and Pioneer Battalions were camped in the jungle on

the perimeter of the beachhead. Later they were moved to defensive sectors on the beach itself. The normal construction work and unloading activities were carried on in daylight, but when darkness fell these battalions were in their defensive positions. Many sleepless nights were spent with Japanese patrols in contact with their outposts. Because the Nips launched their big assaults at night these units participated in several heavy engagements. But the dawn always found them going back to their normal daytime routine.

When the 1st Marine Division left Guadalcanal, the Pioneer, Engineer, and Naval Construction Battalions were combined under a single head. Their missions still remained the same: namely, shore party work for the Pioneers, combat functions in direct support of the infantry for the Engineers, and heavy construction for the “Seabees.” However, this general similarity of equipment and work warranted the unified command. And that is, in general, the present organization of the Marine Engineer Regiments.

After all is said and done, these Marine Pioneer Battalions are not so far removed from their pioneer forefathers who built their cabins and plowed their fields with their rifles within easy reach. Basically, these Marines are still riflemen, and as their trucks and tractors are building in the jungle, their rifles are kept within easy reach.

(Source: U.S. Marine Corps, “Engineering on Guadalcanal,”  
*Headquarters Bulletin*, January 1944.) ■



### ***Building Under Fire, Marine Corps Engineers***

Editor: Lieutenant Colonel James G. Frazer, USMC, served as the first Commanding Officer of the 1st Marine Corps Engineer Battalion on Guadalcanal from 7 August to 24 October 1942. In the following excerpt from *Building Under Fire—Marine Corps Engineers*, he related the challenges and focus of these fighting engineers who are “first on the beach.”

## Naval Construction Battalions—Birth of the Seabees “We Build, We Fight!”

Editor: The U.S. Navy’s story of the Seabees is chronicled in the Department of the Navy’s *Building the Navy’s Bases in WWII*.

### ***Battalions Authorized and Organized, 5 January 1942***

After the 7 December 1941 attack on Pearl Harbor and the United States’ entry into the war, the use of civilian labor in war zones became impractical. In fact, under international law, civilians were not permitted to resist enemy military attack; resistance could result in summary execution as a guerrilla.

On 5 January 1942, Rear Admiral Moreell was granted authority from the Bureau of Personnel to recruit men from the construction trades for assignment to a Naval Construction Regiment (NCR) composed of three Naval Construction Battalions (NCBs). This was the actual beginning of the renowned Seabees and Moreell personally furnished them with their official motto: *Construimus, Batuimus*—“We Build, We Fight.”

Naval Construction Battalions were organized around the allowance of 33 officers and 1,081 enlisted personnel. They were organized in five companies including a headquarters company and four construction companies. The organizational allowance was designed to provide a self-sustaining unit with individual and organizational equipment, vehicles, supplies and materiel to perform construction work.

The original planning resulted in battalions being assigned as a functional component part of advanced bases known as CUBs, LIONs, and ACORNs, which were the code names for standard advanced naval bases.

Naval Construction Battalions were completely equipped, self-sustaining and able to construct airfields, roads, bridges and buildings at an advanced base and to install, operate and maintain its public utilities.

(Source: Dept. of the Navy, *Building the Navy’s Bases in WWII*, Vol. 1, 133–150.) ■



Editor: Lt (jg) Huie continues with the Seabees story in *Can Do!*:

It is almost impossible to exaggerate the urgent need for Seabee battalions in December 1941. They had to be recruited, organized from scratch, then trained, equipped and transported to the job site. The war had to wait for them.

The Seabees were not really trained during the first months; they were just assembled, given their medical shots and equipped with whatever was at hand. There was no time for training. The First and Second Construction Battalions embarked from the West Coast for the South Pacific early in February 1942. The Third Battalion went to the Fijis; the Fourth to Dutch Harbor; the Fifth to Samoa. The Seabees had No. 1 priority on shipping—like volunteer firemen being rushed to the fire.

Twenty-five battalions had been shipped overseas before the CEC could stabilize on an eight-week assembly and training period. There were desperate shortages of ordnance, construction equipment and clothing, so the battalions had to be shipped out with “supplies and equipment to follow.” On arrival at their jungle islands, the men had to barter, steal and improvise while they waited and hoped for all the stuff that was “to follow.”

On 17 January 1942, ground was broken near Norfolk, Virginia, for Camp Allen, which was to take care of one regiment. This camp was put in commission on 13 March 1942 when 2,000 men arrived there for training.

National Youth Administration (NYA) camps were used until May 1942, when Camp Bradford was opened. The small NYA camps were scattered throughout the country. It was at these camps that many Seabees were assembled for their medical shots, outfitting and brief conditioning. Camp Bradford was ten miles from Camp Allen, but the two were operated as one training center.

It took months to lick the training problem. Camp Endicott, R.I., with a capacity of 11,000 men, was commissioned 11 August 1942; and Camp Peary, Va., with a capacity of 40,000 men, was opened in November 1942. These were followed by the commissioning of Camp Lee-Stephenson, Quoddy Village, Me.; the opening of the Recuperation Center at Camp

Parks, Cal.; and the development of the Advance Base Depots at Port Hueneme, Cal.; Davisville, R.I.; and Gulfport, Miss.

On 18 September 1942, about the time that the creation of the construction battalions slowed down to an orderly process, the Navy ordered the CEC to begin creating stevedore battalions of Seabees. A serious bottleneck had developed in the South Pacific. Ships could not be unloaded as fast as they arrived, and at one time 83 freighters were riding at anchor in the South Pacific waiting to be unloaded. Unloading difficulties were multiplied by the fact that we had no cargo docks north of Australia, and all cargo had to be handled first onto lighters, from the lighters to trucks, and thence to storage areas.

These stevedore battalions were designated as “Special” Seabee Naval Construction Battalions (“Special” NCBs), and the First “Special” was organized hastily and sent to Guadalcanal. Each “Special” NCB was organized around the nucleus of experienced stevedores, and the inexperienced men were given brief training on a dry-land model of a Liberty ship at Camp Peary.\*

A later development was the Construction Battalion Maintenance Unit (CBMU). These units varied in size from 60 to 250 officers and men, and were designed to replace construction battalions after construction has been completed and the war had moved on, leaving only maintenance and operations tasks in its wake.

By 1943, with the pressure slacking off in both the Atlantic and the Pacific, the training period for Seabee battalions was gradually lengthened to three months. Battalions returning from overseas were given the military training which they had skipped in the dark days.

The Seabees began looking like a military organization as well as acting like one. On broad training grounds at the big camps, Marine Corps instructors taught the Seabees all the tricks of beach landings and jungle warfare. Tough bulldozer operators to whom fighting was an occupational sport were taught judo and bayonet tactics.

(Source: Huie, *Can Do!* 86–88.) ■



\* The First “Special” Naval Construction Battalion is profiled later in this chapter. —Ed.