

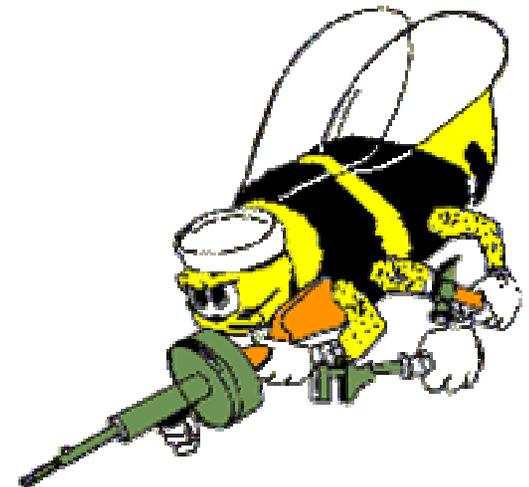


SEABEES

"We Build, We Fight"

U.S. Navy Seabees During World War II

J. David Rogers

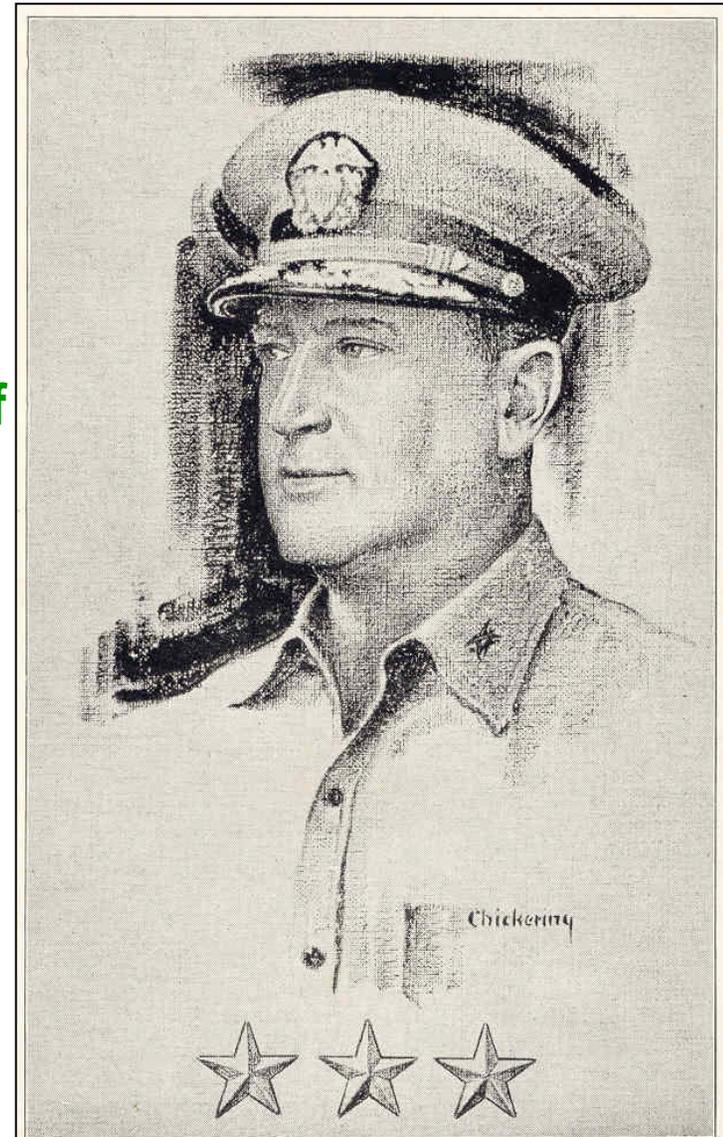


King Bee

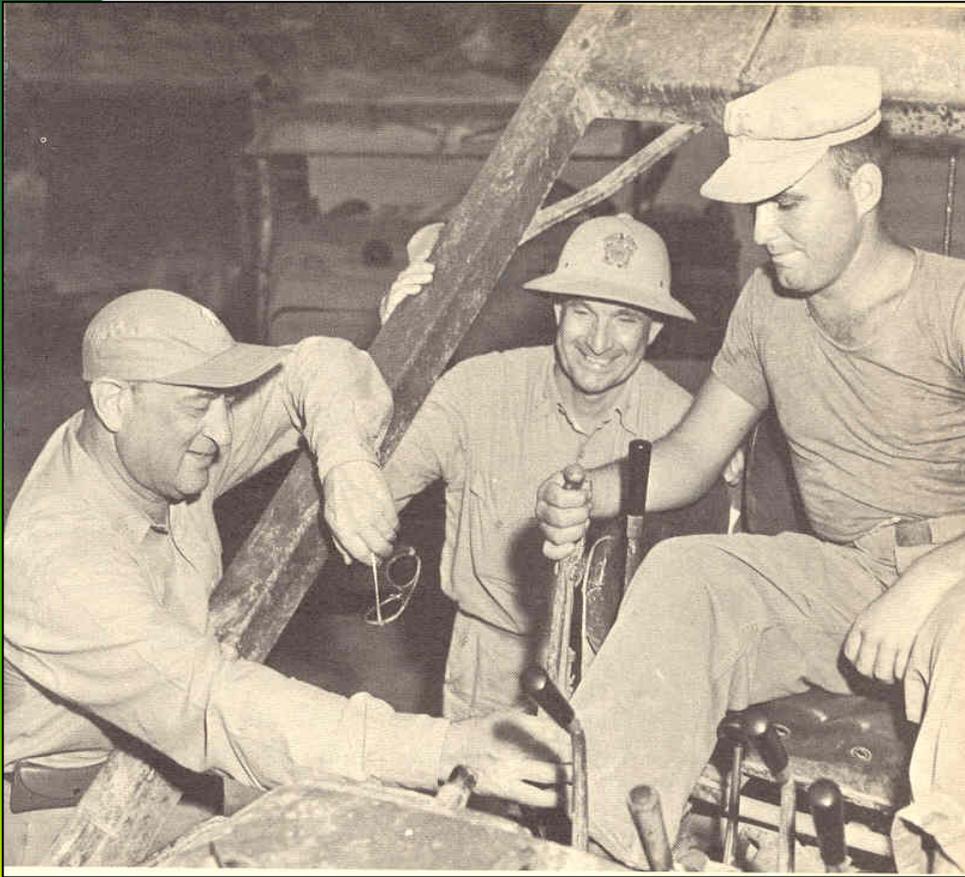
RADM Ben Moreel was the first Chief of the Navy's Bureau of Yards and Docks and the CE Corps. He was promoted in 1937, skipping the rank of Captain

BSCE degree from St Louis University in 1913 and commissioned as a LTJG in the Navy CE Corps in 1917, during World War I. He served in the Azores with Navy Undersecretary Franklin Roosevelt

- He attended École Nationale des Ponts et Chaussées in France, returning to US in 1933



Vice Admiral Ben Moreell is Chief of Civil Engineers and Chief of the Bureau of Yards & Docks. At fifty-one he is the youngest vice admiral in the Navy and one of the few non-Annapolis men ever to attain such rank. He entered the Navy during the last war following his graduation from Washington University, St. Louis, in which city he was born.



- Moreel was promoted to VADM in 1944 and was the first staff corps officer and the first Jewish American to attain 4-star rank in the Navy in June 1946.

He hatched the idea for the Navy Seabees, which was approved in March 1942

- 258,000 officers and men served in the SeaBees during World War II
- 80% of these forces served in the Pacific Theater

Navy Recruits “Cream of Construction Industry”

Personnel had prior experience with projects like:

Boulder Dam

National Highways

New York Skyscrapers

Mines, Quarries, and Subway Tunnels

Ship Yards, Docks, Wharfs, even Aircraft Carriers

Experience Comes with age (average age 37)

Battalions Designed to be:

“Completely equipped and self-sustaining able to construct airfields, roads, bridges, and buildings at an advance base and to install operate and maintain its public utilities.”



Seabee units were formulated from existing heavy construction firms across the USA

They were provided with military training and discipline, including use of weapons, shown here.



U. S. NAVAL CONSTRUCTION TRAINING CENTER
CAMP PEARY
WILLIAMSBURG, VIRGINIA

Birth of the SeaBees

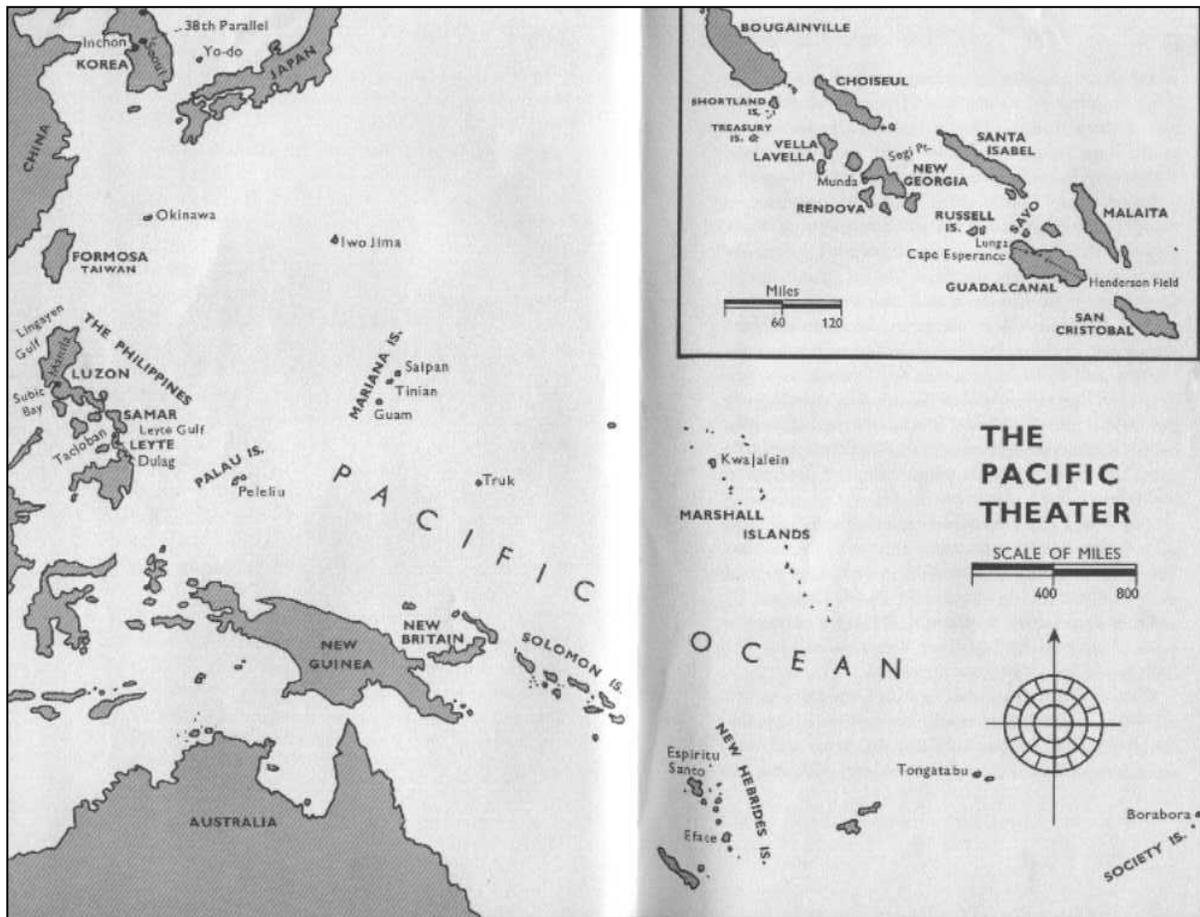
First projects were construction of patrol base facilities in Iceland and construction of graving docks at Pearl Harbor

Bobcats sent out on 5 Mar 1942- NCB officially named "Seabees"

Motto- "Construimus, Butuimus"

The romantic image of Seabees appealed to construction workers, who were eager to contribute to the war effort in a worthwhile way - overseas





- Moreel poses idea for SeaBee construction battalions drawn from ranks of civilian heavy construction firms in late 1941 and gains congressional authorization in early 1942. Construction trade and labor unions were dubious of concept. Seabees were the highest paid group in the military and fought in every theatre of WWII
- Crucial in Pacific island hopping during World War II

Roles in the Atlantic in WWII

Panama Canal

Puerto Rico- “Pearl Harbor of the Caribbean”

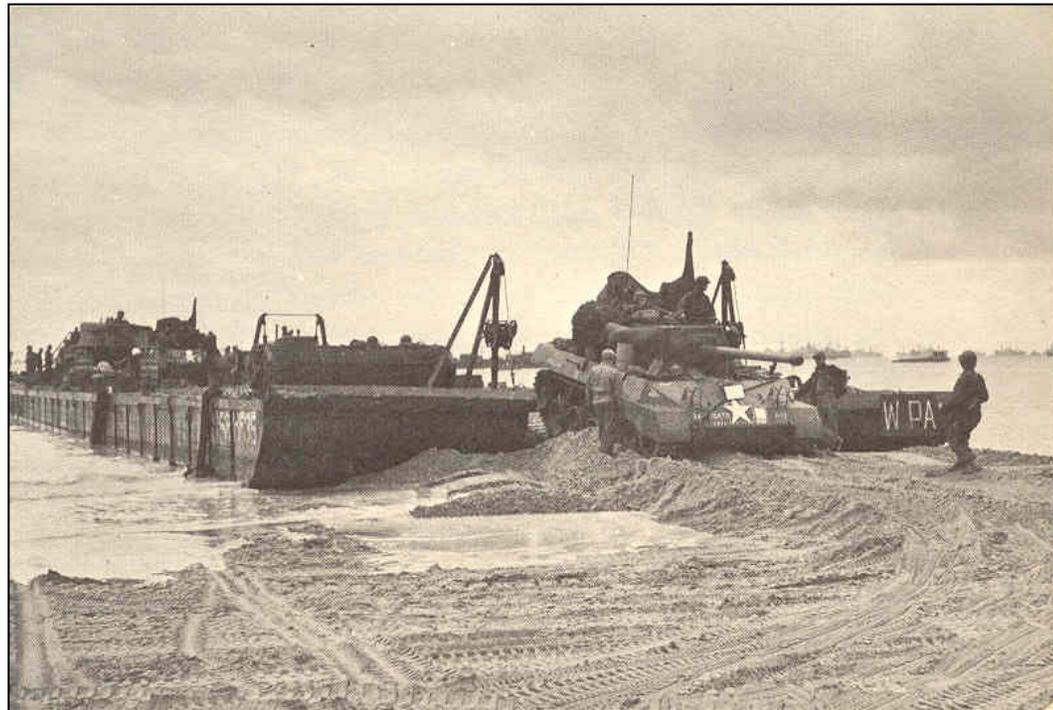
North Africa

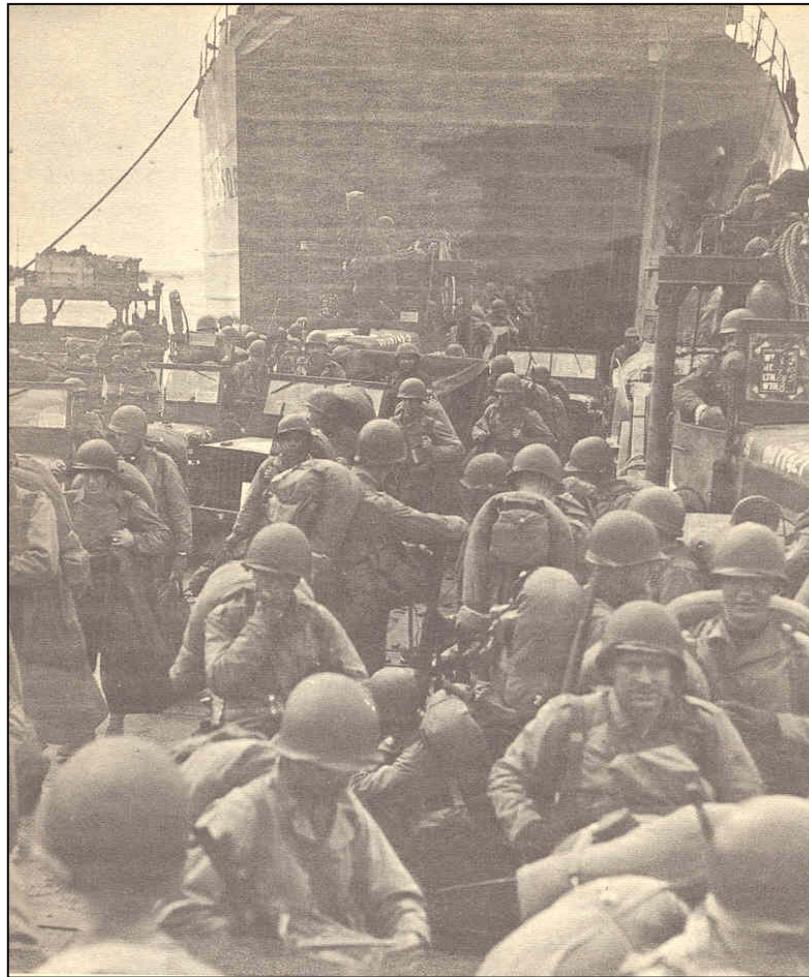
Landings at Sicily

D-Day: Demo units

Pontoon Causeways

Harbor Restoration

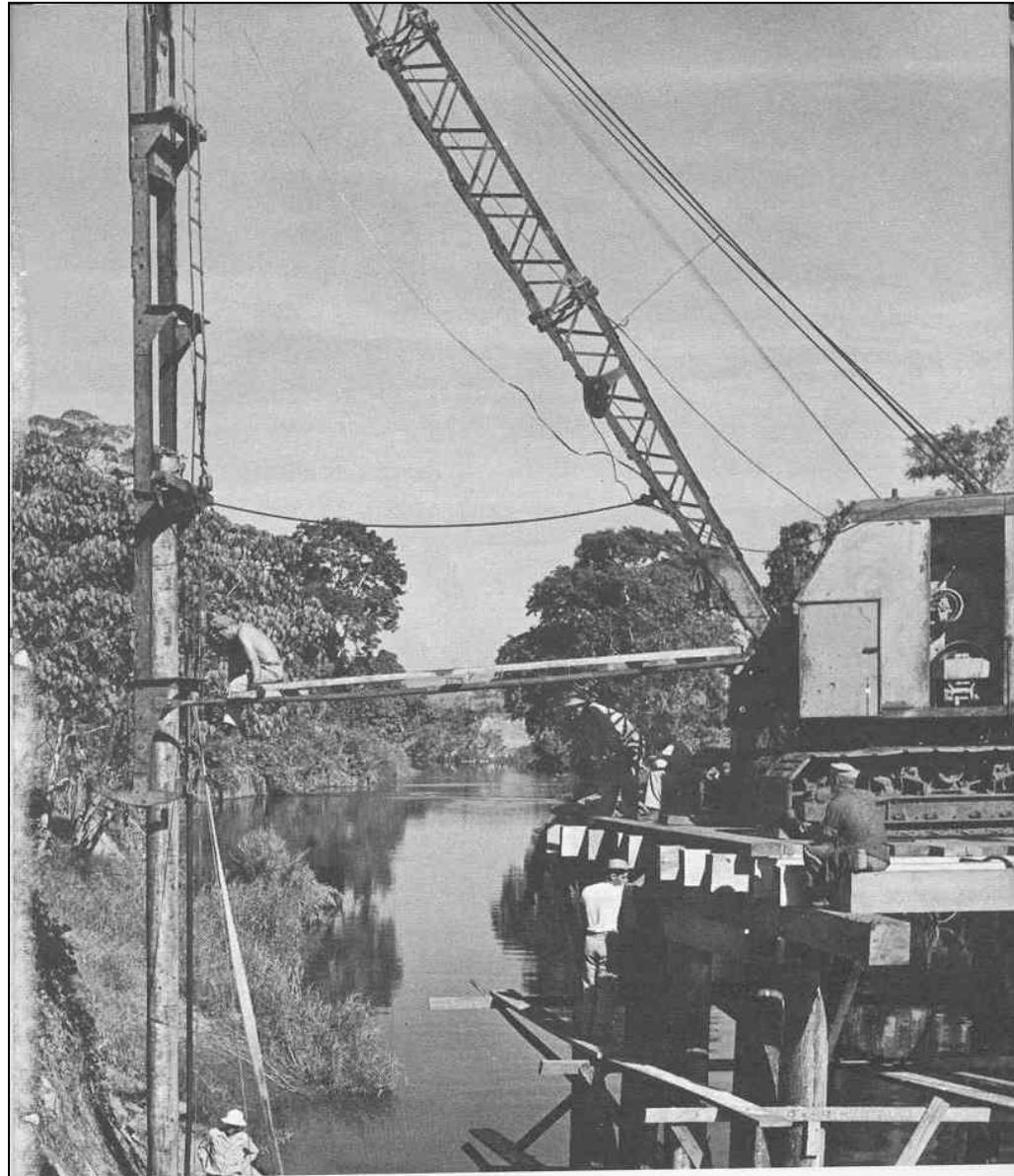




SeaBee Unit Compositions

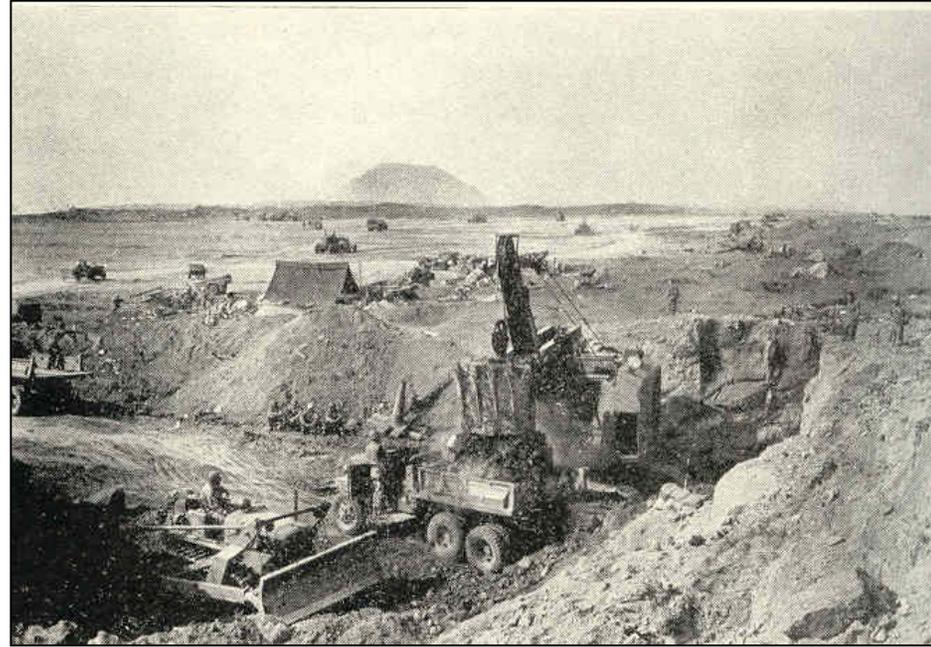
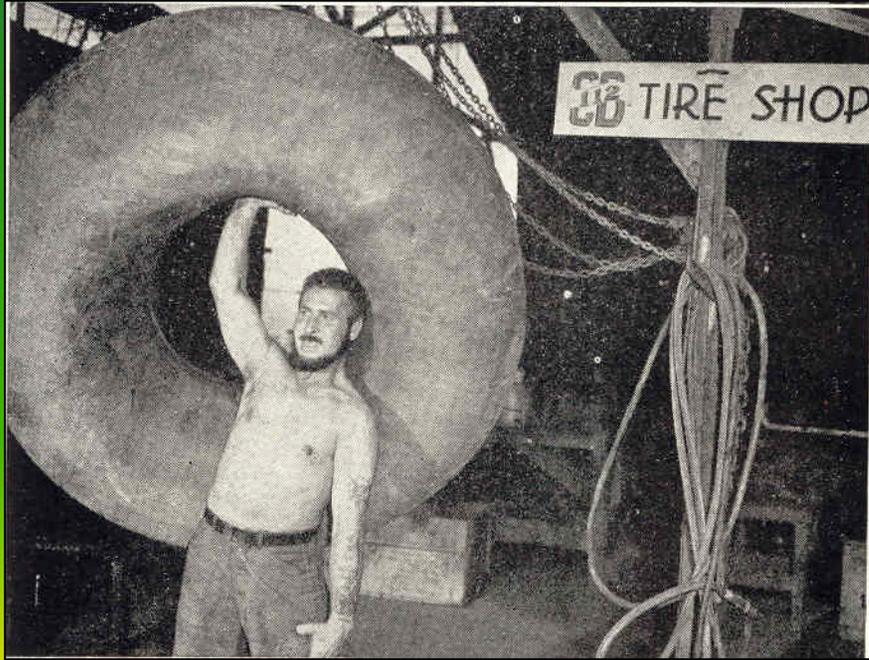
During World War II there were 151 Navy Construction Battalions (NCBs); each comprised of seasoned workers.

The average age of a SeaBee was 35 years



Seabees of the 14th Battalion use a pile driver and heavy timbers to build a sturdy highway bridge on Guadalcanal.

164 Special Detachments- Anything from tire repair shops to Quarrying



Most units were capable of constructing pontoon causeways, roads, bases, airfields and wharf facilities

The Navy formed 136 SeaBee Maintenance Battalions



Repairing Marston mat at Henderson Field, Guadalcanal

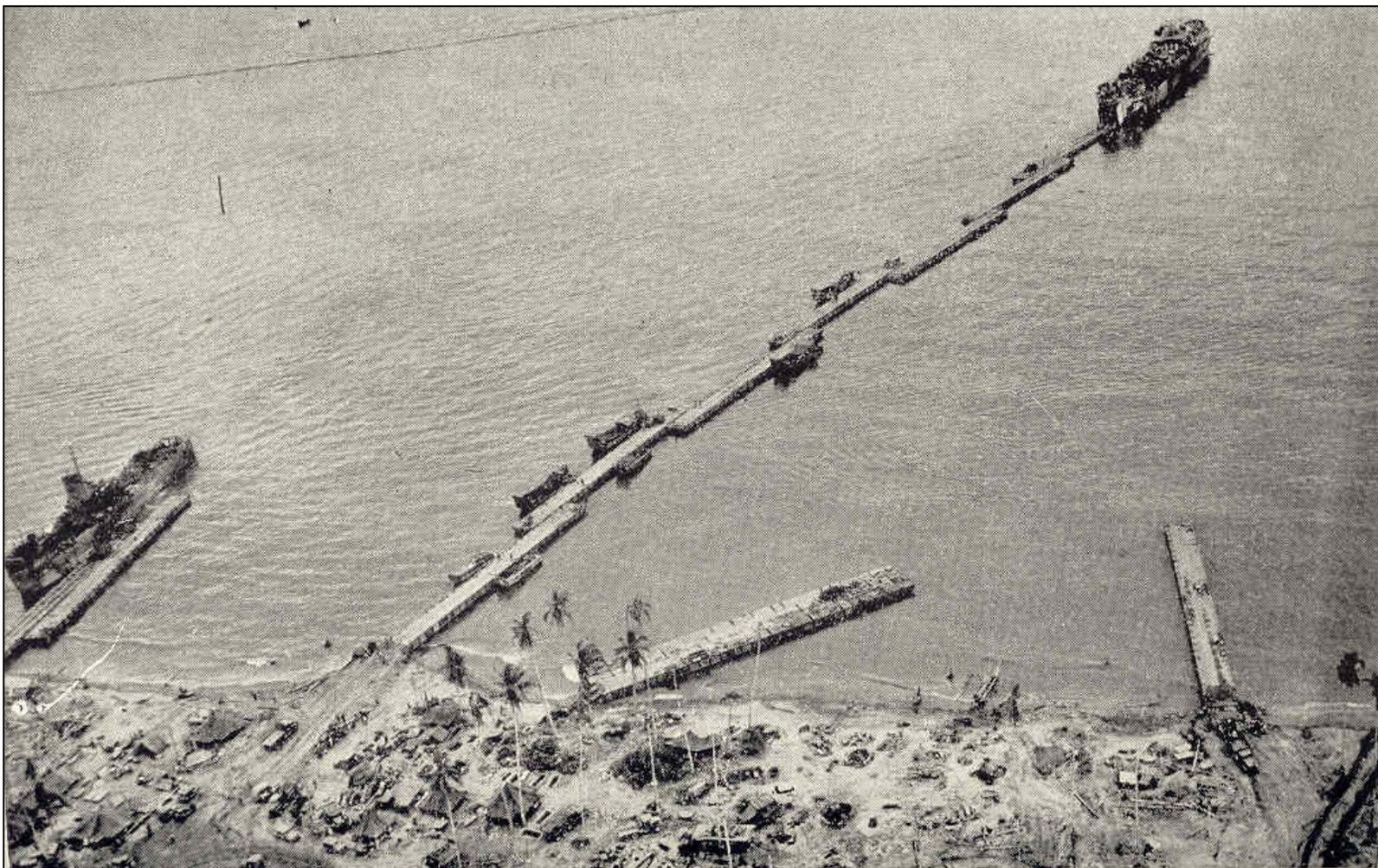
39 Special (stevedore) Battalions



Men of the Sixth Special (stevedores) unloading cargo onto a pontoon barge.

(Official U. S. Navy Photo)

5 Pontoon Assembly Detachments

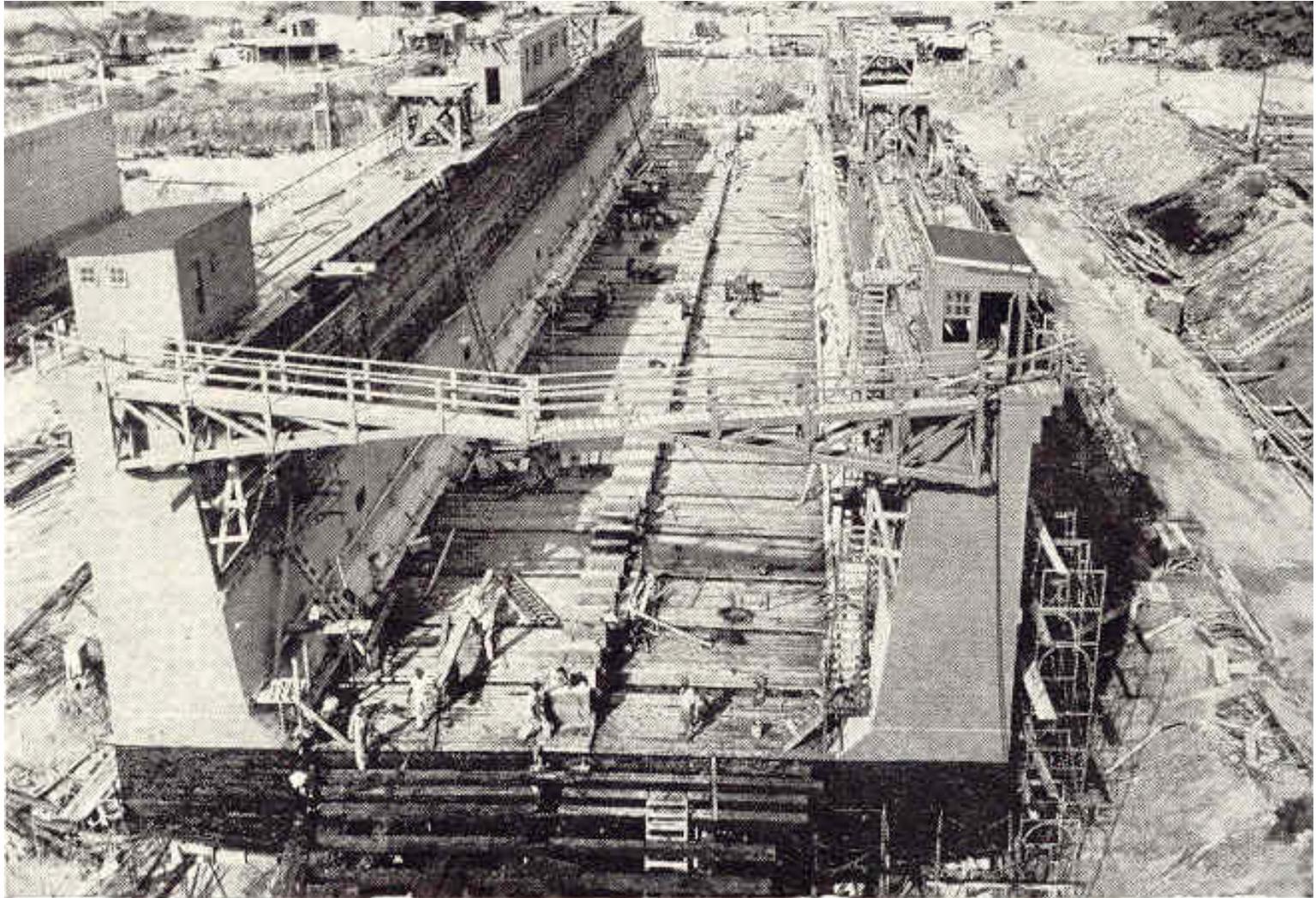


Because of the shallow water at the beach, the 302nd Seabees had to lay this 1100-foot pontoon causeway at Leyte to unload the LST's.

Each SeaBee unit had its own surveyors



Seabees also built their own floating dry docks –



**THE NAVY'S
UBIQUITOUS
CONCRETE
PONTOONS**

Origins of the Precast Segmented Pontoon



Captain Laycock invites Admiral Morrell to lean on a cigar-box model of a string of pontoons.

- A better way to bridge the gap from ship to shore was needed
- Idea came from a report written in 1935
- Captain John Laycock experimented with cigar boxes and kite sticks
- In 1941, first precast concrete pontoons were delivered to the Navy.

Pontoon Piers



The Seabees took only a few hours to build this ten-by-four pontoon pier for unloading small craft.

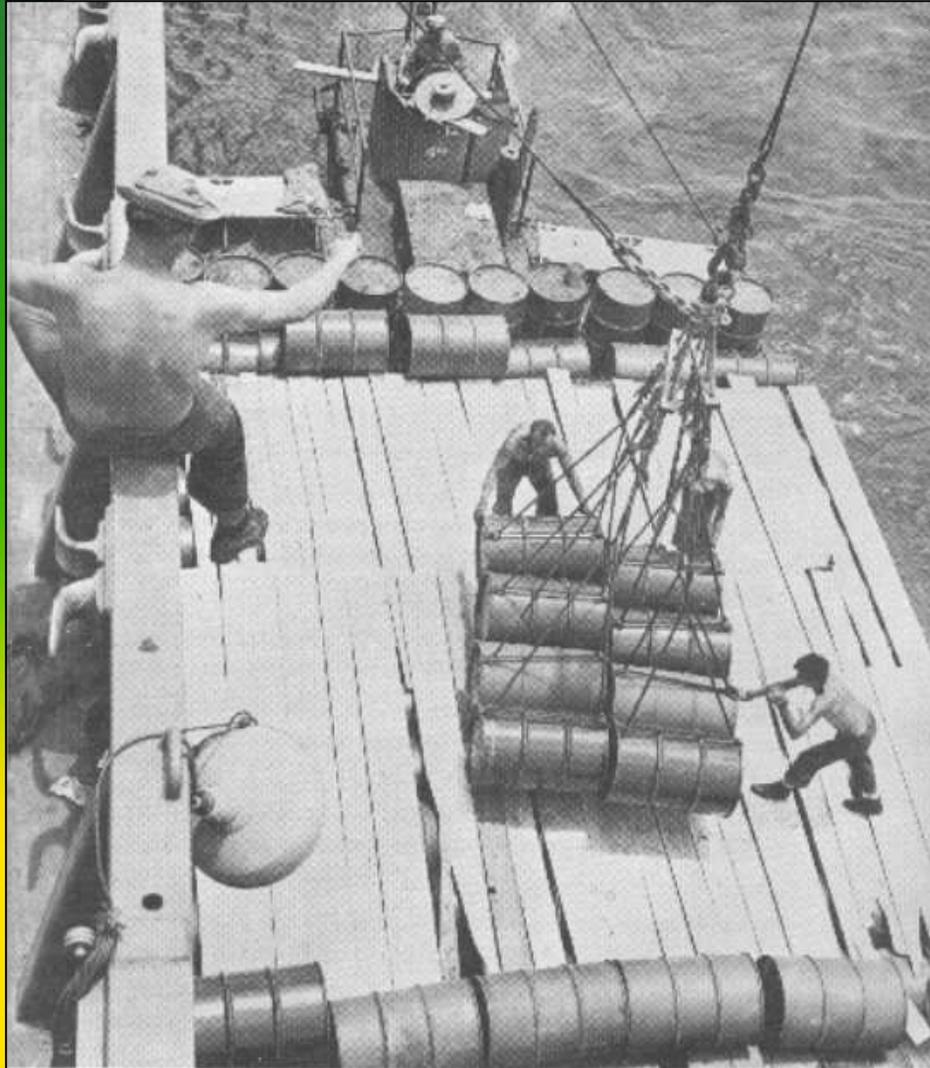
- Standard dimensions of pontoon elements:
5 ft x 7ft x 5ft
- Could float in 1.5 ft of water
- Top of pontoon could carry about 20 tons through buoyancy

Pontoon Barges



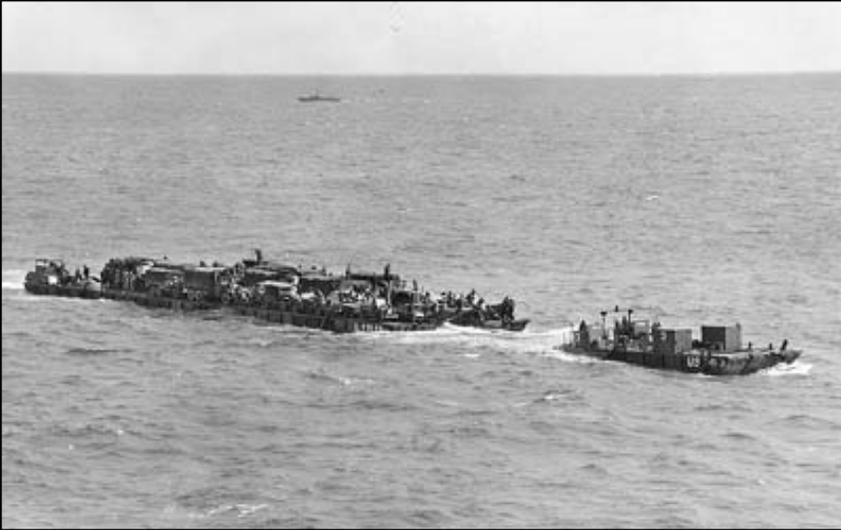
- **Used world's largest outboard motors**
- **About the size of a large tractor engine**
- **The propeller shaft on this outboard points sky-ward. The shaft is raised because the pontoon barge to which it is attached is floating in shallow water.**

Pontoon Barge II



- Hauled tons of supplies ashore quickly
- Able to float in very shallow water
- Members of the 4th Special Stevedore Battalion unload drums of gasoline and diesel fuel from a cargo ship onto a pontoon barge at Guadalcanal.

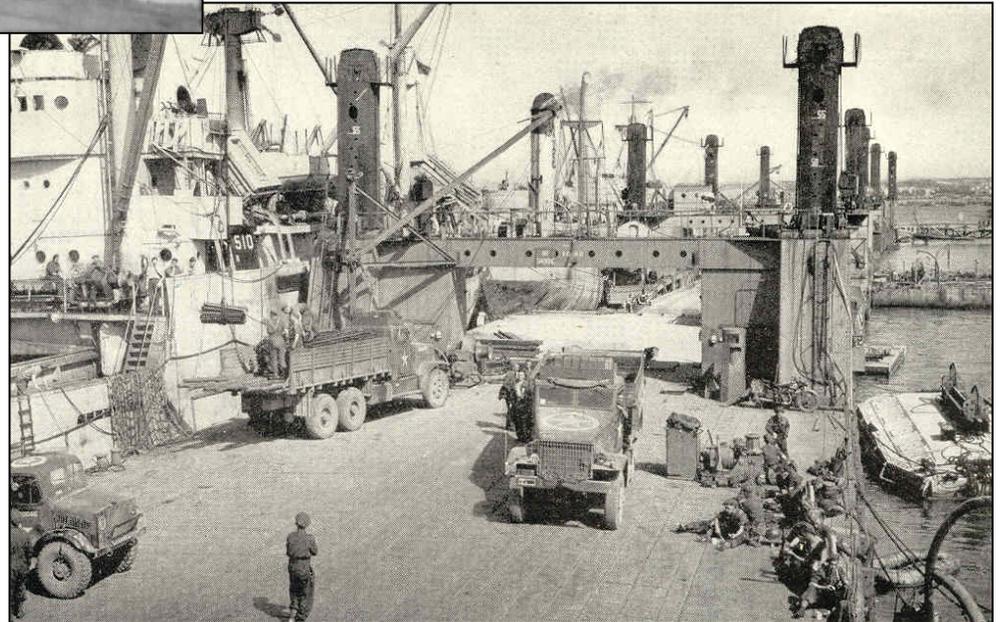
Rhino Ferries



A rhino ferry carrying truckloads of supplies and equipment, heads for one of the Normandy beaches.

- Could carry half the cargo load of an LST (Landing Ship Tank)
- Powered by enormous outboard motors
- Used by the British and Americans in the Normandy D-Day landings
- Advantage: could float in shallower water than an LST

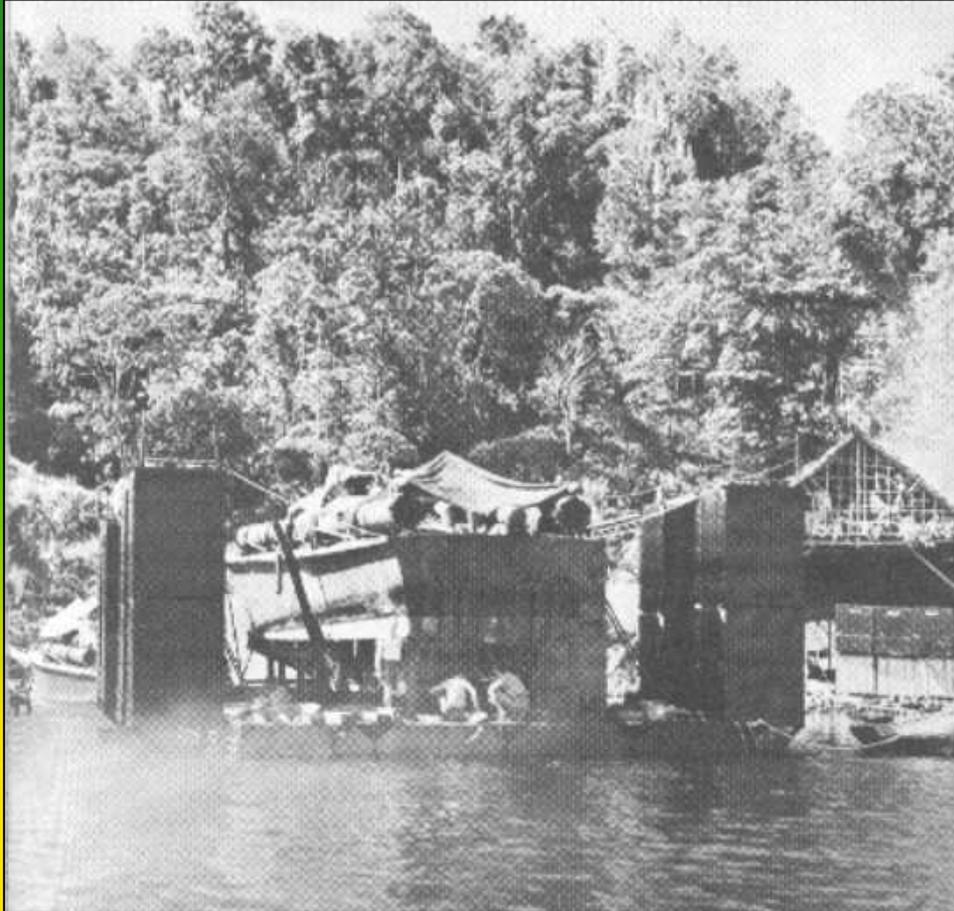
Precast Pontoon Segmented Piers were used for every conceivable application, and then some, during World War II





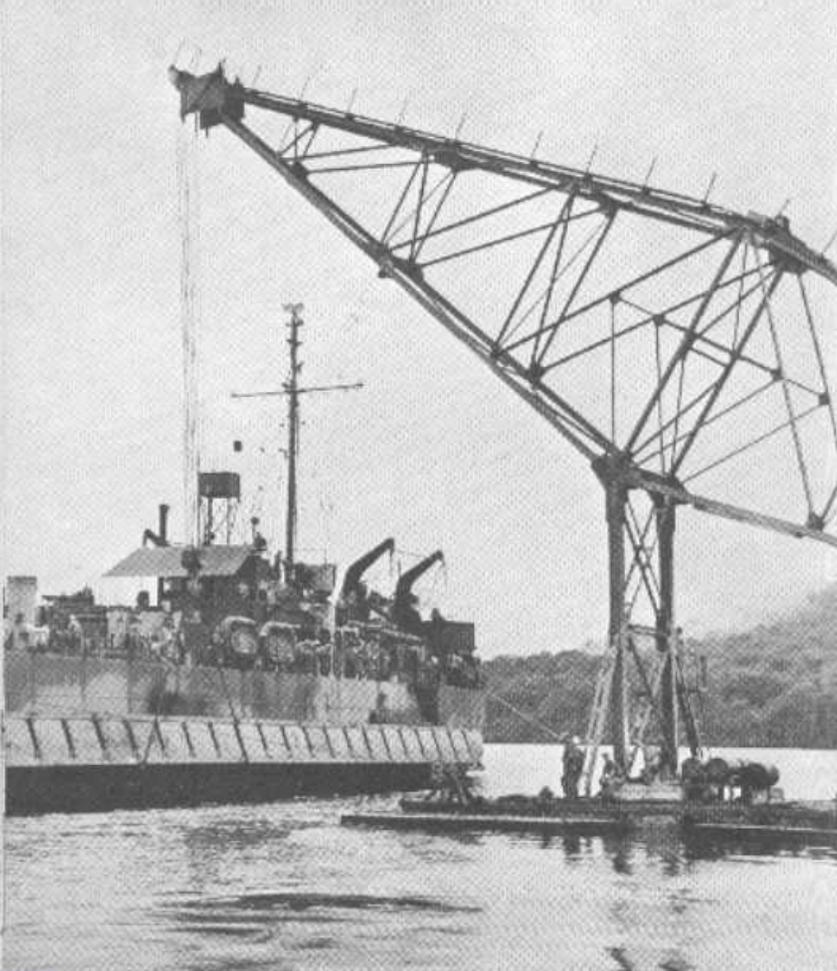
**Segmented
precast
concrete
pontoons used
as lighters and
strung together
as a loading
wharf for an LST
during the
invasion of
Guam in June
1944**

Pontoon Dry Docks



- Drydocks are crucial to hull, shaft and rudder maintenance
- Lifted ships out of the water so that they could be repaired
- An improvised pontoon drydock being used to support a Navy PT boat at Tulagi Island, near Guadalcanal in the Solomon Islands

Mobile Crane on a Pontoon Barge

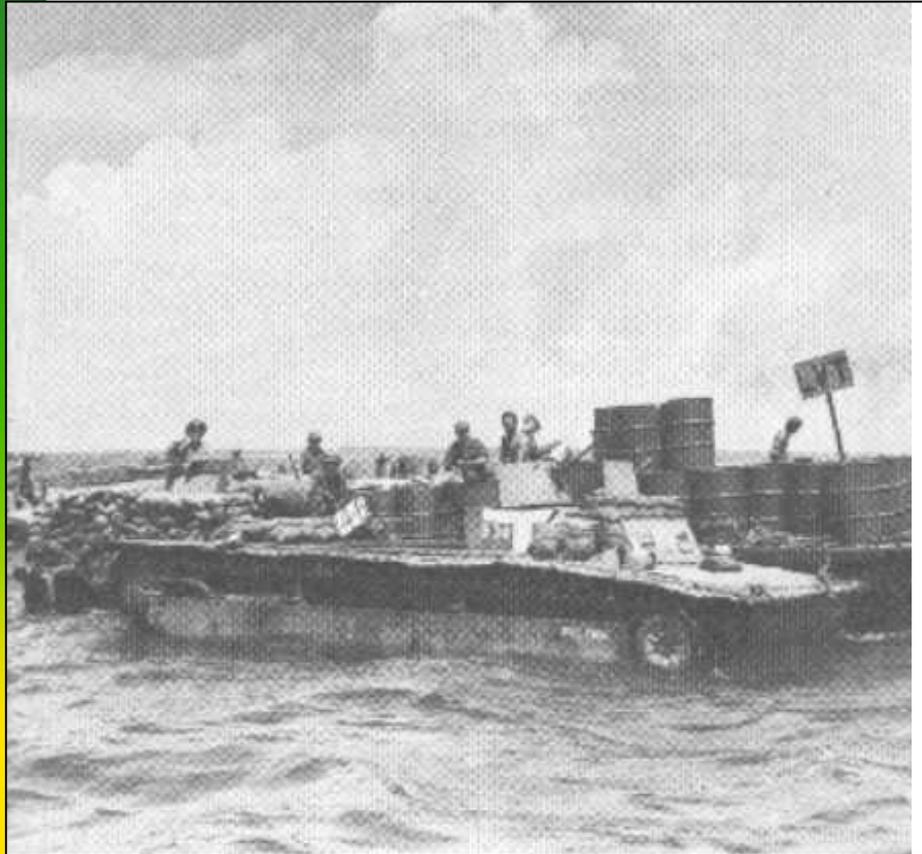


- Allowed ship to shore capability for break-bulk cargo handling and hoisting of heavy pontoon units

A huge crane on a pontoon barge, is hoisting a pontoon causeway into place for carrying on the side of an LST.

**THE SEABEES
WERE
RENOWN AS
INNOVATORS**

Floating Filling Station



During the assault on Tinian Atoll in the Mariannas, Seabees of the 302nd Battalion operated pontoon barges as filling stations to refuel amphibious alligators (Amtracks fitted with special landing ramps)



INNOVATION: One of 10 “doodlebug” landing ramps built by the Seabees mounted on an Amtracs

The SeaBees fashioned these ramps from scrap steel taken out of a Japanese Sugar Mill on Saipan. They allowed Marine Amtracs to scale the 8-foot high cliffs along the White Beach landing zone on Tinian Island, shown at right



Clearing Jungles

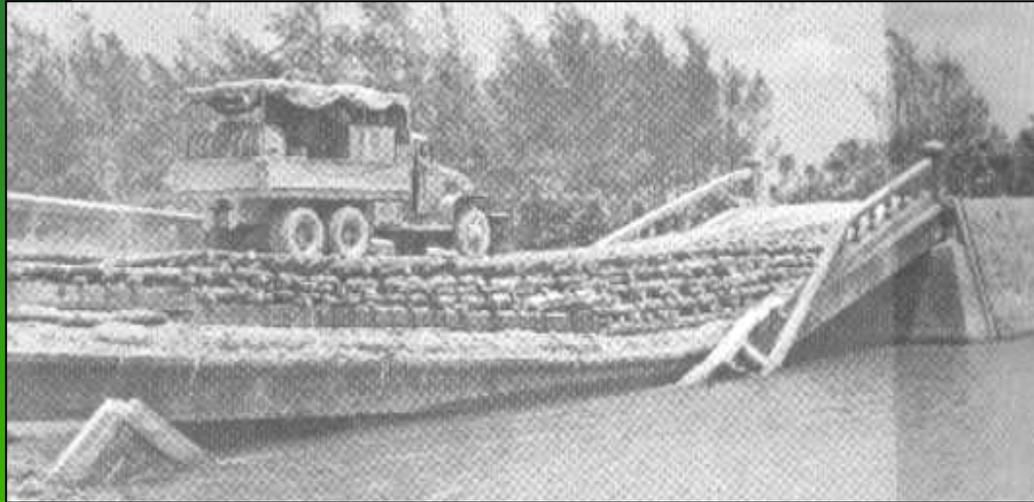


A Seabee uses a special jig frame used to uproot coconut palm trees.

Men of the 6th Naval Construction Battalion lay Marston Mat (PSP) at Henderson Field on Guadalcanal.



Bridge Repairs

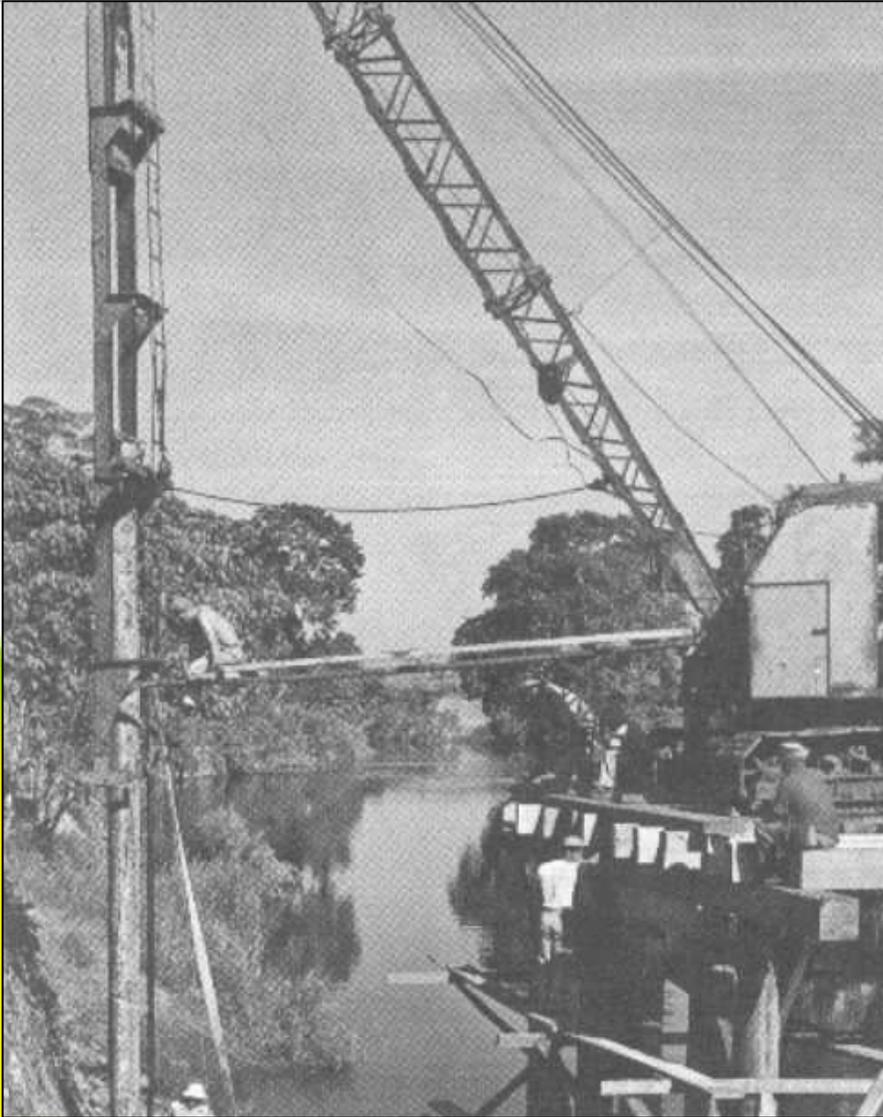


On Okinawa an army truck rolls across a battered Japanese bridge temporarily repaired by the Seabees with logs and coral fill.

Men from the 7th Battalion assemble the tower of a pile driver for use in construction work on Okinawa.



A Cumshaw Pile Driver



“Cumshaw” is a nautical term for the procurement of needed material outside the supply chain, usually by swapping, barter, or mutual backscratching. Often involved bartering with coffee or other food items. Officially frowned upon.

Seabees of the 14th Naval Construction Battalion use a pile driver and heavy timbers to build a sturdy highway bridge across a river on Guadalcanal in the Solomon Islands.

Cumshaw Washing Machine



A Seabee on a Pacific island loads his “cumshaw” washing machine. The clothes go into the drum, which is then placed on the plank under the tower. As the windmill spins, the plunger — an inverted funnel— goes up and down to slosh the clothes about in the water.

Scrounging a flagpole for the Marines at Iwo Jima



At the summit of Mt. Suribachi on Iwo Jima, U.S. Marines and a Navy corpsman hastily tie an American flag to the top of a steel flag pole hastily fashioned by the Seabees for the occasion.

ROAD CONSTRUCTION

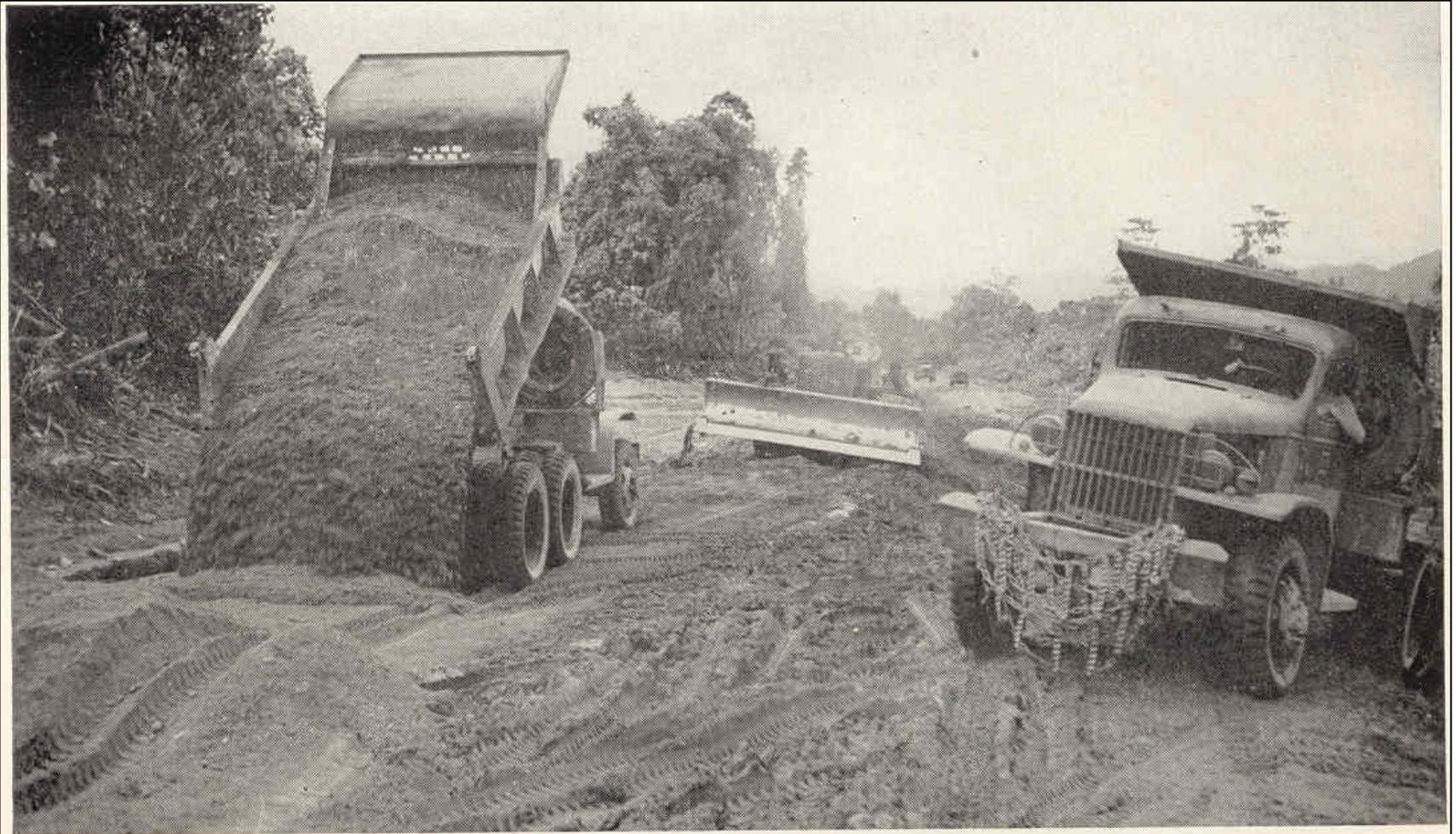
Roads Across Mangrove Swamps and Rivers



Roadway after draining and filling of the swamp



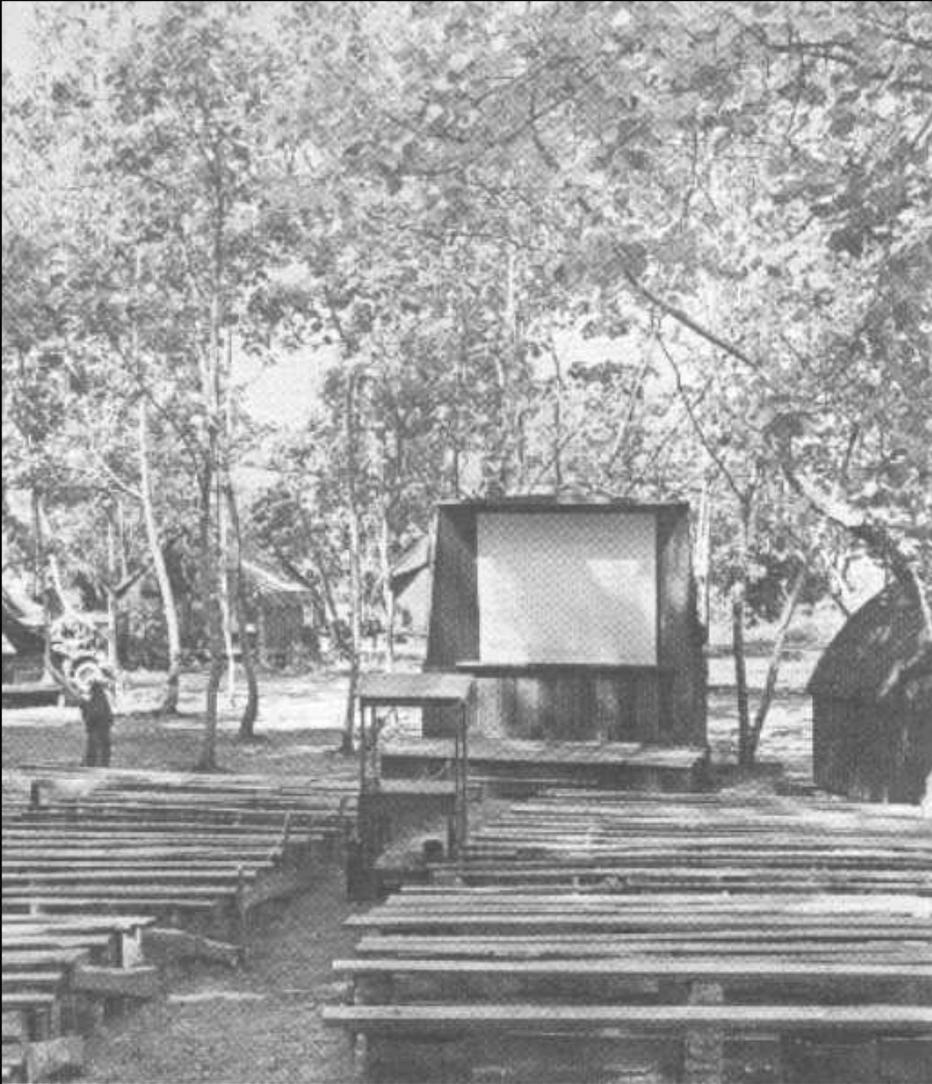
Roads



Men of the 71st Battalion are shown here working less than a mile behind the front at Bougainville. Some of the work on this island was done in *advance* of the front lines.

(Official U. S. Marine Corps Photo)

A Movie Theatre



When the urgent construction work was finished, Seabees frequently built open air theatres in their camp areas. Here is one of the theaters they constructed on the island of Guadalcanal in the Solomon Islands.

Pipelines



Flume box and pipe line built at Sitka, Alaska, to provide fresh water for the Naval Air Station. This work was done by the 22nd Battalion.

(Official U. S. Navy Photo)

TYPICAL AIRFIELD CONSTRUCTION



Here are six views showing the evolution of a jungle airfield.
1. Clearing operations – first day.

(Official U. S. Navy Photo)

Day 1



2. Removing the windows of earth piled up by the bulldozers — fourth day.
(Official U. S. Navy Photo)

Day 4



3. Excavating hardstands — parking areas — sixth day.

(Official U. S. Navy Photo)

Day 6



4. Grading and rolling with the "sheeps's foot" roller – eighth day. *(Official U. S. Navy Photo)*

Day 8

Compaction



Sheepsfoot rollers pack down coral soil for a island bomber strip.

A 107th Battalion road grader smooths out a road to one of the B-29 bases on Tinian Atoll.





5. Surfacing with finely crushed coral – twelfth day.

(Official U. S. Navy Photo)

Day 12



6. Bringing in the first plane—fourteenth day. On many fields the coral provides a sufficiently hard runway; other fields require the Marston mat. *(Official U. S. Navy Photo)*

Day 14

The World's Largest Airport



Seabee trucks on Tinian Atoll deposit their load of crushed coral.

North Field with three of its four 8,500 ft long runways, parking aprons, hardstands, quarters for aircrews and roadways.



Roles in the Pacific in WWII

Bora Bora

Guadalcanal (First Construction in combat for Seabees)

Kwajalein

Guam

Aleutian Islands

etc

111 Major Airstrips

441 Piers

2258 Ammo Mags

And more

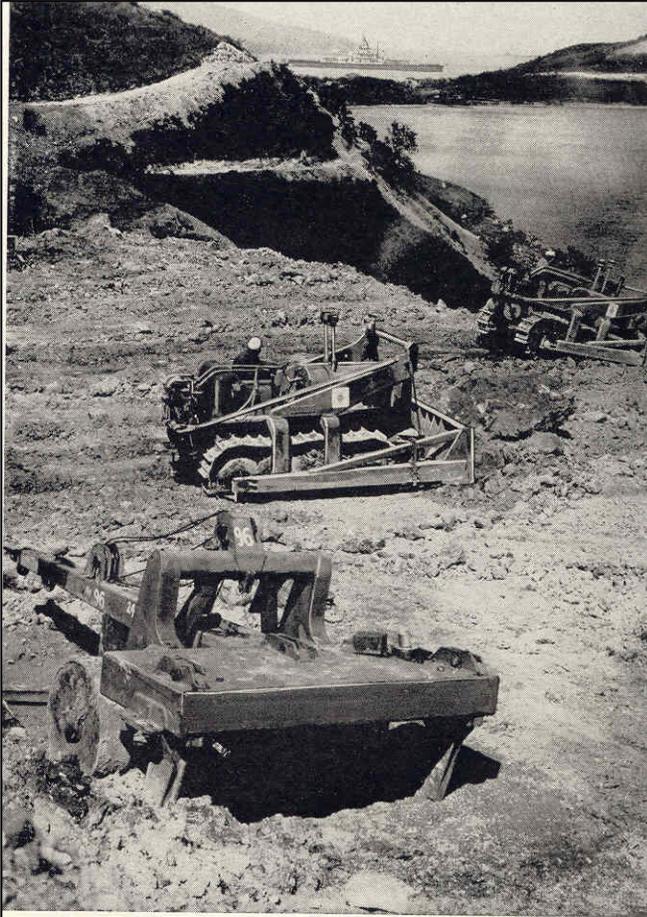


First Flag before famous picture on Mt Suribachi

It was said of the SeaBees: *They are soldiers in sailors uniform, with marine training, doing civilian work at WPA wages*



Nothing New under the sun – Seabees at work today



The bulldozer – machine of a thousand uses – has become the symbol of the Seabees. They hope to drive one of these machines through the streets of Tokyo.
(Official U. S. Navy Photo)



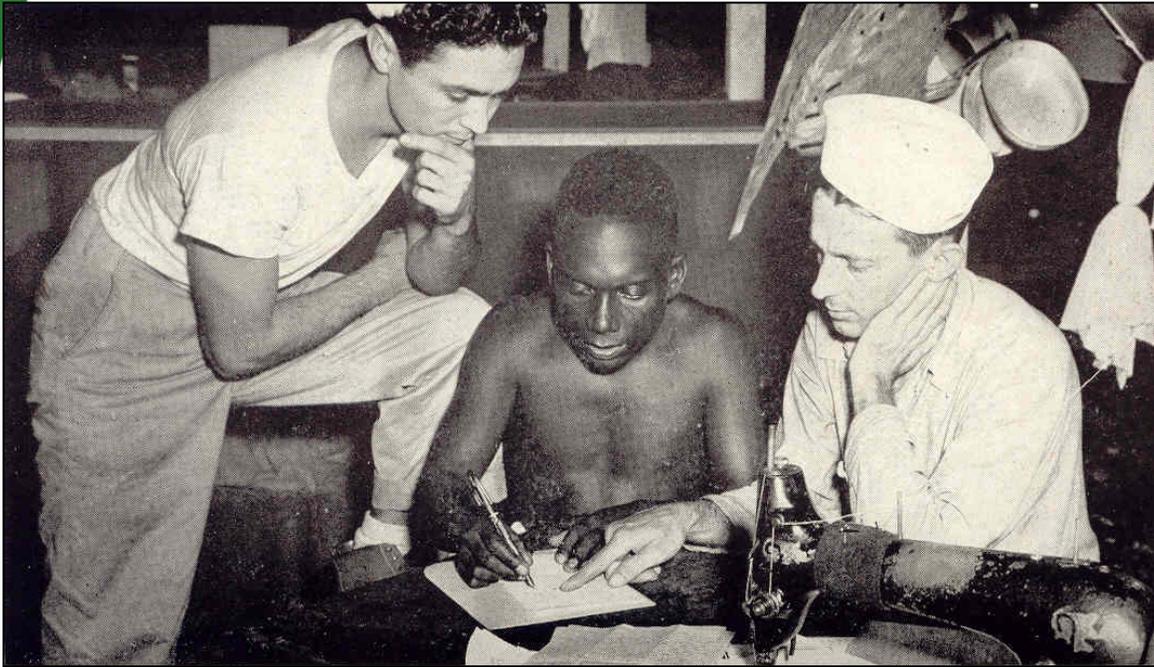
Playing Santa for kids- then and now



Far from their own homes, men of the 120th Battalion made Christmas, 1943, a memorable occasion for French orphans. Here battalion-made toys are being distributed at the Theresiennes Orphanage, Oran, Algeria.

(Official U. S. Navy Photo)





Building schools

Discovering wildlife



CONCLUSION

“The only trouble with your Seabees is that I do not have enough of them.”

Gen MacArthur’s remark to Admiral Moreel

Australia 1944



A Proud Heritage



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1 of 2

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