Command History - Aug. 1942 to Aug. 1945

HISTORY OF

U.S. NAVAL ADVANCED BASE

GUADALCANAL, 1942-1945

UNITED STATES PACIFIC FLEET
SOUTH PACIFIC FORCE
U. S. NAVAL ADVANCED BASE
GUADALCANAL, B.S.I.

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From: Commander Naval Base, Guadalcanal, B.S.I.
To : Commander South Pacific Area and Force.

Subject: Command History, August 1942 to August 1945.

Reference: (a) CinCPac Conf. Ltr. Serial 06390 of 25 June 1945.
(b) ComSoPac S[illegible] Historical Ltr. of 25 June 1945.
(c) SoPac Area Mem[illegible]m #3-45.

Enclosure: (A) History of Naval Advanced Base, Guadalcanal; Ten (10) copies.

1. Forwarded herewith is enclosure (A) in accordance with directives listed as reference (a), (b), and (c).

2. The history of the Naval Advanced Base, Guadalcanal, has been written with strict adherence to the outline incorporated in reference (a).

W. G. THOMSON.

Distribution:
ComSoPac (10 copies - to be classified by ComSoPac).

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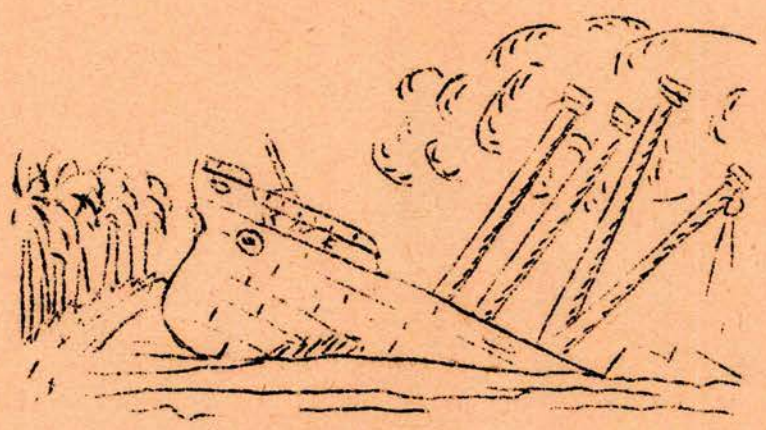
HISTORY of U.S. NAVAL ADVANCED BASE GUADALCANAL 1942-1945



~~CONFIDENTIAL~~

PREFACE

When the American Forces landed on Guadalcanal on 7 August 1942, few people realized the importance of the operation. It is doubtful if the men who planned the invasion saw any thing more than the fact that the Japs had to be stopped before they controlled the shipping lanes to New Caledonia, New Zealand, and Australia, thereby, servering supply lines to our forces on these places.

Historians might intelligently ask the question. Why did Guadalcanal, a small mountainous island, become more vital than any of a half dozen other islands in the area ? Why did it continue to be a major base for more than three years, particularly, after the main Japanese Forces had been driven from the area some two and a half years before the end of the war.

The answers to these questions and many others like them involves more than a cursory inspection. It is hoped that the following text will not only give the reader a clear picture of why the Japanese repeatedly attacked our Forces and reinforces their own, but also, will give to posterity the basis for solutions to problems

to be encountered in future campaigns of a similar nature.

A careful study reveals that Guadalcanal for almost a year continued the only air fields capable of handling large groups of air units, as well as, large planes, within a thousand mile of the enemy. No other island in the Solomons group had enough level land to build the necessary air fields, even if time could be taken to build them.

True, other islands had better anchorages, but none were adequate to accommodate a large task force, nor did they have the room to store supplies and stage and train troops. Amphibious Warfare in the Pacific could be taught exceptionally well on the cocoanut lined beaches of "The Canal."

It is hoped this history with its survey of strategy and tactics will assist future naval personnel in improving the efficiency of advanced bases when and whereever they are established.

The personnel who served in the South Solomons during World War II can all feel proud of the fact that their mission was accomplished and contributed in no small measure to final victory.

This volume is not the work of a single author, rather, it is a series of collaberations written by men expert in their respective fields. In many cases essential materials, records, and files have been destroyed, either to keep them from possibly falling into enemy hands, or because of carelessness upon the part of individuals entrusted to maintain and preserve such information.

Those who participated in the recording of this document include: Captain Walter G. Thomson, USNR, C.N.B. Guadalcanal, Commander P.T. Garver, USNR, Executive Officer, Lieutenant Commander R.J. Hornor, Base and Staff Operations Officer, Lieutenant W.A. Barker, II, Base and Staff Communications Officer.

Credit must also be given to Malvin Kortz, MaMlc, for the art work, including both chapters covers and maps, and to Elbert Harbour, MaMlc, for the many extra hours he spent in the typing of the original chapters.

E.E. McCleary
Lt.(jg) USNR,
Base Historian.

U.S. NAVAL ADVANCED BASE
GUADALCANAL, B.S.I.

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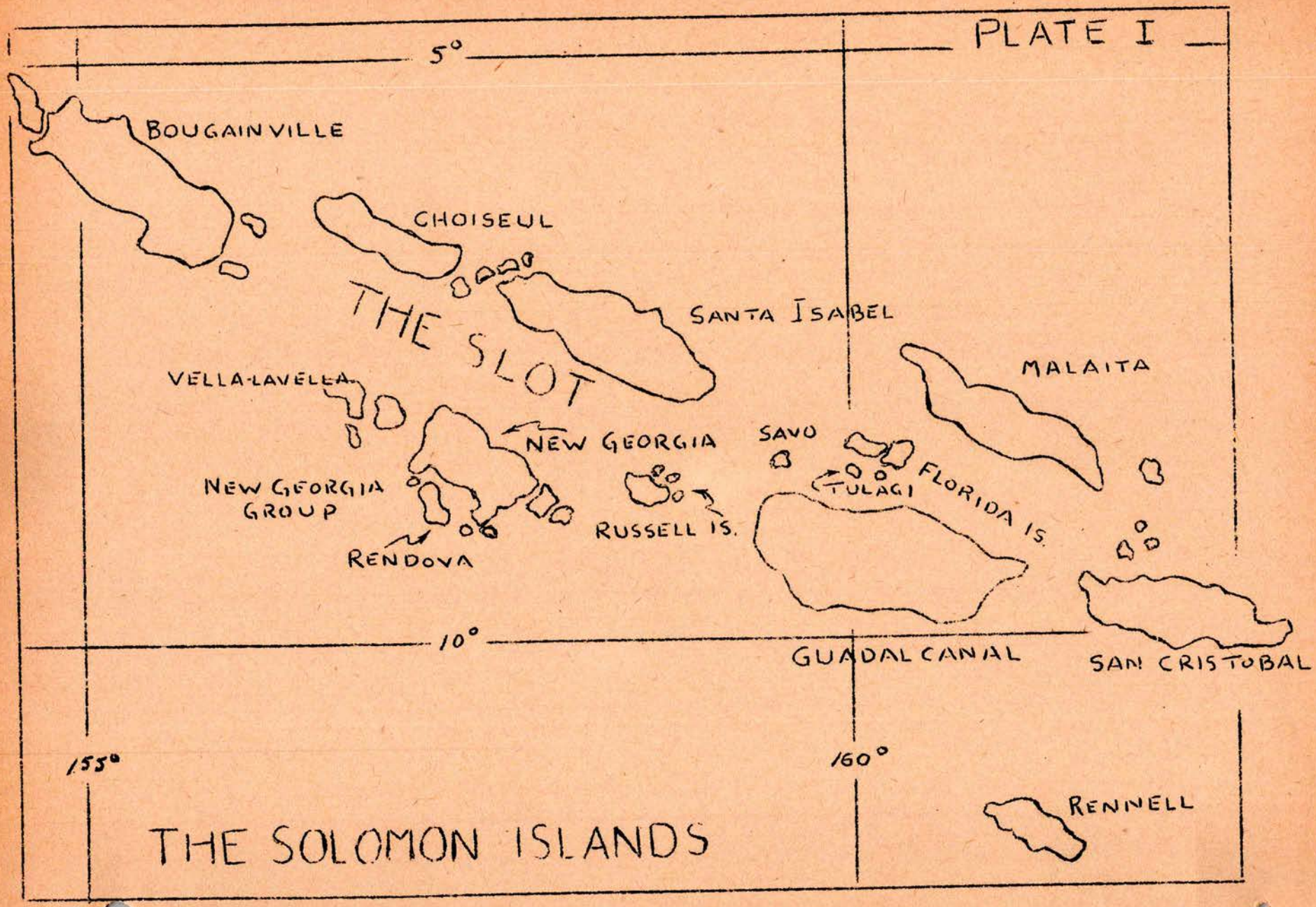
PLATE I
5°
BOUGAINVILLE
CHOISEUL
THE SLOT
SANTA ISABEL
VELLA-LAVELLA
NEW GEORGIA
NEW GEORGIA GROUP
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SAN CRISTOBAL
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160°
RENNELL
THE SOLOMON ISLANDS

INTRODUCTION

HISTORY PRIOR TO ESTABLISHMENT OF NAVAL BASE

On 10 January 1942, the first Japanese reconnaissance plane was seen over Tulagi in the Florida group 20 miles north of Guadalcanal. On 22 January and on the day following, Nip planes bombed the small islands of Gavutu and Tanambogo where Lever Brothers Headquarters and the small seaplane base were located. Early in February most of the 100 or so British residents of the area were evacuated to Australia leaving only a few missionaries, traders and Government officials. 150 Chinese from Tulagi's Chinatown likewise abandoned their stores and scattered in their trading vessels. By the end of April, Jap planes were bombing Tulagi almost daily. On the night of 2 May 1942, the first Japanese ship entered Tulagi; and by the following afternoon, 16 warships and transports had arrived.

The next morning U. S. torpedo planes and dive bombers swept across the mountains from aircraft carriers at sea south of Guadalcanal. The Japanese were caught

completely by surprise and all but two of their ships were sunk. This was one phase of the Coral Sea Battle. In the meantime, about 600 more Japanese troops had landed on Guadalcanal bringing the total to 1,300, mostly laborers. A seaplane anchorage and naval refueling stations were established.

For some time there was no sizable landing of Japanese on Guadalcanal. Jap forces made frequent trips across from Tulagi to reconnoiter and kill cattle. On 6 July 1942, the Japanese landed on Guadalcanal in force.

Although the Japanese apparently knew or should have known that the United Nations would contest their domination of such a potentially valuable plane and supply base, they had complete confidence in their Imperial Navy and their ability to consolidate their gains. The 1,500 to 3,000 troops which arrived were almost entirely laborers and engineers. There is no doubt that they intended to stay. Power plants were erected; also an ice plant which operates today with the sign: "Tojo Ice Plant - Under New Management". Huge quantities of supplies, some of them bearing U. S. trade marks, were brought in and stored in large structures near the beach. An airport, later to become our own Henderson Field, was

constructed. Beach positions for machine guns and riflemen, with covered tunnel approaches, were erected. This was the total Jap effort in the matter of defensive preparation.

At dawn on the 7th of August, following a heavy bombardment by naval guns, the 1st Marine Division landed about two miles east of the Lunga River. The Japanese, caught off guard during their breakfast hour, abandoned half-consumed portions of fish and rice and headed for the hills. The initial landing at Guadalcanal was practically unopposed. Henderson Field, which the Japanese had just completed, was taken August 8, together with much engineering equipment, including several steam rollers.

A stiff naval clash occurred in conjunction with this phase of operations. Our screen of war vessels guarding the entrance to the sound from the north in the vicinity of Savo Island were engaged in battle 8 - 9 August. Three U. S. cruisers, the VINCENNES, the QUINCY, the ASTORIA, and one Australian cruiser, the CANBERRA, were sunk. This was a keen loss under the circumstances, and for six weeks after our troops first landed, Jap war

vessels hovered near, making the matter of reinforcements and supplies a difficult problem.

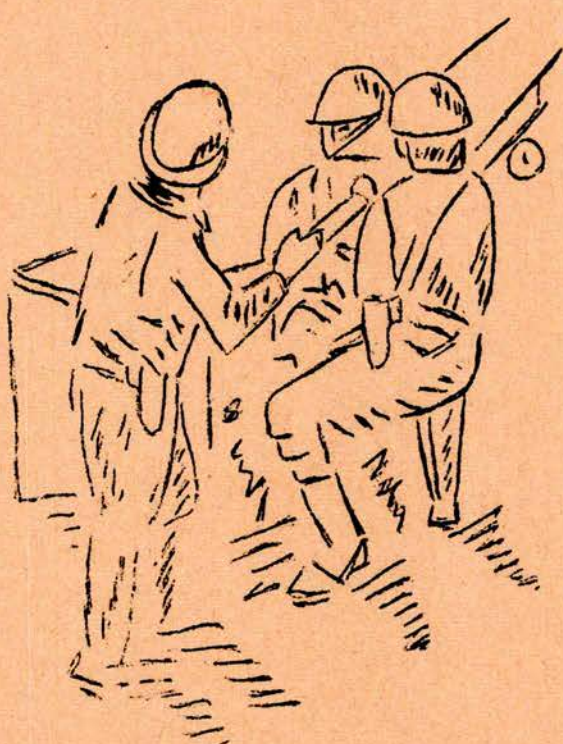
On Guadalcanal our patrols pushed into the jungle, gradually extending the perimeter around Henderson Field. From day to day, minor skirmishes occurred and there were some attempts at night infiltration; but, for the most part, the Japs seemed content to keep out of the way until reinforcements arrived.

The struggle between the Japanese and the Americans for control of Guadalcanal in August and September of 1942 assumed the greatest importance. It was here that America made her first stand on the long sea lane across the Pacific. It was here on Guadalcanal that the Navy's task of maintaining lines of transportation and supply to Allied Ground Forces became of prime importance. The body of water between Tulagi and Guadalcanal was eventually to become known as "Iron Bottom Sound", due to the large number of ships sunk during the struggle for naval supremacy.

A naval force can not operate without bases. The need for bases from which to sortie for night raids against enemy shipping was self-evident.

CHAPTER ONE

ASSIGNED DUTY



CHAPTER I. ASSIGNED DUTY

TASKS

The first tasks assigned to the Advanced Naval Base, Cactus-Ringbolt, included:

1. Port Director work, including Net and Boom Detail manned by the U. S. Coast Guard.
2. Construction of base facilities by the Civil Engineer Corps.
3. Establishment of communication facilities.
4. Stevedoring by the Supply Department.
5. Torpedo, bomb disposal, and mine operations by the Gunnery Department.
6. Medical facilities.
7. Administrative facilities.

ORIGINAL MISSION

The mission of the first group of Naval personnel was to establish a Naval Operating Base in order to support the naval forces. Two of the immediate subordinate tasks were to provide a seaplane base and to build docks

to assist in stevedoring. The need for materials in huge quantities was keenly felt at this time. The Supply Department rated high priority. By December of 1942, offensive motor torpedo boat patrols were established between Savo Island and Cape Esperance.

EXTENT OF EARLY COMMAND

The Advanced Naval Base , Cactus, included the subordinate bases at Lunga and Tulagi. Construction Battalions were brought in during the month of December 1942 to construct the urgently-needed base facilities, principally roads and bridges.

OPERATIONAL CONTROL

In September 1942, the Advanced Naval Base , Solomon Islands, was established with the assigned task of exercising operational control over all naval auxiliaries and their escorts. The Commander Naval Bases also was assigned the task of maintaining adequate anti-submarine and anti-aircraft surface screens and of coordinating his activities with the fighter-aircraft cover. In October

of 1943 PC's and SC's were the means provided to implement the assigned mission.

STAGING AREA

By April of 1944, the United Nations were ready to challenge the Japanese in their own seas. Guadalcanal was assigned the mission of serving as a mounting area with a capacity for staging two amphibious divisions. The harbors and sea areas around Iron Bottom Sound were ideal for providing minor task force anchorages. Henderson and Carney Fields on Guadalcanal were to become an Allied Airbase. Guadalcanal was to provide staging facilities for the movement of personnel and supplies to the combat areas.

FINAL MISSION

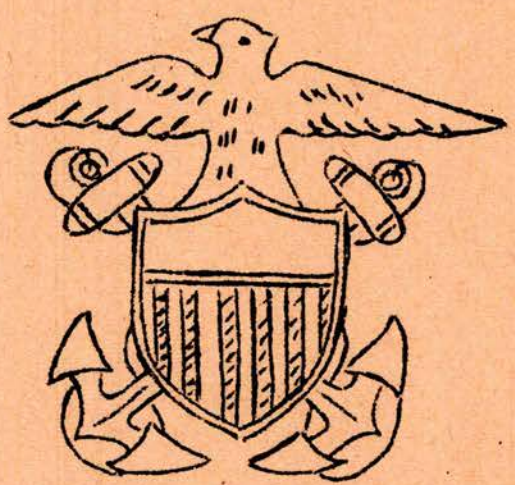
The final base mission decided on, included aviation and hospital facilities; and in July 1945, the mission of the South Solomons Sub-Area was adjusted to include an important function in the roll-up of the area. Personnel were staged for movement out of the area.

Huge quantities of supplies and equipment accumulated on Guadalcanal were packed and shipped to support combat troops. The Naval Advanced Base at Guadalcanal played an important part in putting quantities of material back into the fight. Shipping was routed to this area where materials and equipment were in abundance.

The unconditional surrender of the Japanese on 14 August 1945 found the Naval Bases in the South Solomons Sub-Area approximately 95% rolled up and reducing rapidly to base mission. There remained much equipment to be restored to useful service, sold or disposed of to our Allies.

CHAPTER TWO

COMMAND RELATIONS



CHAPTER II. COMMAND RELATIONS

THE FIRST BASE

The first Advanced Naval Base at Guadalcanal was set up by the Commander South Pacific Area and South Pacific Force to assist in performing the missions assigned.

The first Commanding Officer was Commander J. F. Compton, USN, who was appointed in September 1942 as Commander Advanced Naval Base and all Naval Activities, Cactus-Ringbolt Area. The airbases were under Commander M. H. Kernodle. Every effort was made to build up the land-base air strength at Guadalcanal. Support was given the three major task forces operating in the area: the carrier force, the amphibious force, and the land and tender-based air force.

In November 1942, Captain W. G. Greenman became ComAdNavBase, Cactus-Ringbolt. He was followed in December by Captain Thomas M. Shock, USN. The Naval Base at Tulagi was a subordinate command. The Commanding Officer of the Naval Base on Guadalcanal carried the title of Commander Naval Base, Lunga, which included both the naval and airbases. During this time the Island Command of Guadalcanal

was under Major General Vandegrift, USMC, who was succeeded by Major General Patch, U.S.A., 9 December 1942.

Maximum communal use of the scanty supplies and facilities developed what was known as the "South Pacific Fighting Team."

AREA COMMAND

Vice Admiral Robert L. Ghormley, USN, was the Commander South Pacific Area and South Pacific Force during the establishment of the Naval Bases on Guadalcanal and Florida Islands and later was succeeded by Rear Admiral William F. Halsey, USN. In March of 1943, the title of the higher echelon command was changed to Commander Naval Bases, Solomon Islands. A Naval Base was established February 1943, on the Russell Islands by amphibious forces under Rear Admiral Turner. Upon establishment of further bases in the New Georgia and Bougainville Area in the fall of 1943, the title of the higher echelon command was changed again: On 2 September 1943, it became Commander Naval Bases, Forward Area.

The Commanding General, Services of Supply, was responsible for coordination, assembly and loading of all supplies to the forward area.

The airbases were unified into Air Centers in December of 1943; removed from the jurisdiction of the Naval Bases, and placed under the Island Command in order to maintain more effective control of island defenses.

COMMANDER SERVICE SQUADRON, SOUTH PACIFIC FORCE

In April of 1944 the Commander South Pacific Area and South Pacific Force established the office of Commander Service Squadron, South Pacific Force to administer the Naval Bases in the Forward Area. The Commander Service Squadron was responsible for convoying and routing to the Forward Area.

ESTABLISHMENT OF SOUTH SOLOMONS AREA

The Forward Area was divided into the North Solomons Area and the South Solomons Area in June 1944. The Naval Bases at the Russell Islands, Tulagi, and Guadalcanal were placed in the South Solomons Sub-Area.

COMMANDER NAVAL BASES, SOUTH SOLOMONS SUB-AREA

Headquarters for the South Solomons Command were established on Guadalcanal, and Captain M.L. Hersey, Jr., USN, became Commander Naval Bases, South Solomons Sub-Area, as

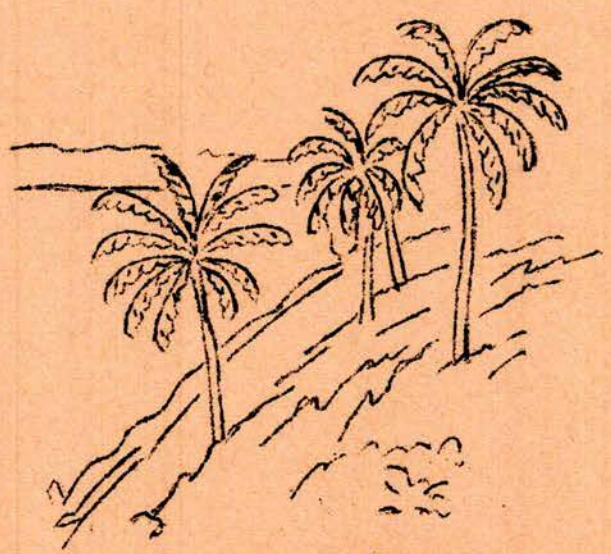
well as, Commander Naval Advanced Base, Guadalcanal.

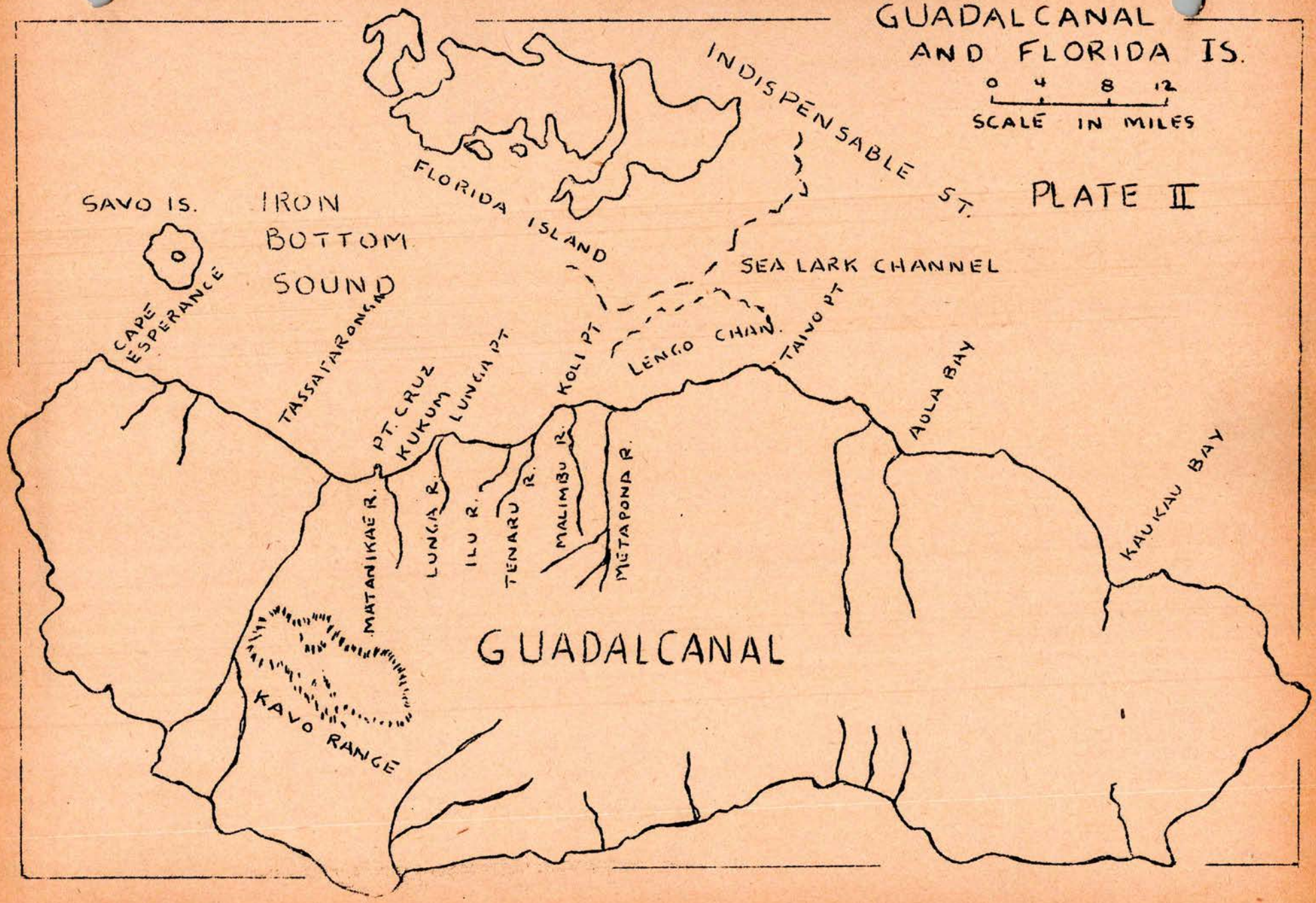
Staff offices for the Sub-Area, also were located on Guadalcanal, and Staff officers had the dual responsibility of administrating for both the Base and the South Solomons.

By 15 August 1945, the roll up had progressed to the extent that the Staff organization had been greatly reduced.

CHAPTER THREE

PHYSICAL CHARACTER of COMMAND




GUADALCANAL
AND FLORIDA IS.
0 4 8 12
SCALE IN MILES
PLATE II
INDISPENSABLE ST.
FLORIDA ISLAND
SEA LARK CHANNEL
SAVO IS.
IRON BOTTOM SOUND
CAPE ESPERANCE
TASSAFARONGA
PT. CRUZ
KUKUM
LUNGA PT
KOLI PT
LENGO CHAN.
TAIVO PT
AOLA BAY
KAUKAU BAY
MATANIKAU R.
LUNGA R.
ILU R.
TENARU R.
MALIMBU R.
METAPONA R.
GUADALCANAL
KAVO RANGE

CHAPTER III. PHYSICAL CHARACTER OF COMMAND

GEOGRAPHICAL BACKGROUND

Guadalcanal is a large South Pacific Island, 5,200 miles southwest of San Francisco, and a thousand miles short of the barren northeast coast of Australia. It is a sparsely populated jungle island, one of the vast belt thrown up by volcanic action southeast from Asia, and collectively called Indonesia and Melanesia. The Solomons are a conspicuous group of mountainous islands, extending roughly in a double chain southeasterly from Bougainville, the largest one, which is just 250 miles east of New Britian. From the chain of islands, the Coral Sea stretches west 400 miles until bisected by the east tip of New Guinea. The Solomon Islands cover 14,600 square miles (about twice the size of New Jersey) comprising seven large islands and innumerable smaller ones, stretched over a narrow belt approximately 700 miles by 100 miles, with only a few scattered islands beyond that range. From east to west, the main islands are San Cristobal, Malaita, Guadalcanal, (with the small but important Florida Islands group between the latter two), Santa Isabel, New Georgia,

Choiseul, and Bougainville. The total population, including about 500 whites and 300 orientals, was estimated at 140,000, or less than 10 persons per square mile; the entire area has less people than Trenton, N.J., and many miles of mountainous jungle are uninhabited. There are no wild animals larger than pigs, but innumerable birds, lizards, and insects thrive in the dense foliage, with a few poisonous snakes. Bougainville not only has a quarter of the total area, but the highest mountains, including two large active volcanoes (Mt. Bagana, the lesser, towers over our Empress Bay-Cape Torokina bases, belching steam, and erupted fiercely in 1937).

Guadalcanal, the second largest island, has an area of 2,500 square miles, half that of Connecticut, and mostly mountain-covered, with jagged ridges. The western third of the island is especially rugged, but eastward the north coastal strip expands into a broad plain, crossed by numerous large streams and covered by high grass. Beaches here are wide and gently sloping, with ample level ground for extensive plantations, or in wartime, for widely dispersed airfields and supply bases. This area became the high-water-mark of Japanese army expansion, and following its seizure by Marine and Army forces, became a major

American staging and supply point.

Although the Solomons were discovered in 1568, their remoteness and inhospitable climate resulted in almost complete neglect. Their tropical location and prevailing easterly winds make every day hot, and excessively high humidity is the rule. Torrential showers are a year-round feature in the mountains, yet the flat, developed area is choked with dust, even when rivers are high. In the rainy season, the entire flatland area becomes boggy and water-soaked, although the soil is a mixture of sand, volcanic ash, and decayed vegetation, and drains rapidly. The rains are heaviest from December through April, with west winds, rather than the shower-laden easterlies which rarely fail to give some sunshine daily from May through November. From 2 to 6 storms of hurricane intensity are anticipated yearly, usually in January or February, with wind velocity up to 100 miles per hour, and up to 5 inches of rain within 24 hours. Annual rainfall exceeds 100 inches, and with hot sunshine between showers, makes for amazing vegetation.

POLITICAL AND ECONOMIC STATUS, 1942

Following the discovery of the islands in 1568, Mendana's stories excited the enterprise and cupidity of

the great seafaring nations of that day. Spain, which had sent him, was the leader, outfitting numerous expeditions at its rich Peruvian ports (notably that of Quiros named for the discoverer of Espiritu Santo and other islands now important). These junkets were primarily for treasure, not colonization, though a fervent missionary spirit burned in some, and though vast areas were claimed, little trace remains except names. Guadalcanal was named for his native village by a homesick Spaniard, and the Solomons were so named through the story of Mendana that gold for the ancient temple of Jerusalem originated here.

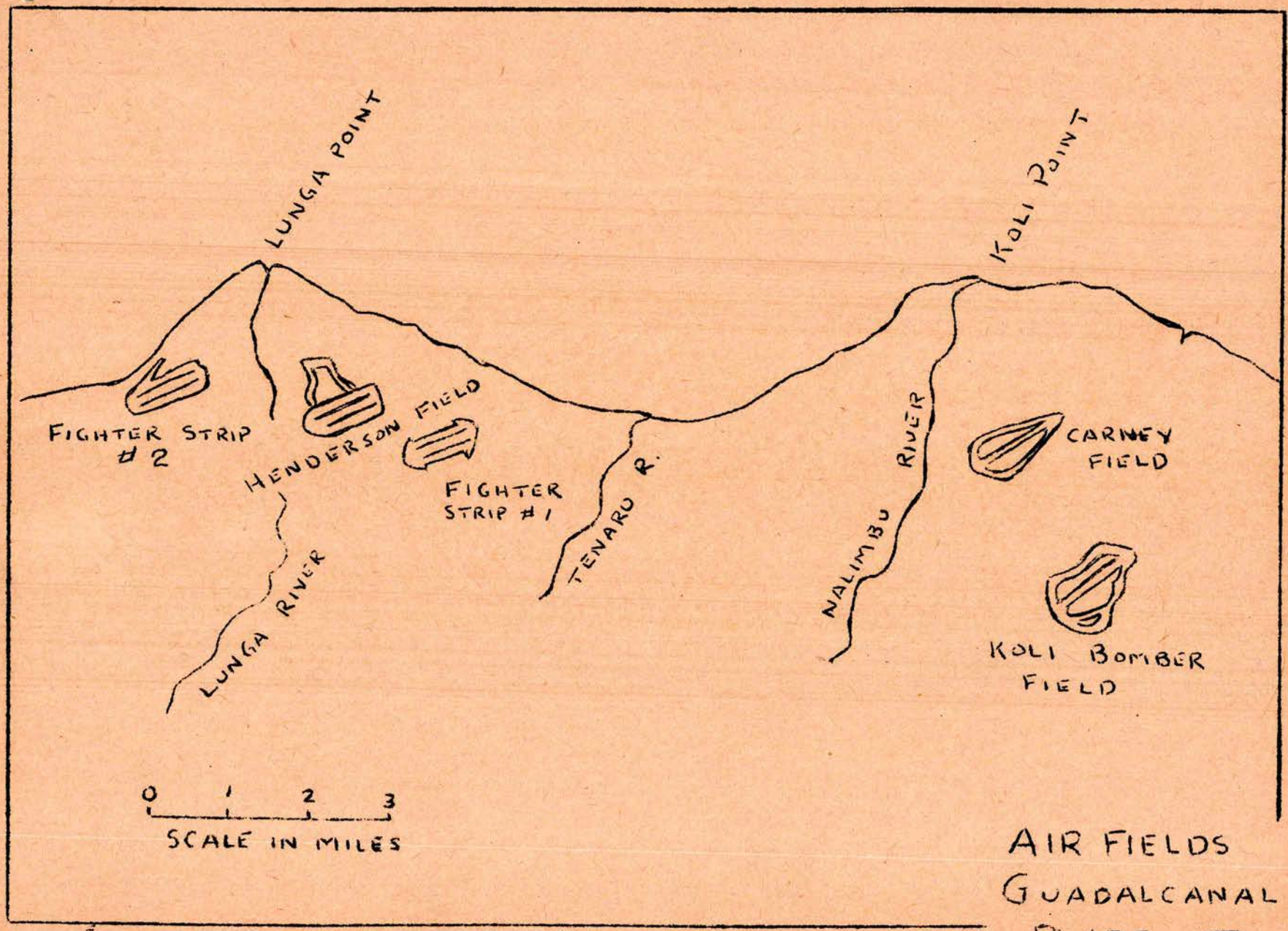
Dutch, Portuguese, French and English navigators ranged the Pacific for three centuries, likewise claiming and naming islands, and American whalers and trading ships participated in the 19th century, establishing our Samoan claims. Not until Germany under Bismarck started colonizing New Guinea and the Solomons, the least attractive areas due to distance and native cannibalism, did Great Britian reassert old claims, and northeast New Guinea, Buka and Bougainville became German-controlled, while the remaining islands came under administration of the British High Commissioner of the Western Pacific, located at Suva, Fiji. A British Solomon Islands Protectorate was set up, with

headquarters at Tulagi and resident commissioners at other key points. Missions were encouraged and their schools subsidized, resulting in gradual improvement in living standards and morals, and white exploitation was vigorously checked. "Blackbirding", or labor recruiting by deception, and other frauds on natives were severely punished, and land ownership was continued inalienable in the native clans, and still remains so, except for a minor part where white claims were sustained by adjudication. Medical aid and cooperation with village chiefs has resulted in the friendly attitude of most natives toward whites, and is of inestimable military value in procuring labor and intelligence data locally, as well as furnishing lumber, food and fish locally.

In the last half-century, the coconut palm has been the main money crop of the island, and large plantations covered much of the northern coast of Guadalcanal. These grow rapidly and contribute an amazing variety of products, but transportation has been a major problem. Large plantations were developed by Lever Brothers, with headquarters at Gavutu, and lined Guadalcanal's beaches for most of the 50-mile zone of Army operations east from Cape Esperance. Lunga Point, as the nearest beach to

Tulagi, was the natural center, but there were few permanent buildings or whites on Guadalcanal when the Japanese came, early in 1942.

The British Solomon Islands Protectorate buildings in Tulagi, including a small radio station and seaplane base were bombed and taken over by the Japs, after most of the personnel was evacuated. Guadalcanal's few buildings, including a concrete structure east of Tenaru Beach used for charring coconuts and storing copra, were razed by bombs or naval gunfire, and the coconut groves suffered damage. Their full rehabilitation may never take place, due to the long decline in copra value in peacetime with development of palm oil substitute, and the area's economic future may require diversification. Gold may yet, with other minerals, become important.



AIR FIELDS
GUADALCANAL
PLATE III

KUKUM FIELD
(Also known as Fighter #2)

3/5 mile southeast of Kukum Beach
Latitude 9° 25' South
Longitude 160° 01' East

The construction of this field started 1 December 1942 and was completed 1 January 1943, for fighter use. The First Marine Aviation Engineer Battalion constructed this field assisted by the 6th Naval Construction Battalion. The base was maintained by the 61st Construction Battalion. The field was used for fighter aircraft and was considered the best fighter field on the island (November 1943). It had two strips; (1) Strip #1 - 4,500 ft. long by 150 ft. wide with a coral base 4,000 ft. by 135 ft. of Marston Mat and (2) Strip #2 - 4,600 ft. long by 150 ft. wide, coral compacted.

On 15 October 1944, after having operated for 22 months, Kukum Airfield was closed except for emergency landing. It is presently used for storage of materials awaiting shipment.

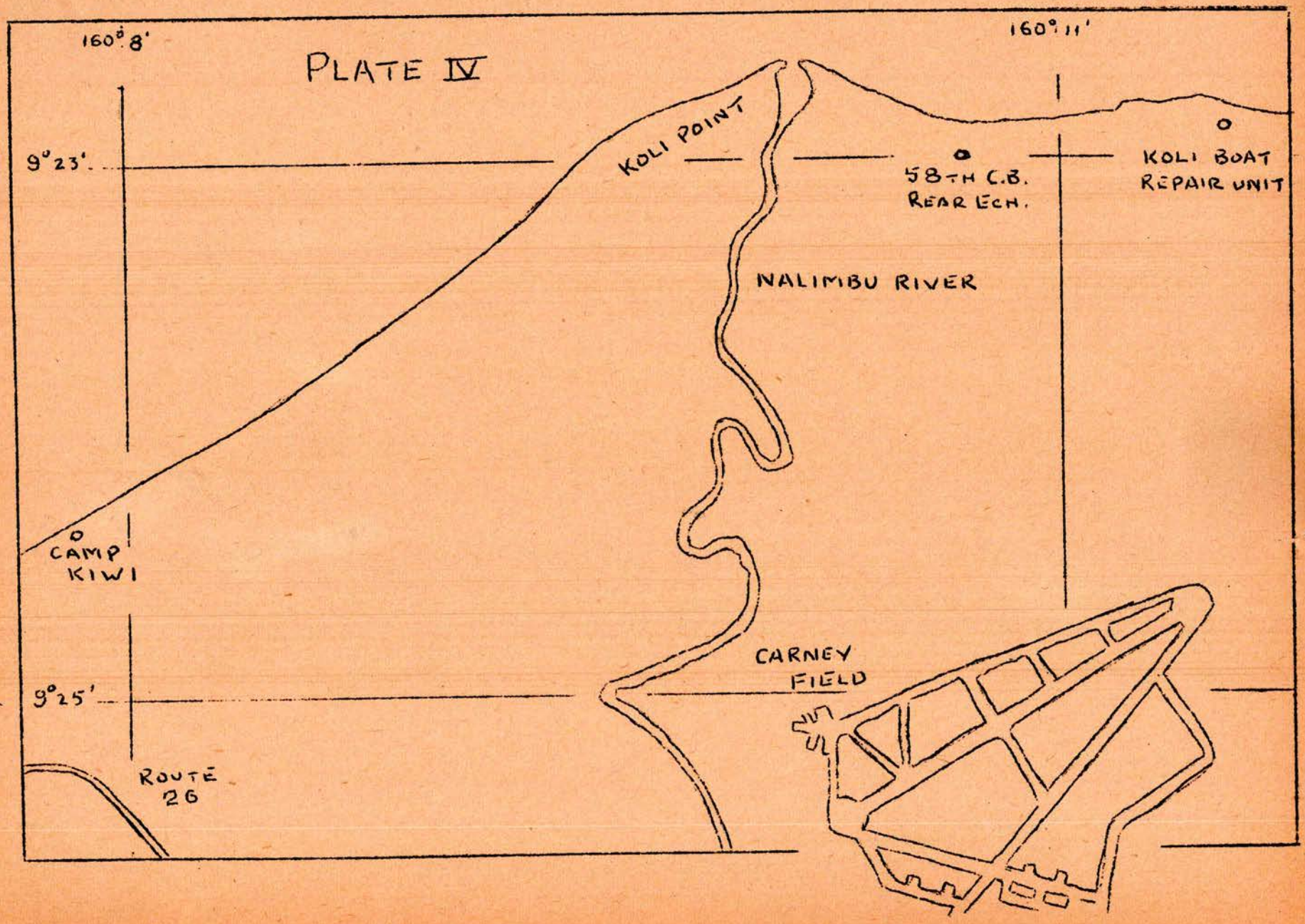


PLATE IV
160° 8'
160° 11'
9° 23'
9° 25'
KOLI POINT
58TH C.B.
REAR ECH.
KOLI BOAT
REPAIR UNIT
NALIMBU RIVER
CAMP
KIWI
CARNEY
FIELD
ROUTE
26

CARNEY FIELD
(Koli #1)

Latitude: South 9° - 29'

Longitude: East 160° - 12'

The 14th Construction Battalion prepared an emergency strip to be used while the main runway of the field was being built. Work on this strip started 5 December 1942 and was completed 17 December 1942.

The main runway, which is at present 6700 ft. long, and 150 ft. wide, Marston mat surface, was started by the 14th Construction Battalion on 23 December 1942, and on 3 February 1943 the construction force was augmented by the 2nd Marine Aviation Engineer Battalion. Other units, participating in maintenance and reconstruction at later dates, were: 810th Army Engineer Battalion, 873rd Airborne Engineer Battalion, 26th and 46th Naval Construction Battalions. The 14th Construction Battalion had a complement of 990 men and 25 officers upon arrival at Guadalcanal, early in November 1942, and the 2nd Marine Aviation Engineer Battalion, 620 men and 26 officers upon their arrival 30 January 1943.

Heavy rain hampered construction work materially, and considerable time was lost, due to day alerts. An Army

night fighter squadron began using the runway March 21st, and heavy bombardment units began operations April 1st. The field had 3 main taxiways, 5 crossovers, and 85 hard-stands for VB(H) planes.

On 19 May 1945, the field after 29 months of operation was closed, except for emergency landings. It was permanently closed approximately June 26 and at present there is no equipment at the field.

KOLI FIELD

(Carney #2)(Bomber II)(Koli #2)

Latitude: South 9° - 28'

Longitude: East 160° - 12'

This field is for type VB(H) bombers.

The 61st Naval Construction Battalion was assigned the construction of the runway and the 2nd Marine Aviation Engineer Battalion, the construction of the two taxiways on the southerly side of the field. Additional equipment and men were furnished at various times from the 14th, 26th, 34th, 46th, and 63rd Naval Construction Battalions, the 873rd Airborne Engineer Battalion and the 810th Army Engineer Battalion.

This strip was not constructed during a period requiring an emergency field for fighter planes. For this reason, it was not used until the runway had been completed for bomber planes on 1 October 1943.

The runway is 7000 ft. long, by 150 ft. wide. Marston mat is laid on stabilized gravel for the interior 5000 ft., with 1000 ft. of Irving grid filled with lean concrete at each end. The taxiway construction is 150 ft. clear, of which a 60 ft. width is Marston Mat laid on stabilized gravel. There are a total of 98 hardstands for

heavy bombers, none reveted.

The stabilized gravel, in two, 4-1/2 inch compacted layers, was laid on a 3 to 6 inch layer of compacted river sand clay silt sub-grade treatment.

Comments by Lt. Koopman, 61st Naval Construction Battalion:

The gravel layers were of river bar gravel spread evenly with a 1-1/2 inch layer of river bank deposited sand clay silt for binder; the binder and gravel being thoroughly mixed to homogeneity by discing and blading with motor patrols. Compaction was secured by sheepsfoot rollers, rubber-tired rollers and tandem rollers. Rains hampered the work of surfacing considerably.

There was a shortage of parts and cable for equipment, and an inadequate number of discs and motor patrols.

The Ford dump trucks with front wheel drive all developed steering assembly trouble as the assembly was not strong enough for the additional weight on the front end. Lights on these trucks were not protected by grills and consequently were soon put out of commission.

The field was closed 30 June 1944, after 21 months of operation. Metal stripping has been removed and there is no equipment at field. It is not used for storage.

LUNGA FIELD
(Fighter #1)
(Lunga #1)

Location	Guadalcanal
Latitude	South 09°-26'5
Longitude	East 160°-03.5'

The runway is 4000 ft. long and 150 ft. wide, dredged gravel base without binder on sandy to plastic soil, with Marston mat surface. The field was completed for fighter plane use by the 18th Construction Battalion.

The 18th Construction Battalion arrived on Guadalcanal 12 December 1942, and started work on the field 27 December 1942. Their average complement was approximately 800 men and 20 officers for the entire construction period. The field was usable for VF planes on 9 February 1943. Considerable time having been lost due to weather. On 9 February 1943, a runway and one taxiway were completed, and 2 squadrons immediately started using the field. Four squadrons began using the field on March 7th.

The work done by the 18th Construction Battalion consisted of:

Earth Excavation	60,000 cu. yds.
Fill	71,000 cu. yds.
Gravel haul (4 miles)	40,800 cu. yds.
Drainage ditches	5,800 cu. yds.
Concrete culverts	525 cu. yds.
Marston mat	1,800,000 sq. ft.
Earth Revetments	74,000 cu. yds.

Also roads, shelters and lighting.

Maximum Marston mat laid in one day, 108,700 sq. ft., or 570,000 lbs. steel, all manually.

This battalion reported that there was improper checking of materials and equipment during loading and unloading operations, and the battalion arrived insufficiently supplied. Spare parts very seriously needed after a short period of operating equipment, were not available.

The general health was good, however, the malaria rate in the battalion rose to about 20 cases per day. There was very little dysentery.

An additional taxiway, hardstands and revetments were later constructed by 46th and 61st Construction Battalions. There are now 110 hardstands for VB(L) planes, and 36 revetments.

The field was, after 22 months of operation closed 16 December 1944 except for emergency landings. At present there is no aviation equipment at the field and it is being used for the storage of ammunition.

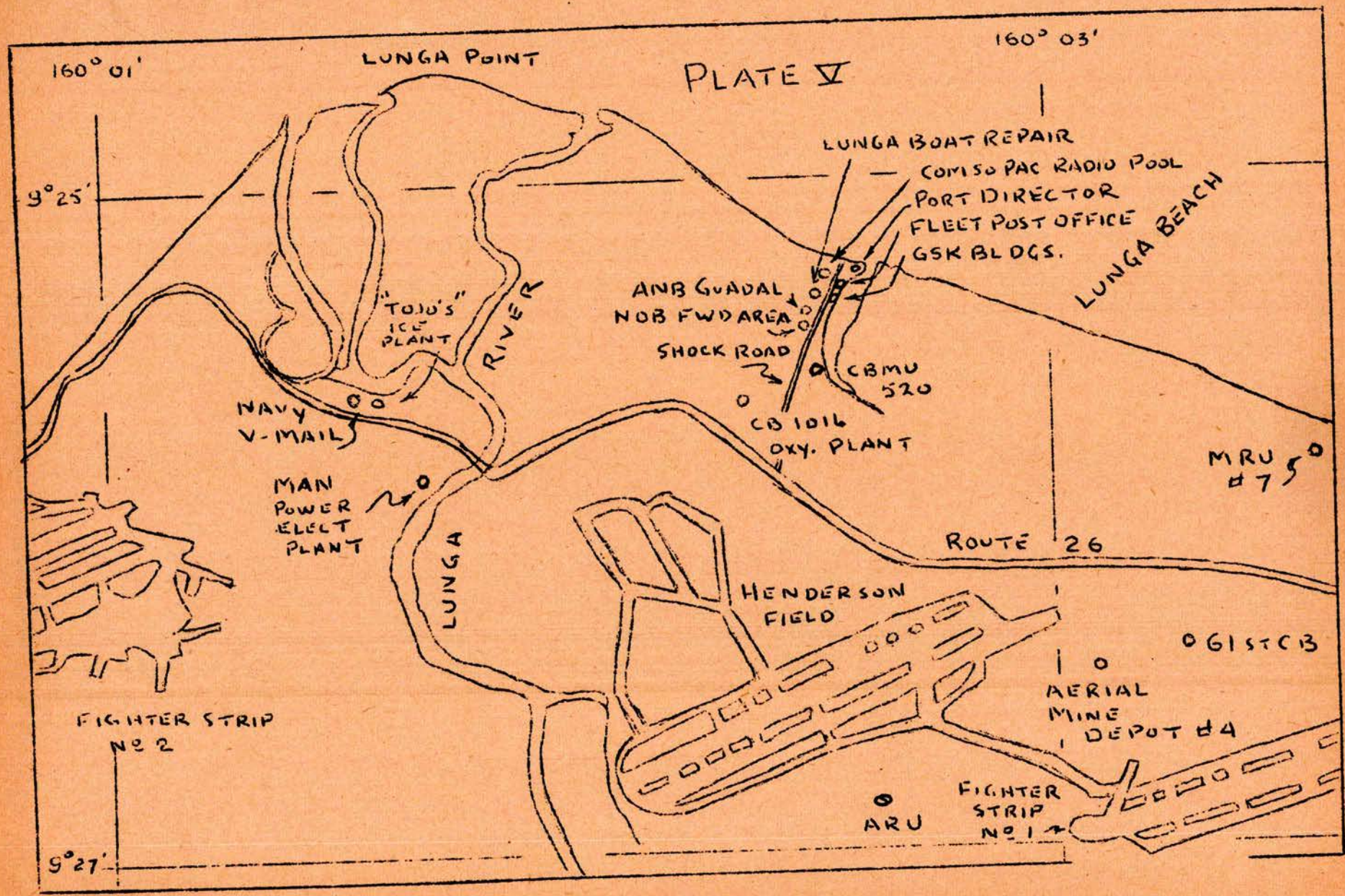


PLATE V
160° 01'
160° 03'
LUNGA POINT
9°25'
9°27'
LUNGA BOAT REPAIR
COMSO PAC RADIO POOL
PORT DIRECTOR
FLEET POST OFFICE
GSK BLDGS.
LUNGA BEACH
ANB GUADAL
NOB FWD AREA
SHOCK ROAD
CBMU 520
CB 1016
OXY. PLANT
"TOJO'S" ICE PLANT
LUNGA RIVER
NAVY V-MAIL
MAN POWER ELECT PLANT
MRU #7
ROUTE 26
HENDERSON FIELD
LUNGA
OGISTCB
AERIAL MINE DEPOT #4
FIGHTER STRIP Nº 2
FIGHTER STRIP Nº 1
ARU

HENDERSON FIELD

Location: Guadalcanal

Latitude: South 9° - 25'

Longitude: East 160° - 2'

A Japanese naval construction unit of approximately 400 engineers, and 1000 labor troops moved into Guadalcanal, and began work on the present Henderson Field on 6 July 1942.

On August 7th, the U.S. Navy and Marines opened the campaign in the Solomons. The field was captured with little opposition and the surface, although a very poor grade, provided a runway usable in the emergency, approximately 2000 ft. long.

The 6th Naval Construction Battalion placed Marston Mat on the Japanese-built runway. The Japanese did not recapture the field, but due to heavy reinforcements, a break through to the field was threatened on the nights of September 13th and 14th. Guadalcanal was shelled by battleships and cruisers on October 13th and 14th, causing considerable damage to Henderson Field and destroyed many of our planes, and the field was not extensively used during the latter part of October and the first half of November.

The First Marine Aviation Engineer Battalion started work on reconditioning the field on November 14th, and it was ready for regular fighter plane use 2 days later. The runway was then 5000 ft. long, by 150 ft. wide.

The following comments and recommendations were made by Major McQueen, Executive Officer, First Marine Aviation Engineer Battalion:

"The drainage problem was serious. The Japanese had laid out the field in a basin, and it was necessary to excavate a ditch for a depth of eight or nine feet to a lagoon near the Lunga River. Oil drums were substituted for drainage pipe. I recommend that material and equipment be provided to pre-cast concrete pipe, work started simultaneously with sub-grading work, or that sufficient corrugated pipe be supplied where poor drainage may delay use of the field."

Planes bombed the field, and the craters, when filled, were insufficiently compacted. As a consequence, the planes would strike these soft spots, resulting in damaged propellors, or other more serious damage. Major McQueen recommended proper compaction be secured with pneumatic tampers.

The Marston mat laid by the 6th Naval Construction Battalion, had to be replaced, due to softening of the

foundation.

As time allowed, trees on the approaches were removed entirely as the stumps created a serious hazard to plane takeoffs and landings.

The malaria rate of the First Marine Aviation Engineers was high, averaging approximately 50 cases per day, after 3 weeks on the island. The original plan called for night work, but this invited enemy attack, and was discontinued. Each night a duty company filled available trucks with gravel for emergency use in repairing bomb damage.

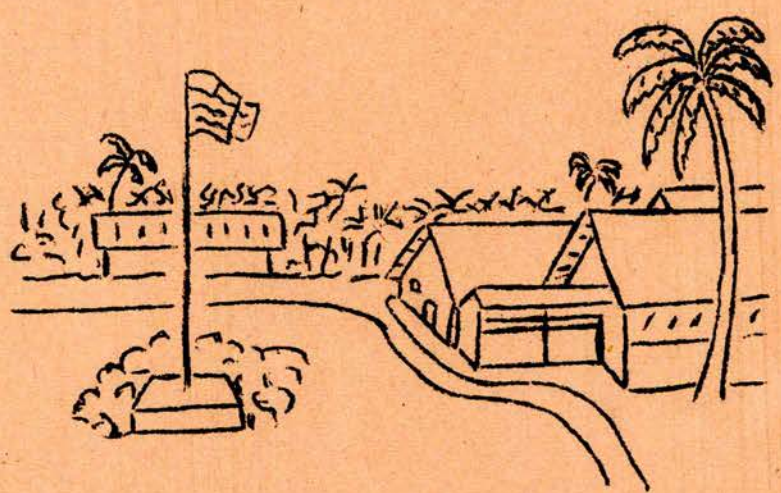
The 46th and 61st Naval Construction Battalions extended the main runway with a coral surface making the total length 6000 ft. by 150 ft. wide, and 75 ft. shoulders. An auxiliary strip 5400 ft. long, by 150 ft. wide, and 75 ft. shoulders was constructed, and placed in service 12 October 1943. Taxiways are 80 ft. wide with 75 ft. shoulders, taxiway surfaces are principally river gravel with Marston mat; however, the surface of recently constructed cross-overs and a connecting taxiway are coral.

The field has two strips: (1) Strip #1 - 6000 ft. X 150 ft. of Marston mat and (2) Strip #2 - 5400 X 150' of coral, and a total of 250 hardstands of which 54 are reveted. It has parking areas for all planes and at present

handles all air traffic on the Island. (ATC, NATS, Army Transit and New Zealand Transport). There are no hangars.

CHAPTER FOUR

HEADQUARTERS and STAFF



CHAPTER IV. HEADQUARTERS AND STAFF

The operational and administrative organization of the Naval Advanced Base, Guadalcanal, was complex. It included many elements, which tended to confuse subordinate commands as well as sections of the organization itself. This condition prevailed especially during the first six months of 1943, when Guadalcanal was divided into two bases, Naval Base, Lunga, and Advance Base Cub Two.

CUB ONE

The first Naval Base ashore was established September 1942, and was commanded by Commander J. P. Compton, USN. In November 1942, Naval Base, Lunga, was established under the command of Captain H. L. Maples, USN, and remained so until 18 May 1943.

CUB TWO

Cub Two, composed of three echelons, arrived on Guadalcanal and was established at Kukum on 21 March 1943. Echelon One was sent to Tulagi, and Echelons Two and Three

composed Advanced Base Cub Two, Guadalcanal. When Cub Two was decommissioned, 18 May 1943, the single command became known as Advanced Naval Base, and Commander H.A. Rochester became Commanding Officer.

All records and files accumulated during Captain Maples' tour of duty at Naval Base, Lunga, are believed to have been burned as a result of an air raid in June 1943.

As of 1 January 1943, Guadalcanal was known as ComNavBases, Cactus, and was under the Command of Captain Thomas M. Shock, USN. The following entry from the Log of Naval Base, Lunga, for 16 January 1943, includes several items of interest and importance:

0800 Assumed duty

0840 Capt. Maples left camp

1000 " " returned to camp

1025 Condition Red

1100 Condition Green

1103 Capt. Shock, Comdr. Compton left camp

1115 Lt.(jg) John V.G. Vasylius CHC-V(G) USNR and Ensign F.P. Dewey D-V(G) USNR reported for duty. Lt.(jg) Vasylius transferred to Koli Point.

Ens. Dewey retained on station.

1200 Capt. Shock, Comdr. Compton returned

1200 Watch relieved

/s/ R.S. Hoffman, Ens.

ADMINISTRATION AND OPERATION

As of 1 January 1943, the departments of Naval Base, Lunga, and the task organization was listed on a chart in this manner:

NAVAL BASE, LUNGA
Guadalcanal, B.S.I.

1. Commandant - Captain H.L. Maples, USN
2. Executive Office - Lieut. M. Merson, USNR
   - A. Aide - Island Liaison - Lieut. J.N. Carlin, USNR
   - B. Personnel - Lieut. A. E. Lindsay, USNR
3. Communications - Lieut. D.C. Tabb, USNR
   - A. Base Radio
   - B. Base Signal Stations
   - C. Coding Board
   - D. Registered Publications
   - E. Telephone Exchange

F. Alarm and Public Address

G. Post Office - Personnel

H. Mail - Censorship

4. Port Director - Lt. Cdr. G.W. Holtzman

A. Boat Pool

a. Personnel

b. Boat Repair

c. Boat Pool Camp

d. Boat Operations

B. Loading and Unloading

C. Yard Craft

D. Berthing, Docks, and Gear

E. Water Transportation

F. Rescue and Salvage

G. Piloting and Navigational Aids

H. Lighterage (Fuel, Water, and Garbage)

5. Gunnery - Lieut. J.N. Carlin, USNR

A. Ordnance

a. Armory

b. Mine Disposal

c. Bomb Disposal

d. Demolition Unit

e. Ammunition Depot

B. Base Defense

a. Gun Batteries

b. Ground Troops

6. Public Works - Lieut. E.W. Brown, USN

A. Water Works

B. Power and Light

C. Construction and Maintenance

D. Garbage Disposal

E. Roads and Drainage

F. Grounds and Tentage (construction)

7. Supply - C.W. Babbit, C.P.C.

A. Supply Office

B. Commissary

C. G.S.K. Stock

D. Canteen

E. Freight Office

F. Cold Storage

8. Captain of the Yard - Lieut. G.G. Barclay, USNR

A. Yard Office

B. Base Security (Police and M.A.A.)

C. Receiving Station

D. Yard Transportation

E. Operations

F. Senior Watch Officer

G. Fire Department

H. Post Office -- Operation

I. Housing

J. Chemical Defense

K. Base Camouflage

L. Base Intelligence

9. Medical - Comdr. C.W. Cramp, USNR

A. Base Dispensary

B. Base Sanitation and Inspection

By May 1943, the following had been added to the organization:

1. Executive Officer

A. Court Martials

B. Boards of Investigation

C. Chaplain

a. Lunga Press

2. Special Service Battalions

A. 1st Special Battalion

B. 4th Special Battalion

3. Port Director

A. Subsidiary Boat Pool - Koli Point

4. Gunnery - Ordnance

A. Mine Detail 4

B. Torpedo Circus

5. Public Works

A. Buildings (Construction)

B. Alarm and Public Address System

C. Telephone Lines

D. Telephone Exchange

6. Supply

A. Disbursing

7. Captain of the Yard

A. Motion Picture Exchange

B. Native Labor

C. Transportation of Mail

D. Duty Office

E. Hurricane Precautions

F. Air Raid Precautions

G. Camps and Grounds

H. Mess Cooks

I. Ship's Service

a. Barber Shop

b. Tailor Shop

c. Laundry

IMPORTANCE OF CUB TWO

Cub 1 was the original component to be incorporated into the Base organization. However, the history of Cub Two is more important in this document, because of the prominent part played by that unit in establishing and maintaining the Base. The part which Cub Two had played in early Base operations involved the solving of many complex problems, the solutions of which served as a yardstick for later invasions and operations, not only in the Solomons area, but in the Pacific theater as a whole. So well did Cub Two do its job that many of its directives are in effect at the Base today.

Cub Two staged and was equipped at Moffet Field, California. It embarked aboard the M.V. MAY STAR, 29 January 1943, and arrived at Guadalcanal 21 March 1943.[1] Cub Two was well-equipped for advance base utility work. The unit was also well-trained, which made for a smoothly functioning organization by the time it reached Guadalcanal. Although the island was secured by the time Cub Two arrived the damage caused by daily air raids created many problems

1. For a breakdown of Cub Two personnel and equipment see Vise CNO letter serial 0341230 of 28 Dec. 1942. (Appendix A)

in the care and maintenance of the base. These air raids also interrupted the progress of the command in its efforts to train and supply units preparing for action in forward combat areas.

Enemy submarine action also was a source of constant danger to shipping, and quite often hindered the loading and unloading of ships in the area.

CUB TWO DECOMMISSIONED

The need for trained personnel in combat areas was great, and the burden of supplying this personnel fell largely on Cub Two. By 1 May 1943, little was left of the original Cub Two, and its activities had merged with the base at Lunga. Accordingly, the unit was decommissioned 17 May,[1] and the remainder of its personnel was incorporated into the Advanced Naval Base, or distributed to other bases in the area, particularly Tulagi. Commander Rochester became Commanding Officer of the Base. The change in command was the result of ComSoPac despatch 140138 of May 1943, which stated:

1. Letters showing the distribution of Cub Two personnel may be found in Appendice B and C.

"The designation of this command is, Advanced Naval Base, Guadalcanal, Solomons, instead of the former title of, Commander Naval Base, Lunga."

UNIFYING THE COMMAND

As the base continued to grow, the responsibility of command increased. Many letters were written to Captain W.M. Quigley, USN, Commander Naval Bases, Solomon Islands, requesting the placing of subordinate commands under the jurisdiction of Commander Naval Base to provide a coordination of command that would increase the efficiency of operation.

Typical of such requests is a section from a memo dated 26 August 1943:

"1. Plans call for more than doubling present unloading facilities.

2. One of the major organization essentials will be an organization for the assembly, maintenance and operation of one hundred (100) pontoon barges.

3. Therefore, it is recommended that sufficient construction Battalion maintenance units be assigned

to such duties. This organization would work directly in conjunction with Construction Battalion Specials in unloading ships.

4. It is desirable that such organization be assigned to Commanding Officer, U.S. Naval Advanced Base, and Construction Battalion Specials in order to have direct control and organization."

To coordinate commands and other activities on Guadalcanal, Commodore Quigley[1] held weekly conferences. The following paragraphs are quoted from a memorandum on this subject dated 18 December 1943:

"All Department Heads will, prior to the conference, make out a brief list of projects or other matters pertaining to their departments which will be of interest to the Commodore[2] and the Chief of Staff. These will include a brief statement of the progress and any other statements of interest concerning them. A copy for the Commodore, for the Chief of Staff and for the office will be provided. Each officer will be prepared to read off his list and discuss each item if so requested by the Commodore.

---

1. Captain W.M. Quigley was promoted to Commodore as of November, 1943.
2. Commodore W.M. Quigley, USN, CNB, Solomon Islands.

The purpose of these conferences will be (1) to provide the Commodore with a running summary of all projects and plans (2) to acquaint all staff members with the work of other departments which may concern them (3) to clarify or discuss any points on which there might be a question and (4) to propose any ideas which any officer may have for bettering the facilities and services of the Forward Area."

PROPOSED TRANSFER TO TULAGI

In March 1944, it was planned to reduce the base and transfer its activities to Tulagi. Plans for this transfer were activated by Captain M.L. Hersey, Jr., the Commanding Officer of Guadalcanal.

In a memorandum to Commander Naval Bases, Forward Area, dated 22 March 1944, Captain Hersey, submitted the following ideas for the proposed transfer:

"1. It is assumed that there is sufficient personnel attached to the Naval Base Tulagi to perform all the functions of a Naval Operating Base. However, this will have to be determined in conference with the Commanding Officer, Tulagi. It is understood

that Tulagi Camp at Halsey Field is in need of considerable repairs and rejuvenation, and that additional officers' quarters are needed. Commander MacBean has the details of this. It is recommended that only such buildings as are absolutely needed be moved from Guadal to Tulagi, and that the Camp Guadal be left to be used as an annex sub-base and receiving station. Even though the base here is abolished it is obvious that drafts of officers and men will be landed here from ships for further transfer in spite of any orders that may be issued to the contrary. Consideration should be given to moving the new officers' messhall to Tulagi if there is sufficient flat ground and if the present Tulagi messhall is in need of replacement.

2. The Boat Repair Unit should be transferred and combined with that at Tulagi. The question of additional space needed in Tulagi for this move will have to be taken up with Commander Erwin. A small boat pool and maintenance unit similar to the one now at Koli Point will have to be left here; also the Port Director, Beach Master and attached personnel.

3. It is assumed that Fleet Post Office, Tulagi, has the necessary buildings and personnel to handle mail for the base and for ships. The Fleet Post Office here should be reduced to a sub-post office receiving mail from the ships which are not routed to Tulagi.

4. Base Radio should be moved and serious consideration given to abolishing all Navy radio Guadal. It is understood that Staff Communications is furnishing the details of their requirements in in Tulagi.

5. Public Works Depot and the Supply Depot should be moved eventually. The sawmills belonging to Yards and Docks should be moved over if needed.

6. There is need for additional Special C.B.'s in Tulagi, and one battalion at least should be moved over after the rehabilitation program is completed.

7. It is assumed that the 34th C.B.'s and as many CBMU's as can be spared will be transferred from Guadal to Tulagi.

8. Camp Adams staging area for Argus Units under the administrative command of this base, should be transferred either to the Air Center or ComFairSouth.

9. The Gas Generating Plants now operated by the Navy should be turned over to the Army.

10. Mine Detail No. FOUR should be transferred to ComFairSouth or Air Center.

11. Provisions should be amde for moving the V-Mail equipment to Tulagi.

12. The following Naval activities in additional to those mentioned above will then remain in Guadal:

U.S. Naval Mobile Hospital No. EIGHT.
U.S. Naval Medical Supply Facility.
Material Recovery Unit.
Naval Landing Craft Equipment Depot.
Guadal Annex, Sopac Radio, Radar
and Sound Pool."

DUAL COMMAND

The increasing activity on Guadalcanal became so

heavy that Captain Hersey appointed Lt. (jg) K. A. Schwartz Jr., as his Administrative assistant. When Captain Hersey became Commander Naval Bases, SoSols, the dual responsibility of command made it necessary that someone be selected to carry on the required administrative work of the base, thus leaving Captain Hersey comparatively free to supervise activities at Tulagi and the Russell Islands. The first Assistant Commander of the base was Commander Perry Wood, USNR.

ADMINISTRATIVE CORRESPONDENCE

The delegation of duties regarding handling of correspondence was set forth in a memorandum dated 27 July 1944, and included the following:

"1. The procedure outlined below is hereby established for guidance and use in the preparation of correspondence, papers and reports:

A. The Commander Naval Base, Guadalcanal signs:

1. All correspondence involving matters of policy, and projects and operations of importance, including letters to commanders

of Naval Bases and to the Commanding General, FIFTH Island Command, other than those that are routine in character.

2. All summary courts-martial, deck courts and recommendations for general courts-martial.
3. Citations, awards and commendations.
4. Reports of Medical Survey.
5. Reports on the Fitness of Officers.
6. Reports of Registered Publications.
7. Camp Orders.
8. Forwarding endorsements on orders of Commanding Officers and Officers-in-Charge of units under this command.

B. The Assistant Commander Naval Base signs:

1. All correspondence not requiring the signature of the Commander Naval Base, except as hereinafter provided.
2. Orders of officers reporting for permanent duty.
3. Appointments and promotions of officers.
4. Officer personnel reports.
5. Survey Reports.

6. Quarterly Muster Roll.

7. Post Office and money order reports.

8. Recommendations for commission.

9. Deck log.

C. The executive officer signs by direction:

1. Correspondence regarding matters of importance concerning enlisted personnel.

2. Quarterly Muster Roll.

3. Camp Orders.

D. The administrative assistant to Commander Naval Base signs by direction:

1. Endorsements on temporary duty orders of officers below the rank of Lieutenant Commander.

2. Forwarding endorsements to the orders of officers attached to activities under this command, except those of commanding officers and officers-in-charge.

3. Commanding Officer's Pay Record Orders for officer personnel, and orders for the checkage of officers' accounts for subsistence.

4. Routine endorsements involving the forwarding

of forms, copies of letters and other purely clerical matters.

E. The personnel officer signs by direction:

1. Endorsements on transient officers' orders.
2. Routine papers and reports of enlisted personnel.
3. Routine correspondence concerning enlisted personnel.

F. The supply officer signs by direction:

1. Routine correspondence and reports regarding supply.

G. The public works officer signs by direction:

1. Routine correspondence dealing with work orders, shipping information and BuDocks Equipment."

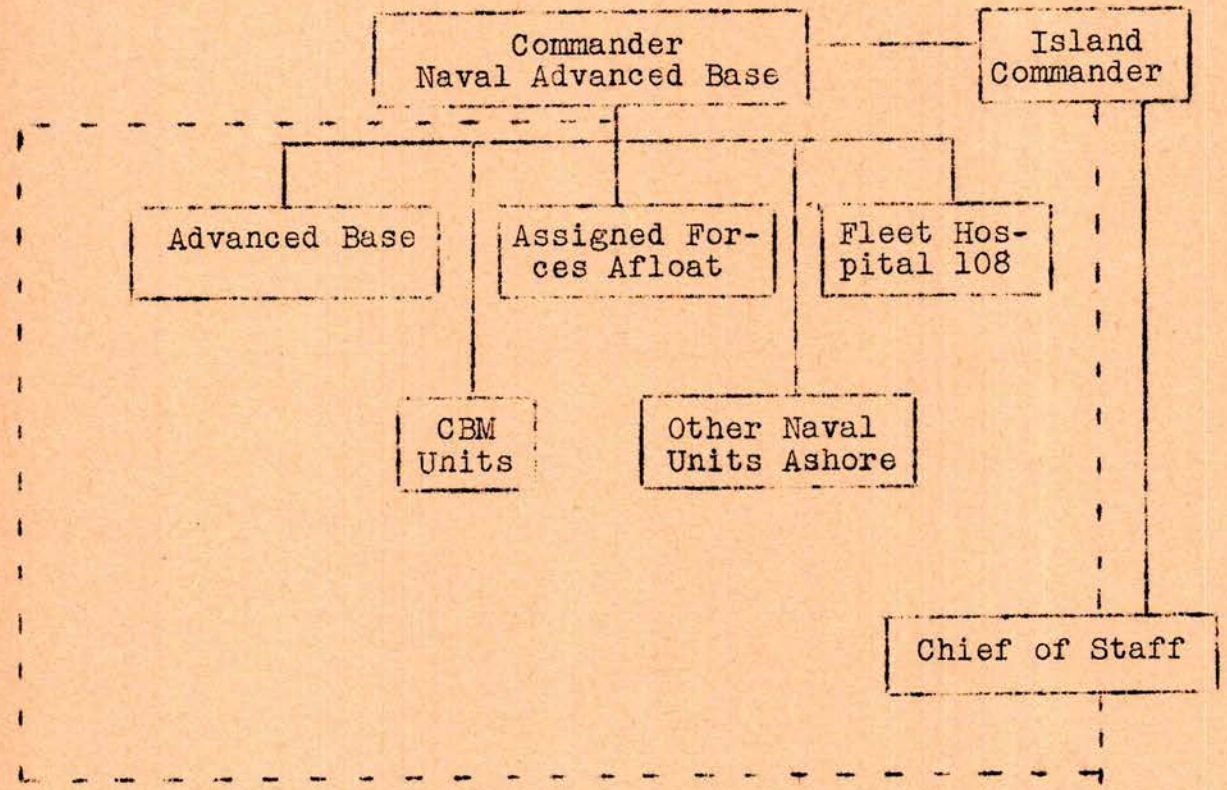
COMBINED DEPARTMENTS

In September, 1944, the Harbor Master Department was discontinued, and the personnel transferred to the Port Director. From this time, it became base policy to combine or eliminate departments, partly to coordinate departments of the command, and partly because Guadalcanal had reached the peak of its function for logistic support

of fleet activities and the forward area. Only two large stagings occurred after September 1944, although smaller staging continued until the end of the war.

On 8 October 1944, the Boat Repair Unit merged with Boat Operating Unit, and became known as Boat Operating and Repair Unit (BORU).

The following organization chart was prepared for the Commanding General, Guadalcanal Island Command on 26 October 1944:



Organization Chart of Naval Advanced Base.

By March 1945, the Third Amphibious Corps and the Sixth Marine Division had completed staging, and Amphibious Group IV commanded by Rear Admiral L.F. Reifsnider, USN, had completed repairs and loading for the Okinawa invasion. This was the last large scale operation involving the facilities of Guadalcanal. The mission proposed for the base as of 30 March, included:

(a) Communication facilities (Army and Navy)

(b) Landplane base for local, NATS, ATC and staging aircraft.

(c) Weather observation station (Army).

The proposed mission for the Navy aside from the above was largely roll-up. On 22 April, Commander Service Squadron, South Pacific Force sent a Secret letter to CNB, Guadalcanal; regarding the new mission of the base.[1]

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1. ComSeronSoPac letter serial 00446, dated 22 April 1945. (Appendix D)

How well the mission was followed can best be shown by analyzing the Strength Reports of the base, and the tabulation of payments for pay rolls.

Strength Reports for all Naval Activities, Guadalcanal, were as follows:

Date	Officers	Nurses	Warrant Officers	Enlisted Personnel
1 January 1945	628	59	93	9,559
1 February	536	60	88	10,070
1 March	598	46	76	8,036
1 April	258	46	59	5,001
1 May	256	55	63	4,594
1 June	135	46	24	2,572
1 July	104	0	17	2,189
1 August	90	0	14	1,824

A study of this report shows the month-by-month decrease of total personnel. A similar study of the payments for the base and ships, and an increase for other activities. The increase for other activities was due to units leaving Guadalcanal, and the personnel of these units drawing pay which had been left on the books. Total payments for the year September 1944 to August 1945 follow:

PAYMENTS FOR PAY ROLLS - September 1944 thru August 1945.

	NAB	SHIPS	OTHER ACTIVITIES
1944			
Sept.	120,791	12,686	94,777
Oct.	86,148	10,652	71,940
Nov.	116,537	7,799	80,968
Dec.	124,552	6,675	92,071
1945			
Jan.	88,174	6,183	65,502
Feb.	97,150	5,371	57,813
Mar.	62,737,50	28,508	47,513
Apr.	94,122	10,095	70,904
May	77,578	4,988	70,982
June	67,312	9,846	69,738
July	54,216	8,135	71,647
Aug.	63,281	9,493	189,799
Total	$1,052,598.50	$120.431	$983,654.

$1,052;598.50
120;431.00
983;654.00
Grand Total - $2,156,683.50

COMMANDING AND EXECUTIVE OFFICERS,
GUADALCANAL, B.S.I.

Command	Assumed Command	Relieved
I- ComNavBase-Cactus	[illegible]	[illegible]
A- Comdr. J.P. Compton, USN	9-42	11-42
II- Naval Base, Lunga		
A- Capt. H.L. Maples, USN	11-42	5-18-43
1. Lt. M. Merson, USNR XO	11-42	5-18-43
III- Advance Base Cub Two		
A- Comdr. H.A. Rochester, USN	3-21-43	5-18-43[1]
1. Lt.Comdr. P.G.Wrenn, [illegible] USN XO	3-21-43	3-26-43
2. Lt.Comdr. F. Bulkley, USNR XO	3-26-43	5-18-43
IV- Advanced Naval Base		
A- Captain H.A. Rochester,USN	5-18-43	1-6-44
1. Lt.Comdr. F. Bulkley, USNR XO	5-18-43	9-29-43
2. Lt.Comdr. E.G.MacMurdy, USNR XO	10-13-43	2-19-44
V- Naval Advanced Base		
A- Capt. M.L. Hersey, Jr.USN	1-6-44	4-6-45

1. Cub Two decommissioned this date. Comdr. Rochester became C.O. Advanced Naval Base.

Command	Assumed Command	Relieved
1. Lt.Comdr. E.G. MacMurdy, USNR XO	1-6-44	2-19-44
2. Lt.Comdr. P.T. Garver, USNR XO	4-6-45	7-9-45
B- Capt. L. Cooper, USN (Ret)	4-6-45	7-9-45
1. Lt.Comdr. P.T. Garver, USNR XO	4-6-45	7-9-45
C- Capt. W.G. Thomson, USNR	7-9-45	- - - -
1. Comdr. P.T. Garver, USNR XO	7-9-45	8-27-45
2. Lt. J.R. Hornor, USNR XO	8-24-45	- - - -

The base at the end of the war, 14 August 1945, consisted of the following activities:

I - Commander Naval Base

A- Captain W.G. Thomson, USNR

II - Executive Department

A- Commander P.T. Garver, USNR - Exec. Officer.

1. Personnel Office

2. Chaplains

III - Port Director - Operations

A- Lieut. J.R. Hornor, USNR

1. Piloting

2. Maintainance

3. Routing

4. Cargo

5. Small Craft

6. Crash Boats

IV - Communications

A- Lieut. W.A. Barker, USNR

1. Fleet Post Office

2. Officer Messenger Mail Center

3. Registered Publications

4. Teletype

5. Transmitter Station

6. Radio Station

7. Coding Board

V - BORU

A- Lt.(jg) V.M. Sovick, USNR

1. Repairs

2. Boat Division

VI - Public Works

A- Lieut. N.H. Twichell, USNR

1. Base Maintenance

2. Stevedoring

VII - Welfare and Recreation

A- Lieut. K.G. Crump, USNR

VIII - Education

A- Lieut. E.C. Peck, USNR

IX - Medical

A- Lt.Comdr. H.L. Reich, USNR

1. Dental

2. Malaria Control

X - Supply

A- Lieut. R.W. Owsley, USNR

1. Commissary

2. Disbursing

3. Ships Store

XI - Receiving Station

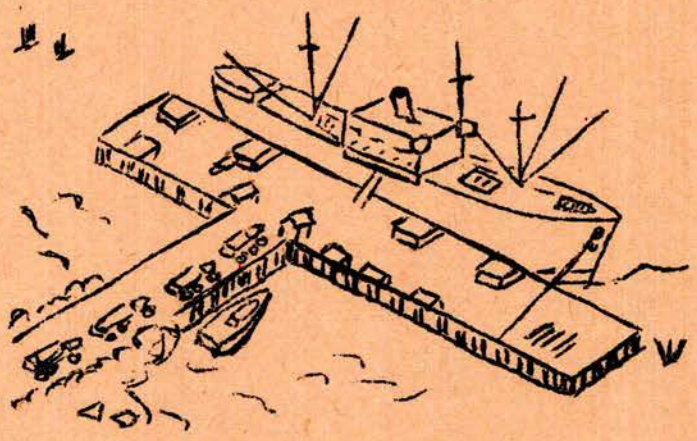
A- Lieut. E.C. Macon

XII - Naval Air Transport Service

A- Lt.Comdr. W.L. Carlisle, USNR

CHAPTER FIVE

OPERATIONS



CHAPTER V. OPERATIONS

In September 1942, when Advanced Naval Base, Cactus-Ringbolt was established, there was set up under this command a Port Director's Office at Kukum to carry out Port Director activities: berthing, piloting, and maintenance of navigational aids.

There was also under the Port Director's cognizance a harbor section, whose duties were to maintain the small boats and landing craft for base personnel. This organization existed until May 1943. The following functions were defined as a responsibility of the Commander, Advanced Naval Base, Cactus, which would indicate that they were primarily the responsibility of the Port Director:

(1) Duty as shipping authority.

(2) Control of all floating equipment assigned to the Cactus area.

(3) Loading and unloading of shipping within the limits assigned to Naval units.

(4) Development and maintenance of the docks.

ASSIGNED DUTIES

The Port Director had been moved to Lunga during this

period. In May 1943, two Port Director's Offices were established, the main office being located at the entrance to Lunga Lagoon, and the subordinate office at Koli Point. Both offices maintained separate boat pools and repair units. In May 1943, the following duties were assigned to the Port Director.

The Commander Naval Base, Lunga, through the Port Director, after consultation with the Army, assigned anchorages, furnished ship unloading details and provided lighterage. By agreement with the Army, the shoreline was the dividing line of unloading activities, the Army taking over at that point.

The Port Director maintained operational control over all Navy floating equipment assigned for unloading operations, and was responsible for all unloading and loading activities. The Port Director provided small craft for the transportation of personnel in the harbor and also furnished pilot and mooring parties for tankers discharging at Kukum and Koli.

The following directives governed all loading and unloading activities:

(1) Commander Naval Base furnished the Port Director with information regarding arrival

of all ships in the area, including estimated time of arrival, name, manifests, and loading plans.

(2) The Port Director advised the ships of its berth assignment.

(3) The Port Director notified the boat pool and Construction Battalions to permit the assigning of boats, barges, and cranes.

(4) The Port Director insured that all ships were boarded and supplied with charts and local information. The boarding report was then submitted to the Commander Naval Base.

(5) The Port Director established daily the hours the ship was to be worked, and if unloading was to take place at night the Operations Office of Commander Naval Bases, Solomons, was to be notified at least fourteen hours prior, of the proposed arrangement.

Commander South Pacific, in a letter dated 26 September 1943, stated that a number of Port Director's Offices had been established in the South Pacific area of which there was no record in the Office of the Chief of Naval Operations, and requested all information

pertaining to this activity at Guadalcanal.

ADMINISTRATIVE OFFICERS

In compliance with this request the following information presents a picture of the duties and the set-up in the Port Director's Office on Guadalcanal at that time. Personnel attached and duties were listed as follows:

Lieut. Comdr. J.H. Dray, USNR - Port Director.

Lieut. Comdr. A.H. Osth, USNR - Commander Harbor Craft.

Lieut. D.Q. Ross, USNR - Port Director, Koli Branch.

Lieut. E.S. Borden, USNR - Assistant Port Director and Boarding Officer.

Lieut. E.C. Twitchell, USNR - Assistant Port Director and Boarding Officer.

Lieut. R.L. Gendron, USNR - Assistant Port Director, Pilot and Boarding Officer.

Lieut. A.H. Lycett, USNR - Assistant Port Director, Boarding Officer and Naval Personnel Transportation Officer.

Lieut.(jg) J.S. Loresch, USNR - Assistant Port Director, and Boarding Officer.

PORT DIRECTOR ACTIVITIES

The following were described as the activities of

the Port Director's Office:

(1) The Port Director, through the Naval Transportation Officer, handled all Navy and Marine incoming personnel and all outgoing Navy, Army, Marine, New Zealand, and civilian personnel.

(2) The Commander Harbor Craft, of the Port Director's Office, was assigned to the Army Port Superintendent's office in order to coordinate more closely the activities of the Army and Navy. He had control of all boats and barges used to unload ships at Guadalcanal.

(3) The Port Director's Office furnished pilots to bring ships in to the dock or to their assigned berths.

(4) Boarding officers were assigned by the Port Director's Office to take valuable papers and information to incoming ships and to obtain important data.

(5) The Port Director's Office controlled the movement of cargo ships in the Guadalcanal area.

(6) All boats were assigned by the Port Director.

(7) The Port Director's Office maintained unloading

progress reports and other pertinent data for the information of all parties concerned.

On September 6, 1944, the Port Director submitted the following request, which was approved by the Commander Naval Base:

(1) That Commander Harbor Craft at Army Port be discontinued, and that the Naval Officer in Charge be ordered to the Port Director's Office as a watch officer;

(2) That the Harbor Master's Department be dissolved, and that his duties be assigned as a function of the Port Director's Office.

TRANSFER OF DUTIES TO STAFF

With the increase in the amount of shipping showing a decided uptrend from the latter part of 1944 to the present time, many of the functions normally performed by the Port Director's Office at an Advanced Base were carried on by the Operations Office of the Commander Naval Bases, South Solomons Sub-Area. The duties of the Port Director gradually became less until his primary function was liaison with the Army Port Superintendent in determining the berth in which a ship would be advantageously

worked, and upon the arrival of that ship, directing her to this berth. The Port Director continued to maintain navigational aids and to provide pilots as required.

In June 1945, the Operations Office of the Commander Naval Bases, South Solomons Sub-Area, and the Port Director's Office of Commander Naval Base, Guadalcanal, were combined, permitting the release of excess personnel and the establishment of a more efficient organization.

SHIP TO SHORE

From October 1942, to February 21, 1943, when Guadalcanal was being secured by combat troops, there was a greatly increased movement of supplies and personnel from ship to shore. Because of nightly air raids and of shelling through November by Japanese surface craft, materials were exposed, despite dispersal, camouflage and other protective measures taken. There was urgent need for utmost promptness in unloading and storing vitally needed supplies of all kinds. Ships were not permitted to lay at anchorages overnight, and only the simplest mechanical aids were available beyond the ships' tackle to speed unloading. The most vital link in this supply operation, and in the most defenseless position, was the lighterage

of loads in LCM's, and the discharge by hand labor onto the beach or onto trucks backed into the water and up the boat's ramp. Some supplies were landed at Tenaru, Koli and Kukum beaches, but the greatest volume converged at Lunga Beach, feeding the Henderson Field dumps and adjacent operations. For almost two months from after the first landings, the Sixth Construction Battalion, commanded by Commander Joseph Blundon (part of Cub One), grated and cleared beach operations, built roads, laid out dumps and camp facilities, and improved airstrips, as well as bringing ashore vital supplies. The following is quoted from Life Magazine of October 9, 1944:

"At one time the aviation fuel shortage became terribly acute. Cargo planes, extremely vulnerable to Jap attack, were flying in some of the fuel. Destroyers were dashing in at night to bring more. Still there was not enough. The Seabees, using their self-propelled pontoon barges, undertook to help relieve the shortage by making the 20-mile trip across open water to Tulagi. Part of this trip had to be made by daylight. Stoically, while the Jap dive bombers attacked, the men rode these slow, chugging barges, knowing that the slightest hit would send them and their gas up."

OPERATIONS CHRONOLOGY

The following is a chronology of important events in the South Pacific affecting the Guadalcanal port:

1942

7 August: After heavy naval bombardment, the First Marine Division landed about 2 miles east of Lunga River, from Lunga Beach eastward, unopposed.

8-9 August: Sea battle off Savo Island cost 3 U.S. cruisers and 1 Australian. This was a vital loss - for six weeks Japanese war vessels hovered near, making the landing of reinforcements and supplies a difficult problem. The initial combat-loaded supplies were supplemented by large stores of captured food, supplies, and heavy equipment, including rolling stock, much of which was pressed into immediate use.

17 August: 1000 Japanese landed 15 miles east of Lunga River between Berande and Taivu.

21 August: Disregarding orders to await reinforcement, the Japs reached the Ilu River, just east of Henderson Field, and made a mass frontal attack on our defenses from Tenaru Beach inland (Marine maps call the stream "Tenaru" and the British "Alligator Creek"). The main thrust was along the relatively open (present Tenaru) beach, but the offense extended south (past Tenaru Ration Dump and 4th Marine S. & S. area) with a heavy attack three-fourths of a mile inland.

The Jap manpower was at last exhausted, and 900 of the original 1000 died. They lay three deep along Tenaru Beach and were buried with bulldozers.

1-6 September: About 6,000 Japs landed at Koli Point and at Kokumbona (west of Point Cruz). Most of these worked to the high ground south of Henderson Field, with artillery, where the First Battle of Bloody Ridge occurred 13-14 September.

15-28 September: Japs continued landings, pouring in 11,000 more troops, and occupied the Mount Austin area. From there intense artillery fire blocked our use of Kukum beaches, and night raids diminished our supplies and harassed men.

17 September: Another heavy Jap naval counterattack in the Guadalcanal area was driven off, losing the third U.S. aircraft carrier in this war. (The fourth was lost with a destroyer, attacking Jap convoys 26 October).

11-12 October: Cape Esperance Naval battle fought to protect our convoy and sink one of Jap's. U.S. lost two destroyers but sank a heavy cruiser, four destroyers and a transport.

13 October: Convoy anchored and first U.S. Army troops,

164th Infantry, Americal Division, unloaded at Kukum Beach under fire. As soon as most vital supplies were discharged convoy moved out. Under cover of darkness two Jap cruisers with 8" guns were able to approach and shell our positions. Both Henderson Field and our beach installations were hit hard, and a number of planes were destroyed. Badly needed supplies just landed at Kukum were severely damaged.

1-2 November: About 1,500 Japs landed at Koli Point, but were unable to join their main body. Within 10 days all the enemy in the Malimbu-Metapona River areas had been killed or swept into the sea. At the same time our lines were pushed west of the Matanikau and Point Cruz, but the Kukum area was still menaced by artillery on Mount Austin.

3-5 November: Large Japanese landings were made at Kokumbona, Tassafaronga (to the west) and at Taivu Point, far to the east of Koli and Tetere.

12 November: A convoy arrived at Kukum Beach, well protected, and discharged the 1st and 2nd Battalions, 182nd Infantry. Unloading was rushed desperately, but was caught by a flight of 17 torpedo bombers in the afternoon. Crossfire from shore anti-aircraft

batteries and two groups of cruisers and destroyers shot down 16 of the planes, and a second squadron turned back near Henderson Field without accomplishing any damage.

13-15 November: USS ATLANTA limped in toward Point Cruz listing badly and belching flames but was afloat hours while landing boats rescued crew. Four Jap transports and one cargo vessel beached above Tassafaronga before dawn 15 November, but were destroyed before 9 a.m. by aircraft. Probably 4,000 to 5,000 Jap troops landed, but little ammunition or supplies were saved.

30 November: U.S. warships overwhelmed Jap convoy in the night off Lunga Point.

5 December: Full relief of the First Marine Division by the Second Marines (which arrived in parts, starting 16 November, and extending through 3 January 1943) was begun, with evacuation of First Marine Regiment, the first troops out.

15 December: Some demolition units of Japs, infiltrating from the mountains, destroyed a large amount of gasoline and a P-39 on Henderson Field.

17-30 December: Full 25th Division (3 regiments) and an Americal Battalion debarked for combat.

END OF JAP RESISTANCE

1943
January: Jap defenders were driven from Mount Austin after bitter defense, and from the Point Cruz-Kokumbona coastal strip; after 21 January resistance weakened sharply and pursuit was rapid. The weakness of their supply system was evident from the fact that little essential material was found at the front; ammunition was on hand of every type, along with many trucks and track combat cars out of fuel, also a profusion of medical and ordnance items of high value, only five miles away.

9 February: All organized Jap resistance ended; about 3,000 Japanese, mostly headquarters and service units, were evacuated in one week by naval craft. Only 250 prisoners were taken in the six month campaign; about 35,000 were killed on land, and over 10,000 at sea attempting reinforcement.

21 February: Guadalcanal "secured" from combat status. An unopposed landing was made on the Russell Islands,

by elements of the 43rd Division, Third Marine Raider Battalion, and Navy Construction personnel, who promptly opened an airfield and minor boat facilities. Traffic of a ferry nature grew rapidly to supply this island's needs and continued until late 1944, when Army personnel evacuated the Russells. A small number of Navy and Marine units remained as of 15 August 1945.

CONSTRUCTION OF BASE

21 March: The first trained non-combat labor for stevedore operations arrived, and immediately started a 24-hour daily working schedule. This was the First Special Construction Battalion, commanded by Commander Powers. This Battalion with other Naval Advanced Base personnel, and an Aviation Repair Unit, debarked as the First Echelon of the Navy's "Cub Two". Cub Two did not operate as a base unit, but its components did invaluable work in augmenting beach capacity and efficiency.

7 April: A mass air raid was suffered, but 37 Jap planes were shot down. At this time members of the First

Special Construction Battalion (who had been bombed two days after arriving, before foxholes were prepared) were working aboard the WILLIAM WILLIAMS and the JOLIET. When these ships were attacked by torpedo bombers, the Seabees joined the ships' crews, serving creditably in manning anti-aircraft gun crews and helping counteract the enemy attack.

11 May: The Army Port Director, or Port Superintendent, was established on this date. Hitherto, the work of the Army on the beach had been primarily that of coordinating with the Navy Port Director the work of the various supply and combat units, who were consignees of cargo, and of procuring trucks and labor. On this date, also, the First Amphibious Truck Company arrived, and DUKW's were soon making available a new and more flexible means of cargo unloading - from ship's side to dumps with only one vehicle.

16 June: During another intense and prolonged Jap air attack, a number of ships were badly crippled, but a total of 102 planes were shot down by our fighters and by accurate anti-aircraft action. Men of the First Special Construction Battalion were especially commended for rescuing personnel from burning ships

off Tenaru Beach, and burning oil and explosives in the cargo. At Lunga Beach a loaded LST was hit squarely and its contents, including vehicles, completely destroyed. Most of the wreckage was dragged inland from Lunga Beach, starting, what is now the main salvage yard. The Navy established MRU #7 as a salvage unit in the cleanup following this largest of all raids.

30 June: Initial landings successfully made on New Georgia, at Rendova, Segi, and other points by a reinforced infantry division and a Marine raider battalion with Seabees who opened an airfield in ten days. Just prior to this push, the First Special Construction Battalion at Guadalcanal was required to unload five ships with a time limit of 7 days. They accomplished the task in just 5½ days.

TONNAGE

October: For the third straight month, Army Port handled an average of over 5,000 tons daily, in support of the New Georgia operations and anticipation of Bougainville attacks. These invasions began,

following embarkation at Guadalcanal 23-26 October, with the seizure of Mono and Stirling (Treasury Islands) on 27 October after a dawn attack. Men and cargo from five transports were unloaded by 2200 that night. Preparations were accelerated to the maximum to permit actual landing on Bougainville 1 November by the Third Marine Division under beach and terrain conditions that were worse than anything ever encountered before in the South Pacific.

Forced by an amazing increase in tonnage through the summer, a deepwater pier was rushed to completion. Kukum Dock was the first pier built north of Santos at which cargo ships could tie up; it was in full operation by late October and greatly improved port operations.

26 November: Disastrous explosions and fire at the Hell's Point Ammunition Dump, which burned for 24 hours, besides ammunition, destroyed many DUKW's and vehicles used in port operations.

December: Serious shortages of important cargo for the Naval Air Corps (ASA) from the SS DAVID GAILLARD caused the first important investigation of cargo handling methods. Although Navy authorities and

the consignee agreed that the missing pieces (180 out of 796) were not aboard when the ship arrived at Lunga, the investigation showed ASA cooperated on ship and shore with the Port, but that critical cargo was not well marked, nor solidly stowed, and when re-handled at Santos, may well have been lost.

Construction of a second dock below Kukum was rushed and practically completed by the end of the year. Point Cruz Dock opened early in January.

STAGING

1944
January: Several important convoys arrived with additional service troops aboard, despite severe hurricanes. The most important gain to the Port was the arrival late in the month of the 492nd Port Battalion, with badly needed cranes and gear of all kinds, and trained maintenance personnel. Part of the Battalion was quartered, and its headquarters established, alongside the 481st Port Battalion area, adjoining the beach directly east of Lunga. One company, with maintenance specialists, was quartered one-half mile east of Lunga Lagoon, and one-half mile south

of the beach, near Ration Dump 7, the remainder (two companies) encamped at Sease Blvd. and Route 50, with a small detachment in the Koli Area Service Command camp, 15 miles east. The splitting of the Battalion physically was due to lack of available areas as combat and service units poured in faster than sites could be drained and roads built to accommodate them.

13 February: A report radioed to the Commanding General SOSSPA by Colonel Sheets, G-4 of Headquarters Forward Area on delays stated, "Weather conditions stopped all ship operations at Guadal three days and restricted operations two additional days. Docks, roads, bridges and dump areas were washed out. Of the barges available for cargo handling at Guadal, nine were on the deadline due to storms; the remaining 15 were utilized to maximum capacity. Commander Naval Base is making every effort to repair barges and assemble new ones." Another ship delay report stated that barges were out of commission for hours at a time intermittently, that rains were severe, also that two infantry divisions were moved in and out for deadline movements in addition to cargo work.

16 February: Despite continued storms, activity at the beaches reached a high tonnage, although inbound cargo was less than the outbound for a brief period. Commander Yost, Officer in Charge of ship operations (Comcargo) initiated a Port Log, which showed daily difficulties of many varieties.

March: Military combat by South Pacific Area forces ended with the occupation by the Fourth Marine Regiment on Emirau Island 20 March, following a similar landing on Green Island 15 February, and the cancellation of the operation planned against Kavieng, on 14 March. Preparations for these were complicated by weather and other difficulties at Guadalcanal, but their execution, with incessant bombing of Rabaul, removed any need for expansion of South Pacific service forces.

The First Special Construction Battalion was relieved by the Second Special, and its camp site east of Tenaru Beach was turned over to the 28th Replacement Battalion, Sixth Replacement Depot. Commander Powers was succeeded as ComCargo at Army Port by Commander Yost. Meanwhile the Fourth Special Construction had been assigned to operate the Kukum

Dock area, and had set up camp beyond the Matanikau and directly back of the Point Cruz Signal Tower.

May: With the sharp drop in activity at the end of the month, and the increase of personnel, great strides were made in physical improvements on the beach and in maintaining dumps. Access roads were graveled and raised out of the mud, camp sites were further ditched and drained, and steps taken to fill all malaria hazards (including most air raid shelters) and otherwise improve morale. On Lunga, a canteen was projected for Red Cross use in feeding the large numbers of troops in transit. It was not actually opened until August, and was found unfeasible after a short time.

June: Further physical improvement, particularly in grading and filling beach areas, took place. By late June all the temporarily assigned personnel of the Port Section had been absorbed or transferred elsewhere. Several small fires and serious pilferage caused a campaign to be launched for cleanups and more careful inspection and checking.

July: Increased emphasis was laid on guarding beer and PX supplies, with a convoying of trucks, the riding

of DUKW's by MP's, and other measures, and a noticeable improvement resulted.

October: The Fourth Special Construction Battalion, after a year's heavy stevedoring at Kukum and Point Cruz Docks, was secured, and the 492nd Port Battalion was moved from Lunga Beach, as an operating headquarters, to Point Cruz Dock, with its four companies quartered together in the Fourth Seabee area beyond the Matanikau. Additional labor was provided by some 300 Gilbert and Ellice Island natives, organized and administered under contract by British colonials, but under operating control of Army Port. The 492nd Port Battalion furnished a skeleton group of key men to each working party, but its operations had to be confined to ordinary tasks of a repetitive nature.

The opening of the Mount Austin Dock, midway between the larger Kukum and Point Cruz Docks, increased the capacity of the Port materially, and insured operations around the clock in all weather--impossible on beaches.

November: Control of small craft passengers was transferred from the Navy Port Director's office to the Army Port coincident with initiation of their use of

the Kukum area docks. Previously these craft had anchored off Lunga Lagoon, requiring Navy-operated LCMs or smalled boats to transfer passengers and guard mail, although freight for APcs was loaded at Kukum Dock. Thirty-four APcs operated on weekly schedules, with 21 of these used exclusively on the Tulagi Guard Mail run three turnarounds daily.

10 December: Army Port Headquarters moved to a newly constructed office opposite Mount Austin Dock, with facilities ample for efficient operation and control. With the arrival of replacement officers from the United States, and further physical improvements, many previous handicaps were overcome.

It is generally considered that the Guadalcanal area was secured from combat action after the last mass air attack in mid-June 1943, but heavy convoy protection from all directions was carried until well into 1944. In June 1943, the entire local force consisted of only 20 LCTs, and 4 wooden Yippees, to handle perishable foods. For escort and anti-submarine patrols, 12 SCs were assigned. Submarine nets were used off Guadalcanal only at the submerged pipeline anchorages where tankers lay while discharging oil.

BEACHES, FIXED FACILITIES, AND OPERATIONS

A brief description of each developed beach and adjacent facilities follows. The list, moving from west to east along Guadalcanal's north shore, shows basic pier data, and except for isolated Tassafaronga, reflects the order of importance of beaches and of relative condition of their facilities:

Name of area	Piers			Depth of water at face	User	Operation
	Type	Number	Dimensions			
Tassafaronga	Finger	1	40' x 200'	6'-8'	Marine	Barge & Kukw & LCT
Point Cruz	Ocean	1	Face, 60' x 500' T approach, 40' x 300'	30'-31'	Army	Dock
Mount Austin	"	1	Face, 40' x 440' 2 legs, ea. 20' x 450'	32'-35'	"	"
Kukum	"	1	Face, 60' x 500' T approach, 40' x 300'	31'-32'	"	"
West Kukum	Floating	1	Face, 43' x 107' 2 legs, 21⅓' x 73'	5'-5'	"	Barges
" "	Finger	1	30' x 200'	8'-10'	"	Barge, LCT and Dukw
Kukum Beach	x	x	x 1 mile good slope	x	All	LST, Dukw
East Kukum	Finger	1	30' x 200'	8'-10'	Army	Harbor Craft repairs
Lunga	"	1	30' x 330'	8'-9'	Navy)	Small craft,
	Bulkhead along lagoon, 800'			4'-5'	")	supplies, etc.
"	Finger	1	(Pier 5) 40' x 250'	6'-8'	Army	Barge & LCT
	Bulkhead facing channel, 600'			7'-7⅓'	"	" ", small cr.
"	Open beach facing channel, over 1000'			x	"	Dukw & small craft of ramp type
Tenaru	Finger	3	40' x 250'	6'-8'	"	Barge & Dukw
Koli	"	3	40' x 400'	7'-9'	"	" "
Tetere	"	1	60' x 300'	4'-5'	"	" "
Suagi	L.S.T.	2	100' x 500'	9'-12'	Marine	LST tactical

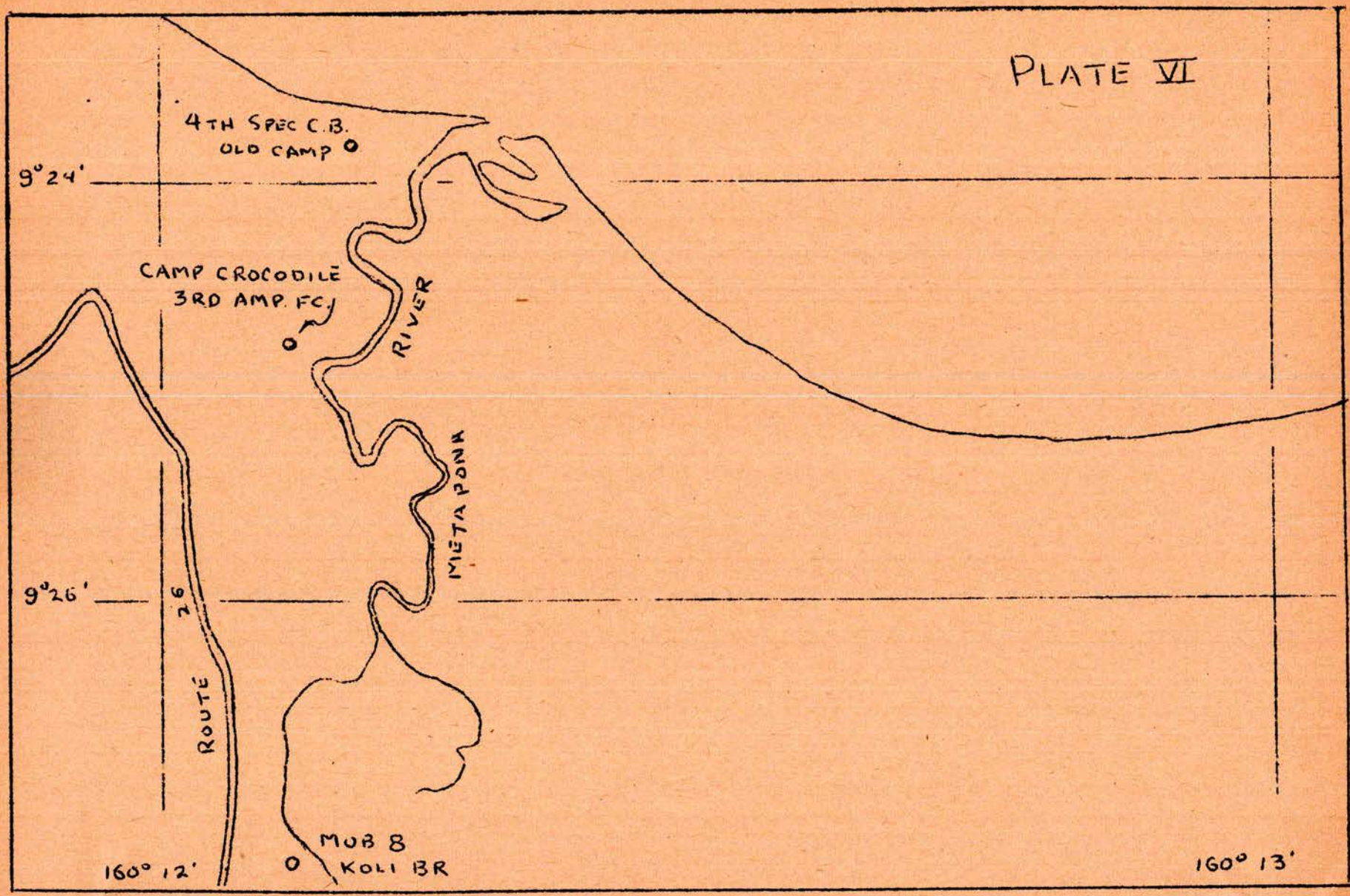


PLATE VI
4TH SPEC C.B.
OLD CAMP
9°24'
CAMP CROCODILE
3RD AMP. FC.
RIVER
MIETA POINT
9°26'
26
ROUTE
MOB 8
KOLI BR
160° 12'
160° 13'

INSTALLATIONS

Cost estimates are not available, but, as history, it should be recorded that dollar costs were given minor weight in the construction and operations here, as cost in lives saved by prompt and resolute accomplishment of missions against heavy odds far outweighed dollars.

The installations listed were all made under compulsion of circumstances which could not be foreseen, due to unpredictable exigencies of the fast-moving war. It was inevitable that early locations and facilities proved unsuited to later demands, and that the fury of storms shortened the life of all structures, so that rebuilding or replacement was almost continuous. Although construction is supervised by the Island Engineer, the projects were largely carried out by the 46th, 34th and 61st Naval Construction Battalions. Pier maintenance had likewise been primarily carried on by three naval groups, the 518th, 520th, and 533rd CBMUs (Construction Battalion Maintenance Units). Generally speaking, CB work was in or over water, while Engineering troops handled inshore construction and maintenance. However, the CBs did inshore work at times, as well as building and servicing

Navy shore installations. The extent of the maintenance job is indicated by the total area on piles, 356,000 sq. ft., of which 120,000 sq. ft. were in the three ocean piers, and 136,000 sq. ft. were in twelve finger piers. In addition to cargo area and structural maintenance, underwater pipe to dolphins for ship's water, piles, bulkheads, and dredging had to be maintained periodically, all with minimum interference to operations.

As of December 31, 1944, water-borne equipment utilized by the Army Port included a 30-ton floating crane, two J-boats for boarding parties, and 32 steel pontoon barges for freight and troop ferrying from ship to shore. These barges were propelled by detachable propulsion units. In addition, two DUKW companies were working, with each company maintaining 50 DUKWs. Two small tugs were also used.

The following is a description of the beaches and their use:

Tassafaronga was the most important of the three beaches west of the Point Cruz area, but was by no means in constant use. Elements of the Sixth Marine Division used this beach to land units and supplies for their extensive camps and for reembarking personnel and impedimenta

for tactical exercises. LCTs and LCMs were preferable to the use of barges of DUKWs, due to greater speed to and from operations and lack of service facilities. Doma Cove was used only for LCTs and small craft when Marine units in the immediate vicinity needed water transportation or to work out tactical exercises, and had very little capacity or value in terms of tonnage. LCTs with 160-ton capacity and LCMs with 40-ton payload rating, had been dispatched from Lunga Beach for lighterage to these outlying beaches from the ships carrying their cargo. However, LSTs could be discharged on this beach when desired.

Kokumbona Beach consisted of a white sand and pebble beach with a smooth underwater slope and good anchorages offshore. In June 1943, it was used for staging Navy and Marine personnel. Relatively little tonnage was handled over beaches west of Point Cruz, and most of this activity was concentrated in the last half of 1943. The rough terrain and distance from major dumps and port activities limited use to that for units staging or in combat training nearby.

DOCK FACILITIES

Point Cruz Dock was the westernmost of the three ocean piers in the Kukum area, and was two miles in an airline direction east of the Point Cruz Signal Tower. The dock was constructed in the last quarter of 1943 by the 46th and 61st Naval Construction Battalions, shortly after completion of Kukum Dock, of which it was a physical duplicate. These docks were built with heavy timber decks over massive piling and timber bents, in an area of jagged coral benches, and represented a major contribution to port capacity and efficiency. They were T-shaped, with a 500 ft. ocean face, 60 ft. wide, with a 40 ft. X 300 ft. approach span to a shore abutment backed by a fill for about 300 ft. to the main beach road.

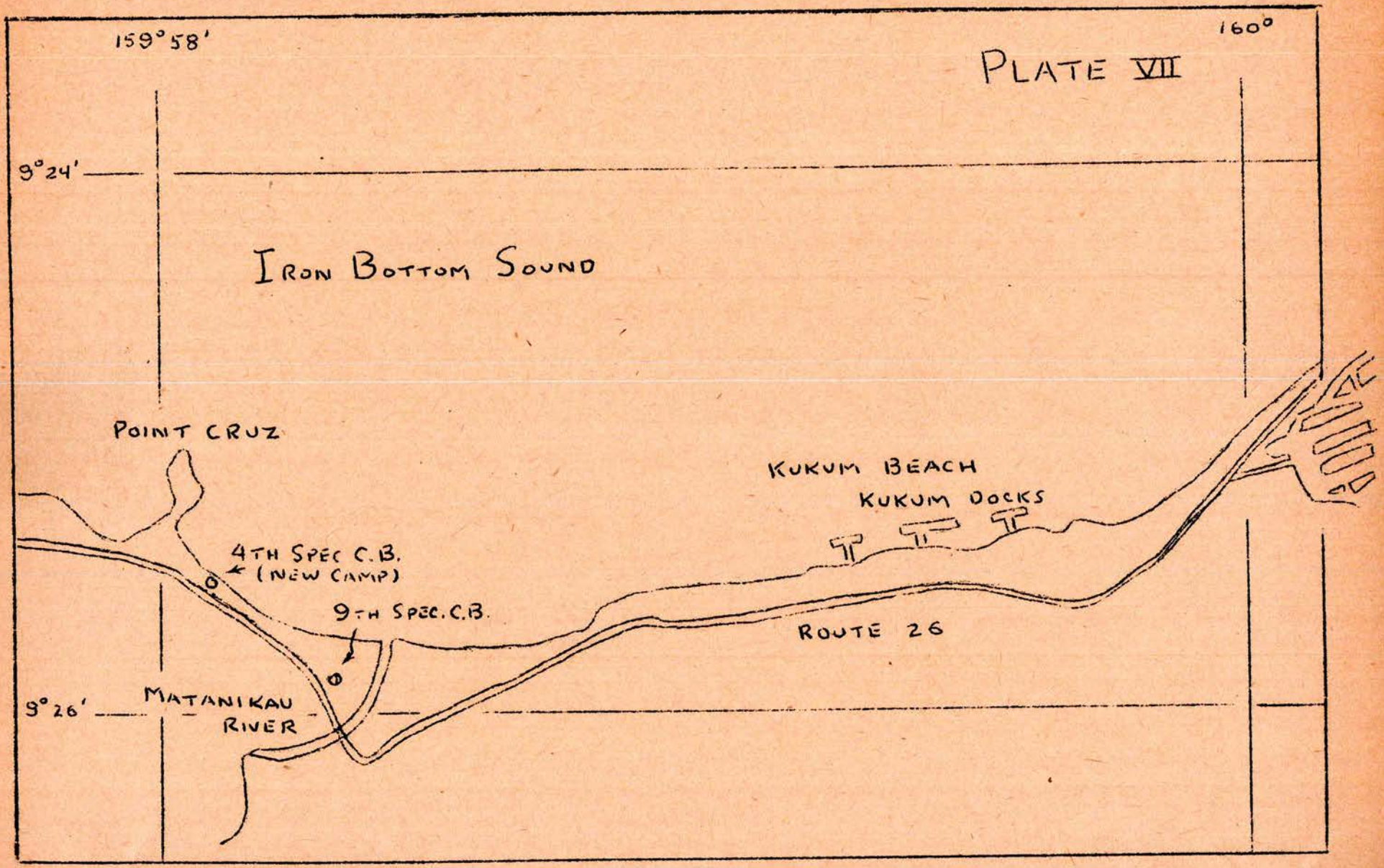
The dock at Point Cruz was in constant use throughout 1944, and required only minor servicing during that period. It differed from the Kukum Dock in having a reinforced concrete slab floor, which contributed to its stability, spreaded impact loads, and somewhat improved working conditions and the safety factor. Fresh water lines, and salt water emergency fire lines, were installed on Point Cruz and Kukum Docks.

Point Cruz Dock was used not only for cargo ships, but a seagoing barge and an APc could be simultaneously working on the inside face of the dock, or at the extremities. They were normally handled by dock cranes, but guard mail, baggage, and small shipments could be hand-worked, or other expedients used. Movable platforms, dunnage, and various gear were handy for use as needed.

Midway between Point Cruz and Kukum Docks, the new Mount Austin Dock was completed and put into operation in mid-October, 1944. It was originally contemplated as a T-shaped dock, but prefabricated material of this pattern was unavailable to fill the requisition, and Headquarters SOSSPA accepted the substitute although its narrowness (40 ft. face - 20 ft. ramps) hindered efficient operation.

Mount Austin Dock was not suitable, as were the other two, for working APcs on the east or west dock extremities while a cargo ship was berthed. As it was 60 ft. shorter than the standard 500 ft. docks, ships overhung enough to block an APc from mooring perpendicular to it, which was standard practice at the others. A small floating pontoon dock, connected by steps to the east ramp, was secured to Mount Austin, however, to serve J-boats, and personnel

PLATE VII


159°58'
160°
9°24'
IRON BOTTOM SOUND
POINT CRUZ
KUKUM BEACH
KUKUM DOCKS
4TH SPEC C.B.
(NEW CAMP)
9TH SPEC. C.B.
ROUTE 26
9°26'
MATANIKAU
RIVER

boats from ships working in the stream. But debarkations and embarkations of more than a few troops were made at West Kukum Finger Pier unless the ship was docked, when they could be entrucked or detrucked, with their gear, at the gangplank.

KUKUM DOCK AND AREA

The oldest and best located of the ocean piers, Kukum Dock, handled consistently higher tonnages than the others, although they tended to equalization. It was built in the summer of 1943 by the 46th CBs, whose memorial to one of their crew killed at that time is still displayed. It was extensively damaged by heavy storms in February 1944, and by a blow from a ship in November 1944, hence it required partial rebuilding twice. Monthly tonnage summaries indicated a peak tonnage of 33,773 in its second month of operation, and a secondary peak of 32,841 in May 1944, with intensive use every month, since opening October 1943. Tonnage for that month, when the 4th CBs started its use, and for October 1944, when they moved out, fell below 10,000 and also below the new Mount Austin Dock, which in its initial month handled its largest amount, 13,212 tons. These

monthly peaks, and that of 27,972 tons for Point Cruz in May, still were a minority factor. Lunga Beach handled over 50,000 that month, Kukum Beach (including piped oil) almost 30,000, and Tenaru Beach 23,547, or well over half of the total tonnage. Not until November 1944, did total tonnage over docks exceed that at beaches, and then totaled only 50,252 tons with three docks, as against 60,813 tons over two docks, or 32 percent of all tonnage, including oil, in May 1944. The historically significant point is that docks were used as fully as possible, but were never able to handle the majority of traffic until the autumn of 1944.

BEACH FACILITIES

Kukum Beach

Although a large and well-located beach, it was untenable until Japanese artillery was driven from Mount Austin. After this threat was removed, it was extensively used for LSTs and all other ramp-type craft, and a submarine net was laid to protect a tanker anchorage, permitting discharge of gasoline and fuel oil in twin pipe lines direct to the Kukum Tank Farm, near Kukum Lagoon.

Twenty LSTs could be staged simultaneously without encroaching on the tanker area or the finger piers.

A large amount of ammunition was handled over Kukum Beach in 1943, and a sizeable dump was located east of Kukum Lagoon; however, extreme floods and other conditions forced its relocation on higher ground at Sun Valley.

Tonnage data recorded for Kukum Beach included all the barge and LCT traffic handled at West Kukum Finger Pier. It also included fuel oil and gasoline pumped through the pipeline from ship to the tank farm. Although practically all of the aviation, motor, and cooking gasoline intake was consumed on Guadalcanal, this was not true of fuel oil. Most of it was pumped out again into YOGs (yard oilers) and other ships for distribution to landing craft and vessels direct into fuel tanks. Tonnage handled at Kukum Beach reached a peak in January 1944, which included much initial equipment for Bougainville, as well as, huge quantities of ammunition and rations for troops already there, and the staging of the Green Island push. Over 63,000 tons were handled in all. January was the only month in which Lunga Beach loadings were surpassed by loadings at Kukum Beach alone, although it usually led

Tenaru and Koli, and included a larger percentage of out-boat loading. When tonnage over Kukum Dock was added, in the last quarter of 1943, the Kukum area consistently led in tonnage, and with the opening of Point Cruz Dock in January 1944, the combined tonnage west of the Lunga River (Kukum area including two docks, the beach, and pipeline) was larger than the tonnage of Lunga Beach and all to the east of it, including the Koli pipeline.

East Kukum Finger Pier

Early in 1944, a second finger pier of the same size as the West Kukum pier was in service. After removal of the Kukum Ammunition Dump to Sun Valley, it, with the east end of the beach, was made available for a cargo area. In December 1944, use of the finger pier and an area directly between it and Highway 50, was returned by the Navy to Army Port for use as a barge and small craft maintenance base, sandwiched between the Navy Cargo Area and the Receiving Ship.

Lunga Beach - Navy

East of the Kukum Beach area was the swampy delta of the Lunga River, forming Lunga Point, with approximately two miles of unusable ocean front. To the east of this was a very long, smooth beach, facing north by east,

extending to the Ilu River. The east end of the area was designated Ilu Beach in The Navy's "Guadalcanal Guide" in July 1943, which mentioned a log ramp but no other facilities, and that it was little used due to a very poor connection to the main road (Highway 50) 1000 yards south. The Navy later used the area as a salvage yard for MRU #7, but installed most of its facilities west of the center of the long beachfront, which was collectively known as Lunga Beach. This was the center for Jap raiding and construction parties before the Marines landed on 7 August, at which time the Japs took to the hills. It was the scene of the earliest beach supply operations by Navy and Army task forces during the combat period for the ensuing six months. By the time Guadalcanal was secured, and the Army had sent in a Provisional Service Command (15 February 1943), Navy Advance Base facilities at Lunga Beach were well established between the two lagoons in the west half of the long beachfront.

During the organization phase of Army Port activity, through June 1943, its pioneer personnel shared use of the Navy Port Director's tower just west of Lunga Lagoon. Originally this was hardly more than a covered platform on top of a Jap water tank, reached by a ladder, but in May,

the Navy's present tower office was put in service. A finger pier for passengers and small-boat supply was built opposite the tower, and a 30-ton marine railway and other boat repair facilities were established stretching westward along the beach. A Fleet Post Office, Supply Depot, Landing Force Equipment Depot, and other installations were made. The highway net serving the beaches and dumps was largely built by elements of CUB #1 and CUB #2, which were attached to Naval Advanced Base prior to that time. A passenger and guard mail ferry on APc ships was established early with LCMs and LCV(P)s required for transfer between the passenger dock and the APcs, as well as all larger ships, which had to anchor offshore. Separate APcs were assigned to Tulagi freight runs when the expansion of Purvis Bay facilities required punctual handling of Tulagi guard mail runs, and a daily Russell Islands boat and semi-weekly Munda boat were scheduled. When sizeable forces were stationed at Vella LaVella and Treasury Islands late in 1943, the Munda trip was extended to serve them, and supply runs were made fortnightly or oftener to Auki and other Malaita points, to Cape Esperance and Beaufort Bay, and other South Solomons points as required.

LCM's were dispatched from Navy Beach to service anti-aircraft detachments on Savo Island and at key spots on Guadalcanal's northeast and south coasts. Limited fueling, water, and servicing of Navy craft was also centered at Navy's Lunga Beach area, and a sheltered anchorage for boats was secured by dredging and bulkheading Lunga Lagoon.

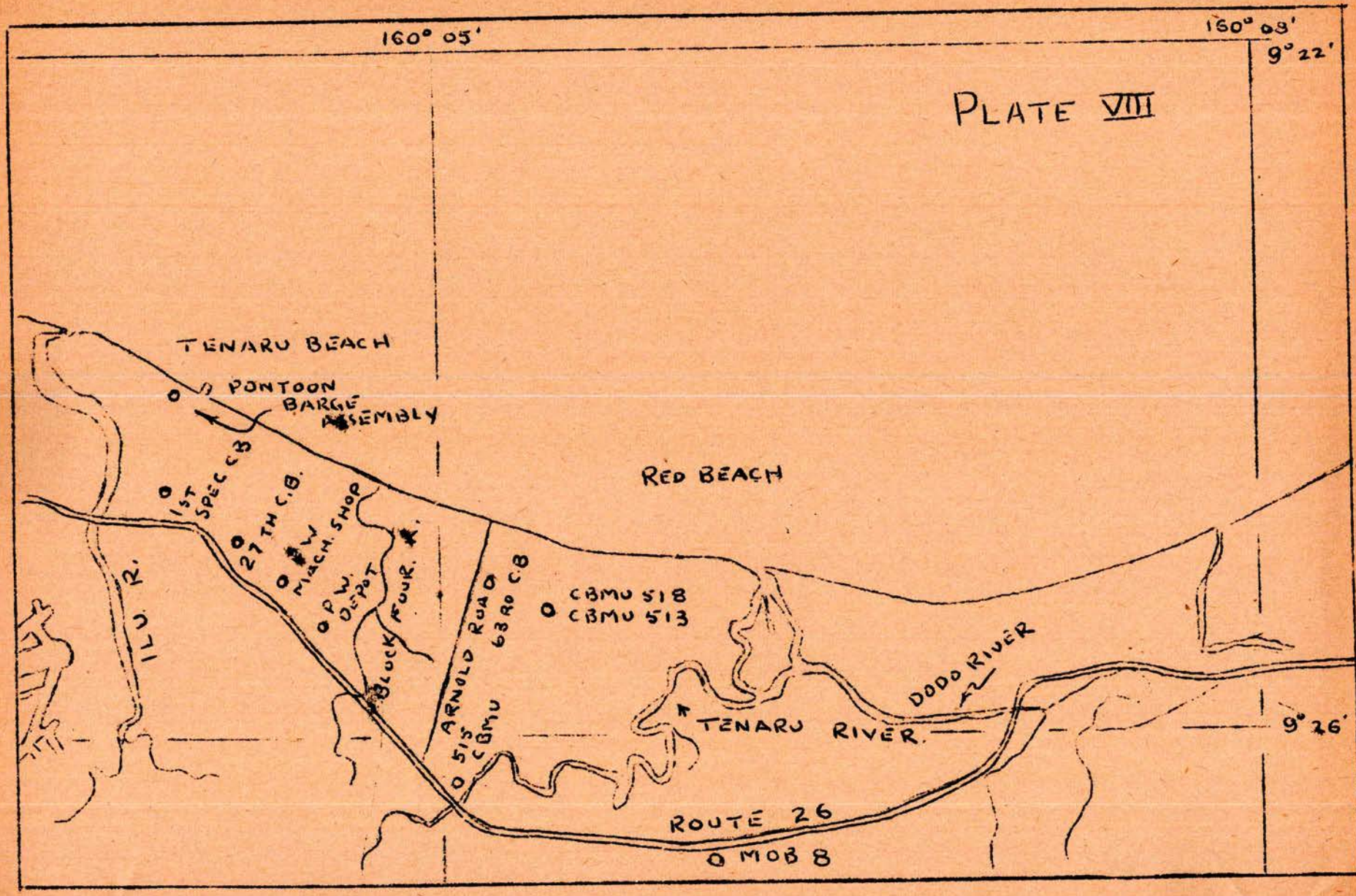
Navy freight normally came ashore in the same barges or landing craft as did Army supplies, since cargo ships usually carried both, with Army tonnage predominating. These were unloaded at the center of the Lunga area, then labeled Army Beach, and all cargo was moved to its respective consignee over a closed road loop on which one-way traffic was maintained to connections with the main feeder road, Highway 50. Shock Road was built on the western side, and Maples Drive on the eastern side of Lunga Lagoon. Thereafter Navy freight and mail had to be hauled around three sides of the loop, and a small Navy transshipment area was located inside the Army Beach area east of the Lagoon. Although plans were discussed for filling and bridging the Lagoon south of the small-craft anchorage, they were never executed, and all traffic

between the Army and Navy Lunga installations, and between Army Port and the Service Command was carried on via route 26.

LUNGA BEACH - ARMY FINGER PIER AND BARGE OPERATIONS

Army Port's operations at Lunga were sufficiently intensive and varied as to justify description under two sections: (1) those in the built-up area, and, (2) those extending eastward from the exit gate, along the open beach where DUKWs and landing craft worked.

Originally the Army Port built three finger piers east of the Lagoon, with #1 at the extreme eastern end, and the others fairly close together toward the western end. Heavy swells were encountered due to exposure to prevailing northeast winds, requiring excessive maintenance, particularly to the isolated #1 pier, which was eventually eliminated. It was here, for a brief period in 1943, that a Naval Construction Battalion constructed and operated a half-mile "shoo-fly" narrow guage railroad parallel to Maples Drive to dumps in the 84th QM Bn. and Ration Dump #7 area. Although powered with a modern diesel switcher, it had so little yard trackage and facilities that 6 X 6


160° 05'
160° 09'
9° 22'
PLATE VIII
TENARU BEACH
PONTOON BARGE ASSEMBLY
1ST SPEC C B
27TH C.B.
MACH. SHOP
P.W. DEPOT
BLOCK FOUR.
ILU. R.
RED BEACH
ARNOLD ROAD
63RD C.B
CBMU 518
CBMU 513
515 CBMU
DODO RIVER
TENARU RIVER.
9° 26'
ROUTE 26
MOB 8

trucks were found more flexible and satisfactory, despite the very poor roads and morasses in the dump areas. Pier #1 was originally 50 ft. wide by 150 ft. long. Later the length was increased to 200 ft., and was used by craft having less than 5 ft. draft. LSTs were berthed there, but due to shoaling, had much difficulty getting in and out.

Pier #2 was originally 32 ft. X 134 ft. with 3 ft. depth of water at low tide; it was later widened to 50'. Pier #3 was a sunken pontoon about 25 ft. X 45 ft. with 2 ft. depth of water at low tide, and was used mostly for discharging personnel and cargo from LCMs. Pier #4 was built in the fall of 1943, and soon thereafter was converted, with Pier #2 and the space between, into a long "front bulkhead", covering the sunken pontoon used as Pier #3.

TENARU BEACH

In most respects, Tenaru Beach is very similar to Lunga Beach, in layout, function, and facilities, but it has always been of secondary importance, and in recent months was controlled from Lunga or was out of service.

It was the scene of early landings, with a furious battle on 21 August 1942, and witnessed the arrival of many troops. Near it was the earliest Army headquarters and hospital, and large Army camps and depots were constructed in 1943. Its traffic and importance declined throughout 1944, and in early 1945 was used exclusively by the Fourth Marine Supply and Service Depot and had ceased to be a Port facility.

KOLI BEACH

Koli, the general name of the beach area eastward from the Nalimbu River to the Metapona River, included large areas used as Navy and Marine camp, hospital, and training areas. Army facilities were bunched at the west end of the area, at Koli Beach, which had essentially a small service command setup, with a large Class I (Koli Ration) Dump, a Class III (Fuel) Dump, a bulk petroleum storage facility, and two large bomb dumps, as well as other detachments needed for port, trucking, medical, and M.P. functions. It was the scene of Japanese landings and subsequent defeat in November 1942, and of large-scale debarkations and supply movements. Its tonnage about

equalled that of Lunga Beach, and exceeded Kukum Beach throughout 1943, though slumping more sharply and irregularly than either of them, or even Tenaru, in 1944. Like Kukum Beach, in representing partly bulk oil pumped without labor, its importance from a supervisory viewpoint may be overemphasized, but its relative isolation and self-sufficiency made it distinctive and in some ways difficult to operate.

Koli Beach included about 1,000 yards of hard, clean sand suitable for LSTs as well as smaller ramp-type craft, and for DUKW operations. By highway it was 18 miles from Lunga, where the DUKW camp and repair facilities were located until their Kukum Beach area was developed in the last half of 1944. Although DUKWs were easier to take in for service than barges, the lack of any maintenance facilities except an obsolete DUKW used as a service truck, at times hampered operations at Koli.

Tagoma Point was the name applied by the Navy to the base of the Koli Signal Tower one-half mile west of the beach. At Tagoma there was a substantial pier, 50 ft. X 125 ft., with 4 ft. depth at low water, and a small boat pier about 20 ft. X 50 ft., some 250 yards east of the tower. Navy's "Guadalcanal Guide" stated as of July 1943,

the bigger pier was "regularly used for unloading aviation material, Marston mats, and miscellaneous general cargo." This was apparently the third pier rebuilt and listed as a 40 ft. X 400 ft. pier at Koli by the Island Engineers.

A check made on oil received by pipeline at Koli in the last ten weeks of 1944, showed eight shipments ranging from 555 tons to 2,027 tons, and averaged 812 short tons per week. A similar study of Kukum Tank Farm's pipeline intake showed a 1,443 ton weekly average with 4,840 from one ship on November 11, 1944, which was also excluded from Kukum Beach inbound tonnage. In the first nine weeks of 1943, Kukum's oil intake averaged 1,333 tons while Koli averaged 82 tons, with only two YOGs handled. This reflects the almost complete exodus of troops at Koli.

TETERE BEACH

Tetere Beach was a Marine unloading point, and was used for Army cargo handling only for special situations. It served the east end of the built-up area of Guadalcanal, i.e., the area beyond the Metapona River and the Koli Bomber Field #2. There was a large undeveloped area

as far as Cavaga Creek, used primarily for amphibious tactics because of its swampy nature, and east thereof, directly south of Tetere Beach, were large Marine encampments, until recently occupied by a skeleton rear echelon of the III Amphibious Force. After the major part of the area was vacated, in May 1944, and additional units moved out in the summer, the central camp, known as "Coconut Grove", was renovated and a large number of Dallas huts constructed, anticipating the arrival in mid-October of an Army Division whose plans were altered. Only a small part of the area was occupied by an advance echelon, and by Engineer construction groups. These Army facilities, in contrast to the Marine structures which were all under canvas, were not razed until mid 1945.

Tetere Beach extended almost a mile each way from Beacon K, at the foot of the main hard road leading south two miles to the Coconut Grove encampment, then west two miles to the Metapona River bridge. Short and generally fair roads skirted the beach and inland camps of Marine units, but facilities were otherwise meager. Four beach sections of about one-half mile each had color designations, but the exterior parts were used only for amphibious tractors (water buffaloes) and other combat vehicles

in tactical exercises, except when actually staging movements. Some gene general cargo was discharged in the wider and firmer part of the beach, near Beacon K by normal Port procedure at open beaches. In the first half of 1943, and L-shaped finger pier was built 150 yards west of Beacon K, and a 4 ft. X 7 ft. pontoon was sunk at the beacon to facilitate discharge of ramp-type craft. The old L-shaped pier was destroyed by heavy seas, and a new one, also with inclined ramp, but much larger (60 ft. X 300 ft.) was built straight out opposite the main road with a 5 ft. maximum depth at the face. It served quite adequately to permit crane work in discharging heavy loads and general cargo from LCTs, LCMs, and barges in the periods of heavy activity. The pier also served as a garbage disposal point for the entire eastern section, including Koli. A permanent ramp up to a high slanting hopper permitted dumping of GI cans direct into the special garbage barge "Repulsive". After loading all morning, it was towed by an LCM at least five miles to sea, dumped, flushed, and returned to a buoy.

SUAGI BEACH

Suagi Beach was an eastward extension of Tetere,

three miles by water and five by road, with the same characteristics, except that two large but seldom used LST piers were available. These were 100 ft. X 500 ft. with the entire face sloped, permitting LST ramps to be used in an almost horizontal position, speeding embarkations in May-June 1944. The beach was wide and sandy, and a tower was built for staging, but having no further use after March 1945, the piers were dismantled.

SERPENS DISASTER

On the night of 29 January 1945, while bombs and accessories were being loaded off Lunga Point, Guadalcanal, the U.S.S. SERPENS AK 97, exploded and sank immediately with the loss of 260 lives. This total included 1 officer and 51 enlisted Army personnel, who were then loading the ship, and 13 officers and 193 enlisted Navy personnel of the ship's complement. The Commanding Officer, the Supply Officer, and 6 enlisted personnel were ashore at the time and thus were saved. There were only two survivors who were aboard the ship at the time of the explosion. These men had gone to sleep in the boatswain's locker forward, and it is believed were

saved due to the explosion taking place in No. 4 hold and because No. 3 hold was practically empty thereby forming a vacuum. The two men were found clinging to the bow of the ship ten minutes after the explosion. The bow then protruded only ten feet above the water. Within fifteen minutes after the explosion this part of the ship slipped beneath the surface. The explosion blew fragments of the ship over the entire Lunga Beach area and as far from shore as Henderson Field, over a mile away. One Army enlisted man was killed by a flying fragment ashore.

Small craft including a YP, a New Zealand Fairmile, an SC, a PC, and YMS received extensive and minor damage to hulls and superstructure from fragments, but all were able to get underway immediately. Several personnel aboard these ships received minor wounds and it still remains in the minds of those who witnessed this explosion, a miracle that there were no deaths among the small craft personnel.

Warehouses and shore installations at Lunga received minor blast damage, but this did not interfere with operations.

Approximately fifteen minutes after the explosion, the SC 1039, then carrying out screening operations, made

a sound contact between Lunga and Koli and another contact about three hours later in Sea Lark Channel. Depth charges were dropped but all results were negative. The Navy Department, however, in later correspondence and rulings, stated the U.S.S. SERPENS was lost due to enemy action.

SHIPS SAILING FROM THE SOUTH SOLOMONS AREA FROM APRIL 1944 THROUGH AUGUST 1945

DATE	NUMBER OF SHIPS SAILED
April 1944	34
May 1944	59
June 1944	72
July 1944	39
August 1944	79
September 1944	102
October 1944	93
November 1944	85
December 1944	72
January 1945	44
February 1945	64
March 1945	114
April 1945	75
May 1945	94
June 1945	138
July 1945	155
August 1945	100

COMMUNICATIONS

Research into the history of Guadalcanal Communications at this time (August 1945) is complicated by a pancity of documents and the absence of first-hand witnesses. Files are incomplete; and the officers and enlisted men who worked through the busy months of NGK's life have long since departed. However, by making deductions from the facts at hand, a reasonably clear picture of Guadalcanal's Naval Communications can be presented.

EARLY COMMUNICATIONS

In the early days of the American invasion and occupation of Guadalcanal the Communications Department very often was forced to rely upon seized Japanese equipment. The original communication offices were established in tents.

Separate Navy and Marine communication units were set up, with the Navy establishing two units--one about a half-mile west of Henderson Field along the Lunga River, a second at Bloody Knoll south of Henderson Field. Later, a third unit was set up at Tenaru where the transmitter station operated until it was moved to Lunga Beach

in July 1945. A fourth communications unit was established near Carney Field, but there are no records left of this station, and it is not known when it began or ceased operation.

During the early days the Japanese repeatedly counter-attacked and it became necessary to vacate the tents and build an underground communication headquarters.

On October 14th and 15th, the enemy succeeded in landing approximately 16,000 men on Guadalcanal following a fleet shelling of Henderson Field by a Jap task force. This attack and repeated attacks thereafter gave the near-by communication headquarters a terrific shaking-up. The situation must have become desperate for in communications department files there is a letter dated 22 December 1942 from "Commander Naval Bases, Cactus to the Vice Chief of Naval Operations" in which five officers in the interests of security, destroyed by burning, seven mail bags filled with confidential and secret publications, a procedure followed only when there is extreme danger that the enemy may be able to overpower our existing forces.

Two months later, on the night of February 7-8, the Japs succeeded in feinting our surface forces out of

position in order to remove the remainder of their troops from Guadalcanal. The Japs, pretending to be NGK, reported a large Japanese task force coming in from a certain direction. Our forces, acting on this information, took off on a wild goose chase leaving the way open for the Japs to establish land contacts. This and subsequent incidents revealing communication "breakdowns" led Rear Admiral Ainsworth, Commander of Task Force 67, to comment ".....your communications in this area smell very badly to me." The Admiral retracted his criticism, however, upon discovering that his own radio reception equipment was largely at fault in his failure to receive several "Operational Priority" dispatches.

HEADQUARTERS UNDERGROUND

The new underground Communication Headquarters consisted of a tunnel bored through a small hill on the site of the base that had been set up along the Lunga River. Lighting was extremely bad. The deck, particularly during rainy periods, was constantly damp or under water--often necessitating the wearing of rubber boots during long working hours. Air was stifling and blowers had to be installed. Although a boon to comfort, the blowers proved

a source of worry because they continuously blew dispatches around the tunnel. Every message, as a matter of fact, had to be logged as it moved from one point to another so that loss of despatches could be prevented should they fall on the deck and float or blow away. Because of the dampness of the air and the wet deck, 200-watt bulbs were placed under machines to keep them dry and operative. These bulbs kept the machines in shape, but they also raised the temperature of over-heated atmosphere.

From the middle of November 1942, the Japanese position on Guadalcanal steadily deteriorated. Admiral Halsey reported in various dispatches dated through November 11th to 15th that our greatly improved air forces were smashing the Jap Fleet and ground defenses.

At this time, the Communication Officer asked permission to establish Base Radio Guadal above the ground, but each request was refused on the grounds that Base Radio soon would be abandoned. The communication headquarters was not moved from the tunnel until May 1944. While Guadalcanal, the Russells and Tulagi along with the Floridas were being used as staging and supply areas,

the communications department had a tremendous job in maintaining the constant flow of despatches dealing with supply and operations.

TRAFFIC LOADS

Peak traffic loads during this period of a year and a half often averaged between 40,000 and 50,000 groups a day, utilizing 12 major radio circuits on continuous 24-hour watches and employing 160 to 180 radiomen and 20 to 25 officers. For a long time, moreover, this traffic load was handled under the adverse tunnel conditions already described.

Some improvement in the situation came on 26 September 1943 when CTG 32.6 was ordered to direct naval ships under his operational control to maintain a continuous watch on 2903 kcs. and handle such traffic by the "Roger" method. This was the first relaxation in security in and around Guadalcanal, for it permitted ships to break radio silence in order to answer for messages received. Shipping in Solomon Island waters had become comparatively safe from enemy attack.

BASE RADIO MOVED ABOVE GROUND

Early in 1944, plans were completed to move Base Radio out of the tunnel, and, in May of that year, the new headquarters were opened in Quonset huts built on the hill under which the tunnel had been bored. In addition to improving working conditions for officers and men, the high location of the antenna poles on the hill insured good radio reception. However, because of consolidation and roll-up measures, this base was abandoned in July 1945, and the radio station was moved to its present site near other NAB offices just off Lunga Beach.

By this time too, traffic had dropped, and, when the war ended in August, an average of 4000 to 5000 groups per day were passing over the 3 major circuits then in operation. The personnel at that time consisted of some 30 to 40 enlisted men and 10 officers.

STATION FACILITIES AND EQUIPMENT

A brief description of the various types of equipment used at Base Radio reveals several interesting facts. The first transmitting stations were located at Bloody

Knoll, approximately one mile south of Henderson Field; another was installed at Tenaru some 7 miles southwest of the Naval Base at Lunga, while later, a third was established near Carney Field.

BLOODY KNOLL STATION

The Bloody Knoll Station served a useful purpose while military operations centered in that area, but later it proved to be located too far out, and after a brief career as a joint Army-Navy transmitter base, the equipment was packed and the site turned over to the Royal New Zealand Air Force which proceeded to set up its own transmitter station there. Today, the antenna poles of this Kiwi station are the same ones the Americans put up for their unit more than 3 years ago.

CARNEY FIELD STATION

There is nothing in present records which given any inkling of how long the Carney Field Station remained in operation. All that is know at present is that the Navy maintained a transmission station there conceivably to support the Communications units, which, from time to time, were based at Koli Point.

TENARU STATION

The third station, which was located at Tenaru, was the forerunner of the present transmitter station now located at Lunga Beach. Looking back today one realizes that the Tenaru site was a very poor one for good radio work. Located in swampland, it was barely above sea level. Yet for a long while, it served a useful purpose and seemingly did a good job.

It was here that two captured Jap transmitters were installed along with an Australian RAAF type A-13 transmitter and seven standard American types - namely, a TBM, TBK, TBA, TAQ, TAB, TCC, and TCB, all of which were located in Butler Hut at Tenaru. This station was formally commissioned 15 April 1943 - just eight months after the initial landings on Guadalcanal and two months after organized Jap resistance ceased. The two Jap transmitters proved unsatisfactory, but were utilized for approximately six months.

The Australian transmitter, however, continued operations, because it proved itself to be a fine piece of equipment. It is a mobile unit which can be moved and set up anywhere quickly, and is versatile in that it will

function on 110 AC or DC lighting circuit current or a 220 3-phase power line. It has a master oscillator and crystal control; and today, at Lunga Beach Station, it retains an important place in Base Radio Communications.

When the Tenaru Station was decommissioned in July 1945, seven transmitters, including the Australian unit, were moved to their present location just west of the shore end of Shock Road. At present only four major circuits are in use, the Net Circuit of 4315 kcs. connecting Guadalcanal (NGK) with the Russells (NUV), Tulagi (NBT) and Noumea (NXZ), the Harbor Voice or CW Circuit of 2716 kcs., the Commander-in-Chief Ship-Shore Circuit on 355 kcs. and the International Distress circuit of 500 kcs.

Any history of the Tenaru Station no matter how brief would be incomplete without reference to the fact that during all the military phases of the Guadalcanal campaign not once was the transmitter station a target for Jap bombers, although usually communication installations are a primary target in any bombing campaign. It is believed that this unusual circumstance was due to the fact that the Japs were sending in their planes on our radio transmission beams. Jap Bombers flew directly over the uncamouflaged station hundreds of times, yet not a single

bomb was dropped upon or near it.

RADIO TELETYPE

One of the most interesting circuits used by the Tenaru Station was the Guadalcanal-Noumea Army-equipped high-speed radio-teletype circuit which was first placed in operation June 1944, and used until May 1945. This was employed in conjunction with the high-speed circuit between San Francisco, Honolulu and Noumea.

Another radio teletype circuit which proved valuable was the one between Tulagi and Guadalcanal. It was first placed in operation May or June 1943 and ceased operation in July 1945, when Base Radio was moved from its Lunga River location to the present Naval Base.

RECEIVING EQUIPMENT

In radio receiving equipment, standard Bureau of Ships sets have been used throughout most of Base Radio's activity. These consist mainly of RBG General Electric Receivers with frequency ranges of 540 to 31,000 kcs., utilizing 115 volts on 60 cycles, and RAS-3 GE 6-coil type Receivers (manufactured by the National Company of Malden, Mass.) having a frequency range of 190 to 30,000

kcs., also using 115-volt electricity. During peak periods of NGK's operations - namely 1943-44, the above type receivers occupied 15 to 17 positions in the radio shack with two operators assigned to copying the larger area and Pacific circuits such as NPM Fox, Lote, etc.

SIGNAL TOWERS

A third element in the physical equipment of Base Radio were the Signal Towers maintained for visual communications along the beaches. These were located at Lunga Beach, Tagama Point (Koli), Tenaru Beach, Point Cruz, Tassafaronga, and two additional unnamed towers listed as H-6 and H-7, whose locations today are unknown.

Only the Lunga Beach and Point Cruz towers were in operation as of 15 August 1945. At one time approximately 160 men were employed in handling visual communications for Guadalcanal. Today, this total has been reduced to 10 men and visual traffic probably will fall off even more in the near future.

LANDLINE TELETYPE

A fourth and major part of Communications on Guadalcanal was the extensive landline teletype system

maintained between Army, Navy, Henderson Field and New Zealand organizations. In this, NGK was the control station. By use of switch nets, messages could be given wide distribution when desired.

BASE RADIO CAMP SITES

The story of Base Radio's camp sites is the usual one of much improvising and utilizing of existing materials. The original base, situated along the Lunga River next to ComAirSoPac headquarters, proved to be a more favorable location than many of the military camps on Guadalcanal. Westerly breezes coming off the ocean and sweeping across the open air strip were not cut off by groves of coconut trees and the cooling influence of a river site often was felt.

The camp itself was divided into two sections by the hill through which the tunnel later was cut. This hill separated two flat areas upon which living quarters gradually spead out as more and more personnel became a part of the base radio organization. The older section grew up west of the hill, and here, once the Lunga River area had been secured, were set up the tents which

comprised the original communication headquarters.

DESCRIPTION OF THE TUNNEL AT BASE RADIO

When it became necessary, because of repeated Jap bombings, to move the radio shack and coding room underground, Seabees bored a tunnel approximately 250 feet long running almost due East and West. At the center, and heading North, an arm branched off for about 50 feet, then moved West again and came out some 75 feet nearer the river than the main West entrance.

Directly in the center of this tunnel and where the second arm branched off, a coding room and radio shack was set up in a space perhaps 40 to 50 feet long and approximately 10 feet wide. To shore up this tunnel and to provide the necessary wiring and electrical switch boxes, practically all Jap materials were used. Much of the lumber still is marked with Jap figures.

In February 1945, after several cave-ins, the tunnel was condemned. It had not been in use for eight months except as a short cut from one side of the camp to the other.

The eastern section of the base radio camp was set

up when NGK's traffic increase necessitated the employment of more personnel, although, just when the first tents were erected is unknown. However, at is peak, the entire base radio camp consisted of approximately 50 tents and an additional 5 or 6 buildings and tents including a small theatre, carpenter's shop, storehouse, radio repair tent, recreation hall, code, radio and administrative Quonset huts, and facilities for automotive and machine repair.

At one time some 160 to 180 men lived and worked at the Lunga Headquarters with 3 or 4 enlisted men quartered in each tent in their area and two officers to a tent in Officer's Country. Much Jap lumber and native mahogany, cut by the RNZAF saw-mill, was used to build tent platforms. Coconut logs were used for braces, pilings, and shoring.

Toilet and washing facilities for a long time were quite primitive. Heads were typical country out-houses; drinking water in the East Camp came from Lister bags, although the West Camp had running water piped in from ComAirSoPac's sources sometime during February or March 1943. Prior to this, all washing, bathing and laundering

was done in the Lunga River until September 1944 when running water and showers also were installed in the East Camp.

Despite these many inconveniences, the base radio camp maintained a clean, neat and orderly appearance. In the majority of tents, it was noted that men frequently removed their shoes (somewhat in Oriental fashion) in order not to track the excessive dust or heavy mud, depending upon the season, onto their tent decks.

Messing arrangements were a problem during most of the time that Base Radio was situated on the Lunga River site. Enlisted men were fed in the ComAirSoPac mess hall while officers drove the three miles to the Naval Base, and were members of the regular Officer's Mess and Club there. When ComAirSoPac was dissolved in June 1945, arrangements were made for enlisted men to eat at the Naval Base Mess Hall, although trucks had to be provided to transport them back and forth.

CONSOLIDATION OF FACILITIES

During the spring of 1945, a move was started to consolidate NGK's communication facilities along the Lunga

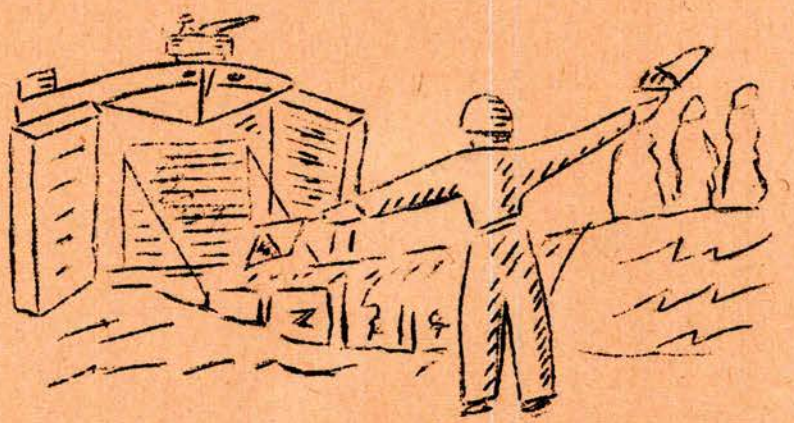
River with those of base communications at the Naval Base. For more than two years these offices had been connected by teletype landlines, necessitating the use of officer and enlisted personnel at both ends. Base communications was charged with the responsibility of routing traffic internally while Base Radio, of course, was handling the radio transmission and coding work. By consolidation, personnel would be reduced, much duplication avoided, and the requirements of roll-up met. At this time, too, the idea of merging Naval Communications with those of the Army was explored and a detailed plan for a joint communications system was worked out.

Numerous obstacles delayed consolidation but finally in July 1945, Base Radio moved from its site along the Lunga River to the Naval Base on Shock Road. Shortly thereafter the entire Lunga River camp was torn down, and the Quonset huts turned over to the Army.

The men involved in this move, both enlisted and commissioned, were absorbed into the camp areas now part of the Naval Base. This merger enabled Base Radio and Base Communications to reduce their combined staff by six officers and 22 enlisted men, and to cut down by 45 percent the electronic equipment necessary to keep the station running.

CHAPTER SIX

LOGISTICS



CHAPTER VI. LOGISTICS

ADMIRAL KING'S REPORT

Admiral Ernest J. King, USN, in a report to the Secretary of the Navy made the following comment: "The war has been variously termed a war of production and a war of machines. Whatever else it is, so far as the United States is concerned, it is a war of logistics. The ways and means to supply and support our forces in all parts of the world - including the Army, of course, have presented problems nothing short of colossal, and have required the most careful and intricate planning. The profound effect of logistic problems on our strategic decisions are not likely to have full significance to those who do not have to traverse the tremendous distances in the Pacific. It is no easy matter in a global war to have the right materials in the right places at the right times in the right quantities."

The Battle of Savo Island was lost by our forces, partially because of a lack of logistic

support. Our carriers were forced to withdraw from their covering position because of the lack of fuel. Had the Japanese followed up, it is certain our casualties, and loss of ships and supplies would have been much greater. In addition, the securing and use of Guadalcanal as a training and supply base would have been delayed. Even so, it became necessary to withdraw the transports and cargo ships without completion of unloading, leaving the forces ashore in a precarious logistical situation, remedied only with great difficulty in the ensuing days.

ADMIRAL HALSEY'S REPORT

Admiral William F. Halsey, USN, stated in his report to the Commander In Chief, United States Fleet: "From the beginning of South Pacific operations, the various logistical organizations cooperated well in solving supply and logistical support problems. Many units arrived with serious shortages of equipment but forcibly-expressed orders that all units consider themselves a part of the South Pacific Force, rather

than retaining separate Army, Navy or Marine entities, resulted in maximum communal use of the scanty supplies and facilities available. This coordination and cooperation was formalized 20 May 1943, with the creation by Commander South Pacific of a Joint Logistics Board, composed of Commander Service Squadron, Commanding General, Services of Supply (Army), Commanding General, Supply Service, First Marine Amphibious Corps, and Commander Fleet Air, Noumea (representing Commander Aircraft, South Pacific), charged with keeping the Vice Chief of Naval Operations and the Commanding General, Services of Supply (U. S. Army), informed of present and future service requirements, with submission of recommendations relative to levels of supplying items and services common to both the Army and Navy by a single agency, with provision for interchange of emergency logistical support with adjacent Area Commanders, and with establishment of shipment priorities arranged in a single list of relative urgency. A Joint Working Board was set up to implement the decisions of the Joint Logistics Board. A Joint Purchasing Board was established to

procure all supplies available locally (or procurable in Australia through Southwest Pacific Area agencies), suited for military use. These purchases assisted materially in meeting logistic needs and in reducing the volume of shipping required from the United States."

No time was lost in preparing for further offensive moves. Large stockpiles were assembled at Guadalcanal in spite of serious unloading difficulties.

FORWARD AREA ESTABLISHED

On 2 September 1943, a Forward Area (between the Rear and Combat Areas) was set up comprising the Guadalcanal area, wherein task forces could be trained and mounted.

COMSOPAC PLAN OF MAY 1943

As early as May 1943, ComSoPac had issued a basic logistic plan for the South Pacific. A revision to this plan was made in October 1943:

BASIC LOGISTICAL PLAN SOUTH PACIFIC AREA AND SOUTH PACIFIC FORCE

MATTERS FOR UNIFICATION AND COORDINATION OF SERVICES OF SUPPLY

1. Malaria Control:

a. The Army will be responsible for the supply of insecticides, and of chemicals and materials required in the South Pacific Area for the Prevention of Malaria.

b. The Navy will be responsible for the supply of drugs to all United States Services for the prophylaxis of malaria.

2. Personnel:

Measures will be effected to insure the joint use of existing and projected facilities, including clubs, post exchanges, ship's service stores, recreational facilities, and other kindred activities at the island bases.

3. Construction Supplies:

Such measures as necessary will be instituted to provide for the free interchange of engineering

facilities between both Services, and, insofar as practicable, to consolidate procurement under one Service, of construction materials common to both.

4. Pooling of Services:

Coordination of the handling of supplies after their receipt at each island base is enjoined. This coordination will extend to joint loadings for inter-island shipment; the joint use of storage areas and facilities except those intended exclusively for the storage of supplies for Forces afloat; the joint use of servicing, maintaining, and handling facilities, and when feasible, joint policies on use and replenishment of supplies and material.

5. Priority of Shipments from United States:

Departmental and shipping activities in the United States will be furnished by the Joint Logistic Board with monthly appraisal of the desired joint priority of shipment from the United States of material by categories for all Services and with appropriate recommendations for amounts of percentages of priority materials to be shipped in case inadequacy of available tonnage prevents complete shipment.

6. Ship Unloadings:

The utmost effort must be directed toward effecting the most efficient use of available shipping by reducing to a minimum the time required to load and discharge cargo; by the joint employment of unused space on homeward voyages of vessels of all classes; by the despatch of full ship cargoes to island bases wherever practicable; by the immediate release, except in emergency, of War Shipping Administration ships which have discharged their military cargo; and by close cooperation and coordination between various shipping agencies. Free and informal exchange of information between all echelons in enjoined.

7. Joint Real Estate:

Consideration will be given to the establishment of a joint real estate office at each island base or otherwise provide for a unified policy to be followed by all Services on rentals, terms of leases, crop damages, and provisions for future claims.

8. Joint Procurement:

Provide, insofar as practicable, for the procurement and distribution by a single agency of items of supply common to all United States Services. For example, an early consolidation of the Post Exchange Supply system appears highly desirable.

9. Salvage of Material:

The conduct of salvage operations on shore for the purpose of reconditioning damaged material and the return of scrap material to the United States is a responsibility of Commanding General, South Pacific Area.[1]

This plan was followed by Guadalcanal, but there were many problems which time and experience alone could solve. Although not originally designed as a supply base, Guadalcanal, eventually became just that.

A letter dated April 3, 1943, from Captain Thomas M. Shock, Commander Naval Bases, Solomon Islands, to All Naval Activities, Guadalcanal, stated:

1. Encl. "D" to Comsopac Serial 1644 of May 20, 1943.

"1. In furtherance of the expressed intent of reference (a), i.e.[1] to improve the present logistic situation, it is important to anticipate future needs. It is therefore directed that the Supply Officer of each naval activity be instructed to prepare a comprehensive list of supplies, other than provisions, machinery parts, and technical aviation material, to fill anticipated needs for the six months' period beginning 1 July 1943."

A memorandum from Captain W. M. Quigley, Commander Naval Bases, Forward Area, written 12 October 1943, and titled, "Material and Equipment for Forward and Combat Areas" stated:

"1. Although it is realized that Guadalcanal is not a Supply Depot, there are certain times in which we can materially assist other bases and combat bases by supplying them with materials and supplies from those in store on Guadalcanal which are not in immediate demand. This is particularly applicable in cases of emergency requests from other bases."[2]

1. Comnavbases MICA ltr. of March 23, 1943.
2. File, EF13-50. 01-MEB

IMPROPER PROCUREMENT OF EQUIPMENT

One of the most serious problems to be solved during 1943 was the improper procurement of provisions and supplies, and the sales and trading that resulted from the securing of such items. Practically every man on Guadalcanal - Army, Navy and Marines alike - participated in this illegal traffic. Masts, Deck Courts, and Court-Martials were held. Boards of Investigation from both the Army and the Navy were instituted to stamp out those practices, but still they continued. The causes for such a condition were many. The most prominent were a lack of proper foods, and lack of coordination between sources of supply, ships, and distribution centers. This can be best explained by examining the system used to procure and distribute various supplies. The following is taken from Basic Logistic Plan for South Pacific:[1]

1. To promote coordinated logistic effort, the responsibility for procurement, supply and maintenance

1. ComSoPac Ser. 1644 of 20 May 1943.

of bulk cold storage facilities for all Services in the South Pacific Area will rest with the agencies as follows:

(a) The Army will procure, supply and maintain all bulk cold storage facilities required for the storage and issue of fresh and frozen provisions to all Army, Navy and Marine Corps Forces based ashore in the South Pacific Area, exclusive of the Samoan Island Group.....

(b) The Navy will procure, supply and maintain all bulk cold storage facilities required for the storage and issue of fresh and frozen provisions for all Forces afloat in the South Pacific Area....."

A memorandum from CNB, Guadalcanal, to ships visiting here called attention to the improper procurement of supplies and provisions. It directed that Commanding Officers of Naval Vessels and Masters of merchant ships be informed that:

(1) No one other than a representative of the island Quartermaster will be permitted to obtain excess provisions for use of forces ashore.

(2) Only an accredited representative of Naval Supply Depot, Lunga, is to be permitted to obtain ship's store stock or stores.

(3) A report should be made in writing prior to leaving this area of any individual or organization attempting to procure supplies or provisions contrary to the foregoing.

A memorandum dated July 16, 1943, was received at Marine Headquarters, XIV Corps, setting forth that an officer of Marine Air Group 12 procured provisions directly from the USS YP-515 on July 10, 1943. This was a direct violation of a letter from the Commanding General of the Corps. It was also a violation of several directives issued by CNB, Solomon Islands.

REPORT OF BOARD OF INVESTIGATION

A Board of Investigation was set up to investigate the circumstances surrounding this illegal activity. Their report was:

"Finding of Facts"

1. The normal source of supply of provisions for naval units on this Island is through the Army Service Command. Provisions are received by the Supply Officers of the various units, or by their representatives. The provisions are issued by the Army Service Command on a pro-rata basis in relation to the strength of each unit, as reported by the Supply Officer. Provisions are issued when and if available, and not on the Navy issue system of a definite quantity and type of food for each man. Provisions are supposed to be received twice monthly but full rations are never to be obtained on the 1st and 15th. Shipments are coming in all during the month, necessitating more frequent draws. It is the practice of the naval units to send after provisions daily; even though, more often than not, provisions cannot be obtained.

2. There is no evidence of favoritism on the part of the Army Service Command.

3. Supplementary provisions have been obtained in devious ways. Navy units have procured from other sources, and have resorted to trading for provisions, bartering, scavenging, and using numerous other reprehensible means. This has been done in such a manner that individual blame cannot be placed.

4. Because of the uncertainty of food supplies, Navy units have been unable to make out menus in advance, with any hope of actually serving the meals as planned. There has been wide discrepancies in the amounts of food obtained by the various units from sources other than the Service Command. Some units have obtained a considerable amount, while others have obtained none. Most units prepare their menus for the succeeding three meals only, using food that is already on hand as a basis for such planning. It is required that Supply Officers submit their menus for a week in advance to N.O.B. at Lunga. In all but one case, it was testified that

these menus were meaningless as compared to the actual meals served during that week.

5. Only one unit has been able to approach naval standards as to food served, and this one was enabled to do so because of its ability to procure provisions from ships. All other outside procurement has been grossly inadequate, and there has been a large discrepancy in the quantity that various units have been able to obtain. Some units have not been able to obtain provisions from any outside source.

6. In making a comparision between the Naval Standard and the Service Command issue received, the Board finds that in only two items, canned vegetables and evaporated or powdered milk, are quantities received equal to or above the Naval Standard. Every other item is almost 65% less than the Naval Standard calls for. It is requested that reference be made to the attached table, prepared by Lieutenant Commander Ellis, Supply Officer at Lunga, showing a comparison of Service Command issue to his unit for the months of August and September with the prescribed Naval Standard, as set forth in the Bureau of Supplies and Accounts Manual.

7. The food available does not allow the units to feed a balanced diet, and there is very little variety, which detracts greatly from the palatibility of the food. Over long periods of time the lack of fresh meat and fresh vegetables is harmful. There is a definite inadequacy of these items. Foodstuffs that would greatly improve the menus are fresh meats, fresh vegetables, fresh fruits, fresh butter, eggs, and spices.

OPINION

1. Distribution of such food as the Army Service has available is made on an equitable basis

among all units on the Island.

2. It is necessary for Supply Officers of Naval Units to resort to various subterfuges in order to obtain a sufficient quantity of food for their men. Strength reports are so compiled that the figures presented are never damaging to the Officer's own unit. Reports are not voluntarily submitted to the Army, unless requested, except when an addition is made to the Personnel being fed.

3. The method now being used to make the distribution is wasteful of manpower and equipment. It is necessary for Naval units to visit the ration dumps every day to protect their interests and to obtain their share. Several men, and at least one piece of equipment from each unit, is thus tied up for part of every day.

4. It is impossible under the present set up to prepare menus for more than three meals in advance with any likelihood of actually being able to serve such meals.

5. There is a very large variation in the amounts of extra provisions obtainable by the various units. One unit has obtained very large amounts sufficient for its needs. Other units have obtained small amounts which aided in preventing a difficult situation. Others received none at all, and the condition of their messes is unsatisfactory.

6. Rations distributed by the Army Service Command are based on the Army's "Tropical Menus", which is considered a minimum requirement for a man in this climate. The amounts and type of food set up in this menu are far below the Naval Standard. This situation is aggravated by the fact that the Army menu is never met in actual practice, due to shortages of supplies on the Island, and the necessity for all units to accept only their share.

7. The amount of fresh provisions from the Army Command is very small and woefully inadequate for a

balanced diet. Without the addition of fresh provisions to the Tropical Menu, there is little chance of providing any variety in meals served, and the men lose all interest in food when the same canned items are served day after day.

8. While it is known that enough calories are present in the meals now served, if the men can be induced to eat them, it is found that the balance is very poor and that the diet is especially lacking in fresh provisions.

9. The morale of the officers and men is affected adversely to a very great extent by the type of food now being served. There is no interest in eating, other than to try to obtain enough nourishment to allow a fully day's work to be performed. In this connection, it is well to note, that most of the Naval units on the Island are Construction Battalions and Boat Pool Personnel. These officers and men are doing hard physical labor all day, every day, and require the very best of energy giving foods.

10. The Naval Standard of rations, far from being met, is not even approached.

RECOMMENDATIONS

The following recommendations and alternatives are made by the Board of Investigation:

That the present method of receiving dry rations through the Army Service Command be continued, except that an attempt be made to have Naval Units notified when rations are available to obviate the necessity for daily trips to the rations dumps, thus allowing a considerable saving of manpower and equipment. This method would necessitate the Army's setting aside each unit's share until called for.

That the dry rations distributed by the Army be supplemented by fresh provisions brought in on Navy ships and distributed by the Navy to the Naval units on this Island.

That machinery be set up to arrange for all Navy ships reaching this port to carry fresh provisions for Naval units stationed here, to the limit of capacity of their reefers.

That such machinery also handle all arrangements to get the fresh provisions ashore and distributed equitable to all units.

That this machinery be controlled through the Supply Officer, N.O.B. Lunga; a permanent detail being assigned to this work.

As the first alternative to the recommendation above, the Board recommends -

That the Army Service Command be requested to appoint an Officer and detail of men to obtain all fresh rations available on ships touching this port.

That in conjunction with this, steps be taken to have each ship bring in fresh provisions to the limit of their reefer capacity.

That the Army Service Command then distribute the fresh provisions equitable among units on this Island.

As the second alternative to the primary recommendations, the Board recommends -

That the supplying of provisions for Naval units on this Island be taken over by the Navy, complete.

That all provisions, dry and fresh, be obtained, transported, unloaded and distributed by Naval forces for all Naval units."

By the end of July 1943, Guadalcanal had become quite important as an evacuation center. The following directive from the Commander Naval Bases for the evacuation and embarkation of casualties was sent to all Navy and Marine activities on the base:

1. In order to facilitate the evacuation of casualties by surface craft via Lunga, the following information and procedure is outlined to be followed by activities using these facilities:

(A) Medical units having custody of casualties will be notified as soon as feasible as to date, number and type of patients they may be able to evacuate. Such units will keep the U.S.N.B. Dispensary, Guadalcanal, informed of the number of casualties they have on hand to evacuate.

(B) In the case of all Naval and Marine Corps personnel, service records, pay accounts, health records and Form "G" will be properly filled out to accompany all patients evacuated. The last line in the Health Record should read "Evacuated to Base Hospital, destination unknown, via Lunga". In addition, a list will be prepared containing the names in alphabetical order, rate and diagnosis of all patients to be evacuated. The original and three copies of this list will be furnished the Ship's Medical Officer on which embarkation is to take place and one copy each to the Army evacuation officer and the medical officer, Naval Bases, Solomons.

(C) One medical officer and a hospital corpsman will be detailed from the Naval Base Dispensary to be on the beach to supervise and assist in embarking patients. Upon arrival with patients at the designated point of embarkation, the representative for each medical unit will contact this Beach Medical Officer and deliver the above listed records and evacuation list. He will then assist in

depositing his patients' hold baggage at the point designated by the Beach Medical Officer and remain with that officer to check his patients against his evacuation list as they are embarked aboard the small boats. The Beach Medical Officer will then direct a responsible medical representative from each unit or collectively to carry the records to the ship of embarkation and obtain a receipt of all such records delivered. One copy of this receipt will be furnished the Beach Medical Officer. Upon completion of loading of all patients, the Beach Medical Officer will report to the Staff Medical Officer who will also be at the scene of embarkation.

(D) All concerned activities will make every effort to be prompt in delivering their patients to the designated point at the time specified. This responsibility will rest entirely with the various medical units concerned. Prior to leaving the hospital, each patient will be notified that he will be permitted to carry one small handbag aboard, containing only essential gear for travel comfort. All other gear must be properly labelled and prepared for hold storage.

(E) All Army personnel evacuated will be accompanied by the MD 52B (attached at the scene of injury) and such hospital records of treatment as may have accumulated during the period of hospitalization. The name, rate, serial number and organization will also appear on the aforementioned list of evacuees.

HELL'S POINT EXPLOSION

On 26 November 1943, the Hell's Point Ammunition Dump exploded. A preliminary report of the

damage to nearby Naval Activities revealed the following losses:

	PWD	1st Spec.	26th C.B.	27th C.B.	61st C.B.	63rd C.B.
Casualties	None attached to P.W.D. 1 Army personnel reported killed.	No complete muster.	1 broken leg.	0	0	0
Tents and Structures (Damages to)	1 quonset damaged 1 frame bldg.	2 large whses burned. 75 tents.	50 tents and structures	100 tents and struc.	0	1
Small tools and spare parts.	Entire 20x59 warehouse of tools burned	All tools spare parts brnd.	0	0	0	0
Heavy equipment, jeeps, etc.	Little damage	Bat. chgr. brnd.	Cement mix.	1 trk 1 jp	0	0
Telephone and power lines in camps	All down	All down	50% down	50% dwn	0	0
Cement	6000 bags	0	0	0	0	0
Small stores	0	All brnd.	0	0	0	0
Miscellaneous	Rigging, gear, buckets, nails, stoves, reefers belonging 515.					

Fighter No.1-Damage to matting on runway-6 small craterholes.

DIFFICULTY OF PLANNING

Many of the problems which the Base had to face and eventually solved were caused by short range planning. Its demands for service changed from month to month with the result that only expedient plans could be made for future development of the base.

On 16 February 1943, the commanding officer of Cub Two received the following dispatch:

> "CUB TWO IN SETTING UP AT CACTUS IS EXPECTED TO BE AS ECONOMICAL IN THE USE OF MATERIALS AS POSSIBLE MEETING ESSENTIALS REPEAT ESSENTIALS ONLY X AS THE CAMPAIGN AGAINST THE JAPANESE PROGRESSES THE NEED OF CUB TWO MEN AND MATERIALS IN FORWARD AREAS WILL BE KEEN XX"[1]

From another dispatch originated on 26 March 1943, the following is taken:

> "BE READY TO GO FORWARD WITH CUB TWO WHEN AND IF REQUIRED."

It was the constant expectation of orders to roll-up the base and move forward, which kept commanding officers as well as staff and division officers from taking steps to provide facilities

1. ComNavBases, SoPac.

which would have enabled the rapid and efficient discharge of assigned tasks. This uncertainty tied up a large number of personnel who otherwise might have been made available for duty in other forward areas where a shortage of personnel existed.

This lack of foresight regarding the overall requirements of the base at Guadalcanal greatly affected maintenance, and caused Guadalcanal to become known as the "mud hole" of the Pacific. Packing boxes were used for tent decks and it was not until August 1944 that enough material was available to deck all tents in the camp.

Electric lights in crews tents were not installed until September 1944. Lack of storage space, transportation and personnel resulted in partial or total loss of many bags of mail as late as March 1944. A letter from the Officer in Charge of the Fleet Post Office in March 1944 reveals the following:

"1. The lack of storage space necessitates stacking this mail on the outside of the building, covering it with a tarpaulin. This is far from being satisfactory however for in a great many

instances some of it becomes wet. It does not seem logical to have this mail come out from the states, a distance of some 6000 miles and then have it get wet after arrival here on its last leg of the journey. As we all know, mail is a great morale builder for the men in the services, especially those in the forward areas. I think we should do all in our power to see that they receive their mail in good condition."

CBMU 520, ordered to this area, took 110 days to reach Guadalcanal from their port of embarkation in the States. Their complement included five officers and 265 enlisted men. They traveled via LST's. This waste of highly trained technicians can only indicate again a lack of foresight regarding the tasks imposed on the Base at Guadalcanal. This condition was repeated in the case of two other CBMU's ordered to the island.

COORDINATION OF PUBLIC WORKS

By March 1944, a plan for work assignments was submitted to the officers in charge of all CBs and CBMU's by the Public Works Officer. This plan enabled a much better coordination of effort and use of equipment and personnel and prevented the overlapping of assigned tasks.

The plan presented follows:[1]

"1. Reference (a)[2] deals with the forward movement of the 18th Construction Battalion Regiment consisting of the 27th CB's, 61st CB's and the 63rd CB's, and the transfer of the Public Works responsibilities on this Naval Base to a new Public Works Division headed by the writer and consisting of the addressees plus the 13th Air Force Engineers and the Second Marine Aviation Engineers. The transfer of this authority took place on 19 March 1944, in the first endorsement to Reference (b)[3] and the interested parties are herein notified of this change in command.

2. Effective immediately the Public Works Division of the Advanced Naval Base Guadalcanal will function in accordance with the organization chart established by Enclosure (A) attached hereto. All previous work orders representing tasks and duty assignments issued by the 18th Construction Battalion Regiment to the various units of this Command are re-affirmed, and the responsibility for the execution of same accepted until such time as they can be reviewed by the new Public Works Staff and subsequent modifications, cancellations or reassignments made in these individual tasks.

3. A preliminary review of existing work assignments issued by the 18th Construction Battalion Regiment indicates that widely scattered and overlapping tasks and responsibilities exist in each Construction and Maintenance Unit. It is desired to rearrange and reassign definite tasks and responsibilities to each Construction and Maintenance Unit confined within separate bounded areas on this Island. Such reassignments and the establishment of areas of responsibilities will take a certain period of time and require the complete cooperation and assistance of each unit involved in order to coordinate

1. Letter dated 26 March 1944, Ser. 710.
2. Comseroonsopac serial 01042 of 8 March 1944.
3. CNBnGuadalcanal P16-3/00 of 13 March 1944.

all activities without seriously handicapping the progress of high priority work under construction. The Officer in Charge of each Construction and Maintenance Unit assigned to work in this Division is requested to carefully study the new work assignments and area responsibilities established herein and compare this revised task with the picture represented by the summation of work orders issued by the 18th Construction Battalion Regiment and report those duties and responsibilities which conflict and which require adjustment or reassignment. Complete cooperation with other Units is necessary during the readjustment period.

4. Enclosure (B) is forwarded indicating the new maintenance assignments and area responsibilities of each Construction and Maintenance Unit under the jurisdiction of this office. No attempt has been made to summarize the work assignments made to these Units by the 18th Construction Battalion Regiment since such will be discussed between the individual Officers in Charge and the Public Works Officer in detail as indicated above.

J. P. MacBEAN, Jr.
Commander (CEC) USNR."

ANB GUADALCANAL
PUBLIC WORKS DIVISION
MAINTENANCE DUTY ASSIGNMENTS
AND AREA RESPONSIBILITIES

CBMU 515

By Enclosure (A) the Officer in Charge of CBMU 515 is assigned additional collateral duties as

Utility Superintendent on Public Works Officer's Staff.

The Utility Superintendent is responsible to the Public Works Officer for the supervision, management, operation and maintenance of all power plants, transmission and distribution lines, motor generators, refrigerators, water points, chlorination and filtration plants and piping systems specifically assigned or designated within the bounds of this Naval Base.

CBMU 515 will further manage and operate the Island Machine Shop on a strictly individual small business basis, honoring only Public Works Officer chits authorizing work of a specialty nature being careful that the authorizations have first been "screened" of work which could be done in any number of unit repair shops now operating on the Island.

This unit will further perform such area camp maintenance, camp alteration, read and bridge maintenance work as defined by the maintenance superintendent. Certain groups of mechanics, pontoon

specialists and material men will perform assigned tasks outlined within an economical transportation limit by the Material, Transportation and Repair, and Water Front Superintendents.

This Unit possesses close to a full Maintenance Unit allowance of equipment and tools. As Utility Superintendent the Officer in Charge of this Unit will assign tasks to groups of each of the other CBMU's in this division of men qualified and trained to perform service maintenance of generators, refrigerators and water system defined and bounded within an economical transportation area.

The Officer in Charge of this Unit shall after a careful study of responsibilities and tasks assigned, in complete collaboration with the other construction and maintenance Units involved, report to the Public Works Officer his shortage and overage of personnel and equipment requiring adjustments. Should detailed inspections or surveys indicate the scope of repairs to be beyond the maintenance capacity in either manpower or equipment the Department Superintendent may through the Public Works Officer call upon the resources of one of the Construction Units within the Division.

ENCLOSURE (B)

ANB GUADALCANAL
PUBLIC WORKS DIVISION
MAINTENANCE DUTY ASSIGNMENTS
AND AREA RESPONSIBILITIES

CBMU 518

By Enclosure (A) the Officer in Charge of CBMU 518 is assigned additional collateral duties as Transportation and Material Deport Superintendent on the Public Works Officer's Staff.

The Transportation and Material Depot Superintendent is responsible to the Public Works Officer for the supervision, management and operation of the Naval Construction Material and Equipment Depot including "transportation", and an equipment repair and service garage. Systematic handling of materials and equipment along approved Supply Corps lines are desired, proper records and procedure must be established and maintained governing the procurement, issue, current stock inventories, transhipment and beach checking. A majority of the present equipment inventory is inoperative. An immediate survey of the construction equipment inventory is directed and an itemized report made of the equipment operating, to be repaired and beyond repair. The established policy is to ship forward to

ABCD Annex, Russells all operating equipment not required to maintain this Base; ship to rear area (Espiritu Santos) all equipment beyond repair. Public Works equipment in operating condition can be loaned with or without operators on proper authorization from the Public Works Division. Re-affirmation or cancellation of equipment now loaned out to various outside Units may be expected. Transactions between the various sections of this department like repair shops and spare parts lines shall be conducted on a business like basis with proper accounting records. Transactions with inter-departments shall be likewise. Because of the importance of this assignment to the work of all Construction and Maintenance Units, and the diversified nature of skilled personnel required, CBMU 518 is permitted to assign all or part of its personnel to this task, reporting through the Public Works Officer any deficiencies or overages in personnel required. This Unit has been issued little or no construction equipment of its own, which fact prompts this assignment.

In relieving the Unit now operating these facilities CBMU 518 may request the services of certain key men for a reasonable time to properly train replacements. It is further suggested that several officers and petty officers

of the 34th CB with from three to five months experience in the several departments of the Material and Equipment Depot are available to this Department for temporary duty to insure uninterrupted operation if requested by the Officer in Charge of CBMU 518.

ENCLOSURE (B)

ANB GUADALCANAL
PUBLIC WORKS DIVISION
MAINTENANCE DUTY ASSIGNMENTS
AND AREA RESPONSIBILITIES

CBMU 520

By Enclosure (A) the Officer in Charge of CBMU 520 is assigned additional collateral duties as Engineering Superintendent on the Public Works Officer's Staff.

The Engineering Superintendent is responsible to the Public Works Officer for the supervision, management and operation of the clerical personnel, records and functioning of the office and the maintenance of the buildings, grounds, surveys, design, office files, reports including their preparation, and the communication and messenger system, and all responsibilities of this Department.

This Unit will furnish the personnel to operate the above office and camp, including meals and lodging for

transient CB officers and enlisted men of an advertised capacity.

CBMU 520 will further perform such area utility, camp road and bridge maintenance work and furnish small groups or sections of skilled mechanics and operators as are available to the other division heads for assigned tasks or division of this particular work. This Unit has been issued little or no construction equipment and will therefore have to be equipped from the Depot if used on tasks requiring same.

ENCLOSURE (B)

ANB GUADALCANAL
PUBLIC WORKS DIVISION
MAINTENANCE DUTY ASSIGNMENTS
AND AREA RESPONSIBILITIES

CBMU 532

By Enclosure (A) the Officer in Charge of CBMU 532 is assigned additional collateral duties as Maintenance Superintendent on the Public Works Officer's Staff.

The Maintenance Superintendent is responsible to the Public Works Officer for the supervision, management and operation of the maintenance of airfields, roads, drainage,

bridges, and camp areas specifically designated within the limits of this Naval Base. Definite area tasks for personnel groups and equipment from other Maintenance Units will be assigned by this department head. Likewise groups of personnel and equipment will be assigned area tasks in other departments in keeping with their particular skill and ratings.

The Officer in Charge of this Unit shall, after a careful study of the responsibilities and tasks assigned, in complete collaboration with the other Construction and Maintenance Units found in personnel or equipment requiring adjustment. Should detailed inspections or surveys indicate the scope of repair jobs to be beyond the resources of the department, through the Public Works Officer, a Construction Battalion can be assigned such a project.

ENCLOSURE (B)

ANB GUADALCANAL
PUBLIC WORKS DIVISION
MAINTENANCE DUTY ASSIGNMENTS
AND AREA RESPONSIBILITIES

CBMU 533

By Enclosure (A) the Officer in Charge of CBMU 533 is

assigned additional collateral duties as Water Front Superintendent on the Public Works Officer's Staff.

The Water Front Superintendent is responsible to the Public Works Officer for the supervision, management and operation of the Pontoon Assembly Yard, all dock and pier maintenance, navigation marker erection and maintenance, landing craft beaches and moorings and barge moorings. Area tasks for groups of personnel and equipment from the other groups of personnel and equipment from this Unit will be given tasks under other department heads in accordance with the need for such skilled ratings.

The Officer in Charge of this Unit shall after a careful study of the responsibilities and tasks assigned, in complete collaboration with the other Construction and Maintenance Units report to the Public Works Officer the shortages and overages found in the personnel or equipment requiring adjustment. When maintenance jobs exceed the scope of the Unit a project for a Construction Unit can be arranged through the Public Works Officer.

ANB GUADALCANAL
PUBLIC WORKS DIVISION
MAINTENANCE DUTY ASSIGNMENTS
AND AREA RESPONSIBILITIES

34th CONSTRUCTION BATTALION

By Enclosure (A) the Executive Officer of the 34th CB's is assigned additional collateral duties as Project Superintendent on the Staff of the Public Works Officer.

The Project Superintendent is responsible to the Public Works Officer for the supervision, management and operation of all authorized construction projects on the Island within the limits of this Naval Base. Project work orders are to be written and signed only by the Public Works Officer covering each authorized project, showing clearly the references, request, approval, priority assigned and defining the scope by plans if practicable.

This department head has at his disposal the personnel and equipment of the 34th CB's plus what assistance he can secure from the Commanding Officers of the 13th Air Force Engineer and the Second

Marine Aviation Engineer Units. Additional special equipment available in the Public Works Supply Department is available to this department as well as all other departments. Great care must be exercised to determine the scope of the entire project before construction advances to prevent exceeding the authorization.

Any assistance felt necessary by the Project Superintendent or the Public Works Officer may be given to the other Maintenance and Construction Units in this Division.

ENCLOSURE (B)

MAJOR PROBLEMS AND SOLUTIONS
August 1942 - August 1945

I- Medical

The principal medical problem has been malaria. The malaria incidence per 1000 was about seventeen (17) as of 17 April 1943. This was decreased to less than one (1) per 1000 by 1 July 1945.

Solutions:

A- Reduction of malaria incidence was done by inspection and spraying, from the air and on the ground, of all suspected mosquito breeding places inside the camp sites and in the immediately adjoining areas.

B- All men had access to prophylaxis, particularly in the mess halls where atabrine tablets were always on hand.

C- Other measures included: clearing of camp areas of excess vegetation, filling of holes, draining low areas, removal of rubbish, garbage disposal, perforation at bottom of combustible rubbish cans, smoking of fox-holes, screening of habitated quarters, wearing of protective clothing during the danger hours, better food, and a new chow hall.

II- Supply

The lack of proper storage space and handling facilities.

A- Recently secured warehouses enabled the placing of all supplies under cover.

B- Long needed equipment has been received. All this has been brought about through the roll-up program now underway.

The necessity of sacrificing efficiency for speed in infant stages.

A- This problem was solved by the change in mission; more and better supervision; and the keeping of more detailed records.

Lack of trained men, advanced base materials and equipment.

A- Many of these were unobtainable in the beginning when the unit was set up. Time, experience and the obtaining of proper equipment has partially solved this. The actual requirements were unknown.

B- It was difficult to outfit the unit initially because the advanced base

program was in its infancy. Time and experience again was the solution. Present day catalogs and other records have helped to solve this problem.

Pilferage, theft and damage.

A- C & SS and Ship stocks suffered much pilferage and theft. Incoming supplies were left on the beach exposed to the weather without proper dunnage or cover causing much damage to supplies.

A few of the mistakes and their probable solutions follows:

A- Supplies were damaged on the beach because of inadequate covering or dunnage.

Warehouses have been constructed or taken over by N.B. Supplies have been palletized or provided with some other form of dunnage.

B- Inadequate records were maintained. On many subjects no records were kept. No

method of stock control was set up. Stock ledgers, files, catalogs, methods of stock control, and other aids now are being utilized. Low limits and reorder points were set on the ledgers based on past experiences and anticipated future demands.

C- Many supplies were not properly stowed to cope with the climatic conditions of the area.

III- Maintenance

The Mess Hall and Galley were not properly constructed. They did not provide proper drainage, ventilation, or adequate space for most effieient operation and maintenance.

A- A new Commissary has been completed.[1]

Structures were built on a temporary basis and were kept that way for too long a period of time. The thought continually prevailed that the Base would close any day. Therefore, improvements were difficult to achieve.

1. August 1945.

A- These conditions have only recently improved by a clarification of just what the Base Mission is and of how much we could expect to roll-up.

The Base was not laid out properly, thereby causing a great deal of unnecessary work, moving and delaying full-time production of certain vital units. Floods caused various units to cease operations either because of water in the areas or because they were cut off from the rest of the base. This was particularly true at the Radio Transmitter Station and the V-Mail Station. Many camp areas had to be drained after a heavy rain to allow transportation to move and because of the danger that they would become breeding places for malaria carrying mosquitoes.

A- Drainage ditches were dug to carry off water caused by heavy rains. Some units moved to other locations.

In December 1944, dismantling operations began, after two years of building up the Base, most of which had been done in the last six months of 1944.

NAVAL MATERIAL BOARD

On 23 April 1944, the Naval Material Board was set up by a directive from the Commander South Pacific. The Board consisted of at least one technically qualified officer in each of the following fields:

(1) Naval Construction

(2) Marine Engineering

(3) Ordnance and Torpedoes

(4) Radio, Radar, Sonar, and Degaussing

(5) Line officer of type of ship under examination

(6) Medical and Supply officers as appropriate. One officer may fill two or more of the above billets provided he is qualified. It is not intended that it will be necessary to constitute the full board to examine each specific item of material. The item should be examined and a report perpared by the

technically qualified officer within whose province it falls. The proceedings of the Board will be informal and no record thereof need be kept.

Units under the supervision of the Public Works Office as of May 1944, were as follows:

(1) 34th Construction Battalion

(2) CBMU 518, 520, 532, 533.

These units were in charge of utilities and general maintenance, which included maintenance of roads, operation of Public Works Depot, maintenance of Henderson Field, and all piers and water front facilities-pontoon salvage. This was continuous duty and was carried on in addition to construction and repair of the base as a whole. A report for the month of April 1944, follows:

PUBLIC WORKS REPORT

CONSTRUCTION PROJECTS COMPLETED DURING MONTH OF APRIL 1944 BY CONSTRUCTION BATTALION PERSONNEL

AUTHORITY		DESCRIPTION	CONST. UNIT	DATE COMPL.	WORK ORDER
1604 SoPac	I	HOSPITALS			
		A. Mob. Hosp. No. 8	34thCB	15Apr. 1944	1828
		(1) 1st M.C - PERSONNEL LIAISON GR. 4 (1-20x40 s/s hut)			
		(2) Addition to Personnel Bldg. (1-T.CI Steel Bldg.)	34thCB	30Apr. 1944	Portion of 1770
		(3) Head & Shower (1-20x50 T.C.I. Steel Bldg.)	34thCB	29Apr. 1944	Portion of 1770
		(4) Medical Supply Facility (1-40x100 SSAR Whse 320' of Concrete Walk)	34thCB	23Apr 1944	Portion of 1770
	II	BRIDGES AND ROADS			
		A. 3 Small Bridges between Kukum and Tasafaronga	53rdCB	15Apr. 1944	None
		B. Logging and Sawmill Operations to provide timbers being built by 53rd CB	53rdCB	10Apr. 1944	None
		C. Matanikau River Bridge (1 addition string of piles and 1 addn. string of pontoons)	CBMU 533 34thCB	17Apr. 1944	B-1889
		D. Repair Road from RNZAF Camp near Koli to Radar Tech. site	CBMU 532	15Apr. 1944	1827
	III	WATERFRONT FACILITIES			
		A. Repair Lunga Pier #2 (replace damaged and missing piles, repair decking)	34thCB	5Apr. 1944	1746

IORITY	DESCRIPTION	CONST. UNIT	DATE COMPL.	WORK ORDER
	B. Kukum Facilities			
	(1) Moving coastal beacon "F" (3 70' Piles)	CBMU 533	15Apr. 1944	1826
	(2) West Kukum Beac Dolphins (at LST ramps #8,#9 and #14)		13Apr.	
	(3) East Kukum Finger Pier (Constr. of approach to Pier)		19Apr.	
.000 CC-FA	IV AIRFIELDS			
	A. Henderson Field			
	(1) New Field Lights for Coral Runway.	34thCB CBMU 515	29Apr. 1944	1649
	V HOUSING			
	A. Black Cat Camp (VJ-[illegible]) (Move 19 s/s huts, build 3 latrines, 3 showers and dig new well)	CBMU 518	28Apr. 1944	1460
.026 CSoPac	B. COM MARINE SO PAC CAMP (225 Man Camp)(36-20x48 s/s huts, 12 Dallas huts, water and power systems, roads, heads and showers)	34thCB CBMU 518 CBMU 520	17Apr.	1742
030 C-FA	C. SO PAC PHOTO WING CAMP (5 framed tents, 2-[illegible]48 s/s huts, addn. to mess hall)	CBMU 518	15Apr. 1944	1523
021 C-FA	D. SCAT - Additional heads and showers for Transients	CBMU 520	15Apr. 1944	1827
	VI MISCELLANEOUS			
1011	A. ASA - Gravel Storage Areas (18000 Sq.ft. Open Storage)	CBMU 532	20Apr. 1944	1560
060	B. ARU - ASA - Drainage and grad.	CBMU 520	25Apr.	1420
	C. NAVY SUPPLY - Acetylene Gen. Plant. (1-20x48 s/s hut with gravel dock)	CBMU 515	29Apr. 1944	Portion of F.1871

In May 1945, the main mission assigned to Guadalcanal was rolling up. As a result, Captain Walter G. Thomson, USNR, ordered a reorganization of Public Works Department. The following plan was submitted by him on 19 July 1945:

"Consolidation of sections of the Naval Base with CBMU 520 is expected to result in more efficient operation of this department. Eventual withdrawal of CBMU's will leave Naval Base personnel in complete charge of all sections.

The Public Works Department will construct, operate and maintain all essential utilities of the base.

(a) Construction:

Certain repairs and alterations are necessary to reduce to the final station mission. The final camp is to be located on Lunga Lagoon in the Naval Base area using facilities adaptable for permanent station operation. The following projects are listed to indicate the scope of the work required:

Make map of area with proposed changes.
Simplify wiring and electrical installations providing street lights in the camp area.
Tow suitable steel buildings and quonsets from Fleet Hospital 108 area or Receiving Ship area to replace rotted wooden messhall, rotted canvas tents in officers area and canvas OOD building.
Paint permanent buildings as directed.
Clear jungle area around camp to water's edge with grading machine.
Landscape camp area removing overgrowth and obstructions.

(b) Maintenance:

Operate and maintain generators and refrigerators. This includes maintenance of the entire camp area.

(c) Transportation:

Operate, maintain and control all mobile motor equipment.

Mutual aid will be fostered.

Work projects will be submitted by department heads to Commander Naval Base for approval."

CBMU 520 was decommissioned in August 1945. This was the last CBMU on Guadalcanal. Care and maintenance of the base was given completely to Public Works Department, as the process of roll-up neared completion.

APPENDIX

OP-30-B7D-ALW
(SC)NB 110

NAVY DEPARTMENT
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON

Ser. 0341230

S E C R E T

December 28, 1942

From: The Vice Chief of Naval Operations.
To : The Commandant, Twelfth Naval District.
The Director, Naval Transportation Service.

Subject: Movement of Echelons 1, 2 and 3 of Cub Two to Cactus-Ringbolt.

Reference: (a) ComSoPac Secret Serial 0089B to VCNO.
(b) VOPNAV Secret Dispatch 112147 December to ComSoPac.
(c) ComNavBasesSoPac Secret Dispatch 160726 December to VOPNAV.

Annexes: (A) Material List of Echelon One.
(B) Material List of Echelon Two.
(C) Material List of Echelon Three.
(D) Distribution List

1. Cub Two will be moved to Cactus-Ringbolt in accordance with this basic plan.

2. Cub Two will be divided into three Echelons, each of which should be treated as a separate entity distinct from the others. Material and personnel will be ready for loading on the West Coast by the following dates:

Echelon One - January 10, 1943
Echelon Two - January 20, 1943
Echelon Three - January 30, 1943

Loading will commence as soon after designated dates as ships are available and in accordance with priorities for movement prescribed by the director, Naval Transportation Service.

3. The Director, Naval Transportation Service will provide sea transportation.

APPENDIX A

4. (A) Personnel, as set forth in annexes, will move with their respective echelons.

(B) All boxes and packages will be marked: US NAVY, CUB TWO, Code Number_____, Bureau_____ Echelon_____, Shipping Designator_____.

5. (A) To provide for unloading in a combat area, ships should be combat loaded to insure maximum accessibility of cargo and speed of unloading. In this connection, if practicable strings of assembled pontoons should be stowed vertically in trunks of hatches.

(B) It should be assumed that no facilities at Cactus-Ringbolt are available for unloading, or for subsistence of Cub personnel ashore. Cub Two should provide its own facilities for housing, messing, supplies and storage.

6. Transmission of this document by registered mail within the Continental Limits of the United States is hereby authorized.

J. H. NEWTON
Acting

- -

S E C R E T

COPY

S E C R E T

Cub Two

Echelon One

Personnel:	Officers	Men	L.Tons	M.Tons
Base Unit	2[illegible]	400		
Radio & Communication	12	37		
Medical	15	112		
Construction Battalio	32	1081		
	83	1630		

Bureau of Yards & Docks:

(A) Housing for personnel to include huts and bare tents.
(B) Auto Equipment
(C) 1/3 of all magazines.
(D) Refrigerators, 1/4 of storage buildings, water system, pontoon barges and wharf.
(E) Part of pile wharf and finger pier material.
(F) All of one C.B. pluss equipment.
(G) Material for road and bridge construction.
(H) Part of bulk gas storage.
(I) 1/2 of hospital buildings.
(J) All refrigerator buildings.
(K) All fire fighting equipment.
(L) Stevedore gear.
(M) Electric generating equipment
(N) Cement, 1000 Bbls.
(O) 300 Tarpaulins (20' x 40') 8,784 18,168

Bureau of Medicine & Surgery

(A) 100 beds of 200 bed hospital, and S1 of material 1st for Cub. 23 150

Annex (A)

	L.Tons	M.Tons
Bureau of Ships:		
(A) All general BuShips material. (B) All boats except rearming scows. (C) All Cub radio material except radar. (D) All Cub Sono-buoys. (E) Visual communications material.	150	600
Bureau of Aeronautics:		
(A) Two Tractors with winch	13	35
Bureau of Ordnance:		
(A) Infantry equipment and small arms. (B) Close-in AA guns with ammunition for same. (C) One circus.	203	275
Bureau of Supplies & Accounts:		
(A) Dry provisions. (B) General stores. (C) Ship service. (D) Clothing and small stores. (E) Fuel - Lubricants.	1,315	2,225
Total Tonnage	10,488	21,453

Deck Cargo, 118 Long Tons, 6058 Square feet.

Annex (A)

SECRET

COPY

S E C R E T

Echelon Two — CUB TWO

Personnel	Officers	Men	L.Tons	M.Tons
Base & Aviation	20	230		
Torpedo	1	13		
Hospital	15	109		
Construction Bat. (SP)	33	1071		
	69	1423		

Bureau of Yards & Docks:

(A) 1/3 of all magazines
(B) 1/4 of all storehouses (40' x 100')
(C) BuAer shop buildings.
(D) 1/2 of hospital buildings.
(E) 1 CB Battalion (Special) complete. With all gear.
(F) 1/3 of pier and wharf material.
(G) Miscellaneous construction materials.
(H) Balance of miscellaneous buildings.
(I) 3 (6 x 18) fuel barge — 5,000 — 6,750

Bureau of Medicine & Surgery:

(A) 100 beds of 200 bed hospital.
(B) Shipment two of material lists for Cub. — 23 — 150

Note: Material required for dispensaries to be manned by base personnel is included with hospital material.

Bureau of Aeronautics:

(A) Equipment and materia for seaplane base Ringbolt.
(B) Six fire rescue truck . — 230 — 615

Annex (B)

S E C R E T

	L.Tons	M.Tons
Bureau of Ships:		
(A) Certain special machine shop equipment to Ringbolt, primarily possibly to Cactus after unloading at Ringbolt.		
(B) Plane rearming scows.	100	250
Bureau of Ordnance:		
(A) Infantry equipment.		
(B) Small arms.		
(C) One circus.		
(D) Nets for Ringbolt and two individual ship nets.		
(E) Two 3"/50 guns complete with ammunition.		
(F) Seaplane base aviation ordnance.	1,292	3,818
Bureau of Supplies & Accounts:		
(A) Dry provisions.		
(B) General stores.		
(C) Ship service.		
(D) Clothing and small stores.		
(E) Fuel and lubricants.	1,990	3,540
Total Tonnage	8,635	15,123

Deck Cargo, 53 Long Tons, 528 Square feet.

Annex (B)

SECRET

COPY

	Officers	Men	L.Tons	M.Tons
Personnel:	1	5		
Bureau of Yards & Docks:				
(A) Remainder of material. (Estimated subject to further advice).			2,082	5,206
Bureau of Ordnance:				
(A) Six 6"/50 guns complete subject to further advice.				
(B) Aviation ordnance and ammunition subject to further advice.				
(C) Mines, subject to further advice.				
(D) Two individual ship nets.			736	1,928
Bureau of Ships:				
(A) Detector loops as required.				
(B) Submarine telephone cables, 15 miles, subject to further advice.			30	50
Total Tonnage			2,848	7,184

Annex (C)

COPY

P16-1/MM/00/(HAR:rt)

ADVANCED NAVAL BASE, CUB TWO.
Guadalcanal, Solomons.

S-E-C-R-E-T

May 18, 1943.

MEMORANDUM

For: Commander Naval Bases, Solomon Islands.

Subject: Distribution of CUB TWO personnel.

References: (a) ComAirSoPacFor Secret Ltr. A16-3/A3, Serial 00283 of April 12, 1943.
(b) ComSoPac Secret Ltr. A16-3/A3/(00A), Serial 00768 of April 30, 1943.
(c) ComSoPac Secret Despatch 071201 of May, 1943.

Enclosure: (A) Copy of BNP 625, dated May 18, 1943.

1. In effect, authority for further distribution of personnel of CUB TWO is subject to recommendations of Commander Naval Bases, Solomons (Reference b).

2. Out of 988 men landed in Base Details, CUB TWO, 299 men remain (Enclosure A). Units have been and are in process of distribution as follows:

Now remaining		299 men
Transferred:		
Air Dept.	243	
Air Dept., additional	113	
Hospital	192	
Supply, Lunga	45	
Communications, Tulagi	12	
Communications, Lunga	28	
Evacuated for hospitalization	3	
Misc., Net Detail, Circuses, etc.	53	
	689	689
TOTAL LANDED		988 men

3. Of the 299 men remaining, 84 are required at TENARU BEACH for maintenance of headquarters detail, small boat pool and receiving ship. The remaining 215 are required for replacements and additions at LUNGA, KOLI, TULAGI area and RUSSELL ISLANDS area.

4. I was in Navy Department in December, 1942, was consulted and am familiar with Opnav's and BuPers' plans in assigning personnel allowances.

5. Considering the expanding needs of the surface ship requirements of this area, it is believed the air activities with a total of 356 men out of 988 men have been assigned already a greater percentage of men than was contemplated in making the original personnel allowances.

Respectfully,

H.A. ROCHESTER,
Commander, U.S.N.,
Commanding.

ADVANCED NAVAL BASE
Guadalcanal, Solomons

May 22, 1943

	ALLOWANCE	ON BOARD		
Base	451	484	Plus	33
Base Medical	25	20	Minus	5
Mine Disposal	2	1	Minus	1
Torpedo Circuses	20	20		
Net Detail	27	28	Plus	1
	525	553	Plus	28
Hospital	196	192	Minus	4
Air	227	243	Plus	16
	948	988	Plus	40

Date	Transferred to	No. Men Transferred	Balance On Board
			988
May 2	Tulagi- (2nd Echelon Arrived)	12	976
May 2	Tulagi-Communications	22	954
May 2	CNB-Lunga Communications	7	947
May 3	CNB-Lunga Supply	3	944
May 3&4	Hospital-D.V.	1	943
May 5	CNB-Sols	5	938
May 5	CNB-Lunga-Communications	243	695
May 7	Com Air Center	38	657
May 9	CNB-Lunga Supply	113	544
May 10	Com Air Center	2	542
May 20	CNB-Sols	192	350
May 20	C.O. Tulagi Hospital	31	319
May 21	C.O. Tulagi (Sono Buoy)	28	291
May 21	C.O. Tulagi (Net Detail)	5	286
May 21	CNB-Sols	4	282
May 21	CNB-Lunga	4	278
May 22	Acorn Red 1	78	200
May 22	C.O. Tulagi	17	183
May 22	CNB-Sols	66	117
May 22	C.O. Russell Islands	83	34
May 22	CNB-Lunga	22	12
May 22	1st Special Battalion	12	0
May 22	ComAirCenter (Torpedo Work Shop)		

A1/A9 UNITED STATES PACIFIC FLEET
SOUTH PACIFIC FORCE
Serial: 00446 SERVICE SQUADRON 12/sjs

S-E-C-R-E-T 22 Apr 1945

From: Commander Service Squadron, South Pacific Force.
To : Commanding Officer, U.S. Naval Advanced Base, Guadalcanal.
Via : Commander Naval Bases, South Solomons Sub-Area.

Subject: New Mission of the Base - Information on.

References: (a) ComSoPac Top Secret ltr ser 00035 of 8 Mar 1945.
(b) CinCPOA Top Secret dcsp 290858 of Mar 1945.
(c) CinCPOA Top Secret ltr ser 0005033 of 8 Apr 1945.

1. In reference (a) Commander South Pacific Area and Force submitted new missions for all South Pacific Bases to Commander in Chief, U.S. Pacific Fleet and Pacific Ocean Areas. References (b) and (c) contain the new missions as approved by Commander in Chief U.S. Pacific Fleet and Pacific Ocean Areas.

2. For your information the new mission for the Base at Guadalcanal follows:

(a) Aviations facilities.
(1) Carney Field to be maintained to support requirements of NATS landplane unit, Air Transport Command Base Unit, and staging aircraft.
(2) Henderson Field to be maintained as an emergency field by Navy.
(3) Lunga Field to be maintained as an emergency field by Navy.
(b) Communication facilities.
(c) Weather observation station.

A1/A9 UNITED STATES PACIFIC FLEET 12/sjs
SOUTH PACIFIC FORCE
Serial: 00446 SERVICE SQUADRON

S-E-C-R-E-T 20 Apr 1945

Subject: New Mission of the Base - Information on.

(d) The internal security of the base is the responsibility of the Island Commander and will be provided by any personnel available for this purpose.
(e) Hospital facilities sufficient for the local garrison will be retained at the base.

3. The Navy complement for the Base at Guadalcanal is tentatively set at twenty (20) officers and two hundred ninety-six (296) enlisted men ashore, and four (4) officers and twenty-four (24) enlisted men afloat.

4. Reference (c) states that "it is considered that 1 July 1945 is the limiting date to be met in the roll-up of facilities not required to fulfill the revised missions. Reduction and roll-up should proceed as expeditiously as integration with other factors will permit and the above data anticipated in all cases where possible."

s/Paul Hendren
PAUL HENDREN

ANNEX B
(Revised)

BASIC LOGISTICAL PLAN SOUTH PACIFIC AREA AND SOUTH PACIFIC FORCE

LOGISTIC RESPONSIBILITIES, SOUTH PACIFIC AREA

Item of Supply	Service Responsibility
Provisions	As prescribed in Comsopac Serial 2019 of 18 June 1943.
Petroleum Products	As prescribed in Comsopac Serial 2328 of 6 June 1943.
Cold Storage	As prescribed in Comsopac Serial 2586 of 27 July 1943.
Ammunition	Own.
Other Supplies	Own.
Motor Vehicle Repair Facilities	As prescribed in Comsopac Serial 01646 of 15 September 1943.

Appendix E

INDEX

I-N-D-E-X

Note: Commands are listed under the area commanded, or under the type of activity commanded. Thus "Commander South Pacific Area and Force" is under "South Pacific Area and Force"; "Commander Aircraft South Pacific" is under "Aircraft, South Pacific"; "Commander Task Force--" is under "Task Force --".

I-N-D-E-X

I-N-D-E-X

I-N-D-E-X

I-N-D-E-X

I-N-D-E-X

I-N-D-E-X

I-N-D-E-X

I-N-D-E-X

I-N-D-E-X

I-N-D-E-X

I-N-D-E-X

I-N-D-E-X

NARRATIVE

OF

BOAT OPERATING AND REPAIR UNIT

U.S. NAVAL ADVANCED BASE

GUADALCANAL, B.S.I.

Submitted to
Commander Naval Base,
Guadalcanal, B.S.I.,
12 June 1945.

Narrative by:
Lt.(jg) Merrill S. Purviance,
(D), USNR.

HISTORY OF BOAT OPERATING AND REPAIR UNIT

It will become apparent that this is by no means a complete history. In fact, it consists of merely a few scattered references plus some personal recollections and reports of conversations which the writer has had from time to time with members of this unit who were here in the earlier days. What files remain with the unit are woefully incomplete and the Base files furnish little more information. There may be in existence more complete files but if such is the case, their whereabouts is not known either to the writer or to any other likely person. The only alternative would seem to be recourse to personal correspondence with officers or men known to have been attached to this unit when it was formed. That would entail procuring their addresses from the Bureau in most cases and the resulting correspondence would require months to complete. These few notes are submitted for what use they may be.

The earliest boat reports found were dated 24 April 1943. Other reports showing equipment available each day for unloading ships were dated as early as 4 April 1943. Therefore, it is logical to assume that the unit was in operation around the first of April 1943. However, it is not known how long prior to that date the unit was formed and established here. At that time this unit was known as "Amphibious Force Boat Pool, Lunga" and was also referred to

as "Dept. G, Navy 145". There were, at that time, Boat Pools at Koli Point and at Tulagi which appear to have been under the same general command as this one at Lunga. These Boat Pools fulfilled the same mission as the present Boat Operating and Repair Unit, in that they both operated and repaired boats. The unit at Lunga furnished unloading facilities for Lunga and Kukum and probably Tenaru Beach, whereas the unit at Koli took care of unloading in that area. It is not known when these were broken down into three separate units, nor is it known when the local unit was further separated into Boat Repair Unit and Boat Operating Unit. From conversation with Lt.(jg) W. J. Lane, it is known that this was known as Boat Repair Unit as early as 1 November 1943. At that time, Boat Operating Unit became a division of the Naval Base while the repair unit maintained a more independent existence. However, operating personnel continued to live in this camp.

According to the Medical Officer's report of 17 June 1943, there had been a damaging air raid at about that time. No casualties to personnel of this unit were reported. However, from conversations with Lt.(jg) M. E. Nelson, Mr. Lane, and others, I should judge that these raids were frequent and most harassing, often disrupting the work of the unit. Boats were tied up to buoys off shore and were often sunk or damaged by strafing or bombing. Air attacks to shipping in the anchorage near Lunga Point were frequent and damage was

done during attacks on Henderson Field. This unit was situated directly under the route along which enemy planes made their bombing runs on the field and stray bombs often hit here. Also, at times, anti-personnel bombs were dropped during the runs. This and the lack of protected anchorage for boats constituted the main problems in operation at that time. There were frequent storms, one of which did considerable damage to boats tied up off shore. In October 1943, the Ilu River was dredged to a depth of six feet to provide anchorage for boats and barges (A3-2/N20 ComNavBase, Guadal 1 October 1943) but there is no record that it was used to any extent. It was probably used by boats working at Tenaru Beach. This was not completely remedied until August of 1944 when Lunga Lagoon was sufficiently dredged and a fill put in to form a sea wall so that the lagoon could be used to tie up boats. This arrangement has proved very successful and convenient.

Prior to July of 1943, a Marine Railway was used to dock LCM's. This had not been very efficient since shifting sands impaired its usefulness and it could not be operated except at high tide. At that time, a pontoon dry dock was proposed (N16-5(001) ComAmphibFor B.P., Lunga, 7 July 1943). This dock was completed by 13 November 1943.

A Ship's Service was established in February of 1944 (N4-8/M3, 23 February 1944) which sold store items and sold

drinks. A Recreation Hall was completed in March 1944 (1st Lt. Memo, 13 March 1944), which housed the Store and the usual lounge, library, games, and tables. A laundry was put into operation at about the same time (OinC Memo 3 March 1944) and a bakery had also just been started. The latter made the unit completely self-sufficient insofar as messing was concerned. The Officers' Mess Hall had been built in October of 1943 and continued in operation until November 19, 1944, when it was torn down and the officers of this unit began messing at the Naval Base. The CPO Mess and crew's mess were discontinued shortly thereafter and all equipment was removed from the camp.

This was all part of the procedure involved in a merger of Boat Repair Unit and Boat Operating Unit into the present set-up. This took place officially on 7 October 1944 (A3-1, Serial 973, ComNavBase, Guadal, 8 October 1944). This resulted in enabling both units to carry on their work with fewer personnel. At the time of the merger, the unit was made a part of NAB.

When the Naval Landing Force Equipment Depot was formed in August, 1943 (L72, Serial 060, OinC, AmPhibFor C. P. of 1 August 1943), it was situated adjacent to BRU. Since it worked rather closely with the latter, personnel of NLFED were quartered in the BRU camp and shared all the facilities of messing and recreation. That arrangement has continued

ever since and has worked out with advantage to both units.

In March of 1944, the Boat Repair Unit was under the supervision of "Supervisor Landing Craft Repairs, Forward and Combat Areas". At that time, Lt. Comdr. George Bean held that position. The Boat Repair Unit continued its functions until August 1945.

During the roll-up, over 95 engines were crated and shipped to forward areas and to the New York Salvage Yard.

Personnel, with equipment, were ordered to Guam in August 1945 leaving 35 men to operate the small boats remaining.

FIRST NARRATIVE

OF

U.S. NAVAL CONSTRUCTION BATTALION

MAINTENANCE UNIT NO. 518

Submitted to:
Commander South Pacific

Via:
Commanding Officer
Naval Base 145

July 1945

1. Construction Battalion Maintenance Unit No. 518 including the majority of its present complement of 5 officers and 215 enlisted men was assembled, trained and eventually commissioned as a Unit at the U.S. Naval Construction Training Station, Camp Peary, Magruder, Virginia. The enlisted personnel who later made up the greater portion of 518 were, at the completion of their boot training, formed into B. Company of the 7th Supernumerary Battalion and received their advanced training as a part of this Battalion. Upon the completion of such training, orders from the Bureau of Yards & Docks caused the reforming of the 7th Super into four Construction Battalion Maintenance Unit's, resulting in the activating and commissioning of Construction Battalion Maintenance Unit No. 518 on 24 August 1943. (Note 1)

2. In line with the customary policy followed in the handling of Construction Battalions and units, it was expected by all personnel that the Unit would move to an Advanced Base Depot for additional pre-embarkation training. But an unexpected and entirely new type of assignment for Seabees called for the participation of CBMU 518 in a war show and pageant sponsored by the Weirton Steel Company of Weirton, West Virginia. Approximately two weeks of intensive training were required to sufficiently acquaint the men with the part they were to take in the demonstration,

and polish up the operations of the various construction crews and two drill teams. The war show and pageant were held at Wierton, West Virginia on Saturday, 4 September and on Labor Day, Monday 6 September 1943. CBMU 518 officers and enlisted personnel staged the war shows at both afternoon performances and also took part in the evening performances which made up the pageant. (Note 2)

3. Upon completion of it's initial assignment as a Unit, 518 returned to Camp Peary, Va. where orders were waiting which called for its transfer to the Advanced Base Depot at Gulfport, Mississippi. (Note 3) Pre-embarkation leaves were granted, the Unit received additional training of a physical conditioning and combat nature over a period of 5 weeks. At this time orders were received for the Unit to be divided into two sections and for each section to board an LST for transportation to an overseas destination. (Note 4)

4. After a short period of time spent at New Orleans La. (taken up with maintenance and repair work to the ships, placing of LCT's on the LST's for transportation to combat area's, the taking on of additional fuel, water and food supplies etc.) the ships left in convoy on 14 November 1943.

5. Ninety days were spent in accomplishing the passage from New Orleans to our final destination during which time the officers and enlisted personnel of 518 assumed assigned

duties aboard each vessel. Some work assignments at shore bases where stop-overs were necessary were also completed by 518. (Note 5) The final destination, Guadalcanal, was reached on 10 February 1944 and 518 disembarked at the LST landings at Kukum Beach to take up their duties at this Base. (Note 6)

6. During their first 17 days ashore, officers and enlisted men of 518 were quartered temporarily in the camp area previously occupied by the 63rd Naval Construction Battalion which was, at that time, on leave in New Zealand. The majority of the enlisted personnel were assigned work projects which took them out of the camp area beginning with the day following the Unit's landing. Others were assigned to duties within the camp area, such as the handling of equipment and material belonging to the Unit, camp maintenance work and mess details. Another detail consisting of one CPO and approximately 20 enlisted men were engaged in the surveying, laying out and erection of tents in an area which was intended to be a permanent camp for 518. The choice was a logical one because it placed 518 in an area where camp facilities erected and left intact by the 26th Naval Construction Battalion were available to all personnel of the Unit. Yet, living conditions could by no means be described as satisfactory for three other units, 515, 532, and 533 were also quartered in adjacent areas and

made use of the common facilities at hand. The over-loaded conditions prevailing added to the existing discomfcrts occasioned by constant rains which in turn caused the Tenaru River to reach flood stage and cover the Unit's area with water to a depth of one foot. Even when the flood subsided the area continued for weeks to be nothing but a bog and caused considerable discontent and a lowering of morale among the men.

7. Despite these conditions officers and enlisted men of 518 were fulfilling their assigned duties satisfactorily. The Unit worked on assignments issued by the Base Public Works Officer and the work projects were numerous and varied. Ten percent of our personnel were assigned to Malaria Control Headquarters and assisted in this important work, not only in the vicinity of our own camp area but throughout the Island as directed.

8. A Chief Shipfitter and six men were engaged in the location and salvage of pontoons which were to be used in the construction of a bridge to carry the present Route 50 over the Mantaniku River. Four strings of 12 T6 pontoons each, located along Tenaru Beach were selected and salvage work begun. Considerable difficulties were encountered in getting the strings into the water. The pontoons were towed to a small dock at Lunga Beach where turning and patching the strings could be done with greater ease. Each

string had to be turned completely over one or more times and holes patched before the water could be pumped out of the individual sections. During one of these turning operations a length of wire rope (rigged from the string to the crane block) parted and the boom went back over the cab. A careful inspection by the operator revealed that the crane had suffered no serious damage, and the boom was pulled back into normal position by the means of a winch on one of the trucks. When two of the strings were ready, they were loaded crosswise on a 3 X 7 barge which was towed to the mouth of the Mantanikau River. Here a problem in the form of a sand bar across the mouth of the river caused some delay but at high tide the barge was half dragged and half floated over the bar. While salvage work on the remaining two strings proceeded the barge was towed up the river to the site and the strings raised by means of jacks and shoring to the road bed level and secured. When the other two strings were ready they were fastened together and towed to the mouth of the river across the bar. At this point they in turn were loaded crosswise on the barge. This was accomplished by flooding the pontoon sections at one end of the barge permitting the strings to be hauled aboard and secured in the desired position. Then the barge was raised by pumping out the water and was towed to the bridge site. Here, the same procedure was used as in raising the first two strings, and 518's part in the

assignment was completed.

9. One of 518's first major assignments came about as a result of the constant rains, which caused the Black Cat Camp area to be completely flooded. All VJ-10 personnel were evacuated to temporary quarters on higher ground and 518 was assigned the task of moving the entire camp to the new area. A crew of thirty men under the supervision of a chief Carpenters mate began the job of moving twenty-eight standard 20 X 40 huts plus tents, heads, shower buildings, and shops. Quonsets were moved in sections in order to save time and within a week the plan was working so well that one hut was completed in every 1½ days operations. As soon as each hut was completed, VJ-10 personnel moved into their new quarters. The more congested arrangements in the new area rised a problem in sanitation and sewage disposal. CBMU 518's Chief Carpenter's mate in charge of the job together with two shipfitters in the crew devised a sewerage system which has, over a period of 16 months, proven itself practicable and troublefree. A 16 man shower building was constructed with a concrete deck and trapped floor drain adjoining an 8 man head. The head was built over a concrete pit with a 6" flush line running from the shower drain. Three salvaged T6 pontoon sections were set in place at the end of the concrete pit so as to form a septic tank 21' long, 5' wide, and 5' deep. At the two

points where the pontoons were joined together the plates were burned out to provide baffle plates before welds were made completely around the tank. A siphon line, installed at the far end of the septic tank from the head, maintained a bacteria line of 3½' and carried off the waste into a 300' drainage ditch filled with crushed rock and covered with topsoil. A check on the waste water after the system had been put into use proved it to be clear and odorless and its discharge into roadside drainage ditches was approved by Army medical authorities. In addition to the sanitation advantages obtained, the use of waste shower and washroom water helped considerable in conserving an already limited supply of fresh water, the use of which would otherwish have been required. The system has been approved and highly recommended for future bases built under similar conditions. (Note 7)

10. Another crew consisting of a Chief Carpenter's Mate and approximately 25 men took over the operation of a saw mill which was at that time located in a clearing at the edge of the jungle about 5 miles in on the present route 143 from the main highway, Route 50. While the main force was making repairs and adjustments to the mill itself, three 4-man crews were sent out into the jungle to fall trees, and cut them into lengths suitable for dragging out by cat or dozer to the mill. Over a three weeks period

of operation a considerable quantity of such logs were made ready, but, due to lack of necessary heavy cats, and swampy conditions in the area, the operations of the sawmill had to be abandoned. Not without a commendable effort on the part of the crew involved, however, for a survey was made by several of the men with previous logging experience to determine whether or not the logs could be hauled out by means of a high line. This plan had to be abandoned when the survey disclosed that large quantities of heavy wire rope and a powerful winch would be required. Existing facilities on the Island could not supply the required equipment and material, and, after sawing up all the logs in the immediate vicinity of the mill, it was dismantled, crated, and turned over to the 63rd Naval Construction Battalion on 6 March 1944.

11. During this same period work was begun on the ComMarine Camp on a hill at the northwestern extremity of Henderson Field. Considerable road construction and grading was required before equipment and material could be brought in and actual construction of the buildings and camp facilities undertaken. While this phase of work was in progress the site for the enlisted men's mess hall was surveyed, graded, and the pouring of the concrete slab began. The building was to be made from two 20 X 48 SSAR Huts and a slab 20' X 112' was required. Floor drains

and sewer lines presented no problem, for the site selected was ideal - the west bank of the Lunga River, just north of Route 50. The building was laid out parallel to the river and approximately 16' in from the edge of the bank. Simple concrete-box floor drains were poured at the same time as the slab with connecting line running out to the edge of the bank. Before the slab was completed, construction of the building itself was begun. The plans called for the flaring out of the sides, also for monitor to be extended the full length of the building. Partitions inside the building to separate the mess hall from galley and scullery sections were made up from the plywood which in a standard hyt would have formed the deck. The balance of the plywood together with some 1" lumber was sufficient to make up the total number of mess tables required. A standard T6 pontoon for water storage was set in place on top of a supporting framework on coconut logs located just off the end of the building and necessary piping to galley and scullery installed. Concrete slabs for both the generator and the water purification units were also poured and frame buildings erected, tarp roofed and screened. The main water storage tank (a bolted steel tank of 5,000 gallon capacity)was located on the highest point of ground in the camp area. It was assembled on top of a sturdy framework of 12" X 12" stateside timbers. When construction of the enlisted men's mess hall was nearly completed, work was begun

on a building of similar design on higher ground and to the rear of the camp area. The general plan of the two buildings was the same, the only difference being the partationing off of the interior of the officer's mess into galley, mess room, and club room. Available Marine personnel under Seabee supervision were, during this time, erecting 10 small buildings for administrative purposes, These were one half of a standard 20 X 48 SSAR hut with the sides flared and screened and tropical bulkheads. Improvised jigs were quickly rigged up in order to speed the bending of the corrugated roof sheets to the desired angle of flare. In addition to the building already mentioned two standard 20 X 48 huts were erected, one to serve as sick-bay, the other as the living quarters of the Commanding Officer. Construction work was completed on this assignment 25 April 1944.

12. CBMU 518 took over the operation of Water Point No. 7 on 11 April 1944, faced with the task of furnishing water to approximately 2,000 men quartered in CBMU's 518,532 533, Navy Receiving Station and the 40th Army Division. The equipment was wholly inadequate, consisting of three small Jaeger pumps with a total rated capacity of 165 GPM and three small filter units. This equipment could not furnish sufficient water to meed all demands which amounted to a daily requirement in excess of 70,000 gallons. Motor troubles on the overloaded, overworked pumps resulted in frequest shutdowns and

consequent water shortages. To correct this condition the three small pumps were replaced by four larger pumps of much greater capacity. These were installed in such a way as to have two separate and distinct pumping units, making possible alternate daily operation with one unit always ready as a standby in the event trouble developed on the unit in service. Chlorinating pumps were mounted on brackets on the side of each of the two raw water pumps and were driven by means of a single V belt from an extra sheave on the fan belt drive pulley. These pumps drew the raw water from wells sunk a short distance away from the bank of the Tenaru River, chlorinated it and pumped it thru the filters into two T6 pontoons for aeration and temporary storage. The other two pumps took care of the delivery of the purified water from the temporary storage tanks to the two main storage tanks of 10,000 gallon capacity each. Two additional filters were installed during this time which lessened the need for back washing and yet guaranteed greater purity in the filtered water. With these changes it was found that the plant was able to more than meet requirments and the operation was reduced from 24 hours daily to three 6 hour shifts thus freeing one man for other duty. Since that time flood conditions of the Tenaru River has necessitated the shoring up and bracing of the platform on which the plant is located, and, in order to eliminate a definite fire hazard, the gasoline

storage tank was moved from within the building itself to an elevated platform about 25 feet from the plant. Through the installation of pipe lines directly to the four engines, manual filling of the individual gas tanks was eliminated and danger from fire reduced. At present the daily output averages 45,000 gallons and distribution is made to CBMU's 518, 533 and to the 798 Army Engineers.

13. On the 1st of April 1944, CBMU 518 took over the operation of the Public Works Depot which was at that time, and has remained, a material handling and equipment handling yard for Naval Construction activities on this base. The operation of the Depot with the great variety of jobs involved became the major assignment of this unit and, required between 50% and 60% of the Unit's personnel. A fairly well stocked Motor Parts department, made truck, engine and heavy equipment replacement parts available not only to Naval Construction units but to other units on the Island as well. One CPO and two enlisted men were responsible for maintaining a stock sufficiently large and diversified enough to meet current demands. Requisitions were forwarded to ACEPD at Espiritu Santo for such parts and equipment when needed. The Transportation Shop handled all the necessary repairs and maintenance work on all vehicles under control of the Public Works Office and for outside units when such work was assigned by the Public Works Officer. The hardware and

plumbing shops were housed in one large frame building while the electrical shop consisted of a standard 20 X 48 SSAR hut. All three shops were well stocked with tools and supplies and these stocks were available on requisitions signed by the Public Works Department. At any time that surplus tools and material were turned over to the Public Works department by Naval Construction Battalion activities, they were made a part of Depot stock, inventoried and reports turned into the Public Works Office.

14. At the time 518 took over the operation of the Depot, roads throughout the area were in such a condition to render them almost impassable for the speedy or econmical handling of material. Trucks would bog down with comparatively light loads and would require towing by cat or dozer. Moving a crane in order to handle Quonset Hut parts, heavy timbers, etc. presented a real problem and there was much loss in time. In order to alleviate this condition a program was set up to cover months work. The entire area was surveyed and pitched to provide better drainage. Road construction and grading was undertaken and culverts installed where necessary. Native labor was employed in clearing additional areas of brush and high grass and burning all trash collection. Additional power lines were strung and lights installed throughout the cargo areas to provide sufficient lighting for night operations. Although the number of

personnel available for this work varied from day to day due to higher priority assignments it was not long before the depot as a whole presented a much better appearance and the benefits from the work program became evident. Considerable savings in time on cargo handling were attained and maintenance and repair work to heavy equipment was greatly reduced. A simple comparison of the quantities of hard surfaced road at the time 518 took over the depot up to the present time will make for a better understanding of the work involved. In May 1944 the amount of hard surfaced roads was very negligible, at present the total is approximately 2 miles.

15. An unusual assignment which turned up during the month of September 1944 proved to one and all, enlisted men and officers alike, that CBMU 518 could meet the demands of a real emergency. Word was received that a hospital ship carrying wounded from Palau would have to put into port here and have men removed to base hospitals. Existing facilities at Fleet Hospital 108 were found to be inadequate to take care of the unexpected arrival of so many casualties. Therefore 518 undertook the task of moving twelve 20' x 50' buildings from the abandoned Receiving Station area to the hospital, a distance of about three miles. These buildings would provide accomodation for approximately 500 of the less seriously wounded men. The buildings were of frame construction, with an elevated deck, screened sides, and roofed with standard

20' x 50' hospital tents whose flaps were fastened on wooden frame work to form eaves. A crew of about 40 men was hastily assembled, made aware of the reasons for, and importance of getting the job done quickly and work began immediately. It was decided that the best plan would be to remove the tent and rafters, then saw the entire framework in half so that the 20' x 50' sections could be transported on flat bed trailers to the new location. Portable generators were put into operation to supply power for the Skilsaws and as the cuts were completed the sections were loaded by hand aboard the waiting trailers. A bull dozer was required to haul the trailers out to the main road where trucks were able to take over and haul them to the new area. By nightfall a sufficient number of tents sections had been moved to warrant splitting up the crew, half to continue dismantling, the other half to begin reconstruction. While work progressed with only the lights from parked trucks for illumination, a 6 man crew of electricians was busily engaged in completing the stringing of lines to the main hospital power lines and soon the area was well illuminated. Throughout the night the men continued their work despite numerous difficulties and intermittent showers and by morning several of the huts were almost completed, and the majority of the decks of the balance were in place. Additional men were brought on the job and assigned the task of constructing 240 double bunks out of available 1"

finished lumber. As soon as the frame construction on a building was completed by the carpenters other men would pull the tents over the rafters, fasten them in place and then screen the building with mosquito netting. After sweeping out the debris, others carried the bunks into the tents as soon as they were completed. By midafternoon corpsmen of the hospital staff had the bedding in and the bunks made up to accomodate the wounded now arriving. The sight of these weary, bandaged men spurred the crew on to renewed efforts and despite the fact that the majority had been working 36 hours they continued on until the last of the buildings were completed and ready for occupancy.[8]

15. In the forepart of December 1944, CBMU 518 was assigned the task of receiving and arranging for the issue of 3,900 tons of Yards and Docks equipment to two Construction Battalions, the 58th and 71st. The cargo, originally consigned to ABCD at Noumea for distribution to the two battalions, was diverted to this base, and, evidently the two battalions received orders to restage here before going in on the Okinawa campaign. Permission was granted by Army Port authority for the use of sufficient space for cargo handling in the old Kukum Area Cargo Pit adjacent to the dock area. A small generator was installed in one corner and lights were strung around the area to provide light for round the clock operations. As unloading of the ship proceeded, heavy equipment and vehicles

were arranged around the area in such a way as to form a "fence" for security storage of the boxed cargo arranged in rows inside. Equal division of the equipment and material was accomplished by following a marked manifest of the ship's cargo and any shortages which were reported by the battalions upon completion of the job were small and of non-essential items. Pilfering of these items by the security guards supplied by the battalions was proven to be responsible for most of such shortages while errors on the part of 518's checkers were small and excusable considering the volume of boxed cargo handled. Excess material not assigned to the Battalions was trans-shipped to ABCD Annex, Russells.[9]

16. As out combat operations drove the Japs farther and farther North, Guadalcanal became a base for supplying these operations with the necessary equipment and materials needed to wage a successful war. Shipload after shipload of material was unloaded at the docks and beaches until countless tons were on hand. Army, Marine and Naval Construction Battalions re-staged here for forward movements. During their comparatively brief stay here, camp areas were concerned with the all important task of preparing for combat and assembling the necessary equipment and material for the successful prosecution of their mission. When they left the Island, only those materials which were absolutely required were taken along. The obvious result was that Guadalcanal was left with immense stocks of material

and equipment, the economic disposal of which became the major problem of the service forces of the various branches of the armed forces.

17. The higher commands were concerned with the all important problem of providing shipping space for the tremendous varieties and quantities of material. Where naval activities were concerned the office of the Commander Service Force South Pacific had charge of the job. Reports from various subordinate commands were requested. The amounts, kinds, and condition of all equipment and material being required. Where practicable serial numbers were assigned lots or blocks of a specific item or group of closely related items which were earmarked for shipment when space became available. No change in the status of earmarked materials was permitted for only that amount of space required to ship a serial numbered block of material would be provided.

18. With the advent of the roll-up program, the personnel of 518 were called upon to take a major part of the task on this base. Due to the fact that in the operation of the Public Works Depot we had already been concerned with the shipment of material to forward bases 518 was called upon to handle the majority of such shipments for most of the Naval Units remaining on the island. The unit was relieved of some of its outside work assignments and all available personnel were assigned to duties directly connected with the roll-up program.

19. In connection with this work, two tarp roofed frame buildings were erected in the Depot to provide shops for the manufacture of boxes. Bench saws and work benches were installed along both sides of the long rectangular buildings while roller conveyors were set in place, running the full length along the center line of the two buildings. The shops thus provided two separate assembly lines for the companion jobs of manufacturing boxes or crates and the recruiting of such items as Quonset Huts, reefer and tank parts, etc. In every case an attempt was made to duplicate the dimensions of the original shipping container by consulting the manufacture's standard packing list. Jigs were devised to speed up the assembly of the component parts of the various sized containers and with each man doing his job, boxes rolled off the conveyors in a constant stream to be stacked by crane in a convenient location. Whenever a sufficient quantity of hut parts were on hand the boxes were packed, nailed, and banded with steel strapping as they proceeded down the conveyor. The completed packages were then loaded on trailers and ready for shipment.

20. During this period a similar shop was constructed at the eastern end of Fighter Strip No. 2 primarily for the recrating of fuel storage tanks. Boxes for the tank parts were made in the Depot Shops and hauled by truck or trailer to the Fighter Strip shop. Oxy-acetylene cutting and burning outfits were used to speed up the operation of dissembling tank parts

and here again the standard packing procedures were strictly adhered to..

21. After several weeks operations in the recrating of Quonset Huts, problems and difficulties met had been fairly well overcome and crating of most of the parts had been made a routine job. There was however one exception, the bundling and packaging of corrugated sheet metal. The curved sheets in particular presented a real problem and it was not long before a considerable quantity of metal had been accumulated in the Depot. At first by means of a metal frame and hand operated jacks, sheets placed in the frame one by one could be compressed and the bundle then banded with steel strapping. With this method a five man crew averaged only 4 bundles of 78 sheets per day. This phase of the job continued to lag so far behind the balance of the work that plans for a new and quicker method were drawn up. Several of the units machinists concurred in the planning of a power driven press and permission was granted them to put it into effect. They first salvaged three hydraulic lifting cylinders from Chevrolet dump trucks, a hydraulic pump and control levers from an old Clark Fork Truck and a 3HP electric motor, the cylinders were changed to double acting and were mounted vertically on a steel frame with hinged brackets at the front which could readily be locked into place. At the bottom of the frame were placed removable templates which were adaptable to receive curved or

flat sheets. The tops of the frame is movable and can be adjusted to take care of bundles of various thicknesses. It was set for operation to accomodate a stack of sheets 30" in height. A flexible hose connects each cylinder to the piping leading back to the control levers. The pump is chain driven and pressure to the cylinders is controlled by a by-pass valve in the control lever assembly. Several weeks were used in completing the press, the one major difficulty experienced being leakage of hydraulic fluid out of the cylinders when pressure was applied. This was found to be a result of the change-over to double action and was corrected by placing a lead gasket in the lower end of each cylinder. Fork trucks now place the prestacked sheets in the press, the front bars are locked in place and pressure is applied to the cylinders. The bundles are compressed to about 10 inches in thickness and then banded. With this method a four man crew can now turn out an average of twelve bundles per day. Fifteen bundles is the highest single day output to date. The use of the press has reduced the number of men required on the job by one and has tripled the output of the bundled sheet metal.

22. While the men at the Depot have thus been engaged on work pertaining to the roll-up program those at the Machine Shop also have had a similar part in the operation. A change in plans concerning the salvaging of pontoons left on the island caused the Machine Shop to be assigned this task. A

survey showed that at least 200 T6 and T7 pontoon sections remaining on the island were in good enough condition to warrant the necessary patching and painting work before being shipped forward. In the majority of cases these pontoons had been used as storage tanks for fuel oil, gasoline, and water piping connections had been welded into the plates and in some cases portions of the plates had been cut away to provide man holes for the cleaning out of the tanks. The crew was broken up into groups, each assigned to a specific task. Some of the men took care of all cutting and burning on the external fitting or projections. Others performed the necessary welding to completely patch the pontoons. As soon as a pontoon was patched it was tested for leaks by means of air pressure (10 lb.) and as none were detected it was moved by fork truck to a nearby spot and spray painted with red lead. A mobile truck crane then stacked the completed pontoons in an open area where they could readily be loaded aboard trailers when shipping orders were received.

23. In recent months the tempo of the work has increased to a point where there is a continuous flow of material to forward areas. The roll-up program as set up by ComServPac continues to govern the actual shipments of material declared excess at this base. But individual, subordinate commands are cooperating in the preparation for shipment of such excesses for which they are responsible. Any attempt to give a detailed

account of operations during the past six months would only result in a monotonous repetition concerning the salvaging, crating, and shipping of surplus material. A brief outline showing monthly totals in tonnage shipped by the Depot would serve to point out the magnitude of the job and the part 518 played.

24. In January of 1945, 250 tons of Yards and Docks material was trans-shipped to the forward area while an additional 250 tons of Quonset Hut material was salvaged, crated, and shipped off the island. An increase of 125 tons over the preceding month brought up the total in February to 375 tons of Quonset Huts alone, while other shipments were also made. During the month of March another increase was shown with 670 tons of material being handled. This included approximately 115 Quonset Huts, 4 fuel storage tanks, reefers, etc. The monthly reports for successive months show that the same high standard has been maintained throughout the operation and the attitude of the men gives every indication that they will continue to see it through to its completion. Despite the fact that all personnel have been overseas for 20 months and have endured the rigors of the tropical climate for better than 16 months they are continuing their duties with a dogged determination which has proven to be one of the main characteristics of the men of the Construction Battalions and Units.

25. The operation of the Navy Public Works Machine shop was another assignment taken over by CBMU 518 within two months after arrival at this base. The shop has been one of the most important assignments on the island for it has handled better than 80% of all such work required. Actually it is composed of five separate activities housed in the one group of buildings, e.g. machine shop, electrical shop, rigging loft, shipfitters shop and sheet metal shop; all of which are operated by a crew averaging 24 men. When 518 first took over, the various shops were equipped with only the bare essentials in the way of power equipment and hand tools necessary to do the work. The most notable pieces of power equipment were two Japanese column-type drill presses and one small Japanese engine lathe. The electrical shop consisted of nothing more than some work benches an accumulation of hand tools, and a small stock of magnet wire for the rewinding of motors. The rest of the shops were just about as poorly equipped as the ones already mentioned. As the number of units increased on the island, the work load on the machine shop mounted from precision machine work on small parts and rewinding of fractional horsepower motors to repairing crane booms and making up heavy slings for the handling of 30 ton tanks. To enable the men to perform all of the jobs called for under these conditions, additional tools and equipment were procured or assigned to the shop. A shaper, milling machine, and two large new engine lathes plus numerous

smaller power driven tools such as bench grinders and a power driven hack saw were added to the machine shop. Several arc-welders, a forge and additional oxy-acetylene cutting and welding outfits were among the equipment placed in the ship-fitters shop. The facilities of the sheet metal shop were augmented by the installation of such items as a large hand bending brake, a slip roll forming machine, a hand operated punch capable of punching holes in a sheet of steel up to ¼" in thickness, etc. In addition to the various tools and equipment placed in the shop, stocks of steel plate, flat and round bar stock, angle iron of various sizes, wire rope, etc., were accumulated so that eventually the shop was able to take care of any and all assignments no matter how diversified they might be.

26. The fact that the personnel employed at the shop were of a high calibre should be evident from the following account of one unusual assignment. A call was received at the shop late one afternoon for two machinists to report aboard a C4 cargo ship which was tied up at Kukum dock. The two men went down to find out what the trouble could be and learned that the motor driving a blower which furnished fresh air for the troop compartments had ceased to function. Investigation by the two men disclosed the fact that the commutator of the motor was badly scored and would have to be turned down and undercut before the motor could operate. In talking to the

Chief Electrician on board the men learned that the ship was scheduled to pull out sometime the following day for Guam. Besides carrying cargo, the ship was transporting a considerable number of Marines who were to go in on the invasion of that island. To remove the armature in order to do the job properly would have necessitated a great deal of dissembling of ventilation and pipe lines and several days would have been required. It was decided to try to do the job on the spot by reversing the flow of air through the ventilating system and have the blower turn the motor. A bracket was made of 4" angle iron in the ship in such a way that it could be bolted to the motor frame. On this bracket was mounted the compound taken off the Jap lathe at the shop and in this was fastened a long boring bar for a tool holder. The job of turning down the commutator was begun and it was found that by taking a series of light cuts that the makeshift arrangement would do the job. Due to the intense heat of the surrounding steam lines the men were able to work for only short periods at a time and to get relief from the heat were forced to crawl on hands and knees through a small passage. Despite these difficulties the job was completed by 0600 the following morning, only fifteen hours after the first call was received at the shop and the ship was able to take its appointed place in the convoy which left later that day.

27. Another unusual assignment of a lighter nature was the manufacturing of 250 sets of Stader fracture clamps for Navy Medical Supply Facilities. The clamps, designed to hold a fractured bone immobilized, were made up of aluminum bar stock and rod. Special aluminum nuts required for the clamps had to be salvaged from junked planes. The pointed pins which were used to pierce the bone and hold clamp and fractured bone in correct position were made up from a special type of electric welding rod from which the flux was first removed. It was later learned that 100 of these clamps were issued to the 6th Marine Mobile Hospital unit which went in on the invasion of Okinawa. This was probably the first time that such equipment was made up in an overseas shop rather than by a U. S. manufacturer.

28. Besides such jobs as these, the files of completed work show hundreds of others, all attesting to the really fine work done by the men in the shop. Some, of course, were of a routine nature involving no more than the use of the skills developed by these men in civilian life. Others required imagination and ingenuity to a degree which seldom have turned up in regular work in civilian life. The resourcefulness of these men in making use of salvaged parts and materials made it possible for other activities on the island to keep mechanical equipment functioning when it otherwise would have been necessary to take it out of service.

29. As part of the program set up by the Navy Medical Department, in regards to malaria control, CBMU 518 had several men from the unit attend malaria control school at Camp Peary, Virginia, before the unit left for overseas. This school was, of necessity, an abbreviated course but nevertheless under competent instructors gave the men attending valuable background in the measures necessary to control the mosquitos. When the unit landed on Guadalcanal two men attended a school of malaria control conducted by the U. S. Army Medical Corps. This school acted as a refresher course and also gave additional training such as taking blood smears and the methods used in combating mosquitos in the area. This refresher course was of one weeks duration.

30. The area in which the men of 518 were first housed was lacking in the necessary for the men in charge of this duty to maintain a watch after 1800 to enforce malaria control discipline. Their duties consisted of calling the mens attention to the necessity of wearing shirts after sundown, the use of mosquito netting on their cots, and the taking of showers before sunset. This malaria control unit also had the job of spraying stagnant water in the area with oil, keeping ditches open to allow greater runnoff of water. At this time there were many fox holes and the spraying of these with oil was also included. When the unit moved to the new area, which was quite muddy and without proper drainage, the malaria

control unit undertook the job of alleviating prevalent undesirable conditions. In addition to the maintenance of the camp area as to mosquito control, the malaria control unit also worked on projects from malaria control headquarters.

31. In connection with the malaria control program on the island, the unit was assigned to various drainage ditch projects. Most extensive of these were the swamp areas south of Fleet Hospital 108, behind the New Zealand camp. The ditch in the New Zealand area presented several difficulties due to the fact that an existing ditch had to be deepened and the spoil bank had to be cut away with a bull dozer before a dragline could get close enough to operate. Numerous large trees had fallen across the ditch and had to be dynamited and hauled away. In addition to these obstacles the condition of the ground was such that pads had to be used under the dragline to keep it from sinking. This condition was brought to our attention quite forcibly when without warning the machine settled down to the level of the house. It was at this point that Marston mat pads were brought into use. These were made of Marston mats, three wide and two thick, cleated together with 2 x 8 timber. The dragline that was used on the job was too small for the amount of work to be done but it was the only one available and as a consequence the expected completion date was necessarily extended. Approximately 7200 feet of ditch had to be dug to the average depth of about five feet. The existing

ditch was already at an av[illegible]e depth of six feet and fifteen to twenty feet across, making a sizable job for 1½ yard machine. About half way thru the job the bull dozer broke down and had to be taken into the shop for repairs. A replacement was not available so a dragline was used to dig away the existing spoil bank in order to proceed. It should be mentioned at this point that all fuel and oil for the machine had to be carried into the job by the crew of three due to the inaccessability of the job site. During the time the machine was stuck the operating crew was supplemented by four men from the heavy equipment shop. Unfortunately the weather went against us and the rain made an already bad condition just that much worse. After several vain attempts to pull out with the dragline secured to a tree, it was decided to dig out in front and in back of the tracks and lash the pads to the tracks. When this was done the pads were ground under the machine, the lashings cut, and from then on the pads were in continuous use. This was the last mishap encountered.

32. The same ½ yard machine was taken to the area south of Fleet Hospital 108 to work on a ditch somewhat shorter in length than the previous job, but requiring earth work, nearly as much as on the New Zealand job. This also was an existing ditch that had to be deepened from an average depth of four feet to an average of eight feet. At one point the depth reached twnety-one feet and the width of twenty-eight. For

the first eight hundred feet the machine was placed right in the existing ditch and worked back to a point where firm footing could be had on top of the bank. There was 4800 feet of ditch to dig and after digging 2400 feet, the ½ yard machine was replaced with a 3/4 yard and better progress was made. There were few operational difficulties encountered but a strate of quicksand slowed down the digging considerable. As this quicksand was within 1400 feet of the high end of the end of the ditch, the ensuing loss of pitch did not interfere with the final purpose. Approximately 18,000 cubic yards of earth were removed, requiring nine weeks for completion.

FOOTNOTES

1. BuPers letter Pers 318-VEM, dated 24 August 1943.

2. BuDocks letter A-SA-1/1je, NM 24/A1-1, A8, dated 17 August 1943. U.S.N.C.T.C. Camp Peary, Williamsburg, Virginia, letter NM24-6, HGC/mer, dated 24 August 1943. BuDocks letter, NM24/MM, A-2D/1h, dated 24 September 1943.

3. NM24-6, 6/4248 wh, P16-4/P16-3/MM/00, VCNO orders dated 3 September 1943.

4. USNABDRB, Gulfport, Mississippi, letter Serial No. 00218, CNO Secret Dispatch 140909, VCNO Secret Dispatch 011340. Verbal authority of 30 October 1943 from Port Director, 8th ND to ABD.

5. LST 120/A20, Serial No. 24 dated 8 February 1944. PAD No. 1/P16-3 serial No. 853, dated 29 January 1944. Ship Repair Unit AD-40, dated 29 January 1944. Ship Repair Unit AD-40, letter serial No. 44-73 dated 1 February 1944.

6. ABD, RB, Gulfport, Mississippi, Con. letter serial No. 00218 dated 31 October 1943; by CNB Guadalcanal P16-4/00 dated 10 February 1944.

7. MO, Utility Squadron 10 letter dated 21 June 1944.

8. Fleet Hospital 108 letter NH-60-8P15 dated 9 October 1944.

H-I-S-T-O-R-I-C-A-L N-A-R-R-A-T-I-V-E

C B M U 520

25 June 1945

C-O-N-F-I-D-E-N-T-I-A-L

HISTORICAL NARRATIVE OF CBMU 520

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CONSTRUCTION BATTALION MAINTENANCE UNIT 520
C/O FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

A9-16

Serial No: 0189

19 July 1945

C-O-N-F-I-D-E-N-T-I-A-L

From: Officer in Charge.

To : Base Historical Officer, Naval Base, Guadalcanal.

Subject: CBMU 520 Historical Narrative--Submission of.

Reference: (a) CNB Guadal Ltr., A12 of 18 May 1945.

Enclosure: Subject Historical Narrative.

1. In compliance with reference (a), a narrative of the naval history of CBMU 520 is submitted herewith.

/S/ V. D. MAGUIRE
V. D. MAGUIRE
Lieut. CEC(S) USNR

EARLY HISTORY AND GUADALCANAL HISTORY OF C.B.M.U. 520

Construction Battalion Maintenance Unit #520 was activated on 4 September, 1943, at Camp Peary, Williamsburg, Va. It was formed from Company "C" of the Seventh (Supernumerary) Naval Construction Battalion. Lieut. D. M. Jeffrey was named Officer in Charge of CBMU 520, and his unit consisted of 4 other officers,(Lt.(jg) W. Oakes, Ens. D. J. Conlin, Carp. G. L. Bloom, and Carp. C. O. Abbott), and 265 enlisted men.

On 8 September, 1943, the unit left Camp Peary and arrived at Advanced Base Depot, Gulfport, Mississippi on 10 September. A temporary camp was set up at Gulfport, Mississippi, and the Unit was given work assignments. Included in this work were Quonset hut construction, and a Military Training Program.

A Unit emblem, designed and executed in wood by Unit personnel was accepted on behalf of the Unit on 29 September 1943 by Lieut. Jeffrey, Officer in Charge.

Morale was high in those days, as all hands anxiously awaited the overseas orders which would see them off to the adventure-filled South Seas.

Those long-awaited orders finally came, and, on 21 October 1943, the first Section, (110 men and 2 officers) boarded LST 40, and sailed out of Gulfport.

Not until 4 November 1943 did the second, and last, Section of CBMU 520 leave Gulfport. This section, (155 men and 3 Officers) was aboard LST 125.

Due to necessary repairs to LST 40 in New Orleans, LST 125 arrived at that port in time to join LST 40, and thus make up the small convoy which left New Orleans 13 November 1943.

Just prior to the Unit's leaving New Orleans, Lieut.(jg) Oakes was replaced as Executive Officer by Lieut.(jg) H. M. Flattery.

The trip was quite an eventful one. It included a passage through the Panama Canal (26 Nov. 1943); Carp. Abbott's detachment from the Unit at Balboa (3 Dec. 1943); crossing the equator at longitude, 100 degrees - 22.5' (10 Dec. 1943); arrival at Bora Bora (24 Dec. 1943); arrival at Pago Pago, Samoa (2 Jan. 1944); arrival at Suva, Fiji Island (12 Jan. 1944); arrival at Noumea, New Caledonia (18 Jan. 1944); arrival at Espiritu Santo, New Hebrides (4 Feb. 1944) and finally arrival at Island "X" (Guadalcanal) on 10 Feb. 1944. On 11 February, 1944, the Unit disembarked and thus brought to an end, the trip which had seen the first section leave Gulfport, Miss., 110 days before. All hands firmly believe this trip set a record for time in transit from the States to Guadalcanal.

CBMU 520 moved from the beach into the old 63rd Naval Construction Battalion camp area to live until a new camp could be constructed. The 63rd NCB camp was in bad condition, and the first night ashore was anything but enjoyable. However, mail call was sounded that evening and those long-awaited letters from home did much to help the men through those strange, early days.

Not until 22 February, 1944, did CBMU 520 move into its new, and present camp site on Shock Road.

HIGHLIGHTS OF THE WORK DONE ON GUADALCANAL BY
CBMU 520

February, 1944

The first month's work of the Unit at its overseas destination, consisted of the following undertakings:

A construction detail was sent to Fleet Hospital 108, where Nurse's quarters were already under construction by the 27th Battalion. This project was completed in March by the cooperative union of the two forces. Other details began the construction of numerous Quonset Huts at Camp Crocodile, while the construction of Radio Road was commenced.

Pier Guards were supplied to stand watches at the Point Cruz Army Pier. Mechanics began work at the 18th Regimental Garage. The refrigeration branch commenced their work with the installation of the boxes for the Unit's own usage. They were two (2) 150 cubic foot boxes.

At this time C.B.M.U. 520 relieved C.B.M.U. 533 of repair, maintenance, and operation of power units serving N.A.B. and B.R.U.

The telephone crew was commissioned at this time with a complement of five (5) maintenance men and four (4) operators. This brought under their jurisdiction, one hundred (100) miles of line to be maintained, and fifteen (15) switchboards with approximately five hundred (500) stations to be

kept operating at all times. Communications were also maintained at three (3) beach towers, namely Koli, Lunga, and Point Cruz, together with two airfields, Henderson and Fighter #2.

Mosquito control had been established by the sending of men to schools, and at the same time forming details to provide drainage in the stagnated areas, and clear the area of any growth beneficial to the breeding of the mosquito. The administering of atabrine to all hands was initiated,

During February, 10% of the unit strength was used on Malaria Control projects.

General maintenance of ComAirSoPac area including roads and buildings was turned over to 520. At about this time 3/4 mile of corduroy road extending from the Base Radio transmitter to highway 113 was constructed by this unit. The transmitter had been made inaccessable due to flood conditions and for this reason the emergency "log highway" was constructed.

Completion of the Naval Advanced Base Officer's Mess and Club, after taking over the job from the 27th Naval Construction Battalion.

HIGHLIGHTS OF THE WORK DONE ON GUADALCANAL BY
CBMU 520

MARCH, 1944:

The second month's work of the Unit at its overseas destination, consisted of the following undertakings:

A Caterpillar Diesel Electric Set (D13000) at Air Center was overhauled.

The gear of the 61st, 63rd, and 27th Naval Construction Battalions was loaded at the beaches by Unit loading details, and then sent to the Battalion areas where it was readied for forward shipment.

The refrigeration department was assigned to the maintaining of eighteen (18) six hundred and seventh five (675) cubic foot boxes, which were used as the main food storehouse for the island.

A salvage detail was constituted and sent to the 63rd N.C.B. area, where all repairable equipment was salvaged, while the area itself was policed.

Roads were constructed by this Unit in the ComMarine SoPac area and three Quonset huts were erected for Marine Headquarters.

Early in the month the Unit undertook the Malaria Control project of draining the A.R.U. (Aviation Repair Unit) area. Constructed was a channel 1500' in length with a 0.2 ft. fall in 100 feet, which finally terminated at the Lunga

River as an outlet. At this point the drain was 10' deep, 25' wide at the top and 4' wide at the bottom. Approximately 3000 cubic yards of earth were excavated but the job proved its worth in that the swampy condition at A.R.U. was eliminated.

One 40' x 100' SSAR utility building with concrete deck was erected by our Unit at Tassaforanga.

Approximately 30 concrete anchors, 3500 lbs each, were cast by CBMU 520 at Lunga Beach.

Other work executed during the month included erection of 6 Quonset huts and construction of two 3000 gal. wood stave tanks and a tower.

APRIL, 1944:

The third month's work of the Unit at its overseas destination, consisted of the following undertakings:

A generator house with mountings for equipment was constructed at N.A.B. by this Unit. This plant consisted of three (3) D13000 Caterpillar Diesel Electric Sets and a two hundred and fifty thousand (250,000 CM) distribution line.

The Base Ordnance Supply Depot was thoroughly drained by CBMU 520 forces, working in conjunction with the 34th N.C.B.

At the Fourth Marine Area CBMU 520 undertook and completed a major malaria control project. Approximately fifty (50) acres of swamp were drained by a surface drain 8000'

long with an average cut of 3 feet. The entire ditch had to be blasted out. The effectiveness of the project is shown in that the mosquito population was said to have been reduced seventy five (75%) percent.

It was in this month that CBMU 520 was given the job of maintaining all roads starting with Arnold road on through to the Nalimbu River. This included highways 143 and 50 and the maintenance of roadside drainage ditches along all these roads.

The guarding of incoming supplies on the beaches was maintained by CBMU 520 and N.A.B. men during this early period pending the construction of adequate facilities.

MAY, 1944:

The fourth month's work of the Unit at its overseas destination included the following undertakings:

Relieving CBMU 515 in the operation of seven (7) power plants located at various places on the Island. They were: the 15 KW UD6 International plant at Fighter #1, the 75 KW Caterpillar plant at Radar #2, the two (2) 75 KW Caterpillar plant at Base Radio, the 75 KW Caterpillar plant at Thompson's Tunnel, Henderson Field, and the Japanese Power Plants #1 and #2. The last mentioned were 3300 Volt Plants, located on the Lunga River and known as M.A.N. power.

The replacement of a generator at Point Cruz Signal Tower was completed and one (1) 37 KVA Diesel generator was overhauled at the Third Marine Division area.

The maintenance and supervision of water points at ComFairSouth and ComAirSoPac was assigned to the Unit at this time.

A major malaria control project of excavating 16,000 feet of drainage ditch along highway 50 from the Tenaru River to Dodo River was started and completed by the Unit.

The refrigeration department of this Unit started and completed reefer maintenance and repair at Aerial Mine Depot #4. A reefer, 675 cubic foot, was installed at N.A.B.

Maintenance and operation of Tojo ice plant was given this department and for the month and a half the plant was operated by this department it produced an output of 2000 lbs. of ice per day.

JUNE, 1944:

The fifth month's work of the Unit at its overseas destination, consisted of the following undertakings:

One (1) 75 KW Generator was installed at ComFair South together with wiring and temporary foundation. A generator was also installed at CASU 14.

At Fighter #1 control tower and M.A.N. Power, concrete floor slabs were poured. The two slabs involved approximately

11 cubic yards of concrete.

A reefer was installed at CASU 14 by the refrigeration department. This department then undertook its maintenance.

Extensive alterations and repairs were made on the Operations building at N.A.B. Guadal.

Repairs were made to the ship "M/V Brastagi." Included in this work was the renewal of 4" bilge pipe, both port and starboard.

Housing and office facilities were constructed for Naval Medical Research Unit No. 2.

Reinforced concrete slabs for generator mounts were poured at M.A.N. Power Station, and also at Control Tower, Fighter #1.

JULY, 1944:

The sixth month's work of the Unit at its overseas destination consisted of the following undertakings:

A tower and 5000 gal. wood stave tank was constructed at N.A.B.

At VJ-10 this Unit constructed a tower for a 10,000 gal. (metal) water tank. The tank was moved from N.A.B. to the newly constructed tower and installed thereon. Construction of an extension to Highway 143 was undertaken and carried out by CBMU 520. The new section, about 2½ miles long, extended from Highway 50 to the combat range. During

this month approximately 50,000 cu. yds. of gravel were hauled and used for the surfacing of the new portion of Highway 143 and for the maintenance of the section of Highway 50 assigned to CBMU 520.

At NLFED materials were crated for forward shipment. This involved 250 man days of labor on the part of CBMU 520.

The exposed substructures of all bridges on the Island were creosoted by Unit forces.

A generator building was constructed at Henderson Field for 20th A.A.C.S. and a power plant was moved from Fighter #1 to the Lunga Signal Tower by this Unit.

AUGUST, 1944:

The seventh month's work of the Unit at its overseas destination consisted of the following undertakings:

CBMU 520 relieved CBMU 532 of the maintenance of Henderson Field. This brought under the Unit's jurisdiction and maintenance of all landing strips on the field, parking lots for the planes, and the roads that surround the field. A heavy equipment shop was constructed there to enable the mechanics to repair the road patrols, bulldozers, rollers, and cranes used on the job. Coral pits were established to supply the coral necessary in the surfacing of the strips. A gravel pit had been established on the Lunga River to supply the necessary gravel for both the field roads and other

roads under the Unit's supervision. Parking lots for both Naval Air force planes and New Zealand Air Force Planes were constructed and then maintained.

Other phases of construction work also commenced at this time. The Swan Creek bridge was reconstructed, and sidewalks and handrails on the Ilu, Lower Lunga, and Upper Lunga River bridges were also constructed.

At Henderson Field, construction of aviation facilities for RNZAF Garrison Forces was initiated by this Unit.

The rehabilitation of Highway 50 between Dodo Creek and Nalimbu River was completed.

Fuel storage tanks at the Koli-Kukum Tank Farm were relocated by Unit forces.

The transportation department began servicing N.A.B. vehicles.

Warehouses were erected at NLFED, and quarters for enlisted men were constructed at N.A.B.

A ventilating system was installed at the Red Cross Service Center.

The air-conditioning system at the Guadalcanal radio broadcasting station was installed by the Unit.

SEPTEMBER, 1944:

The eighth month's work of the Unit at its overseas destination consisted of the following undertakings:

CBMU 520 furnished 600 man-days of work for repairs to New Kukum Dock.

The mess halls, sculleries, and four (4) ward buildings at Fleet Hospital 108 were painted.

An access bridge was constructed from the CBMU 520 well to Highway No. 50 enabling the fire trucks to have access to a water point in case of fire in that immediate vicinity.

Construction of approaches to the New Lower Lunga Bridge was started. The construction of aviation facilities for RNZAF Garrison Forces at Henderson Field, started in August, was completed.

Improvements were made to the Stockade and Brig at N.A.B.

The Staff Mess for CNB SoSols was constructed at N.A.B.

OCTOBER, 1944:

The ninth month's work of the Unit at its overseas destination consisted of the following undertakings:

A well was dug at ComAirSoPac. Quonset Huts were erected at Air Center area.

An entrance to the Navy Cargo Area was constructed at Kukum, making a much wider approach to the area and cutting down the inefficiency due to snarled traffic.

A water line was installed at N.A.B. This job consisted of laying some 400 ft. of 6 in. pipe.

The east branch of Lunga Lagoon was drained by the use of an 800 foot ditch. Digging of this ditch was accomplished only after overcoming difficulties presented by the mucky nature of the soil. These difficulties were overcome by laying steel plank ahead of the shovel, and thus preventing the heavy equipment from bogging down in the muck.

The maintenance of the camp roads at Air Center was assumed by this Unit.

A ventilation system was installed in the N.A.B. Dispensary. Improvements were made at the N.A.B. theater.

The landing field at Doma Cove was graded. At Henderson Field a nose hanger was erected for CASU 41.

NOVEMBER, 1944:

The tenth month's work of the Unit at its overseas destination consisted of the following undertakings:

A warehouse (SSAR 40' X 100') with concrete deck was constructed to house the new Oxygen Plant. A dock for cylinder hauling was also built on this site.

The construction of approaches to the New Lower Lunga Bridge, started in September, was completed.

The Control Towers at Henderson Field were painted.

Maintenance of the roads in the A.R.U. area was acquired by C.B.M.U. 520.

The boilers at Fleet Hospital 108 were repaired and put in proper operating order.

Improvements were made to the Red Cross Club at Henderson Field. New furniture as built and the club was repainted.

A rush job assigned to and completed by the Unit during this month consisted of making crates for 200 torpedoes and 150 torpedo war heads. It was essential that these crated items be ready for loading on ships of a Task Force due to call at the Island and bound for an operation for which the torpedoes and torpedo war heads in question were urgently needed. Personnel of this Unit manned the A.R.U. carpenter shop and finished the job on schedule. The scope of the work accomplished is indicated by the volume of materials used: 130,000 board feet of lumber, 35 kegs of nails and 150 rolls of tar felt lining material.

The seating area at the N.A.B. Theater was regraded to provide a slope necessary to enable those in the rear to have unobstructed view of the stage and screen. A canvas cover was placed over the N.A.B. Theater seating area.

DECEMBER, 1944:

The eleventh month's work of the Unit at its overseas destination, consisted of the following undertakings:

Two coats of paint were applied to the roofs of thirty

six (36) all-metal buildings at Fleet Hospital 108.

Repairs were made to a water tower located at CASU 41.

The salvage of eight (8) Quonset Huts at 29th Service Group Camp #24 at Koli and two (2) other huts at the Air Base Command served as the introduction to the period of dismantling operations now being started by the Unit, after ten months devoted practically exclusively to construction work.

Tidal observations were made at the Mt. Austin Dock.

Salvage of Quonset Huts from Lunga Field commenced.

Roof ventilation was installed in the N.A.B. laundry building.

JANUARY, 1945:

The twelfth month's work of the Unit at its overseas destination, consisted of the following undertakings:

The beginning of the new year brought new emphasis to the change in the general working activities of the Unit, first evident during the previous month, namely; a change from construction to dismantling, coinciding with the roll-up program on the island. However, routine base maintenance continued as before. Dismantling of MADS 1 camp was undertaken. Twenty-six (26) 20' x 48' Quonset Huts, forty-seven (47) 16' x 16' tents, and fifteen (15) miscellaneous frame buildings were involved. This job was the first large dismantling project undertaken by the Unit, and it included a

complete clean-up of the camp area. The objective of this project was to salvage all possible salvable material for use in forward areas, and this project was destined to be adhered to for several months in the future. Salvable metal buildings, generators, refrigeration units, etc., were brought to the Public Works Depot where they were readied for shipment by the Public Works Depot forces. The Unit salvaged all suitable lumber which could be used for crating and dunnage purposes.

The Unit assumed maintenance of the section of road extending from Burns Creek westerly to Highway No. 50, a distance of approximately 2½ miles.

Some 75,000 board-feet of lumber were salvaged during the month.

Alterations were made at N.A.B. Service Club.

Fourteen (14) Quonset Huts were dismantled at Koli Field.

Thirty-one (31) Quonset huts in addition to those described above were dismantled at various locations.

FEBRUARY, 1945:

The thirteenth month's work of the Unit at its overseas destination consisted of the following undertakings:

The maintenance of Fighter Strips 1 and 2 was suspended except for connecting roads.

The dismantling of MADS 1 camp, started in January, was completed. One (1) 15,000 gal. wooden water storage tank,

dismantled in this camp, was made available to A.R.U. for use by that Unit in its new location up north.

At Camp 68, Henderson Field, twenty-nine (29) Quonset Huts, forty (40) 16' x 16' tents and seven (7) various frame buildings were dismantled and salvaged.

At CASU 41, twenty (20) Quonset Huts, and one (1) 40' x 100' SSAR utility building were dismantled and salvaged.

Approximately 65,000 board-feet of lumber were salvaged for this month.

Seventy-two (72) boxes of M-1 Rocket heads were recrated for shipment to Navy Magazine, Tulagi.

The roofs of numerous buildings at N.A.B. and vicinity, damaged as a result of the blowing-up recently of an ammunition ship off Guadalcanal, were repaired by Unit forces.

MARCH, 1945:

The fourteenth month's work of the Unit at its overseas destination, consisted of the following undertakings:

One 20' x 48' Quonset Hut at Henderson Field was altered and equipped as a hot locker for stowage of aviation instruments.

In the 18th Fighter Group camp eleven (11) 20' x 48' Quonset Huts were dismantled, also approximately ten (10) frame tents and miscellaneous frame buildings.

Eight (8) 20' x 48' Quonset Huts were dismantled at CASU 41.

Eleven (11) 20' x 48' Quonsets and (1) 40' x 100' SSAR Utility building were dismantled at Carney Field.

Approximately 60,000 board-feet of lumber were salvaged and turned in to PWD this month.

A compass rose was installed at Henderson Field.

A combination basketball, tennis, and badminton court was constructed at N.A.B. It included pouring of a concrete slab approximately 80' x 100' in size and containing about 100 cubic yards of concrete.

Twelve (12) frame tents were dismantled at the III Phib Corps Parachute Delivery Section Camp.

In addition to work described above, twenty-four (24) other Quonset Huts were dismantled at various other locations, principally at the 28th Depot Repair Sqd. area near Carney Field.

APRIL, 1945:

The fifteenth month's work of the Unit at its overseas destination, consisted of the following undertakings:

The 338th Port Battalion Camp was dismantled. It included fifty (50) frame tents, one (1) galley, and contained much salvable lumber.

Thirteen (13) Quonset huts were dismantled in the BORU area.

In the 4th and 6th Marine areas eight (8) 20' x 48' SSAR

Huts were dismantled.

Camp Crocodile was dismantled and cleaned up. Involved were twenty (20) 20' x 48' Quonset Huts, twenty-five (25) frame tents, a large messhall, and ten (10) miscellaneous frame buildings.

The 319th Fighter Squadron Camp was dismantled and the area left shipshape. It contained three (3) 20' x 48' Quonset Huts, one (1) 40' x 100' SSAR warehouse, one (1) large messhall, fifty (50) frame tents and ten (10) miscellaneous frame structures.

Alterations to and extension of NAB Theater stage were accomplished.

The RNZAF Camp, south of Kukum was salvaged and cleaned up. It consisted of one (1) 20' x 48' Quonset hut, one galley and messhall, eighty-seven (87) frame tents and seventeen (17) miscellaneous frame buildings.

MAY, 1945:

The sixteenth month's work of the Unit at the overseas destination, consisted of the following undertakings:

Four (4) 40' x 100' warehouses were dismantled at NLFED in six days with a crew of 13 men.

Twenty-four (24) 20' x 48' Quonset huts were dismantled at the 137th Station Hospital. This work was done by details of men from CBD 1008 under the supervision of CBMU 520.

The maintaining of Henderson Field and its adjoining roads was turned over to the Army Engineers, thus ending for the Unit a job which it had done for nine (9) months.

A 20' x 48' Quonset Hut was remodeled to meet the requirements for a Photo Lab. at N.A.B.

Four (4) Quonset Huts and sixteen (16) frame buildings were dismantled at the RNZAF Fighter Repair area adjacent to Henderson Field.

Part of the 128th Chemical Processing Company's camp was dismantled. Salvaged were eleven (11) 20' x 48' Quonset Huts.

The 674th Signal Air Warning Group camp, containing seven (7) 20' x 48' Quonset Huts, and about sixty (60) miscellaneous frame tents and buildings, was dismantled and the area cleaned up.

In the 431st Engr. Dump Truck Camp all Quonset Huts, seventeen (17) in number, were dismantled.

A waste pit was excavated for the waste products of the Compressed Gas Division's plant. It involved approximately 2,000 cubic yards of excavation.

During the month A.T.C. transferred its facilities from Carney Field to Henderson Field. CBMU 520 was called upon for some construction work in connection with this movement. The work accomplished by CBMU 520 consisted of the following:
(1) Construction of a 20' x 80' frame building with concrete deck and the equipping of it with showers and wash rooms;

(2) erecting eleven (11) 16' x 16' Dallas victory huts; (3) erecting four (4) 20' x 48' Quonset huts; and (4) converting a 20' x 112' plain Quonset hut into a fully equipped airfield operations and passenger facility by erecting two (2) 20' x 48' Quonset huts and connecting them to the existing structure to form a "U"-shaped building, and adding necessary partitions, railings, counters, platforms, etc.

JUNE, 1945:

The seventeenth month's work of the Unit at the overseas destination consisted of the following undertakings:

Nine (9) 20' x 48' Quonset huts were dismantled and salvaged at Fleet Hospital #108.

Seven (7) 20' x 48' Huts were dismantled in the old Scat area, together with ten (10) frame buildings and two (2) 40' x 100' SSAR warehouses.

The dismantling of twenty-four (24) 20' x 48' Quonset Huts in the ARU area was accomplished.

Four (4) 20' x 48' Huts were dismantled at the ComAirSo-Pac installation. Three (3) 500 bbl. metal water storage tanks were dismantled and salvaged.

Approximately 20,000 board feet of lumber were salvaged in dismantling operations.

The entire VJ-13 camp was dismantled. The principal items removed and salvaged were thirty-one (31) Quonset Huts

and twenty-six (26) miscellaneous frame buildings.

New piers and floor joists were installed under Port Director's Office.

The dismantling of three (3) 1,000 bbl. metal fuel storage tanks, started by others, was completed.

One (1) 10,000 bbl. metal fuel storage tank was dismantled.

In connection with the closing of Fleet Hospital #108 and the expansion of the NAB Dispensary to substitute for it, but on a greatly reduced scale, the Unit accomplished some "hurry-up" construction work. In brief, the work consisted of erecting a medical facility of some 3,500 square feet of floor space, provided with the following; an air-conditioned surgery with lavatory, autoclave, storage and sterile cabinets and other appurtenances; an x-ray and cast room with lead-lined storage space; an office room; a guest room; three (3) wards with a total bed capacity of twenty-two (22) beds and equipped with flush toilets, also lavatories and showers with hot and cold water. The structure to house the above described facilities was constructed by joining two (2) Quonset huts (20' x 60') to each other and by joining to one of them a Dallas hut in addition to two (2) frame annexes, each eleven (11) feet wide and running for nearly the entire length of the Quonset Hut.

ADDITIONAL DETAILS ON THE REFRIGERATION DEPT.

The work of this department, after being relieved of the maintenance of the eighteen (18) storehouse reefers, consisted of repair, service, and overhauling of all Navy refrigerators on the Island. The same type work was also done for other non-Navy units stationed here, upon the approval of the Public Works Officer.

One of the first large jobs encountered on the Island was the repair of the ice cream machines located at the Service Center. The Army maintenance men asked for the departments assistance. Upon investigation it was found that most of the dehydrators had been dismantled and several of the discharge flapper valve discs were broken. The dehydrators were replaced, but the discharge valves had to be removed from their valve seats, lapped down to their original size and smooth finished. Practically all of the expansion valves had to be reset together with the switches. The ice cream machines were thus put into operating condition.

At Fleet Hospital 103, several large reefers cooled by a Chrysler-Airtemp unit gave considerable trouble at one time. This type unit is very complex, because it has a semi-sealed motor compressor and a direct drive radial compressor. Repairs to these compressors were attempted, and completed satisfactorily at the CBMU 520 refrigeration shop.

ADDITIONAL DETAILS OF THE REFRIGERATION DEPT. (CONT'D)

Many repairs have been made on refrigeration equipment aboard ships which called at this Island and sought assistance along these lines.

At one time a large amount of work was done on some Air Force crash boats. These boats had been shipped from the states with twelve (12) volt motors to operate from a twenty-four (24) volt system, using a resistor in series with the motor to cut down the voltage. By using this resistor they increased the current through the pressure switch, and consequently burned the contacts. The satisfactory solution evolved was to install an airplane starter solenoid to start the motor, and use the switches to operate the solenoid.

This department has averaged, since the Unit's arrival on the Island, approximately seven (7) repair jobs per day, in addition to the numerous repair jobs brought into the shop.

Instructions have been given in the refrigeration shop to five (5) men from the New Zealand Air Force, five (5) men from the Marines, and several other men from various Naval outfits.

In conjunction with the Island roll-up plan, during the last five (5) months, there have been thirty-two (32) Carrier units, six (6) hussman boxes, three (3) York Flakice machines, three (3) thirty-two (32) cubic foot domestic units, and one (1) Bardco, one hundred and fifty (150) cubic foot refrigerator,

overhauled, painted, and readied for forward shipment.

Most of the trouble that has developed in the refrigeration units on the Island has been caused by moisture getting into the system, and from inexperienced handling of the equipment before it came under the department's jurisdiction.

ADDITIONAL DETAILS ON THE TELEPHONE CREW

The CBMU 520 telephone crew met many difficulties during the early days on this Island.

Equipment and material were at a premium, with telephone poles especially hard to obtain.

One interesting maintenance problem came up in connection with the telephone line to Koli Tower. This line would go out of service about once each week during those early months. Finally, the trouble was located when an Army Demolition unit was seen blasting a ditch very near this line. It developed that the Army had to blast the ditch at regular intervals in order to keep it open. The line had been going out of service following each blast. Arrangements were made with the Army demolition unit to "spare our telephone line."

The most deadly enemy encountered by the detail lurked in the tops of the coconut trees, not Japs now, but swarms of wasps. Protective clothing and an Aerosal bomb proved to be a successful means of combating this foe.

ADDITIONAL DETAILS ON CREW IN CHARGE OF THE GENERATING STATION

The Fighter #1 Power Plant was operated by the men of this crew from 8 May 1944 to 4 July 1944, at which time the power plants were set up at the Lunga Signal Tower and the watches were then derived from the Tower Personnel. The greatest trouble experienced at this station was having no knowledge concerning the layout of wiring feeding the landing strips and tower. This wiring was all underground without any sign indicators where it crossed the roads, and as a result was constantly being severed by the blades on road patrols. After a tedious survey, the wiring layout was obtained and signs placed at the crossings, thus eliminating the danger from the road patrols.

The Base Radio power plant furnishes power for all officers and enlisted personnel at ComAirSoPac and Base Radio Operation and camp. These generators are operated in parallel and the trouble encountered here was due to the small size copper wire used to carry the load. This wire was removed and larger wire was installed. Since that time trouble there has been very rare.

The Thompson Tunnel Generator located adjacent to Henderson Field, was used to carry part of the load from the Japanese Power Plants, when the latter plants' output was no longer

sufficient for needs. It operated approximately ten (10) hours per day and in the case of an emergency shutdown of the Japanese Plants. The men stationed here also maintained the strip lights of Henderson Field and made all secondary repairs.

CBMU 520 began operating the Japanese Power Plant #1 in May, 1944. The men on that watch lived at the plant. At first, emergencies were very numerous due to the placing of high tension power lines on coconut trees and underground. The coconut fronds would fall across the lines and cause them to burn off. The material needed to construct the proper type high tension lines was very scarce but through elaborate procurement, was finally obtained, and poles were set bringing overhead lines to Henderson Field. A tie line was also arranged between plants #1 and #2. In thirteen months of operation, Power Plant #1 has caused the diesel repair crew to put in 118 man hours rebuilding the governor assembly and the removing of the head from #3 cylinder. This plant is completely shut down once a week for general maintenance of equipment and to change the oil. When operating at full capacity it used approximately 165 gallons of diesel fuel and three (3) gallons of lubricating oil over a period of (24) hours. The ground around this is graded from time to time to prevent the water of the Lunga River from backing into the plant during

heavy rainstorms. This river rises at a rate of 5½ feet over a period of two (2) hours during the heaviest rains,. making the grading a direct necessity. Trees around the plant that had been killed by shellfire were removed eliminating the danger of their falling on the plant.

The Japanese Diesel is a four (4) cylinder, four (4) cycle engine. It is started by (20) kilograms per sq. cm. of compressed air using cylinders #3 and #4 as the air starting cylinders. These cylinders have an extra push rod and valve assembly thru which the air is taken in. The fly wheel is marked for the setting of these cylinders to start, 14 TDC being the setting for #4 cylinder and 23 TDC being that for #3 cylinder. There are holes in the flywheel for the use of a bar in setting the fly wheel. A heater coil is built into the exhaust manifold to preheat the fuel oil before going to the injector pump. It also has a heat exchanger for cooling the lubricating oil. All temperatures are measured in degrees, centigrade.

The Japanese switchboard which is located on a balcony overlooking the main deck, resembles some of the older types used in the United States. It is a two (2) panel board, one panel having at the top left, the A.C. ampermeter. At the top right is the kilowatt meter. Under these meters in the center

of the panel is the A.C. Voltmeter. Below the Voltmeter to the left is the D.C. Exciter Voltmeter and to the right is the D.C. Exciter Ampermeter. In the center under these meters is the Exciter Shunt Field Reostat. To the left of the reostat is located the A.C. voltmeter and ammeter selector switches. Under these, in the center, is located the main breaker controlling all the 3,300 Volt system. At the bottom of the panel are the two over current relays and the Kilowatt hour meter. The second panel has the voltage regulator located at the top center under which is the Frequency meter, then the regulator reostat, below which are the regulator switches.

In power house #2, the Japanese Diesel engine is a three cylinder motor but having the same horsepower of 250 HP, and the same alternator of 100KW and direct coupled exciter. The switchboards are similar in construction to the one at Plant #1. The alternator at this plant was hit by a fifty caliber machine gun bullet, cutting some of the winding. In order to balance it accordingly, a portion of the winding in each phase was cut out, so that it only has capacity of 75KW. It is used as standby for Plant #1.

These power plants were originally called M.A.N. Power Plants, but in December of 1944, this was changed to Navy 145 Power House #1 and #2.

ADDITIONAL DETAILS ON CREW IN CHARGE OF THE GENERATING STATIONS (CONT'D)

The power plant at N.A.B. consists of three (3) 75 KW caterpillar Diesel in parallel, and has the largest output and demand of any plant on this Island. This plant was constructed in April, 1944, and it also is under the jurisdiction of CBMU 520 station crews and repair crews.

DETAILS OF POWER UNIT REPAIR

CBMU 520 relieved CBMU 515 of the maintenance, repair, and moving of all of the Navy's power units on Guadalcanal, on 8 May 1944. At that time, 126 generators came under the Unit's jurisdiction. Included were the following types of units:

2-Japanese Diesel Electric, 3,300 volt (Ikagei) plants.
Caterpillars - D13000, D8800, and D4600 Diesel electric sets.
International - UD14, UD6 (Diesel) and U-9, U-4, U-2 (Gasoline).
Waukesha - 140 HL, 130 HL.

A repair shop with a spare parts room was built at the Japanese Power Plant #1.

Tools were very scarce, but gradually, a sufficient quantity have been acquired from battalions and other Units returning to the states.

Repair work has been done primarily for Navy and Marine Corps activities, but a large number of Army emergency calls have been taken care of.

Repair work aboard ships has always had top priority, and numerous repair jobs have been successfully completed for the Navy afloat.

DETAILS OF POWER UNIT REPAIR (CONT'D)

An indication of the scope of work accomplished between 8 May 1944 and 25 June 1945 can be seen in the following data:

Repair and Service calls away from shop (day)	826 man-hrs.
Repair and Service calls away from shop (night)	595 " "
Power Units moved from one location to another	260
Power units placed in operation	103
Power units overhauled and shipped forward	30
Repairs to Japanese Power Plants	156 man-hrs.
Entire motor overhaul	76 units
Alternators overhauled	32 "
Motor overhaul except for main bearings	102 "
Exciters overhauled	42 "
Miscellaneous repairs	109 "

ADDITIONAL DETAILS ON MAINTENANCE OF HENDERSON FIELD

After assuming these duties, in August, 1944, the first project undertaken was the construction of a heavy equipment shop, where the equipment used on the field could be repaired by the mechanics and kept serviceable. A supply shed was also constructed at this time to house a supply of spare parts for heavy equipment.

In this shop three (3) road patrols, two (2) bulldozers, two (2) Northwest Cranes, and one (1) roller, the heavy equipment used in upkeep of Henderson Field, were maintained.

The maze of roads surrounding this field required considerable work to put them in good condition, in most cases a new six inch surface course was found necessary. The trucks which carried the gravel for the surfacing of these roads operated on a twelve (12) hour schedule, and were loaded at the Lower Lunga Gravel Pit by Unit cranes.

There are several old bomb craters on Henderson Field's two strips. During heavy rains the backfill in these craters is liable to soften and cause a noticeable depression in the surface of the strip. These depressions, as they develop, were filled with live coral, which was compacted by the roller and the road patrols. This procedure was found necessary after nearly every heavy rainstorm in connection with previously unaffected and undiscovered old bomb craters.

ADDITIONAL DETAILS ON MAINTENANCE OF HENDERSON FIELD (CONT'D)

To supply the coral needed to resurface the taxiways and runways, a coral pit was opened in the 22nd Marine area, twenty-eight miles distant from the field. Coral has always been very scarce on Guadalcanal and no suitable, unexploited deposits could be found nearer. Approximately 2,135 cubic yards of coral were used by the Unit on the field, and another 1,200 cubic yards were left at the field for use by the relieving outfit. Also, 50,000 cubic yards of gravel were placed on the taxiways of the field by CBMU 520 during its nine (9) months tour of Henderson Field maintenance.

Very rarely did a day go by without a mishap of some nature occurring on the field, the majority of these mishaps being airplane belly-landings, but even in these less serious cases the strips were closed temporarily. The Unit can proudly boast, that a strip was never allowed to remain closed longer than forty-five (45) minutes. In one case, a New Zealand plane crashed and burned beyond repair, and in less than forty five minutes, it was hauled off the field and given a decent burial by the maintenance men of 520.

The rapid growth of grass between the holes in the matting of the metal airstrip was always a problem. This grass had to be removed regularly by burning. A burner, built by one of the men in the Unit, proved very satisfactory for this job.

ADDITIONAL DETAILS ON MAINTENANCE OF HENDERSON FIELD (CONT'D)

Heavy rains caused the steel landing mats to settle in spots, thus presenting an uneven landing surface. This situation had to be remedied after each storm by adding gravel to the low spots, and staking down the matting at high points.

All the maintenance work done on the strips and adjoining roads of the field was necessarily of a continuous nature. And anyone, familiar with this island's rainfall, can readily appreciate the large and steady amount of work that was done to successfully maintain Henderson Field, and its surrounding network of roads.

In May, 1945, CBMU 520 was relieved of Henderson Field maintenance. Shown below is a copy of a Letter of Commendation which pays tribute to those men and officers of CBMU 520, who, by their faithful performance of duty, kept the field open, and in operation during those nine months:

From: Commanding Officer, Naval Air Facility, Navy 145.
To : Wilson, W. A., CCM.
Via: Commanding Officer, C.B.M.U. #520.
Subject: Commendation.

1. The Commanding Officer of Naval Air Facility wishes to express his appreciation for your unqualified devotion and loyalty in cooperating with this command in maintaining the Henderson Field area and roads thereto.

2. The initiative and resourcefulness you have shown is highly commendable and a credit to any organization.

J. H. Downs

Lieut. Comdr., USN.

PICTURES OF HIGHWAY NO. 50 FROM ILU RIVER TO DODO RIVER.

The maintenance of the roads from Ilu River to Dodo River, a distance of approximately three (3) miles, was assigned to CBMU 520 in April 1944. These roads were in very bad condition at that time. They were poorly graded in spots and also very narrow.

On a 1/2 mile stretch of Highway No. 50, which was in particularly poor condition, the grade was raised two (2) feet and the section resurfaced with gravel. The shoulders were widened to 6 ft. on each side and new ditches were dug on both sides.

The Unit maintained these roads for some 5 months, and kept them in good shape, being handicapped the while by the scarcity of heavy equipment, the rain, and the heavy traffic, which the roads carried, especially Highway No. 50.

Bridges along these roads were also repaired as the need arose.

The roads are in good condition at the present time, and the need for maintenance has since been kept to a minimum, due primarily to the reconstruction and rehabilitation work on them by this Unit.

ROAD MAINTENANCE PICTURES

1. Photograph of roads maintained from Ilu River to Dodo River.
2. Photograph of roads maintained from Ilu River to Dodo River.
3. Photograph of roads maintained by C.B.M.U. #520.
4. Photograph of roads maintained from Ilu River to Dodo River.
5. Photograph of approaches to Lower Lunga Bridge constructed by C.B.M.U. 520 personnel.
6. Photograph of approaches to Lower Lunga Bridge constructed by C.B.M.U. 520 personnel.

NARRATIVE CONCERNING PICTURES OF COMMARINESOPAC ROAD AREA

In March 1944, CBMU 520 was given the project of road construction in the ComMarineSoPac area. Previous to the actual undertaking of the assignment, the Survey Department made the preliminary survey of the area, then the computing and final layout of the project.

On this project one difficulty reigned supreme, the decided lack of equipment. For example, one (1) HD 14 Bull-dozer was the only item of equipment available for this work.

A cut of ten (10) feet through gravel and a cut of twelve (12) feet through a claylike substance were involved in this work. Two (2) important fills were made, one of approximately twelve (12) feet and the other of ten (10) feet. These heavy cuts and fills were of but short length and the road itself was only one-half (½) mile in length, however, due to the paucity of equipment, the "hurry-up" nature of the assignment and its prosecution during the foulest weather of the monsoon season, the construction of this road will remain long in the memories of this Unit's personnel.

PICTURES OF ROADS CONSTRUCTED IN COMMARINESOPAC AREA

1. Photograph of ComMarineSoPac roads.
2. Photograph of ComMarineSoPac roads.

MANPOWER PLANTS #1 AND #2

Plant #1

M.A.N. Power Plant #1, is located on the Upper Lunga River, and consists of one (1) Japanese Diesel Motor and one (1) 3,300 Volt Alternator with 100 KW capacity. The buildings which house the generator were constructed by the Japanese, and the only alterations to the structure have been the addition of awnings to the windows.

Plant #2

M.A.N. Power Plant #2 is also located on the Upper Lunga River and consists of one (1) Japanese, three (3) cylinder, four (4) cycle, Diesel Motor with a 100 KW Alternator. The structure was constructed by the Japanese, with very few alterations being made by the 520 personnel. This plant is used as an auxiliary plant in the event of a break-down of Power Plant #1.

PICTURES OF M.A.N. POWER PLANTS

1. Photograph of M.A.N. Power Plant #1.
2. Photograph of M.A.N. Power Plant #2.

PICTURES OF GENERATOR REPAIR SHOP AND N.A.B. POWER STATION

GENERATOR REPAIR SHOP

The generator repair shop is located near the Japanese Power Plants, and has facilities necessary to overhaul and service diesel and gasoline motors.

N.A.B. POWER PLANT

The Power Plant at N.A.B. was constructed by CBMU 520 in April, 1944. Three (3) 75KW caterpillar Diesel Sets were then installed; connected in parallel they serve a 250,000 CM distribution line.

This installation has the largest output and demand of any plant located on Guadalcanal.

PICTURES OF GENERATOR REPAIR SHOP AND N.A.B. POWER STATION

1. Photograph of Generator Repair Shop.
2. Photograph of N.A.B. Power Station.

PICTURE OF THE MT. AUSTIN DOCK

This dock was constructed by the combined effort of the three (3) Maintenance Units located on the Island, namely, CBMU 533, 518, and 520. This project was formerly under the jurisdiction of the 34th N.C.B., but was turned over to the Units for construction when the 34th Battalion was secured.

OXYGEN PLANT

A 40' x 100' SSAR hut, with concrete deck, concrete machinery blocks, and a loading platform, was constructed by CBMU 520.

The oxygen produced by the plant is used very widely by pilots stationed on the Island's airfields. A great deal of the oxygen is also shipped forward, while still other amounts are used for work throughout the various outfits stationed on this Island.

PICTURES OF MT. AUSTIN DOCK AND OXYGEN PLANT

1. Photograph of Mt. Austin Dock.
2. Photograph of Oxygen Plant.

PICTURES OF TIDAL GUAGE LOCATED ON THE MT. AUSTIN DOCK

The orders to design this guage were given to CBMU 520 by N.A.B., Guadal. The plans for the guage were made in the drafting department of the Unit. The guage was constructed by CBMU 518 and installed on the Mt. Austin Dock by that Unit.

Following installation of the tidal guage, readings were taken by members of CBMU 520, at thirty (30) minute intervals, twenty four (24) hours a day, over a period of thirty (30) days. The information thus gained was compiled and presented to N.A.B., where a detailed report of the tidal changes in this area was made.

At the present time the guage is a permanent fixture on the dock, but it is used only from time to time when tidal information is required.

PHOTOGRAPHS

1. Photograph of Mt. Austin Tidal Guage.
2. Photograph of Mt. Austin Tidal Guage.
3. Photograph of N.A.B. combination basketball, tennis, and volley ball court.
4. Photograph of N.A.B. Theater inside (seating and stage).
5. Photograph of N.A.B. Theater oblique (rear-front).
6. Photograph of N.A.B. Theater profile (stage and cover).
7. Photograph of Naval Dispensary Annex.
8. Photograph of A.T.C. Building, Henderson Field.
9. Photograph of front view of A.T.C. Building located on Henderson Field.
10. Photograph of Base Radio Station remodeled by CBMU 520.

CBMU 520 RECREATIONAL FACILITIES

Headquarters for recreation is situated in a Quonset Hut which is supervised by one of the men in the Unit. Found in the Hut are ping pong tables, a library, card tables, checkers, monopoly, and other favorite pastimes.

Most of the recreation is found in sports of the type formerly enjoyed by the men in their high schools, clubs, and town organizations at home. Basketball has been most popular and the Unit has one of the best teams on the Island. In addition to its basketball court, the Unit has volley ball, baseball, and horseshoe courts.

As in all theaters of operations, the movies are still the most attractive for amusement. The Unit has an open-air theater and the nightly pictures are always well attended even during the frequent tropical deluges.

HOUSING FACILITIES OF CBMU 520

When the entire complement of CBMU 520 moved into the camp area on Shock Road which was to be their permanent location while on this Island, the first few days were spent in tents with no decks while the carpenter details finished construction of the 16' x 16' frame tents with decks, which would soon be their permanent residence.

At the present time approximately sixty-three (63) 16' x 16' screened and wood decked tents occupied by the enlisted

men of the Unit, with the majority of these tents resembling minor homes due to the improvements made by the men, using salvaged materials. The men have installed ventilators on the tent tops, ceilings, desks, chairs, and clothes lockers, etc.

All sleeping by the men was first done on the issued cots but since then the majority of the men have acquired frame beds with rubber strips in lieu of springs.

The area, which is now in such fine condition, was upon arrival of the Unit, one large mud hole. Grading and draining of the site, carried on principally during the infrequent periods when a few men could be spared from assigned work projects, the placing of gravel in the area, much of it by the men during off duty hours, and constant maintenance have contributed to making the area a source of pride to all hands.

The C.P.O. area consists of fourteen (14) 16' x 16' frame huts with decking and is located at the north end of the enlisted men's area. The C.P.O.'s average two (2) men to a tent, and the other enlisted men have four (4) men per tent.

The five (5) officers of the Unit are quartered in 16' x 16' frame huts, with wood decking in an area north of the C.P.O. area and adjacent to the Administrative Office.

PHOTOGRAPHS

1. Photograph of Housing Facilities, enlisted men's area.
2. Photograph of Chief Petty Officers' area.
3. Photograph of CBMU 520 officers' quarters.
4. Photograph of recreation facility, CBMU 520 movie area.
5. Photograph of CBMU 520 galley and messhall.
6. Photograph of basketball court, housing facilities, and part of Quonset Hut which contains the ship's store and recreation hall.
7. Photograph of CBMU 520 administration office in conjunction with the Public Works Office.

RECENT UNIT HISTORY

On February 17, 1945, Lieut. D. M. Jeffrey, Officer in Charge of C.B.M.U. 520, was notified of his detachment from the Unit and reassignment to the 43rd Naval Construction Regiment. This same date, Lieut. V. D. Maguire reported aboard as the new Officer in Charge of C.B.M.U. 520 and successor of Lieut. Jeffrey.

On March 28, 1945, the Public Utilities Officer of the N.A.B. Public Works Division, Lieut. R. J. Grant, received news of his detachment. Ch. Carp. H. B. Clark of C.B.M.U. 520, who was then his assistant, assumed, as a temporary additional duty, the job.

Because of the fine quality of leadership, initiative, and loyalty shown by personnel of this Unit who were doing public utilities work during Lieut. Grant's period as Utilities Officer, he commended the key personnel who were connected with this phase of the work. Those men who received commendations at this time were:

1. Ch. Carp. H. B. Clark.
2. H. H. Poole, CEM.
3. W. F. Witten, SF1c.
4. W. T. Myers, CMMR.
5. A. A. Noble, CEM.
6. S. R. Abernathy, CEM.
7. J. W. Noon, EM1c.

Another significant change in the history of C.B.M.U. 520 occurred on May 31, 1945, when Ens. M. L. Grant reported aboard C.B.M.U. 520 and relieved Lieut. H. M. Flattery, Unit

Executive Officer, who was detached from the Unit on June 2, 1945.

The Unit officers at the present time (25 June 1945) are:

Lieut. V. D. Maguire, Officer in Charge.
Lieut. D. J. Conlin, Executive Officer.
Ens. M. L. Grant.
Ch. Carp. G. L. Bloom.
Ch. Carp. H. B. Clark.

The entire complement of C.B.M.U. 520 at the present consists of five (5) officers and two hundred and eleven (211) enlisted men.

H-I-S-T-O-R-I-C-A-L N-A-R-R-A-T-I-V-E

C B M U 520

25 June 1945

C-O-N-F-I-D-E-N-T-I-A-L

HISTORICAL NARRATIVE OF CBMU 520

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CONSTRUCTION BATTALION MAINTENANCE UNIT 520
C/O FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

A9-16

Serial No: 0189

19 July 1945

C-O-N-F-I-D-E-N-T-I-A-L

From: Officer in Charge.

To : Base Historical Officer, Naval Base, Guadalcanal.

Subject: CBMU 520 Historical Narrative--Submission of.

Reference: (a) CNB Guadal Ltr., A12 of 18 May 1945.

Enclosure: Subject Historical Narrative.

1. In compliance with reference (a), a narrative of the naval history of CBMU 520 is submitted herewith.

/S/ V. D. MAGUIRE
V. D. MAGUIRE
Lieut. CEC(S) USNR

EARLY HISTORY AND GUADALCANAL HISTORY OF C.B.M.U. 520

Construction Battalion Maintenance Unit #520 was activated on 4 September, 1943, at Camp Peary, Williamsburg, Va. It was formed from Company "C" of the Seventh (Supernumerary) Naval Construction Battalion. Lieut. D. M. Jeffrey was named Officer in Charge of CBMU 520, and his unit consisted of 4 other officers,(Lt.(jg) W. Oakes, Ens. D. J. Conlin, Carp. G. L. Bloom, and Carp. C. O. Abbott), and 265 enlisted men.

On 8 September, 1943, the unit left Camp Peary and arrived at Advanced Base Depot, Gulfport, Mississippi on 10 September. A temporary camp was set up at Gulfport, Mississippi, and the Unit was given work assignments. Included in this work were Quonset hut construction, and a Military Training Program.

A Unit emblem, designed and executed in wood by Unit personnel was accepted on behalf of the Unit on 29 September 1943 by Lieut. Jeffrey, Officer in Charge.

Morale was high in those days, as all hands anxiously awaited the overseas orders which would see them off to the adventure-filled South Seas.

Those long-awaited orders finally came, and, on 21 October 1943, the first Section, (110 men and 2 officers) boarded LST 40, and sailed out of Gulfport.

Not until 4 November 1943 did the second, and last, Section of CBMU 520 leave Gulfport. This section, (155 men and 3 Officers) was aboard LST 125.

Due to necessary repairs to LST 40 in New Orleans, LST 125 arrived at that port in time to join LST 40, and thus make up the small convoy which left New Orleans 13 November 1943.

Just prior to the Unit's leaving New Orleans, Lieut.(jg) Oakes was replaced as Executive Officer by Lieut.(jg) H. M. Flattery.

The trip was quite an eventful one. It included a passage through the Panama Canal (26 Nov. 1943); Carp. Abbott's detachment from the Unit at Balboa (3 Dec. 1943); crossing the equator at longitude, 100 degrees - 22.5' (10 Dec. 1943); arrival at Bora Bora (24 Dec. 1943); arrival at Pago Pago, Samoa (2 Jan. 1944); arrival at Suva, Fiji Island (12 Jan. 1944); arrival at Noumea, New Caledonia (18 Jan. 1944); arrival at Espiritu Santo, New Hebrides (4 Feb. 1944) and finally arrival at Island "X" (Guadalcanal) on 10 Feb. 1944. On 11 February, 1944, the Unit disembarked and thus brought to an end, the trip which had seen the first section leave Gulfport, Miss., 110 days before. All hands firmly believe this trip set a record for time in transit from the States to Guadalcanal.

CBMU 520 moved from the beach into the old 63rd Naval Construction Battalion camp area to live until a new camp could be constructed. The 63rd NCB camp was in bad condition, and the first night ashore was anything but enjoyable. However, mail call was sounded that evening and those long-awaited letters from home did much to help the men through those strange, early days.

Not until 22 February, 1944, did CBMU 520 move into its new, and present camp site on Shock Road.

HIGHLIGHTS OF THE WORK DONE ON GUADALCANAL BY CBMU 520

February, 1944

The first month's work of the Unit at its overseas destination, consisted of the following undertakings:

A construction detail was sent to Fleet Hospital 108, where Nurse's quarters were already under construction by the 27th Battalion. This project was completed in March by the cooperative union of the two forces. Other details began the construction of numerous Quonset Huts at Camp Crocodile, while the construction of Radio Road was commenced.

Pier Guards were supplied to stand watches at the Point Cruz Army Pier. Mechanics began work at the 18th Regimental Garage. The refrigeration branch commenced their work with the installation of the boxes for the Unit's own usage. They were two (2) 150 cubic foot boxes.

At this time C.B.M.U. 520 relieved C.B.M.U. 533 of repair, maintenance, and operation of power units serving N.A.B. and B.R.U.

The telephone crew was commissioned at this time with a complement of five (5) maintenance men and four (4) operators. This brought under their jurisdiction, one hundred (100) miles of line to be maintained, and fifteen (15) switchboards with approximately five hundred (500) stations to be

kept operating at all times. Communications were also maintained at three (3) beach towers, namely Koli, Lunga, and Point Cruz, together with two airfields, Henderson and Fighter #2.

Mosquito control had been established by the sending of men to schools, and at the same time forming details to provide drainage in the stagnated areas, and clear the area of any growth beneficial to the breeding of the mosquito. The administering of atabrine to all hands was initiated.

During February, 10% of the unit strength was used on Malaria Control projects.

General maintenance of ComAirSoPac area including roads and buildings was turned over to 520. At about this time 3/4 mile of corduroy road extending from the Base Radio transmitter to highway 113 was constructed by this unit. The transmitter had been made inaccessable due to flood conditions and for this reason the emergency "log highway" was constructed.

Completion of the Naval Advanced Base Officer's Mess and Club, after taking over the job from the 27th Naval Construction Battalion.

HIGHLIGHTS OF THE WORK DONE ON GUADALCANAL BY
CBMU 520

MARCH, 1944:

The second month's work of the Unit at its overseas destination, consisted of the following undertakings:

A Caterpillar Diesel Electric Set (D13000) at Air Center was overhauled.

The gear of the 61st, 63rd, and 27th Naval Construction Battalions was loaded at the beaches by Unit loading details, and then sent to the Battalion areas where it was readied for forward shipment.

The refrigeration department was assigned to the maintaining of eighteen (18) six hundred and seventh five (675) cubic foot boxes, which were used as the main food storehouse for the island.

A salvage detail was constituted and sent to the 63rd N.C.B. area, where all repairable equipment was salvaged, while the area itself was policed.

Roads were constructed by this Unit in the ComMarine SoPac area and three Quonset huts were erected for Marine Headquarters.

Early in the month the Unit undertook the Malaria Control project of draining the A.R.U. (Aviation Repair Unit) area. Constructed was a channel 1500' in length with a 0.2 ft. fall in 100 feet, which finally terminated at the Lunga

River as an outlet. At this point the drain was 10' deep, 25' wide at the top and 4' wide at the bottom. Approximately 3000 cubic yards of earth were excavated but the job proved its worth in that the swampy condition at A.R.U. was eliminated.

One 40' x 100' SSAR utility building with concrete deck was erected by our Unit at Tassaforanga.

Approximately 30 concrete anchors, 3500 lbs each, were cast by CBMU 520 at Lunga Beach.

Other work executed during the month included erection of 6 Quonset huts and construction of two 3000 gal. wood stave tanks and a tower.

APRIL, 1944:

The third month's work of the Unit at its overseas destination, consisted of the following undertakings:

A generator house with mountings for equipment was constructed at N.A.B. by this Unit. This plant consisted of three (3) D13000 Caterpillar Diesel Electric Sets and a two hundred and fifty thousand (250,000 CM) distribution line.

The Base Ordnance Supply Depot was thoroughly drained by CBMU 520 forces, working in conjunction with the 34th N.C.B.

At the Fourth Marine Area CBMU 520 undertook and completed a major malaria control project. Approximately fifty (50) acres of swamp were drained by a surface drain 8000'

long with an average cut of 3 feet. The entire ditch had to be blasted out. The effectiveness of the project is shown in that the mosquito population was said to have been reduced seventy five (75%) percent.

It was in this month that CBMU 520 was given the job of maintaining all roads starting with Arnold road on through to the Nalimbu River. This included highways 143 and 50 and the maintenance of roadside drainage ditches along all these roads.

The guarding of incoming supplies on the beaches was maintained by CBMU 520 and N.A.B. men during this early period pending the construction of adequate facilities.

MAY, 1944:

The fourth month's work of the Unit at its overseas destination included the following undertakings:

Relieving CBMU 515 in the operation of seven (7) power plants located at various places on the Island. They were: the 15 KW UD6 International plant at Fighter #1, the 75 KW Caterpillar plant at Radar #2, the two (2) 75 KW Caterpillar plant at Base Radio, the 75 KW Caterpillar plant at Thompson's Tunnel, Henderson Field, and the Japanese Power Plants #1 and #2. The last mentioned were 3300 Volt Plants, located on the Lunga River and known as M.A.N. power.

The replacement of a generator at Point Cruz Signal Tower was completed and one (1) 37 KVA Diesel generator was overhauled at the Third Marine Division area.

The maintenance and supervision of water points at ComFairSouth and ComAirSoPac was assigned to the Unit at this time.

A major malaria control project of excavating 16,000 feet of drainage ditch along highway 50 from the Tenaru River to Dodo River was started and completed by the Unit.

The refrigeration department of this Unit started and completed reefer maintenance and repair at Aerial Mine Depot #4. A reefer, 675 cubic foot, was installed at N.A.B.

Maintenance and operation of Tojo ice plant was given this department and for the month and a half the plant was operated by this department it produced an output of 2000 lbs. of ice per day.

JUNE, 1944:

The fifth month's work of the Unit at its overseas destination, consisted of the following undertakings:

One (1) 75 KW Generator was installed at ComFair South together with wiring and temporary foundation. A generator was also installed at CASU 14.

At Fighter #1 control tower and M.A.N. Power, concrete floor slabs were poured. The two slabs involved approximately

11 cubic yards of concrete.

A reefer was installed at CASU 14 by the refrigeration department. This department then undertook its maintenance.

Extensive alterations and repairs were made on the Operations building at N.A.B. Guadal.

Repairs were made to the ship "M/V Brastagi." Included in this work was the renewal of 4" bilge pipe, both port and starboard.

Housing and office facilities were constructed for Naval Medical Research Unit No. 2.

Reinforced concrete slabs for generator mounts were poured at M.A.N. Power Station, and also at Control Tower, Fighter #1.

JULY, 1944:

The sixth month's work of the Unit at its overseas destination consisted of the following undertakings:

A tower and 5000 gal. wood stave tank was constructed at N.A.B.

At VJ-10 this Unit constructed a tower for a 10,000 gal. (metal) water tank. The tank was moved from N.A.B. to the newly constructed tower and installed thereon. Construction of an extension to Highway 143 was undertaken and carried out by CBMU 520. The new section, about 2½ miles long, extended from Highway 50 to the combat range. During

this month approximately 50,000 cu. yds. of gravel were hauled and used for the surfacing of the new portion of Highway 143 and for the maintenance of the section of Highway 50 assigned to CBMU 520.

At NLFED materials were crated for forward shipment. This involved 250 man days of labor on the part of CBMU 520.

The exposed substructures of all bridges on the Island were creosoted by Unit forces.

A generator building was constructed at Henderson Field for 20th A.A.C.S. and a power plant was moved from Fighter #1 to the Lunga Signal Tower by this Unit.

AUGUST, 1944:

The seventh month's work of the Unit at its overseas destination consisted of the following undertakings:

CBMU 520 relieved CBMU 532 of the maintenance of Henderson Field. This brought under the Unit's jurisdiction and maintenance of all landing strips on the field, parking lots for the planes, and the roads that surround the field. A heavy equipment shop was constructed there to enable the mechanics to repair the road patrols, bulldozers, rollers, and cranes used on the job. Coral pits were established to supply the coral necessary in the surfacing of the strips. A gravel pit had been established on the Lunga River to supply the necessary gravel for both the field roads and other

roads under the Unit's supervision. Parking lots for both Naval Air force planes and New Zealand Air Force Planes were constructed and then maintained.

Other phases of construction work also commenced at this time. The Swan Creek bridge was reconstructed, and sidewalks and handrails on the Ilu, Lower Lunga, and Upper Lunga River bridges were also constructed.

At Henderson Field, construction of aviation facilities for RNZAF Garrison Forces was initiated by this Unit.

The rehabilitation of Highway 50 between Dodo Creek and Nalimbu River was completed.

Fuel storage tanks at the Koli-Kukum Tank Farm were relocated by Unit forces.

The transportation department began servicing N.A.B. vehicles.

Warehouses were erected at NLFED, and quarters for enlisted men were constructed at N.A.B.

A ventilating system was installed at the Red Cross Service Center.

The air-conditioning system at the Guadalcanal radio broadcasting station was installed by the Unit.

SEPTEMBER, 1944:

The eighth month's work of the Unit at its overseas destination consisted of the following undertakings:

CBMU 520 furnished 600 man-days of work for repairs to New Kukum Dock.

The mess halls, sculleries, and four (4) ward buildings at Fleet Hospital 108 were painted.

An access bridge was constructed from the CBMU 520 well to Highway No. 50 enabling the fire trucks to have access to a water point in case of fire in that immediate vicinity.

Construction of approaches to the New Lower Lunga Bridge was started. The construction of aviation facilities for RNZAF Garrison Forces at Henderson Field, started in August, was completed.

Improvements were made to the Stockade and Brig at N.A.B.

The Staff Mess for CNB SoSols was constructed at N.A.B.

OCTOBER, 1944:

The ninth month's work of the Unit at its overseas destination consisted of the following undertakings:

A well was dug at ComAirSoPac. Quonset Huts were erected at Air Center area.

An entrance to the Navy Cargo Area was constructed at Kukum, making a much wider approach to the area and cutting down the inefficiency due to snarled traffic.

A water line was installed at N.A.B. This job consisted of laying some 400 ft. of 6 in. pipe.

The east branch of Lunga Lagoon was drained by the use of an 800 foot ditch. Digging of this ditch was accomplished only after overcoming difficulties presented by the mucky nature of the soil. These difficulties were overcome by laying steel plank ahead of the shovel, and thus preventing the heavy equipment from bogging down in the muck.

The maintenance of the camp roads at Air Center was assumed by this Unit.

A ventilation system was installed in the N.A.B. Dispensary. Improvements were made at the N.A.B. theater.

The landing field at Doma Cove was graded. At Henderson Field a nose hanger was erected for CASU 41.

NOVEMBER, 1944:

The tenth month's work of the Unit at its overseas destination consisted of the following undertakings:

A warehouse (SSAR 40' X 100') with concrete deck was constructed to house the new Oxygen Plant. A dock for cylinder hauling was also built on this site.

The construction of approaches to the New Lower Lunga Bridge, started in September, was completed.

The Control Towers at Henderson Field were painted.

Maintenance of the roads in the A.R.U. area was acquired by C.B.M.U. 520.

The boilers at Fleet Hospital 108 were repaired and put in proper operating order.

Improvements were made to the Red Cross Club at Henderson Field. New furniture was built and the club was repainted.

A rush job assigned to and completed by the Unit during this month consisted of making crates for 200 torpedoes and 150 torpedo war heads. It was essential that these crated items be ready for loading on ships of a Task Force due to call at the Island and bound for an operation for which the torpedoes and torpedo war heads in question were urgently needed. Personnel of this Unit manned the A.R.U. carpenter shop and finished the job on schedule. The scope of the work accomplished is indicated by the volume of materials used: 130,000 board feet of lumber, 35 kegs of nails and 150 rolls of tar felt lining material.

The seating area at the N.A.B. Theater was regraded to provide a slope necessary to enable those in the rear to have unobstructed view of the stage and screen. A canvas cover was placed over the N.A.B. Theater seating area.

DECEMBER, 1944:

The eleventh month's work of the Unit at its overseas destination, consisted of the following undertakings:

Two coats of paint were applied to the roofs of thirty

six (36) all-metal buildings at Fleet Hospital 108.

Repairs were made to a water tower located at CASU 41.

The salvage of eight (8) Quonset Huts at 29th Service Group Camp #24 at Koli and two (2) other huts at the Air Base Command served as the introduction to the period of dismantling operations now being started by the Unit, after ten months devoted practically exclusively to construction work.

Tidal observations were made at the Mt. Austin Dock.

Salvage of Quonset Huts from Lunga Field commenced.

Roof ventilation was installed in the N.A.B. laundry building.

JANUARY, 1945:

The twelfth month's work of the Unit at its overseas destination, consisted of the following undertakings:

The beginning of the new year brought new emphasis to the change in the general working activities of the Unit, first evident during the previous month, namely; a change from construction to dismantling, coinciding with the roll-up program on the island. However, routine base maintenance continued as before. Dismantling of MADS 1 camp was undertaken. Twenty-six (26) 20' x 48' Quonset Huts, forty-seven (47) 16' x 16' tents, and fifteen (15) miscellaneous frame buildings were involved. This job was the first large dismantling project undertaken by the Unit, and it included a

complete clean-up of the camp area. The objective of this project was to salvage all possible salvable material for use in forward areas, and this project was destined to be adhered to for several months in the future. Salvable metal buildings, generators, refrigeration units, etc., were brought to the Public Works Depot where they were readied for shipment by the Public Works Depot forces. The Unit salvaged all suitable lumber which could be used for crating and dunnage purposes.

The Unit assumed maintenance of the section of road extending from Burns Creek westerly to Highway No. 50, a distance of approximately 2½ miles.

Some 75,000 board-feet of lumber were salvaged during the month.

Alterations were made at N.A.B. Service Club.

Fourteen (14) Quonset Huts were dismantled at Koli Field.

Thirty-one (31) Quonset huts in addition to those described above were dismantled at various locations.

FEBRUARY, 1945:

The thirteenth month's work of the Unit at its overseas destination consisted of the following undertakings:

The maintenance of Fighter Strips 1 and 2 was suspended except for connecting roads.

The dismantling of MADS 1 camp, started in January, was completed. One (1) 15,000 gal. wooden water storage tank,

dismantled in this camp, was made available to A.R.U. for use by that Unit in its new location up north.

At Camp 68, Henderson Field, twenty-nine (29) Quonset Huts, forty (40) 16' x 16' tents and seven (7) various frame buildings were dismantled and salvaged.

At CASU 41, twenty (20) Quonset Huts, and one (1) 40' x 100' SSAR utility building were dismantled and salvaged.

Approximately 65,000 board-feet of lumber were salvaged for this month.

Seventy-two (72) boxes of M-1 Rocket heads were recrated for shipment to Navy Magazine, Tulagi.

The roofs of numerous buildings at N.A.B. and vicinity, damaged as a result of the blowing-up recently of an ammunition ship off Guadalcanal, were repaired by Unit forces.

MARCH, 1945:

The fourteenth month's work of the Unit at its overseas destination, consisted of the following undertakings:

One 20' x 48' Quonset Hut at Henderson Field was altered and equipped as a hot locker for stowage of aviation instruments.

In the 18th Fighter Group camp eleven (11) 20' x 48' Quonset Huts were dismantled, also approximately ten (10) frame tents and miscellaneous frame buildings.

Eight (8) 20' x 48' Quonset Huts were dismantled at CASU 41.

Eleven (11) 20' x 48' Quonsets and (1) 40' x 100' SSAR Utility building were dismantled at Carney Field.

Approximately 60,000 board-feet of lumber were salvaged and turned in to PWD this month.

A compass rose was installed at Henderson Field.

A combination basketball, tennis, and badminton court was constructed at N.A.B. It included pouring of a concrete slab approximately 80' x 100' in size and containing about 100 cubic yards of concrete.

Twelve (12) frame tents were dismantled at the III Phib Corps Parachute Delivery Section Camp.

In addition to work described above, twenty-four (24) other Quonset Huts were dismantled at various other locations, principally at the 28th Depot Repair Sqd. area near Carney Field.

APRIL, 1945:

The fifteenth month's work of the Unit at its overseas destination, consisted of the following undertakings:

The 338th Port Battalion Camp was dismantled. It included fifty (50) frame tents, one (1) galley, and contained much salvable lumber.

Thirteen (13) Quonset huts were dismantled in the BORU area.

In the 4th and 6th Marine areas eight (8) 20' x 48' SSAR

Huts were dismantled.

Camp Crocodile was dismantled and cleaned up. Involved were twenty (20) 20' x 48' Quonset Huts, twenty-five (25) frame tents, a large messhall, and ten (10) miscellaneous frame buildings.

The 319th Fighter Squadron Camp was dismantled and the area left shipshape. It contained three (3) 20' x 48' Quonset Huts, one (1) 40' x 100' SSAR warehouse, one (1) large messhall, fifty (50) frame tents and ten (10) miscellaneous frame structures.

Alterations to and extension of NAB Theater stage were accomplished.

The RNZAF Camp, south of Kukum was salvaged and cleaned up. It consisted of one (1) 20' x 48' Quonset hut, one galley and messhall, eighty-seven (87) frame tents and seventeen (17) miscellaneous frame buildings.

MAY, 1945:

The sixteenth month's work of the Unit at the overseas destination, consisted of the following undertakings:

Four (4) 40' x 100' warehouses were dismantled at NLFED in six days with a crew of 13 men.

Twenty-four (24) 20' x 48' Quonset huts were dismantled at the 137th Station Hospital. This work was done by details of men from CBD 1008 under the supervision of CBMU 520.

The maintaining of Henderson Field and its adjoining roads was turned over to the Army Engineers, thus ending for the Unit a job which it had done for nine (9) months.

A 20' x 48' Quonset Hut was remodeled to meet the requirements for a Photo Lab. at N.A.B.

Four (4) Quonset Huts and sixteen (16) frame buildings were dismantled at the RNZAF Fighter Repair area adjacent to Henderson Field.

Part of the 128th Chemical Processing Company's camp was dismantled. Salvaged were eleven (11) 20' x 48' Quonset Huts.

The 674th Signal Air Warning Group camp, containing seven (7) 20' x 48' Quonset Huts, and about sixty (60) miscellaneous frame tents and buildings, was dismantled and the area cleaned up.

In the 431st Engr. Dump Truck Camp all Quonset Huts, seventeen (17) in number, were dismantled.

A waste pit was excavated for the waste products of the Compressed Gas Division's plant. It involved approximately 2,000 cubic yards of excavation.

During the month A.T.C. transferred its facilities from Carney Field to Henderson Field. CBMU 520 was called upon for some construction work in connection with this movement. The work accomplished by CBMU 520 consisted of the following:
(1) Construction of a 20' x 80' frame building with concrete deck and the equipping of it with showers and wash rooms;

(2) erecting eleven (11) 16' x 16' Dallas victory huts; (3) erecting four (4) 20' x 48' Quonset huts; and (4) converting a 20' x 112' plain Quonset hut into a fully equipped airfield operations and passenger facility by erecting two (2) 20' x 48' Quonset huts and connecting them to the existing structure to form a "U"-shaped building, and adding necessary partitions, railings, counters, platforms, etc.

JUNE, 1945:

The seventeenth month's work of the Unit at the overseas destination consisted of the following undertakings:

Nine (9) 20' x 48' Quonset huts were dismantled and salvaged at Fleet Hospital #108.

Seven (7) 20' x 48' Huts were dismantled in the old Scat area, together with ten (10) frame buildings and two (2) 40' x 100' SSAR warehouses.

The dismantling of twenty-four (24) 20' x 48' Quonset Huts in the ARU area was accomplished.

Four (4) 20' x 48' Huts were dismantled at the ComAirSoPac installation. Three (3) 500 bbl. metal water storage tanks were dismantled and salvaged.

Approximately 20,000 board feet of lumber were salvaged in dismantling operations.

JUNE, 1945:

The entire VJ-13 camp was dismantled. The principal items removed and salvaged were thirty-one (31) Quonset Huts

and twenty-six (26) miscellaneous frame buildings.

New piers and floor joists were installed under Port Director's Office.

The dismantling of three (3) 1,000 bbl. metal fuel storage tanks, started by others, was completed.

One (1) 10,000 bbl. metal fuel storage tank was dismantled.

In connection with the closing of Fleet Hospital #108 and the expansion of the NAB Dispensary to substitute for it, but on a greatly reduced scale, the Unit accomplished some "hurry-up" construction work. In brief, the work consisted of erecting a medical facility of some 3,500 square feet of floor space, provided with the following; an air-conditioned surgery with lavatory, autoclave, storage and sterile cabinets and other appurtenances; an x-ray and cast room with lead-lined storage space; an office room; a guest room; three (3) wards with a total bed capacity of twenty-two (22) beds and equipped with flush toilets, also lavatories and showers with hot and cold water. The structure to house the above described facilities was constructed by joining two (2) Quonset huts (20' x 60') to each other and by joining to one of them a Dallas hut in addition to two (2) frame annexes, each eleven (11) feet wide and running for nearly the entire length of the Quonset Hut.

ADDITIONAL DETAILS ON THE REFRIGERATION DEPT.

The work of this department, after being relieved of the maintenance of the eighteen (18) storehouse reefers, consisted of repair, service, and overhauling of all Navy refrigerators on the Island. The same type work was also done for other non-Navy units stationed here, upon the approval of the Public Works Officer.

One of the first large jobs encountered on the Island was the repair of the ice cream machines located at the Service Center. The Army maintenance men asked for the departments assistance. Upon investigation it was found that most of the dehydrators had been dismantled and several of the discharge flapper valve discs were broken. The dehydrators were replaced, but the discharge valves had to be removed from their valve seats, lapped down to their original size and smooth finished. Practically all of the expansion valves had to be reset together with the switches. The ice cream machines were thus put into operating condition.

At Fleet Hospital 108, several large reefers cooled by a Chrysler-Airtemp unit gave considerable trouble at one time. This type unit is very complex, because it has a semi-sealed motor compressor and a direct drive radial compressor. Repairs to these compressors were attempted, and completed satisfactorily at the CBMU 520 refrigeration shop.

ADDITIONAL DETAILS OF THE REFRIGERATION DEPT. (CONT'D)

Many repairs have been made on refrigeration equipment aboard ships which called at this Island and sought assistance along these lines.

At one time a large amount of work was done on some Air Force crash boats. These boats had been shipped from the states with twelve (12) volt motors to operate from a twenty-four (24) volt system, using a resistor in series with the motor to cut down the voltage. By using this resistor they increased the current through the pressure switch, and consequently burned the contacts. The satisfactory solution evolved was to install an airplane starter solenoid to start the motor, and use the switches to operate the solenoid.

This department has averaged, since the Unit's arrival on the Island, approximately seven (7) repair jobs per day, in addition to the numerous repair jobs brought into the shop.

Instructions have been given in the refrigeration shop to five (5) men from the New Zealand Air Force, five (5) men from the Marines, and several other men from various Naval outfits.

In conjunction with the Island roll-up plan, during the last five (5) months, there have been thirty-two (32) Carrier units, six (6) hussman boxes, three (3) York Flakice machines, three (3) thirty-two (32) cubic foot domestic units, and one (1) Bardco, one hundred and fifty (150) cubic foot refrigerator,

overhauled, painted, and readied for forward shipment.

Most of the trouble that has developed in the refrigeration units on the Island has been caused by moisture getting into the system, and from inexperienced handling of the equipment before it came under the department's jurisdiction.

ADDITIONAL DETAILS ON THE TELEPHONE CREW

The CBMU 520 telephone crew met many difficulties during the early days on this Island.

Equipment and material were at a premium, with telephone poles especially hard to obtain.

One interesting maintenance problem came up in connection with the telephone line to Koli Tower. This line would go out of service about once each week during those early months. Finally, the trouble was located when an Army Demolition unit was seen blasting a ditch very near this line. It developed that the Army had to blast the ditch at regular intervals in order to keep it open. The line had been going out of service following each blast. Arrangements were made with the Army demolition unit to "spare our telephone line."

The most deadly enemy encountered by the detail lurked in the tops of the coconut trees, not Japs now, but swarms of wasps. Protective clothing and an Aerosal bomb proved to be a successful means of combating this foe.

ADDITIONAL DETAILS ON CREW IN CHARGE OF THE GENERATING STATION

The Fighter #1 Power Plant was operated by the men of this crew from 8 May 1944 to 4 July 1944, at which time the power plants were set up at the Lunga Signal Tower and the watches were then derived from the Tower Personnel. The greatest trouble experienced at this station was having no knowledge concerning the layout of wiring feeding the landing strips and tower. This wiring was all underground without any sign indicators where it crossed the roads, and as a result was constantly being severed by the blades on road patrols. After a tedious survey, the wiring layout was obtained and signs placed at the crossings, thus eliminating the danger from the road patrols.

The Base Radio power plant furnishes power for all officers and enlisted personnel at ComAirSoPac and Base Radio Operation and camp. These generators are operated in parallel and the trouble encountered here was due to the small size copper wire used to carry the load. This wire was removed and larger wire was installed. Since that time trouble there has been very rare.

The Thompson Tunnel Generator located adjacent to Henderson Field, was used to carry part of the load from the Japanese Power Plants, when the latter plants' output was no longer

sufficient for needs. It operated approximately ten (10) hours per day and in the case of an emergency shutdown of the Japanese Plants. The men stationed here also maintained the strip lights of Henderson Field and made all secondary repairs.

CBMU 520 began operating the Japanese Power Plant #1 in May, 1944. The men on that watch lived at the plant. At first, emergencies were very numerous due to the placing of high tension power lines on coconut trees and underground. The coconut fronds would fall across the lines and cause them to burn off. The material needed to construct the proper type high tension lines was very scarce but through elaborate procurement, was finally obtained, and poles were set bringing overhead lines to Henderson Field. A tie line was also arranged between plants #1 and #2. In thirteen months of operation, Power Plant #1 has caused the diesel repair crew to put in 118 man hours rebuilding the governor assembly and the removing of the head from #3 cylinder. This plant is completely shut down once a week for general maintenance of equipment and to change the oil. When operating at full capacity it used approximately 165 gallons of diesel fuel and three (3) gallons of lubricating oil over a period of (24) hours. The ground around this is graded from time to time to prevent the water of the Lunga River from backing into the plant during

heavy rainstorms. This river rises at a rate of 5½ feet over a period of two (2) hours during the heaviest rains,. making the grading a direct necessity. Trees around the plant that had been killed by shellfire were removed eliminating the danger of their falling on the plant.

The Japanese Diesel is a four (4) cylinder, four (4) cycle engine. It is started by (20) kilograms per sq. cm. of compressed air using cylinders #3 and #4 as the air starting cylinders. These cylinders have an extra push rod and valve assembly thru which the air is taken in. The fly wheel is marked for the setting of these cylinders to start, 14 TDC being the setting for #4 cylinder and 23 TDC being that for #3 cylinder. There are holes in the flywheel for the use of a bar in setting the fly wheel. A heater coil is built into the exhaust manifold to preheat the fuel oil before going to the injector pump. It also has a heat exchanger for cooling the lubricating oil. All temperatures are measured in degrees, centigrade.

The Japanese switchboard which is located on a balcony overlooking the main deck, resembles some of the older types used in the United States. It is a two (2) panel board, one panel having at the top left, the A.C. ampermeter. At the top right is the kilowatt meter. Under these meters in the center

of the panel is the A.C. Voltmeter. Below the Voltmeter to the left is the D.C. Exciter Voltmeter and to the right is the D.C. Exciter Ampermeter. In the center under these meters is the Exciter Shunt Field Reostat. To the left of the reostat is located the A.C. voltmeter and ammeter selector switches. Under these, in the center, is located the main breaker controlling all the 3,300 Volt system. At the bottom of the panel are the two over current relays and the Kilowatt hour meter. The second panel has the voltage regulator located at the top center under which is the Frequency meter, then the regulator reostat, below which are the regulator switches.

In power house #2, the Japanese Diesel engine is a three cylinder motor but having the same horsepower of 250 HP, and the same alternator of 100KW and direct coupled exciter. The switchboards are similar in construction to the one at Plant #1. The alternator at this plant was hit by a fifty caliber machine gun bullet, cutting some of the winding. In order to balance it accordingly, a portion of the winding in each phase was cut out, so that it only has capacity of 75KW. It is used as standby for Plant #1.

These power plants were originally called M.A.N. Power Plants, but in December of 1944, this was changed to Navy 145 Power House #1 and #2.

ADDITIONAL DETAILS ON CREW IN CHARGE OF THE GENERATING STATIONS (CONT'D)

The power plant at N.A.B. consists of three (3) 75 KW caterpillar Diesel in parallel, and has the largest output and demand of any plant on this Island. This plant was constructed in April, 1944, and it also is under the jurisdiction of CBMU 520 station crews and repair crews.

DETAILS OF POWER UNIT REPAIR

CBMU 520 relieved CBMU 515 of the maintenance, repair, and moving of all of the Navy's power units on Guadalcanal, on 8 May 1944. At that time, 126 generators came under the Unit's jurisdiction. Included were the following types of units:

2-Japanese Diesel Electric, 3,300 volt (Ikagei) plants.
Caterpillars - D13000, D8800, and D4600 Diesel electric sets.
International - UD14, UD6 (Diesel) and U-9, U-4, U-2 (Gasoline).
Waukesha - 140 HL, 130 HL.

A repair shop with a spare parts room was built at the Japanese Power Plant #1.

Tools were very scarce, but gradually, a sufficient quantity have been acquired from battalions and other Units returning to the states.

Repair work has been done primarily for Navy and Marine Corps activities, but a large number of Army emergency calls have been taken care of.

Repair work aboard ships has always had top priority, and numerous repair jobs have been successfully completed for the Navy afloat.

DETAILS OF POWER UNIT REPAIR (CONT'D)

An indication of the scope of work accomplished between 8 May 1944 and 25 June 1945 can be seen in the following data:

Repair and Service calls away from shop (day)	826 man-hrs.
Repair and Service calls away from shop (night)	595 " "
Power Units moved from one location to another	260
Power units placed in operation	103
Power units overhauled and shipped forward	30
Repairs to Japanese Power Plants	156 man-hrs.
Entire motor overhaul	76 units
Alternators overhauled	32 "
Motor overhaul except for main bearings	102 "
Exciters overhauled	42 "
Miscellaneous repairs	109 "

ADDITIONAL DETAILS ON MAINTENANCE OF HENDERSON FIELD

After assuming these duties, in August, 1944, the first project undertaken was the construction of a heavy equipment shop, where the equipment used on the field could be repaired by the mechanics and kept serviceable. A supply shed was also constructed at this time to house a supply of spare parts for heavy equipment.

In this shop three (3) road patrols, two (2) bulldozers, two (2) Northwest Cranes, and one (1) roller, the heavy equipment used in upkeep of Henderson Field, were maintained.

The maze of roads surrounding this field required considerable work to put them in good condition, in most cases a new six inch surface course was found necessary. The trucks which carried the gravel for the surfacing of these roads operated on a twelve (12) hour schedule, and were loaded at the Lower Lunga Gravel Pit by Unit cranes.

There are several old bomb craters on Henderson Field's two strips. During heavy rains the backfill in these craters is liable to soften and cause a noticeable depression in the surface of the strip. These depressions, as they develop, were filled with live coral, which was compacted by the roller and the road patrols. This procedure was found necessary after nearly every heavy rainstorm in connection with previously unaffected and undiscovered old bomb craters.

ADDITIONAL DETAILS ON MAINTENANCE OF HENDERSON FIELD (CONT'D)

To supply the coral needed to resurface the taxiways and runways, a coral pit was opened in the 22nd Marine area, twenty-eight miles distant from the field. Coral has always been very scarce on Guadalcanal and no suitable, unexploited deposits could be found nearer. Approximately 2,135 cubic yards of coral were used by the Unit on the field, and another 1,200 cubic yards were left at the field for use by the relieving outfit. Also, 50,000 cubic yards of gravel were placed on the taxiways of the field by CBMU 520 during its nine (9) months tour of Henderson Field maintenance.

Very rarely did a day go by without a mishap of some nature occurring on the field, the majority of these mishaps being airplane belly-landings, but even in these less serious cases the strips were closed temporarily. The Unit can proudly boast, that a strip was never allowed to remain closed longer than forty-five (45) minutes. In one case, a New Zealand plane crashed and burned beyond repair, and in less than forty five minutes, it was hauled off the field and given a decent burial by the maintenance men of 520.

The rapid growth of grass between the holes in the matting of the metal airstrip was always a problem. This grass had to be removed regularly by burning. A burner, built by one of the men in the Unit, proved very satisfactory for this job.

ADDITIONAL DETAILS ON MAINTENANCE OF HENDERSON FIELD (CONT'D)

Heavy rains caused the steel landing mats to settle in spots, thus presenting an uneven landing surface. This situation had to be remedied after each storm by adding gravel to the low spots, and staking down the matting at high points.

All the maintenance work done on the strips and adjoining roads of the field was necessarily of a continuous nature. And anyone, familiar with this island's rainfall, can readily appreciate the large and steady amount of work that was done to successfully maintain Henderson Field, and its surrounding network of roads.

In May, 1945, CBMU 520 was relieved of Henderson Field maintenance. Shown below is a copy of a Letter of Commendation which pays tribute to those men and officers of CBMU 520, who, by their faithful performance of duty, kept the field open, and in operation during those nine months:

From: Commanding Officer, Naval Air Facility, Navy 145.
To : Wilson, W. A., CCM.
Via: Commanding Officer, C.B.M.U. #520.
Subject: Commendation.

1. The Commanding Officer of Naval Air Facility wishes to express his appreciation for your unqualified devotion and loyalty in cooperating with this command in maintaining the Henderson Field area and roads thereto.

2. The initiative and resourcefulness you have shown is highly commendable and a credit to any organization.

J. H. Downs

Lieut. Comdr., USN.

PICTURES OF HIGHWAY NO. 50 FROM ILU RIVER TO DODO RIVER.

The maintenance of the roads from Ilu River to Dodo River, a distance of approximately three (3) miles, was assigned to CBMU 520 in April 1944. These roads were in very bad condition at that time. They were poorly graded in spots and also very narrow.

On a 1/2 mile stretch of Highway No. 50, which was in particularly poor condition, the grade was raised two (2) feet and the section resurfaced with gravel. The shoulders were widened to 6 ft. on each side and new ditches were dug on both sides.

The Unit maintained these roads for some 5 months, and kept them in good shape, being handicapped the while by the scarcity of heavy equipment, the rain, and the heavy traffic, which the roads carried, especially Highway No. 50.

Bridges along these roads were also repaired as the need arose.

The roads are in good condition at the present time, and the need for maintenance has since been kept to a minimum, due primarily to the reconstruction and rehabilitation work on them by this Unit.

ROAD MAINTENANCE PICTURES

1. Photograph of roads maintained from Ilu River to Dodo River.
2. Photograph of roads maintained from Ilu River to Dodo River.
3. Photograph of roads maintained by C.B.M.U. #520.
4. Photograph of roads maintained from Ilu River to Dodo River.
5. Photograph of approaches to Lower Lunga Bridge constructed by C.B.M.U. 520 personnel.
6. Photograph of approaches to Lower Lunga Bridge constructed by C.B.M.U. 520 personnel.

NARRATIVE CONCERNING PICTURES OF COMMARINESOPAC ROAD AREA

In March 1944, CBMU 520 was given the project of road construction in the ComMarineSoPac area. Previous to the actual undertaking of the assignment, the Survey Department made the preliminary survey of the area, then the computing and final layout of the project.

On this project one difficulty reigned supreme, the decided lack of equipment. For example, one (1) HD 14 Bull-dozer was the only item of equipment available for this work.

A cut of ten (10) feet through gravel and a cut of twelve (12) feet through a claylike substance were involved in this work. Two (2) important fills were made, one of approximately twelve (12) feet and the other of ten (10) feet. These heavy cuts and fills were of but short length and the road itself was only one-half (½) mile in length, however, due to the paucity of equipment, the "hurry-up" nature of the assignment and its prosecution during the foulest weather of the monsoon season, the construction of this road will remain long in the memories of this Unit's personnel.

PICTURES OF ROADS CONSTRUCTED IN COMMARINESOPAC AREA

1. Photograph of ComMarineSoPac roads.
2. Photograph of ComMarineSoPac roads.

MANPOWER PLANTS #1 AND #2

Plant #1

M.A.N. Power Plant #1, is located on the Upper Lunga River, and consists of one (1) Japanese Diesel Motor and one (1) 3,300 Volt Alternator with 100 KW capacity. The buildings which house the generator were constructed by the Japanese, and the only alterations to the structure have been the addition of awnings to the windows.

Plant #2

M.A.N. Power Plant #2 is also located on the Upper Lunga River and consists of one (1) Japanese, three (3) cylinder, four (4) cycle, Diesel Motor with a 100 KW Alternator. The structure was constructed by the Japanese, with very few alterations being made by the 520 personnel. This plant is used as an auxiliary plant in the event of a break-down of Power Plant #1.

PICTURES OF M.A.N. POWER PLANTS

1. Photograph of M.A.N. Power Plant #1.
2. Photograph of M.A.N. Power Plant #2.

PICTURES OF GENERATOR REPAIR SHOP AND N.A.B. POWER STATION

GENERATOR REPAIR SHOP

The generator repair shop is located near the Japanese Power Plants, and has facilities necessary to overhaul and service diesel and gasoline motors.

N.A.B. POWER PLANT

The Power Plant at N.A.B. was constructed by CBMU 520 in April, 1944. Three (3) 75KW caterpillar Diesel Sets were then installed; connected in parallel they serve a 250,000 CM distribution line.

This installation has the largest output and demand of any plant located on Guadalcanal.

PICTURES OF GENERATOR REPAIR SHOP AND N.A.B. POWER STATION

1. Photograph of Generator Repair Shop.
2. Photograph of N.A.B. Power Station.

PICTURE OF THE MT. AUSTIN DOCK

This dock was constructed by the combined effort of the three (3) Maintenance Units located on the Island, namely, CBMU 533, 518, and 520. This project was formerly under the jurisdiction of the 34th N.C.B., but was turned over to the Units for construction when the 34th Battalion was secured.

OXYGEN PLANT

A 40' x 100' SSAR hut, with concrete deck, concrete machinery blocks, and a loading platform, was constructed by CBMU 520.

The oxygen produced by the plant is used very widely by pilots stationed on the Island's airfields. A great deal of the oxygen is also shipped forward, while still other amounts are used for work throughout the various outfits stationed on this Island.

PICTURES OF MT. AUSTIN DOCK AND OXYGEN PLANT

1. Photograph of Mt. Austin Dock.
2. Photograph of Oxygen Plant.

PICTURES OF TIDAL GUAGE LOCATED ON THE MT. AUSTIN DOCK

The orders to design this guage were given to CBMU 520 by N.A.B., Guadal. The plans for the guage were made in the drafting department of the Unit. The guage was constructed by CBMU 518 and installed on the Mt. Austin Dock by that Unit.

Following installation of the tidal guage, readings were taken by members of CBMU 520, at thirty (30) minute intervals, twenty four (24) hours a day, over a period of thirty (30) days. The information thus gained was compiled and presented to N.A.B., where a detailed report of the tidal changes in this area was made.

At the present time the guage is a permanent fixture on the dock, but it is used only from time to time when tidal information is required.

PHOTOGRAPHS

1. Photograph of Mt. Austin Tidal Guage.
2. Photograph of Mt. Austin Tidal Guage.
3. Photograph of N.A.B. combination basketball, tennis, and volley ball court.
4. Photograph of N.A.B. Theater inside (seating and stage).
5. Photograph of N.A.B. Theater oblique (rear-front).
6. Photograph of N.A.B. Theater profile (stage and cover).
7. Photograph of Naval Dispensary Annex.
8. Photograph of A.T.C. Building, Henderson Field.
9. Photograph of front view of A.T.C. Building located on Henderson Field.
10. Photograph of Base Radio Station remodeled by CBMU 520.

CBMU 520 RECREATIONAL FACILITIES

Headquarters for recreation is situated in a Quonset Hut which is supervised by one of the men in the Unit. Found in the Hut are ping pong tables, a library, card tables, checkers, monopoly, and other favorite pastimes.

Most of the recreation is found in sports of the type formerly enjoyed by the men in their high schools, clubs, and town organizations at home. Basketball has been most popular and the Unit has one of the best teams on the Island. In addition to its basketball court, the Unit has volley ball, baseball, and horseshoe courts.

As in all theaters of operations, the movies are still the most attractive for amusement. The Unit has an open-air theater and the nightly pictures are always well attended even during the frequent tropical deluges.

HOUSING FACILITIES OF CBMU 520

When the entire complement of CBMU 520 moved into the camp area on Shock Road which was to be their permanent location while on this Island, the first few days were spent in tents with no decks while the carpenter details finished construction of the 16' x 16' frame tents with decks, which would soon be their permanent residence.

At the present time approximately sixty-three (63) 16' x 16' screened and wood decked tents occupied by the enlisted

men of the Unit, with the majority of these tents resembling minor homes due to the improvements made by the men, using salvaged materials. The men have installed ventilators on the tent tops, ceilings, desks, chairs, and clothes lockers, etc.

All sleeping by the men was first done on the issued cots but since then the majority of the men have acquired frame beds with rubber strips in lieu of springs.

The area, which is now in such fine condition, was upon arrival of the Unit, one large mud hole. Grading and draining of the site, carried on principally during the infrequent periods when a few men could be spared from assigned work projects, the placing of gravel in the area, much of it by the men during off duty hours, and constant maintenance have contributed to making the area a source of pride to all hands.

The C.P.O. area consists of fourteen (14) 16' x 16' frame huts with decking and is located at the north end of the enlisted men's area. The C.P.O.'s average two (2) men to a tent, and the other enlisted men have four (4) men per tent.

The five (5) officers of the Unit are quartered in 16' x 16' frame huts, with wood decking in an area north of the C.P.O. area and adjacent to the Administrative Office.

PHOTOGRAPHS

1. Photograph of Housing Facilities, enlisted men's area.
2. Photograph of Chief Petty Officers' area.
3. Photograph of CBMU 520 officers' quarters.
4. Photograph of recreation facility, CBMU 520 movie area.
5. Photograph of CBMU 520 galley and messhall.
6. Photograph of basketball court, housing facilities, and part of Quonset Hut which contains the ship's store and recreation hall.
7. Photograph of CBMU 520 administration office in conjunction with the Public Works Office.

RECENT UNIT HISTORY

On February 17, 1945, Lieut. D. M. Jeffrey, Officer in Charge of C.B.M.U. 520, was notified of his detachment from the Unit and reassignment to the 43rd Naval Construction Regiment. This same date, Lieut. V. D. Maguire reported aboard as the new Officer in Charge of C.B.M.U. 520 and successor of Lieut. Jeffrey.

On March 28, 1945, the Public Utilities Officer of the N.A.B. Public Works Division, Lieut. R. J. Grant, received news of his detachment. Ch. Carp. H. B. Clark of C.B.M.U. 520, who was then his assistant, assumed, as a temporary additional duty, the job.

Because of the fine quality of leadership, initiative, and loyalty shown by personnel of this Unit who were doing public utilities work during Lieut. Grant's period as Utilities Officer, he commended the key personnel who were connected with this phase of the work. Those men who received commendations at this time were:

1. Ch. Carp. H. B. Clark.
2. H. H. Poole, CEM.
3. W. F. Witten, SFlc.
4. W. T. Myers; CMMR.
5. A. A. Noble, CEM.
6. S. R. Abernathy, CEM.
7. J. W. Noon, EMlc.

Another significant change in the history of C.B.M.U. 520 occurred on May 31, 1945, when Ens. M. L. Grant reported aboard C.B.M.U. 520 and relieved Lieut. H. M. Flattery, Unit

Executive Officer, who was detached from the Unit on June 2, 1945.

The Unit officers at the present time (25 June 1945) are:

Lieut. V. D. Maguire, Officer in Charge.
Lieut. D. J. Conlin, Executive Officer.
Ens. M. L. Grant.
Ch. Carp. G. L. Bloom.
Ch. Carp. H. B. Clark.

The entire complement of C.B.M.U. 520 at the present consists of five (5) officers and two hundred and eleven (211) enlisted men.

THE HISTORY

OF

U. S. NAVAL CONSTRUCTION BATTALION

MAINTENANCE UNIT NO. 533

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THE HISTORY
OF
U. S. NAVAL CONSTRUCTION BATTALION
MAINTENANCE UNIT NO. 533

I. HOW THE CBMUs CAME INTO BEING.

After the tide of aggression in the Pacific was stopped, and our advance got into full swing, Seabee Battalions moved in to construct bases on the newly captured enemy islands.

The manpower of entire battalions were needed in the construction of these bases, but after the base had been built it was soon found that the regular Seabee Battalion was too large, on most bases, to be of practical value, when the only requirement of the base became maintenance. One-fourth of a battalion, it was found, could do this maintenance work and thus enable the Battalion to move forward.

When a base was completed a maintenance unit (one-fourth of a Battalion) could relieve the Battalion, thus enabling the Battalion to move forward to construct a new base, using its manpower to the best advantage.

II. ESTABLISHMENT OF CBMU NO. 533.

CBMU No. 533 was formally Company B of the original 106th U. S. Naval Construction Battalion.

On 9 September 1943, at Camp Parks, California, Commander Paul Keiser, Officer in Charge of the Battalion, announced at a meeting of the officers that the Battalion

was being decommissioned and would reform as four Construct-Battalion Maintenance Units, to be known as CBMUs 532, 533, 534 and 535. The Company Commanders were to be the Officers in Charge of these units, and the companies would be augmented by one-fourth of the personnel of Headquarters Company.

On 23 September 1943 Lieut. Checkow, in accordance with BuPers restricted dispatch 222103, assumed command of U. S. Naval Construction Battalion Maintenance Unit No. 533. The men reported aboard and the Unit was officially formed.

III. CBMU NO. 533 AT CAMP ROUSSEAU, PORT HUENEME, CALIFORNIA.

On 23 September 1943 orders were received for the Unit to proceed to Camp Rousseau, Port Hueneme, California for advanced training and then embarkation to island "X". On 27 September 1943 the Unit boarded a troop train and proceeded to Camp Rousseau, Port Hueneme, California, the advance base depot for Seabees on the West Coast, arriving there on 28 September 1943.

On arriving there the Unit was started on a rigorous military and technical training program. Some work assignments were given the Unit also. The base was built in such a manner that the Unit lived, operated and functioned as an independent command, under the supervisory orders and regulations of the base. The quarters consisted of quonset huts

and, in general, the living conditions were good.

The morale of the men was high as they were eagerly looking forward to going overseas and start the work they had volunteered for. The main "bone of contention" being the liberty program. By station regulation the personnel of a Unit could have liberty only every fourth night and every fourth week-end, whereas, the Base personnel had liberty every other night and every other week-end. A large percentage of the men of the Unit are married and many of the wives were living close by. The only way they could see their wives was at the base Guest House at the main gate. It was small and poorly appointed. Privacy was nonexistant, due to the number of visitors and limited space.

After being at the base several days the Unit received its infantry gear and carbines. The military training program consisted of close order and extended order drills, hikes, obstacle courses, scouting, map reading, tent pitching, chemical warfare, camouflage and the care and use of weapons (from the pistol to the 20 mm Anti-Aircraft gun, including mortars). The training ended with all men firing their own carbines on the range.

After the Unit had been at Camp Rousseau a month or more, work assignments were given it. as the training pro-

grams had been completed. Some men worked in the warehouses, others stevedoring on the docks, others building a stevedoring training ship, others erecting quonset huts, general carpentry work, surveying, rigging, welding, truck driving, shop and garage work, etc. Along with this work a number of the men were being more thoroughly instructed in various military subjects.

IV. EMBARKATION.

On 8 December 1943 the Unit Officer in Charge received embarkation orders and the Unit was immediately secured from all details. All equipment and supplies had been inventoried and everything was in a state of readiness for several days, anticipating such an order. The major part of the next two days were, however, busy, as last minute articles of clothing, shoes and other gear had to be procured. The Unit was marched to Ships Service to procure anything necessary in the way of toilet articles, smokes and candy. The Unit was given a major part of the morning in Ships Service for these necessities, on a priority status, as we were going overseas.

The afternoon of 11 December 1943 found CBMU No. 533 filing up the gang plank to board the U.S.S. Rotanin (AK 108). Once aboard we found much to be desired in the way of accommodations for the enlisted men, a bit rugged would be putting

it mildly. Over 300 men were billeted in Hatch No. 2, which was occupied by CBMU No. 533, in addition to a few others. Hatch No. 1 was occupied by our sister Unit, CBMU No. 532, with the galley between the two hatches. Being Seabees we were placed on our own from the start, as not only did our mess cooks have to prepare for their own Unit, but, with the aid of CBMU No. 532, had to prepare food for the entire passenger list, excluding Ships Company, which was in the neighborhood of 1200 men, also, 40 casual officers. The galley proved adequate but the messing facilities were atrocious, as mess tables were placed in the center of hatches No. 1 and 2 with bunks, five high, surrounding them on three sides. Not only did our men have to eat their two meals a day in the same compartment, used for sleeping, but all other enlisted personnel used these same facilities. When two days out the ship hit a storm and it was a toss up, during chow hours, whether more food would be eaten, land on the deck or in someone's bunk. Add to this, chronic seasickness on the part of some of our "land lubber" Texans, and a condition existed not unlike chaos, for a day or two.

Leaving California the weather was quite cool, but on approaching the equator and hot weather the ventilating system

proved inadequate and the holds grew terrifically hot, with all hands being confined below decks between the hours of 1800 and 0600. This made a long and uncomfortable night. However, during the daylight hours the men lounged around deck in the shade of numerous landing crafts secured on deck. The Red Cross pocket books, at this point, were worth their weight in gold, and the men were indiscriminate in their reading, they read anything and everything.

As we approached latitude 0000, a buzz of activity was noted on the part of Ships Company. Carpenter mates were seen building a large tank of canvas and frame, a lookout was posted in the crows nest with two power binoculars (two coke bottles taped together), and well bundled up in warm clothing to watch for the equator.

On the morning of 24 December 1943 real activity began. Ships Company was putting their "Slimy Pollywogs" through their paces, and everyone else was thoroughly enjoying it. When it become evident that the Seabees were not to be included in this "baptism", to forever deliver them from this awful "slimy" state, due to inadequate facilities, a few of our own "Shellbacks" concocted an impromptu ceremony of their own, with nothing lacking, because, no matter what it is, Seabees can do it better. As no "Shellback" certificates were

available an enterprising Carpenters mate, with the aid of a pocket knife and a bit of linoleum, carved a very unique and conical Shellback stamp to lend a note of authenticity to the ceremony. Each "Shellback" received one of these novel cards.

Christmas was different this year for the majority of us, but the same old hymns and songs were sung, even "Jingle Bells", which, sitting astraddle of the equator as we were, was a bit out of character, but the men sang with a vim and the casual officers lent some real harmony en masse as their offering. Hatch No. 3 was the stage. Our alert Welfare Officer had procured, weeks before, tinsel, decorations, etc. Small gifts for each of the men were given from the Welfare Fund and the inevitable "turkey and trimmings" was available on both Christmas and New Years Day. both of which we spent aboard ship, which was now known to the men as "Ole Rotten Annie".

In addition to messing the entire passenger list CBMU No. 533 supplied eight 20 m.m. gun watches, hatch watches and a radio man to take the night trock in the radio shack. Our boatswains were also busy, along with those of CBMU No. 532, as the unsightly bowline knots on the main lines were replaced by neat splices by the time we reached Noumea,

New Caledonia. In addition, classes were given in the same art to Ships Company. Shipfitters had much welding to do, as this was the Rotanin's maiden voyage and the Chief Engineer had many changes to make. Our capable sign painter had all the landing crafts neatly lettered by this time and carponters mates had some cabinet work turned out in true professional style in the Supply Officer's stateroom.

Toward the latter part of the trip, we passed islands for the first time, several well known groups, made popular by Hollywood perhaps, and we were wondering which was our "Island X".

V. NEW CALEDONIA - OUR FIRST STOP.

On 5 January 1944, at 1210, the first line was secured to the wharf at Noumea, one lucky Seabee of CBMU No. 532 richer by $275.00. the result of guessing the time to the minute. We then disembarked and were taken to the Receiving Station, which was home to us-10 days. The men were immediately put on work details of various kinds and were given no liberty from the Receiving Station, who had full control of the men for the duration of the stay there.

On 15 January 1944, at 1400, the Unit was taken by pontoon barge to the ship, which proved to be the "Rotten Annie", that was to take us on the last leg of our trip to

"Island X". The sight of her didn't strike too much enthusiasm from the men. However, the chow was somewhat better as fresh stores were procured at Noumea and ship's service was opened to the men for the first time, as they had adequatly prepared for their trip this time,,bringing sufficient smokes and candy to supplement the scanty rations they anticipated. On the previous trip, cigarettes were bought from Ships Company men for $1.00 per pack and large chocolate bars went as high as $5.00.

At 0600 the following day, 16 January 1944, we weighed anchor.

VI. ARRIVAL ON GUADALCANAL.

On arising the morning of 21 January 1944 every Seabee was thrown into a state of excited expectancy, as the ship was approaching an island that scuttlebutt said was Guadalcanal and our "Island X". The scuttlebutt proved right. On nearing the island, excitement ran high and men lined every inch of the rail that afforded a view. The praises were high for the beautiful, green, lush and coconut edged island. It looked like a tropic paradise. After a few months on the island the men realized it was no paradise and that Hollywood is wrong about the south sea isles.

The ship dropped anchor off Koli Point at 1000. The men

of the Unit brought their gear on deck and details were sent to clean their hold. After sitting in the boiling sun on the hot decks for several hours, the men disembarked into the ships landing crafts and were taken ashore. The officer in Charge had gone ashore first to report to the Commanding Officer of the Naval Base. He was told the 27th U. S. Naval Construction Battalion camp was assigned to us for the night, as the 27th Seabees were away on leave. All hands were finally ashore by 1400 and another long wait ensued until trucks arrived to take the men to the 27th Battalion camp. The transporting of the men was a long process and all hands were not in camp until 2000.

What a letdown that camp was. Although the 27th Seabees had only been gone a few weeks, their camp was a shambles. Most of the tents were in ruins and as the ground was a sea of mud the men had to bunk down on the decks of the chapel, sick bay and in what few tents still had decks and coverings. The mosquitoes were plentiful, so bed nets were ordered out and all hands received their introduction to atabrine.

We will always be indebted to the officers and men of the 1st Special Battalion, who had the adjacent camp, for their kindness and help on our first night on Guadalcanal. Through their efforts and friendliness the men received hot

chow, showers and welcome help in getting bunked down for the night.

The Unit's mail clerks had been busy ever since they landed and by 1900 began to distribute mail. Our morale increased 100% as the mail was distributed, as each man received from 15 to 20 letters, the first mail since leaving the states on 12 December 1943. The strangeness of our surroundings and the inconveniences were forgotten as the words from home were avidly read. Then, we were ready for a good nights sleep and anything the morrow might bring.

VII. OUR FIRST FEW DAYS ON GUADALCANAL.

The following day, 22 January 1944, the Unit was ordered to move into the 63rd U. S. Naval Construction Battalion area. The men were assigned to quarters consisting of hospital tents that had been erected on the outskirts of the area. Living conditions were crowded for a few days, but were soon eased when the Unit moved into the camp proper, vacated temporarily by the 63rd Seabees, who had left to go on leave.

By 23 January 1944 all hands were working on assignments authorized by 18th Regimental Work Orders.

The Unit was assigned several vacant camp areas to guard. This necessitated a large guard detail, and required about 25% of our personnel, thus making it difficult to properly man our

details assigned to other work orders. Thus guard duty ended in a few weeks and all the men were assigned to projects.

VIII. CBMU NO. 533's FUNCTION ON THE BASE, AND ITS INTERNAL ORGANIZATION AND OPERATION.

When the Officer in Charge reported to the Commander of the Naval Base on 21 January 1944, he was told the Unit would be attached to the 18th U. S. Naval Construction Regiment. He was ordered to report to the Regimental Commander and was told that he would receive all work orders, assignments and instructions from the 18th Regiment.

On 26 January 1944, our Executive Officer was detached from the Unit, assigned to the 18th Regiment Staff, and our Ensign was appointed Executive Officer of the Unit.

By 23 January 1944 all hands were busy at work on projects authorized by Regimental Work Orders and Directives. Most of these first assignments were ordering us to take over projects that the 61st and 63rd Seabees were operating, thus relieving them so they could go on their leave.

Up until 10 February 1944 the Unit had very little of its own equipment and tools and had to use old Public Works Department and 63rd Seabee equipment, assigned to us by the Regiment. The equipment was in very bad shape and it kept our mechanics busy, keeping it in fair operating condition.

We had no tools and parts were unobtainable. What little of our own equipment we had at first was due to the effort of a small volunteer crew who, after finishing their days work, spent what few free hours they had trying to get ashore what little of our equipment and supplies were aboard the Rotanin. After we had been on the island a few days this crew of volunteers unloaded and brought to camp all the gear of ours that was on the ship. This was not much, but we now had most of our office equipment and supplies, 1 weapons carrier, 2 - 2½ ton 6x6 Cargo Trucks, a 250 cu. ft. compressor, cots for all hands, some general supplies and a few tools.

On 10 February 1944, the ships arrived that had most of our equipment, tools and supplies aboard. The remainder of our equipment arrived on 17 February 1944. By 18 February 1944 we had it all unloaded, the equipment serviced and operating, and the supplies in camp. Now we were able to go about our work in a professional manner.

On 26 February 1944 Lieut. Checkow was admitted to U. S. Naval Mobile Hospital No. 8 with operational fatigue. Lieut. Potts was appointed Acting Officer in Charge, in which position he served until Lieut. W. J. Hackett, CEC, USNR reported aboard on 18 March 1944 to take over as Officer in

Charge.

On 19 February 1944, the Unit was detached from the 18th Regiment and assigned to the Public Works Division, Advanced Naval Base, Guadalcanal. The Officer in Charge was assigned the collateral duty of Waterfront Superintendent and the Unit was designated the Waterfront Unit, responsible for the construction, repairs and maintenance of all docks, piers, markers and other waterfront structures. Also, we were to help with bridge repairs and any pile driving operations.

At this time, the Unit gained a new officer; one of our Chiefs was promoted to Ensign. Now we had our full complement of five (5) officers again.

The Unit functioned and was administered as follows: After the Base Commander had notified the Public Works Officer that a certain job had to be done, the Public Works Officer would write out a Work Order for the job and assign it to the Unit that did that type of work. If it was in our line, the Work Order was given to our Officer in Charge. The Officer in Charge, with the aid of the Unit's Operations Officer (in our case the Exec), would assign the job to one of the officers. The Officer in Charge and the officer assigned the job would go over the Work Order and discuss what had to be done, how they would do it, the

equipment and men they needed. Then they would go out to the site and from the plans, specifications and their study of the site they would estimate the material needed to complete the job. When this was done the Operations Officer would inform the Personnel Officer the number and types of men needed for the job, he would inform the Supply Officer of what materials were needed, and the Transportation and Equipment Officer to make available the trucks and equipment necessary to do the job, The Superintendent of the job would go over the work with the Chiefs assigned and tell them what tools, etc. were needed. The Chiefs would take their men, tools, equipment and supplies to the job and start the work.

As the work progressed, the Officer superintending it would ask for additional men, supplies and equipment as needed, or release men and equipment as they were through with their work. The Officer on the job would report to the Officer in Charge and the Operations Office at the end of each day and discuss the job, its progress and problems encountered, and his plan of work for the next day. The Chiefs on the job submitted, to the Office each day, a written muster and a report of the work done by his crew. The Reports Officer would visit the job and check all reports,

thus, keeping fully posted on the progress of the work.

To get material to do the work, a requisition had to be submitted to and approved by the Public Works Officer and then taken to Public Works Depot, or an army supply depot, to get the material requested.

As the Unit only had five (5) Officers, each one had several collateral duties, so the actual working of the Unit did not go as outlined above. Actually, there was a Chief or First Class man in charge of each department, working under the direction of an Officer. The Officer superintending the job would tell the heavy equipment Chief, who was responsible for the Heavy Equipment Department and the maintenance and furnishing of equipment to jobs, what heavy equipment was needed for a particular job and the Chief would see that it was furnished.

The heavy equipment shop of the Unit has been faced with the problems of doing heavy work with a minimum of equipment. To aid in this work a D8 caterpillar was built up and put into use. It had to be completely overhauled - engine, rear end and transmission. The valve covers were full of shell holes, the botton of the radiator the oil cooler and starting engine were completely shot away. The shop made a radiator section and valve covers out of scrap material.

An oil cooler was procured and put on. A blade from a salvaged HD 14 bulldozer was widened two feet. "A frames" were welded on the cat and the blade fitted into them. A Wisconsin motor from a concrete mixer was installed as a starting engine. In one week the shop had this cat in operation. This D8 is affectionately know as "Old Faithful" and made famous by full page advertisements in the Saturday Evening Post and mentioned by Bradford Huie in "Can Do", being a veteran of five campaigns. It has done 4000 hours work, has been used to clear and grade a 25 acre section for beach supply yards, used on pontoon salvage to loosen pontoons from the beach sand, to tow strings of pontoons from the ocean to be used as bridge decks, in the woods to haul out pile and lumber for docks and bridges, and has moved approximately 100,000 yards of dirt while working on malaria control.

On one occasion, a Buda diesel engine on a crane was out of operation, because of the need for repairs. No parts were available so a Waukesha Gas Engine was installed and kept the work of that crane from stopping.

On the cats the track pads were welded to stop the loss of the pads while working in the field.

Cranes were kept busy by the shop and two cranes were borrowed to aid in the building of the dock and in some of the pontoon work. One crane equipped with a drag bucket was

kept busy by malaria control, in opening flumes and draining lagoons, Extra counter balances were put on the light cranes to enable them to handle heavier work. On one occasion, when no parts could be obtained and the hydraulic system of one of the crane booms became damged, a hydraulic system salvaged from a dump truck was installed.

Pile driver leads, forty five feet in length and capable of handling 2450 pound hammers, had to be built special for a 20 ton Bay City, loaned to the Unit by the Army, to work on docks.

A Japanese lathe that had been thrown out was brought into the shop, repaired and set up. It was realigned, cracks in the body welded and gears made. The lathe has a 12" swing and 3 ft. bed. It has been used to make transmission parts, boring and rebushing spring hammers, for trucks, new bearings for cranes and many other jobs that have kept equipment in operation when it was sorely needed. Marine units going forward were supplied with some gun mounts, transmission parts, and in one instance, a guage for use on gun cartridge cylinders, which were turned out on this salvaged and rebuilt lathe.

A fuel truck, using a salvaged truck and a salvaged tank, was built to eliminate the process of fueling by hand. It carries 750 gallons of gasoline and 100 gallons of diesel. The previous method of fueling was done by loading fuel

barrels onto a truck and pumping it out by hand. A segregator, put on the truck, has an added feature that enables the operator to pump fuel from barrel into the tank on the truck when there is no bulk supply available.

A bomb carrier frame mounted on a 4x4 Chevrolet truck serves in the handling of small compressors, pile hammers, spools of cable and in removing and replacing motors in equipment.

A brake, constructed from four blocks of wood and 2 - 3x8" bolts and installed in about 2 minutes, was put on the pile driver leads after hammers had been dropped into the bay, due to the breaking of cables. In order to get the hammer out of the bay the divers and equipment had to be brought out on a barge. This operation took as much as one hour or more before the pile driver could be put back in operation, and several hours to load, unload and move the divers and equipment in and out of the bay.

Salt air caused considerable corrosion of parts and working in so much sand caused a great deal of wear on the equipment tracks and rollers. The demand for maintenance was heavy and constant lubrication was necessary to keep the equipment in operation.

If the Officer, supervising a job, needed trucks to transport men and material, or to be used on the job, he

would notify the Chief in charge of the Transportation Department. This Chief was responsible for the maintenance, repair and furnishing of trucks to the various jobs. The Transportation Department came into being, the shops were built and the organization and work performed is described as follows:

In the last days of February the Unit's transportation equipment arrived at the island. The Unit's mechanics had been relieved by C.B.M.U. No. 520 at the Public Works Depot and, on the 4th of March, the construction of CBMU No. 533's transportation shop began.

There was no lumber available and for the first few days all the Transportation Department consisted of was a grease rack and an area in which the equipment could be parked. All work had to be done in the open in this parking area.

Finally salvaged I Bean material from old style quonset huts were procured. The carpenters, using these for studding, rafters and plates, and canvas for cover, constructed the Transportation, Welding and Heavy Equipment shops. The operation of the shop was started under the supervision of a CMM, a skilled mechanic and shop manager in civilian occupation.

As in nearly every operation, sufficient tools were not available and parts were scarce. Much work had to be turned out through the use of used parts and improvising. Repair

demands were greater than they would have been had the shop been equipped with sufficient tools and if new parts had been available. The equipment serviced and maintained in the shop consisted of, 6 dump trucks, 3 - 2½ ton cargos, 2 - 1½ ton cargos, 3 weapons carriers, one jeep and a lubrication trailer.

Also, Public Works Department equipment was loaned to us on a custody receipt to better enable us to do our work. This consisted of the following: 5 jeeps, a bomb carrier and 2 weapons carriers. In addition to this, we had a Work Order under which we maintanined the Medical Officer's jeep, 6 ambulances, two dump trucks and four weapons carriers of U. S. Mobile Hospital No. 8.

The Transportation shop also maintained all small gasoline engines, such as, pumps, battery charger, tire inflators, paint spray compressors, etc. This was later augmanted by equipment that was built in the shop, which was made from salvaged material, such as, 3 jeeps, a weapons carrier, and later we were issued 2 old dump trucks, which had to be rebuilt.

Through the efforts of the Chief, assisted by three of his men, who were good mechanics, other men were taught the operation and maintenance of the shop, the result of which, has supplied the Unit with a good nucleus of mechanics in

the transportation field.

In the first days of operation on the island, travel conditions were bad and there was a heavy demand for maintenance. After about 1500 miles of travel most of the trucks were found to have bad brakes and were in need of a general overhaul. As road conditions improved maintenance of equipment showed a decided drop in man hours per unit. In accordance with BuPers Construction Battalion Circular Letter No. 7-45, a preventative maintenance is performed every 1000 miles, keeping the equipment in operating condition, and the trucks are painted every four months.

To speed up the job of maintenance, numerous jigs and small tools were designed and constructed by the men.

In addition to the equipment issued to the Unit, the mechanics have designed and built many devices, referred to as gizmos, to aid them to meet the heavy demand for maintenance and repair of the Unit's equipment. Nearly all of these unit designed tools and time savers were made of scrap material procured on the island.

A rim remover, patterned after one seen in use by the army, was built of scrap material and has been in use for eighteen months, with only one minor repair having been made to it. It has cut the repair time on tires over one third. A hoist, salvaged from a dump truck, and a small gasoline engine

to operate it, was mounted in a frame. A tire and rim are mounted in the front of the machine against a template with a hole in its center. The hydraulic ram supplies the pressure and the rim is forced out of the tire. Much work, besides the regular work of the Unit, has been done on this remover. Army and marine units have found it very useful. One order alone, of 342 tires brought in by a marine unit, was finished in less than six hours, approximately one tire a minute. A tire wrench was made, using a pneumatic wrench coupled to a Curtis Compressor. A rimspreader, using a hydraulic jack, handles all size tires from 6 inch to 13 inch in diameter.

THE GIZMO RIM REMOVER

[3 photographs]

A boom, measuring 15 feet in length, fits onto the front of a 2½ ton Cargo truck. This boom can be installed or removed in about five minutes. The winch line of the truck is strung through the boom and used as the load line. It is used to handle some of the heavier equipment that is brought into the camp warehouse and the Unit stockade.

A wash rack was set up and is supplied with sub surface water. The water is pumped from a pontoon that has had the bottom cut away, the sides slit and is sunk into the ground

below the wash rack. It supplies approximately 1300 gallons of water a day. It is used only for cleaning purposes. The hose is equipped with a power nozzle and uses a combination of water and air for pressure. It operates on 100 pounds of air and 60 pounds of water, at a pressure of approximately 100 pounds combined.

A coconut log framework was constructed in the Unit stockade and holds the diesel, water, lubrication oil and gasoline pontoons. A segregator and water trap, salvaged from a burned tank truck, automatically eliminates water from the gasoline pontoon.

For road maintenance, a pontoon mounted on a 2½ ton 6x6 G.M.C. truck is used. The pontoon is equipped with two 2" discharge pipes, on the end of which are located spatter plates instead of the conventional drilled cross pipes. This unit has a three inch shut off valve, which can be operated from the cab of the truck. There is also one other attachment on the tank to which a two inch water hose can be attached for filling fire barrels and can be used in emergency for fire fighting purposes.

A battery charger, using a Y-69 Continental Engine, a D. W. Onan Generator and Control Box - 100 volt capacity and 150 Amps, handles 10 batteries at one time. This keeps

batteries charged for 18 trucks, 11 jeeps, as well as all batteries for the Heavy Equipment Department and all batteries for the Navy Compressed Gas Unit.

A jeep was made into a small pick-up for carrying parts and other small loads, by cutting away part of the body and mounting on the chassis a cut away trailer body from a three quarter ton trailer.

Many of the jobs required welding, blacksmithing and foundry work. Hooks, bolts, drift pins, straps, etc., were required and many pieces had to be repaired to maintain our Heavy Equipment and Trucks, so shops were set up under the supervision of a Chief Shipfitter. If a job required something that the shops could make, the Chief was given the order by the Officer superintending the job. The operation and some of the work done by those shops are described as follows:

The Blacksmith and Welding Shops have proven to be a very valuable part of the activity. A lot of materials needed could not be found on the island. The quickest way to get these, by order, would be to requisition the parts and then wait, perhaps, several weeks for them to arrive at the base. Using what materials there were on hand, scrap and new, the shop provided the Unit with numerous tools and

parts. For the pontoon work of the Unit, the shop made up countless drift pins, wrenches and bolts, ramp hinges and winches, as well as barge rudder systems for barge towing operations. Parts for buoys for anchoring cargo ships, and hundreds of staples for dolphins were made, to be used for work done in the harbors. To assist the Unit on the dock jobs, hundreds of pins bolts and staples of various sizes and shapes were made. Angle brackets, timber hooks and timber tongs were turned out. Driving heads were made for Air Hammers.

In addition to this work, the shop maintained and kept in repair all of the hand tools for the Unit. At different times, the shop had to straighten pile driver leads for Heavy Equipment. Transportation was supplied with bumpers, brackets, truck bodies and various other parts to be used on their rolling stock and in their shop.

Emergency repairs were made to nine U. S. Navy and Merchant ships of the AK class. These were mostly repairs to the hulls near the water line. On one occasion, however, the Unit's best welders were given the task of welding high pressure boilers on one freighter. Other types of work included, freeing jammed anchor and chain, welding gun mounts, repairing jack staff and truck light on an Army F. P. ship,

working, in most cases, from powered barge secured alongside the damaged vessel. This was sometimes hazardous, due to heavy seas.

To assist in the early work done by the Unit, it was necessary to construct a foundry, because of the fact that certain parts were needed and were notavailable on the island. No facilities are furnished a Maintenance Unit for the construction and operation of a foundry.

Fire Clay and Fire Bricks from a beached Jap freighter, sand from the island and an oil drum were the parts used to make the cupalo. An oil burner from a forge was installed in the cupalo and rivet heater was used to melt aluminum. Parts up to 300 pounds could be moulded. Work done for the Unit consisted of 300 pound cushion plates for the pile drivers, bearings and connecting rods, brass sledges and hammers, hasps, hinges and other hardware. After working hours, the men made locker handles, belt buckles, knife handles, and on one occasion, moulded and finished trophies given the winners of the camp tournaments, such as, ping pong, soft ball, etc. A plaque was made for the Mt. Austin dock.

Outside units were also supplied with finished work from the foundry. Flexible camera mounts for reconnaissance

planes were made out of aluminum. Bearings for LSTs and LCIs, bearings for caterpillars - for army - compass hangers for boats and some balance weights for a naval aircraft unit were turned out of this foundry. All the patterns for these parts had to be made from material procured from the island.

Aluminum pistons for hydraulic brakes were made for the International trucks. Combination bushings and hangers were made for several Units on the island for unit washing machines. These hangers and bushings could not be obtained on the island. Later these same parts were supplied to the Island Machine Shop, thereby, keeping machines in operation that would have become scrap, due to lack of these parts.

This is the only foundry on the island and operated for a period of eleven months.

The Supply Department of this organization, like in any other business, is similar to the hub of a wheel and all work done is the spokes, as no job could be started unless supplies and equipment were furnished.

When we first arrived at our so called Island "X", great difficulties were experienced, as supplies and equipment furnished a Unit like ours were more or less for

maintenance purposes, while our work was the same as a Battalion, or mostly new construction. However, this situation was soon remedied by the procurement of the needed items.

A perpetual inventory of all supplies and equipment is kept on stock tally cards and every three months a physical inventory is taken. An additional record is kept of all supplies used to complete work projects.

Sources of supply are varied, and usually it is a case of visiting many different branches of Service before the needed items are finally gotten. The Army has been a contributing factor for our successful tour of duty.

The Supply Department also furnishes the clothing and shoes for the men, and at times, this was a rather difficult job, as most of our work was on the waterfront and salt water ruined clothing in short order. Therefore, it was nearly impossible to anticipate the needs and, at times, clothing was quite a problem.

At no time was this Department unable to furnish the needs of the Unit. Whatever it was called upon to produce this Department usually found the means, and in addition to procuring, it aided, on countless occasions, the details in the field by actually delivering the supplies to the scene of operations.

This Department anticipated the Unit's needs and tried to keep sufficient stock on hand to meet any emergency, and saw to it that the men of the Unit got their full share of "free" soap, cigarettes, shaving cream, or anything else that was being handed out at the time.

IX. WE BUILD OUR OWN CAMP.

The 18th Regiment issued us a Work Order, No. 1206, ordering us to build a camp in the 18th Regiment Headquarters Area on Shock Road that could house a CBMU. This camp, we were informed, would be ours when it was completed. This was welcome news to all hands, as we wanted a camp of our own. We started this camp on 24 January 1944, and the work went ahead rapidly. Fill was dumped in and the ground leveled, pipe lines and streets were laid out, a mess hall was built and C.P.O. and Officers quarters erected. While this was going on, the framing for mens tents were being prefabricated and when the ground was ready they were speedily erected in place. When the camp was 80% completed, orders were received telling us that the camp was not to be ours but was to be given to CBMU No. 520 and that we would have to build another camp for ourselves.someplace else. The men felt a bit letdown by this, but when the new site was selected they turned to

again and made themselves a fine camp.

For the new camp, the Regimental Commander assigned us a section of the old 26th Seabee camp. It was a good site, the ground was high and did not need much fill. It was centrally located in relation to the island activities, thus lessening our transportation problems.

CBMUs 515, 518 and 532 were already living in other sections of this area. A galley, chapel, theater, water-plant and light plant were already in use which we would share, and we just had to hook onto the water and power lines.

The section of the area assigned to CBMU No. 533 was small so the camp was built compactly. The tents were erected close together along straight well ditched streets, making a very neat looking camp. Dispersal of buildings was not necessary as the active theatre of operation had passed beyond our island.

At first the work on our camp progressed slowly as we were hampered for lack of men. We averaged 10 to 15 men per day for several days, but as the Unit began to function more smoothly and the other work got under control we were able to augment this small crew and the work progressed in fine order.

The camp was not quite finished when we had to move in, as the 63rd Seabees were returning from their leave and we had to vacate their camp, so on 4 March 1944, we moved into our new camp, in which we are still living.

The camp, as originally built, consisted of 64 fully screened tents, 49 of which have concrete decks, a warehouse and storeroom, 20 x 60, an armory, a shower and several pit heads. As time and manpower were available additions were made. A heavy equipment and transportation shop was built, also a foundry, blacksmith and welding shop, a rigging loft and a carpenter shop. A section of a quonset hut, 20 x 20, was erected, one half used as the Post Office and the other as the Barber Shop.

Improvements, also, were made. The shower was extended and the extension turned into the Unit laundry. The shower was improved by the addition of a heater and boiler made from salvaged parts from the salvage dump. This supplied continuous hot water. Many things were built for recreational purposes. First, a recreation hall, then a boxing ring, volley ball court, badminton court, softball field and finally a concrete court which was a combination basketball and tennis court. The softball field was later enlarged so that a baseball diamond could be laid out. The theater, in March 1945, had a roof put over it and new seats put in.

THE UNIT THEATER

(1 photograph)

The Chapel got its cover in 1944, and also new benches.

THE UNIT CHAPEL

(1 photograph)

Then the men, of course, made many personal improvements to their own quarters. They built beds, furniture, put in indirect lighting and other conveniences.

X. CAMP LIFE.

When we first settled in our camp we shared the Galley, Messhall, Theater, Chapel and Sick Bay with three other Unit s. CBMU No. 532 left shortly after we arrived, several months later CBMU No. 515 departed, leaving CBMU No. 518 and ourselves in possession of the camp. The two Units got along very well. CBMU No. 533 operated the galley and messhall, under the supervision of its Chief Commissary Steward, while CBMU No. 518 operated and maintained the theater. Improvements and repairs needed on the joint facilities were done by both Units on a 50 - 50 basis, with regards to men and material. The two Units opened a joint Ship's Service store, which was appreciated by everyone. CBMU No. 533's laundry facilities were available to all hands in the Unit. Each

man had one day a week on which he could bring his laundry. He could bring one bundle of his own clothes - weight not restricted - which cost him a 15 cent Ship's Service chit.

A coffee shop was built in a spot convenient to both Units. Hot coffee was served daily, without cost, from 0300 to 2100. Later a coca-cola dispenser was designed, built and added to the Coffee Shop. Coke syrup was bought by Ship's Service, in barrel lots, from the Army. Chit books were sold at Ship's Service for one dollar, and were good for 20 mugs of Coca Cola.

Every Saturday afternoon, while all hands were at military training, an inspection of the quarters was held. A prize, of beer or coca cola, for the three best tents in the area prompted much competition amongst the men.

Recreation, at first, was a bit haphazard, but as we got settled and had time to consider sports many facilities were built. The first of these was a Recreation Hall, a tent frame structure, 20 x 60, completely screened in, which is shown below.

(1 photograph)

This housed our library, ping pong tables and several card tables. Next came a boxing ring, and boxing was very popular

for a while. One of the Unit's boxers reached the semi-finals in the Island Boxing Tournement. When boxing lost its popularity softball came into its own. At first, interplatoon games were played but later the Unit team entered an island league and won the championship in that league. A man was appointed to take charge of the Unit's recreation program. He organized teams and contacted other Units to schedule games. He also took care of the Unit's athletic equipment, of which it had a good supply. He also operated and maintained the Recreation Hall. As time went on a combination basketball and tennis court was built, with a concrete deck, which is shown below.

(1 photograph)

Last but not least, the softball field was enlarged so a baseball diamond could be laid out. All in all, the Unit had a well rounded out sports program.

For those men that liked the quieter activities, fishing and sightseeing parties were organized. The Unit also held several parties, such as, a shellback party to initiate those polywogs that were not taken care of on the ship coming over. We also held a party on the anniversary of our first year overseas, at which, hamburgers, cake, beer, cigars and

cigarettes were furnished by the Unit Welfare Department. Music was furnished by the orchestra of a neighboring Unit. Games and contests were held and the highlight of the afternoon was a softball game between the Officer-Chief team and the mens team, which the men's team won. Similiar parties were held on Christmas and New Years.

XI. SUMMARY OF WORK DONE BY CBMU NO. 533 ON GUADALCANAL.

Up to the middle of June 1945 CBMU No. 533 had completed 171 Work Orders, over 100 projects on oral orders from the Public Works Officer and approximately 100 jobs in accordance with memorandums and directives issued by the Public Works Officer.

Quite a number of these orders were major projects, requiring 50 or more men for a period of over a month.

With respect to the type of work the Unit did, the Unit was in reality a small construction battalion and not a maintenance unit, because most of the Unit's work was construction and very little has been maintenance.

When the Unit first arrived on Guadalcanal the projects assigned to us were jobs the 61st and 63rd Seabees were doing. CBMU No. 533 and the other CBMUs relieved them so they could go on leave.

The major projects that CBMU No. 533 did in the first year and one half of its stay on Guadalcanal are listed below

and are explained in detail in the next few pages, under the heading of notes.

In addition to these major projects there were many others worthy of mention and discussion of them will be found under the following notes:

The Unit also completed many work orders directing it to repair the various docks on the island. Those orders consisted of repairing damage to the docks and piers, caused by storms and ships striking them while docking. The repairs usually necessitated dismantling a good portion of the dock and rebuilding it, by driving new piling, and placing new caps, stringers, bracing and decking.

We also had many small jobs and some maintenance work.

NOTE 1

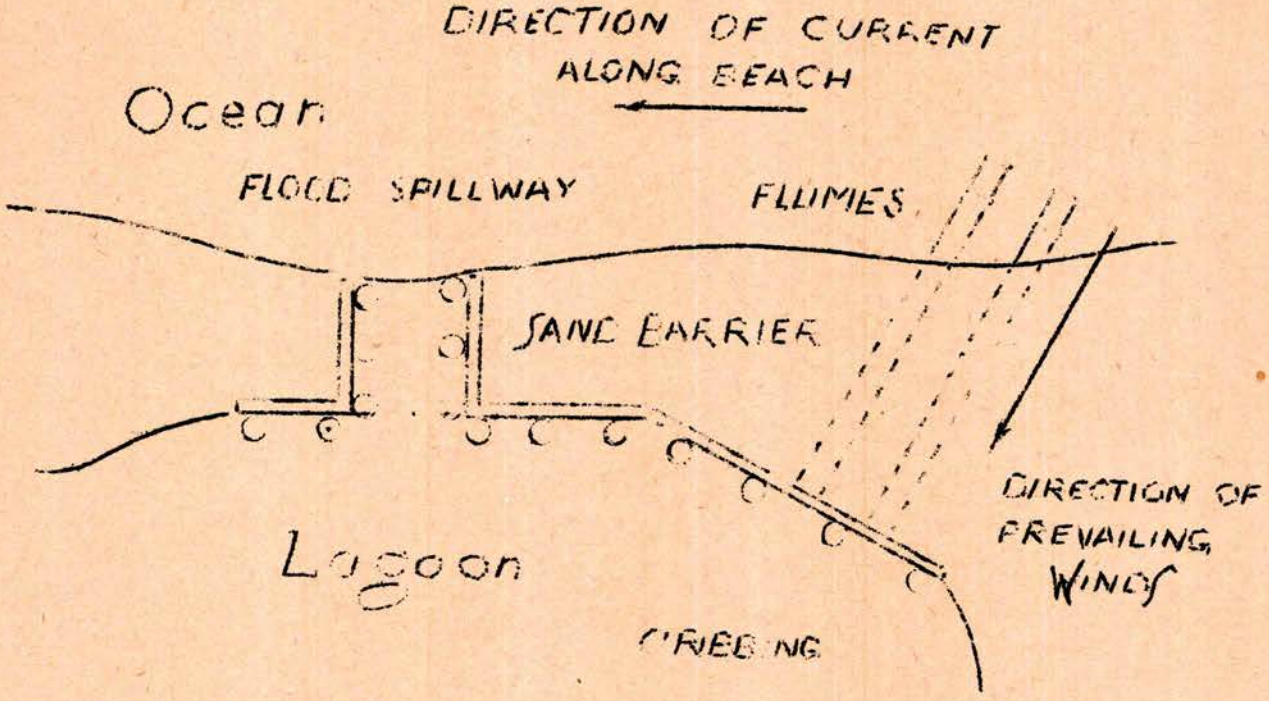
MALARIA CONTROL FLUMES ON GUADALCANAL.

The numerous lagoons and small rivers that join the ocean along the occupied portion of Guadalcanal are only open to the sea in time of a flood. As a result, they form stagnant pools that make excellent breeding places for mosquitoes. To over come this condition, flumes are installed to connect these lagoons with the open sea, so as to allow the tide action to flush the pools. Open flumes are of little use, as they are quickly filled with sand by the wave action along the beach. Tube flumes made by connecting old gas drums, have proven very satisfactory.

A total of forty frame structures were installed between Koli Point and Doma Cove. To do this job a crew of from eight to twelve men was used. The heavy equipment used consisted of a drag line, bulldozer and defense (Chrysler fire) pump.

A two foot fluxuation of the water level in the lagoon was desirable. A rough survey of the area was made to determine the flow capacity needed. More flumes were added where it was found necessary to obtain the correct fluxuation in the water level.

TYPICAL FLUME INSTALLATION



The flumes are always put in on the up current side of the lagoon. This keeps the sand, that is carried into the ocean during flood time, from filling the flume. By pointing the flume into the prevailing wind, the wave action is used to keep the flume free of debris.

Sand Barrier Separating Lagoon and Ocean

1 photograph

The dragline and bulldozer are ready to start excavation for a new flume, tubes for the new flume are shown at the left. These tubes are made in five (5) barrel lengths, this being the maximum length that can be efficiently handled in the water. One end of the tube is coned so that it can be slipped into the adjoining tube to form a slip joint. By doing this, no welding is necessary in the field.

NOTE 1 CONTINUED

Laying Flume in Ocean

1 Photograph

Piling is placed with water jet from Ghrysler fire pump. Outer end of flume is placed so that the top of drum is at least 6" below low tide, and the bottom of drum is 6" above the floor of the ocean.

Placing Cribbing along Lagoon End of Flume

1 Photograph

It is necessary to build up the area over the flume, as the wave action and floods, sometimes wash out an unprotected flume. A cribbed spillway is sometimes necessary to control the water in flood time.

Completed Flume West Lunga Lagoon

1 Photograph

Mouth of flume is covered with screen to keep out debris.

Flushing an old Flume on Kukum Beach

1 Photograph

Sand and mud is easily cleaned from a flume with a strong water jet.

There are about 65 flumes in operation at present time. The typical flume has 2 tubes and will average 180 feet in length and requires 120 barrels. It takes a crew of 10 men, 8 - 8 hour shifts to install one under favorable conditions.

NOTE 2

PONTOON SALVAGE

The pontoon salvage crew worked along the north coast of Guadalcanal between Doma Cove and Tetere Beach, from 2 March

NOTE 2 CONTINUED

1944 through 25 August 1944. In the process of salvaging pontoons from the beach it was found that some of them could not be reached by land. A crane mounted on a powered barge was used to get this material. The barge was anchored off shore and the winch line of the crane was used to float the beached pontoons.

To speed up the forward shipment of equipment and to economize on time, labor crews of men went along the beach separating the pontoons and stacking them at designated points. Two LCT's working under our orders loaded the pontoons at the various stacking points and transported them to the forward areas. During this operation a total of 42 beached barges and strings were dismantled yielding 607 pontoons, 18 propulsion units, and miscellaneous barge angles and jewelery. All of the salvageable material was shipped to P.A.D. #2 at the Russell Islands, and the surveyed material was sent to M.R.U.#9; the island salvage depot at Guadalcanal. Work conditions for this project were not good for a number of times bad weather delayed operations.

The beach salvage work that could be reached by land was done by loading the pontoons on trucks and transporting them to the Island Pontoon Yard for repair, assembly, or survey.

NOTE 3

PONTOON YARD

CBMU No. 533 relieved the 61st Battalion of the pontoon barge assembly yard at Tenaru Beach on February 7, 1944. The work of the yard was to repair and assemble all barges for the Army and Navy working on the island. A survey of the yard showed a major lack of tools as well as repair and assembly parts.

The Pontoon Yard consisted of an area 300 feet deep with a frontage on the beach of approximately 1500 feet. There were two assembly ways, a building that housed the office, blacksmith shop, rigging loft, welding shop, and engine repair shop. There was also one tent, quarters for two men.

There was no dock space at the yard and during the stay here the men constructed two new docks to speed up the handling of the work. The first of the docks was built by sinking a surveyed 3 x 7 barge hull on the beach and building a sea wall of steel braces and angles around it. The use of this dock made it possible to install power units into the barges at the yard. Previously this work was done from the army Tenaru piers. The second dock was a floating dock made from what had been previously known as the "Big Joe" freight barge. This was a 6 x 18 barge that had been used by the Navy to carry freight between the islands of Guadalcanal, Tulagi, Malaita, Florida, Savo, and the Russell Islands. It was a four propulsion unit barge with a two hundred and fifty ton freight capacity. On its last trip for the Navy, a storm came up tearing away the deck house, part of the cargo and damaging the motors. The Navy surveyed the barge. The yard crew secured it to the shore and built an approach to it. The propulsion units were removed leaving a 6 x 18 floating pontoon dock. By using this dock, cranes and equipment could be loaded onto barges for work on the strings. Cranes working on this dock loaded out LCT's with pontoon barge materials for shipment off the island.

In March 1944, the yard activities were concentrated on assembling barges, docks, and bridge strings for the 27th, 61st and 63rd Battalions, who at this time were staging on Guadalcanal for forward movement. From April 1944 to June 1944, the pontoon yard shipped all excess pontoon gear remaining on the island. Most of this material was left behind by the first Seabee Battalions on the island. The assembly yard at Tenaru Beach, near the Ilu River, had been made the receiving depot for this material. It was completely cleaned out by June 16th. Some 91 barge, propulsion units, 1000 pontoon cells and 2500 tons of miscellaneous assembly gear were sent to PAD#2, Russell Islands, via LCT and ATR tug. Other shipments by the yard included parts for a 75 ton crane. shipped to Munda, barge materials to the Russell and Green Islands and pontoon gear loaded out to New Georgia and Emirau.

In April 1944, the yard was assigned the maintenance and repair of 35 army cargo pontoon barges being used at Tenaru, Lunga, Kukum, Koli, Tetere and Suagi. During this time new barges were assembled to replace surveyed hulls. Also new strings of pontoons were assembled to replace surveyed strings on barges. Smaller holes in the pontoons of the barges were repaired on the water, by cutting holes in the decks of the

NOTE 3 CONTINUED

pontoons with acetylene troches, pumping the pontoons free of water and welding plates over the holes to be repaired. In cases where the holes in a string could not be repaired on the water, strings were separated from the barges and floated to the beach. Here they were pulled onto the beach and repaired. After the necessary repairs had been made they were launched into the water and secured in their original places in the barges.

In August 1944 the yard installed two PAB moorings at Kukum, near the Matanikau River. These moorings consisted of one cruiser buoy each. They were secured with sixteen and one half fathoms of ship anchor chain to two three and one half ton Jap ship anchors, in five and one half fathoms of water.

Four 1 x 7 pontoon strings to be used as Duck Landings along side cargo ships in the bay were assembled and delivered to the First Amphibian Truck Battalion at Army Port Lunga.

NOTE 4

FREIGHT BARGE OPERATION

On 15 February 1944, C.B.M.U. #533 began an oral assignment, from the Public Works Officer, of operating pontton barges carrying freight for different Naval, Marine and Army activities on the island.

This assignment first consisted of the operating and maintenance of three 3 x 12 barges and eventually included twelve 3 x 12 barges being operated for this purpose between the following points on Guadalcanal:

Doma Cove, Tassafaronga, Kokumbona, Matanikau, Kukum, Lunga, Tenaru, Koli, Tetere, and Suagi.

A large part of the freight carrying was done from Doma Cove to Kukum, Lunga and Koli, moving approximately eighty percent of the CUB 9 equipment, supplies and material left at Doma Cove. Six crews consisting of Coxswains and deck hands were assigned to the fleet operating out of Doma Cove, taking loaded barges out of Doma Cove to Kukum, Lunga or Tenaru and returning them empty, then picking up another loaded barge while the empty was left for loading.

This operation was secured 28 August 1944.

NOTE 5

THE ST. LOUIS BRIDGE ON THE MATANIKAU

In April 1944, the unit took over the job of completing the St. Louis Bridge, from C.B.M.U. # 532. Floods, caused by the heavy rains, swept the main part of the bridge away. The original bridge was built while the battle of Guadalcanal was still on, and was termed a temporary structure. Two 40' x 50' approaches had been built, approximately 100 yards of dirt had been hauled in for fill and two strings had already been placed when we took over.

The other outfits had encountered considerable difficulty in the placing of the pontoon strings. In the first method they jacked the strings into place from a barge. This was a dangerous operation for there was much movement due to the constant changing of tides. In one instance, due to the shifting of cribbing, a man lost his thumb and others were endangered. The method they used in setting the secon pair of strings was even more dangerous. Heavy cranes were used in setting the strings in place. In tugging and pulling to seat them, one string got away, pulling a Tournacrane into the river. This necessitated diving, patching and pumping operations, as the bottom of the cells had been previously vented.

The job of placing the third pair of strings was given to this unit, two strings 11 pontoons long were assembled in the island pontoon yard. A 3x 7 pontoon barge was used in transporting the strings to the site. Two pontoons with cribbing secured were placed on end at the center of the barge to secure the eleven feet clearance needed when at the site. An Army crane was used in placing the pontoon string on the barge. Under its own power the barge made for the site. The river had to be entered at high tide so as to clean the sand bar at its mouth.

On the site the strings were lowered by pumping water in the pontoon cells of the barge. This brought the string nicely into position. At all times the operation was under perfect control.

In completing the bridge, fifty stateside piles and some forty-thousand board feet of timber were used. 12" x 12" stringers were used for bents. The driving of the necessary piling and completion of the bridge took twenty-five men, eight days, working one shift.

NOTE 6

CONSTRUCTION OF LOWER LUNGA BRIDGE

The new bridge was built just down stream from old pile trestle bridge on Highway No. 50.

The brige has pile trestle approaches with pontoon spans at the point where the stream has its greatest velocity. The pontoon span consists of three strings of eighteen (18) pontoons each. Triple pile bents, on seventy five (75) foot centers, support the pontoons. Cantilever pontoon ends support the river end of the first timber bents, giving a twenty-eight (28) foot span on each side of the center span.

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(1 photograph)
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Seventy five (75) ton Floating Crane loading Pontoon String on trailers.

- - - - - - - - -
(1 photograph)
- - - - - - - - -

The pontoon strings were assembled at the island Pontoon Yard, towed to the Lunga Beach and loaded on Freuhauf Trailers. Two trailers and two trucks were used for each string. The rear trailer was reversed and was fitted with a fourteen foot tongue, fatened to a towing hook mounted on the front bumper of the rear truck. In this manner the rear truck assisted in steering and supplied some power. A nine (9) foot six (6) inch length of ninety (90) pound railroad rail was clamped across the midsection of the trailer and some grease applied to facilitate the making of several sharp turns by putting all the torque on the railroad rails. These rails were later shackled to chain hoists to lift the string from the trailer. Lugs were welded on each end of the rails so as to eliminate all danger of the strings sliding off the trailer.

Eighteen (18) Pontoon String on way to Bridge.

- - - - - - - - -
(2 photographs)
- - - - - - - - -

NOTE 6 CONTINUED

Removing Pontoon Strings from trailers.

(2 photographs)

Two (2) A frames and four (4) chain hoists were used to lift string from trailers. The trailers were removed and the strings lowered on to Dolly. The reason strings were not lowered directly to rails and sidehauled into place was that three supporting bents were washed out due to flash flood two (2) weeks previous, necessitating revision in method of placing strings.

One hundred feet of ninety (90) pound railroad track was spiked to old deck and strings were lowered on a 7' x 16' dolly, made with four (4) pontoon launching rollers. This dolly was placed in exact center of string, leaving approximately forty four (44) foot overhang.

Pulling Pontoon String into Place.

(2 photographs)

The string was pulled into place on the old bridge, opposite the new span. Bent railroad rails were used as skid ways.

With forty four (44) foot overhang, the string was safely pulled across weakened section, as railroad track was stopped over last good bent. This allowed pontoon string to protrude fourteen (14) feet beyond skid rail. When this position was reached, the chain hoists, on near truss, were once more engaged by hoisting after end of string until forward end engaged skid rail, and dolly was freed. Dolly was then moved, until clear, after end was then lowered, after eight (8) foot length of track was placed at right angles to and on main track, making a continuation of after skid rail, thus supporting string and allowing clearance of main rails.

Two temporary piling were driven through deck of old bridge to support near skid rail, as old bridge was in very weakened condition at this point.

Two International 2½ton cargo trucks, with winches, were used for side hauling, one on each approach solidly chocked, winch line was made into four (4) parts by using double sheaves, this proved to be more than adequate.

NOTE 6 CONTINUED

Between three and half (3½) and four (4) hours was necessary to place each string.

Connection of Approach and Span

- - - - - - - - -
(1 photograph)
- - - - - - - - -

Showing foot walk, main supporting bents and welded bracket, which replaced one (1) pile bent. These triple bents were driven from approach by adding nine (9) feet on stiff legs of pile driver. The twenty (20) ton capacity machine had sufficient boom and counterbalance to span the entire twenty eight (28) feet.

This method was entirely satisfactory and saved at least one (1) working day by eliminating false bent and framing, necessary if using a smaller machine or conventional pile leads.

Treadways were of sufficient width to enable all types of trailers and lowboys to engage all tires, thus preventing blowouts. Treadways were made flush with tops of pontoons. Loads in excess of 45 tons were observed crossing on either side without serious deflection. Thirty five (35) ton tanks are in the habit of straddling center curb, thereby, centering load.

Down Stream View of Completed Bridge

- - - - - - - - -
(1 photograph)
- - - - - - - - -

This picture gives completed bridge, appraoches and wingwalls. Traffic was started at 1800 on the eighteenth (18) working day, one hundred ninety six (196) working hours. The overall length of bridge is two hundred seventy one (271) feet.

NOTE 7

CONSTRUCTION OF THE MOUNT AUSTIN DOCK, GUADALCANAL, B.S.I.

C.B.M.U. #533 took over the construction of the Mount Austin Dock when the 34th C.B.'s were secured to return to the states. At that time, the project was about 15% complete. Details from C.B.M.U.'s 518, 520 and 532 assisted.

tn

NOTE 7 CONTINUED

The project consisted of the main dock which is 40' wide by 446' long, with an approach joining at either end. The approaches are 20' wide as they leave the beach, with the last 60' widened to 40'. The east approach is 480' long and the west 432' in length. Ship's drawing up to 33' of water can dock. State-side treated pile were used throughout and the design called for 12" x 14" timbers for caps and 6" x 14" timbers for stringers. The bridge was designed to carry a deck load of 400 pounds per square foot. As there were not enough of the above sizes of timber in the area, 12" x 12" timbers were substituted and the spacing was adjusted to meet the desired theoretical load. Pile spacing was shortened to make up for the use of a smaller cap.

By prefabricating deck sections on a pontoon barge and hoisting them into place with a crane, the speed of construction was greatly increased, as the pile driving rigs were almost continually at work without the necessity of standing by while stringers and decking were being installed individually.

Prefabrication Barge.

- - - - - - - - -
(1 photograph)
- - - - - - - - -

Crane was secured to barge and used to lift timbers into place. Compressor shown was used to drive air saw and hammer.

Making up Prefabricated Section

- - - - - - - - -
(1 photograph)
- - - - - - - - -

By building one deck section on top of another, it was possible to keep several completed sections ahead of the pile crew at all times.

Lowering a 40' Cap Into Place

- - - - - - - - -
(1 photograph)
- - - - - - - - -

Prefabrication barge is standing by and crane is ready to raise deck section into place as soon as the cap has been secured.

NOTE 7 CONTINUED

Raising 40' Section

The above section will be placed on the caps in the foreground. Picture shows that there is only a short way to go to connect the dock, which was worked from both approaches.

Lowering 20' Section Into Place

(1 photograph)

To set the 20' section, the barge was to the side of the approach, but on the 40' section it was necessary to place the section from the end, as the crane did not have the reach to make it from the side.

Lowering a 40' Section

(1 photograph)

Driving Pile for a New Bent Driving a Batter Pile

(2 photographs)

Outside stringers were left out of every other bay so that the 90' batter piles could be driven without interference with the rig driving the bearing pile. To drive the batter pile, a rig was placed on a large barge along side the dock.

Completed Dock

(1 photograph)

To complete the project, the unit drove over 1100 piling and used over 400,000 board feet of timber. It took,120 men from C.B.M.U. # 533, 10 men each from C.B.M.U.'s 518 and 520, 45 days, working 2 six hour shifts a day, a performance that would do credit to any construction unit in the Pacific area.

NOTE 7 CONTINUED

Chief Carpenter Frederick S. Scherer, was in charge of construction at the site and perfected the prefabrication method used.

NOTE 8

DOCK WORK

ADMIRAL HALSEY'S PIER

The first dock the unit was ordered to repair was Admiral Halsey's pier. The off shore end had been sheared off when a pontoon barge crashed it during a storm. The order directed us to repair the pier, and also to extend it. The pier was too small to take a crane so we put the crane and leads on a pontoon barge and drove the piles from this floating rig. When this job was finished the unit was ordered to repair Koli Dock.

KOLI DOCK

The same pontoon barge that had sheared off the end of Admiral Halsey's pier was carried by the storm past Koli Point and ended up under the Koli Dock. The barge had sheared off thirty piles and was wedged between the caps and the beach. The deck was removed and the barge taken apart and rebuilt. The thirty piles were replaced with new piles and all damaged caps and stringers were replaced. Most of the caps, stringers and four inch decking was salvaged and reused. Twenty fender piles were driven and all but five hundred square feet of decking was replaced when we were relieved by the 13th Marine Aviation Engineers. They took over the job as we were ordered to repair another dock that had been damaged.

DOCK REPAIRS

The finger piers at Tenaru, Lunga, East Kukum, West Kukum, Tetere and Suagi were repaired by us several times. Some of these repair jobs were small such as replacing decking, fender piles, bearing piles and sometimes even a dolphin had to be replaced. After a year or so the piles were so eaten away by teredos that they had to be replaced, so that many of the repair jobs called for rebuilding nearly the entire piers. Another large repair order was #2405 that directed us to remove all the bracing from the Kukum and Point Cruz Docks and replace it with new timber. In conjunction with this we were ordered to install ladders and firewalks on these two docks.

NOTE 9

DIVING OPERATIONS

Due to the fact that our unit is a waterfront construction unit, it was found that divers could play a very important part in our work. The unit was not allowed a diver. Due to this and also due to the fact that we had one qualified diver, permission was granted by ComSeronSoPac, to designate two men as unit divers and to qualify other men to assist in the work. Nine men were sent to diving school in Noumea. They all qualified as divers second class and two were designated diver second class.

C.B.M.U. # 533 has eight divers, two designated and six qualified, under the supervision of a diving officer. These men have done many jobs to add to the good work record built up by the unit.

As the activity was not outfitted as a salvage unit, there was very little equipment supplied that could be used for that purpose. In the first of the diving operations there was little diving gear and not enough lines for rigging available. Later we were issued the best of equipment. Two shallow water helmets with fifty feet of hose, good for dives thirty-six feet. Two deep sea outfits good for three-hundred feet, equipped with two 1000 watt underwater lights, an underwater cutting torch, the helmets are equipped with telephones, allowing three divers to talk with each other or with the crew on top-side. Air is supplied by a DeVilBiss compressor.

Diving operations covered the island harbors, and Sea Lark channel from the north east point of the island, starting at Tetere beach and extending north west along the beach as far as Cape Esperance.

Off the Tenaru Army piers #3 and #4 and off Tenaru pier #1 a number of sheared piling and sunken pontoons were hindering the movement of small craft. Some of these protruded to such a point that the craft were running onto them and in cases serious damage had been done to the hulls. The piers in this area handle craft, in size, up to and including LST's.

The divers were put to work dynamiting the sheared piling and removing the sunken pontoons. The area was thoroughly cleaned out to allow passage and the salvagable materials sent to the island pontoon yard for reclaiming and repairs.

Off Tenaru beach a sunken LCVP was raised and towed into pier #1. Also, off the Tenaru beach an Army Catamaran was sunk, upside down in about thirty feet of water, the divers worked three days righting and raising the tug so that it could be returned to the Army and into service.

In Army Lunga harbor there was also a large amount of debris, on the bottom, that was holding up the movement of

NOTE 9 CONTINUED

craft. Here again the sheared piling were dynamited, pieces of scrap metal and pontoons were taken out and the divers also raised four five-hundred pound bombs and one one-hundred pound bomb, that had been dropped by crews loading and unloading ships at anchor in the harbor.

A number of dives were made to inspect hulls, rudders assemblies, and screws of ships anchored off the channel.

At Doma Cove a sunken catamaran and an LCVP were raised from approximately sixty feet of water.

When the Mt. Austin dock was completed divers were sent below to salvage tools and materials that had been dropped beneath the dock, by the workmen, while the job of construction was in progress. Many valuable tools were reclaimed and put back into the warehouse for use by the unit. The work had to be discontinued temporarily because of the presence of sharks. On one dive the diver saw five of them very close to the dock.

The mine disposal officer, South Pacific area, and the unit diving operations officer, worked off Cape Esperance, between Guadalcanal and Savo taking underwater pictures and measurements of a sunken Jap submarine. A marker buoy was secured to the submarine preparatory to salvaging it. Later it was raised and taken to Tulagi.

In the laying of the new one thousand foot submarine oil line, the entire crew of divers were used. They replaced two four inch Jap lines that had been installed in 1942.

The divers also were put in use on the salvage of the Jap freighters. They worked in sixty feet of water rigging salvagable material so it could be picked up and loaded on barges.

At Kukum Beach between Kukum and Mt. Austin docks, a sixty-five foot Army tug was recovered in forty feet of water. Actual rigging and diving took twenty-five minutes. An Army floating crane of forty ton capacity made the lift.

NOTE 10

THE CONSTRUCTION OF THE KUKUM SUBMARINE PIPE LINE

The original Kukum submarine line was a Japanese installation of two 4" lines laid parallel and welded into a unit forming a double barrel shot gun or figure eight pattern extending some 900 feet into the bay. This line was, no doubt, built and laid during the early Jap occupation days. Time and sea water were taking their toll of the metal in this line until in April 1945 it became necessary for the tanker unloading diesel fuel through it to secure pumping as a large oil slick was forming on the water over the line.

NOTE 10 CONTINUED

Our divers were called to the scene and while they prepared to go down air was pumped into the line forcing out the remaining fuel and also causing air bubbles to rise to the surface which simplified locating the break. Numerous leaks developed and the divers reported the lines to be so extremely corroded, pitted and eaten away by salt water that even temporary repairs would not justify the work involved in making them. This line was still a vital artery to the islands fuel supply, thus making its replacement necessary.

The line, pumps, storage facilities and maintenance was under the supervision of the Army. Our "Seabee" unit felt a touch of pride when it was selected to replace this old installation. This new installation was to be a 900' welded 6" steel pipe from shore to tanker buoy.

On the afternoon of April 18, all the formalities of material procurement were ironed out with the Army supply office. An expedient location was found at the site of the oil line for welding and launching the new line.

Mental calculations, notes and plans were discussed by those to be in charge of this new project while earth-moving, welding and handling equipment got under way on the scene. Actual work was to start next morning. Work was to be carried out in two six hour shifts from 0600 to 1800 until completion. The greater part of the next day was spent in grading and leveling an area 40 feet wide and 250 feet long from the beach inland, and hauling 12" x 12" timbers and 20 foot sections of 6" pipe. As soon as the dozer had worked inland far enough to permit safety, a crew began placing the timbers ten feet apart. Two burners and helpers were cutting off the threaded ends of the pipe sections and beveling them for welding. These prepared lengths of pipe were then laid abreast on the timber supports in the leveled area forming the beginning of five 180 foot welded sections.

- - - - - - - - -
(1 photograph)
- - - - - - - - -

As the clearing and leveling progressed more timbers were set in and followed by lengths of pipe. By midafternoon enough pipe had been placed to permit the welders to start work, and by nightfall 100 feet of line had been fabricated.

Each shift had four welders and helpers to roll the pipe with three welding and a relief standing by. With this setup the welding progressed rapidly. Each section was air tested for leaks before launching to eliminate any possibility of having to weld in the water.

NOTE 10 CONTINUED

While the welding was in progress at the beach another crew at camp were building forms and pouring concrete blocks to be used to anchor the finished line at the bottom of the bay. Fifty gallon oil drums were to be used as floats from which the pipe was to be suspended as it was towed out into the bay. Each barrel had an iron ring attached to its center by means of a cable clamp, and all openings were sealed tight. The cables were cut and the clamps made in our blacksmith shop. A total of sixteen barrels were thus equipped and later hauled to the project.

As soon as the bulldozer had completed the grading and leveling it was put to digging out the old pipe from the waters edge to the beach valve. When this line was removed a crew began installing the new Victaulic line out to the beach for connection to the all welded pipe.

- - - - - - - - -
(1 photograph)
- - - - - - - - -

Welding of the sections was completed on the morning of the fourth day. Some delay was caused the preceeding day by three welders turning into sick bay for arc burn to their eyes. The burners were instructed to leave the threads on one end of each 20' section to permit screwing on a testing cap. A plate and gasket was bolted on the flanged end of the line while the opposite end was capped with the testing cap and air line. 120 pounds of air pressure was applied to each section and the soapsuds test was given to each welded joint. It was found that a good job of welding had been done for no leaks developed. After the testing was completed the caps were removed and the pipe ends beveled for welding. The plate was left on the flanged section. Everything was now ready for welding together and floating the sections into the bay.

In the meantime a power barge with a crane and crew aboard was anchored off shore to handle the water operation of pulling, guiding, and placing the line in the strong currents. A cable from the crane was attached to the pipe flange. When the signal was given the pipe was pulled slowly into the water and the barrel floats were attached to every third weld. This pulling arrangement was soon found to be unsatisfactory in making the necessary stops for float attachments and welding on the next section. It was abandoned in favor of a winch from a cat stationed alongside the pipe. While the second section was being welded to the floating line and pressure tested, the dozer was moved alongside and its winch cable hooked to the far end of section two. Thereafter the crane line was used mainly

NOTE 10 CONTINUED

to guide the floating end. Section two was floated out and anchored, and work was secured for the day.

It was cool and cloudy the next day, which was a welcome relief. The remaining three sections were pulled out, welded, and tested in clock-like fashion.

- - - - - - - - -
(1 photograph)
- - - - - - - - -

On the beach the final weld was made to connect the submarine line with the Victaulic line. On the other end the barge crew was connecting the submarine line to the buoy valve by means of a flexible submarine hose. This submarine hose was the same hose that served the Jap oil line. "The Big Half Inch", as it was named by the boys, was now ready for the final air test and sinking.

The beach and barge crews stood silently by as the compressor pumped air into the line for the last test. When the pressure reached a few pounds above the lines working pressure a deep explosion came from the direction of the barge and oil tanker that was laying a short distance off. The barge and the stern of the tanker vanished from view in a mountainous cloud of dark brown smoke. The first impression was that the explosion had occurred aboard the barge or tanker, but as the cloud lifted and no flames appeared, the crew realized that it was the hose that had blown up.

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(1 photograph)
- - - - - - - - -

Some time was spent in rescuing the younger crew members who had jumped overboard and convincing the rest that the barge hadn't been torpedoed, that it was still afloat and that there were no casualties or damage. The tankers crew didn't fare so well. It being in line with the break, bore the brunt of the dust and rust storm. When its crew came out of hiding, they gazed upon a mass of dirty rust soaked rags which had once been a spotlessly clean wash drying on the deck. Censorship forbids printing what the navy afloat called the "Seabees" that day.

The damaged section of hose was replaced with new the following day and this time the line withstood the test.

Sinking was accomplised by means of firing five pounds of .30 cal. carbine bullets into each barrel float from a power boat traveling parallel with the line starting off-shore and

NOTE 10 CONTINUED

finishing at the beach. "The Big Half Inch" settled to its final resting place ahead of schedule. Now all that remained was to place the concrete anchors over the pipe every sixty feet. This was soon done by our divers and barge crew. The line has operated very well ever since.

NOTE 11

DISMANTLING FLEET HOSPITAL NUMBER 108

The dismantling of Fleet Hospital No. 108 was started on 25 April 1945.

Two types of buildings, the T.C.I. Task Force Building, Type B, and the Mobile Type Building, were encountered.

The first building to be dismantled was one of the long 250' Task Force Buildings. No apparent difficulties were met in taking down these type buildings. Although perhaps for the first day the work was a bit slow. However, after the first day the men had a system set up and good progress was made after that.

The general procedure in dismantling was for one crew to remove all the nuts and bolts from the roof and wall panels. While this was being done another crew was busy at removing the interior partitions. These were not a part of the standard building and with the exception of the 2 x 4 the material was not saved.

After the above mentioned work had been completed, a crew of men started removing the panels from each end of the building. As the various parts of the building were removed they were loaded on trailers. As the work progressed, these trailers were moved along with it so that a minimum amount of handling was dealt with.

On the first few buildings the bulkhead material was also loaded on the trailers, but later this was done away with and this material was left at either end of the building being dismantled and crated there. The main reason for doing so was that the space in the building, where the crating was being done, was limited and there was not enough room for the additional bulkhead parts to be stored.

Due to the fact that the plywood deck was not to be exposed to rain, only a certain amount of panels could be removed at a time. The policy used was to remove fifty feet of the panels and then start back on the truss work. After they had been removed, the deck and the underpinning were removed, so that at the end of the day all of the work was finished up to where the panels and wall board had been removed.

NOTE 11 CONTINUED

While work on dismantling the first two buildings was under way, a line for crating the material was being built in one of the centrally located wards.

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(1 photograph)
- - - - - - - - -

Both bulkheads were taken out and a roller track that extended the full 250 feet of the building was installed. The end ten feet of the building, down to the flooring, where the crates would be coming off of the line was also removed. This was done to facilitate moving of the crates as they came off the assembly line.

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(1 photograph)
- - - - - - - - -

At the opposite end of the building a bench saw was installed. Lumber for the crates was stockpiled at the open end of the building, ready for use when needed. The side wall panels were also removed. This was done to provide better air circulation and more light.

Along the side of the building opposite the saw, three unloading platforms were built. The panels and roof ridges were stockpiled on the first platform, which was at the end of the building.

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(1 photograph)
- - - - - - - - -

At the next platform, which was approximately fifty feet from the end, all the angle irons were unloaded. Racks had been installed along side the walls, and on either side of the platform. Into these shelves the material was placed as it was taken from the trailers. At the third platform, which was midway along the building, the plywood was unloaded. Window frames and sash were also taken off here and stockpiled along the inside wall. At the extreme end of the building, the wallboard was unloaded.

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(1 photograph)
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NOTE 11 CONTINUED

Here a short piece of roller track was set up to facilitate the packing of the wall board in waterproof paper. Bins, for the different size battens and small pieces, were placed in convenient spots alongside the walls and track. When the trailers were loaded, a tractor brought them over to the various unloading platforms and the material was placed into its respective place.

The material from the Task Force Buildings was crated as ten foot interior sections. Three crates were necessary to accomplish this. The #1 crate, which is the largest, contains the plywood, wall board, sash, frames and small parts. The #2 crate contains all of the panels, the roof ridge and the roof battens. The #3 crate, which is the heaviest, contains all of the angle irons.

On some of the buildings there were ten foot sections that did not have windows. To compensate for this, the additional material required for a section without windows, was added. The crates were stenciled as being without sash. Too, some of the buildings were without plywood decking. Enough crates to make up this deficit were run through. This required a smaller crate than the other #1 crate.

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(1 photograph)
- - - - - - - - -

The large #1 crate was built alongside the saw and the roller track. Most of the #2 and #3 crates were made in camp and brought over to the area and stockpiled alongside the open end of the building by the first unloading platform.

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(1 photograph)
- - - - - - - - -

The #2 crate was packed at the beginning of the line. #3 crate was filled just ahead of it. Very little space was needed to accomplish the loading of these two crates as all of the material was well concentrated. The #1 crate used more space, but this did not cause any handicap as there was ample room where this crate was being filled.

- - - - - - - - -
(1 photograph)
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NOTE 11 CONTINUED

After the crates were filled they were moved down the line where they were stenciled and where the packing slips were placed on them. The crates were then moved out to the end of the line where a crane picked them up and set them down on blocks to be banded.

(1 photograph)

By doing the banding on the outside, rather than on the line, more room was available for filling other crates. After the crates were banded they were stacked by the same crane in a place where they could be readily loaded out to the trans-shipment area.

(1 photograph)

The bulkhead material was placed in four crates and for the most part this was done at the building site. In addition to the bulkhead itself, the adjoining ten feet of the building was crated along with it. Three of the crates correspond closely with the crates for the interior sections. The fourth crate contains the doors and windows from the bulkhead.

In another crate all the side doors and assemblies from one of the 250 foot wards were placed. This crate was also filled at the building site.

After the above crates had been banded and stenciled they were moved to a central location to await transfer with the other crates.

As a number of the buildings, mainly those used for living quarters, differed from the standard section, some excess material resulted. This material was either crated or banded as individual pieces.

The main reason for crating the material as a ten foot section was that in case of the loss of any one of the crates there would be no difficulty in reerecting the buildings. The three crates would contain the required amount of material for the ten foot section.

A total of 4700 lineal feet of this type of building was dismantled and crated.

Work on the Mobile Type Building was started on 10 May 1945. The first step in dismantling the building was to remove the wall board and the insulation. The next step was to remove about a foot of the flooring along the sides of this building in order that the bottom bolts on the side panels

NOTE 11 CONTINUED

could be removed without ripping up the whole floor. While this was being done, the eaves, ventilators, gutters, etc. were being removed from the building. Then the roof panels were removed and stenciled in piles of four, ready for banding. The gable end wall panels were next removed and placed so that they, too, were ready to be banded.

Then, by using a cat-crane, the floor was removed in sections, and laid to one side. The crane was again used to pull out the post angles, after the floor joists had been removed.

All of the material from this type of building was either crated or banded at the site. Five crates were necessary for a 40 foot building. These crates were made in camp and brought out to the buildings. As the material became available it was placed in the respective crates and banded and stenciled.

Eleven different types of bundles were necessary for the 40 foot buildings with a total of twenty-two of the various bundles making up the required amount of material.

After all the crates and bundles had been banded and stenciled, they were loaded on the trailers by the cat-crane and hauled to the trans-shipment area.

There were a total of fity buildings of this type with an overall length of 2400 lineal feet. At the present time, seventeen of these buildings have been dismantled and crated. Additional buildings are being worked on as soon as they are released from the hospital.

NOTE 12

DISMANTLING KOLI TANK FARM

On 22 February 1945 this unit received the first of several work orders directing us to start taking down thirty-nine one thousand barrel and two ten-thousand barrel aviation fuel tanks. This was part of the island roll up program, and the dismantling of the fuel tanks started immediately after the securing of Carney Field.

There were no mechanical, air or impact, wrenches available at this time. However, they were ordered immediately from Noumea. In the meanwhile, "T" wrenches and other style wrenches devised by the crews working on dismantling were made in the shop and the major portion of five tank batteries were disassembled before the arrival of the impact wrenches with these homemade tools.

A DeVilBiss paint spray machine was mounted on a 4 x 4 weapons carrier with three-hundred feet of hose. With this machine, two painters stenciled all tanks, segments, staves and all accessories. Each piece was stenciled with its

NOTE 12 CONTINUED

individual code number and all important pieces were well match marked, thus any tank could be put together with the pieces going together in the very same order of their removal, in this way the tank on reassembly would be much less likely to leak.

(1 photograph)

All gate valves and pipe line worth salvaging was turned into P.W.D. where all tank farm material was crated by manufacturers packing list for forward shipment.

On the ten-thousand barrel tank a crane was necessary to make the twenty-four foot reach to lower the top segments, trusses and center pole.

(1 photograph)

The arrival of several impact wrenches at this stage made the work progress much faster, as it was estimated that one impact wrench could do the work of at least ten men.

Every safety precaution was taken to eliminate any fire or suffocation. Every crew was briefed in a list of safety rules, devised to make this work as safe as possible, a safety man was designated for each crew to insure all rules were being carried out, and smoking areas were far removed from any tanks.

On one battery of five one-thousand barrel tanks, being of the sixteen feet high or two stave high model, it proved feasible to disconnect the center flange completely around the circumference of the tank. Then with a four way spreader and crane, it was possible to lift the upper half completely off the lower half and set the half tank on level ground. This afforded twice the area to work in and eliminated completely the need of scaffolding that would have been necessary on the sixteen foot tank. Most of the tanks were of the B.S. & B. type. After disassembling, the berns that each tank was placed in was filled in by a bulldozer, eliminating any breeding place for mosquitoes.

NOTE 13

JAP SHIP SALVAGE

On the 28 July 1944 a salvage survey of the beached Japanese ships was made by the unit officer in charge of salvage

operations. A trip was made, west along the north coast of Guadalcanal as far as Maravovo Mission. A detailed report of all salvagable material found on these ships was submitted to the command that ordered this survey. A full size Japanese submarine beached at Fish Reef was inspected but was found to have no salvagable material on it. Leaving the vicinity of Cape Esperance, the next stop was at Aruligo and a survey was made of the beached freighter Yama Zuki Maru. This freighter proved to have much salvagable material consisting of numerous steel sheaves from the ships rigging, fourteen steel I beams, 20' long, three two ton anchors and one seventy-five MM gun. The survey crew next boarded the Yamaura Maru at Hadeville three miles east of Doma Cove, and found one seventy-five MM gun, one three and one half ton ships anchor and twelve steel I beams. The party then proceeded to B.O.U. and boarded the Kyusyu Maru. About it were found two three and one half ton ships anchors, thirty fathoms of ship anchor chain and numerous steel shackles. A fourth beached ship the Kinugawa Maru was boarded and inspected at Tassafaronga. This was found to have one three ton ship anchor, one seventy-five MM gun, and numerous steel sheaves. Still another beached ship, the Hirokawa Maru, lying on its port side near Tassafaronga, was inspected. Here was found one three and a half ton anchor and twenty fathoms of anchor chain. This completed the salvage survey of all beached Japanese vessels along the north coast of Guadalcanal.

A salvage crew was sent to remove and bring back material from the ships. Two of the three and one half ton ship anchors were used in anchoring two cruiser mooring buoys off Kukum near the Matanikau river, the seventy-five MM gun off the Kinagawa Maru was mounted at ComAirSoPac Headquarters, the seventy-five MM gun off the Yamaura Maru was mounted at N.A.B. Guadalcanal and the balance of the salvaged equipment was delivered to P.A.D., Guadalcanal.

MISCELLANEOUS NOTES ON JAP SHIP SALVAGE

Four of the ship anchors salvaged were raised off the bottom of the bay using unit divers to secure the crane lines to them.

A twenty ton crane placed on the deck of a 3 x 12 pontoon barge was used to remove equipment from ships. Where equipment aboard the ships was out of reach of the crane and too heavy to be moved along the decks to an accessible place, it was shoved over the side and use was made of the unit divers in raising it off the bottom of the bay alongside the ship.

NOTE 14

CO2 PLANT

When we first arrived at Guadalcanal the Naval Base was setting up a CO2 Plant. Our unit was ordered to send six men to help in the installation of this plant. The men requested were welders, pipe fitters, metalsmiths and boiler men. A quonset hut had been built by C.B.M.U. #515, and in this the men set up and operated the CO2 unit. The only equipment available on the island was a DuPont hydrogen unit. This unit produced hydrogen and gave off CO2 as a by-product. The hydrogen was not needed but the CO2 was so the unit had to be rebuilt to increase the output of CO2. To convert this unit to a CO2 producer the following changes were made: A heat exchanger was made from a Japanese torpedo charging unit that had been found on the island. This charging unit was of poor quality and low in efficiency, preventing as large an output of CO2 as was expected. A water tower was built, compressors pumps, piping and all other necessary fixtures were installed. The gas produced by this plant was put into fifty pound bottles and delivered for forward shipment. Until quarters could be built, the men lived in the same hut that housed the unit. The hours were long, about fourteen a day, but the men did not seem to mind as they took a keen interest in converting and setting in operation this unit. No matter how well the unit lived up to their expectations they still wanted it better so improvements were added constantly.

NOTE 15

CONSTRUCTION OF B.S.I.L.C. STEEL VAULT

C.B.M.U. #533 received a work order on the 27 July 1944 to construct an all steel strong-room for the British Solomon Island Labor Corps, Guadalcanal. Utilizing a new T-6 barge pontoon cell to make a 5' x 5' x 7' vault. A section was cut from the pontoon to provide a doorway into the vault, this same section which was removed from the pontoon side was used to build a steel door for the vault. It was reinforced on the inside with steel angles, a set of six heavy steel burglar-proof hinges were made by the blacksmith and welded to both the door and the vault itself. When this was completed, a locking mechanism was devised and installed, completing the welders and blacksmiths work on the strongroom. A carpenter then built a wood deck, shelving and racks inside the vault after which it was painted inside and out and delivered and installed at B.S.I.L.C. Headquarters, Tenaru, Guadalcanal.

NARRATIVE

OF

FLEET HOSPITAL 108

ON

GUADALCANAL

Submitted to
Commander South Pacific
Force and Area,
Via
Commander Naval Bases,
South Solomons Sub-Area,
1 August 1945.

Captain George A. Alden,
(MC), USN.
Medical Officer in Command.

Narrative by:
"J" Lester Kobacker,
(MC), USNR.

U. S. FLEET HOSPITAL NUMBER 108
c/o Fleet Post Office
San Francisco, California

NARRATIVE OF FLEET HOSPITAL 108 ON GUADALCANAL

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U.S. FLEET HOSPITAL NUMBER 108
c/o Fleet Post Office,
San Francisco, California.

Looking backward from the vantage point of the completed mission on Guadalcanal, an historian of Fleet Hospital 108 has the assistance of a perspective ranging from inception to termination. Events, periods, individuals, drop into appropriate and balanced positions. This is the condition today as we pause in the roll-up period of this institution, with the entire mission behind us and the indefinite and intriguing future lying ahead. Many buildings have fallen, equipment has been crated, personnel has, in part, been released and there remains only to move the last of the packing cases over the now gutted roads to the dock areas. What has occurred during these three years since Fleet Hospital (then Mob 8) had its inception constitutes a saga of many men and many miles. It would be well to go back to the earliest recorded phase and trace it to its present return to the cocoon stage.

ORIGINS

Captain W. H. H. Turville, (MC), USN, reported at U.S.N. Medical Supply Depot, Brooklyn, on 17 July 1942 in response to orders assigning him duty as Medical Officer in Command of Mobile Hospital No. 8. The staff appeared soon thereafter and the work of arranging inventories and studying supply tables

was combined with practical and didactic instruction in matters germaine to the building and setting in operation of such an hospital as was under consideration. Pertinent professional instruction was given during this period. This busy period culminated in the commissioning of the hospital on 12 August 1942 and early the following month the unit moved to Navy Pier, Edgewater, New Jersey. There, on 10 September, a report to CincPac described the unit in a state of material readiness. On 15 September 1942, men and material were ordered moved to the San Diego area for further transfer. Departure was not accomplished until 10 October 1942. The unit arrived at Terminal Island, San Pedro, California, early on 15 October 1942.

Since it became apparent at this time that transoceanic movement would be deferred for a considerable period, plans were formulated for the general comfort and welfare of the personnel. With a view to the latter, athletics, on a wide scale, was inaugurated, military drills were held and certain members were permitted to pursue further medical training at nearby institutions.

Further orders were not forthcoming until 15 February 1943 when the awaited travel orders arrived. The first contingent left the United States on 2 March 1943 aboard the U.S.S. JEAN SYKES. It consisted of six officers and six men and much equipment. This ship did not reach Guadalcanal until 4 June 1943.

A larger contingent left on the U.S.S. ELIHU THOMPSON on 4 March which arrived at Espiritu Santo on 1 May 1943. Some of the passengers transshipped to Guadalcanal on the U.S.S. BRESTAGE. The remainder of the passengers reached Guadalcanal on board the U.S.S. TRYON. Atthird group come on the U.S.S. MATTHEW THORNTON arriving 4 May. The remaining personnel came out via the U.S.S. ROCHAMBEAU and U.S.S. CRESCENT CITY which arrived 4 April 1943.

Work was begun immediately upon arrival of the first contingent with aid of the 46th N.C.B. Co. D. First work consisted of the clearing of trees, road cutting and erection of a water tank. Building began on 10 May and while armored huts, messhalls and tents were built, the work of ditching, filling, clearing, etc., proceeded simultaneously.

The unloading was an epic in itself. It was accomplished by means of lighters, LCT'S, pontoon barges; every conceivable floating craft. Officer "riders" located, met and escorted each load which went hospitalward. This was necessary in a day when lumber, mattresses, sheets and other luxury items were in great demand and without the escort the consignments might have never reached their designation; a sort of throw back to days of the Wild West. The unloading and transport continued night and day, in all sorts of weather. By night, battle lanterns lighted the scene. Air raids during this period were, fortunately, few in number.

THE BUILDING PERIOD

Building of the hospital proper began on 11 June 1943. Officers and men, together with two C.B. outfits, the 46th and 63rd, constituted the workmen. Assignments were divided into these categories:

Building crews.

Material distribution crew.

Quarters building crew.

Cement mixing.

Ditch digging.

Pipe laying.

Malaria control.

Commissary storehouse and procuring.

Garbage and waste disposal.

Property clean up.

Post hole digging.

Tool room.

Road, ditch and culvert.

Dump unloading.

Logs.

Medical supply facility.

Beginning at 0530 work continued until 1630 and most construction was under supervision of C.B. Officers and C.P.O.'s.

It is considered superfluous to describe quartering and subsistence during those days. It was typical of forward area existence which has become so familiar in the ensuing years wherever American troops have had to pioneer. Certainly it was not luxurious and with steady atabrine administration the entire crew assumed a fine ochre color.

Time had brought certain other alterations. On 1 June the Red Acorn Hospital and Dispensary with five medical officers became a part of Mob 8 and staffed what was to be a branch facility, the Koli Point branch. Simultaneously Lieutenant Commander Joseph Kervin, (MC), USNR, became Executive Officer.

During June the personnel and material for the Medical Supply Facility arrived. The Quonsets to house this activity had been begun already and were located in closest proximity to the remainder of the compound which was being formed.

16 June was a memorable day because of the largest of air raids during Mob 8's existence. 45 Zeros and 30 Bombers were shot down. Much of the action occurred directly overhead.

By 28 June the Medical Supply Facility was installed and ready to serve the area.

On 9 July orders arrived directing that bed capacity be increased to 1750 with 1500 at the main hospital and 250 at Koli Point branch. 7 August was the day designated for the opening of the hospital and the reception of 350 patients.

Simple but impressive ceremonies were held and the first patients were treated.

We may now look briefly at the hospital as a physical compound examing the features of its location, construction and organization.

THE FUNCTIONING HOSPITAL

The main hospital lay in a 100 acre tract in the central portion of the northern coast of Guadalcanal. It lay about 1½ mile inland almost midway between Henderson (6 miles) and Carney (8 miles) airfields. The terrain was level and consisted of heavy silt which afforded poor drainage and was well shaded by numerous palm trees.

The main highway traversed the center of the area. On the one side were situated the administrative buildings, one area of wards, one operating room, X-Ray, all messing facilities, laundry and power houses. On the other were the medical facilities, storerooms, dental department, laboratory, officers quarters and three areas of the wards with a second operating room. Later on nurses quarters were built behind this area and on the outskirts of the buildings areas. The psychiatric cases were accommodated in a group of buildings which, while not isolated, were nevertheless at the edge of the compound. Buildings were not of uniform construction. Wards were chiefly of steel panel construction as were officers quarters and some

special departments. Quonsets were used for medical facilities, for theatre and certain storage spaces. Wooden structures completed the picture being used in messhall construction and in certain barracks. The crew occupied a separate segment at one corner of the compound and there were wooden huts, tents and Quonsets for their use.

Water for the institution was derived from the Tenaru river from whence it was pumped to large elevated tanks on the grounds after filtration and chlorination. This was a late development but once established made a bountiful supply available.

Power was derived originally from the single power house. Later with additional demands from X-Ray on the one hand and increased ward and living quarters on the other, two additional outlying generators were placed in operation.

Road maintenance was simplified by application of a good hard stone surface but the base was sufficiently porous that highways were not self maintaining.

Though two operating rooms were in operation throughout much of the hospital's life, all messing facilities were in one spot and because this was located at a point which would constitute as little nuisance as possible, it followed that many, if not most wards, were too distant from the messhall and galley. Improvised assistance was obtained later when a

small Quonset-housed special diet kitchen was added to the buildings and in a more accessible location. Though not so intended, it was made to assist in serving bed patients diets. The main galley had no thawing facilities for meat and an improvisation was necessary here late in the hospital's service.

The spreading of buildings over the large area, while suitable for dispersal, led nevertheless to some awkwardness in transportation of patients and since no covered runways were provided the transport of patients between wards, X-Ray, operating room, etc., usually necessitated ambulance service in bad weather which was generally prevalent. Another problem arose as a result of efforts to build extensions on the steel buildings. These usually leaked badly at the joints after a time and this also occurred on short connecting runways between buildings. Wards were 20 to 32 bed capacity, neat in appearance and readily cleaned. However there was notorious lack of medical officer office space in the earlier built units. Wards had inside water and urinals but, except for Sick Officer Quarters, heads were out-of-doors and often at some distance from the wards which, in the drenching rains, was very difficult for patients and personnel.

The maintenance department occupied two small buildings, one a carpenter shop and the other a combined machine, auto

and electrical shop. Though the work was good it was always a source of surprise that so much could come from such a congested small setup. It was evident that more space was needed. In building any institution employing rolling stock it appears of utmost importance to provide cover for cars and trucks. The unfortunate results of not providing such shelter became evident as time went on and the cars of Mob 8 began showing the ravages of the continued bad weather.

The recreational facilities of the hospital were developed to include baseball (with very expert and active competition), volleyball, badminton, ping pong, pool and movies. The Boone-Cornet auditorium named after Jesse H. Boone, HAlc, V6, USNR and Carl E. Cornett, HAlc, USNR, who were lost enroute to the Russells from Guadalcanal on 9 July 1943, due to enemy action, was a large Quonset in which movies, concerts, shows and church services were held.

In the heyday of the hospital a double Quonset was occupied by the Red Cross and at this period a small separate buildings contained the heart station, central supply room and the nurses rest rooms.

The Koli Point branch was located on a 40 acre tract several miles from the hospital and about 1½ miles southeast of Carney Field. It consisted of a set of wooden buildings and with its own messing facilities, doctor and dentist, it

was self sufficient. It served as a welcome expansion means during the busy days.' Later with a destructive fire in the galley and lack of need for its facilities, it was abandoned in the winter of 1944.

Administrative relationships were of a somewhat complicated but effective character. The Island Command was Army, a General in charge. All organizations operated under this general supervisory lead so public health measures, policing and food distribution were under Army control. Headquarters of Island Command was about two miles distant and the most cordial relationships continued throughout the hospital's life. Early in the hospital's existence the varieties of food available through army sources was less extensive and desirable than that available to forces afloat but this improved until the ration at Mob 8 became excellent in all respects. The Commander Naval Base, Guadalcanal and Commander South Solomons, were one and the same and was in indirect chain of command in non-medical matters between Commander South Pacific and Mob 8. Here, too, a satisfactory relationship existed. A further bond came about through the reference of many cases from N.A.B. Dispensary to the hospital. The Commanding Officer of Mob 8 was also in command of two other units housed on the hospital grounds: the previously mentioned Medical Supplies Facility and the

Optical Unit. Each of these commands had its own staff but occupied living and messing facilities with the hospital staff. In addition the Commanding Officer was the Base Medical Officer and Staff Medical Officer, South Solomons.

FURTHER HISTORY

This, then, was Mob 8 in full operation. Casualties were brought in by the shipload; marines from the large groups staging on the island and members of various naval units who fell ill were admitted for care.

In September 1943, Captain John Terry, (MC), USN, assumed the duties as Executive Officer.

Throughout late 1943 the areas rounded out and wards filled and by early 1944 it became evident that prompt provision was necessary for evacuating patients who required protracted convalescence and early in March the evacuation to the United States of such patients was begun. Later as experience grew the employment of air as well as ship evacuation was utilized and thousands of patients reached the states by the faster route. This was accomplished almost exclusively through the A.T.C. hospital plane service which was very generous in the space assigned use of the hospital. In retrospect it seems that there were intervals when unduly large numbers were permitted to accumulate - especially in the officer category - before transportation was provided and the loss in manpower and money must have been considerable.

THE REST CAMP

On 22 April 1944, an area to be known as the Rest Camp was taken over. This had served as Admiral Halsey's quarters and consisted of a set of highly desirable buildings set in a palm grove directly on a fine beach and about two miles from the hospital. This establishment was equipped with rooms, galley, messhall and crews quarters and was turned to use as a convalescent camp for sick officers from the Sick Officer Quarters at Mob 8. It furnished a fine tonic atmosphere as well as more beds to the number of 50. One medical officer remained in charge, this desirable detail alternating monthly. In later days, that is in early 1945, the camp was partially dismantled and used as a day camp transporting the patients by bus for meals.

THE NURSES

Meanwhile the arrival of the first nurses occurred on 25 March 1944, some eight months after the hospital had received its first patients. They were housed in a set of buildings previously mentioned and equipped with a great many comforts. Their chief usefulness would have been in the earlier days of hospital organization. Their function now was rather to improve the housekeeping in which they cooperated well. It has remained a moot question whether the infinite time and care requisite to their care, protection, entertainment;

comfort and transportation was commensurate with the services rendered in such an institution at that stage of development.

The time had come for the original Medical Officer in Command to take his leave. Upon Captain Turville's departure on 17 May, Captain Terry succeeded as Commanding Officer.

The hospital was soon in the midst of its highest point of activity. Malaria was waning but the large number of admissions for filariasis was the result of the many Marine personnel who had been stationed in Samoa previously and who were now on Guadalcanal. Skin conditions were numerous and required active in-and-outpatinet care. The neuropsychiatric service had its wards full almost constantly. Most cases were those of fatigue, combat and operational, and psychoneurosis. However, there were the usual number of frank psychoses. The surgical service had a busy time with battle casualties and with the surgical diseases usual in any group. Among the latter unfortunately as well as among battle cases were a great many severe burns, usually the result of careless handling of gasoline.

It was seldom in these days for there to be less than 1200 patients but usually there were 1400 or more and it was not unusual to reach 1800. Peak census occurred on 29 September 1944 when 576 patients arrived by ship and 196 by plane from the Palau campaign. The total patient load was 2544. It need not

be emphasized that every building on the reservation was taxed to the utmost.

On 9 June 1944, the now famed designation Mob 8 was discontinued and in accordance with new directives the institution became U.S. Fleet Hospital Number 108.

The hospital, during 1944 and early 1945, was the evacuation center for the South Solomons. All cases being evacuated to the south or to the states from Tulagi, Russells and at times from Santos, were routed through Fleet Hospital Number 108. This resulted in much duplication of record taking and keeping and accounted for the frequent crowding. When possible direct loading from evacuating hospitals would be the method of choice.

Only once did the hospital receive Japanese prisoners. This occurred on 26 June 1944 when the SOLACE brought 26 wounded Japs for treatment. The origin was said to have been Saipan.

Thus passed a long, busy year and on 11 December 1944 Captain J. S. Terry was relieved of command by Captain J. W. Vann, (MC), USN, who came from nearby Tulagi to assume the post. Captain B. S. Pupek, (MC), USN, who had been Executive Officer under Captain Terry continued in this capacity.

At years end one of the largest stateside evacuations occurred. 552 patients embarked just before midnight 31 December 1944.

In the early months of 1945, there was a perceptible but steady decline in the admission rate and though the census did reach 1750 patients it was due to tardy evacuation rather than accelerated entry.

It was found desirable to close one of the operating rooms in March and by April several wards were inactive. The war was pulling farther away. Casualties were not being brought in and the hospital now served the units still staging on Guadalcanal for the Okinawa campaign and as an evacuation center for the South Solomons.

Captain Pupek, the Executive Officer, was detached on 5 April 1945 and left for the United States without delay and on 26 April 1945 Captain Vann was relieved of his command by Captain George A. Alden, (MC), USN who came from the United States to assume the post. The change of command was marked by a ceremony attended by the staff.

On the same date, in accordance with Comsopac orders, the hospital was reduced to 500 bed capacity and, since it was evident that this was preparatory to further roll-up, measures were undertaken to speed this process. Immediately the nurses left, some by air, most by ship.

On 11 June 1945 orders were received directing further reduction of the hospital to 200 beds. Wards were dismantled, officers quarters and messing facilities were reduced and the club and indoor recreational buildings were partially dismantled.

On 10 July 1945 orders were received to cease active operations on 15 July 1945. This movement was postponed by modification of orders ordering a continuation of function because of an influenza epidemic among native laborers on a nearby island. The epidemic did not involve naval personnel and meanwhile the census had dropped to a mere handful of patients. Further orders on 21 July 1945 designated 23 July 1945 as the date of inactivation. In accordance with these orders, the last two patients returned to duty on 23 July 1945 and the hospital was closed to further patients as of that date. Beginning then, the period of active staging was inaugurated. By now orders had been received rescinding previous instructions regarding tearing down buildings and so although two-thirds of these had been dismantled according to original orders the future packing was greatly simplified. This could be accomplished in a fortnight and as the last truck passed and picked up the sentry at the gate and headed for the docks and staging area one might look back at a great era in the career of a great hospital. 44,235 patients had been cared for and restored to duty or sent on for further care if that was possible. This was done with a staff which worked harmoniously and diligently, which griped no more than good naval tradition insists upon and found its job worth doing. It was a "Happy Ship" and so may it be in its future career.

Annex "A" to
U.S. Fleet Hospital Number 108
Unit History dated 1 August 1945

MEDICAL REPORT COVERING THE COMBAT PERIOD ON GUADALCANAL

Among American troops malaria appeared alarmingly in September, and the reported incidence rose rapidly so as to incapacitate about 15% of the total force during November. Thereafter it fell slightly, those hospitalized remaining at around 10% till the end of the campaign. Diarrhea was also prevalent at intervals, particularly in one regiment of marines. Although rations were short at times, there was no significant outbreak of frank vitamin deficiency disease, but there was a moderate amount of undernutrition.

The cumulative effect of these conditions was grave. A significant percentage of our forces was out of action much of the time, and our military effectiveness was reduced. The result, however, was never quite serious enough to prevent the troops from dealing with enemy assaults successfully and from making such counterattacks as were necessary.

The Japanese had underestimated our strength on Guadalcanal, and landed the first echelon of the ICHIKI Detachment in mid-August 1942. This group amounted to well over 1,000 men. Deeming the force sufficient for its purpose, it was landed east of our beach-head and thrown against our left flank. Contact was made along the ILU River. Approximately sixty-five marines held the sector in which the main force

attacked, and in the ensuing engagement, generally called the First Battle of the TENARU, the assault was repulsed with crippling losses, and the survivors were mopped up and scattered the next day. The second echelon, known as the KUMA Battalion, about 1,500 in strength, landed on Guadalcanal in late August and suffered severely in later engagements.

Soon after, the enemy attempted again to retake the LUNGA Airfield, this time with a somewhat larger force, the KAWAGUCHI Detachment, named after its commanding officer, Major General Kiyotake Kawaguchi. It had as its main strength the 124th Infantry Regiment and the 35th Infantry Brigade Headquarters, both drawn from the 18th Division. It landed on Guadalcanal in late August 1942, most of it likewise to the east of our beach-head, in the Koli Point Area. It probably totalled about 4,500 in strength. It attacked on the left flank in September 1942 and was repulsed with heavy losses in the Second Battle of the TENARU and in the Battles of the RIDGES. The main force remained intact, and continued to engage our troops continuously until October, by which time it was seriously depleted.

Medical factors had no role in the initial defeat of the main efforts of the ICHIKI and KAWAGUCHI Forces. They were defeated because they were not strong enough for their mission, and because their tactics were faulty, indeed in some cases virtually suicidal. Both units first attacked when fresh and

in good condition. Our troops were beginning to suffer from malaria, but were not yet seriously affected.

Medical factors did, however, play a major part in determining the numerical strength and effectiveness of remnants of the ICHIKI and KAWAGUCHI Forces which participated in later actions.

The counted enemy dead after the First Battle of the TENARU amounted to something over 1,000. Even doubling this figure to allow for subsequent actions does not account for the entire ICHIKI Force. There were no known survivors. Thus indications are that perhaps 500 - 1,000 in the ICHIKI Detachment, most of whom were in the second echelon or KUMA Force, survived the fighting, but died later in the jungle after being scattered. Similarly in the case of the KAWAGUCHI Force, an outside estimate of battle casualties would be 2,500, and an estimate of 100 survivors evacuated is more than generous. This leaves a minimum of 1,900 unaccounted for, and we can safely conclude that they too died of disease and starvation. Had these troops survived in good condition, the combined force of about 3,000 would have been a welcome addition to the hard-pressed enemy troops subsequently landed.

Clearly had the Japanese been able to keep their troops alive and well, and had they conserved their forces and arranged them for a coordinated land attack on our lines from the west and south, their numerical advantage would have

given the action a fair chance of success and our troops might have lost the airfield and been driven into the sea in spite of our naval victories.

The Japanese failed in their objective for several reasons, chief amongst which were the following:

(1) Many units were thrown into the attack prematurely without adequate strength to give hope of success.

(2) Artillery preparation provided was insufficient.

(3) Several planned coordinated offensives in force from the south and west in late October and early November failed because difficult terrain and weakened conditions of troops made it impossible for all of the spearheads to reach their objectives in time to begin the assault as scheduled. The result was that the various units were engaged successively and our defending forces could be shifted to meet each onslaught as it materialized.

(4) Japanese troops had a proportion of sick so much greater than ours, and so many had died of disease that actual numerical superiority of effectives was never achieved in spite of the fact that they had landed more troops on the island than we had.

(5) By the time the Japanese commanders came to realize the size of the force necessary to accomplish their objective and the tactical consideration demanded, the forces available were so ridden and depleted by disease and malnutrition as to

give no hope of success. Naval blockade effectively precluded the arrival of reinforcements. Had the enemy kept his forces well and avoided deaths from sickness, and had he been able to treat the wounded properly and return a large number to duty, the Japanese would have been able to maintain a distinct numerical advantage in spite of battle casualties. A properly conceived and executed offensive utilizing the full forces might well have succeeded in late November or early December.

Having pointed out how the Japanese failed to exploit their superior numbers during the middle phase of the Guadalcanal campaign, and how they let chances for success slip away through faulty tactics, insufficient artillery, poor execution of plans, and failure to maintain the health of their troops, it is appropriate now to analyze in detail the extent and nature of the medical factor as it operated on the enemy. It will appear that this was the greatest single factor working to reduce the enemy strength.

(a) MALARIA: It is well established that the Japanese on Guadalcanal suffered from malaria far more severely than did our troops. Indications are that virtually every enemy soldier who landed on the island was smitten by the plasmodium within a month or six weeks after landing. Not only was the incidence almost universal, but the severity of the infections was far greater than in our forces. As a consequence of the extreme

malignancy of the malaria in the Japanese troops, the death rate was extraordinary and disastrous, probably amounting to over one-quarter of the entire force by the end of the campaign.

Some reasons for the virulence and extent of this malaria can be surmised. The Japanese operated for the most part in dense jungle and in swampy areas. We chose open country, coconut groves, or grassy ridges whenever we could. The enemy was unable to take any measures for mosquito control. Our efforts at the time were rather late and inadequate, but did some good. The Japanese used no repellants and few mosquito nets, and had no effective system of atabrine or quinine suppressive medication. Again these measures were delayed in initiation and incomplete in execution in our forces, but they did help. Their troops had little or no motor transport, and became exhausted from long marches with heavy loads. All supplies and ammunition had to be carried by men, as the 2nd Division had left its horses at RABAUL. But perhaps most important was the fact that our sick could be taken from the jungle to a well-organized field hospital and given rest and adequate treatment, and be evacuated promptly by air if conditions warranted. In contrast, most Japanese suffering from malaria were made to stay in the lines and fight because of their great need for troops. Turning in for treatment was discouraged, and many died of malaria in foxholes in the line. The

Japanese never were able to set up a smoothly functioning field hospital, and the sick who were treated were ordinarily laid out on mats or on the ground in the jungle and sometimes given some scant shelter by means of palm thatch. Sanitation in these outdoor sick bays was atrocious. The sick were reluctant to use trench latrines, particularly at night, and deposited their excrement in the immediate vicinity of their mats, whence it was often washed into the lean-to shelters by the rain. Their supplies of quinine and other medicines were depleted, and in some cases sick soldiers received intravenous injections of coconut milk, given because of the lack of saline solution. Food was extremely scarce, and coconuts, grass, taro, wild potatoes, fern and bamboo sprouts, and even crocodiles and lizards were used as emergency sources of nourishment. Hard-pressed and harried destroyers and barges hastily discharging their cargoes and getting away by night were able to evacuate only a few of the sick. Miserable without shelter, soaked with rain, underfed, with little hope of evacuation, and bitten continuously by mosquitoes, it is no wonder that the Japanese died in large numbers.

FIRST NARRATIVE

OF

NAVAL LANDING FORCE EQUIPMENT DEPOT

Submitted to:
Commander South Pacific

Via:
Commander Naval Base,
Guadalcanal

25 June 1945

Released By:

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Officer-in-Charge.

1. This activity, which was formerly located at Noumea, New Caledonia, was established at Lunga Point on Guadalcanal on 7 December 1943. At that time, it was deemed necessary to move this depot to a forward area where its functions could be utilized to the best advantage.[1]

2. This site was selected because it was centrally located with respect to amphibious force activities in the Tulagi-Guadalcanal area, including the amphibious training center and Landing Craft Repair Unit Number One located at Tulagi.[2]

3. The advantages of such a location can be readily seen when it is considered that the primary purpose of the depot was to assemble and ship all supplies and materials essential to the forming of boat pools which staged in this area during that particular phase of the war. These included Boat Pools Twelve through Eighteen which later participated in amphibious operations at Bougainville, Munda, Manus, Green, Emirau, Guam, Saipan and Peleliu. In addition, this activity supplied hull, machinery and engine spare parts to all landing craft in the South Pacific Area, including those LCM's and LCVP's which were carried by APA's and AKA's.

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1. ComSoPac Secret Dispatch 220325 of November 1943.

2. C.T.F. 31 Secret Dispatch 210120 of November 1943.

4. The original complement consisted of about fifty men under the command of Lieutenat Commander George R. Bean, USNR.[3] Incumbent on those men was the immediate necessity for constructing warehouses to accomodate the vast stores of equipment since some of the items, such as intricate shop machinery and precision tools, could not be long exposed to the elements without danger of permanent damage. In this task, the assistance of the 520th Seabees proved to be invaluable. An office, consisting of two quonset huts put end to end, was also built adjacent to the warehouses.

5. Originally, the enlisted men lived in tents on the beach - four men to a tent. In this area, a small, wooden, screened-in house was built. This house contained showers, a drain-board and three washing machines, thus enabling the men to wash their clothing with a minimum of time and effort. Meals were taken at the nearby Boat Repair Unit messhall. An added advantage of this arrangement was the proximity of the men to their work. However in June, 1944, a naval aircraft crashed into one of the tents and a man was killed. As a result of the accident, the tents were moved to the Boat Repair Unit camp area.

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3. It has been necessary to generalize that portion of this narrative which pertains to early activities at N.L.F.E.D. since early records were destroyed by fire and neither Lieutenant Commander Bean nor any of his original complement were available for comment.

6. Docking facilities were not available and, since men and materials could not be spared to build them, it was arranged that requisitioning vessels could send their landing craft directly onto the beach to be loaded. (See map). To make this possible, airfield matting was laid from the water's edge across the sandy part of the beach to form a sort of causeway. This causeway led directly to the warehouses which had been erected on a concrete platform, barely one-hundred yards from the ocean. Trucks were loaded at this platform, by means of fingerlifts, and then backed down the causeway to where the LCM or LCVP to be loaded was beached. A crane was driven onto the lowered ramp of this craft, and thus it became a simple matter to transfer the cargo from truck to boat. By this arrangement, it was possible to beach two boats side by side and, by employing an additional crane and truck the two crafts could be loaded simultaneously. This operation was carried on with a marked degree of success since Guadalcanal has no swell and very rarely did enough wind arise to cause a heavy surf.

7. The method of loading just described held several advantages over the docking method: First, a saving in time, men, and equipment was effected as the cargo was loaded and unloaded only once. Second, the very limited space in which the cargo was handled was a factor which resulted in less breakage and box damage. It also prevented the loss of cargo

which might be left in the cargo area. Third, and perhaps most important, was the close relation maintained with the requisitioning ship's personnel. They were able to come ashore, requisition their material, and stay at the depot while the material was being loaded in their own craft. They were therefore cognizant of the progress of their material at all times.

8. Later results, achieved through this method of loading, may be briefly tabulated: With a complement of approximately ninety-five men and eight officers, working an eight-hour day, it became possible to service twenty ships per day. These were attack transports and attack cargo ships, each having twenty-four to thirty-two LCVP's and four to eight LCM's for which they required spare parts. The amount of material delivered to each of these ships averaged twenty-four tons.

9. On 16 February 1944, a Spare Parts Distribution Center for the South Pacific Area was established at Noumea, New Caledonia. The purpose of this Center was to provide for the procurement, reception, stowage, issue, distribution and accounting of all spare parts and special material under the cognizance of the Bureau of Ships.

10. The administrative office for this Spare Parts Distribution Center assumed full administrative control of the several Sub-Depots of the Center, including N.L.F.E.D.

which had previously been directly under Commander Service Squadron, South Pacific Force.[4]

11. On 1 April 1944, a salvage shop was constructed for the purpose of preserving, re-processing, and overhauling complete internal combustion engines and engine spare parts, and the following procedure of operation was instituted.

12. Parts were inspected and segregated by a competent motor machinist's mate who determined whether the part was to be reclaimed or scrapped. The salvageable items were then immersed in diesel oil and scrubbed with a wire brush to remove rust and corrosion. (At one time, the parts were placed in the diesel oil contained in two pontoon tanks, and the oil was agitated by means of compressed air. However, this method was later abandoned as it failed to achieve the desired results, and the resulting vapors proved to be dangerous.) The parts were then dipped in Tectyl Grade I, or rust preventative Grade I, and placed on drying racks. The following day, they were tagged for identification and returned to stock.

13. Those items, of which there was already an excess in stock, were tagged, wrapped, palletized, and delivered to the shipping department. There, they were boxed and packing lists were attached to each box, both inside and outside.

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4. ComServRonSoPac Confidential Letter S31/N, Serial 0758 of 16 February 1944.

Lots of twenty-five boxes were then made up and prepared for shipment to the Salvage Center at Brooklyn, New York. Included in this lot were items which required machining, a process for which this activity had no facilities.

14. Occasionally, some new parts were returned from various repair activities, due to flaws such as cracks and improper finish. These parts were processed, tagged with a description of the defects, and also sent back to the Salvage Center at Brooklyn.

15. In August, 1944, Chief Electrician Ernest Schefer, USN, was placed in charge of the salvage shop. Mr. Schefer installed a Tectyl spray gun, two tip tanks -- one equipped with a long drying rack, and a larger one mounted on casters; portable wire wheel buffers, and a large air compressor. With plastic shields, intended for use by men using the buffers, Mr. Schefer introduced a safety feature which, on one occasion, may have saved a man's life, and certainly prevented serious injury.

16. Through the efforts of the salvage division, many thousands of critical items have been reclaimed and returned to stock for issue which would normally have been scrapped.

17. On 12 September 1944, Lieutenant (j.g.) John P. Bryan took over as Officer in Charge.[5] One of the difficulties

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5. Lieutenant (jg) Bryan was promoted to Lieutenant on 12 October 1944.

immediately confronting this officer was the condition in which some of the material was received at this depot. This consisted of large quantities of internal combustion engines and auxiliary generating units used in landing craft and aircraft rescue boats. These units were crated for overseas shipment by various manufacturers, and the quality of that crating varied with the manufacturers.[6]

18. Under ideal stevedoring and storage conditions, the methods of crating then employed would probably have been satisfactory. However, stevedoring conditions were far from good. Excessive use of box hooks by inexperienced port battalions resulted in damage to critical engines and generating units. Often proper covered storage was not available, and the resulting exposure to the elements was responsible for further damage by deterioration.

19. The following solution to this problem was evolved: Upon receipt at this depot, all engines were removed from broken containers. Slings were attached to the padeyes which are to be found on most engines. These padeyes are standard equipment, intended for use in installation and removal of the engine in service, and are located near the center of gravity. After the slings were made fast, the openings to the engine were sealed, and a frame was built around the engine. The frame was covered with a water-proof material and then boxed.

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6. N.L.F.E.D. Confidential Letter L21-3/S41-5 of 4 January 1945 to Bureau of S. & A.

with the sling left protruding through the box. The sling was then used when the box was handled, so that the box had only to hold its own weight. (See photographs).

20. A 35-kilowatt generator was installed on a concrete base, under an eight-by-twelve foot shed. This generator served the purpose of supplying current to the depot for the first few months on the island. In April, a Seabee outfit connected up the line, and the generator was retained as a standby. The shed had been used as an electrical shop, limited to a few hand tools and a small number of supplies.

21. In September, there appeared to be no apparent reason for retaining the generator, as ample power was then available from nearby Seabee generators. Permission was therefore obtained to remove it and, after being cleaned and processed, it was crated for shipment to another base.

22. A wooden deck was built in the shed. A wooden frame was constructed overhead and covered with canvas, bins were made, and a ten-foot bench was installed. Thereafter, this shop was dedicated to the purpose of complete electrical maintenance. This included up-keep of all batteries and electrical work on all mobile equipment. The electrical shop also functioned in much the same manner as the salvage section in that electrical items in stock, such as starters and generators, were cleaned, repaired if possible, and returned to stock. If such items were beyond repair, they were cleaned

and processed, boxed, and sent to the Salvage Center at Brooklyn.

23. Three electric fingerlifts were received in October. A 10-kilowatt gnerator was set up and a charging panel was installed thereto. It was then possible to charge and service these fingerlifts daily.

24. At all advanced bases, where the water table is within a few feet of the top of the ground, latrines (or heads) are a great problem since a trench, or pit, will never prove satisfactory. Such a trench fills with water and can never be burned out with any degree of efficiency. An incinerator-type head was constructed, at this depot, which worked very efficiently. (See photographs).

25. Every third day, the seats were removed and two or three buckets of diesel oil was dumped down the holes, the steel lids were closed, and the oil was fired after the damper covers had been turned 180 degrees for draft. After a couple of hours, the unit was again ready for use. The lids were opened, the damper closed, and the seats replaced. Due to a high stack, there was ample draft to carry off all odors.

26. This type of head can be re-designed and sent to outlying bases in a knocked-down form, requiring only a few hours for assembling. (See blueprints).

27. In January, 1945, baseball and basketball teams were formed by enlisted personnel. Both teams were entered in

leagues composed of teams representing various activities from all over the island. These sports proved to be a popular means of recreation, and the basketball team established a fine record while the baseball squad enjoyed moderate success.

28. Shortly after the formation of these teams, a basketball court was built at N.L.F.E.D. in the beach area. A portion of the beach was leveled by a bulldozer and surfaced with dirt. This, in turn, was rolled and packed by the expedient of pulling a heavy log across it with the bulldozer. Since there was no seating capacity, this court was made for practice only and it fulfilled this purpose adequately.

29. At approximately 0100 on 29 January 1945, the auxiliary cargo ship U.S.S. SERPENS, which was anchored in the bay, exploded. The SERPENS was loaded with explosives and, since the explosion occurred at a distance of about fourteen-hundred yards from this depot, the resulting concussion was responsible for considerable damage to the warehouses. (See photographs). The following day, men from the 518th and 520th Seabee detachments set about repairing the wreckage and, although badly inconvenienced, this depot never ceased to function and business went on as usual.

30. On 4 April 1945, Lieutenant Bryan was detached and was succeeded by Lieutenant Herbert W. Grimes who had been executive officer under Mr. Bryan.

31. By the end of the first quarter of 1945, the exigencies of the Pacific War had carried the fighting three thousand miles from Guadalcanal. Therefore, in accordance with the ensuing roll-up of rear echelons, this activity was directed to prepare for forward movement to Okinawa.[7] In compliance with this intelligence, the following preparations were made:

32. All items in the warehouses were packed in wooden boxes, the interiors of which had been previously lined with water-proof paper. Packing lists, containing the nomenclature and number of all items in the box, were placed inside before the box was sealed. Similar packing lists were then tacked on the outside of the box and each box was numbered serially, the serial number being preceded by a letter identifying the warehouse from which those parts had been taken. The boxes were then strapped, palletized, and stored on the aprons to await shipment. Thus, if occasion should arise it would be possible to make issues directly from the beach.

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7. ComServRonSoPac Confidential Dispatch 170647 of April 1945.