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THE OPERATIONS OF THE 136TH INFANTRY (33D INFANTRY DIVISION) ON MOROTAI ISLAND, 18 DECEMBER 1944 TO 19 JANUARY 1945 NEW GUINEA CAMPAIGN
(Personal experience of a Battalion Commander)

Type of operation: REGIMENT IN THE ATTACK

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A

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I INTRODUCTION

This monograph covers the operations of the 136th Infantry, 33d Infantry, United States Division, in the New Guinea Campaign, specifically the operation on Morotai Island, Netherlands East Indies, from 18 December 1944 to 19 January 1945.

II BACKGROUND

1. General.

By glancing backward in the Southwest Pacific from September 1944 one is able to see a string of "land carriers" carved out of the length of the New Guinea Coast, from which the Air Force might range farther afield, softening the Japanese for our next offensive. A series of "stepping stones" at the same time had been established from which the Navy could carry allied forces forward to the next stage along the curving road to Japan. (1)

With Sansapor at the western tip of New Guinea finally won, attention was directed toward the Philippines to the north, which was the next giant base of the Japanese Empire in the Southwest Pacific. The Halmahera Islands were on the flank and would serve as a "carrier" upon which to rest the air arm. Morotai, the northernmost of the group and the one closest to the Philippines, was selected as the objective. (2)

(1, 2) A-5, p. 2

2. Strategic and Military Background.

The Morotai operation was part of the general strategy of cutting the enemy lines of communications between his homeland and his conquests in the south along an axis running through New Guinea and the Philippines. Tactically it was the same maneuver that ~~was~~ had been repeated successfully many times before throughout the Solomons, Bismarcks, and New Guinea Campaigns.

On 31 July 1944 United States Forces occupied Sansapor. Thereafter, allied Air Forces SWPA, based there and at Wakde, Biak and Noemfor, had driven the Japanese air from the Vogelkopf Peninsula and from Halmahera; and integrated with fast carrier strikes, had by 15 September 1944, temporarily, neutralized enemy bases in the Carolines, Philippines, and Netherlands East Indies. Morotai and Palau having been thus isolated, landings were made on 15 September 1944, the objective being to secure air and naval bases from which to continue the aforementioned process further. (3)

Original enemy strength estimates had been 100 - 250 for Morotai and 25000 - 31000 for Halmahera. It was later determined that on D-Day the Morotai force was nearly 1000. Evidences showed that the enemy expected a landing as early as August, but made no attempt to fortify the island. Rather his efforts were concentrated on Halmakera and the Talands. It may be that the Japanese, faced with the problem of abandoning Morotai on one hand, or on the other hand, of weakening the defenses of his main bases elsewhere,

(3) A-10, p.2

deliberately chose to abandon the island. Again possibly he overlooked the tactical importance of Morotai, having failed to complete construction of an airfield due to engineering problems. Still there is a third consideration that he planned to "decoy" us to Morotai, the theory being that if he could not prevent our landing in the Moluccas, he could at least immobilize an allied force on Morotai by keeping his forces on Halmahera intact. (4)

There was no opposition to the landing on D-Day 15 September 1944, which was made in the vicinity of Doroeba on the Southwest coast just north of Gila Peninsula. (5)

The 31st Infantry, United States Division with the 126th RCT under command of XI Corps made the landing. The coral reefs were tricky and LSTs were hung up. The tide came in and men were forced to wade in to shore in water neck deep. Vehicles drove off ramps and disappeared and had to be dragged to shore by bulldozers. The Japs were conspicuous by his absence. (6)

This landing was reminiscent of Tarawa where troops had to leave their landing craft on relfs and wade ashore. On D-Day a friendly casualty was reported, one officer reportedly broke his leg when he stepped into a hole. (7)

The southern coastal plain which was the objective was secured by 1230 on D plus 1. Units pushed past Pitoe and established a perimeter and began extensive patrol action to protect the airfield. Construction of the airfield was immediately begun, work was almost unmolested except for a

(4,5) A-10, p.2; (6) A-5, p.2; (7) A-7, p.2.

few night air raids even though the Japs held all the adjacent islands. In short order, long range fighters were operating over Mindamao and heavy bombers were reaching the Visayan Islands. Our path to the Philippines was now covered by Morotai on the left and Pelein on the right. (8)

Three airstrips were constructed and Headquarters 13 AAF moved to Morotai. It was made the operating base for two fighter groups, one medium and two heavy bomber groups and other of our own as well as, RAAF units. Subsequent to the Leyte landings it became an important staging point for the Philippines. (9)

The first enemy reaction to this landing was by air. Beginning on 17 September 1944 and continuing until around the middle of January 1945 night air raids were carried out, though never in great force. It is believed that these planes came from Ceram, Celebes, Mindanao and that they staged in Halmahera during hours of darkness. On land our perimeter was sufficient protection against the small disorganized groups remaining on the island. In the fact of our amphibious assault the Jap had made no attempt to hold the coast defenses. He withdrew in scattered groups into the interior of the island where, until 18 December 1944, he was immune from attack. These tactics forecasted those employed later on Leyte and Luzon. Numerous small landings along the coast and extensive patrols by our forces were maintained, but the Jap Consistently avoided engagement in force, but harassed our perimeter and base positions with night raids by suicide detachments. Several night

(8) A-5, p.2; (9) A-10, p.2.

attacks were made on isolated coastal outposts. (10)

Impatient with this state of affairs the enemy began to react. On October 12, an Infantry colonel was put ashore for the purpose of organizing the Jap strength there. By a series of nightly shore to shore movements by barge, reinforcements were landed in preparation for a counter-attack. These barge movements cost the Japs heavily in running the gauntlet of our Navy PT boats, but by the middle of December he had put ashore the bulk of his 211th Infantry Regiment. (11)

Jap losses from all causes on Morotai, between 15 September 1944 and 18 December 1944 were estimated at 800. Troops were being meagerly supplied from Halmahera. He had no artillery. (12)

The Jap colonel on landing assembled his strength in the area of Hill 40 where it constituted a threat to our air and naval installations. (See sketch # 2). Reconnaissance and harassing action against our perimeter increased and by December it became apparent the Jap could attack in force and was actually planning to do just that against our air-strips. (13)

Such was the situation on Morotai Island when the decision to seek the Jap in his lair and destroy him was made in December 1944. (See sketch # 1).

3. History and Geography.

In the 400 years that seamen have chartered it, Morotai Island seems to had a serious attraction for only two kinds of white men--soldiers and missionaries. Portugese missionaries arrived first in the early 16th Century and set about converting the natives to Christianity. These missionaries

(10) A-10, p.2; (11) A-1, p.2; (12) A-10, p.2; (13) A-7, p.2.

lived in Momoeja, a small fort on the southeast coast.

Religion, or the lack of it, has figured in the lives of the natives. In the villages it gave them a cohesive character. Rarely was one village populated by more than one belief. Prior to the war there were about 3,000 Christians, 3,000 mohamedans and about 6,000 pagans. The natives are a simple and primitive people. They are unaccustomed to any sort of work other than fishing of farming and were resentful when the Japanese forced them to labor on the airfields. They eat fish, pig, and wild deer; and grow enoughvegetables, fruit and sago for their own needs. The staple diet is rice and with the arrival of the Japanese the local rice supply was sharply cut. Most of the natives understand and speak Malay. (14)

The island is the most northernly of the Moluccas, which are situated on a direct line from New Guinea to the Philippines. It lies between the two northern peninsulas of Halmahera, being 11 miles northeast of the eastern most of these. The island is 40 miles long and 30 miles wide. The interior is completely mountainous. (15)

Two ranges trending southwest to northeast from the backbone. Separated by a depression and covered with thick virgin rain forest, one mountain rises to a height of 4,100 feet and the other to 3,000 feet. Spurs from the mountain extend all the way to the coast. (16)

On the southerly coast is a low plain, narrow on the southeast and broadening out on the southwest, which is civered to a great extent, with coconut plantations. On the southwest tip is a long narrow peninsula. The west coast is low, lined with mangrove swamps, and has numerous small islands laying off shore. (17)

(14) A-2, p.2; (15) A-10, p.2; (16) A-2, p.2; (17) A-7, p.2.

Morotai is almost completely surrounded by narrow steep - to drying reefs, broken by a few bays. Off the northwest shore the reefs are full of funnel shaped holes which are said to whistle dissonant tunes every time the water strikes.

Villages are located exclusively along the coast. The two biggest villages prior to the war were Sangowo and Wajaboela. The buildings are of planks and corrogated iron, and the natives homes are of reed grass and palm leaves. The natives are said to be rather antagonistic toward other natives, but seem to hold the white man in awe. (18)

Many rivers and streams radiate in all directions from the central highlands, the largest of which are the Sabatai on the south coast, Tjao, Pilowo, and Tilai on the west coast, Tjioe on the northwest coast, and Pangeo on the northeast coast. Most of the rivers are not navigable, except for short distances by native craft. There are no roads outside of the southern coastal plain. There are a number of tracks leading inland, many of which follow the stream lines. The island is only two degrees above the equator and has a humid climate. All the tropical diseases are found. Average yearly rainfall is 80-90 inches, average temperature 80 degrees; humidity 60-90 o/o. (19)

Gila Peninsula on the south, referred to already, is a reefbound, almost flat promontory covered with coconut trees and forest. In the language of the natives "gila" means man. By a study of the map with special attention ~~fives~~ to the peninsula and its shape, one can see that it has been appropriately named. This point and the area just north of there is the only large plateau on the island, and the only area where an airstrip could be constructed. It

(18, 19) A-20, p.2.

was here in the area known as Doroeba that the Japanese began construction of the Pitoe airstrip, designed to be 5,300 feet long and 400 feet wide. It was abandoned because of drainage difficulties. However, aft er the arrival of American troops the drainage presented no problem for modern machinery and skill. Several runways were built up to 8,000 feet long and daily bombers were taking off for raids on Darao 395 miles to the north. (20)

III. PLANNING

1. Preparatory Phase:

It was learned in the latter part of November that the Japanese were planning a coordinated air and amphibious attack to destroy air installations on Morotai. This was felt by the United States Eighth Army to be of prime importance, for the air base at Morotai was terribly needed in connection with the struggle for air supremacy in the Visayas which was then is progree. On 4 December 1944, an order was issued directing the 33d Division to move (-123d RCT) from Finschafen, New Guinea to Morotai to reinforce the garrison there. Upon arrival the Division would be attached to XI Corps. The 123d RCT was at Hollandia, Dutch New Guinea. In the meantime the original mission had been enlarged by XI Corps from one of merely reinforcing the Morotai garrison to that of destroying the enemy remaining on the island. The movement of the Division (less 123d RCT) to Morotai was completed on 21 December 1944. (21)

No opportunity for training or rehearsals in preparation for this specific mission was possible. However, the 136th Infantry Regiment who was selected to accomplish the mission

(20) A-2, p.2; (21) A-7, p.2.

of the Division, had complete amphibious training at especially established training centers on the Hawaiian Islands in the spring of 1944, and at Cape Cretin, New Guinea later in the same year. In addition the 2d Battalion 136th Infantry had gained combat experience while attached to the 123d RCT at Sarmi and Maffin Bay, Dutch New Guinea in September and October 1944.

2. Considerations:

The mission was, as stated previously, to destroy all enemy forces remaining on the island. (22)

To accomplish this mission without waiting for the enemy to attack us, it was necessary that we would seek him out in the hills where he had withdrawn. This meant engaging him in terrian and on terms selected by himself, which minimized our superiority of numbers. Also once finding the Jap we must fix him, to prevent his ability to execute a series of delaying actions along the entire anis of the island. Thus an enveloping action seemed appropriate to cut off all avenues of withdrawal before the Jap could take advantage of them. (23)

It was believed that the enemy was assemblying in the southern portion of the WAJA BOELA GEBERGITE in the vicinity of the headwaters of the Pilowo, Marikolo, and Sabatoi Rivers. This area was designated as the Corps objective. As will be brought out later in this article the enemy was actually found at the headwaters of the Pilowo, which was west of the Corps objective. The general plan provided that an advance on the objective would be made from three directions simultaneously, one column from the southeast along

(22) A-8, p.2; (23) A-9, p.2.

the Sabatai River, one column from the southwest along the Pilowo River, and the third column from the northwest from Radja and Tilai. At the same time the enemy would be contained by the perimeter at the south, and by active patrolling from Tjioe and Mira River Valley to prevent movement to the north or east. (24)

3. Plan:

The Mathews Force composed of the 3d Battalion, 167th Infantry, 31st Division was designated to advance from the southeast. The Kiver Force was designated to advance from the southwest. This force was composed of the 1st Battalion (less Company "C"), known as Kiver 1, the 2d Battalion, known as Kiver 2, and Regimental Headquarters and Headquarters Company known as Kiver, all 136th Infantry, 33d Division The Kiver Force would make the main effort because they had the shortest and easiest route to the objective. The 3d Battalion, 136th Infantry which would constitute the maneuver element of the regiment was divided into two groups, namely Company "K" (reinforced) designated as the Jones Force landing at Tilai, and the remainder of the battalion designated as the Smith Force landing at Radja. The Smith and Jones Force would converge inland prior to reaching the objective One platoon, Company "C", 108 Medical Battalion and a detachment of Service Company, 136th Infantry, were attached each to Kiver 1, Kiver 2, and Smith. A platoon of Company "C", 108 Engineer Battalion was attached each to Kiver 1 and Smith Forces. The 2d Portable Surgical Hospital, reinforced by one officer and twelve men from the 108 Medical Battalion, was attached to Kiver, and the Station Platoon,

(24) A-8, p.2.

108 Medical Battalion was attached to Smith to operate as a provisional hospital. (25)

Company "C" 136th Infantry known as the Desert Force would operate from Wajaboela. The AT Company 136th Infantry was placed on Raoe Island and was to known as the Forrest Force. The mission of these two forces was to block the route of supply and reinforcement from, and evacuation to Halmahera by barge. (26) (See sketch #)

The 33d Reconnaissance Troop (less Armored cars) known as the Lewis Force were to operate from Tjioe . (27)

The 2d and 3d Battalions, 130th Infantry, 33d Division were to take over an assigned sector of the base perimeter. The 1st Battalion 130th Infantry with 108th Engineers prepared to assemble on three hours notice constituted the reserve. (28)

The island was without roads north of the base perimeter. Thus the decision was made to move to the points noted, (Pilowo, Radja, Tilai, and Tjioe) by amphibious means. Operational bases were to be set up at these points prior to D-Day for the movement inland. (29)

The artillery plan for the operation was as follows: 210 and 124th Field Artillery Battalions in direct support of 136th Infantry, 123d Field Artillery Battalion in general support. 210th Field Artillery Battalion would be prepared to deliver prepared fires in defense of the base perimeter on call from 130th Infantry. In order to give artillery support to the Desert, Smith and Jones Forces the 124th Field Artillery Battalion with the Cn Company 136th Infantry, to be known as the Carlson Force, was moved to Ngele-Ngele Besar Island. (30)

(25, 26) A-11, p.2; (27, 28) A-9, p.2; (29) A-11, p.2; (30) A-9, p.2.

4. Enemy Order of Battle: (31)

(a) Enemy troops landed on Morotai prior to 20 December 1944:

(1)	Morotai Diversionary Unit	590
(2)	Els. of 211 (Morotai Infantry Regiment	700
(3)	2 Companies, 36 Division Sea Transport Unit	100
(4)	Morotai MP Detachment	50
(5)	Els. of 26 Special Base Force (Naval)	50
(6)	One Platoon, 3d Company, 32d Division Engineer Unit	50
(7)	One Suicide Unit (12 Company, 212 Infantry Regiment)	119
(8)	Two Suicide Unit (3 Company, 210 Infantry Regiment	120
(9)	Three Suicide Unit (10 Expeditionary Force)	120
(10)	Els. of 3 (ISAII) Battalion, 210 Infantry Regiment	160
(11)	Arimoto Unit	200
(12)	Els. of 18 Shipping Engineer Regiment	40
	Total	2,299

(b) Enemy casualties priot to 20 December 1944 860

(c) Enemy strength as of 20 December 1944 1439

(d) Enemy casualties 20 December 1944 to 18 January 1945 1004

5. Troops: (Friendly) (31)

Kiver Force

Headquarters & Headquarters Company, 136th Infantry

1 Rifle Platoon, 2d Battalion, 136th Infantry

(31) A-11, p.2.

Headquarters Section, Medical Detachment, 136th Infantry

Detachments: Service Company, 136th Infantry
CIC
Military Police
ATIS

Kiver Force 1

1st Battalion, 136th Infantry (less Company "C", 1 Platoon HMG, 1 Sec. 81MM Mortars)

1 Platoon, Company C, 108th Engineer Bn

2d Portable Surgical Hospital

1st Battalion Service Det., 136th Infantry

Kiver Force 2

2d Battalion, (less AT Platoon), 136th Infantry

1 Platoon, Company C, 108th Medical Battalion

2d Battalion Service Detachment, 136th Infantry

Smith Force

3d Battalion(less K Company, 1 Platoon HMG, 1 Sec 81MM Mortars) 136th Infantry

1 Platoon, Company C, 108th Engineer Bn.

1 Platoon, Company C, 108th Medical Bn.

Station Platoon, Company B, 108th Medical Bn.

3d Bn., Service Detachment, 136th Infantry

Jones Force

Company K, 136th Infantry

1 Platoon HMG,Company M, 136th Infantry

1 Sec. 81MM Mortars, Company M, 136th Infantry

Desert Force

Company C, 136th Infantry

1 Platoon HMG, Company D, 136th Infantry

1 Sec. 81 Mortars, Company D, 136th Infantry

AT Platoon, 2d Battalion, 136th Infantry

Forrest Force

AT Company, 136th Infantry

Carlson Force

124th Field Artillery Battalion

Co Company, 136th Infantry

Lewis Force

33d Division Reconnaissance Troop.

IV. OPERATIONS

1. Defensive Mission

The mission of defending the division south zone of the main perimeter was given to the 130th Infantry. They would be prepared to defend against hostile air and amphibious landings in the Division Zone. Two battalions would be used on this mission. One Battalion was to constitute the reserve mentioned previously. (32) (See sketch)

On 31 December the mission was enlarged to include both close in and long range patrols in front of the 130th Infantry sector. (33) During this operation which concluded on 19 January 1945, 19 Japs were killed and 3 captured by personnel operating in front of 130th Infantry sector. (34)

2. Offensive operation of 136th Infantry (✓)

The offensive mission was executed substantially accordingly to plan as previously given. For purpose of narrative the operation will be divided into four phases.

a. Phase One (18 December 1944 - 4 January 1945)

The relief of 31st Divsion units at west coast points was completed by 25 December, assault landings were made by Kiver, Smith, Jones and Tjioe Forces. All landings were made without opposition. The overwater move was made by DUKW's

(32) A-9, p.2; (33) A-14, p.2; (34) A-7, P.2.

LCM's and LCTs of 544th EBSR on Morotai. Landings were made on the tail of preparations by our artillery and Navy PT boats which acted as cover for the various landings. (35) (See Sketch #1)

Part of the landing craft of Smith Force were held back by reefs and when arriving at Radja Beach grounded 300 yards from shore. Troops were forced to wade ashore in neck deep water. The 3d Battalion (Smith Force) was the first to become engaged. On three successive nights, 24-25 December, 25-26 December, 26-27 December, the beachhead was attacked by enemy forces variously estimated up to company strength, armed with light machine guns, mortars, hand grenades and rifles. They were able to move in close due to inadequate clearing of fields of fire around the perimeter. Typical Jap night fighting tactics and ruses were used. Patrols were sent out on 24, 25 December. Evidences of the Japs were abundant, with the exception of one ambushed Jap no physical contact was made during hours of daylight. Troops were instructed not to fire until there was no question of producing a Jap casualty. This order was necessary to prevent disclosure of our automatic weapons. Once an automatic weapon was disclosed all Jap efforts were concentrated on knocking it out. On the night of 24 December several Japs penetrated the outer perimeter but were killed before they were able to do any damage. Artillery fire on the nights of 24 and 25 December from Ngele Ngele Island broke up several attacks which were forming against the perimeter. On the night of 25 December artillery defensive fires were brought in within 25 to 35 yards of the front lines. The next morning 35 Japs were

(35) A-7, p.2.

counted in front of our positions. Knowing the Jap custim of dragging away his casualties if possible, it is safe to assume that his casualties were much greater than 35 as a result of artillery and rifle fire. (36)

As of 26 December the Jones Force (Company "K") nor the Kiver Force (136th Infantry) had ~~no~~ enemy contact. (37)

On 26 December the Smith, Jones, and Kiver Forces started moving inland. The Smith Force left too small a force to garrison the Radja beachhead. Company C, 130th Infantry was sent that day to reinforce Radja. On the night of 27-28 December the Smith inland perimeter was attacked and suffered one wounded. On this fourth night of attack the troops for the first time failed to observe fire diccipline as we think of it in jungle warfare. The strain of the jungle was beginning to tell. Troops were continously wet from the landing on 24 December. Mud and think jungle through which it was necessary to cut the trail was depressing. Prompt acts of aggressive leadership by commanders seem to settle the troops and for the rest of the operation "trigger happiness" was no problem. On 28 December a reinforced platoon was sent from Smith Force to contact Jones Force and to evacuate the casualty. Enroute a Jap patrol of 8 men was encountered and 7 Japs were killed without loss to the Smith Force Patrol. The leader of the patrol reported:

"Japs appear to infest the area. They are well fed, but seem disorganized, travel in small groups. Many small bivouacs were encountered hold from 2 to 60 Japs. Japs are principally with the Kiska model grenades which were not effective unless they explode at very close range".

The jungle was more difficult than we believed. 81 mortars were left at the beach, but other heavy equipment

(36) Personal knowledge; (37) A-10, p.2.

exhausted the men shortly. Loads had to be transferred frequently. Extra 60 mortar ammunition (2 rds. per man) was passed out to all troops, who carried it uutil needed by the crews. One mile inland radios blanked out. Contact was obtained through the SCR 610 of the artillery liaison and observer parties who could contact the liaison plane. Later an artillery plane with an SCR 300 was able to perform the job of maintaining inter column contact. (38)

At 1500 29 December the Smith Jones Forces joined approximately 3 miles inland on the Tilai Trail. The Jones Force had used the Tilai Trail and was contacted by the Smith Force which had made a swinging southeasterly movement from Radjo (See Sketch # 1). Jones Force had an uneventful move inland, plenty of signs of the Jap, but no actual contact. A patrol of 15 Japs had been trailing the force from the beach and had circled around it on the night of 28 - 29 December and set up an ambush on the trail in front. The Japs were apparently ignorant of the Smith Force which was on the verge of contacting Jones, When a patrol of the Jones Force encountered the ambush, Smith was close enough to hear the firing, and closed in from the rear. In a brief action all but one of the Japs was killed. (39)

After joining, the Smith and Jones Force continued as one force (referred to from now on as Smith Force) in a southeasterly direction toward the objective, according to plan. The trail had to be cut almost all the way through jungle growth and bamboo. Patrols were maintained for security and reconnaissance as well as in search of the enemy. However, for the remainder of operation, this unit had no major contacts with the enemy. Clothing and equipment

(38) Personal knowledge and talk with Artillery Liaison Officer. (39) Personal knowledge.

~~was~~ were wearing out, the troops were wet since the landing and cases of "jungle rot" were increasing. (40)

The movement of Smith Force was characterized by the difficulties to be expected on a march through virgin jungle in enemy territory. The original plan called for a supply road to be constructed by the Engineers Platoon to follow the force inland from Radja. The D7 bulldozer bogged down before it got over 10 yards from the beach perimeter. It became apparent that it was impossible to build a supply road fast enough to follow the force. Native carriers were not obtained in sufficient numbers and it became impossible to supply by carrier. It had to be supplied almost entirely by air. This necessitated establishment of dropping areas along the route. (See Supplement Air Drop on Morotai). A total of 31,675 lbs. was dropped to the Force. (41)

It was found that the route inland from Tilai was better than that from Radja and after the forces had joined, Tilai was adaopted as a base for supply, evacuation and axis of signal communication. On 31 December this change was made. (42)

Wire communication was impossible to keep in from the beach inland due to enemy interference. Radio difficulties have already been mentioned.

Wire contact was established underwater from Ngelengele Island to the beach at Radja and at Tilai, by the artillery. Standard WL10B was used and was maintained without difficulty throughout the operation. (43)

By 4 January 1944 Smith Force reached the area around the headwaters of the Tilai River, approximately 4 miles

(40) Personal knowledge. (41) A-10, p.2; (42) A-7, p.2; (43) A-10, p.2.

inland (air miles) from Radja. Two batteries of the Carlson Force were moved to Matjocwawa Island (See sketch #1) to better support Smith Force and also the beach installations along the coast. In this phase of the operation Smith and Jones Force had accounted for about 200 Japanese from small arms and artillery fire. In the first two nights on the beach at Radja the Smith Force killed 55 Japs. Our lossed were 13 men. (44)

Let us go back to 26 December and follow the action of Kiver Force. Kiver 1 landed at Pilowo on 22 December established a perimeter and began patrol action. Kiver 2 landed on 25 December and prepared to pass through Kiver 1 on the push inland. (45)

The move inland pushed from Pilowo on 26 December. The Kiver Force advanced with scattered contacts to the Pilowo River, and thence over the trail following the river. On 30 December a strong point was contacted approximately 3-1/2 miles inland on the trail from Pilowo. At this time our information of the enemy as obtained from reports from Smith and Jones Force, air observation, and captured documents was as shown on sketch #2 . The principal enemy force on Morotai was elements of the 211th Infantry Regiment. The main force was located generally between the Mokota and Kekere Rivers in the vicinity of their confluence. The 3d Battalion of this unit was identified as the unit opposing the Smith Force and was believed to be out of action as a result of those encounters. The 211th Infantry, the largest force was found somewhat west of the Corps objective. (46) As soon as this situation was realized, in order to prevent by passing the Jap or his eluding our forces, the 136th

(44) A-10, p.2; (45) A-12, p.2; (46) A-7, p.2.

Infantry was ordered to "----Conduct active patrols along the coastal plain within its zone of action. Destroy all hostile forces encountered."

"---Destroy hostile troop concentrations in area west of designated objective in conjunction with its move to seize the objective" (47)

It developed that this enemy contacted by the Kiver Force was part of the main battle position of the Mortar Force, upon which he had elected to stand. This position covered the base of high ground, referred to as "Hill 40", between the Kokota and Kekere Rivers. It was approachable from the direction of our advance only through deep ravines and gullies leading into the position. Vegetation was think and trees sometimes 100 feet high, obstructed use of mortars. Visibility off the trails was less than 20 feet. The enemy had standing type fox holes with log revetments, but were vulnerable to overhead artillery fire. They were armed with rifles, grenades, light machine guns and knee mortars. (48)

The period 30 December 1944 to 2 January 1945 was spent in developing the enemy. Japs were found on 30 December south of Hill 40 and on 1 January 1945 reconnaissance found enemy entrenched on the nose southwest of Hill 40. Kiver 1 was ordered to attack. On 2 January Kiver 1 reconnoitered the positions prior to the attack and discovered that the position reached far to the east of the nose. Realizing that the entrenched enemy confronting them was too strong, the regimental commander decided to launch a coordinated attack on 3 January. Kiver 2 was moved to

(47) A-14, p.2; (48) A-7, p.2.

the west of the position for an enveloping attack while Kiver 1 attacked from the south. After an artillery preparation the attack was launched at 1000 3 January. Two hundred yards from the enemy positions, where our patrols had moved freely the day before, the attackers came under fire from tree snipers, some of the snipers would wait until the men were under them and then drop short fuzed demolition charges. (49)

Units were ablt to gain very little ground and were suffering casualties. Attempt was made to by-pass the sniper fire as it became too intense. This meant leaving the trails for the dense jungle growth. Kiver 1 was attacking uphill against intense enemy small arms fire, but were stopped about 80 yards from the Jap main position. The enemy positions could not be seen, but due to the broad front of fire and the sound of his automatic weapons, a good idea of his location was obtained.

Kiver 2 to the west was in a firefight. The attack had started eastward toward the Jap flank, but terrian and and Jap fire had veered the attack southward. The two enemy positions on the nose were overran and wiped out. By late afternoon Kiver 2 was on the left (west) flank of Kiver 1 and turning northward dug in for the night. (50)

The drain on personnel for supply, evacuation, and communication seriously reduced the effectives for combating the enemy. It took eight men two days to carry a casualty to the beach. Problems were similar as those met by Smith Force, but Kiver was able to keep wire in to the beach. This facilitated close artillery support, particularly from the two batteries which had moved to Pilowo on

(49, 50) A-1, p.2.

30 - 31 December. Reports state that it was more difficult to remove casualties than at Buna. The time of evacuation was cut to one day by 3 January when wounded were carried to the Pilowo River and floated down to the beach on bamboo rafts. Attempts were made to clear the river for LVT's, but they were never able to get over 3-1/2 miles inland. Plans were made to move the Portable Surgical Hospital inland as far as the LVT's could go. By the time this could be accomplished the operation was over. (51)

The problem of supply was critical for Kiver. K rations were short and ammunition was used up faster than it could be resupplied by hand. Air drop seemed to be the only solution and in area was cleared for the drop. The closeness of the terrian prevented the use of heavy machine guns and mortars, so the personnel operating these weapons were withdrawn from the line and became responsible for receiving air-drops, resupply of front-line troops, and evacuation. (52)

Indications were that the Jap resistance was two battalions. He had no artillery and seemed not to be using mortars to any extent. The decision was made by the Regimental Commander to attack on the morning of 4 January from the present positions. The artillery on Ngelengele Island was ordered to move to Pilowo to gain wire communication lines and in order to provide closer artillery support. Harassing fires were placed on the enemy positions during the night of 3 - 4 January and at dawn artillery preparations began to fall on the Japs. Kiver 1 and 2 pushed forward to follow the artillery preparation into the enemy position, but before advancing forty yards troops were subjected, as the day before to tree

(51) A-10, p.2; (52) Statement to self by Company A, commander.

snipers and entrenched Japs in the underbrush. The Jap close range fire was inaccurate. Shortly due to the terrian and jungle the action broke down to squad level. Artillery fire could not be used due to the close in fighting. The rifleman with the M-1 Rifle was deciding the issue. Rifle fire raked the underbrush and the trees annihilating the resistance. Jap outposts who were entrenched were outflanked and killed with hand grenades and rifle fire. The advance was slow and the day was almost over before the force began knocking on the main Jap positions. (53)

What is the proper decision? Which is the best of two alternatives? These were just a few of the questions that were undoubtably in the regimental commander's mind, as night began to fall on 4 January. Should he break contact, and pull back to a safer distance to set-up a perimeter defense for the night, or should he hold on to the ground gained and hold against the attacks that were sure to come during the night? The decision was to pull back a short distance. This was based on the fact that the Japs were using single standing type foxholes with log fronts, but with no overhead cover. These were inviting targets for artillery which could not be fired so close to friendly troops. Hardly had our troops drawn back one hundred yards and dug in, when artillery began to rain on the Jap position. Due to the tall trees, fragments of the shells flew over the friendly troops causing little damage. Despite this it was comforting to hear them dropping in on the Japs, to the north. The enemy was active despite our artillery and during lulls in fires returned to his positions near the

(53) A-1, p.2.

Kiver perimeter and harassed it with small arms fire and grenades. (54)

At this time it was still believed by higher headquarters that the Hill 40 action did not involve the main enemy resistance on Morotai. By letter of instruction dated 3 January 1945, XI Corps took over direct command of the operation. Kiver Force, Smith Force and Mathews Force (3d Battalion, 167th Infantry) were designated as the Hutchinson Task Force. (55)

However, to prevent confusion the individual forces will be referred to by their regular designations.

At this time Smith Force was 3-1/2 miles NNE of Kiver and Mathews Force which had reached its objective by 30 December 1944 without opposition, was about the same distance ENE of Kiver.

While the Kiver Force is facing the enemy at Hill 40 on the night of 4 - 5 January let us go backward to briefly cover the other elements of this operation.

The Lewis Force (33d Division Reconnaissance Troop) operated as follows during the phase 18 December - 4 January 1945: The mission was to land at Tjioe and patrol actively and prevent movement of the enemy. (56) The landing was made without opposition on 23 December. From that date until 1 January the force patrolled as far north as Libano, to the south as far as Lelor, inland nine miles up the Tjioe River, and lesser distances at other points. No Jap contact was made during this time though several signs of recent activity were noted. on 31 December, Lewis was ordered to move to the south by shore to shore landings to the mouth of the Tafoe River destroying any enemy encountered. Minor

(54) A-1, p.2; (55) A-15, p.2; (56) A-9, p.2.

contacts were made at Bobo and Tafoe Rivers. At the end of this phase no other contact was made. (57)

Desert Force (Company C, 136th Infantry) who was, it will be recalled, at Waja Boela and the beachhead garrison at Radja, Tilai, and Pilowo maintained patrols along the coast and inland with minor contacts. A total of six Japs were killed during this phase, all presumably stragglers. (58)

Forest Force (AT Company, 136th Infantry) on Raoe Island whose mission was to defend warning installations there, had reported no enemy contact. (59)

b. Phase two (4 to 8 January 1945)

During this phase Hutchinson Task Force was in command of all units of the opration. Desert Force was ordered to move to Pilowo and join Kiver Force. The 1st Battalion, 130th Infantry (less Company "C", who was at Radja) designated as Ripper Force, was ordered to move inland, from the island base perimeter, to a point 2000 yards ESE of Kiver where they would pass under Hutchinson Force control. Smith and Mathews Forces were ordered to converge on the Jap positions on Hill 40 from the north and northeast respectively. Lewis Force was moved from Tafoe River to garrison Wajaboela. Troops now on the west coast were grouped as a Provisional Battalion with the mission of patrolling the coast and protecting the beachheads. (60)

During this phase the only contact made along the coast was by Lewis Force, who contacted the enemy a short distance inland on the Toetoehoe River on 7 January. Enemy was estimated at 75 men. Five Japs were killed with the loss of one

(57) A-10, p.2; (58) A-7, p.2; (59) Statement to self by commanding officer. (60) A-16, p.2.

officer of Lewis Force. It was the next day before his body could be recovered and it had been mutilated beyond recognition. (61)

Once again let us switch back to Kiver who is in his perimeter on the night 4 - 5 January. The morning of 5 January. Company "B" on the right of Kiver 1 received a Banzai attack. Rifles and BAR's of Company "B" began to fire. The Jap officer leading the charge almost reached the friendly position before being cut down by BAR fire. His last act was to throw his Samuroi sword into the position. Eight Japs were killed in this attack. (62)

The attack of Kiver 1 and 2 jumped off at 0700 on 5 January as friendly artillery laid down preparations. For some unknown reason the jungle was very quiet. Units were moving forward in good time. One squad of Company "B" was ambushed as they came over a small rise and eight members were killed in about 10 seconds. A squad on the right flanked the machine gun of the ambushers and polished it off with hand grenades. (63)

Company "G" on the left flank was affected by the Jap machine gun fire, for as it open fire, a machine in front of Company "G" opened fire. Apparently the guns were tied in to protective fire. This gun was easily taken out after prematurely disclosing its position. These two machine funs seemed to be the main automatic weapons defense of the Jap position, for once they were knocked out, the position was quickly overrun. (64)

The Japanese position was completely devastated. The aid station and CP were blown to pieces. Tree bursts had taken a terrible toll. During the three day fight the

(61) A-7, p.2; (62) Statement of Company Commander, Company "B", (63) A-1, p.2; (64) A-1, p.2.

Japs had buried their dead in shallow graves. They had been short of food, but seemed to have adequate medical, signal and engineer supplies. Their radio sets and fire control instruments were of excellent quality. One hundred and fifty gas masks were found in a central dump. The prize "Morotai (211) CP". (65)

The 6th and 7th January was spent in advancing deep into the Hill 40 area, mopping up and making scattered contacts. On 7 January, Smith Force made contact with Kiver in this area. Ripper Force reached this area 2,000 yards ESE of Kiver, killing six Japs in route. On the 7th and 8th January Smith and Kiver conducted extensive reconnaissance to the W, NW and N in search of remaining enemy. On 8th January Mathews Force contacted Kiver, having killed one Jap, found one dead, and taken one prisoner. (66)

During this action at Hill 40 Kiver killed 264 Japs, and captured 7. Our own casualties were, 27 killed and 73 wounded. Evidences proved that great numbers of the enemy were killed by the accurate artillery fire. From captured documents and prisoners it was determined that about 300 Japs were on this position. (67)

One prisoner stated that 75% of the casualties resulted from artillery fire. Another prisoner stated that another force of about 400 was holding a position one and one half hours marching distance from Hill 40. This unit was never located. On 7 January a Jap was captured who stated that plans were in effect to land troops and supplies at the mouth of Toetoehoe River on 10 January.

(65) A-1, p.2; (66, 67) A-10, p.2.

b. Phase Three (8 - 12 January 1945).

Hutchison Task Force units reverted to their original roles on 8 January. Mathews Force reverted to control of 31st Division, Ripper Force moved back into the base perimeter, and Smith and Kiver Forces moved out of the interior to west coast points. (68)

Kiver 1 and 2 moved back to Pilowo, Smith moved to Tilai (See Sketch #3). In moving to the coast Smith and Kiver had the mission of seeking out and destroying all enemy forces between Tilai and Pilowo. Only scattered contacts were made. By the evening of 12 January these units had reached the coast. AT Company, Cn Company, I Company and F Company were left to garrison Raoi, Radja, Tilai and Pilowo respectively, the remainder of the regiment returned by landing craft to base camp on Gila Peninsula. (69)

In acticipation of the reported landing on 10 January, Company G, 130th Infantry was moved to WAJABOELA, with Battery "C", 124th Field Artillery in direct support. On 9 January, 33d Reconnaissance Troop went under operational control of 130th Infantry at Wajaboela. The mission was to deny the beach, from Wajaboela to Tofoe, to the Japs for supply, reinforcement, or evacuation. On 10 January "G" Company was moved to TOETOEHOE. on morning of 11 January a force of 40 Japs were encountered, 20 of whom were killed. Meanwhile 5 barges had landed north of TOETOEHOE the night of 10 - 11 January. It was estimated that 250 enemy had come ashore. These barges were set afire or sunk by PT boats and air strikes. On 12th and 13th January troops were landed at the points where the barges had been discovered and were able to destroy quantities of weapons, equipment and other supplies. On 12 January a prisoner was

(68) A-17, p.2; (69) A-7, p.2.

captured who stated that plans were made to land as estimated 5,000 enemy on Morotai 15 January to destroy the garrison. (70)

d. Phase Four (12 - 19 January 1945).

On 12 January XI Corps relinquished control of troops to Commanding General, 33d Division. Dispositions were directed for the attack anticipated on 15 January which did not materialize. (71)

On 16 January, 31st Division was ordered to relieve units of 33d Division. Relief was completed on 19 January 1945. (72)

V. CONCLUSIONS, ANALYSIS AND CRITICISM

The offensive mission to destroy the enemy forces on Morotai was accomplished to the following extent. The Jap known effective strength was 1439 at the beginning of the operation. As of 19 January 804 Jap dead had been accounted for. The remainder were scattered, much of their equipment was destroyed and their effectiveness as a fighting force was destroyed. Tactically most important, the enemy capability which existed at the beginning of the operation--of attacking the main perimeter by land in sufficient numbers to disrupt base operations--was removed. Our losses were 46 killed and 111 wounded.

Leadership will influence the action, but when the leader mistakes his job by getting too involved disaster results. With platoon leaders, casualties resulted from undue exposure in an effort to keep the men moving forward.

On the landings at Radja, part of the force was held

(70) A-7, p.2; (71) A-18, p.2; (72) A-19, p.2.

up by shallow water and were late arriving at the beach. The tide had gone out and craft ground 200 - 300 yards from shore. Troops waded ashore and were perfect targets for the same thing that happened at Tarawa. Someone should have made a complete reconnaissance of this water area to avoid grounding prior to arrival at the beach.

The problem arose of resupply by native carriers. Sufficient number could not be obtained to do the job. This could have been serious, but with aggressive supply planning troops were seldom lacking. Air resupply saved many critical situations.

We were told about jungle warfare but actual experience seems to be the only reliable teacher. The first night on the beach fire lanes were not cleared far enough in front of the perimeter, allowing the Japs to move in also hand to hand fighting range.

Artillery support was very good. Fires were brought in closer than was safe to friendly troops, but the results obtained made it worthwhile.

Lack of reports on just what was occuring, or inability to get reports back caused higher headquarters to be in the dark. Actually the Hill 40 action was the attack which accomplished the Corps mission on the island. However, XI Corps believed that Kiver was running against more than could be handled and assumed control of the operation. As later shown this action was absolutely unnecessary.

Commanders are prone to try to do everything themselves. The staffs must be used, and authority must be given them to act when need be. A great deal of the time the staffs of both Smith and Kiver Forces did not and could not obtain the situation from the commanders standpoint.

Kiver 1 and 2 attacked Hill 40 frontally on the 5th January. Smith Force was near, but the decision to attack without waiting for them was made. This could have been disastrous. As turned out the decision was proper. If the attack had been delayed the enemy could have slipped away to fight another day. Once you develope the enemy and fix him then you must attack.

VI. LESSONS LEARNED

a. Terrain.

A lack of proper appreciation of terrain results in unnecessary friendly casualties, and in many cases determines the success or failure of an attack. The Jap will almost always defend the high ground and will cover all logical approaches to the high ground with effective fire. This is particularily ture of draws leading into the positions. Consequently it is advisable to move along ridge lines and to attempt to move onto his positions from high ground if this is at all possible. Such a use of terrian will enable us to use our superior fire power to its greatest advantage, and will also tend to minimize the advantage the enemy may have in fighting from a deliberately planned defensive position on high ground.

b. Frontal Attacks.

During this operation frontal attacks against enemy positions were unsuccessful in almost every case, and in the future should be avoided whenever possible. Upon establishing contact with the enemy every effort must be expended to locate his flanks and to attack from the flank or rear. Only in this way is it possible to take a position or to turn the Jap out of it without undue friendly casualties. This principle applies to units of all sizes; and

is especially true in jungle terrain where the dense growth makes it particularly difficult to follow supporting fires closely and rapidly thereby taking full advantage of their shock effect.

c. Weapons.

Heavy machine guns were carried on this operation, but in the future it is felt that light machine guns would be much more pratical in jungle terrain. Due to the thick foliage the use of machine guns is much more limited than in open terrain, and there is little necessity for the sustained rate of fire delivered by the heavy machine gun. It is advisable to equip heavy machine gun platoons with the light gun in jungle operations or in any operation where the advantages of a lighter load outweigh the advantages to be gained by the use of the heavy gun. In no instance during the recent operation were heavy machine guns used to perform missions that could not have been handled as effectively by light guns.

The use of mortars and mortar fire was seriously limited by the ammunition supply. In the future if it is necessary to hand carry equipment and ammunition, the number of mortars to be carried should be determined by the amount of ammunition which it is anticipated will be available and which it will be possible to transport.

Automatic weapons such as automatic rifles and tommy guns are highly advantageous in any type of terrain where the foliage is dense and where ranges are limited. However, there is a tendency to favor these weapons to such an extent that the ammunition supply becomes a problem. Unless this problem is given due consideration the rapid movement of personnel becomes greatly hampered. Furthermore it

should be understood that if future operations are conducted in more open terrain, these weapons have only a limited value. This is particularly true of the tommy gun.

d. Supporting Fires.

A much greater appreciation of the capabilities and limitations of supporting fires was gained by all concerned during this operation. At the outset, forward Infantry elements expected much more than artillery and mortar fire than resulted. Although artillery and mortar fire will cause casualties, it will not normally drive the enemy from a prepared position. The necessity for following supporting fires closely was illustrated time after time.

Practically all adjustment of fire during this operation was by sound rather than observation, and while this was effectively done, nevertheless Infantry commanders should appreciate its limitations when they call for fire.

In a good many cases Artillery fire was requested on targets that were more properly mortar targets. Likewise 81mm Mortar fire was often used on targets where 60 mm mortars could be used as effectively. While it is understood that at times Artillery will have to engage mortar targets and that 81's will have to be used on 60mm targets, nevertheless these instances should be avoided whenever possible. Judging from this operation it appears that Infantry commanders, particularly those of Company grade, should have a greater appreciation of the use of the supporting weapons which are organic within their own units.

e. Time and Space Factors.

There is a tendency on the part of higher commanders and staffs to underestimate, and for lower commanders to

overestimate time and space factors. It must be realized by all concerned that movement through difficult terrain such as was encountered in the Morotai jungles will necessarily be slow. Attempts to push this movement too fast will only result in piecemeal and uncoordinated attacks, and in undue exhaustion of personnel, thereby slowing down the eventual accomplishment of the mission. Higher commands and their staffs must visit front line units as frequently as possible in order to get first hand information.

f. Psychological Aspects.

A soldier must be well trained and able to endure hardships, but above all he must be psychologically prepared for combat. He must become imbued with a desire to close with the enemy and destroy him. He must understand the enemy's fighting ability, and not underestimate it: but at the same time he must have confidence in his own ability to overcome the enemy. Much of our training in the past has been directed towards the development of this agressive confident spirit. In large part this training has been successful, but there are indications that there is still room for improvement in this respect. At times there was a reluctance to close with the enemy. There was a tendency to attempt to do the whole job by means of artillery and mortar fire. Men must be taught to depend more on their own abilities and their weapons, less on the supporting weapons. This will not only result in the speedier accomplishment of combat missions but will also result in a more lucrative employment of supporting weapons.

g. Leadership.

One of the outstanding lessons learned was that leaders should always be able to influence the action. They cannot do this when they become personally involved in the fire

fight to such an extent that control disintegrates. Our leaders have been inclined to be too agressive personally; and not aggressive enough, in many cases, insofar as their units are concerned. Such a practice results in excessive casualties among leaders, and very often in failure on the part of the units concerned to accomplish the mission. Leadership is the ability to instill confidence in others; to direct their actions intelligetly; and to be able at all times to influence the battle so that the successful attainment of the objective is insured. Leadership is not a demonstration of personal bravery or of personal fighting ability, however commendable these attributes may otherwise be.

Commanders of all echelons must not attempt to conduct the operation by themselves. Many ramifications now exist in our procedures. A maximum use must be made of staffs. Staff officers must represent the best officers in the unit, having a thorough knowledge of their job; and must be permitted a great deal of responsibility. Cases were found where unit commanders were going far forward of their command posts and taking an active part in the fire fighting while their staffs were not kept informed and consequently could not operate efficiently. Commanders must have complete confidence in their staffs, and must let the staff handle the detail work in order that the commanders be left free to study the whole picture and to plan the subsequent phases.

h. Communication.

Communication still presents the greatest problem in the operations of the Headquarters units. Commanders of all echelons were slow in getting both friendly and enemy

information back to the rear. In order for the next higher commander to be able to influence the action, timely information must be forwarded to him by lower unit commander. This is particularly true in operations such as this one where our forces were disposed up to 15 miles by water from Division Headquarters. A great amount of coordination is neccessary in assembling boats and units at the proper time and place, sothat they may arrive in target areas when desired. And the success with which this is accomplished depends to a large extent on communications.

It is the maintainance rather than the initial installation of communications which present the major problem. In the future operations over terrain which precludes the use of vehicles, due consideration should be given to strengthening communications elements with personnel from less essential groups. This is particularly true of wire personnel, whose job in tortuous jungle terrain entails almost insurmountable difficulties.

With the many means at our disposal, operations even in the jungle sometimes move very rapidly and it is necessary for us to speed up our communications methods. Ampl numbers of well trained liaison officers are invaluable for this purpose. Liaison officers should be equipped with adequate radio communications and transportation. If these facilities are not available the liaison officer be comes ineffective. These officers when sent from higher to lower headquarters are representatives of the higher commanders and have the principal job of keeping the higher commander abreast of the situation. They also become for the lower commander an excellent means of expediting requests for assistance and of passing on to higher commanders plans for

subsequent actions. It is essential that lower commanders give a liaison officer every assistance in the performance of his job. A liaison officer must be permitted to operate as a part of the lower unit staff, to attend conferences, and to participate as an observer in all planning. The unit commander must be available to him, and he must be given assistance by the unit in the installation and maintenance of his communications. Good liaison is the key to successful conduct of operations.

In the sending of information to higher echelons, it must constantly be borne in mind that with each higher echelon of command it becomes of necessity, more and more a case of trying to visualize the situation on a map. Consequently it behooves commanders and their staff to prepare their messages so that a picture is presented interpretable by persons who may never have an opportunity to see this ground upon which the action is taking place. Maximum use must be made of operators to transmit messages. Officers must learn to be brief when using telephones, and only rarely should they use the phone themselves. Many instances were found of officers carrying on long and irrelevant conversations thereby slowing down communications. Messages sent by telephone, radio, or telegraph should be written out and confirmation copies of the messages sent to the addressee whenever possible. Maximum use should be made of brevity codes in order to speed up transmissions by radio. Brevity codes should be simple and easy to encode and decode. The tendency on the part of communications personnel is to carry security to such an extreme as to hamper the progress of operations. Every message should be studied to determine

the relative importance of security on the one hand, and speed and clarity on the other. Enemy information in most cases should be sent in the clear. Only when this information will indicate dispositions of organizations of our forces should it be encoded, and then only if it would enable the enemy to influence the action.

The division artillery laid several circuits under water. When the circuits were placed "cross-channel", such as from Raoe to Tilai no trouble was encountered and the circuits worked well. The 210 Field Artillery tried five times to lay a line underwater and parallel to the above. In every case except on the wire was damaged beyond repair in a very short time because of the waves beating it against the coral. The one circuit that remained in operation was put on floats at short intervals. The floats made maintenance possible and prevented serious damage to the wire.

A more extensive use of liaison planes as an additional means of communication is suggested for consideration in future operations. This would be particularly useful in operations over an extended front where other means might be less reliable than usual or abnormally difficult to maintain; or in jungle operations, where the plane can be used as a flying radio relay station with sets on the ground that would otherwise not be able to carry far enough. These planes are rarely fired upon from the ground by an experienced enemy, for each, though unharmed, is protected so to speak by an invisible Field Artillery Battalion.

i. Supply and Evacuation.

In an operation such as the Morotai operation supply

and evacuation constitute the major problem; and the success of the operation is in direct relation to the efficiency of the supply system. It should be understood by all concerned that supply over water and over terrain such as that encountered on Morotai will necessitate the use of a great deal of personnel. If native carriers are not available it can be anticipated that at least one man to carry supplies is needed for every two men that are fighting. This is in addition to normal supply personnel. Commanders should take these factors into consideration when determining the number of troops or the time required to accomplish a particular mission.

Because of the difficulties of supply it has become apparent that very careful estimates as to supply requirements should be made in order that the personnel handling supply may not be overburdened with unnecessary work. During the recent operation there were a number of instances where certain supplies were ordered and laboriously carried forward and then never used. Supplies were also delivered to beachheads, which later had to be evacuated to Base and loaded for dropping by air. Perhaps the most important supply lessons learned were those which had to do with supply by air. As the movement of forward units to more and more inaccessible areas progressed, air drops were used quite extensively and with a considerable degree of success. While this means of supply should by no means be considered normal, nevertheless its importance in certain situations cannot be ignored. Therefore the following suggestions are made for the improvement and perfection of air dropping in the future.

1. All planes should have radio communication with the ground; and the set on the ground should be used to guide the plane and tell plane personnel when to drop

supplies. It is felt that a radio in the lead plane only is not sufficient as subsequent planes missed the target. The SCR 300 was found satisfactory for this purpose.

2. It is necessary to establish the direction of the run (i.e., N-S, E-W, etc) so as to enable clearings to be made properly, and also to facilitate the dispersal of ground personnel. Such a practice will also enable ground personnel to locate over and short drops more readily. In establishing the direction of the run both ground and air commanders should be consulted as each have distinct problems involved; and then all concerned (to include troops) should be informed so as to prevent accidents.

3. Marking of areas should be done with both panels and smoke. It is suggested that a panel be placed at each end of the area in which the drop is desired.

4. The dropping of Medical supplies, Signal supplies and of ammunition was found to be unsatisfactory unless parachutes were used, due to breakage. And even with parachute, dropping from an altitude of 200 feet still resulted in a considerable amount of breakage. Higher altitudes must be used for such items.

5. It is suggested that liaison planes which can fly slower than transports be used to locate troops and guide transports to dropping areas.

6. Drops into water should be avoided whenever possible. It was found that cases dropped into streams were broken and the contents scattered. Drops onto the ground may be partially cushioned by undergrowth.

7. If drops are not made on schedule, serious interference with ground operations or injuries to personnel are apt to result.

j. Burial.

The evacuation of friendly dead in jungle warfare, during combat, to a central cemetery in the rear, as we were required to do by higher headquarters, creates a serious problem both from the psychological and the labor standpoint. It took one Battalion 30 hours of the time of 50 men, who could ill be spared, to return 12 of its dead to the beach; and in the process, of course, the carrying parties were encountered by all troops going up the trail to the front. It would seem that permission could be obtained to establish small burial ground in combat areas from which bodies could be moved to the central cemetery at a more opportune time.

k. Medical.

Steel litters proved bulky and cumbersome, as always in an operation; and it would have been better to use litters improvised from a poncho and poles. The pistol is a much more practical weapon for medical corps men than the carbine, which interferres with the performance of his duties.

l. Engineer.

It is not advisable to attach Engineer Troops to units smaller than an RCT merely to cover contingencies - i.e., without a specific mission; nor to assign an engineer unit of less than company strength for heavy construction in forward areas. The most efficient use of Engineer troops is their assignment to specific missions by Engineer Bn and Co Commanders.

m. Amphibious Craft.

Units to which craft are attached from Service troops are apt to overlook the necessity of providing fuel and supplies for the vehicles. It is advisable never to leave

for a zone of action without a good supply of welding materials, both gas and arc. Great quantities of supply of welding materials, where used in repairing LVT's, especially grouser plates.

n. Navy.

Wherever an Army unit is defending a shore, it is essential to coordinate closely with friendly Navy units, and for that matter, with all units, including Ground and Air (operating water transportation), as to types and routes of friendly naval patrols and other crafts, codes, challenges, etc. This must be worked out well in advance, and all personnel of the shore installations must be informed on the subject. Otherwise such personnel are faced with the impossible problem of making split-second decisions, usually at night, which if not correct made may involve firing on firendly forces or allowing hostile forces to approach.

o. Air.

We did not derive much advantage from the air support available for us. This was partly due to the fact that enemy personnel scattered in jungle terrain does not present good air targets, and that identification of targets and friendly troops in the jungle is difficult. It was also due to the fact that communication between the Battalion in contact and the supporting air was too slow and indirect. In warfare of this kind it is doubted whether close air support can be made effective without direct communication between the supported unit and the supporting aircraft.

p. Don't fire automatic weapons at night unless the enemy has definitely committed himself. In the jungle once an automatic piece is disclosed the Jap will spend the rest of the night trying to knock it out.

g. Souvenir hunters are a menace. On Redja Beach one man caused the death of three men by tripping booby traps while trying to get souvenirs off the dead Japs.