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BIAK ISLAND.

A Battlebook presented to the Staff and Faculty of the United States Army Command and General Staff College in fulfillment of the requirements for A660

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**Abstract:**

The Battle of Iwo Jima was a struggle between American and Japanese forces for control of Iwo Jima from 19 February to 26 March 1945. Reinforced elements of the 5th Marine Division conducted an amphibious assault, followed by Jungle operations. Despite a vast superiority in numbers, fire support, and logistics, the Americans were unable to wipe out the last pockets of Japanese resistance until the operation was nearly three months old.
Section 1: Introduction to the Battle of Biak

The Battle of Biak was a struggle between American and Japanese forces for control of Biak Island from 27 May to 20 August 1944. In this battle, reinforced elements of the US 41st Infantry Division conducted an amphibious assault on Biak, followed by difficult jungle operations against the entrenched Japanese enemy. Though possessing a vast advantage in numbers, fire support, and logistics, the Americans were unable to attain their immediate terrain objectives in a timely fashion. This was due not only to Japanese resistance, but also to the difficult weather and terrain, and the failure of the American command to use its available forces to maximum advantage.

After a change in command, the American forces attacked with renewed energy and efficiency in early July, finally clearing out the last pockets of Japanese resistance in Biak by 20 August. Japanese attempts to reinforce the isolated garrison by sea were beaten back by US naval forces, while enemy attempts to support the Biak garrison with outside air support were generally ineffective.

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The setting of the Empire of Japan's military operations...
against U.S., British, and Dutch possessions and outposts in the Pacific. Early major operations included the surprise attack on Pearl Harbor to neutralize the US Pacific Fleets; the seizure of Hong Kong, the Philippines, Malaya, Singapore, and the securing of vital economic areas in the region of the East Indies.

These isolated actions were part of a three-stage Japanese strategic plan. The first stage was to attack, to neutralize foreign military forces, seize vital economic resources, and establish protective outposts. The second stage was to consolidate these acquisitions, exploiting the new economic gains and fortifying the outer packet lines for defense. The third stage of the Japanese plan was a strategic defensive. According to Japanese calculations, determined defense of its new acquisitions would allow Japan eventually to negotiate a settlement with its enemies that would recognize Japan's control over the "Southern Resource Area."

The first two stages of this scheme unfolded as planned. By late summer 1942, Japanese forces were continuing to advance in Papua against Australian forces, rounding out the southernmost portion of the defensive perimeter. In August 1942, however, Allied forces began to strike back in earnest with landings in the Solomons Islands. Moreover, General Douglas MacArthur began reinforcing the Allied forces on Papua with additional Australian and US
forced into the strategic defensive, Japan was handicapped in its military efforts by a growing inferiority in materiel and by the very success of its earlier conquests. Since the Battle of Midway in June 1942, the carrier forces of the Imperial Japanese Fleet were generally inferior to those of the Americans. This increased the hazard to Japanese "blue water" operations, and forced Japanese naval commanders to exercise discretion in the future commitment of their fleet assets. Moreover, the extended Japanese perimeter of island outposts tied down much of Japan's military resources. By means of their strategic mobility and possession of the initiative, Allied forces could strike at will against Japanese-held points, using superior local combat power.

In order to conserve its resources and to concentrate on essential strategic tasks, in May 1943 the Japanese high command formulated a new defense plan. This "Plan Z" called for strengthening the defensive outposts, and the general intensification of Japanese defensive efforts. A modification to this plan in September 1943 established a "line of absolute defense," running from the Kuriles to the Marianas to western New Guinea, was to be held at all costs. Japanese forces still outside this perimeter—including the major bases at Rabaul and Truk—were still to be held in order to slow and weaken the Allied advance. However, the precious Japanese naval forces would not be risked in a general engagement outside of the "Absolute defense line," and outer garrisons would not be reinforced in
the event of attack. Japanese hopes for future defensive success turned on the expectation that fleet forces of the Imperial Japanese Navy could defeat American fleet units in a general engagement inside the vital line, and on the defense of the defensive "linchpins" of the Marianas and New Guinea.

By 1943, Allied operations in the Pacific had divided into two major threats. One of these drives, under the command of Admiral Chester Nimitz, was advancing across the "Central Pacific Area" on a general axis leading from the Gilbert Islands to the Marianas to Hong Kong. (An April 1943 document by the American Joint Chiefs of Staff entitled "The Strategic Plan for the Defeat of Japan" identified Hong Kong as the ultimate objective of Nimitz's advance due to its suitability as a bomber base.) In the "Southwest Pacific Area" (SWPA), General MacArthur was pressing northward through Papua-New Guinea, with the object of isolating Rabaul and returning to the Philippines. This drive—which competed with Nimitz's more direct advance in some respects—would eventually sever Japanese communications lines to the Southern Resource Area.

In March 1944, a new JCS directive further coordinated these twin offensive campaigns. Nimitz was charged with securing the southern Marianas for use as a bomber platform. (New long range B-29 bombers could strike the Japanese home islands from the Marianas, thereby obviating the need for
control of Hong Kong. MacArthur was directed to seize Hollandsia in Netherlands New Guinea, and prepare for future operations against the Philippines and Formosa.

Biak Island, located in Geelvink Bay off the northern coast of Netherlands New Guinea, was a pawn in these grand strategic designs. Western New Guinea was the southern anchor of the Japanese vital defense line. This same territory stood astride MacArthur's line of advance toward the Philippines. Unlike Minolz, who would support his "island-hopping" operations with carrier based-air support, MacArthur had to operate within range of land-based air bases. Biak had no less than three airfields in operation or under construction, and so was ideally placed to support not only actions against western New Guinea but also against the southern Philippines. A lunge by MacArthur against Biak, tried to precede Minolz' attack in the Marianas, might draw Japanese air and naval reserves southward, thereby facilitating the seizure of the vital bomber bases.

Aggressive American carrier strikes against Japanese bases in the Carolines (Truk), the Palaus, the Marianas, and at Wake Island crippled much of Japan's land-based airpower in the Pacific, but alerted the Japanese to expect American moves against the vital line. In April, 1944, MacArthur launched a major operation against Hollandsia, later leapfrogging to Wadina, and drawing Japanese attention to the south. On 27 May, elements of the US 41st Infantry Division splashed ashore on Biak, simultaneously outflanking Japanese positions in western New Guinea, threatening the southern Philippines, and posing a powerful lure to Japanese
The situation on Ieal Island at the end of operations on 14 June was
basically conducive to the accomplishment of the overall objective of General
MacArthur's headquarters. Enemy fire from the low ridgeline that dominated
Hokur Drome prevented use of that airfield, and continued stiff resistance
in the same area kept American ground forces from pushing forward towards
Hokur Drome and Surdzu Drome. Enemy options by this time were limited to
defense of current positions, or very limited counterattacks. The latter
option was contingent on deployment of reinforcements to mount a
counteroffensive. There were some indications that troops of the 221st
221st Division had been landed, but the Japanese were still
assessed as being too weak in firepower and manpower to do much more than
retain their positions in the high ground.

The same day, the New York Times reported the Hokur Drome was secure
and operational for the use of forces in the Southwest Pacific, and that
American forces were continuing their push to the west. While this was
not the case, it is fairly easy to appreciate why General MacArthur's
headquarters would issue such an announcement given the fact that the present
situation in Europe was overshadowing his operation in the Pacific, and that the soon to be initiated drive on the Central Pacific would draw even more attention away from him. Despite his displeasure at the slow pace on Biak he announced success rather than permit conjecture concerning a possible stalemate on the island.

There were, of course, a good many problems on Biak. General Krueger was disappointed by the early failure of late Ma, near Mckner. Then, on 1 July he received reports from his own observers of the poor state of affairs on Biak. Seven problem areas were reported to him on that date as follows:

1. A lack of determination at the company and battalion level

2. Ineffective reconnaissance

3. Ineffective use of the Assistant Division Commander, Brigadier General Nels E. De

4. Lack of visits by the division general staff to the island

5. A tendency on the part of the soldiers of the landed regiments to bunch-up and move as a herd rather than to move tactically

6. The difficulties of the jungle terrain
It is interesting to observe that one of General Krueger's staff officers race this report to him and that the general, despite his dissatisfaction, did not see fit to make the visit himself. In all fairness General Fuller had been fighting a determined enemy while at the end of a tenuous line of communication. In addition, there is no indication that General Fuller was aware of the fact that 15 June had any special significance or that time was of the essence in this operation. At any rate, the point was never made clear to the regimental commanders on Biak.

During the evening of 14 June, General Krueger instructed the I Corps commander, Lieutenant General Robert L. Eichelberger to proceed to Biak Island and take command of HURRICANE TASK FORCE. His authority was to be complete to include relieving Major General Fuller of his command if he felt that necessary. General Krueger was motivated to make this command change because of the slowness of the operation, the pressure from General MacArthur to make progress, and the reported lack of coordination in the execution of operations on Biak. When General Eichelberger arrived on 15 June, he was met by General Fuller who immediately requested relief from all command within Sixth Army. General Fuller had already submitted his letter of resignation and request for retirement by the time General
Eichelberger arrived. Indeed, he had gone so far as to radio General Krueger's headquarters requesting this relief. He preferred not to command the 41st Infantry Division rather than continue in that assignent following his relief from command of the task force. He was adamant in his demands, even going so far as threatening to submit his resignation every half-hour until such time as it was accepted. Given the situation, neither General Krueger nor General MacArthur were left much choice except accept his resignation.

At the time of the change of command of HURRICANE TASK FORCE, the situation was moved at best. Strategically, the task force had failed in its mission. The rapid seizure and repair of the three airfields was not accomplished and the Allies were denied these forward airbases considered important for the advance in the central Pacific to seize the Marianas.

On the other hand, a case can be made for the fact that the Marianas operation in fact permitted eventual success on Biak because that operation forced the Japanese that the major Allied advance would be in the Central Pacific, and they consequently elected to abandon their reinforcement attempts at Biak in favor of massing all available forces farther to the north. Had the Japanese 5000 men pressed ahead as planned, the ground forces at Biak would have been placed in an untenable position, for their sea lines of communication would have been cut and the limited Allied naval forces would have been hard-pressed to beat off the Japanese. Had the Japanese landed the planned 5000 man landing force, additional reinforcements of up to a division may have been required to save the
TACTICALLY, General Eichelberger was faced with a serious situation. The men of the 41st Division had been engaged for eighteen days in extremely difficult terrain, against first-line Japanese forces who had proven themselves in combat in China, and who had apparently been reinforced since the initial landing of 27 May. The Molmer Drone had been taken, but fire from the northeast prevented Allied planes from landing. Combat patrols of the division had succeeded in reaching as far west as Boroko and Scriss Drones and they were known to be unoccupied. The intent of General Fuller had been to secure the high ground north of Molmer Drone and protect his tenuous line of communication (which still went overland past the Itchi sector and East Caves) before securing the other two airfields. In this manner, he had hoped to get the airfield fully operational and supportable before pressuring for the other two. General Eichelberger placed General Doe in command of the division and permitted him to continue the planned operations while he studied the situation.
During the course of 15 June, American troops moved into positions that would permit them to encircle the enemy in the West Caves area. During the course of the day, the Japanese conducted three counter-attacks against the right flank of the 186th Regiment but were repulsed. The three light tanks they deployed were destroyed by American tank fire. Japanese losses on this day amounted to 172 killed in action. A prisoner of war indicated that as many as 200 Japanese of the 122nd Infantry, 32nd Division, East in the West Caves were ready to surrender. The estimate of enemy capabilities at this point was limited to defense of current positions, further reinforcement and the mounting of a major counterattack being discounted.

Movement into the West Caves

The plan for 16 June was to close the gap that existed in the two axes attempting to encircle the Japanese defenders in the West Caves area. To accomplish this, 2/186th Infantry was to make the main attack from west to east while 1/162d Infantry fixed the enemy forces in zone. The 1/186th Infantry was to move north of the main area of resistance and cut the trail that ran north and south to the west of Hill 320. The two remaining battalions of the 162d Infantry were to remain in position to rest. General Poe's plan concentrated on the elimination of Japanese resistance in the area of the Molmer Drome. Other activities on Biak were to support securing the lines of communication from Bosmak.

At 0700, 2/186th Infantry began its movement and by 0920 had conducted a
forward passage of lines through 2/162d Infantry. Within one hour it had crossed its line of departure and begun to attack to the east towards the Japanese. Encountering some initial resistance along the southernmost ridge leading to the Japanese position, the Second Platoon of E Company required assistance from the First Platoon of C Company. Together, these two platoons were able to lead the advance of the right flank of the 2/196th Infantry so that by 1000, the two platoons had made contact with 3/162d Infantry to the south of the Japanese position.

In the north, the remaining two platoons of E Company were pinned down by machinegun and mortar fire from positions north of the objective area. The Second Platoon of G Company attempted to outflank these positions by maneuvering to the north and northeast, but was unsuccessful. By 1115, all movement in the flats north of the ridge, along which the Second Platoon of E Company and G Company had advanced, had ceased. At 1200 a new four-platoon attack was begun. The object was to sweep to the north of the West Caves and line-up with 1/162d Infantry thus sealing the Japanese into the caves area. The 121st Field Artillery Battalion fired a 400 round preparation in the Japanese machinegun and mortar position, and by 1400 hours Third Platoon G Company had secured the high ground from which this fire had come. Also by 1400, Third Platoon E Company made contact with elements of the 162d Infantry.
The other two platoons, attacking in the center, were not as successful. They apparently ran into the bulk of the Japanese defenses on the western side of the strongpoint and were halted. Colonel Taylor, commander of the 186th Infantry, ordered these platoons to dig in for the night, his intention obviously to secure this terrain for use as a line of departure the next day. General Doe, however, ordered a general withdrawal to positions along the southern ridge. He apparently feared that an enemy counterattack would develop during the night. By 0420 the 2/162d Infantry began its movement. It passed through 2/162d Infantry which had been ordered forward, and eventually retired to its positions of 0700 that morning.

At the close of the day's operations the enemy was assessed as too weak to counterattack due to losses in heavy weather, food, ammunition, and personnel. The 41st Division had succeeded in surrounding the enemy strongpoint although only temporarily and had also advanced to the western limit of the Japanese position. Of equal importance was the fact that at the end of the day the gap that had existed between the two axes of advance had been effectively closed by the forward movement of the 2/162d Infantry. The retirement of the 186th Infantry from the West Caves, however, is of dubious merit and was to cause problems later.

The next day, 1/166th Infantry attached to the 162d Infantry, was to continue its movement to the high ground north of the Japanese strong point, while 1/162d Infantry, supported by the First Platoon of the 603d Tank
Company, was to push into the caves themselves. The slowness of the attack by the 1/162d Infantry in clearing the ridge north of the caves resulted in the Japanese being able to place effective fire—inclyude automatic weapons and 50-millimeter towed fire—on the 1/162d Infantry thus stopping its advance. Only by employment of the tank platoon was this battalion able to advance, but it was delayed well over an hour, the attack being resumed by the advance of C Company at noon. At the same time, 1/186th Infantry was able to push its attack in the north so that by 1330, A Company 186th Infantry linked up with C Company 162d Infantry.

On the left flank of the axis of 1/162d Infantry, success was not to be had. The remaining companies were stopped by Japanese fire coming from positions seized by C Company 186th Infantry the day before. By nightfall, 1/162d Infantry occupied an L-shaped position with A Company in the west, B Company in the east and C Company in the north. The wisdom of withdrawing 2/186th Infantry the previous night is obviously brought into question.

As luck would have it, General Eichelberger had been conducting a general inspection of the situation during the course of the day's battle for the West Caves. From an observation post within the zone of 1/186th Infantry he was able to observe the employment of the tanks of the 603d Tank Company. To his chagrin, he saw the Japanese infantry in close combat with the American tanks. Of even greater concern was that the Japanese forces
were able to move at all throughout the area that had supposedly been cleared by the advancing Americans. This included the ridge on which he had established his observation post. His assessment, justifiably so, was that no one had a firm grasp of the situation. When General Doe proposed renewing the attack in the same fashion the next day, General Eichelberger intervened, ordering a day of rest and reorganization instead.

The situation by now had become clear to the I Corps commander. The army had in complete control of the area of operations because he had the ability to maneuver his force at will through the caves that made up his strongpoint. He could, quite literally, sink into the ground to reappear at another location, and the attacker would never really know if he was present or not. This was a distinct mobility advantage for the defender and permitted him to make the best possible use of the terrain with the limited number of combat-effective forces at his disposal. The Americans did not know the location, disposition, or capabilities of the enemy.

The Americans for their part had two major shortfalls in their scheme of maneuver. First, they failed to employ the principle of mass in dealing with the Japanese strong point. The single battalion attempting to enter the caves area was, in effect, defeated in detail. A second major problem was that the attack by the division was coordinated in theory only. Two battalions, from two separate regiments, were attempting to make the division main attack, while moving on perpendicular axes, through heavy jungle. That any link-up occurred at all is a surprise. The command and
control problems were, in fact, insurmountable given the level of technology and availability of available equipment.

At the conclusion of the day, General Eichelberger reported to General Krueger that for the next day he 22 called off all fighting and the troops will be reorganized. On Monday I propose to put three battalions in the rear of the Japanese, and on Tuesday I propose to take the other two 23 airfields." During the day, the Japanese lost 122 killed in action around the West Caves. Elsewhere on the island the enemy continued harassing tactics, an ambush having destroyed a truck near Ibdi. The possibility of further reinforcement was remote since the bulk of naval 24 forces were involved in operations in the Marias. The airfield at Mokmer Drome was usable, but the fact that enemy forces in the West Caves could fire on it at will mitigated against all but emergency operations.

General Eichelberger Takes Charge

Operations on 18 June are probably best described as being limited to consolidation and reorganization. While some local patrolling did occur to maintain security, the bulk of the day's effort was directed at preparing for the resumption of the attack on 19 June. The new plan, the fifth in a series of endeavors to secure Mokmer Drome, was to be a coordinated effort by two full regiments - 162d Infantry and 186th Infantry - to achieve two
gueal: First, to force the Japanese from all terrain from which they could place effective fire on Mokmer Drome; and second, to secure a foothold from which to launch further operations to the west. The main attack was to occur in the zone of the 186th Infantry, an area 1000 yards long and 500 yards wide. The total area to be cleared included the West Caves, the Japanese encampment outside of the caves proper, and all ground north from the low ridge overlooking Mokmer Drome to Hill 320.

The 34th Infantry Regiment (34th Division) arrived at Zacepek during the course of the day and was immediately brought forward to Mokmer. It would assume the responsibility of the tenuous and assembly area to be vacated by 2/186th Infantry and 3/186th Infantry when it commenced its attack on 19 June. General Eichelberger's intent was to conduct two regimental attacks, under the control of the regimental commanders, to seize objectives within the division area of operation. He was using the established control headquarters (the regiment) to control separate battalions, rather than attempting to control battalions from the task force. In addition, he was employing the basic principle of mass by using full regiments to mount operations. General Fuller and General Doe felt could be conducted by battalions. Full regiment is probably the wrong term since none of the battalions were at anywhere near full effectiveness due to casualties and sickness.

During the day, K Company 162d Infantry and 3/163d Infantry engaged in extensive patrolling, the former out to a distance of 2000 yards to the northwest of the west end of Mokmer Drome and the latter out to 2500 yards.
The ability of 2/153rd Infantry to advance in this area was to facilitate the final clearing of the Japanese from the West Cape area two days later. Documents captured during the day confirmed that at least some of the enemy in the West Caves were assigned to the 221st Infantry Regiment. Of special significance is that these documents indicated that 400 to 500 men of this regiment had moved by five barges from Tawi-Tawi during the period 12-16 June. General Fullen's assessment that the Japanese had been reinforced, the proximate cause for his having requested additional reinforcements, was apparently justified. Japanese capabilities by the end of 16 June were believed to be limited to conducting defensive operations in sector, or to attempting to breakout to the north to a waterhole about five miles north of Sondio. The assessment by General Harrington's headquarters was that the second course of action was the most likely.

The offensive was to be renewed at 0630 hours. The main effort regiment began moving from its assembly area at that time and by 0900 the 2/186th Infantry, and 2/136th Infantry were at the line of departure, 1000 yards northeast of Sondio Cape, and moving east. Four battalions of artillery (121st, 127th, 295th and 947th Field Artillery), D Company 61st Tank Destroyer Battalion, and ten tanks from the 613th Tank Company were all in support of the division attack. At 1104 hours, following preparatory fires
...did four artillery battalions, the actual attack began with 2/196th in
...that followed by 3/196th in reserve.

General Eichelberger was using the 186th Infantry to conduct an
invasion of the Japanese strong point while the 162d Infantry cleared the
area from his positions in the caves. Progress by the 2/196th Infantry was
slow, and by 1130, E Company and F Company 186th Infantry had achieved their
initial objectives, having passed through scattered rifle fire and some
81-millimeter gun fire. The 1/186th Infantry was relieved from attachment
to the 162d Infantry and ordered to advance from its position in the east,
but encountered problems moving through the terrain so that only one company
was able to take the actual link up by 1430 that afternoon. By nightfall,
186th Infantry had succeeded in completely enveloping the enemy position.

Meanwhile, 162d Infantry had begun its push into the area of the West
Caves proper. American forces were generally successful in entering the
area, but fire from within the caves prevented them from actually entering
the enemy positions. In a first improvised attempt to route the Japanese,
gasoline was poured into the caves and ignited, but this failed to eliminate
the resistance. During the night, Japanese soldiers came out of their
positions and placed harassing mortar fire on the beach road from Bosnek to
Villene as well as on the airfield itself. Additionally, limited
counterattacks into the rear of 186th Infantry were launched.

By day's end, General Eichelberger was very upbeat in his assessment of
The situation, feeling that during the course of the day his forces, supporting to his planning and direction, had effectively ended the threat to their position and that the next day Colonel Jenna's 34th Infantry should have little difficulty in securing the Porchoe and Sorido airfields.

The Japanese capability was felt to be limited to a defense on Biak with the best major activity occurring to the north of Sorido in the vicinity of the waterfront in that area. No mention is made of the possibility of conducting the determined suicidal counterattacks that were to characterize the final chapter of operations on Biak.

Securing the Airfields

The plan for 20 June was relatively straightforward. The 1/162d Infantry would continue operations to eliminate Japanese activity in the West Cape, the 34th Infantry would attack to the west to secure Porchoe and Sorido Dromes, and the 186th Infantry, with 3/162d Infantry attached, would conduct clearing operations in the Hill 320 area. Only the 34th Infantry was to achieve success on this day.

Supported by 167d Field Artillery, Colonel Jenna was able to advance virtually without opposition. His operations were facilitated by the attack of 186th Infantry in the Hill 320 area, but it was obvious that the Japanese had abandoned any hope of being able to occupy the westernmost airfields. I
The 24th Infantry established a road block 2000 yards north of Senio in
an effort to deny the use of the Senio-Melat Bay trail. The rest of the
regiment established a screen around the airfield and maintained contact
with the 41st Division to the east.

Meanwhile, General Ope's division was again bogged down north of Mokmer
Drone. He may have isolated the enemy, but the Japanese were not prepared
to retire quite yet. Only the 2/194th Infantry and 3/194th Infantry were
making any real progress in the valley between Hill 300 and the West Caves.

Rough terrain and enemy tanks were slowing up operations elsewhere.
Dissatisfied with the progress of General Ope's division, General
Eichelberger told everyone out there and decided to take for better
luck tomorrow." His observation was the American soldiers tended to
feel sorry for themselves and failed to recognize the deprivation under
which the men were forced to operate, and the damages he was suffering. As
a result, the American soldiers did not press their ground attack, instead
they were too willing to let the artillery decide the battle, rather than
maneuver into the enemy position.

Nonetheless, the Americans were achieving success on Biak. While
operations continued in the palisades north of Mokmer, the 84th Engineer
Climber Battalion was able to resume work on preparing Mokmer Drone for use
by the Allied Air Force. It would be two more days before the first P-40's
of the Fifth Air Force would land here — fully a week behind the strategic
For the Japanese, the situation was deteriorating rapidly. Casa Fucks 2B, which had previously been garrisoned on Biak, was having its communications routed to Marshward, an indication that evacuation of Biak was underway. In addition, during the night of 20-21 June, American patrol boats operating north of Biak in Serrador Day, sank three barges loaded with personnel and supplies trying to accomplish the passage to Marshward. The general lack of resistance in the west and the fact that the enemy was generally concentrated in the Hill 220 and West Caves areas led analysts to believe that the Japanese had begun a general withdrawal to the north and northwest. Nonetheless, the Japanese were holed up in three distinct areas - West Caves, East Caves, and Itdi Pocket - all of which still require a considerable American effort to overcome.

Operations at the Itdi Pocket in the east had been designed more to contain the enemy than anything else. When it came ashore, the 163d Infantry found itself split between two areas - the palisades overlooking Moker Onone from the northeast, and the Itdi Pocket. The 2nd 163d Infantry, near Itdi, spent its first days on Biak becoming thoroughly familiar with the area. On 21 June, however, it went on the offensive, attacking from north to south along an axis that ran parallel to, and lay some 500 yards west of, the Young Man's Trail. Unfortunately, Japanese rifle, machine gun, and mortar fire was of sufficient volume and effect to prevent advance.
As a result, the regimental commander resorted to "his favorite tool of the 41st - heavy, indirect fire - and directed the initiation of a bombardment of the enemy by the 146th Field Artillery Battalion, Cannon Company 163d Infantry, 4.2 inch mortars of D Company 61st Tank Destroyer Battalion, and the heavy machinegun and mortar platoon of D Company and H Company 163d Infantry. In all, nearly 50,000 rounds of artillery and mortar ammunition would be expended before this area was finally subdued.

In the next Caves, 1/162d Infantry resumed its efforts to eliminate all Japanese resistance. The Americans now discovered that a high degree of destructiveness would be required if the Japanese were to be routed out. Small arms and machinegun fire was ineffective when placed into the caves because it was essentially unobserved and uncorrected fire. The caves themselves were impervious to artillery and mortar fire because of their natural construction. The effects of hand grenades were negated because the labyrinths below ground tended to diffuse the fragmentation effects. Gasoline had been previously attempted as a means of literally burning the Japanese out, but the caves were in reality too large for this to be an effective tool. Flame throwers, while useful above ground when directed against prepared positions, had a tendency to flash back at the operator unless he was extremely accurate in directing his fire. Regardless, the flame rarely penetrated the caves themselves.

Several expedients were developed before arriving at the ultimate
incendiary, white phosphorous grenades. M15s were used to produce bell-shaped smoke that could not be readily extinguished by the Japanese. A total of 2841 of these grenades were used on Biak for cave-clearing, as well as marking and incendiary purposes. A second expedient was the use of M14 incendiary grenades to ignite the thickened fuel of the flame thrower. The procedure adopted was that, after a reconnaissance, a flame thrower team would approach a cave opening under the cover of rifleman. The flame operator would then project the pressurized fuel into the cave opening without igniting it. In this way, the maximum coverage could be obtained without fear of flashback. When the operator had covered the area with fuel, an incendiary grenade would then be used to ignite the dispersed fuel. This procedure allowed maximum coverage with least danger to the operator. A total of 1255 incendiary grenades were employed on Biak, not only for these type operations, but also to destroy enemy weapons to prevent their use by infiltrating Japanese. These expedients did little more than contain the Japanese held ground, however, and to be totally effective would have required their constant use. Regrettably, during the hours of darkness, these operations were suspended.

The Japanese made their major breakout attempt from the West Caves area during the night of 21-22 June. Four separate counterattacks were launched from within the perimeter established by the 41st Division. The first, at 2100 hours managed to close to within 50 yards of 186th Infantry positions.
...of the caves and was supported by Japanese light machineguns and mortars. A second attempt at 2200 hours was supported by mortar fire and was directed against positions manned by 1/196th Infantry. This attack was defeated only after 60-millimeter mortar fires from G Company 196th Infantry were brought to bear. At 0200 hours a third attempt, probably designed to divert the attention of the Americans, was directed against F Company 196th Infantry to the southwest of the caves. At 0400 hours, the main breakout attempt was launched by the Japanese. This attack resulted in hard-to-hard combat within the lines of 1/196th Infantry. The enemy was so close to breaking through that mortar fire in support of the defending Americans had to come from I Company 196th Infantry on the extreme northwest edge of the regimental position. In all, the Japanese suffered 144 killed in action and 115 wounded in action. Only one American was killed.

Eyewitness interviews and post-war accounts all point to these counterattacks as the last ditch efforts of the Sangareti Salutation under command of Colonel Kuzume, to break out of the net closed by the Americans. To be sure, these actions all speak for the determination displayed by the Japanese, but it was not a coordinated effort of all the forces on the island since no similar activity occurred to the east. That these actions were a deliberate suicidal attack directed by Colonel Kuzume prior to his committing suicide (which has not been confirmed) is not readily verifiable. These actions were unquestionably desperate measures undertaken to disengage from the Americans, and may have been undertaken with a view to establishing a new defense along the Sorido-Yonim Bay trail as a prelude to
fought a rear guard action in anticipation of evacuation from the island. The end result was the virtual elimination of resistance in the West Caves area. On 22 June, Allied aircraft began operating from Mokmer Dome. Total Japanese strength on Biak, estimated at about 1000 on 27 May, was now put at between 1900 and 2000 effectives. General Eichelberger felt that his main effort could now be directed at preventing the enemy from escaping to the north or from evacuating by sea. He still had some problems ahead however.

On 22 June, 2/186th Infantry was brought under fire by Japanese forces in a position 750 yards to the northwest of its position—an area that was to become known as "The Teardrop." The Japanese had set up at least one 75-millimeter gun in this position and it would be two days before H Company, L Company, the 947th Field Artillery Battalion, and the tanks from the 603d Tank Company would be able to effectively reduce the Japanese resistance. An attack by the 186th Infantry (with 3/163d Infantry attached) had originally been mounted in this area on 21 June, but a lack of coordination between the two different regiments resulted in a failure to eliminate the position. When, on 25 June, L Company 186th Infantry finally entered the area, it discovered that the Japanese had exfiltrated as much as six days before. The lack of coordination in the attack provided the opportunity for as many as 200 Japanese to escape.
The 1/162d Infantry was still occupied in the caves area. On the morning of June 25, patrols from that regiment trapped some heavy mortar crews in the caves. These personnel had apparently been supporting the breakout attempt of June that morning, but were unable to return to safety, and were killed. During the course of the day renewed experiments to clear the caves were tried. Smoke and flame operations continued, and to them was added the engineer solution. The 116th Engineer Battalion lowered 500-pound dynamite charges into the six-hole entrance to the caves and then detonated them by use of an electric pulse. To be sure, this had the effect of stunning the Japanese defenders, and those that elected to leave the caves were killed by aimed small arms fire upon making their appearance. At 1555, after a two-hour lull, in which no further enemy appeared, the 1/162d Infantry declared the West Caves area clear. Again, this declaration was premature, for that night more Japanese issued from the cave and attempted to infiltrate through the 186th Infantry and 1/162d Infantry. This was indeed a situation requiring the physical occupation of an objective before being able to declare it secure. On the morning of 27 June, 1/162d Infantry established its bivouac site at the main entrance to the West Caves. No attempt was made to enter the strongpoint until 25 June, and it would be 27 June before the first deep patrol was initiated.

The caves had been developed literally as underground fortifications. This particular strongpoint was capable of billeting in excess of 600 men and was completely outfitted with kitchens, enclosed sleeping areas, a hospital, and a full complement of weapons, radios, rations, and 50 rounds of ammunition. It was apparent that the Japanese has suffered from the
efforts of the various methods used to force them out of the caves. The
early operations had been more effective than initially suspected, for
nearly 10% of 125 dead Japanese found in the West Caves had no marks on them
indicating they have died of smoke inhalation.

The operation at the West Caves area was completed once the 1/162d
Infantry occupied the area immediately adjacent to the cave entrance. All
indications—such as abandoned radios, weapons, equipment, ammunition—an
pointed to a Japanese withdrawal to the northern edge of the island.
Casualties to Japanese forces were in excess of 2100 personnel killed in
action since the beginning of the operation.

Operations at the East Caves

The success at Makin did not, however, mean the total success of
HURRICANE TASK FORCE. There were still the problems of the Japanese pocket
of resistance at Ibdi and the garrison in the East Caves area. Both of
these position possessed the capability of interdicting the overland lines
of communication of the American forces and had to be dealt with before
operations of Ibdi could be brought to a successful conclusion. The Ibdi
area was successfully tying up one battalion from the 163d Infantry, while
the East Caves represented an unknown capability of the enemy since only the
western flank of the position had been positively identified.
On 17 June, American forces, through the use of indirect fire, had succeeded in isolating the East Caves. This area, capable of protecting a garrison force of at least 1000 men, afforded observation and fire along the coast road from the Parai jetty to the edge of Mokmer. Once the three airfields were secure and Mokmer Drome was operational, renewed efforts were made to neutralize this position. The distance from the center of the airstrip at Mokmer Drome to the center of the East Caves area is slightly less than two statute miles, and on 24 June, B-25 bombers undertook a bombing mission that may have been the shortest on record, taking off from Mokmer to drop ordnance on these caves.

This was not enough to eliminate all activity, however, for on 27 June, a work party from E Company 542d Engineer Boat and Shore Regiment was subjected to mortar and rifle fire while at a grave pit to the northwest of Mokmer. The engineer working in this area had employed a security force to preclude such actions by the Japanese but more positive actions were now appropriate. As a result, American forces - 4.2-inch mortars and tanks - were brought back into the area to subdue the Japanese. During the next three days, over 600 mortar rounds were fired into the East Caves area. Additionally, on 30 June, a lone 105-millimeter howitzer from C Battery 255th Field Artillery Battalion was also provided to suppress the Japanese, and it fired 800 rounds of high explosive and smoke into the position. On 3 July, troops from E Company 542d Engineer Boat and Shore Regiment and E Company 167th Infantry pushed into the East Caves area. They spotted only ten Japanese, of which eight were killed. All other Japanese had
Another failure to employ maneuver as a means to destroy the enemy. The Americans had still not learned that artillery cannot seize or hold terrain.

Elimination of the Iibi Pocket

The last remaining center of Japanese resistance was the Iibi Pocket between Panai and Bosnei. The 2/163d Infantry had made an unsuccessful attempt to penetrate into this area on 21 June, but failing to gain a foothold through maneuver, was forced to resort to the firepower option so characteristic of the division. Then, on 24 June, following three days of artillery and mortar preparation, two companies of the 163d Infantry again attempted a probe west of the Young Man's Trail. Too weak to overcome Japanese resistance, the regiment again resorted to bombardment, this time for five days, and on 24 June renewed the attack. Success was achieved, but only on a limited basis, for by nightfall on 30 Japanese casualties could be reported against eight Americans killed, three missing, and 57 wounded. The enemy had obviously learned to make the best possible use of terrain and was demonstrating a determination not previously seen.

On 27 June, American forces resumed the attack on Iibi. Now, almost all of the 163d Infantry Regiment was involved. 1/163d Infantry, still operating with 161st Infantry, being the major exception, and the Japanese position
as addressed to a 100 square yard area. But this operation was exacting
of toll on the regiment. For by day's end G Company was reduced to 69
effectives and F Company to 43 effectives. Still the enemy was not
neutralized.

On 29 June, patrols were sent forward to locate enemy positions within
the strongpoint and then to call artillery fires down on them. For the next
week, the American activity was limited to the firepower solution. During
the period 4-7 July, the 114th Field Artillery Battalion fired 5500 rounds
into the area. Concurrently, 81-millimeter mortar crews of the 163d Infantry
fired an additional 2400 rounds. The effects were marginal, for upon the
termination of indirect fire, advancing infantrymen observed Japanese
soldiers hard at work rebuilding their positions.

American forces were now able to advance because one of the effects of
the massive total bombardment of 50,000 rounds since 21 June was the almost
complete defoliation of the area resulting in the exposure of the Japanese
positions. These positions had been so difficult to attack because they had
been sited at the tops of coral pinnacles, at the base of trees, and in
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defiles and small caves in the pocket. On 10 July K Company and L
Company were able to begin the compression of the pocket by systematically
reducing enemy positions by use of bazookas, flame throwers, and tank
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fire. During the period of the bombardment, it was estimated that as
many as 300 Japanese were firmly dug in, but apparently 200 of them
exfiltrated during the night of 12 July in four separate groups.

Still, American forces had trouble advancing; no doubt the few Japanese remaining amid the clutter created by the bombardment were having an easy time impeding the movement of the 163d Infantry. As a final desperate measure, eight B-24's dropped 36 tons of 1000-pound bombs on the area. This finally, effectively ended the resistance.

All of this effort was expended to eliminate the final position from which Japanese forces could harass and interdict American actions on Biak. The area itself was, as could be expected, very heavily fortified. Covering a rectangle roughly 400 yards long and 250 yards deep, the Ebod Pocket was adorned with 21 major natural fortifications; the defensive value of which had been improved upon by reinforcement and judicious clearing of fields of fire. Added to this were 75 log and coral pillboxes constructed as four-man fighting positions and at least 200 hasty positions. Weapons in the area included eight 90-millimeter mortars, three 75-millimeter mountain guns, two 37-millimeter guns, two 20-millimeter anti-aircraft guns, and three heavy machineguns. The Japanese forces in the area, part of Colonel Fumiyo's 7/222d Infantry, had taken quite literally his orders to defend. All the same, this defense did little more than harass the American line of communication and serve as a target for an extensive artillery bombardment. The soldiers defending here might have been better used in a counterattack to deny American access to Mokmer Drome.
The conclusion of operations directed at the Vice Pocket brought an end
to operations of any major scale on Palm although American soldiers
remained active for almost another month.

The End of The Vice Operation

With the final reduction of the Japanese resistance around Mokmer
airport, the American forces expanded their area of operation in the west.
The 34th Infantry Regiment (minus 1/34th Infantry) was to secure the area
west of Sonsona Creek. The 163rd Infantry Regiment (with 1 34th Infantry
attacks) would operate in an area from Hill 320 north for 2000 yards. The
163rd Infantry Regiment would have responsibility for base security at
Mokmer, but would place the company at an outpost on Hill 320. The 163rd
Infantry Regiment, as already described, would retain responsibility for the
area west of Sonsona Creek.

As it moved north into position along the ridge that ran generally from
Mokmer in the east to Impendi in the west, C Company 34th Infantry
encountered sufficient enemy resistance to be repelled. Patrols sent
by 1/34th Infantry reported, on 27 June, that enemy forces were
seemingly defending on the cliffs to the northwest of its area of
operations. The next day, the 34th Infantry launched a coordinated attack;
34th Infantry attacking from the southeast; 2/34th Infantry attacking from
the east west--which effectively eliminated this resistance.
On 12 June, command of MURPH'S TASK FORCE passed to Brigadier General Doe of General Eichelberger, departed Biak. That same day, General Doe was informed to release the 34th Infantry back to Sixth Army control for use as MURPH'S FORCE reserve. The necessary change in friendly disposition was affected, and on 20 June 34th Infantry began to retire.

Captured Formosan civilians reported that the Japanese forces were all moving north to a rally point in the Korim Bay area. Reports of as early as seven days prior to this, while the 41st Division was just beginning to clear up the West Gages area, had also indicated that the Japanese were moving to Korim Bay. Abandoned equipment, ammunition, and encampment sites served to highlight the general trace of the Japanese withdrawal. Naval activity on the Korim River also indicated the nature of the Japanese activity. The Japanese, with the exception of the holdouts at the Idaho Pocket, had been routed.

When that position finally fell on 22 July, operations on Biak were limited to search and destroy missions to eliminate the last vestige of Japanese strength on the island. What Japanese that were present, were probably now capable of fighting as a guerrilla force only; but estimates of their strength were as high as 4000. Should this force consolidate it could pose a substantial problem for the battle-weary 41st Infantry. Some indications were received that the Japanese forces would assemble at Wardo.
On 15 August to prepare for a final counterattack. The use of heavy "rally" patrols by 2/163d Infantry and 2/163d Infantry along the Sonido-Horin Bay trail proved a grave enough threat to the Japanese that the required massing of forces was never achieved. On 17 August, 1/186th Infantry was landed at Pandan Bay and pushed Japanese forces from this assembly area southeast along the Sonido-Horin Bay trail into an ambush prepared by 2/163d Infantry. This broke the back of all organized resistance, and on 20 August 1944 the Biak Operation was officially terminated.

Outcome of the Battle

To say that the Americans were successful on Biak is to state the obvious, or so it would seem. But just how successful is a difficult assessment to make. Tactically, the objective of securing the three airfields was achieved, but strategically the cost was fairly great, for the airfields were not secured in time to make a significant contribution in the initial stages of the Marianas invasion and this was the rationale for attacking to secure Biak in the first place. Recall that the capture of airfields in Hollandia did not fulfill the strategic need since the runways there were inadequate for use by heavy bombers, and Allied Air Force missions were still required to originate from positions over 400 miles to the east. Biak then had great strategic importance because of its utility as a forward airbase from which attacks could be launched into the Central Pacific Area or into the Philippines. This strategic importance no doubt contributed to the hasty manner in which the operation was put together and
General MacArthur is sure to have recognized the need for such bases, otherwise he probably would not have pressed the attack as he did. He was convinced the Japanese were very weak at Biak and he believed the reports of his own intelligence staff that said the Japanese garrison numbered only 7000. This, despite the fact that Special Intelligence available to him placed the enemy strength at close to 7000 personnel. The decision to move so quickly may have also been influenced by action in the Central Pacific area. Admiral Nimitz was at that time making rapid progress in the Marshall Islands and pressing for the naval attack that would eventually destroy the Japanese Navy. As that operation came closer to reality, General MacArthur knew that he would lose the naval cover he had previously possessed. Without naval cover, he would be vulnerable to attack from the sea. As it was, during the Biak operation the naval forces available were limited to cruisers and destroyers. The failure of Japanese reconnaissance pilots to distinguish the difference between aircraft carriers and LST's may have been as important an element in the victory at Biak as anything else. This reconnaissance failure made the Japanese think the forces at Biak were far stronger than they were, to the point that the Japanese Navy had to take precautions against a non-existent, carrier-based, fighter and bomber threat.
Strategically, then, the operation was unsuccessful. But this statement must be qualified, for the invasion of Biak confused the Japanese as to the main location of the Allied main effort in the Pacific. The actual intent of invading Biak was not achieved; instead a secondary benefit—diverting the Japanese attention to the south—was. While the Japanese fleet steamed around in the Philippines and Netherlands Indies attempting to mount a successful sea-baselined they were unable to adequately prepare for it. Had they not finally abandoned their efforts at reinforcing Biak, but instead pressed their effort, the two battleships Yamato and Musashi would have been more than General MacArthur’s forces could have handled.

Tactically, the operation was a success, but there were some problems. Certainly, anytime a Major General resigns there must be something wrong. There was a command and control problem at Biak caused as much by the length of the line of communications as by personality differences. In this case, General Krueger, as FIFTH TASK FORCE and Sixth Army Commander was trying to direct the operation on Biak while he remained at Hollandia. He was at least out of touch with what was really happening and never visited the island during the time General Fuller was in command of HURRICANE TASK FORCE. No intermediate command echelon existed between General Krueger and General Fuller. When it came time to act on the situation, General Krueger elected to move the I Corps commander and staff who were not familiar with the situation and took three and one-half days to get oriented, to Biak to take charge of the operation. Finally, nowhere in the field order directing seizure of the airfields is a date stipulated by which they were to be secured and operational. All of these are peculiar actions given the high
forces of the axis failed to reach, securing the three airfields.

The American difficulties on Iwo Jima were the result of failures to follow some basic practices when engaged in land combat. At the beginning of the operation, good terrain intelligence was generally lacking as was a firm estimate of the forces available to the Japanese commander. The lack of good intelligence concerning composition and probable location and disposition of the enemy forces was to cause the American commander significant difficulty in achieving his objective. As the Americans advanced, they repeatedly found themselves cut off from the rear by a defender who consistently let the terrain work for him. Despite what Newsweek magazine had to report about the nature of the Japanese tactics, they were extremely effective. A good ground reconnaissance could have done much to counter the lack of information about the terrain and enemy, but as has been shown, this was one of the things that was not accomplished.

The Americans did not really mass their forces in the attack until the morning of 19 June when the big push at the West Caves was finally begun. From the moment of the initial landings at Maripos and the Green Beaches there was a general lack of coordination of effort and a rigid inflexibility and unwillingness to deviate from an adopted course of action. These tendencies characterized operations until General Eichelberger finally
...as the new commander. While it is true that he adopted the basic school of maneuver proposed by General Fuller, the manner in which he did so was different by virtue of the application of the principle mass. Where first General Fuller and then General Doe wanted to use single battalions to secure an objective, General Eichelberger used full regiments. The manpower advantage was probably not significant given American losses, fatigue, and the debilitating effects of disease, but what was important was that the number of command and control headquarters essentially tripled. This meant more maneuver forces available to accomplish the basic prerequisites of infantry combat—closing with and destroying the enemy. This is much easier to do with twelve maneuver companies than with four because the range of available options is greater. Additionally, a regiment employed by its commander, is a more cohesive fighting organization than separate battalions responding to the direction of a division commander.

Instead of the maneuver option, the Americans on Biak elected to employ the firepower option. Indeed, as has been shown, indirect fire seems to have been the accepted solution to any of the problem faced on Biak. During the conduct of operations on Biak 98,444 artillery rounds were expended on 1755 different fire missions. In addition to this, the 4.2 inch mortar

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11,314 rounds in support of 67 missions. The close support bombing mission on the East Caves, already described, represents additional firepower placed on the enemy. Not included in these figures are the initial, pre-invasion bombardment, or the rocket fires by
In all fairness, after General Eichelberger arrived, the Americans still fired boat loads of ammunition of the Japanese.

The Japanese also had some problems. The defenses on Biak, while well-organized at the local level, were not well coordinated for the overall
intelligence of the critical airfields. When the invasion began, the commander of thend Detachment was about four kilometers north of Eniwetok, but he found himself without communications with the naval force commander in the west. Indeed, the chief of staff of thend Detachment in the West Canal was not aware that an enemy landing had occurred until the evening of 20 April. The Japanese defenses were not organized in sufficient depth or width to deal with the American landing. Numerous outposts, in essence a screening line, to provide early warning for any attack to seize the airfields was needed. This screen would have required sufficient wire or radio communications available to permit the transfer of information force headquarters. The Japanese found themselves, after the massive pre-invasion bombardment, in a series of disconnected positions that were not mutually supporting and as a result they were not able to conduct a coordinated defense.

On the local level, the Japanese were quick to identify and reinforce the key terrain as has been shown. They were able to impede movement of the Americans to the point that it appeared as though General MacArthur's strategy would be defeated, at least temporarily. The Japanese defenders displayed the ability to develop positions capable of stopping the Americans along primary avenues, but if outflanked and faced with severed lines of communication, the defender tended to evacuate his position. The supply situation was apparently more critical than is indicated by the amount of ammunition and rations found in the caves.
The question that is most bothersome has to do with the manner in which Colonel Kucune employed the reinforcements he received. The total number of forces that ultimately reached Biah is not known, but as many as ten company-sized units may have been landed and placed in positions along the ridge overlooking Mokmer Drome. The reasonable commander might have considered holding these forces until such time as a major counterattack could be launched. In this case, that option might not have been available since Colonel Kucune, as the most forward commander in the Japanese defenses at the time, was in a position that was thought of as little more than an outpost on 27 May. It was never known if or when he would be reinforced. For him, every reinforcement received had to be thought of as the last reinforcement. When, after 14 June it was obvious no more reinforcements would be received, Colonel Kucune was left with defending a strongpoint until such time as his last escape route was closed.

Colonel Kucune would probably have been more capable of conducting a stronger defense had he called in the forces at Lidai and at the East Dunes. These forces did little more than harass the Americans and cause them to expend massive amounts of ordnance. These soldiers, regardless of their level of training, could have been more effective, used at the point of the American main effort overlooking Mokmer Drome. From these positions it could have been possible to stall the Americans even longer and then have the opportunity to conduct an organized withdrawal in force to Kerim Bay or
West to Setoita Island. The lack of effective internal lines of communications appear to have placed the entire defense of Biak in a hopeless position. Without communication to his outlying units, Colonel Vincent was unable to determine the American progress or orchestrate a suitable, coordinated response. In the end, the Japanese losses totalled 637 killed in action, 442 prisoners of war, and an estimated 2000 unlocated dead. When the 41st Division departed for the Philippines in 1945, an additional 1500 Japanese were believed to be operating as guerrillas on 64 Setoita Island.

III. REVIEW THE TACTICAL SITUATION

4. STUDY THE AREA OF OPERATIONS.

(a) Climate and weather.

(b) The most remarkable aspect of the weather at Biak was the heat and its enervating effect on soldiers. Detailed information on other weather factors is lacking because planners lacked knowledge of wind, tide, current, and offshore conditions at Biak.

(c) Because of the heat, water supply was crucial to the soldiers ability to fight effectively and tied operations very closely to the logistics train which supplied the much needed water.

(d) Tropical rain forests and thick, lush vegetation resulting
from the constant heat and frequent humidity, along with certain terrain characteristics, largely defined the battle for Biak.

(d) Lines of communication were severely constricted by the lush forests. Inland roads were little more than tracks which required much effort before they could support vehicular traffic.

(e) Specific influence of weather on operations include the following:

1. Hydrographic information had indicated a westerly current but it was stronger than had been anticipated causing the naval transport group to arrive 15 minutes early and 3,000 yards west of the planned location.

2. There was haze on the morning of 27 May and it was exacerbated by smoke from the naval barrage. This haze limited observation to both sides and by providing concealment limited the effectiveness of fires on both sides.

3. A front of bad weather east of Biak delayed planned fighter cover on 2 day until 1110 hours.
(2) In general and apart from the heat, weather was not a real factor in the battle for Palau.

(3) Terrain (OIFR).

(a) General.

1. The difficult and largely unknown terrain held by the Japanese in the South Pacific is typified by Palau, although LTC Eichelberger described Palau's terrain as the worst in the Pacific.

2. The entire southern coast is fringed by a wide coral reef stretching at low tide. Deep water generally exists, but in some places a barrier reef lies further offshore. At Sonido and Gorobe, this barrier reef prevented access to the shore. At Pusnik the coral jetties extended over the reef and could be used for unloading. There were also jetties at Mokmer which could support unloading. The conditions in general were such that the landing was considered the most difficult attempted in the Southwest Pacific to date at that time. The main risk to personnel was from holes and projections on the reef interfering with landing craft. In the event the reef proved smooth and no difficulty was experienced.

3. Palau Island itself is roughly triangular in shape and can be divided into two parts for descriptive purposes. The northwest portion comprises roughly one-third of the island, while the southeast portion comprises the remaining two-thirds. The latter portion is further
sub-divided approximately in half by an elevated coral reef extending southwest to northeast across the entire island. The northwest third of the island, of volcanic origin, is mountainous and difficult to traverse. The southwest portion of Biak is a comparatively flat coral formation which decreases in elevation from north to south.

4. Particular attention will be paid to a description of the southern coast of Biak, because it was here, especially between Ibdi and Sorido that most of the action took place.

a. The entire southern coastline is closely paralleled by an elevated coral reef rising to an elevation of 250-300 feet and to 150 feet above the general level of the land. This elevated reef is evidently the result of several volcanic upthrusts. Even in the sheerest places the cliff is composed of a series of terraces, narrow in the vicinity of Para and widening on the level space between Mokmer and Sorido. In general, the coral cliffs between Opiaref and Mokmer Villages would, if cleared of vegetation, give the appearance of tiers of rough hewn blocks, each tier offset from the tier immediately below it.

b. Along the southern shore from Opiaref to Mokmer Village this coral ridge closely parallels the shore line and, between Para...
and then one rises to the top of a sheer coral cliff rising to an elevation of 200 feet. The southern coast is a corridor between sea and coral bluff with vertical drops of less than 200 feet in the vicinity of Parai.

3. The cliff turns abruptly north and then west at Hohner Village forming a relatively flat area between cliff and sea approximately 1½ to 2 miles wide from Hohner to Sperke. This comparatively wide area consists of a series of low terraces up to a mile wide. The first of these terraces contained the three Japanese airdromes for which the battle was fought.

4. Lt. Col. Eichelberger has described Biak as an island of innumerable caves and an appreciation for these caves are crucial to an understanding of the Japanese defense of Biak. The coral ridge is honey combed with caves and galleries hollowed out by the action of the ocean between the coral upthrusts which formed the island. In some places these caves are large caverns reached by narrow openings in the face of terraces. In others the roofs of these sutterbenean rooms have collapsed and formed sumps 40-60 feet deep and up to 150 feet wide. From these sumps smaller caves open up and passages may lead to intact underground chambers. The sumps figuring most prominently in the Japanese defense of Biak were to form the Hohner Pocket (also called East Caves) and the sump connected to the West Caves. Also of significance are four levels of caves in the face of the coral ridge just west of Parai and from which the Japanese could control movement through the Parai defile.
1. Lt. Col. Buchleitner's graphic description of the southern
coast is enlightening.

"On my left was the sea, and on my right were the coral
cliffs, which raised themselves skyward like the Palisades along
the Hudson. Looking up from my jeep I could see the opening of
caves which had ever yet to be cleared of the enemy. Sometimes
the cliffs allowed so far seaward that the narrow road curved
around them through shallow water at high tide...The cliffs made
a flanking bastion."

2. Inland on the other side of the coral ridge the
terrain was also difficult. It consisted of the pair of 180 foot-high vine
covered everywhere with 10 foot-high burial grass in the "open" areas. There
were no trails in the area.

3. Observation and fire.

4. Observation and fire favored the Japanese. From their
positions on the ridge parallel to the shoreline they enjoyed virtually
unrestricted observation and fires on landing American forces and on forces
moving east and west along the coast. The Americans had poor observation
and faced Japanese firing from high ground. Island it was a different case or that the rain forest limited observation and fires by both sides to a narrow area.

2. Terrain also favored Japanese use of direct and indirect fire weapons. The caves and sumps from which the Japanese operated provided significant protection from both types of fire. The American's operating on the coast were much more vulnerable to fires of all kinds. Usually forested areas also limited the effectiveness of fires from both sides.

(c) Concealment and cover.

1. Cover and concealment favored the Japanese. The caves, sumps, and forested areas on the coastal ridges and the rain forest of the inland plateau were exploited by the Japanese, while the Americans were initially left in the open with only local opportunities for cover or concealment on the coast.

2. The Japanese were well aware of the areas potential for cover and concealment and had taken those factors into account when planning their defensive plans. The American's were slower to react to terrain factors because during the planning phase available maps showed only the immediate terrain along the coast. These maps were inaccurate as regards the location and gradient of the escarpment. The caves were not shown at all and the inland areas of the island were uncharted. All in
all the last as well to land forces and the hurricane task force were of little aid. Later, as a result of American disadvantages in cover and concealment, their attack and fires the American plan did change as they moved to flank the enemy through ground less favorable to his defense.

'B' Obstacles. The primary obstacles were natural and consisted of the narrow coastal plain dominated by the parallel coral cliffs and ridges of dense jungle growth, rain forests, and rugged mountainous terrain. The Japanese failed to effectively tie in natural obstacles with man-made ones - with the exception of a few crudely laid and poorly concealed wire fields and some isolated permanent pillboxes. The Japanese seemed to depend solely on favorable ground, a few log and earth pillboxes, and a fatalistic will to die.

'G' Key terrain.

1. The Japanese defense of Palau is generally regarded as having been based on a brilliant appreciation and use of terrain. Specifically, the defense was based on an economy of force elsewhere and a concentration on the key terrain overlooking and controlling Mokmer Airfield and the two airfields to the west. The Japanese initial plan called for defeating the enemy at the waters edge, but in the event the Japanese
sails to the Americans to land at Biak and advance to the rugged terrain behind the beaches. From the dominating caves and cliffs overlooking the American columns the Japanese then conducted a tenacious defense. There are no explanations as to why the Japanese did not defend at the shoreline as claimed. Japanese writing after the war claim that concentrating on completing the airfields resulted in dangerously delaying the preparation of ground defenses until after the Hollandia invasion which proceeded Biak by five weeks. The second explanation is that the Japanese were simply surprised. The true explanation probably lies somewhere in between. In any case, shortages of time, equipment and manpower precluded complete defensive preparations.

2. Key terrain favored the Japanese, who initially held all of it. The Americans, possibly because their maps were practically worthless, apparently gave little thought initially to key terrain, basing their plan on tactical surprise and speed, moving quickly to capture the airfields with little regard for terrain. As the battle progressed and the Americans gained an appreciation for the importance of terrain to the Japanese defense, key terrain and its control played a progressively larger part in American plans.

3. Along the Coastal cliffs a series of terrain derived strongpoints dominated the coastal approach to the three operational airdromes. The main coastal ridge from Biak to Parai composed seven coral ridges 50-75 yards apart separated by gullies 50-100 feet deep. These ridges were honeycombed with small natural caves, pathholes and crevices.
There was little soil on most of the coral, but the area maintained a cover of low native forest containing trees 8-20 inches thick and 100-150 feet high. Natative trails led over the ridges. The most easterly — known as "Old Man's Trail" — began on the beach road approximately 1200 yards west of Hanao. It was a fairly well defined track which swung north in a corporately easterly route over the seven ridges. A water hole was located near the beach terminus of this trail. "Young Man's Trail," 1200 yards further west, followed a difficult, less gradual route over the ridges to the inland plateau. These trails ran thru the outer defenses of the Ildi Pocket, the first significant strongpoints.

a. Ildi Pocket. The central portion covered an area of approximately 400 x 600 yards and consisted of 75 heavily constructed pillboxes of log, coral or concrete, and hastily trenches. There were 21 near natural fortifications, including 4 large caves and 17 small ones. These cavens had been improved and some were used for living quarters and others as aid stations, while still others were used to store food and clothing. Observation and fires in the immediate vicinity were limited initially to 10 yards but improved daily as massive artillery strikes reduced the dense jungle to tree stumps. In addition to the core of the Ildi Pocket, additional strong points were sited at the north end of both trails as important to a flanking movement around the main coastal defenses.
L. Parai Defile. Approximately 1000 yards west of this the coral ridge fell steeply, to within 100 feet of the beach. At this point the ridge formed a vertical cliff 200 feet high below which ran the main coastal road. This defile ran generally south-east for almost 2000 yards. About 1000 yards east of Parai in the vicinity of the fork in the coastal road there was a narrow stretch of dense woods between the road and the cliff which permitted the enemy to maneuver by infiltration thus supporting the fires from the cliff to the north and east. At Parai, just beyond the eastern end of the defile the cliff broke into a series of parallel ridges which formed the continuation of the main ridge. From Parai west beyond the inner village the seaward side of the main coastal ridge gives way to an inclined coastal terrace approximately 200 yards wide and one and one-half miles long. Starting toward the shore the terrace ends in a 20-foot-high cliff along or near the water line.

c. East Cape. This strongpoint offered excellent cover and concealment in the thick vegetation, coral caves, and crevices. The flat ledge three-quarters of the way to the top was the most significant part of this strongpoint. Two large depressions over 50 feet wide were here covered with tunnels, at least one of which had a large opening on the seaward side of the ridge. Into this opening and others the Japs placed mortars, 47 guns, and heavy machineguns. Near the top of the ridge were 5 strong pillboxes manned by riflemen and machineguns. Two observation pits to rear the rear surplus gave the Japs an unobstructed view of the coast from Parai Jetty to the eastern end of Okner Island.
2. West Caves. This was dominating terrain consisting of the caves themselves, high forested area to the north of the caves and hill 320. The West Caves are on a low ridge dominating the approaches from Mokmer Airfield. Whoever controlled the West Caves controlled Mokmer Dome and the ground lines of communication to Sorido and Soriko Airfields to the West. The West Caves were outposted by innumerable slit trenches, foxholes, and bunkers. North of the caves was wooded high ground from which the enemy in concealed and prepared positions had excellent observation and fields of fire along the road running towards the northwest and on the ridges north and northwest of hill 320. The caves themselves consisted of many caverns and surps, but 3 large sink holes provided the main entrances to the caves. American direct and indirect fires were ineffective because of stalactites and stalagmites at the cave entrances and because of the honeycomb of caves and chambers which branched off from the main entrance. Remarking on these caves Eichelberger said, "I found they have regular native houses in them, with palm roofs to keep off the drippings...They also had dining room tables, kitchens, radios, and weapons of all kinds."

(f) Avenues of Approach.
1. Access to the southern coast was limited to Bosnek and farther by a coral reef. More was rejected as the landing site since it was there in the vicinity of the objective that American planners expected the main Japanese defense. From Bosnek there were only two avenues to the airfields, one west along the coast and one going north and then west along the inland plateau.

b. The coastal approach. This was a high speed avenue of approach since it oriented on the coast road which was the best ground line of communication to the objective. As events showed this was not the best avenue of approach. It did not provide sufficient space to accommodate the attacking units and severely canalized them for most of its length. It had few criteria of a good approach. It lacked maneuver space, so that combat power could not be deployed adequate to overcome enemy resistance. It did provide a potential high speed approach with relative ease of movement, but those advantages were far outweighed by the fact that it ran the gamut of Japanese obstacles, provided little cover and concealment from Japanese fires and did not provide the attacking force with favorable observation and field of fire.

c. The inland approach. The inland plateau consisted of highly restricted terrain comprised of jungle, rain forest, and thick scrub growth up to 12 feet high. This area lacked water and the heat and humidity was intense. Access to the plateau was limited to the Young Mans Trail and the Old Mans Trail discussed earlier and limited to foot traffic. A river road ran inland from Upraref to the surveyed dome, north of Bosnek.
and at last on a very deteriorated road that required much engineer work to
improve travel. West of a line perpendicular to Ibdi, the road
deteriorated to a footpath and scrub growth limited visibility to 10 yards
and less. In spite of its limitations this avenue ultimately proved to be
the best one because it avoided the main Japanese defenses and because the
military aspects of terrain did not overwhelmingly favor the defender as
they did on the coastal approach. Observation and fields of fire were
relatively equal; cover and concealment probably favored the American, who
made maneuvering against what was basically fixed defensive positions; key
terrain was taken from the rear and maneuver space was adequate, although
east of no enemy was highly restricted.

2. In sum, it was easier for the defending force to
interfere with the coastal approach.

3. The impact of weather on tactical operations was
primarily a function of the heat and the necessity to limit American
operations to the logistic capability to supply attacking forces with
water. This was not a problem on the coastal approach. It was an
overriding consideration on the inland approach. The weather likely had
little influence in Japanese defensive operations. They were operating from
fixed bases which were well supplied with water.
2. Terrain had a significant impact on tactical operations and to a very large extent determined how the battle was fought despite overwhelming American superiority in numbers and in firepower.

3. Terrain the opposing forces to ascertain their combat effectiveness.

I BWBWS

II. Strength and Composition.

(a) Committed forces. At the time of the assault on Biak enemy strength and composition was not accurately shown by the Americans. Information remains incomplete and contradictory, but an analysis of US and Japanese documents and after action reports indicated that the following compositions and strengths represent a generally accurate assessment of Japanese forces on Biak Island as of 27 May 1944.

<table>
<thead>
<tr>
<th>COMPOSITION</th>
<th>APPROX STRENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ARMY, 222d Inf Rgt (less 5th and 9th Co's)</td>
<td>3,400</td>
</tr>
<tr>
<td>24th Inf Division,</td>
<td>80</td>
</tr>
<tr>
<td>3d Btry, 49th Field Artillery Bn</td>
<td>140</td>
</tr>
<tr>
<td>Elements 24th Signal Rgt</td>
<td>UNK</td>
</tr>
<tr>
<td>Elements 31st Division,</td>
<td>100</td>
</tr>
<tr>
<td>Transport Unit</td>
<td></td>
</tr>
<tr>
<td>Elements 14th Division,</td>
<td></td>
</tr>
<tr>
<td>Unit Type</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Transport Unit</td>
<td>17th, 107th, 108th, Airfield Construction Units</td>
</tr>
<tr>
<td></td>
<td>109th Airfield Construction Unit</td>
</tr>
<tr>
<td></td>
<td>Elements 248th Independent Motor Transport Co.</td>
</tr>
<tr>
<td></td>
<td>41st Special Land Duty (not further identified)</td>
</tr>
<tr>
<td></td>
<td>50th and 49th Construction Co's</td>
</tr>
<tr>
<td></td>
<td>1st Branch, 36th Division Field Hospital</td>
</tr>
<tr>
<td></td>
<td>36th Field Ordnance Depot Branch</td>
</tr>
<tr>
<td></td>
<td>5th, 12th Mobile Labor Squads</td>
</tr>
<tr>
<td></td>
<td>Elements 47th Anchorage HQ</td>
</tr>
<tr>
<td></td>
<td>13th Korean Special Labor Group</td>
</tr>
<tr>
<td></td>
<td>Miscellaneous field and AA artillery units</td>
</tr>
<tr>
<td></td>
<td>Approximate Subtotal</td>
</tr>
<tr>
<td></td>
<td>9,900</td>
</tr>
</tbody>
</table>

2. NAVY, Elements 29th Naval Base Force

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>33d and 105th Antiaircraft Units</td>
</tr>
<tr>
<td></td>
<td>19th Naval Guard Unit</td>
</tr>
<tr>
<td></td>
<td>202d Civil Engineer Unit</td>
</tr>
<tr>
<td></td>
<td>UNK</td>
</tr>
<tr>
<td></td>
<td>UNK</td>
</tr>
<tr>
<td></td>
<td>450</td>
</tr>
<tr>
<td></td>
<td>UNK</td>
</tr>
</tbody>
</table>
Approximate Subtotal 1,500

Approximate Total 11,400

2. Of the approximately 11,400 Japanese on the Island as of 27 Mar. 1944, 4,000 were combat effective soldiers and sailors. Service troops were armed and used as infantry to the extent supportable by available supplies and weapons.

4. Major Weapon systems included the following:

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank</td>
<td>9</td>
</tr>
<tr>
<td>6&quot; Naval Gun</td>
<td>4</td>
</tr>
<tr>
<td>90mm mortars</td>
<td>8+</td>
</tr>
<tr>
<td>120mm Naval Gun</td>
<td>4</td>
</tr>
<tr>
<td>75mm Mountain Guns</td>
<td>3+</td>
</tr>
<tr>
<td>75mm AA Gun</td>
<td>27* (based on Japanese records, not all found)</td>
</tr>
<tr>
<td>27mm guns</td>
<td>2+</td>
</tr>
<tr>
<td>25mm MG</td>
<td>12</td>
</tr>
<tr>
<td>25mm Rapid Fire Gun</td>
<td>12</td>
</tr>
<tr>
<td>13mm Rapid Fire Gun</td>
<td>8</td>
</tr>
</tbody>
</table>

5. In addition to Army and Navy ground forces on Biak,
the 22d Air Flotilla. The War had 12 fighters, a medium bombers, and a few reconnaissance aircraft stationed on the island on the 27th of May.

(b) Reinforcing forces.

1. Initially the Japanese Navy wrote off Biak because they were husbanding assets for the anticipated crucial battle against the US Fifth Fleet in the Marianas. When Biak was attacked prior to the expected Allied move in the central Pacific the Japanese changed their assessments. They decided that they couldn't afford to let the US 5th Fleet in the Central Pacific be supported by Allied aircraft operating out of Biak. The Japanese therefore planned to transport the 4,000-man 2d Amphibious Brigade from the Philippines to Biak, to move 3 infantry companies from a combat service support unit to Biak, and to reinforce the 22d Air Flotilla in western New Guinea with between 90 and 130 aircraft, mostly fighters, to support the defense of Biak. Neither reinforcement attempt was successful.

2. The Japanese Navy initiated operation "KON" on 30 May to move the 2d Amphibious Brigade to Biak. Between 30 May and 11 June three "KON" operations failed to reach Biak Island. The first was cancelled on 3 June when Japanese reconnaissance aircraft reported to the KON TF steaming toward Biak that a large allied naval force was lying off Biak. This report
on the carriers in the reported sighting and caused the Japanese to cancel the operation because of their fear of carrier-based attacks. A second "KON" operation was mounted on 4 June with the limited objective of moving approximately 800 men of the 2d and 3d battalions, 219th Inf, 35th Division, from Sorong to Biak. This operation was unsuccessful due to Allied action and resulted in only about 100 infantrymen making it to Biak. A third "KON" attempt was cancelled by the Japanese on 11 June in order to concentrate their naval forces against 5th Fleet action in the Central Pacific.

2. Japanese Army attempts to reinforce Biak were more successful than had been the Navy's. During the "KON" operations the 2d Free Army dispatched reinforcements to Biak by launch from nearby bases while Allied and Japanese naval forces were maneuvering north and northwest of the island. There is speculation that the movement of the three "KON" forces was intended partially a deception to draw Allied naval units away from Biak so that Japanese launches without naval protection could reinforce from the southwest. What is known is that between 3 June and 23 June the Japanese reinforced the Biak Detachment via Morim Bay with approximately 1000 men as follows:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>STRENGTH</th>
<th>FROM</th>
<th>WHERE DEPLOYED</th>
<th>WHEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-201st Inf</td>
<td>410</td>
<td>Manokwari</td>
<td>WEST CAVES</td>
<td>8 JUN</td>
</tr>
<tr>
<td>202d Inf</td>
<td>420</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Co</td>
<td></td>
<td></td>
<td>WEST CAVES</td>
<td>10 JUN</td>
</tr>
</tbody>
</table>
4. In summary, these reinforcements were too few and too late to effect the outcome. And considering the Japanese losses from the "KIV" attempts and the army's reinforcements operations, the effort was out of proportion to the gain.

5. The Japanese attempt to reinforce Biak with air support was also unsuccessful. It is not known how many of the planned 90-156 aircraft actually arrived at Malmkaera, Sorong (22d Air Flotilla HQ), or Western New Guinea, but it is known that most of the Japanese pilots arriving in New Guinea were struck with Malaria or other tropical diseases and became casualties. Although Japanese air raids were a daily occurrence over Biak, they amounted to no more than harassment after 30 May. From the scale of Japanese air support to Biak it appears that few of the reinforcing planes were ever used to attack US forces on Biak or their naval support.

(2) Technology.
(a) With few exceptions technology was not an important factor in this battle, the outcome of which was essentially determined by infantrymen supported by artillery, fighting rifleman against rifleman. The technological edge rested with the Americans, but the nature of the terrain obviated much of their advantage.

(b) In the first tank battle of the war in the Southwest Pacific Area and the only tank battle of the Bisk Campaign the American Sherman tank proved vastly superior to the Japanese Model 95 light tanks. The Sherman's 75mm gun easily destroyed the Japanese tanks, while the Model 95 75mm cannon was unable to penetrate the armor of the American tanks.

(c) American bazookas were also effective against the 9-ton Japanese light tanks, but the Japanese led no effective AT weapon. The Japanese relied on infantrymen to destroy tanks either with a mine held in a long pole suspended above the enemy tank or with grenades. On 3 June a Japanese infantryman climbed atop an American tank and dropped a grenade into the driver's hatch, killing the driver and wounding the crew. The assistant gunner managed to get the tank back to friendly lines.

(d) A third example of inferior Japanese technology concerns defective mortar ammunition. Mortar fire from the East Caves never exceeded 18 rounds in one day, yet when the Americans took this position they found a large stock of mortar shells. A Japanese FOW explained that because of a high incidence of defective ammunition, the mortar crews had not been enthusiastic to generate high volumes of mortar fire.
The logistical and administrative systems.

(a) Japanese.

1. The Japanese logistical system was simple yet effective. There is insufficient evidence to assess the personnel administration systems on Biak.

2. Army supply depots were ordered to store four months' worth of supplies in caves and in other positions. Well concealed and dispersed dumps were established in central positions north of Mokmer Drone and north of the beach ridge. These dumps were found to be generally well stocked with rations, ammunition and supplies. So extensive were these dumps that they are still being discovered by the Americans at 2473.

3. The Japanese enjoyed a significant advantage in that they controlled the water points and were much less dependent than the Americans on their logistic systems to provide this critical commodity.

4. The Japanese did suffer some local shortages of rations and to a lesser extent ammunition. The rapid US landing at Biak
There were many command and control problems inherent in the nature of the composition of the Biak Detachment. Not only was the organization comprised of numerous diverse units from two services, but there were present on Biak Island on the day of the attack two officers senior to the Biak detachment commander, Colonel Naoyuki Kuzume. LTG Takazo
The Chief of Staff of the 26th Area Army was inspecting from General
Sato's Army headquarters at Yokosuka and Rear Admiral Sadatsuji Senda,
commander of the 28th Naval Base Force headquartered at Manuswari had come
to inspect local naval forces. The evidence seems to indicate that Colonel
Kuzume retained operational command of the Biak detachment in spite of not
being the senior officer present. However, at least one historian, Robert
Eose Smith, concludes that Colonel Kuzume never got the opportunity to
exercise his plan for Biak's defense, because LTC Nurata assumed direction
of the island's defenses until his departure on 15 June. In any case, the
presence of these two senior officers is certain to have complicated command
and control and made Colonel Kuzume's job more difficult.

2. Colonel Kuzume published his initial plan for the
defense of Biak on 27 April (see encl _______. An analysis of this plan
shows that Kuzume correctly assessed that the landings would be made on the
southern coast, but his estimate of the situation did not preclude an
American landing elsewhere and provided for flexibility to meet an attack
on the north coast or at Morin Bay on the east coast. The plan assigned
sector responsibilities to subordinate commanders without infringing on
their prerogatives. Considering the troops available Kuzume's planned
dispositions, particularly the siting of his reserves at the Airdromes, were
sound and based on an accurate assessment of the most likely threat. The
Japanese plan can be criticized for a lack of detail, but it clearly showed the commander's intent and should have helped his subordinates maintain a coordinated defense in accordance with the commander's intent were communication to be cut off.

2. Despite the Japanese order and despite the fact that Colonel Kubone had been warned that an allied attack was imminent, the Biak Detachment was caught largely unprepared and out of position on the 27th of May. In the north preceding the attack no serious attempts were made to prepare to defeat the enemy at the water's edge in accordance with the plan. No beach defenses of any consequence were prepared. No underwater mines or obstacles were emplaced and only a few poorly laid land mines were encountered. The few improved beach caves covered a comparatively short length of the shoreline and aside from fire from the fortified positions at Itdi, the East Daves and the West Caves there was nothing to stop a landing at the beach except for the unspecified "swift movements" referred to in the plan. The reasons for this apparent failure to comply with the commander's orders are unknown, but it appears that the plan was not sufficiently coordinated and supervised by commanders and staffs to insure its implementation.

4. On the day of the American attack the Japanese were either caught out of position or the plan had been changes. The disposition of Japanese forces on 2-day was as follows:

a. 1st Battalion, 222d Infantry, about half the 19th
Naval Guard Unit and miscellaneous service organization were collocated with "Operational No. 1" on the inland plateau, about 3,000 yards north-northwest of Sasek. The 3/22d was outposting the Sata, Oplaref and the ridge above Esare with a company at the former locations and a platoon at the latter.

b. 2d Battalion (-), 222d Infantry, the rest of the naval guard units and some naval AA elements were at the East Caves.

c. 4th Co., 222d Infantry, Naval headquarters, and various naval service organizations were at the West Caves.

d. 3d Battalion, 222d Infantry, and most of the army service units were at Mokmer Dome.

e. 2d and 3d Battalions had outposted some beach caves between Mokmer and Paral.

f. A platoon was at Srido guarding the southern terminus of the trail from Kirim Bay.

g. The tank company was at Mokmer Dome.
6. The Japanese had planned to divide US forces on the island and to destroy their peacetime rapid communication. In addition to the disorganization and lack of defensive preparations alluded to above, this led the Japanese from successfully carrying out their divide and conquer concept. The Japanese relied on wire and messenger for their communications on the island. The American bombardment on 2-day knocked out most of the Japanese communication wire and beach defensive positions that the Japanese needed two days to reorganize their defense. The Japanese estimated that they lost a day in responding to the initial attack because of communication problems. For example, the commander of West Cave forces didn't learn of the 270715 May invasion until sometime during the evening of the 28th.

6. The main criticisms of the Japanese defense of Biak are that they failed to prepare for or subsequently adequately respond to an American flanking attack behind their prepared positions and that they left forces bypassed in the 1001 Pocket and the East Caves after 10 June. The Japanese are further criticized for not fully exploiting the latter two positions as blocking positions along the American main line of communication. Once bypassed both positions served to accomplish little beyond harassment of occasional targets of opportunity along the coastal road.

8. Command, control, and communication problems probably contributed significantly to these flaws in the Japanese defense. In the first place, lacking sufficient troops to defend all approaches...
adequately and lacking a responsive command and control system, the Japanese were forced to conduct a relatively static defense and precluded from conducting a well coordinated, offensively-oriented defense. Given the circumstances it can be argued that Colonel Hozumi did the best he could by concentrating his forces to dominate the allied objective, Mokmer Airdrone. On the other hand, his failure to shift bypassed forces from the Ibbi and East Caves areas to defend against the American's flanking attack inexplicable and almost certainly the result of a poor command and control system. At the very best the bypassed forces in the Ibbi Pocket and East Caves should have blocked all American movement on the coastal road. This would have caused the Americans to divert significant forces from the Mokmer Drone area and relieve pressure on Japanese forces there.

(5) Intelligence.

(a) Japanese.

1. Little evidence is available concerning Japanese production and use of intelligence during the Biai Island Campaign. The Japanese plan for the defense of Biai tasked each battalion to assign "an officer and a few men" to report weather and topographic information. In addition the Pacificato Unit was organized to organize an indigenous spy
at any maintain liaison with the naval construction section. No further
information is available concerning the mission of these agents once
recruited. But presumably they were to serve as part-time coast watches
and report on movements and activities of an invasion force once landed.

2. Whatever the local intelligence system it failed to
provide warning of the American attack on the 27th and the allies achieved
tactical surprise; though the Biak Detachment had been warned by their
higher headquarters of an impending allied invasion.

2. The Japanese can be criticized for poor analysis of
terrain and a failure to anticipate US flanking tactics.

a. The Japanese did not seem to anticipate the
landing at Biak in spite of the fact that the reef blocked access from the
sea at Biak and Korakoe. In this regard the Japanese failed to block the
road thru the defile between Biak and the airfields.

b. The Japanese failure to prepare for an American
flanking attack was discussed earlier—under command and control (see
(4)(a)(a)). An inadequate appreciation of American flanking tactics and a
failure to adequately analyze and prepare terrain were almost certainly
contributing factors.

c. Japanese C3 problems also impacted adversely on
their capability to rapidly report and disseminate combat information and
4. Japanese naval air reconnaissance was particularly poor. Although Japanese aircraft passed the Hurricane TF convoy several times while it was enroute to Biak they apparently failed to see or report the convoy. Later, during the first UDN operation, the pilots mistook destroyers for battleships and LGs for carriers. Their erroneous reports caused the Japanese to abort an attempt to reinforce Biak for fear of being attacked by carrier-based planes.

(b) Doctrine and Training.

(a) Japanese.

1. The defense of Biak is an excellent example of the strengths and weaknesses of Japanese defense tactics. Characteristically, the defense took full advantage of natural defensive features. Also characteristically of Japanese defenses in the Southwest Pacific prior to Biak, the Japanese failed to integrate natural features with obstacles, mines, cleared fields of fire, and constructed fortified areas to form a well coordinated defense. It was this lack of coordination and depth which allowed the Americans ultimately to isolate and outflank the Japanese defensive positions.
2. Standard Japanese doctrine at the time of the Biak invasion was to attack the enemy landing force on the beach by defending in strong points on the beach. In the event, the American bombardment disrupted command and control, isolated Japanese CPs on the shoreline, and degraded Japanese observation. In sum, American action precluded an effective Japanese defense at the shoreline and forced them to fight a war of attrition further inland.

3. In spite of the failure of the Japanese defense there were some tactical bright spots from the Japanese perspective.

a. The Japanese had continued success with night attacks, even as they were losing the campaign and their relative combat power was greatly reduced.

b. The isolation and forced withdrawal of the American 162d Infantry on Biak is a superb example of Japanese infiltration tactics coupled with excellent use of terrain. This engagement showed how effective a defense of fire and movement could be and indicates that of the original concept of a beach defense backed up with offensive actions had been followed, the Japanese would have been more successful.

4. The Japanese 222d Infantry, 36th Division. This regiment was a veteran of China and one of Japan's best regiments. They lived up to their reputation during their valiant and tenacious defense of Biak. Its overall combat effectiveness was probably degraded in that prior
to a month before the allied invasion the regiment had been used on airfield construction instead of preparing for the defense of Biak.

E. The conglomeration of units comprising the Biak Detachment was not primarily a fighting force and was not adequately trained for combat. Had the Japanese spent more time training these assets for combat and planned more thoroughly to integrate them with the combat elements, the overall defense would have been more effective.

(2) Condition and Morale.

(a) Japanese.

1. The Japanese defense of Biak has frequently been characterized as fanatical and indicative of high morale. LTC Eichelberger described the Japanese defenders as "well disciplined fine soldiers." According to LTC Numata, Chief of Staff, 2d Area Army, who was on Biak from 27 May to 10 June, the Japanese morale had been very high until an unsuccessful attempt to seize Morne Airfield on 9 June. Numata assessed that morale disintegrated rapidly thereafter under the combined impact of shortage of rations and water, disease, and tactical failure. The evidence indicates that Numata's pessimistic evaluation was premature at best.
2. An indicator of high morale occurred on 22 June when, after being under direct attack for four days, the defenders in the Last Caves conducted a very good intense attack using hand grenades and bazookas as their primary weapons. The Japanese attacked in spite of the fact that their commander had acknowledged defeat and committed suicide after ordering his troops to withdraw northwest of the caves. When the Americans entered the Caves on 27 June, they found a gruesome indication of both the desperation and fanatical desperations of the Japanese soldiers. It was an area which had apparently been used as a human butcher shop for cannibalistically inclined survivors.

3. Over 7,000 Japanese died defending Biak, but they retained their fanatical will to the end despite deprivation and suffering, even after they knew that they had lost. Consider the following quotations from a Japanese diary found in the cave:

"June 25 - Under the existing situation, we are helpless. Let us be the guardian spirits of the Empire", said one sergeant from the 35th Division with all his determination. There were about 30 of us wounded soldiers left in the cave. Those who could move, assisted others. Those who were unable to move asked for the assistance of their comrades in committing suicide, and shouting 'Long live the Emperor' - left this world. My friend NADASEHA stabbed his throat with a knife, but failed to kill himself instantly. Witnessing his state of agony, I lent my hand so that he could rest in peace. Who could
Understand is terrible predicament of slaying my own brother in war. I still have two hand grenades to destroy myself and one for the enemy. I don't know whether or not my nations will last till we are rescued. I am determined to kill myself before I lose the power to pull the grenade pin. I want to restore my health so that I can die on the battlefield and follow NAGASAKA.

June 25 - Long live the Emperor! Father and mother, please forgive me for dying before you do. I hope that you will be able to live the rest of your lives in peace. I am praying for your good health. I have done my duty to my country. My dearest parents, since I am committing suicide with a hand grenade my ashes will not reach you but please to not grieve over it."

S: Leadership.

(a) Japanese.

1. Little direct evidence is available concerning the Japanese leadership during the Biak campaign. On analysis of Colonel Kusune's order for the defense of Biak indicates that he was a perceptive
officer who trusted his subordinates to be flexible and innovative in carrying out his concept. In the event, he was let down by his subordinates and did not prepare the defense in accordance with the plan. Kuzume was not blameless in this regard. In the first place his order lacked detail and in the second place he and his staff apparently failed to adequately supervise his subordinates. There are also indications that subordinates lacked the technical knowledge and materials to prepare an integrated defense. If this was the case it surely was a major leadership failure by Colonel Kuzume.

2. The tenacity and effectiveness of the Japanese defenses, though in many cases isolated and uncoordinated, is indicative of excellent small unit leadership by junior officers and NCOs.

3. Whether LTC Numata took control of the Island's defenses from Colonel Kuzume is an unanswered question. In any case his presence on the Island might have had an adverse effect on unity of command and the overall effectiveness of Japanese leadership.
I. DEFINE THE ACTION

A. The Hurricane Task Force was to land in the Sosnek area on beaches designated Green 1, 2, 3, and 4. Due to the treacherous coral reef fronting these beaches, the landing plans differed from previous amphibious operations in that LSTs had to halt outside the reef and discharge men and equipment using LVTs, SLMs, and LCTs for tanks, 105 howitzers and bulldozers.

B. With H-hour set at 0715 (sunset being 0655) an intense naval and aerial preparation was to commence at 0600. The bombardment consisted of 52-202 sorties and 9 destroyers firing 4,500 5-inch rounds. Additionally, cruisers and destroyers conducted intermittent fire on the airfield area west of the landing beaches.

C. The first landings on 21 May were to be made by the 186th Infantry Regiment 'to secure the initial beachhead' with the 162d then passing through and moving west along the coast from Sosnek to seize the three airfields, beginning with Meikner Dome. The 162d was to be supported by eight tanks of the 407d Tank Company and the 146th Artillery Battalion.

D. Having left Humboldt Bay on the evening of 25 May the Hurricane Task Force convoy arrived off Sosnek about 15 minutes ahead of schedule on the morning of 27 May. With the thought that an amphibious operation is better launched early than late, Admiral Fouchetler, Attack Force Commanders, ordered the landing plan to commence. The naval and air bombardment were
carried out as planned and there was little answering fire from the Jap defenses.

E. The 162d Regiment crossed the line of departure on time and local tactical surprise had apparently been achieved. From this point on however, operations failed to go according to plan.

F. By 0730, the 164th Regiment was ashore but due to strong westerly currents it was some 3,000 yards west of Green Beach. Colonel Newmar, commander of the 164th asked General Fuller, Hurricane Task Force commander, if he should continue with his original mission (securing the beachhead) or rather assume the mission of the 162d and move to the west to secure the airfields. Fuller chose to stick to the original plan causing confusion and unnecessary movement as the 162d came ashore. Fortunately Japanese resistance was negligible and the 164th moved to positions along the coral ridges behind Orden and thus secured the beachhead. The 162d proceeded west along the coastal road having passed through the 164th at about 0930. At 1200 lead elements of the 162d were confronted by the Parai defile, a vertical cliff of 200 feet only some 100 feet from the beach. A small Japanese force occupying the ridge held the regiment supported by tanks, at bay until 1500.
I. Once through the defiles the regiment dug in for the night at Paras. This at the close of the first day Hurricane Task Force seemed well on its way to securing the airfields. They had yet to encounter the bulk of Biak's 11,000 man defense under Colonel Kuzume who had chosen to concentrate his defenses on the high ground dominating the airfields. The 1/222d Japanese Infantry was responsible for the southeastern section of the island. The 3/222d was to defend the airfields and the coast from Bismark west to Sorido. The bulk of the 3/222d and the tank company were held in reserve vicinity of the airfields. Though Colonel Kuzume had correctly anticipated the Hurricane Task Force objectives he had failed to fully implement his defenses. The Chief of Staff of the 2d Area Army, Lt General Numata who was inspecting Biak on the 27th of May assumed command of the Biak defenses.

4. The 1/22d Infantry resumed its westward advance at approximately 0730 on 28 May leading with the 3d Battalion (1/22d) along the coastal road with elements moving along the high ground to the north to provide flank security. The 3/162d proceeded through Molok village without opposition, but some 1500 yards west of Molok enemy resistance pinned the lead elements some 200 yards short of the Molok airfield. This was as close as any troops of Hurricane Task Force would get to the airfield for another week. At 1130 elements of the 2/222d counterattacked from the west and from the north vicinity the East Caves area splitting the 1/162d and preventing the 2/162d from reinforcing. The 1/162d attempted to outflank the enemy by moving toward the high ground north of Paras, but was halted by fire from the East Caves. The 2/222d infantry continued their attacks throughout the afternoon to include the use of light tanks. Tanks from the 602d Tank
Cover in support of the 162d along with fire from offshore destroyers repelled the Japanese assaults. By 1600 attempts to reinforce the 3/162d were unsuccessful and the 2/162d was ordered to withdraw to its previous positions vicinity of Faisi under cover provided by the 2/162d. Casualties to 3d Bn were 16 KIA and 67 WIA.

I. At 0700 on 29 May, elements of the 2d and 3d Battalions of the 222d Infantry attacked the 2/162d. The Japanese attack was supported by 4 light tanks. These tanks were Model 95, weighing 9 tons with a 3-man crew and armed with a 25mm cannon and two 7.7mm machineguns. The 2/162d was supported by a platoon of M4A1 Sherman tanks armed with 75mm guns. Each Japanese tank was stopped by one round of 75mm armored piercing ammunition while the enemy infantry was mowed down by machinegun fire. A second assault was supported by three more Japanese tanks suffered the same fate. Although several hits were scored on the Shermans by the Japanese tanks, only one Sherman suffered appreciable damage when a 75mm shell locked the 75mm gun of one US tank. Thus ended the first tank battle of the war in the Southwest Pacific Area.

J. Colonel Haney, commander of the 162d, recommended to General Fuller that given the tactical advantage of the Japanese who held the high ground north of the airfield, that the 162d be withdrawn and future attacks be
Conducted from the high ground. The 162d was withdrawn to Ibi and Posmek with losses on the 28th put at 16 W and 96 W. Enemy casualties were estimated at 500 killed. General Fuller's assessment of the situation by 28 May was that he would need another infantry regiment, another artillery battalion and another tank company. Thus General Fuller requested reinforcement from General Krueger, Alamo Force Commander who ordered elements of the 163d Infantry Regiment to Biak and they arrived on 31 May.

K. During the period 30-31 May both sides consolidated their present positions and General Fuller made plans to renew his attack to seize the airfields. Upon the arrival of the 163d Infantry, General Krueger radioed to General Fuller that the Hurricane Task Force was expected to regain the initiative with a new offensive. This offensive was to be pushed vigorously "with a view to carrying out your mission effectively and expeditiously."

L. General Fuller's plan was to move the 186th Infantry over the inland plateau and securing a route over the main ridge north of Mokmer village, clear the high ground north and northeast of Mokmer airfield. The 162d would again move west along the coastal road with one battalion moving along the ridge to the north of the beach. The 162d would then seize the airfield. The 167d would secure the initial beachhead, supply installations and patrol behind the 186th.

M. No significant action occurred on 1 June as the 186th dug in around an area which had been surveyed for an airfield. Early on the morning of 2 June elements of 1/222d Infantry attacked 3/186th resulting in
On Japanese dead including the commander of the 1/222d. US losses were 3 KIA and 8 WIA. On 2 June the 162d had made no significant advance against the 1/222d occupying the Itdi Pocket.

N. To facilitate the advance of the 186th the 2d Battalion of the 162d was attacked to the 186th. This proved more of a hinderance than a help, as water was already a precious commodity and the regiment could not sufficiently support itself, let alone another battalion. The water shortage did more to delay the advance than did the enemy. The speed of the advance was contingent upon the arrival of water from Bosnek and upon improvements which engineers could make on the supply road west from the surveyed airfield.

O. The 186th continued west on 2 June against scattered but determined resistance by elements of 1/222d Infantry. By nightfall on 2 June the 186th had killed another 92 Japanese while losing 6 WIA and 10 WIA. On 3 June the 186th continued west against light enemy resistance, but was slowed by dense vegetation and lack of water. The 162d could make no progress against the Itdi Pocket and General Fuller ordered the 186th to send a battalion to attack the Itdi Pocket from the north. Colonel Newman, command of the 186th replied that due to the cliffs in the area a battalion could not succeed in such a mission. The issue was left unresolved as intelligence from Alamo
Forces indicated the Japanese were about to attack Biaak from the sea. Pending the resolution of the development General Fuller ordered all units to maintain current positions. Activity on 2-4 June was limited to local patrolling the threat from the sea passed.

P. The 186th continued its westward movement on 5 June stopping at noon during a heavy rain to catch rainwater in perches and fill canteens before digging in along the main ridge overlooking Mokmer airfield some 2500 yards to the southwest. Colonel Newman had planned to clear the ridges overlooking Mokmer airfield but because of pressure from Alamo Force General Fuller ordered the immediate seizure of the airfield despite the protests of Colonel Newman and assistant division commander, General Doe, both of whom felt it more critical to secure the key terrain which dominated the airfield.

Q. Due to lack of supplies and the acute shortage of water Colonel Newman recommended that attack on the airfield be postponed until 7 June. General Fuller agreed. On 7 June the 186th initiated its attack on Mokmer airfield at 0730 preceded by a 30 minute artillery preparation. The airfield was seized and the objective consolidated by 0930. There was no enemy resistance on the airfield. At 0945 the ridge to the north, northeast, northwest, and east erupted with Japanese artillery, anti-aircraft mortars and automatic weapons fire. The 186th had unintentionally bypassed the heart of the Japanese defense and was now in the middle of its kill zone. The 186th's supporting artillery, the 121st FA fired over 2000 rounds in a four hour period to suppress the Japanese positions. The inland plateau road over which the 186th had moved had been
interdicted and rations, water, and ammunition were running low. The MCR was charged to a water route 51 miles from Bosnek to Sboeria on the beach south of Mokmer airfield. However, as the first boat approached the beach, they were taken under fire by Japanese hiding out in caves along the beach area. Finally, three tanks were landed by LCM at 1400, and they were able to destroy several small bunkers, two pillboxes, a 75mm mountain gun, and a 20mm gun. Thus, resupply and evacuation of the wounded was able to take place during the night of 7-8 June.

8. The 186th was in possession of Mokmer airfield on 7 June at a cost of 14 MIA and 69 WIA. Even with the airfield in its possession, Hurricane Task Force could not repair or use the airfield while the Japanese were in possession of the key terrain to the north.

9. On 8 June, the 2/162d moved east from Mokmer airfield to rejoin its parent unit. It had moved scarcely 800 yards when lead elements were pinned by fire from the East Caves. The 2/162d held its position through the night as did elements of the 196th, which were subjected to harassing attacks throughout the night of 8-9 June.

10. Throughout the 9-10 June time frame, the Japanese continued to hold the ridges. All attempts to penetrate the Japanese defenses had failed.
Finally, General Fuller ordered the 162d to link up with the 126th at the Mokmer airfield in an attempt to secure the high ground overlooking it. The 162d was able to accomplish the linkup by moving in the surf below the coral reef barriers to avoid Japanese fire. The 163d Infantry had the mission to patrol the area vicinity of the surveyed airfield and to clear remaining Japanese from the Ibedi Pocket.

U. The attack to clear the Japanese from the ridges north and northwest of Mokmer airfield commenced at 0830 on 11 June. The 186th and 162d were to attack abreast with the 162d on the north. One battalion of the 162d would clear to low ridge while elements of the 163d were to move west along the main ridge. The principal Japanese resistance consisted of elements of the 1st and 2d battalions of the 222d Infantry estimated at between 600-700 combat effectives. The 162d received intermittent fire into its flank from the bluffs immediately north of the airfield. Both regiments dug in along the first phase line which was located about 1400 yards beyond the western edge of the runway. The 3/162d which had the mission to clear the low ridge met increasing Japanese resistance and was stalled at the original LC.

V. Based on information from Japanese slave laborers that the Japanese headquarters installations were located in caves along the ridge north of the airfield (West Caves Area) the commander of the 162d, Colonel Harrey planned to commit two battalions into the area on 12 June and the 162d had elements only 300 yards west of the line of departure and then consolidated to keep the Japanese from infiltrating back into original positions. The
163d remained on the first phase line during 12 June. The 163d had established an observation post on Hill 320 about 1500 yards above the 162d and late in the afternoon began relaying intelligence concerning the Japanese on the low ridge.

W. Engineer work finally began in earnest on 12 June to repair Molken airfield and by evening on 13 June the airfield was sufficiently repaired for use by fighter aircrafts.

Y. On 12 June the 162d was still unable to make progress against the low ridge. The Assistant Division Commander, General Doe had observed the actions of the 162d on the 13th and concluded that the Regiment was becoming worn out and had lost much of its effectiveness. Based upon this information General Fuller requested reinforcements from General Krueger of at least another infantry regiment. General Krueger's patience was wearing thin at this point but he reluctantly alerted the 24th Infantry (then at Hollandia) for shipment to Risok on 18 June.

Y. On 14 June both the 186th and the 162d were committed to attacking toward the West Caves on the lower ridge but stubborn enemy resistance from an estimated 1000 Japanese not only stopped the advance but effective fire onto the airstrip forced the engineers to cease repair work on the
airfield. At this point General Krueger's patience was worn through and on 14 June he decided to relieve General Fuller of the command of the Hurricane Task Force, yet leave him in command of the 41st Division, the major component of the Task Force. General Fuller however requested he be relieved of both commands and reassigned outside the Southwest Pacific Area.
V. "INCREASE PLAN FOR THE DEFENSE OF BIAK: On 27 April, Colonel Huzura published his plan for the defense of BIAK Island. The plan as quoted below is taken from 2-2 Weekly Report #50, Alamo Force.

"1. Section: The detachment will immediately complete the SORIDO strips and secure them and other key points on the island. The detachment will cooperate with the air force and destroy the enemy at the water's edge by swift movements.

"2. Section: a. The main strength of the detachment will be disposed along the coast immediately. Positions will be constructed as soon as possible at key areas. The SORIDO strips and the eastern end of BIAK Island will be firmly held. A fraction of the detachment will patrol SORIDO Island.

"b. In case of an attack on the eastern and southern portions of the island, the entire detachment - regardless of race or organization - will be converted into a combat unit. The strips will be held and the enemy destroyed the water's edge. The air-drome construction survey units, construction units, development duty companies and other rear area forces will immediately be converted to combat units.

"c. If the enemy lands on SORIDO or on the north coast of this BIAK Island, the detachment will employ diversionary tactics to confuse them until the arrival of reinforcements."
d. If a powerful enemy force has already landed, periodic attacks will be mounted from prepared positions. Small units will take use of jungle for diversionary attacks at night.

e. The navy (excluding naval air-ground personnel) will, in general, guard the area between BOSNOK and CPIAREF. In combat the navy will be commanded by the detachment and used as the situation may demand.

f. Upon arrival of reinforcements, a sizeable fraction will be sent to SORIDIO; another fraction to guard OUI Island and vicinity.

7. Disposition and Duties of Units:

a. The 1st Battalion (less one platoon) will secure key points east of the CPIAREF - SAUBAS Line and repulse enemy landings.

b. The 2d Battalion (less 5th Company) will secure key points along the SORIDO - BOSEMK coast. It will defend the SORIDO airstrip against air and sea attacks.
"c. The 10th Company (less one platoon, 3d Artillery, and the mortar platoon attached) will immediately send a fraction of its strength to secure positions in the KORIM Bay area. The main strength will open a road to this area and repulse enemy landings.

"d. The 3d Battalion (less 9th Company, 10th Company, less one platoon artillery battalion and one mortar platoon) will be held as a reserve for the detachment. It will be located in the WAPUL Area and will aid in the construction of No. 2 airstrip.

"e. The tank company will be located in the SABA area and will defend the coast. It will be prepared to take part in battle should the 1st Battalion engage the enemy.

"f. The engineer company will cooperate with the fortification construction of the various units. It will construct roads. It will be prepared for explosive warfare in case of combat.

"g. The machine cannon and AA batteries will be located in the RICO and JEREBEC areas. They will take over the air defense of the headquarters and No. 3 airstrip at SORICO. They will construct as many reserve positions as possible.

"4. Collecting of Information: (Military topography and weather).
"a. Each battalion (including independent forces) will assign an officer and a few men to report weather and military topography information.

"b. The UME (TN: Pacification Squad) organization will maintain liaison with the naval construction section and organize an esprance system consisting mainly of natives.

"5. Supply---Medical---a. One-third of the 36th Division Field Hospital will establish a hospital 6 km. NW of ETSEK.

"b. Various army supply depots (branches) will disperse and conceal supplies. They will store four months supply in caves and such near positions.

SOUTH RETENTION PRTIFICATION PLAN:

"1. Policy: Concrete pillboxes will be constructed as soon as possible at key points along the coast.

"2. Policy: Positions will be constructed of strong and permanent small points."

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Section E: Significance of the Action

The immediate impact of the Battle of Biak was to secure the island and its airfields for use by American forces. Losses on both sides had been substantial. The entire Japanese garrison and its equipment had been eliminated. Though Americans killed numbered only some 400, total American casualties were much higher: nearly 2,000 Americans had been wounded, and 7,224 non-battle casualties (primarily heat casualties and scrub typhus) had been incurred.

The securing of Biak Island capped MacArthur's drive to secure the northern coast of New Guinea. Though remnants of Japanese forces continued to hold out in the western portion of New Guinea, operational control over New Guinea and the surrounding sea area was assured by the establishment of forward air bases at Hollandia and Biak.

Due to the difficult terrain and inhospitable climate, Biak was not developed as a major staging area for future operations. In fact, the operational significance of Biak was overshadowed by other, larger bases in the area into the fighting for New Guinea died down.

The overall Biak operation, together with MacArthur's earlier attacks at Hollandia and Wewak, did advance Americans strategic interests, however, in attempts to support and reinforce its garrison on Biak, Japan had redeployed substantial air and naval forces down the central to the southern Pacific area. Some naval units were actually destroyed outright in the abortive KON
Operations. More importantly, though, this redeployment weakened Japan's ability to respond to Nimitz's attack on the Marianas. American landings in the Marianas, in fact, began without any significant interference from either naval or air forces of Japan. Mustering forces to defend the Marianas, the Japanese diverted fleet assets from KON 3 while they were already en route. Joining other fleet elements east of the Marianas, these KON forces participated in the naval Battle of the Philippine Sea. (This battle, called by the Americans the "Great Marianas Turkey Shoot," shattered Japanese naval aviation for the remainder of the war.) Consequently, Biak not only served American interests by facilitating MacArthur's advance to the Philippines, it also diverted Japanese resources from the early stages of the Marianas landings.

The Battle of Biak illustrated other interesting operational and tactical issues.

Operationally, Japanese attempts to support and reinforce the garrison on Biak suffered from the standing division of effort between the Japanese Navy and the Japanese Army. Each agency tended to evaluate tactical and operational situations in light of its own interests and commitments. This was further handicapped by overlapping geographical commands. Moreover, local commanders were occasionally granted a great deal of independence by
Imperial General Headquarters. As mentioned earlier, this problem was illustrated in retrospect on Biak were the presence of senior naval and army commanders at the time of the US landing may have complicated Japanese command arrangements.

On the American side, operations at all levels benefited from extensive strategic intelligence generated by the ULTRA system. In some respects, however, this wealth of intelligence whipsawed tactical operations: in anticipation of Japanese KON reinforcements, General Fuller apparently regarded his task as being more difficult than it was, and may even have exercised undue caution out of concern for future Japanese countermeasures.

Another operational problem for the Americans revolved around the meshing of strategic goals with tactical actions. General MacArthur, both out of eagerness to declare a success on Biak and out of desire to support the Mariana operations, wanted Biak operations accomplished as rapidly as possible. This impatience was not clearly communicated to General Fuller or to his subordinates—the were unaware that there was any strategic time constraints in their own tactical operations.

Biak also illustrated a number of tactical lessons as well.

Japanese defensive operations were hamstrung by the near-total collapse of command control on the island after the initial bombardment and landing. Consequently, the various pockets of resistance tended to fight in isolation. This allowed the Americans to concentrate against separated
Japanese elements (once the Americans decided to concentrate, that is) and also lift some Japanese forces in positions from which they were little threat to the American drives in the airfields.

Secondly, at the small unit level the Americans had an extremely favorable casualty-exchange ratio. This appears to have been a function of training, technology, and control. Many of the Japanese forces on the island were labor forces untrained in infantry skills. These were no match for the well trained American veterans in small unit tactics. Secondly, the Americans had a preponderance of firepower (artillery, armor, and air power) over the Japanese. This was not due solely to supporting elements, however. Most Japanese infantrymen were armed with the bolt-action Arizaka rifle, which was more awkward and had a slower rate of fire than American M-1's. Moreover many Japanese crew-served weapons were either located in cave emplacements or else located in fixed emplacements. As a result, American forces commonly were able to build up fire superiority in automatic weapons as well. Lastly, the collapse of the Japanese communications system prevented Japanese mortars and light howitzers from providing close support during jungle meeting engagements. No such handicap afflicted the Americans, who relied extensively in their own indirect fire support to beat back Japanese counterattacks and to suppress difficult positions.
Even with these advantages, however, the Americans could not prevent local Japanese successes. The early American tendency to maneuver only in company- and battalion-sized units forfeited the US numerical superiority. Units of resistance in the East Caves and Iblis Pocket areas plagued American maneuver and resupply efforts, and effectively prevented the Americans from securing Makmer Drone in a timely fashion. Determined defense by stubborn Japanese troops proved nearly impervious to American air and artillery bombardment, and required at last intensive efforts by US Infantry and Engineers to blot out this resistance.

The Battle of Biak was not a major turning point of the Second World War. Though it had some strategic consequences for the campaigns against the Marianas and Philippines Islands, those operations would in all likelihood have unfolded in essentially the same fashion had Biak simply been bypassed. Though magic in human terms, the losses on Biak were not crippling to either side. In retrospect, Biak seems to have been a "transition" battle it closed out MacArthur's operations in New Guinea, and preceded future operations against the Marianas and Philippines.
END NOTES

1General Headquarters, Southwest Pacific Area, Military Intelligence Section, General Staff, Daily Summary # 815, 14-15 June 1944.


7Luvass, p. 128.

8Smith, p. 341.

9Ibid., p. 362.

10War Department, Office of Assistant Chief of Staff G-2, Special Branch, M.I.D., MAGIC Summary, Japanese Army Supplement No. 87, 15 June 1944.

11Smith, p. 363.

12Ibid., pp. 344-5.

13GHQ, SWPA, Daily Summary #816, 15-16 June 1944.


16Smith, pp. 366-7.

17Ibid.

18GHQ, SWPA, Daily Summary # 817, 16-17 June 1944.


The staff journal for the 162d Infantry Regiment fails to mention the confusing situation that was to be General Eichelberger's introduction to the 41st Division.

Eichelberger, p. 146.

GHQ, SWPA, Daily Summary # 818, 17-18 June 1944.

Smith, pp. 368-9.

GHQ, SWPA, Daily Summary # 819, 18-19 June 1944.


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Luvass, pp. 131-2.

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Smith, p. 377.


Luvass, p. 142.

Ibid., p. 133.

Smith, p. 375.


GHQ, SWPA, #822, 21-22 June 1944.

GHQ, SWPA, # 821, 20-21 June 1944.

43 Smith, p. 377.


45 See also the Infantry School, Infantry Combat, Park Twelve, Bick, 19 December 1944 for comments by American soldiers on the effectiveness of these counter-attacks.

46 GHQ, SWPA, # 822, 21-22 June, 1944.

47 Luvass, p. 133.

48 Smith, p. 378.

49 Ibid., p. 379.

50 Luvass, pp. 136-7.


52 GHQ, SWPA, # 823, 22-23 June 1944.

53 Smith, p. 381.

54 Ibid.

55 Ibid., p. 382.


57 Journal, 163d Infantry, p. 51.

58 GHQ, SWPA, # 827, 26-27 June 1944.

59 Smith, p. 388. The staff journal and report of operations of the 163d Infantry Regiment are very sketchy, hence the reliance on Smith for this section.

67 Ibid.

68 Ibid.

69 Ibid., p. 379-80.

70 GHQ, SWPA, # 831, 30 June-1 July 1944.

71 GHQ, SWPA, # 824, 23-24 June 1944.

72 Smith, p. 391.


74 Costello, p. 474.


76 The conclusions presented here generally follow those made by Major Roger E. Lawless in his article published in the Military Review in 1953, previously cited.

77 "Slaughter on Biak," Newsweek 23 (12 June 1944): 26-7. This account of an attack against the American line of communication is sensationalist and designed to stir the reader against the Japanese. The Japanese tactic of drawing the attacker in and striking his rear makes perfect sense.

7. Sixth Army Chemical Section, "Chemical Warfare During the Biak Operation," pp. 3-4.

8. Luvass, p. 139.

9. Imperial General Headquarters, Army Department, Lessons Learned Biak Campaign, 3 October 1944.


12. Ibid., p. 396.
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