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MASTER OF MILITARY STUDIES

TITLE:

IWO JIMA: THE UNNECESSARY BATTLE

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EXECUTIVE SUMMARY

Title: Iwo Jima: The Unnecessary Battle

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Thesis: Iwo Jima could have been taken with substantially fewer casualties if the Navy had established a blockade of the island and targeted a vital resource for Japanese survival.

Discussion: In February and March of 1945 the bloodiest battle in Marine Corps history was waged on a small island 700 miles from Tokyo, Japan known as Iwo Jima. Joe Rosenthal's iconic photograph of the flag-raising atop Mount Suribachi would serve as a rallying cry for America and a representation of the Marine Corps and the war in the Pacific. With an estimated 24,000 U.S. casualties and over 21,000 dead Japanese, those involved in the planning of the campaign have cemented in history that the island had to be taken for fighter aircraft escorts of strategic bombers trying to end the war. In reality it can be shown that the necessity for taking the island was severely diminished by February 1945 and that divergent strategies by three General Officers led to the battle for the island. Almost all the objectives for taking the island as listed by the Joint Chiefs of Staff were met prior to any Marine setting foot on the volcanic sand. The lack of a unified command and service rivalry blinded those involved in conducting the operation. Along with prior experiences from air battles in Germany and resultant poor bomber tactics, the solution to winning the war seemed to lie with the airfields of Iwo Jima. With the dominance of the Navy, Army Air Force, and a weakening Japanese defense network a naval blockade could have accomplished four of the five Joint Chiefs of Staff objectives necessitating Iwo Jima. The fifth reason would be met a short time later when the Marines took Okinawa. Even if the island had to be taken, those involved missed targeting the most critical resource on the island; water. The only source of water on the island was rain water collected in large cisterns. By directly targeting the visible and unprotected concrete water cisterns on the island during a naval blockade, the Japanese would have been forced to surrender or die of dehydration. Iwo Jima would be nothing more than a passing note in history vice the mythological reverence it receives today if naval guns had sought to break the concrete on cisterns instead of pillboxes. Even the most vocal argument in history that 24,000 airmen were saved because of the Marines falls apart with a detailed look at the B-29 landings that took place on the islands. While the bravery and valor of the island is to be celebrated and mourned, the battle should have never been fought.

Conclusion: A constant update of operational objectives must be made prior to the possible sacrifice of American blood and treasure. Iwo Jima is a story of heroism, both American and Japanese; however, that heroic and horrific battle should never have taken place.

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Preface

Every Marine has heard about and been fed a steady diet of the glorious heroism of Marines at Iwo Jima. It is bred into us from Recruit Depots and Officer Candidate School. A story that begins with a frontal assault, a fanatical enemy opponent, a photograph that invokes patriotism whenever it is viewed, and quotes like “Uncommon valor was a common virtue”, provide a steady diet of intrigue that is hard not to study and glorify. It is this very dramatic historical background that drew my interest to Iwo Jima. Was all the carnage really necessary? Did the island have a weakness? Why did we “have” to take the island again? These are the questions that have plagued me for over ten years and the reasons I have chosen to possibly ruin my own mythological reverence of the battle. I was fearful that I would find little that could refute the glory of the iconic battle, but what I found was that sometimes glory is the lie we tell ourselves to cover or justify bad decisions. I have the benefit of hindsight and voluminous amounts of historical records that commanders and decision makers of the day did not have, but there were dissenting voices in 1944 and 1945 that warned of the costs. The men that made the final decisions to take the island did so with the best intentions of defeating Japan and they relied on their former experiences to make critical decisions; they were patriots in a bloody struggle.

As a logistics officer my search started with the basic questions that I would ask about any operation. How did the Japanese get food and water to a volcanic island? How much havoc could the Japanese Navy or Air Force wreak on my supply lines? As an interested student my questions were simply related to the reasons for needing the island versus the risk. What I found is that the island did have a weakness. That even the most storied defense network ever encountered in Marine Corps history may have been defeated without ever having to assault a single machine gun nest. It was water; the island was surrounded by it, but not a single drop of

water surrounding or from the island was drinkable. My next question was obviously how they got water and I was sad to find out that we not only knew how they got it, but had even estimated how much they had. We even knew the location of the water cisterns on the island that could clearly be seen from reconnaissance photos.

My most troubling thought was dispelling the figures given of the lives saved from the Marines and Sailors that gave the ultimate sacrifice. 24,000 airmen is a big number. Did we even have that many B-29 bombers in 1945? The facts I found were surprising and frankly did not warrant this historic battle. Instead of being disappointed in what I found, I was even more in awe of the Marine's, Sailor's, Soldier's, and Airmen's sacrifice at Iwo Jima. Their myth is even greater for me now, but it is tempered with a reverence regarding the implications of decisions I can make as a leader.

I would like to thank Dr. Craig A. Swanson who constantly gave me valuable information that assisted and guided me in writing this paper. Every time I left his office with a new book, movie, or insight that was crucial in my research. Thanks also to Rachel Kingcade at the Gray Research Center who gave me such an exhaustive list of resources on Iwo Jima that I could probably never read it all. Finally, I would like to thank my most trusted friend, supporter, and honest editor (even when it hurts to hear), my wife April.

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BACKGROUND

On February 23, 1945 atop a craggy volcanic hill in the South Pacific five Marines and one Navy Corpsman raised a 96 by 56 inch American flag and struggled to bury the water pipe on which it was attached into the unforgiving ground. A photographer for the Associated Press, Joe Rosenthal, had recently taken several pictures of the original flag raisers and was jockeying for a good camera angle when he was told the second flag was being raised. He quickly raised the camera up without even being sure of what he would photograph and snapped a picture.¹

The picture that would emerge would capture the American public and would forever be burned into the collective memory of a nation. The volcanic hill was Mount Suribachi on the island of Iwo Jima in what came to be viewed as the bloodiest and most heroic battle of the entire Pacific Theater in World War II. The struggle to bury the pipe in the ground symbolizes the unforgiving volcanic sand of the island where men and tanks would sink and struggle to move one more yard. All the while they battled against an enemy that was rarely seen and had no intent on surrendering one inch of this sulfur smelling island.

The photograph became a symbol for the Marine Corps that embodies its very essence as much as the Eagle, Globe, and Anchor emblem worn by Marines. The current Iwo Jima Monument can be seen at Arlington National Cemetery, aboard several Marine Corps bases, and is constantly seen in pictures advertising the Marine Corps. The question lingers though, was it necessary for all those lives to be lost over an island? Was a frontal assault against a defender's paradise the only way to defeat the Japanese?

For more than fifty-five years the historical argument has always emphasized that the island had to be taken to win the war and saved the lives of over 24,000 airmen. The battle would cost the Marine Corps over 24,053 casualties and kill almost 22,000 Japanese while

rendering three Marine Divisions mostly combat ineffective for the remainder of the war.² In reality the need for Iwo Jima was substantially diminished by February 1945 and a key aspect was missed in the targeting of the island that might have saved thousands of American lives. Iwo Jima could have been taken with substantially fewer casualties if the Navy had established a blockade of the island and targeted a vital resource for Japanese survival.

This paper will explore whether the Battle of Iwo Jima was necessary in order to accomplish the U.S. war goals in the Pacific, specifically advancing the war to the Japanese homeland. First, the decision-making process that resulted in the Battle of Iwo Jima will be covered in order to provide the background to the decision as well as to highlight both the military and the inter-service political factors which were at play. Second, the stated objectives of the invasion will be analyzed individually. This will provide a detailed look at the objectives to explore the possibilities of their being met through alternate, less costly means. Third, will be a detailed look at an alternative to the assault and a weakness that was overlooked making the alternative viable. Fourth, counterarguments will be offered to debunk some of the most cited reasons for justifying the battle for Iwo Jima followed by a brief conclusion.

Path to Battle

Understanding the reasons for Operation DETACHMENT (the code name for the Iwo Jima plan) must start with a review of the decision makers responsible for the Pacific Theater and the power struggle it created between the services. After the surprise attack at Pearl Harbor in December 1941 the Joint Board (the general planning body that included the Army and Navy) realized that it was ill equipped to work with its counterpart of the British Chiefs of Staff and worked to create the Joint Chiefs of Staff (JCS) in January 1942.³ The four deciding members

of the board were Admiral Ernest J. King (Chief of Naval Operations and Commander in Chief U.S. Fleet), Admiral William D. Leahy (Chief of Staff to the Commander in Chief), General George C. Marshall (Army Chief of Staff), and General Henry H. “Hap” Arnold (Commanding General, Army Air Forces or AAF). Power was not shared equally with these members as Admiral King and General Marshall were the senior directors and their decisions were usually followed by the other members.

The Pacific theater of the war was run almost exclusively by the U.S. after an early 1942 conference between the U.S. and Britain. As Marshall and King shared power and could not agree on a single commander for the Pacific theater, the theater was broken up into separate commands. Admiral Chester W. Nimitz commanded the Pacific Ocean Areas (POA) and General Douglas MacArthur commanded the Southwestern Pacific Area (SPA). Although both Navy and Army forces served in each theater, the POA was predominantly Navy and the SPA was primarily Army. The northern boundary of the SPA ran between the Philippine island of Luzon and the large island of Formosa.⁴ Nimitz and MacArthur answered to King and Marshall respectively. MacArthur having been the former Army Chief of Staff had a more cooperative vice subordinate relationship as Marshall had once worked for him when Marshall was a colonel.⁵

While on the surface this relationship seemed workable, it was actually a “monstrosity” as described by Ronald H. Spector in that careerism and doctrinal differences pervaded every decision, bypassed many important decisions, and divided scarce resources so that the Army and Navy could pursue their own strategies unhindered by the others influence.⁶ Not only was there the Army and Navy rivalry, but General Arnold wanted the AAF to be broken out as a separate service from the Army akin to the British Royal Air Force.⁷ Over time, an alliance was born

between the AAF and the Navy that would serve to solidify AAF and Navy power in the Pacific and lead to the final decision for Operation DETACHMENT.

While General Arnold was initially under the control of Nimitz and MacArthur, the realization of the B-29 Superfortress would alter the power and strategy of the Pacific theater. The B-29 rolled off the assembly lines in March 1944 after years of research and billions of dollars in funding.¹ To maintain control of this enormously expensive asset the JCS created yet another command in the Pacific, the Twentieth Air Force (20th AF), and named General Henry Arnold as its commander. Arnold's dream for a separate Air Force was now in reach and he would compete for resources, manpower, funding, and more importantly strategic bases for operations. The seizure of the Marianas in the summer of 1944 demonstrates this strategic sea change as the operations in the Marianas was primarily to facilitate B-29 bomber bases for long range bombing of Japan. While Arnold had more influence on the JCS he still needed bases to be taken by land forces and thus was born an uneasy courtship between the AAF and Navy; the power in the Pacific had shifted in the JCS with two possible Navy votes (King and Leahy) and Arnold's AAF vote. The stage was now set for the determination of how the U.S. would proceed in the Pacific.⁸

The War of Military Politics

Three paths would collide in the Pacific in late 1944, all three were American commanders and the stakes were high: the defeat of Japan and postwar credit for the service who could claim victory. With the Marianas secured, the plans came down to who would command

¹ It should be noted that the B-29 was more expensive than the Manhattan Project. Common problems included severe weather conditions over Japan, payloads, frequent maintenance problems, inexperienced crews, and inadequate targeting systems at high speeds and altitudes. See <http://www.acepilots.com/planes/b29.html>

the seizure of Formosa, a formidable island that was to be used as a springboard for the invasion of the Japanese home islands of Kyushu and Honshu. Formosa would require extensive ground combat making MacArthur the logical choice, but neither King nor Marshall would budge on who would have final command. Summer turned into fall and the JCS were still in deadlock, frustrating Nimitz who hoped to remain on the offensive and not surrender the initiative.⁹

At the same time Arnold's staff met in Washington and debated B-29 problems, bombing accuracy, and the need for a fighter escort base in the Marianas. Arnold set his sights on Iwo Jima as a possible base for the P-51 Mustang to escort bombers to mainland Japan and at the same time lowered the bombing altitude of his B-29s to ensure greater bombing accuracy which also increased their vulnerability.² His idea would take some convincing with the Joint War Plans committee who had looked at the Bonin Islands in 1943 and had concluded that "operations planned herein are likely to entail heavy losses, and to divert forces out of all proportion to the anticipated value of these islands to us."¹⁰ Even more damning was their assessment that specifically "distance to Tokyo for present fighters is too great."¹¹ But Arnold would not be denied and in the end the Joint Plans Committee would reference Arnold in its final report. Refusing to take responsibility for the taking of Iwo Jima they stated, "The feasibility of such escort missions has been determined by the Commanding General, 20th Air Force."¹²

Nimitz, with the idea and backing from Admiral Raymond A. Spruance, would push Admiral King to keep the Navy in the leading role for the drive to Japan by taking Okinawa for the Navy and Iwo Jima for the AAF. After a conference in San Francisco, California, on

² Experience against the Luftwaffe guided the belief that P-51 escort was necessary. In only one week the German's destroyed 254 U.S. aircraft. Most of the bombers in this campaign known as the "Big Week" were hit by flak and became easy to shoot down for German fighters. See <http://www.ibiblio.org/hyperwar/AAF/III/index.html>

September 29, 1944, King reluctantly agreed to endorse the new objectives of Iwo Jima and Okinawa after learning that the AAF would vote with them if the Navy gave them their fighter escort base.

Iwo Jima Objectives

After months of stalemate and three “yes” votes on the JCS, the decision to take the island was approved within one week.¹³ The objectives for taking the Bonin Islands by the Joint War Planners were as follows:

1. Provide fighter cover for the application of our air effort against Japan.
2. Denying these strategic outposts to the enemy.
3. Furnishing air defense bases for our positions in the Marianas.
4. Providing fields for staging heavy bombers against Japan.
5. Precipitating a decisive naval engagement.¹⁴

Plane Reasoning (Objectives 1 and 3)

Iwo Jima (Sulfur Island) as part of the Bonin Islands chain in the Pacific Ocean lies almost 700 miles south of mainland Japan.¹⁵ Its sister islands are the larger Chichi Jima (Father Island) and Haha Jima. The main purpose of taking the island was, as Vice Admiral Richmond Kelly Turner, head of the Joint Expeditionary Force, briefed reporters three days prior to invasion, to provide “fighter cover for the operations of the B-29s, which are based here in the Marianas.”¹⁶ Unfortunately just as the Joint Planners 1943 assessment would state, the distance from Japan is where the premise for fighter escorts begins to fall apart. The P-51 combat flight range was only 950 miles and had a maximum operational range of 1,300 miles with attached

drop tanks.¹⁷ The distance from Iwo Jima to the mainland was outside the designed operational reach of the P-51. Not only did the P-51 struggle with the range from Iwo Jima but the fighters' navigation system proved too primitive for the trip to Japan. Any attempt to fly at altitude with the B-29s crashed most fighters because of the difficult weather conditions. The fighters themselves had to be escorted to and from Japan by the B-29s via a homing beacon.¹⁸ On June 1, 1945 the VII Fighter Command lost twenty-seven out of fifty-four planes due to a thunderstorm.¹⁹ The greatest number of fighters amassed on the island was 100, far too few to escort the 1,000 B-29s stationed in the Marianas. The results of fighter escorts were so abysmal that only ten escort missions were ever flown from Iwo Jima compared to one hundred and forty-seven major combat B-29 flights against Japan from March-August 1945.²⁰

Not only were the P-51s not ideal for operations from Iwo Jima but aerial threats to B-29s no longer existed after January 1945. During the assault of the Marianas, 5th Fleet had attacked Chichi Jima and Iwo Jima effectively destroying any serious aerial threat from either island for the remainder of the war. On 15 and 24 June, 1944, almost 8 months prior to D-day, Rear Admiral Joseph J. Clark's fast carrier attack group struck Iwo Jima "sweeping away aircraft piloted by inexperienced Japanese airmen and bombing the island with impunity."²¹ This initial bombing took place only days after General Kuribayashi, the islands commanding general, arrived on Iwo Jima.²² The June attacks were followed by U.S. battleships and cruisers shelling the island from 4-5 July, 1944.

Saburo Sakai, Japan's most famous ace to survive the war, stated, "We cowered like rats, trying to dig ourselves deeper into the acrid volcanic dust."²³ The combined attacks shot down more than 100 planes and destroyed dozens more on the ground.²⁴ The 5 July attack destroyed the last four operational planes on the island guaranteeing air and sea superiority and setting the

conditions for what should have been a substantial advantage for assault forces.²⁵ After an attack from Japanese bombers flying out of Iwo Jima against the Marianas on November 2 and December 25, 1944 the Seventy-Third Bomb Wing (B-29 bombers) stationed at Saipan hit Iwo Jima several times. After January 2, 1945 no Japanese aircraft ever attacked the Marianas.²⁶

In reality the need for fighter escort was more related to early performance problems of the B-29, prior experience in Germany, and stressing the B-29s outside of design specifications to ensure maximum bomb tonnage. Early on the B-29 was plagued by maintenance problems and inexperienced crews and mechanics. These “kinks” would be worked out over time, but it led to the firing of Major General Haywood S. Hansell, Jr. in favor of General Curtis E. LeMay. LeMay worked tirelessly to train his mechanics and provide feedback to the manufacturers. LeMay summed up the problems with the aircraft by stating, “B-29s had as many bugs as the entomological department of the Smithsonian Institution. Fast as they got the bugs licked, new ones crawled out from under the cowlings.”²⁷

The B-29s were also used incorrectly early on in the Marianas. The AAF expected the same capabilities against their aircraft as had been seen in Germany against the Luftwaffe which led to the idea that fighter escorts were a must for successful operations as well as high altitude bombing.²⁸ Because of their fear of Japanese anti-air, the B-29 bombed from 30,000 feet which significantly reduced bombing accuracy that was further complicated by harsh weather and inexperienced operators. Japanese air defense was not what was responsible for most B-29 losses, aircraft problems from inexperienced crews and exceeding the aircrafts design capabilities was the main contributor to losses. The AAF continually flew the B-29 grossly above the specified weight limit of 120,000 lbs and averaged 140,000 lbs on each flight.²⁹

Arnold stretched these limits because of the distance the AAF wanted to travel and deep targets in mainland Japan which bolstered the AAF's credibility for winning the war via air power.

Another historical argument states that the taking of the island was of strategic necessity for the successful bombing of Japan without interference from Iwo Jima. No B-29 was ever shot down near Iwo Jima during a mission or from any aircraft flying out of Iwo Jima.³⁰ Even with all the aerial influence removed from Iwo Jima after January 2, 1945 the problem with this argument lies in the very asset the Japanese had to threaten the B-29; the famous Japanese Zero fighter plane. After the defeat of all aviation assets on Iwo Jima, the only aerial threat to the B-29 was land based fighters; the Zero, Shiden, and Raiden (Thunderbolt in Japanese).³¹ The Shiden and Raiden were new planes and required experienced pilots, of which Japan was in short supply, and ended up killing more trainees than actual successful combat missions. None of these planes could climb fast enough to intercept the B-29 on short notice. Even at high altitudes the Zero's performance was so diminished that it was no match for B-29 gunners.³² The Japanese Zero had a substantial edge in the early years of the war, but as U.S. planes improved, the Zero remained mostly unchanged.

Not even the radar on Iwo Jima proved effective in warning Japan of impending attack as it only gave one-to-two hours notice and still could not pinpoint when and where the B-29s would fly and what their targets might be.³³ By March 1945 the Japanese night air defense was so weak that anti-aircraft guns were stripped from B-29s in order to increase their payload.³⁴ On a single mission to bomb Tokyo on March 10, 1945 consisting of 325 B-29s the Japanese air threat was so unsubstantial that the ceiling for bombing was lowered from 25,000 feet to 5,000 feet without any B-29s being shot down by Japanese aircraft.

General LeMay gave his thoughts on the Japanese air threat when he stated, “I was much more worried about B-29s shooting at each other than I was about any fire we might receive from the ill-equipped and inexperienced Japanese night fighters.”³⁵ LeMay being the same General who told Admiral Spruance on January 28, 1945, “Without Iwo Jima I couldn’t bomb Japan effectively” was now more worried about friendly fire while fighting still raged on Iwo Jima.³⁶ Before the Marines would land on the beaches two of the five reasons for taking the island were obsolete; Iwo Jima was useless as a fighter escort base and the need for air defense for the Marianas was no longer required after January 2, 1945. The remaining reasons for taking the island could easily have been accomplished by the Navy without ever touching the sands of Iwo Jima.

Naval Superiority (Objectives 4 and 5)

The Battle for Leyte Gulf that ended in December 1944 finished Japanese naval opposition in the Pacific. It was an example of the divided strategies in the Pacific that contributed to the long delay by the JCS with regard to MacArthur and Nimitz. It did however have a profound effect on Japan’s Navy. As Samuel Eliot Morison states, “The Battle for Leyte Gulf did not end the war, but it was decisive. And it should be an imperishable part of our national memory.”³⁷ The result of the battle was that the Japanese were now deprived of almost all capital ships and would only attempt one more major naval engagement from 6-12 April 1945 that resulted in the sinking of Japan’s last battleship, the *Yamato*.³⁸ The only threat to the U.S. Navy (not including amphibious landing support crafts) after Leyte Gulf was the kamikaze and a weak submarine threat.³⁹ The Joint Planners objective of precipitating a decisive naval

engagement by taking the Bonin Islands was already resolved by Christmas 1944 in the Southwestern Pacific Ocean battle space.

The U.S. Navy dominance was so overwhelming that it was able to compete with the B-29 for strategic bombing of the Japanese mainland. The tenuous relationship between Arnold of the AAF and the Navy was borne out of necessity vice common interests. It is best summed up by Arnold himself after the war when he stated, “Before we got to the Marianas, the columnists, commentators, and newspaper reporters had all talked about the Naval capture of the Islands. The Navy would take the Islands and use them as a base. No one mentioned using them as bases for the B-29s, yet it was the B-29s and the B-29s only that could put tons and tons of bombs on Japan. The fleet couldn’t do it; the Naval air couldn’t do it. The B-29s could.”⁴⁰

While Arnold’s quote demonstrates the strife between the AAF and Navy, it is not entirely accurate (besides the fact that he required the Navy to secure B-29 bases) and Nimitz would use being forced to take Iwo Jima for the AAF to show the power of the Navy. Taking assets away from the assault on Iwo Jima, Admiral Spruance launched an attack on Honshu itself. Admiral Spruance detached Task Force 58 (TF-58), fast carriers under Admiral Marc Mitscher, to attack aircraft factories which LeMay’s B-29s had missed badly a few days earlier in February 1945. Mitscher took all eight Marine Corps fighter squadrons and all the new battleships to Honshu with TF-58 leaving the Marines instead with six old battleships and five cruisers to pound the island.⁴¹

While the attack on Honshu was effective, it illustrates the diverging goals of Nimitz in concert with having to take Iwo Jima and even the Pacific as a whole. Because Iwo Jima was an AAF objective, it did not receive the same priority as Okinawa; Nimitz ultimate objective. TF-58 would strip valuable naval gunfire from the island out of service rivalry reducing the pre-

invasion bombardment to three days vice the requested ten much to the chagrin of Marine leaders.⁴² To further complicate the lack of naval support for the invasion, ships were not released to support Iwo Jima because of the pending Okinawa invasion scheduled for April 1, 1945.⁴³ To exacerbate this further, the Army in the SPA refused to release the ships on loan for the assault on Luzon in time to support Iwo Jima.⁴⁴ Okinawa however did provide for a portion of the Joint War Planners requirements; airfields for heavy bombers against Japan. All that was left to meet the objectives for taking the Bonin Islands was to deprive the Japanese this strategic outpost and it could have been done with a naval blockade.

Naval Blockade vice Assault (Objective 3)

Several conditions already favored a naval blockade of the island vice an assault. The Navy and AAF had reduced the air threat from Iwo Jima against the Marianas, the Japanese Navy was a negligible threat to the U.S. Navy at large, and the impending battle for Okinawa would provide air bases for heavy bombers (B-24 Liberators). But of course as Morison states regarding the Navy in World War II, “once you put your foot on a strategic ladder it is difficult to get off, unless the enemy throws you off.”⁴⁵ Without a single commander in the Pacific theater, the hydra of MacArthur, Nimitz, and Arnold would miss a unique opportunity to work in unison. Most specifically, the Navy could have provided a mobile fighter escort platform to B-29s using its carriers.

By the end of the war, only six months after Iwo Jima, the United States had produced an unprecedented thirty aircraft carriers and eighty-two escort carriers. Just one heavy carrier carried as many fighters as the greatest number stationed at Iwo Jima with the VII Fighter Command.⁴⁶ TF-58 had proven that naval aviation could strike the Japanese mainland and as the

P-51s stationed on Iwo Jima failed to be useful for escort missions they found moderate success bombing targets in Japan (though they had to be guided in by B-29s).⁴⁷ Still the P-51 struggled at strafing missions just as it had in Germany and losses were always high.⁴⁸ This relationship between the Navy and AAF was already an agreement between the two services in November 1944 but because of the diverging interests in the POA and SPA it never came to fruition and the AAF pushed even harder to get a base to handle fighter escort themselves.⁴⁹

A naval blockade by surface ships that had adequate submarine protection could have easily denied the enemy use of Iwo Jima and had been used before in the Pacific against a similar fortress island. Truk in Caroline was bypassed because the JCS determined the cost of seizing Truk outweighed its usefulness.⁵⁰ Instead Truk was blockaded and bombed rendering it inconsequential in the overall Pacific theater. The final condition to be met with the seizure of the Bonin Islands could have been met without one Marine death. But this was not to be and the three diverging paths and their masters served their own service goals, all of them with the best intentions of winning the war, not expecting Iwo Jima would become a blood bath. But if the battle was fought again and the island had to be seized, a naval blockade could have been used and targeting one single enemy resource could have changed the battle from legendary to just another island in the Pacific.

The Weakness of the Impenetrable Island

Had the JCS not hesitated and attacked Iwo Jima by September 1944 few people would remember the name of the volcanic island in the Pacific. Sparsely defended by no more than a battalion of Japanese Army during the first bombing in June and July 1944, the island would have easily fallen. The Japanese were certainly surprised and expected an imminent attack on Iwo Jima after being pounded in the summer of 1944. Saburo Sakai stated that after the summer

bombings “Iwo Jima lay naked” and “How could we doubt our impending destruction? If the Americans had taken Saipan ... if their warships sneered at our fleet and cruised insolently up and down off Iwo Jima, were they not able to storm our few defenses?” He goes on to say, “Who among us would have dared to prophesy that the Americans would throw away their priceless opportunity to take the island with minimum casualties on their side?”⁵¹

But the Americans would not come for almost seven more months; they had turned their attention towards the Philippines and their convoluted command arrangement. The assault was postponed on at least three occasions due to the diverging interests of the POA and SPA commands giving generous amounts of time to build island defenses.⁵² Kuribayashi believed the same and in August, 1944 wrote his wife, “The Americans will surely invade this Iwo Jima ... do not look for my return.”⁵³

Instead America would wait eight long months after the first planes struck Iwo Jima to attack. They had surrendered the element of surprise and instead of guessing where the invasion would come, Kuribayashi set about the task of making a nightmarish defense. The more logical choice and preferred island by Joint Planners, Chichi Jima, was quickly abandoned to fortify Iwo Jima. Gone also was the traditional tactic of repelling an enemy assault at the beach. Counterattacks were also strictly forbidden in Kuribayashi's defense in depth. The Japanese would seek to attrite the Americans, make them pay for every inch of ground.⁵⁴ Even the Americans expected a counterattack. Holland Smith stated to the press, “We welcome a counterattack. That's generally when we break their backs.”⁵⁵

What followed the summer 1944 attacks was likely the longest sustained pre-invasion bombing of a target in American history. Planes routinely bombed Iwo Jima from August to December 1944. From December 7, 1944 to invasion the island was bombed every day and in

the three weeks prior to D-day at least thirty sorties per day were flown for bombing or reconnaissance.⁵⁶ The frequency of bombing did not have the effect U.S. Marines had hoped.

In late October 1944 when the order was given by the JCS to Nimitz to seize and develop Iwo Jima within the ensuing three months, the Navy finally attained up-to-date photoreconnaissance of the island. The photos stunned the audience of Nimitz and Spruance. At the time they had proposed to take the island to King, neither one believed the operation would be difficult.⁵⁷ The photos used to convince the JCS to take Iwo Jima had been taken in June 1944 which coincided with the Navy's initial bombings. The one voice of reason after viewing the photos may have been General Holland M. Smith who flatly told Spruance that the island would cost an enormous number of lives; he could see no purpose in taking it.⁵⁸ General Smith's words did not sway his audience, the island must still be taken, and the Navy could not back off the strategic ladder.

Even an early February 1945 bomb damage assessment could not budge the Navy's rudder when they reached the sober conclusion: "As of 24 January 1945, his installations of all categories had notably increased in number. The island is now far more heavily defended by gun positions and field fortifications than it was on 15 October 1944."⁵⁹ From the undersized battalion in June 1944 with 13 artillery pieces, 14 heavy coast defense guns, and 42 antiaircraft guns the Japanese defense had grown.

When the Marines landed on February 19, 1945 they would face at least 22,000 men, 361 artillery pieces, 77 mortars, 33 large-caliber coastal defense guns, nearly 300 antiaircraft guns, 69 anti-tank guns, 70 rocket launchers, and 24 tanks.⁶⁰ All of these formidable items would be covered and concealed to withstand any barrage. Not only would the Marines face all these weapons, some of the positions reinforced with 10 feet thick concrete, but the Japanese had dug

an elaborate system of tunnels that combined added up to 11 miles of tunnel.⁶¹ The photoreconnaissance had been so detailed that it generated a target list of nearly 900 potential targets, but one known quantity went untargeted.⁶² The Japanese had stored vast quantities of food for the coming invasion but they lacked one vital ingredient to human survival and it was a resource easily targeted; water.

The human body can survive four to six weeks without food in optimal conditions; the maximum survival without water is three to five days.⁶³ Iwo Jima had no fresh water source and only had the capability to supply water to between 12,000 to 13,000 troops, at least 10,000 fewer troops than resided on the island.⁶⁴ The only means for obtaining water on Iwo Jima was through rain water collected in cisterns, cisterns made of concrete that were clearly visible in photoreconnaissance products.⁶⁵

While aviation and naval gunfire poured over the “hard” targets on the island with little more than creating an inconvenience for the Japanese soldiers, the concrete on the pillboxes could still be cracked. Cracked concrete does not hold water and the cisterns had to be open to collect water. Once destroyed only rainfall could refill the cistern after repairs had been made. The monsoon season for Iwo Jima was in summer so no massive influx of water could be collected via weather.⁶⁶ On D-2 the Navy blasted the island with 11,243 rounds of explosives and rockets, some three thousand tons of steel and TNT destroying only three concrete blockhouses, think was those explosives could have done to concrete ground water cisterns.⁶⁷

A naval blockade of the island with a concentrated targeting of water cisterns could have destroyed a majority of the Japanese garrison without ever setting foot on the island by simple physiology. With survival in ideal conditions of only three to five days imagine what a weakened enemy might suffer. Despite the ferocity of the Japanese defenders, they were sick

men constantly plagued by dysentery from the collected rain water. Japan's greatest ace suffered this condition while assigned to Iwo Jima which routinely kept soldiers bed ridden for a week; he was too weak to even fly.⁶⁸ Upon his evacuation from Iwo Jima and his landing at Kisarazu Bomber Base, Saburo Sakai and the ten other men with him "raced to a faucet and drank and drank. Suddenly we could drink no more as we imagined the friends we had left behind on the island dying of their wounds crying out to us in their agony, Water! Water! begging for the water of which there had been none."⁶⁹

Kuribayashi himself was not immune to lack of water. In a letter home to his wife dated August 2, 1944 he discusses how the garrison collected water in cisterns making soldiers sick, how vegetables could not grow on the island, and finally how he could only spare a small rice bowl of water daily to wash his face and hands after using the toilet.⁷⁰ In what was to be his last known communication with Japan on March 21, 1945, Kuribayashi stated, "We have not eaten nor drank for five days but our fighting spirit is still running high. We are going to fight bravely to the end."⁷¹

The Japanese did fight bravely to the end. Their fighting spirit is renowned, but if the flesh is unable to continue, the spirit matters little. Many soldiers can attest to the boost in morale from something as simple as a bath in a combat environment. First Lieutenant Sugihara Kinryu in his diary from January 11, 1945 until his apparent death during the battle only recorded being able to bathe on two occasions, both times in a natural spring full of hot sulfur brine (rendering the water too brackish to drink).⁷² When the attack on Iwo Jima began each Japanese battalion received one fifty-five gallon drum of water to be combined with what that soldier had already stole away.

Water was in such short supply that officers had meetings to discuss water rationing and battle damage reports at the battalion included any loss of water or damage to cisterns. By February 21, 1945 only three days into the battle the Japanese began water rationing.⁷³ Marines began receiving reports as early as D+10 that the Japanese were short on water which combined with Japanese night raids for water was a sign of the fragile balance a naval targeting of water cisterns could have upset.⁷⁴ Even the tank like trucks the Japanese had used, most likely for fighting fires, had all been damaged during the bombing and could not have provided assistance to the dehydrated Japanese.⁷⁵

Of those few Japanese troops who surrendered, less than 1,100, all wanted only one thing upon being captured; water.⁷⁶ Surviving Marines who dealt with prisoners always note the immense thirst of the Japanese soldiers, even the after action reports discuss Prisoners of War (POWs) indicating that while food was plentiful, water was scarce.⁷⁷ While counterattacks were not authorized, the enemy would seek to infiltrate at night to destroy equipment, but especially to steal precious water.⁷⁸

General Harry Schmidt would write in a personal after action report highlighting the noticed lack of enemy water supplies upon his assaulting Marines. On March 9, 1945 a company of the 21st Marines won its way through all enemy lines and finally reached the sea. The company commander dipped up a canteen of sea water, and sent it to General Schmidt's Headquarters, tagged, "For inspection, not consumption."⁷⁹ But perhaps in a final fitting note, the flag raising captured by Joe Rosenthal, the icon of the Pacific theater, known as "The Photograph," was raised with a water pipe found atop Suribachi. A water pipe used to catch rain water and deliver it to Japanese soldiers dug into the mountain that overlooked the heavily defended island.

Additional Supporting Arguments

Final reasons that a naval blockade would have been successful can be gleaned from intelligence gathered from the small minority of Japanese that surrendered on the island. While Japan was renowned for their forces ferocity in island defense it was in part because of their disbelief that Japan could lose. Even when defeat was conceded by Emperor Hirohito many Japanese military wanted to continue to resist.⁸⁰ For those that did surrender such as was the case of Major Yoshida, a staff officer, author of the Saipan banzai attack, and representative of the high command at Saipan, it was clear that Japan had lost the war.⁸¹

Those soldiers who surrendered at Iwo Jima had two ideals that helped them hang on; the first was the fact that only the officers on the island knew that Saipan had fallen which continued the disbelief that the Americans had broken the Japanese Pacific perimeter and second they believed completely that the Japanese Navy would come to their rescue.⁸² A naval blockade would have been a powerful testimonial of the impending Japanese defeat with no Japanese Navy in sight. Combined with the destruction of the only water sources on the island it could have had a crippling affect on overall morale.

Morale was already low for those on the island due to some of Kuribayashi's personnel control measures for his defense and the troops on the island felt as if they were in a place of exile and punishment with many of them not even being able to identify what island they were on. First and foremost, the soldiers that survived knew little of the total island defense and were only instructed on their small area. This had a positive control effect in that they did not know how dire their situation was, but the negative effect was that it contributed to their feeling of punishment and isolation.⁸³

The Japanese soldiers also had a great scarcity of mail in sharp contrast to the Marines who received mail even during the assault⁸⁴ and normal sundries that a Japanese soldier might have were not permitted such as tobacco and *sake*.⁸⁵ *Sake* had been closely managed on the island and was only given out in celebration of Empire Day on February 11, 1945 to avoid the traditional banzai attacks that would have been detrimental in Kuribayashi's defense in depth (soldiers would drink *sake* prior to a banzai attack to ensure their courage did not waiver).⁸⁶ General Holland M. Smith thought enough of this lack of alcohol regarding Iwo's defense that he noted that unlike Guam and Saipan, he could not recall anyone picking up a single bottle of sake on Iwo Jima.⁸⁷

Counterarguments

One of the greatest seeming counterarguments for a naval blockade would be those 24,000 airmen that were presumably saved by the Iwo airfields. The number in question comes from an article in an AAF journal titled *Impact*. The article states that 2,252 B-29s landed on Iwo Jima saving 24,761 airmen (11 crewmen per aircraft).⁸⁸ What history has added is that all of these B-29s made "emergency landings." Ronald Spector even calls this assertion into question if all of these aircraft had to land on Iwo Jima and whether none of them could have made it back to the Marianas.⁸⁹

Robert S. Burrell does an excellent job of debunking this myth using simple probability and flight records. According to official casualty reports, 2,148 B-29 crewmen died in combat operations inclusive of those based in China, Indonesia, and the Marianas. This claim of 24,761 additional airmen would have meant that eleven times the current casualties would have been lost without Iwo Jima. Adding to this absurdity is the fact that roughly 1,000 B-29s were ever

stationed in the Marianas meaning they would have each landed on Iwo Jima at least twice for emergency reasons. In reality looking at only May, June, and July 1945 shows that 80 percent of all landings were to refuel. In June alone not one aircraft landed due to battle damage.

Debate continues regarding the exact number of B-29s that landed, with estimates ranging from 2,100-3,000.⁹⁰ Regardless, during one of the most intense bombing months of the war (June), not one B-29 landed due to emergency, leading to a simple conclusion that the 24,761 would at its peak be 4,955 (20 percent). Another factor that would have lowered this casualty rate even further is that the average rescue rate for air-sea rescue operations in the Marianas from 1944-1945 was fifty percent.⁹¹ Judging from this simple look at the facts does not justify taking Iwo Jima in a frontal assault with a final death toll of over 6,000 Americans.

Table 1

Air-Sea Rescue Operations, 1944-1945⁹²

<u>Month</u>	<u>Year</u>	<u>Total Crewmen Downed at Sea</u>	<u>Total Crewmen Rescued</u>	<u>Percentage Rescued</u>
November	1944	36	14	39
December	1944	179	63	35
January	1945	155	20	13
February	1945	136	65	48
March	1945	107	55	74
April	1945	167	55	33
May	1945	230	183	80
June	1945	180	102	57
<u>July</u>	<u>1945</u>	<u>120</u>	<u>73</u>	<u>61</u>
TOTAL		1,310	654	50

Another argument could be against the idea that any Japanese would surrender based on the intense fighting, but the Japanese did often seek to survive, even if it meant killing their own. Despite their ferocity in battle, they were men, and man has physiological limits which can be stretched but not broken. Even the bravado of those on the island hung on a knife's edge as First Lieutenant Sugihara Kinryu stated on the third day of battle, "Cave life is gradually taking effect upon me ... the problem of cave living ... is getting serious."⁹³ Ogawa Tamotsu, a survivor of New Britain Island and Japanese medic describes the killing of his own soldiers who were too tired, injured, sick, or weak to keep up. Instead of using their opium to ease a Japanese soldier's pain it was used to end his life.⁹⁴ The individual soldier did want to survive, even those ordered to conduct suicide attacks or what they called a "general" attack. Yamauchi Takeo tells a harrowing tale in his escape from Americans on Saipan. A tale of near death escapes, leaving comrades to die, officer suicides, and women forced to kill their babies so hiding Japanese soldiers would not be discovered by Americans. Eventually like many on Saipan, starving, dehydrated, and near exhaustion he would surrender and learn as many Americans learned that the enemy were no demons or superhuman, just men.⁹⁵

Conclusion

Iwo Jima could have been blockaded and the water source targeted leading to a much less substantial Japanese defense as soldiers would die of dehydration, kill one another, or surrender. As the need for the island diminished early in 1945 the strategic situation was never updated and diverging service interests and disunity ensured one of the bloodiest and unnecessary battles of the war was fought. Many historical arguments have been made to justify the losses both during and after the battle and while no leader could have truly foreseen the horrific battle, it does

provide a valuable lesson for military leaders to continually evaluate military necessity and unity of command. The benefit of voluminous records, critiques, and eye witness accounts give clarity that was not available in 1945, but the signs were there, and the Joint Plans Committee even questioned the wisdom of Operation DETACHMENT. The U.S. Marines and Sailors as well as the Japanese defenders valor can never be questioned, but every effort must be made to guard American blood. The question that still remains is whether there would still be a Marine Corps if the flag had never been raised. Would the Marine Corps have found as many allies in Congress without “The Photograph” and the money it raised for the war from that bloody fight in the Pacific over a volcanic island?

Appendix A
Joe Rosenthal's Iconic Photograph



<http://www.iwojima.com/raising/lflage2.gif>

Appendix B

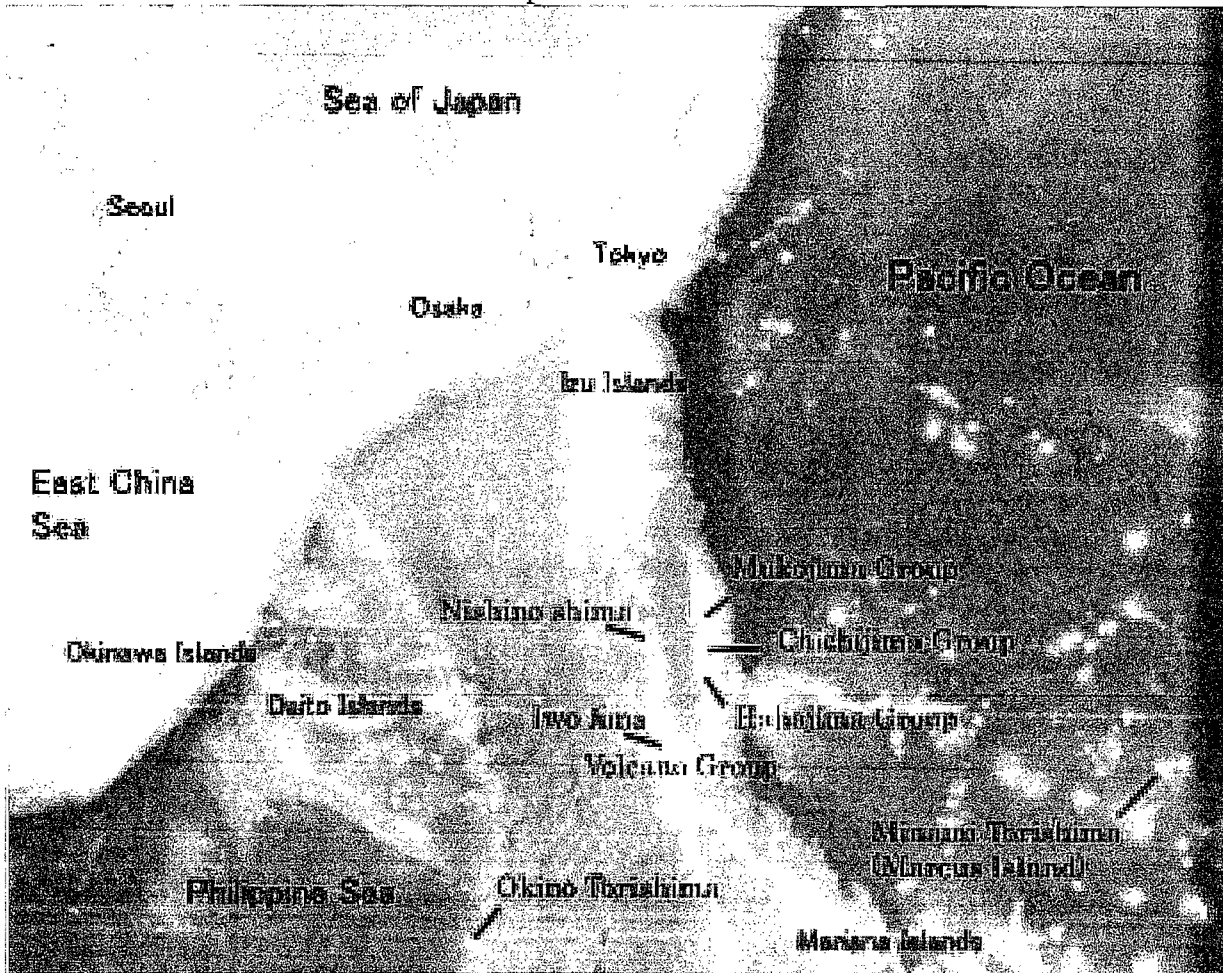
Iwo Jima Monument, Arlington, Virginia

Sculpted by Felix W. de Weldon and formally opened by President Dwight D. Eisenhower in 1954



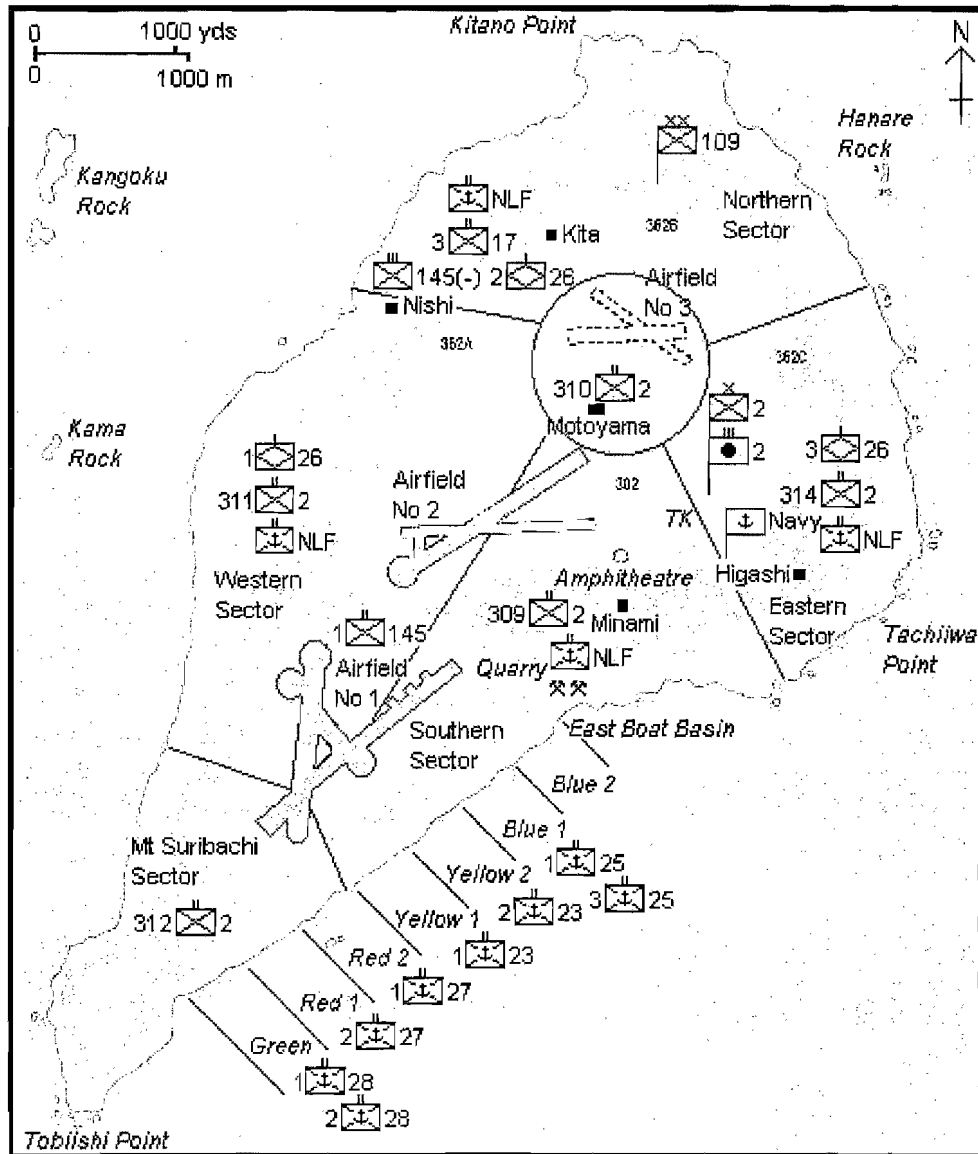
<http://iwo-jima-memorial.visit-washington-dc.com/>

Appendix C
Map of Bonin Islands



http://en.wikipedia.org/wiki/Bonin_Islands

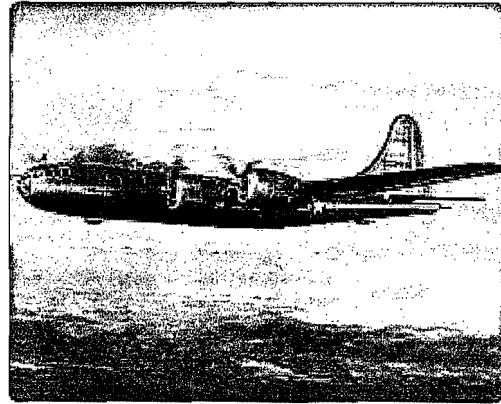
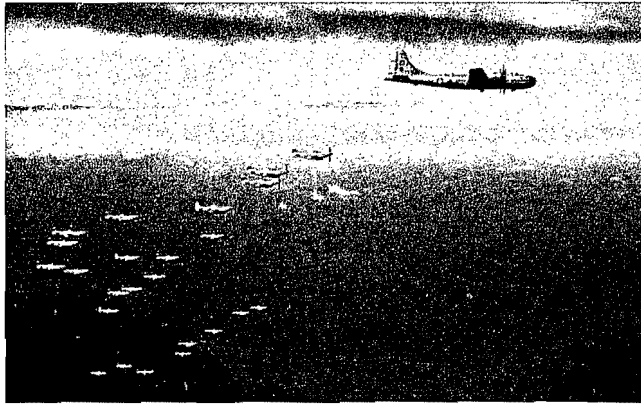
Appendix D Map of Iwo Jima



Iwo Jima Map 2: American Landing Zones and Japanese Defence Sectors

http://www.historyofwar.org/Maps/maps_iwojima2.html

Appendix E
B-29 Superfortress Data

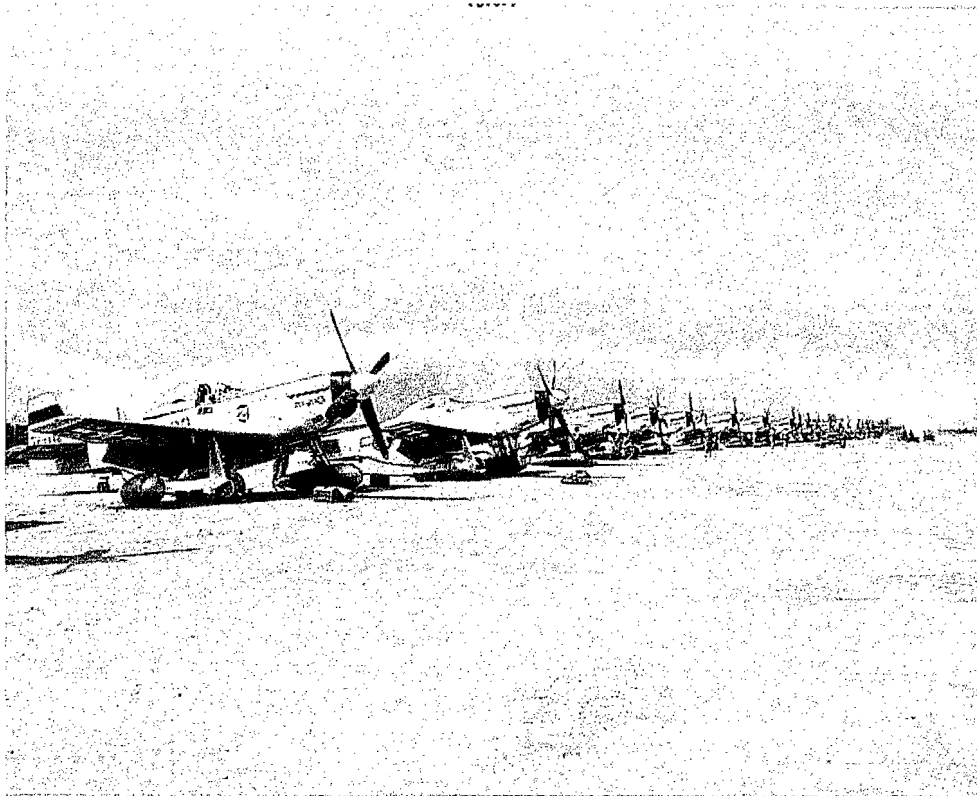


Specifications

First flight:	Sept. 21, 1942
Model number:	345
Classification:	Bomber
Span:	141 feet 3 inches
Length:	99 feet
Gross weight:	105,000 pounds (140,000 pounds postwar)
Top speed:	365 mph
Cruising speed:	220 mph
Range:	5,830 miles
Ceiling:	31,850 feet
Power:	Four 2,200-horsepower Wright Double Cyclone engines
Accommodation:	10 crew
Armament:	12 .50-caliber machine guns, 1 20 mm cannon, 20,000-pound bomb load

<http://www.boeing.com/history/boeing/b29.html>

Appendix F
P-51 Mustang Data
P-51s in line on Iwo Jima



http://picasaweb.google.com/7thfighter/IwoJima?authkey=Gv1sRgCIW06db_6oth&feat=email#slideshow/5299163150448181842

Specifications (P-51D):

Engine: One 1,695-hp Packard Merlin V-1650-7 piston V-12 engine

Weight: Empty 7,125 lbs., Max Takeoff 12,100 lbs.

Wing Span: 37ft. 0.5in.

Length: 32ft. 9.5in.

Height: 13ft. 8in.

Performance:

Maximum Speed: 437 mph

Ceiling: 41,900 ft.

Range: 1300 miles

Armament: Six 12.7-mm (0.5 inch) wing-mounted machine guns, plus up to two 1,000
Lb. bombs or six 127-mm (5 inch) rockets

<http://www.warbirdalley.com/p51.htm>

Glossary

AAF—Army Air Force

JCS—Joint Chiefs of Staff

POA—Pacific Ocean Areas

SPA—Southwestern Pacific Area

Bibliography

Alexander, Joseph H., Closing In: Marines in the Seizure of Iwo Jima. Wash< DC: History & Museums Div, USMC, 1994.

Alexander, Joseph H., "The Americans Will Surely Come." Naval History (January/February 1995).

Bradley, James, *Flags of our Fathers* (New York: Bantam Dell, 2000).

Burrell, Robert S. "Breaking the Cycle of Iwo Jima Mythology: A Strategic Study of Operation Detachment", *The Journal of Military History* Vol. 68, Iss. 4 (Oct 2004).

Cook, Haruko Taya and Cook, Theodore F., *Japan At War*, (New York: The New Press 1992).

Headquarters Expeditionary Troops, TASK FORCE 56 Report of Capture, Occupation, and Defense of Iwo Jima Enclosure A to Enclosure C Volume 1, 69. Gray Research Center Archives.

Hoffman, Jon T., "The Legacy and Lessons of Iwo Jima" *Marine Corps Gazette* (February 1995).

<http://www.acepilots.com/planes/b29.html>

<http://www.boeing.com/history/boeing/b29.html>

http://en.wikipedia.org/wiki/Bonin_Islands

<http://health.howstuffworks.com/diseases-conditions/death-dying/live-without-food-and-water2.htm>

http://www.historyofwar.org/Maps/maps_iwojima2.html

<http://www.ibiblio.org/hyperwar/AAF/III/index.html>

<http://www.iwojima.com/raising/lflage2.gif>

<http://iwo-jima-memorial.visit-washington-dc.com/>

http://picasaweb.google.com/7thfighter/IwoJima?authkey=Gv1sRgCIW06db_6oth&feat=email#slideshow/5299163150448181842

<http://www.warbirdsresourcegroup.org/URG/p51.htm>

<http://www.warbirdalley.com/p51.htm>

Isley, Jeter A. and Crowl, Philip A., *The U.S. Marines and Amphibious War: Its Theory, and Its Practice in the Pacific* (Princeton, N.J.: Princeton University Press, 1951).

Kuribashi, Tadamichi, Personal Letter dated August 2, 1944 to his wife, Gray Research Center Archives

LeMay Curtis E. and Yenne, Bill, *Superfortress: The B-29 and American Air Power* (New York: McGraw-Hill, 1988).

Lofgren, Stephen J., "Diary of First Lieutenant Sugihara Kinryu: Iwo Jima, January-February 1945", The Journal of Military History. Lexington: Jan 1995. Vol. 59, Iss. 1.

Molina, Paul. *Iwo Jima: 50 Years of Memories* (Dean H. Henney Productions, 1996) DVD.

Morison, Samuel Eliot, *The Two-Ocean War: A Short History of the United States Navy in the Second World War* (Boston: Little, Brown & Company, 1963).

Potter, E.B., *Nimitz* (Annapolis, MD: Naval Institute Press, 1976).

Pratt, Willia V., "What Makes Iwo Jima Worth the Price," *Newsweek*, 2 April 1945, 36.

Ross, Bill D., *Iwo Jima: Legacy of Valor* (New York: Vanguard, 1985).

Sakai, Saburo, Caidan, Martin, and Saito, Fred, *Samurai!* (New York: Nelson Doubleday Inc. 1957).

Schmidt, Harry Schmidt, Lieutenant General, U.S. Marine Corps, IWO JIMA, Commanding General, V Amphibious Corps Landing Forces, Iwo Jima. Gray Research Center Archives.

Smith, Holland M. and Finch, Percy, *Coral and Brass*, (Nashville: The Battery Press 1989).

Spector, Ronald H., *Eagle Against the Sun: The American War with Japan*, (New York: Vintage, 1985).

Vincent, Jack, Staff Sergeant USMC, "Water on Iwo", *Marine Corps Gazette*, Oct 1945, 52.

Werrell, Kenneth P., *Blankets of Fire: U.S. Bombers over Japan during World War II* (Washington: Smithsonian Institute Press, 1996).

Endnotes

- ¹ James Bradley, *Flags of our Fathers* (New York: Bantam Dell, 2000), 209-211.
- ² Joseph H. Alexander, *Closing In: Marines in the Seizure of Iwo Jima*. Wash<DC: History & Museums Div, USMC, 1994. 47.
- ³ Robert S Burrell. "Breaking the Cycle of Iwo Jima Mythology: A Strategic Study of Operation Detachment", *The Journal of Military History* Vol. 68, Iss. 4 (Oct 2004) 1147-1148.
- ⁴ Burrell 1148-1149.
- ⁵ Burrell 1149.
- ⁶ Ronald H. Spector, *Eagle Against the Sun: The American War with Japan*, (New York: Vintage, 1985): 145.
- ⁷ Burrell 1148.
- ⁸ Burrell 1150-1152.
- ⁹ Burrell 1157.
- ¹⁰ Burrell 1151 (Joint Staff Planners 312, "Seizure of the Bonins", 30 October 1943, Records of the Joint Chiefs of Staff: 1941-1945.
- ¹¹ Burrell 1155.
- ¹² Burrell 1156-1157 (JWPC 91/3)
- ¹³ Burrell 1158-1160
- ¹⁴ Burrell 1163.
- ¹⁵ Bill D. Ross, *Iwo Jima: Legacy of Valor* (New York: Vanguard, 1985), 17-18.
- ¹⁶ Burrell 1165.
- ¹⁷ <http://www.warbirdsresourcegroup.org/URG/p51.htm>
- ¹⁸ Kenneth P. Werrell, *Blankets of Fire: U.S. Bombers over Japan during World War II* (Washington: Smithsonian Institute Press, 1996), 183.
- ¹⁹ Werrell 184-185.
- ²⁰ Burrell 1165-1166; LeMay 191-202.
- ²¹ Alexander 14.
- ²² Alexander 14.
- ²³ Saburo Sakai, Martin Caidan, and Fred Saito, *Samurai!* (New York: Nelson Doubleday Inc. 1957), 276.
- ²⁴ Jon T. Hoffman, "The Legacy and Lessons of Iwo Jima" *Marine Corps Gazette* (February 1995): 73.
- ²⁵ Hoffman 73.
- ²⁶ Curtis E. LeMay and Bill Yenne, *Superfortress: The B-29 and American Air Power* (New York: McGraw-Hill, 1988), 108.
- ²⁷ Hansell 55
- ²⁸ LeMay 122
- ²⁹ Hansell 39
- ³⁰ Willia V. Pratt, "What Makes Iwo Jima Worth the Price," *Newsweek*, 2 April 1945, 36.
- ³¹ Sakai 284-286.
- ³² Sakai 286.
- ³³ Jeter A. Isley and Philip A. Crowl, *The U.S. Marines and Amphibious War: Its Theory, and Its Practice in the Pacific* (Princeton, N.J.: Princeton University Press, 1951), 434.
- ³⁴ Burrell 1171
- ³⁵ LeMay 124.

-
- ³⁶ E.B. Potter, *Nimitz* (Annapolis, MD: Naval Institute Press, 1976), 358.
- ³⁷ Samuel Eliot Morison, *The Two-Ocean War: A Short History of the United States Navy in the Second World War* (Boston: Little, Brown & Company, 1963) 470.
- ³⁸ Morison 537.
- ³⁹ Morison 528.
- ⁴⁰ LeMay 111
- ⁴¹ Alexander 7-8
- ⁴² Hoffman 73.
- ⁴³ Hoffman 74
- ⁴⁴ Spector 496-497
- ⁴⁵ Morison 422
- ⁴⁶ Burrell 1166.
- ⁴⁷ Werrell 185
- ⁴⁸ Werrell 186
- ⁴⁹ Hansell 34
- ⁵⁰ Burrell 1167
- ⁵¹ Sakurai 277
- ⁵² Headquarters Expeditionary Troops, TASK FORCE 56 Report of Capture, Occupation, and Defense of Iwo Jima Enclosure A to Enclosure C Volume 1, 69. Gray Research Center Archives
- ⁵³ Alexander 5
- ⁵⁴ Hoffman 73
- ⁵⁵ Alexander 5
- ⁵⁶ Hoffman 73
- ⁵⁷ Potter 358
- ⁵⁸ Potter 358
- ⁵⁹ Hoffman 72
- ⁶⁰ Hoffman 73
- ⁶¹ Hoffman 73
- ⁶² Headquarters Expeditionary Troops, TASK FORCE 56, Report of Capture, Occupation, and Defense of Iwo Jima, Enclosure A to Enclosure C, Vol 1; G-2 Report on Iwo Jima Operation 1 Apr 1945, pg 217 Gray Research Center Archives
- ⁶³ <http://health.howstuffworks.com/diseases-conditions/death-dying/live-without-food-and-water2.htm>
- ⁶⁴ Alexander 5
- ⁶⁵ Jack Vincent, Staff Sergeant USMC, Water on Iwo, Marine Corps Gazette, Oct 1945, 52.
- ⁶⁶ Sakai 286
- ⁶⁷ Ross 51-52
- ⁶⁸ Sakai 251
- ⁶⁹ Sakai 281-282
- ⁷⁰ Kuribashi, Letter dated August 2, 1944 to his wife, Gray Research Center Archives
- ⁷¹ Joseph H. Alexander, "The Americans Will Surely Come." Naval History (January/February 1995), 18.
- ⁷² Lofgren, Stephen J., "Diary of First Lieutenant Sugihara Kinryu: Iwo Jima, January-February 1945", The Journal of Military History. Lexington: Jan 1995. Vol. 59, Iss. 1; pg. 97

⁷³ Lofgren 97

⁷⁴ Vincent 52

⁷⁵ Vincent 52

⁷⁶ Paul Molina. *Iwo Jima: 50 Years of Memories* (Dean H. Henney Productions, 1996) DVD.

⁷⁷ Headquarters Expeditionary Troops, TASK FORCE 56, Report of Capture, Occupation, and Defense of Iwo Jima, Enclosure A to Enclosure C, Vol 1, Gray Research Center Archives

⁷⁸ Headquarters Expeditionary Troops, TASK FORCE 56, Report of Capture, Occupation, and Defense of Iwo Jima, Enclosure A to Enclosure C, Vol 1; G-2 Report on Iwo Jima Operation 1 Apr 1945, pg 217 Gray Research Center Archives

⁷⁹ Lieutenant General Harry Schmidt, U.S. Marine Corps, IWO JIMA, Commanding General, V Amphibious Corps Landing Forces, Iwo Jima.

⁸⁰ Sakurai 281

⁸¹ Holland M. Smith and Percy Finch, *Coral and Brass*, (Nashville: The Battery Press 1989) 10.

⁸² Headquarters Expeditionary Troops, TASK FORCE 56, Report of Capture, Occupation, and Defense of Iwo Jima, Enclosure A to Enclosure C, Vol 1; G-2 Report on Iwo Jima Operation 1 Apr 1945, pg 217 Gray Research Center Archives

⁸³ Headquarters Expeditionary Troops, TASK FORCE 56, Report of Capture, Occupation, and Defense of Iwo Jima, Enclosure A to Enclosure C, Vol 1; G-2 Report on Iwo Jima Operation 1 Apr 1945, pg 217 Gray Research Center Archives

⁸⁴ Smith 270

⁸⁵ Headquarters Expeditionary Troops, TASK FORCE 56, Report of Capture, Occupation, and Defense of Iwo Jima, Enclosure A to Enclosure C, Vol 1; G-2 Report on Iwo Jima Operation 1 Apr 1945, pg 217 Gray Research Center Archives

⁸⁶ Lofgren 97

⁸⁷ Smith 256

⁸⁸ Burrell 1176-1177

⁸⁹ Spector 502.

⁹⁰ Burrell 1176-1182

⁹¹ Craven 606

⁹² Craven 606

⁹³ Lofgren 97

⁹⁴ Haruko Taya Cook and Theodore F. Cook, *Japan At War*, (New York: The New Press 1992) 277-280.

⁹⁵ Cook 281-291