

The Blockade of Japan

INTRODUCTION

The closing months of World War II in the Pacific have been researched by countless historians, but no definitive account has been written nor is one likely to be. There is a dearth of primary evidence that can point to specific important facts about the end of the war. Most of the controversy of history revolves around the atomic bombs and the way the United States and Japan ended the war. Critics of the atomic bomb and its use often write about the alternatives to the bomb, including: Invasion, blockade, bombardment, modification of unconditional surrender terms, or some combination of these. Historians of the traditional view often use the prospect of massive losses of life that would result from an invasion as justification for the devastation of the atomic bombs. In this paper I will focus on the naval components of the blockade of the Japanese Home Islands. In the first section I will outline the history of the development of these naval tactics. In the second section I will shift to the specifics of the blockade of Japan and how it affected Japanese prospects for victory. In the third section I will discuss the prospects of blockade tactics for ending World War II in the Pacific. In the final section I will discuss possible and probable results of these tactics had the war continued.

FINDINGS

In the following sections I will show how the blockade strategy has evolved over time and how it was used in the Pacific in Japan. I will show that, if the blockade was employed to bring the Japanese to unconditional surrender, tens of millions of Japanese would likely have died of starvation and starvation related causes. If this had happened, the historical controversy surrounding the end of the war in the Pacific would have been much different.

HISTORY OF NAVAL BLOCKADE TACTICS

The first exposure that Americans had to naval blockade tactics occurred before the United States existed. During the revolutionary war the British used blockade and commerce attacks to try to stop the supply of goods coming into the colonies. At this time these tactics had very interesting international rules attached to them. One of these rules was that if a belligerent state was blockading another state these states were in fact at war with each other. This at war status allowed neutral states certain rights of commerce despite the blockade. Even if the port was guarded, ships from neutral states wanting to trade in non-war related goods could do so.¹ During the Napoleonic Wars prior to the War of 1812 the United States itself had insisted on another international rule, effectiveness. This rule stated that in order for a blockade to be legal it had to also be enforced. This insistence would later be regretted by the Union during the civil war. Great Britain again blockaded the U.S. during the War of 1812. As stated above Great Britain not only had to announce a blockade, they also had to send the ships required to block American ports.² By 1813 the blockade went from New York to New Orleans. In 1814 it was total and cut merchant traffic to 11% of 1811 numbers.³

The Civil War

The first real opportunity the United States Navy had at implementing a blockade was during the Civil War. The decision to blockade the confederacy was not an easy one. President Lincoln knew that to implement a blockade amounted internationally to a de facto declaration of war against the Confederacy. This declaration would give neutral countries rights of commerce to

¹ E.B. Potter et al., *Sea Power; A Naval History*. (Englewood Cliffs, New Jersey: Prentice Hall, 1960), 87.

² Craig L. Symonds, *Charleston Blockade: The Journals of John B. Marchand, U.S. Navy 1861-1862*. (Newport: Naval War College Press, 1976), xi.

³ Potter et al., 212-213.

conduct trade with the Confederacy. If the Union was not at war with the Confederacy, neutral countries had no such rights. Union leadership tried some legal and diplomatic maneuvers to “maintain a claim of the indissolubility of the union”, but eventually they had to accept the confederacy as a belligerent enemy and therefore had to enforce the blockade.⁴ On April 19, 1861 President Lincoln ordered a blockade from South Carolina to Texas.⁵ The confederacy engaged in a tactic called blockade running, which involves using a fast ship to transport goods. This ship has to outrun the bigger war ships used in a blockade.⁶ The Union blockade ultimately allowed it to prevail in the naval battle against the Confederacy. The naval battles during the Civil War were not as important as the land battles. However, they do show the evolution of United States naval strategy by challenging the long held American foreign policy tenets of neutral rights and free commerce. The Civil War showed the Union the strategic importance of a blockade.⁷ However, these strategies had little use until revived by the father of naval strategy Alfred Thayer Mahan.

Tactics in World War I

Mahan believed that neutrality rights and rights to commerce during war were to the benefit of both the neutral countries and to the weaker power.⁸ Throughout the modernization of the navy in the late 19th and early 20th centuries, war on commerce remained an essential strategy to winning a war at sea. In 1897 Mahan outlined five reasons as to why war on commerce was so effective. He stated that, attacks on commerce:

1. Attack the communications of the state.

⁴ Symonds, x-xi.

⁵ Potter et al., 250.

⁶ Ibid, 255.

⁷ Lawrence Lenz, *Power and policy: America's first steps to superpower, 1889-1922* (New York: Algora Pub, 2008), 8.

⁸ Ibid, 8.

2. Intercept its food and supplies.
3. Starve its life.
4. Cut the roots of power.
5. Cut the strength of its war efforts.⁹

In World War I both sides realized the importance of attacks on commerce and blockade and both Great Britain and Germany attempted to build a blockade of each other. To Great Britain's dismay Germany had effectively stockpiled enough resources to continue its war activities for four years in isolation from the goods of neutral countries.¹⁰ This did not mean that Germany wanted to go without commerce. They still attempted to trade with other states as well as implement their own blockade of the allies and specifically of Britain. At this time the United States was one of the neutral countries that Germany traded with. Early in World War I rights of commerce for neutral countries were still intact. In fact neutrality rights were very important to the United States before they got involved in the war. One of the things that finally brought the U.S. into the war against Germany was the German policy of unrestricted U-boat warfare. Potter and Nimitz state, "The note proclaiming this decision as delivered to the United States contained the mocking provision that one American vessel a week would be allowed..."¹¹ This led Wilson to cut diplomatic relations with Germany. Subsequently German U-boats sank some American ships and forced President Wilson's hand. The entry of the United States into World War I was extremely fortunate for the British. The U.S. not only re-supplied Great Britain, but also loaned them the money to pay for it. The American entry also effectively stopped the transfer of goods from America to Germany.¹²

⁹ Ibid, 7.

¹⁰ Potter et al., 455.

¹¹ Ibid, 465.

¹² Lance E. Davis and Stanley I. Engerman, *Naval Blockades in Peace and War: An Economic History Since 1750*. (New York: Cambridge University Press, 2006), 196.

World War I Innovations

Several innovations changed blockade strategy during World War I. Long range guns, advances in the submarine, advances in the mine, and airplanes all made close blockades impossible.¹³ However, mines also greatly aided the blockade strategy as well. With mines arrayed along shallow channels neutral countries could not deliver their goods to belligerent countries. At this point rights of commerce were still in effect. In order to deliver their goods, neutral countries had to allow the British Navy to search their cargo and seize any goods they deemed as contraband. Once the ship's cargo was approved the captain received navigation instructions that would allow them to bypass the mines. Initially the British Navy had two lists: One with allowable cargo and the other with a list of illegal contraband. As the war continued the British would move an item to either side to serve their purposes.¹⁴ At the end of WWI the British effectively blockaded all of Germany and treated everything as contraband. Their justification was that even food was a military resource. Frank states:

This produced vast privation and death among not only combatants but more so among noncombatants, notably the young, the old, and the ill...The blockade killed perhaps a half-million German civilians by starvation and its side effects; it was also a decisive factor in Germany's defeat.¹⁵

In light of this, Germany claimed that the blockade should be considered uncivilized warfare aimed at women and children.¹⁶ Perhaps most important to the analysis of this paper, the blockade was a huge factor in pushing the German leadership to a conditional surrender. As is well known, the resultant peace was short lived.

¹³ Potter et al., 455.

¹⁴ Ibid, 456.

¹⁵ Richard B. Frank, *Downfall: the end of the Imperial Japanese Empire* (New York: Random House, 1999), 21.

¹⁶ Potter et al., 456.

BLOCKADE IN JAPAN

Japan first received the attention of the United States when it defeated China in the Sino-Japanese War of 1894-1895 and again in 1904-1905 in the Russo-Japanese War. Of these the Russo-Japanese War was more significant. It marked the first major victory of an Asian nation over a Western one. American naval strategists began planning for a possible war with Japan in 1906. These plans became known as War Plan Orange.¹⁷ Ultimately the plan had three phases:

1. Japan was expected to strike south and west to gain access to needed resources.
2. The United States Navy would fight battles of attrition across the central Pacific Ocean to gain advanced bases. Finally an all out decisive naval battle would be fought and won by the U.S. allowing them to press on to the home islands.
3. Complete encirclement of the home islands. Capture and occupation of all outlying Japanese islands. A blockade intensified by an air war over Japanese territory.¹⁸

Japan's Access to Resources

The blockade of Japan had three main components: attacks on commerce, mine-laying, and interdiction. These tactics were especially devastating to a country like Japan which had to import a large percentage of its resources. In peacetime, Japan's economy needed ten million tons of shipping to operate. About 60% of this was provided by Japanese merchant vessels, much of the rest was supplied by those countries that became Japan's enemies during the Pacific War.¹⁹ The most important resource to the war effort was oil. Japan needed between six and seven million tons of it per year to maintain an offensive war. A mere 250,000 tons were produced in Japan. The Dutch East Indies could supply Japan with the needed oil, however Japan's main problem was transporting it. They had to bring the oil back to Japan to refine it

¹⁷ Frank, 20.

¹⁸ Edward S Miller, *War Plan Orange: the U.S. strategy to defeat Japan, 1897-1945* (Annapolis, Md: Naval Institute Press, 1991), 4.

¹⁹ Frank, 77-78.

and then move the refined petroleum back to the front. This is where allied commerce attacks came in. As a result of these attacks on commerce, oil imports fell to zero after March of 1945.²⁰

Other important resources were also affected. The following table, using data from Parillo, shows the decline in imports for these essential materials:

Figure 1: Selected Japanese Imports

By fiscal year, April 1 to March 30, in tons and percent change from previous year

	Coal		Iron Ore		Rubber		Lumber	
1941	24,144,617		4,874,674		31,818		2,023,594	
1942	19,595,929	81%	4,663,776	96%	44,085	139%	1,259,608	62%
1943	14,030,076	72%	3,292,956	71%	41,276	94%	349,785	28%
1944	8,294,748	59%	1,073,065	33%	19,595	47%	281,597	81%
1945	1,780,565	21%	129,955	12%	0	0%	19,424	7%

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It was only in the last few months of the war that the blockade became total. The blockade did not begin with allied warships intercepting Japanese freighters. It really began with submarine attacks on the Japanese Merchant Marine fleet as it sailed from Japan to the Southern Resources Area and back (SRA). Once the SRA was cut off from Japan, nearly all imports came from Korea and China. The Japanese cleverly deployed mines in the Sea of Japan to keep the allied submarines out. Advancements in sonar eventually allowed these submarines back into the Sea of Japan where they destroyed virtually all of Japan's remaining merchant fleet. The fleet was vulnerable for two reasons. First Japanese naval doctrine, "presumed decisive fleet engagement would decide the course of the war, and not much attention had been given to

²⁰ Ibid, 81.

²¹ Mark P. Parillo, *The Japanese Merchant Marine in World War II* (Annapolis: Naval Institute Press, 1993), 244-246. These figures do not include the last seven months of fiscal 1945 as they occurred after the Japanese surrender.

convoy and antisubmarine attacks.”²² Second, as Mark Parillo argues, the Imperial Japanese Navy (IJN) was working with limited funds and felt that they had to build the front line first. This is why the IJN’s plans for an escort vessel were continuously delayed.²³ These would prove to be very costly tactical errors. If defensive strategy had been deemed as honorable as offensive strategy and the IJN would have used its resources accordingly, the Japanese merchant fleet may have survived longer. There were two main routes of resupply employed by the Japanese merchant fleet. The first was between Manchuria and Japan across the Sea of Japan and the second route from the SRA to the Home Islands.²⁴ Of the two, the route from the SRA was of course more precarious as it was far longer and less isolated than the other. Accordingly access to the SRA had been nearly eliminated by March of 1945. This put greater emphasis on the supplies imported from mainland China and Korea across the Sea of Japan.²⁵

Submarines

The nature of submarine attacks changed dramatically for the U.S. between World War I and World War II. Potter states:

When the American order for unrestricted submarine warfare against enemy shipping was issued a few hours after the Japanese attack on Pearl Harbor, it was a break with tradition for American submariners, who had been trained for operations in accordance with international conventions. After all, the United States had entered World War I in protest against the German use of unrestricted submarine warfare.²⁶

The justification for this was encapsulated in the philosophy of total war. In total war the entire merchant marine fleet is designated as part of the war effort. There is no difference between

²² Edward J Drea, *In the service of the Emperor: essays on the Imperial Japanese Army* (Lincoln: University of Nebraska Press, 1998), 50.

²³ Parillo, 8.

²⁴ Potter et al., 809.

²⁵ Ibid, 810-811.

²⁶ Ibid, 809.

tankers and merchant vessels.²⁷ Every ship was fair game for the submarines regardless of the cargo it carried. The only thing preventing the complete destruction of the merchant fleet was the Imperial Japanese Navy's use of mines scattered along the entrances to the Sea of Japan. Submarines could not enter safely, at least not initially. The answer to the mine problem came in the form of a technological advancement of electronic sonar which allowed submarines to distinguish between ships and mines.²⁸ Charles A. Lockwood, commander of the submarine force of the Pacific Fleet, planned and carried out Operation Barney, the penetration of the Sea of Japan following the technological breakthrough. Nine submarines entered the Sea of Japan and proceeded to sink several merchant vessels. As stated above the Japanese navy and army were unable or unwilling to employ defensive strategies other than mines making the destruction of the merchant fleet easier for the U.S. Navy.²⁹ Once the Sea of Japan and the Inland Sea came within range of the B-29 bombers an equally devastating advancement would help to cripple Japan's ability to transport materials. That advancement was aerial mining.

Mines

While submarines actively destroyed much of the merchant fleet, mines were the most cost effective strategy of the blockade.³⁰ Frank states, "Admiral Nimitz proposed a concerted aerial mining campaign against what the Americans termed the Inner Zone of the Japanese Empire, roughly the area north of Shanghai."³¹ Aptly and unforgivingly designated as Operation Starvation, the aerial mining campaign dropped mines in the shallow waters of the Sea of Japan and the Inland or Seto Sea. Initially army planners led by General Arnold opposed the mine

²⁷ Potter et al., 809.

²⁸ Ibid, 811.

²⁹ Ibid, 811.

³⁰ E.A. Johnson et al., *Mines Against Japan*, (Maryland: Naval Ordnance Laboratory, 1974), 13.

³¹ Frank, 77.

laying operation, but General Lemay immediately saw its strategic value and lent his considerable support and the required B-29 bombers to the mission.³² Mines laid in the shallow straits of the Sea of Japan had obvious consequences for the importation of resources from Korea and China. The effectiveness of aerial mining can be shown by the rapid decrease in the tonnage passing through the Shimonoseki Strait. In March of 1945 over 500,000 tons passed through. In August that number dropped to less than 20,000 tons.³³ The mines laid in the Inland Sea had a different purpose.

Domestic Transportation

An often overlooked consequence of the blockade strategy was domestic transportation. The Inland Sea was extremely important to the domestic transportation of resources in the Japanese home islands. Transportation via sea lanes was often faster and less expensive than rail and is the main reason for Japan's underdeveloped rail system at the time. Before the end of World War II, 60% to 75% of domestic transportation was done by shipping. Once Operation Starvation was underway it forced the Japanese to turn to their underdeveloped rail system as the primary means of moving resources between Hokkaido, Honshu, Shikoku, and Kyushu.³⁴ Between March 27, 1945 until surrender on August 14 operation starvation dropped 13,102 mines in Japanese waters.³⁵ Figure 2, reprinted from Frank, shows the number of ships and tons of shipping destroyed by each component of the blockade.

³² Frank, 79.

³³ Johnson, 27.

³⁴ Frank, 78-79.

³⁵ Johnson, 114-15.

Figure 2: Tonnage destroyed by different means in 1945

<i>Month</i>	<i>Mines</i>	<i>Submarines</i>	<i>Land-based Aircraft</i>	<i>Carrier- based Aircraft</i>	<i>Miscellaneous Causes</i>
April	17/33,500	19/68,164	11/19,743	35/92,173	4/3,386
May	65/163,683	16/31,194	35/68,467	55/107,020	2/7,359
June	59/122,546	46/91,339	11/23,806	64/123,384	7/8,239
July	65/154,681	14/29,497	18/30,634	80/155,221	1/1,892
August	16/37,129	5/15,433	15/18,511	33/62,840	1/2,230
<i>Total</i>	<i>222/511,539</i>	<i>100/235,627</i>	<i>90/161,161</i>	<i>267/540,638</i>	<i>15/23,106</i>

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Mines alone accounted for over 30% of all ships destroyed and nearly 35% of the total tonnage destroyed. Overland transportation also garnered attention. As you can see carrier-based aircraft destroyed even more ships and tons of shipping than mines did during the last months of the war. One such incident “ranks as the most devastating single strategic-bombing success of all the campaigns against Japan.”³⁷ Halsey’s fleet, designated task force 38, fresh off of its support role in Okinawa moved to Hokkaido. Realizing that Japan’s war machine was being fed by coal coming from Hokkaido, Halsey destroyed the transportation ability between Hokkaido and Honshu.³⁸ Another very important resource also comes from Hokkaido, rice. While destroying the means of transporting a resource strictly used to power the war machine, Halsey also largely destroyed the means of Japan’s food distribution from Hokkaido, which in 1939 produced 1.1 billion pounds of rice second only to Niigata prefecture at nearly 1.4 billion pounds.³⁹

³⁶ Frank, 156.

³⁷ Ibid, 157.

³⁸ Ibid, 157.

³⁹ Army Service Forces Headquarters *Civil Affairs Handbook Japan: Section 7: Agriculture*. (Washington D.C. 1944) 83.

BLOCKADE VS INVASION

As stated above plans for naval conflict with Japan had been 35 years in the making. In contrast plans for an invasion were not made until well into the war. In 1927, the outlook for an invasion was considered by army planners as, "extremely doubtful...regardless of our greater potential man power and munitions, because the enemy can always concentrate forces greatly superior to the successive expeditions into which our land forces must be organized for overseas transportation."⁴⁰ The mountainous terrain and climate of Japan would also be a huge disadvantage to any invasion force, especially those of the U.S. due to its reliance on heavy equipment. Given this widely shared view, how did invasion become the optimum plan to force Japan's capitulation? By April of 1944 the Strategy Section of the Operations Division of the War Department pronounced that blockade and bombardment could not cause the unconditional surrender of Japan. Therefore, the only possible way to accomplish U.S. war goals was to invade. Reasons given for this change in thinking regarding surrender prospects was heavily influenced by island battles that showed the resiliency, bravery, and fanaticism of Japanese soldiers.⁴¹ Admiral King still believed in a surrender brought about by blockade and bombardment. He advised operating from the China coast, which would allow further interdiction of supplies as well as bases for B-29 bombing runs further North of Tokyo. Admiral Nimitz when asked about the three basic strategies for ending the war, blockade and bombardment, invasion, and a combination of the two, favored blockade and bombardment to avoid "enormous casualties". He agreed with Admiral King that the U.S. should proceed to the China coast to further encircle and isolate Japan. Nimitz argued that doing this would guarantee Soviet involvement in the war.

⁴⁰ Miller, 165.

⁴¹ Frank, 27-28.

At this time he also agreed with Operation Olympic as a means of acquiring a more forward area to operate from.⁴²

Joint staff planners estimated that a campaign of blockade and bombardment would demand the commitment of twenty-eight divisions, whereas the Homeland invasion would require thirty-six divisions. While the former was projected to end the war by the fall of 1946, invasion might conclude it by June of 1946. Finally, the Joint staff planners recommended the following 'Optimum Strategy'

- a. Application of full and unremitting pressure against Japan by strategic bombing and carrier raids to reduce war-making potential and morale in preparation for invasion;
- b. Use air and naval forces to tighten the blockade, to include severing communication with Korea;
- c. Limit contributory operations to only those essential as prerequisites to invasion;
- d. Occupy such industrial areas as required to bring about unconditional surrender and to establish absolute military control.⁴³

General Marshall framed Operation Olympic as, "...a lodgement in Kyushu is essential both to tightening our strangle hold of blockade and bombardment of Japan, and to forcing capitulation by invasion of the Tokyo Plain."⁴⁴ Marshall came to believe that the only way to force unconditional surrender was to invade. He held no illusions of the ability of air power to force the required capitulation. Marshall thought that Japanese divisions on Kyushu would be equal to or less than nine. Thus his casualty figures were low.⁴⁵

⁴² Frank, 33-34.

⁴³ Ibid, 36.

⁴⁴ Ibid, 140.

⁴⁵ Ibid, 146.

Admiral King didn't think an invasion would be necessary, but supported its planning and preparation anyway. He complained to Truman about the casualty estimates. Admiral Nimitz changed his mind on Operation Olympic during the battle for Okinawa. He said:

Unless speed is considered so important that we are willing to accept less than the best preparation and more than minimum casualties, I believe that the long range interests of the U.S. will be better served if we continue to isolate Japan & to destroy Jap forces & resources by naval and air attack.⁴⁶

King considered Nimitz's change of heart a trump card that he could use prior to Operation Olympic. He thought that if he made it known that both he and Nimitz opposed the operation that he could convince Truman to veto the invasion.⁴⁷

Invasion Prospects

Japanese leadership anticipated that the American people would not abide a long drawn out war. Therefore, they assessed that blockade and bombardment would not be the optimum strategy used to close out the war. This left invasion as the only conceivable course of action.⁴⁸ Of course we cannot know how the American people would have reacted to a longer war. However, we do know that the American leadership was in fact concerned about the length of the war and domestic support. With this knowledge the Japanese correctly guessed the probable site of invasion. Consequently the number of divisions defending Kyushu ballooned from the originally expected three, to thirteen. This vast increase in troops in Kyushu was made known to U.S. planners in early June through interceptions of the military code Ultra. These disclosures also revealed that the Japanese were massing their forces along the southern part

⁴⁶ Frank, 147.

⁴⁷ Ibid, 147.

⁴⁸ Ibid, 84.

of the island. This revelation gave support to Admiral Nimitz's view that Operation Olympic was unwise. At this time the Joint Chiefs of Staff agreed.⁴⁹

Had the Japanese not surrendered on August 14th it is likely that a strategy combining blockade, bombardment, and invasion would have been employed. I am not convinced that Admiral King and Admiral Nimitz could have prevented an invasion by voicing their opposition to Operation Olympic.

If Operation Olympic had gone forward I am convinced that casualties would have been high on both sides. The idea that at the close of the war strategists were weighing the pros and cons of invasion vs. the atomic bomb vs. blockade and bombardment is not entirely accurate. All would be used until Japan surrendered. However, Frank states:

Only the blockade/bombardment strategy carried the unanimous endorsement of senior American officers, and only this part of the overall U.S. strategy reached partial completion. Between blockade and bombardment, the former was the more potent force. Japan's war economy collapsed for lack of vital raw materials, especially oil. The end of the war found the Japanese system of maritime transport at or near extinction.⁵⁰

An argument can be made at this point that the strategy that caused the most damage to Japan was indeed the blockade.

PROSPECTS OF THE BLOCKADE ENDING THE WAR

Ascertaining whether the Blockade could have ended the war in Japan without the use of the atomic bombs is difficult and further complicated by the Soviet invasion. The answer lies with how much importance is attributed to the separate shocks of Soviet invasion and atomic

⁴⁹ Frank, 212.

⁵⁰ Ibid, 333.

bombing. Tsuyoshi Hasegawa argues that soviet entry into the war was a stronger factor in Japanese surrender than the atomic bombs.⁵¹ The traditional view on the atomic bombs espouses the exact opposite. If the atomic bombs were the main catalyst for Japanese surrender, then their absence would have obviously prolonged the war. However, if Soviet entry was the main cause, then it would have likely occurred around the same time. The truth is probably somewhere in between. I believe that without the use of atomic bombs the surrender would have likely occurred sometime after August 14, 1945 and with some probability of the war lasting until at least the beginning of 1946 given that the United States stuck with a policy of unconditional surrender. Many counter-factual authors cling to this idea of the blockade being able to end the war as evidence against the necessity of the atomic bombs. They point to Japan's obvious lack of resources and the destruction of many of the cities on the Home Islands as evidence of a defeated Japan. However, many historians have refuted these claims by citing the mass of Japanese troop movements to Kyushu as evidence of a willingness to continue fighting. As pointed out by these historians defeat and surrender are two different things. The Japanese may have been defeated, but they were not ready to surrender. Thus the blockade alone would not have caused surrender as quickly as use of the atomic bombs. These same counter-factual authors seldom analyze the true effects a prolonged blockade would have had on the Japanese people.

EFFECTS OF A PROLONGED BLOCKADE

As stated above, Japan relied on her sea lanes for the transportation of the vast majority of her domestic and international resources. Once aerial mining and interdiction efforts destroyed this

⁵¹ Hasegawa, 298

means of transportation, Japan was left with only the rail system to do the job. At the end of the war railways and transportation systems were high priority strategic bombing targets. It is likely that Japan's ability to transport food would have been greatly compromised if not destroyed altogether by the fall of 1945. The transportation system is highly important because the high population centers in Japan always have a rice deficit requiring massive transportation from rice surplus areas. For example, in 1939 Tokyo prefecture had a rice deficit of 2.5 billion pounds.⁵² Coupled with a terrible rice harvest in 1945 the toll of the blockade would likely have been enormous. American planners did not anticipate a food shortage of the magnitude that would have occurred. They thought the rice harvest of 1945 would produce nine million tons. In fact the Japanese government estimated it at just over six million tons.⁵³ The rice shortage prompted Japan to take rice from Korea, thereby putting Korea at risk of starvation. Rationing ensued and at the end of the war Japanese people were consuming an average of 1680 calories per day. As a consequence of this, diseases began to increase greatly. Between 20 and 25% of the urban population suffered from severe malnutrition by the end of the war. In May of 1946 the amount of food delivered to Tokyoites dropped to 800 calories. Some estimated that 10 million civilians would likely have died due to starvation and diseases caused by malnutrition.⁵⁴

If fire-bombing and atomic bombing were later deemed beyond the pale of civilized warfare, how does the blockade escape this same criticism? Prior to the First World War, the type of blockade applied by allied forces in the Pacific was considered extremely barbaric because it did

⁵² Army Service Forces, 83.

⁵³ USSBS *The Japanese Wartime Standard of Living and Utilization of Manpower*. (Washington D.C. 1947) 3-4.

⁵⁴ Frank, 350-351.

not discriminate between combatants and noncombatants. While the atomic bombs carry more significance due to radiation and the psychological effects of the bomb, the blockade would in all likelihood have killed far more people.

Counterfactual authors assert that Japan was defeated and that they were trying to sue for peace before the atomic bombings. Frank states, "Other critics have complemented or supplanted these dominant themes with assertions that conventional blockade or bombardment alone would have ultimately induced Japan's surrender as well."⁵⁵ While counter-factual historians may be correct in thinking that the blockade could have forced surrender, they never attempt to quantify the massive loss of life required in that scenario.

CONCLUSION

The main strategy of the United States in the closing months of World War II in the Pacific, blockade, is often overlooked, simplified, or misunderstood. The very word blockade conjures images of a defensive war. The blockade gets buried in the argument of invasion vs. the atomic bombs, and is only brought up as a possible alternative to both. Analysis of the blockade beyond this is generally lacking in counter-factual arguments. It is very important to understand what the blockade actually entailed before one can use it to support a historical argument. Over time the United States Navy's blockade strategy changed from simple interdiction of war material to total destruction of the opposing merchant fleet and interdiction of all materials including food. The blockade strategy involved submarine attacks on merchant ships, mine-laying campaigns that disrupted Japan's ability to transport not only war material, but, much

⁵⁵ Frank, 332.

more importantly, food to its populace, and encirclement to prevent the import of resources to the Home Islands. All of which meant that Japan would have to be self-reliant. They would have to produce enough food to survive within the Home Islands. Given that most rice production was far removed from population centers, transportation was essential to keeping civilians alive. Even if the rice harvest of 1945 hadn't been a disaster, the destruction of the transportation system would have made it difficult if not impossible to get the rice to the densely populated areas of Japan. This argument of course is based on the idea that U.S. leadership would have maintained its war goal of unconditional surrender. There is no evidence that President Truman would have accepted less, at least not in the short term. If Operation Olympic had produced casualties in proportion with those of the battle of Okinawa he might have been more likely to modify the surrender terms. By this point however the damage done by the blockade to the food supply would have already taken its toll. Not to mention if plans to attack the Japanese food supply had gone forward. The blockade of Japan was wildly successful. If not for the combination of the atomic bombs and Russian entry into the war, the controversy surrounding the end of war tactics employed by the United States would be far different. Instead of counting the deaths of Japanese civilians in the hundreds of thousands due to the atomic bombs and the fire-bombing of Japanese cities, we would be counting the millions of civilians who as a direct result of the blockade would have died of starvation and starvation related disease. The difference between killing with a blockade and killing with atomic and incendiary bombs is the nature of responsibility. Killing with the blockade is indirect. The aptly titled Operation Starvation would have ended the war in some way, either unconditionally through sheer attrition and possible revolt or conditionally through the "compassion" of leaders. Before

counter-factual authors use the blockade as evidence of alternatives to invasion we should understand what the blockade actually meant. I do not count an option that would have killed ten times as many people as a viable alternative. If the atomic and incendiary bombings can be judged as atrocities, then the Allied blockade in its WWII form should be judged in the same way.

Bibliographic Essay

When I began researching blockade strategy I was pleasantly surprised by the quantity and quality of existing research. This is perhaps due in part to the U.S. military's commitment to keeping statistics on anything and everything it is involved in. Because of this I had more numbers and hard data than I could possibly have used in the time allotted. There is enough information on this topic to give it the thorough data analysis it deserves. I intend to expand this paper in the future.

The vast majority of the sources I consulted were excellent. A few were critical to this research project and I will start with them. First and foremost, Richard B. Frank's Downfall was not only a great source of information and analysis, but also a great jumping off point for other sources. Frank is a military historian; therefore he uses a lot of numbers in his analysis. This and his quantity of citations leads me to trust the validity of his data. His use of this data can sometimes be overwhelming as he gets very specific. Detractors might point out the fact that Frank does not read Japanese and thus does not have as much access to materials and has to rely on translated documents.

Frank includes nearly 80 pages of notes listing his sources. These notes directed me to the United States Strategic Bombing Survey (USSBS) and the Army Service Forces Manual: Civil Affairs Handbook Japan (CAHJ), which has a plethora of data about the effect of the blockade on Japan's resources and people. The USSBS is often derided as a biased source of information. With this in mind I tried to steer clear of any conclusion or analysis and stuck to the numerical data presented. The USSBS and the CAHJ give very detailed information on the living conditions

of the Japanese people before and during the war as well as statistics on imported and domestically produced resources.

Frank also led me to Edward S. Miller's War Plan Orange. Miller was essential to understanding and researching the formation of naval strategy in regards to Japan. In addition to being data driven War Plan Orange also showed the evolution of naval tactics which was very important to my research. The fact that Miller was a corporate businessman prior to the writing of this book may give other researchers pause, but I think it gave him a fresh perspective to analyze all of this war data. Another source I relied heavily on was Sea Power edited by E.B. Potter and Chester W. Nimitz in 1960. Sea Power was a really great source for an in depth history of the U.S. Navy and naval strategy. It was invaluable to the corresponding section of the essay. I expected Sea Power, written from the perspective of the U.S. Navy, to be biased in evaluating war strategy. However, the discussion of strategy was objective and informative. In fact it is used as a textbook at the United States Naval Academy where Potter was the lead historian.

To get at the Japanese side, I used Drea's In the Service of the Emperor. Drea provided me with some insight into the Imperial Japanese Navy. I also used Mark Parillo's The Japanese Merchant Marine in World War II. It includes a great deal of specific data on the effects of the U.S. naval attacks on Japanese commerce. I would have liked to have used Kaigun by David C. Evans and Mark R. Peattie to further examine the tactics, strategies, and capacity of the Imperial Japanese Navy, but by the time I received the book there was no more time.

Another source I was able to use but only sparingly was Mines Against Japan originally written in 1947 in classified form by Dr. Ellis A. Johnson. It contains a lot of primary source

documentation about the use of mines in World War II. This book was originally classified material and wasn't published in its current form until 1974. It is a full 300 pages just on mines and most of that on mines used in WWII against Japan. I also received this source late and would have liked to include a more complete analysis of mine-warfare using this book.

I used Alperovitz and Hasegawa mainly as sources of counter-factual claims. In my expansion I intend to gather many more examples of counter-factual analysis. I should have used Embracing Defeat by John Dower as he is a master of analyzing the human side of the immediate post-surrender struggle to survive. Dower will also be used in my expansion of this topic.

I will look to Kaigun, Mines Against Japan, and more analysis of submarine warfare to solidify the analysis of those aspects of the blockade in Japan. I also plan on adding a section analyzing blockades post WWII, including the Korean War, Cuban Missile Crisis, and Vietnam War. I suspect the tactics have changed from total blockade to blockade of war material exclusively. This may have more to do with these conflicts not being in the vein of total war. This question necessitates an analysis of total war. I hope to find more source documentation, especially of both the U.S. and Japanese leadership. I could not locate any Joint Chiefs of Staff meeting documents. I am limited in the same way as Richard Frank in that I cannot read Japanese so I will have to rely on translations of source documents relating to Japanese leadership.

There are several other sources listed in my bibliography that I did not discuss in this essay. Each source had something to offer to my still incomplete analysis of blockade tactics in Japan. They will all be further analyzed to complete this research in the future.

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