



Truman's Countdown to Kyushu: Reassessing Pacific War Data and Decisions (February-August 1945)

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Truman's Countdown to Kyushu:
Reassessing Pacific War Data and Decisions (February-August 1945)

Gina Palmer

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Abstract

Wars end in a variety of ways. One of these is war termination resulting from one adversary's use of superior force to induce or compel surrender. Among all the cases of war termination by such means, one stands out and is the focus of this thesis: the Allied use of force against Japan to end the Pacific War. The decision to drop the bombs, made by President Harry S. Truman in the spring and summer of 1945, was justified by Truman at the time on the basis of a set of claims about Japanese *capacity* and *will* to pursue the war. Japan's capacity and will were such, Truman stated in addressing the American people, that unleashing the atom bombs on two Japanese cities was America's only recourse to avoid prolonging the war, which if continued would lead to unacceptable losses of life, both for the U.S. and for Japan. Truman's claims about Japan's fighting capacity and will have long been disputed. Some have argued that Truman exaggerated Japanese capacity and will; others have embraced his rationale, even as they have deplored the use of the bombs themselves. Much of the information and analysis that formed the basis for Truman's claims at the time, in the spring and summer of 1945, about Japanese capacity and will to pursue the war are not fully known. However, now it is possible to assess such claims retrospectively using a data source digitally published in 2014: The Gray Book, a 4,000-page compilation of granular data collected by the U.S. military on Japanese troop, sea and air actions, from December 1941 until August 1945. Before 2014, data in The Gray Book were too difficult for outside parties to access to be easily analyzable to verify the aggregated recommendations of Truman's advisors;

however, recently, they are digitized and available, making finer analysis possible. This retrospective examination concludes that the data generally support Truman's claims about Japanese will and capacity. Granular analysis supports his arguments that, despite U.S. military forces pushing the Japanese expansionist front lines back 4000 miles in the years 1942 to 1945, levels of Japanese fighting will and resistance were high as of June of 1945 and were *increasing* as U.S. troops neared the Japanese main islands.

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“Essentially war is fighting, for fighting is the only effective principle in the manifold activities generally designated as war. Fighting, in turn, is a trial of moral and physical forces through the medium of the latter. Naturally, moral strength must not be excluded, for psychological forces exert a decisive influence on the elements involved in war.”

~ Carl von Clausewitz¹

“...in war the chief incalculable is the human will, which manifests itself in resistance...”

~ B.H. Liddell Hart²

Wars end in a variety of ways. They may conclude through mutual accord, where both or all belligerents lack the will or capacity to continue and therefore negotiate terms to stop fighting. They may end through intervention, where a third-party forces termination. They may terminate through the exercise of diplomacy, whereby one side, through displaying irrefutable evidence of alliances, for example, demonstrates its potential to bring the other to its knees. Or, finally, wars may end through one's exercise of brute military might, where one side coerces the other side to stop fighting or surrender through the display and use of superior military force.³ War termination purely by the use of superior force alone is a less common resolution in today's complex conflict scenarios, yet past examples abound. In World War I, for example, the Allies wore down their German opponents; Germany surrendered on November 11, 1918, after attrition in its

¹ Carl Von Clausewitz, *On War*, trans. and edited by Michael Howard and Peter Paret (New Jersey: Princeton University Press, 1976), 127.

² B. H. Liddell Hart, *The Way to Win Wars: The Strategy of Indirect Approach* (London: Faber and Faber, 1943), 189.

³ See Dan Reiter, *How Wars End*. Princeton: Princeton University Press, 2009.

army's ranks meant that the country could not hold the Hindenburg line.⁴ Similarly, the Spanish American War terminated on July 17, 1898, shortly after the Americans destroyed the Spanish Fleet.⁵

Among all the cases of war termination resulting from the use of superior force, few are more famous than the Allied use of force against Japan to end the Pacific War. Unleashing the catastrophic power of the atomic bomb on two western cities in Japan, Hiroshima and Nagasaki, the United States and its allies brought the war to a shattering close. The decision to drop the bombs, made by President Harry S. Truman, is widely agreed to have given Japan's emperor Hirohito no recourse but to accept unconditional surrender, which he relayed to Truman on August 10, 1945, and broadcasted to the Japanese people on August 15, 1945, only six days after the second bomb landed on Nagasaki.⁶ Studies estimate over 100,000 Japanese people, mostly civilians, died in the immediate aftermath, and an additional 140,000 were wounded; in addition, the long-term radiation effects were responsible for debilitating health effects on generations not yet born.⁷ The decision to use a new technology, known from secret tests to be devastating in its impact,⁸ on heavy concentrations of civilians, continues to be debated.⁹

⁴ Holger Afflerbach and Hew Strachan, *How Fighting Ends: a History of Surrender* (Oxford: Oxford University Press, 2012), 299-308.

⁵ David F. Track, *The War with Spain in 1898* (New York: The Free Press, 1981). See also: John L. Offner, "McKinley and the Spanish American War," *Presidential Studies Quarterly* 34:1. (March 2004): 50-61.

⁶ See Emperor Hirohito. Domei News Agency. Acceptance of Potsdam Declaration, Japan, 14 Aug. 1945. Radio. Recorded in U.S. by Federal Communications Commission.

⁷ See *The Radiation Effects Research Foundation*. Web. 27 June 2017.

⁸ See Barton C. Hacker, *The Dragon's Tail: Radiation Safety in the Manhattan Project, 1942-1946* Berkeley: University of California Press, 1987.

Only in 2016 did a sitting U.S. president, Barack Obama, visit Hiroshima to commemorate the war's end.¹⁰ The decision thus merits the close attention it has received from a great many scholars and other analysts.

The decision to drop the bombs, made by President Harry S. Truman in the spring and summer of 1945, was justified by Truman at the time on the basis of a set of claims about Japanese capacity and will to pursue the war. Japan's capacity and will were such, Truman stated in addressing the American people, that unleashing the atom bombs on two Japanese cities was America's only recourse to avoid prolonging the war, which if continued would lead to unacceptable losses of life, both for US and for Japan.¹¹

Truman's claims about Japan's fighting capacity and will have long been disputed. Some such as Gar Alperovitz have argued that Truman exaggerated Japanese capacity and will;¹² others have embraced his rationale, even as they have deplored the use of the bombs themselves.¹³ Much of the information and analysis that formed the basis for Truman's claims at the time, in the spring and summer of 1945, about Japanese capacity and will to pursue the war were not fully known to the public at large. However, now it is possible to assess such claims retrospectively using a data source digitally published in

⁹ J. Samuel Walker, "The Decision to Use the Bomb: A Historiographical Update," *Diplomatic History* 14, no. 1 (1990), 97-114. See also J. Samuel Walker, and Gar Alperovitz. "Debate." *New York Times Upfront*, 2005 May 09 2005, 32.

¹⁰ Krishnadev Calamur. "The American Presidents Who Visited Hiroshima." *The Atlantic*. Atlantic Media Company, 10 May 2016. Web. 02 July 2017.

¹¹ Truman *Statement by the President Announcing the Use of the A Bomb at Hiroshima, August 7, 1945*, par 1-17. See also Truman *Winning the War* par 1-122.

¹² Gar Alperovitz, Robert L. Messer, and Barton J. Bernstein. "Marshall, Truman, and the Decision to Drop the Bomb." *International Security* 16, no. 3 (1991): 204-21.

¹³ See Walker and Alperovitz, *Debate*.

2014: The Gray Book, a 4,000-page compilation of granular data collected by the U.S. military on Japanese troop, sea and air actions, from December 1941 until August 1945. Before 2014, data in The Gray Book were too difficult for outside parties to access to be easily analyzable to verify the aggregated recommendations of Truman's advisors; however, recently, they are digitized and available, making finer analysis possible. Thus, the thesis seeks to examine, retrospectively, the validity of Truman's claims about Japanese will and capacity.

Previous accounts focus primarily on the development of the atomic bomb, Truman, and the decision-making parties themselves. Traditionalists agree with Truman that the bomb ended the war and saved lives by forcing unconditional surrender, while Revisionists contend that the bomb was not necessary to end the war, but rather a show of disproportionate strength to test atomic weapons and intimidate the Soviet Union.¹⁴ Revisionists agree with some of Truman's military advisors that Japan was inevitably going to surrender without the bomb because its Navy was destroyed and its air and land forces greatly damaged.¹⁵ More recent accounts within the last ten years recognize both sides of the debate and include more information from Japan and other sources external to the Allied perspective. Andrew Gordon, for example, argues that Hirohito surrendered for three reasons: 1) the devastation by and threat of continued atomic bomb attacks; 2) the Soviet Union's declaration of war against Japan; and 3) the Soviet Union's ground invasion of Manchuria. This is a nuanced view, which agrees with both the Traditional

¹⁴ Alperovitz, *Bomb*, 204-21.

¹⁵ United States. Department of State. Historical Office. *Foreign Relations of the United States. Diplomatic Papers. The Conference of Berlin (the Potsdam Conference) 1945* (Washington, D.C.: U.S. Government Print Office, 1960), 904-11.

position that the war ended as a result of the bomb and the Revisionist position that the war ended as a result of the Soviet Union's declaration of war against Japan.¹⁶ However, although Traditionalists and Revisionists have classically argued about the validity of Truman's claims about Japanese fighting capacity/will and number of lives that would be lost, scholars in these schools of thought seldom delve into the details that attempt to explain specifically why Truman thought a land war on the Japanese main islands (Kyushu, Shikoku, Honshu, and Hokkaido) would incur too great a cost or, conversely, why some of Truman's military advisors believed that the lack of Japanese fighting capacity would inevitably result in surrender even without the use of the bomb. Both sides of the argument typically assume that capacity was too great or was insufficient without explaining whether or why Truman's capacity assessments were accurate or inaccurate.

This thesis takes a different approach, bringing its lens to bear on Truman's assessments of Japanese military capability and strategic calculations based on these assessments that were critical to deciding when to use the atomic bombs to force Japan to surrender. Namely, now that researchers are able to retroactively analyze daily Gray Book data: were Truman's assessments of Japanese capacity and will accurate? Study of these assessments, written during the conflict but only recently accessible, provides a little studied perspective. In this thesis I argue that overall, the data support Truman's claims about Japanese will and capacity.

¹⁶ Andrew Gordon. *A Modern History of Japan: From Tokugawa Times to the Present*, (New York: Oxford University Press, 2003), 139-240.

Background

The questions of how to end war and how the will and capacity of each of the parties affect war termination (complicated by constantly evolving and increasingly swifter and effective war technologies that accelerate battle) are enduring dilemmas spanning the centuries as far back as the wars of ancient Greece and its state legions of armor-equipped warriors. It is commonly observed that war in human history is likely to persist because, as long as there are differences between people and contention over resources, there will always be armed conflict. Indeed, for any conflict there are long-term and short-term contexts scholars and practitioners might use to examine globally and locally why fighting started or recurred and how war aims on both sides shaped assessments by leaders of when to fight or make peace. Regarding the Pacific War, understanding the complex factors that may have influenced Truman's decision making to end the war begins with examining the long-term and short-term war aims of the United States and Japan.

In the long-term, Japan wanted to assure access to resources—including iron, chrome, and manganese ore in the Philippines and rubber, tin, and coal in Malaysia and the Dutch East Indies. Japan envisioned an empire based on military might that required these types of minerals to develop heavy industry.¹⁷ Ultimately, Japan sought to re-establish its hegemony in Asia and the Pacific region (historically won with the reluctant assent of the Soviet Union and China) in the new international order after the First World War. Acknowledgment of this history would mean the Big Three (U.S., Great Britain,

¹⁷ Janis Mimura, *Planning for Empire*, (New York: Cornell University Press, 2017), 186-94.

and the Soviet Union) and the world community would have to acknowledge Japan as the hegemonic leader in Asia. With a long-term war aim of establishing post Pacific War Japan hegemony over its sphere, Japan's short-term war goals at the time of the Japanese attack on Pearl Harbor were aimed at showing the U.S. that Japan had both the capacity and will to hold and control much of the Pacific, including the Philippines and other key islands and nations.¹⁸

Regarding American short-term and long-term war aims, U.S. citizens and the government wanted to emerge from the economic slump caused by the Great Depression. President Franklin D. Roosevelt focused on programs and policies that would help set the nation on a new course toward economic recovery and prosperity, but Japan's surprise attack on Pearl Harbor on December 7, 1941, violently flipped Roosevelt's focus from isolationism to full blown war with fervent home front support to punish Japan for its aggression.¹⁹ After Roosevelt's death and Truman's succession, Truman continued the policy of driving the Pacific War toward successful conclusion—a conclusion that not only punished Japan but also decisively ended the war by demonstrating a show of strength that left no doubt of the retribution any would be enemies would suffer that dared attack U.S. soil.²⁰ Indeed, Americans were used to a comfortable safety zone of geographic distance from First World War Europe; many scholars such as Samuel E. Morison note that Japanese leaders grossly miscalculated if they believed that the U.S. would be

¹⁸ John W. Dower. "The Victor and the Vanquished." *Embracing Defeat: Japan in the Aftermath of World War II*. Kindle ed., Penguin Books, 2000.

¹⁹ See "Declaration of War on Japan in 1941." *Franklin D. Roosevelt Presidential Library and Museum*.

²⁰ See "Harry S. Truman Library and Museum." *Public Papers Harry S. Truman 1945-1953*.

willing to accept Japanese control of the East Asia sphere after attacking U.S. soil and destroying a significant part of its Pacific fleet.²¹ Truman's short-term war aims thus included retributive punishment and decisive termination of the war through unconditional Japanese surrender in addition to any added economic benefits afforded by a fully engaged U.S. military war industry.²²

Regarding long-term war aims, Truman was aware of the jostling for world leadership and position among the Big Three, but had no knowledge regarding the potential for atomic military power until Henry L. Stimson, Secretary of War and advisor on military employment of atomic energy, briefed him on the Manhattan Project on April 24, 1945. Stimson's recommendations were direct:

1. Within four months we shall in all probability have completed the most terrible weapon ever known in human history, one bomb of which could destroy a whole city.
2. Although we have shared its development with the UK, physically the US is at present in the position of controlling the resources with which to construct and use it and no other nation could reach this position for some years.
3. Nevertheless it is practically certain that we could not remain in this position indefinitely...
4. ...it is indicated that...such a weapon may be constructed in secret and used suddenly and effectively with devastating power by a wilful nation or group against an unsuspecting nation or group of much greater size and material power. With its aid even a very powerful unsuspecting nation might be conquered within a very few days [by] a very much smaller one, although probably the only nation which could enter into production within the next few years is Russia...

²¹ Samuel Eliot Morison. *History of United States Naval Operations in World War II. The Rising Sun in the Pacific, 1931 - April 1942*. (Boston: Little, Brown and Company, 1948), 132.

²² See Arthur Herman. *Freedom's Forge: How American Business Produced Victory in World War II*. New York: Random House, 2013.

8. ...if the problem of proper use of this weapon can be solved, we would have the opportunity to bring the world into a pattern in which the peace of the world and our civilization can be saved...²³

Thus, as soon as the 14th day as President, Truman grappled with the triumvirate specters of potential atomic annihilation, the urgency of developing and using the bomb first before the enemy, and the seismic shifts in world power that would occur should the U.S. successfully create atomic bomb ordinance, especially among the Big Three. Truman's subsequent long-term aim of positioning the U.S. as an atomic world leader thus necessitated demonstration of both atomic capability and the will to use it, with a short-term war aim of punishing Japanese aggression and destroying the military capacity of Japan to commit future acts of aggression.

But should the atomic bomb, a wholly new technology for instantaneous city destruction, be used to end war? City destruction using strategic aerial bombing was used extensively in the Pacific War by Great Britain, Germany and the U.S. based in part on arguments that in destroying industrial centers and city centers, the bombers accomplished the war aim of destroying both the enemy's capacity to produce war weaponry and their population's will to continue fighting and participating in total war production.²⁴ These are important moral and foundational questions that warrant serious consideration: Churchill and Truman never doubted the need to win the wars against

²³ Henry L. Stimson, *Memorandum discussed with the President, April 25, 1945*. Library of Congress, par. 1-8.

²⁴ See Richard Overy. *The Bombers and the Bombed: Allied Air War over Europe, 1940-1945*. New York, Penguin Books, 2015.

Hitler's aggressions in the West and Hirohito's aggressions in the East. Roosevelt, Truman and the Allies agreed with Stimson that it was vital that the U.S. develop and use the bomb before Germany;²⁵ and Cairo conference documents from December 1, 1943, by Churchill, Roosevelt and China leader Chiang Kai Shek stated that the three allies sought the "complete dissolution" of the Japanese Empire "to restrain and punish the aggression of Japan",²⁶ but both Churchill and Truman were faced with the moral dilemma of using horrible new city destruction technologies as a means to that end when aerial bombing German and Japanese cities. Deciding to add atomic bomb ordinance to the Allied aerial bombing arsenal and using this destructive force to coerce Japan to surrender would unleash a morally reprehensible capability of destroying a city in seconds rather than days. This thesis specifically studies the information on Japan's relative capacity and will that was central in Truman's decision to use that destructive force on Hiroshima and Nagasaki.

Research Plan

Truman weighed many complex factors while deciding whether and when to use the bomb against Japan, including two primary factors assumed to influence his decision making: 1) the psychological will of the Japanese to continue fighting; and 2) military assessments of Japanese fighting capacity. The purpose of this work is to evaluate these

²⁵ See Leslie R. Groves, Henry L. Stimson, and F. L. Ashworth. *The Atomic Bomb over Japan: Development, Decisions and Delivery*. Albuquerque: Technical Training Group, Field Command AFSWP, 1947. See also Herbert Feis, *Churchill, Roosevelt, Stalin: the War They Waged and the Peace They Sought* Princeton: Princeton University Press, 1974.

²⁶ The Cairo Declaration," November 26, 1943, History and Public Policy Program Digital Archive, Foreign Relations of the United States, Diplomatic Papers, The Conferences at Cairo and Tehran, 1943 (Washington, D.C.: United States Government Printing Office, 1961), 448-9.

two factors both objectively (using measures of land, sea and air capacity) and subjectively (using text descriptions and daily accounts of perceived fighting will and subsequent recommendations by Truman's advisors). The raw data are compiled and currently available in the Admiral Chester Nimitz "Gray Book." Nimitz (1885-1966) was the U.S. Commander in Chief, Pacific Ocean Areas (POA) during the war. The Gray Book, only recently digitized and made available to researchers at large, was compiled and published as Fleet Admiral Nimitz' command summary from December 7, 1941, to August 31, 1945. It comprises nine volumes of primary source documents running to over 4,000 pages.²⁷

Although evidence exists to support claims of highly resistant levels of Japanese fighting will and capacity in the case of the Pacific War Theater, insufficient data has been integrated into the war termination debate because access before 2013 has been largely limited to microfiche, printed, and handwritten logs. The daily running military data on Japan's sea, air, and land forces compiled in The Gray Book include estimated numbers and types of aircraft present and destroyed or damaged, estimated numbers and types of ships and submarines present and destroyed or damaged, and estimated numbers of military personnel present, dead and wounded in specific battles and military operations. Nimitz and his admirals, including Ernest J. King, used these data to report and make recommendations to Truman regarding Navy and overall U.S. military tactics and strategy toward a victorious conclusion of the war. Although The Gray Book data

²⁷ See Chester W. Nimitz, *Command Summary of Fleet Admiral Chester W. Nimitz, USN: Nimitz "Gray Book": 7 December 1941-31 August 1945*. Nimitz Gray Book. Edited by James M. Steele, issuing body Naval War College, History Naval Command Heritage and Command United States. Pacific: United States Naval War College, 2013.

were compiled during the Pacific War—and aggregated in these reports and summaries available to Truman since 1945—today’s researchers have been largely unable to analyze the data in depth to corroborate the numbers and assess Japanese capacity and will directly from the data based on daily rather than aggregate details.

In his June 1st, 1945 address to Congress on winning the Pacific War with Japan, Truman cited reports from his Joint Chiefs of Staff and other advisors using their summaries of Gray Book and other aggregated data to make the following claims:

- Levels of Japanese fighting will were increasing as U.S. troops drew closer to the Japanese main islands. Truman cited extremely high levels of demonstrated Japanese fighting will as evidenced by Japanese suicide attacks on “troops, airfields and ships,” with attacks and resulting losses “becoming more severe” with proximity to the main islands;²⁸
- Japanese air fighting capacity to damage U.S. ships was increasing as U.S. troops drew closer to the Japanese main islands. Truman noted that the U.S. navy fleet was continuing to suffer daily damage from Japanese air efforts in June, and claimed these air attacks were becoming more concentrated with proximity to the main islands;²⁹
- The Battle of Okinawa evidenced increased levels of Japanese land fighting resistance as U.S. troops got closer to Tokyo: Truman reported that U.S. casualties on Okinawa from March 18 to May 29, 1945 totaled 5,483 troops killed/missing and 23,064 wounded, 4,729 sailors killed/missing and 4,640 wounded. He also claimed that the number of Japanese casualties were nearly six times as great, with 10,221 killed/missing and 27,704 wounded in the same 2-month period. At the time of his speech to Congress, Truman reported that the aggregated data showed increased levels of Japanese land fighting will and capacity resulting in increased Japanese and U.S. casualties in Okinawa relative to more remote locales like the Philippines.³⁰

These data are one example of Truman’s capacity and will claims in the summer of 1945 based on data aggregated from The Gray Book and filtered through his advisors. He

²⁸ Truman, *Winning the War*, par. 35.

²⁹ Truman, *Winning the War*, par. 35-9.

³⁰ Truman, *Winning the War*, par. 94-6.

would have had access to the detailed daily Gray Book data if requested, but the thousands of pages would have been too cumbersome to parse for a single politician; as such the President relied on the expertise of Nimitz and his admirals for naval Gray Book data, General Macarthur and his team for army data, and Stimson and the leaders of the Manhattan Project for status on atomic bomb readiness. Various U.S. military branches produced reports such as those of army general George C. Marshall to the Secretary of War (which expanded upon army troop movement and casualty data also provided to Nimitz for inclusion in daily Gray Book totals), while King's contributions included Official Reports to the Secretary of the Navy in his capacity as Commander in Chief of U.S. Fleet and Chief of Naval Operations. Although these reports were made available to Truman largely as after action reviews after the end of the war and are also currently available to scholars, King's numbers are generalized summaries (such as the comparative status of U.S. to Japanese ships in August 1945) rather than full detailing of daily Gray Book data.³¹ As such, King's reports are useful to verify independent assessments of Gray Book daily running totals and also to corroborate written and anecdotal recommendations to Truman from King, Nimitz, and other military advisors to determine the validity of Truman's claims based on already aggregated data in his June 1st congressional message and other announcements. Additionally, data until the end of the Okinawa operation on June 22, 1945 were useful at the time for Truman to gauge the

³¹ Ernest Joseph King. *Our Navy at War: a Report to the Secretary of the Navy, Covering our Peacetime Navy and our Wartime Navy and including Combat Operations up to March 1, 1944 ... Second Official Report ... Covering Combat Operations March 1, 1944, to March 1, 1945 ... Final Official Report ... Covering the period March 1, 1945, to October 1, 1945.* Washington, D.C.: U.S. News, 1945. See also George C. Marshall, Henry Harley Arnold, and Ernest Joseph King. *The War Reports.* Norwalk, CT: Easton Press, 2006, 168.

accuracy of predicted Kyushu casualties beyond his June 1st congressional message as he weighed whether and when to drop the bombs on Hiroshima and Nagasaki in early August. Were those casualty predictions reasonable given the final Okinawa outcome? Truman's continued justification of the June 1st claims in 1945 and in later years say they were, and expanded analysis hopes to help answer this question.

Capacity and Will: Components of Resistance

This study analyzes newly available Gray Book daily data regarding Japanese resistance to retroactively determine if the data supports Truman's assessments of levels of Japanese resistance in July and August 1945. Truman weighed these among many other complex factors to help justify the use of the bomb based partially on the premise that levels of Japanese fighting resistance were too great to overcome at a reasonable cost.

Two different approaches in this study operationalize Gray Book data to retroactively identify trends of increasing or decreasing Japanese capacity and will:

- A) Territory control. Evaluate territory control using Gray Book location and time data, and assess levels of Japanese fighting capacity and will as indicated by Japanese ability or inability to control territory;
- B) Japanese fighting capacity and will (air, sea and land). Evaluate levels of Japanese fighting capacity and will using Gray Book numerical reports and text entries to retroactively identify trends in support of or refuting Truman's claims.

Territory Control analysis examines territory payoff and general territorial resistance (codified as the maximum resistance recorded per each territory on specific dates). First the groundwork for analysis is provided through detailed background of conflict prior to the specific timeframe under examination, the last six months of the war from February to August 1945. Geographical information is operationalized to assess territory controlled by Japan as a key indicator to track expansion and decline of Japanese fighting capacity.

Capacity analysis addresses each part of the Japanese fighting capacity triad (sea, air and land). What was Japan's relative naval or *sea* fighting capacity as compared to the U.S.? What was their relative *air* fighting capacity as compared to the U.S.? What was their *land* fighting capacity? Were Truman's claims accurate that Japanese air and land fighting capacities were increasing as U.S. troops came nearer to the Japanese main islands? Evaluating the Japanese will to continue fighting includes evaluation of text evidence, including analyzing Japanese Kamikaze suicide data from the battles of Iwo Jima and Okinawa.³² Subjective assessments of will help support Truman's premise that levels of Japanese resistance were high near the Japan main islands and U.S. and Japanese casualty numbers resulting from an Allied invasion starting at Kyushu would be unacceptably large. It is important to note that—although fighting capacity is somewhat measurable with regard to estimated numbers of fighting elements present and any resultant losses assessed—fighting will is a difficult factor to define and quantify. However, this study finds that it is possible to assess *relative* levels of will reported further from and closer to the Japanese main islands. Daily text descriptions of will are reported from fairly consistent sources, descriptive language is somewhat standardized, and frequency of reports in association with commensurate damage (for instance, number of suicide airplane "hits" and resultant number of U.S. ships destroyed or damaged) is readily quantifiable. Beyond this practical assessment of relative will as related to location, subjective descriptions of will that do not fit into the codification requirements

³² Archival data includes Nimitz, Chester W. *Command Summary of Fleet Admiral Chester W. Nimitz, USN: Nimitz "Gray Book": 7 December 1941-31 August 1945*. Nimitz Gray Book. 9 vol. Edited by James M. Steele, issuing body Naval War College, History Naval Command Heritage and Command United States. Pacific: United States Naval War College, 2013.

are discounted and ignored. Additionally, it is important to note that this study does not strive to definitively prove that Truman's assessments of Japanese capacity and will are absolutely accurate. Scholars can usually bend the same set of data and statistics to support opposite conclusions, and this data set is by no means complete or error free. This study aims, instead, to retroactively examine The Gray Book data for trends that generally support or refute Truman's claims, in hopes of identifying rich areas and data sets for further study and analysis.

Final sections explore other key factors influencing Truman's decision to drop the bombs, including the Soviet alignment factor. The timing of Stalin's entry into the war with Japan, in combination with the timing factors involved in atomic bomb development, induced pressure on Truman and are assumed to have factored into his calculations on when to drop the bombs on Japan. This study does not take the position of agreeing with Truman's final decision to use the atomic bombs on Hiroshima and Nagasaki to end the Pacific War. The scope of this paper is confined to retroactive examination and exposure of Gray Book interconnections towards understanding Pacific War termination.

II. TERRITORY CONTROL: An Indicator of Capacity?

There is no lack of debate regarding the primary incentives that may have influenced Truman's decision to use the atomic bomb. Lack of Japanese capacity—especially sea and air—is cited as evidence that it was only a matter of time that Hirohito would surrender because Japan lacked the ability to continue fighting.³³ Defending his rationale for using the bombs, Truman stated at the end of the war that dropping the atomic bombs was necessary in order to save hundreds of thousands of U.S. and Japanese lives.³⁴ More recent debate goes beyond questions of relative fighting capacity to include advisor influence on Hirohito and Truman and Soviet alignment with the Allies versus Japan as tipping point factors.³⁵ What is notably missing from these extensive debates is clear evidence of Japanese fighting capacity at a granular level beyond the general recommendations of key advisors in both countries. Territory control is one such key indicator that might have helped to measure the progress of the war and weigh into Truman's decision making.

Laying the groundwork for analysis, a contextual history of conflict follows for the period prior to the specific timeframe under examination (the last six months of the war

³³ United States. Department of State. Historical Office. *Foreign Relations of the United States. Diplomatic Papers. The Conference of Berlin (the Potsdam Conference) 1945* (Washington: U.S. Government Print Office, 1960), 904-11.

³⁴ See U.S. Army, "The Atomic Bomb and Atomic Energy," news release, Washington, D.C., 1945 (White House). See also "Harry S. Truman to Irv Kupciet, August 5, 1963. Post ..." *Truman Library Harry S. Truman Post Presidential Papers*. 30 Mar. 2017.

³⁵ Walker, *Bomb*, 97-114.

from February to August 1945). Operationalizing graphical information for the period prior to and including 1945, this study next assesses territory controlled by Japan as a key indicator to track expansion and decline of Japanese fighting capacity.

History of Territory Control in the Pacific

Providing a useful contextual history of Japanese conflicts and territorial control in East Asia, two scholars briefly summarize the fight for territory control in the Pacific. In his study *Embracing Defeat*, John W. Dower provides the following “Rise and Collapse of the Japanese Empire” map of Japanese controlled territory from 1868 to 1945 (below).³⁶

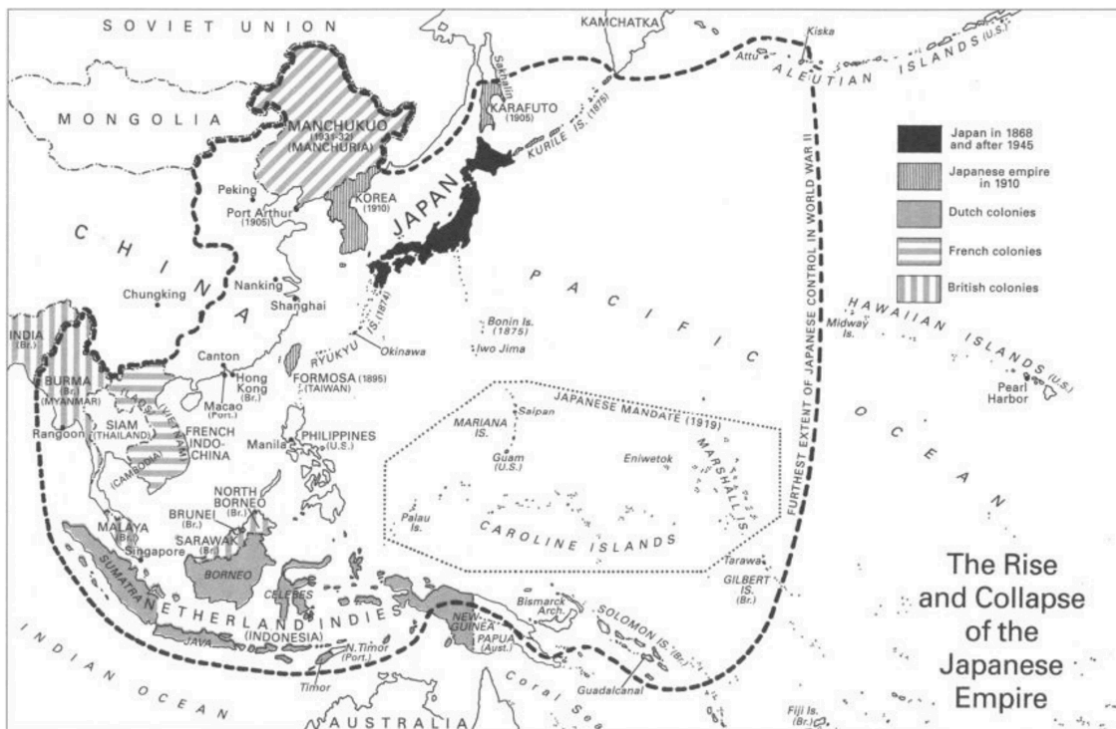


Figure 1 - Dower’s map of the “Rise and Collapse of the Japanese Empire”

³⁶ John W. Dower, *Embracing Defeat: Japan in the Aftermath of World War II* (London: Penguin Books, 2000), 15.

Dower shows a maximum territory controlled at the height of expansion during World War II as extending to Kiske in the Aleutian Islands and the Marshall Islands east of Japan—and Manchuria, Burma and Sumatra in the west. In the continuum of recurring Japanese historical conquest, Japan was confined to its modern day island borders in 1868 and after 1945 at the conclusion of the Pacific War.

Fleet Admiral Ernest J. King's 1945 "Tides of War" map continues from and fits into the context of historical timelines such as Dower's, but focuses in more detail on the five-year period from 1941 to 1945, marking the expansion and collapse of Japan held territory in four stages.³⁷

³⁷ Ernest Joseph King, *Report of Fleet Admiral Ernest J. King, Commander in Chief, United States Fleet and Chief of Naval Operations to the Secretary of the Navy Covering Combat Operations from 1 March 1944 to March 1945*. Washington, D.C.: U.S. Navy Dept., 1945, 39-76, 156-7.



Figure 2 - King's "Tides of War in the Pacific" map and four periods of Japan territorial expansion and contraction

- A. The defensive, when we were engaged almost exclusively in protecting our shores and our lines of communication from the encroachments of the enemy.
- B. The defensive-offensive, during which, although our operations were chiefly defensive in character, we were able nevertheless to take certain offensive measures.
- C. The offensive-defensive, covering the period immediately following our seizure of the initiative, but during which we still had to use a large part of our forces to defend our recent gains.
- D. The offensive, which began when our advance bases were no longer seriously threatened and we became able to attack the enemy at places of our own choosing.

As indicated by his descriptive language for each period, King's codification of these four periods or postures sets the stage for providing a U.S. naval assessment of the power

shifts from Japan to U.S. advantage in the Pacific War. He identifies the fourth, “offensive” stage as the stage when “our advance bases were no longer seriously threatened and we became able to attack the enemy at places of our own choosing.” This translates into a turning point at which Japanese persistence was near zero.

In King’s third “offensive-defensive” stage, Japanese persistence, or the will and capacity to *sustain* resistance, was still high, as this stage was characterized by requiring “a large part of our forces to defend our recent gains.” Japan could no longer hold their previously captured territory if the U.S. wanted to seize it, but the resistance was still high. Subsequent sections examine land, sea, and air capacities specifically to assess fighting resistance during these stages, but for now this study examines territory control along the time spectrum as a generalized component of will and capacity. The offensive-defensive stage is characterized by a decrease in the will to keep fighting, with a marked decrease in the ability to sustain fighting as measured by the decrease in time required for the U.S. to recapture territory from Japan.

Mapping the overall gain and loss of Japanese territory control using King’s four stages of expansion and contraction, the graph shows a positive territory payoff and gain to a maximum of 15.8 million square miles at the maximum expansion around August 7, 1942 (Figure 3, below).

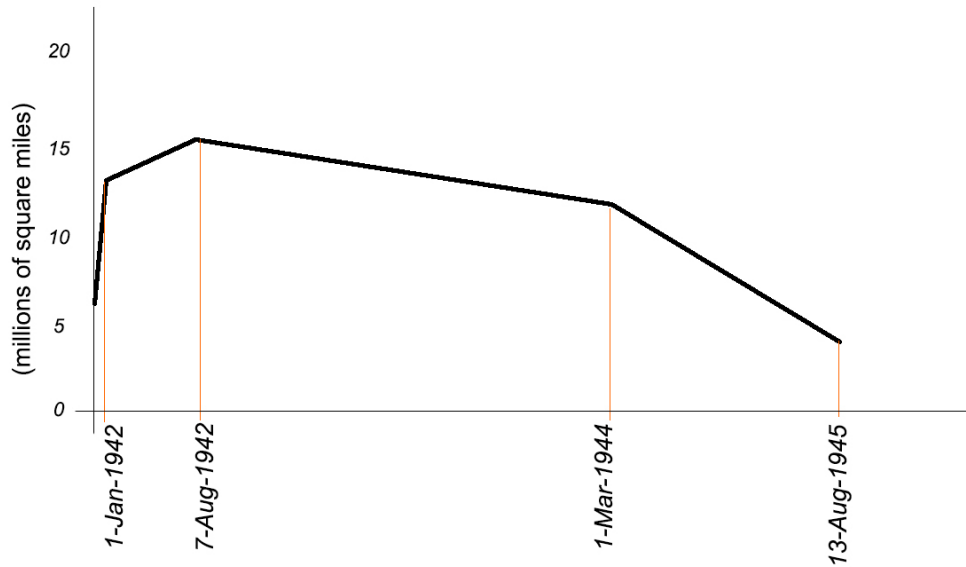


Figure 3 - Japan Territory Gains and Losses (millions of square miles) from January 1, 1942 through August 13, 1945

This apex follows rapid territorial expansion after the Pearl Harbor attack at the end of 1941. The period of contraction from 1942 until March 1, 1944 shows the beginning of negative territory payoff, contracting to a territory controlled of approximately 11.6 million square miles. This initial contraction coincides with the third, offensive-defensive stage in King's data, where the U.S. and allies were able to finally recapture territory from Japan, but required significant land, sea and air capability to do so. Likewise, in the final stage of the war, King's fourth, offensive stage, territory payoff was negative and decreasing at an even greater rate than the previous stage, and the U.S. was able to retake territory as desired with much less land, sea, and air capability than required in the third stage. Thus, the general territory control patterns described by both Dower and King, as would naturally be expected, show a sharp upward trend during the period of Japanese territorial expansion in the first half of 1942; and a general downward trend during

territorial contraction until the end of the Pacific War in August 1945. This data appears to refute Truman's claims that Japanese resistance was high in the last six months of the war, as Japanese ability to hold territory was increasingly low as measured by territory controlled. Examination of Nimitz Gray Book data can help to illuminate more granular details in this period of steeper territorial contraction. Namely, examination of the period from February through August 1945 will focus on whether Truman was correct that Japanese resistance was too great to invade the Japan home islands if Japan no longer had the ability to control territory beyond its borders, especially as the general trends according to both Dower and King support the opposite argument that Japan's defeat was inevitable.³⁸

The Nimitz Gray Book Data

Decisions based on data such as territory controlled and relative war fighting capacities are subject to interpretation and error. As such, this study examines Nimitz Gray Book data as a primary source in order to understand on a more granular level the connections between raw data, reports based on the data such as King's naval assessments discussed above, and Truman's decisions based on reports and recommendations from his advisors. Specifically, does the Nimitz data corroborate King's report to the Secretary of the Navy (and, ultimately, Truman) regarding decreased territory control and Japanese capacity and will to continue fighting? King's third and fourth periods of Japanese territorial contraction illustrate a general Japanese inability to hold or capture territory during the last six months of the war. Was the contraction of the

³⁸ King, 39-156.

Japan controlled territory because of a lack of capacity? Or was it due to a lack of will to hold these territories because Japan was taking a fallback position to prepare for a protracted land war?

The average rate of Japanese territory loss for February to August 1945 shown in Figure 3 was approximately five million square miles over six months, or 200,000 square miles per week. Taken alone, the territory control data do not support Truman's claim that Japanese capacity and will were too high to overcome without using the atomic bomb to force surrender—but analyzing the data from a finer perspective tells a different story. From an analytical perspective, granularity using Gray Book data can be thought of similar to stock market charts: one can view stock price fluctuations by yearly and monthly averages, weekly trends, and daily volatility. Similarly, one can view territory gained and lost in terms of long-term averages or short-term fluctuations. This mode of thinking implies that the general contraction slope shown in Figure 3 is useful general trend data, but—similar to stock market fluctuations—daily and weekly moving averages could tell a much different story with regard to volatility as opposed to a monthly average that appears deceptively stable.

Evaluation of Gray Book daily entries is one useful method of tracking Japanese ability to capture and hold territory to produce daily and weekly moving averages that could reveal volatility: subjective entry language describing levels of territorial resistance (also described as levels of “opposition”) combined with measures of land, sea, and/or air capacity and effectiveness may be used to codify maximum level of resistance at specific locations on specific dates. The graph in Figure 4 (below) was generated using Gray Book data, codified as an overall Japan capacity/will to resist (or estimated “territorial

resistance”) number on a scale from 0 to 4 as follows:

- 0 = No Japanese opposition
(U.S. takes territory or controls air/sea space at time and place of own choosing)
- 1 = Little Japanese opposition
(U.S. able to gain territory or control air/sea space with small amounts of effort)
No U.S. casualties/losses
- 2 = Significant Japanese opposition
(Territory or air/sea space control significantly contested, U.S. able to
make gains with significant amount of effort)
U.S. casualties/losses not zero, but Japan to U.S. loss ratio is greater than 1:1
- 3 = High Japanese opposition
(Territory or air/sea space control highly contested, U.S. able to
make gains with great amount of effort)
Japan to U.S. casualties may be 1:1
Japan to U.S. casualties may also be less than 1:1, with U.S.
experiencing high number of casualties/losses
- 4 = Extremely High Japanese opposition
(U.S. on defensive. Japan held territory or air/sea space, U.S. unable to
make gains)
Japan to U.S. casualties/losses may be less than 1:1, with U.S.
experiencing high number of casualties/losses

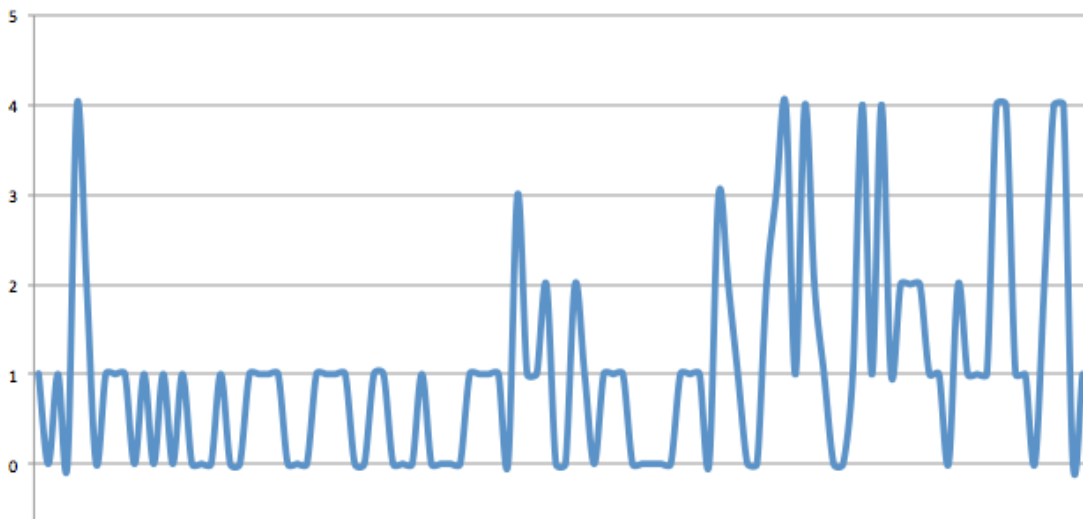


Figure 4 - Japanese Territorial Resistance (Land, Sea, and Air Maximum Resistance Data for all Pacific Territories, Month of February 1945)

The daily Japanese territorial resistance score of 0 to 4, codified from anecdotal Gray Book entries including land, sea, and air resistances, shows maximum resistance exhibited at each given location. For instance, if land resistance is coded as a “4” due to an extremely high number of Japanese soldiers present and inability of U.S. troops to advance the front lines a significant number of yards and air resistance is coded as a 2 due to a significant number of Japanese planes present but these planes are not effective at destroying U.S. planes – then the overall resistance assigned for that date is the maximum of 4. The chart, thus, follows the maximum resistance exhibited for Japan, Philippines, and “other Pacific” (all other Pacific Ocean areas excluding Japan and Philippines) areas in total.³⁹ Figure 4 shows maximum resistance levels for each day in February, but reprocessing the same data to mitigate outliers can also be useful. The next

³⁹ Gray Book, 2592-707.

figure begins to average the outlier event data into a moving average that shows a trend upward toward the end of the month of February.

MOVING AVERAGE

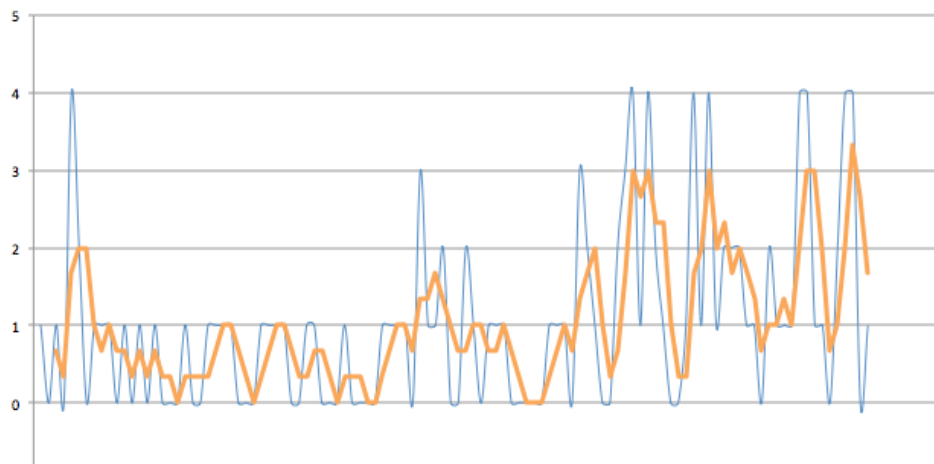


Figure 5 - Japanese Territorial Resistance (Land, Sea, and Air Maximum Resistance Data for all Pacific Territories, Month of February 1945) and Moving Average

Smoothing out the line further, the overall trend for the month of February can be assessed as a linear trend upward, from a near zero Japanese resistance at the beginning of the month to a higher average of 2 at the end of the month for all Pacific territories. This overall average can be interpreted as an overall trend toward “significant” Japanese opposition.

LINEAR TREND

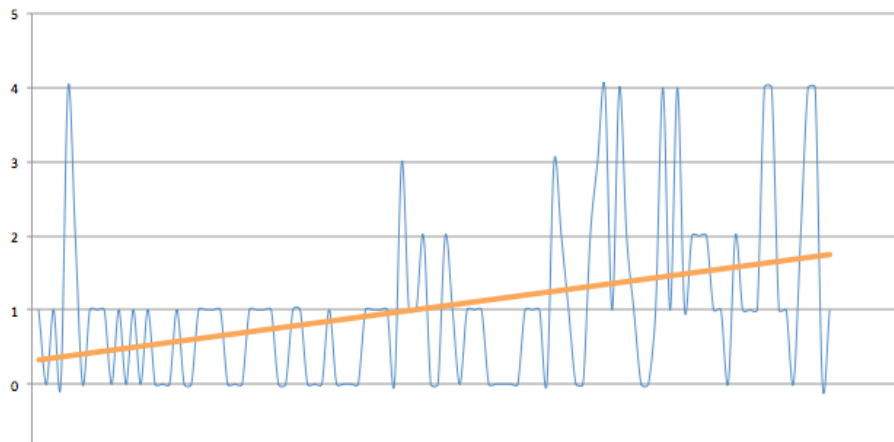


Figure 6 - Japanese Territorial Resistance (Land, Sea, and Air Maximum Resistance Data for all Pacific Territories, Month of February 1945) and Linear Trend

What does The Gray Book daily territorial resistance data tell us? Generally speaking, the data shows that even though the Pacific War was in King’s “offensive” stage, where Japan controlled territory was contracting and capacity and resistance seemed to be decreasing; monthly and daily trends evidenced by Gray Book data verify not only a longer term decrease in Japanese ability to hold territory, but continued periods of high-level Japanese territorial resistance.

Importantly, even though Figure 3 based on the King periods shows a general downward trend indicating loss of Japan’s controlled territory in the last six months of the war, Figures 5 and 6 show that the overall trend for Japanese territorial resistance during the month of February was *increasing*, not necessarily decreasing. Indeed, while the anecdotal Gray Book evidence notes U.S. confidence to continue February to land troops in the Philippines (where Japanese territorial resistance overall averaged between 0 and 1), there is a concurrent decrease in U.S. confidence to easily capture Japanese strongholds during the Iwo Jima operations (where resistance showed a marked increase

during February and reached peak values of 4 during the campaign).⁴⁰ These last three figures show that trends differ and appear more volatile according to if you view by selected time periods. Moving averages and weekly trends are also useful for understanding large fluctuations in fighting resistance levels over short-term periods. Further filtering of the data—this time by territory--can reveal not just when territorial resistance was more volatile, but also specifically *where* resistance levels were higher or more volatile.

Territory Resistance Analysis

The Philippines

So far The Gray Book analysis includes, collectively, maximum resistance levels from all Pacific Ocean areas. Investigating Truman's claim that levels of Japanese resistance and capacity/will increased in the spring and summer of 1945 as U.S. troops neared the home islands requires splitting the data into territories further from Japan (such as the Philippines) versus nearer (such as Japan outlying islands and four main islands). Further and nearer territories separated, the study then compares resistance levels in both locations to validate rising values with home islands proximity.

Examining for rising resistance levels with home islands proximity starts with filtering the data for the Philippines, a location further from the home islands than Okinawa or Iwo Jima. These two battle locations comprise much of the data reported and compiled in the last six months of the war. Figure 7 on the following page shows the

⁴⁰ Gray Book, 2592-707.

Philippines linear trend for the month of February. The linear trend line, shown as a horizontal green line on Figure 7, indicates that the average territorial resistance level was relatively flat compared to the overall trend for all areas combined (Figure 6, page 28). Although the overall trend in Figure 6 rises to a month-end high of level 2, the Philippines linear trend stays at a score of 1. Only two Philippines incidents in this period exceed a value of 1, with high resistance scores of 3 and 4 (shown below as two green columns between February 14 and 17).

PHILIPPINES LINEAR TREND

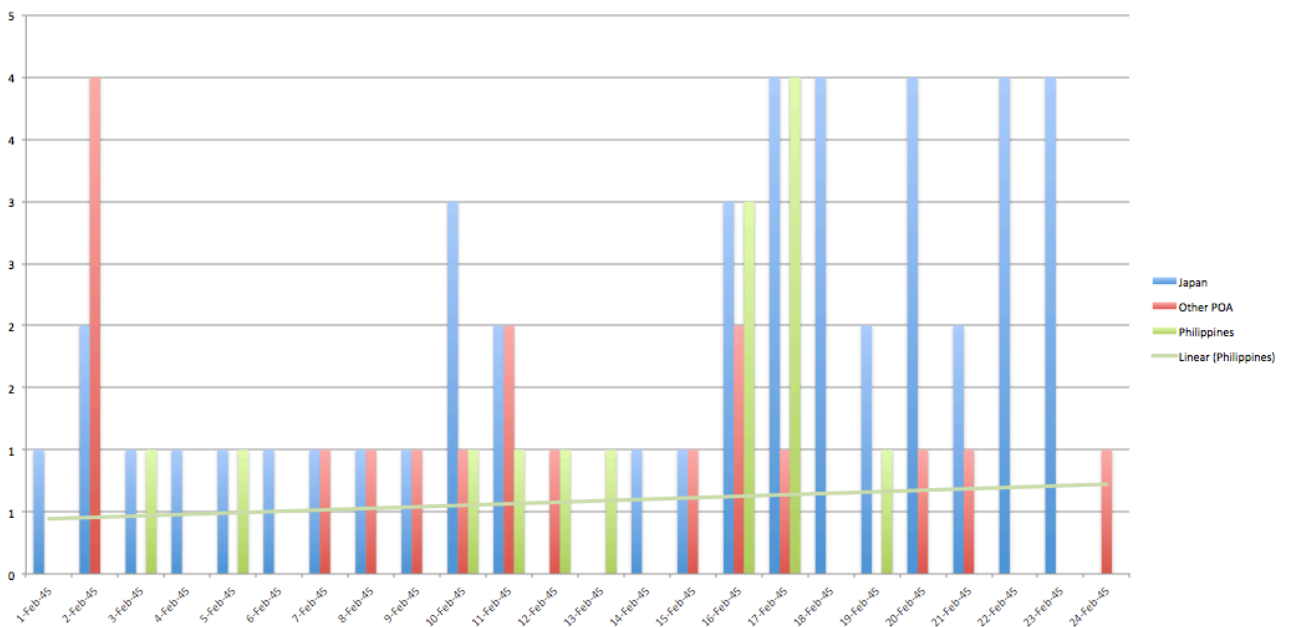


Figure 7 - Japanese Territorial Resistance (Land, Sea, and Air Maximum Resistance Data for all Pacific Territories, Month of February 1945) and Philippines Linear Trend

Philippines Gray Book entries near the beginning of the month include descriptions such as “no resistance” and “little resistance.” On February 5, 1945, for example, 800 military and 550 civilian prisoners were liberated “with little opposition encountered” within the

town of Manila.⁴¹ Although there were isolated and temporary high-resistance events, U.S. forces overcame Japanese forces during the last of the Philippines landings fairly quickly. Resistance levels in Corregidor, for example, spiked in mid-February, but by February 19th additional U.S. troops were able to land at Manila Bay and access Corregidor with only “slight opposition.”⁴² Subjective Gray Book descriptors noting “no opposition” were assigned a value of 0, while text entries indicating levels of “little” or “slight” opposition were assigned a value of 1.

Examining the April through June data, Philippines resistance levels continued the same trend at near zero, as mopping up actions in the Philippines only occasionally registered any resistance values. On the 10th of April, “very little resistance” was made against U.S. troop landings on Jolo, Sulu⁴³ and on the 17th of the same month no resistance was noted as 49,209 U.S. troops from the 8th U.S. Army landed in Malabang, near Mindinao.⁴⁴ At this point in the war, data is consistent with operations in the Philippines winding down with very low to zero levels of Japanese resistance. The U.S. Army was transferring troops from the Philippines to Japan in preparation for Operation Downfall—the first portion of the planned Allied invasion of the Japanese main islands in November. In line with contraction of Japanese-controlled territory past the Philippines, there are less than ten instances of high resistance levels in the other Pacific

⁴¹ Gray Book, 2531-2.

⁴² Gray Book, 2544-5.

⁴³ Gray Book, 2607-8.

⁴⁴ Gray Book, 2618-9.

areas, with the bulk of high resistance level events constricted to Japan and surrounding islands.

This Philippines data might be interpreted to refute Truman's claims that Japanese resistance levels were too high to overcome without great cost. However, despite U.S. troops pushing the Japanese expansionist front lines back 4000 miles from 1942 to 1945, levels of Japanese fighting will and resistance were high as of June of 1945 and were *increasing* as U.S. troops neared the Japanese main islands.⁴⁵

Battles of Iwo Jima and Okinawa Japan

The Philippines measures 1850 miles in distance from the city of Corregidor to Tokyo, Japan. Unlike the Philippines, Iwo Jima and Okinawa, Japan are proximal to its four main islands of Kyushu, Shikoku, Honshu, and Hokkaido. Iwo Jima is approximately 750 miles southeast of Tokyo, while Okinawa is about 950 miles southwest (slightly further by 200 miles, yet also much closer to mainland China and therefore more difficult to approach by sea or air than Iwo Jima). In contrast to the Philippines which had mostly no or low intensity fighting, subjective descriptors of territorial resistance to landings at Iwo Jima in Japan reflected "moderate," "strong," or "intense" levels of opposition in addition to high rates of activity in land-based fighting. The Iwo Jima data supports Truman's claims that resistance levels closer to the main Japan islands was "tougher."⁴⁶ Gray Book entries from February 22nd, for example, noted "strong opposition" on all fighting fronts, while another from the 23rd of the same month

⁴⁵ Truman, *Winning the War*, par. 35-9, 60, 93-6.

⁴⁶ Truman, *Winning the War*, par. 34, 95.

described levels of enemy gunfire as “again intense.”⁴⁷ Specifics of sea, air, and especially land resistance during the Iwo Jima landings verify significant to high resistance values of 3 and 4—with high numbers of casualties on both sides. The high levels of resistance encountered during the Iwo Jima battle contribute to the upward trend in the previous graphs and also in the following figures:

JAPAN LINEAR TREND

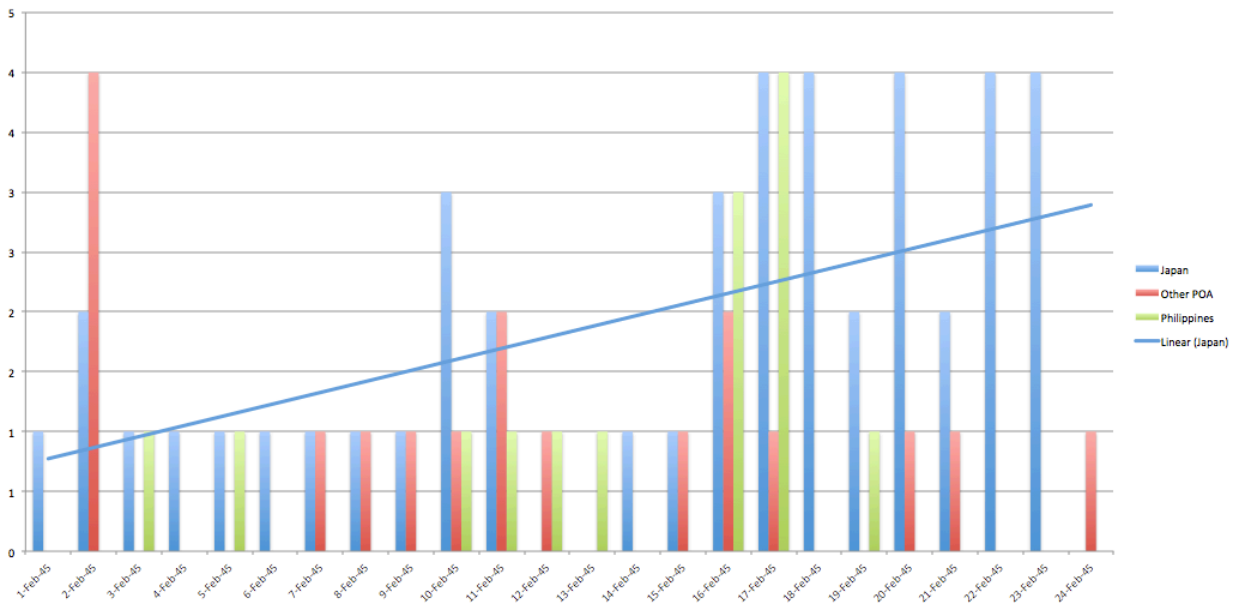


Figure 8 - Japanese Territorial Resistance (Land, Sea, and Air Maximum Resistance Data for all Pacific Territories, Month of February 1945) and Japan Linear Trend

Figure 8 charts the Japan linear trend for territorial resistance for the month of February 1945. The rising linear trend is shown in blue—increasing, on average, from a low resistance score of 1 at the beginning of the month to 3 at the end of the month due to several instances of high Japanese resistance levels with varying degrees of effectiveness.

⁴⁷ Gray Book, 2551-3.

The larger values coincide with the landings at Iwo Jima beginning on February 19, 1945, with action extending into March. Action winds down again with trends of lower resistance at the beginning of April as the Okinawa operation begins on April 1, 1945 (Figure 9, below), but wind up again to nearly daily maximum resistance values from the second week of April to the end of the Okinawa operation on June 22, 1945. Although there are scattered resistance events in the other Pacific areas, the fierce and sustained levels of extremely high Japanese territorial resistance in Okinawa increase the average in this period to a value of 4. At the end of the operation in June—although there were signs of imminent surrender and the end of “organized” resistance—the territorial resistance level remained at the maximum of 4 due to the daily number of enemy killed in action, which shockingly remained in the thousands. This included the final day of the battle (June 22, 1945) when—after a sustained number of weeks with thousands of enemy soldiers killed per day, and with Japanese troops surrounded in two last pockets of resistance—over 4,000 enemy combatants were killed in action waging a last stand, as many as 160 of whom “were observed committing suicide with grenades” rather than surrender or be captured alive.⁴⁸ This shows in Figure 9 as one of the many maximum bar columns indicating an extreme territorial resistance level of 4. On all dates shown as 4 that resulted from high levels of land resistance, U.S. troops at the front lines either made little gains or only made gains at great cost against “stiff,” “heavy,” “strong” resistance and heavy enemy fire.⁴⁹ More details regarding specific troop casualties are discussed in the following section covering land, sea, and air resistance and capacities, but the Gray

⁴⁸ Gray Book, 2706-7.

⁴⁹ Gray Book, 2592-707.

JAPAN LINEAR TREND (continued)

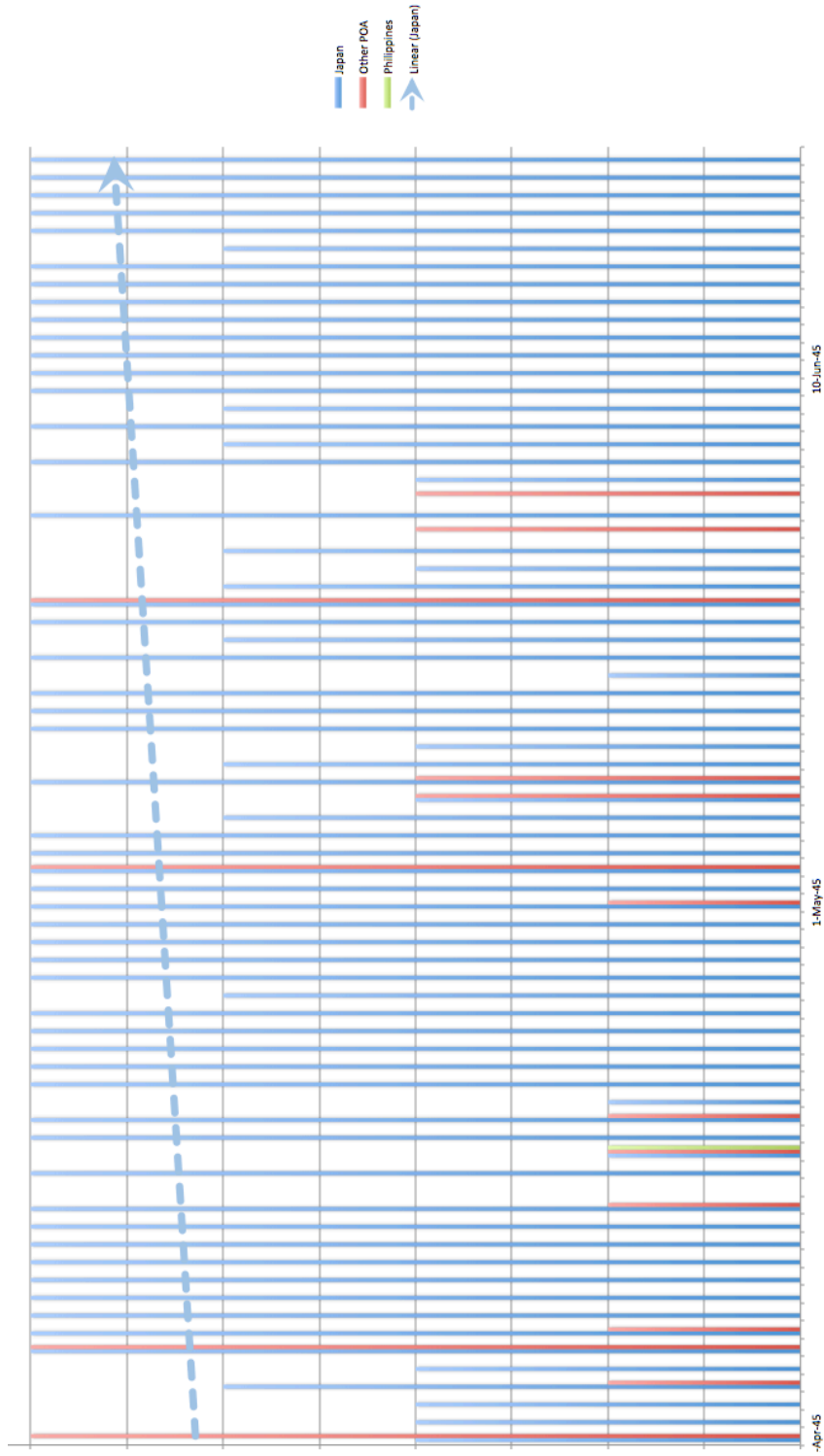


Figure 9 - Japanese Territorial Resistance (Land, Sea, and Air Maximum Resistance Data for all Pacific Territories, Months of April-June 1945) and Japan Linear Trend

Book daily running evaluation verifies extremely high Japanese territorial resistance levels during the Iwo Jima and Okinawa campaigns as U.S. forces drew closer to the Japanese main islands.

U.S. military reports to Truman through Nimitz and The Gray Book and other military channels had the data in 1945 to verify that, as summarized by King's evaluation of territory control, the U.S. was able to regain territory to collapse the Japanese front lines and push them back from the Philippines all the way to capturing and controlling islands in Japan including Iwo Jima and Okinawa. Review of The Gray Books daily reports verifies that King's evaluation of territory control was accurate. Additionally, this collapse of Japanese expansionism in the last three years of the war from 1943 through 1945 also supports King's claims that Japan's defeat was inevitable. Indeed, because Truman believed King was correct regarding territorial contraction,⁵⁰ Truman also concurred with political hawks (including secretary of state, James F. Byrnes) that the U.S. need not soften its demand for unconditional surrender,⁵¹ as there was no risk of losing the war in the Pacific. But just because the U.S. was able to gain Japanese territory, was it worth it in U.S. war costs to invade the Japanese main islands? The Gray Book entries describe dug in positions on both Iwo Jima and Okinawa, with underground cave complexes, hidden artillery gun positions, and sustained high levels of will to fight to the death by a large percentage of Japanese pilots, sailors, and troops. The Japanese military leveraged these high levels of will in times when forces from a different U.S. opponent

⁵⁰ Truman, *Winning the War*, par. 20-6.

⁵¹ Sean L. Malloy. *Atomic tragedy: Henry L. Stimson and the Decision to Use the Bomb against Japan*, (Ithaca, NY: Cornell University Press, 2010), 134.

might typically have given up at an earlier stage of fighting and at less cost in casualties and destruction.⁵²

Additional Gray Book data also support King's assessments. Monthly linear trends of lower levels of fighting resistance varied with time and location show contraction of the Japanese front lines during the last six months of the war. These data confirm that Philippines activity was winding down, and U.S. troops were well known to be landing closer to the Japanese main islands in greater numbers. Overall, the trends show that the war could indeed be interpreted as in an offensive stage, where the U.S. could choose the time and place of fighting and U.S. bases could be established with levels of Japanese opposition (combined land, sea, and air) that could be characterized as "low" in February and "high" in the last few months during the Iwo Jima and Okinawa campaigns.⁵³ Taken alone, territorial contraction data might be interpreted to refute Truman's claims that Japanese resistance was too high to overcome without great cost in lives on both sides to invade the four main Japan islands. However, granular data interpreted in combination with the territorial contraction data support Truman's claims that, despite U.S. military forces pushing the Japanese expansionist front lines back 4000 miles in the years 1942 to 1945, levels of Japanese fighting will and resistance were high in June 1945 and were increasing as U.S. troops neared the Japanese main islands.

In order to further examine the pattern of increasing levels of Japanese capacity/will and resistance, this study must go beyond just generalized Japanese loss of

⁵² See *Interrogations of Japanese Officials. Vol II.* Washington, D.C.: Naval Analysis Division, 1946, including 60-4.

⁵³ Gray Book, 2529-707.

territorial control to measure specific data that compares resistance by time and location. Next, the study breaks the data down further by examining not just general trends and averages over different lengths of time and at specific areas—but how each of the three different land, sea, and air capacity data contributed to the overall Japanese territorial resistance scores. Different peaks in the data that focus on relative Japanese land, sea, or air capacity also support Truman’s decisions, despite the overwhelming evidence of territorial contraction confirmed by Gray Book entries and conflicting advisor reports and recommendations.

III. CAPACITY: Sea, Air, and Land Components

Granular sea, air and land Gray Book data support both Truman's claims and some of his advisors' seemingly opposite claims: levels of Japanese air and land resistance and will were increasing as U.S. troops neared the Japanese main islands *and* defeat still seemed inevitable despite the fact that resistance was more concentrated nearer to Japan. Even though Japan was no longer able to control territories beyond its borders and its navy was very greatly diminished, there was ample evidence that Hirohito and his military could muster enough air and land capacity to daily damage U.S. ships and wound thousands of U.S. troops.

Previously, total Japanese territorial resistance was codified combining daily Gray Book text entries (subjectively describing Japanese territorial resistance) with numerical land, sea, and air fighting data. Territorial resistance codification combined one or all three types of military capacity at various points of battle. Naval ships battling near the seashore, for example could simultaneously attack land bases within the radius of fire from ship armaments to the shore. Likewise, Japanese anti-ship land fire installations could fire outward toward ships offshore to cause damage to ships and personnel. Thus, both land and sea capacities might be at play during any beach landing and the resistance to progression at that front line. Air capacities are also flexible and complex, as they can cross the airspace to participate in fighting over both land territory and sea territories. Assessments of Gray Book daily entries are naturally a mix of all three of these capacities, combined with subjective reports by those U.S. personnel present on site assessing whether front lines were progressing forward or retracting. This section uses Gray Book

capacity and loss data daily entries to assess not only resistance levels but also to assess relative Japanese fighting capacities (from listed numbers of planes, ships, and troops present), fighting effectiveness (including number of casualties per fighter and ratio of Japanese to U.S. casualties), and anecdotal descriptions of displays of will such as suicide plane and boat hits and even troop suicide grenade attacks.

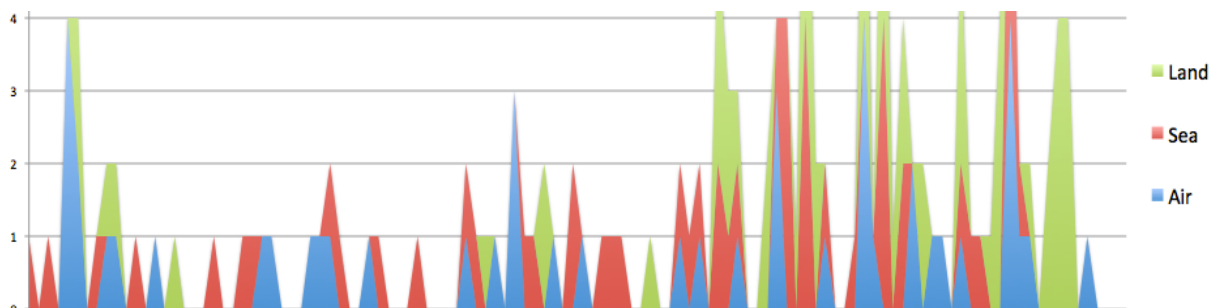
Ability to capture and hold territory was assessed in terms of fluctuations of total resistance, including all three components of land, sea, and air. The next step in analysis breaks down the data into each of these three components. The following graph in Figure 10, below, shows all three components of land, sea and air Gray Book data, codified on a scale from 0 to 4 (repeated here for clarity).

- 0 = no Japanese opposition
(U.S. takes territory or controls air/sea space at time and place of own choosing)
- 1 = Little Japanese opposition
(U.S. able to gain territory or control air/sea space with small amounts of effort)
No U.S. casualties/losses
- 2 = Significant Japanese opposition
(Territory or air/sea space control significantly contested, U.S. able to make gains with significant amount of effort)
U.S. casualties/losses not zero, but Japan to U.S. loss ratio is greater than 1:1
- 3 = High Japanese opposition
(Territory or air/sea space control highly contested, U.S. able to make gains with great amount of effort)
Japan to U.S. casualties may be 1:1
Japan to U.S. casualties may also be less than 1:1, with U.S. experiencing high number of casualties/losses
- 4 = Extremely High Japanese opposition
(U.S. on defensive. Japan held territory or air/sea space, U.S. unable to make gains)
Japan to U.S. casualties/losses may be less than 1:1, with U.S. experiencing high number of casualties/losses

Note that capacity is taken into account in the land, sea, or air resistance score by including the ratio of Japanese to U.S. casualties or losses. Folding capacity into the codification in this manner attempts to ensure that capacity must translate into effective and significant resistance to warrant codification as “high.” In other words, there may be a large number of Japanese planes present in a single attack, but if that particular event entry notes that no U.S. casualties resulted from that attack, then the attack was ineffective and would only result in a resistance score of 1 indicating little Japanese opposition because the U.S. was able to control the territory with very little effort. Looking at land, sea, and air scores separately reveals high levels of land resistance, sea resistance, and air resistance in the Pacific region as a whole, which in turn could help separate the questions of capacity that likely weighed into Truman’s decisions.

Examination of maximum land, sea, and air resistance levels for all Pacific areas in February 1945 reveals that lower resistance scores resulted from sparse but ubiquitous Japanese air and sea fighting capacity (shown in blue and red in Figure 10, below), while the higher resistance level scores of 3 and 4 were mixed but mostly from high Japanese land fighting capacity (shown in green). As in the previous analysis, the lower numbers were spread throughout the seas and in conjunction with the Philippines campaigns, while the high values are associated with Iwo Jima and later land campaigns.

Figure 10 - Japanese Land, Sea and Air Resistance (Maximum Resistance Data for all Pacific Territories, Month of February 1945)



Capacity in this case is assessed not just from a comparison of numbers of Japanese versus U.S. ships, planes, or personnel present at each locale, but is codified from a narrower definition of the end results of effectiveness of the ships, planes, and personnel present as measured in relative damage. In other words, the resistance score assesses the ratio of U.S. to Japanese planes or ships damaged and/or casualties. A ship destruction ratio of 3:6, for example, might reflect 3 U.S. ships damaged or destroyed for every 6 Japanese ships. Such a ratio would be codified as an “extremely high” Japanese Sea resistance score of “4” per the legend on the previous page. Such a score would not only reflect an extremely high amount of opposition, but also a high sea capacity for inflicting damage as measured by the end result. The Gray Book daily entries as a default concentrated on end results that assessed relative amounts of damage as a priority, with capacity numbers present as a second priority. Sometimes the entries included number of planes or ships present, and sometimes they did not. Other times, complete counts of U.S. ships, submarines, and planes were available, but precise counts of Japanese vehicles present were not possible. Nevertheless, a generalized and partial capacity picture was still documented and it is worth analyzing the capacity numbers reported in order to corroborate capacity assessments contained in both MacArthur’s recommendations to Truman on behalf of the U.S. Army and recommendations by Nimitz and his admirals to Truman on behalf of the U.S. Navy.

Figure 10 shows increasing levels of Japanese sea and air resistance in the last half of February 1945. Examination of the same granularity of data for all Pacific areas for March through June 1945 yields the following results (see Figure 11 below).

JAPAN AIR, SEA, AND LAND RESISTANCE TRENDS

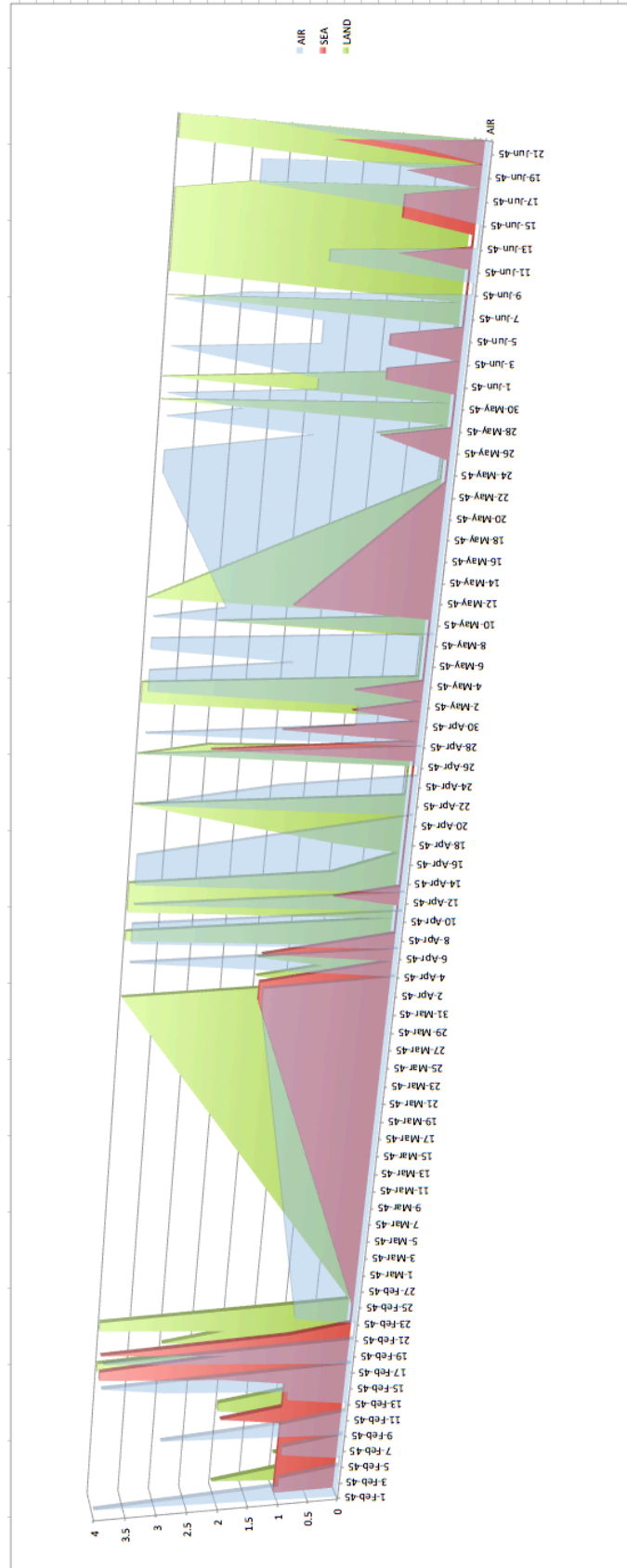


Figure 11 - Japanese Territorial Resistance (Land, Sea, and Air Maximum Resistance Data for all Pacific Territories, Months of April-June 1945)

Similar to Figure 10, Figure 11 data for the months of April through June 1945 verify low sea fighting resistance levels (shown in red) compared to air and land activity. Notably, the data generally support Truman's claims that levels of Japanese air and land resistance were increasing as U.S. troops neared the Japanese main islands.

The Figure 11 data confirms that Japanese air resistance (in blue) was relatively low and infrequent in the month of February ramping up to suddenly intense air activity from April through June. The infrequent February activity corresponds to the greatly diminished Japanese air activity while the Philippines operations wound down, followed by surprisingly high air activity close to the Japanese main islands in Iwo Jima and Okinawa. Japanese raids and suicide plane attacks increased in frequency and intensity closer to the home islands, and Japanese planes continued to damage U.S. ships despite greatly reduced numbers of Japanese airplanes that were destroyed in previous battles. Despite U.S. air bombing and incendiary destruction of a great many Japanese military industrial cities and their plane production plants and support, enough Japanese planes, pilots, and production remained to intensify fighting to protect the Japanese main islands and incur the greatest cost possible to U.S. ships and sailors. Both air and ship suicides indicate that levels of Japanese will intensified nearer to the homeland, with a large percentage of the high resistance values of 3 and 4 codified due to Japanese kamikaze planes or suicide boats incurring disproportionate damage. On June 6th in Okinawa, for example, The Gray Book noted that the number of planes in the nearly daily enemy raids was lower than in the previous month; however, suicide planes continued to destroy U.S. ships while demonstrating "high" resistance. In one June 6th case, a U.S. ship was hit by 2 enemy suicide planes, with the pilots willing to sacrifice their planes and their lives in

exchange for destroying a much larger and more costly U.S. asset and wounding or killing U.S. sailors.⁵⁴ Many of the level 4 and 3 extremely high and high resistance scores in the Iwo Jima and Okinawa time periods resulted from disproportionate suicide attack damage to U.S. ships despite U.S. planes greatly outnumbering Japanese planes in most instances. As the blue data on Figure 11 shows, Japanese air resistance at a level of 4 occurred greater than 50% of the time during the months of April through June, with nearly daily raids and suicide attacks on some weeks.⁵⁵ Even on days when no U.S. planes or ships were lost, Japanese pilots closer to the home islands demonstrated a higher level of resistance and skill than Japanese pilots in the Philippines raids in February: on June 8th in Kyushu on the Japanese main islands south of Tokyo, Japanese air opposition was described as “aggressive” and “skillful”⁵⁶; in the same location on June 3rd, U.S. pilots judged the “strong” airborne opposition as “of the highest quality in both pilots and planes.” Although nine of the 20 Japanese planes during those attacks were shot down or destroyed on the ground, these 20 pilots alone successfully prevented that day’s planned U.S. Task Group 38.4 attack of the Kyushu area and the U.S. lost three F4U planes.⁵⁷ This attack is just one of the many level 4 resistance examples in Figure 11 that bolster the interpretation that levels of Japanese air resistance and will were high in June 1945. Informatively, the highest displays of skill and resistance were located at Kyushu, the planned commencement point of the Allied Operation Olympic Japanese

⁵⁴ Gray Book, 2686-7.

⁵⁵ Gray Book, 2592-707.

⁵⁶ Gray Book, 2589-90.

⁵⁷ Gray Book, 2581-2.

main island invasion.⁵⁸

Figures 10 and 11 record high levels of Japanese will and air resistance in the spring and summer of 1945. They additionally support claims of high Japanese *land* resistance during the Iwo Jima and Okinawa operations closer to the Japanese main islands from February through June 1945. Shown in green on Figure 11, Japanese land resistance levels were frequently at extremely high and high values of 3 and 4 and did not diminish at the end of each operation, but remained extremely high during the final days of fighting. This is especially evident in the first three weeks of June before the Okinawa surrender on June 22, 1945. During this last three weeks when resistance values were extremely high, a significant percentage of the Japanese troops refused to surrender, preferring fighting to the death over capture. As such, high levels of will at a resistance value of 4 continued unabated those days with “hand grenade duels” and suicides. An average of 4,000 Japanese troops killed in action and committing suicide and continued “heavy” and “stubborn” opposition persisted up to and beyond June 21st.⁵⁹ By June 20th, 1945, two days before the U.S. flag was raised indicating the capture of Okinawa, The Gray Book reports total casualties in excess of 120,000 U.S. and Japanese casualties. The total included 87,343 Japanese troops killed in action, 6,740 U.S. troops killed in action, and 29,598 U.S. troops wounded in action. The June totals also confirm that Truman’s report of the approximately 70,000 Japanese and U.S. total Okinawa casualties from March through May 1945 was in keeping with the best U.S. military estimates at that time. Figure 10 and 11 Gray Book land fighting data generally confirm levels of

⁵⁸ Gray Book, 2581-90.

⁵⁹ Gray Book, 2578-707.

resistance at Okinawa and proximal to the Japanese main islands were high in June 1945 and Hirohito showed little sign of imminent surrender despite continued troop losses at a rate of about six Japanese to every one U.S. soldier.⁶⁰ Thus, granular examination of resistance values by sea, air, and land confirm patterns of increased will and resistance as fighting neared the Japanese main islands.

Sea Capacity Analysis

The following chart maps selected daily totals of U.S. ships or submarines present to number of Japanese ships or submarines sighted or contacted for all Pacific territories on a running basis for the month of February 1945.

⁶⁰ Gray Book, 2578-707.

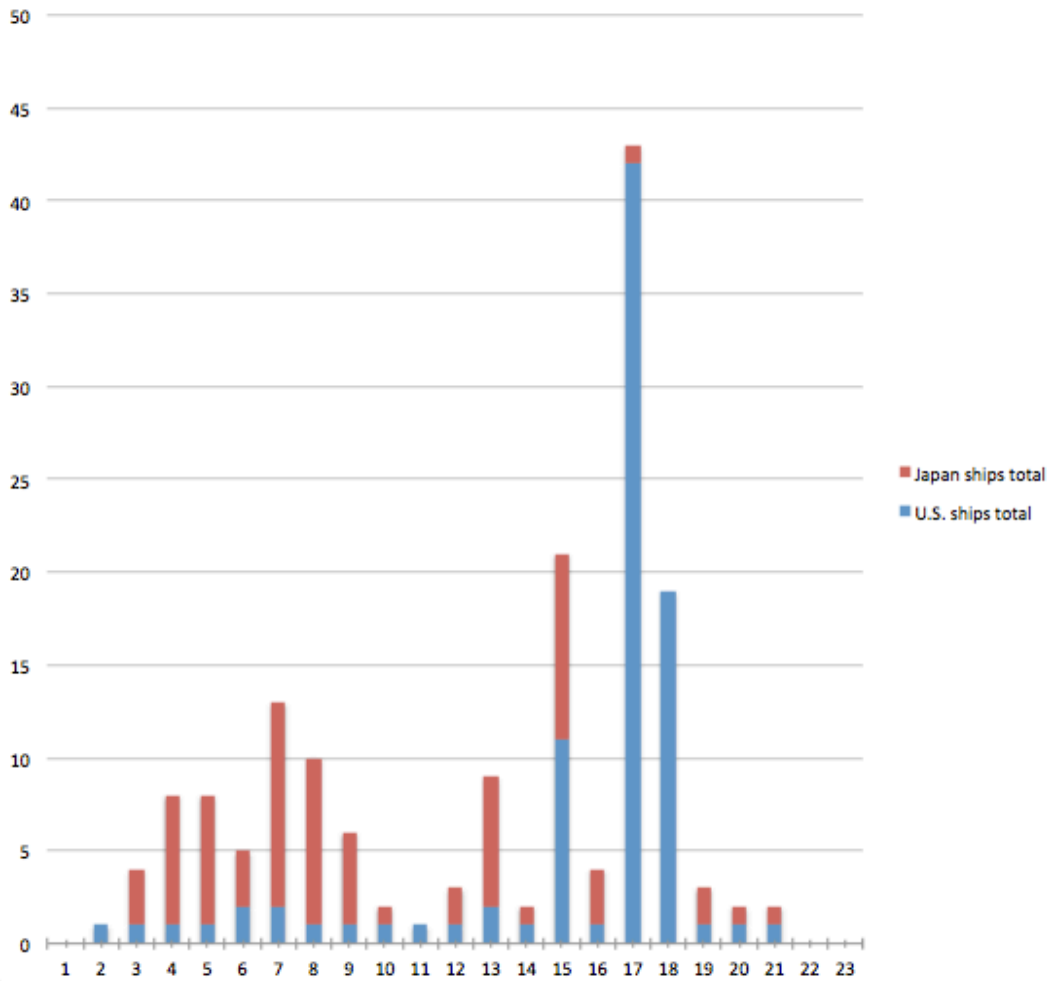


Figure 12 - U.S. and Japanese Sea Capacity per Sighting or Contact Event (Selected Maximum Japanese Sea Resistance Data, All Pacific Territories, Month of February 1945)

Gray Book daily running totals show that the Japanese naval presence in the Pacific Theatre was weak compared to the U.S. naval presence during the last six months of the war. Groups of Japanese fighting ships numbering five to eleven ships or subs were reported on only six separate days in this selected sample of maximum Japanese resistance events, and 13 sightings and contacts included only one to three enemy ships or submarines.⁶¹ Many sightings consisted of cargo and merchant ships rather than

⁶¹ Gray Book, 2529-59.

fighting ships, documenting cargo ship destruction such as U.S. submarines sinking three cargo ships in the South China Sea on the 5th of February.⁶² Several of the singular enemy sightings indicated limited but continuing enemy submarine activity, usually ending with isolated U.S. sinking and damage of the enemy submarines. Despite the limited presence of isolated submarines, ships and small groups of ships, the majority of sightings did not end in conflict or significant resistance in February. Thus, the limited presence of Japanese fighting ships and submarines seldom equated to any significant Japanese sea fighting capacity.

For the period shown in Figure 12, there was only one high sea resistance score in the Philippines due to ship capacity, as most significant levels of sea resistance encountered were due to anti-ship fire installations on land or suicide bombing from enemy planes. The single high resistance event due to Japanese ship capacity on the 17th of February was more a function of fighting will than high numbers of fighting ships present in the Bataan Corregidor area. In fact, Japanese sea capacity was markedly low during this incident, with only one Japanese fighting ship matched against 42 U.S. ships. This lone ship, however, displayed a high degree of resistance and will by sinking or damaging four U.S. ships before destroying itself in a suicide collision. This suicide approach to ship warfare was self-destructive, but highly effective in destroying a relatively large number of U.S. craft in exchange.⁶³

⁶² Gray Book, 2531-2.

⁶³ Gray Book, 2542-3.

SEA CAPACITY COMPARISON

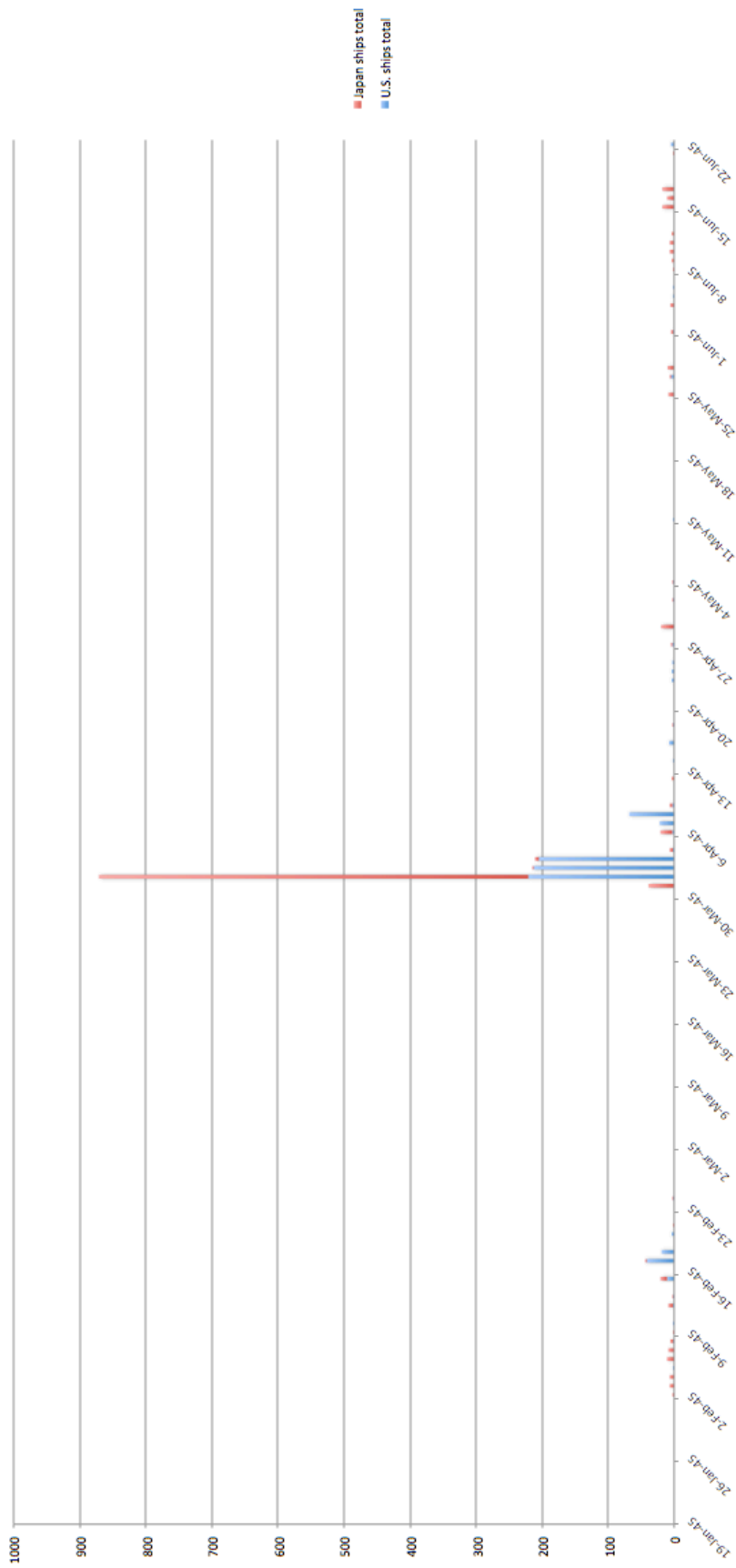


Figure 13 - Japan and U.S. Sea Capacity (Selected Maximum Japanese Sea Resistance, Data for all Pacific Territories, Months of February-June 1945)

Apart from the Philippines campaigns, Figure 13 verifies that there were only a handful of days during the Iwo Jima campaign where levels of Japanese sea resistance were high or extremely high in the period from January through June 1945. Similar to the February data, many of the high-level sea resistance events were a result of a high number of highly effective anti-ship fire gun installations on land or the result of Japanese suicide boats displaying extremely high levels of will. These events were not the result of high sea fighting capacity from the presence of great numbers of Japanese ships or submarines. The singular entry noting extremely high opposition from a non-land source was due to air rather than sea opposition—an “unknown number” of Japanese suicide bomber airplanes that caused extensive damage to U.S. ships. Referring back to Figures 12 and 13, the high Japanese sea resistance levels occurring during the latter part of the period are almost exclusively due to anti-ship fire from land-based installations and not from any significant naval capacity or presence. Less than ten “significant” sea opposition scores resulted from Japanese submarine and fighting ship capacity. These low levels of resistance and presence corroborate U.S. naval reports and Truman’s claims of *generally low Japanese naval capacity January through June 1945*. Other than these isolated incidents, Japanese naval activity throughout the Pacific resulted in little or no opposition, almost without exception.

In addition to corroborating generally low Japanese sea capacity due to the near destruction of the Japanese Navy and much of their merchant marine support ships, the data in Figures 12 and 13 also support Truman’s claims that Japanese sea fighting capacity and levels of will increased in March through June 1945 due to the disproportionate damage, not just by Japanese suicide planes, but also in varied attacks

by Japanese suicide boats. In one instance on April 9th, U.S. Commander Task Force 51 reported high enemy resistance to U.S. Okinawa occupation evidenced not only by daily and nightly air raids, but also by “attempts at surface activity by suicide boats and swimmers,” and general “increased resistance” in the South part of the island. On this date, despite low numbers of Japanese ships, suicide boats and swimmers managed to destroy three U.S. ships.⁶⁴ The week before on April 1st, Vice Admiral Turner of Commander Task Force 51 reported Japanese plane and boat resistance as “high per vehicle” – and warned Nimitz through Gray Book reporting for that date that he estimated as many as 650 Japanese suicide boats remaining at Okinawa. Turner’s April 1st estimate is the singular high capacity number estimated the Figure 13 chart,⁶⁵ yet Gray Book reports listing the high boat resistance and damage per single vehicle clearly support Truman’s claims of high levels of Japanese sea resistance nearer to the Japanese main islands, particularly the “high” levels of will displayed through suicide sea activity in Iwo Jima and Okinawa.⁶⁶

Air Capacity Analysis

The following chart maps total numbers of U.S. planes to number of Japanese planes for all Pacific territories on a running daily basis for the month of February 1945:

⁶⁴ Gray Book, 2591-2.

⁶⁵ Gray Book, 2605-6.

⁶⁶ Gray Book, 2578-707.

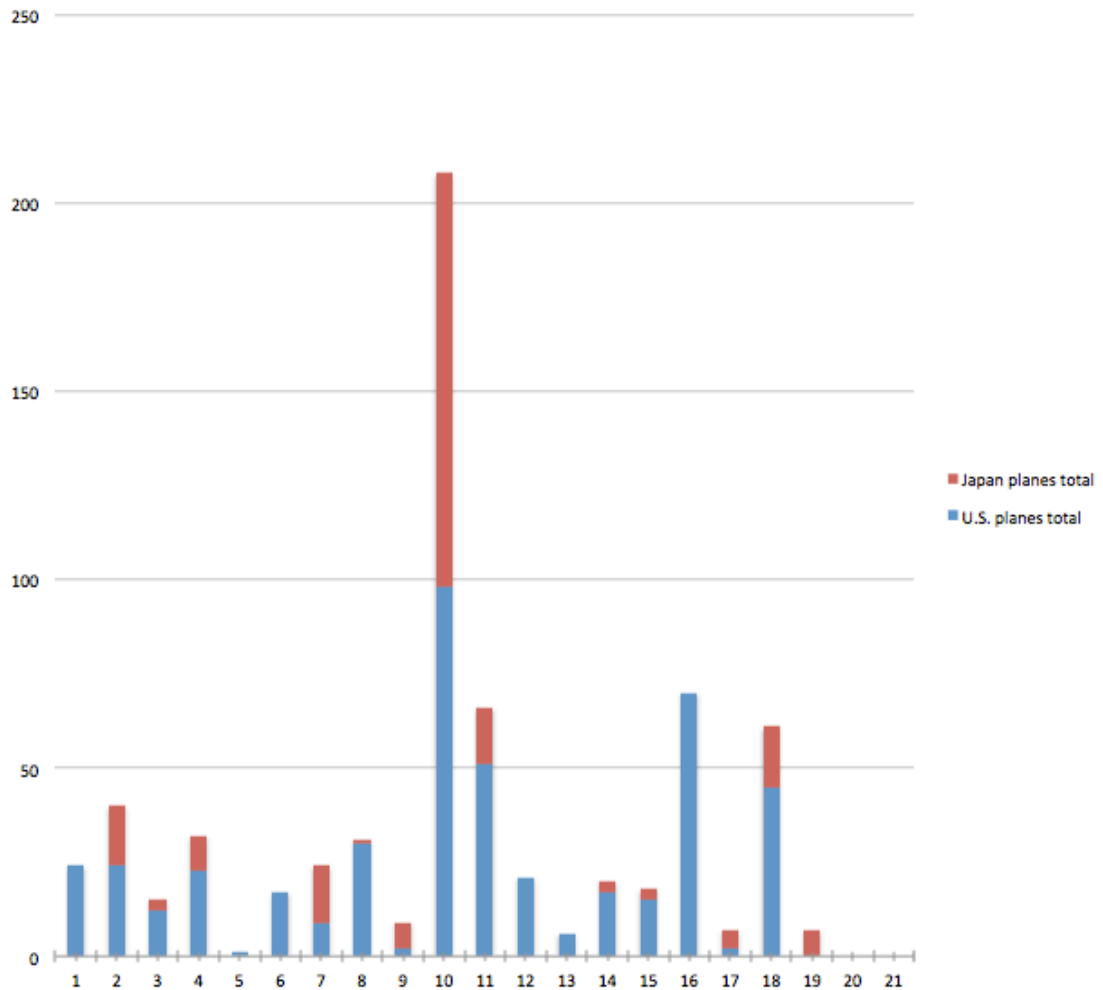


Figure 14 - U.S. and Japanese Air Capacity per Sighting or Contact Event (Selected Maximum Japanese Air Resistance Data, All Pacific Territories, Month of February 1945)

Gray Book data for February 1945 shows only five events where levels of Japanese air resistance were significant or high. At all other times, there was low to zero levels of Japanese air resistance. Of these five events, there was only one where Japanese air capacity was significantly high, as seen in Figure 14 above, where 110 Japanese planes on February 10, 1945 intercepted 98 U.S. bombers in Nagoya, Japan, equating to a Japanese to U.S. air capacity of slightly more than 1:1. Even though numbers were approximately evenly matched, Japan lost 26 planes to 11 U.S. planes lost in the fighting, and Japan lost another 18 to 23 planes that U.S. bombers destroyed in an airfield on the

ground.⁶⁷

The second high air capacity count involved 98 Japanese planes attacked on the ground in an airfield in Tsingtao. Although this was a high number of enemy planes that were assumed operational, the air resistance level was still zero because no planes left the ground and “no air opposition” was encountered. The fact that so many planes were left unprotected indicates both zero air and zero territorial resistance levels at this location. It also supports reports that Japanese air capacity at that time might have been low not just due to diminishing numbers of planes and ability to produce replacement planes in Japanese factories, but also a lack of trained pilots to fly them.⁶⁸ Thus, the February 10th Tsingtao sighting was coded as zero air resistance because “no air opposition” was encountered during the U.S. attack on the Tsingtao airfield. However, that same day Japanese deployed 110 intercepting planes, “with a total of 305 attacks” on the nearly 100 U.S. planes bombing Japan’s Nakajima Aircraft Factory at a different location in Nagoya, Japan. Despite the high air capacity displayed in Nagoya, results in the February enemy air attacks were less effective than attacks nearer to Iwo Jima and Okinawa, with the Japanese pilots destroying only 11 U.S. bombers to their own loss of at least 44 planes on the attack of February 10th.⁶⁹ Yet Japanese air capacity analysis for February June provides evidence of high levels of Japanese fighting will (Figure 15, below):

⁶⁷ Gray Book, 2536.

⁶⁸ *Interrogations*, 7-12, 61-3. See also David C. Evans, Ed. *The Japanese Navy in World War II: In the Words of Former Japanese Naval Officers*, Annapolis, Maryland: Naval Institute Press, 2017, especially 453-73.

⁶⁹ Gray Book, 2535-6.

AIR CAPACITY COMPARISON

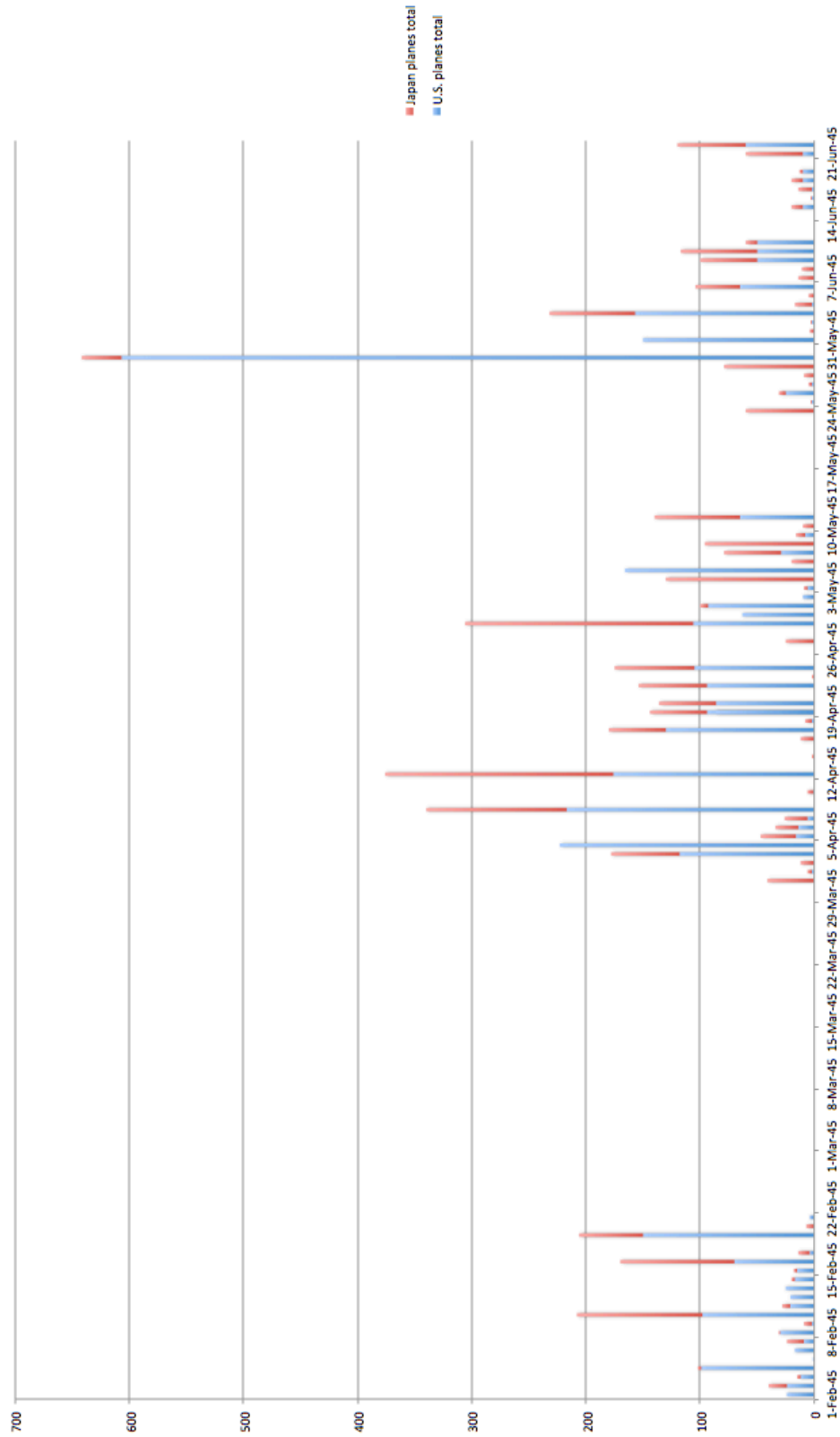


Figure 15 - Japan versus U.S. Air Capacities (Selected Maximum Japanese Air Resistance Data for all Pacific Territories, Months of February-June 1945)

Air resistance levels in the months of April through June 1945 showed increased activity compared to February, with more than more than 12 events involving greater than 50 Japanese planes. At least four events involved greater than 100 Japanese planes (represented by the red bars in these time periods in Figure 15). On April 12th, despite continued heavy losses, Japanese air forces conducted “heavy” air raids, with more than 175 planes attacking in 17 separate raids, resulting in damage and destruction of many U.S. ships.⁷⁰ Likewise, on May 4th, more than 130 Japanese planes attacked in 38 separate raids. Although raids were at times not effective in destroying a large number of U.S. planes, Japanese pilots displayed “high” fighting will with 12 suicide hits disproportionately destroying or damaging eight U.S. navy ships.⁷¹ Again, the evidence supports arguments on *both* sides of the Japanese fighting capacity argument. Japanese air forces continued to suffer losses both in the air and on the ground and activity was greatly decreased in the Philippines in February 1945, yet Japanese air capacity was unexpectedly high in both Okinawa and Iwo Jima. Gray Book data shows that the answer to the question of whether Japanese air fighting capacity was declining is more nuanced than explicit. Similar to the sea capacity picture, Japanese general air capacity seemed to be decreasing in many aspects, including the number of planes at specific Japanese airfields and the number of pilots at locations like the Philippines available to fly them. But decreasing air capacity at locales such as the Philippines and other remote locales is only part of the story; Japanese air fighting capacity was higher than in the Philippines as U.S. forces drew closer to the Japanese home islands, with increasing numbers of raids

⁷⁰ Gray Book, 2610-11.

⁷¹ Gray Book, 2638-40.

and planes and, importantly, continued willingness to use suicide plane tactics to take out U.S. ships. Truman reported to Congress on June 1st that “despite heavy losses” the Japanese air forces still comprised 3,000 combat planes, while the Japanese home front effort (despite destruction of many war production plants, facilities and cities) was still “capable of producing planes at the rate of [up to]...1,500 a month.”⁷² The Gray Book data from June shows that these estimated remaining 3,000 combat planes were indeed still capable of inflicting a high amount of damage to U.S. ships and there were signs of sustained, increased activity in Okinawa and as the ring of fighting tightened around the Japanese main islands. Unlike the Japanese sea capacity data, which shows a marked decrease of overall, general activity, the Japanese air capacity data supports claims of increased general activity.

Land Capacity Analysis

Did Japanese land fighting capacity show signs of increasing similar to air and sea fighting capacity and high levels of will? The following chart maps total numbers of U.S. to Japanese troops present during selected days during the last part of the Okinawa campaign on a running daily basis for the month of June 1945, in addition to days from months with less troop reports in the months of February, April, and May:

⁷² Truman, *Winning the War*, par. 93.

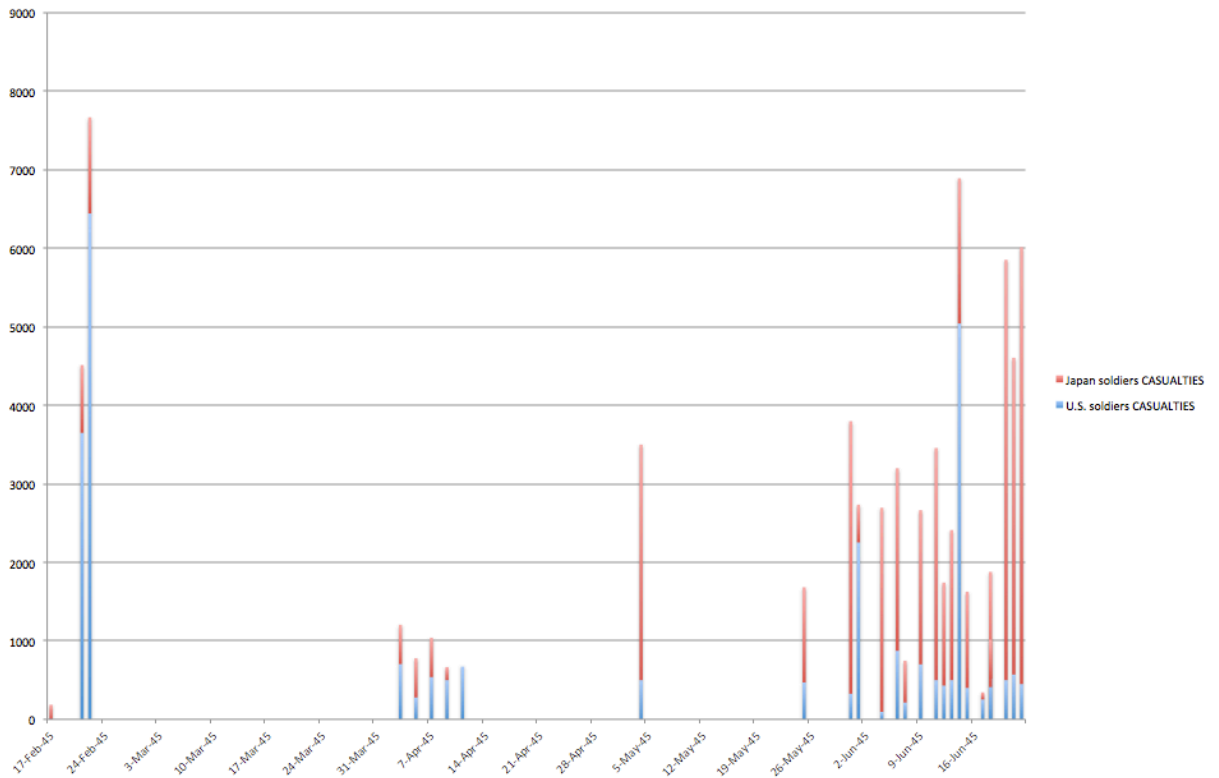


Figure 16 - U.S. and Japanese Land Casualties (Selected Maximum Land Resistance Data, Japan, Months of February June 1945)

Groups assigned to each set of events reported Gray Book data as a running tally to the Nimitz U.S. Pacific Fleet headquarters in Hawaii. In addition to navy units, these reporting groups included (but were not limited to) army movements and reports under the command of General MacArthur,⁷³ U.S. Marine and Coast Guard activity, and sightings and contacts by Allied forces such as China and Great Britain. Figure 16 shows selected maximum land resistance data, with Japanese casualties shown in red, compared to U.S. casualties shown in blue. Two maximum land resistance events in Iwo Jima on

⁷³ See Douglas MacArthur. *Reports of General MacArthur: the Campaigns of MacArthur in the Pacific*. Washington D.C.: U.S. Army General Staff of G.H.Q., 1966.

February 21st and 22nd reflect a larger number of U.S. casualties compared to Japanese casualties due to a very high U.S. wounded in action count. Out of an estimated 20,000 Japanese troops fighting at Iwo Jima with very high levels of resistance, 862 Japanese troops were killed in action on the 21st with only one taken as a prisoner of war; while U.S. casualties included 3,650 wounded. On the 22nd, the ratio of U.S. to Japanese soldiers killed was 1:2, yet the total U.S. to Japanese soldiers wounded was again 6:1 due to “very high resistance” levels, with the enemy infiltrating U.S. positions along the entire fighting front. An estimated 1,224 Japanese troops were killed, compared to over 2,000 U.S. troops killed and over 6,000 wounded. Although U.S. troops were at “70% fighting efficiency” and eventually pushed back the lines to capture Iwo Jima, the U.S. suffered higher numbers wounded and Japanese land fighting levels showed little diminishment until the final days of fighting.⁷⁴

Similar high Japanese land fighting capacity and even higher resistance levels were evidenced in Okinawa, with signs of high level will and resolve despite a 6:1 Japanese to U.S. casualty ratio. As previously noted, the red bars on Figure 16 at the end of June show a marked *increase* in numbers of Japanese troops killed or wounded despite clear signs of imminent U.S. battle victory—including the capture, death or surrender of military leaders. The number of Japanese troops killed or wounded was 5,354 on June 20th, 4,035 on June 21st, and 5,564 on the day of surrender, June 22nd.⁷⁵ The ramped increase in both Iwo Jima and Okinawa clearly support Truman’s claim of increased land fighting capacity close to the Japanese main islands as U.S. troops closed in toward the

⁷⁴ Gray Book, 2704-5.

⁷⁵ Gray Book, 2704-7.

Kyushu invasion—and The Gray Book-reported troop numbers corroborate as well Truman’s report of six Japanese casualties to every U.S. casualty in Okinawa at the end of May 1945. The pattern continued 22 days past Truman’s speech, confirming that Okinawa followed the same increases in already high Japanese fighting capacities, will and resistance in Iwo Jima. As predicted by Truman’s advisors, although Okinawa fighting was still occurring during Truman’s speech on June 1st, the final number of total Japanese and U.S. casualties for that battle was indeed on the order of hundreds of thousands, with over 130,000 dead, missing, or wounded by June 22nd.⁷⁶ Truman continued to use these claims and the data up to June 22nd for subsequent claims of “hundreds and thousands” of lives at stake,⁷⁷ and also for his decision to drop the bombs in early August.

Beyond the specific land, sea, and air capacity patterns, The Gray Book entries additionally support reports made in June by the Joint Chiefs of Staff that compiled information for and made recommendations to President Truman. Truman indicated to another of Nimitz’ admirals, Fleet Admiral William D. Leahy, that he would base his decision whether to use the atomic bomb on the predicted number of casualties resulting from a ground invasion of Kyushu as the next step after Okinawa for launching Operation Olympic. Leahy, in turn, requested this information from the Joint Chiefs of Staff in preparation for delivering recommendations and estimates at a White House meeting on

⁷⁶ Gray Book, 2706-7.

⁷⁷ “Harry S. Truman Library and Museum.” *Truman's Farewell Address to the American People*, www.trumanlibrary.org/educ/farewell.htm, par. 20.

June 18, 1945.⁷⁸ In order to make such a prediction, the Joint Chiefs of Staff (JCOS) created a report entitled “Details of the Campaign Against Japan” in July of 1945. This became the basis of the recommendations presented in memo number 598, “Basic Military Objectives, Strategy, and Policies in the War Against Japan.”⁷⁹ The memo lists the ratio of Japanese to U.S. casualties at 1:4.6 estimated for the Leyte Campaign (or 78,000 Japanese casualties not including wounded to 17,000 U.S. casualties killed, wounded and missing):

Campaign	U.S. Casualties Killed, wounded, missing	Japanese Casualties Killed and Prisoners (Not including wounded)	Ratio (U.S. to Japanese)
Leyte	17,000	78,000	1:4.6
Luzon	31,000	156,000	1:5.0
Iwo Jima	20,000	25,000	1:1.25
Okinawa	39,000 (Ground) 7,700 (Navy)	81,000 (not a complete count)	1:2

Table 1 – U.S. and Japanese Land Casualties (Aggregated by Joint Chiefs of Staff and Reported to Truman for Kyushu Japanese Main islands Invasion Initial Casualty Prediction)

The Gray Book entry from February 1st estimated MacArthur’s casualty totals for the same Leyte campaign as of January 29th, 1945, at 71,624 Japanese killed with 631 POWs –with 3,135 U.S. soldiers killed, 9,865 wounded and 160 missing. This 71,624 to 13,160 relative balance would give a 1:5.4 Japanese to U.S. casualty ratio and a total casualty number for both sides in excess of 84,000 – which is fairly consistent with the updated

⁷⁸ FRUS, 903.

⁷⁹ FRUS, 903-10.

total of 95,000 and ratio of 1:4.6 updated in the report. The JCOS July meeting notes qualify the data as not final, but it does provide the total running tally from “MacArthur’s operations from 1 March 1944 through 1 May 1945” as 13,742 U.S. troops killed in action “compared to 310,165 Japanese killed, or a ratio of 22 to 1.” Furthermore, the staff believed that the Kyushu invasion numbers and ratio would be closer to the Luzon numbers listed in the above table due to the nature of the Kyushu geography, which was more like Luzon than Okinawa in ease of approach. Using Luzon as an estimate model would yield a higher total on both sides dead at an estimated 186,000 – but also would result in fewer U.S. ground troop casualties.⁸⁰

In short, Truman specifically indicated to Leahy that he would base his decision to drop the atomic bomb on not only assessed high levels of territorial resistance, but also specifically on land-based warfighting capacity and predicted outcome (in the form of total casualties at Kyushu). Obviously, the true nature of Truman’s decision to drop the bomb is much more complex, which belies why debate regarding the decision continues to this day. Yet Truman explicitly claimed that saving U.S. and Japanese lives was the primary impetus behind his decision. Past debate has argued that Truman’s claims—especially his well-known claim that hundreds of thousands of lives would be saved—were inaccurate or intentionally and grossly exaggerated.⁸¹ As explored in the territory control sections, The Gray Book granular data analysis and results are mixed. The data confirm the recommendations from Nimitz and his admirals that the U.S. was able to gain territory (and that Japanese controlled territory was contracting) with average levels of

⁸⁰ FRUS, 905.

⁸¹ Walker and Alperovitz, *Debate*. See also Truman *Kupcinet* and *Farewell*.

territorial resistance that were low to negligible, even without the threat of nuclear force. However, the daily territorial control picture also supports the contrary view that levels of Japanese territorial resistance nearer to and on the home islands were significant to high in isolated daily and weekly timeframes and showed clear signs of increase rather than abatement.

Capacity Implications and Truman's Decision making

Truman had to learn quickly in order to make decisions with regard to both military and diplomatic strategies for ending the war. The Gray Book data confirms that Japanese air and sea capacities were generally low, but the data also shows that Japanese levels of land capacity and resistance were extremely high on intermittent weeks during the last six months of the war. Returning to Truman's June 1st claims to Congress, Truman had to constantly assess using the data aggregated by his advisors: were Japanese sea, air, and land fighting capacities high?

The Gray Book data shows that Japanese sea capacity was, on average, not high from February to August 1945. The Gray Book data corroborate Nimitz and his admirals' assessments that Japanese sea fighting capacity was low. As such, it was reasonable for Truman's advisors to conclude that Hirohito would eventually surrender or the war would terminate due to lack of Japanese sea capacity to continue fighting. Even if the Japanese military were confined to the four main Japan islands, Truman knew the Japanese military was unable to either hold territory outside of the home islands or to aggressively expand its reach beyond Japan's borders. He also knew that Japanese sea capacity was generally low, so Truman could have considered offering Hirohito softer terms of

surrender in order to bargain for peace. It is well known that Stimson and the Joint Chiefs of Staff advocated softer surrender terms that allowed the emperor to remain seated as Japan's non-military leader, and were outwardly opposed to the strict terms of unconditional surrender demanded under the Potsdam Declaration, issued from the Allies to Japan on July 26, 1945. Unlike Stimson, who worried about the potential of a nuclear arms race, Truman sided with the pro-nuclear brinkmanship strategy of his long-time ally and newly named secretary of state, James F. Byrnes, taking an immovable stance with regard to unconditional surrender—a stance averse to offering any formal reassurance of Hirohito's safety or softening surrender terms.⁸²

Thus, Truman's proclivity to keep fighting for unconditional surrender was not likely to be swayed by the attrition of Japanese sea power and the probability of eventual termination. He did recognize assessments of diminished Japanese sea power as "a fraction of its former self" in his June 1, 1945 speech to Congress on winning the Pacific War, but argued that Japanese air power would still be a formidable threat concentrated in a fierce battle over the home islands:

As we approach the enemy's homeland, the density of his air power naturally becomes greater and greater. A year and a half ago, the enemy had more than 5000 operating airplanes to guard perhaps eighteen million square miles of area. We could attack wherever we saw that the defense was thinly spread. Since then, we have reduced his total air power very much, but the area he is now forced to defend has been shrunk so much more quickly by our rapid advance, that *the density of his air power is four or five times as great* as it was (emphasis added).⁸³

The June 1st speech also adequately covers the most up to date behind the scenes

⁸² See Malloy, *Atomic*.

⁸³ "Special Message to the Congress on Winning the War With Japan, June 1, 1945" *Truman Library Harry S. Truman Post Presidential Papers*, par. 34.

calculations of his Chiefs of Staff on both Japanese sea and air fighting capacity, even incorporating the fluctuations of air capacity enumerated in reports like The Gray Book which show both high resistance at key battles of the enemy's choice and high will to cause damage through suicide attacks:

We at home can hardly imagine either the delirium of Japanese suicide attacks on our troops, airfields and ships...as we approach the main islands of the enemy the damage to our ships and the loss of our men are becoming more severe. In the future we shall have to expect more damage rather than less.⁸⁴

As Truman's claims of fluctuations in capacities increasing with proximity to the home islands intimates, the answer to any of Truman's June 1st Japanese capacity and will claims is complex.

The capacity question of whether Japanese land fighting capacity was high is a blend of "yes" and "no." Numbers of Japanese troops were definitely decreasing, and the land capacity to expand Japan controlled territory beyond home islands borders was definitely low. Yet, as the previous analysis of Gray Book data shows, Japanese land fighting capacity was also intermittently high. Truman's specific request to Leahy for troop casualty estimates for Operation Olympic invasion of the Japan homeland certainly seems reasonable given how high the running estimates were (in the hundreds of thousands).⁸⁵ In order to decide whether a land invasion was too costly while formulating a plan for dropping of the atomic bombs on Japan, Truman would have needed an updated estimate from Nimitz, MacArthur and the Chiefs of Staff (critical timing of the plan discussed in the next chapter). Revisionists including Gar Alperovitz have openly

⁸⁴ Truman, "*Special Message*," par. 36.

⁸⁵ Gray Book, 2592-707.

debated not only the necessity of dropping the bombs, but whether Truman grossly overstated his estimate of “hundreds of thousands” of lives saved.⁸⁶ The daily running Gray Book totals certainly confirm that Nimitz knew the troop estimates for Okinawa alone were around 100,000 Japanese troops and 30,000 U.S. troops killed in action. This is certainly in line with Truman’s claims of “hundreds of thousands” of lives from both countries saved.⁸⁷ Truman stated in his June 1st speech that millions of U.S. troops would be redeployed from fighting in Europe to fighting in Japan were the U.S. to launch the planned Kyushu invasion in November 1945. In order to support the invasion, “millions of men and millions of tons of supplies must be moved half way around the globe.” Although the U.S. army strength would be reduced by two million to allow the wounded and sick to return home, the base number available for redeployment to fight on the Japanese main islands before additional U.S. Selective Service calls still exceeded 6,968,000. Nearly seven million U.S. troops were thus already dedicated to the planned home islands invasion of Japan.⁸⁸ These millions of troops if deployed for the Kyushu land invasion could potentially become casualties of extremely high Japanese fighting will (especially air and land), and contribute to the hundreds of thousands of casualties (that would likely die or become wounded on both sides should the invasion spread like another Okinawa) as corroborated by Gray Book daily data and the aggregated assessments of the Joint Chiefs of Staff and other Truman advisors.

To Truman’s credit, the daily display of will and nuances regarding not just

⁸⁶ Walker, 32.

⁸⁷ See Truman, *Kupcinet*.

⁸⁸ Truman, *Winning the War*, par. 65-70.

suicide planes and ships but also soldier suicide tactics during the last stands at Iwo Jima and Okinawa indicated that invading and taking the Japanese main islands would not be a straightforward or easy task for U.S. forces. The nature of last stand cave structures and Japanese defense plans at Okinawa, as well, demonstrated the lengths to which the Japanese would go to defend their homeland.⁸⁹ Truman's claim of hundreds of thousands saved was certainly reasonable given multiple considerations: 1) the determination of the Japanese people and military and the greater numbers of people living there that were exponentially greater than both the Iwo Jima and Okinawa territories combined; 2) the over one hundred thousand casualties in Luzon and estimated at Kyushu; and 3) the hundred of thousands that died and were wounded in the other Pacific War campaigns that might be emulated should the land war need expansion beyond Kyushu and across the Japanese main islands. Truman wanted to prevent "an Okinawa from one end of Japan to the other" and to avoid the commensurate high number of casualties and high cost in human lives and U.S. resources required to launch and complete such an effort.⁹⁰

The next section discusses a final primary factor in Truman's decision making: Soviet alignment (with the Allies versus Japan) and the atomic bomb technology that made the timing of Soviet entry into the Pacific War a critical consideration.

⁸⁹ See Mark Ealey, Alastair McLauchlan, Tatsuro Higa, and Masahide Ōta. *Descent into Hell: Civilian Memories of the Battle of Okinawa*. Portland, ME: Merwin Asia, 2014.

⁹⁰ FRUS, 908-9.

IV. A MATTER OF TIMING: Soviet Troops versus The Bomb

How did Stalin's choice between the belligerents (Allies versus Japan) factor into the larger Pacific War termination picture? The answer to this, again, is of course complex, and many scholars have delved into various aspects of this puzzle. There are important threads of information in Pacific War dynamics that must not be overlooked, including interwoven relationships—such as those between and among Truman, Stalin, Hirohito, their advisors and allies—and intricate factors including relative fighting capacities and atomic technology development. Tsuyoshi Kasegawa, for example, is among scholars who have contributed valuable insights by incorporating Hirohito's and other Japanese perspectives,⁹¹ and international relations scholars such as Leon Sigal focus specifically on war termination in the Pacific and organizational behavior of belligerents.⁹² Given the multiple approaches and perspectives available for study, viewing these myriad key aspects on a chronological timeline is an ordering principle that helps illuminate how Soviet alignment and atomic technology fit into the total picture. Figure 17 below charts key Truman, Stalin, and Hirohito knowledge events on three separate timelines, with shared knowledge of these events indicated by lines traversing and connecting the three concurrent timelines.

⁹¹ Hasegawa, 28-303.

⁹² Leon V. Sigal, *Fighting to a Finish: the Politics of War Termination in the United States and Japan, 1945* (Ithaca, NY: Cornell U Press, 1989) 26-314.

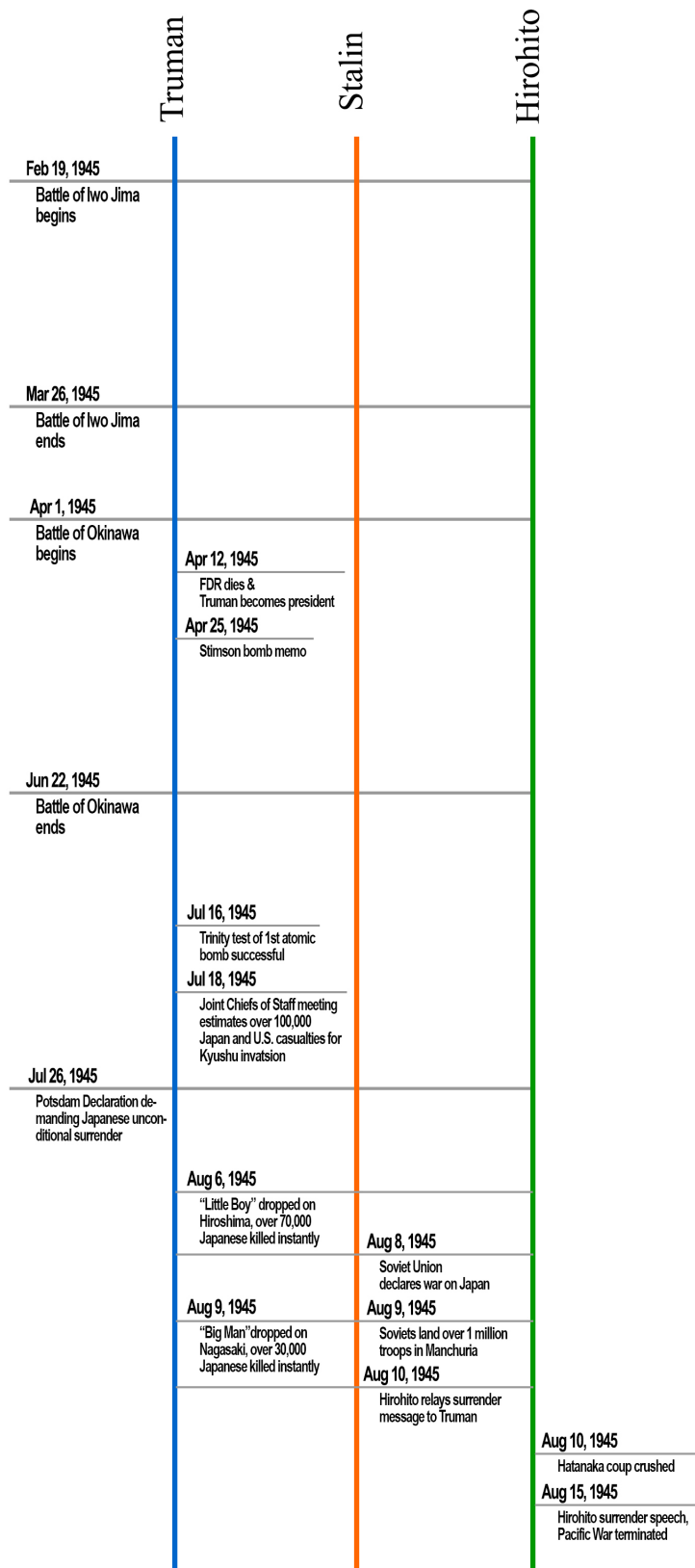


Figure 17 - Event Timeline (Key Events known to Truman, Stalin, and Hirohito, 1945)

The Soviet Union declared war against Japan on August 8, 1945, and landed Soviet troops in Manchuria the following day on August 9th. Iterating and expanding the Traditionalist versus Revisionist debate, Hasegawa and other historians agree that Russia's open declaration of alignment with the Allies against Japan was a final blow in Hirohito's mind that took away any last chance for Japan to save its hegemony.⁹³ Yet other historians argue that the atomic bombs were the key factor that forced Hirohito to surrender.⁹⁴ Examination of the timeline shows that these two events were in tight concert, and therefore both assessments are likely correct: both Soviet alignment *and* the new destructive capability of the atomic bombs forced Hirohito's surrender. Hirohito himself explicitly named the atomic bomb as a main reason Japan must terminate the war.⁹⁵ It seems clear in hindsight that Russia's entry into the war on August 8, 1945 denied Hirohito of any meaningful ally to support Japan's claim to East Asia hegemony, and therefore was a key factor forcing Hirohito's surrender. However, before citing Hirohito's surrender speech and his broadcasted reasons for surrender confirming both of these pressures, it is useful to review and trace key events leading to this conclusion.

Countdown toward Kyushu: February to June 1945

(Note: For the sake of clarity and efficiency, the following exploration of the event timeline (refer to Figure 17) in these next two subsections assumes a present tense point

⁹³ Hasegawa, *Racing*, 238-40.

⁹⁴ Walker, 50.

⁹⁵ Hirohito, par. 6.

of view. This convention also serves to place the reader closer to the thinking frames of the leaders as events unfolded and to put the timely information available to each decision maker in context):

The Battle of Iwo Jima begins on February 19, 1945. Japanese land and air capacity are generally trending downward toward depletion, but are still moderately effective at destroying a significant number of U.S. planes and ships on intermittent days, including use of suicide tactics that display high will and a high per fighter destructive capacity. U.S. troops encounter high Japanese land fighting resistance during the Iwo Jima campaign, resulting in thousands of troops on both sides killed and wounded in action daily. By the end of the campaign on March 26th, the estimated total Iwo Jima casualties include 22,093 Japanese soldiers killed in action, 4,594 U.S. soldiers killed in action, and 15,955 U.S. soldiers wounded in action.⁹⁶ On April 1st, the Battle of Okinawa begins, continuing the demonstration of high levels of Japanese land fighting capacity, will and resistance. Thousands of Japanese and U.S. troops continue to be killed and wounded in action daily. By May 8th the estimated total Okinawa casualties include 37,488 Japanese killed in action and 16,425 U.S. casualties, of which 2,684 were killed in action.⁹⁷ Japanese land fighting capacity at this point of the Okinawa campaign shows little sign of decreasing (non-trivially, this extremely high land fighting resistance continues through and beyond the month of May without abating until June 22, 1945).

As April Okinawa land fighting continues to rage with extremely high enemy resistance and an extremely high number of casualties, Truman is inaugurated as

⁹⁶ Gray Book, 2582-4.

⁹⁷ Gray Book, 2544-5.

president on April 12th following the death of President Franklin D. Roosevelt. Presented with an intricate web of factors affecting the war, from the tactical status of the front lines to a crash course from Secretary of War (and advisor on military employment of atomic energy) Henry L Stimson on the Manhattan Project and the potential realization of the atomic bomb as an ominous new tool of military might, Truman has to come up to speed quickly and act decisively as the highest decision-maker for U.S. strategy in the Pacific War despite the inherent complexities. Surprisingly, Roosevelt and the leaders of the Manhattan Project were able to keep the bomb secret from the world, including from then Vice President Truman, despite the enormity of the two billion dollar, technically intensive endeavor. Truman has no knowledge of the potential for atomic military power until Stimson informs and advises him on the Manhattan Project to develop the atomic bomb on April 24, 1945.⁹⁸ Truman thus inherits the potential use of the atomic bomb in his arsenal as commander in chief. The next day, Stimson delivers a memo warning Truman of the potential destructive capacity of the atomic bomb, the danger to Western civilization should enemies succeed in developing it before the U.S., and the potential of future nuclear arms races with other countries, including the Soviet Union. Truman adopts Roosevelt's view of the bomb as another tool in the U.S. military arsenal and agrees with the policy advocated by Stimson, Roosevelt, Churchill and others: the bomb is a tool that, if successfully developed, must be used against Japan. Furthermore, Truman adopts Roosevelt's long-term aim of positioning the U.S. as an atomic world leader. Such a position necessitates demonstration of both atomic weapon capability and

⁹⁸ See Draft of the Potsdam Declaration from President Harry S. Truman to Ambassador Patrick J. Hurley for Generalissimo Chiang Kai Shek, July 23, 1945. Truman Papers - Naval Aide Files.

the will to use it. Simultaneously, use of atomic force against Japan will accomplish the short-term U.S. war aim of punishing Japanese aggression. Atomic policy flows naturally from Roosevelt's policies. Truman's atomic policy is clear: win the race to successfully develop and test detonate the first atom bombs, then immediately use them against Japan.⁹⁹

The Battle of Okinawa that began in April continues, with all U.S. forces communicating daily running tallies, including the Nimitz Gray Book. Levels of Japanese land fighting capacity, will, and resistance remain extremely high through the months of May and June, with almost no abatement in the thousands of Japanese and U.S. soldiers killed and wounded daily. By the end of the battle on June 22, 1945, estimated total Okinawa casualties include 94,919 Japanese killed in action, 3,528 military POWs; and over 36,000 U.S. soldier casualties with over 6,000 killed in action. U.S. naval casualties are estimated at over 7,000 sailors killed or wounded in action.¹⁰⁰

Accelerated Apex: July to August 1945

Truman tells Leahy in July 1945 that he will base his decision to drop the atomic bomb on Japan on the predicted number of casualties resulting from invasion of the Japanese main islands at Kyushu and calls a meeting of the Joint Chiefs of Staff. On July 11, 1945, the Joint Chiefs of Staff deliver a report enumerating tallied results from all U.S. armed forces, including Gray Book totals of troops and sailors killed and wounded in action during key Pacific battles. The chiefs of staff predict that a Kyushu invasion will

⁹⁹ See Stimson, *Memorandum*.

¹⁰⁰ Gray Book, 2706-7.

result in hundreds of thousands of Japanese and U.S. deaths.¹⁰¹ Five days later, on July 16th, Stimson informs Truman that the Manhattan Project Trinity test of the first atomic bomb is a success. Truman mentions the successful test to Stalin during the Potsdam Conference with the Big Three on July 24th, to which Stalin responds that he hopes Truman will make “good use of it against the Japanese.”¹⁰² On July 26th, the Allies issue the Potsdam Declaration, demanding Japan’s unconditional surrender and warning of the use of an ominous and powerful new weapon. Two days later, Japan’s Prime Minister Kantaro Suzuki ignores the Potsdam Declaration by taking a stance of “mokusatsu,” rejecting the declaration and demands with his lack of acknowledgment or response.

Truman commands the crew of the *Enola Gay* to drop the first atomic bomb: the “Little Man” atomic bomb detonates on Hiroshima, Japan on August 6, 1945, killing more than 70,000 Japanese citizens instantaneously and fatally wounding as many more. On August 8th, the Soviet Union declares war on Japan. One day later, Stalin invades Manchuria, landing more than 1 million Soviet troops. Truman commands the crew of *Bockscar* to drop the second atomic bomb: the “Big Man” bomb detonates over Nagasaki, Japan on August 9, 1945, killing more than 30,000 Japanese citizens instantaneously and wounding tens of thousands more.

Hirohito relays a surrender message to the U.S. on August 10, 1945. On August 15th, Major Kenji Hatanaka attempts a coup at Kyujo, but pro-Hirohito forces crush the coup. Hirohito delivers his surrender broadcasted on Japanese radio airwaves on August 15, 1945, accepting the Allied terms of surrender and terminating the Pacific War.

¹⁰¹ FRUS, 903-10.

¹⁰² Harry S. Truman, *Year of Decisions* (Garden City, NY: Doubleday and Company, 1955), 416.

His speech names the victors, including the Big Three and China, and intimates that the war effort has failed:

We have ordered our Government to communicate to the Governments of the United States, Great Britain, China and the Soviet Union that our empire accepts the provisions of their joint declaration...

...Despite the...gallant fighting of our military and naval forces, the diligence and assiduity of our servants of the State and the devoted service of our 100,000,000 people—the war situation has developed not necessarily to Japan's advantage, while the general trends of the world have all turned against her interest.¹⁰³

Hirohito does not directly discuss the Soviet entry into the war and landing at Manchuria, but intimates the Soviet inclusion in “general trends of the world” turning against Japan’s interest. He also directly attributes surrender partially to increased U.S. destructive capability and the atomic bomb:

Moreover, the enemy has begun to employ a new and most cruel bomb, the power of which to do damage is, indeed, incalculable, taking the toll of many innocent lives. Should we continue to fight, it would not only result in an ultimate collapse and obliteration of the Japanese nation, but also it would lead to the total extinction of human civilization.

Such being the case, how are we to save the millions of our subjects, nor to atone ourselves before the hallowed spirits of our imperial ancestors? This is the reason why we have ordered the acceptance of the provisions of the joint declaration of the powers.

We cannot but express the deepest sense of regret to our allied nations of East Asia, who have consistently cooperated with the Empire toward the emancipation of East Asia.¹⁰⁴

With this speech Hirohito directly addresses the failure of his primary war aim, the solidification of Japan’s position as hegemon of the Greater East Asia sphere. As

¹⁰³ Hirohito, par. 2-5.

¹⁰⁴ Hirohito, par. 6-8.

explicitly stated and intimated by Hirohito, Soviet and Big Three alignment to deny hegemony and Truman's dropping the bombs on Hiroshima and Nagasaki are major factors persuading Hirohito to finally decide to surrender and terminate the Pacific War.

Soviet Entry into the War

Did Truman need Stalin's troops to win war? Stalin's entry into the war helped to tip the scales against Japan. His alignment with the Big Three also influenced Truman's decision to use atomic bomb ordinance to force Hirohito to surrender. The tight timeline for those fateful four days in August are not likely an accidental order of incidents: Russian alignment and entry into the war was a catalyst for queuing Truman not so much whether he should drop the bombs, but rather when he must drop them. Per his atomic policy adopted from Stimson and Roosevelt use of this ordinance was a given: destroying Japanese cities with atomic bombs was not viewed as substantially different from conventional destruction of Japanese cities by incendiaries. The timing of atomic bomb use was dictated only by the speed at which the bomb could be developed and successfully tested. Stalin told Truman on July 17th that the Soviets would land in Manchuria in mid-August. Truman's push to orchestrate the dropping of the bombs on two Japanese cities was accelerated by his knowledge of imminent Soviet declaration and entry.¹⁰⁵

Truman had stepped into the role of U.S. world leader at a time when atomic diplomacy and the realization of atomic bomb ordinance seismically shifted the traditional relationship within the Big Three. Churchill had cultivated a partnership with

¹⁰⁵ See Tsuyoshi Hasegawa, "The Soviet Factor in Ending the Pacific War."

Roosevelt to win the atomic race against Hitler, and Stalin sought the rewards promised for Soviet participation in the war – at great cost to the Soviet population who to date had already lost more than 6 million dead or wounded military defeating the Germans on the Eastern Front.¹⁰⁶ Truman quickly grasped that U.S. possession of atomic power gave him great advantage over both Churchill and Stalin. The U.S. need no longer act as a junior partner to the waning power of Great Britain, and Soviet ambitions must be contained. Indeed, apart from the warnings in the Stimson memos, the potential expansion of Soviet power haunted Churchill, who famously referred to the need to prevent the advance of the Soviet “Iron Curtain” across the Eurasian continent. He also warned that “the outlook (for potential expansion of Soviet influence due to the Yalta Agreement) was also anxious in the Far East and especially in Manchuria.”¹⁰⁷

To iterate, Truman’s long-term aim of positioning the U.S. as an atomic world leader necessitated demonstration of both atomic capability and the will to use it, dually realizing his short-term war aim of punishing Japanese aggression. Ultimately, the timeline study shows that, in order to demonstrate atomic capability and will and to use this device to simultaneously punish Japan, it was unlikely that Truman wanted Hirohito to surrender before the bombs were dropped in August of 1945; he may have continued to demand Japanese unconditional surrender to keep Japan fighting and to avoid a truce until the atom bombs were ready. Again, the timing was tight. The war with Germany terminated on May 7, 1945, so Stalin’s resources were freed to shift into a war with Japan.

¹⁰⁶ See Soviet General Staff Report, July 1945.

¹⁰⁷ "Sinews of Peace, 1946." *National Churchill Museum | Winston Churchill's Iron Curtain Speech, Fulton, MO*, par. 19-25.

The Trinity test to successfully detonate the first atomic bomb at Alamogordo, New Mexico, was scheduled for July 16, 1945 and Stalin's communications with Truman in the Potsdam memos indicated his intent to declare and enter the war with Japan in early August. As such, the timing of a successful bomb test was critical as it had the potential to end the war with Japan before Stalin could transfer his troops to Manchuria to claim a main role in forcing the Japanese to surrender. War termination before dropping the bombs on August 6th and 9th would have been less than ideal given Truman's need to demonstrate that the atomic bombs were viable ordinance and that the U.S. was willing to use them in their arsenal.¹⁰⁸

Military strategists such as Nimitz, MacArthur and the Joint Chiefs of Staff expressed aversion to the barbarity of using atomic bomb ordinance. In Leahy's opinion—despite Truman's conviction that dropping the bombs on two cities in Japan would “shorten the war against Japan and save American lives” – the atomic bombs were “of no material assistance in our war against Japan... (since they were) already defeated and ready to surrender because of the effective sea blockage and the successful bombing with conventional weapons.” Leahy may have been correct about imminent Japanese surrender: U.S. intelligence intercepted telegrams from Japanese Minister of Foreign Affairs, Shigenori Togo to Naotake Sato, Japan's ambassador in the Soviet Union, on July 11, 1945 exploring the potential for employing the Soviet Union to help with peace negotiations “in connection with termination of the war.”¹⁰⁹ The series of telegrams

¹⁰⁸ See Draft of the Potsdam Declaration from President Harry S. Truman to Ambassador Patrick J. Hurley for Generalissimo Chiang Kai Shek, July 23, 1945. Truman Papers, Naval Aide Files.

¹⁰⁹ FRUS, 874.

indicates growing frustration with the difficulty of communicating with the Soviet Union regarding peace talks,¹¹⁰ which fits into the narrative of Big Three Potsdam maneuvering and Truman's plans to drop the bombs on Japan orchestrated in tight concert with Stalin's declaration of war against Japan and subsequent Soviet invasion of Manchuria. It is evident given the sequence of events and Truman's schedule to use the atomic bombs on two cities that allowing the Japanese to capitulate might only grant Japan negotiating power rather than forcing unconditional surrender and ending the war with a greater show of strength. Certainly, Truman did not act on his knowledge of Japan's peace feelers toward the Soviet Union in the direction of ending the war through negotiation alone. If anything, the knowledge of these attempts only adds to the evidence that an orchestrated double bombing was Truman's preferred strategy. In the end, Truman timed and swiftly executed the double atomic option on August 6th and 9th to keep Stalin's claims of aiding war termination with Japan to a minimum (Stalin himself confirmed the Japanese Soviet peace overtures to Churchill in a Potsdam meeting in July).¹¹¹

Most of Truman's Joint Chiefs of Staff felt Soviet troops and land fighting capacity would be necessary for defeating the Japanese on the homeland, a fact that may have strengthened Truman's resolve to deny or minimize Stalin's inclusion in the Pacific War termination process. In addition to demonstration of U.S. atomic power while punishing Japan, the Soviet alignment factor clearly contributed to Truman's calculations, as his Joints Chiefs of Staff including MacArthur advised Truman regarding the importance of Soviet participation in July 1945. Advocating the continued use of

¹¹⁰ FRUS, 874-83.

¹¹¹ Hasegawa, *Soviet*, 11.

conventional weapon warfare, the Joint Chiefs of Staff recommended going forward with the Allied Operation Olympic invasion plan starting at Kyushu. Per their “basic military objectives, strategy, and policies in the war against Japan” meeting on July 18, 1945, both generals MacArthur and Marshall felt that 1) the invasion of the Japanese main islands was the best course of action to pursue; 2) Soviet land forces and participation were critical, especially to “[mop] up their own country” and control its Manchurian interests per the Yalta agreement; and 3) Soviet alignment with the Allies against Japan would help force Hirohito to surrender. MacArthur insisted Soviet participation in the home islands invasion was critical and concluded “the impact of (Soviet) entry on the already hopeless Japanese may well be the decisive action levering them into capitulation...shortly” after landing in Japan. Interestingly, King did not agree with MacArthur, as he felt that the U.S. would be able to “handle (the homeland invasion) alone” rather than depending too heavily on Soviet participation, and therefore recommended Truman to attend the upcoming Potsdam Conference with the knowledge that he need not bend too easily to Stalin’s demands or offer of assistance to end the war. Other than requesting the casualty estimates for Kyushu information from Leahy, the notes on record did not elaborate further on whether Truman debated whether atomic use of force was necessary with his chiefs of staff in the July 18th meeting. The recorded agenda includes primarily conventional use of force and requisite tactics and strategy (Truman had requested the Kyushu casualty numbers from Leahy before July 11th and found out about the successful Trinity test on July 16th—just two days before the joint chiefs meeting).¹¹² The July 18th meeting likely served to bolster his opinions on the

¹¹² FRUS, 903-10.

timing of when to drop the two bombs on Japan and why the timing was important in order to terminate the war with Japan most efficiently while keeping Stalin in check: MacArthur had emphasized the need for Soviet land troops to fight the Japanese in Manchuria and his feeling that Stalin's entry into the war would be the final blow to force Hirohito to surrender without using the atomic bombs. If Truman wanted to use the bombs before war's end and use U.S. rather than Soviet power to bend Hirohito, he now also had the updated Kyushu casualty numbers to verify that hundreds of thousands of lives would likely be saved should he send bombs first rather than men. Per King's dissenting opinion from the other chiefs of staff that Soviet participation was not critical to win the war, the July 18th meeting was also clearly a strategy meeting with regard to how to negotiate with Stalin in preparation for the Big Three meeting with Stalin and Churchill producing the Potsdam Declaration on July 26th. In that meeting, Truman would inform Stalin of the successful Trinity Test, Stalin would confirm his blessing to use it against Hirohito, Stalin would confirm his plans to enter the war against Japan in mid-August, and the three allies would demand unconditional surrender under threat of atomic annihilation of Japan. This initial atomic execution sequence from successful test to ultimatum happened in the span of eleven days from July 16 to July 26, 1945. The final execution sequence including actual delivery of the bombs, Soviet entry into the war, and Japanese capitulation eleven days later would take even less time: five days, from August 6 to August 10, 1945.

In the end, Truman's decisions were affected by his knowledge of continued Japanese land and air capacity, and high levels of will and resistance close to their home islands—despite the balance of decreased Japanese sea capacity and decreased territorial

resistance beyond Japan's borders in the Pacific. The Gray Book data and the timeline of events also show that Soviet participation was likely also a key factor that affected the timing of when Truman would drop the bombs on Japan. Once the Trinity test succeeded on July 16th, a new race ensued between Truman (who wanted to launch the missions to drop Little Boy and Big Man on Hiroshima and Nagasaki as soon as possible) and Stalin (who wanted to declare war on Japan and invade Manchuria as soon as possible). The dual culmination of that race in tight sequence on August 6th, 8th, and 9th forced Hirohito to capitulate on the 10th in order to save as many of his people as possible. Although he had waited until that time to do so, surrender was finally the only option and any chance of hegemony or leverage of past relationship with the Soviets and China was gone.

V. Conclusion

Overall, the data support Truman's claims about Japanese will and capacity. Furthermore, granular data analysis supports Truman's claims that, despite U.S. military forces pushing the Japanese expansionist front lines back 4000 miles in the years 1942 to 1945, Japanese fighting capacity and Japanese levels of will and resistance were high as of June of 1945 and were *increasing* as U.S. troops neared the Japanese main islands. Yet, support for the accuracy of Truman's claims is not without contradiction. On the U.S. side, the data supports U.S. naval and other military recommendations that waiting for Japan to come to the bargaining table due to greatly decreased Japan sea and air capacities was one course of action that Truman could have chosen;¹¹³ and, somewhat surprisingly, the data also supports Truman's claims that Japan's air and land fighting capacity and levels of Japanese fighting resistance and will were still significantly high and increasing. In summary, The Gray Book daily data generally support Truman's June 1st claims.

- Levels of Japanese fighting will were increasing as U.S. troops drew closer to the Japanese main islands: The Gray Book daily data corroborate "extremely high" levels of Japanese will as evidenced by relative increases in number and intensity of textual reports of Japanese suicide attacks on "troops, airfields and ships." Numerical data of ship, air, and troop losses and casualties verify resulting losses from extremely high levels of will demonstrated with suicide attacks (especially plane and troop, but including boat suicides as well) "becoming more severe" as U.S. forces got closer to Kyushu;¹¹⁴

¹¹³ See George C. Marshall, Henry Harley Arnold, and Ernest Joseph King, *The War reports of General of the Army George C. Marshall, Chief of Staff, General of the Army H.H. Arnold, Commanding General, Army Air Forces Fleet Admiral Ernest J. King, Commander in Chief, United States Fleet and Chief of Naval Operations*. Philadelphia: Lippincott, 1947.

¹¹⁴ Truman, *Winning the War*, par. 35.

- Japanese air fighting capacity to damage U.S. ships was increasing as U.S. troops drew closer to the Japanese main islands: Gray Book daily data confirm that the U.S. navy fleet was continuing to suffer daily damage from Japanese air efforts, which were becoming more concentrated as U.S. forces got closer to Kyushu.¹¹⁵ The data also support Truman's announcement that "despite heavy losses" the Japanese air force was still able to launch combat planes and daily raids in Okinawa;¹¹⁶
- The Battle of Okinawa evidenced increased levels of Japanese land and sea fighting resistance as U.S. troops drew closer to Tokyo: U.S. casualties on Okinawa on June 22, 1945 continued the ratio of 6:1 Japanese to U.S. casualties and the pattern of increased rather than decreased levels of resistance and will, with a running total on June 20th of over 120,000 casualties on both sides. Japanese casualties reported on that date included 87,343 killed and 1503 military prisoners of war taken. U.S. casualties included 6,740 killed, 29,598 wounded, and 250 missing. The ratio of Japanese troops killed versus wounded was an estimated 87:1, reflecting a great number of suicide deaths. The ratio of U.S. troop wounded to killed was approximately 4:1, indicating that, although the U.S. numbers of troops killed in action were considerably lower than Japanese troops killed, Japanese troops were still wounding U.S. troops at a casualty ratio of about 3:1, or 3 U.S. troops wounded for every 1 Japanese casualty. The Okinawa data showed high levels of will and a sustained trend in high resistance levels to the end of each conflict, with levels increasing as U.S. troops drew closer to the Japanese main islands.¹¹⁷

Although not definitively conclusive, The Gray Book data strongly supports both sides of the argument. Without coming to a conclusion on whether Truman's decision was justified or correct, the data indicates that his claim was reasonable that hundreds of thousands of U.S. lives might be saved on both sides by refraining from launching the Kyushu land invasion.

All this is not to say that there were not very serious ethical considerations with which Truman (and in their given roles Roosevelt, Churchill, and even Stalin) had to grapple; but Truman felt military necessity outweighed the moral and ethical

¹¹⁵ Truman, *Winning the War*, par. 35-9.

¹¹⁶ Truman, *Winning the War*, par. 93.

¹¹⁷ Truman, *Winning the War*, par. 94-6.

complexities of the debate at a time period when hundreds of thousands of troops, sailors and pilots were killed and wounded in action on all sides in each campaign, and the horrors of fatality due to radiation were beginning to be known but were in early stages of experimentation with regard to mass atomic bombing. Importantly, the atomic ordinance debate must for world political and military leaders include the now well-known fact that atomic bombs are Nuclear Biochemical (or NBC) weapons. Although the data support Truman's claims, Gray Book data also support the claims of Leahy, King, Nimitz, and MacArthur that Japanese sea capacity was destroyed and both air and land capacities were diminished. Truman might very well have chosen the conventional route to war termination even though he felt that use of the atomic bomb was already a given, especially if he had been completely aware of its NBC effects and the import of future damage to Japanese citizens in the form of radiation and birth defects. His choice weighing U.S. and Japanese lives in protracted conventional warfare versus unleashing a morally reprehensible weapon against an aggressive enemy was neither simple nor direct. The questions and decisions faced by Truman, Roosevelt, Churchill, and Stalin when considering new technology for use of force and city and human destruction are, as well, pertinent for not just atomic weapons but for any emerging military technology: when considering whether a weapon should be used to help persecute or terminate war, the question of whether the weaponry has NBC effects and whether NBC weapons in general should be used should always be part of use-of-force decision making. The data, the circumstances, and the timing and inertia of events may point to conventional and non-conventional, diplomatic and non-diplomatic solutions to war and conflict termination. Leaders must have the vision (and as Hasagawa warns, the courage) to overcome legacies

such as atomic bomb use of force in order to halt and not perpetuate NBC use. The question may not be whether we can overcome the legacies of decisions made in the Pacific War, but whether we can live with the results of our actions. The results of our actions can have a multiplicity of unintended effects when assessing whether conflict and wars must be won no matter the cost.

Ultimately, the same moral aversion to chemical warfare and national/international rules and norms regulating chemical warfare must also be applied to all NBC weapons, including nuclear weapons first and foremost. In a time where technology provides access to killing tools of greater destructive capacity and asymmetrical defense, understanding the balance of diplomacy and defense is more urgent than in times of purely conventional warfare and—as the information age matures into a widely accessible and cyber-sophisticated landscape—holds significant value in a data-rich, real-time future.

Some scholars such as Hasegawa point out, too, that Hirohito must bear his share of responsibility for not surrendering before the bombs were dropped. Hasegawa concludes that Hirohito was more concerned with preserving the imperial house of Japan than with surrendering despite imminent termination of the war due to greatly diminishing Japanese fighting capacity:

...Thus, this is a story with no heroes but no real villains, either—just men. The ending of the Pacific War was in the last analysis a human drama whose dynamics were determined by the very human characteristics of those involved: ambition, fear, vanity, anger, and prejudice. With each successive decision, the number of remaining alternatives steadily diminished, constraining ever further the possibilities, until the dropping of the bomb and the destruction of the Japanese state became all but

inevitable. The Pacific War could very well have ended differently had the men involved made different choices. But they did not.¹¹⁸

Continuing the parsing and analysis of Gray Book and other data is a worthy effort that may help to continue to elucidate daily, weekly and monthly warfighting and war termination trends and mechanisms. Dan Reiter, in his 2003 exploration of the “Bargaining Model of War,” emphasized the need to support quantifiable analysis of theories such as those of Robert Powell¹¹⁹ to examine these types of data and to analyze correlations among conflict factors such as power shifts and fighting persistence. Much study is needed to analyze warfighting termination data because, beyond conjecture and debate, concrete evidence in the form of data analysis may reveal patterns that converge toward knowledgeable negotiation and understanding of why nations fight and, more importantly, when they might optimally choose to balance defense with diplomacy as equal tools.

With regard to conventional data such as illuminated by The Gray Book and others—state leaders, both diplomatic and military, need to understand how data on how land, sea, and air fighting capacities of a nation might influence an opponent’s resolve to persist in fighting. Situational awareness of capacity not only gives practitioners a means of measuring probable resolve of the opponent due to this single factor, but also provides key information needed for state leaders for diplomatic leverage. Ultimately, if leaders

¹¹⁸ Hasegawa, *Racing*, 301-3.

¹¹⁹ Dan Reiter, "Exploring the Bargaining Model of War." *Perspective on Politics* 1, no. 1 (2003): 27-43. Reiter notes that the bargaining model can serve as a bridging tool between researchers and practitioners: practitioners can benefit from better understanding of how to avoid war through bargaining, and policy experience and security studies can help inform the testing and further development of the bargaining model.

understand the factors that influence the persistence of fighting or will to fight, they might better balance diplomacy and defense to encourage final agreement to end the use of force sooner than previously expected—or hopefully avoid armed conflict altogether.

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