

Choices among Weapons of Mass Destruction:  
How Far Were the United States and Japan  
Prepared to Go to End the Asia-Pacific War?

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**INTRODUCTION:**

Since approximately the 1960s an existential dread has hung over mankind concerning the potential extinction of human life due to thermonuclear weapons of literally unimaginable power. That dread understandably influenced the narratives about the end of the Asia-Pacific War, and particularly the use of atomic weapons at Hiroshima and Nagasaki. While by no means minimizing the significance or horror of atomic weapons, this paper seeks to place all these events in full perspective. Chronologically, it examines relevant developments in the decades and, in some aspects, centuries before the war and then through the entire wartime period. Substantively, it seeks to illuminate choices made by American and Japanese leaders regarding strategies to end the war that antedated atomic weapons. Finally, it explores three morally fraught issues. First, what were the weapons of mass destruction available in 1945? Second, which of these weapons of mass destruction were U.S. and Japanese leaders prepared to unleash? Third, what is the full spectrum of the tangled moral aspects of how the war ended?

Long before 1945, two phenomena repeatedly inflicted mass human extinction: disease and famine. The two are frequently interrelated for peoples weakened by starvation prove much more susceptible to death from disease. Well into the twentieth century disease, not battle, produced the greatest toll among combatants.<sup>1</sup> Although a precise accounting seems impossible, disease and starvation clearly accounted for enormous numbers of deaths around the globe during World War

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<sup>1</sup> Dr. Alfred Bollet, M.D., Dr. Alfred Jay, M.D., *Plagues & Poxes* (2<sup>nd</sup> Edition) (Demos Health, 2004); William H. McNeil, *Plagues and Peoples* (Anchor, 1976); Cormac Ó Gráda, *Famine: A Short History* (Princeton: Princeton University Press, 2010). These works provide a survey of the role of disease and famine throughout history.

II. It has been estimated that as many as two-thirds of all Japanese servicemen perished from disease and starvation, not combat.<sup>2</sup> World War II was the first war in which fewer American servicemen died from disease than from battle.<sup>3</sup>

## **THE EARLY ROOTS OF THE STRATEGIES OF NAVAL BLOCKADE AND AERIAL STRATEGIC BOMBARDMENT**

Beginning in about 1906-7, both the United States and Imperial Japanese Navies began contemplating a Pacific War. American naval strategists examined how to bring a war with Japan to a successful finish. They concluded that the U.S. must absolutely avoid an invasion of the Japanese home islands. A combination of Japanese forces likely to outnumber any American expeditionary force thrust into the Home Islands and terrain of the Japanese homeland seemed a sure prescription for massive casualties beyond the expected tolerance of the American people. Therefore, American sailors turned to an alternative strategy: blockade and bombardment, including aerial attacks on Japanese cities.<sup>4</sup>

Blockade had constituted a legitimate weapon of naval warfare for centuries prior to World War I. But the law and customs of warfare generally held that the blockading power could only prevent access by another belligerent to “contraband,” defined as weapons or supplies useful for warfare. Those laws and customs explicitly exempted from blockade food intended for civilian consumption. During World War I, however, both Great Britain and Germany mounted blockades ultimately aimed to deny the importation of food for civilians to compel the opponent to end the war by threat of mass civilian starvation. The Germany blockade failed. The British blockade not only succeeded, but also Britain continued the blockade of Germany after

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<sup>2</sup> John W. Dower, *War Without Mercy: Race & Power in the Pacific War* (New York Pantheon Books, 1986) 298 [hereafter Dower, *War Without Mercy*].

<sup>3</sup> Frank A. Reister, *Medical Department, United States Army, Medical Statistics in World War II* (Washington, D.C.: Office of the Surgeon General, Department of the Army, 1975) 8-10.

<sup>4</sup> Edward S. Miller, *War Plan Orange* (Annapolis: Naval Institute Press, 1991) [hereafter Miller, *War Plan Orange*] is the now classic account of the development of War Plan Orange which the text here summarizes in its major elements. Early Imperial Navy strategy for a war with the United States is from David C. Evans and Mark R. Peattie, *Kaigun: Strategy, Tactics and Technology and the Imperial Japanese Navy 1887-1941* (Annapolis: Naval Institute Press, 1997) 187-91. Evans and Peattie note that the loss of records make it difficult to pin-point when meaningful planning began for a war with the United States but believe it presumably was about 1907 when an official national defense policy was adopted.

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the November 1918 armistice inflicting further devastation. Approximately a half million Germans are believed to have perished directly or indirectly due to the blockade.<sup>5</sup>

In a series of post-World War I international agreements, the U.S. pledged to adhere to severe restrictions on submarine operations. These agreements imposed so called “cruiser rules” on submarines requiring them to surface, halt a merchant ship (even if the ship was armed), inspect the cargoes of the halted ship for “contraband,” and then if “contraband” was found, to place the crew in a position of safety before sinking the ship. It was not only highly dangerous for submarines to operate under such rules, it was also almost completely impractical. Thus, for about two decades after the war, the U.S. Navy favored a strategy of blockade, but prepared to execute it under a legal regime that effectively barred the type of unrestricted submarine warfare employed by Germany in World War I.<sup>6</sup>

Besides unrestricted submarine warfare and the precedent of making even foodstuffs intended for civilian consumption “contraband of war,” World War I also created precedents about aerial bombardment of mass civilian populations. Here Germany led the way with first attacks by airships and later bombers against England, including cities like London.<sup>7</sup> After the war, theorists of future warfare predicted scenarios in which mass urban populations would be pummeled by fleets of bombers raining down high explosives, incendiaries or poison gas. Efforts to create moral taboos or legal proscriptions of such attacks failed.<sup>8</sup>

European colonial powers proved willing to use air attacks for “policing” purposes against non-white peoples. This began before World War I and continued afterwards, though the scale of death, injuries and physical destruction in such attacks was very low compared to what would happen in World War II.<sup>9</sup> Then the countries

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<sup>5</sup> Martin Gilbert, *The First World War: A Complete History* (New York: Henry Holt, 1994) 46-7, 84-5, 102-3, 154-5, 391-2, 395, 511; Michael Waltzer, *Just and Unjust Wars: A Moral Argument with Historical Illustrations* (New York: Basic Books, 1977) 172-5; Eric W. Osborne, *Britain's Economic Blockade of Germany, 1914-1919* (New York: Routledge, 2013) 26-43, 62-3, 87-90, 188-9, 193-4; Joel Holwitt, *“Execute Against Japan”: The U.S. Decision to Conduct Unrestricted Submarine Warfare* (College Stations, TX: Texas A&M Press, 2009) 13-18 [hereafter Holwitt, *“Execute Against Japan”*].

<sup>6</sup> Holwitt, *“Execute Against Japan,”* 19-47, 62-66, 76-7.

<sup>7</sup> Francis K. Mason, *Battle Over Britain* (New York: Doubleday & Company, Inc., 1969) 17-40.

<sup>8</sup> Richard B. Frank, *Downfall: The End of the Japanese Empire* (New York: Random House, Inc., 1999) 38-9 [hereafter Frank, *Downfall*].

<sup>9</sup> Sven Lindqvist, *A History of Bombing* (New York: The New Press, 2000) 32-48. This work

that formed the Axis powers in World War II created precedents that would rebound upon them. In 1932, Japanese and Chinese troops clashed at the major city of Shanghai as part of the aftermath of Japan's seizure of Manchuria. Japan employed widespread bombing of the city that reportedly killed 2,000 to 6,000, mostly civilians.<sup>10</sup> In 1935, Italian airmen attacked Ethiopian forces and civilians. Overshadowing both these episodes in international public attention was the April 1937 bombing of the Basque city of Guernica by German bombers.<sup>11</sup> Later in 1937, after full scale war erupted between Japan and China, Japanese bombers struck numerous Chinese cities.<sup>12</sup>

In her war with China, the Japanese navy installed a blockade of the China coast enhanced by the capture of major ports and inland waterways. Japanese seizure of Northern Indochina in 1940 severed another important link via Haiphong in French Indochina and hence by rail to southern China. Because the prior Qing Dynasty never mastered the task of massive internal taxation, it had relied upon customs duties for nearly half its revenue.<sup>13</sup> The Nationalist government under Chiang Kai-shek remained mired in this system. Thus, the Japanese blockade delivered an "economic catastrophe" to the Chinese central government.<sup>14</sup> But China also had relied on imported food to feed part of her population and the blockade cut off that supply.<sup>15</sup>

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curiously is very detailed about bombing around the world, except in Asia prior to World War II.

<sup>10</sup> Donald Allan Jordan, *China's Trail by Fire: The Shanghai War of 1932* (Ann Arbor: University of Michigan Press, 2001) 192-93.

<sup>11</sup> James S. Corum, *The Luftwaffe: Creating the Operational Air War* (Lawrence: University of Kansas Press, 1997) 199-200.

<sup>12</sup> Hagiwara Mitsuru, "The Japanese Air Campaigns in China, 1937-1945," and Edna Tow, "The Great bombing of Chongqing and the Anti-Japanese war, 1937-1945," in Mark Peattie, Edward Drea, Hans van de Ven, *The Battle for China: Essays on the Military History of the Sino-Japanese War of 1937-1945* (Stanford: Stanford University Press, 2011); Michael S. Sherry, *The Rise of American Airpower: The Creation of Armageddon* (New Haven: Yale University Press, 1987) 69-71 [hereafter Sherry, *The Rise of American Air Power*]. Sherry gives a review of events, but some of the interpretation is in error, particularly as to the notion that only the U.S. and U.K. looked to wage strategic air warfare.

<sup>13</sup> S.C. M. Paine, *The Wars for Asia, 1911-1949* (Cambridge, Cambridge University Press, 2012) 132, 136-7, 142.

<sup>14</sup> War inflicts "economic catastrophe" on Nationalist government finances: Diana Lary, *The Chinese People at War: Human Suffering and Social Transformation, 1937-1945* (New York: Cambridge University Press, 2010) 36; Arthur N. Young, *China's Wartime Finance and Inflation, 1937-1945* (Cambridge: Harvard University Press, 1965) 11-21.

<sup>15</sup> Rana Mitter, *Forgotten Ally: China's World War II 1937-1945* (Boston: Houghton, Mifflin, Harcourt, 2013) 182, 212, 265-6. Mitter also makes the same point about the Japanese

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When Germany attacked Poland in September 1939, the European phase of World War II began. President Franklin D. Roosevelt issued a plea in September 1939 for the European belligerents to eschew the aerial bombing of cities. But Germany conducted bombing of Polish cities, particularly Warsaw. Then when war between the Soviet Union and Finland broke out in November 1940, it also was marked by attacks by Soviet bombers on Finnish cities and civilian refugees. Roosevelt also protested that bombing.<sup>16</sup>

In 1939, Imperial Navy bombers pummeled the Chinese capital of Chongqing, inflicting vast damage and thousands of deaths. Then in 1940, the Imperial Navy launched “Operation 101.” These were still larger scale terror attacks, including raids dropping 2,000 tons of bombs on Chongqing. The city was devastated, but this effort and “Operation 102” in 1941, failed in its strategic goal of knocking China out of the war. Japan would be repaid many, many times over for the example of terror attacks on cities.<sup>17</sup>

### TWO FATEFUL YEARS: 1940 AND 1941

Japanese air raids in China overlapped stunning developments in Europe. In a span between April and June 1940, Adolph Hitler made Germany master of Western Europe and completely upset the international strategic balance. During those campaigns, the German bombing of Rotterdam became a symbol of terror bombing. Japan formally cast her lot with the Axis powers in September 1940. Germany appeared to be unbeatable on the ground and in the air. Further, her triumphs opened the prospect for Japan of seizing European colonial possessions to the south. These territories abounded in vital resources that would make Japan self-sufficient. But in American perceptions, this act moved Japan from the status of a distant, regional irritant to part of an immediate, existential threat to the very

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blockade severely diminishing revenue to the central government. That revenue not only financed the war, but also was vital for supporting the population, much of which consisted of refugees desperately needing food and shelter.

<sup>16</sup> Eloise Engle & Lauri Raananen, *The Winter War* (Mechanicsburg, PA: Stackpole Books, 1992) 22-5, 27, 58-62; Ronald Schaffer, *Wings of Judgment: American Bombing in World War II* (New York: Oxford University Press, 1985) 32 [hereafter Schaffer, *Wings of Judgment*].

<sup>17</sup> Mark R. Peattie, *Sunburst: The Rise of Japanese Naval Air Power, 1909-1941* (Annapolis: Naval Institute Press, 2001) 118-21; Hans Van de Ven, *War and Nationalism in China 1925-1945* (New York: Routledge/Curzon, 2003) 245-6.

existence of the U.S.

In the fall of 1940, Admiral Harold Stark, the U.S. Chief of Naval Operations submitted a paper proposing that the U.S. strategy should emphasize the defeat of Hitler, or in shorthand “Germany First.” President Roosevelt did not formally adopt this paper, but secret staff discussions with the British and Canadians in early 1941 confirmed this as the guiding principle of Western Allied strategy.<sup>18</sup>

The year 1941 would produce three consequential events with relevance to ending the Asia-Pacific War.

When Hitler attacked the Soviet Union in June 1941, the U.S. and Great Britain soon became effective and then official allies of the Soviet state. Strategically, given their commitment to “Germany First,” the Western Allies had no realistic option but to ally with the Soviets against Germany. But how the alliance would be depicted would shadow all the subsequent moral issues in the war. The Western allies could have presented the alliance to their publics as an arms-length exercise in *Realpolitik*, “the enemy of my enemy is my friend.” But that is not how the alliance was presented. Both the U.S. and Great Britain presented the alliance as one of shared values rather than simply one of shared interests.<sup>19</sup>

We can never know exactly how many millions might have died if Hitler had achieved his goals of world conquest and a complete racial cleansing of the world’s population. What we can know to some degree of reasonable approximation is that when Hitler attacked the Soviet Union, Stalin was responsible for 8.25 million deaths by a conservative estimate. The day Germany attacked the Soviet Union, Hitler was responsible for the deaths of approximately 600,000 human beings. This enumeration counts the deaths of Germans and all others, in war or due to political or racial reasons.<sup>20</sup>

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<sup>18</sup> Mark S. Watson, *Chief of Staff: Prewar Plans and Preparations* (Washington, D.C.: Government Printing Office, 1950); Samuel Eliot Morison, *History of United States Naval Operations in World War II, volume I, The Battle of the Atlantic 1939-1943* (Boston: Atlantic, Little, Brown and Company, October 1966 reprint) 38-49.

<sup>19</sup> Richard Overy, *Why the Allies Won* (New York: W.W. Norton, 1995), 296-7; Dallek, *Franklin Roosevelt and American Foreign Policy*, 297-8.

<sup>20</sup> Figures for Hitler and Stalin are extrapolated primarily from numbers given in Michael Clodfelter, *Warfare and Armed Conflicts: A Statistical Reference to Casualty and Other Figures, 1500-2000*, Third Edition (Jefferson, N.C.: McFarland & Company, Inc. Publishers, 2002) 465-78 [hereafter Clodfelter, *Warfare and Armed Conflicts*]. These are supplemented by numbers from: Tadeusz Piotrowski, *Poland's Holocaust: Ethnic Strife, Collaboration with Occupying Forces and Genocide in the Second Republic, 1918-1947* (North Carolina: McFarland, 1998) 301; Karl-Heinz

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Japan's war in China had likewise caused millions of deaths, though an exact accounting appears impossible. Older scholarship placed total Chinese fatalities at ten million.<sup>21</sup> On a linear basis, this would indicate that by June 1941, Chinese deaths numbered probably five million. More recent scholarship puts the death toll in China in the 14 to 20 million range.<sup>22</sup> That would put Chinese deaths by June 1941 on a linear basis at approximately seven to ten million.

Whatever the exact numbers may be for worldwide deaths, it seems clear that as of the date of the effective U.S. and British alliance with the Soviet Union, it found the Western allies willing to ignore the enormous moral compromise of working with Stalin to secure a huge strategic advantage. Once the Western allies elected not to make an issue of the millions of deaths Stalin caused, then all the subsequent issues involving hundreds of thousands of deaths at best stand in the shadow of that choice.<sup>23</sup>

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Frieser, *The Blitzkrieg Legend: The 1940 Campaign in the West* (Annapolis: Naval Institute Press, 2005) 318; for Norway <http://www.feldgrau.com/norwegian.html> (lasted viewed November 11, 2013); and Jean Paul Pallud, *Blitzkrieg in the West Then and Now* (London: After the Battle, 1991) 609. For Stalin's total, in addition to figures from Clodfelter and Piotrowski, another minimum of 20,000 is added for Poles murdered in the Katyn Forest and elsewhere. Soviet deaths at Nomonhan from Stuart D. Goldman, *Nomonhan, 1939: The Red Army's Victory that Shaped World War II* (Annapolis: Naval Institute Press, 2012) 149.

<sup>21</sup> Dower, *War Without Mercy*, 295-96. Later Dower would put the number at "perhaps 15 million." *Embracing Defeat*, 22.

<sup>22</sup> Rana Mitter, *Forgotten Ally* (Boston: Houghton Mifflin Harcourt, 2013) 363 puts the current plausible range of Chinese deaths in World War II at 14 to 20 million. Gerhard Weinberg, *A World at Arms: A Global History of World War II* (Second Edition) (Cambridge: Cambridge University Press, 2005) 894, called 15 million Chinese deaths a "reasonable approximation." James C. Hsiung and Steven I. Levine, eds., *China's Bitter Victory* (New York M.E. Sharpe, 1992) 295, based on Hsiung's work in Chinese archives, put Chinese deaths at 18 million civilians and four million military, or a total of 22 million.

<sup>23</sup> Deaths by September 1, 1939: Figures of Hitler and Stalin by September 1939 from Timothy Snyder, *Bloodlands: Europe Between Hitler and Stalin* (Basic Books, 2010) vii, x [hereafter Snyder, *Bloodlands*]. Of course, there are numerous estimates that find or clearly imply that Stalin's death toll by September 1939 must have climbed steeply above eight million. For example, Steven Rosefielde, *Red Holocaust* (Routledge, 2009), 17, maintains that it is "beyond reasonable doubt" Stalin killed "more than 13 million" between 1929 and 1953 "and that this figure could rise above 20 million. Sebag Montefiore, *Stalin: The Court of the Red Tsar*, (New York: Knopf, 2004) 649, speaks of "perhaps 20 million" killed by Stalin. Alexander N. Yakovlev, *A Century of Violence in Soviet Russia* (New Haven: Yale University Press, 2002), 234, one of Mikhail Gorbachev's lieutenants, puts the total fatalities during the period of Soviet power (thus including Lenin) for political repression at 20 to 25 million and he adds about 10.5 million killed in famines for which Soviet leadership bore responsibility. Although there is little doubt that the number of deaths in Chinese internal conflict from 1928 to 1937 was large, an exact figure is impossible to state with confidence. After looking at a variety of estimates, the figure here is derived from R. J. Rummel, *China's Bloody Century: Genocide and Mass Murder Since 1900* (New Brunswick, N.J.: Transaction Publishers, 2008 reprint) 77-101. Figures for Japanese killing in China are based on a linear projection starting from an overall estimate that fifteen

From the onset of the attack on the Soviet Union, Germany embarked on a systematic program of mass murder of noncombatants, with focus on Jews. For Japan, the moral dimensions of the Axis alliance took a major plunge. Germany was no longer operating like a conventional power. Much as the U.S. and U.K. embarked on a huge moral compromise in the presentation of the Soviet alliance, so too had Japan with Germany.<sup>24</sup>

A second major event occurred in late 1941. Admiral Stark and his chief war planner, Rear Admiral Richmond Kelly Turner, quietly maneuvered U.S. Navy policy towards unrestricted submarine warfare. The process began with a plan to authorize the commanders of the Pacific and Asiatic Fleets to designate “strategical areas” from which they could bar all merchant vessels—or capture, not sink, those that ventured into the areas. But Stark further answered a pointed inquiry from Admiral Thomas Hart, the Asiatic Fleet commander, that he could assume Japan’s military controlled all merchant shipping in the “strategical areas,” hence it was not civilian and subject to “unrestricted submarine warfare.” By September 1941, Stark had resolved not only to authorize unrestricted submarine warfare against Japan, but to do so within one week of the beginning of hostilities without waiting for specific justification to frame the order as retaliation for Japanese violations of international law. This would free U.S. submarines of the obligation to follow the impractical “cruiser rules” and permit them to embark on what proved to be their devastating campaign against Japan’s shipping.<sup>25</sup>

The third major event involved American air strategy. As early as the 1920s, Brig. Gen. William “Billy” Mitchell, the most prominent American air war theorist, stated that Japan’s teeming cities made of “paper and wood and other inflammable structures” comprised “the greatest aerial targets the world had ever seen.” Nonetheless, inter-war planning by American airmen emphasized daylight precision attacks on specific targets of military significance, not cities or civilians. A master plan in 1941 followed this pattern, but did make allowance as a last resort for direct attacks on cities.<sup>26</sup> In the fall of 1941, senior American leaders, including particularly

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million Chinese perished due to Japan’s aggression between July 1937 and August 1945.

<sup>24</sup> Deborah Dwork & Robert Jan van Pelt, *Holocaust: A History* (New York: W. W. Norton & Company, 2002).

<sup>25</sup> Holwitt, “*Execute Against Japan*,” Chapters 7 to 10.

<sup>26</sup> Sherry, *The Rise of American Air Power*, 49-61, 99-110.

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Secretary of War Henry Stimson and Army Chief of Staff George C. Marshall, backed a plan to rush a large force of B-17 (“Flying Fortress”) and B-24 heavy bombers to the Philippines to deter Japanese aggression. In a secret press briefing Marshall in November 1941 declared “we’ll fight mercilessly. Flying Fortresses will be dispatched immediately to set the paper cities of Japan on fire.”<sup>27</sup>

### THE EVOLVING AIR WAR

When General Marshall made his comment about “merciless” modes of fighting, he reflected opinions shared by both leaders and the public in the U.S. That opinion reflected the belief that the Axis powers had trampled down any restraints in warfare and that this must be met in kind. Between 1932 and 1945, first Japan then Germany followed by the Allies would set precedents for dismantling any restraints on the use of massive aerial firepower against noncombatants. Axis airmen attacked cities like Chongqing, Warsaw, Rotterdam, London, Coventry and Belgrade. These cities experienced mass attacks by the standards of the day with vast physical damage and civilian casualties. The attacks did not appear to make even a pretense that the bombers aimed for legitimate military targets with civilian deaths an unintended consequence.

The Axis airmen succeeded in convincing their adversaries of the importance, if not the primacy, of airpower. Hence, American strategic planning and war mobilization heavily emphasized air power, particularly over ground power. One fundamental aspect of the choices made between 1940 and 1942 was that the investment in airpower, particularly in heavy bombers, could not be reversed in favor of emphasizing ground power without tremendous and perhaps fatal delay in the prosecution of the war.<sup>28</sup>

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<sup>27</sup> Sherry, *The Rise of American Airpower*, 31, 58, 109; Louis Morton, *United States Army in World War II, The War in the Pacific, Strategy and Command: The First Two Years* (Washington, D.C.: Office of the Chief of Military History, 1962) 98-103; Wesley Frank Craven and James Lea Cate, *The Army Air Forces in World War II, vol. 1, Plans and Early Operations January 1939 to August 1942* (Washington, D.C.: Office of Air Force History, 1983) 175-190. The limited American attention to incendiary weapons and their production to this time makes it doubtful that Marshall’s remarks were intended to present capabilities to deter Japan with the possibility of mass incendiary attacks. That the thrust of Marshall’s remarks was “leaked” and published in the New York Times, suggests calculated deterrence was the primary motive.

<sup>28</sup> Phillips Payson O’Brien, *How the War Was Won* (Cambridge: Cambridge University Press,

Under the “Germany First” strategic priority, and because there were no feasible bases for attacking Japan from 1942 to 1944, Europe became the testing ground for the use of American heavy bombers. Effective German defenses early in the war had forced the British to switch their heavy bomber operations to night. It soon became evident that British airmen could not locate and hit a target smaller than a city in darkness. The British recourse to night attacks on cities became known as “area bombing.” The Americans started off under a doctrine of daylight “precision” attacks. These were generally much less indiscriminate than British efforts, but heavy German defenses and European weather in the second half of 1943 stood as a bar to effective results. In November 1943, the U.S. began employing radar aids to daylight bombing. Radar permitted operations on far more days per month than the normal weather patterns allowed. But radar aids then only achieved the crude location of cities, not individual targets, rendering American bombing scarcely, if at all, more discriminating than British efforts.

Another important milestone came in the Spring of 1944. In a dispute over the proper targeting for the now huge American and British heavy bomber forces to support the invasion of France, the decision was made to follow what was called the “Transportation Plan.” This aimed to knock out or severely impede the use of railroads in France and Belgium to move and support German ground forces. The heavy bombers would accomplish this by attacking railroad marshalling yards in France and Belgium. But marshalling yards were in urban areas and it would be impossible to damage them without producing very heavy casualties among the civilian populations of the countries occupied by Germany. Despite strong objections over the prospect of massive deaths of Allied civilians, notably by Winston Churchill, President Roosevelt came down firmly on the side of the “Transportation Plan.” If this did not mark by itself an important turning point in bombing policy, it at least underscored that the allies no longer recognized an absolute prohibition against bombing likely to produce large casualties even among allied civilians. Rather, this episode demonstrated that Allied and American bombing policy now followed a

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2015). The main theme of this work is how the U.S., the U.K., Germany and Japan devoted two thirds or more of their economic effort in World War II to air and sea weapons. O’Brien cogently argues how the concentration on these weapons by the Western Allies profoundly influenced the course of the war and forced Germany and Japan to try to match this concentration to the detriment of their other military efforts.

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balancing test. Even huge numbers of civilian deaths were acceptably if the military advantage was of sufficient magnitude.<sup>29</sup>

### UNCONDITIONAL SURRENDER: A WAR AIM WITH POLITICAL AND OPERATIONAL IMPLICATIONS

American strategic bombing in Europe was six months old when on January 24, 1943, President Roosevelt publicly articulated the formal American and Allied war aim of the Unconditional Surrender of the Axis powers.<sup>30</sup> Roosevelt's primary motivation appears to have been to assure that in the future no leader could come to power in Germany or another Axis nation on the basis that a "stab in the back" by various internal forces had caused defeat, not actual defeat on the battlefield. Roosevelt was determined that the defeat of the Axis powers would be comprehensive.<sup>31</sup> While Roosevelt never contemplated anything resembling an intent to exterminate the populations of Axis nations, he did affirm at one point:

It is of the utmost importance that every person in Germany should realize that this time Germany is a defeated nation . . . the fact that they are a defeated nation, collectively and individually, must be so impressed upon them that they will hesitate to start any new war.<sup>32</sup>

Further, in private conversations he even mused about literally castrating

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<sup>29</sup> Frank, *Downfall*, 40-9.

<sup>30</sup> *United States Department of State, Foreign Relations of the United States, The Conferences at Washington, 1941-1942, and Casablanca, 1943 (1941-1943)* (Washington, D.C.: United States Government Printing Office, 1968) 727 [hereafter *FRUS*]. Far from being a surprise spontaneous comment by Roosevelt at a press conference, the concept had been discussed within the American government since at least May 1942. Roosevelt had used the term in a meeting with his principal military subordinates on January 7, 1943. *Ibid.*, 506. It had further been discussed within Churchill's government. It is possible that while Churchill agreed with the policy, he was surprised that Roosevelt publicly announced it in that venue. Warren F. Kimball, *Churchill & Roosevelt: The Complete Correspondence, II. An Alliance Forged* (Princeton: Princeton University Press, 1984) 119 [hereafter Kimball, *Churchill & Roosevelt, II*].

<sup>31</sup> Frank, *Downfall*, 26-7.

<sup>32</sup> Schaffer, *Wings of Judgement*, 88-9.

Germans if they continued to breed an aggressive population.<sup>33</sup> Nonetheless, during World War II commanders, particularly air commanders, exercised enormous discretion on policies and as the official U.S. Army Air force history noted, “sometimes paid scant attention” to directives from their superiors in Washington.<sup>34</sup> Thus, Roosevelt’s influence on bombing policy (and much else) rested not in explicit operational guidance, which he left to his field commanders, but in setting absolute defeat of the Axis powers as the goal and within it leaving implicit that the defeat must be understood by the whole population.

When Roosevelt initially articulated the “unconditional surrender” policy, its role in the occupation of defeated Axis powers was not considered. But by 1945, U.S. State Department lawyers laboring over plans for occupation policy emphasized that the outer limits of “unconditional surrender” were not clear as to what the U.S. could do in the way of occupation reforms. What was clear, however, was that “unconditional surrender” would give the U.S. authority to institute reforms far beyond what the international law of occupation would have allowed to the occupying power. “Unconditional Surrender” thus was much more than a wartime slogan; it had become the foundation of the peace that followed.<sup>35</sup>

## **STRATEGIES FOR THE END GAME**

American strategic plans to end the war with Japan pitted General George C. Marshall, Chief of Staff of the Army against Admiral Ernest J. King, the Chief of Naval Operations. They were the respective principal advocates for a strategy of invasion and a strategy of blockade and bombardment, including air bombardment.

Although on the surface this appeared to be a dispute over military matters, at an important level it really revolved around a political issue: what was the factor most likely to undermine the will of the American people to see the war through to

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<sup>33</sup> Warren F. Kimball, *The Juggler* (Princeton: Princeton University Press, 1991), 76, 199.

<sup>34</sup> Wesley Frank Craven and James Lea Cate, eds., *The Army Air Forces in World War II, Volume 3, Argument to VE Day, January 1944 to May 1945* (Chicago: University of Chicago Press, 1965) 721; Conrad C. Crane, *American Airpower Strategy in World War II: Bombs, Cities, Civilians, and Oil* (Lawrence, KS: University Press of Kansas, 2016) 6-7.

<sup>35</sup> Memorandum Prepared by the Committee on Post War Programs, Japan: Terms of Surrender: Underlying Principles, PWC-284a, November 13, 1944; *FRUS, Diplomatic Papers 1944, Vol. V. The Near East, South Asia, and Africa, The Far East* (Washington, D.C.: U.S. Government Printing Office, 1963) 1275-85.

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“unconditional surrender?” Marshall believed the critical issue was time. The American people would not tolerate a very protracted end to the war. This led Marshall and the army to propose an invasion of the home islands of Japan as the means most likely to end the war rapidly. The navy led by King believed the crucial issue was casualties. Invasion was certain to produce casualties beyond the tolerance of the American people. Therefore, the navy advocated blockade and bombardment.<sup>36</sup>

In April and May 1945, the Joint Chiefs of Staff appeared to reach a compromise between the two strategies. The campaign of blockade had been ongoing since the war began and the campaign of air bombardment had been underway since June 1944. These campaigns would continue until November 1945. At that point they would be joined by a two-phase initial invasion of the Japanese Home Islands. Phase one, Operation Olympic would involve a landing on southern Kyushu about 1 November. It would secure air and naval bases to support phase two, Operation Coronet, that would target the Tokyo-Yokohama area with a tentative date of 1 March 1946.<sup>37</sup>

The factor that most undercut the blockade and air bombardment strategy was that the best information available to American leaders indicated Japan’s food situation was not in distress in 1945. The few indications of food supply problems did not appear in a pattern to suggest it was a significant problem. The most comprehensive assessment of Japan’s food supply indicated Japan possessed adequate supplies at least in the immediate future.<sup>38</sup> Therefore, it was not clear when the threat of mass starvation at the core of the blockade strategy would begin to persuade Japan’s leaders to end the war. The dire strait of Japan’s food supply would only become evident at the start of the occupation.

Admiral King expressly informed the other members of the Joint Chiefs in April that he only agreed that an order had to be issued then for an invasion to create that option by November. He affirmed that they would come back to review the necessity of an invasion in August or September. King clearly aimed to head off an invasion per the navy’s pre-war planning. But he was shrewd enough to realize

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<sup>36</sup> Frank, *Downfall*, 22, 27.

<sup>37</sup> Joint Chiefs of Staff to MacArthur, Nimitz, Arnold WX 87938 25th (May) RG 4, Box 17, Folder 4, MacArthur Archive; JCS 924/15, JCS 924/16, CCS 381 Pacific Ocean Operations (6-10-43), Sec., 11 RG 218, Box 169, NARA.

<sup>38</sup> Frank, *Downfall*, 353-4.

canceling an invasion would involve a major confrontation with the army and that he should not trigger that confrontation until he believed he had compelling arguments that would prevail in such a confrontation.<sup>39</sup>

Japanese strategy adopted in January 1945 was called Ketsu Go. It was a military/political strategy based on the premise that if Japan could either defeat or inflict massive casualties on the initial invasion of the home islands, American will to continue the war would be broken and a negotiated end to the war would follow. Such a negotiated end to the war would certainly preserve the old order.<sup>40</sup>

In the spring of 1945 as part of the mobilization for Ketsu Go, the Japanese government declared all males age 15 to 60 and all females age 17 to 40 to be part of a massive “volunteer corps.” These people would perform combat support and eventually combat roles. The government lacked weapons to adequately arm this militia, but worse they lacked any type of uniform to distinguish themselves from the remaining civilian population. This policy was guaranteed to produce enormous casualties as American servicemen at normal combat ranges would have no ability to distinguish members of this mass militia from ordinary civilians. Further, it effectively so intermingled combatants with noncombatants such as to make it impossible for the U.S. to target combatants separately.<sup>41</sup>

When an Imperial Conference in June reviewed Ketsu Go, staff papers setting out Japan’s situation indicated that even if Ketsu Go achieved its goals, the Japanese people would face mass starvation in 1946. In plain terms, the leaders who formally sanctioned Ketsu Go in June 1945 contemplated not only huge casualties in a battle against an invasion and the ongoing campaigns of blockade and bombardment, but also potentially still higher fatalities from starvation in 1946.<sup>42</sup> We know now that the Japanese perception of the food situation was accurate and that indeed Japan

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<sup>39</sup> Memorandum for the Joint Chiefs of Staff, Subject: Campaign Against Japan, 30 April 1945, 381 Pacific Ocean Operations (6-10-43), Sec. 12, RG 218, Box 169, NARA; Frank, *Downfall*, 36-7.

<sup>40</sup> Boeicho Boei Kenshusho (War History Office, Defense Agency) Series) *Senshi Shosho* (War History Series) No. 57, *Hondo Kessen Junbi (2) Kyushu No Boei* (Preparations for the Decisive Battle on the Homeland [2] Defense of the Kyushu Area) (Tokyo), 159-61; Frank, *Downfall*, 83-6.

<sup>41</sup> Frank, *Downfall*, 188-9.

<sup>42</sup> Frank, *Downfall*, 93-96; Edward J. Drea, *Japan’s Imperial Army: Its Rise and Fall, 1853-1945* (Lawrence, KS: University Press of Kansas, 2009) 250. As Drea notes, Imperial Army generals fully understood that *Ketsu Go* would lead to widespread starvation in 1946, even if successful. It is impossible to believe the civilian leadership failed to also realize this given the information in the staff papers.

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faced the danger of famine in which millions would have perished in 1946.

Between June and August 1945, radio intelligence disclosed to American leaders the Ketsu Go plan. Specifically, it revealed a massive Japanese build up in ground and air forces, including thousands of special attack planes, to meet Operation Olympic on Kyushu in November. This intelligence prompted a debate between Pacific and Washington uniformed leaders on the viability of Operation Olympic and indeed the whole invasion strategy. Admiral King chose to force a show down over the invasion strategy on August 9, but the war ended before that show down occurred.<sup>43</sup>

### ATOMIC WEAPONS AND SOVIET INTERVENTION

This then brings us to the moment where two other factors appear. The first of these is atomic weapons. American leaders until a very late stage were never certain that a useable atomic weapon could be developed during World War II, and none was available before Germany surrendered. This paper cannot examine all the factors involved in the decision to use such weapons against Japan, but will highlight one aspect that is connected to another type of weapon: poison gas.

The general view held among American scientists in 1945 was that anyone close enough to the detonation of an atomic blast to be subject to a lethal dose of radiation would already have been killed by heat or blast. There is dispute over whether some scientists did understand that radiation might produce lingering, distant and lethal hazards on its own, but what is not disputed is that they never conveyed this to the top policy makers.<sup>44</sup>

The failure to convey the nature of the radiation hazard to senior policy makers may well have been the one clear missed opportunity to prevent the use of atomic bombs. Although almost all other restraints or scruples about warfare had been trampled down or eroded by 1945, the one strong remaining moral barrier was against the use of poison gas. President Roosevelt had pledged that the U.S. would only use gas in retaliation for first use by another belligerent. By May 1945, General Marshall advocated the use of poison gas, not for wide area usage, but only targeted

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<sup>43</sup> Frank, *Downfall*, 197-213, 250, 273-6.

<sup>44</sup> Richard Rhodes, *The Making of the Atomic Bomb* (New York: Simon & Schuster, 1986) 324-5, 369, 386, 420-1, 632, 638; Robert S. Norris, *Racing for the Bomb: General Leslie R. Groves, the Manhattan Project's Indispensable Man* (South Royalton, VT: Steerforth Press, 2002) 438-41.

use against by-passed Japanese combatants holding out in caves and bunkers. President Truman, however, rejected Marshall's proposal citing the policy set forth by Roosevelt.<sup>45</sup> The link here is that radiation from an atomic weapon producing sickness or death is analogous to the effects of poison gas. Had this been clear to top civilian policy makers, it may have been the one argument that could have headed off use.

The final point about atomic weapons in 1945 is that while they were vastly more powerful kilogram for kilogram than any previous weapon, they also were orders of magnitude less powerful than the weapons created thereafter. The Hiroshima and Nagasaki bombs in terms of equivalent explosive power are generally rated between 12,500 and 22,000 tons of TNT. At that time, a single mass raid by a 1,000 B-29s could unleash the equivalent of approximately 10,000 tons of TNT.<sup>46</sup> Later thermonuclear weapons are measured in hundreds of thousands or millions of tons' equivalent of TNT. Practically speaking, the ability of 1945 weapons to produce mass death was tied to their use on dense concentrations of human beings, as in cities.

The second additional factor was Soviet entry into the war. The U.S. hoped Soviet entry would tie down the huge Japanese forces on the Asian continent, particularly the Kwantung Army in Manchuria. Premier Joseph Stalin promised Soviet intervention into the war with Japan at the Tehran Conference in November 1943 and a year later he pledged that the Soviet Union would enter the war with Japan three months after the defeat of Germany. At the Yalta Conference in February 1945, the Joint Chiefs went on record as favoring Soviet intervention both to tie down Japanese forces in Manchuria, and to obtain air bases on Soviet territory for bombing Japan.<sup>47</sup>

With U.S.-Soviet relations in a troubled state in 1945, President Harry S. Truman dispatched Harry Hopkins, a symbol of U.S.-Soviet cooperation, to Moscow. Between 29 and 30 May, Stalin reaffirmed his pledge to enter the war with Japan with a target date of August 8. But Stalin also conveyed through Hopkins a demand for

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<sup>45</sup> Frank: *Downfall*, 143 and 143n; Samuel Eliot Morison, *History of United States Naval Operations in World War II, Vol. XIV, Victory in the Pacific 1945* (Boston: Little, Brown and Company, 1960) 3-9.

<sup>46</sup> Frank, *Downfall*, 256, 285, 306. Average figures for B-29 bomb loads in the Twentieth Air Force are deceptive. Bombers based on Saipan, closer to Japan, could carry more tonnage, while those on Guam had to trade some bomb tonnage for fuel load.

<sup>47</sup> Frank, *Downfall*, 31-2.

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the Soviets to “share in the actual occupation of Japan.”<sup>48</sup>

The Soviet Union entered the war during the night of 8-9 August 1945. Massive Soviet ground and air forces launched three major offensive drives into Manchuria. To these they added attacks on Sakhalin Island and the Kuril Islands. What was only revealed decades later were firm plans to invade the western coast of Hokkaido in August 1945. This plan was aborted for two reasons: stiff Japanese fighting on Sakhalin that delayed the operation and the insistence of President Truman that the pre-agreed territorial assignments to the Allied nations did not provide for Soviet occupation of the Japanese Home Islands.<sup>49</sup>

Potential Soviet occupation of Hokkaido and perhaps other territory in the Home Islands carried moral as well as political implications. During Soviet operations on the Asian continent and the Kuril Islands, not only did about 84,000 to 88,000 Japanese combatants perish in battle just as in Manchuria, but also large numbers of Japanese soldiers and civilians died or disappeared in Soviet hands after hostilities ceased. Specially, a leading first generation Japanese historian of the occupation of Japan, Eiji Takemae, put the number of Japanese prisoners of war and noncombatant internees who fell into Soviet hands and thereafter died or disappeared at 300,000 to 500,000.<sup>50</sup> American historian John Dower, noted that over 300,000 Japanese died or disappeared in Soviet hands after the end of hostilities.<sup>51</sup> More recently, the American historian Andrew E. Barshay gained access to Soviet era records on the fate of Japanese captured or interned in Manchuria alone. Barshay found that the Soviets acknowledged having registered 639,635 prisoners of war from Japanese forces. Among the 639,635 prisoners there were 62,068 deaths. Barshay further reports that “a great number of Japanese [civilian internees] --perhaps 180,000” also died or disappeared. This would indicate the number of Japanese deaths after hostilities ceased just accounted for in Soviet records were about 242,000. Again, this is only the toll of those captured or interned in Manchuria.<sup>52</sup>

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<sup>48</sup> Frank, *Downfall*, 217.

<sup>49</sup> Frank, *Downfall*, 277-83, 322-4. The monumental English language account is David Glantz, *The Soviet Strategic Offensive in Manchuria, 1945* (London: Frank Cass, Publishers, 2003) Chapter 10, 280-307, covers the aborted Hokkaido operation.

<sup>50</sup> Eiji Takemae, *Inside GHQ: The Allied Occupation of Japan and Its Legacy* (New York: Continuum, 2002) 111.

<sup>51</sup> Dower, *Embracing Defeat*, 51-2.

<sup>52</sup> Andrew E. Barshay, *The Gods Left First: The Captivity and Repatriation of Japanese POWS*

Most English language accounts of Soviet intervention do not even mention Japanese nonbattle deaths, among both prisoners of war and civilian internees. This creates a false impression of the cost of Soviet intervention. Had the Soviets played the dominant role in the final defeat of Japan, they may have seized or been granted an occupation zone in the Japanese Home Islands and probably in the capital of Tokyo. Given losses among Japanese captives on the Asia continent and the Kuril Islands, a Soviet occupation zone within the Home Islands undoubtedly would have substantially increased Japanese deaths due to the war. Japan would have been divided like Germany and Korea with profound consequences in the coming decades.

### **THE 11 AUGUST 1945 STRATEGIC BOMBING TARGET DIRECTIVE**

An immediate U.S. investigation following the German surrender indicated that by far the most damaging bombing had been mounted against the German oil supplies and the German transportation network, particularly railroads. The rail attacks disrupted coal supplies and halted almost all other types of production. They even raised serious concern that Germany could not move food to support its urban populations.<sup>53</sup>

Based on that investigation, a new targeting directive was drafted and provided to General Carl A. Spaatz who had been appointed commander of the new United States Strategic Air Forces, Pacific. This command included the Twentieth Air Force, which was already operating from the Marianas Islands with 1,002 B-29 super bombers as of 1 August 1945. The Twentieth Air Force would be joined by the Eighth Air Force, transferred from Europe to bases on Okinawa and reequipped with B-29s and long range fighter aircraft. By December 1945, their combined strength would include 1,546 B-29 bombers, as well as 666 P-47N and 333 P-51 long range fighters.<sup>54</sup>

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*in Northeast Asia 1945-1956* (Berkeley: University of California Press, 2013) 167; Appendix: How Many?

<sup>53</sup> Frank, *Downfall*, 304-5; Schaeffer, *Wings of Judgement*, 86-9. During discussions of the investigation in Washington, one participant proposed an attack on the Japanese rice crop using a chemical (TN8). While this could not take place prior to 1946, it was rejected because it was pointedly noted “indigenous food supplies may be very import to the commander charged with the occupation.”

<sup>54</sup> Frank, *Downfall*, 153, 305.

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The new targeting directive provided the following:

### UNITED STATES STRATEGIC AIR FORCES OPERATIONAL DIRECTIVE 11 AUGUST 1945<sup>55</sup>

#### NUMBER OF INDIVIDUAL TARGETS

PRIMARY OBJECTIVES	EIGHTH AIR FORCE	TWENTIETH AIR FORCE
1. TRANSPORTATION SYSTEM		
RAILROAD YARDS & FACILITIES	8	46
BRIDGES	9	4
2. AIRCRAFT INDUSTRY	2	15
3. MUNITION STORAGE	11	30
4. URBAN INDUSTRIAL AREAS	2	33
SECONDARY OBJECTIVES		
1. ARSENALS	1	6
2. AIRCRAFT INDUSTRY	2	17
3. OIL STORAGE	3	14
4. CHEMICAL PLANTS (NITROGEN)	3	13
<b>TOTAL:</b>	<b>41</b>	<b>178</b>
<b>GRAND TOTAL ALL:</b>	<b>--</b>	<b>219</b>

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<sup>55</sup> USATAF Operational Directive 11 August 1945: USAF HC File 703.302 29 Nov 45, Headquarters, United States Army Strategic Air Forces, Subject: Operational Directive. The Eighth Air Force directive included eleven targets in Korea and two in Manchuria. The directive also shifted responsibility for the mine campaign from the Twentieth Air Force to the Eighth Air Force.

While at first the emphasis on transportation rather than cities might seem to indicate some shielding of civilians, the actual effect of the rail bombing might have proven even more devastating to civilians than conventional and nuclear bombing. A separate paper will detail Japan's food situation in 1945-46, but the basic facts are: first, the 1945 rice harvest collapsed; and second, Japan was singular among industrialized nations in that not only external trade, but internal trade moved by sea normally from the port most proximate to the point of origination to the port most proximate to the point of destination. But by August 1945, Japan's organized maritime transportation system was on the verge of collapse. That left only the limited and highly vulnerable rail system for the movement of bulk commodities like food. Had the bombing destroyed the rail system, the ability of Japan to move necessary masses of food from food surplus to food deficit areas would have collapsed.<sup>56</sup> As it was, during the crisis months of May to October 1946 when Japan passed very close to famine in urban or food deficit areas, only the fact that the U.S. shipped 594,000 tons of rice equivalents staved off mass starvation. Every ton of that emergency aid moved by rail from ports to where it was issued.<sup>57</sup>

In anticipation of the coming food emergency, Japanese colonial authorities were in the process of seizing a million tons of the Korean rice harvest, which would have carried dire implications for the Korean population.<sup>58</sup>

## SUMMARY

In light of the above, it is possible now to look over this evidence for what it shows about choices among weapons of mass destruction and the moral implications of American and Japanese strategy.

Both the U.S. and Japan had been morally compromised by alliance with powers responsible for millions of deaths quite outside any legitimate conduct of warfare. The U.S. blockade strategy aimed to threaten to kill or kill Japanese by the

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<sup>56</sup> Frank, *Downfall*, 347-57.

<sup>57</sup> General Headquarters, Supreme Commander for the Allied Powers, Economic and Scientific Section, Price Control and Rationing Division. Food Situation During the First Year of Occupation, 22, RG-31, Papers of E. C. Skoglund, Folder No. 4, Food Situation During the First Year of Occupation.

<sup>58</sup> Jerome B. Cohen, *Japan's Economy in War and Reconstruction* (Minneapolis: University of Minnesota Press, 1949) 478.

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millions. The dead would be overwhelmingly noncombatants.

When Japanese leaders in June 1945 pressed ahead with the Ketsu Go strategy, they also were implicitly accepting that they were consigning masses of the population to starvation in 1946, with deaths also likely to range in the millions. Further, by effectively converting many millions of teens and adults from civilians to combatants, Japan's leadership was creating an environment certain to increase enormously deaths in an invasion battle.

An invasion of the Japanese Home Islands, if carried out across a very broad swath of the Japanese Home Islands, might cumulatively have produced losses in the high hundreds of thousands and possibly into the millions among combatants and noncombatants from both direct combat and the effects of blockade and bombardment.

Conventional aerial bombardment, including incendiary attacks and even atomic bombs, lacked the capability to kill on the scale of millions in 1945. Both conventional and nuclear bombardment produced by far the greatest casualties when the target was a city with a large population. The depopulation of Japanese cities already triggered by conventional attacks was likely to be paralleled by accelerated depopulation in the fact of the threat of nuclear weapons. The losses in conventional attacks took a significant downward toll per raid after March 1945. This reflected a combination of depopulation and the understanding that if an incendiary attack began, the only response was immediate flight.

Soviet intervention produced probably at least 300,000 deaths after hostilities ceased, perhaps more. A larger role for the Soviet Union in the war and then the occupation likewise promised to result in more deaths, probably measured in the hundreds of thousands.

The August 1945 new targeting directive to the B-29 force giving priority to targeting the Japanese railroad system, when coupled to the desperate Japanese food situation, threatened to imperil the lives of millions of Japanese.

In summary, this overview of the tangled factual and moral issues surrounding the end of the Asia-Pacific War is a sober reminder of just what total war was like in 1945.

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