The Decision to Deploy the Atomic Bomb in World War 2

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1 Introduction

On 6 August 1945, a bomb based on the fission of nuclear material was deployed for the first time in history on the military target of the Japanese city Hiroshima. On 9 August 1945, the last such bomb was used in war when it was dropped on Nagasaki. Seventy years later, people continue to debate the decision to deploy the bombs as a way to end World War 2. Although the United States of America did not maintain a monopoly on the knowledge to construct a bomb for more than a few years, neither atomic bombs nor their descendants, hydrogen bombs, have since been used in war. This paper intends to examine the decision process to deploy the atomic bomb. President Harry S Truman had the final decision authority to use the bombs, but the paper will also consider the cabinet members, military chain of command,

and scientists who provided input to the president.

2 A Brief Background

As the war in Europe neared its end, preparations were begun for a way to end the war in the Pacific. The plan was broken into two parts. Operation Olympic would involve capturing Kyushu, the southernmost of Japan's main islands. Importantly, for the purposes of this paper, the city of Nagasaki is on Kyushu. The second part was the invasion of Honshu, Japan's main island, containing Tokyo, Kyoto, and, importantly, Hiroshima. Because this was the most obvious way to conquer Japan, the Japanese had reinforced against such an attack, taking troops from Manchuria and sending them to Kyushu. [6] To counter these preparations, the United States began a campaign of bombing to attempt to disrupt industrial buildings involved in the war supply chain. [7] Eventually, this led to a firebombing campaign. A firebombing mission is meant to extend the impact of an attack beyond the effects of a single bomb by erupting the city in fire. This was especially effective in Japan where wood was a much more common building material than concrete. [5]

3 The Decision

Secretary of War Henry Stimson commissioned a study to determine likely Allied and Japanese casualties after learning of Japanese defenses by cracking Japanese codes. The study predicted 1.7 to 4 million Allied casualties and 5 to 10 million Japanese casualties. [5] This led the President and War Department to consider innovative attacks that would lessen the number of casualties, including use of the recently developed atomic bomb. While President Truman had final say on whether to use the atomic bomb, many of the details of the attacks were delegated to the War Department.[7]

3.1 The Selection of Cities

General of the Army George Marshall asked for a list of potential bombing targets which would then be approved by Marshall and Secretary of War Stimson. The Target Committee was formed and selected the bombing targets. In addition to each city being an important military or manufacturing target, it also had to meet three criteria: the target for the bomb had to be larger than 3 miles in diameter and be located in a large urban area, the blast would create effective damage, and the target had to not have been attacked by August 1945. The main purpose for the last criteria was to be able to accurately measure the damage caused by these bombs which had never been used in war before. This resulted in a list of Kokura, Hiroshima, Yokohama, Niigata, and Kyoto. [3] However Stimson and President Truman

did not want Kyoto on the list. Truman wrote in his diary:

"This weapon is to be used against Japan between now and August 10th. I have told the Sec. of War, Mr. Stimson, to use it so that military objectives and soldiers and sailors are the target and not women and children. Even if the Japs are savages, ruthless, merciless and fanatic, we as the leader of the world for the common welfare cannot drop that terrible bomb on the old capital [Kyoto] or the new [Tokyo]. He and I are in accord. The target will be a purely military one." [10]

Nagasaki was Kyoto's replacement on the list.

3.2 Alternatives

There were alternatives to the deployment of the atomic bomb which might have had the same intended consequence of Japanese capitulation without the invasion feared to cost so many American lives. This, of course, reminds the reader that one possible alternative to the deployment of the atomic bomb would have been the planned invasion. Despite the predicted casualties, it was certain the Allies would prevail as the firebombing (to be discussed shortly) and blockade had left Japan unable to replace damaged or spent resources. [7] Many civilians began to suffer from malnutrition and the United States had been chiefly unaffected by the war.

The least likely alternative to have the desired consequences was the dropping of leaflets. For months the United States had been dropping leaflets on Japanese cities encouraging them to rise up against their government and end the war or else there would be a continuation of air raids. However, the leaflet campaigns had not had the desired effect. The Japanese government criminalized possession of the leaflets and a strong opposition never materialized. The lack of response to the leaflets contributed to the lack of a leaflet warning prior to the dropping of the atomic bomb.[11]

Major General Curtis LeMay assumed control of the United States Air Force offensive against Japan in January 1945. LeMay changed tactics from attempting to strategically bomb specific sites within the city, to using incendiary bombs to cause wholesale destruction. The strategic bombing had failed due to the difficulty of hitting small targets with the new technology that the bombers used. LeMay's XXI Bomber Command firebombed 67 Japanese cities by June, including Japan's six largest cities. American success was helped by the blockade of Japan which meant the Japanese had to conserve fuel and could not mount an adequate fighter defense against the bombers. The greatest reason against using firebombing in place of atomic weapons was that, despite the tremendous loss of life and destruction of cities, the successful firebombing campaign had not resulted in Japanese capitulation. [2]

Poison gas had been used by both sides in World War 1, but it was a rather crude form of poison gas. In the years between the wars, all the major power had refined the poison gases and made them much more potent. In addition, many countries had developed weaponized cyanide, carbon monoxide, and cyanogen chloride. Those weapons worked by inhibiting the body's ability to absorb oxygen. Finally, both Allied and Axis countries had developed nerve gas. Nerve gas attacks the nervous system. At the point in the war when the Japanese invasion was being planned neither side had used poison or nerve gas. However, General Marshall considered using them prior to the invasion to limit American deaths in the invasion. Ultimately, use of these weapons was dismissed in favor of atomic weapons. [9]

In May 1945 Ernest Lawrence, a scientist at The Manhattan Project, suggested demonstrating the power of the atom bomb to the Japanese as a warning before its use. This would have the intended effect of saving American lives while also saving Japanese lives and infrastructure that would have to be rebuilt after the war. However, there were quite a few reasons the decision was made not to have a demonstration detonation. The first argument against a demonstration was that it would eliminate the shock value of the bomb decimating the cities. The second argument was the very real possibility that the device might be defective. Admiral Leahy, at a meeting in which the president was told how the bomb worked, told President Truman, "This is the biggest fool thing we have ever done. The bomb will never go off, and I speak as an expert in explosives." [7] Atomic bombs were incredibly new and they had never been deployed in war before. If it were dropped unannounced and didn't work, the US would not lose credibility

because no one would know what had happened. The third argument was that each bomb cost billions of dollars, making a demonstration incredibly expensive if it didn't meet the objective of Japanese surrender. [7] Manhattan Project scientist Arthur Compton summed up a lot of the arguments against the demonstration:

It was evident that everyone would suspect trickery. If a bomb were exploded in Japan with previous notice, the Japanese air power was still adequate to give serious interference. An atomic bomb was an intricate device, still in the developmental stage. Its operation would be far from routine. If during the final adjustments of the bomb the Japanese defenders should attack, a faulty move might easily result in some kind of failure. Such an end to an advertised demonstration of power would be much worse that if the attempt had not been made. It was now evident that when the time came for the bombs to be used we should have only one of them available, followed afterwards by others at all-too-long intervals. We could not afford the chance that one of them might be a dud. If the test were made on some neutral territory, it was hard to believe that Japan's determined and fanatical military men would be impressed. If such an open test were made first and failed to bring surrender, the chance would be gone to give the shock of surprise that proved so effective. On the contrary, it would make the Japanese ready to interfere with an atomic attack if they could. Though the possibility of a demonstration that would not destroy human lives was attractive, no one could suggest a way in which it could be made so convincing that it would be likely to stop the war.[1]

3.3 The Final Decision

President Truman had many reasons to consider dropping the atomic bombs. His main reasons were to end the war as soon as possible (and with as few casualties as possible), to justify the cost of the Manhattan Project, to impress and intimidate the Soviets, a lack of incentives against using the bomb, and as a potent response to Pearl Harbor. [4] President Truman chose to to delegate consideration of options to a special committee known as the Interim Committee. So as to not taint his view of the recommendations by having participated in the deliberations, President Truman did not participate. Instead he appointed James Byrnes as his representative on the committee.

The fear that the atomic bomb was the only way to make the Japanese surrender was a very real one. Despite having lost many lives and much city infrastructure during the bombing raids, the Japanese had not yet accepted the terms of surrender. In past battles, the Japanese soldiers had demonstrated a willingness to fight until death rather than face capture. Ever since the prior year, the calls for peace among the Japanese had increased, but the government refused because the peace terms involved dissolution of the

empire's government. Although the government reached out through Soviet channels for peace, it resolved to fight rather than agree to peace if the emperor had to abdicate. [7]

While the Allies had been trying to secure Soviet entrance into the Pacific war, to help alleviate the burden of going up against the Japanese, as time passed, the US grew more confident in their ability to take on the Japanese on their own. The desire to offer them concessions lessened. Admiral King declared to President Truman, "...regardless of the desirability of the Russians entering the war, they were not indispensable and he did not think we should go as far as to beg them to come in." As it became more certain that the United States would be able to deploy a working atomic bomb, the President and those advising him counseled that the use of the bomb might help make the Soviet Union less bellicose. Dr Oppenheimer, a scientist at The Manhattan Project recorded, "Much of the discussion revolved around the question raised by Secretary Stimson as to whether there was any hope at all of using this development to get less barbarous relations with the Russians." [7]

The view that the desire to drop the atomic bombs stemmed from a desire to demonstrate to the American public where the billions of dollars spent had gone comes from the fact that Congress had been asking questions about the expenditures as well as from Admiral Leahy who wrote, "It was my reaction that the scientists and others wanted to make this test because of the vast sums that had been spent on the project. Truman knew that, and so did other people involved." [7]

In the end, the biggest factor for President Truman was to minimize American casualties. Secondary was a minimization of Japanese casualties. However, preventing the Soviet Union from gaining concessions trumped the need to save the absolute greatest amount of lives. This led President Truman to take chances with the unproven atomic bomb rather than depend on the Soviet Union.

4 Conclusion: Should it be controversial?

The use of atomic bombs against Japan in World War 2 has been controversial from the moment the effects of radiation sickness were reported and available uncensored. Much of this revolves around two main arguments. The first is the use of atomic bombs and the lingering effects of radiation that go beyond the initial attack. The second involves the massive destruction that killed many non-combatants as well as destroying entire cities - not just military industries. While there is truth to the concern that the of a nuclear device poisons the area and victims for years beyond the initial attack, the atomic bombs were actually less damaging than the firebombing that had been going on for the better part of a year. The Operation Meetinghouse, the March 9-10 firebombing of Tokyo lead to more deaths than either the bombing at Hiroshima or the bombing at Nagasaki.

Police cameraman Ishikawa Koyo described the streets of Tokyo as "rivers of fire . . . flaming pieces of furniture exploding in

the heat, while the people themselves blazed like 'matchsticks' as their wood and paper homes exploded in flames. Under the wind and the gigantic breath of the fire, immense incandescent vortices rose in a number of places, swirling, flattening, sucking whole blocks of houses into their maelstrom of fire."

The survey concluded—plausibly, but only for events prior to August 6, 1945—that

"probably more persons lost their lives by fire at Tokyo in a 6-hour period than at any time in the history of man. People died from extreme heat, from oxygen deficiency, from carbon monoxide asphyxiation, from being trampled beneath the feet of stampeding crowds, and from drowning. The largest number of victims were the most vulnerable: women, children and the elderly." [8]

It also had a greater area of fire damage. Therefore, while the idea of using the atom bombs as a way of saving Japanese as well as American lives is often dismissed, it is indeed true that the atomic bombs had a greater psychological effect than the regular bombing campaign while killing fewer Japanese.

President Truman displayed excellent decision making abilities given the circumstances and consequences of war. His most important decision involved delegating the military tactics to the military experts and the early deliberations to the Interim Committee. This allowed him to benefit from the expertise of those around him as well as allowing him to judge the infor-

mation presented to him with the least bias possible. Given the geopolitical consequences of the decision, President Truman also had to weigh the ultimate goal of preventing loss of life with the goal of ending the war and sending a message of the strength of the United States of America. In the end, he was able to reach both goals. The war was ended and America became a superpower for the following 70 years.

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