Strategic Bombing

Appendix A in Arjun Makhijani and John Kelly, Target Japan: The Decision to Bomb Hiroshima and Nagasaki, July 1985. Published as a book in Japanese under the title, Why Japan? (Kyoikusha: Tokyo, 1985)

This appendix is a brief history of the theories of aerial bombardment, of the early weak diplomatic efforts to prevent or limit such bombardment, and of the practice of "strategic" bombing in World War II. The purpose is to provide background information regarding this theory and practice because the moral issues are similar and because the thinking about atomic weapons closely paralleled that of "strategic bombing" in many respects-even though these were not integrated into one overall military strategy during World War II.

Theories of aerial bombardment of an enemy's cities and economic infrastructure flourished in the early part of this century. But it wasn't until later that the aircraft technology existed with which to put these theories to a test. Consequently, when the fighting broke out in World War II, the U.S. Army Air Forces was eager to apply the air power doctrine it had developed in the 1920?s and 1930?s.

Brigadier General Billy Mitchell, the leading U.S. air power theorist of the 1920?s, conceptualized air power "will project the spear point" of a nation's military force behind the frontlines of the battlefield to an enemy's vital areas to render it "powerless to defend itself." Aerial bombing would cause such destruction and paralysis that "resistance is no longer possible and capitulation is the outcome."

Armies and navies, deployed by nations in war to protect their vital centers from coming under attack, would be bypassed by bomber aircraft, Mitchell wrote. "The advent of air power which can go straight to the vital centers and entirely neutralize or destroy them has put a completely new complexion on the old system of war. It is now realized that the hostile main army in the field is a false objective and the real objectives are the vital centers." He defined these vital spots as consisting of "cities where the people live, areas where their food and supplies are produced and the transport lines that carry these supplies from place to place." [1]

Brigadier Guilio Douhet, an Italian air power strategist, explained "The conception of belligerents and nonbelligerents is outmoded. Today it is not the armies but whole nations which make war; and all civilians are belligerents and all are exposed to the hazards of war. The only salvation will be in caves, but those caves cannot hold entire cities, fleets, railways, bridges, industries, etc." [2]

Mitchell was disingenuous about making the civilian population a chief target in air warfare. He wrote of subjecting the enemy's productive capacities, "not so much the people themselves," to bombing campaigns, as if the two could be neatly separated. He also argued air power could make war less destructive than older forms of warfare. "The result of warfare by air will be to bring about quick decisions. Superior air power will cause such havoc, in the opposing country that a long drawn out campaign will be impossible." [3]

But terror bombing of the civilian population of an enemy in order to break its morale, was central to air power strategy. As Mitchell himself wrote elsewhere, "A few shells, gas, explosive or incendiary, landed

in Manhattan would cause a complete evacuation." [4]

Douhet was more forthcoming about how air power would inflict terror from the skies on the civilian population. Victory "must depend on smashing the material and morale resources of a people caught in a frightful cataclysm which haunts them everywhere without cease until the final collapse of all social organization. Mercifully, the decision will be quick in this kind of war, wince the decisive blow will be aimed at civilians, that element of the countries at war least able to sustain them" [5]

The question of the morality of air warfare – subjecting civilian populations to devastation and terror – was addressed briefly at the turn of the 20th century. As breakthroughs in aircraft technology were made, however, international efforts to restrict the bombing of civilian populations fell by the wayside.

The first major effort to put limitations on aerial bombardment took place at an international conference at the Hague in 1899. The Russians came to the meeting with a proposal for a permanent ban on "the discharge of any kind of projectile or explosive from balloons or by similar means." The U.S. delegate objected and proposed instead a five-year prohibition, noting technological advances may make aerial bombardment more precise. The temporary ban was adopted. [6]

But before the temporary ban on aerial bombardment voted at the Hague conference expired, technological development undermined support for the effort. Wilbur and Orville Wright proved in Kitty Hawk, North Carolina, that flight by heavier-than-air machines was possible. This raised the possibility of bombing from airplanes in addition to aerial bombing from lighter-than-air balloons. France, Germany and Italy were also well on their way to developing dirigibles which would be more navigable and suitable to air warfare than balloons which were used in early air campaigns.

When a second conference was convened at the Hague in 1907, there were more proposals for a prohibition of aerial bombardment. A French resolution for placing restrictions on the use of air power, instead of banning it outright, was adopted by the conferees. The conference approved the adaptation of Article 25 of the Convention of Land Warfare to forbid a country "to attack or bombard by any means whatsoever, towns, villages, dwellings or buildings that are not defended."

Article 24 of the Convention of Land Warfare, however, allowed attackers to notify an undefended city before bombing it to give the city a chance to surrender. Other questions regarding air war were also left unanswered or ambiguous. What if an undefended city contained a military objective like an arsenal, legal experts asked?

Some legal scholars thought at the time that aircraft should be governed by the laws which regulated bombardment by naval artillery. Attacking fleets were permitted to bombard military targets in an undefended city as long as they restricted their fire to military installations. Lee Kennett in his A History of Strategic Bombing commented: "These rather imprecise regulations were the only ones to obtain a sizable number of ratifications; the ban on bombing was rejected by most of the great powers." [7]

The entry of Nazi Germany in the Spanish Civil War of the mid-1930?s gave the world a preview of the use to which air power would be put in the Second World War. The Nazis backed Generalisimo Franco's fascist rebellion against the elected Republican government in Madrid by sending German bombers to attack Spanish ports through which supplies for the Republican forces passed. The German Luftwaffe

next turned to “terror bombing” of raids against Barcelona, Guernica, Madrid and other Spanish cities. Civilian casualties were heavy, but there was no new international attempt to outlaw the bombing of civilian populations. [8]

At the start of World War II, Britain and Nazi Germany were reluctant to launch major air raids against each other’s cities. But before long both countries authorized strategic air raids against each other’s urban areas. Gradually restrictions on the aerial bombardment of civilian populations were totally ignored by the combatants as each side vowed to retaliate for previous air strikes against its cities by the enemy.

U.S. and British bombing raids over Germany had different functions in the combined air war against Germany. The role of the British Royal Air Forces, which it adopted as its strategy, was predicated on “area bombing” – that is, large scale bombing of industrial and residential areas in order to break the morale of the German people by terrorizing them. The U.S. Army Air Forces once claimed that U.S. strategy was not based on destroying civilian populations even if it had that as the result.

“The leaders of the AAF had long been on record in opposition to indiscriminate attacks on civilians. If bombardiers were sometimes less circumspect in this manner, or if Germans found it hard to differentiate between spillage and terror bombing, it nevertheless seemed important during these pre-Hiroshima months not to deviate from the state policy of attacking legitimate military objectives.” [9]

The U.S. Army Air Forces explained the British preference for area bombing of Germany – “proposals to bomb Germany so terrifyingly that it would sue for peace” – on the grounds of the British revenge motive: “It is not surprising that proposals for all-out attacks on Berlin, the Ruhr or other critical areas of Germany always seemed to come from the British, who had undergone the German air raids of 1940-41 and were not [1944] enduring the punishment of V-1?s and V-2?s [Germany rockets].” [10] At times the U.S. Army Air Forces even claimed to have opposed “proposals frankly aimed at breaking the morale of the Germany people” because of “the moral issue involved.” [11] Elsewhere, however, the Army Air Forces admitted that such statements “were meant strictly for home consumption.” [12]

The differences between the U.S. and British Air Forces were not based on morality. Initially the “general conclusion reached [by the U.S.] was that bombing of this sort [area bombing] while effective enough in producing general damage, was an unreliable and costly way of paralyzing the enemy’s war machine and that, in comparison, precision bombing of a specific phase of the enemy’s war economy according to a definite but flexible strategic plan afforded the most economical means of effecting a decisive concentration of bombardment.” [13]

The combined bomber offensive of the U.S. and Britain included continuous day and night bombing attacks against Germany. The U.S. daytime precision bombardment was designed to hit specific industrial targets which couldn’t be detected at night. The British flew night-time area bombing raids aimed at destroying entire urban areas associated with industrial or transportation targets.

Area bombing, and more specifically targeted attacks were calculated to complement each other. “By deploying both it would be possible to bring continuous 24-hour pressure to bear on the enemy, thus preventing his defenses from relaxing. It would also be possible, in many cases, for the AAF to locate difficult targets and mark them by fire resulting from the preliminary bombing, and so make it feasible for the RAF to complete the job at night.” [14]

The U.S. Army Air Forces had, in fact, "from the first been interested in the possibilities of incendiary attacks against the crowded and inflammable cities of Japan…" [15]

By early 1945 the U.S.-British arguments over terror bombing stopped – even when "strictly for home consumption." First came the Allied fire bombing of Dresden. Then the U.S. shifted its strategy in Japan to include fire bombing on a vast scale.

Brigadier General Haywood Hansell, who had directed the strategic bombing attacks until mid-January 1945, did not agree with the fire bombing approach. He insisted that "precision bombing" be continued. On January 20, 1945, Hansell was replaced by LeMay. "Perhaps in the last analysis Hansell's chief fault was in adhering too strictly to the 'book' – to doctrines of precision bombardment which he helped formulate-in the face of growing interest in area incendiary bombing evinced by [General Henry] Arnold [Chief of the Army Air Forces]." [16]

The idea was to prove that incendiary bombing and destruction on a vast scale could be the decisive aspect in the final results of the Pacific War.

U.S. air war strategists believed that fire bombing might be particularly effective against Japan because "[t]housands of small households or 'shadow' industries were jammed into the metropolitan sectors. Thirty percent of the nation's total labor force worked in factories employing 30 persons or less. Most of these home factories were engaged in war production, were so widely scattered and lightly built as to be unsatisfactory pinpoint bombing targets-and were highly vulnerable to attack by fire. Precision bombing could still serve a limited purpose against isolated key war plants and against major fire-resistant plants in the urban areas; but for real results, intensive use of incendiary bombs would be the answer." [17]

The U.S. bombing strategy of 1942-44 against Japan was expanded in a big way in March 1945, beginning with the fire bombing of Tokyo on March 9 and 10, 1945. The area of Tokyo selected was four miles by three miles, a zone with a civilian population density of 103,000 per square mile. A high concentration of incendiary bombs dropped from the huge U.S. B-29 Superfortresses ignited a series of fires, fanned by brisk winds, which raged out of control within half an hour, the result of which was that more than 15 square miles of Tokyo was burned out. About 100,000 men, women and children were killed and another 100,000 people were made homeless. According to the U.S. Army Air Forces: "No other air attack of the war, either in Japan or Europe, was so destructive of life and property." [18] [19]

"With casualties of this order," Clark wrote of the March 9-10 fire bombing of Tokyo, "it seemed inevitable that Japan could be burned into capitulation. The bomber, surely, might here do what it had failed to do against Germany: Eliminate the need for ground invasion." [20]

Within 48 hours of the U.S. fire bombing of Tokyo, LeMay's B-29 bombers launched incendiary attacks against Kobe, Nagoya, and Osaka. Over a 10 day period, 9,373 tons of bombs were dropped and 31 square miles of these cities were burned out. More fire bomb raids were carried out on Tokyo, and by the end of May 1945, 56 square miles of Tokyo had been reduced to ashes. [21]

Kennett described the impact of these incendiary raids: "Everything combustible would be consumed, and the fierce temperatures generated would ensure that by radiant heat alone the conflagration would cross streets and canals. In some cases the heat would soften the asphalt in the streets, so that fire

equipment mired down and was lost to the flames. Water sprayed on the fire would simply vaporize; glass panes would soften and drip from metal window frames. Here and there, incredibly, concrete melted. No living thing could survive in such an atmosphere." [22]

Every major city in Japan, with the exception of Kyoto, was targeted by LeMay in the spring of 1945 for destruction. LeMay wanted to prove the decisiveness of such bombing. In April 1945, he wrote General Larry Norstad "I am influenced by the conviction that the present stage of development of the air war against Japan presents the AAF for the first time with the opportunity of proving the power of the strategic air arm. I consider that for the first time strategic air bombardment faces a situation in which its strength is proportionate to the magnitude of its task. I feel that the destruction of Japan's ability to wage war lies within the capability of this command, provided the maximum capacity is extended unstintingly during the next six months, which is considered to be the critical period. [23] [24]

The B-29 bombers fire-bombed urban areas, while fighter aircraft and medium size bombers dropped high explosive bombs on hamlets and the countryside. Kennett observed these "operations blurred further the distinction between military and civilian objective." [25]

By the time of the atomic bombings scarcely any distinction remained at all.

Notes:

1. Billy Mitchell, quoted in W. F. Craven and J. L. Cate, eds., The Army Air Forces in World War II, Vol. 1, University of Chicago Press, Chicago, 1948; pp. 40 and 42. ? Return
2. Guilio Bouhet, quoted in Lee Kennett, A History of Strategic Bombing, Charles Scribner and Sons, New York, 1982. ? Return
3. Craven and Cate, The Army Air Forces in World War II, Vol. 1; pp. 41-2. ? Return
4. Ibid.; p. 40. ? Return
5. Guilio Douhet, quoted in Bernard Brodie, Strategy in the Missile Age, Princeton University Press, Princeton, N.J., 1959, p. 98. ? Return
6. Kennett, History of Strategic Bombing; p. 10. ? Return
7. Ibid.; p. 11. ? Return
8. Ronald W. Clark, The Role of the Bomber, Thomas Crowell Co., New York, 1977; p. 48. ? Return
9. Reference #3, Vol. 3, 1951; p. 726. ? Return
10. Reference #3, Vol. 3, 1951; p. 638 ? Return
11. Reference #3, Vol. 3, p. 638 ? Return
12. Reference #3, Vol. 2, p. 299 ? Return
13. Reference #3, Vol. 2, p. 299 ? Return
14. Reference #3, Vol. 2, p. 302. ? Return
15. Reference #3, Vol. 5, p. 725. ? Return
16. Reference #3; Vol. 5. ? Return
17. Vern Haughland, The AAF Against Japan, Harper and Row, New York, 1947; p. 451. ? Return
18. Reference #3, Vol. 2, p. 617. ? Return
19. Reference #8, p. 119. ? Return
20. Reference #8, p. 120. ? Return
21. Reference #6, pp. 171-172 ? Return

22. Reference #6, pp. 172 ? Return
23. Reference #3, Vol. 5; pp. 626-627. ? Return
24. Curtis LeMay, Missions with LeMay, Doubleday & Co., New York, 1965; p. 373. ? Return
25. Reference #6; p. 176. ? Return

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