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THE ETHICS OF BOMBING DRESDEN

BY

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PREFACE

The attack on Dresden took place on 13-14 February 1945. The Royal Air Force (RAF) attacked twice during the night of the 13th, setting fire to the city. Then the US Army Air Forces (USAAF) attacked during daylight hours on the 14th. The British utilized their nighttime area bombardment strategy, while the Americans used their daylight precision bombing techniques. However, by time the attack came, the British and American strategies had begun to cross paths. The RAF had developed new bombing techniques that allowed for a greater precision – resulting in nighttime precision bombing; while the USAAF had begun to veer away from their precision daylight bombing in favor of area bombardment.*

Was this tactical change a conscious decision on the part of the USAAF in their overall strategy? Or was it an evolutionary outcome of the many technological advances that occurred during the war? The thesis of this research project is that although no specific order or directive specified the destruction of Dresden, those in charge had tacitly endorsed the idea. Whatever the reason, the firestorm at Dresden proved to be the most horrific wartime event in the European Theater.

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* Michael S. Sherry, The Rise of American Air Power, The Creation of Armageddon, New Haven, CT, Yale University Press, 1987, 162

BACKGROUND

Just War Theory

The United States has always upheld the concepts of *Jus ad Bellum* (just recourse to war) and *Jus in Bello* (just conduct in war). *Jus in Bello* is based on two main principles – discrimination and proportionality. Discrimination establishes the immunity of non-combatants, whereas proportionality limits collateral damage from the weapons of war.[1] The U.S. developed its bombing strategy of precision daylight bombing based on these two principles, along with Douhet's theories of destructive bombing of the enemy's infrastructure. In other words, the U.S. entered the war with the belief that indiscriminate bombing which destroyed non-military targets was not acceptable – we would not intentionally kill non-combatants.[2] Yet during the attack on the City of Dresden, we violated our own principles and aided in the destruction of a city and the killing of over 135,000 people – the majority of whom were non-combatants. But were they actually non-combatants? Lee Kennett observes that "most people have had difficulty accepting the argument that since the entire nation now makes war, any part of that nation may justifiably be attacked."[3]

The War

Following World War I, Germany harbored deep resentment of the harsh terms imposed upon it by the treaty of Versailles, which demanded reparations that were regarded as unfair to Germany. Because of this, in 1933 German Chancellor Adolf Hitler took Germany out of the League of Nations and began his buildup of

the German Army, Navy, and Air Force. On 1 September 1939, the German army invaded Poland. The following spring, Germany overran France and the Low Countries, triggering World War II (WW II).[4] In June 1940, Hitler ordered the Luftwaffe to attack and destroy the British Royal Air Force (RAF) and to neutralize the Royal Navy. The attacks began on 8 August when German fighters and bombers started daily raids on southern England in preparation for a German invasion, Operation Sea Lion. The RAF retaliated with their smaller fighter force - So began the Battle of Britain.[5]

The British, struggling to stop the pending invasion, used their small light bombers (Hampdens, Wellingtons, and Whitleys) to attack the preparation areas in France in order to destroy the invasion craft.[6] Britain's Bomber Command then launched their campaign against the German homeland using daylight precision raids. But they suffered near elimination through great losses of men and planes. Britain concluded that their bombers lacked the capability to defend against fighter interceptors by day. Thus in order to save their bomber force, they had to switch to a strategy of nighttime area bombardment. This became their strategy for the remainder of the war.[7]

Prior to entering the war, the American strategy was embodied in one resolution: "The national interest of the United States required the survival of Great Britain and its postwar freedom of action as a great power."[8] Following the Japanese attack on Pearl Harbor, Hitler declared war on the United States. The U.S. hastily forged an alliance with the British. As a part of this alliance, the U.S.

supplied the British with men and aircraft, such as the B-17 and B-24. For the first time, the British could test Douhet's theories and inflict damage deep in the German homeland. Bombers could strike at the manufacturing plants, transportation centers and communication hubs – thereby destroying the German war making capabilities and essentially forcing them to surrender.

THE INTERWAR YEARS

Following WW I, Italian General Giulio Douhet professed his theory of air power: He advocated that it would take three kinds of bombs to destroy a target – explosive, incendiary, and gas. Explosives would destroy the target, incendiaries would ignite the damaged structures (such as factories or fuel supply lines), and poison gas would keep the firefighters away. Ultimately, this strategy would dissipate the will of the people to wage war, so the enemy would be quickly defeated.[9] Reinforcing Douhet's theories, Captain Lidell-Hart, a British officer, also reasoned that disruption of the "normal life" of the people would cause them to surrender. However, Douhet's theory, utilizing a triad of bombing, would never be tested. The 1925 Geneva Gas Protocol, which prohibited the use of asphyxiating, poisonous or other gases (except for self-defense) illegitimatized one component of the Douhet triad.

American General Billy Mitchell saw the airplane as a way of striking at the vital centers of the enemy. If we could neutralize or destroy them, then we would be victorious.[10] Following WW I we were determined to uphold the Geneva Protocol;

we vowed not to utilize poisonous gas in the triad of bombardment professed by Douhet. Therefore, Mitchell reasoned that the best bombing strategy for the USAAF would be to utilize high explosive bombs, then incendiary bombs, to destroy the targets - But what targets? Prior to our involvement in WW II, the Air War Plans Division studied how and what we should target. This study culminated in AWPD-1 and AWPD-42, plans that detailed the expected results of bombing and the requirements to attain them. These plans designated strategic targets that could be destroyed only by precision daylight bombardment.[11] Nowhere did AWPD-1 and AWPD-42 authorize the "destruction of cities" or the use of "terror bombing."

BOMBING TECHNIQUES

The RAF Approach

Because of the near elimination of the RAF, Britain rightly feared for its survival – Britain needed to hit deep into Germany to destroy the fighter aircraft, first by hitting them on the ground and then by taking out the factories that were producing them.[12] But British light bombers were not capable of these objectives. They needed heavier, more capable bombers like the American B-17 – ones that would allow the successful penetration of German airspace and bombing of the factories. Because of daytime losses and the need to save the nation, the British had to change their strategy.

They decided to utilize nighttime area bombardment. Without it, the British would have no strategic bombing – thus no real hope of surviving the German

onslaught.[13] Nighttime area bombardment also reflected the Luftwaffe strategy, which had already conducted a successful nighttime raid on Coventry, England. A large part of this city was destroyed in September 1940. The British were traumatically aware that German bombers would strike under cover of night.[14] With the full knowledge and concurrence of Churchill, the British abandoned their original daytime precision bombing strategy, turning to an as yet untested theory – nighttime precision bombing. They soon discovered that it was harder than theorized to find and destroy the target at night. Consequently on 30 October 1940, the British issued a Directive "ordering that oil targets should be attacked on clear nights and cities on other nights,"[15] thereby beginning the "approved" RAF terror bombing of Germany.

The USAAF Approach

The USAAF theory of bombing that developed during the inter-war years utilized the principles of economy of force and mass. Utilizing large formations of highflying aircraft, capable of self-defense, carrying out daylight precision bombing to destroy the target enacted these principles. This strategy would eliminate the need for multiple attacks on the same target, thereby reducing the risk to the flyers and reducing potential collateral damage. However, like all theories, it remained untested. In reality, the precision daylight raids were not as precise as envisioned. Throughout the war, this imprecision caused extensive collateral damage and the deaths of many noncombatants. Why did this happen? Was the technology not adequate for the theory? Was the highly touted Norden bombsight inaccurate? Or

was a human factor causing the inaccuracy? During development, the Norden had been tested under ideal conditions, but now in combat the wild "jinking" maneuvers required while on final approach to the target to avoid either the flak or the fighter interceptors threw off the Norden's accuracy.[16] However, on the day that the USAAF attacked Dresden, there were no flak or enemy fighters to disturb the bombing runs, so jinking was not a factor. The only impediment to the "precision run" was the smoke covering the city, a result of the two nighttime attacks by the RAF, just hours before.[17]

As the war in Europe ended, the American method of bombing had moved away from its established strategy of precision daylight bombardment. It began to merge with the RAF strategy. This merger enabled the USAAF to assist in the land battle with Germany by directly supporting the field commander in striking targets anytime, day or night. The USAAF had begun using "blind bombing" guided by the H2X radar, the American version of the British H2S system. By the war's end, 80 percent of all of the 8th AF missions utilized this technique.[18]

CONFERENCES

Arcadia

Held December 22, 1941 Arcadia was the first Anglo-American Conference after the United States had entered the war. At the conference, the Americans and the British declared that their first priority would be the total defeat of Germany.[19] Other salient objectives included forging a constricting ring around Germany by

using air attacks and blockades; the eventual invasion of the European landmass; and the invasion of North Africa.[20]

Casablanca

At the Casablanca Conference, January 1943, Roosevelt and the Joint Chiefs of Staff committed themselves (to Churchill) to aiding the British in their bombing campaign - the Combined Bomber Offensive (CBO).[21] This cooperation did not come easily: With the earlier failure of their own daylight precision bombing, Churchill and Air Marshall Harris urged the U.S. to abandon its strategy and to join them in utilizing nighttime area bombardment instead. But U.S. officials held firm in their belief of daylight precision bombing. Thus the resulting CBO strategy melded the British and American strategies, calling for a "round-the-clock" bombardment, so the enemy would have no time to recover and rebuild the factories.[22]

The Casablanca Directive is revealing (especially in hindsight): It calls for "the destruction and dislocation of the German military, industrial and economic system, and the undermining of the morale of the German people to the point where their capability for armed resistance is fatally weakened."[23] Waging war through bombing to undermine the morale of the people had now become one of the primary objectives in the war in Europe.[24]

Yalta

At Yalta, 4 February 1945, the Deputy Chief of Staff of the Red Army, General Antonov, requested allied support in the bombing of communication and transportation centers in order to prevent the movement of German troops towards

his advancing front.[25] At the time of the request, Dresden was not designated an official target. After some deliberation, it was included as a legitimate target.[26] It must be noted that Dresden had been listed as a suitable for H2X attack by 8th Air Force in July 1944, but it was subsequently dropped from the list.[27] The reason for putting Dresden back on the list at Yalta was that the city was an assembly point for German soldiers who were enroute to the eastern front, as well as a communications and railroad center. However, the British targeting for Dresden did not include the railroad. Instead, it concentrated on the "old city" proper (See Figure 2, Targeting Sheets).

THE GENERALS

During the inter-war years, Generals Spaatz, Arnold, and Eaker had a profound influence on how and where to utilize air power. These leaders worked together to formulate the strategy, doctrine, and American ethic of daylight precision bombardment, one that we were committed to maintain.[28] Eisenhower knew that this strategy was important to the overall war effort: "Unless accurate precision daylight bombing was feasible, I believed the large-scale invasion of the continent would be extremely risky."[29]

Carl A. (Tooey) Spaatz

General Spaatz was the Commanding General of the U.S. Strategic Air Forces in Europe. He openly opposed the use of "terror bombing" and the slaughter of non-combatants. Thus, he directed the USAAF to adopt and stick to its strategy

of daylight precision bombardment.[30] During his time in England during the early stages of WW II, Spaatz gained firsthand knowledge of what indiscriminate bombing was doing to the populace.[31] This revelation reinforced his position that the only humane way to bomb was to use the daylight precision bombardment that he had established during the interwar years. At this time, he remained steadfast in his resolve to uphold the ethic of precision bombing – an ethic that he had helped to formulate while Chief of Training and Operations, Office of the Chief of Air Corps.[32]

Henry "Hap" Arnold

General Arnold headed up the USAAF in Europe. Although he never flew in combat in WW I, he understood what strategic bombing could and would do in winning a war.[33] During the interwar years, General Arnold was responsible for the development of the type and quantity of aircraft that would be needed to fulfill the requirements to support the daylight precision bombing doctrine, developed at the Corps tactical school at Maxwell AFB.[34] Many times during his tenure in England, Arnold was aware of subtle British efforts to get him to change his ethic and join them in their strategy of nighttime area bombardment. The British tried several times to sway him, but he held firm, especially during the Casablanca conference. He requested Eaker and Captain Parton attend the conference to solidify the U.S. position to Churchill.[35]

General Arnold remained a strong defender of daylight precision bombing. He was pressed to the limit to make it work. After U.S. bombers sustained twenty

percent losses during the Schweinfurt-Regensburg raid, Arnold was criticized for continuing the daylight raids. Even General Marshall, who was losing faith in this strategy, tried to dissuade him. But Hap was not willing to give up his ethic, not yet. He was having his private doubts, but he continued to strongly defend it in public. His outspokenness forced him to go the extra mile to prove that it would work.[36] However, although Arnold made it clear that the use of incendiary bombs on German towns and cities could not spare the civilian population, he continued to voice opinions that could be seen as acceptance of it: "The way to stop the killing of civilians is to cause so much damage and destruction and death that the civilians will demand their government cease fighting."[37] Later that same year, Hap told Eaker that it was imperative that the American people understand that the USAAF method of precision bombing "did not violate the ethical principles" that were widely held at home. Arnold felt that if these principles were going to be violated, it is better if the allies did it.[38] However, in mid-December 1945, Arnold suffered a massive heart attack and was not back at work until March 1945. He was thus <u>not</u> a party to the Dresden raid.[39] Would it have been carried out if he had been on the job?

Ira Eaker

General Eaker took over as Commander of VIII Bomber Command when General Spaatz went to North Africa as General Eisenhower's air commander.[40] Eaker, like Spaatz, had prior knowledge of the war that he acquired during his time as an observer in England.[41] At the beginning of the war, Eaker was only hopeful of

the efficacy of daylight precision bombing. After all, it had yet to be tested in combat. But he was confident that he could deliver forty percent of the bombs within five hundred yards of the aiming point, thereby keeping collateral damage to a minimum.[42] On 1 January 1945, Eaker advised Spaatz against striking transportation targets in small towns: This would lead to large numbers of casualties amongst the civilian population, which in turn would tend to validate German propaganda against the American forces.[43] Eaker understood the importance of depriving Hitler of the support of the people.

While at Casablanca, Arnold requested Eaker to come and to defend the current U.S. Strategy to Churchill. Eaker and Captain Parton then prepared a briefing for Churchill. Arnold also requested Generals Spaatz and Andrews weigh in to bolster the US resolve to maintain the ethic of daylight precision bombing. It worked! Churchill relinquished his request that the U.S. joins them in their terror bombing campaign. At Casablanca, the U.S. held fast to their ethical doctrine.[44]

Because of round the clock bombardment of the German homeland, the enemy fighter forces would have to be on alert 24 hours a day. This relentless vigil would depreciate their effectiveness against the CBO forces.[45] Despite the initial high loss rates, Eaker made U.S. daylight precision bombing work. His efforts, combined with the British nighttime raids, destroyed the Luftwaffe – his main objective prior to the execution of OVERLORD, June 1944.[46]

ADVANCES IN BOMBING TECHNIQUES AND TECHNOLOGY

The USAAF entered the war with the B-17 bombers equipped with the Norden bombsight. U.S. leaders determined that large numbers of fast, high flying, heavily armed aircraft could effectively use daylight precision bombing on industrial targets, with minimal collateral damage.[47] However, getting to the right target was not a simple task.

At the beginning of the war, the British stayed close to home – for two reasons. First, they had to concentrate on peripheral areas because they lacked the long-range aircraft capable of penetrating deep into German territory. Second, due to the possibility of a German invasion, codenamed Operation Sea Lion, they targeted harbors and staging areas along the Channel. They knew the coastline.[48] Because of these two factors, the British did not need on-board guidance systems. But as they acquired heavier, more capable aircraft that could penetrate deep into the heart of Germany, they had to develop a guidance system to get them to the correct target and back home safely.

To help them strike accurately at targets in Germany, the British developed Gee and Oboe radio beam systems to guide them. But they had a very limited line-of-sight range. Following this development came the H2S* on-board radar; it had unlimited range and allowed them to identify the target areas below. But its signals were extremely difficult to interpret.[49] Once they were mastered, these three advances greatly increased the accuracy of the British bombing – almost into

* H2S is an airborne radar set used to scan the earth below.

a nighttime precision bombing.[50] But the equipment was difficult to use, and there were not many skilled technicians to operate it. The British addressed this problem by deploying highly skilled and specially trained pathfinder forces; their job was to mark the targets for the follow-on bomber force. In their two nighttime raids on Dresden, the British used pathfinders to mark the stadium, near the center of the old city.

Fighter interception and flak posed two other problems for the RAF and USAAF. German ground radar would vector fighters for interception and activate the flak targeting systems. The bombers' subsequent evasive maneuvers would further hamper the bombing runs. The British developed "window" – aluminum strips that were dropped by the forces – to create false readings on the German radar. This technique effectively jammed the German aircraft radar and gun tracking systems, thereby confusing them and allowing a more precise bombing run.[51]

The USAAF version of H2S, H2X, facilitated a "blind bombing" technique. Later in the war, the 8th Air Force would utilize this method in 80 percent of all its missions.[52] The advent of the H2X radar only assisted the bombers in getting to the target. Once there, they had to deliver the munitions "on-target" to be effective. However, during the 1944-1945 timeframe, the "blind bombing" technique was not as precise as it was touted to be. The average probability of error was approximately two miles – far exceeding the requirements for daylight precision bombing developed and stressed in the early years of the war.[53] By this time, the

British and American strategies had begun to cross. The British night bomber forces were getting as accurate as the American daylight bombing and the Americans were beginning to loosen their requirements of precision bombing.[54]

HAMBURG RAID

The raid on Hamburg (codenamed Gomorrah) began on 24 July 1943. It was a prelude of what was to come with the attack on Dresden. Pathfinders placed their markers around the aiming point the center of the city. This action conformed to Air Marshal Harris's stated desire to destroy the city.[55] Although areas of the town burned for two or more days, the raid was not as destructive as anticipated. On July 26th and 27th, the USAAF attacked Hamburg's military industrial targets, the submarine yard and aircraft engine factory, using daylight precision bombing. Although both targets were hidden by smoke from the burning city, no additional damage to the city proper was incurred.

On the night of the 27th, the British struck again, but this time with a greater percentage of incendiaries. The pathfinder force marked an area two miles east of the city center. The British were precise in their bombing this night, delivering a high concentration of incendiaries on the city. This concentration, along with warm weather, low humidity, and the fact that many firefighters were still working on the earlier blazes, combined to create the firestorm. Estimated temperatures got as high as 800 degrees centigrade, incinerating everything in its path. The conflagration pulled everything into it – autos, trash, and people. Once it was over,

the estimated area of destruction was greater than thirteen square miles.[56] Of the estimated 22,000 dead, many were cremated by the storm or died from asphyxiation caused by carbon monoxide and other gases.

When the RAF returned on the 29th, they noted that the city was still burning. Again they struck near the center of the city, but no additional firestorm ensued. When they struck again on 2 August, there was very little additional damage done to the city itself.[57] But the series of raids showed Harris what a high concentration of incendiaries could do, given the right combination of factors – such as warm weather, low humidity, and close, unscathed structures. For the Germans, the Hamburg raid opened their eyes to how unprepared they were. They quickly developed evacuation plans for their cities. But not all took heed, especially Dresden. The raid on Hamburg further validated American research about incendiary bombs. U.S. research revealed that:

> The basic system for incendiary bombing is readily developed by combining the concept of the spreading pressure of a fire with the mechanical requirements of dropping incendiary bombs in clusters, ... The size of each cluster should be sufficiently large to be sure of joining together and producing an area conflagration. ..... dropped in such concentration that the several cluster area fires spread and join to make one grand conflagration covering hundreds, or even thousands, of city blocks.[58]

But while the Americans were aghast at what the British had done, they were watching closely. History indisputably reveals that U.S. bombers used this technique on the cities of Japan. Tacit American approval of area bombing was evinced in July 1944 when Spaatz requested the British to withhold his "official"

concurrence to THUNDERCLAP, the 4 day/3 night continuous bombing of Berlin. Spaatz was slowly abandoning his ethic of the American bomber forces.[59] But this was just a prelude of what was to happen 13-14 February 1945.

DRESDEN FIRESTORM

By February 1945, Spaatz was changing his position on both the strategy and ethic of daylight precision bombardment. On the 3 February mission against Berlin, he ordered the American forces to "shake the morale of the German high command and Government."[60] The raid on Dresden, 13-14 February, did in fact further decimate the German people's morale – more than 135,000 German people died in the attack. The British bore the brunt of the responsibility for the raid. They had targeted the center of the old city in order to create a firestorm similar to that of Hamburg. Targeting for the attack enabled the British to utilize area, or terror, bombing. American forces attacking during the day then targeted the marshalling yards and communications centers, both of which were located adjacent to the center of the old city (See Appendix, Figure 1).

Prior to and during the British attack, several factors worked against the inhabitants of the city. First, Dresden's antiaircraft guns had been moved out of the city to be used as antitank weapons against the advancing Russian army.[61] Second, due to the shortage of petroleum, German fighter forces were not allowed to take off and intercept without permission from headquarters – which delayed their intercept missions. However, destruction of the communications system in the first

wave of bombers caused them to stay on the ground, watching the attack from their cockpits.[62] Third, the weather was the same as during the Hamburg raid – dry with low humidity.[63] Finally, as Dresden had been attacked only once before, the center of the city was virtually unscathed – a huge tinder box. All of these factors created the perfect conditions for the ensuing firestorm.

The British plan was to attack in two waves, far enough apart to allow firefighters and rescue teams to begin working. Then, three hours later they would catch them in the open, destroying both them and their efforts.[64] Pathfinders marked the stadium just west of the old city center as the aiming point. Bombardiers were instructed by the master bomber to concentrate their strikes east of the aiming point, in the center of the old town.[65] The first bomb struck at 10:15 p.m., beginning a night of terror for the inhabitants of the city.

The second wave of bombers hit at 1:24 a.m. Pilots reported that they could see the city burning from as far away as 200 miles. They had no difficulty finding the city.[66] This second strike did in fact substantiate Air Marshall Harris's "double-blow" requirement. It caught convoys of reinforcements and supplies en-route to assist the burning city. Thus the RAF succeeded in destroying both the passive defense forces of Dresden and those who had come to its aid from the surrounding areas.[67]

The two waves of British bomber forces created the firestorm that consumed the old part of the city and caused most of the resulting death and destruction.[68] During the three-hour period between the first and second strikes, the firestorm

reached its peak. Winds created by its updrafts of super-heated air caused hurricane-force gales to rage swiftly through the City – blowing over rail cars and picking up many of the fleeing survivors, pulling them back into the fireballs and incinerating them. The updraft fueled the fires and caused a large vacuum that depleted the available oxygen. This in turn caused those trapped inside cellars and shelters to suffocate from the lack of oxygen, or worse. In a panic state, they broke down the walls separating the cellars and shelters, thereby dooming others to perish along with them.[69]

The morning of the 14th, the third blow struck the City. Bombers from the 1st Air Division attacked, concentrating on the designated military targets – the communication center and marshalling yards which were located adjacent to the old city center.[70] Curiously, the Dresden military targets did not include the adjacent airfield of Dresden-Klotzsche, where a large number of fighter and transport aircraft were sitting idle at the airfield, unable to take off.[71] By the time the American forces arrived over the city at 12:12 p.m., it had been burning for almost fourteen hours. The rail yards were not precisely struck, although many of the trains and cars assembled there were destroyed. But no major interruption of rail service was accomplished. No bombs were dropped on the main choke point, a bridge located just outside of town. This oversight allowed the marshalling yards to restore operations within three days of the raid, whereas this would have taken months had the bridge been taken out. Many of the cars destroyed in the raid were filled with women and children fleeing the city, resulting in many deaths.[72]

In general, the American raid left little impression on the people of Dresden, since U.S. bombs fell on the rail yards or nearby burned-out buildings.[73] But the impression left on the American people was different: They were appalled that their Air Force would attack people and cause such widespread death and destruction.[74]

Had Spaatz ordered the attack on the city of Dresden? In his memo to Giles, AGWAR, General Kuter laid out the order of priorities for missions that Portal, Bottomley, and Spaatz had agreed to. The first priority was still the main synthetic oil plants. Second was "Attack of Berlin, Leipzig, Dresden and available cities where heavy attack will cause great confusion in civil population from east"[75] This memo alludes to consent of the bombing of civilians in the German cities. The after-action report for the Dresden raid listed the visual primary target as "the center of built up area of DRESDEN." The secondary target, via H2X, was also listed as "Center of DRESDEN."[76] Curiously, there was no mention of the marshalling yards as a viable primary or secondary target for the raid.

Following the raid and the adverse publicity it generated, Arnold requested a clarification of the directive from Spaatz. Arnold was confused over the priorities listed. He questioned why the population had been targeted, knowing that Spaatz had not specifically requested the bombing of the civilian population.[77]

CONCLUSIONS

Following the Japanese bombing of Pearl Harbor and Hitler's declaration of War on the United States, we joined with the British in their fight against the

German war machine. Germany had been wreaking havoc over England using bombers, fighters, and remote vehicles (V-1 and V-2 rockets). At Casablanca we melded our bombing strategies to form the Combined Bomber Offensive, whose mission was the destruction of the German Air Forces – the USAAF using daylight precision bombardment and the British using area or "terror" bombing to undermine the morale of the German people. While we did not agree with the aim of the British terror bombing, we ultimately concurred on its use.

Although no specific order or directive from Spaatz (or any other person of responsibility) could be found that directed the use of area or "terror" bombing by the USAAF, it is apparent that this indeed did take place at Dresden. Targeting maps (see Appendix, Figure 1) indicate that the city was the target for the RAF (consistent with their "terror bombing" campaign used throughout the war). USAAF after-action reports also indicated that the "Center of built up area DRESDEN" was the primary target. Figure 2 (see Appendix) shows the combined USAAF and RAF area of destruction. It indicates that while 100 percent of the center of the city was destroyed, the Friedrichstadt marshalling yards were left untouched. The three railroad stations, where people would be expected to be, were also 100 percent destroyed – indicating to this writer that the people, not the marshalling yards, were deliberately targeted.

The American ethic of daylight precision bombing had changed through technological advancements and a gradual change of ethic by USAAF leaders. Despite the damage control done to save face over what had happened at Dresden,

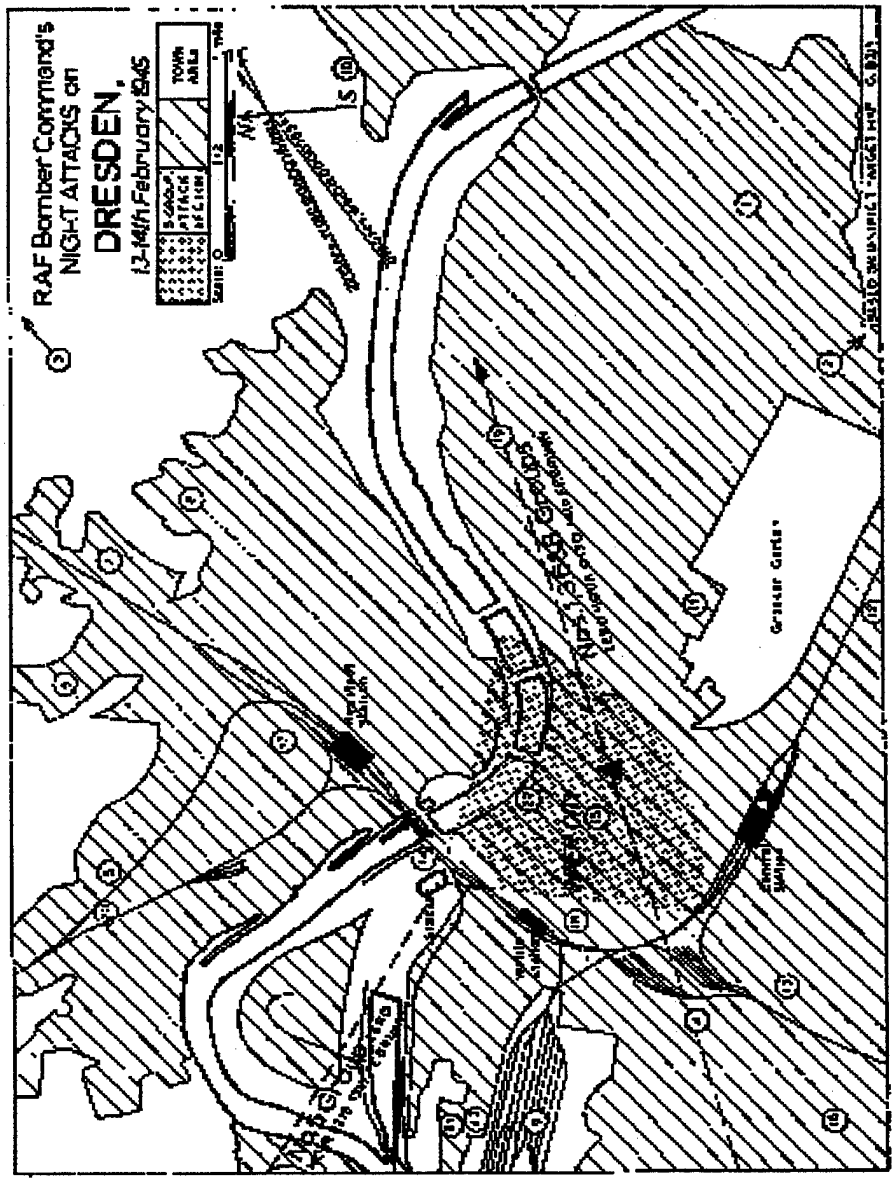
the USAAF did lose face with the American people. Dresden was the last USAAF attack of this magnitude in the European Theater.

The tactical lessons learned from Dresden, however, were soon put to use in attacks on Tokyo and the Japanese mainland. Had it now become acceptable for Americans to use area bombing? Not really, but as American efforts shifted towards the Pacific theater, the American people were now in the same situation the British were at the start of WW II. At Pearl Harbor, the Japanese had violated American sovereignty. Germany had not violated that of the United States. But Japan had, and they had to pay. Moreover, American casualties were mounting as the war dragged on. President Truman wanted the war to end – and to end quickly. The death and destruction at Hiroshima and Nagasaki were the culmination of US air strikes against Japan. The world knows that the Japanese surrendered immediately after these horrendous bombings. Even though the bombing of Dresden had little effect on the overall outcome of the European war (other than the notoriety of being the most devastating raid during World War II), it may have served as a model for the "new" US bombing ethic in the Pacific. Did it in fact portend the first use of atomic weapons?

Word Count – 5,303

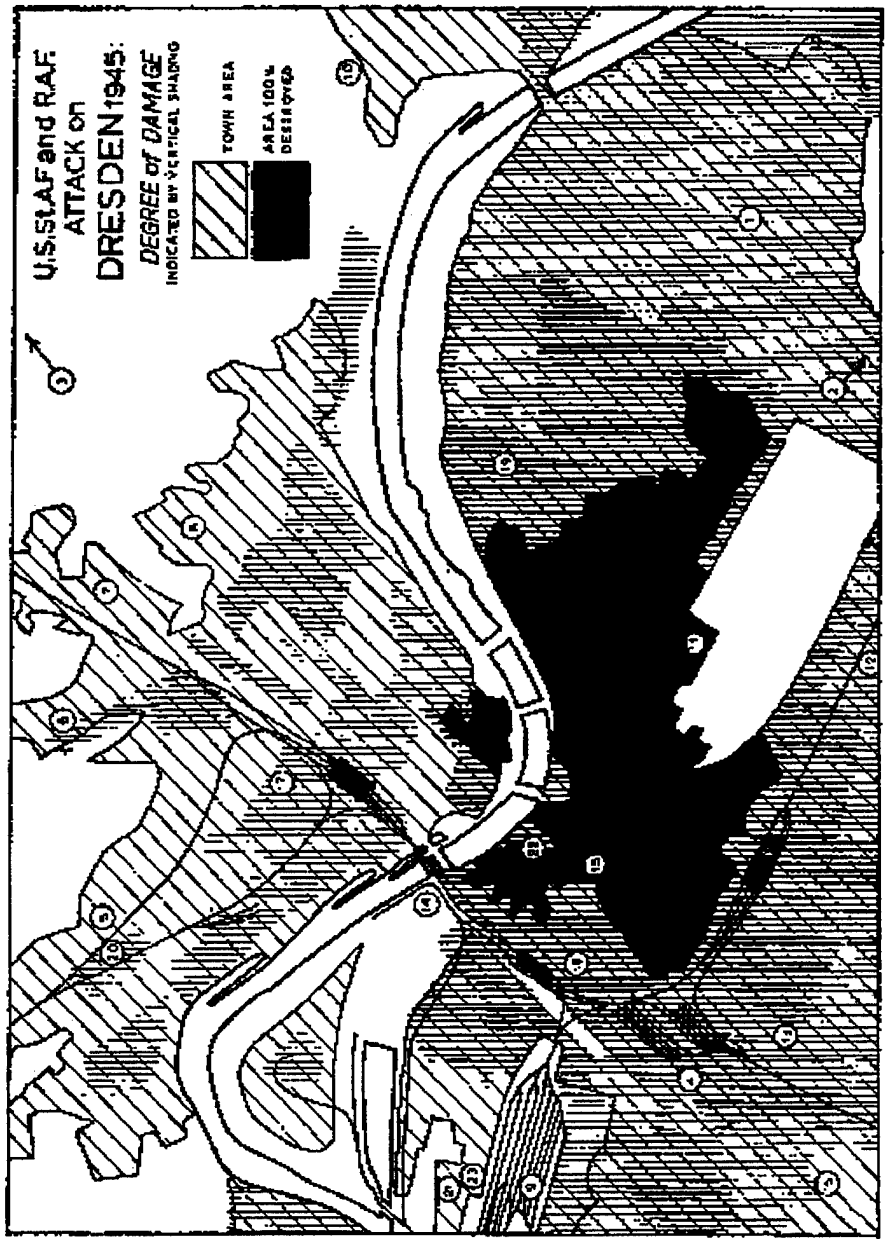
APPENDIX

Figure 1[78]



1 Zeiss Ikon factory
2 (5 miles to S.E.) Sachsenwerk factory
3 (9 miles to N.E.) Sachsenwerk factory
4 Siemens glass factory
5 Zeiss Ikon (Gochlewerk) factory
6 Industrial Estate
7 Arsenal
8 Infantry Barracks
9 Friedrichstadt Marshalling yards
10 S.S. Rock bunker
11 Military Transport park
12 Air Zone Command H.Q.
13 Grailing cigarette factory
14 Yenidze cigarette factory
15 Central Telegraph Office
16 Löbau gasworks
17 Neustadt gasworks
18 Wettin power station
19 Johannstadt power station
20 Oil store
21 Oil store (Shell)
22 District heating plant
23 Seidel & Naumann factory

Figure 2[79]



1 Zeiss-Ikon factory
2 (5 miles to S.E.) Sachsenwerk factory
3 (9 miles to N.E.) Sachsenwerk factory
4 Siemens glass factory
5 Zeiss-Ikon (Goehlewerk) factory
6 Industrial Estate
7 Arsenal
8 Infantry Barracks
9 Friedrichstadt Marshalling yards
10 S.S. Rock bunker
11 Military Transport park
12 Air Zone Command H.Q.
13 Grailing cigarette factory
14 Yenidze cigarette factory
15 Central Telegraph Office
16 Löbtau gasworks
17 Neustadt gasworks
18 Wettin power station
19 Johannstadt power station
20 Oil store
21 Oil store (Shell)
22 District heating plant
23 Seidel & Naumann factory

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