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**Aerial Terror:
The Shift in American Daylight Bombing Over Europe
During World War II**

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HIS 490 History Honor Thesis**

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Spring 2021**

This paper is dedicated to Staff Sergeant Leonard LaMarco.

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Introduction

In the final two years of the Second World War, the United States abandoned daylight precision bombing for terror bombing. During the interwar years, the United States cited international norms and laws to speak out against unjust air attacks by Germany and Japan. Even during the United States' period of neutrality, President Franklin Roosevelt criticized Nazi Germany and the Soviet Union for their tactics. But, as the war dragged on, the ferocity and persistence of the Nazis forced the United States to change their approach to strategic bombing. With fewer military industrial targets remaining and Allied casualties rising, the US began to target civilian populations in refugee-packed German cities like Berlin and Dresden. Similarly, in the Pacific Theater, the United States implemented the same harrowing tactics with the fire raid on Tokyo. Following the Allied victory, international law was amended to prevent unethical air attacks in the future.

The transition from conventional to terror bombing was not done overnight. Rather it was a logical and gradual process that was thought out by many of the military's top officials. As the Allied forces laid waste to Germany's air force and military modes of production, the subsequent invasion of Nazi held Europe led many leaders to believe the war would be over quickly. However, as the Allied breakout of France stalled, plans were drafted to reconsider the approach of strategic bombing. At first, these "morale" bombings were shelved for being too unethical. Still, Allied casualties continued to rise and Germany caught the Allies by surprise with their counterattack at the Battle of the Bulge. Growing increasingly desperate to end the war quicker to save lives, Allied officials believed terror bombing could be extremely effective in forcing the German government to surrender. Starting with major population centers, the Allies attempted to break the spirit of the German people. Hoping to force the civilian population to plead to their government for peace, the

strategy implemented by the Allied air forces left a devastating impact on the crewmen and civilians alike. Straying away from years of ethical bombing practice, the Allies resorted to methods that they ascribed to the very enemy they were fighting.

Development of Airplanes

World War I was the first major conflict to utilize aircraft for military purposes. Throughout the war, aircraft proved to be effective for reconnaissance and showed promise in aerial battlefield attacks.¹ However, much of early airplane technology was still in its infancy at the start of the conflict: “The hardware and tools needed to make it a viable proposition—including engines, airframes, navigation methods, and bomb development—were primitive at the outset of the war.”² With these technological advances, long range bombing was first implemented in limited fashion during the war. However, technological deficiencies in communication and targeting limited the effectiveness of aerial bombardment.³ Despite these issues, the potential of long-range bombing caught the attention of military officials. These officials wanted aircraft to play a larger part in the war. A few even alluded to early forms of strategic targeting against Germany. As Tami Biddle notes, “Some theoretically inclined planners in the Royal Naval Air Service (RNAS) and newly independent Royal Air Force (RAF), for instance, argued for sustained attacks on key targets in the German war economy.”⁴ Although these plans were never carried out, they demonstrated the promising capability of aircraft in future conflicts.

The interwar period saw the growth of airpower doctrine. Drawing from the lessons learned in the skies of the Great War, military theorists created new ways to fight the wars of the future.

¹Tami Davis Biddle, *Air Power and Warfare: A Century of Theory and History*. (Strategic Studies Institute, US Army War College, 2019), 9.

² Biddle, 10.

³ Biddle, 9-10.

⁴ Biddle, 10-11.

One of the most notable of these individuals is Sir Hugh Trenchard of the RAF. Trenchard argued that the primary task of an independent air force would be to concentrate on applying pressure to an enemy's means of production and infrastructure: "I would state definitely that in the view of the Air Staff the object to be sought by air action will be to paralyse from the very outset the enemy's productive centres of munitions of war of every sort and to stop all communication and transportation."⁵ As a result of targeting these vital wartime centers, Trenchard believed an offensive air force could take control of the skies and put the enemy on the defensive. He states: "The stronger side, by developing the more powerful offensive, will provoke in his weaker enemy increasingly insistent calls for the protective employment of aircraft. In this way he will throw the enemy on to the defensive and it will be in this way that air superiority is obtained."⁶

For the Americans, General William "Billy" Mitchell was instrumental in the development of their airpower doctrine. Commonly referred to as the father of the United States Airforce, Mitchell's 1925 report *Winged Defense*, influenced the American military for decades. In his writing Mitchell calls for the creation of an independent air force outside of the traditional military branches.⁷ Recognizing the ever-changing struggle for power on the Earth, Mitchell argued that in the future, competitors will jostle for control over the air. He states: "Now the competition will be for the possession of the unhampered right to traverse and control the vast, the most important, and the farthest reaching element of the earth, the air."⁸ By maintaining aerial superiority, Mitchell believed a country could easily win wars. Mitchell says: "If a nation ambitious for universal conquest gets off to a 'flying start' in a war of the future, it may be able to control the whole world

⁵ Biddle, 16-17.

⁶ Biddle, 17.

⁷ William Mitchell, *Winged Defense: The Development and Possibilities of Modern Air Power – Economic and Military* (University of California: G. P. Putnam's sons, 1925,) XIX.

⁸ Mitchell, 3.

more easily than a nation has controlled a continent in the past.”⁹ Thus, Mitchell believed that airpower provided a country with the means to defeat its enemy’s while projecting itself internationally.

Alongside air doctrine, airplane technology continued to improve into the 1930s. In the United States, the newly developed B-17 bomber was as fast, if not faster, than some of the smaller and lighter fighters that preceded it. For example, the B-17 in 1935 could reach 252 miles per hour. Meanwhile, the P-26 front-line fighter, could only reach speeds up to 234 miles per hour.¹⁰ Not only did this plane perform better than the fighters, it outperformed the older bombers too.

The two engine Keystone bomber of the 1920s, a biplane constructed of steel tubes and wires and fabric surfaces, with an open cockpit and fixed landing gear, could fly 98 miles per hour for 350 miles with one ton of bombs. A decade later Boeing’s four-engine B-17 bomber could fly nearly 300 miles per hour for 800 miles with over two tons of bombs.¹¹

Another major technological innovation of the 1930s addressed the problem of high-altitude bombing accuracy. With the creation of his M series bombsight, Cal Norden ensured high altitude bombers could be well out of the range of enemy defenses while maintaining precision over their targets.¹² The rapid advancement of aircraft technology allowed bombers to deal more damage from higher altitudes at faster speeds. When used alongside strategic bombing tactics, aerial theaters of future wars would play a much larger role than previously imagined.

International Rules of Aerial Warfare

⁹ Mitchell, 25-26.

¹⁰ Stephen L. McFarland, *A Concise History of the U.S. Air Force* (University of Michigan: United States Department of Defense, 1997), 18.

¹¹ McFarland, 14.

¹² Rebecca Hancock Cameron, *Training to Fly: Military Flight Testing 1907-1945* (Military Studies Press, 2013), 432-433.

As the world began to realize the deadly new effects of modern weapons and technology, countries attempted to control the changing landscape of war. Thus, the Hague Convention of 1907 was an international treaty of twenty-six nations aimed at regulating the rules of war. Although aircraft were in their technological infancy when the Convention was signed, the treaty specifically stated: “The attack or bombardment, by whatever means, of towns, villages, dwellings, or buildings which are undefended is prohibited.” The Convention also stated that in any instance of an attack, every effort must be taken to warn the civilian population, limit their casualties, and spare the cities’ historic buildings.¹³ With the onset of World War I, they were adapted to serve particular roles, such as conducting reconnaissance and engaging enemy aircraft. Throughout the war, Germany utilized zeppelins and other long-range bombers to strike targets in the United Kingdom. Meanwhile, Britain and France deployed their own aircraft to attack industrial targets behind enemy lines. Upon their entry into the Great War, the United States stood by the aerial limitations written into the Hague agreement. A chief advocate of these beliefs during the conflict was President Woodrow Wilson: “During World War I, Woodrow Wilson rejected all plans for indiscriminate bombing of noncombatants, saying, ‘I desire no sort of participation by the Air Service of the United States in a plan... which has as its object promiscuous bombing upon industry, commerce or populations in enemy countries dissociated from obvious military needs to be served by such action.’”¹⁴ Ultimately, Wilson’s commitment to the Hague Convention illustrates how, despite the recent creation of the air force, the US planned to hold itself accountable to international treaties and domestic policy when the nation when it came to this evolving technology.

¹³ Robert W. McElroy, *Morality and American Foreign Policy: The Role of Ethics in International Affairs* (Princeton, New Jersey: Princeton University Press, 1992),152.

¹⁴ McElroy, 152.

In the years following World War I, aircraft technology continued to improve. By the late 1930s, planes were faster, more lethal, and capable of carrying large bomb payloads. When the Japanese invaded China in 1937, they displayed to the world the horrifying new potential of air power with their assault on the city of Nanking. Prior to their attack on Nanjing, the United States was quick to denounce Japan's use of airpower against civilian populations. In language that echoed similar sentiments from the First World War, the State Department warned: "This government holds the view that any general bombing of an extensive area wherein there resides a large population engaged in peaceful pursuits is unwarranted and contrary to the principles of law and humanity."¹⁵ Although the State Department did not quote the document, their actions made it clear that the US was going to hold countries accountable for their breaches of the Hague Convention. By holding more countries accountable for their military conduct, the US attempted to reinforce the international norm around the targeting of civilians.

Japan's actions in China were not the only instance of a country targeting civilian population. In the spring of that same year, Nazi Germany's Condor Legion brutally devastated the Basque town of Guernica during the Spanish Civil War. On April 28th, 1937, the Irish newspaper *The Press* reported: "Hundreds raced desperately for the fields where they were machine gunned from the air by swooping fighters. Next relays of bombers dropped high explosive bombs, of which it is estimated that over a thousand hit the town."¹⁶ Historians commonly refer to Germany's use of aircraft in this horrendous raid as a "test trial" for their new aircraft technology.¹⁷ Now, in addition to Japan, a major European power had broken its commitment to the Hague Convention. Immediately after the raid, governments and newspapers from around the world

¹⁵ McElroy, 152.

¹⁶ William Burton, "Guernica 1937," *History Ireland* 25, no. 4 (2017), 42.

¹⁷ Mark Clapson, *The Blitz Companion: Aerial Warfare, Civilians and the City since 1911* (London: University of Westminster Press, 2019), 28.

denounced Germany's actions. *The New York Times* recorded British Foreign Secretary Anthony Eden's statement in the House of Commons. "What we want," said Mr. Eden, "is to make of this event at Guernica an occasion for seeking to put an end to happenings which must have such tragic consequences in the future if allowed to be repeated."¹⁸ Eden's address to the House of Commons illustrates the perpetuation of the international norm surrounding targeting of civilians. In his speech, Eden hoped to use Guernica as an example for why these scenarios should never take place again. More importantly, Eden recognized the global implications of Germany's actions. *The New York Times* continued: "The bombing of Guernica, he said, had aroused bitterness 'not confined to this country, as some foreign nations think, because it extends not only to our dominions, but, as I know, to the United States and elsewhere.'"¹⁹ Eden's statement illustrated how the Guernica attack did not just draw the ire of other European nations, but caused worldwide anger. Eden's emphasis on the global reaction to Germany's air raid reflected the growing acceptance of the international norms surrounding the bombing of civilian targets. In addition to the major international powers such as the United States and Britain, more countries grew to perceive the bombardment of civilian populations as a criminal act.

Two years later, on September 1, 1939, Hitler launched the German invasion of Poland. Although the United States remained officially neutral during this phase of the war, President Franklin Roosevelt appealed to the belligerents to avoid targeting civilians. In a telegram to the ambassador to the United Kingdom, Roosevelt stated: "I am therefore addressing this urgent appeal to every government which may be engaged in hostilities publicly to affirm its determination that its armed forces shall in no event, and under no circumstances, undertake the

¹⁸ "Guernica Inquiry Favored by Eden: He Says Britain Has Evidence Air Bombing Destroyed Spanish 'Holy Town' Would Avoid Repetition: Foreign Secretary See 'Terrible Future for Europe' if Event Passes Unchallenged," *The New York Times*, May 07, 1937.

¹⁹ *The New York Times*, "Guernica Inquiry Favored By Eden," May 07, 1937.

bombardment from the air of civilian populations or of unfortified cities, upon the understanding that these same rules of warfare will be scrupulously observed by all of their opponents.”²⁰ Roosevelt’s quote echoes the United States’ previous commitment to the protection of non-combatants from aerial assault. Sensing that the invasion would ignite a European war, Roosevelt also demonstrated an understanding that aerial bombardment would play a major role in the ensuing conflict. Already disturbed by civilian bombings in the years leading up to the war, Roosevelt added: “The ruthless bombing from the air of civilians in unfortified centers of population during the course of hostilities which have raged in various quarters of the earth during the past few years, which has resulted in the maiming and in the death of thousands of defenseless men, women, and children, has sickened the hearts of every civilized man and woman, and has profoundly shocked the conscience of humanity.”²¹ Roosevelt’s language stands out. Although he remained true to the commitment of American policy against bombing non-combatants, Roosevelt also used words such as “civilized” and “the conscience of humanity,” suggesting that Americans would act in a civilized manner when they conducted aerial warfare. On the contrary, anyone who did not adhere to these rules would be viewed as brutes who have little regard for people’s humanity.

The German invasion of Poland was not the only major military operation during the autumn of 1939 that targeted civilians. When the Soviet Union bombed Helsinki in November 1939, they dealt significant damage to the city’s noncombatants. Although it was Imperial Russia that had signed the Hague Treaty in 1907, the Soviet Union was still held to this international agreement. Repeating his previous sentiments, Roosevelt stated “The American government and

²⁰ U.S. Department of State, Correspondence from the Secretary of the State to the Ambassador in the United Kingdom, Office of the Historian, *Foreign Relations of the United States: Diplomatic Papers, 1939*, 542.

²¹ *Foreign Relations of the United States Diplomatic Papers*, 542.

the American people have for some time pursued a policy of wholeheartedly condemning the unprovoked bombing and machinegunning of civilian populations from the air.”²² While Roosevelt echoed his prior statement from September, he also made a point to mention how his views on bombing were filled with urgency and uneasiness. Over the past two decades aerial bombardment had devastated noncombatant civilian populations. However, now the Soviet Union had joined Germany as another major European power to break international promises. As the clouds of war gathered over Europe in the fall of 1939, Roosevelt recognized the importance of condemning these actions. By denouncing the use of aerial bombing against civilians, he hoped to ensure that the inevitable war would be fought within the bounds of mutually accepted rules of conduct. However, despite the United States’ neutrality in the opening years of the war, the country would find itself entangled into another European conflict.

²² McElroy, 152.

Chapter One: Early War Experiences

As the conflict escalated in Europe, the U.S. military drafted preliminary plans in case of a declaration of war. With the attack on the Pearl Harbor in 1941, the United States was once again drawn into a global conflict. As the nation mobilized for war, the federal government took increased measures to draft and train men for the coming battles. Drawing influence off of previous air power doctrine, the United States Air Force followed policy that believed it could turn the tide of the war quickly. However, both crews and officials soon realized that their approach to bombing Germany must be changed. High casualty rates and minimal ground damage led the Allies to create a uniform bombing policy that they felt could cripple Germany's air force and economic modes of production. Despite these adjustments, the crew casualty numbers still remained high. Although training tried to best prepare the men for combat, often times it could not account for every element in the air. As a result, crewmen were sent on deadly mission that took severe physical and mental tolls. As the war became a battle of attrition, the Allied commanders continuously revised their objectives. Seeking to break the German war machine, military officials utilized conventional bombing tactics against strictly military targets.

US Preparations for the Air War

In August 1941, the War Department requested that top Army Air Force officials draft a strategy to deal with potential American enemies. As a result, members of the Air War Plans Division (AWPD), identified 154 crucial targets in Germany's wartime industry. These officials hoped that the destruction of these facilities and sites would severely impact Germany's ability to wage war.²³ AWPD-1 reflected the planners' evolving understanding of air power. "It reinforced the standard Army belief that 'air superiority within a theater may be highly variable and...never

²³ McFarland, 20.

absolute’ but contradicted itself by saying land operations were not expected until ‘an overwhelming air superiority has been achieved.’”²⁴ The conflicting nature of AWPDP-1’s language illustrated the changing landscape of aerial warfare. Before, the Army Air Force’s sole objective was supporting ground troops. However, as war became more likely, Army planners recognized the growing importance of the USAAF. As airpower advocates saw it, an independent air force had the potential to shift the balance of the war.

Although the Army Air Force never officially adopted AWPDP-1 as its official doctrine, USAAF personnel were indoctrinated with many of its central claims. As Rebecca Cameron explains, “Airmen were certain of the rightness and efficacy of the strategic precision bombing mission. The war would be fought and won largely in those terms, they believed, and therefore the skills instrumental to that role should be at the heart of the training program.”²⁵ While AWPDP-1 and its airpower theory provided a clear and structured strategy to winning the war, it contained several flaws. First, AWPDP-1 assumed that early bombing campaigns against Germany would facilitate a quick invasion. This was due to AWPDP-1’s presumption that an early air offensive would weaken Germany and allow for a cross-channel ground invasion. Allied officials soon found this prediction to be untrue.²⁶ Secondly, AWPDP-1 relied too much on the similarities between training and combat. “Likewise, it hoped that the tactics employed in the theater of operation would be the same as those the men had rehearsed in training. They were not.”²⁷ The chaos of aerial combat quickly illustrated the limitations of training. As Cameron notes: “Training was a valiant

²⁴ E. Taylor Francis, *A House Built on Sand: Air Supremacy in US Air Force History, Theory, and Doctrine* (Maxwell Air Force Base, Alabama: Air University Press, Curtis E. LeMay Center for Doctrine Development and Education, 2020), 9.

²⁵ Cameron, 381.

²⁶ Cameron, 381.

²⁷ Cameron, 381.

but impossible attempt to impose order, control, and predictability on an inherently fierce enterprise of chance and luck, experimentation, fury, uncertainty, and desperation.”²⁸

In the months following America’s entry into the war, military planners soon realized that their aerial strategy needed to be amended. The prewar tactics dictated by AWPDP-1 had led to high casualty rates with limited strategic success. The leading cause of these high losses was the German Luftwaffe. Prior to the war, American planners severely underestimated the effectiveness of the German Air Force. In response to these high casualties, President Roosevelt insisted that the Allies should shift their priority to gaining air superiority over Germany.²⁹ With Roosevelt’s request in mind, military planners drafted AWPDP-42. Although AWPDP-42 still incorporated elements of AWPDP-1, it identified the primary strategic goal as the destruction of Germany’s air force. “AWPDP-42 stressed that ‘our numerically superior forces must deplete the air forces of the enemy.’”³⁰ Unlike AWPDP-1, AWPDP-42 emphasized the air war must be won by obtaining a numerical advantage. In doing so, the crippled enemy air force could not continue to hinder the allied war effort. “AWPDP-42 stated, ‘it will be observed that: (1) the enemy air strength must be so depleted as to render him incapable of frustrating the operations of our air, land, and sea forces; and (2) our own air strength must be so developed as to permit us to carry out the roles of our air force.’”³¹ However, like AWPDP-1, AWPDP-42 envisioned the strategic bombing campaign that culminated in an allied ground invasion. Despite this expansion of AWPDP-1, the air force would remain only partially independent, as it would be used to support the invasion.

²⁸ Cameron, 381.

²⁹ Steven J. Anderson, *Airpower Lessons for an Air Force Cyber-Power Targeting Theory* (Maxwell Air Force Base, Alabama: Air University Press, 2016), 27.

³⁰ Francis, 9.

³¹ James R. Cody, *AWPDP-42 to Instant Thunder: Consistent Evolutionary Thought or Revolutionary Change?* (Maxwell Air Force Base, Air University Press, 1996), 14.

Unlike AWPD-1, AWPD-42 accounted for many of the variables that bomber crews encountered on their missions. These factors included precision bombing, weather issues, and lack of fighter escort.³² In spite of these additions, military officials still expected heavy aerial losses. In one of his letters, General Hap Arnold expressed these concerns. “It is likely that initial operations in the air offensives will be attended by an abnormally high rate of attrition. These loss rates should drop rapidly as our operations progress. It is believed that the rate of attrition of 20% per month from all causes in active combat zones will be a fair average.”³³ Alongside these projected numbers, AWPD-42 also considered the possible collateral damage these operations could cause: “There is, of course, a tremendous amount of incidental damage to be expected from the hundreds of bombs which drop near the aiming point but do not strike the particular part of the target selected.”³⁴ Although this statement does not explicitly mention civilian casualties, Arnold’s language illustrated the shifting Allied understanding of aerial bombing. Influenced by the reality of the war, these planners realized that the true nature of precision bombing was deadly for both the crewmen and non-combatants.

Until the Casablanca Conference in January of 1943 the allies did not have a uniform policy regarding the bombing of Germany. American and British military planners created their own strategies and implemented them separately. However, the meeting between Churchill and Roosevelt in Northern Africa created the Combined Bomber Offensive. The result of this agreement was a coordinated plan to defeat Germany: “Its primary purpose would be the defeat of the Luftwaffe in both air-to-air combat and by smashing its production facilities. The British

³² Cody, 15.

³³ Cody, 16.

³⁴ Cody, 16.

would continue to bomb at night, the Americans by day.”³⁵ Like previous American war plans, this operation envisioned an Allied effort to destroy Germany’s air force and clear the way for a cross-channel invasion. Upon completing this goal, the Allied air power offensive would target other sectors of Germany’s war time economy. However, the Allies could only carry out this proposal once they were assured that Germany’s air force could not threaten their land invasion.³⁶ As result, the Combined Bomber Offensive called for “round the clock” bombing and was implemented in the June of 1943.

Training

The entry of the United States into World War II dramatically impacted the training of bomber crews. With the rapid influx of men into the armed services, military officials were forced to change the standards of aircrew training. “Training under wartime conditions was now held to the harshest standards. War quickened and intensified its pace. In all practical areas of individual and unit training the pressure of time caused the service constantly to balance the competing demands of quantity versus quality.”³⁷ An important part of the new training regime was the introduction of classification tests. “In conjunction with physical examinations and personal interviews, a new implement of social science research was developed to classify men into the three flying officer specialties of pilot, navigator, and bombardier” Psychologists developed aptitude tests in which an individual’s score, called ‘stanine,’ measured his likely performance in each of the three specialties.”³⁸ Measured out of nine, a candidate’s stanine was scored based off various different attributes. “This composite score evaluated physical, psychomotor, and

³⁵ Donald L. Miller, *Masters of the Air: America’s Bomber Boys Who Fought the Air War Against Nazi Germany* (New York City, New York: Simon and Schuster, 2006), 111.

³⁶ Miller, 161.

³⁷ Cameron, 380.

³⁸ Cameron, 385.

psychological attributes in an attempt to best match those entering the comprehensive training programs to the needs to the service.”³⁹ The higher a person scored, the more likely they could qualify for training in a specific occupation. As the war progressed, the numbers required to become a pilot, navigator, or bombardier were constantly shifting to meet manpower demands. In the beginning of the war, the numbers the varied depending on occupation. “Initially, pilots and bombardiers required only the lowest stanine, 1, to qualify; in December 1942, air force officials raised this to 3.”⁴⁰ However, by February 1944, the stanines were leveled out by officials. “At that time, navigator candidates needed to score 6, bombardiers and pilots 5, to qualify for training.”⁴¹ The changing nature of the stanines reflected the high standards that the Army Air Force set for its candidates. When manpower requirements were being met, officials could accurately test and select qualified men.

Serving as an airman on heavy bombers was one of the most dangerous military occupations during World War II. According to the Eighth Air Force Historical Society, 4,754 of 12,731 B-17’s were lost in combat during the conflict.⁴² However, the 37% destruction rate only explains a fraction of the overall casualty rate. Every B-17 carried a crew of ten, including gunners, pilots, navigators, and bombardiers. A closer look at the different positions reveals a contrast in causality rate between the various crew members. In the operation record of the 95th Bomber Group, killed in action (KIA) and prisoner of war (POW) rates varied greatly depending on the crewman’s location in the plane. Among radio operators, pilots, tail gunners, navigators, and

³⁹ Bruce Ashcroft, *We Wanted Wings: A History of the Aviation Cadet Program* (HQ, AETC, Office of History and Research, 2005), 34.

⁴⁰ Ashcroft, 34.

⁴¹ Ashcroft, 34.

⁴² Tom Philo, “Eighth Air Force Combat Losses.” 8th Air Force Combat Losses in World War II ETO Against the AXIS Powers. <http://www.taphilo.com/history/8thaf/8aflosses.shtml>.

bombardiers, the number of men killed and captured were roughly the same. However, if someone was a waist gunner, the chances of them be either killed or captured was notably higher than the other areas of the plane. Using the 95th Bomber groups as a sample group, 259 or roughly 19% of waist gunners were either KIA or POWs. When compared to other crew members such as pilots, waist gunners' casualty numbers were 10 percent higher.⁴³ Ultimately, these statistics add to the already unpredictable nature of aerial combat. Just the slightest difference in a man's location could determine his chances of survival. When considered along with the overall loss rate for aircraft, the odds of death or capture that men faced during combat missions were extremely high.

The psychological toll of combat on crewmen was also severe: "The statistics were discomfoting. Two thirds of the men could expect to die in combat or be captured by the enemy. And 17 percent would either be wounded seriously, suffer a disabling mental breakdown, or die in a violent air accident over English soil."⁴⁴ The chaotic and unpredictable nature of aerial combat caused mental anxiety for crewmen. One crewman's account of a raid over Brunswick Germany in February 1944, displayed the nature of aerial combat: "They told us at briefing the plan was to send 200 Forts deep into Germany as a decoy to lure up enemy fighters so our escort could try to knock out the Luftwaffe. It didn't turn out that way. As soon as we crossed the enemy coast, we ran into swarms of enemy fighters. (At interrogation everyone agreed over 300 fighters at one time pounded our group.)"⁴⁵ Attacked by a numerically superior enemy, the resulting battle was full of chaos and terror: "The sky was so full of tracers, 20mm cannon shells exploding, and even rockets. Steel was ripping into our ship with sickening sounds. There were times when I was afraid to shoot

⁴³ Philo, "Eighth Air Force Combat Losses."

⁴⁴ Miller, 24.

⁴⁵ John Gabay, *Diary of a Tail Gunner*, (Bury Saint Edmunds, February 10, 1944), 17.

for fear of hitting one of our own planes or some poor guy in a parachute.”⁴⁶ Fighting for their survival against a numerically superior enemy was one of just the many elements men had to deal with in the sky. At all times crewmen had to be vigilant about accidentally hitting one of their fellow soldiers. Even upon returning to base, the effects of combat were still prevalent in their minds. “We made it back OK. But there are a lot of empty beds tonight. This old Fort really took a beating- I don’t know how it stayed in the air ... All in all, ground crew counted 136 holes. But we made it back OK.”⁴⁷ This cycle of terror, loss, and just making it to the next day was a part of the life of an airman. Despite having a break between their missions, this grueling routine dominated their way of life and thinking.

In addition to the trials and tribulations of combat, many airmen had to deal with the likelihood of becoming a prisoner of war. With the conclusion of the war 33,000 Air Army Force members made up a little less than a third of the 93,941 total American captured in Europe.⁴⁸ Despite the high numbers of men captured, the USAAF did not give a lot of attention to POW life during training. “In our training they hadn’t given us much information about what we were supposed to do as prisoners of war. We knew we could only give our name rank and serial number, and they had told us that it was our duty to try to escape.”⁴⁹ In addition to this lack of training, crewmen generally felt they would ultimately be killed or hurt prior to being captured. For them, the idea of imprisonment did not cross their minds often. For example, Eugene Halmos recalls: “Every combat flier arriving in England knew he might be killed or wounded. ‘But taken prisoner? That’s a role few men picture for themselves.’”⁵⁰ With this lack of preparation and thought, some

⁴⁶ Gabay, 17.

⁴⁷ Gabay, 17.

⁴⁸ Miller, 389.

⁴⁹ Carter Lunsford, Personal Account. “Stalag Luft 6 at Heydekrug.” Stalag Luft 6 Heydekrug POW camp history WWII.

⁵⁰ Miller, 490.

men wished they treated capture more seriously. Pilot Hank Plume said, “‘If I had known I was going to be a POW I’d have done a better job preparing for it.’”⁵¹ With this lack of training, captured men adapted to create ways to survive and entertain themselves. Sgt. Don Kirby’s experience, like many others, highlights the morale and hope of prisoner who were confined to these camps. “When we first got up to Heydekrug, there were a lot of nights when you’d think to yourself: ‘I might be here for the rest of my life. I might easily be here!’ We was down before D-Day, and there weren’t even Allies on the Continent. We were up at the far end of things, too! I don’t know how we could think it would be over soon, when France was still occupied, and there were Germans everywhere. So, you get to thinking: ‘I don’t want to spend my life being cooped up.’”⁵²

Base life

Due to the unpredictable nature of aerial combat, activities on the airbases between missions served a unique role in the lives of crewmen. Lt. Jack Abbott described local English towns as a source of entertainment. There were clubs with drinks, food, and pool.⁵³ These places allowed men to rest and temporarily escape the from the stresses and anxieties of war. Additionally, the local pubs and areas around the bases served as important bonding moments for air crews. For example, Staff Sgt. Frank Adams describes his crew as his family. Whenever they returned from a mission, the first thing they would do was to go to a local pub together.⁵⁴ Utilizing

⁵¹ Miller, 390.

⁵² Don Kirby, Personal Account. “Stalag Luft 6 at Heydekrug.” Stalag Luft 6 Heydekrug POW camp history WWII.

⁵³ Jack Mastin Abbott, interview by Jane Wright, *Veterans History Project*, Library of Congress, 2001.

⁵⁴ Frank G. Adams, interview by Jeffery Lape, *Veterans History Project*, Library of Congress, 2001.

the pub and its social atmosphere allowed these crews to decompress from their missions. The interaction through talk and drink among themselves provided them with an escape from the various effects of aerial combat. For a brief moment, these men could forget the pain and loss they had just experienced hours earlier.

Leave and down time between missions also provided men with the opportunity to pursue whatever they wanted to. “Some men stayed in bed all day, smoking, writing letters, reading or staring at the metal ceilings of their Nissen huts. Others rode their bicycles into the local villages, to pubs where the beer was warm, the whiskey watered, but the company good.”⁵⁵ The close proximities of these bases to local towns allowed men to converse and pursue romantic relationships with English girls. “Curtis LeMay remembered his men hanging on the fences around the base, trying to strike up conversations with uniformed girls pushing wheelbarrows through the fields. ‘A lot of them struck up more than a conversation.’”⁵⁶ Although women and cities like London brought exciting moments and a brief escape from the horrors of war, many men were careful not to make too many meaningful relationships. Robert Morgan recalled:

We didn’t want to make friends. Having more friends was risky. With so many guys getting killed, you tried to keep down the suffering you’d have to endure. And we never talked about the folks back home, not even our wives and lovers. We talked about the plane, the engine problems we might be having, not about the problems we were having in combat. Someone listening in would have thought we were a gang of truck drivers.⁵⁷

Morgan’s quote illustrated the unseen psychological traumas of war. Even in their conversations with locals, the war was always in the back of their mind. Not only did this

⁵⁵ Miller, 137.

⁵⁶ Miller, 137.

⁵⁷ Miller, 138-139.

mentality restrict them from creating lasting relationships, it caused them to turn inwards and rely solely on the people who they shared these horrifying experiences with.

The constant tension between the tranquility at base camp and the horrors of battle illustrated the complex reality of strategic bombing. Like prewar aerial plans, Allied commanders had expectations in their planning that they felt would transpire. However, as the war began, officials soon realized that their previously held notions were being shattered by extraordinary casualty rates. Unlike these top members of the military, crewmen did not have the luxury of drafting proposals. Rather, they were trained and indoctrinated with tactics that were causing them to lose their own lives. As both groups began to better understand the true reality of strategic bombing, they adapted to the certain circumstances. Whether it was enjoying the peace in the local English towns or identifying new tactics to save lives, upper and lower members of the military attempted experience the war in new ways. As older strategies were amended and men became hardened by the lessons of war, the aerial campaign transformed completely. No longer could the United States swiftly end the war through conventional methods; rather, the aerial theater became a battle of attrition that would test the hearts and minds of everyone involved.

Chapter Two: Thunderclap

Following D-Day, as the Allies' war effort against Germany accelerated, they soon were forced to change their approach to the bombing campaign. Hoping to end the war early, senior officials sought to erode the stubbornness of the Nazi's resistance. As a result, they were forced to change their approach to the different aspects of the war, strategic bombing. In war's early years, the Allies had clung to the strict ethical laws and norms surrounding aerial bombardment, but the persistence of German resistance began to crack the foundation of these previously held beliefs. Yet despite the insistence of some leaders to change the bombing approach, many other officials expressed reluctance. Fearful of the ethical ramifications and possible postwar consequences, a few officials strongly believed the proposed changes would leave a lasting negative portrayal on their actions. The pressure to adopt "terror" bombing tactics became an ever more pressing issue as the war dragged on. However, the new bombing tactics did not only effect civilians. American aircrewmembers and the American press soon became entangled in this growing controversial subject. Ultimately, the opening months of 1945 were the changing point. As Allied desperation turned into ferocity, airpower ceased to be a precise operation; it became a blunt weapon of terror.

In 1944, British military planners reconsidered their approach to the aerial bombardment of Germany. While the previous aerial strategy focused on military objectives, this new plan advocated targeting civilians in order to break the German morale. In a report issued to the prime minister in July of 1944, British chiefs speculated that in the near future, any means necessary might need to be taken to strike at German civilian moral.⁵⁸ Code named Thunderclap, this proposal recommended concentrating American and British airpower on the center of Berlin in an effort to cripple the German populace's will to fight. "Thunderclap, the plan's code name, was to

⁵⁸ McElroy, 157.

be an apocalyptic Anglo-American air assault on Berlin- a continuous four day blitz designed to deliver a ‘coup de grace to German morale’ by killing and maiming over a quarter-million people and demolishing the administrative center of the Nazi government.”⁵⁹ After years of strictly targeting Germany’s wartime infrastructure, the British whose civilians population had suffered immensely at the hands of German aerial bombardment, were seemingly prepared to employ similar tactics in direct violation of the Hague Convention.

On June 6, 1944, the Allied launched Operation Overlord after years of planning. Eight divisions and three armored brigades landed in German-occupied France.⁶⁰ In the following months, allied armies successfully broke out from the Normandy beachhead and began the liberation of France. Spearheaded by the momentum of the 3rd Army, the offensive gave Allied commanders hope that the war might end by Christmas.⁶¹ Then, the Allies created Operation Market Garden, which had three objectives: “First, by outflanking the Siegfried Line, the allies would avoid the German entrenched positions; second, it would allow the Allies to have access to the North German Plain and better maneuver country; and, third, if properly executed, it would allow Allied troops to cutoff those German units still in Holland.”⁶² A major component of the operation relied on airborne troops to capture the objectives. However, poor planning, logistical issues, and the underestimation of enemy strength led to the failure of massive airborne assault.⁶³ In addition to these failures, Operation Market Garden severely setback the Allied momentum. Unable to secure key bridges and cutoff German troops, the Allied hopes of finishing the war

⁵⁹ Miller, 411.

⁶⁰ Samuel J. Newland and Clayton K.S. Chun, *The European Campaign: Its Origins and Conduct* (Strategic Studies Institute, US Army War College, 2011), 179.

⁶¹ Newland and Chun, 240.

⁶² Newland and Chun, 243-244

⁶³ Newland and Chun, 248.

before Christmas were finished. Determined to end the conflict Allied leaders considered other approaches that they hope would speed up Germany's defeat.

Although the majority of British officials supported Thunderclap, many American leaders opposed it. In a letter to General Eisenhower, USAAF General Carl Spaatz firmly stated his reluctance to support this proposed plan: "The U.S. bombing policy, as you know, has been directed against precision military objectives, and not morale. I am opposed to this as now planned."⁶⁴ Spaatz, however, disagreed with the initial plan not because of its contravention of the established rules, but because he did not feel the targeting of civilians was going to impact the tide of the war. In a later interview Spaatz said: "It wasn't for religious or moral reasons that I didn't go along with [Thunderclap]," Carl Spaatz would later tell Air Force historians. He was waging all-out warfare against a perversely evil enemy, and morale bombing was not, in his estimation, a war winning policy."⁶⁵ For Spaatz and other military officials, the war winning policy centered around the economic bombing of German military objectives. Speaking on behalf of Spaatz, General Laurence Kuter stated: "Our entire target policy has been founded on the fact that it was uneconomic to bomb any except military objectives and the German productive capacity."⁶⁶ These statements by Spaatz and Kuter illustrated the complexity of the aerial war. Spaatz was not opposed to Thunderclap because of its moral implications, he just did not believe that the targeting of the civilians could effectively shift the balance of the war in the Allies' favor.

Like Spaatz, many military leaders of the United States still believed that airpower should only be directed against purely military targets. However, most generals recognized that there could be a time a time when an operation like Thunderclap might be useful: "There emerged a

⁶⁴ McElroy, 159.

⁶⁵ Miller, 412.

⁶⁶ Miller, 412

consensus within the U.S. military leadership that U.S. forces would ‘continue to be employed exclusively against military objectives,’ at least until there might come a time ‘when it is broadly accepted that morale attacks including of civilians will tip the scales causing the cessation of hostilities.’”⁶⁷ At this stage of the war the acceptance of civilian attacks did not exist among the military officials. Additionally, many of the Allied commanders viewed the targeting of civilians as harmful to the character of the USAAF. As a result, American officials rejected Thunderclap for these three reasons: “(1) many members of the Air Force leadership were skeptical about the possibilities of terror bombing breaking German morale; (2) many Air Forces leaders viewed with repugnance the operation’s blatant attempt to maximize civilians casualties in order to induce terror; and (3) many American decision makers that Thunderclap might damage the reputation of the United States and the U.S. Air Forces.”⁶⁸ Although men such as General Spaatz already recognized the low likelihood of breaking German morale, the last two points illustrated a shift from the previous point. Not only would this attack not help the Allies win the war, it could cost them their reputations by violating international law that protected civilians from military attacks.

Although Americans ultimately rejected Thunderclap, it was never officially cancelled. As the winter of 1945 progressed, the Allies again discussed other plans that resembled Thunderclap. As the Red Army’s advanced on the Eastern Front, thousands of civilians sought escape by rushing further into Germany. Seeking to aid their Soviet allies and exploit the growing refugee crisis, military officials formulated a new plan to strike at Germany’s civilian population. “Although not Thunderclap, this was a bombing design of chilling resolve, rail stations bursting with homeless people would be targeted, not to break morale, but to create transportation and urban confusion.”⁶⁹

⁶⁷ McElroy, 159.

⁶⁸ McElroy, 160.

⁶⁹ Miller, 413.

Unlike Thunderclap which had been rejected by American military leaders, this strategy was approved.

The change in decision can be partially explained by the shifting attitudes towards Germany in this stage of the war. Donald Miller quotes President Roosevelt's changing sentiments: "It is of utmost importance what every person in Germany should realize that this time [unlike World War I] Germany is a defeated nation,' Roosevelt told Secretary of War Stimson. '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...'"⁷⁰ Roosevelt's sentiments touched on the growing realization that the defeat of Germany was going to have to be so strong that they could never fight again. Even if that meant the destruction of their civilian population, the outcomes would be worth the cost. Roosevelt's tacit acceptance of targeting civilians was a dramatic shift from his previous stances. In the decades before, he had been a strong advocate for the norms and international laws that protected civilians from being targeted.

Despite the president's own attitudes, some officials were still opposed to the raids. General Jimmy Doolittle said: "We will, in what may be one of our last and best remembered operations regardless of its effectiveness, violate the basic American principle of precision bombing of targets of strictly military significance for which our tactics were designed and our crews trained and indoctrinated."⁷¹ Like many of his colleagues, Doolittle did not want these operations to stain the reputation of the United States. More importantly, Doolittle's language echoed America's prior stance on the targeting of civilians. Although many planners believed these tactics would lead to a swift conclusion to the war, others argued the Allies should not sacrifice their morals to ensure a lasting victory.

⁷⁰ Miller, 416.

⁷¹ Miller, 419.

As the ground campaign against German forces dragged on, the U.S. Army's losses continued to mount. As General Omar Bradley put it: "But though truckloads of hastily trained riflemen were bundled off to the front, they could not offset the litter cases that passed them headed rearward. The drain continued until December 15 when G-1 reported the 12th Army Group was short 17,000 rifleman among its 31 divisions on the line."⁷² These problems which the US Army faced occurred at a critical point of the war. In the winter of 1944-1945, Hitler planned his massive counterattack against the Allied Forces. This gamble would be known as The Battle of the Bulge. Hitler planned to separate the Allied armies in order to inflict massive casualties. "Hitler selected an offensive plan to attack through the Ardennes region with 28 divisions... This would drive a wedge between the British 21st and American 12th Army Groups. Once this wedge separated the two armies, the German Army could inflict casualties on the British reminiscent of levels of World War I."⁷³ In doing so, Hitler hoped to bring the Allies to the negotiating tables.

On December 16, 1945 the Germans attacked the Allied lines. Caught off-guard and surprised, the Allies mounted a desperate defense. For soldiers in the Army, their resulting isolated struggle some became engulfed with confusion and chaos.⁷⁴ Despite their initial gains, however, the German advanced stalled after just a couple weeks. By the first week of January 1945, the lack of air support and fuel effectively halted the German offensive.⁷⁵ Although the Battle of Bulge officially ended as a German defeat on January 28, the campaign revealed some concerning trends. Despite their loses of around 81,000 to 98,000 men, the German army continued to fight effectively at this stage of the war.⁷⁶ Moreover, the Allies failed to destroy key elements of the German army.

⁷² Newland and Chun, 306.

⁷³ Newland and Chun, 319-320.

⁷⁴ Arden B. Dahl, *Command Dysfunction: Minding the Cognitive War* (Maxwell Air Force Base, Alabama, Air University Press, 1998), 52.

⁷⁵ Newland and Chun, 341.

⁷⁶ Newland and Chun, 348.

In doing so, Eisenhower's goal of destroying the few remaining experienced German military division was not accomplished.⁷⁷ With these trained soldiers still fighting stubbornly for their Reich, the war continued to drag on into 1945.

During the morning of February 3rd, 1945, the bomber crews were preparing for their raid on Berlin. Like their commanding officers, these men were briefed about the true nature of their mission and target: "We were told today that if we had any scruples about bombing civilians, it was hard luck for us because from now on we'll be bombing and strafing women, children, everybody," ball turret gunner John Bristol, of the 457th Bombardment Group, wrote in his diary".⁷⁸ These briefings did not try to hide the reality of the Berlin raid. The officers admitted that civilian targets were central to the mission: "The briefing officer 'put it just like that,'" recalled James Henrietta, radio operator on pilot Lewis Welles's plane. 'In other words, there was no military target there, it was just get whoever you can get...It was just to demoralize'.⁷⁹ As Allied bombers approached their targets—Berlin's rail stations, the pilots such as Lt. John Welch felt sorrow for the civilian victims "His squadron's target was the Friedrichstrasse railroad station, which he had been told would be bursting at the seams with refugees. 'God help them,' he whispered as his bombardier released a load of 500-pound explosives".⁸⁰

The Berlin raid on February 3rd left up to 120,000 people homeless and an estimated 25,000 dead.⁸¹ As the 8th Air Force leveled the center of the city, the actions committed by the men flying that day still resonated in their minds for years to come. Some men could deal with inflicting death from the sky due to the unique nature of precision bombing. As Donald Miller notes: "The

⁷⁷ Newland and Chun, 347.

⁷⁸ Miller, 421.

⁷⁹ Miller, 421.

⁸⁰ Miller, 424.

⁸¹ Miller 426

coldly anonymous nature of bomber warfare made it possible for some human beings to deal out death without the slightest sense of personal responsibility.” As one pilot said years later: “I never knew any of those people, I came home, had a good meal, crawled in between clean sheets and went to sleep.”⁸² Other servicemen justified civilian targets by relating the German populace’s support for Hitler’s radical ideas “The German people supported Hitler in his rampage over Europe. He did not do it by himself,’ chaplain James Good Brown spoke for the fliers of the 381st Bomb Group he talked to after the raid”.⁸³ However, not all men could live at peace with themselves after witnessing the effects of their mission on February 3rd. For some, like James Henrietta, this raid would haunt them for the rest of their lives: “This one...bothered me for a long time, In fact it still does... I’m thinking we’re bombing out a lot of people who maybe were helpless victims”.⁸⁴ Although thousands of people were ultimately killed and displaced throughout the city, there has been little evidence to prove if there were any other strategic ramifications from this event.

In a statement issued to the *New York Times* in February of 1945, the War Department described the objectives of their bombing missions in Germany. “The aggravation of German discontent, disruption of the enemy’s administrative machinery and communications and the blocking of troops pouring eastward to man the Oder River Line.”⁸⁵ Here, no mentions of the refugee crisis are made. Two days later, however, the *New York Times* reported that Berlin was full of civilians. Using a communiqué from the United States Strategic Air Forces, the *New York Times* described the attack.

⁸² Miller, 426-427.

⁸³ Miller, 427.

⁸⁴ Miller, 427.

⁸⁵ “Reich Besieged: Black Days for Hitler Dates to Remember What Will Be the End? Battle for Berlin Prize and Symbol Teams for Combat Into the Westwall Action in the South,” *The New York Times*, February 4, 1945.

An area of two square miles of central Berlin was ‘an almost unbroken mass’ of fire and smoke following the attack by the more than 1,000 Flying Fortresses of the Eighth. They swept over the German capital in two waves and during forty-five minutes dropped 2,072 tons of high explosive and incendiary bombs on the refugee-packed city in the most concentrated blow yet struck to Berlin.⁸⁶

Allied newspapers such as the *New York Times* had a clear understanding of Germany’s status in this stage of the war. “Within the Reich, between the jaws of a great vise squeezed in history, the people awaited the next move counterblow or further retreat. Refugees were pouring in toward the center from both east and west. They reportedly numbered in the millions and there was little to be done for them.”⁸⁷ Both of these quotes were taken before the War Department issued their statement. In both cases, Berlin is described as a city that is on its knees overwhelmed with civilians. In no instances did Berlin appear to have the military value that the Allies claimed it had.

Ultimately, the Berlin raid served two purposes. First, it showcased that the Allies had transitioned into terror bombing. By deliberately targeting the crowded areas of the cities, the Allies had finally abandoned the ethical principles that they drifted farther away from as the war progressed. Secondly, the raid only hardened the Nazi resolve. Ironically, the very plan to break the will of the German populace served to strengthen it. Evidence of these sentiments can be seen through German propaganda. In a reaction to the raid two weeks later, German radio awarded General Spaatz with a “special decoration” for devastating a city that was “Crowded with hundreds of thousands of refugees, principally women and children, who fled before the organized savagery and terrorism of the Bolshevik Communist Red Army.”⁸⁸ From the German point of view, these attacks

⁸⁶ Charles E. Egan, “Bomb-Fired Berlin Under New Alarm: Main Nazi Ministries Blasted in Big U.S. Attack—RAF Hits Ships Off Danzig,” *The New York Times*, February 5, 1945.

⁸⁷ *The New York Times*, “Reich Besieged: Black Days for Hitler Dates to Remember,” February 4, 1945.

⁸⁸ Miller, 427.

justified their fight against the Allies. For the United States, it meant they would continue to attempt to break the spirits and backs of Germany's people.

Chapter Three: Dresden

The bombing of Dresden in February 1945 solidified the complete erosion of American ethics in strategic bombing. Rattled by the brief success of the German counterattack during the Battle of the Bulge, Allied planners desperately considered extreme strategies in order to end the war. One of the scenarios mentioned in a report by the Joint Intelligence Committee sought to use strategic bombing to exploit the growing refugee crisis in Eastern Germany. As quoted by Tami Biddle, the report said: “a heavy flow of refugees from Berlin in the depth of winter coinciding with the trekking westwards of a population fleeing from Eastern Germany would be bound to create great confusion, interfere with the orderly movement of troops to the front, and hamper the German military and administrative machine.”⁸⁹ The language in this quote illustrated that the Allies had finally broken the moral code that they had followed throughout the war. As Tami Biddle argues, “Enjoining bombers to ‘cause great confusion’ and ‘hamper movement of reinforcements’ allowed planners to elide the actual meaning—in human terms—of those phrases, creating a space in which moral dilemmas could be avoided.”⁹⁰ After years of being protected under law and norm as noncombatants, German civilians became a target for the Allies.

Part of the growing desperation that led to the Dresden attack stemmed from the uncomfortable rise in American casualty figures. On February 8, Secretary of War Henry Stimson announced the causality numbers: “They had climbed by 27,242 in the space of one week. On February 22, the previous week’s casualties were reported: another 18,982. That same day, Eisenhower told Stimson that German resistance remained stiff along the entire western front”⁹¹ The war in Europe, however, was not the only front in which American soldiers were being killed

⁸⁹ Tami Davis Biddle, “Sifting Dresden’s Ashes,” *The Wilson Quarterly* 29, no. 2 (2005), 64.

⁹⁰ Biddle, “Sifting Dresden’s Ashes,” 65.

⁹¹ Biddle, “Sifting Dresden’s Ashes,” 66.

or wounded. In February that same year, American fighting in the Pacific would engage the Japanese in the bloody battle for Iwo Jima. As a result, the overall casualty figures for Americans in the February of 1945 was one of highest in the 20th century. On March 5, 1945 *Time* magazine listed the total number of U.S. casualties on all fronts for the previous month: “49,689 killed, 153,076 wounded, 31,101 missing, 3,403 taken prisoner.”⁹² Pressured by high casualty rates and unexpected German resistance, the anxious Allies became ever more determine to end the war at any cost.

Ultimately, the plan developed by the Allies was code named Operation Clarion. The objective of Clarion was to “Outline a coordinated attack against strategic targets, particularly transportation, by all available American Air Forces.”⁹³ However, the language of the proposed plan also contained several vague mentions towards the plan’s effects on Germany’s civilians:

A widespread attack of over seven thousand aircraft, extending over Germany as a whole and attacking lightly defended or non-defended transportation targets, will bring home the effects of the war upon German industry and the German people as no other method could do. The increasing instability of the German people and German industry may be pushed over the brink by these attacks.⁹⁴

The language of this passage is significant because, as Robert McElroy notes, the ambiguous language in Clarion’s proposal allowed American officials to sidestep the potential moral ramifications.

Like Operation Thunderclap, the proposal for Operation Clarion was met with stiff resistance from some commanders. General Ira C. Eaker said “Clarion would absolutely convince the Germans that we are the barbarians they say we are, for it would be perfectly obvious to them that this is primarily a large-scale attack on civilians as, in fact, of course

⁹² Biddle, "Sifting Dresden's Ashes," 67.

⁹³ McElroy 161.

⁹⁴ McElroy, 161.

it is.”⁹⁵ Other Air Force Generals like General Cabell responded more bluntly. “This is the same old baby killing plan of the get-rich psychological boys, dressed up in a new kimono.”⁹⁶ Moreover, Eaker felt the plan would damage the American legacy following the war. He said: “We should never allow the history of this war to convict us of throwing the strategic bomber at the man in the street.”⁹⁷ Similar to Spaatz’s disagreement to Thunderclap, Eaker strongly felt that under no condition, the Allies could ever accept the proposed plan.

Although the raid on Dresden was not officially part of Operation Clarion. The attack drew on the idea from Clarion that bombing “virgin” cities to incite terror could prove extremely effective.⁹⁸ Thus, Dresden was selected as a target because it was largely untouched in the previous years. Called “Florence on the Elbe,” Dresden was known for its museums, theaters, and cultural significance.⁹⁹ However, the growing rise of refugees from the eastern front made the city a prime candidate for the Allied terror bombing campaign. With the Russia advance through eastern Germany in the closing months of 1944, Dresden’s population of 650,000 swelled to 1.4 million.¹⁰⁰ The bombing of Dresden was a combined attack by both RAF and Eighth Air Force planes. During the evening of February 13, the RAF assaulted in two waves. The British used 4,000-pound high explosive air bombs. These bombs did not only yield a high explosive tonnage, they also were designed to make their victims situation terrifying. “They were also expected to blow out windows and doors to create drafts that would allow smaller fires started by hundreds of thousands of ‘stick’

⁹⁵ McElroy, 162.

⁹⁶ McElroy, 162.

⁹⁷ Miller, 442.

⁹⁸ McElroy, 163.

⁹⁹ McElroy, 162.

¹⁰⁰ McElroy, 163.

incendiaries to spread and merge, producing in Vonnegut's words, 'one big flame,' a flame that would eat 'everything organic, everything that would burn.'"¹⁰¹

The bombs of the British first wave devastated the previously-untouched city. Quoted by Donald Miller, Götz Bergander, an 18-year-old boy at the time of the attack described the effects: "Coming out of the shelter was unforgettable. The night sky was illuminated with pink and red. The houses were silhouettes and a red cloud of smoke hovered over everything."¹⁰² To make matters worse, the burning city was filled with panic-stricken civilians. Bergander said: "People ran toward us totally distraught, smeared with ash, and with wet blankets wrapped around their heads."¹⁰³ The worst was yet to come; by the time the second wave of British bombers dropped their payloads, the entire city was consumed in flames. Miller also describes Anne Wahle's description of the harrowing scene: "The heat was almost unbearable, and sudden gusts of wind made us grab at each other for dear of being blown away. It was almost impossible to see through the sparks that kept whirling around us like a red blizzard, and we kept peering through them for some kind of shelter."¹⁰⁴ Although the fires leveled the city, the biggest killer of the night was invisible and odorless. Up to seventy percent of the victims of that night were killed by carbon monoxide poisoning.

Despite all this death and destruction, Dresden would receive no mercy from the Allies the next day. "When the Eight Air Force appeared overhead, flying into pillars of smoke that rose to 15,000 feet above the city. Three hundred eleven Fortresses dropped 771 tons of explosives and incendiaries into the suffering city."¹⁰⁵ A day later, 210 more B-17s bombed Dresden as their

¹⁰¹ Miller, 431.

¹⁰² Miller, 430.

¹⁰³ Miller, 430.

¹⁰⁴ Miller, 431.

¹⁰⁵ Miller, 432.

“secondary” option after failing to reach a synthetic plant. In all, they dropped 461 more tons on the broken city.¹⁰⁶ Despite the massive number of bombs released by the Americans, many of them missed their intended targets: “With targets obscured by clouds and drifting black haze, most of the squadrons were forced to aim their bombs by radar, and a few made ‘accidental’ releases.”¹⁰⁷ The failure of the Americans to accurately bomb the city’s marshal yards and industrial centers led to untouched residential areas being damaged. As a result, some members of the civilian population felt the Americans were purposely bombing areas of the city that were full of the civilians from the previously bombed out areas. Historian Richard Taylor stated: “It was if the enemy had anticipated the Dresdeners’ every move, and then killed them like cattle cunningly driven into holding pens.”¹⁰⁸

The Nazis responded furiously to news of the highly destructive raid. One Nazi official said on German radio: “Not a single detached building remains intact or capable of reconstruction. The town is devoid of human life. A great city has been wiped from the map of Europe.”¹⁰⁹ In the weeks following the raid, one Berlin reporter, Ursula von Kardorff, stated: “The British pride themselves particularly on having killed so many refugees. This barbarity is not much different from our own. It is inhuman for anyone to pour high explosives and phosphorus on refugees, old people, mothers and children.”¹¹⁰ Kardoff’s statement raises some important points. In refuting the inhumane British attack, she is directly accusing the Allies of being no better than their enemies. Like previous Allied officials, she is questioning the motives behind this raid. In killing thousands of civilians, the Allies became the very thing they were trying so hard to destroy.

¹⁰⁶ Biddle, "Sifting Dresden's Ashes," 72.

¹⁰⁷ Miller, 432.

¹⁰⁸ Miller, 433.

¹⁰⁹ Miller, 433.

¹¹⁰ Miller, 433.

In the United States, *The New York Times* covered the Dresden raid with comparatively neutral language: “As American heavy bombers blasted Dresden by daylight again yesterday, reports from Sweden told of ‘huge oceans of fire’ still raging in that city, capital of Saxony, from previous attacks. The Stockholms-Tidningen said that ‘never before during this war has any town been turned into such ruins as Dresden within twenty-four hours.’”¹¹¹ However, in their editorial on February 16, the *Times* offered a much more pointed response to the raid. Speaking to the continued resolve of the German people the *Times* stated: “That they are merely making the cost of their defeat heavier to themselves by continuing a hopeless resistance. If in that resistance more landmarks of European culture and Germany’s own better past must be wiped out, the Germans may, as they were drilled to do, thank their Fuehrer for the result.”¹¹² This passage reflects the public attitudes towards Germany at this stage in the war. Much like the military commanders that implemented these strategies, public opinion tolerated these operations. As result, they tolerated these bombings because they felt the Nazis deserved this “punishment.”

Soon after *The New York Times* published their editorial, a controversy emerged from Allied officials. During a press conference in Paris, British Air Commander C. M. Grierson was asked about the attack on Dresden along with recent Allied bombings. He stated: “They are centers of communications thought which traffic is moving across to the Russian Front, and from the Western Front to the East, and they are sufficiently close to the Russian Front for the Russians to continue the successful prosecution of their battle.”¹¹³ His answer did not clearly address if the Allies were bombing these cities with conventional targets in mind. Capitalizing on his hiccup,

¹¹¹ Gladwin Hill, “Rail City Blasted: 500 U.S. ‘Heavies’ Bomb Town in the Direct Path of Red Army Troops, Dresden Nears Ruin, RAF Rips Berlin, Mainz, Chemnitz, Nuremberg, Duisburg, Dessau,” *The New York Times*, February 16, 1945.

¹¹² Biddle, “Sifting Dresden’s Ashes,” 72-73.

¹¹³ Biddle, “Sifting Dresden’s Ashes,” 73.

Grierson was quickly asked a follow up question stating if the “principal aim of such bombing of Dresden would be to cause confusion among the refugees or to blast communications carrying military supplies.”¹¹⁴ He responded: “Primary communications to prevent them [the Germans] moving military supplies. To stop movement in all directions if possible—movement of everything.”¹¹⁵ Tami Biddle mentions that after the press conference, a correspondent for the Associated Press named Howard Cowan noted that “the Allied air commanders have made the long-awaited decision to adopt deliberate terror bombing of German population centers as a ruthless expedient to hastening Hitler’s doom.”¹¹⁶ On February 18, 1945 Cowan’s story noting the appalling nature of the recent attacks was published throughout newspapers in the US. “The all-out air war in Germany became obvious with the unprecedented daylight assault on the refugee-crowded capital two weeks ago and subsequent attacks on other cities jammed with civilians fleeing from the Russian advance in the east.”¹¹⁷ Moreover, Cowan illustrated how Allied commanders were sacrificing their morals for revenge against the civilian’s attacks conducted by Nazi Germany. Cowan stated: “The decision may revive protests from some allied quarters against ‘uncivilized warfare,’ but they are likely to be balanced by satisfaction in those sections of Europe where the German Air Force and the Nazi V-weapons have been responsible for the indiscriminate slaughter of civilians by tens of thousands.”¹¹⁸

The Cowan story had massive implications for the public perception of the Allied bombing strategy. The Allied Supreme Headquarters quickly denied the use of terror bombing against German civilians. Using statements from the Headquarters itself, *The Times* of London reported

¹¹⁴ Biddle, "Sifting Dresden's Ashes," 73.

¹¹⁵ Biddle, "Sifting Dresden's Ashes," 73.

¹¹⁶ Biddle, "Sifting Dresden's Ashes," 73.

¹¹⁷ Biddle, "Sifting Dresden's Ashes," 73.

¹¹⁸ Biddle, "Sifting Dresden's Ashes," 73.

that the Allies only targeted areas that served a military function.¹¹⁹ However, *The Times* of London barely mentioned the civilian population of the city. “The fact that the city was crowded with refugees at the time of the attack was a coincidence.”¹²⁰ Referring to the refugees as a “coincidence” was a ploy by Allied Headquarters to spin the truth of the raid. As evident in their plans before the attack, they knew about the massive flow of civilians into the city. In addition to *The Times*, the *Washington Star* reported on the attack. However, unlike *The Times*, they came to their own conclusion without information from Allied Headquarters. The day after the Cowan story was released, the *Washington Star* determined that the purpose of the Allied bombing campaign was to “Hamper German transport and to force the diversion of the enemy’s scare supplies from the battle fronts to the civilian centers.”¹²¹ As a result of their findings, the *Star* concluded that these tactics were a “harsh but legitimate objective of war.”¹²² Ultimately, these statements demonstrated that besides a few military commanders and journalists, a large majority of people accepted the reality of terror bombing relatively easily. Drawing on Nazi Germany’s radical nature and determination, both the military and the general public justified their rationale.

The gradual acceptance of terror bombing in Europe severely impacted the precision bombing campaign that was already underway in Japan. Similar to Nazi Germany, Imperial Japan fought with a seemingly unbreakable ferocious nature. However, the Japanese bombing campaigns differed greatly from their European counterparts. Unlike Germany, the high-altitude precision bombings were not having any effect on Japanese wartime production. “The B-29s were attempting to destroy high-priority industrial targets in Japan with high-altitude, daylight precision

¹¹⁹ Biddle, "Sifting Dresden's Ashes," 74.

¹²⁰ Biddle, "Sifting Dresden's Ashes," 74.

¹²¹ Biddle, "Sifting Dresden's Ashes," 74.

¹²² Biddle, "Sifting Dresden's Ashes," 74.

bombing, but by mid-January 1945, they had not destroyed a single target in Japan.”¹²³ Adverse weather conditions in Japan made locating their targets with accuracy impossible. “The USAAF was unaware of the jet stream there and was in no way prepared for the problems it posed to bombing accuracy. The Norden bombsight could not compensate for cross winds of such magnitude.”¹²⁴ Due to these conditions, the United States found it extremely difficult to force a Japanese surrender through aerial efforts. However, the public’s and military’s acceptance of the European terror bombing campaign could translate well in the Pacific. Not only could the USAAF play a larger war, it could facilitate a swifter Japanese surrender.

As a result, American planners reconsidered their approach in targeting Japan. One of these men was General Curtis LeMay. Upon analyzing Japanese cities closely, he concluded that low altitude area bombing would be the most effective way to attack Japanese cities. In the Japanese theater, the main weapon of choice for low altitude bombing were incendiary bombs. The reason being, high flammability of Japanese cities due to their building materials made this strategy more effective. On March 9, 1945, LeMay dramatically turned months of previous air strategy upside down. He decided to attack Tokyo by using a low altitude attack with skeleton planes. The weight lost due to the limited crew and the stripped-down aircraft turned into thousands of extra pounds of bomb carrying capabilities. “The weight that the B-29s saved by not carrying their guns, gunners, and ammunition translated into an additional three thousand pounds of incendiary bombs per aircraft, contributing approximately 25 percent to the total amount of bombs dropped on 9 March.”¹²⁵ For LeMay, the drastic increase in bomb tonnage would finally be able to effectively damage a Japanese target.

¹²³ Thomas R. Searle, “‘It Made a Lot of Sense to Kill Skilled Workers’: The Firebombing of Tokyo in March 1945,” *The Journal of Military History* 66, no. 1 (2002), 112.

¹²⁴ Searle, 112.

¹²⁵ Searle, 113-114.

The resulting raid that ensued on March 9 would be one of the deadliest days in the Second World War. Holding true to LeMay's new strategy, American bombers set Tokyo ablaze. "Nearly three hundred B-29 bombers unloaded over 1,665 tons of incendiaries. Over 100,000 people were killed, mostly by the conflagration that engulfed the Shitamachi district of Tokyo and its environs... A million were rendered homeless and almost 16 square miles of Tokyo were, as Churchill had wished, in ashes."¹²⁶ Although the main motive for this attack did not involve breaking the populace's will, American officials agreed to its conduction knowing that thousands of civilians would become collateral damage. This information was even known among the crew members of the B-29s that day. "And civilian casualties were one of the explicit objectives of area incendiary bombing approved by both the USAAF and the Joint Chiefs of Staff. The B-29 crews also understood this because their orders for the 9 March raid explicitly listed Japanese civilian casualties as one of the goals of the raid."¹²⁷

Ultimately, the raid on Tokyo draws many parallel to the attack on Dresden. While the Japanese city was not overcrowded with refugees, both cities were targeted because of their high civilian population density. In less than a month, the United States Air Force purposely bombed civilian centers with no other intention than spreading fear and chaos. As a result, the United States committed multiple military actions that violated previously ratified law and international norm. Despite years of advocacy for the ethical bombardment of cities, the United States accepted and tolerated these attacks. Moreover, Tokyo demonstrated that the United States as a whole determined these attacks to be necessary. Supported by public opinion in Europe, the military quickly adapted the script to fit the Japanese narrative. Instead of high-altitude precise bombing, the shift would be

¹²⁶ Clapson, Mark. "The Conventional and Atomic Bombing of Japan." In *The Blitz Companion: Aerial Warfare, Civilians and the City since 1911*, 97-118. London: University of Westminster Press, 2019. Accessed March 22, 2021, 101.

¹²⁷ Searle, 114-115.

towards all-encompassing area bombing. The rapid turnover from Europe to Asia reflects the attractiveness of terror bombing towards the USAAF. Not restrained by negative public opinion, and unsure of its true impact, the United States had little to lose by implementing this strategy once again in Japan.

Conclusion

The conclusion of World War Two ushered in a new era of airpower. The atomic bombings of Hiroshima and Nagasaki thrust world in the nuclear age. Soon after, the United States Air Force became independent in the fall of 1947. This new branch was the primary handler of the country's rapidly increasing nuclear stockpile. Like before, the technological advancements made to aircraft and weaponry greatly increased their ability to deal damage. As a result, the newly created jet aircraft could deliver nuclear weapons that dwarfed all the combined explosive power of World War II.¹²⁸ Now, humanity possessed the ability to destroy much more than cities. However, this fear over mutually assured destruction had another unintended effect on how people perceived air power. As Michael Sherry notes, the dropping of the atomic bombs and the subsequent publicity of nuclear weapons drew people's awareness away from the war's earlier bombings. Most people never knew the details about the bombings of Dresden, Hamburg, or Tokyo.¹²⁹ Too captivated by the possibilities of the atom, people began to forget the significance behind the terror bombing raids of the prior war.

This trend is concerning because it covers up part of the reality of the American bombing campaign. By only focusing on the two cities that were attacked by nuclear weapons, the prior terror bombing attacks are lost. The omission of these facts conceals the gradual decay in ethics that occurred during the war. In fact, the atomic bombings should be viewed as the culmination of the gradual slide that took place. Fueled by years of steady rising public and military support of terror bombing, these two Japanese cities were victims of this new unethical mentality. With debate centered around these bombings, few people sought to ask if the earlier bombings were

¹²⁸ Elton C. Fray, "Air Strength of the United States," *The Annals of the American Academy of Political and Social Science* 299, (1955), 30.

¹²⁹ Michael S. Sherry, *The Rise of American Air Power: The Creation of Armageddon* (New Haven: Yale University Press, 1987), 357.

justified, either. Although the atomic bombings resulted in horrific consequences that were previously unknown to humanity, the fire bombings of Tokyo and Dresden still hold significance. Both these the attacks illustrated how Allied leaders always found a strategic purpose to target a city with. Many times, this strategic purpose was often twisted or vaguely outlined to prevent outcry. Thus, the attacks on German cities and Tokyo serves as a lesson that it should not take the use of nuclear weapons to bring up the ethical ramifications of a bombardment. In fact, the firebombing attacks and their atomic counterparts have more in common than most people realize. If people could understand the similarities and patterns between the two, they could better understand the immense size of the moral grey areas of the war.

Fully understanding the nature of the terror bombing conducted by the United States tells a darker side to a war that so many people consider “good”. Although it is easy to look good fighting against a genocidal enemy such as Nazi Germany, the United States’ strategic bombing campaign reveals a certain nature about war. It shows that in any war, each belligerent can twist their principles in order to justify their military operations. In the case of the United States, these standards were the Hague Convention and years of advocacy for ethical civilian targeting. Additionally, the terror bombing campaign shows how the unpredictable nature of warfare causes opponents to change their strategies. For the United States, their prewar aerial plans failed miserably. Even as the war raged on, the unexpected rise in casualties and German resistance forced military planners to change their approach. Pressured to end the war, ideas thought of as inhumane and controversial found their way from the drafting table to the battlefield. Thus, the idea for terror bombing was not created overnight. Rather, it was a lengthy thought-out process that was rooted in the previous failures and unexpected reality of aerial and ground combat.

Despite these circumstances, the legacy of terror bombing extends far beyond the events of 1945. In the 21st century, improvements to technology continue to increase the accuracy of bombing. Now, pilots and drones can precisely target where exactly they want their ordinance to go. Whether it be a moving car or a single building unit, modern day weaponry allows for pinpoint accuracy. In the era of counterterrorism, there is little need for high-capacity area bombing. However, despite these advancements, civilian casualties remain a concern. In 2009, the U.S. fired Tomahawk cruise missiles at a suspected terrorist training camp in Yemen that left thirty dead.¹³⁰ Unfortunately, many of these people were women and children. Moreover, these civilian casualties are not only caused by conventional bombs. As the use of drones has increased dramatically in the last decade, the Bureau of Investigative Journalism reported that almost 900 noncombatants were killed by U.S. drone strikes in 2011.¹³¹ In the age of social media and twenty-four-hour news coverage, civilian collateral damage can be recorded and shared the moment it happens. Unlike the censorship experienced by media outlets in World War Two, the speed in which information travels allows for accidental deaths to be brought to the public's attention. While these civilians are not targeted like the ones in Germany or Japan, acceptance of these deaths is a silent endorsement of the tactics used. Although there will always be unintended deaths in any military conflict, there must be a push to hold government accountable for their actions. If people fail to do so, the silent public endorsement with crooked military tactics could cause another slide. As previously mentioned, the presence of the United Nations and stricter international law does not entirely compel countries to do the right thing. As in most conflicts, some nations will find ways to twist their means in order to justify their ends.

¹³⁰ Daniel Byman, "Why Drones Work: The Case for Washington's Weapon of Choice," *Foreign Affairs* 92, no. 4 (2013), 37.

¹³¹Byman, 35.

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