

Expectations Denied: Plans versus Results of the U. S. Army Air Force Bombing Campaign in Europe, 1941-1945

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The use of strategic bombing in Europe during World War II by the United States Army Air Force is a topic that raises fierce emotions. Many Americans have been exposed to a rosy view of the U.S. military in that war. It is the familiar tale of “The Greatest Generation,” where men were virtuous and patriotic and “mistakes” were few and far between. Recently, a new school of thought has emerged in academia that is not as pro-U.S. as what has come before, yet it is multi-faceted. It ranges from a belief that the AAF attempted to achieve precision bombing by doing the best it could with what it had, all the way to an extreme view that sees the doctrine of precision bombing as a farce that masked a deep desire to kill civilians.

The many levels within the debate assign varying degrees of blame to AAF planners and commanders, though not so much to the actual airmen that dropped the bombs. As with most aspects of life, the AAF's actions in Europe during World War II cannot be reduced to a simple dichotomy, and the debate among historians illustrates that fact. Strict adherence to a black-and-white interpretation, though desired by many, does not do the subject justice. In order truly to understand AAF intentions and actions in Europe, one must look to both the plan and the manner in which it was executed.*

* The definitive documents that must be studied for intentions and planning are the Army War Plans Division (AWPD) series. *AWPD/1* presented the strategic bombing plan to the military and its civilian leadership. It in effect “sold” the establishment on one of the most coveted ideas of airmen. (Washington, D.C.: War Department, Headquarters of the Army Air Forces, 1941). *AWPD/4* plainly stated American air power policy immediately post-Pearl Harbor and advocated the Europe-first strategy. (Washington, D.C.: War Department, Headquarters of the Army Air Forces, 1941). The grand bombardment plan for World War Two was contained in *AWPD/42*, though the AAF deviated from it considerably during actual

Interwar planning focused on using air power to stop a repeat of the stalemate that had taken hold in World War I, with massive loss of life. Early proponents of air power, such as the Italian Giulio Douhet and the American Billy Mitchell, advocated developing an independent, strategic air arm, one that could move behind the front lines and strike at the opponent's war industry in the heart of their country. This would destroy the enemy's ability to support its military with arms and munitions, which would in turn force it to sue for peace.

At the Air Corps Tactical School this philosophy was refined and polished. An instructor at the school, Kenneth Walker, developed the idea that the bomber would always get through. "A well organized, well planned and well executed bomber attack, once launched, can not be stopped," Walker wrote.¹ The only limitation to Walker's statement is what the AAF would consider an acceptable loss rate. These two pillars of strategic bombing doctrine, that bombardment can destroy the enemy's ability to wage war and the belief that an attack will always succeed, would become the foundations upon which the air plan for World War II rested.

AWPD/1 was the brainchild of the Air War Planning Division, which was composed of four former ACTS instructors: Lt. Col. Harold L. George, Lt. Col. Kenneth

operations. (Washington D.C.: War Department, Headquarters of the Army Air Forces, 1942) In regard to the effectiveness of the bombing campaign in Europe, the USSBS Europe is a must-read document. (United States Strategic Bombing Survey, *Summary Report: European War*. Washington, D.C.: USGPO, 1945). Also look to Robert A. Pape, [Bombing to Win](#) (Ithaca, New York: Cornell University Press, 1996) for an analysis of the success of military coercion, or lack thereof, on the government of Germany.. As a sample of the pro-U.S. view, see Stephen Ambrose, [The Wild Blue](#). (New York: Simon and Schuster, 2001.). For the various counter-arguments, see Conrad C. Crane, [Bombs, Cities and Civilians](#) (Lawrence, Kansas: University of Kansas Press, 1993), Ronald Shaffer, [Wings of Judgment: American Bombing in World War II](#)(New York: Oxford University Press, 1985), Thomas R. Searle, "It Made A Lot of Sense to Kill Skilled Workers" in *The Journal of Military History*, 66, no. 1 (2002), and Michael S. Sherry, [The Rise of American Air Power: The Creation of Armageddon](#) (New Haven, Conn.: Yale University Press, 1987). Haywood Hansell's [The Air Plan that Defeated Hitler](#) (Atlanta, Georgia: Higgins-McArthur/Longino & Porter, 1972) is a superb analysis of the strategic bombing campaign by one who was central in developing both the doctrine and the war plan. See Rudolph J. Rummel's [Statistics of Democide](#) (Münster, Germany: LIT; Piscataway, NJ: 1998) for an attempt to quantify casualty numbers.

Walker, Major Haywood S. Hansell and Major Laurence S. Kuter. They were all believers in the doctrine of strategic bombing, and saw the coming world conflict as a way to validate their theory. They focused on four main priority targets within Germany that were considered vital to its war economy: electric power, the transportation system, oil and petroleum, and morale.

George and his colleagues believed that the destruction of these four targets would result in the collapse of Germany industry due to the massive allocation of manpower to the military. The planners assumed that the German economy was under a tremendous strain, an assumption that proved false. The logic behind this idea, that the German economy was on the brink and ready to collapse with the slightest push, does not bear scrutiny. *AWPD/1* asserted that

The extent of the economic strain on Germany is indicated by the following: at present there are 6 3/8 million men under arms in the German army, 100,000 in the German Navy, and 1 1/2 million in the German Air Force. Behind this armed front, there are 6 1/2 million men engaged in armaments work alone, about half of whom are working in steel industries. Nearly 17 million men are directly engaged in the war, to the exclusion of all normal civil pursuits and production. Hence, there is a very heavy drain on the social and economic structure of the state. Destruction of that structure will virtually break down the capacity of the German nation to wage war.²

This does not take into account women in the labor force. Neither does it factor in the new territories Germany had acquired, along with the resources and populations within them. It assumes that Germans and Germans alone are producing all aspects of their war machine, and does not even recognize the contribution and exploitation of the greater German Reich.

This was one of many instances where AAF leaders believed they could accomplish something without thoroughly understanding the realities of war. Another

was the marketing of the Norden bombsight. The Norden bombsight was promoted to the public in such a way that it made dropping bombs from an airplane appear to be the equivalent of a sniper with a rifle. In many ways, the AAF was its own worst enemy, consistently claiming it could achieve results that simply were not possible at the time.

AWPD/42 has an appendix which shows an estimated bomb drop on an electric power plant. The target itself, the turbine house, is stated to be only 400 x 100 feet, an area of rather less than one acre. An acceptable bomb pattern was considered to be within a 1000-foot radius of the aiming point, which would encompass ninety percent of the ordnance dropped. It was recognized that this was only what was deemed acceptable, and that the actual bomb pattern might be larger than 1000 feet.

It is easy to achieve success by setting the standard way too low. Instead of determining an acceptable radius and devising ways to achieve it, the AAF looked to the average of the few missions that had already been flown by the Eighth Air Force and declared what had already been achieved in practice to be the standard for future achievement. This is akin to saying that every student can easily obtain a “C”, therefore we must make that the standard instead of putting forth an effort to achieve an “A”. Scattered around the hypothetical power plant could be a number of businesses, homes, schools, hospitals, etc. To know and accept that anything within the 1000-foot radius will be hit just as hard as the target, not to mention damage and injuries inflicted by stray bombs well outside of the radius, seems callous.

Even this acceptable radius was not a fair judge of the collateral damage that would result from a raid. Under battle conditions, accuracy decreased tremendously. The United States Strategic Bombing Survey, the post-war statistical analysis of the

damage actually inflicted upon the enemy's population and infrastructure, candidly noted that "While accuracy improved during the war, Survey studies show that, in the over-all, only about 20% of the bombs aimed at precision targets fell within this target area."³ It appears that the AAF sold one thing to the public, that they could put a bomb in a pickle barrel from 25,000 feet, while knowing they were unable to achieve it, (although the intention was there to achieve that feat). The use of the term "precision" to describe the AAF's operations in Europe is misleading. It is much more accurate to describe it as local area bombing, but the term "precision" remains in use by scholars.⁴

AWPD/42 not only listed industrial priorities, but also the location of those industries and the percent of the commodity in question produced there. Morale was removed from the official target list, and rubber, alumina, submarine yards, and airframe and aircraft-engine plants are added to electric power, oil, and the transportation system. Many of the planners' assumptions arrived at the status of official policy as things *sui generis*; there was no precedent from which to draw such conclusions. For example, *AWPD/42* asserted that:

"Direct hits by bombs will destroy all of the targets selected. In some cases repeat raids must be conducted to prevent rebuilding."

"Experience has shown that it is perfectly feasible to conduct accurate, high level, daylight bombing under combat conditions, in the face of enemy antiaircraft and fighter opposition."

"With our present types of well armed and armored bombers, and through skillful employment of great masses, it is possible to penetrate the known and projected defenses of Europe and the Far East without reaching a loss-rate which would prevent our waging a sustained offensive."⁵

Perhaps most optimistically, *AWPD/42* directed that "This plan is to be carried out in a period of six months during which thirty-five (35) days should be favorable for

operations.”⁶

Direct hits do not always destroy the target. In the case of submarine pens, which were targeted extensively early in the bombing campaign, the bombs would bounce right off the concrete bunkers, yet succeed in destroying the surrounding homes and businesses. The Eighth Air Force, stationed in England, suffered such a heavy loss rate during the early days of the bombing campaign that AAF leaders feared the entire strategic bombing campaign would be cancelled. Only after the introduction of long range fighter escorts, most notably the P-51 Mustang and P-47 Thunderbolt, were losses reduced to an acceptable level.⁷

These early operations bring into question points two and three above. The belief that the entire plan would require only six months, with five weeks of actual operations, was not based on any point of reference in the real world; it was the result of number-crunching in an office. It assumed that the sterile, mathematical calculations of the planning room would carry over into the actual operations. The unpredictability of weather and the enemy's ability to adapt are not factored into these calculations, and the capability of the newly trained pilots is assumed to be higher than it proved to be.* The failure to account for the realities of warfare is one of the primary reasons why the AAF consistently promised what it could not possibly deliver under battle conditions.

In the hopes of avoiding a repeat of such catastrophic losses, new tactics were developed, such as formation flying and “dropping on the leader.” While these may have made raids safer for the crews, they would also logically contribute to the terrible

* This is not to denigrate the feats of American aviators, some still in their teens and early twenties, who had received their first exposure to an airplane only a matter of months before flying into combat. Nonetheless, candor demands acknowledgement that the mass production of “qualified” aviators in the early months of the War, as the U.S. scrambled to field an effective air force, could not possibly have produced a corps of uniformly, highly trained aviators.

accuracy rate reported in the USSBS Europe. If one aims for a precision target, it would make more sense to fly single file and drop on the exact same location as the preceding bombers, or a slight deviation if it were a larger target. The Germans' antiaircraft defenses around priority targets required the attacking aircraft to spread out, resulting in a wider area needing to be covered for flak to be effective. By flying in formation and dropping on the leader, the AAF in effect threw the idea of precision bombing out the window.

The bombers could not all exist at the same point in time, and when they dropped their bombs the pattern logically constituted an area as broad as the formation. "Experience showed that pattern bombing by formation against a precision target 1000 feet square was roughly one-third as effective as bombing by individual bomb runs," according to Haywood Hansell.⁸ The fervent desire to bomb in daylight forced the AAF to adopt such tactics, sacrificing accuracy for a lower loss rate.*

Though the focus was on "precision" bombing, there are several targets designated in *AWPD/42* where that is not the type of attack called for. For instance, in the case of marshalling yards, it is stated "... that 300-lb. bombs can be used and that the weight of attack should be such that not less than 50 of these bombs fall upon every 1/10th of a square mile of marshalling yard area." In regards to alumina plants, "...it has been assumed that the weight of attack should be such that not less than 20 - 500 lb. bombs and 60 - 300 lb. bombs should fall within an aiming point area of 1,000' x 1,000'."⁹ This is by no means precision, it is in effect local area bombing. There was no difference in the method of the attack, the bombers flew at 25,000 feet in formation and dropped on the leader regardless of target type. The result would therefore be the exact

* This, of course, is contingent on one's definition of "precision."

same bomb spread on a turbine house raid as on a marshalling yard. Of course, the spread was contingent on the number of bombers in the raid, but *AWPD/42* claims that, due to the laws of probability, the smaller the target the greater the size of the raid needed to guarantee the required number of hits.¹⁰

If the assumptions of the planners were correct, then the bomb pattern would have the same spread regardless of the target, and on smaller targets there would be more collateral damage. This does not sound like the “sniper from the sky” that the AAF trumpeted itself as, but rather like a “spray and pray” shotgun. Perhaps this knowledge is why the AAF never actually carried out attacks on Germany's electrical system; they may have realized that the cost in public-relations and propaganda terms of such an attack would be greater than the strategic gain. Of all the target groups defined in *AWPD/42*, the only ones in which the planners directly called for actual precision strikes were the airframe plants, electric power, and oil.*

All of this discussion points up the fact that the secondary literature never actually calls into question the technical feasibility of AAF “precision” bombing. Army Air Corps planners assumed that the result should have equaled the plan, and any variation between the two was due to ineptitude or malice. The question of whether Army Air Corps commander General Henry H. Arnold, or the successive commanders of the Eighth Air Force, Lt. Gen. Ira C. Eaker and Lt. Gen. Carl A. Spaatz – or any of the other AAF commanders, for that matter – wanted intentionally to attack civilians to break morale is

* It was believed that six direct hits were required on each main shed to render an airframe plant inoperable, that it took at least six direct hits on a 400' x 100' foot turbine house to destroy it, and that an oil refinery required such a concentration of fire that six direct hits on an aiming point no bigger than 200' x 100' was necessary. It is interesting to note that these types of targets were the most troublesome for the AAF. The Luftwaffe was destroyed due to attrition in the air; German aircraft production actually rose throughout the war. The electric power system was never made a serious target. Missions against oil refineries were costly and ineffective. (*AWPD/42*, 4, 32, and 39).

academic; the killing of civilians was inherent in the nature of "precision" at the time.

The debate over whether the AAF intentionally targeted civilians is based on a false premise, that the industrial targets could have been destroyed without significant loss of civilian life. Only in the case of Japan, where a division between attempts at precision bombing and area bombing is obvious, can the AAF be accused, beyond a reasonable doubt, of morale bombing. Shaffer argues at length that dual-targeting, a method by which bombs could be dropped on an acceptable military target while also having the effect of morale bombing on population centers, was a sinister plot to achieve terror bombing by the AAF. Dual-targeting was inherent in the system from the beginning, but the prospect of civilian casualties was downplayed and the emphasis was put on the industrial target that would also be destroyed.¹¹

Historians have viewed the actual bombing operations by the AAF in Europe differently and there appears to be a hierarchy of degree in regards to American blame for the inevitable civilian deaths. The first view could be called the Ambrose view. In this style of narrative the focus is on the men in the bombers, their heroism, and the way they conquered diversity to rid the world of Fascism. Civilian casualties are treated as accidents, something out of the ordinary that was always viewed with regret by the airmen.

The next degree is personified by Crane. He looked to the intent and desire of both the airmen and their commanders rather than the results of their actions. While admitting that there were indeed widespread civilian casualties, Crane did not see those deaths as the primary focus of the AAF. With Crane, bombs always fell on military targets and the civilian deaths were an unfortunate side effect of war.¹²

The next level would be considered the Sherry view. He believed that the AAF bought into its own propaganda about its capabilities, and when the results did not appear, a shift to terror bombing by use of dual-targeting in Europe was pursued. Sherry focused much more on the AAF commanders' desire for independence in the post-war world and argued that this allowed a steady slide from the doctrine of precision to one of terror.¹³ Searle agrees that the inability of the AAF to achieve its doctrine of precision bombing forced the shift to area bombing in Europe, and was thoroughly abandoned in Japan.¹⁴ He also looked to the AAF leaders' preoccupation with the future.

Schaffer's is the most extreme stance; he sees a desire by American airmen early on to kill a massive number of civilians. In Schaffer's view, the illusion of precision doctrine was preserved to maintain a positive public image of the AAF and for efficiency. Schaffer paints a picture of certain AAF commanders always looking for a way to achieve greater casualty counts while being able to claim the necessity of a military target.¹⁵

For the purpose of this paper, the Ambrose view can be set aside. While everyone wants to believe that their grandparents and great-grandparents did not mean to kill civilians during the war, by focusing on the glory of the victor it denies the reality of aerial warfare. In regards to the other three views, it is amazing how, with different wording, the exact same event can be presented differently. In describing the attack on the railroad yard in Bucharest, in which an estimated 12,000 civilians were killed, Schaffer quotes Eaker, who listed 6,000 as refugees and 6,000 as Rumanians living around the yards. Crane, on the other hand, discusses Eaker's visit to the yards and describes the civilians as foreign workers. Schaffer saw the entire Balkan operation as

terror bombing masked within dual-targeting, while Crane saw the civilian deaths as a regrettable aspect of war. Neither looks to the actual bomb spread or reality of the doctrine in practice.¹⁶

Interestingly, there is an agreement over the effectiveness of the 19 July 1943 raid on Rome's transportation system. The AAF was able to destroy the marshalling yards within the city and only the Basilica of San Lorenzo was hit. While conceding that the raid was a wonderful success, Schaffer nonetheless criticizes U.S. bombardment techniques. "Even this textbook example of precision bombing caused unwanted damage, killing civilians near the railroad facilities and wrecking one of Rome's most magnificent churches." He fails to raise the point that if the AAF could so successfully bomb Rome to save monuments of religious and cultural significance, why could it not use such care everywhere? By not raising this point Schaffer weakens his own argument, especially when it appears he expects precision bombing in 1943 to cause no collateral damage whatsoever. Sherry makes no mention of civilian casualties, praising the AAF for its meticulous care.¹⁷

There are various interpretations regarding the use of radar bombing in poor visibility by the AAF. It should be no surprise that to Schaffer, the use of radar bombing equaled terror bombing. Searle looks to Craven and Cate's use of the description "a type of area bombing" and sees such tactics as terror bombing as well. Sherry saw the use of such technology as another way in which the AAF justified its massive budget and manpower demands. "It was preferred to bomb badly rather than not at all ..." Sherry concedes that many civilians were needlessly killed by the use of radar but there was at least some sort of attempt at accuracy, however poor it turned out to be. Crane is alone in

his view that radar bombing did not equate to intentional terror bombing: “There was a large difference between the RAF and the AAF both in intent and effort as to the number of civilians killed.”¹⁸

Crane does acknowledge a loosening of AAF standards to allow for radar bombing, but does not believe it signaled a desire to attack civilians directly for the purpose of terror bombing. This disparity is due to the focus on intent, which is subjective at best. Such differing viewpoints on the same subject illustrate that hard numbers are not being used to back up arguments. Either the numbers of actual civilian deaths by AAF radar bombing are not there, or there is a lack of desire to sift through them all.¹⁹

Part of the ambiguity of American guilt is the moral relativism evident from comparison of the AAF bombing campaign to that of RAF Bomber Command. The RAF abandoned attacks on precision targets early in the war and pursued a policy of dehousing and terror from then on. It is easy for Americans to look at the firebombing of cities by the RAF and assuage their guilt. Although the AAF did not have an official policy of bombing non-military targets in Europe, civilian deaths did result. The AAF did not achieve civilian casualties at the level desired and achieved by the British.

There is a fine line between the intent of a campaign of action and the results that campaign achieves. The AAF intended to hit only military targets with precision targeting; what actually occurred was local area bombing with unavoidable civilian casualties. The humane intent does not absolve the actors of responsibility for the result, nor should the result totally eclipse the intent. However, if the intent conflicts with the results, the actual consequences of actions taken must be given more weight. The RAF's

campaign makes it difficult to establish American moral responsibility; there is a tendency to either lump both together or separate the two completely. This is especially noticeable in the debate over American guilt in the bombing of Dresden.

One would think that the best way to settle the debate among historians would be to look at the results, but in many ways the lack of solid facts has fueled the division. There is no agreed upon number of total civilian casualties in Europe attributable to the AAF campaign. The difficulty comes from the way U.S. and British bombing intertwined, when the same target could be attacked in the day by the AAF and that same night by the RAF. How is one to know how many were killed in the morning and how many in the evening? By “bombing the devils ’round the clock,” to borrow Gen. Eaker’s legendary phrase, pinpointing a bombing victim’s time of death becomes an academic exercise.

Rummel attempted to make some sense of this by collecting the estimates of the combined American and British bombing, looking at the amount of tonnage dropped by each side, and proportionally dividing the estimated casualties between them based on respective tonnages. The futility of Rummel’s analysis is patent: How can anyone claim that tonnage equates to anything? Does a ton of bombs in the magazine at an English airbase automatically equal one hundred civilian deaths? Until the bomb actually falls on the one hundred civilians it most certainly does not. Like the other historians mentioned above, Rummel assumes that a certain number of deaths can be linked to each individual bomb dropped, and that simply is not the case. One must look at the raid reports, both on the American and German side, and at death reports from the raid itself even to begin to come to a conclusion as to actual numbers killed. Though many different casualty

numbers are available, the variance among them requires the serious researcher to compile their own numbers from source documents.²⁰

The United States Strategic Bombing Survey Europe concluded that overall, the German economy was not affected as predicted by the AAF strategic bombing campaign. In *AWPD/1*, American planners expressed the belief that air power alone could defeat the Axis. The planners were mistaken in their hope that the bomber would win the war; air power did not achieve the desired effect, and an invasion was necessary. According to the USSBS Europe, the most effective use of air power was the tactical destruction of German transportation in advance of the ground forces. This lack of a decisive effect in Europe can be seen as one of the causes for the complete abandonment of precision doctrine in the campaign against Japan.²¹

The USSBS Europe was in no way a resounding affirmation of strategic bombing doctrine, but it did leave the airmen an out for the future. “No one should assume that because certain things were effective or not effective, the same would be true under other circumstances and other conditions,” the Survey’s authors wrote. After attempting to protect the AAF from the ramifications of the Survey's findings, the USSBS’ analysis proceeded to destroy the very concept of strategic bombing.

The USSBS Europe, though perhaps unwittingly, dismembered many of the central tenets of strategic bombing doctrine laid out in pre-war strategy. “The German experience shows that, whatever the target system, no indispensable industry was permanently put out of commission by a single attack. Persistent re-attack was necessary.” This trenchant observation went contrary to the first two principles within *AWPD/1*, that direct hits would always destroy the target, and that it was possible to

conduct successful bombing operations. It also illustrates why the estimate of six months for achievement of the plan's strategic goals was unrealistic.²²

The purpose of strategic bombing was to destroy the enemy's industrial capacity to wage war, but the Survey concluded that German economic activity actually increased as the war progressed. The Survey's analysis attacked the change in target priority from *AWPD/I*, condemning attacks on ball-bearing factories as a waste. USSBS Europe's analysts claimed instead that attacks on the electric power system, both generating plants and transmission facilities, had they been implemented as envisioned in *AWPD/I*, would have had a dramatic effect on the German war economy. "It was not undertaken because it was believed that the German power grid was highly developed and that losses in one area could be compensated by switching power from another."

It is interesting to note that, according to the USSBS, the AAF, and indeed the entire U.S. military, erroneously believed that all other aspects of the German economy were stretched to the breaking point except power. This assertion is very hard to reconcile. It is the author's opinion that the reason the attacks were not carried out was more likely due to consideration of the number of casualties that would result from such attacks. Electric stations are located within urban areas, and with the reality of the bomb spread it is not difficult to image the public-relations nightmare had the AAF carried out attacks on such targets.²³

In *Bombing to Win*, Pape offers an even harsher analysis of the AAF's performance in the European Theater of Operations. Pape believes that the AAF did indeed engage in pure morale bombing towards the end of the war, and that the true intent was concealed by selecting a military target within a heavily-populated area as the

aiming point. He portrays the 3 February 1945 attack on Berlin as the beginning of this shift.

Pape does not take issue with whether this shift in the rationale of target selection was morally abhorrent; his main focus is on whether the AAF achieved military coercion by shifting to this tactic. He concludes that both precision bombing and the shift to morale bombing did not put any significant pressure on the German government to sue for peace, nor did it hasten unconditional surrender, and therefore the strategic bombing campaign was worthless. Pape writes:

Contrary to earlier expectations at the time, strategic bombing was not decisive. The question is whether it helped significantly or hardly mattered. The answer is that it made virtually no difference. Even if there had been no strategic bombing at all, the war would have ended in the same way and at just about the same time.²⁴

This statement is too broad and sweeping, and filled with too many what-ifs, to be taken seriously. Just because strategic bombing did not achieve its stated objectives does not mean it did not make a difference to the overall war effort. One would need to look at the manpower and material diverted to defense against bombardment, and what was spent to dismantle and bury German industry, before attempting to make such a statement.

Hansell, one of the original planners of *AWPD/I*, gave his own analysis of AAF operations in Europe. A firm believer in strategic bombing, he stated that strategic bombing did accomplish its goal, but that it would have been more decisive and faster if the original plan had been followed without diversions. "Had the strategic air effort not been so often diverted to tactical targets the mortal wounding of Germany would probably have been attained through air warfare by June of 1944, rather than March of

1945,” Hansell wrote. He thus falls into the same trap as Pape, stating conjecture as fact.

Hansell blames the AAF’s lack of decisiveness on the delay in preparing and deploying the bomber crews, the lack of concentrated effort upon individual target types, and flaws in target selection. He places the blame for not targeting the vulnerable electric grid squarely on Eisenhower and the Joint Chiefs of Staff. In Hansell’s view, the strategic bombing offensive was successful because it destroyed the Luftwaffe, closed the fuel industry, and delayed arrival of German reinforcements. Upon closer inspection, these qualifications for declaring success do not make sense.²⁵

The Luftwaffe was indeed destroyed as a fighting force, but by attrition in the air. It was the killing of trained pilots, not the destruction of the German aircraft industry, which brought about the end of the German Air Force. The German need for fuel was mainly provided by imports, mostly from Romania and Hungary. When both of these nations fell to the advancing Red Army, these supplies were permanently cut off.

While it is true that the AAF succeeded in destroying transportation in advance of Operation OVERLORD, this was the fruit of tactical air power, not the result of high-altitude precision bombing. While Hansell makes a valiant effort to defend his original intent, the actual application of strategic bombing does not support his beliefs.

The morality and the effectiveness of strategic bombing in Europe will long continue to be the subject of intense and fruitful debate. It is important to look at the facts and come to an agreement on them first, before opinions are formed. Unfortunately, it appears that the historiography has been shaped first by opinions and beliefs, so much so that facts are co-opted – and corrupted – to support predetermined ideas.

The AAF leaders must have firmly believed that they could hit a precision target

from 25,000 feet. If not, why would they have poured millions of hours, dollars, and lives into achieving that goal? Whether this belief was realistic is highly questionable based on the projected bombing patterns.

The AAF entered the war claiming it could achieve something that was technically impossible at the time, that it could destroy the enemy's industry with only a bare minimum of civilian casualties. When it became apparent to all that civilian deaths were inevitable there was a loosening of target restrictions to allow for the possibility for the decisive use of air power. Strategic bombing never achieved its objective of destroying the means and the will to wage war in Europe.

In Japan, a steady slide to outright terror bombing culminated in the firebombing of major cities and the unleashing of the atomic weapon. In order to demonstrate effectively the decisive use of airpower, thus securing an independent future for the air arm, AAF commanders sacrificed precision for easily presentable numbers. The bombing campaign was not based on a realistic plan; the assumptions about the German economy upon which it was based were wrong, and the technology to achieve what was desired simply did not exist by the time AAF operational units were called upon to deliver the results that the planning staff had promised.

The will to carry out precision bombing was there, but not the means. Intentions do not diminish or increase the results of strategic bombing. One must take the time and effort to sort through the statistical facts before casting a final judgment on the effectiveness and morality of AAF actions in Europe.

NOTES

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- ¹ Kenneth Walker, quoted in Haywood Hansell, Strategic Air War Against Japan. (Maxwell, Alabama: Air War Research Institute, 1980), iv.
- ² *AWPD/I*, (Washington, D.C.: War Department, Headquarters of the Army Air Forces, 1941), 2.
- ³ USSBS Europe (United States Strategic Bombing Survey, *Summary Report: European War*. Washington, D.C.: USGPO, 1945), 5.
- ⁴ *AWPD/42*, Tab C, Bombing Accuracy (Washington D.C.: War Department, Headquarters of the Army Air Forces, 1942). All of the authors mentioned previously continue to refer to AAF actions in Europe as precision bombing, though some believe there was a shift towards the end of the war to something more along the lines of terror bombing.
- ⁵ *AWPD/42*, 5.
- ⁶ *AWPD/42*, Tab B-1-a, Air Offensive - Europe, 4. (page numbers based on printed PDF file).
- ⁷ Michael S. Sherry, The Rise of American Air Power: The Creation of Armageddon. (New Haven, Conn.: Yale University Press, 1987), 150. See also USSBS Europe, 5. The raids on Regensburg and Schweinfurt on 17 August 1943 were extremely costly for the AAF. Schaffer lists 84 out of 146 bombers lost over Regensburg and 36 out of 230 over Schweinfurt. In both of these attacks, Luftwaffe fighters and antiaircraft fire accounted for these horrific losses. Ronald Schaffer, Wings of Judgment: American Bombing in World War II. (New York: Oxford University Press, 1985), 66.
- ⁸ Haywood S. Hansell, The Air Plan that Defeated Hitler. (Atlanta, Georgia: Higgins-McArthur/ Longino & Porter, 1972), 252.
- ⁹ *AWPD/42*, 28 and 45. Not only are marshalling yards and alumina plants treated in this manner, but also locomotive building and repair shops, ship elevators, aircraft engine plant, and rubber plants.
- ¹⁰ *AWPD/42*, Tab C: Bombing Accuracy, 1.
- ¹¹ Schaffer, 42.
- ¹² Conrad C. Crane, Bombs, Cities and Civilians. (Lawrence, Kansas: University of Kansas Press, 1993), 109.
- ¹³ Sherry, 156.
- ¹⁴ Thomas R. Searle, "It Made a Lot of Sense to Kill Skilled Workers." *The Journal of Military History*, Vol. 66, No. 1 (2002), 106.
- ¹⁵ Schaffer, 33, 70-79.
- ¹⁶ Schaffer, 58; Crane, 98.
- ¹⁷ Schaffer, 46; Crane, 94; Sherry, 152.
- ¹⁸ Schaffer, 66-67; Searle, 108; Sherry, 162; Crane, 75-76.
- ¹⁹ Crane, 75-76.
- ²⁰ Rudolph J. Rummel, Statistics of Democide (Münster: LIT; Piscataway, New Jersey: 1998), 210-211.
- ²¹ *AWPD/I*, 1. USSBS Europe, 13.
- ²² USSBS Europe, 3, 23.
- ²³ USSBS Europe, 9, 19.
- ²⁴ Robert A. Pape, Bombing to Win (Ithaca, New York: Cornell University Press, 1996), 270-272, 281.
- ²⁵ Hansell, 252, 262-263, 273.