

Combined arms warfare is a doctrine by which several branches of the armed forces or different units within one branch of the armed forces participate in battle as a unified, complementary part of a greater strategic plan. Since the twentieth century, airpower is an increasingly important component of the combined arms doctrine. In the First World War, airplanes were extensively deployed as weapons for the first time. In the Second World War, both in the European and Asia-Pacific theaters, airpower played a much larger role than it did in the First World War. The combined arms doctrine was put into full effect in the Asia-Pacific theater of the Second World War. On a general level, the same applies to the other theaters of the war. Though the nature of the fighting and the battles differs greatly from one theater of the Second World War to the other, it can be said with certainty that airpower played an important role in the conflict. In this paper, I will discuss the role of airpower within the combined arms warfare doctrine as it was deployed in the battles of the Asia-Pacific theater of the Second World War. I will also compare the use of airpower between the theaters of war. Then, I will also explain what legacy the use of airpower in this conflict has left and how the use of airpower within the combined arms warfare doctrine has evolved since the conclusion of the Second World War in 1945.

The Japanese attack against Pearl Harbour and the battle of Midway are two examples of the use of airpower in naval battles. The United States entered the Second World War following Japan's attack against the Pearl Harbour naval base. The attack, which took place on the morning of December 7th, 1941, was launched from aircraft carriers 230 miles North of the Hawaiian island of Oahu, where Pearl Harbour is located.¹ Hundreds of planes attacked the

¹ John Keegan, *The Times Atlas of the Second World War* (New York: Harper & Row, 1989), 69.

American naval base from the aircraft carriers in two waves.² With the exception of Japanese submarines, no naval vessels were in direct conflict during this battle. The aircraft carriers and the planes they carried allowed the Japanese fleet to strike the American base from a distance. This attack would not have been possible with conventional naval surface forces. The battle of Midway was a major naval engagement between the American and Japanese Pacific fleets. The battle ended as a decisive American victory. All four Japanese aircraft carriers which participated in the battle were sunk by aircraft from the three American carriers. For their part, the American fleet lost one of its carriers in the battle.³ These two battles demonstrate the use of combined arms at sea. In both battles, the carrier-based planes engaged the opposing fleet from a distance and there was no decisive surface engagement. This differs from the traditional naval doctrine which pitted capital ships with big guns against each other. The aircraft carriers, and by extension the airpower that they contributed to the battle, were crucial in achieving victory. The fact that airpower was the deciding factor in these battles also clearly illustrates the value of deploying airpower in battles at sea. In fact, during the Second World War, “air attacks accounted for the single largest cause of warships sunk.”⁴ During the Second World War, this type of battle between two carrier fleets was particular to the Asia-Pacific theater.

Strategic bombing is the practice by which key parts or an enemy’s infrastructure are targeted for destruction by large scale bombing raids. Strategic bombing also seeks to lower civilian morale and remove the will to fight. During the Second World War, airpower was deployed to conduct strategic bombing operations in the European theater as well as the Asia-Pacific theater in similar fashion. Strategic bombing campaigns during the Second World War

² Keegan, *The Times Atlas of the Second World War*, 69.

³ Keegan, *The Times Atlas of the Second World War*, 97.

⁴ Department of the Air Force, “The Air Force and US National Security: Global Reach—Global Power,” June 1990, 8.

had ambiguous results. Extensive bombing campaigns had devastating effects on the civilians of the targeted areas. In the Asia-Pacific theater, the United States conducted a devastating bombing campaign against the Japanese mainland. In one raid, a fifteen square mile area of Tokyo which was predominantly residential was targeted for destruction by incendiary bombs.⁵ Several other cities were also destroyed by bomber raids. The Allies conducted similar bombing campaigns against Germany. Several large German cities were targeted including Cologne, Hamburg and others.⁶ The bombing raid on Dresden in 1945 is particularly infamous. The entire city was bombed, despite there being no important military or industrial centers present, and tens of thousands perished as a result.⁷

The destruction of cities and the role these bomber raids play in forcing a surrender or even diminishing the enemy's ability to wage war has been, and continues to be, a topic of debate. However, what can not be debated is the change in attitude of military planners regarding airpower. This is especially the case because of the tremendous potential for destructive power unleashed in the form of nuclear weapons. The first atomic bombs to be deployed as weapons were dropped on the Japanese cities of Hiroshima and Nagasaki by the United States. This new devastating weapon was deployed from Air Force bombers. With such tremendous devastative power being brought to bear on enemies from the air, it goes without saying that the importance of airpower can not be underestimated from this point onward. The importance of airpower is only increased when the Soviet Union develops its own nuclear bomb

⁵ Mark Selden, "A Forgotten Holocaust: US Bombing Strategy, the Destruction of Japanese Cities & the American Way of War from World War II to Iraq," *The Asia-Pacific Journal* 5, no. 5 (May 2, 2007): 26.

⁶ Selden, "A Forgotten Holocaust," 13.

⁷ Selden, "A Forgotten Holocaust," 13.

because now, military planners and political leaders must be prepared to defend their nations from this new threat lest they be the next target of a nuclear strike.

Overall, the use of airpower during the Second World War has forever changed the way war is waged. Airpower could be the deciding factor in battles, especially in the naval battles of the Asia-Pacific theater. The United States' use of airpower in the Second World War "combined technological predominance with minimization of US casualties in ways that would become the hallmark of the American way of war".⁸ The ability of airpower and of strategic bombing to reduce friendly casualties by destroying the enemy's infrastructure has been brought into question. This is especially the case because of the tremendous suffering that is frequently inflicted on civilian populations by bombing raids. After all, the enemy's forces in the field still have to be defeated in order to achieve victory.⁹ One excellent example of this is the European theater of the Second World War. Nazi Germany fought on despite the destruction the allies were causing from the skies.

As has previously been discussed, the Second World War demonstrated the potential and the importance of the Air Force and of airpower. The need to ensure its effective deployment is very important to military planners who are waging a war or preparing for the next one. This being the case, the role of airpower in a potential war against the West's Cold War enemy, the Soviet Union, was crucial. Obviously, this importance is only magnified in the Cold War as the United States and the Soviet Union began their nuclear arms race. In 1946, the United States

⁸ Selden, "A Forgotten Holocaust," 7.

⁹ Mark Parillo, "A Century of Airpower," in *The Influence of Airpower upon History: Statesmanship, Diplomacy, and Foreign Policy since 1903*, ed. Robin Higham and Mark Parillo (Lexington: The University Press of Kentucky, 2013), 274.

formed the Strategic Air Command, which became responsible for “strategic, long-range air combat operations”.¹⁰ The formation of a command dedicated to strategic bombing operations shows the importance that was given to this aspect of airpower in warfare. One of the men responsible for airpower’s new role within military planning is the American General Curtis LeMay. In World War Two, LeMay oversaw the bombing campaign against Japan.¹¹ After the war, LeMay was appointed commander of the United States Air Forces in Europe.¹² LeMay served as the commander of the Strategic Air Command between 1948 and 1957.¹³ Under his command, LeMay reformed the Strategic Air Command to increase its effectiveness and combat readiness.¹⁴ This meant conducting frequent exercises to improve the bomber wings’ ability to respond rapidly and increasing their accuracy.¹⁵ The high tensions of the Cold War, increased by the fact that both sides had access to nuclear weapons, resulted in the need to operate on a daily basis as if war would break out imminently. Should a war breakout in which atomic weapons were deployed, it could potentially be a very short war. The Strategic Air Command could not afford to be unprepared and LeMay, through his reforms, ensured that it would be ready if called upon.

In the event of war breaking out against the Soviet Union, war plans assumed that the first strike would be “an atomic strike employing SAC bombers”.¹⁶ These bombers would strike against targets deep within Russian territory¹⁷. To carry out this long-range mission, LeMay’s

¹⁰ “Air Force Global Strike Command (USAF).” Air Force Historical Research Agency, accessed April 11, 2019, <https://www.afhra.af.mil/About-Us/Fact-Sheets/Display/Article/433152/air-force-global-strike-command-usaf/>.

¹¹ Phillip Meilinger, “How LeMay Transformed Strategic Air Command,” *Air & Space Power Journal* (March–April 2014): 78.

¹² Meilinger, “How LeMay Transformed Strategic Air Command,” 78.

¹³ Air Force Historical Research Agency, “Air Force Global Strike Command (USAF).”

¹⁴ Meilinger, “How LeMay Transformed Strategic Air Command,” 81.

¹⁵ Meilinger, “How LeMay Transformed Strategic Air Command,” 81.

¹⁶ Meilinger, “How LeMay Transformed Strategic Air Command,” 82.

¹⁷ Meilinger, “How LeMay Transformed Strategic Air Command,” 82.

forces required in-air refuelling. This is a good example of LeMay's penchant for innovation. In fact, he has been referred to as "the 'godfather' of RAND", a think-tank that "performs important work for the Air Force".¹⁸ This clearly shows that LeMay was an innovator in the field of airpower and that he had significant influence on the American airpower doctrine during his time in charge of the Strategic Air Command.

Airpower is also a powerful deterrent. The Strategic Air Command was always prepared to carry out their planned missions against the Soviet Union should open hostilities break out. The fact that the bomber wings of the Strategic Air Command were prepared to carry out their missions at a moments notice was a powerful deterrent during the Cold War.¹⁹ The Cold War also brought advances in rocketry and missile technology. The Strategic Air Command added intercontinental ballistic missiles to its arsenal and they, along with the fleet of long-range bombers, helped deter an attack on the West.²⁰

When the United States went to war, bombers continued to play important roles in military operations. The Vietnam War featured several well-known operations involving American Airpower. Operations Linebacker I and Linebacker II are two of these well-known bombing campaigns undertaken by the US Air Force against North Vietnam. Operation Linebacker I had the objective of destroying the ability of the North to wage war against the South.²¹ On the other hand, Operation Linebacker II had the goal of destroying the North's will to wage war against the South.²² Both of these can be described as strategic bombing campaigns.

¹⁸ Meilinger, "How LeMay Transformed Strategic Air Command," 83.

¹⁹ Melvin G. Deaile, "The SAC Mentality: The Origins of Strategic Air Command's Organizational Culture 1948–51," *Air & Space Power Journal* (March-April 2015): 49.

²⁰ Air Force Historical Research Agency, "Air Force Global Strike Command (USAF)."

²¹ Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (Lincoln: University of Nebraska Press, 2006), 177.

²² Clodfelter, *The Limits of Air Power*, 177.

As the Cold War lost its intensity and the threat of war became less immediate, the Strategic Air Command lost its importance and was eventually incorporated into other commands.²³ Despite the Strategic Air Command no longer being active as an independent command, there continued to be emphasis on the use of bombers and strategic bombing within the doctrine of airpower.

Airpower was also an important part of Operation Desert Storm, an American-led coalition's intervention against Iraq in 1991. The coalition began the war with "the full orchestration of Allied land- and sea-based air power."²⁴ The aircraft launched were set to target Iraqi Surface-to-Air missiles, Scud sites, airfields, and other important command and control targets such as the capital of Bagdad itself.²⁵ The Iraqi capital had extensive air defense systems, prepared to target any incoming strike aircraft.²⁶ To circumvent these defenses, the coalition reserved this and other heavily defended targets for strikes by cruise missiles and stealth aircraft.²⁷ From the targets of the missions, it is safe to conclude that the coalition was seeking to knock out the enemy's ability to wage war in the air and seize control of the skies over the battlefield for themselves. This is consistent with conventional American airpower and strategic destruction doctrine. Maintaining air superiority over the battlefield allows friendly troops to operate without being targeted by enemy aircraft.²⁸ The Coalition, especially the American forces who led the coalition, were well aware of the role airpower would play in the conflict and

²³ Deaile, "The SAC Mentality," 49.

²⁴ Richard Hallion, *Storm Over Iraq: Air Power and the Gulf War* (Smithsonian, 1997), chapter 6, 5.

²⁵ Hallion, *Storm Over Iraq*, chapter 6, 5.

²⁶ Hallion, *Storm Over Iraq*, chapter 6, 7.

²⁷ Hallion, *Storm Over Iraq*, chapter 6, 8.

²⁸ Department of the Air Force, 6.

that it could, and in fact would, “have a profound influence on the outcome of theater operations.”²⁹

Airpower also plays a role outside of combat. Airpower has come to embody the prestige and military strength of a nation. Maintaining a large and powerful air force, especially one with long-range bombers is a useful tool for power projection.³⁰ Airpower has come to replace naval power in this regard. It has also replaced naval power, in most cases, as the most expensive and technologically sophisticated branch of the armed forces.³¹ Airpower has also come to represent the strength of a state. Rivals such as the United States and the Soviet Union during the Cold War might compete to have a larger, more advanced Air Force to display their strength and scientific achievements.³²

To conclude, the use of airpower within the combined arms doctrine was very important in the Second World War. It contributed to victories at sea and, arguably, ultimate victory on land. Strategic bombing became an important aspect of the use of airpower in warfare. The destructive power of nuclear weapons, as well as their proliferation during the Cold War increased the importance of having a powerful and prepared strategic bombing force. This is a powerful deterrent against invasion or air strike. The use of airpower and strategic destruction in warfare continued as is evidence by American operations against North Vietnam in the latter half of the twentieth century. Even after the Cold War, as the threat of nuclear war lessened, airpower doctrine continued to be important to military planners. When an American-led

²⁹ Department of the Air Force, 6.

³⁰ Parillo, “A Century of Airpower,” 273.

³¹ Parillo, “A Century of Airpower,” 279.

³² Parillo, “A Century of Airpower,” 280.

coalition invaded Iraq in 1991, the operation began with an aerial campaign designed to seize control of the skies over the battlefield and prevent the enemy from challenging the coalition in the skies. Airpower plays an important role outside of warfare as well. A powerful air force, especially one with long-range aircraft like bombers, is useful to nations seeking to project their power across the world. The air force has also replaced the navy as the primary symbol of national prestige and strength.

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