How the Allies Achieved Air Dominance

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“We have faith that future generations will know here, in the middle of the twentieth century, there came a time when men of good will found a way to unite, and produce, and fight to destroy the forces of ignorance, intolerance, and slavery, and war.” (Roosevelt, Franklin D, Address to the White House Correspondents Association, February 12, 1943). These words by U.S. President Franklin D. Roosevelt in February 1943 spoke to the dynamics of the war that was raging in Europe. It was clear it would take a united front to defeat the Axis forces. The Allied forces established air dominance by utilizing novel and adaptable military resources.

By early 1943, Allied powers had stalled in their attempts to defeat Germany, with each country having different views on how best to liberate Europe. The USSR pressured the United States and the United Kingdom to open a second front against Nazi Germany to help relieve Soviet forces from Axis counterattacks. U.S. generals lobbied for an early invasion of France, while their British counterparts argued for an invasion of Italy with a push to gain control of the Mediterranean. Many correctly pointed out that an invasion of France without air superiority would be akin to suicide, as it would accomplish little besides the death of many men. However, just one year later, Operation Overlord, the amphibious invasion of Normandy, achieved all its major objectives. This victory was only possible with the Allied achievement of air dominance in the prior year. Air dominance allowed for the Allies naval invasion of the Normandy coast, the liberation of France, and the ultimate victory of Allied forces in Europe.

Air dominance would not have been possible without forward-thinking military training. The Air Corps Tactical School (ACTS) was the first military school dedicated to training officers for the air service in the world. ACTS doctrine focused on daylight precision bombing. It was developed by Brigadier General William Mitchell and set the stage for successful military air campaigns. ACTS leadership believed that an enemy nation's capacity to fight could be destroyed by strategic bombing of key industrial and military sites within enemy territory. In order to implement this doctrine, the United States Army Air Corps would need to use the majority of its resources to acquire heavy self-defending bombers and train airmen and aircrews in the operation and maintenance of the bombers. The General Headquarters (GHQ) Air Force was created in 1935 with an ACTS graduate, General Frank Andrews, placed in charge. ACTS was critical in aviation success and helped to secure air dominance.

The Boeing B-17 is one of the most recognizable planes of all time. B-17s were critical to air dominance. These planes were developed during the 1930s and were aptly named the "Flying Fortress" because they were heavy bombers with four-engines to support their great size. Army Chief of Staff General MacArthur along with GHQ Air Force leader Brigadier General Frank Andrews guided their development with a goal of daylight precision bombing. Designed to fly faster and higher than its predecessors, the B-17, was planned to replace the older Martin B-10. A total of 155 B-17s were in service when the United States entered WW2. This production accelerated quickly with hundreds more being ordered every month. The total number was over 12,500 B-17s built by the end of the war.

The “Flying Fortress” was useful in many roles; however, it shined as a heavy, strategic bomber. All B-17s utilized the Norden Mk.XV bombsight, an electro-magnetic computer that allowed wind speed, altitude and airspeed to be entered so that targets could be accurately engaged. The B-17 was able to accurately target buildings and infrastructure vital to the German military. Targets included: factories, shipyards, airfields, power plants, and railroad yards.

The United States Strategic Air Forces (USSTAF) was created in 1944 and consolidated all USAAF command and control authority into one formation. This allowed for more purposeful air missions and was critical to establishing air dominance in Normandy. In 1943, the North American P-51 Mustang was introduced into U.S. service. It was a viable escort with a large fuel capacity. Daylight precision bombing now had adequate protection. With the Mustang and new escort fighter tactics created by General James Doolittle, USAAF was able to be more successful and to continue daylight bombing in order to secure air dominance. The Combined Bomber Operation was restarted and targeted Luftwaffe sites. During Operation Argument, almost all of the Luftwaffe’s fighter-bombers were rendered ineffective. Both the Zerstörergeschwader heavy fighter wings (using Messerschmitt Bf 110) and the lighter wings using FW-190As suffered heavy losses. The Luftwaffe was never able to replenish their day fighting capabilities which allowed the B-17s to continue bombing German targets and help to achieve air dominance.

The P-51 Mustang was armed with six 0.50 Caliber Browning machine guns and was able to fly at high altitudes. The Mustang was the first fighter able to escort bombers to long-range targets in Germany. They could defend against the Luftwaffe’s fighter-bombers. Escort fighter tactics, created by General James Doolittle, allowed for P-51s to engage the Luftwaffe before they could

engage Allied bombers. Mustang groups were ahead of the main bomber force, allowing them to attack German fighters wherever they could be found without having to fly in a close formation with the bombers. During World War II, Mustang pilots claimed to have destroyed 4,950 enemy aircraft and helped the Allies to achieve air dominance.

Leading up to WW2, the United States experimented with airborne troops, but the divisions were all smaller than a battalion. After successful air assaults by the Soviet Union in Finland, Major William Lee started training the first American airborne troops at Fort Benning, Georgia. This was the foundation of the U.S. paratroopers deployed in WW2. The success of German paratroopers in 1940 also led to the accelerated development of the U.S. paratrooper force and by the time of Pearl Harbor, four battalions had been launched: three Parachute Infantry and one Airlanding (later Glider Infantry).

On June 5, 1944, American paratroopers, using 2000 Skytrains, flew across the English Channel. The Skytrains traveled 500 feet above ground level to avoid German radar towards transponding radars placed in two landing spots. Many hindrances faced them, including a lack of navigators on C-47s, fog over landing sites, and very effective German anti–aircraft weaponry. Over 13,000 paratroopers jumped, capturing, and destroying important roads and bridges that prevented the German army from effectively resupplying their forces fighting the naval invasion.

Military adaptability, the willingness to embrace and implement new strategies, is the most important lesson from our achievement of air dominance. The creation of the U.S. bomber strategy employed during WW2, was novel for its time. The ACTS doctrine allowed the Allies to

plan strategically for air dominance in an unprecedented way. Because of officers like James Doolittle and William Mitchell, Allied forces were able to adapt and defeat the Luftwaffe. The U.S. was one of the first countries to begin paratrooper training, and this proved invaluable to the operations of D-Day. The tactical response still guides the ideals of air defense today. Air superiority was critical to other U.S victories, such as Operation Desert Storm (1991), Operation Allied Force (1999), and Operation Iraqi Freedom (2003).

I strive to apply these important lessons to my life. The lessons of adaptability and willingness to try new things are of daily importance to me. Over the past few months, I have worked to become adaptable when dealing with my complex school and sports schedule, which includes being on two lacrosse teams and volunteering as a math tutor. Many days I see that if I have an outlook focused on being flexible and forward thinking, I am able to handle day to day stressors much more easily. I often think about these soldiers and the hardships they faced and how they handled all of the stressful situations and unknowns.

My personal interest in WW2 began when I was in the first grade. I have memories of my parents reading stories from WW2 aloud to me in evenings and quiet weekends. Embedded in the military lessons are stories of men and their families. I remain inspired by the idea of sacrificing yourself for your children and their future and embracing values greater than oneself. This inspires me to live a life of purpose. In my journey to understand Allied air dominance, I gained a new perspective on how the military was adaptable and quickly implemented technological advances whenever possible. We must understand the past in order for our nation

to sustain freedom and independence. The lessons of adaptability and resourcefulness will shape my development and help me to be a future leader.

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