

Today, airplanes are a vital and natural part of any war. A major ground assault is always preceded by an aerial bombing campaign, and the effectiveness of the infantry assault is greatly amplified by the presence of aircraft. Modern aircraft can deliver anything from food and medicine to laser-guided “smart” bombs to 20-megaton nuclear cruise missiles. We cannot imagine what war would be like without air power, but in world war one, this area of combat was just beginning. WWI was the first major war to significantly use aircraft as a battle strategy. The new advent of air power and fighting aircraft were very important to WWI because, for the first time, there were effective methods of reconnaissance, transport, air support, bombing, and long-range strategic hits.

Aviation in World War One was very different than it is today, relying on wood and canvas planes as their main fighters. Most were biplanes or tri-planes; single-winged aircraft were not made (Rimmell 132). France and Germany were the main leaders in aircraft production and research. At the start of the war, the main aircraft for the French were the Voison and Nieuport biplanes (Taylor 123). The Nieuport airplane proved to be very good, but it was later replaced with the better Spad and Sopwith planes. Germany had the most advanced aircraft with their Fokkers, Albatrosses and the all-metal Junkers (Hoare 24-25). Throughout the war Germany held the technological advantage, but they had major problems producing large numbers of aircraft. At the start of the war, Britain’s air force was mainly composed of French planes, and they relied on sheer numbers to achieve victories (Morrow 185). Later in the war, they finally produced a venerable fighter—the Sopwith Camel—which greatly helped their air

battles (Morrow 243). Russia, the U.S., and Italy relied mainly on French and British designs for their forces, but the Russian Sikorskii and Italian Caproni companies produced good airplanes as well (Morrow 188). These were the main airplanes used in WWI, and while there were hundreds of others, these models provided the majority of air forces that fought in this war.

There were many famous pilots and innovators in World War One, and they played a very important part in the war. Not only did they provide the public with heroes; they also affected the war greatly. Many of the most well remembered aces were from Germany. Max Immelmann and Oswald Boelcke were two of the earliest aces. The most famous, Manfred Von Richtofen, came in the later part of the war, shooting down the most planes in WWI with a total of 80 (www.acepilots.com). France's best ace, René Fonck, came barely short of the Red Baron's record with 75 kills and their next best, Georges Guynemer, got 53. The greatest ace from England was Edward Mannoock with 61 kills, and from Canada there was Billy Bishop with 72 (www.acepilots.com). The top ace from the United States, Eddie Rickenbacker, only scored 27 kills—well short of the French and German aces (www.acepilots.com). These pilots were not perfect heroes, however. Many of them were torn by the war—every day they were up, killing other airplanes and men all day. The air war was certainly not the chivalrous battlefield it had been hoped to be. Nevertheless, these famous aviators provided the public with heroes, their comrades with support, and all helped their countries as best they could.

During world war one, the entire strategies and methods of war were changed forever by the introduction of air power. At the start of the war, airplanes were only used for artillery spotting and delivering messages (Hoare 24-25). This improved the accuracy of artillery and helped information travel faster. Later, pilots realized that they could help the ground troops by

bombarding the enemy soldiers. Pilots started by dropping small bombs and shooting guns from their cockpits but eventually the bombs were held on racks and the guns built into the fighters. This introduction of aerial bombing changed ground tactics in that soldiers now had to worry about not only being attacked from the ground but also from the sky. Soldiers had little defense against air forces at this time, and had to dig bomb shelters. The sheer terror of hearing a swooping plane and a whistling bomb also helped disorient and scare enemy soldiers. As one soldier said, “The effects [of the bombs] measured in terms of war effort were virtually nil; the moral effects were grave and brought about heavy drops in productivity (Falls, 366).” As the sky gradually filled with aircraft, the pilots began to fight with each other as well as ground troops. Early dogfights were very slow, and many times one pilot would merely crash instead of being shot down. These fights were hard on pilots, as they were required to pull in very close to hit the other aircraft. Even if they managed to avoid all the debris from the kill, they still remembered the face of the pilot they had so deliberately killed.

Air power was not limited to the immediate battlefield, however. During the war, Germany started a massive project with Zeppelin airships. These were long-range bombers intended to bomb British cities and cause terror and confusion within the populations. Britain, being an island, had previously been very well defended against the threat of invasion. Now, for the first time, there was an easy way to get at them without having to fight a naval battle and one on the ground as well. Germany’s strategy worked well at first, but the huge “blimps” proved easy to kill and they were ultimately unsuccessful. The application of air power in WWI changed the way war was fought drastically, adding new strategies, capabilities and technologies. Formerly distant lands were not so far away any more, the importance of controlling the skies

over a battle was shown, and the entire essence of war was changed forever.

During WWI, air power greatly influenced many major battles. A key part of the 1916 battle of Verdun was the air forces. The Germans started off with aerial superiority and were able to use this to hurt the French forces. France noticed the new danger, and concentrated much of its air power here. France used its advantage of numbers and quality to sweep the skies of German planes, using its new freedom to help their ground forces fight back effectively (Morrow 133). In the Battle of the Somme, air power was especially important. The French came in with overwhelming numbers, and swept the German planes from the sky. The German infantry was defenseless against machine-gunning from the fighters and they were losing their artillery spotters very quickly. However, the allied forces did not exterminate the German forces—the German air force quickly recovered and regained strength.

During the following battles at Aisne and Arras, the Germans held the initial advantage. They fought mainly defensive battles, and took a very heavy toll on the relentless onslaught of British and French planes. They had a very difficult time keeping up with the more numerous enemy, however, and were slowly being beaten back. The Germans again recovered, however, and prepared for a massive attack on Britain in the spring of 1918. The attack went well at first but as they lost air superiority to the British defenders the attack fell apart. The allies went back on the offensive, and pressed hard into the German lines, supporting their infantry and artillery along the way. Finally, in the 2nd battle of the Marne, swarms of Allied aircraft destroyed most of the Marne bridges and played a very major part in the allied victory (Falls 369). The allies then defeated the Germans, and the war came to a close. Air power was very important in all of these battles. In each case, the side that was able to get and hold aerial superiority used it to amplify

their infantry and artillery attacks. If the German's air support of their troops in their attack against Britain had not been destroyed, the outcome of the war would have been very different. As it was, the allies managed to hold their airspace and thus were able to win the war.

It is clear that the introduction and application of air power in WWI changed the war and greatly affected its outcome. Famous pilots like Baron Von Richtofen and René Fonck inspired their air forces to fight better and each killed over 70 enemy aircraft. Long range reconnaissance and bombing affected the strategic side of the war while infantry support, dog fighting, artillery spotting and bombing changed the tactical side. Soldiers were able to depend on air cover for protection and also know that they were attacking an enemy hopefully softened by bombing and strafing. Nations that had previously been isolated and protected were open to direct attack from the sky and had to seriously worry about being attacked. Many of the major battles in WWI were determined by air power also. At the Somme, Verdun, Aisne and in the major attack in 1918, the side that had the aerial superiority (through numbers, technology, or both) eventually won that battle. The outcome of WWI would have been far different if the allies had not taken control of the battles through the air and kept the Germans from running freely over their troops and cities. This war and all other wars after it were drastically affected by air power, and the war would not have been the same without the brave pilots helping their countries and fighting to control skies.

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“I chose sources for my research that are well established. For example, Jane's Encyclopedia of Aviation is a reputable source that is used widely, even by the U.S. Pentagon. Also, the Smithsonian Institution Press is considered the “gold” standard for information. I believe the Smithsonian Institution Press does not provide misinformation.”