
World War One: A 20th Century Conflict

War has been a part of the world since the dawn of time and continues to be at war for a number of reasons, however, wars of today are very different from a war fought in the 17th century. The change in strategy over time directly correlates to the change in wartime technology, nevertheless, there is a brief period of time in which the strategy and technology users do not align, leading to an unbelievable amount of lives lost. This is the case of the First World War as the introduction of new military technology led to one of the bloodiest conflicts in history. World War One can be described as a 20th-century conflict fought with a 19th-century strategy when the technology utilized during the conflict is compared to the strategy used in preceding wars. Upon analyzing the strategies used, one can determine that the strategy of the conflict does not match the available technology, leading to a large loss of human life over the course of four years.

Before it is possible to analyze the strategy used in the First World War, the advancements in military technology must first be analyzed. World War One marked the worst human conflict the world had seen since the beginning of time. Previous wars had seen the use of breach loading rifles and artillery years before the start of the First World War, however, there was still much to learn from using the new technology that had much more to offer than its previous version. In the trenches, the typical infantry soldier donned a bolt-action repeating rifle. The repeating rifle offered much higher rates of fire than their predecessors as the rifle could hold more than a single round, decreasing the frequency at which the gun needed to be reloaded. The new rifles also were accurate to upwards of 1500 meters, whereas the rifled muskets that were used throughout the 19th century were only accurate to about 500 meters and took significantly longer to reload. With the increase in accuracy, rifles became considerably more effective at attacking smaller more dispersed units than the rifled musket. This meant that the rifle no longer could be distributed to the undertrained soldier as had been possible with both the smoothbore musket and rifled musket, but instead required each soldier to undergo sufficient training with their weapon to ensure the individual understood how to properly adjust the sights of the rifle to take full advantage of the range and accuracy. Another advancement in weapons technology was the addition of the belt-fed machine gun. The machine gun reigned terror across the battlefield firing an astonishing six hundred rounds per minute. The machine gun offered an impressive advantage over incoming troops as the operator did not have to take the time to accurately aim each shot, but could instead sweep his fire across the battlefield slowing the hostile advance much faster than could be accomplished with a bolt action rifle. On top of handheld rifle advancements, developments in artillery also led to an increase in casualties along both the Western and Eastern Fronts. Previous technology was in the form of muzzle-loaded rifled canons, whereas World War One saw the use of breach-loaded artillery, again allowing for increased range and accuracy. This new artillery allowed both the Central Powers (Triple Alliance) and the Allied Powers (Triple Entente) to fire exploding artillery shells above their advancing troops, onto their enemy's position, creating large amounts of destruction in the process.

Another terrifying advancement in the maiming of humans came in the form of chemical warfare. Chemical warfare came in the form of atomizing toxic liquid, releasing the toxins into the air as a gas. Several types of gas were used by both sides during the war, often releasing

multiple types of gas at once. Tear gas was among one of the first gases used during the Great War although it had little effect on the enemy as symptoms usually wore off after about thirty minutes of contact. Aside from tear gas, both chlorine and phosgene proved to be deadly, however, each having its own drawbacks. Chlorine as gas is denser than air with a pale green color and distinct odor making it very easy for an enemy to spot and apply a gas mask. On the other hand, phosgene, though difficult to detect, could take up to 48 hours for symptoms to appear. By far, the most commonly used gas was mustard gas. Mustard gas was not as lethal as chlorine or phosgene, but on contact caused chemical burns and left those affected with long hospitalizations, if they recovered. In conjunction with the aforementioned gases, other irritants that could bypass the gas mask were used such as chloropicrin and. The intention with gases such as these was to irritate the eyes or lungs of the individual wearing the gas mask, forcing them to remove the mask resulting in exposure to another potentially fatal gas. Regardless of the type of gas, the most used method to deliver the toxins was through artillery. The artillery shells would contain a glass bottle filled with the toxin in liquid form, which upon impact would break, releasing the poison into the air and forcing those in the nearby area to apply their gas mask.

With a basic understanding of the technological advancements, one can begin to explore the notion that World War One was fought with inadequate tactics derived from the 19th century. Many of the technological advancements had already begun to change the way in which wars were fought. For instance, during the Franco-Prussian War, the French used their early version of the machine gun, the mitrailleuse (cite), to adopt a defensive strategy, digging in and forcing the Prussians to attack the French fortifications. This allowed the French to use the combination of automatic fire, the increased rifle range, and canon artillery to attack the advancing Prussian Army. Unfortunately for the French, the Prussians had both superior artillery and greater numbers allowing them to outflank the French positions and prevail over the French Army. Similarly, lessons in warfare were learned from the American Civil War which “highlighted the increased importance of entrenchments and fortified positions on the battlefield” (Cite, Technology, Tactics, Military Transfer, Page 172).

The First World War used similar tactics to those mentioned above. At the start of the war, the forces of the Triple Alliance were advancing across the Western Front toward Europe. Eventually, the Western Front came to a stopping point in France where trench warfare began. Trench warfare was an extremely deadly method of fighting a modern battle. Trenches and fortifications proved useful in wars taking place in the late 19th century, mainly the American Civil War where both sides would dig in defensive positions in order to maximize their firepower while reducing the number of casualties suffered. However, the use of trenches in the First World War led to a virtual stalemate as both sides sat in their respective trenches watching the section of land that separated the two enemy armies. This section of land, dubbed No Mans Land, was riddled with craters left behind by artillery, barbed wire to slow down any offensive, and the bodies of those that weren't fortunate enough to make it back to the relative safety the trenches had to offer. The strategy seen in trench warfare was to attack at night when darkness helped to conceal the advancing troops. Before an assault could begin, artillery was first fired at the enemy trench in an attempt to weaken the enemy fortifications. This artillery offensive would often result in the opponent returning artillery shells leaving the soldiers in both armies waiting in fear for the armaments to cease-fire allowing for a temporary moment of relief. Next came the assault of the enemy trench. When the orders were given, soldiers would climb out of their trenches and push through the artillery craters toward the incoming machine gunfire. This style of advance allowed the defending trench to use the rapid fire of the machine guns to their fullest

potential by sweeping the battlefield with thousands of rounds slowing the enemy assault. If the assault was successful, the advancing army was able to occupy the enemy trench and move to push the front line forward by a couple of hundred meters. If the assault proved unsuccessful, the assaulting army had to retreat back across No Man's Land while still being targeted by the enemy's machine gun and artillery fire. Those that were lucky made it back to the trench safely. Those that weren't so lucky either had to crawl back to their trench while trying to remain undetected by the enemy, but also trying to navigate through the disorienting pattern of craters and bodies that riddled the strip of land dividing the battlefield. This technique of rushing the enemy was not a new strategy at the time. This tactic had been used throughout history, predating the use of gun powder in warfare, but dating back to when armies would charge each other on the battlefield carrying a variety of weapons ranging from swords and shields to pitchforks and clubs. More recently, in the century before the First World War, this tactic was referred to as a bayonet charge. This is a strategy in which the attacking army would charge the enemy using the blade attached to the end of their musket to neutralize their opponent. The difference separating the bayonet charge from the advance across No Man's Land is the accuracy of the firearm used. During the 19th century, smoothbore muskets were highly inaccurate, allowing the offensive charge an opportunity to advance. Additionally, both smoothbore and rifled muskets took several seconds to reload, allowing the advancing troops to get even closer before an additional shot was fired. One advantage offensive forces gained during World War One, as opposed to previously use of the bayonet charge, was that the attacking forces had repeating rifles, allowing them to not only fire one shot as they advanced towards the fortified enemy, but to fire several shots, and to reload their empty firearm in a considerably shorter amount of time.

The First World War was the bloodiest conflict the world had seen upon its completion when the Treaty of Versailles was signed on June 28th, 1919. With the technological advancements of the early 20th century, it is very clear that The Great War was fought with a strategy that was successful in the 19th century but proved to cause extremely high casualties over the course of the four-year conflict. As a result, the strategy had to be reexamined by members of both the Triple Alliance and the Triple Entente to determine how to better use the new technology developed during the war to increase their effectiveness but decrease the number of casualties received from an offensive. The knowledge gained from the strategies used in The Great War can still be seen when analyzing military strategy in the modern age as military strategy continues to shift as technology continues to improve.