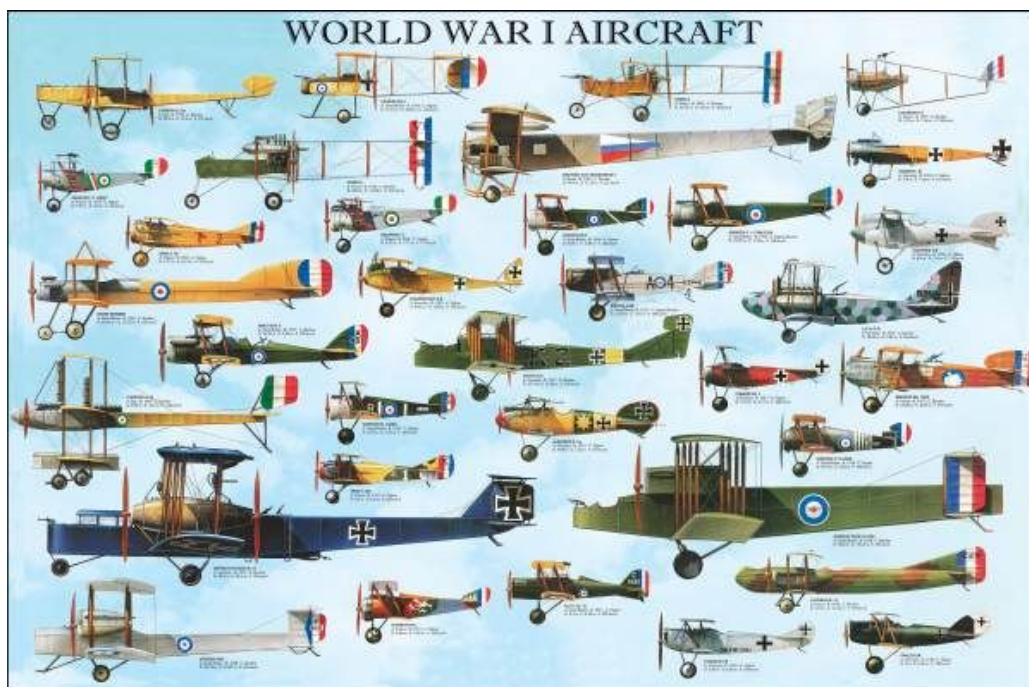


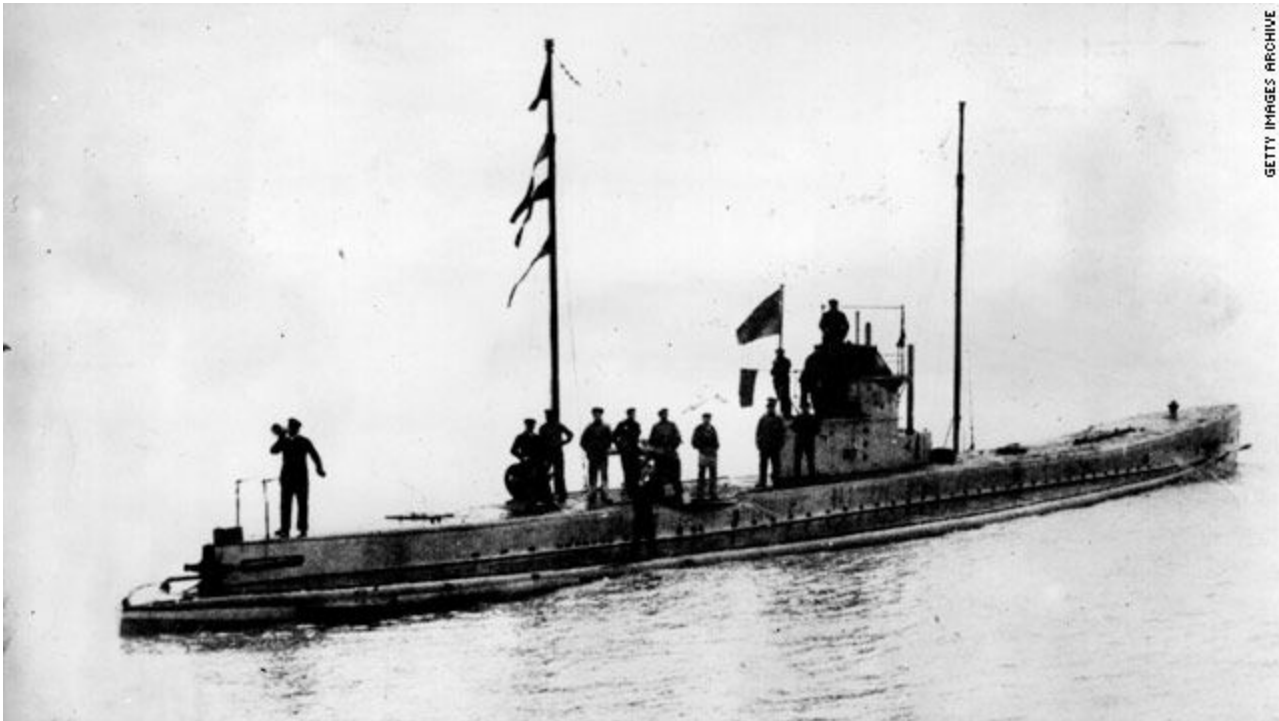
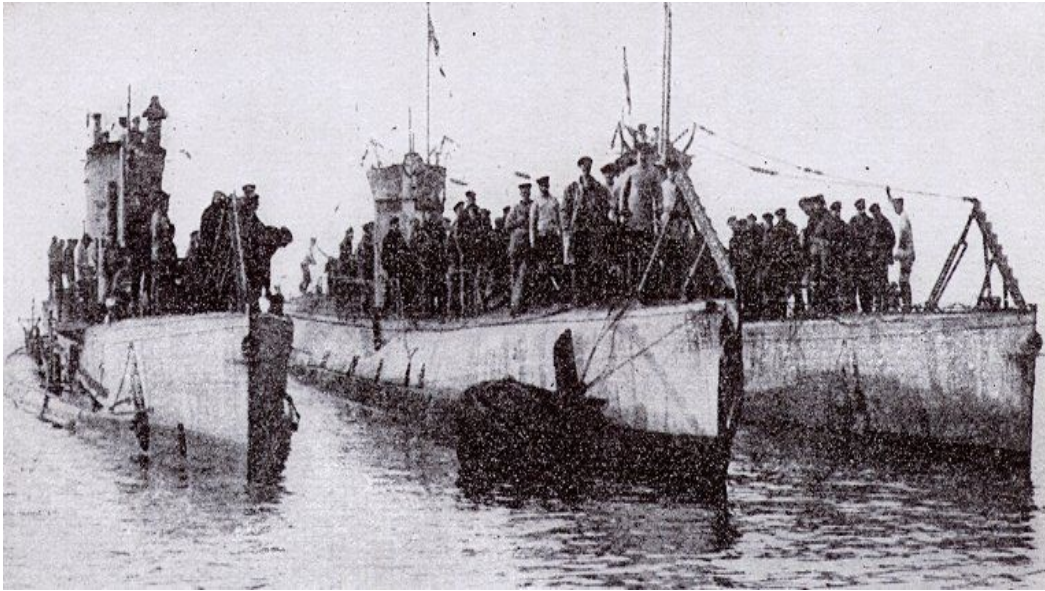
Airplanes

The onset of the Great War saw aircraft used primarily in the area of intelligence. In an effort to combat enemy intelligence, developers began experimenting with arming airplanes. The greatest fighting spot on a plane was the nose. Dutch designer Anton Fokker's interrupter allowed aircraft to have nose-mounted guns. The interrupter timed bullet flow with propeller motion, allowing bullets to pass between the blades. Bomber planes also advanced with war efforts and modern warfare would forever be changed as battles took to the skies. Successful fighter pilots became known as "flying aces." The most noted for the Germans was the Red Baron who had 80 victories. For the British, Major Mick Mannock had 73.



U-Boats/ Submarines

In 1914, Britain had 75 submarines to Germany's 30, but Germany recognized the opportunity to cripple the island nation by sinking all approaching vessels, whether Allied or neutral. By February of 1917, Germany had amassed some 150 submarines for unrestricted warfare against Britain. In April of 1917, 373 Allied ships succumbed to German submarine torpedoes. Although the tactic of starving out the Brits seemed to be well on its way to success, Germany's indiscriminate torpedoing of ships angered many neutral nations.



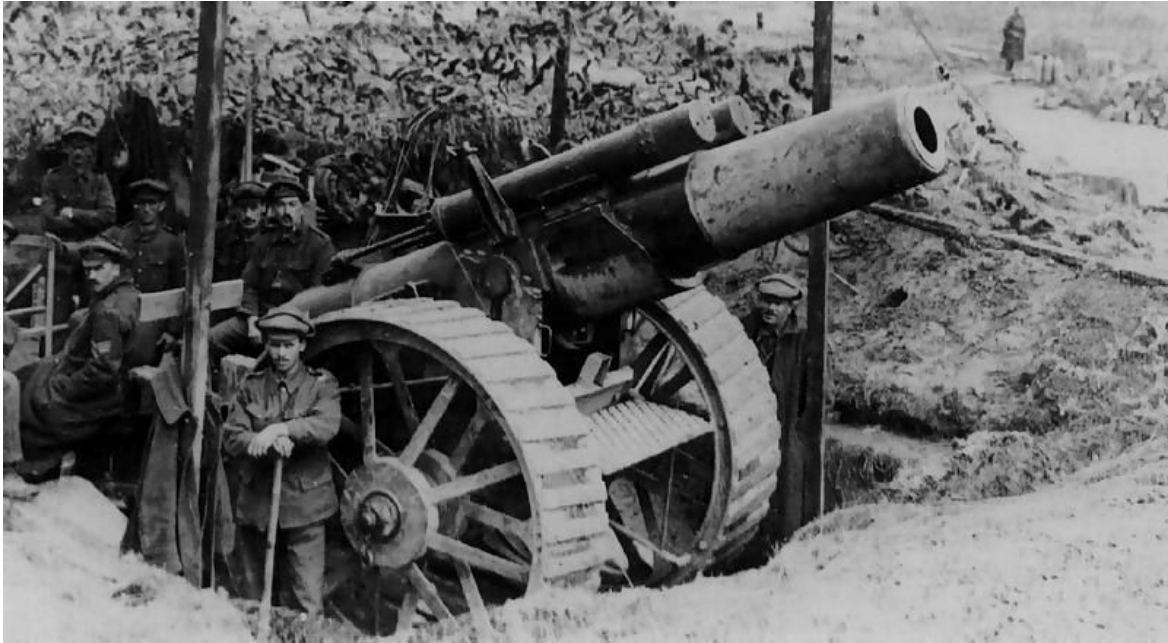
Machine Gun

The two main pieces of artillery used during the war were the machine gun and the Howitzer. Machine guns maintained and perpetuated the deadlock of trench warfare because their rapid-fire capability made it quite deadly to attempt to breach “No Man’s Land” between the trenches. The British originally used a machine gun designed by Hiram Maxim, called the Maxim. It was modified over the course of the war and a version was eventually manufactured by Vickers. The German Maschinengewehr was modeled after the Maxim also.



Howitzer

Artillery technology had also improved by World War I, resulting in the Howitzer, a long-range, large-shelled weapon. As the war went on, further improvements to the Howitzer made it more mobile. Howitzers were especially useful in bombarding enemy strongholds from long distances. Artillery launched by Howitzers would travel a high arc and drop into enemy territory.



Chemical Weapons

The Great War saw wide-scale implementation of both archaic and modern weaponry and strategies. The most horrific of these strategies was the use of poison gas. The worst of the gases was chlorine. It poured from the German lines like a yellow-green cloud. Within seconds of inhaling its vapor it destroyed the victim's respiratory organs, bringing on choking attacks. In 1917, the Germans began using mustard gas (Yperite). Mustard gas, an almost odorless chemical, was distinguished by the serious blisters it caused both internally and externally, brought on several hours after exposure.

Three types of gas used:

Chlorine Gas: Inflicts damage to the eyes, nose, throat and lungs. At high concentrations and prolonged exposure it can cause death by asphyxiation. Gas Masks were effective in filtering Chlorine

Phosgene Gas: Odorless and hard to detect. Some of the symptoms of exposure took 24 hours or more to manifest.

Mustard Gas: Attacks any exposed, moist skin - Eyes, lungs, armpits groin, etc.... Caused huge blisters. "Heavy" gas as it laid in areas for hours sometimes days. Fatal victims sometimes took four or five weeks to die of mustard gas exposure



Flamethrowers

Another new innovation in weaponry was the flamethrower, a terrifying German weapon first used at the battle of Verdun in 1916. Flamethrowers initially surprised and frightened French troops in the trenches. Because of the weapon's limited range (about 40 yards), French soldiers soon developed counter tactics: By targeting the flamethrower tank they could turn the German soldier carrying it into a ball of flames. Despite this vulnerability, the flamethrower eventually became an essential part of all armies' arsenals.



Tanks

Another innovation in weaponry was the tank. Developed by the British, the tank got its name because of a need for secrecy: to deceive the enemy as to the vehicle's true purpose, the British referred to the vehicle as a water carrier, or "tank." Initially, the tank was unsuccessful due to mechanical problems and slow speed, which made them easy targets. The first successful tank offensive occurred at Cambrae in 1917, when more than 400 tanks were able to breach German lines. Tanks would continue to play an increasingly important role in the war, and by World War II, they had become a major weapon in modern warfare.



Telephone And Radio

The vast battlefields of the Great War created new challenges for military commanders as communication difficulties arose. Both telephones and radios proved faulty in addressing communication needs: telephone lines terminated at the front line, which proved problematic when armies advanced, while radios could only transmit in Morse Code, broke down easily, and were very cumbersome.

