



Bullet'n Backstory

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Battle from Above: An Early History of War Balloons

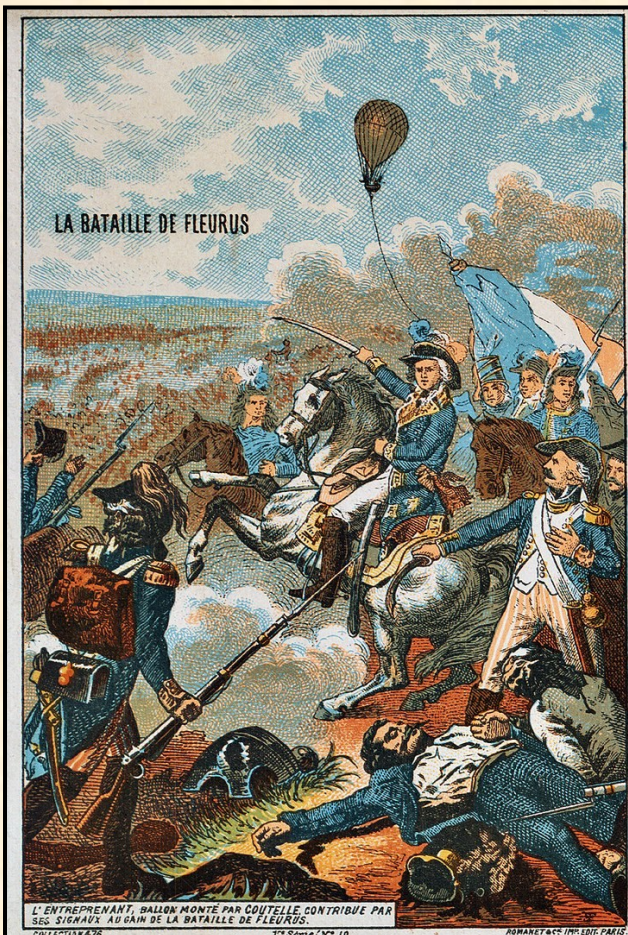
Before the introduction of airplanes, the world had a long history of utilizing military aircraft, primarily in the form of balloons. The adoption of balloons was evolutionary, with the objects used as signals, observation posts, incendiary devices, and - eventually - platforms from which to bombard the enemy. The earliest known use of military balloons dates back to Han Dynasty China (206 BCE - 220 CE), when Kongming lanterns were developed. These small candle-operated sky lanterns, used to signal reserve troops, were later adopted by Mongolian troops. Today, they live on as part of the traditional Lantern Festival, marking the last official day of Chinese New Year celebrations. Modern hot-air balloons were first developed in France by the Montgolfier brothers, with the first piloted flight taking place in 1783. The simple balloons featured cloth stretched over wooden frames. Placed above a fire, they soon filled up with smoke and rose into the air, prompting the inventors to erroneously think that it was the smoke rather



Modern Chinese Kongming sky lanterns.

than the heat that allowed for flight. Witnessing several early balloon demonstrations were Benjamin Franklin, John Adams, and John Jay, who were in Paris negotiating the treaty that would end the American War for Independence. They eagerly reported the invention to friends back in the United States, prompting George Washington and others to speculate about the future use of balloons for both observation and transportation.

The first adoption of observation balloons in war came when the French Aerostatic Corps used them for reconnaissance at the Battle of Fleurus (1794) and Siege of Mainz (1795). Though Emperor Napoleon I later considered the idea of using balloons to invade England, he discontinued their use by the French military in 1799. In 1854, French aeronaut Eugène Godard conducted several manned balloon flights at the wedding of Austrian Emperor Franz Joseph I. The emperor was so impressed that he signed a military contract with Godard to build a fleet of balloons and train a corps of Austrian aeronauts to operate them, in the event of war. In 1859, when Austria found itself at war with France in 1859, Franz Joseph learned that Godard had indeed built a fleet of observation balloons, but had - in deference to his nationality - sold them to France, leading Napoleon III to victory.



On 11 June 1861, aeronaut Thaddeus S. C. Lowe demonstrated the military value of balloons for Abraham Lincoln, ascending to 500 feet and telegraphing his observations from the balloon to the White House. Convinced, Lincoln appointed Lowe as Chief Aeronaut of the Union Army Balloon Corps (1861-1863). During the U.S. Civil War, the Balloon Corps used seven, gas-filled balloons to map the terrain and conduct reconnaissance of Confederate positions at 1st Bull Run, Yorktown, Seven Pines, Antietam, Fredericksburg, and throughout the Peninsular Campaign. The British soon adopted the use of reconnaissance balloons, experimenting with various types of construction before utilizing them in the Second Boer War (1899-1902).



Lowe's *Enterprise*, conducting reconnaissance (Harper's Weekly, 1861)

The earliest modern use of weaponized balloons came in 1849, when Austria used them during its siege of Venice. These devices, 200 in number, consisted of paper hot air balloons equipped with time-fuse bombs. Records show that only one bomb successfully hit the city, while the others floated off in the breeze.

At the height of their popularity, balloons were utilized extensively during World War I by several nations on both sides of the conflict. The British used kite balloons, the Germans elongated blimps, while the French developed their own type of dirigible. Their primary use was to conduct reconnaissance for artillery units to better direct long-distance fire. They were also used toward the end of the war to locate submarines. Though defended by anti-aircraft guns and fighter planes, many pilots became expert “balloon busters” over the course of the war. For this reason, the earliest parachutes, developed by the Germans, British, and French, were used by balloon aeronauts long before their adoption for planes.



U.S. Marine Corps barrage balloon (May 1942)



German observation balloon (Somme, 1916)

World War II saw the widespread adoption of barrage balloons, also called blimps. Their primary purpose was to interfere with enemy aircraft, especially through the use of wire cables which dangled from the craft, making flying hazardous. The British Balloon Command was established in 1938, tasked with protecting cities, ports, and factories from dive bombers and V-1 cruise missiles. By 1940, Britain had 1,400 balloons in operation, with the largest number assigned to London. By 1944, British balloons numbered more than 3,000. Official records report that British balloons destroyed 231 V-1s during the war. They would also launch 100,000 incendiary balloons over German-occupied Europe. Similarly, Japan sent fire balloons (*fu-go*) with explosives across the Pacific toward the United States. At least 300 of these devices

actually reached U.S. sources, causing property damages and several deaths. The United States and Soviet Union used balloons less aggressively than other participants in the war. The U.S. Navy used them for anti-submarine reconnaissance, while the Soviets used them to identify the locations of enemy artillery. After World War II, the United States developed high-altitude balloons for the detection of nuclear activity and surveillance. Today several nations use lighter-than-air balloons and airships (aerostats) to gather intelligence and patrol volatile areas, including Iraq, Afghanistan, and Israel. ~ ~ Dr. Paul-Thomas Ferguson

JMC Historical Document Collection

The JMC Public and Congressional Affairs Office (PCA) maintains the JMC Archives, which collects and maintains historically significant records, including: emails, manuscripts, letters, reports, studies, images, videos, films, photographs, oral history interviews, briefings, SOPs, policies, decision papers, memoranda, statistics, newspapers, newsletters, brochures, maps, blue prints, drawings, artifacts, and more. Such records are pertinent to the Army’s institutional knowledge of active and predecessor installations, the ammunition industrial base, and JMC missions. JMC regularly uses these materials to research command history, and to answer research queries. When JMC workers leave positions or make physical moves, it is vital that their records be assessed before disposal. If employees are uncertain about the historical value of materials, the best policy is to make the items available to Command Historian Keri Pleasant (keri.j.pleasant.civ@army.mil) or Archivist Paul Ferguson (paul.t.ferguson14.civ@army.mil) in Room 661.

This Month in Military History

- January 2, 1492: Emir Muhammad XII surrenders Granada to Ferdinand of Aragon and Isabelle of Castile, ending seven centuries of Muslim rule on the Iberian peninsula.
- January 9, 1945: U.S. soldiers under the command of Gen. Douglas MacArthur, invade the Philippines.
- January 16, 27 BCE: Following his victory over Antony and Cleopatra, and his return at the head of an army, general and consul Julius Caesar Octavian receives the title Augustus from the senate, making him the first Roman Emperor.
- January 23, 971: In the first formal use of elephants in China, a war elephant corps of the Southern Han state loses a battle at Shao due to the crossbow skills of Song Dynasty warriors.
- January 30, 1647: After nine months of negotiations, Scottish Presbyterians agree to sell the captured Charles I to the English Parliament under Puritan Oliver Cromwell. They will try and execute the king for tyranny precisely two years later.