

The German Army was on the march through France until aerial reconnaissance led the Allies to a critical victory.



The Influence of Airpower on the Marne

By Walter J. Boyne

The mere mention of World War I aviation elicits images of dogfights between Spads and Fokkers, or of Gotha bombers over London. The fact that the advanced airplanes of 1918 stemmed from a handful of harmless-looking aircraft first taking flight at the beginning of the war in 1914 rarely comes to mind.

Most of these early warplanes were conversions of civil aircraft. They were slow, with perhaps a 20 to 40 mph margin between stalling and top speed. They lacked power to carry any but the lightest armaments.

Yet it can be argued the outcome of World War I was influenced less by the thousands of efficient new aircraft flight-

ing in 1918 than by a handful of fragile aircraft gathering the vital data early in the war. Airpower, in its earliest form, led to the decisive Battle of the Marne in September 1914.

From the start, the Wright brothers presumed their invention would be adapted by the military services. This was not realized until 1909, when the US Army purchased the Wright Military Flyer. In the Army, aviation came to be regarded as a dangerous hobby, pursued only by men indifferent to both longevity and successful military careers.

In Europe, things were different. There, military men were convinced of the airplane's potential by Wilbur Wright's dazzling display at Le Mans,

France, in 1908. As a result, the major European powers adopted a more systematic approach to acquiring and experimenting with this new phenomenon.

Aviation was also fashionable, and was adopted as a sport by wealthy men in many nations. Thus, it had sponsors at high levels in government who were able to funnel resources into aviation. Besides its glamour, the aircraft offered what every military man always sought, a means of viewing "the other side of the hill." Balloons were used before and would be again, but they were static, difficult to install in position, and could survey only a limited area. The airplane was seen as a means of rapidly getting to the other side of any hill.



In 1910, France established the Service Aeronautique. The results were promising, and on Oct. 22, 1910, Gen. Pierre A. Roques created the world's first air force, the Aeronautique Militaire. French aerial maneuvers in 1910 led him to say, "Airplanes are... as indispensable to armies as the cannons and rifles, and those to whom this is not to their liking risk one day having to admit it by force."

Germany had already made great progress with Ferdinand von Zeppelin's huge airships, believing they had immense potential value for reconnaissance and bombardment. But Germany was also interested in heavier-than-air craft, and the Imperial German Army Air Service was founded in 1910.

The British waited until 1912 to establish the Royal Flying Corps. The RFC would use heavier-than-air craft, while the Royal Naval Air Service (RNAS) operated lighter-than-air craft. The First Lord of the Admiralty, Winston Churchill, was very unhappy

Left: Flying an AG-4 similar to this one, Louis Breguet spotted a gap in the German line. Below: German soldiers keep watch from a trench during the Battle of the Marne. Until they were forced to dig in to the trenches that came to define World War I, the Germans had been maneuvering toward Paris.

with this, and by 1914, the RNAS operated a variety of aircraft. Great Britain went a step further, founding the Royal Aircraft Factory in 1911, to spur aircraft development. It did so, but with mixed results.

In the East, Imperial Russia also established its air force in 1910, initially depending on aircraft purchased from the French. In time, under the leadership of Igor Sikorsky and backed by the surprising depth of Russian research, it established its own aviation industry. Although Austria-Hungary established a balloon corps in 1893, and reorganized it in 1912 as an air service, it did not provide the funds for training pilots or buying equipment on the scale of the other major powers.

Plan XVII

On June 28, 1914, a Serb assassinated the Austro-Hungarian Archduke Franz Ferdinand and his wife, Sophie, beginning the slide into what became the "Great War." When war began, Great Britain had about 150 aircraft in military service, France had 160, Germany had 246, and Russia had about 150. Austria-Hungary had 10 balloons and perhaps 50 aircraft.

The new enthusiasm for military aviation has to be viewed in context.



Photos via National Archives



Breguet joined the French Army as an enlisted pilot, and flew an aircraft of his own design and manufacture on reconnaissance missions.

Expenditures by all these governments on standard arms vastly exceeded the amounts spent on aviation. Secondly, national armies operated on a great scale, with hundreds of thousands of men fighting over many miles of territory. Not much was expected of a handful of experimental machines, flown by inexperienced pilots on ill-defined missions. Nonetheless, the intelligent operation of these fragile aircraft helped change the course of the war, preventing a swift German victory—and affecting how conflicts would be waged in the future.

In 1914, Germany possessed what was acknowledged at the time to be the finest army in the world, but it feared a war on two fronts. A magnificent rail system led Germany to plan a French defeat in five weeks, then shuttle its troops on trains to the east, to Russia. The German High Command estimated it would take the Russians at least six weeks to mobilize—giving Germany a week to play with in a high stakes game.

With the war under way, German armies were sent to sweep through Belgium and Luxembourg into France. They planned to destroy the French armies, rather than capture Paris. The French had their own “Plan XVII,” calling for troops to advance into the provinces of Alsace-Lorraine, ceded to Germany after their 1870 conflict. This fit into German plans unwittingly, for it thrust French forces forward so they could be cut off by a scything movement from the west.

Germany was surprised to find its invasion of Belgium brought Great Britain into the war on Aug. 4.

The British forces, while small, were professional. In a similar way, the tiny Royal Flying Corps responded to the emergency with surprising skill.

By Aug. 13, more than 40 aircraft flew from Dover across the English Channel to land at fields near Amiens, France. A further 24 aircraft followed them, accompanied by the men and equipment necessary to support the force in the field. After landing at Amiens, the aircraft deployed to makeshift fields near the Belgian border, from which the first reconnaissance flights took off on Aug. 19.

Flying the Colors

The German plan of attack called for a quick sweep through Belgium deep into France, and then a turn to envelop the French armies and destroy them. The strong Belgian defense of fortresses at Liege and Namur slowed the Germans down somewhat, to the extent that the British and the French lost contact with them.

On Aug. 19, British Capt. Philip Joubert de la Ferte took off in his Bleriot, accompanied by Lt. Gilbert W. Mapplebeck in a B.E.2 on the first RFC reconnaissance mission of the war. Both men saw large numbers of the enemy, and both made landings to ask local people for information before returning to base. These early reconnaissance flights were subject to fire from all ground troops, friendly or hostile. This led first to the painting of the British flag on wings, and then the adoption of the now familiar

Royal Air Force blue, white, and red roundels.

Three days later, a dozen reconnaissance flights took off. One was flown by Capt. L. E. O. Charlton and Lt. V. H. N. Wadham of No. 3 Squadron. They scouted Brussels, but found no German troops. They then landed 50 miles away at Moerbeke, Belgium. There the mayor told them large German forces were passing through the neighboring town of Grammont, only two miles away. The two men took off and soon found what they estimated as an entire Army corps marching along the Brussels-Ninove road toward the British forces. This turned out to be the II Corps of the 1st German Army, commanded by Gen. Alexander von Kluck, just beginning the turn by which he intended to cut off and annihilate the British Army.

The observations delivered by Charlton and Wadham were taken directly to the British commander, Field Marshal John French, who believed the information and would have acted on the intelligence at once, had he not been bound by orders to support his counterpart, Gen. Charles Lanrezac.

On the previous day, at Charleroi, the 15 divisions of the French 5th Army under Lanrezac were virtually destroyed by the attack of 38 divisions of the German 2nd Army, led by Gen. Karl von Buelow. The two commanders, Lanrezac and French, were so furious with each other it took a personal intervention by their respective commanders, the French commander in chief, Gen. Joseph Joffre, and the British Secretary of State for War, Horatio Herbert Kitchener, to bring them back into a working relationship. Reluctantly, French agreed to hold the British Expeditionary Force’s position for 24 hours, to allow the French Army to retreat.

Fortunately the advance warning provided by Charlton and Wadham’s report allowed French to deploy two infantry corps around Mons, across a 25-mile front. Although outnumbered two-to-one in both men and artillery, the expert British riflemen held off the German advance for a crucial day. They then began an eight-day fighting retreat, with the RFC relocating to new fields each day.

Von Buelow’s success against Lanrezac’s forces caused him to urge von Kluck to turn his forces to the southeast and envelope the French Army. Von Kluck complied on Aug. 31, but his

movement opened a gap in the German lines immediately spotted by no less than six members of the RFC.

Once again, Field Marshal French believed the aerial reports and acted on them.

The French Army was equally well-served by aerial reconnaissance. Louis C. Breguet, of the famous watch-making family, had himself assigned as an enlisted pilot.

Flying a Breguet AG-4 of his own design and manufacture, Breguet also spotted the gap as the German forces changed direction, moving from west to east. He informed his headquarters of it.

A Course Irrevocably Changed

Getting the Allies to act on the information was a tougher task, as the French High Command, from Gen. Ferdinand Foch down, held a dismissive view of aviation and aviators. Flights with an R.E.P. monoplane and a Maurice Farman pusher biplane confirmed Breguet's report. Coupled with information from the British, this induced the French to deploy to trap the Germans. The net result of this collaborative effort was that over a period of three days, the Germans marched into a salient with the French 5th Army on their left flank, the French 6th Army on their right flank, and the British Expeditionary Force standing firm at the bottom of the pocket. Suddenly, the German flanking movement

An Eclectic Collection of Early Airpower

In early August 1914, a rather eclectic collection of British aircraft left Dover, England, in four squadrons to aid the defense of France and Belgium along the front lines near Amiens, France. No. 2 and No. 4 Squadrons flew Bleriot Experimental 2s (B.E.2s).

No. 3 Squadron flew a mixture of Bleriot and Henri Farmans, while No. 5 Squadron had Henri Farmans, Avro, and B.E.8s, the latter nicknamed "Bloater" for its resemblance to the fish.

Two of the types, the B.E.2 and B.E.8 were products of the Royal Aircraft Factory at Farnborough, present-day site of the biennial international air show. Originally established as His Majesty's Balloon Factory, it became the Royal Aircraft Factory in 1911 and attracted some of the best aviation pioneers in England, including Geoffrey de Havilland and Henry Folland. The Royal Aircraft Factory created some useful aircraft early in the war and was responsible for what many consider to be the best RFC/RAF fighter of the period, the S.E.5a.

Most of the aircraft sent to France in August 1914 were B.E.2s, a fragile looking biplane powered by a 70-hp Renault engine. Its sole original design requirement was to create "a stable aircraft," and no one envisioned that it would enter combat. With a maximum speed of 70 mph, it could carry a load of 224 pounds of bombs. Its stall speed was just over 40 mph, providing a 30 mph envelope in which to maneuver. Despite this limited performance, the aircraft was continually improved and served until 1918. The B.E.8 was essentially a B.E.2 powered by an 80-hp Gnome rotary engine. It was built in much smaller numbers than the B.E.2, and as a result, killed fewer British pilots than the B.E.2.

The Bleriot of the Royal Flying Corps were essentially similar to the channel-crossing type, and had a top speed of 59 to 61 mph.

Only a few Avro 504s were available for the initial operation, despite their superior 82 mph top speed. An Avro 504 of No. 5 Squadron was shot down on Aug. 22, 1914, the first British aircraft lost to enemy fire.

The Henri Farmans were a hopeless-appearing collection of wings and struts, powered by an 80-hp Gnome pusher engine providing a blistering 65 mph top speed.

This collection of RFC aircraft was impressive to the French, and the aircraft were soon dispersed to fields around Maubeuge, the French garrison town designated as the forward operating base of the British Expeditionary Force.



French infantrymen charge the line in 1914. Alerted by reconnaissance aircraft, the French redeployed to draw the German advance into a trap at the Marne.

was outflanked—and trapped. The Allied forces attacked at dawn on Sept. 6, beginning the Battle of the Marne. After four days of hard fighting, the Germans retreated 40 miles to the River Aisne. They began digging the trenches that would extend from Switzerland to the sea and forever characterize the war.

In an exultant dispatch written to Kitchener on Sept. 7, French wrote, "I wish particularly to bring to your lordship's notice the admirable work done

by the Royal Flying Corps under Sir David Henderson. Their skill, energy, and perseverance have been beyond all praise. They have furnished me with the most complete and accurate information which has been of incalculable value in the conduct of operations."

Aerial reconnaissance disrupted the German plan and turned a swift five-week conquest of France into a four-year bloodbath that proved impossible for Germany to win. Had the primitive

aircraft not been available, the course of World War I might have been irrevocably changed. The warplanes were available only because the French and British governments had drawn the correct conclusions from the convincing demonstrations of the early Wright aircraft.

Had the Wright brothers not been successful in 1903, there would have been no 1908 demonstrations in Europe, and it is probable there would have been no primitive air forces available in 1914. Germany might well have won World War I that year because, before the Battle of the Marne, the Germans were on the move. ■

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