



**Billy Mitchell assembled the largest air fleet ever committed to battle and established the Air Service as a true combat arm.**

# The St. Mihiel Salient

By Walter J. Boyne

**T**HE reputation of airpower pioneer Billy Mitchell will be forever tied to the World War I Battle of St. Mihiel, and that is as it should be. It was during that critical engagement in France in September 1918 that the world got its first clear view of Mitchell's developing airpower creed.

The visionary airman believed that a nation should mass its airpower assets and concentrate their use against the enemy right from the start of an engagement. This was true of observation, pursuit, and bombing aircraft alike. At St. Mihiel, Mitchell's principles were applied and vindicated, even if not to the degree that he might have wished.

In fact, the airpower portion of the battle of St. Mihiel was important more for its preparation and planning than for its actual execution, which was hampered by poor weather. The future of American airpower was charted in the way Mitchell and his staff planned the engagement





*Billy Mitchell (leaning against a Spad at left above) gathered more than 1,400 American and Allied aircraft for the Battle of St. Mihiel in September 1918. At left, among those at his command were 11th Bomb Squadron aircraft, shown in an impressive lineup at Maulan, France, in 1918.*

and in the gallant manner in which his equally inexperienced fliers fought it. It was a pattern seen again and again in the decades to come.

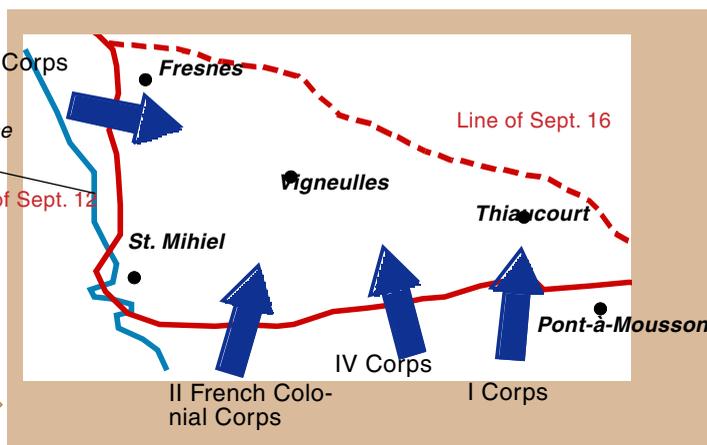
“Aerial operations at St. Mihiel made the battle an important event in the history of US military aviation,” wrote Maj. Gen. John W. Huston, chief, Office of Air Force History, in the Air Force’s official history of World War I. “It was, primarily, ... Mitchell’s show. He put together the largest air force ever committed to battle and drew up the plan for its employment.”

### **Shock on the Western Front**

In March 1918, German forces launched their last great offensive on the Western Front and seemed destined to finally win the war. It was during this attack that US Army Gen. John J. “Black Jack” Pershing lost his battle to keep the American Army together as a single entity under his command. So great was the Allied need that he had to allow piecemeal use of American troops to stiffen French and British lines all the way through the Battle of Château-Thierry in May and June 1918.

## St. Mihiel Offensive Sept. 12–16, 1918

*On the ground, the battle for the St. Mihiel salient pitted AEF's First Army—three American corps and one French corps—against 8.5 German divisions.*



Because they thought a precedent had been set, Pershing's British and French counterparts were taken aback when he insisted that the American Army fight the next battle as a unit and under his command. Pershing's demand provoked a pointed argument with Field Marshal Ferdinand Foch, the Allied Supreme Commander in Chief. However, the Pershing view prevailed.

On Aug. 10, Pershing combined his 16 US divisions into the US First Army, which was supplemented by a French army corps. He promised that the American force would reduce the German salient in the Allied line at St. Mihiel. Each American division had approximately twice as many troops as French or German divisions, but they lacked artillery and tanks, which had to be borrowed from their Allies. However, Pershing had no lack of talent to depend on. Col. George C. Marshall helped with planning. Brig. Gen. Douglas MacArthur was a brigade commander in the 42nd (Rainbow) Division. Col. George S. Patton Jr. commanded the 304th Tank Brigade.

The American Army would improve rapidly in the crucible of combat. Under Mitchell, the Air Service would mature as rapidly—and suffer a similarly horrendous casualty rate.

On Sept. 12, the First Army began its five-day fight to reclaim the St. Mihiel salient, which had been created almost by accident in the first rush of the war. In late September 1914, the Germans had captured St. Mihiel during an attempt to envelop the fortress of Verdun. They failed in this effort, and the salient remained relatively quiet from that point on. Rising terrain made the salient easy for German forces to defend, but it was too narrow for Germany to use as a jump-off point for an offensive. French forces made a minor attempt to cut off the salient in 1915, but they were repulsed.

The salient was 25 miles wide at its base and 15 miles deep, extending from about 10 miles southeast of Verdun to the town of St. Mihiel on the Meuse River. The salient angled eastward for 40 miles to Pont-à-Mousson on the Moselle River.

In the course of four years, the

German forces had diligently fortified the whole area with the usual trenches, wire barricades, and concrete pillboxes in the front line, backed up by a second line of similar works. If the Allies broke through all this, they would then be faced with the Hindenburg Line, a heavily wired series of trenches and strongly built dugouts that the Germans had equipped elaborately.

Behind the Hindenburg Line there loomed the formidable fortress system of Metz and Thionville. The salient was defended by 8.5 divisions of ground troops, including a large Austro-Hungarian element.

Despite these fortifications, Pershing readily agreed to have the Americans try to pinch off the St. Mihiel salient as the initial step in a series of Allied offensives to end the war. He was not an airman, but Pershing believed that control of the air was necessary, and he entrusted the job to Mitchell. Mitchell was ready.

Mitchell's formal estimates indicated that Germany would oppose the American offensive with 2,000 aircraft. He insisted on gathering as many airplanes as possible under his command. (His estimate was for effect; he had intelligence reports showing that the enemy had 150 pursuit aircraft, 120 reconnaissance aircraft, and 25 "battle airplanes" [ground attack types] available.)

### To the Offensive

Mitchell ordered the Air Service to take the offensive at all points, with the object of destroying the enemy's air service, attacking his troops on the ground, and protecting its own



**The Germans flew the Fokker D.VII, the most advanced German single-seat fighter to see action in World War I. It had been produced for a fighter competition in early 1918 and went into immediate production.**

air and group forces. His planning called for simultaneous strikes from as many as 500 airplanes. The mass formations were to alternate their attacks on each side of the salient in what he called “brigade tactics,” never allowing the enemy to rest.

Mitchell eventually was given command of 1,481 aircraft, though not all were in service. It was the largest air force ever assembled for a single operation, consisting of 366 observation airplanes, 323 day bombers, 91 night bombers, and 701 pursuits. Also on hand were 15 US and six French balloon companies.

Of the total, the Americans would provide about 40 percent of the aircrews and aircraft, including at least 288 Spad XIII pursuits, 144 Salmson observation airplanes, 54 de Havilland DH-4 and 18 Breguet 14 observation airplanes, and 36 DH-4 and 18 Breguet 14 day bombers.

These were the nominal squadron strengths and were supplemented by additional staff and spare aircraft. The other 60 percent of the aircrews and aircraft belonged to French, British, and Italian units.

France provided Spad XIII and Spad XVI fighters, Salmson and Breguet observation airplanes, and Breguet/Renault bombers. Italy gave 30 Caproni Ca 450s to the bombing effort. Both France and Italy placed their units under Mitchell’s direct command. The British, while cooperative, retained command of their D.H. 4 and D.H. 9 day bombers and

Handley Page night bombers but used them against tactical targets in support of the operation.

Mitchell insisted on secrecy. The first mission of his pursuit units was to deny the enemy any reconnaissance of areas behind the lines at St. Mihiel while airfields and depots were prepared. The Americans, many on their first missions, were very successful, and he was able to move large numbers of aircraft into several newly prepared airfields without detection.

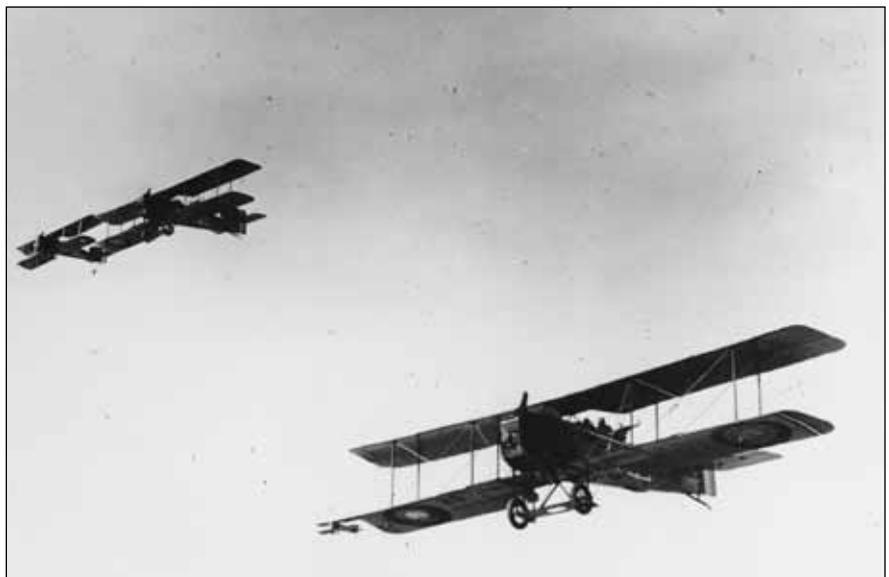
The time span from the authorization of the offensive and the kickoff

date was breathtakingly short and required immense effort on the part of both the staff and the operational units. The staff work generated in preparation for the offensive was far more sophisticated than Pershing had any right to expect, given that air warfare was itself new. Fortunately, Mitchell had some top-notch staff.

### Detailed Planning

The plans were incredibly detailed. They laid out exactly how the army observation, corps observation, bombardment, and pursuit units were to operate. These instructions included everything from orders for daily procedures to how formations would be flown to the exact format of the mission reports and the chain of command through which they would be forwarded. There were even explicit instructions on how pilots and observers were to conduct themselves in case of capture.

The plans were also quite sophisticated in many respects. An extensive radio warning network was set up to monitor and report on enemy and Allied air activity. A pursuit aircraft was kept airborne over each of the airfields at all times during the day, an early use of the combat air patrol intended to prevent any enemy reconnaissance airplane that had broken through the barrier from learning of the buildup. The logistics elements were tasked to provide a special high-grade “fighting gasoline,” colored red, for high-altitude work.



**These Breguet aircraft on patrol sport American markings, but British, French, and Italian units provided 60 percent of the crews and aircraft—most placed under Mitchell’s command—used in the operation.**

Mitchell was farsighted in his choice of operational commanders. The experienced Maj. Bert M. Atkinson was selected as wing commander, 1st Pursuit Wing. Maj. Lewis H. Brereton was appointed wing commander, Corps Observation Wing. Maj. John N. Reynolds, a veteran of the 1st Aero Squadron's activities against Pancho Villa in Mexico, became group commander of the Army Observation Group. A Canadian veteran of the Royal Flying Corps, Maj. Harold E. Hartney, became commanding officer of the 1st Pursuit Group. There were many other future luminaries at lower levels, including Eddie Rickenbacker.

Pursuit and bombardment aviation were secondary to the observation units in importance. This was true in all armies during World War I, because while aviation had not yet gained the power to be decisive in itself, aerial observation was crucial for the successful conduct of both artillery and infantry operations.

Observation and reconnaissance were the primary tasks, with artillery registration coming second to these. The front was photographed daily, with photo-interpreters checking to see where artillery was emplaced, the condition of the trenches, and other near-term events. Sorties were also flown deep behind enemy lines, photographing and observing traffic

on roads and railways, checking the activity at ammunition dumps, and establishing targets for both day and night bombardment operations.

Artillery registration—observing the effect of battery fire and calling in necessary changes—was hazardous duty, for the job took long enough for enemy pursuit aircraft to appear on the scene and attack. There was also the unseen but ever-present danger of being hit by an artillery shell in flight.

Communication to the ground was done by means of radios, lights, sound (klaxon or bursts of fire from the machine gun), and weighted message bags, the last proving to be the most reliable. Radio communication from the ground was generally more difficult, and reliance was placed on a coded series of cloth panels or signal rockets or flares and makeshift methods, such as waving a handkerchief.

### Composite Wings

The air arm's bombardment aviation was assigned the task of destroying and harassing the rear areas of the battlefield and attacking military and industrial objectives beyond the range of artillery. Given the primitive bombsights and sometimes total lack of training, it's not surprising that German records record little serious damage and few casualties.

Yet the bombers, like the observation airplanes, were attractive targets for enemy fighters. In another glimpse of the future, Mitchell called for composite wings, in which one or more pursuit groups would always be combined with one or more bombardment groups under a unified command.

Pursuit aviation was intended to secure air superiority, prevent enemy reconnaissance and bombing airplanes from operating, and support the troops with both reconnaissance and strafing.

By Sept. 11, 1918, Mitchell had in place the aircraft, people, tactics, and plans for a major battle. He accepted that many of the American units were inexperienced, and he counted on their numbers and enthusiasm to carry the day. The only aspects of the air battle that were not under his control were the weather and the enemy's reactions.

The battle began at 0500 hours on Sept. 12 after a blistering four-hour artillery barrage of German positions. The Germans were caught by surprise. Bad weather halted Mitchell's ambitious plans for an aerial offensive by flights of several hundred aircraft. Rain, high winds, and fog kept most aircraft out of action as American ground forces swept forward, doing well in the center but being held up on the flanks.

Instead, fighter and bomber aircraft flew at low altitudes (some reports indicate they never exceeded 50 meters) and strafed enemy trenches and road traffic. It was extraordinarily hazardous work, given the sheer mass of artillery, machine-gun fire, and rifle fire to which they were exposed. There was little initial German air opposition, a situation that would change when the weather broke two days later.

Headquarters relaxed all restrictions on flying in bad weather. Missions were to be launched in all but the thickest fog or heaviest downpour. The mission reports of those pilots who did get off the ground cited balloons destroyed, aircraft shot down, and roads shot up. They were signed by names that became familiar—Joseph F. Wehner, Frank Luke Jr., Sumner Sewall, Edward P. Curtis, Ralph A. O'Neill, and Charles R. D'Olive among them. The American ace of aces at the time, Lt. David E.

## Starting From Scratch

When the United States entered the Great War on April 6, 1917, the Army's Signal Corps Aviation Section had 55 aircraft, only half of which were in commission. None were worthy of combat as conducted on the Western Front.

The Aviation Section also possessed 65 officers and about 1,100 enlisted men but had no plans for fighting or even preparing for a war. The American aviation industry was virtually nonexistent. With the exception of the Curtiss Aeroplane and Motor Co., there was no major supplier of aircraft, and an industrial base from which to create one did not yet exist.

By the summer of 1918, however, the United States had established a new and growing industry, with several plants mass-producing aircraft and engines. Training facilities were thriving and the necessary industrial infrastructure was being created.

All of the fruits of this effort would not be seen by the end of the war, but by Nov. 11, 1918, thousands of aircraft had been built, thousands of pilots trained, and an operating Air Service established.

Billy Mitchell's rise to power was equally remarkable. He paid for his own flying training and, as a major, wangled his way to France as a military observer in March 1917. Endowed with a diplomat's charm and fluent in French, he ingratiated himself with his counterparts in both the French and British air forces, including the commander of the Royal Flying Corps, Maj. Gen. Hugh M. Trenchard.

Promoted to lieutenant colonel in May, and to colonel in August, Mitchell became the ranking US aviation officer in France—until the arrival of tough Brig. Gen. Benjamin D. Foulois.

The two fought bitterly and Foulois won, becoming Chief of Air Service, American Expeditionary Force. Yet Foulois had both the grace and the brains to recommend to Pershing that Mitchell be made Chief of Air Service, First Army—the top combat position.



**At the battle of St. Mihiel, Billy Mitchell (third from left in this photo taken in Germany, just after World War I) applied his principles of airpower—amass airpower assets and concentrate their use on the enemy right from the start.**

Putnam, credited with 13 victories, was shot down and killed.

On the first day of battle, the Americans flew 390 sorties and dropped 14,300 pounds of bombs. Although there were only 11 aerial combats reported, there were two unconfirmed victories. Among the American airmen, 11 pilots and four observers were listed as missing.

The weather remained bad on Sept. 13. US troops began muscling enemy forces out of the salient, and the Americans began extensive use of patrols of one or two aircraft to do armed reconnaissance. There was a moderate increase in enemy aircraft, reflected in the 12 combats out of 393 sorties. Nine pilots and six observers came up missing. Two enemy airplanes were confirmed shot down, and there were claims for five others.

### **The First Team**

On Sept. 14, as Pershing's First Army slogged forward, two things changed for Mitchell. The weather, at last, was good, and the Germans had moved in one of their best air units, the Royal Prussian Jagdgeschwader Nr. II, commanded by Oberleutnant Freiherr Oskar von Boenigk. Boenigk would score four of his 26 victories in the Battle of St. Mihiel. Jagdgeschwader II was made up of four seasoned Jagstaffeln, each commanded by veteran aces.

The units led by this formidable crew were, for the most part, flying

the Fokker D.VII, generally considered to be the best fighter airplane of World War I.

By the third day of the offensive, the American First Army had captured 15,000 enemy troops at the cost of 7,000 casualties. However, more than 250 heavy guns had been captured and 200 square miles of battered French territory had been liberated.

As the weather improved, the attacks increased in intensity. By the night of Sept. 16, the Americans had flown a total of 2,469 sorties, engaged in 145 aerial combats, and dropped 44,118 pounds of bombs. Claims for 52 victories were submitted, but most of these were unconfirmed. Twenty American aircraft were lost. The daily casualty reports from the period are misleading, in that they underestimate the number of persons killed in action and overestimate the number missing. An analysis of later reports indicates that there were at least 40 crew members killed in action and another 16 taken as prisoners of war. It was a terrible toll to pay.

The American Air Service was inexperienced and was undertaking an ambitious campaign against the veteran German air force. Most of

the units had not become operational until June of 1918, with some not achieving that status until the battle had already begun. The pursuit units were the most experienced of the forces that Mitchell had at his disposal; proportionally, they suffered the fewest losses of the battle. The real lack of experience came in the observation and bombing units. There was only one bomber unit, the 96th Bomb Squadron, in the line until Sept. 12, when it was joined by the 11th and 20th. The observation airplanes were considered by the Germans to be the most valuable and the most vulnerable, and they suffered the heaviest losses.

"Despite handicaps of weather and inexperience, the Air Service contributed all in its power to the success of this St. Mihiel operation," said the official USAF history of the engagement. "The staff was kept informed of developments practically hourly by clear and intelligible reports. The hostile air forces were beaten back whenever they could be attacked, the rear areas were watched, photographed, and bombed. Our airplanes participating in the battle, by the material damage and confusion which they caused, helped to increase the total prisoners."

There would be other battles in the months to come, and more casualties as well, but St. Mihiel had established the Air Service as a fighting command, willing to take losses to learn its job and able to take on both aerial combat and ground attack duties. For the remainder of the war, the observation airplanes and the bombers continued to take the most losses against German opposition, which began to weaken only in the latter part of October.

The Battle of St. Mihiel became a signature note for Col. Billy Mitchell in his long, and ultimately successful, crusade to create a powerful independent Air Force. It also established an Air Force tradition that whatever the odds and whatever the opposition, no mission would ever be turned back. ■

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