

# SABRE to STEALTH



— 50 YEARS of the UNITED STATES AIR FORCE 1947–1997 —

# CONTENTS

Introduction by Sheila E Widnall, Secretary of the Air Force .....	4
Introduction by General Ronald R Fogleman, United States Air Force Chief of Staff .....	5
Introduction by The Rt Hon Michael Portillo MP, The Secretary of State for Defence .....	6
Introduction by Air Chief Marshal Sir Michael Graydon GCB CBE ADC FRAeS RAF, Chief of the Air Staff .....	7
Golden Legacy .....	8
The United States Air Force 1947 – 1997 .....	13
The United States Air Force Museum .....	164
Acknowledgements .....	166
Special thanks .....	168

## GOLDEN LEGACY

While 1947 marked the beginning of a US independent Air Force, the story of Army aviation in America goes back nearly 100 years. Back in 1898 the US Army first supported the development of a man-carrying aeroplane, making a \$50,000 grant to Samuel P. Langley. In 1901 he flew a quarter-scale model successfully but his full size machine failed in two attempts to fly across the Potomac river in October and December 1903. This costly failure did not endear itself to Congress and the use of public funds was sharply criticised. This had an impact on the Army's attitude to the Wright Brother's achievement with their first sustained, controlled, powered flight, which was met with disbelief, scepticism, and disinterest. The governments of both Great Britain and France showed more interest in the Wright Brothers' accomplishments than did their own government.

It was not until the intervention of President Roosevelt that the War Department called for bids, late in December of 1907, for an aircraft that could carry two people at a speed of at least 40 mph for 125 miles. Three bids were submitted, but only the Wright aircraft was ever delivered. Meanwhile, the Army had already taken its first step toward building an Air Arm. On 1 August 1907, the Signal Corps had established an Aeronautical Division to 'take charge of all matters pertaining to military ballooning, air machines, and all kindred subjects'. Pending receipt of the first aeroplane, the Signal Corps simply expanded its balloon activity, experimenting with photography and radio reception from the air.

In the Autumn of 1908, the Wright brothers brought their machine to Fort Myer, VA, and on 3 September began a series of demonstration flights, that brought out thousands of spectators. The flights came to a tragic end with a crash on 17 September which severely injured Orville and killed his passenger, Lt Thomas Selfridge.

The brothers returned in June 1909 for the official tests, and after a month of practice flights, Orville, with Lt Frank Lahm as passenger, made the first official test flight on 27 July, establishing a world record for a two-man flight of 1hr 12min 40sec. The Army officially accepted the Wright's plane for service on 2 August.

As part of the Army contract, the Wrights agreed to train the first two Army aviators, Lts Frank Lahm and Frederic Humphreys. Both were officially announced pilots on 26 October 1909, but were immediately returned to their original duties in the Army. The only remaining aviation officer, Lt Benjamin Foulois, who had not yet soloed in the plane, was sent to winter the aircraft at Fort Sam Houston, TX. He was ordered to teach himself how to fly and experiment with possible military applications of the aeroplane. He began his efforts in February 1910. Until 1911, Foulois and his aircraft remained the sole asset of the Aviation Branch.

Despite a lack of enthusiasm amongst Army officers, and Congress as well, in March of that year, \$125,000 was finally appropriated for Army Aeronautics. Five new airplanes were purchased and a handful of other officers now joined Foulois to begin training. A flying school was built at College Park near Washington DC, and the men and aircraft were moved there from Texas. Experiments were made in night flying and firing a gun from an aircraft. Record breaking altitude and distance flights were made. In the winter of 1912, the Army established its first permanent aviation school at San Diego, CA.

At the end of February 1913, some Army fliers were ordered to report to the 2nd Division at Texas City, TX, that had been formed due to strained relations with the Mexican government. This group was organized as the 1st Aero Squadron in order to operate more effectively with the 2nd division. As hostilities did not occur, the unit was not put to the test of

combat operations, but it did spend a good deal of time in the air mastering cross-country flying.

By 1914, the US had lost the aeronautical leadership gained by the achievements of the Wright brothers. It had fallen behind particularly in the area of military aviation. The most important difficulty facing the Army aviators was the lack of a clearly defined status and function within the service. Army aviation finally received statutory recognition with the creation, on 18 July 1914, of the Aviation Section of the Signal Corps, with an authorized strength of 60 officers and 240 enlisted men. Just a few weeks later, Europe plunged into the massive military struggle that became World War I. The Central Powers, primarily Germany, the Austro-Hungarian Empire, and the Ottoman Empire, fought the Allied Powers, led by Britain, France, Italy and Russia.

However, the first involvement of US Army aviation in a combat situation was in March 1916, when the 1st Aero Squadron was sent into Mexico with General Pershing's Punitive Expedition against the bandit Pancho Villa. The experiment was a near fiasco with 75% of the aircraft out of commission within the first month.

Technical assistance for American aeronautics had come with the establishment by Congress in March 1915 of the National Advisory Committee for Aeronautics, but this came too late for the American

*Lt Benjamin D Foulois, a military balloonist, had been ordered to take the crated Wright Type A Biplane to the Army post at Ft Sam Houston, San Antonio, Texas, assemble it, and teach himself to fly. His first flight took place at 9.30am on the 2nd of March 1910. The historic flight, painted here in Gallant Beginning by Keith Ferris, was the first by a US military trained aviator in a government owned machine. This painting is held by The National Bank of Fort Sam Houston, and is reproduced here by kind permission of the artist.*

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participation in World War I. The United States had to turn to her allies for planes to equip her squadrons and for the technical knowledge to produce her own.

Despite optimistic plans and ample funding, the United States proved unable to catch up to the European nations in aviation technology. Responding to criticism of the American aircraft effort, President Woodrow Wilson created the Army Air Service and placed it directly under the War Department on 24 May 1918. By the time of the armistice in November 1918, the Air Service had grown to more than 19,000 officers and 178,000 enlisted men, while American industry had turned out 11,754 aircraft (mostly trainers like the Curtiss JN-4 Jenny). The Air Service soon lost most of these people and planes in a rapid demobilization immediately after the war.

Although failing to deploy competitive combat aircraft, the United States had sent many fine airmen to Europe. Flying mostly French-built aircraft, they distinguished themselves both in allied units and as part of the American Expeditionary Forces (AEF) led by Gen John J Pershing. By the time Germany surrendered, Brig Gen Billy Mitchell had honed many of the AEF's aero squadrons and groups into a formidable striking force. While the outcome of the Great War was decided primarily by horrible attrition on the ground, and a strangling maritime blockade of Germany, air power had shown its potential for autonomous offensive operations as well as providing valuable support to surface forces. Great Britain had recognized the importance of air power by creating the Royal Air Force, that was independent of the British Army and Royal Navy, on 1 April 1918.

The Great War had left many US air leaders with the conviction that air power would be the dominant weapon of the future. Men like Billy Mitchell had seen the potential of air power, but did not have the

weapons to prove their theories. The years 1919-1939 were hard for these early exponents of air warfare, but the time would come when technology would develop to the point where they could prove their ideas.

From the earliest days, there had been proponents of a separate Army Air Force. Many felt the time was not yet right for complete independence, but an important step was taken in the Army Reorganization Act of 1920. The Act made the Air Service a combatant arm of the Army with an authorized strength of 1515 officers and 16,000 enlisted men. The Air Service now had complete control of its own research and development, procurement and supply as well as personnel and training functions.

Billy Mitchell became an outspoken crusader against inadequacies in the Army and Navy. His continued advocacy of an independent air arm led to his eventual court martial and retirement from the Air Service in 1926. The concept did not die with Mitchell's absence, though his supporters temporarily left the spotlight.

Though sometimes overshadowed by the Mitchell campaign, the small core of Army fliers made some spectacular pioneering flights while continually pushing the limits of aeronautics. There were many altitude, speed, and endurance records set by such men as Jimmy Doolittle. The first of these highly publicised events was a 4,000 mile flight across the continent by four Curtiss JN-4 aircraft searching for possible air routes and landing fields – a necessary step toward improving aviation. The major efforts went into long distance and endurance flights. The first non-stop flight across the continent was made by Lts Oakley and Macready in May 1923. In June of the same year, the Air Service made the first successful in-flight refueling test, and two months later a new world record endurance flight remained airborne for over 37 hours. In 1924, the Air Service made the first round-the-world

flight in 175 days in four specially built Douglas aircraft.

The next important organizational change came in 1926 when the Air Service became the Air Corps, which further strengthened the concept of military aviation as an offensive, striking air arm rather than an auxiliary service.

The history of the Army's air arm in the years preceding World War 2 is basically the struggle to develop the long-range bomber. The US Air Service in France had developed a doctrine of strategic bombardment as early as 1917. Steady improvement in aircraft performance in the 1920-30s gave impetus to those proponents of long-range bombing. As many earlier planes had been designed as multi-purpose aircraft, they were not as effective as those designed specifically for bombing. With the development of the Boeing B-9 and the Martin B-10, important steps had been taken toward the concept. Pursuit planes had been much superior to existing bombers before the B-9 and B-10, and had given the opponents of heavy bombing their best argument. The 8,290 mile round trip flight in 1934, by ten B-10 bombers, to Alaska from Washington, reinforced the concept of long-range flying.

During the winter and spring of 1934, the Army had also been called upon to take over the US mail routes. Due to obsolete planes and equipment, an improper ground organization, and lack of experience, the results of the experiment were disastrous. Nine fliers were killed in three weeks. The investigation resulting from the fiasco focused attention on the inadequacies in military aviation and clinched the argument for reorganization. Thus the development of the long-range bombers coincided with the establishment of the GHQ Air Force.

After September 1939, when Hitler launched World War 2 by invading Poland, the Air Corps began a steady growth from 26,000 personnel and fewer than

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2,000 aircraft. On 20 June 1941, the Department of War created the Army Air Forces (AAF) as its aviation element and shortly thereafter made it co-equal to the Army Ground Forces. The Air Corps remained as one of the Army's combat arms, like the infantry.

The fall of France in 1940 made national defense an immediate concern overnight and the Air Corps was presented with a blank cheque. The program to best achieve the necessary goals was drafted by a handful of brilliant young officers, resulting in the AWPD/1. This document proved to be a remarkably accurate forecast of AAF strategy and requirements for a simultaneous campaign in the Pacific and Europe. The plan established the strategic bombing campaign as the major contribution of the AAF.

Expansion of the AAF accelerated after the surprise Japanese attack on Pearl Harbor in December 1941 propelled the United States into the war. Under the leadership of Gen Henry H ('Hap') Arnold, the Army Air Forces oversaw mobilization of the nation's aviation industry and deployment of the largest air armada of all time. The AAF's inventory encompassed a wide range of training, transport, pursuit, attack, reconnaissance and bomber aircraft. These included the ubiquitous C-47 Skytrain, the splendid P-51 Mustang, the rugged B-17 Flying Fortress, and the mighty B-29 Superfortress. Drawing upon American industrial strength and human resources, the AAF reached a peak of 80,000 aircraft and 2.4 million personnel, organized into major commands, numbered air forces, air division, groups and squadrons.

Although initial defeats in the Pacific after the Japanese attack on Pearl Harbour overshadowed other efforts, America's participation increased in importance. A build up of forces in England prepared the way for the eventual invasion by Allied troops on the European continent. Air Forces were expanded,

and in February 1942 Brig Gen Ira Eaker arrived in England to establish a Bomber Command headquarters. In June, Maj Gen Carl Spaatz arrived to take over command of the Eighth Air Force. US airmen concentrated on daytime precision bombing, counting on the growing firepower of the B-17, the accuracy of the Norden bombsight, and the eventual development of long-range escort fighters.

Following the invasion of North Africa and the subsequent conquest of Sicily and the Italian mainland, the Combined Bomber Offensive waged by the Eighth AF and the RAF, carried the strategic bombing campaign into the heartland of Germany. Finally, late in 1943, the problem of expanded range was solved and the P-38 Lightning, P-47 Thunderbolt and P-51 Mustang were available to escort the bombers to the enemy targets. By the time of the Normandy invasion in June 1944, the Allies were close to establishing air superiority over the skies of Germany.

Even as the US was fighting toward victory in Europe, the war in the Pacific forged ahead as well. Following the initial disasters resulting from Pearl Harbor, the AAF was finally able to take a stand and under the command of Lt Col Jimmy Doolittle, 16 B-25 Mitchell bombers were launched from the deck of the Navy carrier *Hornet* and carried out a bombing raid against Tokyo and other targets. The battles at Coral Sea and Midway following in 1942 proved to be the turning point in the Pacific war. The American effort now became one of island-hopping to control territory closer and closer to the Japanese homeland. The Fifth, Seventh, and Thirteenth Air Forces were heavily involved in the struggle for the Solomons, New Guinea, the Philippines and Okinawa. Simultaneously, a massive and difficult effort was carried on in the China-Burma-India Theater. Air Transport Command encountered tremendous odds in keeping open the

only supply route 'over the hump' to China.

The Army Air Force engaged in long-range strategic bombing of Japan as the war progressed. With range always a problem, it was only with the eventual capture of the Mariana Islands in 1944 that the raids became really effective. The B-29 finally arrived at newly built bases on Saipan, Guam and Tinian, and incendiary raids were begun. Japan continued to fight on, but the dropping of atomic weapons on Hiroshima and Nagasaki by the *Enola Gay* and *Bockscar* in August 1945 finally brought the Japanese surrender.

The AAF made efforts to study the lessons of combat even before the war was over. One of the most successful was the US Strategic Bombing Survey. This and other studies following the war confirmed the AAF in its belief in the dominance of air in future warfare. With the end of hostilities, American aviation leaders were free to apply these lessons in the culmination of their long pursuit of an independent air arm with the establishment of the United States Air Force under the National Defence Act of 1947.

Much as it did a quarter century before, the United States immediately demobilised its armed forces after World War II. Based on the AAF's wartime achievements and after much debate, the United States Air Force was created as a separate armed service by the National Security Act of 1947. Appropriately enough, President Harry Truman signed the legislation while on board the Douglas C-54 presidential aircraft *Sacred Cow*. On 18 September 1947, the USAF achieved its independence as a full partner with the Army and the Navy. Stuart Symington became the first Secretary of the Air Force, and General Carl A Spaatz its first Chief of Staff. The scene was now set for the dramatic events that followed over the next 50 years.

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