# AIR FORCE Magazine's Aerospace Chronology Up From Kitty Hawk



**PART ONE 1903-1979** 



PART TWO
1980-present





# Up From Kitty Hawk 1903-1919

Wright brothers at Kill Devil Hill, N.C., 1903.

Articles noted throughout the chronology provide additional historical information. They are hyperlinked to Air Force Magazine's online archive.



# 1903

March 23, 1903. First Wright brothers' airplane patent, based on their 1902 glider, is filed in America.

Aug. 8, 1903. The Langley gasoline engine model airplane is successfully launched from a catapult on a houseboat.

**Dec. 8, 1903.** Second and last trial of the Langley airplane, piloted by Charles M. Manly, is wrecked in launching from a houseboat on the Potomac River in Washington, D.C.

**Dec. 17, 1903.** At Kill Devil Hill near Kitty Hawk, N.C., Orville Wright flies for about 12 seconds over a distance of 120 feet, achieving the world's first manned, powered, sustained, and controlled flight in a heavier-than-air machine. The Wright brothers made four flights that day. On the last, Wilbur Wright flew for 59 seconds over a distance of 852 feet. (Three days earlier, Wilbur Wright had attempted the first powered flight, managing to cover 105 feet in 3.5 seconds, but he could not sustain or control the flight and crashed.)

**Dawn at Kill Devil** 

Jewel of the Air

# 1905

**Jan. 18, 1905.** The Wright brothers open negotiations with the US government to build an airplane for the Army, but nothing comes of this first meeting.

**Keeper File: The First Airplane Offer** 

**Feb. 5, 1905.** T.S. Baldwin takes part in a 10-mile race between his dirigible and an automobile. The dirigible and its pilot win by a three-minute margin.

**June 23, 1905.** The first flight of the Wright Flyer III is made at Huffman Prairie, outside Dayton, Ohio. The Wright brothers' first fully controllable aircraft is able to turn and bank and remain aloft for up to 30 minutes.

Oct. 5, 1905. Orville Wright flies 24.2 miles in 38 minutes, three seconds at Dayton, Ohio, establishing a world distance and duration record.

# 1906

**May 22, 1906.** After turning down two previous submissions, the US government issues the Wright brothers the first patent on their flying machine.

"The Wright Stuff," Air Force Magazine, July 1987.

**Nov. 12, 1906.** Brazilian Alberto Santos-Dumont sets the first recognized absolute speed record of 25.66 mph in the Santos-Dumont Type 14-bis at Bagatelle, France. However, this speed is slower than speeds posted by the Wright brothers in the United States.

# 1907

**Aug. 1, 1907.** The Aeronautical Division of the US Army Signal Corps, forerunner of US Air Force, is established.

The First of the Force

Keeper File: The Air Force Birth Certificate

**Oct. 26, 1907.** Henri Farman sets the recognized absolute speed record of 32.74 mph in a Voisin-Farman biplane at Issy-les-Moulineaux, France.

**Dec. 5, 1907.** Wilbur Wright appears before the Board of Ordnance and Fortification and offers the US government an airplane capable of carrying two people, for \$25,000.

**Dec. 23, 1907.** The Army's Chief Signal Officer, Brig. Gen. James Allen, issues the first specification (Signal Corps Specification No. 486) for a military airplane.

Keeper File: The Army's Specification No. 486

# 1908

**Jan. 13, 1908.** Henri Farman wins the 50,000-franc Deutsch-Archdeacon Prize for the first officially observed one-kilometer circular flight in Europe.

- **May 14, 1908.** The first passenger flight takes place in the Wright airplane at Kitty Hawk in preparation for delivery of a government airplane. Wilbur Wright pilots the machine, with Charles Furnas, an employee, as the first passenger.
- **May 19, 1908.** Signal Corps Lt. Thomas E. Selfridge becomes the first soldier to fly a heavier-than-air machine.
- **July 4, 1908.** Glenn H. Curtiss wins the Scientific American trophy with his June Bug biplane by flying for more than a mile over Hammondsport, N.Y. Speed for the trip is 39 mph.
- **Aug. 8, 1908.** At Camp d'Auvours, France, Wilbur Wright surpasses French flight records for duration, distance, and altitude.
- **Aug. 28, 1908.** The Army accepts its first dirigible. Built by Thomas Baldwin in Hammondsport, N.Y., at a cost of \$6,750, the dirigible is designed to carry a crew of two and a payload of 450 pounds (which includes 100 pounds of ballast). The airship is designated Signal Corps Dirigible No. 1.
- Sept. 3, 1908. First test flight of an Army flying machine is made at Ft. Myer, Va., by Orville Wright.
- **Sept. 17, 1908.** Lt. Thomas E. Selfridge becomes the first person killed in a powered aircraft accident when a Wright Flyer crashes at Ft. Myer, Va. Orville Wright, at the controls, suffers a broken hip.
- **Nov. 13, 1908.** Wilbur Wright, in a Wright biplane at Camp d'Auvours, France, and Henri Farman, in a Voisin at Issy, France, concurrently set a world altitude record of 82 feet.

- **April 24, 1909.** Wilbur Wright pilots a Wright biplane at Centocelle, Italy, from which the first aerial motion picture is taken.
- **June 3, 1909.** Orville Wright makes the first demonstration flight of the 1909 Military Flyer for the Army at Ft. Myer, Va.
- July 25, 1909. Louis Bleriot, of France, becomes the first person to fly across the English Channel.
- **July 27, 1909.** Orville Wright, with Army Lt. Frank P. Lahm as passenger, flies the 1909 Military Flyer from Ft. Myer, Va., for one hour, 12 minutes, and 40 seconds and covers 40 miles. This first official test flight meets the Army's endurance requirement as stated in Signal Corps Specification 486, which is the order for the first military airplane.
- **July 30, 1909**. The second test of the Army Wright airplane is completed: a 10-mile cross-country flight over a stipulated course from Ft. Myer, Va., to Alexandria, Va., and back, at a speed of 42.583 mph, for which the Wrights receive a bonus of \$5,000 (10 percent of the base price of \$25,000 for each mile per hour over 40), making the purchase price \$30,000.
- **Aug. 2, 1909.** The Army accepts its first airplane, bought from the Wright brothers for \$25,000, plus a \$5,000 bonus because the machine exceeds the speed requirement of 40 mph in its second test conducted on July 30, 1909.

The First Military Airplane

**Aug. 23, 1909.** At the world's first major air meet in Reims, France, Glenn Curtiss becomes the first American to claim the recognized absolute speed record as he flies at 43.385 mph in his Reims Racer biplane.

Aug. 25, 1909. Land for the first Signal Corps airfield is leased at College Park, Md.

### **Eighty Years at College Park**

**Oct. 23**, **1909.** Army Lt. Benjamin D. Foulois takes his first flying lesson from Wilbur Wright at College Park, Md.

### **Foulois**

**Oct. 26, 1909.** Lt. Frederick E. Humphreys becomes the first Army pilot to solo in the Wright Military Flyer, US Army Aeroplane No. 1, at College Park, Md. A few minutes later, Lt. Frank P. Lahm becomes the second.

**Nov. 3, 1909.** Lt. George C. Sweet becomes the first Navy officer to fly, as a passenger in the Wright Military Flyer. Army Lt. Frank P. Lahm was the pilot.

# 1910

**Jan. 19, 1910.** Army Signal Corps Lt. Paul Beck, flying as a passenger with Louis Paulhan in a Farman biplane, drops three two-pound sandbags in an effort to hit a target at the Los Angeles Flying Meet. This is the first bombing experiment by an Army officer.

**March 2, 1910.** Lt. Benjamin D. Foulois, a former military balloonist, makes his first solo flight in Army Aeroplane No. 1 (the Wright 1909 Military Flyer) at Ft. Sam Houston, Tex. Ordered to leave College Park, Md., for the winter, Foulois and a few ground crewmen arrived in Texas in February and reassembled the aircraft. Foulois taught himself to fly with correspondence help from the Wright brothers.

### Valor: In the Beginning

### **Foulois**

March 19, 1910. At Montgomery, Ala., Orville Wright opens the first Wright Flying School, on a site that will later become Maxwell Air Force Base.

**March 28, 1910.** Henri Fabre, an engineer who had never flown before, makes the first flight of the world's first seaplane, as he pilots his "Canard" (Duck) from La Mede Harbor near Martigues, France. The flight covers about 1,600 feet and the aircraft reaches an altitude of seven feet.

May 25, 1910. In Dayton, Ohio, Wilbur and Orville Wright fly together for the first time.

**July 10, 1910.** Walter Brookins becomes the first airplane pilot to fly at an altitude greater than one mile. He reaches 6,234 feet in a Wright biplane over Atlantic City, N.J.

**July 10, 1910.** Leon Morane pushes the recognized absolute speed record to 66.181 mph in a Bleriot monoplane at Reims, France.

- **Aug. 20, 1910.** Army Lt. Jacob Fickel fires a .30-caliber Springfield rifle at the ground while flying as a passenger in a Curtiss biplane over Sheepshead Bay Track near New York City. This is the first time a military firearm has been discharged from an airplane.
- **Sept. 2, 1910.** Blanche Scott becomes the first American woman to solo, flying a Curtiss pusher at the Curtiss company field in Hammondsport, N.Y. She is not granted a pilot's license, however.
- **Oct. 11, 1910.** Former President Theodore Roosevelt becomes the first Chief Executive to fly. He goes aloft as a passenger in a Wright biplane over St. Louis.
- **Nov. 7, 1910.** Phillip O. Parmalee, in a Wright B-10 aircraft, performs the world's first air cargo mission, flying a bolt of silk from Dayton to Columbus, Ohio, on contract for the Morehouse-Martens Co. "A Bolt From the Blue," Air Force Magazine, May 1986.
- **Nov. 14, 1910.** Eugene Ely, a civilian pilot takes off from a wooden platform built over the bow of the light cruiser, USS *Birmingham*, while it is at anchor in Hampton Roads, Va. He was flying a 50-hp Curtiss biplane and landed on Willoughby Spit.

- **Jan. 18, 1911.** Civilian Eugene Ely, flying a Curtiss pusher, makes the first landing on a ship. He touches down on a 119-foot-long wooden platform on the stern of the cruiser USS *Pennsylvania*, riding at anchor in San Francisco Bay. He then takes off and flies to Selfridge Field in San Francisco.
- **Feb. 1, 1911.** The first licensed aircraft manufacturer in the US, the Burgess and Curtis Co. (no relation to the company founded by Glenn Curtiss), of Marblehead, Mass., receives authorization from the Wright Co.
- **March 31, 1911.** Congress makes the first appropriation for Army aeronautics, \$125,000 for Fiscal Year 1912, with \$25,000 to be made available immediately. Chief Signal Officer James Allen quickly orders five new aircraft at a cost of approximately \$5,000 each.
- April 11, 1911. The Army's first permanent flying school is established at College Park, Md.
- **May 4, 1911.** After a number of crashes and reconstructions leave Signal Corps Aeroplane No. 1 (the Wright 1909 Military Flyer) unfit to fly, the War Department approves restoration to its original condition and transfer to the Smithsonian Institution for permanent display.
- **May 8, 1911.** The first Navy airplane, the amphibian A-1, is ordered from Glenn Curtiss. This date has been officially proclaimed the birthday of naval aviation.
- **May 10, 1911.** Lt. G.E.M. Kelly, flying Signal Corps Aeroplane No. 2 (a Curtiss Model D pusher) on his pilot qualification flight, is killed as he crashes into the ground on landing at Ft. Sam Houston, Tex. He was the first student pilot to lose his life in the crash of an airplane he was piloting.
- **May 12, 1911.** Edward Nieuport sets the recognized absolute speed record of 74.415 mph in a Nieuport monoplane at Chalons, France. On June 16, he will push the speed record to 80.814 mph.
- **Sept. 17–Dec. 10, 1911.** Calbraith Perry Rodgers, in the Wright EX biplane Vin Fiz, makes the first transcontinental flight, from Sheepshead Bay, N.Y., to Long Beach, Calif. He makes 76 stops and crashes 20 times.

- **Feb. 22, 1912.** Jules Vedrines pushes the recognized absolute speed record past the 100 mph barrier, as he hits 100.22 mph in a Deperdussin racer at Pau, France.
- **Feb. 23, 1912.** First official recognition of the rating "Military Aviator" appears in War Department Bulletin No. 2.
- **March 12, 1912.** Lt. Frank P. Lahm opens the Philippine Air School at Ft. William McKinley, Philippines. Nine days later, he would make the first flight in the islands, taking off in a Wright Model B from the fort's polo grounds. He would teach an officer and an enlisted man to fly before the arrival of the rainy season in July.
- May 30, 1912. Wilbur Wright dies of typhoid fever at his home in Dayton, Ohio. He was 45.
- **June 5, 1912.** Lt. Col. C.B. Winder of the Ohio National Guard becomes the first National Guard pilot. He was taught at the Army Aviation School.
- **June 7, 1912.** At College Park, Md., Capt. Charles deForest Chandler becomes the first aviator to fire a machine gun from the air. He shoots a Lewis low-recoil machine gun at the ground while flying as Lt. Thomas DeWitt Milling's passenger in the Wright Model B aircraft. The results are so promising that the aviators order 10 additional guns, but the Army Ordnance Department cannot supply them, as the Lewis gun had not yet been accepted for Army use.
- June 14, 1912. Cpl. Vernon Burge becomes the Army's first enlisted pilot.
  - "Enlisted Pilots," Air Force Magazine, December 1989 (not yet online)
- **July 5, 1912.** Army Capt. Charles deForest Chandler and Army Lt. T.D. Milling and Lt. H.H. "Hap" Arnold become the first fliers to qualify as "Military Aviators."
- **Sept. 28, 1912.** The first airplane crash that results in multiple fatalities occurs in College Park, Md., as Lt. Lewis C. Rockwell, flying Signal Corps Aeroplane No. 4 (a Wright Model B), attempts to glide in for a landing. The aircraft suddenly plunges to the ground, and Cpl. Frank B. Scott, who was riding as a passenger, is killed instantly. He also is the first enlisted man to die in a crash. Rockwell dies of his injuries three hours later.
- **Nov. 5, 1912.** First artillery adjustments directed from an airplane begin at Ft. Riley, Kan., by Army Lt. H.H. "Hap" Arnold, pilot, and Lt. Follett Bradley, observer.
- **Nov. 27, 1912.** The Army Signal Corps purchases the first of three Curtiss-F two-seat biplane flying boats.
- **Dec. 8, 1912.** The Army's first permanent flying installation is established at North Island, San Diego, Calif., following the arrival of the "Curtiss contingent," which consists of Lt. Lewis H. Brereton, Lt. Joseph D. Park, Lt. Lewis E. Goddier, Lt. Harold Geiger, and Lt. Samuel H. McLeary, from College Park, Md. After the arrival of the "Wright contingent" from Texas City, Tex., in June 1913, the facility is formally designated as the Signal Corps Aviation School.
- **Dec. 11, 1912.** A French pilot, Roland Garros, sets an altitude record of 18,406 feet in a Morane airplane at Tunis.

- **Feb. 11, 1913.** The first bill for a separate aviation corps, H.R. 28728, is introduced in Congress by Rep. James Hay of West Virginia. It fails to pass.
- **March 2, 1913.** First flight pay is authorized: 35 percent over base pay for officers detailed on aviation duty.
- **March 5, 1913.** Field Order No. 1, Hq. First Aero Squadron, in the field near Texas City, Tex., states: "The First Aero Squadron is hereby organized." The organization is provisional.
- **April 27, 1913.** Pilot Robert G. Fowler and cameraman R.A. Duhem make the first flight across the Isthmus of Panama. They are arrested by Panamanian authorities upon publication in a newspaper of the story and pictures of the flight.
- **May 10**, **1913**. Aerial bombing in America was inaugurated when Didier Masson begins a series of bombing raids for Mexican Gen. Alvarado Obregon against Mexican federal gunboats in Guaymas Bay.
- **May 13, 1913.** The first flight of the world's first four-engine airplane, The Russian Knight, affectionately called "Le Grand," takes place in Russia. The aircraft is designed by Igor I. Sikorsky.
- May 30, 1913. The Massachusetts Institute of Technology begins teaching aerodynamics.
- **June 13, 1913.** The first Navy aviator is killed as Ens. W.D. Billingsley, piloting the Curtiss B-2 seaplane at 1,600 feet over water near Annapolis, Md., is thrown from the airplane and falls to his death. Lt. John Towers, riding as a passenger, is also unseated but clings to the airplane, falling with it to the water, and receives serious injuries.
- **June 21, 1913.** Eighteen-year-old Georgia "Tiny" Broadwick becomes the first woman to make a parachute jump in the US. Her 1,000-foot leap takes place over Los Angeles.
- **July 19, 1913.** In the skies over Seattle, Wash., Milton J. Bryant begins a new form of advertising—skywriting.
- **Aug. 27, 1913.** Lt. Petr Nikolaevich Nesterov of the Imperial Russian Army performs history's first inside loop while flying a Nieuport Type IV over Kiev.
- **Nov. 30, 1913.** In late November or early December, the first known aerial combat takes place over Naco, Mexico, between Phil Rader, flying for Gen. Victoriano Huerta, and Dean Ivan Lamb, with Venustiano Carranza. Details are unknown, except that a dozen pistol shots are exchanged.

- **Jan. 1, 1914.** America's first regularly scheduled airline starts operation across Tampa Bay between St. Petersburg and Tampa, Fla., with one Benoist flying boat. It lasts three months.
- Jan. 20, 1914. The Navy's aviation unit from Annapolis, Md., arrives at Pensacola, Fla., to set up a flying school.

- **Feb. 24, 1914.** In the wake of a rash of accidents, an Army investigative board condemns all pusher-type airplanes.
- **April 25, 1914.** Navy Lt. (j.g.) P.N.L. Bellinger, flying a Curtiss AB-3 flying boat from the battleship USS *Mississippi* (BB-23), makes the first US operational air sortie against another country when he searches for sea mines during the Veracruz incident.
- **May 5, 1914.** A patent is issued for hinged inset trailing-edge ailerons.
- **July 18, 1914.** The Aviation Section of the Army Signal Corps is created by Congress. Sixty officers and students and 260 enlisted men are authorized.
- **Aug. 25, 1914.** Stephan Banic, a coal miner in Greenville, Pa., is issued a patent for a workable parachute design.
- Aug. 26, 1914. Staff Capt. Petr Nikolaevich Nesterov records the first aerial ramming in combat during World War I.
- **Dec. 1–16, 1914.** Two-way air-to-ground radio communication is demonstrated in a Burgess-Wright biplane by Army Signal Corps Lt. H.A. Dargue, pilot, and Lt. J.O. Mauborgne over Manila, Philippines.

- **Jan. 19–20, 1915.** Germany launches the first zeppelin bombing raids on England. One airship, the L.6, turns back, but two others, the L.3 and L.4, drop their bombs on Great Yarmouth and King's Lynn.
- **March 3, 1915.** Congress approves the act establishing the National Advisory Committee for Aeronautics. NACA is to "supervise and direct the scientific study of flight with a view to [its] practical solution." The committee, initially given a budget of \$5,000, will evolve into the National Aeronautics and Space Administration.
- **April 1, 1915.** French Lt. Roland Garros shoots down a German Albatros two-seater with a Hotchkiss machine gun fixed on the nose of his Morane-Saulnier Type L monoplane. The airplane's propeller is fitted with wedge-shaped steel deflector plates that protect the blades from damage as the rounds pass through the propeller arc.
- **Nov. 5, 1915.** Lt. Cmdr. Henry C. Mustin, in an AB-2 flying boat, makes the first airplane catapult launching from a vessel, USS *North Carolina*, in Pensacola Bay, Fla.
- **Dec. 11, 1915.** The first foreign students—four Portuguese Army officers—to enter a US flying training program report to the Signal Corps Aviation School at San Diego.

**March 15, 1916.** The First Aero Squadron begins operations with Gen. John J. Pershing in a punitive expedition against Mexico and Pancho Villa.

### In Pursuit of Pancho Villa

- **March 21, 1916.** The French government authorizes the formation of the Escadrille Americaine. The unit, made up of American volunteer pilots, is later renamed the Lafayette Escadrille.
- **June 18, 1916.** H. Clyde Balsey of the Lafayette Escadrille is shot down near Verdun, France, the first American-born aviator shot down in World War I.
- **Aug. 16, 1916.** While flying an ungainly Caudron G.4 bomber, French Lt. René Fonck, who later gains a reputation for using minimal ammunition, scores one of his first aerial victories without firing a shot. Attacking a Rumpler C.I, Fonck maneuvers around the German pilot, forcing him to fly lower and lower, until he must land behind French lines.
- **Sept. 2, 1916.** Airplane-to-airplane radio is demonstrated at North Island, Calif., when radiotelegraph messages are sent and receives a distance of about two miles between the airplanes of Lt. W.A. Robertson and A.D. Smith and Lt. H.A. Dargue and Capt. C.C. Culver.

- **Feb. 28, 1917.** For the first time in the US, the human voice is transmitted by radiotelephone from an airplane to the ground at San Diego.
- **April 30, 1917.** Maj. William H. "Billy" Mitchell becomes the first American Army officer to fly over the German lines.
- **May 26, 1917.** Maj. T.F. Dodd, Army Signal Corps, is appointed aviation officer on the staff of commander in chief, American Expeditionary Forces (AEF), the beginning of an overseas organization of the Aviation Section.
- **June 5, 1917.** The first US military air unit sent to Europe in World War I, the 1st Aeronautic Detachment, arrives in Pauillac, France.
- **June 26, 1917.** In a concentration of German airpower, the first Jagdgeschwader (fighter wing) is formed. With suitable transportation and tents for aircraft, the Jagdgeschwader concept is a flexible combat organization with four squadrons that is able to quickly relocate along the front as required. JG 1 is commanded by Major (Capt.) Manfred von Richthofen. Three more Jagdgeschwaders —which would be nicknamed "flying circuses"—are formed before the Armistice.
- **July 20, 1917.** The War Department designates a site near Shiloh Valley Township, Ill., to be the location of Scott Field. Named after Cpl. Frank S. Scott, it was and still is the only US Air Force base to be named for an enlisted man.
- **Aug. 13, 1917.** The First Aero Squadron sails for Europe under command of Maj. Ralph Royce, the first squadron to report for flying duty in the AEF.

- **Oct. 18, 1917.** McCook Field in Dayton, Ohio, is established. This field will be the center of military aviation research and development in the United States for the next decade.
- **Nov. 27, 1917.** Brig. Gen. Benjamin D. Foulois takes over as chief of the Air Service for the American Expeditionary Force (AEF) in Europe. He replaces Brig. Gen. William L. Kenly.
- **Nov. 30, 1917.** The Vickers Vimy heavy bomber makes its first flight at Joyce Green, England. Capable of carrying 2,000 pounds of bombs and with a range of 900 miles, the Vimy is designed to bomb Germany from England, making it the first true strategic bomber. The type did not enter service until October 1918, but the Vimy would be the Royal Air Force's front-line bomber until the late 1920s. It would serve in training roles until 1931.

- Jan. 19, 1918. The US School of Aviation Medicine begins operations at Hazelhurst Field, Mineola, N.Y.
- Jan. 23, 1918. The first ascent by an AEF balloon is made at the balloon school in Cuperly, France.
- **Feb. 5, 1918.** While flying as a substitute gunner with a French squadron, Lt. Stephen W. Thompson becomes the first American to record an aerial victory while in a US uniform. He shoots down a German Albatros D.III.
- Feb. 18, 1918. The first American fighter unit proper, the 95th Aero Squadron, arrives in France.
- **Feb. 23, 1918.** The 2nd Balloon Company moves to the front lines near Toul, France, and begins operations. It is the first of 37 American balloon companies that will see action—three at Chateau Thierry, 15 at St. Mihiel, and 19 in the Meuse Argonne area—in World War I.
- **Feb. 28, 1918.** Regulation of the airways begins with an order by President Woodrow Wilson requiring licenses for civilian pilots or owners. More than 800 licenses are issued.
- **March 11, 1918.** Lt. Paul Baer becomes the first AEF Air Service member awarded the Distinguished Service Cross.
- **March 12, 1918.** Capt. Phelps Collins of Alpena, Mich., becomes the first member of the Air Service to lose his life on a combat mission. Collins, a pilot with the 103rd Aero Squadron, was on a combat patrol near Paris, when for some unknown reason, his SPAD XIII crashed to Earth in a high speed dive from high altitude.
- **March 19, 1918.** The 94th Aero Squadron makes the first US operational flights across the front lines in France.
- **April 1, 1918.** Britain takes the historic step of creating the world's first formally recognized, independent air arm, with its own governmental ministry, and its own uniform and rank structure. The Royal Air Force is formed as an amalgamation of the Royal Flying Corps and the Royal Naval Air Service. Maj. Gen. Hugh Trenchard is named as the first RAF chief of staff.
- **April 11, 1918.** The first US patrol over enemy lines by an observation squadron in World War I is made by I Corps Observation Squadron, 1st Observation Group, equipped with SPAD biplanes.

**April 14, 1918.** Army Lt. Alan Winslow and Lt. Douglas Campbell, flying Nieuport 28s of the 94th Aero Squadron, down two German fighters in a 10-minute battle. Winslow is the first pilot in the American sector of the front to down an airplane; Campbell is the first US-trained pilot to score a victory.

### **The First Victory**

- **April 21, 1918.** Rittmeister Manfred von Richthofen, the "Red Baron," is shot down in action over France by Capt. A. Roy Brown, a Canadian. The German ace, killed in the battle, had 80 aerial victories.
- **May 7, 1918.** Flying a Nieuport 28, Army 1st Lt. Edward V. Rickenbacker, who would go on to be the leading American ace of World War I, records his first solo victory, downing a German Pfalz. Flying with the 94th Aero Squadron, he had recorded a half victory, his first, on April 29.
- May 9, 1918. French ace René Fonck records six aerial victories in one day. During the first mission, Capitaine Fonck, flying a SPAD XIII, shoots down a German reconnaissance aircraft and its two fighter escorts in three minutes. An hour and a half later, Capitaine Fonck dispatches a German two-seat observation aircraft and is then attacked by nine other enemy aircraft. He gets behind them and shoots down the trail aircraft. As the remaining aircraft try to force him to fly over German lines, he shoots down another aircraft and returns to base. He goes on to be the leading Allied ace of World War I and the leading French ace of all time with 75 confirmed victories.
- **May 15, 1918.** The Aviation Section of the Signal Corps begins regular airmail service from Washington, D.C., to New York City.
  - "The Day the Airmail Started," Air Force Magazine, December 1989 (not yet online)
- **May 20, 1918.** President Woodrow Wilson signs the Overman Act, which, mostly as a result of the monumental problems the US faced in gearing up aircraft production for World War I, transfers the Aviation Section from the Signal Corps to two agencies under the Secretary of War—the Bureau of Aircraft Production and the Division of Military Aeronautics, which constitutes the US Air Service. Maj. Gen. William L. Kenly is named as the Air Service's director of Military Aeronautics.
- **May 20, 1918.** The Division of Military Aeronautics is established, with Maj. Gen. William L. Kenly as director.
- May 24, 1918. US Army Air Service is organized.
- **May 27, 1918.** Flying a Sopwith Triplane, Ensign Robert A. Little is shot down and killed while attempting to destroy a German Gotha IV bomber over Noeux, France. Ensign Little, who flew with the Royal Navy Flying Service, had recorded 47 confirmed victories, making him the highest scoring Australian ace of all time.
- **June 12**, **1918.** The 96th Aero Squadron bombs the Dommary-Baroncourt railway yards in France in the first daylight bombing raid carried out by the AEF.
- **June 19, 1918.** Royal Air Force Capt. William "Billy" Bishop, flying an S.E.5a, records his seventy-second and final aerial victory, shooting down a German LVG two-seat observation aircraft over Neuve Egilse, France. Captain Bishop, a Canadian flying with the newly formed Royal Air Force, is the leading Canadian ace of all time.
- **July 6, 1918.** The first US observation balloon of World War I is shot down north of the village of Villers sur Marne, France. The French built balloon is manned by members of the 2nd Balloon Co. who both escape safely after the attack by a German pilot flying an Albatros.
- **July 14, 1918.** Lt. Quentin Roosevelt, the youngest son of former President Theodore Roosevelt and a pilot with the 95th Aero Squadron, is shot down behind German lines. Roosevelt's Nieuport 28 crashes at

Chamery, France, near Coulonges en Tardenois, and his body is buried by the Germans near the crash site. A cross is fashioned from wooden parts of the aircraft.

**July 26, 1918.** After shooting down a German aircraft, Maj. Edward "Mick" Mannock, the Royal Air Force's all time leading ace, is hit by ground fire that causes his fuel tank to explode. His S.E. 5a aircraft dives into the ground and he is killed. He is posthumously awarded the Victoria Cross, Britain's highest award for valor. Major Mannock is generally given credit for 73 aerial victories, although several sources put his total lower.

**Aug. 2, 1918.** The 135th Corps Observation Squadron makes its first wartime patrol in US-assembled DH-4s powered by American-made Liberty engines.

**Aug. 21, 1918.** Over Pola Harbor, Austria, five Austrian Albatros fighters and two seaplanes jump five US Navy aircraft. Three of the Americans are forced out of the fight, leaving an enlisted pilot, Charles Hammann, and Ensign George Ludlow, both flying Macchi M-5 seaplanes. Ludlow shoots down one enemy, but is forced down only five miles from the harbor. Hammann lands in the 15-foot swell and picks up Ludlow. Hammann's aircraft, which had been damaged, cartwheels on landing back at his base at Porto Corsini, Italy, but both aviators are rescued. Less than 10 months later, now-Ensign Hamman is killed, ironically in an M-5, while evaluating foreign aircraft at Hampton Roads, Va. He is posthumously awarded the Medal of Honor in 1920, the only World War I Naval officer so honored.

**Sept. 7, 1918.** The first US demonstration of troop transport by air occurs when several airplanes carry 18 enlisted men from Chanute Field, Ill., to Champaign, Ill.

**Sept. 12, 1918.** Army Lt. Frank Luke shoots down his first enemy observation balloon. By the time he is killed 17 days later, he has shot down nearly 16 balloons and airplanes. In his last mission, near Murvaux, France, he shoots down three observation balloons but comes under attack by eight German pilots and from ground batteries. Severely wounded, he makes a strafing pass on some enemy ground troops before making a forced landing. Surrounded, he defends himself with his automatic pistol until he is killed by enemy troops. He is posthumously awarded (Sept. 29, 1918) the Medal of Honor for his actions.

### Valor: A Man for his Time

**Sept. 12–16, 1918.** The largest air fleet ever committed to battle establishes the Air Service as a fighting command in the St. Mihiel offensive.

### The St. Mihiel Salient

**Sept. 24**, **1918.** Lt. (j.g.) David S. Ingalls, USN, shoots down his fifth enemy airplane to become the Navy's first ace.

**Sept. 25, 1918.** Army Capt. Edward V. Rickenbacker of the 94th Aero Squadron attacks seven enemy aircraft, shooting down two of them near Billy, France. For this, he later receives the first Medal of Honor (Sept. 25, 1918) given for air activity.

### Valor: Courage, Heroism, Valor

**Oct. 2, 1918.** The first test flight of the Kettering Aerial Torpedo is carried out at Dayton, Ohio. Nicknamed "Bug," the Aerial Torpedo is the world's first guided missile and is a precursor to modern day cruise missiles.

**Oct. 6, 1918.** Army 2nd Lt. Harold E. Goettler (pilot) and 2nd Lt. Erwin R. Bleckley (observer) are killed by ground fire while attempting to drop supplies to a battalion of the Army's 77th Division, which has been

cut off in the Argonne Forest near Binarville, France. Even though they were subjected to heavy ground fire on their first attempt, they flew at a lower altitude on the second trip to get the packages more precisely on the designated spot. The duo is posthumously awarded the Medal of Honor for their actions.

### Valor: Valley of the Shadow

**Oct. 12, 1918.** The first night air pursuit operation by American pilots is flown by members of the 185th Pursuit Squadron in France.

**Oct. 14, 1918.** After dropping a ton of bombs against the rail yards at Thielt, Belgium, seven US Marine Corps deHavilland DH-4s are attacked by a dozen German fighters. Cpl. Robert Guy Robinson, a rear gunner, downs a Fokker D.VII, but is severely wounded and his gun jams. After clearing the gun, Robinson and his pilot, 2d Lt. Ralph Talbot rejoin the fight. Robinson sustains a dozen more wounds while Talbot uses the aircraft's forward gun to down a Fokker and a Pfalz. He then dives, heads toward Allied lines at barely 50 feet, and lands near a field hospital just over the Belgian lines where doctors save Robinson's life. They are later awarded the Medal of Honor, the only Marines so honored in World War I.

**Oct. 21, 1918.** A 10-month old homing pigeon is pulled from a front line dugout at Grandpre, France, during the Meuse Argonne offensive, and important information for headquarters is stuck in a message tube attached to his leg. The bird is released and heads for headquarters at Rampont, a distance of 25 miles. A shell explodes near the pigeon and the concussion tosses him up and then down. He struggles on and arrives at Rampont approximately 25 minutes later. The bird had been wounded by a machine gun bullet, bits of shrapnel had torn into his body, and his right leg was missing. However, the message tube was still intact, hanging by the ligaments of the torn leg. The pigeon becomes a war hero and is named "John Silver," after the one legged pirate in Robert L. Stevenson's Treasure Island. He will be retired from active service in 1921, and will then be assigned to mascot duty for the 11th Signal Company at Schofield Barracks, Honolulu, Hawaii. He will die on Dec. 6, 1935.

**Oct. 30, 1918.** Flying a Spad VII, Army Capt. Edward V. Rickenbacker, "America's Ace of Aces," records his last two aerial victories, an observation balloon and a Fokker D.7, over France. Rickenbacker, who finishes the war with 26 victories (24.33 victories using later counting rules), records 12.83 confirmed victories in the month of October alone.

### Rickenbacker

**Nov. 7, 1918.** Robert H. Goddard demonstrates tube-launched solid-propellant rockets at Aberdeen Proving Ground, Md.

**Nov. 10, 1918.** The Air Service records its last two aerial victories of World War I, as Maj. Maxwell Kirby of the 94th Aero Squadron tallies the last solo (and his only) "kill," and two crews from the 104th Observation Squadron team up for the other victory.

**Nov. 11, 1918.** World War I, the "war to end all wars," comes to an end at 11 a.m. The armistice had been signed in a railcar in the forest of Compiegne, France, at 5 a.m. local by Mattias Erzberger, head of the German Catholic Centrists for the Central Powers, and by Marshall Ferdinand Foch for the Allied Powers. At that time, the US had 45 squadrons (of which 38 had been involved in combat) consisting of 767 pilots, 481 observers, and 23 aerial gunners, on the front in France. There were also 37 balloon companies.

**Dec. 4–22, 1918.** Under the command of Maj. Albert D. Smith, four JN-4s fly from San Diego to Jacksonville, Fla., to complete the Army's first transcontinental flight. Only Smith's airplane manages to make the entire trip.

**Jan. 24, 1919.** Army Air Service pilot 1st Lt. Temple M. Joyce makes 300 consecutive loops in a Morane fighter at Issoudun, France.

**April 28, 1919.** The first successful test jump with a free fall parachute is made by Leslie Irving at McCook Field, Ohio. He uses the prototype Model AA parachute as he jumps from a USD-9 (the US built version of the British deHavilland DH-9), piloted by Floyd Smith.

**May 16–27, 1919.** Navy Lt. Cmdr. Albert C. "Putty" Read and a crew of five fly from Trepassey Bay, Newfoundland, to Lisbon, Portugal, via the Azores, in the Curtiss NC-4 flying boat, spending 53 hours, 58 minutes aloft. This is the first crossing of the Atlantic Ocean by air. Two other NC-4s start the trip but do not complete it.

**June 1, 1919.** In response to a request from the San Francisco District Forester, the first organized and sustained aerial forest fire patrol is initiated from Rockwell Field, Calif., using Curtiss JN-4D and JN-6H planes.

**June 14–15, 1919.** Capt. John Alcock and Lt. Arthur Whitten Brown of the United Kingdom make the first nonstop flight across the Atlantic in 16 hours, 12 minutes.

**July 24–Nov. 9, 1919.** An Army Air Service crew makes the first flight around the periphery of the United States. Taking off from Bolling Field, D.C., in a Martin MB-1 bomber, the crew flies counterclockwise, and since time and speed were not factors, proceeds leisurely across the northern states, down the Pacific coast, eastward along the Mexican border and then arriving back at Bolling. The total distance of roughly 10,000 miles was flown in 114 hours and 45 minutes.

Sept. 1, 1919. Dive bombing is demonstrated at Aberdeen Proving Ground, Md.

Oct. 30, 1919. The reversible-pitch propeller is tested for the first time at McCook Field near Dayton, Ohio.



# Up From Kitty Hawk 1920-1929

Billy Mitchell

Articles noted throughout the chronology are hyperlinked to the online archive for *Air Force* Magazine and the *Daily Report*.



# 1920

Feb. 25, 1920. Establishment of an Air Service School is authorized at Langley Field, Va.

**Feb. 27, 1920.** Army Maj. R.W. "Shorty" Schroeder sets a world altitude record of 33,114 feet in the Packard-LePere LUSAC-11 biplane over McCook Field, Ohio.

**June 4, 1920.** The Army Reorganization Bill is approved, changing the title from Director to Chief of Air service, and endowing the Army Air Service with 1,514 officers and 16,000 enlisted men.

**June 5, 1920.** A provision in the Fiscal Year 1921 appropriations bill restricts the Army Air Service to operating from land bases.

# 1921

**Feb. 22, 1921.** American transcontinental airmail service begins. The route between San Francisco and Mineola, N.Y., is flown in 14 segments by pilots flying US-built de Havilland DH-4s. The first flight, made mostly in bad weather, takes 33 hours, 20 minutes.

**June 8, 1921.** The first flight of an Army Air Service pressurized cabin airplane occurs.

**July 13–21, 1921.** In a series of tests off the mouth of Chesapeake Bay, Army crews from the First Provisional Air Brigade at Langley Field, Va., flying Martin MB-2 bombers, sink three ships, including the captured German battleship *Ostfriesland*, demonstrating the vulnerability of naval craft to aerial attack.

**Aug. 3, 1921.** Lt. John A. Macready, flying a Curtiss JN-6 "Jenny" fitted with a 32-gallon hopper tank filled with insecticide dust, performs the world's first successful aerial crop dusting. The spray system is devised to save a grove of catalpa trees near Troy, Ohio, being devoured by Catalpa Sphinx caterpillars. Flying at 20 to 35 feet back and forth over the trees, Macready spreads the dust completely and all the caterpillars are killed within 46 hours.

**Sept. 26, 1921.** Sadi Lecointe pushes the recognized absolute speed record past 200 mph, as he hits 205.223 mph in the Nieuport-Delage Sesquiplane at Ville-sauvage, France.

**Nov. 12, 1921.** Wesley May, with a five-gallon can of gasoline strapped to his back, climbs from the wing of one aircraft to the wing of another in the first "air-to-air" refueling.

# 1922

**March 20, 1922.** USS *Langley* (CV-1), the Navy's first aircraft carrier, is commissioned in Norfolk, Va. The ship is converted from the collier USS *Jupiter*.

**June–July 1922.** Army Air Service Balloon and Airship School established at Scott Field, consolidating balloon and airship training activities previously conducted at Brooks Field, Tex., Langley Field, Va., and Ross Field, Calif.

**July 1, 1922.** Congress authorizes the conversion of the unfinished battle cruisers Lexington and Saratoga to aircraft carriers.

**Sept. 4, 1922.** AAS Lt. James H. "Jimmy" Doolittle, flying a deHavilland DH-4B, takes off from Pablo Beach, Fla., and lands at Rockwell Field, San Diego, 21 hours and 20 minutes later, marking the first flight across the US in a single day. Doolittle only makes one refueling stop (at Kelly Field, Tex.) during the 2,163-mile trip.

**Oct. 17, 1922.** The first aircraft carrier takeoff in US Navy history is made by Navy Lt. V.C. Griffin in a Vought VE-7SF from USS *Langley* (CV-1), at anchor in the York River in Virginia.

**Oct. 18, 1922.** Army Brig. Gen. William H. "Billy" Mitchell becomes the first US military pilot to hold the recognized absolute speed record, as he sets a mark of 222.97 mph in the Curtiss R-6 at Selfridge Field, Mich. This is also the first time the world speed record has been certified outside of France.

**Oct. 20, 1922.** Army Lt. Harold R. Harris becomes the first American pilot to save himself by use of a parachute, bailing out of a Loening PW-2A that had shed its wings in flight over McCook Field, Ohio.

**Dec. 18, 1922.** Col. Thurman H. Bane makes the first flight of the Army Air Service's first rotorcraft at McCook Field, Ohio. Bane reaches an altitude of six feet, covers nearly 300 feet, and hovers for one minute and 42 seconds. The 65-foot diameter X-shaped vehicle, developed by George de Bothezat, a Russian immigrant working for the Army, utilizes four six-bladed rotors for lift. Several subsequent tests were all successful, but the Army loses interest in the project.

# 1923

**May 2–3, 1923.** Army Lt. Oakley G. Kelly and Lt. John A. Macready complete the first nonstop transcontinental flight. The trip from Roosevelt Field, Long Island, N. Y., to Rockwell Field, San Diego, in the Fokker T-2 takes 26 hours, 50 minutes, and 38 seconds and covers 2,520 miles.

**Sept. 4, 1923.** First flight of the airship USS *Shenandoah* (ZR-1) is made at NAF Lakehurst, N.J. The airship will make 57 flights in two years before it is destroyed by a storm near Marietta, Ohio.

Sept. 18, 1923. The first mid-air hookup of an airplane to an airship takes place over Langley Field, Va.,

as a pilot flying a Sperry M-1 Messenger, with its top-wing mounted trapeze, hooks on to a rig suspended below the Goodyear D-3 airship and shuts the engine down. The Messenger, the smallest aircraft ever built for the Army, is intended as a "dispatch rider of the sky," relaying messages between field commanders. This test is one of several experimental tasks the aircraft would be used to accomplish.

**Sept. 28, 1923.** At Cowes, on the Isle of Wight, off England's southern coast, Navy Lt. David Rittenhouse claims the Schneider Cup for the United States for the first time. Flying a Curtiss CR-3, Rittenhouse wins the prestigious seaplane race with an average speed of 177.37 mph.

# 1924

**Feb. 5, 1924.** Army 2nd Lt. Joseph C. Morrow Jr., qualifies as the 24th and last Military Aviator under the rules set up for that rating.

**March 4, 1924.** The Army Air Service takes on a new mission: aerial icebreaking. Two Martin bombers and two DH-4s bomb the frozen Platte River at North Bend, Neb., for six hours before the ice clears.

**April 6–Sept. 28, 1924.** The Army Air Service completes the first circumnavigation of the globe. Four crews in Douglas World Cruisers begin the voyage in Seattle, but only two aircraft and crews (Chicago, with pilot Lt. Lowell Smith and Lt. Leslie Arnold aboard; and New Orleans, with pilot Lt. Erik Nelson and Lt. Jack Harding) complete the 175-day, 27,553-mile, 371-hour, 11-minute trip.

### **Around the World**

**June 23, 1924.** Army Lt. Russell L. Maughan makes the first dawn to dusk flight across the US. Taking off at first light in a Curtiss PW 8 from Mitchel Field, N.Y., Maughan races the sun across the continent and, after five refueling stops, lands in San Francisco 21 hours, 48.5 minutes later. Although he does not actually land before the sunsets, he is credited with the dawn to dusk flight because of the loss of one hour and 20 minutes at McCook Field, Ohio, as his airplane had to be repaired because an over eager mechanic accidentally twisted off a fuel line vent with a wrench that was too large.

**Oct. 12–15, 1924.** As part of World War I reparations, the German zeppelin LZ-126 is flown from Friedrichshafen, Germany, to NAF Lakehurst, N.J. The Navy will later christen the airship USS *Los Angeles* (ZR-3).

**Oct. 28, 1924.** Army Air Service airplanes break up cloud formations at 13,000 feet over Bolling Field, D.C., by "blasting" them with electrified sand.

**Dec. 13, 1924.** Army Lt. Cliff Finter attached and detached a Sperry Messenger airplane to the TC-3 airship from an altitude of 3,000 feet over Scott Field, III.

# 1925

**Jan. 24, 1925.** The Navy airship USS *Los Angeles* (ZR-3), with 25 scientists and astronomers on board, is used to make observations of a solar eclipse.

**Feb. 2, 1925.** President Calvin Coolidge signs the Kelly Act, authorizing the air transport of mail under contract. This is the first major legislative step toward the creation of a US airline industry.

July 15, 1925. The A. Hamilton Rice Expedition, the first group of explorers to use an airplane, returns to

the US. The expedition, which used a Curtiss Seagull floatplane, discovered the headwaters of the Amazon River.

**Sept. 11, 1925.** Army Lt. James H. "Jimmy" Doolittle loses a coin toss to Navy Lt. Al Williams to be first to fly the Curtiss R3C-1 racer at Garden City, N.Y. The aircraft, which could be fitted either with landing gear or floats, would go on to win both the Pulitzer Trophy and Schneider Cup races the next month. **Oct. 26, 1925.** Army Lt. James H. "Jimmy" Doolittle, flying the Curtiss R3C-2 floatplane racer, wins the Schneider Cup race in Baltimore with an average speed of 232.57 mph. This marks back-to-back wins for the United States and the only time the Army had competed in a seaplane race. (Note: The US won the Schneider Cup race in 1923, and the race was not held in 1924.) The next day, Doolittle sets a world seaplane speed record of 245.713 mph over a three-kilometer course.

**Dec. 17, 1925.** Airpower pioneer Billy Mitchell is found guilty of violating the 96th Article of War ("conduct of a nature to bring discredit on the military service") and is sentenced to a five-year suspension of rank, pay, and command. Already demoted from brigadier general, Colonel Mitchell decides instead to resign from the Army.

"Billy Mitchell: Warrior, Prophet, Martyr," Air Force Magazine, September 1985 (not yet online)

**The Spirit of Billy Mitchell** 

The Real Billy Mitchell

# 1926

**Jan. 8, 1926.** The 719,000 cubic-foot semi-rigid RS-1 airship, the largest semi-rigid in the world, makes its maiden flight from Scott Field, III.

Jan. 16, 1926. The Daniel Guggenheim Fund for the Promotion of Aeronautics is founded.

March 16, 1926. Robert H. Goddard launches the world's first liquid-fueled rocket at Auburn, Mass.

**May 20, 1926.** President Calvin Coolidge signs the Air Commerce Act, the cornerstone of the federal government's regulation of civil aviation. The act charges the Secretary of Commerce with fostering air commerce, licensing pilots, issuing and enforcing air traffic rules, certificating aircraft, establishing airways, and operating and maintaining aids to navigation.

**July 2, 1926.** US Army Air Service becomes US Army Air Corps as the Air Corps Act of 1926 goes into effect. The act sets a goal of 1,800 serviceable aircraft and 16,650 personnel by Jan. 30, 1932, but the Depression will prevent this goal from being reached.

July 2, 1926. Congress establishes the Distinguished Flying Cross (made retroactive to April 6, 1917).

**Dec. 21, 1926–May 2, 1927.** In an effort to garner publicity for the newly established Army Air Corps (and to show that the Army was more adept at long distance flight over land or water than the Navy), five Air Corps crews, led by Capt. Ira C. Eaker and Lt. Muir S. Fairchild, make a 22,000-mile goodwill tour of 25 Central and South American countries in Loening OA-1A amphibians. The flight starts at Kelly Field, Tex., and ends at Bolling Field, D.C.

**Eaker's Pan-American Mission** 

**May 20–21, 1927.** The first solo nonstop transatlantic flight is completed by Charles A. Lindbergh in the Ryan NYP Spirit of St. Louis: New York to Paris in 33 hours, 32 minutes. Lindbergh's achievements will be recognized by the award of the Distinguished Flying Cross, and by special act of Congress, the Medal of Honor.

May 25,1927. AAC Lt. James H. "Jimmy" Doolittle flies the first successful outside loop.

**June 28–29, 1927.** AAC Lt. Albert Hegenberger (navigator) and Lt. Lester Maitland (pilot) make the first flight from the US mainland to Hawaii. Flying a modified Fokker C-2 nicknamed Bird of Paradise, the duo leaves Oakland, Calif., travel 2,407 miles and arrive at Wheeler Field 25 hours and 50 minutes later. The flight is primarily a demonstration of the Army's advances in navigation (and also to show up the Navy). Hegenberger and Maitland would later be awarded the Mackay Trophy for 1927.

**Sept. 16, 1927.** In a staged publicity event, MGM Studios attempts to make the first nonstop flight across the US with an animal on board an aircraft. Noted pilot Martin Jensen was chosen to fly Leo, MGM's trademark lion, from San Diego, Calif., to New York City for a promotional tour. Man and beast never arrive, however. After a nationwide search and three days of front-page headlines, Jensen and Leo are found unhurt in the Arizona desert. A storm had forced Jensen down, and the Ryan BI monoplane (that had been fitted with a steel cage for Leo) was heavily damaged on landing.

**Oct. 12, 1927.** Wright Field in Dayton, Ohio, is formally dedicated as the Army Air Corp's new test center. The citizens of Dayton raise \$400,673 to purchase 4,000 acres of land east of the city for the new facility. McCook Field, which had been the center of military aviation research and development for the past 10 years, but which was too small and had no room for expansion, is closed.

**Nov. 4, 1927.** Using a free balloon, Capt. Hawthorne C. Gray achieves a world record altitude of 42,470 feet, but his death nullifies the record.

**Nov. 16, 1927.** The US Navy's second designated aircraft carrier—USS *Saratoga* (CV-3)—is commissioned. The ship will later be deliberately destroyed during a 1946 atomic bomb test.

# 1928

**Jan. 27, 1928.** The Navy airship USS *Los Angeles* (ZR-3) lands on the aircraft carrier USS *Saratoga* (CV-3) near Newport, R.I., and resumes its patrol after replenishment.

**Feb. 15, 1928.** President Calvin Coolidge signs a bill authorizing acceptance of a new site near San Antonio to become the Army Air Corps training center. This center is now Randolph Air Force Base.

**March 1–9, 1928.** AAC Lt. Burnie R. Dallas and Beckwith Havens make the first transcontinental flight in an amphibious airplane. Total flight time in the Loening Amphibian is 32 hours, 45 minutes.

**March 30, 1928.** Italian Maj. Mario de Bernardi pushes the recognized absolute speed record past 300 mph, as he hits 318.624 mph in the Macchi M.52R at Venice, Italy.

**April 15–21, 1928.** Britain George Hubert Wilkins and American Carl B. Eielson, a former AAC lieutenant for whom Eielson AFB, Alaska, is named, fly from Point Barrow, Alaska, across the Arctic Ocean to

Spitsbergen, Norway, in a Lockheed Vega. This first west-to-east trip over the top of the world takes only 21 hours of flying, but the duo is delayed by weather. Wilkins was knighted for the exploit.

**May 12, 1928.** Lt. Julian S. Dexter of the Army Air Corps Reserve completes a 3,000-square-mile aerial mapping assignment over the Florida Everglades. The project takes 65 hours of flying, spread over two months.

**May 30–31, 1928.** Capt. William E. Kepner and Lt. William O. Eareckson won the National Balloon Elimination Race and the accompanying Paul W. Litchfield Trophy.

**June 9, 1928.** For the third consecutive year, Lt. Earle E. Partridge wins the distinguished gunnery badge at the Army Air Corps Machine Gunning Matches at Langley Field, Va.

**June 15, 1928.** Lt. Karl S. Axtater and Lt. Edward H. White, flying in an Army Air Corps blimp directly over an Illinois Central train, dip down and hand a mailbag to the postal clerk on the train, thus completing the first aircraft-to-train transfer.

**June 30, 1928.** Capt. William E. Kepner and Lt. William O. Eareckson took first place at the James Gordon Bennett International balloon Race, bringing the Army Air Corps international recognition for its lighter-than-air activities.

Aug. 1, 1928. Airmail rates rise to five cents for the first ounce and 10 cents for each additional ounce.

**Sept. 22**, **1928.** The number of people whose lives have been saved by parachutes exceeds 100 when Lt. Roger V. Williams bails out over San Diego.

**Oct. 11–15, 1928.** The German Graf Zeppelin (LZ-127) makes the first transoceanic voyage by an airship carrying paying passengers. Graf Zeppelin travels from Friedrichshafen, Germany, to NAF Lakehurst, N.J., in nearly 112 hours, with 20 passengers and a crew of 37.

**Nov. 11, 1928.** In a Lockheed Vega, Sir George Hubert Wilkins, who was knighted for his previous feat on April 15–21, 1928, and Carl B. Eielson make the first flight over Antarctica.

# 1929

**Jan. 1–7, 1929.** Question Mark, a Fokker C-2 commanded by AAC Maj. Carl A. "Tooey" Spaatz, sets an endurance record for a refueled aircraft of 150 hours, 40 minutes, 14 seconds. The crew includes AAC Capt. Ira C. Eaker, Lt. Elwood R. Quesada, Lt. Harry Halverson, and Sgt. Roy Hooe.

### **Question Mark**

**Jan. 23–27, 1929.** The aircraft carriers USS *Lexington* (CV-2) and USS *Saratoga* (CV-3) participate in fleet exercises attached to opposing forces.

**Feb. 10–11, 1929.** Evelyn Trout sets a women's solo flight endurance record of 17 hours, 21 minutes, 37 seconds in the monoplane Golden Eagle.

**April 24, 1929.** Elinor Smith, 17 years old, sets a women's solo endurance record of 26 hours, 21 minutes, 32 seconds in a Bellanca CH monoplane at Roosevelt Field, Long Island, N.Y.

May 16, 1929. At the first Academy Award ceremonies in Los Angeles, Calif., the Paramount movie

"Wings" wins the Oscar for Best Picture for 1927–28. The World War I flying epic stars Richard Arlen, Buddy Rogers, and Clara Bow. A young Gary Cooper has a minor role.

**Sept. 24, 1929.** AAC Lt. James H. "Jimmy" Doolittle makes the first blind, all-instrument flight at Mitchel Field, N.Y., in a completely covered cockpit (accompanied by check pilot). He takes off, flies a short distance, and lands.

"Flying Blind," Air Force Magazine, September 1989 (not yet online)

**Sept. 30**, **1929.** At Frankfurt, Germany, Fritz von Opel travels just over a mile in the world's first flight of a rocket-powered airplane. The Rak-1 tops 85 mph but crashes.

**Nov. 23, 1929.** After visiting Robert H. Goddard, Charles A. Lindbergh arranges a grant of \$50,000 from the Daniel Guggenheim Fund for the Promotion of Aeronautics to support Goddard's work with rockets.

**Nov. 29, 1929.** Navy Cmdr. Richard E. Byrd, Bernt Balchen, Army Capt. Ashley McKinley, and Harold June make the first flight over the South Pole. Balchen is the pilot of the Ford Trimotor, Floyd Bennett.

Dec. 31, 1929. The Daniel Guggenheim Fund for the Promotion of Aeronautics ends its activities.



# Up From Kitty Hawk 1930-1939

Hap Arnold, 1934

Articles noted throughout the chronology are hyperlinked to the online archive for *Air Force* Magazine and the *Daily Report*.



# 1930

**Jan. 8–29, 1930.** Maj. Ralph Royce leads a mass flight of AAC pilots flying Curtiss P-1C Hawks from Selfridge Field, Mich., to Spokane, Wash., and back during severe winter weather to gain experience for flying in the Arctic. Royce is awarded the 1930 Mackay Trophy for the flight.

**April 12, 1930.** Led by Capt. Hugh Elmendorf, 19 pilots of the 95th Pursuit Squadron set an unofficial world record for altitude formation flying over Mather Field, Calif. The P-12 pilots reach 30,000 feet, shattering the old record of 17,000 feet.

**May 3, 1930.** Laura Ingalls performs 344 consecutive loops. Shortly afterward, she tries again and does 980. In another flight during 1930, she does 714 barrel rolls, setting a pair of records that few people have cared to challenge.

**May 15, 1930.** Ellen Church, a registered nurse, becomes the world's first airline stewardess as she serves sandwiches on a Boeing Air Transport flight between San Francisco and Cheyenne, Wyo. She sits in the jumpseat of the Boeing Model 80A.

June 20, 1930. Randolph Field, Tex., the "West Point of the Air," is dedicated.

Oct. 25, 1930. Transcontinental commercial air service between New York and Los Angeles begins.

# 1931

**March 10, 1931.** Army Air Corps Capt. Ira C. Eaker attempts to set the transcontinental speed record in the Lockheed Y1C-17, a special version of the civilian Vega. Taking off from Long Beach, Calif., Eaker gets as far as Tolu, Ky., before he has to make a forced landing in a field because of air in the fuel lines. Eaker had traveled 1,740 miles at an average speed of 237 mph, which, if he had been able to complete the flight, would have shattered the existing coast-to-coast speed mark.

May 9, 1931. The A-2 leather flight jacket is approved for production.

### The Jacket That Lives Forever

**July 31, 1931.** Air Corps Tactical School begins moving from Langley Field in Virginia to Maxwell Field in Alabama to take advantage of more propitious climate and facilities for expansion.

**Sept. 4, 1931.** AAC Lt. James H. "Jimmy" Doolittle wins the first Bendix Trophy transcontinental race, flying the Laird Super Solution from Los Angeles to Cleveland with an average speed of 223.058 mph. Total flying time is nine hours, 10 minutes. He then flies on to New York to complete a full flight across the continent.

**Sept. 26, 1931.** The keel of USS *Ranger* (CV-4), the first aircraft carrier designed and built as such, is laid down at Newport News Shipbuilding and Drydock, in Newport News, Va.

**Sept. 29, 1931.** Flying in the same aircraft that won the last Schneider Cup seaplane race, Royal Air Force Flt. Lt. George Stainforth pushes the recognized absolute speed record past 400 mph as he hits 407.001 mph in the Supermarine S.6b at Lee-on-Solent, England.

**Oct. 3–5, 1931.** Americans Clyde "Upside Down" Pangborn and Hugh Herndon Jr. make the first nonstop transpacific flight from Japan to America, in a Bellanca monoplane. The trip takes 41 hours, 13 minutes.

Dec. 22, 1931. Maj. Gen. Benjamin D. Foulois takes the oath as Chief of Air Corps.

**Dec. 29, 1931.** The Grumman XFF-1 prototype makes its first flight at Curtiss Field, Valley Stream, NY. The FF-1, later known as "FiFi" from its designation, is the US Navy's first aircraft with an air-cooled radial engine, enclosed cockpits, and fully retractable landing gear. It is Grumman's first aircraft project.

# 1932

**March 20, 1932.** Company pilot Les Tower makes the first flight of the Boeing XP-936 (later redesignated XP-26) at Boeing Field in Seattle, Wash. The P 26, nicknamed "Peashooter," is the first monoplane fighter produced for the Army Air Corps, the first all metal fighter, and the last AAC fighter with an open cockpit.

**Aug. 25, 1932.** Amelia Earhart becomes the first woman to complete a nonstop transcontinental flight, Los Angeles to New York City.

Nov. 19, 1932. National monument to Wilbur and Orville Wright is dedicated at Kitty Hawk, N.C.

# 1933

**April 4, 1933.** The Navy dirigible USS *Akron* (ZRS-4) hits the sea during a training flight off the East Coast and breaks up. Of a crew of nearly 80, only three survive. Among the casualties is Rear Adm. William A. Moffett, head of the Navy's Bureau of Aeronautics.

April 24, 1933. The Grumman XJF-1 amphibian prototype flies for the first time at Farmingdale, Long

Island, N.Y. Later officially nicknamed Duck, the JF/J2F series served a number of roles with the Navy, Marines, and Coast Guard during World War II. A number of J2F-6s were transferred to the US Air Force and redesignated OA-12 after the war for air-sea rescue duties.

**July 15–22, 1933.** Famed aviator Wiley Post, flying the Lockheed Vega Winnie Mae, becomes the first person to fly around the world solo. The 15,596-mile flight takes seven days, 18 hours, 49 minutes, 30 seconds at an average speed of 134.5 mph.

**Sept. 4, 1933.** Jimmy Wedell sets a world landplane speed record of 304.98 mph in the Wedell-Williams racer over Glenview, III.

**Dec. 31, 1933.** The prototype Soviet Polikarpov I-16 Mosca is flown for the first time. When the type enters service in 1934, it is the first monoplane fighter to have fully retractable landing gear.

# 1934

**Feb. 19, 1934.** President Franklin D. Roosevelt issues an Executive Order canceling existing airmail contracts because of fraud and collusion. The Army Air Corps is designated to take over airmail operations.

### Valor: AACMO—Fiasco or Victory?

**May 1, 1934.** Navy Lt. Frank Akers makes a blind landing in a Berliner-Joyce OJ-2 at College Park, Md., in a demonstration of a system intended for aircraft carrier use. In subsequent flights, he makes takeoffs and landings between NAS Anacostia, D.C., and College Park under a hood without assistance.

**May 19, 1934.** The first flight of the Ant-20 Maxim Gorki, at this time the world's largest aircraft, is made in the Soviet Union. The aircraft was designed by Andrei Tupolev.

**June 1, 1934.** Army Air Corps airmail operations are terminated.

June 4, 1934. The Navy's USS Ranger aircraft carrier is commissioned at Norfolk, Va.

**June 7, 1934.** The Cincinnati Reds become the first major league baseball team to fly commercially, as all but six members of the team fly to (and later from) Chicago for a three-game series with the Cubs. The other six players are hesitant to fly and take the train.

**June 18, 1934.** Boeing begins company-funded design work on the Model 299 aircraft, which will become the B-17 bomber.

**July 18, 1934.** AAC Lt. Col. Henry H. "Hap" Arnold leads a flight of 10 Martin B-10 bombers on a six-day photographic mapping mission to Alaska.

**July 19, 1934.** Under the command of Lt. Col. H.H. "Hap" Arnold, 10 crews flying Martin B-10s leave Bolling Field, D.C., to prove the feasibility of sending an aerial force to Alaska in an emergency and to provide training for personnel flying across isolated and uninhabited areas. The crews arrive in Fairbanks on July 24. Over the next few weeks, numerous exploratory flights are made, including mapping 23,000 square miles in only three days. The crews leave Fairbanks on Aug. 16 and return to Bolling Field on Aug. 20. Arnold would later be awarded the 1934 Mackay Trophy for leading the flight.

**Dec. 31, 1934.** Helen Richey, flying a Ford Trimotor from Washington, D.C., to Detroit, becomes the first woman in the US to pilot an airmail transport aircraft on a regular schedule.

**Feb. 12, 1935.** The Navy airship USS *Macon* (ZRS-5) crashes off the California coast with two fatalities out of a crew of 83. This loss effectively ends the Navy's rigid airship program.

**March 1, 1935.** General Headquarters (GHQ) Air Force is created at Langley Field, Va. It is a compromise for those seeking a completely independent Air Force and the War Department's General Staff, which wants to retain control of what is thought of as an auxiliary to the ground forces.

### The Influence of Frank Andrews

**March 9, 1935.** Reichsmarschall Hermann Goering announces the existence of the Luftwaffe in an interview with London Daily Mail correspondent Ward Price. This statement implies a gross violation of the Versailles Treaty, which prohibits Germany from having an air force.

**March 21, 1935.** Company pilot Bill Wheatley, with chief engineer I.M. "Mac" Laddon as a passenger, makes the first flight of the Consolidated XP3Y-1, the forerunner to the Catalina patrol bomber/rescue aircraft, at NAS Anacostia, D.C. The "P-Boat" would be produced for more than 10 years and would become the most numerous, (3,200+ including more than 300 for the Army Air Forces) and quite possibly, the most famous flying boat ever.

**April 1, 1935.** Contract test pilot Eddie Allen, on Ioan from Boeing, makes the first flight of the North American NA-16, the prototype of the AT-6 Texan and BC-1 trainer, at Dandalk, Md. Nearly every Army Air Forces pilot, a majority of British, Canadian, Australian, and New Zealand pilots, and thousands of US Navy aviators in World War II would train in the AT-6.

**July 28, 1935.** Company test pilot Les Tower and crew make the first flight of the Boeing Model 299, the prototype of the B-17 bomber, at Seattle. The airplane was given the nickname "Flying Fortress" by the newspapers, and the name was trademarked by Boeing prior to the type's first flight. The B-17 was the first truly modern bomber.

### **The Fabulous Fortress**

**Aug. 15, 1935.** Famed Pilot Wiley Post and humorist Will Rogers are killed in a crash of the hybrid Lockheed Orion-Explorer shortly after takeoff near Point Barrow, Alaska.

**Aug. 20, 1935.** The Boeing Model 299, the prototype of the B-17 Flying Fortress, is flown to Wright Field, Ohio, for its official tests, flying 2,100 miles nonstop in nine hours. The Model 299 would crash on Oct. 30 when a gust lock is inadvertently left on the elevators and airplane goes out of control on takeoff.

### When the Fortress Went Down

**September 1935.** The Messerschmitt Bf-109a fighter prototype makes its first flight at Augsburg, Germany. More than 32,000 Bf-109s will be built (including post-war versions in Spain and Czechoslovakia) in a multitude of versions, making it the second most produced aircraft of all time. (Most produced: Ilyushin II-2; see entry for Dec. 30, 1939.)

**Sept. 15**, **1935.** Alexander P. deSeversky sets a recognized class for record speed over a three-kilometer course (piston-engine amphibians) of 230.41 mph in a Seversky N3PB at Detroit.

**Sept. 17, 1935.** The TC-14 airship makes its maiden flight from Scott Field, Ill. Assembled at Scott Field, the TC-14 was then the largest non-rigid airship in the world and the largest ever constructed in the US.

- **Nov. 6, 1935.** The Hawker F.36/34, the prototype of the Hurricane, makes its first flight. It is the first Royal Air Force monoplane fighter and the first to exceed 300 mph. During the Battle of Britain in 1940, Hurricane pilots would carry the brunt of the fighting.
- **Nov. 11, 1935.** In a joint National Geographic–Army Air Corps stratosphere project, Capt. Albert W. Stevens and Capt. Orvil A. Anderson soar to 72,395 feet enclosed in the gondola the Explorer II, surpassing all previous altitude records.
- **Nov. 22, 1935.** First trans—Pacific airmail flight, in China Clipper, by AAC Capt. Edwin C. Musick, takes place from San Francisco to Honolulu, Midway Island, Wake Island, Guam, and Manila.
- **Dec. 17, 1935.** Company pilot Carl Cover, along with Fred Stineman (copilot), and Frank Collbohm (flight engineer) make the first flight of the Douglas Sleeper Transport, the first of 10,654 DC-3s and derivatives Douglas will build between 1935 and 1947 takes place at Clover Field, Santa Monica, Calif. The US military will use the military version, the C-47, in three wars. A number of civilian and foreign "Gooney Birds" were still in use in the late 1990s.

The Grand Old Gooney Bird

- **Feb. 19, 1936.** Airpower advocate Billy Mitchell dies in New York City at the age of 57. He is buried in Milwaukee, Wis.
- **March 5, 1936.** Vicker's chief test pilot "Mutt" Summers makes the first flight of the Supermarine Type 300 from Eastleigh Airport in Hampshire, England. The brainchild of designer R.J. Mitchell, this prototype is the first of 18,298 Merlin-powered Spitfires of all marks to be built by 1945.
- **June 15, 1936.** The Vickers Wellington medium bomber prototype makes its first flight at Brooklands, England. With its unique geodetic structure and cloth covering, the Wellington (or "Wimpy" as crews came to call it) was fairly lightweight for a bomber but was quite strong. It later serves in several other roles, including aerial detonation of sea mines. More than 11,400 aircraft will be built, forming the backbone of the Royal Air Force's Bomber Command for the first two years of World War II.
- **Sept. 4, 1936.** Louise Thaden and Blanche Noyes become the first women to win the Bendix Trophy transcontinental race from New York to Los Angeles in a Beech Model 17 Staggerwing with an average speed of 165.346 mph. Total flying time is 14 hours, 55 minutes.
- **Dec. 21, 1936.** The prototype of the Junkers Ju-88 V1 medium bomber makes its first flight at Dessau, Germany. In production at the beginning of World War II, the aircraft, which was modified for a wide variety of uses ranging from reconnaissance to night fighter to serving as an unmanned cruise missile, was still in production in 1945.

- **Jan. 15, 1937.** Company pilot James N. Peyton makes the first flight of the Beech Model 18A, the progenitor of the AT-7 Navigator navigation trainer, the AT-11 Kansas bombardier trainer, the C-45 Expeditor utility transport that would be in service until 1963, and F-2, the Army Air Forces' first specialized mapping and photo reconnaissance aircraft.
- **April 12, 1937.** Frank Whittle bench-tests the first practical jet engine in laboratories at Cambridge University in England.
- **May 6, 1937.** The German dirigible Hindenburg (LZ-129) burns while mooring at Lakehurst, N.J., killing 36 people.
- **May 21, 1937.** Amelia Earhart and Fred Noonan leave from San Francisco in a Lockheed Electra on a round-the-world flight that ends on July 2, 1937, when they disappear in the Pacific.
- **June 30, 1937.** Maj. Gen. Oscar Westover, the Chief of the Army Air Corps, is forced to terminate the AAC's lighter-than-air balloon program because Congress did not provide sufficient funding. Three weeks later, the Navy agrees to accept the transfer of the Air Corps' lighter-than-air assets.
- **July 20, 1937.** First shoulder sleeve insignia authorized for an independent American air unit—for GHQ Air Force.
- **Aug. 23, 1937.** The first completely automatic landing of an aircraft occurs at Dayton, Ohio. A Fokker C-14B parasol wing transport flown by Capt. George V. Holloman takes off from Wright Field, and after its automatic equipment is switched on, it turns toward Patterson Field, gradually descends, and then lands without any assistance from the human pilot or from the ground using a ground radio system that consists of five transmitting beacons. Capt. Carl J. Crane, the system's inventor, and Holloman are later awarded the Mackay Trophy.
- **Sept. 1, 1937.** Army Air Corps 1st Lt. Benjamin Kelsey makes the first flight of the Bell XFM-1 Airacuda multiplace fighter at Buffalo, N.Y. Both the airplane and the concept prove to be dismal failures. The Airacuda turns out to be a maintenance nightmare, and the multiplace fighter concept is just not practical.
- **Sept. 2, 1937.** The Grumman XF4F-2 monoplane fighter makes its first flight at Bethpage, Long Island, NY. Officially nicknamed Wildcat in 1941, the F4F series would become the US Navy's most important fighter in the first half of World War II.
- **Oct. 15, 1937.** The Boeing XB-15 makes its first flight at Boeing Field in Seattle, under the control of test pilot Eddie Allen.

- **Feb. 17, 1938.** Six Boeing B-17 Flying Fortresses, under the command of AAC Lt. Col. Robert Olds, leave Miami, Fla., on a goodwill flight to Buenos Aires, Argentina. The return trip to Langley Field, Va., is the longest nonstop flight in Army Air Corps history.
- **April 6, 1938.** Company pilot James Taylor makes the first flight of the Bell XP-39 Airacobra at Wright Field, Ohio. Nearly 4,800 Lend-Lease P-39s will be used to particularly good effect by Soviet pilots to destroy German tanks.

- **April 22, 1938.** World War I ace Edward V. Rickenbacker buys a majority stake in Eastern Air Lines from North American Aviation for \$3.5 million. That sum would roughly cover the cost of a single engine for a Boeing 757 today.
- **May 15, 1938.** US Secretary of the Interior Harold L. Ickes refuses to allow inert helium to be exported to Germany for use in zeppelins. Ickes feels that the gas might be diverted to military purposes.
- **July 10–14, 1938.** Howard Hughes, Harry H.P. Conner, Army Lt. Thomas Thurlow, Richard Stoddard, and Ed Lund set a round-the-world flight record of three days, 19 hours, eight minutes, 10 seconds in a Lockheed Model 14 Super Electra passenger aircraft. The crew travels 14,791 miles.
- **July 17–18, 1938.** Ostensibly aiming for California, Douglas "Wrong-Way" Corrigan, flying a Curtiss Robin, lands in Dublin, Ireland, after a nonstop 28-hour flight from Floyd Bennett Field in Brooklyn, N.Y.
- **Aug. 22, 1938.** The Civil Aeronautics Act goes into effect. The Civil Aeronautics Authority will now coordinate all nonmilitary aviation. (The Federal Aviation Act, which created the Federal Aviation Administration, will be passed Aug. 15, 1958.)
- **Sept. 29, 1938.** Brig. Gen. Henry H. "Hap" Arnold is named Chief of Army Air Corps, succeeding Maj. Gen. Oscar Westover, who was killed in an airplane crash Sept. 21.
- **Oct. 14, 1938.** Company test pilot Edward Elliott makes the first flight of the Curtiss XP-40 at Buffalo, N.Y. Almost 14,000 P-40s will be built before production ends in 1944.
- **Oct. 26, 1938.** Company test pilot Johnny Cable makes the first flight of the Douglas Model 7B, the prototype of what would become the A-20 Havoc, at El Segundo, Calif. The A-20 would eventually become the Army Air Force's most produced attack aircraft and would be used in every theater of World War II.
- **Dec. 12, 1938.** At the Nakajima factory near Ota, the Ki-43 Hayabusa (Peregrine Falcon) fighter rolls out. It flies for the first time a few weeks later. Given the Allied code name 'Oscar,' the Ki-43 was the Japanese Army's workhorse fighter, serving on all fronts until near the end of World War II. Late in the war, many Ki-46s were modified as kamikaze aircraft.
- **Dec. 31, 1938.** The Boeing Model 307 Stratoliner, the first passenger airplane to have a pressurized cabin, makes its first flight.

- **Jan. 12, 1939.** President Franklin D. Roosevelt delivers a special message to Congress calling for strengthening the Army Air Corps. Congress then authorizes \$300 million for 5,500 new airplanes.
- **Jan. 27, 1939.** AAC 1st Lt. Benjamin Kelsey makes the first flight of the Lockheed XP-38 at March Field, Calif.
- **Feb. 4, 1939.** The experimental Boeing XB-15 bomber is flown from Langley Field, Va., on an Air Corps mercy flight to Chile. Loaded with medical supplies for earthquake victims, the crew lands at Santiago only 50 hours after leaving Langley, including two refueling stops in Panama and Peru.

- **Feb. 10, 1939.** Company test pilot Paul Balfour makes the first flight of the North American NA-40, the prototype of the B-25 Mitchell medium bomber, at Inglewood, Calif.
- **Feb. 11, 1939.** AAC Lt. Ben Kelsey attempts to break the transcontinental speed record in the Lockheed XP-38 Lightning prototype, even though it has less than five hours of flight time. Flying from March Field, Calif., he records ground speeds of 420 mph and takes only seven hours to reach New York, but crashes on approach to Mitchel Field. The flight, however, convinces the Army Air Corps to order the type into production.
- **March 5, 1939.** Using a hook trailing from their Stinson Reliant, Norman Rintoul, and Victor Yesulantes demonstrate a nonstop airmail system by picking a mail sack off a pole in Coatesville, Pa.
- **March 30**, **1939**. Flugkapitan Hans Dieterle sets a world speed record of 463.82 mph in the Heinkel He-100V-8. The flight is made at Oranienburg, Germany.
- **April 1, 1939.** The prototype for the Mitsubishi A6M1 Reisen, or "Zero Fighter" (Allied code name "Zeke") makes its first flight at Kagamigahara, Japan. The Zero would serve with distinction from Pearl Harbor until the end of the war and is probably Japan's most famous World War II aircraft. Almost 10,500 were built
- **April 3, 1939.** President Roosevelt signs the National Defense Act of 1940, which authorizes a \$300 million budget and 6,000 airplanes for the Army Air Corps and increases personnel to 3,203 officers and 45,000 enlisted troops.
- **April 26, 1939.** Flugkapitan Fritz Wendel sets the last recognized absolute speed record before World War II as he pilots the Messerschmitt Bf-209V-1 to a speed of 469.224 mph at Augsburg, Germany.
- May 20, 1939. Regularly scheduled trans-Atlantic passenger and airmail service begins.
- **June 20, 1939.** The German Heinkel He-176, the first aircraft to have a throttle-controlled liquid-fuel rocket engine, makes its first flight at Peenemunde with Flugkapitan Erich Warsitz at the controls.
- **Aug. 27, 1939.** The first jet-powered aircraft, the Heinkel He-178, makes its first flight. Flugkapitan Erich Warsitz is the pilot.

### **The Jet Generations**

**Sept. 1, 1939.** At 4:34 a.m., German Lt. Bruno Dilley leads three Junkers Ju-87 Stuka dive bombers in an attack against the Dirschau Bridge. The German invasion of Poland, the first act of World War II, begins six minutes later.

### **The Stuka Story**

- **Sept. 2, 1939.** "Nothing Will Stop the Air Corps Now," the new official Army Air Corps song, is performed in public for the first time at the annual Cleveland Air Races. The song's author, Robert Crawford, does the singing. In 1938, Liberty Magazine had sponsored a contest for a spirited, enduring musical composition to become the service's official song. A committee of Army Air Corps wives selected Crawford's composition from the 757 submitted. (On July 30, 1971, the first page of the score that Crawford submitted for the contest was carried to the moon by the Apollo 15 crew.)
- **Oct. 8, 1939.** A Lockheed Hudson crew from the Royal Air Force's No. 224 Squadron shoots down a German Do-18 flying boat. This is the first victory recorded by an American-built aircraft in World War II.
- **Oct. 13**, **1939**. Evelyn Pinchert Kilgore becomes the first woman to be issued a Civil Aeronautics Authority instructor's certificate.

**Dec. 29, 1939.** The prototype Consolidated XB-24 Liberator makes a 17-minute first flight from Lindbergh Field in San Diego, with company pilot Bill Wheatley at the controls. More than 18,100 B-24s will be built in the next 5.5 years, making for the largest military production run in US history.

**Dec. 30, 1939.** The Ilyushin Bsh-2, the prototype of the Il-2 Shturmovik ("armed attacker"), makes its first flight. A durable, highly armed ground attack/tank-buster aircraft that could absorb considerable punishment, the Soviet Union would produce nearly 1,200 copies of the Il-2 a month during most of World War II. Total production will top 36,000 aircraft, making it the most produced aircraft of all time. Soviet dictator Josef Stalin said the Il-2 was "as essential to the Soviet Army as air and bread."



# Up From Kitty Hawk

Doolittle Raiders, 1942

Articles noted throughout the chronology are hyperlinked to the online archive for *Air Force* Magazine and the *Daily Report*.



## 1940

**Feb. 21, 1940.** Henry A.H. Boot and John T. Randall, working at the University of Birmingham, England, create the first practical magnetron. The magnetron, a resonant-cavity microwave generator, is vital in the development of airborne radar.

**March 26, 1940.** Boeing company pilot Eddie Allen, on loan to Curtiss Wright, makes the first flight of the CW-20T company demonstrator at St. Louis. The CW-20 is the prototype for the C-46 Commando transport, the largest and heaviest twin engine aircraft to see service with the Army Air Forces. It also will see action in the Korean War and the early stages of the Vietnam conflict.

May 16, 1940. President Roosevelt calls for 50,000 military airplanes a year.

**July 10, 1940.** The Luftwaffe attacks British shipping in the English Channel docks in South Wales. These actions are the first in what will become the Battle of Britain.

**Aug. 13–Oct. 5, 1940.** Against overwhelming odds, Royal Air Force pilots fend off the Luftwaffe during the Battle of Britain and ward off German invasion of the British Isles. The Luftwaffe loses 1,733 aircraft and crews.

### **Their Finest Hour**

**Sept. 17, 1940.** Adolf Hitler announces that Operation Sea Lion, the German invasion of Great Britain, "has been postponed indefinitely." This effectively marks the end of the Battle of Britain, although fighting would continue.

**Oct. 8, 1940.** The Royal Air Force announces formation of the first Eagle Squadron, a Fighter Command unit to consist of volunteer pilots from the US.

**Oct. 26, 1940.** Company pilot Vance Breese makes the first flight of the North American NA-73, the prototype for the P-51 Mustang, at Inglewood, Calif. During World War II, P-51 pilots would record more than half of the air-to-air victories in Europe, and the aircraft would serve as long-range bomber escort in the Pacific.

- **Nov. 25, 1940.** Company test pilot William K. "Ken" Ebel makes the first flight of the Martin B-26 Marauder medium bomber (there was no prototype) at the company's Middle River, Md., plant. Although development difficulties would plague the aircraft, the B-26 would go to have distinguished career in World War II.
- **Nov. 25, 1940.** The prototype for the deHavilland D.H. 98 Mosquito, developed in just 11 months, flies for the first time at Hatfield, England. A fighter version flies on May 15, 1941, followed by a reconnaissance version on June 10, 1941. The Mosquito, made primarily of a plywood and balsa laminate, was very fast (nearly 400 mph for the fighter and bomber versions; 425 mph for the recce version), very maneuverable, with long range. It would see action all over the world, including with USAAF units in Europe.
- **Dec. 31, 1940.** The prototype of the H8K four-engine, long range reconnaissance flying boat is completed at the Kawanishi factory near Osaka, Japan. It flies for the first time several weeks later. Given the Allied code name "Emily," the H8K was massive (124 foot wingspan, 92 foot length, and 30 foot height), heavily armed, maneuverable, and fast (approximately 290 mph). Allied pilots would come to regard it as one of the hardest Japanese aircraft to shoot down.

- **January 1941.** War Department announces establishment of the 99th Pursuit Squadron and the Tuskegee training program for black pilots at Tuskegee, Ala.
- **Jan. 9, 1941.** The Avro Lancaster heavy bomber prototype makes its first flight at Woodford, England. The four-engine Lancaster can carry 14,000 pounds of bombs and has a range of 1,600 miles. The Lancaster was used to carry the 22,000-pound 'Tallboy' bomb, the largest conventional bomb used by the Allies.
- **March 22, 1941.** The first black flying unit, the 99th Pursuit Squadron, is activated. It becomes one of three squadrons of the 332nd Fighter Group—known as the Tuskegee Airmen.

### **Tuskegee Airmen**

- **April 11, 1941.** With the possibility that the US would be drawn into World War II and that all of Europe could be in Axis hands, the Army Air Corps invites Consolidated and Boeing to submit design studies for a bomber capable of achieving 450 mph at 25,000 feet, a range of 12,000 miles at 275 mph, and a payload of 4,000 pounds of bombs at maximum range. This study results in the Convair B-36.
- **April 18, 1941.** Local newspaper publisher Amon G. Carter and Army Air Corps Maj. Gen. Henry H. "Hap" Arnold break ground for the new Consolidated Aircraft plant in Fort Worth, Texas. The \$50 million plant, which would produce B-24s and B-32s during World War II and later the B-36, B-58, F-111 and F-16 aircraft, is completed a year later, 100 days ahead of schedule.
- **April 22, 1941.** During the battle for Greece, Royal Air Force Squadron Leader Marmaduke Thomas St. John "Pat" Pattle, flying a Hawker Hurricane, shoots down three German fighters, and then is himself shot down by Messerschmitt Bf-110s. He crashes into the Aegean Sea. Officially credited with 23 aerial victories, he may have had as many as 20 more, which would have made him the RAF's leading ace of World War II; however, most records are lost when the British evacuate Greece.
- **May 6, 1941.** Company test pilot Lowery Brabham makes the first flight of the Republic XP-47B Thunderbolt at Farmingdale, N.Y. The P-47, the heaviest single-engine fighter ever built in the US, will

see action in every theater in World War II as both a high-altitude escort fighter and as a low-level fighter bomber.

**May 13–14, 1941.** In the first mass flight of bombers over the Pacific, 21 B-17s fly from Hamilton Field, Calif., to Hickam Field, Hawaii, in 13 hours, 10 minutes.

**June 20, 1941.** The Army Air Forces, with Lt. Gen. H.H. "Hap" Arnold as Chief, is established and comprises the Office of the Chief of Air Corps and the Air Force Combat Command.

**June 26, 1941.** Royal Air Force Pilot Officer James E. "Johnnie" Johnson, flying a Supermarine Spitfire, records his first aerial victory, shooting down a German Messerschmitt Me-109 over France. Johnson goes on to record a total of 38 "kills"— all fighters — to become the RAF's leading ace of World War II.

**June 27, 1941.** The experimental—and by this time militarily obsolete—Douglas XB-19 bomber is flown for the first time by Army Air Forces Lt. Col. Stanley Umstead and Maj. Howard G. Bunker (with a crew of five) at Clover Field, Santa Monica, Calif. The XB-19, with a wingspan of 212 feet, a length of 132 feet, and a height of 42 feet is the largest aircraft built until the B-36 six years later.

**July 8, 1941.** The RAF makes a daylight attack on Wilhelmshaven, Germany, using Boeing Fortress Is. This is the first operational use of the B-17 Flying Fortress.

**Aug. 7, 1941.** The Grumman XTBF-2 torpedo bomber prototype makes its first flight at Bethpage, Long Island, NY. Officially nicknamed Avenger, the TBF/TBM (the General Motors-built version) series made its debut at the Battle of Midway in 1942 and would serve with the Navy in a variety of roles, including antisubmarine warfare and as an airborne early warning radar aircraft until 1954. Called "Turkey" by pilots, the Avenger would serve in the air arms of several other countries until the early 1960s. A total of 9.839 aircraft of all versions would be built.

**Aug. 12, 1941.** The first AAF rocket-assisted takeoff of an airplane is made by Capt. Homer Boushey, a Wright Field test pilot, at Dayton, Ohio. Boushey flies a civilian Ercoupe airplane with rockets attached to its wings.

**Aug. 27, 1941.** Pilot Officer William R. "Wild Bill" Dunn, an American volunteer pilot flying a Hawker Hurricane with the Royal Air Force, is the first US citizen to become an ace when he records his fifth and sixth aerial victories (downing two Messerschmitt Bf-109Fs) over western Belgium. Dunn is flying with 71 Squadron, one of three RAF Eagle Squadrons that are composed of American volunteers.

**Oct. 20, 1941.** Japan's Mitsubishi Ki-46, the first truly high performance reconnaissance aircraft, makes its first operational sortie over Malaysia. First flown in late November 1940, the high speed, high altitude (375 mph at 19,000 feet) Ki-46, is given the Allied code name "Dinah."

Dec. 1, 1941. Civil Air Patrol is established.

**Valor: A CAP for the Sub Threat** 

The Citizen Air Fleet

**Dec. 7, 1941.** At 7:55 a.m. local time, the Imperial Japanese Navy air force strikes military facilities at Pearl Harbor, Hawaii, (including Hickam and Wheeler Fields) in a surprise attack. The first wave consists of 183 aircraft (91 dive bombers, 49 torpedo bombers, and 43 fighters). The second wave began 45 minutes later and consisted of 170 aircraft (80 dive bombers, 54 torpedo bombers, and 36 fighters). In less than two hours, crews flying the 274 aircraft dropped 152.7 tons of bombs and torpedoes. Only 25 AAF fighter pilots got into the air, mainly against the second wave. Maj. Truman H. Landon, leading a flight of unarmed and out of fuel Boeing B-17s flying from California, has to land at Hickam Field in the middle of the raid. These aircraft were virtually ignored by the Japanese, and only one was destroyed and

three were damaged. Damage to the US forces in Hawaii, however, was devastating: 2,403 were killed and 1,178 injured (including civilians, roughly 4,500 casualties): Five battleships were sunk (although one was later raised) and three more were damaged; two other ships were sunk; and three cruisers and three destroyers were damaged. Of the 231 US Army aircraft in Hawaii, only 79 were usable; of 169 US Navy aircraft, 82 survived the attack; and 47 of 48 US Marine aircraft were destroyed. Fortunately, the Navy's Pacific Fleet aircraft carriers were at sea at the time of the attack.

### **Caught With our Planes Down**

**Dec. 7, 1941.** 2nd Lt George Welch gets his P-40 into the air over Pearl Harbor and shoots down four Japanese aircraft.

## Valor: Pearl Harbor and Beyond

**Dec. 8, 1941.** The day after the Japanese attack on Pearl Harbor, company test pilot Robert Stanley makes the first flight of the Bell XP-63 Kingcobra, a bigger and more powerful version of the P-39, at Buffalo, N.Y.

**Dec. 10, 1941.** Five B-17s of the 93rd Bomb Squadron, 19th Bomb Group, carryout the first heavy bomb mission of World War II, attacking a Japanese convoy near the Philippines and also sinking the first enemy vessel by US aerial combat bombing.

**Dec. 10, 1941.** Legend says that Colin Kelley sank a Japanese battleship and received the Medal of Honor. Neither assertion is factual. However, Capt. Colin P. Kelley Jr., was a genuine hero. Three days after Pearl Harbor, Kelly's B-17—lightly armed and without fighter escort—attacked a Japanese landing force in northern Luzon. With the B-17 hit by enemy fighters and burning, Kelly ordered the crew to bail out but the aircraft went down before he could escape himself. He was awarded the Distinguished Service Cross posthumously.

### **Valor: Colin Kelly**

**Dec. 10, 1941.** Marine Capt. Henry Elrod, flying one of the last remaining Grumman F4F Wildcats on Wake Island, shoots down a Mitsubishi G3M (Allied code name "Nell") bomber. The next day, sinks the destroyer *Kisaragi* when his two 100-pound bombs detonate depth charges stowed on the ship's deck and it explodes. Out of aircraft, the pilots of VMF-211 become traditional Marines and Elrod leads troops in ground combat and is killed on Oct. 23. For his actions in the war's first month, he is posthumously awarded the Medal of Honor in 1946, retroactively becoming the first Marine Medal of Honor recipient in World War II.

**Dec. 11, 1941.** Pilot Officer John Gillespie Magee Jr., the author of "High Flight," the best known poem about aviation, is killed when his Supermarine Spitfire collides with another airplane over Britain. He was only 19 years old. An American serving with the Royal Canadian Air Force, Magee had written "High Flight" in Aug. or Sept. and mailed a copy to his parents in Washington, D.C.

**Dec. 12, 1941.** Capt. Jesus Villamor, flying an obsolete Boeing P-26, manages to shoot down a Japanese bomber over the Philippines. This was the only aerial victory credited to a pilot while flying the "Peashooter," the AAF's first monoplane fighter.

**Dec. 16, 1941.** Lt. Boyd "Buzz" Wagner becomes the first American USAAF ace of World War II by shooting down his fifth Japanese airplane over the Philippines.

### Valor: AAF's First Ace

**Dec. 20, 1941.** Led by Claire L. Chennault and flying old shark-mouthed P-40 fighters, the American Volunteer Group—the legendary "Flying Tigers" —begins combat operations over China against the Japanese invaders. Before they are integrated into the US Army Air Forces on July 4, 1942, the Flying Tigers shoot down 300 Japanese aircraft, while losing 50 of their own airplanes and nine pilots.

Flying Tiger, Hidden Dragon

Tex

**The Flying Tigers** 

# 1942

**Feb. 20, 1942.** When his wingman's guns jams, Navy Lt. (j.g.) Edward "Butch" O'Hare, flying a Grumman F4F-3 Wildcat, finds himself the only thing standing between nine attacking Japanese bombers and his ship, the USS *Lexington* off New Britain. He shoots down five of the Mitsubishi G4M (Allied code name 'Betty') bombers and forces the crews of another four to miss their target. O'Hare, the Navy's first ace of World War II, is awarded the Medal of Honor.

Feb. 23, 1942. B-17s attack Rabaul, the first Allied raid on the newly established Japanese base.

**Feb. 23, 1942.** First American air headquarters in Europe in World War II, US Army Bomber Command, is established in England, with Brig. Gen. Ira C. Eaker, commanding.

**March 7, 1942.** The first five African American pilots graduate from training at Tuskegee Army Air Field in Alabama. By the end of the war, the Tuskegee Airmen would include 950 pilots and open the door to the armed forces for other African Americans.

**March 9, 1942.** The US Army is reorganized into three autonomous forces: Army Air Forces, Ground Forces, and Services of Supply.

**March 26, 1942.** Company pilot John F. Martin (and crew) make the first flight of the Douglas C-54 at Clover Field, Santa Monica, Calif. This long range heavy transport will gain fame in World War II, the Berlin Airlift, and the Korean War.

**April 1942.** Thousands of American and Filipino prisoners of the Japanese endure the Bataan Death March—or die.

### **Valor: Death March**

**April 8, 1942.** The first flight of supplies takes place over "The Hump"—a 500-mile air route from Assam, India, over the Himalayas, to Kunming, China, where the Chinese continue to resist Japanese forces. By Aug., Tenth Air Force will be ferrying over 700 tons a month to these troops who were cut off by the Japanese control of the Burma Road.

### Flying the Hump

**April 12, 1942.** Relaying a request from the pilots of the 94th Pursuit Squadron at March Field, Calif., to improve morale, Eddie Rickenbacker, America's World War I "ace of aces," asks Gen. H.H. "Hap" Arnold to restore the "Hat in the Ring" emblem to the 94th PS. The 94th had been forced to change in 1924 to the Indian Head emblem used by the World War I-era 103rd Aero Squadron because of possible commercial endorsement concerns with the Rickenbacker automobile. Arnold agrees.

**April 18, 1942.** Sixteen North American B-25s, commanded by Lt. Col. James H. "Jimmy" Doolittle, take off from USS *Hornet* (CV-8) and bomb Tokyo. For planning and successfully carrying out this daring raid, Doolittle is promoted to brigadier general (skipping the grade of colonel) and is awarded the Medal of Honor.

## **Valor: First Over Tokyo**

"The Doolittle Raid," Air Force Magazine, April 1992 (not yet online)

**April 27, 1942.** The first contingent of 1,800 Army Air Forces personnel to be sent to Europe sails from Boston, headed for Liverpool. The first crews, flying 18 Boeing B-17s, will leave the US on June 23, and after flying the main ferry route through Labrador, Greenland, and Iceland, and reach England on July 1.

May 4–8, 1942. The Battle of the Coral Sea becomes the first naval engagement fought solely by aircraft.

**May 7-8, 1942.** On the first day of the Battle of the Coral Sea, Navy Lt. John Powers, flying a Douglas SBD-3 Dauntless dive bomber from the USS *Yorktown* scores a hit on the Japanese carrier *Shoho*. The next day, a burst of Japanese gunfire injures both Powers and his radioman/gunner and holes one of the SBD's fuel tanks. Streaming fire, Powers holds his drop to point-blank range on the Japanese carrier *Shokaku*. The 1,000 pound bomb sets off a secondary explosion that damages the ship so severely that it later sinks. He crashes in flames just beyond the carrier. Powers is posthumously awarded the Medal of Honor.

**May 8, 1942.** During the Battle of the Coral Sea, Navy Lt. (j.g.) William E. Hall, with radioman/gunner S1C John Moore, engages four Japanese Nakajima B5N torpedo bombers (Allied code name 'Kate') attempting to attack the USS *Lexington* (CV-3) and shoot down two of them. Jumped by three pilots flying Mitsubishi A6M Zeros ('Zekes'), Hall claims two, while Moore gets credit for shooting down the other. Injured during the fight. For this and other actions during the battle, Hall is awarded the Medal of Honor.

**May 14, 1942.** The first captured German aircraft arrives in the United States for evaluation. The aircraft, a Messerschmitt Bf-109E that had previously been evaluated by the British, is delivered to Wright Field, Ohio.

**May 26, 1942.** Contract test pilot Vance Breese makes the first flight of the Northrop XP-61 Black Widow from Northrop Field in Hawthorne, Calif. The Black Widow is the Army Air Forces' first purpose-designed night fighter.

**May 30, 1942.** The Sikorsky XR-4 Hoverfly, the prototype of the world's first production helicopter and the only US helicopter to see action in World War II, is officially accepted by the Army Air Forces at Wright Field, Ohio. Company pilot C.L. "Les" Morris had flown the prototype 761 miles from the Stratford, Conn., factory to Wright Field in five days and 16 flights, and Igor Sikorsky was the passenger on the last hop from Springfield, Ohio, to the base. They were met by Orville Wright when they arrived.

**June 3–4, 1942.** In the Battle of Midway, three US carriers destroy four Japanese carriers while losing one of their own, inflicting a major defeat on the Japanese fleet.

## **Valor: Marauders at Midway**

**June 12, 1942.** In the first mission against a European target, 13 B-24s of HALPRO Detachment fly from Egypt against the Ploesti, Romania, oil fields.

**June 4, 1942.** After his squadron commander is shot down in the Battle of Midway, Marine Capt. Richard Fleming, flying a Douglas SBD-2 Dauntless dive bomber, leads an attack on the Japanese carrier *Hiryu*, dropping his bomb from an altitude of 400 feet and scoring a hit, despite heavy antiaircraft fire and fighter attacks. He returns to the airstrip on the island with 175 holes in his aircraft. The next day, flying an

obsolete Vought SB2U-3 Vindicator, he attacks the cruiser *Mikuma*, but the aircraft is shot down and both he and gunner PFC George Toms are killed. Fleming is posthumously awarded the Medal of Honor.

**June 26, 1942.** The Grumman XF6F-1 prototype makes its first flight at Bethpage, Long Island, NY. In two years of combat, Naval aviators flying Hellcats (as the type was later officially nicknamed) would account for the destruction of 5,216 Japanese aircraft, while British F6F pilots in the South Pacific added 47 more, and British and American Hellcat pilots downed 13 German aircraft in Europe. Approximately 270 F6Fs were lost in air combat, but with a grand total of 5,216 Axis aircraft destroyed, Hellcat pilots recorded a 19:1 kill ratio. A total of 12,275 Hellcats were built and the type remained in service with several foreign countries until 1961.

**July 4, 1942.** US crews of the 15th Bombardment Squadron, operating British Boston IIIs (the RAF version of the Douglas A-20 Havoc), fly the first Army Air Forces bomber mission over Western Europe. Four aerodromes in The Netherlands were attacked.

July 4, 1942. The Flying Tigers are incorporated into the AAF as the 23rd Pursuit Group.

# Valor: They Said It Couldn't Be Done

**July 7, 1942.** A B-18 of 396th Bombardment Squadron sinks a German submarine off Cherry Point, N.C., in first sure aerial victory off the Atlantic coast by aircraft.

**July 10, 1942.** Company test pilot Ben O. Howard makes the first flight of the Douglas XA-26 Invader prototype at El Segundo, Calif. The A-26 would experience development difficulties, but Invaders would be used to great effect in World War II and Korea, and would be recalled to service in Vietnam.

**July 18, 1942.** The all-jet powered Messerschmitt Me-262 Schwalbe ("Swallow") prototype makes its first flight at Leipheim, Germany. (A piston-engine powered version had been flown the previous year). The Me-262 is the world's first jet to enter operational service. In just over a month in 1944, Jagdverband a squadron hand assembled by Gen. Adolf Galland, the Luftwaffe's chief of fighters, shoots down 45 Allied bombers.

# The Coming of the German Jets

**Aug. 7, 1942.** Capt. Harl Pease Jr., had flown a mission on Aug. 6 in his Boeing B-17 Flying Fortress, which lost an engine near Rabaul, New Britain. He was forced to return to his base in Australia. He was not scheduled for the next day's missions and all serviceable airplanes had crews assigned. He locates an unserviced bomber, somehow persuades the crew chief to get it in shape, and, with a volunteer crew, joins the day's mission against the enemy at an airfield near Rabaul. When the formation is intercepted by approximately 30 enemy fighter pilots, Pease's crew destroys several Zeroes before dropping his bombs as planned. The fight lasts 25 minutes until the group dives into cloud cover. After leaving the target, Pease's aircraft falls behind and the enemy ignites one of his bomb bay fuel tanks. He is seen dropping the flaming tank, but the airplane and crew do not return to base. Pease is posthumously awarded the Medal of Honor for his actions, and in 1957, the (now closed) air base at Portsmouth, N.H., will be named Pease AFB in his honor.

#### Valor: Rabaul on a Wing and a Prayer

**Aug. 17, 1942.** The first American heavy bomber mission in western Europe in World War II is flown by B-17s of the 97th Bombardment Group against the Rouen-Sotteville railyards in France.

**Aug. 30, 1942.** Marine Capt. John L. Smith, flying a Grumman F4F-4 Wildcat, shoots down four Japanese aircraft over Guadalcanal. From Aug. 21 through the middle of October, Smith shoots down 19 Japanese aircraft. For this feat and his leadership in which his squadron shot down 126.5 aircraft, he appears on the cover of Life Magazine and is awarded the Medal of Honor.

- **Sept. 9, 1942.** The three Royal Air Force squadrons (Nos. 71, 121, and 133), which are composed of American volunteers, are transferred to the Army Air Forces and reformed into the 4th Fighter Group. The pilots of the Eagle Squadrons, which had flown Hawker Hurricanes and Supermarine Spitfires, had been in combat since mid 1941.
- **Sept. 21, 1942.** Company test pilot Eddie Allen and crew make the first flight of the Boeing XB-29 Superfortress in Seattle, Wash. Designed as a replacement for the B-17 and B-24, the B-29 is considered the ultimate World War II bomber.
- **Oct. 1, 1942.** The Bell XP-59A lifts off from Rogers Dry Lake, Calif., with Bell test pilot Robert Stanley at the controls. It is the first flight of a jet airplane in the United States. The next day, Col. Lawrence C. "Bill" Cragie becomes the first AAF pilot to fly a jet when he makes the type's "official" first flight.
- **Oct. 2, 1942.** Marine Maj. Bob Galer, leading a force of a dozen Grumman F4F-4 Wildcats, goes against nine Mitsubishi G4M (Allied code name "Betty") bombers over Guadalcanal, but quickly realizes he has been caught in an ambush, as 36 Mitsubishi A6M Zero ('Zeke') fighters swoop down. He fights his way out of the engagement, shooting down two Zeros. By October, his total of aerial victories will reach 13. Galer was awarded the Medal of Honor for his heroism and leadership.
- **Oct. 16, 1942.** At the end of a five-hour ferry flight and nearly out of fuel, Marine Lt. Col. Harold Bauer, leading a flight of Grumman F4F-4 Wildcats, encounters nine Aichi D3A dive bombers (Allied code name "Val") attacking the USS *McFarland*, a transport bringing vital supplies to Guadalcanal. The other 18 US aircraft have to land, but Colonel Bauer, remaining airborne, catches four of the attackers as they withdraw and shoots three down and forces the fourth to crash land. He then lands with his aircraft running on fumes. On Nov. 14, Bauer is shot down and his body is never recovered. He is posthumously awarded the Medal of Honor.
- **Oct. 25, 1942.** In two missions over Guadalcanal, Capt. Joe Foss, the executive officer of VMF-121, shoots down five Japanese aircraft, becoming the Marine Corps' first "ace in a day." Foss's total of aerial victories eventually reaches 26, making him the first American pilot in World War II to match Capt. Eddie Rickenbacker's World War I record. Foss is awarded the Medal of Honor. After the war, he moves to the Air National Guard and becomes national president of the Air Force Association.
- **Nov. 2, 1942.** NAS Patuxent River, Md., is established as the Navy's test center for aircraft and equipment.
- **Nov. 8, 1942.** Col. Demas T. Craw, the deputy executive officer of the 2nd Bomb Command, Maj. Pierpont M. Hamilton, assistant chief of staff for intelligence for the landings in North Africa, and one infantryman come ashore with the first wave of the 9th Infantry Division at Port Lyautey, French Morocco, in a clandestine effort to secure an armistice from the Vichy French commander. The Americans get behind the Vichy lines, but Craw is killed as their vehicle is attacked. Hamilton and the enlisted driver are captured. With a full scale attack eminent, the French commander in Casablanca agrees to a armistice with Hamilton, who, after reaching a US tank on the beach, radios Gen. George S. Patton to stop the action. Both Craw and Hamilton are awarded the Medal of Honor. Hamilton's service career would extend into the mid 1950s. He will pass away in 1982.

#### **Valor: A Desperate Venture**

- **Nov. 8–11, 1942.** Army pilots take off from carriers to support the invasion of North Africa. The P-40 pilots then touch down at land bases.
- **Nov. 9, 1942.** The Piper L-4, the Piper Cub in its military incarnation, is flown into combat for the first time, as three aircraft take off from a Navy aircraft carrier deck to spot for ground forces going ashore in the invasion of North Africa. The L-4s are piloted by Lt. William Butler (with Capt. Brenton Deval sitting in the back seat), Lt. John R. Shell, and Capt. Ford Allcorn.

**Dec. 1942.** The first issue of the AAF's *Air Force* Magazine is published. It succeeds the Army Air Forces Newsletter.

**Dec. 4, 1942.** Ninth Air Force B-24 Liberator crews, based in Egypt, bomb Naples—the first American attacks in Italy.

**Dec. 27, 1942.** 2nd Lt. Richard I. Bong, who would later go on to be America's leading ace of all time and receive the Medal of Honor, records his first aerial victory. Bong recorded all of his victories while flying the Lockheed P-38, scoring more than half of his aerial victories while flying with the 9th Fighter Squadron.

# 1943

**Jan. 1, 1943.** US Marine Corps dive and torpedo bombers are jumped by Japanese Mitsubishi A6M Zeros (Allied code name "Zeke") in the Solomon Islands. Marine 1st Lt. Jefferson DeBlanc, flying cover, engages the Zeros, but abandons that fight to take on Mitsubishi F1M ("Pete") floatplanes now attacking the bombers. He shoots down two and disperses the others before the Zeros reappear. Low on fuel, he shoots down three Zeros before bailing out of his severely damaged Grumman F4F-4 Wildcat. In 1946, he is recalled to active duty specifically to go to the White House to "trade in" the Navy Cross, originally awarded for this action, for the Medal of Honor.

**Jan. 5, 1943.** Army Air Forces Maj. Gen. Carl A. "Tooey" Spaatz is appointed commander in chief of the Allied Air Forces in North Africa.

Jan. 5, 1943. Brig. Gen. Kenneth N. Walker leads an effective daylight bombing raid against shipping in the harbor at Rabaul, New Britain, scoring direct hits on nine enemy vessels. His airplane is disabled and forced down by enemy fighters. As commanding general of the 5th Bomber Command, Walker had repeatedly accompanied his B-24 and B-25 units on bombing missions deep into enemy territory and developed a highly efficient technique for bombing when opposed by enemy fighter planes and by anti-aircraft fire. For conspicuous leadership above and beyond the call of duty at an extreme hazard to life, he is posthumously awarded the Medal of Honor. In 1949, the now closed Roswell Army Air Field in New Mexico is renamed Walker AFB in his honor.

#### **Valor: Courage and Conviction**

**Jan. 9, 1943.** Famed Boeing test pilot Edmund T. "Eddie" Allen and Lockheed test pilot Milo Burcham make the first flight of the Lockheed C-69 transport (the military version of the Model 49 Constellation) at Burbank, Calif. Allen was on loan to Lockheed for the occasion.

**Jan. 27, 1943.** The first American air raid on Germany is made by Eighth Air Force B-17 crews against Wilhelmshaven and other targets in the northwestern part of the country.

**Feb. 15, 1943.** It is announced that Maj. Gen. Ira C. Eaker will succeed Maj. Gen. Carl A. "Tooey" Spaatz as commander of AAF's Eighth Air Force.

## **Eaker of the Eighth**

#### Eaker's Way

**Feb. 18, 1943.** First class of 39 flight nurses graduates from AAF School of Air Evacuation, Bowman Field, Ky.

**Feb. 27, 1943.** RAF Bomber Command announces that the Allied air forces have made 2,000 sorties in the past 48 hours.

**March 1–3, 1943.** In the Battle of the Bismarck Sea, land-based airplanes sank every ship in a Japanese convoy en route to resupply and reinforce the Japanese garrison on New Guinea.

## Victory in the Bismarck Sea

**March 2–4, 1943.** A Japanese attempt to reinforce Lae, New Guinea, is foiled by aircraft of the Southwest Pacific Air Forces during the Battle of the Bismarck Sea. Modified B-25s are used for the first time in low-level skip bombing techniques. More than 60 enemy aircraft are destroyed, and some 40,000 tons of Japanese shipping are sunk.

**March 5, 1943.** The Gloster F.9/40, the prototype of the Meteor jet fighter, makes its first flight at Glouscestershire, England. The Meteor is the Royal Air Force's first operational jet and is the only Allied jet fighter to see combat in World War II.

March 10, 1943. Fourteenth Air Force is formed under the command of Maj. Gen. Claire L. Chennault.

**March 19, 1943.** Lt. Gen. Henry H. "Hap" Arnold is promoted to four-star rank, a first for the Army Air Forces.

**April 4, 1943.** The B-24 *Lady Be Good,* returning from a bombing mission, overshoots its base at Soluch, Libya, and is not heard from again. In 1959, the wreckage will be found by an oil exploration party 440 miles into the Libyan desert.

**April 7, 1943.** Marine 1st Lt. James E. Swett, flying a Grumman F4F-4 ,shoots down eight Aichi D3A (Allied code name "Val") dive bombers near Guadalcanal, setting the Marine Corps record for aerial victories in a single flight. He later receives the Medal of Honor.

**April 8, 1943.** The Republic P-47 enters combat, as Thunderbolt pilots escort B-17s over Europe. The 56th and 78th Fighter Groups were the first to equip with the "Jug."

**April 15, 1943.** In action in the Solomon Islands, Marine 1st Lt. Kenneth Walsh, whose group is outnumbered six to one, repeatedly dives his plane into an enemy formation. Although his plane is hit numerous times, he shoots down two Aichi D3A (Allied code name "Val") dive bombers and a Mitsubishi A6M Zero ('Zeke'). Two weeks later, Walsh shoots down four Zeros. After being hit with machine gun and cannon fire, he ditches off Vella Lavella. For his actions on these two missions, he receives the Medal of Honor.

**April 18, 1943.** P-38 pilots from Henderson Field, Guadalcanal, intercept and shoot down two Mitsubishi "Betty" bombers over Bougainville. The aerial ambush kills Japanese Adm. Isoroku Yamamoto, who planned the Pearl Harbor attack.

# **Magic and Lightning**

**April 21, 1943.** Navy Capt. Frederick M. Trapnell becomes the first Naval aviator to pilot a jet powered aircraft when he flies the Bell XP-59 Airacomet at Muroc, Calif., as an exchange pilot.

**May 1, 1943.** SSgt. Maynard H. Smith flies his first mission as a gunner aboard a Boeing B-17 Flying Fortress with the 306th Bomb Group's 423rd Squadron over Europe. On return, over St. Nazaire, France, his bomber is subjected to intense enemy antiaircraft fire and fighter airplane attacks, being hit several times with fires in the radio compartment and waist sections. Three of the crew bail out over water. On his own, Smith succeeds in extinguishing the flames, renders first aid to a wounded crew member, mans the

workable guns, and throws exploding ammunition overboard. He is later awarded the Medal of Honor for his actions, one of only four AAF enlisted men to receive the award in World War II.

# Valor: First of the Few

- **May 6, 1943.** USAAF Capt. H. Franklin Gregory, flying the Sikorsky XR-4 Hoverfly, makes the first helicopter landing on a ship as he touches down on the S.S. Bunker Hill riding at anchor in Long Island Sound, N.Y.
- **May 17, 1943.** Eleven crews flying Martin B-26s take off from England for a low level bombing mission in Holland. One turns back because of mechanical difficulty. The remaining 10 aircraft are all shot down. This mission results in a change in tactics, as from that point on, Marauder crews bomb from medium altitudes of 10,000 to 15,000 feet where they will suffer only light losses to anti-aircraft fire.
- **May 17, 1943.** The *Memphis Belle*, a 91st Bomb Group Boeing B-17F Flying Fortress, becomes the first heavy bomber in the European Theater to complete 25 combat missions and return to the United States, where the crew and aircraft went on a war bonds tour. The aircraft received its name from the leader of its primary crew, then-Lt. Robert Morgan, who named it after his girl friend, Margaret Polk of Memphis. Noted Hollywood director (Lt. Col.) William Wyler produced a wartime documentary of the *Memphis Belle*.
- **May 18, 1943.** An aerial bombing offensive is opened against the island of Pantelleria, off the coast of Italy, to weaken it for invasion. As landing craft approached the island on June 11, its defenders surrendered, completely exhausted from weeks of being bombed. This marked the first time a major military objective had surrendered because of airpower.

#### Pantelleria, 1943

- **May 30, 1943.** All organized Japanese resistance ceases on Attu in the Aleutian Islands off Alaska. Attu was recaptured by American forces at a fearful cost in lives; all but 28 members of the Japanese garrison sacrificed themselves.
- **June 15, 1943.** The 58th Bombardment Wing, the Army Air Forces' first B-29 unit, is established at Marietta, Ga.
- **June 15, 1943.** The world's first operational jet bomber, the German Arado Ar-234V-1 Blitz, makes its first flight.
- **June 16, 1943.** Capt. Jay Zeamer Jr. volunteers as pilot of a bomber to photograph the formidable defended area of Buka, Solomon Islands. Although 20 enemy fighters were taking off from the airfield, Zeamer proceeds with his mapping run. In the attack, he is injured in both arms and legs, but maneuvers the damaged airplane so skillfully that his gunners fight off the enemy for 40 minutes, destroying five planes. In wavering consciousness, he turns over the controls and directs the flight to a base 580 miles away. Zeamer is later awarded the Medal of Honor for his actions.

#### Valor: Battle Over Bougainville

**June 16, 1943.** 2nd Lt. Joseph R. Sarnoski volunteers as a bombardier on a Consolidated B-24 Liberator crew for an important photographic mission covering the heavily defended Buka area in the Solomon Islands. When the mission is nearly completed, approximately 20 enemy fighter pilots intercept the aircraft. At the nose guns, Sarnoski fights off the first attackers, allowing the pilot to finish the plotted course. When a frontal attack extensively damages the airplane and seriously injures five of the crew, he continues firing and shoots down two enemy airplanes, despite his own injuries. A 20 mm shell bursts in the nose, knocking him into the catwalk under the cockpit. He crawls back to his post and continues firing

until he collapses on his guns and dies. Sarnoski is posthumously awarded the Medal of Honor for his actions.

# Valor: Battle Over Bougainville

**July 2, 1943.** AAF Lt. Charles Hall shoots down a German FW-190 over Sicily, becoming the first black US flier to down an Axis airplane.

**July 6, 1943.** Navy Lt. Cmdr. Bruce A. Van Voorhis, piloting a Consolidated PB4Y-1 Privateer, reportedly attacks the Japanese base on Hare (Greenwich) Island in the Carolines, and "makes six bold, ground-level attacks to demolish the enemy's vital radio station, installations, antiaircraft guns, and to destroy one fighter plane in the air and three on the water. Caught in his own bomb blast, [he] crashed into the lagoon." He was posthumously awarded the Medal of Honor. After the war, it is determined that little damage was inflicted on the radio station and that Commander Van Voorhis was likely shot down while make a low approach to the airfield.

**July 6, 1943.** Mladshy Leitenant (Captain) Ivan Kozhedub, flying a Lavochkin La-5 fighter, records his first aerial victory. Kozhedub would eventually reach 62 "kills," making him the Soviet Union's all-time leading ace.

**July 19, 1943.** Rome is bombed for the first time. Flying from Benghazi, Libya, 158 B-17 crews and 112 B-24 crews carry out a morning raid. A second attack is staged in the afternoon.

**July 21, 1943.** War Department Field Manual 100-20, reflecting lessons of North Africa Campaign, states: "Land power and airpower are co-equal and interdependent forces; neither is an auxiliary of the other."

#### The Lessons of North Africa

#### **Up From Kasserine Pass**

**July 28, 1943.** 2nd Lt. John C. Morgan is copilot of a Boeing B-17 Flying Fortress when it is attacked and damaged by enemy fighter pilots; the pilot is injured and falls over the aircraft's control yoke. Morgan takes the controls and, despite the frantic struggles of the semiconscious pilot, pulls the airplane back into formation. Hearing no fire from the bomber's gunners, he believes they have bailed out. He decides to continue the flight unassisted to and over the target and back to safety to protect any crew members still on board. For two hours, he flies in formation with one hand on the controls and the other holding off the struggling pilot before the navigator enters the cockpit and pulls the pilot off. The mission is completed and the aircraft and crew return safely. Morgan was later awarded the Medal of Honor for his actions. He was shot down over Germany on March 6, 1944, and held as a prisoner of war until May 1, 1945.

# Valor: Crisis in the Cockpit

**Aug. 1, 1943.** Staging from Benghazi, 177 Ninth Air Force B-24s drop 311 tons of bombs from low level on the oil refineries at Ploesti during Operation Tidal Wave. Forty-nine aircraft are lost, and seven others land in Turkey. This is the first large-scale, minimum-altitude attack by AAF heavy bombers on a strongly defended target. It is also the longest major bombing mission to date in terms of distance from base to target. Five AAF officers, Col. Leon Johnson, Col. John R. Kane, Lt. Col. Addison E. Baker, Maj. John L. Jerstad, 2nd Lt. Lloyd Hughes would be awarded the Medal of Honor for their actions. More AAF Medals of Honor were awarded for this mission than any other in the service's history.

Valor: Into the Mouth of Hell

Valor: The Ordeal of Sad Sack II

**Aug. 5, 1943.** The Women's Auxiliary Ferry Squadron (WAFS), comprising women flyers with commercial licenses, is merged with the Women's Flying Training Detachment, which had been formed to recruit and train women pilots for ferrying duties. The new organization, the Women's Airforce Service Pilots (WASP), is led by famed aviatrix Jacqueline Cochran.

Valor: The WASPs of World War II

## The WASPs

**Aug. 6, 1943.** The Fourteenth Air Force insignia, a winged, pouncing tiger under the Army Air Forces star, is officially approved. The insignia, which had been the symbol of the American Volunteer Group in China, was drawn at the request of Gen. Claire Chennault, the AVG commander, by Hank Porter, an artist with Walt Disney Studios in Burbank, Calif. The idea for the design, however, was originated by Roy Williams, who will become the "Big Mouseketeer" on the "Mickey Mouse Club" television show in the 1950s.

**Aug. 17, 1943.** Eighth Air Force bombers attack the Messerschmitt works at Regensburg, Germany, and ball-bearing plants at Schweinfurt in a massive daylight raid. German fighters down 60 of the 376 American aircraft.

# **Against Regensburg and Schweinfurt**

**Aug. 18, 1943.** While leading a formation of North American B-25 Mitchell bombers against the heavily defended Japanese air base at Wewak, New Guinea, Maj. Ralph Cheli's aircraft is intercepted and damaged. Although a crash is inevitable, only after the bombing and strafing run is completed and the base heavily damaged does Cheli relinquish the formation lead. He then ditches the B-25 in the sea. Captured by the Japanese, he dies on March 6, 1944, when, while being transferred to Japan, the troop ship that he was on was bombed and sunk. He was posthumously awarded the Medal of Honor for his actions at Wewak.

# Valor: Triumph and Tragedy

**Aug. 31, 1943.** The Grumman F6F Hellcat goes into operational use with VF-5 off USS *Yorktown* (CV-10) in an attack on Marcus Island, 700 miles south of Japan. Hellcat pilots will account for nearly three-fourths of all Navy air-to-air victories in World War II.

**Sept. 12, 1943.** German commandos, led by Capt. Otto Skorzeny, help Italian dictator Benito Mussolini break out of a hotel in Gran Sasso where he is being held prisoner. Skorzeny and Il Duce escape in a Fieseler Fi-156 Storch observation airplane.

**Sept. 27, 1943.** P-47s with belly tanks go the whole distance with Eighth Air Force bombers for a raid on Emden, Germany.

**Oct. 11, 1943.** Col. Neel E. Kearby volunteers to lead a reconnaissance mission over a heavily defended Japanese base near Weewak, New Guinea. After completing the mission and shooting down a stray fighter, Kearby sights 12 enemy bombers and 36 fighters, and despite being low on fuel, gives his flight the signal to press the attack. He personally shoots down three aircraft in quick succession and then shoots down two enemy aircraft that were pursuing his wingman. He pulls his flight together in the clouds and then escapes to safety. For his actions on this date, Kearby was awarded the Medal of Honor.

## Valor: Giant in a Jug

Oct. 14, 1943. Eighth Air Force conducts the second raid on the ball-bearing factories at Schweinfurt,

Germany. As a result, the Germans will disperse their ball-bearing manufacturing. The raid becomes known as "Black Thursday," since only 228 of the 291 B-17s sent on the raid actually put their bombs on the target. Sixty B-17s were shot down over the continent, five more crashed in England because of battle damage, 12 more had to be scrapped because of battle damage or crash landings, and 121 bombers had to be repaired before flying again. The human toll was even higher, as 600 men were lost over enemy territory, and there were five dead and 43 airmen wounded on the B-17s that did return. Only 35 German fighters were shot down.

**Oct. 17, 1943.** Marine Corps Maj. Gregory "Pappy" Boyington and his squadron shoot down eight Japanese Mitsubishi A6M Zeros. Before being shot down and captured in 1944, Boyington records 22 aerial victories. For his leadership of the Black Sheep squadron and his officially credited 28 victories (six of them with the Flying Tigers in China), he is first awarded the Navy Cross, and later the Medal of Honor.

**Oct. 31, 1943.** Over New Georgia in the Solomon Islands, a Chance Vought F4U-2 Corsair aviator accomplishes the Navy's first successful radar-guided interception.

**Nov. 2, 1943.** Maj. Raymond H. Wilkins leads a formation of eight North American B-25 Mitchells against enemy shipping in Simpson Harbor, Rabaul, New Britain, on his 87th combat mission. Starting the attack, his airplane is hit almost immediately, the right wing is damaged and control is rendered extremely difficult. He holds fast, leads his squadron into the attack, strafes a group of small harbor vessels and then, at low level, attacks an enemy destroyer, which explodes. He also attacks and explodes a transport. As he begins to withdraw, a heavy cruiser bars the path, so he goes in for a strafing run to neutralize the cruiser's guns and attract their fire. Wilkins's airplane is damaged beyond control and crashes into the sea. He is posthumously awarded the Medal of Honor for his heroic self-sacrifice. Wilkins AFS at Shelby, Ohio, was named in his honor during its period of activation.

#### Valor: Raid on Rabaul

**Nov. 20, 1943.** The stage play "Winged Victory" opens on Broadway. The Army Air Forces sponsored play, penned by famed playwright Moss Hart, tells the story of the AAF Training Command and the efforts of cadets to earn their wings. The cast of nearly 300 are all service members and includes such personalities as SSgt. Edmund O'Brien, Sgt. Barry Nelson, Cpl. Karl Malden, and Cpl. Red Buttons. The play is later produced as a Hollywood film.

**Nov. 22–26, 1943.** At the Cairo Conference, President Roosevelt and British Prime Minister Churchill, along with Chiang Kai-Shek, agree that B-29s will be based in the China-Burma-India theater for strikes on the Japanese home islands.

**Dec. 5, 1943.** P-51 pilots begin escorting US bombers to European targets. Ninth Air Force begins Operation Crossbow raids against German bases where secret weapons are being developed.

**Dec. 20, 1943.** A 20 mm cannon shell explodes in the radio compartment of a Boeing B-17 Flying Fortress during the bombing of Bremen, seriously injuring TSgt. Forrest L. Vosler. At about the same time, a direct hit on the tail gunner wounds him and damages his guns. Vosler keeps up a steady stream of fire, even after another enemy shell explodes, wounding him in the face and neck and lodging pieces of metal in both eyes. When the pilot decides to ditch, Vosler, working entirely by touch, gets the radio equipment up and running and sends out distress signals despite lapsing into unconsciousness. When the airplane is ditched, he gets out on the wing himself and holds the wounded tail gunner from slipping off until the other crew members could help them into the dinghy. For his actions, President Roosevelt later presents Vosler the Medal of Honor at the White House.

# Valor: Ordeal by Flak and Fighter

**Dec. 24, 1943.** First major Eighth Air Force assault on German V-weapon sites is made when 670 B-17s and B-24s bomb the Pas de Calais area of France.

# 1944

**Jan. 8, 1944.** Developed in only 143 days, the prototype Lockheed XP-80 Shooting Star, *Lulu Belle,* makes its first flight at Muroc Dry Lake (later Edwards AFB), Calif., with Milo Burcham at the controls. It is the first American fighter to exceed 500 mph in level flight.

**Jan. 11, 1944.** While escorting a group of B-17s and B-24s near Oschersleben, Germany, Lt. Col. James H. Howard engages a group of German Bf-109s and Bf-110s climbing to attack the bombers. Howard shoots downs one of the fighters and his squadron mates shoots down eight more. Realizing the "Big Friends' are now unprotected, he climbs and single-handedly takes on 30 fighters attacking the bombers without waiting for his wingman or the rest of his squadron. He shoots down at least four of the attackers and then three of his six .50 cal. machine guns jam. Even though his fuel is low, he continues to press the fight and damages two more aircraft. He survives the engagement and is later awarded the Medal of Honor. He is the only pilot flying a North American P-51 Mustang to receive the Medal of Honor during World War II.

## Valor: One Man Air Force

**Jan. 11, 1944.** The first US use of forward-firing rockets is made by Navy TBF-1C Avenger crews against a German submarine.

**Jan. 22, 1944.** Mediterranean Allied Air Forces fly 1,200 sorties in support of Operation Shingle, the amphibious landings at Anzio, Italy.

**Feb. 3, 1944.** Marine 1st Lt. Robert Hanson is shot down and killed while attacking a radar site at Cape St. George, New Ireland Island. In six months of action in the South Pacific, Hanson recorded 25 victories, including 20 enemy aircraft in six missions over 13 days in January 1944. He is posthumously awarded the Medal of Honor.

**Feb. 11, 1944.** Despite constant mortar shelling and gunfire from Japanese shore installations and waves up to 15 feet high, Navy Lt. (j.g.) Nathan Gordon lands his Consolidated PBY-5 Catalina seaplane in Kavieng Harbor, New Ireland Island, four separate times (including flying directly over the enemy base on approach for the last landing) and rescues three Army Air Force crews whose North American B-25 Mitchells had been shot down. He is awarded the Medal of Honor. Gordon later serves as the governor of Arkansas for 20 years.

**Feb. 15, 1944.** The Nazi-occupied Abbey of Monte Cassino, Italy, is destroyed by 254 American B-17, B-25, and B-26 crews attacking in two waves. The ruins of the abbey will not be captured by Fifth Army until May 18, 1944.

**Feb. 20, 1944.** The first mission of "Big Week"—six days of strikes by Eighth Air Force (based in England) and Fifteenth Air Force (based in Italy) against German aircraft plants —is flown.

#### Valor: Big Week—Day One

**Feb. 20, 1944.** Coming off bombing a target in Europe, 1st Lt. William R. Lawley Jr.'s Boeing B-17 Flying Fortress is attacked by 20 enemy fighters, is heavily damaged, and falls out of formation. With eight wounded crew members, a dead copilot, one engine on fire, and severe personal injuries, Lawley brings the bomber under control. Two crew members are too severely wounded to bail out, so Lawley attempts to land the aircraft. He evades additional enemy fighters, remains at his post, and refuses first aid until he

collapses and is revived by the bombardier. Coming over the English coast, one engine runs out of fuel, and another starts to burn. Lawley manages to crash land at a fighter base. He is later awarded the Medal of Honor for his actions and goes on to complete a career in the Air Force.

#### Valor: One Turning and One Burning

**Feb. 20, 1944.** After a bombing run on enemy installations at Leipzig, Germany, a 510th Bomb Squadron Boeing B-17 Flying Fortress is attacked, killing the copilot, severely wounding the pilot and radio operator, and extensively damaging the aircraft. SSgt. Archibald Mathies and 2nd Lt. Walter E. Truemper fly the aircraft back to their home station at Polebrook, England, where all but Mathies and Truemper bail out. The 510th BS commander orders them from the ground to abandon the crippled aircraft, but they refuse to desert the injured pilot. On their third attempt to land, the airplane crashes into an open field, killing Mathies, Truemper, and the injured pilot. Mathies and Truemper are posthumously awarded the Medal of Honor; Mathies is one of only four AAF enlisted men to receive the award in World War II.

## Valor: A Tale of Two Texans

March 4, 1944. B-17s of the Eighth Air Force conduct the first daylight bombing raid on Berlin.

**March 5, 1944.** British Brig. Gen. Orde Wingate's Raiders, popularly known as Chindits, are flown by US pilots in Waco CG-4A gliders to "Broadway," a site near Indaw, Burma, in a daring night operation. Wingate will be killed 19 days later in an airplane crash.

#### The All-American Airman

March 6, 1944. In the first major USAAF attack on Berlin, 660 heavy bombers unload 1,600 tons of bombs.

**March 16, 1944.** NACA proposes that a jet-propelled transonic research airplane be developed. This ultimately leads to the Bell X-1.

**March 25, 1944.** Fifteenth Air Force crews temporarily close the Brenner Pass between Italy and Austria. This mission, against the Aviso viaduct, is the first operational use of the VB-I Azon (Azimuth Only) radiocontrolled bomb.

**April 11, 1944.** Led by Royal Air Force Wing Commander R.N. Bateson, six de Havilland Mosquitos of No. 613 Squadron bomb an art gallery at The Hague where population records are kept. These records, many of which were destroyed, were used by the Gestapo to suppress the Dutch resistance.

April 11, 1944. On a bombing mission to Germany, AAF 1st Lt. Edward S. Michael's Boeing B-17 Flying Fortress is singled out by a swarm of enemy fighter pilots who riddle the airplane from nose to tail, follow it as it loses altitude, and continues firing, wounding the copilot, wrecking the cockpit instruments, and seriously wounding Michael in the right thigh. He orders the crew to bail out and seven crew members jump, but the bombardier stays as his parachute was shot up and useless. Disregarding his own injuries, Michael continues evasive action for 45 minutes, continuing into France through heavy flak, until he loses consciousness from loss of blood. The copilot takes over and gets to England and an RAF airfield. Michael awakens and takes the controls to land the crippled aircraft. Despite bomb bay doors that are jammed open, no hydraulic system, altimeter, or airspeed indicator, a ball turret that is jammed with the guns pointed down, and flaps that will not respond, Michael lands the B-17. He was later awarded the Medal of Honor for his actions on this flight.

# **Valor: Gauntlet of Fire**

**April 12, 1944.** AAF Maj. Richard I. Bong records three aerial victories in a single mission to bring his personal tally to 28, for which he is recognized amid much hoopla as surpassing the total of America's World War I "Ace of Aces." Capt. Eddie Rickenbacker. Rickenbacker even sent Bong a case of scotch.

- **April 25–26, 1944.** The first combat rescue by helicopter takes place, as AAF 2nd Lt. Carter Harman, flying a Sikorsky YR-4 Hoverfly, lifts a downed L-1 pilot and the three injured British soldiers he was carrying out of the jungle in Burma one at a time. AAF Col. Philip Cochran, commander of the 1st Air Commando Group, later writes, "Today, the 'egg beater' went into action and the damn thing acted like it had good sense."
- **May 11, 1944.** Operation Strangle (March 19–May 11) ends. Mediterranean Allied Air Forces' operations against enemy lines of communication in Italy total 50,000 sorties, with 26,000 tons of bombs dropped.
- **May 21, 1944.** Operation Chattanooga Choo-Choo—systematic Allied air attacks on trains in Germany and France—begins.
- **May 29, 1944.** The concept of the "frangible" bullet (a ceramic filled round developed by Bakelite Corp. and Duke University that disintegrates on impact) for aerial gunnery training is tried out for the first time at Buckingham Field, Fla. Capt. Charles T. Everett flies a heavily armored A-20 nicknamed Alclad Nag, and is fired on in mid air by a gunner in the top turret of the Boeing YB-40, a heavily armed B-17.
- **June 2, 1944.** The first shuttle bombing mission, using Russia as the eastern terminus, is flown. AAF Lt. Gen. Ira C. Eaker, head of Mediterranean Allied Air Forces, flies in one of the B-17s.
- June 5, 1944. A crew flying a North American B-25 Mitchell, approaching a target over Wimereaux, France, is hit repeatedly by anti-aircraft fire that seriously cripples the bomber, kills the pilot, and wounds several crew members including Lt. Col. Leon R. Vance Jr., whose right foot is nearly severed. Despite his injury and with three engines lost to the flak, he leads his formation over the target, bombing it successfully. He realizes the bomber is approaching a stall with the last engine failing, so he cuts the power, feathers the engine, and puts the aircraft in a steep glide to maintain airspeed. As they reach the English coast, he orders the crew to bail out, knowing they will reach land safely. However, he receives an interphone message that leads him to believe one injured crew member was unable to jump; he decides to ditch the ship in the channel to give the crew member a chance of survival. Vance, after being pinned in the wreckage as it begins to sink, is then thrown clear by an explosion. After clinging to a piece of floating wreckage and inflating his life vest, he begins to search for the crew member whom he believed to be aboard. Failing to find anyone, he begins swimming and is rescued within an hour by an air-sea rescue craft. Vance was awarded the Medal of Honor for his actions. Later, while being evacuated to the US, his aircraft went down without a trace between Iceland and Newfoundland. In 1949, Enid Army Air Base, Okla., is redesignated Vance AFB in his honor.

## Valor: The Iron Hand of Fate

**June 6, 1944.** Allied pilots fly approximately 15,000 sorties on D-Day. It is an effort unprecedented in concentration and size.

"Airpower Made D-Day Possible" Air Force Magazine, June 1984 (not yet online)

- June 9, 1944. Allied units begin operations from bases in France.
- **June 13, 1944.** The first German V-1 flying bombs fired in combat are launched against England. Four of 11 strike London.
- **June 15, 1944.** Forty-seven B-29 crews, based in India and staging through Chengdu, China, attack steel mills at Yawata in the first B-29 strike against Japan.
- **June 19, 1944.** In two sorties during the "Great Marianas Turkey Shoot," Navy Lt. Cmdr. David McCampell, flying a Grumman F6F-3 Hellcat nicknamed *Minsi III*, shoots down seven Japanese aircraft, five Yokosuka D4Y (Allied code name "Judy" bombers in the morning and two Mitsubishi A6M Zero

('Zeke') fighters in the afternoon. Campbell will become the Navy's all-time leading ace, with 34 victories.

**June 19–20, 1944.** "The Marianas Turkey Shoot": In two days of fighting, the Japanese lose 476 aircraft. American losses are 130 planes.

June 22, 1944. The GI Bill is signed into law.

**June 23, 1944.** After dropping his bombs on the oil refineries at Ploesti, Romania, 2nd Lt. David R. Kingsley's Boeing B-17 Flying Fortress, which had been damaged in the raid, is attacked by three German Bf-109 pilots. The bombardier administers first aid to the wounded, and once the bailout bell rings, he helps his wounded crew mates put on their parachutes. However, the tail gunner's harness can't be located and Kingsley willingly gives up his harness. The B-17 continues to fly for several minutes on automatic pilot, then crashes and burns. For his gallant, heroic action in saving the life of the tail gunner and his own self sacrifice, Kingsley is posthumously awarded the Medal of Honor.

# Valor: A Rather Special Award

**July 2, 1944.** Lt. Ralph "Kid" Hofer, who had recorded 15 victories in a period of seven months, is shot down and killed 300 miles south of Budapest, Hungary. He is believed to have been downed by Maj. Erich Hartmann, the leading ace of World War II. Hofer's P-51 is one of seven US aircraft to be downed by Hartmann, who recorded 352 confirmed air-to-air victories, most of which came against Russian pilots.

**July 3, 1944.** The P-61 Black Widow, the only night fighter the US built during World War II, flies its first operational intercept mission in Europe.

"Night Fighters," Air Force Magazine, January 1992 (not yet online)

**July 5, 1944.** The Northrop MX-324, the first US rocket-powered airplane, is flown for the first time by company pilot Harry Crosby at Harper Dry Lake, Calif.

**July 6, 1944.** A Northrop P-61 Black Widow crew records the type's first victory, as 1st Lt. Francis Eaton (pilot), 2nd Lt. James E. Ketchum (radar operator), and SSgt. Gary Anderson (gunner) intercept and shoot down a Japanese Betty bomber. The Black Widow is the AAF's first purpose-designed night fighter.

**July 9, 1944.** During an effective attack against vital oil installations in Ploesti, Romania, 1st Lt. Donald D. Pucket's Consolidated B-24 Liberator receives direct hits from anti aircraft fire just after "bombs away." One crew member is instantly killed, six others are severely wounded, and the aircraft is badly damaged. After regaining control of the airplane and turning it over to his copilot, Pucket calms the crew, administers first aid, surveys the damage, and jettisons all guns and equipment but the airplane continues to lose altitude. He orders the crew to bail out, but three members are too badly wounded. After the other crew members jump, he refuses to abandon his airplane and is last seen fighting to regain control before crashing on a mountainside. Pucket is posthumously awarded the Medal of Honor for his actions.

# **Valor: Of Tradition and Valor**

**July 9, 1944.** Parts of wrecked and captured Fiesler Fi-103 "buzz bombs" are delivered to Wright Field, Ohio, for evaluation. Seventeen days later, Ford Motor Co. finishes building a copy of the Argus pulse jet motor, and by Oct., Republic is chosen to build copies of the bomb's airframe. The US-built duplicates are called JB-1 "Loons."

**July 22, 1944.** In the first all-fighter shuttle, Italy-based US P-38 Lightnings and P-51 Mustangs of Fifteenth Air Force attack Nazi airfields at Bacau and Zilistea, northeast of Ploesti, Romania. The planes land at Russian bases.

July 27, 1944. The executive committee of NACA discusses robots and their possibilities for military and other uses.

**July 29, 1944.** A Boeing B-29 Superfortress bomber piloted by Capt. Howard R. Jarrell is damaged by flak during an attack on the Showa Steel Works at Ashan, Japan. Unable to make the flight back to the Marianas, Jarrell lands on the small Soviet airfield at Tarrichanka where he and the crew are interned. Two other B-29s fall into Soviet hands by the end of the year, and the Soviet government asks the Tupolev Design Bureau to copy the advanced American aircraft. The Tupolev-built copies are designated Tu-4, the Soviet Union's first strategic bomber.

**Aug. 4, 1944.** The first Aphrodite mission (a radio-controlled B-17 carrying 20,000 pounds of TNT) is flown against V-2 rocket sites in the Pas de Calais section of France.

# **Valor: Project Aphrodite**

## **The Remote Control Bombers**

**Aug. 9, 1944.** Capt. Darrell R. Lindsey leads a formation of 30 Martin B-26 Marauders on a hazardous mission to destroy the L'Isle Adam railroad bridge, one of the few spans remaining over the Seine River in occupied France. Facing fierce resistance and violent ground fire, with his right wing enveloped in flames from the burning engine, he completes the bombing run, then orders the crew to bail out. He holds the swiftly descending airplane in a steady glide until the rest of the crew jumps to safety. He refuses the bombardier's offer to lower the aircraft's landing gear so that Lindsey might escape through the nose landing gear wheel well. The right fuel tank explodes, the airplane goes into a steep dive, and explodes on impact. Lindsey is posthumously awarded the Medal of Honor for his actions.

#### Valor: The Bridge at L'Isle Adam

**Aug. 14, 1944.** AAF Capt. Robin Olds records his first victory while flying with the 434th Fighter Squadron in the ETO. He would go on to tally 11 more victories by July 4, 1945. His next aerial victory would come on Jan. 2, 1967, during the Vietnam War, making him the only American ace to record victories in nonconsecutive wars.

**Aug. 28, 1944.** Eighth Force's 78th Fighter Group claims the destruction of an Me-262, the first jet to be shot down in combat.

**Sept. 1, 1944.** Company pilot Robert Stanley makes the first flight of the Bell RP-63A Kingcobra, a highly unusual modification to the P-63 that allowed the aircraft to be used as a piloted target. These "Pinball" aircraft were heavily armored (even the cockpit glazing was extra thick), and gunnery students would fire "frangible" bullets made of lead and plastic at these aircraft in flight.

**Sept. 8, 1944.** The German V-2, the world's first ballistic missile, is first used in combat. Two strike Paris; two more are launched against London.

**Sept. 14, 1944.** AAF officers Col. Floyd B. Wood, Maj. Harry Wexler, and Lt. Frank Reckord fly into a hurricane in a Douglas A-20 to gather scientific data.

**Sept. 17, 1944.** Operation Market Garden begins: 1,546 Allied aircraft and 478 gliders carry parachute and glider troops in an airborne assault between Eindhoven and Arnhem in the Netherlands in an effort to secure a Rhine crossing at Arnhem.

**Sept. 20**, **1944.** The 10,000th Republic P-47 rolls off the assembly line at Farmingdale, N.Y., to much fanfare, including aviatrix Jackie Cochran, the head of the Women's Airforce Service Pilots, dubbing the aircraft 10 Grand. Ten months later, the 15,000 P-47 would come off the assembly line.

- **Oct. 24, 1944.** In one of the greatest feats of airmanship ever, Navy Cmdr. David McCampbell and his wingman, Lt. Roy Rushing, engage 80 Japanese aircraft during the Battle of Leyte Gulf. Rushing shoots down six aircraft while McCampbell bags nine, the most victories ever recorded by an American pilot in a single engagement. Normally based on the USS *Essex*, McCampbell, instead, recovers on the USS *Langley* with barely enough fuel remaining to taxi up the deck. He is later awarded the Medal of Honor.
- **Oct. 25, 1944.** While flying escort to the first Japanese kamikaze ("Divine Wind") suicide mission, Warrant Officer Hiroyhosi Nishizawa, Japan's leading ace, records his 86th and 87th victories (both Grumman F6F Hellcats), the final aerial victories of his career. Led by Lt. Yukio Seki, three of the four kamikaze aircraft strike their target, the escort carrier USS *St. Lo*, and inflict heavy damage. The carrier later sinks.
- **Oct. 26, 1944.** During a one airplane strike against a Japanese convoy in the South Pacific, Maj. Horace Carswell scores two direct hits on a tanker, but the Consolidated B-24 Liberator he was flying suffers severe damage. With only two engines operating, Carswell manages to nurse his aircraft to landfall. When a third engine fails, he orders the crew to bail out, but with his parachute damaged beyond use, he opts to try a crash landing to save an injured crew member. He crashes into a mountain during the attempt and is killed. He is later posthumously awarded the Medal of Honor for his actions. Carswell AFB (now Joint Reserve Base), Tex. is named in his honor.

# Valor: China Bomber

- **Nov. 1, 1944.** A Boeing F-13 (photoreconnaissance B-29) crew makes the first flight over Tokyo since the 1942 Doolittle Raid.
- **Nov. 2, 1944.** Severely wounded when the Boeing B-17 Flying Fortress he was navigating was hit with three antiaircraft shells, 2nd Lt. Robert E. Feymoyer refused an injection of morphine to keep his head clear so he could direct his aircraft out of danger. Unable to rise from the floor, he asked to be propped up to see his charts and instruments. He successfully directed the navigation of the B-17 for 2.5 hours, avoided enemy flak, and returned to England. Only when it arrived over the English Channel did he allow an injection. He died shortly after being removed from the aircraft once on the ground. He was later posthumously awarded the Medal of Honor.

# Valor: I Am the Captain of my Soul

- **Nov. 3, 1944.** The Japanese start their Fu-Go balloon weapon offensive against the United States. These balloons are carried across the Pacific on the jet stream and release bomblets over the US.
- **Nov. 9, 1944.** Only seconds from the target at the marshaling yards at Saarbrucken, Germany, and with three of their Boeing B-17's engines on fire, fire raging in the cockpit, an inoperative interphone system, and with a wounded flight engineer and a radio operator whose arm had been severed below the elbow, 1st Lt. Donald J. Gott (pilot) and 2nd Lt. William E. Metzger Jr. (copilot) make the decision to hit the target and then try to fly to friendly territory in an attempt to save the radio operator's life. Proceeding alone, the crippled bomber makes it to Allied held territory where most of the crew bails out safely. The flight crew then banks to land in an open field. At an altitude of 100 feet, the B-17 explodes, crashes, and explodes again. The three crewmen are killed instantly. For their loyalty to their crew and for making the ultimate sacrifice. Gott and Metzger are posthumously awarded the Medal of Honor.

# Valor: Valor at its Highest

**Nov. 10, 1944.** Thirty-six B-25s of Fifth Air Force attack a Japanese convoy near Ormoc Bay, Philippines, sinking three ships.

Nov. 24, 1944. The first XXI Bomber Command raid is made when 88 B-29s bomb Tokyo.

The Twentieth Against Japan

**How Bombers Defeated Japan** 

**Dec. 12, 1944.** While a light rain falls, Gen. Douglas MacArthur presents the Medal of Honor to Maj. Richard I. "Dick" Bong in ceremonies at Tacloban, Philippines. While officially cited for shooting down eight enemy aircraft from Oct. 10 to Nov. 15, 1944, Gen. George Kenney had also submitted his MOH recommendation because he wanted to recognize Bong for being the leading American ace of all time. He had 36 (of what would eventually be 40) confirmed aerial victories at the time.

**Valor: Top Gun** 

**Dec. 15, 1944.** Bound for France, famed band leader Army Maj. Glenn Miller and two others take off from England in a Noorduyn C-64 Norseman and are never heard from again. Several possible causes for the disappearance are formulated, but none is ever proven.

**Dec. 15, 1944.** President Roosevelt signs legislation creating the five-star ranks of General of the Army and Admiral of the Fleet.

**Dec. 17, 1944.** The 509th Composite Group, assembled to carry out atomic bomb operations, is established at Wendover, Utah.

**Dec. 17,1944.** AAF Maj. Richard I. Bong, America's leading ace of all time, records his 40 and final aerial victory.

**Dec. 21, 1944.** Gen. Henry H. "Hap" Arnold becomes General of the Army—the first airman to hold five-star rank.

Hap

The Highest Ranking

When Arnold Bucked FDR

**Commander and Chief** 

**Dec. 24, 1944.** While leading a formation of Boeing B-17s over Liege, Belgium, Brig. Gen. Frederick W. Castle's aircraft loses an engine and he relinquishes the formation lead. His aircraft is immediately attacked by German fighters, but he refuses to drop his bomb load (which would have allowed him to pick up speed) since he is over friendly troops. Castle also refuses to leave the B-17 until his crew bails out. After another German attack, the B-17 explodes and the aircraft plunges earthward, carrying Castle to his death. For his dedication to his crew, Castle is posthumously awarded the Medal of Honor. The now closed Castle AFB, Calif., was named for him.

**Valor: The Quiet Hero** 

**Dec. 25–26, 1944.** AAF Maj. Thomas B. "Mickey" McGuire volunteers to lead a squadron of 15 airplanes as protection for heavy bombers attacking Mabalaent Airdrome. As the formation crosses Luzon, it is attacked by 20 Japanese fighters and McGuire shoots down three enemy airplanes. He receives the

Medal of Honor not only for this mission but for his accomplishments as the second leading ace of all time. He has 38 aerial victories and is second only to Maj. Richard Bong's 40 victories. The next month, McGuire is killed in action while leading four P-38s over an enemy-held airstrip on Los Negros Island.

Valor: Number Two, With Honor

# 1945

Jan. 11, 1945. Capt. William A. Shomo sets the AAF all-time record of seven enemy air victories in a single engagement. Flying a North American P-51 Mustang with 2nd Lt. Paul M. Lipscomb as his wingman, Shomo takes off from Mindoro in the Philippines to check if Japanese airdromes in the northern part of Luzon are occupied. He sees an enemy bomber and 12 fighters flying approximately 2,500 feet above him and in the opposite direction, and, despite the 13:2 odds, orders an attack. He closes on the enemy formation and scores hits on the leading airplane of the third element, which explodes in midair. He then attacks the second element from the left side of the formation and shoots another fighter down in flames. When the enemy pilots form for counterattack, Shomo moves to the other side of the formation and hits a third fighter which explodes and falls. Diving below the bomber he puts a burst into its underside and it crashes and burns. Pulling up from this pass he encounters a fifth airplane firing head on and destroys it. He next dives upon the first element and shoots down the lead airplane; then, diving down to 300 feet in pursuit of another fighter he catches it with his initial burst and it crashes in flames. Meanwhile, Lipscomb shoots down three planes, while the three remaining fighters escape through a cloud bank. Shomo is promptly promoted to major and is later awarded the Medal of Honor for his actions.

#### **Valor: Instant Ace**

- **Jan. 20, 1945.** Army Air Forces Maj. Gen. Curtis E. LeMay succeeds Brig. Gen. Haywood "Possum" Hansell as commander of XXI Bomber Command in the Mariana Islands.
- **Feb. 3, 1945.** A total of 959 B-17 crews carry out the largest raid to date against Berlin by American bombers.
- **Feb. 15, 1945.** Podpolkovnik (Lt. Col.) Ivan Kozhedub, while on a lone reconnaissance patrol in a Lavochkin La-7, shoots down a German Messerschmitt Me-262 jet fighter in what the leading Soviet ace would call "a lucky shot." This is the only German jet downed by a Soviet pilot during World War II.
- **Feb. 19, 1945.** The Marine V Amphibious Corps, with air and sea support, lands on Iwo Jima. The capture of this small spit of volcanic rock has important considerations for the Army Air Forces, as the island's three airfields will be used as emergency landing fields for Marianas-based B-29s and as a base for fighter operations. By March 26, the island will be secured, at a cost of more than 19,000 Japanese and 6,520 American lives.
- **Feb. 20, 1945.** Secretary of War Henry Stimson approves plans to establish a rocket proving ground near White Sands, N.M.
- **Feb. 25, 1945.** B-29 crews begin night incendiary raids on Japan; 334 aircraft drop 1,667 tons of firebombs and destroy 15 square miles of Tokyo.
- **March 9, 1945.** In a change of tactics in order to double bomb loads, Twentieth Air Force sends more than 300 B-29s from the Marianas against Tokyo in a low-altitude, incendiary night raid, destroying about one-fourth of the city.
- March 11, 1945. The greatest weight of bombs dropped in a USAAF strategic raid on a single target in

Europe falls on Essen, Germany, as 1,079 bomber crews release 4,738 tons of bombs.

**March 14, 1945.** The first Grand Slam (22,000-pound) bomb is dropped from an Avro Lancaster flown by Royal Air Force Squadron Leader C.C. Calder. Two spans of the Bielefeld railway viaduct in Germany are destroyed.

**March 18, 1945.** Some 1,250 US bombers, escorted by 670 fighters, deal Berlin its heaviest daylight blow—3,000 tons of bombs on transportation and industrial areas.

**March 18, 1945.** Company test pilot LaVerne Brown makes the first flight of the Douglas XBT2D-1, the prototype of the A-1 Skyraider, at El Segundo, Calif. The Navy will put this aerial dump truck to great use as an attack aircraft in Korea and in Vietnam. The Air Force will also use the "Spad" (as USAF pilots called it) in Vietnam as an attack aircraft and to cover rescue missions.

**March 27, 1945.** B-29 crews begin night mining missions around Japan, eventually establishing a complete blockade.

**April 9, 1945.** The last B-17 rolls off the line at Boeing's Seattle plant.

**April 10, 1945.** The last Luftwaffe wartime sortie over Britain is made by an Arado Ar-234B pilot on a reconnaissance mission out of Norway.

**April 10, 1945.** Thirty of 50 German Me-262 jet fighters are shot down by US bombers and their P-51 escorts. The German fighters shoot down 10 bombers—the largest loss of the war in a single mission covered by jets.

April 12, 1945. While flying in the lead Boeing B-29 (nicknamed City of Los Angeles) on a strike to Koriyama, Japan, SSgt. Henry Erwin launches a phosphorous smoke marker to aid in the assembly of the group over the rendezvous point. The marker explodes in the launch tube and is shot back into the aircraft. Disregarding his personal safety and now blinded, Erwin picks up the burning marker and stumbles toward the cockpit. He runs into the hinged navigator's table but puts the phosphorus marker under his arm and lifts the table. He makes it to the cockpit and drops the marker out the copilot's window. Suffering third degree burns over most of his upper body and near death, Erwin's Medal of Honor citation is prepared as soon as the crew lands. It is approved in only two days. Miraculously, Erwin, one of four AAF enlisted men to receive the Medal of Honor, survives his ordeal.

# Valor: Red Erwin's Personal Purgatory

#### A Brave Man at the Right Time

**April 12, 1945.** On the same day US President Franklin D. Roosevelt dies, the destroyer USS *Mannert L. Abele* is sunk near Okinawa by a Japanese pilot flying a rocket-powered Yokosuka MXY-7 Ohka (Cherry Blossom) suicide attack aircraft. The Abele is the first ship ever to be sunk by a piloted bomb.

**April 17, 1945.** Flak Bait, a Martin B-26B Marauder, completes a record 200th bombing mission. The aircraft, which has now flown more missions over Europe than any other Allied aircraft in World War II, will go on to complete two more missions.

**April 19, 1945.** Podpolkovnik (Lt. Col.) Ivan Kozhedub, flying a Lavochkin La-7 fighter, shoots down two Focke-Wulf FW-190s near Berlin. Already the Soviet Union's all-time leading ace, these two "kills" push his victory total to sixty-two. He made 520 combat sorties during the war. Later promoted, Marshal (General) Kozhedub was three times named Hero of the Soviet Union.

**April 23, 1945.** Flying Consolidated PB4Y-2 Privateers, Navy crews from VPB-109 launch two Bat missiles against Japanese ships in Balikpapan Harbor, Borneo. This is the first known use of automatic

homing missiles during World War II.

**April 24–25**, **1945**. In three attacks over two days, 1st Lt. Raymond L. Knight destroys 14 enemy aircraft on the ground at Ghedi and Bergamo airfields in Italy's Po Valley. On each sortie, Knight comes in on the deck through anti-aircraft fire to reconnoiter the fields to locate German aircraft hidden under heavy camouflage. His Republic P-47 Thunderbolt sustains severe damage in the second attack. He returns the next morning to Bergamo and destroys his 14th aircraft. His aircraft is damaged again, but he refuses to bail out, and dies en route to base when he crashes in the Apennine Mountains. Knight is posthumously awarded the Medal of Honor for his actions.

#### **Valor: The Path of Duty**

May 8, 1945. Maj. Erich Hartmann, flying a Messerschmitt Me-109 in his last combat mission, records one final aerial "kill," bringing his total to 352 aircraft, the most in history by any pilot in any country. He lands, and with his airfield under artillery fire by advancing Soviet troops, he orders the men of his squadron to destroy their aircraft and he leads them in the opposite direction to the American lines, where Jagdgeshwader 52 surrenders en masse. The Americans turn Hartmann over to the Russians and he is imprisoned in a Soviet gulag for 10 years. He retires from the re-formed German Air Force in 1973.

May 8, 1945. V-E Day. The war ends in Europe.

**June 16, 1945.** Company pilot Joseph Barton makes the first flight of the North American XP-82 Twin Mustang at Inglewood, Calif. The P-82, later redesignated F-82, was the last propeller-driven fighter acquired in quantity by the Army Air Forces. It looked like two P-51 fuselages married to one wing, but in reality, was a totally new design.

**June 22, 1945.** Okinawa is declared captured by US forces. The price paid to capture this island—16,000 men, 36 ships, and 800 aircraft—is a key consideration in the decision to use the atomic bombs on Japan.

June 26, 1945. B-29 crews begin nighttime raids on Japanese oil refineries.

**June 27, 1945.** Gen. Carl A. "Tooey" Spaatz, commander of strategic forces in Europe, inspects a group of captured Messerschmitt Me-262 jet fighters at Melun, Germany. The jets are flown by members of "Watson's Whizzers," the unofficial name of the US foreign technology evaluation group led by Col. Harold E. Watson and sent to Europe at the end of the war as part of Project Lusty.

**July 8, 1945.** The last of 40 captured German aircraft, including Arado Ar-234 and Messerschmitt Me-262 jets and unusual propeller-driven types such as the Dornier Do-335, arrive at Cherbourg, France. The aircraft were flown to France by members of "Watson's Whizzers." The aircraft were hoisted aboard the British aircraft carrier H.M.S. Reaper, which then delivered the aircraft to the United States.

**July 16, 1945.** The world's first atomic bomb is successfully detonated at Trinity Site, a desert location near Alamogordo, N.M. The weapon (referred to as "the gadget") is the prototype of the "Fat Man" plutonium bomb and has an explosive yield of 19 kilotons.

#### **Early Atomic Air**

**Aug. 6, 1945.** The "Little Boy" (uranium) atomic bomb is dropped on Hiroshima, Japan, from the B-29 *Enola Gay,* commanded by AAF Col. Paul W. Tibbets Jr.

The Decision That Launched the Enola Gay

#### **Atomic Mission**

Aug. 6, 1945. AAF Maj. Richard I. Bong, America's all-time leading ace, is killed in a P-80 accident. He

had 40 confirmed victories.

- **Aug. 9, 1945.** The "Fat Man" atomic bomb is dropped on Nagasaki, Japan, from the B-29 *Bockscar*, commanded by AAF Maj. Charles W. Sweeney.
- **Aug. 12, 1945.** A Douglas C-47 Skytrain piloted by AAF Lt. Col. Robert G. Denson carries former Nazi party officials from Sandweiler Airport near the Luxembourg border to Furth Industrieshafen Airport near Nuremberg to stand trial as war criminals. Among the passengers: Reichsmarshal Herman Goering, Gen. Alfred Jodl, and Adm. Karl Donitz.
- **Aug. 15, 1945.** Navy Lt. Cmdr. T.H. Reidy, commander of VBF 83 and flying a Vought F4U Corsair, records the last confirmed US air-to-air victory of World War II while hostilities are still officially declared, as he shoots down a Nakajima C6N1 Saiun reconnaissance aircraft at 5:40 a.m. local time over Tokyo. Five minutes later, the war officially ends.
- **Aug. 18, 1945.** In the last combat action of any kind against the Japanese in World War II, a pair of Consolidated B-32 Dominators on a reconnaissance flight over Tokyo are attacked by 14 Zeros and Tojos. One US crew member is killed and two are wounded during the attack. B-32 gunners claim two victories and two more probables during the engagement. Both B-32s (one nicknamed Hobo Queen II; the other unnamed) are flown safely back to Okinawa.
- **Sept. 2, 1945.** V-J Day. On board USS *Missouri* (BB-63), in Tokyo Bay, Japanese Foreign Minister Mamoru Shigemitsu and Chief of Staff Gen. Yoshijiro Umezu sign instruments of surrender. (NOTE: Alternatively, V-J Day is regarded by some to be Aug. 15, the date upon which Emperor Hirohito broadcast his radio message, the Imperial Rescript of Surrender, touching off the celebrations normally associated with V-J Day in Allied nations.)
- **Sept. 2, 1945.** After the Japanese sign the instruments of surrender ending World War II, a Douglas C-54 Skymaster crew makes a record run of 31 hours and 25 minutes between Tokyo and Washington, D.C. (with en route stops) to deliver films of the event to the United States. Because of the International Date Line, the trip begins and ends on the same day.
- **Sept. 20, 1945.** At Church Broughton, England, company test pilot Eric Greenwood makes the first flight of an aircraft powered by turboprop engines. A Gloster Meteor F.1 pure jet powered fighter modified to accommodate two Rolls Royce Trent turboprops serves as the test bed.
- **Oct. 13, 1945.** The Army Air Forces Fair begins at Wright Field, Ohio. Designed to display technological advances in aviation made during the war, to show off captured German and Japanese weapons, and to present the AAF story to the American people, the fair draws 500,000 people the first two days and is extended for a week. More than 1,000,000 people from the US and 26 foreign countries will eventually see the more than \$150 million worth of equipment on display.
- **Nov. 6, 1945.** The first landing of a jet-powered aircraft on a carrier is made by Ens. Jake C. West in the Ryan FR-1 Fireball, a fighter propelled by both a turbojet and a reciprocating engine. The landing on USS *Wake Island* (CVE-65) is inadvertent; the plane's piston engine fails, and West comes in powered only by the turbojet.
- **Nov. 7, 1945.** Royal Air Force Group Capt. Hugh Wilson sets the first post-war recognized absolute speed record and breaks the 600 mph barrier at the same time, as he flies a Gloster Meteor F.4 to a speed of 606.26 mph at Herne Bay, England. This also marked the first time the absolute speed record is held by a jet powered aircraft. The flight broke the previous record, set in 1939, by 137 mph.

#### 1946

Feb. 4, 1946. The Air Force Association is incorporated.

**Feb. 9, 1946.** Gen. Carl A. "Tooey" Spaatz is designated Commanding General, Army Air Forces, succeeding Gen. Henry H. "Hap" Arnold.

#### **Spaatz**

**Feb. 15, 1946.** Thirty-five movie stars, studio executives, and reporters board a Lockheed Constellation piloted by Howard Hughes for the inauguration of TWA daily nonstop service between Los Angeles and New York City. Among the stars are Paulette Goddard, Veronica Lake, and Edward G. Robinson.

**Feb. 28, 1946.** Maj. William Lien makes the first flight of the Republic XP-84 at Muroc Dry Lake, Calif. The Thunderjet is the AAF's first post-war fighter and will be used extensively for ground attack missions in the Korean War. Later designated F-84, the Thunderjet is the first fighter to carry a tactical nuclear weapon.

**March 8, 1946.** The Bell Model 47 becomes the first rotary wing aircraft to receive Civil Aeronautic Agency certification. The Model 47 would be used by the military as the UH-13.

**March 12, 1946.** The Army Air Forces School is redesignated as Air University with headquarters at Maxwell Field, Ala.

March 21, 1946. Strategic Air Command, Tactical Air Command, and Air Defense Command are activated.

**Ike and the Air Force** 

**Strategic Air Command** 

**Strategic Air Command—the Deterrent Force** 

**April 24, 1946.** The two prototypes competing to be the Soviet Union's first jet aircraft are brought to Chkalovskaya flight test center outside of Moscow. The heads of the two design bureaus, "Artyom" Mikoyan and Alexander Yakovlev, meet in the center of the field for a coin toss. Mikoyan wins and test pilot Aleksey Grinchik makes the first flight of the I-300 (the prototype of the MiG-9, which will later carry the NATO reporting name 'Fargo'). Test pilot M.I. Ivanov then flies the Yak-15 ('Feather') for the first time. Both aircraft later go into production.

**May 4–16, 1946.** Five separate recognized class records for altitude with payload in piston-engine aircraft are set by five different AAF crews flying Boeing B-29A Superfortresses at Harmon Field, Guam. Col. J.B. Warren also sets a separate record for greatest load carried to 2,000 meters.

**May 8, 1946.** Memphis, Tenn., Mayor Walter Chandler buys the *Memphis Belle*, the historic Boeing B-17F whose crew was the first to complete 25 missions in Europe, from the Reconstruction Finance Corp. for \$350. When delivered in 1942, this Flying Fortress had cost the government \$314,109. An anonymous donor later sends Chandler a check to cover the cost so no tax dollars would have to be spent.

**May 17 and 19, 1946.** Eight separate recognized class records for speed over a closed course (1,000 and 2,000 kilometers) with payload in piston-engine aircraft are set by two different AAF crews flying Boeing B-29A Superfortresses at Dayton, Ohio.

June 17, 1946. First AAF Scientific Advisory Board meets, chaired by Theodore von Karman.

# **Von Karman's Way**

**June 21 and 28, 1946.** Six separate recognized class records for speed over a closed course (5,000 kilometers) with payload in piston-engine aircraft are set by two different AAF crews flying Boeing B-29As at Dayton.

**June 26, 1946.** "Knot" and "nautical mile" are adopted by the Army Air Forces and the Navy as standard aeronautical units of speed and distance.

**July 1, 1946.** Operation Crossroads, the atomic bomb tests on Bikini Atoll, begins as a Boeing B-29, nicknamed Dave's Dream, and piloted by Maj. Woodrow "Woody" Swancutt drops a 23 kiloton yield nuclear weapon over a cluster of 70 target ships of various types anchored in the Bikini lagoon. This Able Test is designed to measure the effect of an atomic airburst on ships and unmanned drone aircraft. The bomb, a duplicate of the Fat Man (plutonium) bomb that had been dropped on Nagasaki, Japan, missed its intended target, the former battleship USS *Nevada* (BB-36) by several thousand yards. However, it destroyed or heavily damaged ships anchored within a half mile of the zero point.

**July 21, 1946.** Lt. Cmdr. James Davidson makes the first successful takeoff and landing of a jet-powered aircraft from an aircraft carrier. He is flying a McDonnell FH-1 Phantom from USS *Franklin D. Roosevelt* (CVB-42).

July 1946. Air Force Magazine becomes the official journal of the Air Force Association.

Aug. 2. 1946. The National Air Museum is established under the Smithsonian Institution.

**Aug. 8, 1946.** Almost five years after the prototype was ordered, company test pilots Beryl A. Erickson and G.S. "Gus" Green and a crew of seven make the first flight of the mammoth Convair XB-36 prototype at Fort Worth, Tex.

**Aug. 17, 1946.** Army Air Forces 1st Sgt. Lawrence Lambert ejected at more than 300 mph at 6,000 feet altitude over Osborn, Ohio, from a P-61, dubbed "Jack in the Box," that had taken off from Patterson Field, Ohio, becoming the first person to test the newly developed pilot ejection seat from a high-speed aircraft.

**Aug. 24, 1946.** At an air show in Denver, Colo., the US Navy's four-month old flight demonstration team performs for the first time in its new aircraft, the Grumman F8F-1 Bearcat, and with its new official name: Blue Angels.

**Aug. 31, 1946.** Famed Hollywood stunt pilot Paul Mantz wins the first post-war Bendix Trophy transcontinental race from Los Angeles to Cleveland, Ohio, in a North American P-51 Mustang with an average speed of 435.501 mph. Total flying time is four hours, 42 minutes. Col. Leon Gray wins the first Bendix Trophy Jet Division race, flying a Lockheed P-80 Shooting Star over the same course with an average speed of 494.779 mph. Total flying time is four hours, eight minutes.

**Dec. 8, 1946.** Company pilot Chalmers "Slick" Goodlin makes the first powered flight of the Bell XS-1 supersonic research aircraft (later redesignated X-1). He reaches Mach .75 and an altitude of 35,000 feet after being released from a Boeing B-29 mother ship.

# 1947

**Jan. 13, 1947.** Milton Caniff, who had created the aviation related comic strip "Terry and the Pirates," starts a new strip, "Steve Canyon," which, by showing the importance of airpower to the average citizen, becomes an unofficial recruiting tool for the Army Air Forces.

## A Brush with the Air Force

**Feb. 27, 1947.** Lt. Col. Robert Thacker (pilot) and Lt. John M. Ard (copilot) set the record for the longest nonstop flight by a propeller-driven fighter aircraft when they fly Betty Jo, a slightly modified (no guns or armor) North American P-82B Twin Mustang, 5,051 miles from Hickam Field, Hawaii, to LaGuardia Airport in New York City, in 14 hours and 33 minutes. The crew started with 2,215 gallons of fuel and landed with only 60 gallons left.

**March 16, 1947.** Company pilots Sam Shannon and Russell R. Rogers make the first flight of the Convair 240 airliner prototype at San Diego. Versions of the 240 would be used by the Air Force as the T-29 navigator trainer and as the C-131 Samaritan medical evacuation/transport aircraft. One aircraft, the NC-131 variable stability test-bed, was still flying into the 1990s.

**March 17, 1947.** Company test pilot George Krebs makes the first flight of the North American XB-45 Tornado at Muroc AAF, Calif. The B-45 is the first American four engine jet bomber to fly and it is the first USAF jet bomber to go into production.

**June 19, 1947.** AAF Col. Albert Boyd sets the recognized absolute speed record, as he flies the Lockheed P-80R to a speed of 623.608 mph at Muroc Dry Lake, Calif.

**July 26, 1947.** President Harry Truman signs the National Defense Act of 1947, the enabling legislation that will create a separate Air Force. The act was signed on board Sacred Cow, the Douglas VC-54C that serves as the dedicated presidential aircraft, as Truman is preparing to leave Washington for Independence, Mo., to tend to his gravely ill mother.

**July 29–30, 1947.** Lt. Col. O.F. Lassiter sets a recognized class record for speed over a 10,000-kilometer closed circuit without payload (piston-engine aircraft) of 273.194 mph in a Boeing B-29A Superfortress at Dayton, Ohio.

Aug. 20, 1947. Cmdr. T. Caldwell flew D-558-1 Skystreak to a new world speed record of 640.7 mph.

**Aug. 25, 1947.** Marine Maj. Marion Carl breaks the recognized absolute speed record set two months previously as he pilots the Douglas D-558-1 Skystreak to a speed of 650.8 mph at Muroc Dry Lake, Calif.

**Sept. 18, 1947.** The US Air Force begins operations as a separate service, with W. Stuart Symington as its first Secretary. Gen. Carl A. "Tooey" Spaatz, Commanding General of the AAF, becomes the first Chief of Staff on Sept. 26.

**Symington Remembers** 

**Stuart Symington** 

**Spaatz** 

**Sept. 26**, **1947.** Transfer of personnel, bases, and materiel from the Army to the new Department of the Air Force is ordered by Defense Secretary James W. Forrestal.

# The First Five Years of the First 50

**Oct. 1, 1947.** Company test pilot George S. "Wheaties" Welch, who was one of the few AAF fighter pilots who was able to get airborne during the Pearl Harbor attack, makes the first flight of the North American XP-86 Sabre at Muroc Dry Lake, Calif. The Sabre is the Air Force's first swept-wing fighter.

#### The Fielding of the F-86

- **Oct. 1, 1947.** The Grumman XJR2F-1 amphibian makes its first flight at Bethpage, Long Island, N.Y. Originally nicknamed Pelican, the Albatross, as it was officially named after the second prototype has flown, would go on to serve with the Navy, Coast Guard, several foreign countries, and in Air Force service as the SA-16 and HU-16. During the Korean War, Albatross crews would rescue almost 1,000 United Nations pilots from coastal waters and rivers. The HU-16 would serve with the Air Force until 1975 and with several other countries until 1983.
- **Oct. 3, 1947.** General Order No. 4 is issued, which announces the assignment of officers to various staff positions in the newly created United States Air Force.
- **Oct. 14, 1947.** Capt. Charles "Chuck" Yeager becomes the first pilot to reach supersonic speeds in level flight when he reaches a speed of Mach 1.06 (700 mph) at an altitude of 45,000 feet in the rocket powered Bell XS 1 (later redesignated X-1) over Muroc Dry Lake, Calif. His aircraft was released by a B-29 mother ship in mid air.

#### Valor: Always a Fighter Pilot

- **Oct. 21, 1947.** The first flight of the Northrop YB-49 flying wing jet bomber is made. The Air Force's Northrop B-2 stealth bomber, when it debuts in 1989, will bear a family resemblance to this airplane.
- **Oct. 24, 1947.** Company pilots Fred Rowley and Carl Alber make the first flight of the Grumman XJR2F-1, the prototype of the SA-16 (redesignated HU-16 in 1962) Albatross rescue amphibian, at Bethpage, Long Island, N.Y. Air Force and Navy Albatross crews will rescue nearly 1,100 downed airmen from hostile waters during the Korean and Vietnam Wars.
- **Nov. 2, 1947.** Howard Hughes's wooden H-4 Hercules (the Spruce Goose) makes its first (and only) flight over Los Angeles Harbor, Calif. Distance traveled is about a mile.
- **Nov. 23, 1947.** The world's largest landplane, the Convair XC-99, the cargo version of the B-36 bomber, makes its first flight at Lindbergh Field in San Diego, with company test pilots Russell R. Rogers and Beryl A. Erickson at the controls. (This aircraft would lift a record 100,000-pound payload on April 15, 1949.)

#### Big Fella

**Dec. 17, 1947.** The prototype Boeing XB-47 Stratojet bomber makes its first flight from Boeing Field in Seattle, Wash., with company pilots Bob Robbins and Scott Osler at the controls.

#### The Long Reach of the Stratojet

**Dec. 30, 1947.** The prototype of the MiG-15 (NATO reporting name "Fagot") fighter, makes its first flight at the Soviet flight test center at Ramenskoye. Powered by an unlicensed copy of the Rolls-Royce Nene engine, the MiG-15 was flown by Russian and North Korean pilots during the Korean War.

# 1948

- **Jan. 2, 1948.** The Air Force Technical Museum at Patterson Field, Ohio, is officially established as a successor to the Army Aeronautical Museum. Only small technical items such as engines and cameras are displayed, not full sized aircraft.
- Jan. 30, 1948. Orville Wright dies in his hometown of Dayton, Ohio, at age 76.
- Feb. 20, 1948. The first Boeing B-50 Superfortress is delivered to Strategic Air Command (SAC).
- March 22, 1948. Company pilot Tony LeVier makes the first flight of the Lockheed TP-80C, the prototype of the T-33, the world's first jet trainer, at Van Nuys, Calif.
- **April 21, 1948.** Secretary of Defense James V. Forrestal assigns the primary responsibility for air defense of the United States to the Air Force.
- **April 26, 1948.** Based on a study that documented the waste and inefficiency caused by segregation in the Air Force, the Air Force announces that it must "eliminate segregation among its personnel by the unrestricted use of Negro personnel in free competition for any duty within the Air Force for which they may qualify." It was the first service to announce a policy of racial integration—well before President Truman's Executive Order on equal opportunity in July 1948.

#### When the Color Line Ended

- **April 30, 1948.** Gen. Hoyt S. Vandenberg succeeds Gen. Carl A. "Tooey" Spaatz as Air Force Chief of Staff.
- **May 26, 1948.** President Truman announces his approval of the bill that establishes the Civil Air Patrol as a civilian auxiliary of the Air Force.

#### The Citizen Air Fleet

- **June 1, 1948.** Navy and Air Force air transport systems are consolidated into Military Air Transport Service under USAF.
- **June 11, 1948.** Air Force Regulation 65-60 is published, which changes the designations for several Air Force aircraft. Fighters will now have the prefix "F" instead of "P" for pursuit (which dated back to 1925); reconnaissance aircraft will now be designated "R" instead of "F" (ostensibly for "fotographic," which dated back to 1930); and helicopters will now be designated "H" instead of "R" (for rotary wing). P-80s, P-82s, and P-84s will now be called F-80s, F-82s, and F-84s.
- **June 11, 1948.** The Office of the Chief of Air Force chaplains is created, almost a year after the creation of the service.
- **June 12, 1948.** President Harry Truman signs the Women's Armed Service Integration Act (Public Law 625), which allows women to serve as permanent, regular members of the Armed Forces.

**June 26, 1948.** Operation Vittles, the Berlin Airlift, begins with Douglas C-47 crews bringing 80 tons of supplies into the city on the first day. By the time it ends, on Sept. 30, 1949, the Anglo-American airlift will have delivered a total of 2.3 million tons of food, fuel, and supplies to the beleaguered city.

"Why the Airlift Succeeded," Air Force Magazine, May 1988 (not yet online)

#### The Berlin Airlift

# Inside the Berlin Airlift

**June 26, 1948.** The 7th Bombardment Group at Carswell AFB, Tex., receives the first operational B-36 bomber.

**July 16, 1948.** The Vickers VC2 Viscount prototype makes its first flight at Wisly, England. It is the worlds' first turboprop-powered airliner.

Aug. 6, 1948. First B-29s to circumnavigate the globe land near Tucson, Ariz., after leisurely 15-day trip.

**Aug. 16, 1948.** Company pilot Fred C. Bretcher makes the first flight of the Northrop XF-89 Scorpion all-weather interceptor at Muroc AFB, Calif.

**Aug. 23, 1948.** Company test pilot Ed Schoch makes the first free flight of the McDonnell XF-85 Goblin parasite fighter, which is intended to be carried in the bomb bay of a B-36 to provide fighter support over a target for the longer range bombers. The XF-85 is lowered on a trapeze during this test from the bomb bay of Monstro, the Boeing EB-29 mother ship over Muroc, Calif. The pilot spools up, unhooks from the trapeze, and begins flying. Schoch is unable to hook back up and then shatters the canopy when he strikes the trapeze. Shaken, Schoch lands the XF-85 safely on the desert.

**Sept. 15, 1948.** Air Force Maj. Richard L. Johnson, flying a North American F-86A, recaptures the world speed record for the US, streaking over a three-kilometer course at Muroc AFB, Calif., at 670.981 mph.

**Sept. 18, 1948.** Company pilot Sam Shannon makes the first official flight of the Convair Model 7002, the first true delta-winged aircraft, at Muroc Dry Lake, Calif. (A short hop had been made on June 9.) (The 7002 was to be the prototype for the XF-92, but USAF canceled the design program and accepted the 7002 as the XF-92 in June 1949.) The XF-92 will prove invaluable as a test-bed for delta-wing research.

**Oct. 14, 1948.** Company test pilot Ed Schoch makes the first successful unhook, free flight, and hook on in the McDonnell XF-85 Goblin parasite fighter over Muroc, Calif. Intended to be carried in the bomb bay of a B-36 for fighter support over a target, the two XF-85s built would only be flown seven times and would only make three successful in-flight hook ups. The project would be abandoned in early 1949 when air refueling proves more practical.

**Oct. 15, 1948.** Maj. Gen. William H. Tunner assumes command of the newly created American and British Combined Airlift Task Force during the Berlin Airlift.

Oct. 31, 1948. Air Force reveals use of ramiet engines on piloted aircraft, a modified F-80, for first time.

**Dec. 2, 1948.** Company pilot Vern L. Carstens makes the first flight of the Beech Model 45 demonstrator, the prototype of what will become the T- 34A Mentor. The T- 34 is the Air Force's first new primary trainer since World War II. Although the Mentor will be phased out of USAF service by 1961, the Navy will use the turboprop powered T-34C for primary instruction until the turn of the century.

**Dec. 7–8, 1948.** On the seventh anniversary of the Japanese attack on Pearl Harbor, a 7th Bomb Wing crew flies a Convair B-36B Peacemaker on a 35.5-hour mission from Carswell AFB, Tex., to Hawaii and back to Carswell without refueling. The B-36 was undetected by local air defenses at Pearl Harbor.

**Dec. 16, 1948.** Company pilot Charles Tucker makes the first flight of the Northrop X-4 Bantam at Muroc AFB, Calif. The X-4 is designed to study flight characteristics of small, swept-wing semitailless aircraft at transonic speeds.

**Dec. 17, 1948.** The 45th anniversary of the first powered flight is commemorated by the donation of the original Wright Flyer to the Smithsonian Institution. The Flyer was displayed in Britain for many years because of a dispute between the Wrights and the Smithsonian.

**Dec. 29, 1948.** Defense Secretary Forrestal says the US is working on an "Earth satellite vehicle program," a project to study the operation of guided rockets beyond Earth's pull of gravity.

Dec. 31, 1948. The 100,000th flight of the Berlin Airlift is made.

# 1949

**Jan. 19, 1949.** The first flight of the Martin XB-61 Matador mobile, short range, surface to surface tactical missile is carried out at Holloman AFB, N.M.

Jan. 25, 1949. The US Air Force adopts blue uniforms.

#### The Sartorial Splendor of the Air Force That Was

**Feb. 4, 1949.** The Civil Aeronautics Administration sanctions the use of the ground-controlled approach as a "primary aid" for commercial airline crews.

**Feb. 26–March 2, 1949.** *Lucky Lady II,* a SAC B-50A, is flown on the first nonstop flight around the world. The 23,452-mile flight takes 94 hours, one minute and requires four midair refuelings.

#### **Lucky Lady II**

**March 4, 1949.** The US Navy's Martin JRM-2 flying boat Caroline Mars carries a record 269 passengers from San Diego to San Francisco.

March 4, 1949. Crews flying in the Berlin Airlift haul in excess of one million tons of cargo.

**March 15, 1949.** Military Air Transport Service establishes Global Weather Central at Offutt AFB, Neb., for support of SAC.

March 26, 1949. USAF's 10-engined B-36D makes first flight.

#### **Revolt of the Admirals**

#### The Battle of the B-36

**April 4, 1949.** Meeting in Washington, D.C., the foreign ministers of Belgium, Britain, Canada, Denmark, France, Iceland, Italy, Luxembourg, Netherlands, Norway, and Portugal, along with the US Secretary of State, sign the North Atlantic Treaty, creating NATO.

**April 6, 1949.** At the height of the Berlin Airlift, Tempelhof Airport sets a ground control approach record for sustained landings—an airplane lands at the field less than four minutes apart for six hours. One ground control approach crew directs the landing of 102 aircraft between 5:50 p.m. and midnight.

- **April 16, 1949.** Company test pilot Tony LeVier and flight test engineer Glenn Fulkerson make the first flight of the YF-94 Starfire prototype from Van Nuys, Calif. The Starfire, actually modified TP-80, is designed to serve as an interim all-weather interceptor.
- **May 7, 1949.** Retired Gen. Henry H. "Hap" Arnold is given the permanent rank of General of the Air Force by a special act of Congress.
- **May 9, 1949.** Republic chief test pilot Carl Bellinger makes the first flight of the XF-91 Thunderceptor jet/rocket hybrid at Muroc AFB, Calif. This unusual aircraft has variable incidence wings of inverse taper design (wider at the tips than at the roots).
- **May 11, 1949.** President Truman signs a bill providing for a 3,000-mile-long guided-missile test range for the Air Force. The range is subsequently established at Cape Canaveral, Fla.
- **May 12, 1949.** The Soviets reopen land and water routes into Berlin. However, Operation Vittles, the Berlin airlift, would continue until Sept. 30 to build a backlog of supplies.
- **July 27, 1949.** The de Havilland D.H. 106 Comet airliner prototype makes its first flight at Hatfield, England. The Comet, which enters revenue service with BOAC (British Overseas Airways Company) in 1952, is the world's first jet airliner.
- **Aug. 9, 1949.** Navy Lt. J.L. Fruin makes the first emergency escape with an ejection seat in the US near Walterboro, S.C. His McDonnell F2H-1 Banshee is traveling at more than 500 knots at the time.
- **Aug. 10, 1949.** President Truman signs amendments to the National Security Act of 1947, converting the National Military Establishment to the Department of Defense.

#### The Quiet Coup of 1949

- **Sept. 23**, **1949**. President Truman announces that the Soviet Union has successfully exploded an atomic bomb.
- **Sept. 24, 1949.** Company pilot Jean "Skip" Ziegler makes the first flight of the North American T-28 Trojan at Inglewood, Calif. While its career as a trainer will be relatively short, the T-28 will later be used as an attack aircraft in the early stages of the US involvement in Vietnam.
- **Sept. 30, 1949.** The Berlin Airlift, gradually reduced since May 12, 1949, officially ends. Results show 2,343,301.5 tons of supplies carried on 277,264 flights. US planes carried 1,783,826 tons. A crew flying a Douglas C-54 Skymaster makes the last flight when it lifts off from Rhein Main.
- **Oct. 4, 1949.** A Fairchild C-82 Packet crew airdrops an entire field artillery battery by parachute at Ft. Bragg, N.C.
- **Nov. 18, 1949.** A crew flying a Douglas C-74 Globemaster I, *The Champ,* lands at RAF Marham, UK, after a 23-hour flight from Mobile, Ala. On board are a transatlantic-record 103 passengers and crew.



# Up From Kitty Hawk

Maj. James Jabara, first Korean War ace, May 20, 1951.

Articles noted throughout the chronology are hyperlinked to the online archive for *Air Force* Magazine and the *Daily Report*.



# 1950

Jan. 14, 1950. General of the Air Force Henry H. "Hap" Arnold dies of a heart ailment at Sonoma, Calif.

**Jan. 23, 1950.** USAF establishes Research and Development Command, eight months later it was redesignated Air Research and Development Command. In 1961 ARDC will be redesignated Air Force Systems Command.

**Jan. 31, 1950.** President Truman announces that he has directed the Atomic Energy Commission "to continue its work on all forms of atomic-energy weapons, including the so-called hydrogen or super bomb." This is the first confirmation of US H-bomb work.

**Feb. 1, 1950.** The prototype of the MiG-17 (NATO reporting name "Fresco") fighter makes its first flight at the Soviet flight test center at Zhukovsky. It is an aerodynamically refined version of the MiG-15 and fitted with an. The top scoring North Vietnamese ace, Colonel Toon (which some sources list as "Tomb"), records thirteen aerial victories while flying MiG-17s.

**March 15, 1950.** The Joint Chiefs of Staff, in a statement of basic roles and missions, give the Air Force formal and exclusive responsibility for strategic guided missiles.

# **How the Air Force Got the ICBM**

**April 21, 1950.** Piloted by Lt. Cmdr. R.C. Starkey, a Lockheed P2V-3C Neptune weighing 74,668 pounds becomes the heaviest aircraft ever launched from an aircraft carrier. The Neptune is flown off USS *Coral Sea* (CV-43).

April 24, 1950. Thomas K. Finletter becomes Secretary of the Air Force.

**June 3, 1950.** Company pilot Oscar P. "Bud" Haas makes the first flight of the Republic XF-96A, the swept wing variant of the F-84 Thunderjet, at Edwards AFB, Calif. The aircraft would later be christened Thunderstreak.

**June 25, 1950.** North Korea attacks South Korea to begin Korean War. The first Air Force aircraft destroyed in the conflict is a Douglas C-54 that is strafed on the ground at Kimpo AB, South Korea, by a pair of North Korean Yak fighter pilots.

**Editorial: Police Action** 

The Forgotten War

Air War Over Korea (an expanded chronology)

**June 27, 1950.** President Truman announces he has ordered USAF and USN forces to aid South Korea, which has been invaded by North Korean Communist forces.

**June 27, 1950.** Flying a North American F-82 Twin Mustang, USAF Lt. William G. Hudson, with radar operator Lt. Carl Fraser, destroys a Yak-11 near Seoul.

**June 28, 1950.** USAF aircraft fly first strikes of the war, attacking tanks, trucks, and supply columns along the North Korean invasion route.

**June 28, 1950.** USAF Lt. Bryce Poe pilots an RF-80A on the first USAF combat jet reconnaissance sortie in Korea.

**June 30, 1950.** President Truman authorizes Army Gen. Douglas MacArthur to dispatch air forces against targets in North Korea.

**July 3, 1950.** Carrier aircraft go into action in Korea, with strikes in and around Pyongyang. Also Lt. (j.g.) L.H. Plog and Ens. E.W. Brown, piloting Grumman F9F Panthers, each down a Yak-9, the first US Navy victories in air combat in Korea.

**July 10, 1950.** Flying a North American T-6 Texan trainer armed with smoke rockets, Lts. James Bryant and Frank Mitchell, on the first day of "mosquito missions" (forward air control sorties) in Korea, call in a strike by F-80 pilots who destroy a column of North Korean tanks.

**Aug. 5, 1950.** USAF Maj. Louis J. Sebille continued to attack Communist troops in his damaged airplane until it crashed near Hamchang, Korea. He received the Medal of Honor posthumously. This is the first Air Force Medal of Honor awarded in the Korean War.

# Valor: Epitaph for a Valiant Airman

**Sept. 14, 1950.** North Koreans push retreating UN forces into the "Pusan Perimeter" in Southeast Korea, marking the line of maximum advancement for the invaders. Airpower pounds North Korean supply lines, limiting the enemy force that can be brought to bear on Pusan.

**Sept. 18, 1950.** While it is significantly different enough to warrant a separate designation, the swept wing Republic F-96 Thunderstreak is redesignated F-84F. Air Force is having difficulty in securing funding from Congress for a new aircraft, and the service believes it will be easier to get appropriations to continue an "existing" program.

**Sept. 22, 1950.** Air Force Col. David C. Schilling makes the first nonstop trans-Atlantic flight in a jet aircraft, flying a Republic F-84E from Manston, England, to Limestone (later Loring) AFB, Maine, in 10 hours, one minute. The trip requires three in-flight refuelings.

**Oct. 19–29, 1950.** UN counteroffensive reaches its maximum line of advancement, stopping just short of the Yalu River near the Manchurian border.

Oct. 25, 1950. Communist China enters the Korean War.

**Nov. 8, 1950.** 1st Lt. Russell J. Brown, flying a Lockheed F-80 Shooting Star, downs a North Korean MiG-15 in history's first all-jet aerial combat.

**Nov. 9, 1950.** In the US Navy's first jet-vs.-jet combat, Cmdr. W.T. Amend, flying a Grumman F9F-2 Panther, downs a MiG-15 over the Yalu River.

**Dec. 4, 1950.** When his wingman, Ensign Jesse Brown, crash lands at the Chosin Reservoir in North Korea, Navy Lt. (j.g.) Thomas Hudner makes a bold decision. He belly lands his Vought F4U-4 Corsair close to Brown to lend assistance. Hudner packs snow around the engine of Brown's aircraft, trying to put out a smoldering fire, but to no avail. Marine 1st Lt. Charles Ward arrives in a Sikorsky HO3S helicopter with an axe to free, Brown who is pinned down, but it is of no use. In shock and suffering from hypothermia, Brown dies. Hudner is awarded the Medal of Honor.

**Dec. 17, 1950.** Lt. Col. Bruce Hinton, flying a North American F-86 Sabre, wins the first ever air-to-air combat between swept wing fighters when he shoots down a MiG-15 over Korea.

**Dec. 25, 1950**. Communist forces re-cross 38th parallel into South Korea.

# 1951

**April 6, 1951.** The Labor Department announces that employment in aircraft and parts plants increased by 100,000 people in the first six months of the Korean War.

**May 20, 1951.** Maj. James Jabara becomes the Air Force's first Korean War ace. He eventually downs 15 enemy planes in Korea.

# **Jet War**

**June 20, 1951.** Company pilot Jean "Skip" Ziegler makes the first flight of the Bell X-5 at Edwards AFB, Calif. On July 27, Ziegler becomes the first pilot to complete the full conversion from 20-degree sweepback to 60-degree sweepback. It was the type's ninth flight.

**July 3, 1951.** Despite bad weather and running out of daylight, Navy Lt. (j.g.) John Koelsch and AMM3C George Neal attempt to rescue a downed Marine aviator, Capt. James Wilkins, in mountainous terrain deep in North Korea. Their Sikorsky HO3S helicopter is shot down by ground fire as they are pulling Wilkins up in the rescue hoist. The three Americans then evade capture for nine days and reach the Korean coast before capture. Suffering from dysentery and malnourished, Koelsch consistently refuses to cooperate with his captors. He dies in prison and was posthumously awarded the Medal of Honor.

**July 6, 1951.** In Korea, a Strategic Air Command crew, flying a Boeing KB-29M tanker conducts the first air refueling operations over enemy territory under combat conditions.

**Aug. 18, 1951.** Col. Keith Compton wins the first USAF jets-only Bendix Trophy transcontinental race, flying from Muroc Field, Calif., to Detroit in a North American F-86A Sabre with an average speed of 553.761 mph. Total flying time is three hours, 27 minutes.

**Sept. 14, 1951.** Flying a night intruder mission, Capt. John S. Walmsley Jr. attacks a North Korean supply train near Yangdok, North Korea. His bombs hit an ammunition car, and the train breaks in two. He then makes a strafing attack on the remaining cars, but his guns jam after the first pass. Using the newly installed searchlight in the Douglas B-26 Intruder's nose, he lights the way for another pilot to finish off the

train. Walmsley's aircraft is hit by ground fire and crashes. He is posthumously awarded the Medal of Honor for his actions.

# Valor: Experiment at Yangdok

**Sept. 20, 1951.** The Air Force makes the first successful recovery of animals from rocket flight when a monkey and 11 mice survive an Aerobee flight to 236,000 feet.

**Oct. 2, 1951.** Col. Francis S. Gabreski of the 51st Fighter Wing downs a MiG-15, which gives him 6.5 victories in Korea. Combined with his 28 victories in World War II, he is the highest scoring Air Force ace with victories in two wars.

# Gabreski

**Nov. 30, 1951.** Maj. George A. Davis Jr. becomes the first USAF ace of two wars—World War II (seven) and Korea (14).

Valor: MiG Hunter

# 1952

Feb. 1, 1952. The Air Force acquires its first general-purpose computer (a Univac I).

**Feb. 10, 1952.** Despite being outnumbered 12 to two, Maj. George A. Davis Jr. and his wingman in F-86s attack a formation of MiG-15s over the Sinuiju-Yalu River area of North Korea to protect a force of US fighter-bombers. Davis, who had recorded seven air-to-air victories in World War II and had added 14 more in Korea, shoots down two of the MiGs (although these would not be confirmed victories) before being shot down himself. His wingman manages to escape. For his unselfish action, Davis would posthumously be awarded the Medal of Honor.

#### **Valor: MiG Hunter**

**April 1, 1952.** In a further change from practices carried over from when it was part of the Army, the Air Force redesignates the grades of private first class, corporal, and buck sergeant as airman third class, airman second class, and airman first class.

**April 15, 1952.** The Boeing YB-52 Stratofortress bomber prototype makes its maiden flight from its facility in Seattle, Wash. Company pilot A.M. "Tex" Johnston is at the controls.

#### Fifty Years of the B-52

**April 27, 1952.** The Tupolev Model 88, the prototype of the Tu-16 jet bomber, makes its first flight. The Tu-16 (later given the NATO reporting name 'Badger') is the Soviet Union's first strategic jet-powered bomber and is also the first with swept wings. Approximately 2,000 Tu-16s will be built in 25 versions and the type served well into the 1990s.

May 3, 1952. Air Force Lt. Cols. William Benedict and Joseph Fletcher land an LC-47 on the North Pole.

**May 22, 1952.** Two Philippine monkeys, Patricia and Mike, along with two white mice, Mildred and Albert, are carried to an altitude of 36 miles at a speed of 2,000 mph in the nosecone of an Aerobee rocket launched from Holloman AFB, N.M. This modern Noah's ark is recovered by parachute. By measuring the

effects of rapid acceleration and weightlessness on the animals, the flight provides valuable data for the later launching of humans in rockets.

- **May 29, 1952.** The first combat use of air-to-air refueling of Air Force fighter airplanes takes place as 12 Republic F-84E Thunderjets flown by pilots from the 159th Fighter-Bomber Squadron are topped off on their way back from a bomb run against targets at Sariwon, North Korea. The F-84s are based at Itazuke AB, Japan. By July 4, three more of these Operation Rightside missions will be flown.
- **June 23–24, 1952.** Combined air elements of the Air Force, Navy, and Marines virtually destroy the electrical power potential of North Korea. The two-day attack involves more than 1,200 sorties and is the largest single air effort since World War II and first to employ aircraft in Korea from all three services.
- **June 11, 1952.** A Grumman SA-16 Albatross pilot lands in the shallow, debris filled Taedong River in Korea to rescue a downed F-51 pilot while the fighter pilot's squadron mates beat off heavy enemy fire and illuminate the rescue with their landing lights.
- **July 13–31, 1952.** Two Air Force crews—Capts. Vincent McGovern and Harry C. Jeffers and Capt. George O. Hembrick and Lt. Harold Moore—flying two Sikorsky H-19 helicopters named *Hopalong* and *Whirl o Way*, make the first crossing of the Atlantic by helicopter. The crews fly from Westover AFB, Mass., to Prestwick, Scotland, in five stages, covering 3,535 miles in 42 hours and 25 minutes of flight time.
- **July 14, 1952.** The Ground Observer Corps begins its round-the-clock skywatch program as part of a nationwide air defense effort.

#### **The Ground Observer Corps**

- **July 29, 1952.** A North American RB-45C Tornado crew makes the first nonstop trans Pacific flight by a multi engine jet bomber. In flying the 3,640 miles from Alaska to Japan in nine hours and 50 minutes with the help of a KB-29 tanker, the crew of Maj. Louis H. Carrington Jr., Maj. Frederick W. Shook, and Capt. Wallace D. Yancy will later be awarded the Mackay Trophy.
- **Aug. 30, 1952.** The Avro 698, prototype of the Royal Air Force's Vulcan bomber, makes its first flight. The Vulcan is the world's first delta-wing bomber.
- **Oct. 15, 1952.** Company pilot William Bridgeman makes the first flight of the Douglas X-3 Stilleto research aircraft at Edwards AFB, Calif. Although it will never achieve its design goals, the X-3 does prove useful for developing titanium machining and construction techniques, and it will provide much design data for short span, low aspect ratio wing, high speed aircraft.
- **Oct. 31, 1952.** The United States tests its first thermonuclear device at Eniwetok in the Marshall Islands. The device, code-named "Mike," has a yield of 10.4 million tons of TNT, 1,000 times more powerful than the bomb dropped on Hiroshima in World War II.
- **Nov. 18, 1952.** Capt. J. Slade Nash set new world air speed record of 698.505 mph n a F-86D over a three-kilometer course at the Salton Sea in California.
- **Nov. 22, 1952.** While leading a flight of four Lockheed F-80s on a mission to dive bomb enemy gun positions that were harassing friendly ground troops near Sniper Ridge, North Korea, Maj. Charles J. Loring Jr.'s aircraft is hit repeatedly as he presses the attack on the enemy guns. His aircraft badly damaged, he turns and deliberately crashes into the gun positions, destroying them completely. For this selfless action, Loring is posthumously awarded the Medal of Honor.

**Valor: Sacrifice at Sniper Ridge** 

Dec. 16, 1952. Tactical Air Command activates first Air Force helicopter squadron.

# 1953

- **Jan. 2, 1953.** Cessna Aircraft is declared the winner of the Air Force's primary jet trainer competition to build the T-37, beating out 14 entries.
- **Jan. 14, 1953.** Capt. Joseph C. McConnell Jr., who would go on to become the leading American ace in Korea, records his first aerial victory, a MiG-15. Assigned to the 39th Fighter Squadron, he was flying a North American F-86 at the time.
- **Jan. 15, 1953.** Capt. Lawrence A. Barrett and Lt. R. F. Sullivan fly their Sikorsky SH-19 helicopter more than 100 miles behind North Korean lines to rescue a downed F-51 pilot.
- **Jan. 26, 1953.** Chance Vought Aircraft completes the last F4U Corsair. In production for 13 years (and built by two other manufacturers during World War II), almost 12,700 Corsairs were built in a number of versions, making for one of the longest and largest production runs in history.
- **Jan. 30, 1953.** Capt. B. L. Fithian (pilot) and Lt. S. R. Lyons (radar operator) shoot down an unseen North Korean aircraft using only the radar (no visual sighting) in their Lockheed F-94 Starfire to guide them to the intercept. The target turns out to be a Lavochkin La-9 piston-engine fighter.
- **Feb. 4, 1953.** Harold E. Talbott becomes Secretary of the Air Force.
- **March 16, 1953.** Republic delivers the 4,000th F-84 Thunderjet to the Air Force. The F-84 has been in production since 1946.
- **April 7, 1953.** The Atomic Energy Commission reveals that it is using QF-80 drone aircraft at the Nevada Proving Ground. The drones are flown directly through atomic bomb blast clouds to collect samples for later examination.
- **May 12, 1953.** Secretary of Defense Charles E. Wilson reveals that projected Air Force strength has been revised downward to 120 wings, instead of the 143 previously planned.
- **May 13 and 16, 1953.** Air Force crews flying Republic F-84 Thunderjets conduct two raids on dams, causing the loss of all electrical power to North Korea.
- **May 18, 1953.** Capt. Joseph C. McConnell Jr., flying an F-86, downs three MiG-15 fighters in two separate engagements. These victories give McConnell a total of 16 victories in just five months of action and make him the leading American ace of the Korean War.

## **MiG Alley**

- **May 25, 1953.** Company pilot George S. "Wheaties" Welch makes the first flight of the North American YF-100 Super Sabre prototype at the Air Force Flight Test Center at Edwards AFB, Calif. He exceeds Mach 1 on this first flight.
- **June 8, 1953.** Officially activated June 1, 1953, USAF's 3600th Air Demonstration Flight, the Thunderbirds, perform their first aerial demonstration. Flying Republic F-84G Thunderjets, the team flies the unofficial show at their home, Luke AFB, Ariz. (The first official demonstration was flown June 16, 1953, at Williams AFB, Ariz. The first civilian audience viewed a Thunderbirds show July 21, 1953, at Cheyenne, Wyo.)

June 16, 1953. North American delivers the 1,000th T-28 Trojan tandem-seat trainer to the Air Force.

June 30, 1953. Gen. Nathan F. Twining becomes Air Force Chief of Staff.

**July 16, 1953.** Lt. Col. William Barnes pushes the recognized absolute speed record past 700 mph, as he hits 715.697 mph in a North American F-86D over the Salton Sea in California. This marks one of the first times an aircraft type has succeeded itself in setting a new world speed record.

**July 20, 1953.** The first Martin B-57A, the US built version of the English Electric Canberra medium bomber, is flown for the first time at the company's Middle River, Md., plant.

**July 27, 1953.** Capt. Ralph S. Parr, a member of the 335th Fighter-Interceptor Squadron, flying a North American F-86F, records the last aerial victory in the Korean War when he shoots down an II-12 near Hoha-dong shortly after midnight. It was his 10th aerial victory.

Valor: The Pinnacle of Professionalism

The Remembered War

July 27, 1953. UN and North Korea sign armistice agreement, producing cease fire in Korea.

**The Forgotten War** 

**July 27, 1953.** Twenty-four minutes before the cease fire took effect, 1st Lt. Donald W. Mansfield (pilot), 1st Lt. Billy Ralston, and A2C D.J. Judd, flying a Douglas B-26 Invader (the A-26 had been redesignated in 1948) dropped the last bombs of the war on a North Korean supply dump.

**July 28, 1953.** At Edwards AFB, Calif., company pilot William Bridgeman pilots the Douglas X-3 Stiletto to the highest speed this grossly underpowered research aircraft will reach, Mach 1.21—and this only comes after he put the aircraft in a shallow dive. The X-3 was designed to fly at sustained speeds above Mach 2 for longer than 30 minutes at high altitudes.

**July 29, 1953.** Two days after the armistice ending the Korean War, the Air Force announces that the Far East Air Forces shot down 839 MiG-15 jet fighters, probably destroyed 154 more, and damaged 919 others during the 37 months of war. United Nations air forces lost 110 aircraft in air-to-air combat, 677 to enemy ground fire, and 213 airplanes to "other causes."

**Aug. 20, 1953.** Seventeen Republic F-84G Thunderjets, refueling from Boeing KC-97s, are flown nonstop 4,485 miles from Turner AFB, Ga., to RAF Lakenheath, UK, in what is, up to this point, the longest mass movement of fighter-bombers in history and the greatest distance ever flown by single engine jet fighters.

**Aug. 21, 1953.** Flying the Douglas D-558-II Skyrocket, Marine Lt. Col. Marion Carl sets an altitude record of 83,235 feet after being dropped from a Boeing P2B (B-29) flying at 34,000 feet over Edwards AFB, Calif.

Sept. 1, 1953. The first jet-to-jet air refueling takes place between a Boeing KB-47 and a "standard" B-47.

**Sept. 11, 1953.** A Grumman F6F drone is destroyed in the first successful interception test of the Sidewinder air-to-air missile at China Lake, Calif.

**Sept. 21, 1953.** North Korean pilot Lt. Noh Kum Suk defects and flies his MiG-15 to Kimpo AB, South Korea. He is granted asylum and given \$100,000.

- **Oct. 3, 1953.** Lt. Cmdr. James B. Verdin establishes a world speed record of 752.943 mph in the Douglas XF4D Skyray over Muroc, Calif. This is the first carrier airplane to set the speed record in its normal combat configuration.
- **Oct. 19, 1953.** Assistant Secretary of the Air Force Roger Lewis reveals that Boeing B-52 bombers will cost approximately \$3.6 million each in production, but the first four aircraft will cost about \$20 million each to amortize the design, development, and tooling costs.
- **Oct. 24, 1953.** Company pilot Richard L. Johnson makes the first flight of the Convair YF-102 prototype at Edwards AFB, Calif. Performance of this scaled-up version of the delta-wing XF-92A is found to be lacking, and the greatly redesigned YF-102A will fly in early 1954.
- **Oct. 29, 1953.** Lt. Col. Frank K. Everest sets a new world speed record of 755.149 mph in the North American YF-100 prototype over the Salton Sea in California. He breaks the record set just a few weeks earlier by Lt. Cmdr. James B. Verdin.
- **Nov. 6, 1953.** A Boeing B-47 Stratojet is flown from Limestone (later Loring) AFB, Maine, to RAF Brize Norton, UK, in four hours, 53 minutes to establish a new trans-Atlantic speed record from the continental US.
- **Nov. 20, 1953.** NACA test pilot Scott Crossfield becomes the first pilot to exceed Mach 2. His Douglas D-588-II Skyrocket research airplane is dropped from a Navy P2B-1S (B-29) at an altitude of 32,000 feet over Edwards AFB, Calif.
- **Dec. 12, 1953.** Maj. Charles E. Yeager pilots the rocket-powered Bell X-1A to a speed of Mach 2.435 (approximately 1,650 mph) over Edwards AFB.

Valor: Always a Fighter Pilot

# 1954

- **Feb. 15, 1954.** President Dwight D. Eisenhower nominates Charles A. Lindbergh to be a brigadier general in the Air Force Reserve.
- **Feb. 24, 1954.** President Eisenhower approves the National Security Council's recommendation for construction of the Distant Early Warning (DEW) Line. Operational control of the DEW Line will be transferred from the US Air Force to the Royal Canadian Air Force on Feb. 1, 1959.

# **Burglar Alarm**

#### A Line in the Ice

- **Feb. 28, 1954.** Company pilot Tony LeVier makes the first flight of the Lockheed XF-104 Starfighter at Edwards AFB, Calif. A landing gear retraction problem cuts the flight short, however. A full flight will be made March 4. Designed as a supersonic air superiority fighter, the F-104 will set a number of records for the US, but it will find greater utility for a number of other countries than it will for USAF.
- March 1, 1954. In the Marshall Islands, the US successfully explodes its first deliverable hydrogen bomb.
- **March 1, 1954.** The Air Reserve Personnel Center is established in Denver. ARPC moved to Lowry AFB, Colo., in 1976.

**March 18, 1954.** Boeing rolls out the first production B-52A Stratofortress at its plant in Seattle, Wash. Production will continue until 1962.

## Fifty Years of the B-52

April 1, 1954. President Eisenhower signs into law a bill creating the US Air Force Academy.

#### The Class of 50 Years Ago

#### **First Class**

- **May 25, 1954.** A Navy ZPG-2 airship, commanded by Cmdr. M.H. Eppes, lands at NAS Key West, Fla., after staying aloft for 200.1 hours. Eppes is later awarded the Distinguished Flying Cross.
- **June 22, 1954.** The Douglas A4D (A-4) Skyhawk makes its first flight from Edwards AFB, Calif., with company pilot Robert Rahn at the controls. Some 2,960 aircraft had been produced when the last aircraft was delivered in 1979. The Navy's Blue Angels flew the A-4 Skyhawk II from 1974 to 1986. They were still flown by several foreign countries into the mid 1990s.
- **June 28, 1954.** Company test pilot George Jansen makes the first flight of the Douglas RB-66A Destroyer at Long Beach, Calif. Developed from the Navy's A3D Skywarrior, the RB/B-66 variant is intended to provide the Air Force with a tactical light bomber and reconnaissance aircraft.
- **July 15, 1954.** The Boeing Model 367-80 makes its first flight, with company pilot A.M. "Tex" Johnston in command. The aircraft is the prototype for the Air Force's C/KC-135 series and the progenitor of the 707, which will become the first civilian jetliner to see wide use.
- **Aug. 23, 1954.** Lockheed pilots Stanley Beltz and Roy Wimmer crew the first flight of the YC-130 Hercules at Burbank, Calif.

## **The Immortal Hercules**

- **Aug. 25, 1954.** Capt. Joseph McConnell, the leading American ace of the Korean War, is killed in a crash of a North American F-86H Sabre while testing it at Edwards AFB, Calif.
- **Aug. 26, 1954.** Maj. Arthur "Kit" Murray reaches a record height of 90,440 feet in the Bell X-1A, which was released from a B-29 over Edwards AFB, Calif.
- **Sept. 1, 1954.** Continental Air Defense Command—a Joint command composed of Air Force, Army, Navy, and Marine forces—is established at Colorado Springs, Colo. USAF's Air Defense Command was the Air Force component and main element. CADC was under the Joint Chiefs of Staff and became the US component in the North American Air (now Aerospace) Defense Command (NORAD) upon its establishment in 1957.

## The Rise of Air Defense

- **Sept. 29, 1954.** Company pilot Robert Little makes the first flight of the McDonnell F-101A Voodoo at Edwards AFB, Calif. Originally conceived as a long range bomber escort, the "One Oh Wonder" will go on to a lengthy career as an interceptor and USAF's first supersonic reconnaissance aircraft.
- **Oct. 12, 1954.** The Cessna XT-37 Tweet trainer prototype is flown for the first time at Wichita, Kan. The T-37 will still be flying more than 40 years as the Air Force's primary trainer. (The Air Force and Navy selected a new joint primary trainer, the Raytheon T-6A Texan II, with deliveries beginning in 1999.)

**Oct. 27, 1954.** Benjamin O. Davis Jr., son of the first black general officer in the US Army, becomes the first black general officer in the US Air Force. He retires Jan. 31, 1970, as a lieutenant general.

## **Benjamin Davis, American**

- **Oct. 27, 1954.** The Douglas X-3 Stiletto research aircraft inadvertently provides an understanding of the aerodynamic condition of inertia (or roll) coupling, as NACA pilot Joe Walker manages to recover the aircraft after it diverged during an abrupt aileron roll in a flight at Edwards AFB, Calif.
- **Nov. 2, 1954.** Company test pilot J.F. Coleman, flying in the radical, turboprop-driven tail-sitting Convair XFY-1, makes a vertical takeoff, changes to horizontal flight, and then returns to vertical for a landing in San Diego.
- **Nov. 7, 1954.** The Air Force announces plans to build a \$15.5 million research laboratory for atomic aircraft engines. To be built in Connecticut, the plant is to be run by Pratt & Whitney and will be finished in 1957.
- **Dec. 10, 1954.** To determine if a pilot could eject from an airplane at supersonic speed and live, Lt. Col. John Paul Stapp, a flight surgeon, rides a rocket sled to 632 mph, decelerates to zero in 1.4 seconds, and survives 40 times the force of gravity.

Valor: The Track to Survival

## 1955

- **Feb. 7, 1955.** After 131 shows, the Thunderbirds, the Air Force's aerial demonstration team, perform their last show in the Republic F-84G Thunderjet at Webb AFB, Tex. In April, the team will convert to sweptwing F-84F Thunderstreaks.
- **Feb. 23, 1955.** The Army picks Bell Helicopter from a list of 20 competing companies to build its first turbine-powered helicopter. The winning design, designated XH-40, will become the HU-1 (and later still, UH-1) Iroquois, the renowned "Huey."
- **Feb. 24, 1955.** The first fully instrumented flight of the Boeing XF-99 (later redesignated CIM-10) BOMARC surface-to-air intercept missile is carried out from Patrick AFB, Fla.
- **Feb. 26, 1955.** North American Aviation test pilot George Smith becomes the first person to survive ejection from an aircraft flying at supersonic speed. His F-100 Super Sabre is traveling at Mach 1.05 when the controls jam and he is forced to punch out.
- **July 11, 1955.** The first class (306 cadets) is sworn in at the Air Force Academy's temporary location at Lowry AFB, Colo.

#### The Class of 50 Years Ago

## **First Class**

**July 26, 1955.** Capital Airways puts its first Vickers Viscount forty-passenger airliner into revenue service, being flown on the airline's Washington, DC to Chicago route. Capital is the first US carrier to purchase the Viscount, the world's first turboprop-powered airliner, and this flight marks the first time since World War I that a British-built aircraft is being flown in regular service over the United States.

**Aug. 4, 1955.** Company pilot Tony LeVier makes the first official flight of the Lockheed U-2 spyplane at Groom Lake, Nev. An inadvertent hop had been made on July 29.

Aug. 15, 1955. Donald A. Quarles becomes Secretary of the Air Force.

**Oct. 22, 1955.** Company test pilot Russell M. "Rusty" Roth makes the first flight of the Republic YF-105 Thunderchief at Edwards AFB, Calif. The aircraft, commonly known as the "Thud," is the largest single-engine, single-seat fighter ever built.

**Nov. 26, 1955.** Secretary of Defense Charles E. Wilson assigns responsibility for development and operations of land-based intercontinental ballistic missiles (ICBMs) to the Air Force.

50 Years of Space and Missiles

How the Air Force Got the ICBM

## 1956

**Jan. 9, 1956.** The Ye-5, the first true prototype of the MiG-21 supersonic point defense fighter, makes its first flight. Later given the NATO reporting name "Fishbed," more than 8,000 MiG-21s will be built, including license production in Warsaw Pact countries, and the type will be flown by at least 35 countries. Upgraded versions remain in service in the early part of the 21st century.

Jan. 17, 1956. DOD reveals the existence of SAGE, an electronic air defense system.

**Feb. 16, 1956.** The Lockheed YF-104A Starfighter makes its first public appearance. This is the second of the 17 service test aircraft ordered by the Air Force. (The XF-104 first flew March 4, 1954.)

## **Era of the Starfighter**

**Feb. 17, 1956.** The YF-104A flies for the first time with Lockheed pilot Herman "Fish" Salmon at the controls.

**March 10, 1956.** The recognized absolute speed record passes the 1,000 mph barrier, as company pilot Peter Twiss hits 1,132.13 mph in the Fairey Delta 2 research aircraft at Sussex, England.

**May 20, 1956.** After 91 shows in a little more than a year, the Thunderbirds perform their last demonstration in the Republic F-84F Thunderstreak at Bolling AFB, D.C.

**May 21, 1956.** An Air Force crew flying Boeing B-52B Stratofortress at 40,000 feet air-drops a live hydrogen bomb over Bikini Atoll in the Pacific. The bomb has a measured blast of 3.75 megatons.

May 28, 1956. Company pilot Pete Girard makes the first flight of the Ryan X-13 Vertijet Vertical Takeoff and Landing (VTOL) research aircraft in hover mode at Edwards AFB, Calif. He had also made the type's first conventional flight on Dec. 10, 1955.

**June 30, 1956.** The USAF Thunderbirds fly their first show in the supersonic North American F-100 Super Sabre, the type the team would fly for most of the next 13 years.

**Aug. 1, 1956.** President Eisenhower signs into law a bill permitting the armed forces to include flight instruction in ROTC programs.

- **Aug. 23–24, 1956.** A US Army crew, flying a modified Vertol H-21 Shawnee nicknamed Amblin-Annie, makes the first nonstop helicopter flight across the United States. The flight from San Diego to Washington, D.C., takes 31 hours and 40 minutes, covers 2,610 miles, and requires six air refuelings.
- **Aug. 31, 1956.** The KC-135, the first jet-powered tanker, makes its first flight. Numerous variants have been flown and the type has been used for everything from electronic surveillance to becoming an airborne laser laboratory.
- **Sept. 27, 1956.** Capt. Milburn Apt, USAF, reaches Mach 3.196 in the Bell X-2, becoming the first pilot to fly three times the speed of sound. Apt is killed, however, when the aircraft tumbles out of control.
- **Oct. 1, 1956.** NASA awards its Distinguished Service Medal to Richard T. Whitcomb, inventor of the "area rule" concept, which results in aircraft (such as the Convair F-102) having Coke bottle-shaped fuselages in order to reduce supersonic drag.
- **Oct. 26, 1956.** Less than 16 months after design work began, and ironically, the same day that legendary designer Larry Bell dies, company pilot Floyd Carlson makes the first flight of the Bell XH-40 at Fort Worth, Tex. Later redesignated UH-1, the Iroquois, or "Huey" as it is more popularly known, will go on to be one of the significant helicopters of all time.
- **Oct. 31, 1956.** A ski-equipped Douglas R4D (Navy C-47) Skytrain lands at the South Pole, becoming the first aircraft to land at the bottom of the world.
- **Nov. 7, 1956.** Units equipped with the US Air Force's first operational surface-to-surface missile—the mobile, winged Matador, capable of striking targets in the Warsaw Pact from sites in West Germany—deploy from their fixed day-to-day sites to unannounced dispersed launch locations. This alert is in response to the crisis posed by the major Soviet attack on Hungary, which brutally suppresses the Hungarian Revolution.
- **Nov. 11, 1956.** Company test pilot Beryl A. Erickson along with J.D. McEachern (flight test observer) and Charles Harrison (flight test engineer) makes the first flight of the Convair XB-58A Hustler at Fort Worth, Tex. The delta winged B-58 is the Air Force's first supersonic bomber.
- **Nov. 26, 1956:** Secretary of Defense Charles E. Wilson issues a memorandum to the Armed Forces Policy Council, giving the Air Force responsibility for developing ICBMs.
- **Dec. 26, 1956.** Company pilot Richard L. "Dick" Johnson makes the first flight of the first Convair F-106 Delta Dart at Edwards AFB, Calif. The F-106, a substantially redesigned and much improved version of the F-102 interceptor, would remain in service until 1988 and would later be modified into target drones.

## 1957

- **Jan. 18, 1957.** Commanded by Maj. Gen. Archie J. Old Jr., USAF, three B-52 Stratofortresses complete a 24,325-mile round-the-world nonstop flight in 45 hours, 19 minutes, with an average speed of 534 mph. It is the first globe-circling nonstop flight by a jet aircraft.
- **April 11, 1957.** With company pilot Pete Girard at the controls, the jet-powered Ryan X-13 Vertijet makes its first full-cycle flight. He takes off vertically from the aircraft's mobile trailer, transitions to horizontal flight, performs several maneuvers, and then lands vertically.

May 1, 1957. James H. Douglas Jr. becomes Secretary of the Air Force.

**June 11, 1957.** The first Convair XSM-65A (later redesignated CGM-16A) Atlas ICBM is launched from Cape Canaveral AFS, Fla.

## The Day of the Atlas

#### **How the Air Force Got the ICBM**

July 1, 1957. Gen. Thomas D. White becomes Air Force Chief of Staff.

#### **Just What the Air Force Needed**

July 1, 1957. Pacific Air Forces is established.

**July 1, 1957.** USAF activates the first ICBM wing, the 704th Strategic Missile Wing. It is based at Cooke (later, Vandenberg) AFB, Calif.

**July 13, 1957.** President Eisenhower becomes the first chief executive to fly in a helicopter as he takes off from the White House lawn in a Bell UH-13J Sioux. Maj. Joseph E. Barrett flies the President a short distance to a military command post at a remote location as part of a military exercise.

**July 19, 1957.** A Douglas MB-1 Genie unguided aerial rocket is fired from a Northrop F-89J Scorpion crewed by Capt. Eric Hutchinson (pilot) and Capt. Alfred Barbee (radar operator). This marked the first time in history that an air-to-air rocket with a nuclear warhead is launched and detonated. The test, the "John" shot of Operation Plumbbob, takes place at 20,000 feet over the Nevada Test Site.

**July 30, 1957.** In Washington, D.C., a Ryan company pilot takes off vertically from a street in front of the Pentagon in the Ryan X-13 Vertijet VTOL research aircraft, transitions to horizontal flight, retraces the route that Orville Wright and Lt. Benjamin Foulois made on the final acceptance flight of the 1909 Military Flyer, and returns for a vertical landing.

**July 31, 1957.** The DEW Line, a distant early warning radar defense installation extending across the Canadian Arctic, is reported to be fully operational.

#### A Line in the Ice

**Aug. 1, 1957.** Establishment of NORAD, the bilateral US-Canadian North American Air Defense Command, is announced. (See Sept. 12, 1957.)

**Aug. 15, 1957.** Gen. Nathan F. Twining becomes Chairman of the Joint Chiefs of Staff, the first USAF officer to serve in this position.

**Sept. 12, 1957.** NORAD is formally established at Ent AFB, Colo., with USAF Gen. Earle E. Partridge in command.

**Oct. 4, 1957.** The space age begins when the Soviet Union launches Sputnik 1, the world's first artificial satellite, into Earth orbit.

**Nov. 3, 1957.** The first animal in space, a dog named Laika, is carried aboard Sputnik 2. The satellite is carried aloft by a modified ICBM.

**Nov. 11–13, 1957.** Gen. Curtis E. LeMay and crew fly a Boeing KC-135 from Westover AFB, Mass., to Buenos Aires, Argentina, to set a world jet-class record distance in a straight line of 6,322 miles. The crew will set a class speed record on the trip back.

**Nov. 27, 1957.** To demonstrate the capability of the new McDonnell RF-101A Voodoo, four pilots take off from March AFB, Calif., as part of Operation Sun Run. Refueled in flight, two of the pilots land at McGuire AFB, N.J., and two turn around and land back at March. Lt. Gustav Klatt sets an eastbound coast to coast record of three hours, seven minutes, and 43 seconds, while Capt. Robert Sweet sets a westbound coast to coast record (3:36:33) and Los Angeles–New York–Los Angeles record (6:46:36).

**Dec. 6, 1957.** The first US attempt to orbit a satellite fails when a Vanguard rocket loses thrust and explodes.

**Dec. 12, 1957.** Flying a McDonnell F-101A Voodoo, USAF Maj. Adrian Drew sets the recognized absolute world speed record of 1,207.34 mph at Edwards AFB, Calif.

Dec. 17, 1957. The Convair HGM-16 Atlas ICBM makes its first successful launch and flight.

**Dec. 20, 1957.** The first AIM-9 Sidewinder heat seeking air to air missile launched from an USAF aircraft is fired by Capt. Joe Gordon, flying a Lockheed F-104 Starfighter. Sidewinder, originally developed by the Navy in 1953 but modernized regularly since, will still be both services' primary short range missile until well after the turn of the century.

## 1958

**Jan. 31, 1958.** Explorer I, the first US satellite, is launched by the Army at Cape Canaveral, Fla. The satellite, launched on a Jupiter-C rocket, will later play a key role in the discovery of the Van Allen radiation belt.

## A Short History of Military Space

**Feb. 4, 1958.** The keel of the world's first nuclear-powered aircraft carrier, USS *Enterprise* (CVN-65), is laid at the Newport News Shipbuilding and Drydock Co. yards in Virginia.

**Feb. 27, 1958.** Approval is given to USAF to start research and development on an ICBM that will later be called "Minuteman."

#### **Minuteman Turns 40**

## **America's Strategic Ace in the Hole**

**March 6, 1958.** The first production Northrop SM-62 Snark intercontinental missile is accepted by the Air Force after four previous successful launchings.

#### How the Air Force Got the ICBM

**April 8, 1958.** An Air Force KC-135 Stratotanker crew flies 10,229.3 miles nonstop and unrefueled from Tokyo to Lajes Field, Azores, in 18 hours, 50 minutes.

**May 7, 1958.** USAF Maj. Howard C. Johnson sets a world altitude record of 91,243 feet in a Lockheed F-104A Starfighter.

May 16, 1958. USAF Capt. Walter W. Irwin sets a world speed record of 1,404.09 mph, also in an F-104.

**May 20, 1958.** Public Law 85-422 creates two supergrades, E-8 master sergeant and E-9 chief master sergeant.

**May 27, 1958.** The first flight of the McDonnell XF4H-1 (F-4) Phantom II is made by company pilot Robert Little (who was wearing street shoes at the time) at the company's facility in St. Louis, Mo.

**June 17, 1958.** Boeing and Martin are named prime contractors to develop competitive designs for the Air Force's X-20 Dyna-Soar boost-glide space vehicle. This project, although later canceled, is the first step toward the space shuttle.

## **Dyna-Soar Plus Titan III**

**July 15, 1958.** The first Boeing Vertol VZ-2A tilt wing research aircraft makes its first successful transition from vertical to horizontal flight and vice versa.

**July 26, 1958.** Capt. Iven C. Kincheloe Jr., USAF, holder of the world altitude record (126,200 feet, set in the Bell X-2, Sept. 7, 1956), is killed in an F-104 crash.

**August 1958.** The term "aerospace" is used publicly for the first time by Gen. Thomas D. White, USAF Chief of Staff, in an *Air Force* Magazine article. The term was coined by Frank W. Jennings, a civilian writer and editor for the Air Force News Service.

## Air and Space Are Indivisible

**Aug. 6, 1958.** A Department of Defense Reorganization Act removes operational control of combat forces from the individual services and reassigns the missions to unified and specified commands on a geographic or functional basis. The main role of the services becomes to organize, train, and equip forces.

#### **American Chieftains**

**Sept. 1, 1958.** USAF promotes its first airmen to E-8, the new senior master sergeant supergrade established by Congress under Public Law 85-422 (May 20, 1958).

**Sept. 26, 1958.** A Boeing B-52D crew sets a world distance record of 6,233.98 miles and a speed record of 560.75 mph (over a 10,000-meter course) during a two-lap flight from Ellsworth AFB, S.D., to Douglas, Ariz., to Newburg, Ore., and back.

**Oct. 1, 1958.** The National Aeronautics and Space Administration (NASA) is officially established, replacing NACA.

**Dec. 16, 1958.** The Pacific Missile Range begins launching operations with the successful flight of the Chrysler PGM-19 Thor missile, the first ballistic missile launched over the Pacific Ocean and the first free world firing of ballistic missile under simulated combat conditions.

**Dec. 18, 1958.** Project Score, an Atlas booster with a communications repeater satellite, is launched into Earth orbit. The satellite carries a Christmas message from President Eisenhower that is broadcast to Earth, the first time a human voice has been heard from space.

## 1959

**Jan. 8, 1959.** NASA requests eight Redstone-type launch vehicles from the Army for Project Mercury development flights. Four days later, McDonnell Aircraft Co. is selected to build the Mercury capsules.

Jan. 22, 1959. Air Force Capt. William B. White sets a record for the longest nonstop flight between

points in the US, as he flies a Republic F-105 Thunderchief 3,850 miles from Eielson AFB, Alaska, to Eqlin AFB, Fla., in five hours, 27 minutes.

**Feb. 6, 1959.** An Air Force Systems Command crew launches the first Martin XSM-68A (later redesignated HGM-25A) Titan ICBM from Patrick AFB, Fla.

**Feb. 12, 1959.** The last Convair B-36 Peacemaker is retired from USAF service. The aircraft, a B-36J assigned to the 95th Bomb Wing at Biggs AFB, Tex., is flown to Amon Carter Field in Fort Worth, Tex., to be placed on display. The retirement of the B-36 leaves the Air Force with an all-jet bomber force.

**Feb. 28, 1959.** USAF successfully launches the Discoverer I satellite into polar orbit from Vandenberg AFB, Calif.

#### **Corona Comes in From the Cold**

**April 2, 1959.** Chosen from a field of 110 candidates, seven test pilots—Air Force Capts. L. Gordon Cooper Jr., Virgil I. "Gus" Grissom, and Donald K. "Deke" Slayton; Navy Lt. Cmdrs. Walter M. Schirra Jr., and Alan B. Shepard Jr., and Lt. M. Scott Carpenter; and Marine Lt. Col. John H. Glenn Jr.—are announced as the Project Mercury astronauts.

## **The Air Force Astronauts**

**April 12, 1959.** The Air Force Association's World Congress of Flight is held in Las Vegas, Nev.—the first international air show in US history—with 51 foreign nations participating. NBC-TV telecasts an hour-long special, and Life Magazine gives it five pages of coverage.

**April 15, 1959.** Capt. George A. Edwards sets a recognized 500 kilometer closed course speed record of 826.28 mph in a McDonnell RF-101C Voodoo at Edwards AFB, Calif.

**April 20, 1959.** The prototype Lockheed UGM-27A Polaris sea-launched ballistic missile successfully flies a 500-mile trajectory in a Navy test. Three days later, the Air Force carries out the first flight test of the North American GAM-77 Hound Dog air-launched strategic missile at Eglin AFB, Fla.

**April 30, 1959.** Now officially retired, a Convair B-36J Peacemaker is flown to the Air Force Museum at Wright-Patterson AFB, Ohio. This is the last flight of the mammoth—and controversial—B-36.

**May 28, 1959.** Astrochimps Able and Baker are recovered alive in the Atlantic after their flight to an altitude of 300 miles in the nosecone of a PGM-19 Jupiter missile launched from Cape Canaveral Missile Test Annex. Fla.

## The Astrochimps

June 3, 1959. The first class graduates from the Air Force Academy.

## **First Class**

**June 8, 1959.** The Post Office enters the missile age, as 3,000 stamped envelopes are carried aboard a Vought RGM-6 Regulus I missile launched from the submarine USS *Barbero* (SSG-317) in the Atlantic. The unarmed missile lands 21 minutes later at the Naval Auxiliary Air Station at Mayport, Fla.

**June 8, 1959.** After several attempts, North American Aviation pilot Scott Crossfield makes the first nonpowered flight in the X-15.

**July 1, 1959.** The first experimental reactor (Kiwi-A) in the nuclear space rocket program is operated successfully in a test at Jackass Flats, Nev.

**Aug. 7, 1959.** First intercontinental relay of a voice message by satellite takes place. The voice is that of Mai. Robert G. Mathis, later USAF Vice Chief of Staff.

Aug. 7, 1959. Two USAF F-100Fs make the first flight by jet fighter aircraft over the North Pole.

**Sept. 9, 1959.** The Atlas missile is fired for the first time by a SAC crew from Vandenberg AFB, Calif., and the missile type is declared operational by the SAC commander in chief. The shot travels about 4,300 miles at 16,000 mph.

## The Man Who Built the Missiles

Sept. 12, 1959. The Soviet Union launches Luna 2, the first man-made object to reach the moon.

**Sept. 17, 1959.** Company pilot Scott Crossfield makes the first powered flight of the North American X-15 rocket powered research aircraft at Edwards AFB, Calif. He reaches a speed of Mach 2.11 and an altitude of 52,341 feet.

**Sept. 24, 1959.** Company test pilot Robert C. Little makes the first flight of the McDonnell F-101A Voodoo at Edwards AFB, Calif. The "One-oh-Wonder" hits Mach 1.2 on its first flight and will go on to fill several roles for a number of Air Force commands.

**Nov. 16, 1959.** Air Force Capt. Joseph W. Kittinger Jr., after ascending to an altitude of 76,400 feet in Excelsior I, an open-gondola balloon (setting three unofficial altitude records on the way), makes the longest free-fall parachute jump in history (64,000 feet) in two minutes, 58 seconds at White Sands, N.M.

Dec. 1, 1959. USAF promotes its first airmen to E-9, the new chief master sergeant supergrade.

**Dec. 11, 1959.** Dudley C. Sharp becomes Secretary of the Air Force.

**Dec. 15, 1959.** Maj. Joseph W. Rogers regains the recognized absolute speed record for the US, as he pilots a Convair F-106A Delta Dart to a speed of 1,525.965 mph at Edwards AFB, Calif. Rogers received the Distinguished Flying Cross, the Thompson Trophy, and French de la Vaux Medal for the feat.

**Dec. 30, 1959.** The first US ballistic missile-carrying submarine, USS *George Washington* (SSBN-598), is commissioned at Groton, Conn.



# Up From Kitty Hawk

A1C William Pitsenbarger received posthumous Medal of Honor for April 11, 1966, action.

Articles noted throughout the chronology are hyperlinked to the online archive for *Air Force* Magazine and the *Daily Report*.



## 1960

**Jan. 25, 1960.** In what is billed as the first known shootdown of a ballistic missile, an Army MIM-23 HAWK anti-aircraft missile downs an unarmed MGR-1 Honest John surface-to-surface unquided rocket.

**March 18, 1960.** The 702nd Strategic Missile Wing, and the first and only USAF unit equipped with the Northrop SM-62 Snark air breathing intercontinental cruise missile, puts its first missile on nuclear alert. The unit is based at Presque Isle AFB, Maine.

**March 29, 1960.** The Naval Weapons Station Annex at Charleston, S.C., opens. It will provide a final assembly capability for UGM-27 Polaris sea-launched ballistic missiles and also a capability for loading them on submarines.

**April 1, 1960.** The RCA-built TIROS 1 (Television Infrared Observation Satellite), the world's first meteorological satellite, is successfully launched from Cape Canaveral Missile Test Annex, Fla., atop a Thor launch vehicle.

**April 4, 1960.** Project Ozma is initiated at the National Radio Astronomy Observatory at Green Bank, W.Va., to listen for possible signal patterns from outer space other than "natural" noise.

**April 19, 1960.** The Grumman A2F-1 attack aircraft prototype makes its first flight at the company's Calverton, Long Island, NY facility. Later designated the A-6 Intruder, it would carry the brunt of the Navy's bombing effort in Vietnam. It also sees action in Operation Desert Storm in 1991. More than 680 Intruders are built and the type remains in service until 1996.

**April 22, 1960.** A federal court of appeals upholds a Federal Aviation Administration order that automatically grounds pilots over 60 years old.

**May 1, 1960.** Central Intelligence Agency (CIA) pilot Francis Gary Powers, flying a Lockheed U-2 reconnaissance aircraft, is shot down over the Soviet Union near Sverdlovsk. He is captured and later put on trial for espionage. The incident creates an international furor, and a superpower summit scheduled for later in the month is canceled. On Feb. 10, 1962, Powers will be exchanged for Soviet KGB agent Rudolf Abel.

When the U-2 Fell to Earth

- **May 20, 1960.** The Air Force launches from Cape Canaveral Missile Test Annex, Fla., a Convair HGM-16 Atlas ICBM that carries a 1.5-ton payload 9,040 miles to the Indian Ocean. This is the greatest distance ever flown by a US ICBM.
- **May 21, 1960.** The last World War II—era B-25 Mitchell medium bomber, a VB-25 staff transport, retires from active Air Force service at Eglin AFB, Fla.
- **July 20, 1960.** The first underwater launch of a Lockheed UGM-27 Polaris ballistic missile is successfully carried out from USS *George Washington* (SSBN-598) off Cape Canaveral Missile Test Annex, Fla.
- **Aug. 1, 1960.** The 43rd Bombardment Wing at Carswell AFB, Tex., accepts the first operational B-58 Hustler medium bomber. The first US supersonic bomber, the delta-wing aircraft could fly at twice the speed of sound and could be refueled in flight.
- **Aug. 16, 1960.** At an altitude of 102,800 feet over Tularosa, N.M., Air Force Capt. Joseph W. Kittinger Jr., makes the ultimate leap of faith. In the 4.5 minutes between stepping out of the balloon's open gondola and opening his parachute, he free falls 84,700 feet, reaching a speed of 614 mph. Kittinger lands unharmed 13 minutes, 45 seconds after jumping. This the highest jump and longest free fall ever recorded.

#### Valor: The Longest Leap

**Aug. 18, 1960.** A USAF crew flying a specially modified Fairchild C-119J Flying Boxcar makes the first successful mid-air retrieval of a then-classified Corona program satellite imagery capsule re-entering the atmosphere. The crew uses two wire hooks trailing from the aircraft's cargo hold to snag the parachute of the Discoverer XIV imagery capsule over the Pacific.

## **Corona Comes in From the Cold**

- **Aug. 30, 1960.** With six Atlas missiles ready to launch, the 564th Strategic Missile Squadron at F. E. Warren AFB, Wyo., becomes the first fully operational ICBM squadron.
- **Sept. 21, 1960.** Tactical Air Command formally accepts the first Republic F-105D Thunderchief all-weather fighter in ceremonies at Nellis AFB, Nev. The aircraft will not officially enter service until the following year, when deliveries to Seymour Johnson AFB, N.C., begin.
- **Oct. 1, 1960.** Ballistic Missile Early Warning System radar post at Thule, Greenland, begins regular operations, part of chain of three planned installations to warn of air or missile attacks on North America over an Arctic route.

## 1961

**Jan. 12, 1961.** A B-58 Hustler piloted by Maj. Henry J. Deutschendorf Jr., sets six international speed and payload records on a single flight, thus breaking five previous records held by the Soviet Union.

## **Bombs Away From 60,000**

Jan. 14, 1961. Another B-58 from the same wing breaks three of the records set two days earlier.

**Jan. 17, 1961.** President Eisenhower's farewell address will be best remembered for a phrase—"the military industrial complex"—it contained, but few would remember what he actually said about it.

## What Ike Really Said.

Jan. 24, 1961. Eugene M. Zuckert becomes Secretary of the Air Force.

#### **Zuckert Remembers**

**Jan. 31, 1961.** A chimpanzee named Ham is launched atop a Redstone booster from Cape Canaveral Missile Test Annex, Fla., in a test of the Mercury manned capsule.

## The Astrochimps

**Feb. 1, 1961.** The first Boeing LGM-30A Minuteman ICBM is launched from Cape Canaveral Missile Test Annex, Fla. It travels 4,600 miles and hits the target area. This is the first time a first-test missile is launched with all systems and stages functioning.

## **Minuteman Turns 40**

- **Feb. 3, 1961.** SAC's Boeing EC-135 Airborne Command Post begins operations. Dubbed "Looking Glass," the airplanes and their equipment provide a backup means of controlling manned bombers and launching land-based ICBMs in case a nuclear attack wipes out conventional command-and-control systems.
- **March 3, 1961.** In a full range operational test, a pair of Boeing BOMARC surface-to-air missiles equipped with conventional warheads are launched from Eglin AFB, Fla., and intercept both a supersonic GQM-15 Regulus II drone and a subsonic, radio controlled QB-47 drone over the Gulf of Mexico.
- **March 10, 1961.** The Ye-155, the prototype of the MiG-25, a Mach 3 capable interceptor and reconnaissance platform, makes its first flight. Later given the NATO reporting name "Foxbat," the MiG-25 is developed in response to the US development of the B-70 bomber. The B-70 project is limited to research prototypes, but development of the MiG-25 continues. About 700 MiG-25s are eventually built.
- **March 28, 1961.** President John F. Kennedy directs that the Northrop SM-62 Snark missile be phased out as it is "obsolete and of marginal military value." The main reason the Snark, the Air Force's first and only air breathing intercontinental cruise missile, is to be retired is that ballistic missiles are proving more practical and considerably more accurate.
- **April 12, 1961.** The Soviet Union stuns the world with the first successful manned spaceflight. Cosmonaut Yuri Gagarin is not only history's first spaceman, he is also the first person to orbit the Earth.

## The Tyuratam Enigma

- **April 15, 1961.** The Lockheed P3V-1 Orion makes its first flight at Burbank, Calif. A development of the turboprop-powered Electra airliner, the Orion is the Navy's new land-based patrol aircraft. In November 1962, VP-8, the first operational P-3 unit (as it was redesignated in 1962) goes into action during the Cuban Missile Crisis. The P-3 was still in frontline service in the US and in 13 other countries at the beginning of the 21st century.
- **May 5, 1961.** Cmdr. Alan B. Shepard Jr. becomes the first Project Mercury astronaut to cross the space frontier. His flight in Freedom 7 lasts 15 minutes, 28 seconds, reaches an altitude of 116.5 miles, and ends 303.8 miles downrange.

- **May 25, 1961.** President Kennedy, at a joint session of Congress, declares a national space objective: "I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to Earth."
- **June 9, 1961.** Military Air Transport Service accepts delivery of the first C-135 Stratolifter, introducing jet cargo aircraft into the MATS fleet.
- **June 25, 1961.** USAF inactivates the 702nd Strategic Missile Wing at Presque Isle AFB, Maine. The Air Force's first and only unit to be equipped with the Northrop SM-62 Snark air breathing intercontinental cruise missile, had been fully operational for only four months.
- June 30, 1961. Gen. Curtis E. LeMay becomes Air Force Chief of Staff.

"The Airman Who Shook the World," Air Force Magazine, January 1987 (not yet online)

#### LeMay

**July 21, 1961.** Capt. Virgil I. "Gus" Grissom becomes the first Air Force astronaut in space. He attains an altitude of 118.3 miles on the second Mercury mission.

## **Air Force Astronauts**

- **Aug. 6–7, 1961.** Flying in the Vostok 2 spacecraft, Soviet Air Force Capt. Gherman Titov becomes the first person to orbit the Earth for more than a day. He also becomes the first person to get spacesick.
- **Sept. 20, 1961.** A Marine Corps hero becomes national president of the Air Force Association. AFA elects Joe Foss, leading Marine Corps ace in World War II, recipient of the Medal of Honor, and two-term governor of South Dakota. Foss left the Marine Corps as a major in 1946 and joined the Air National Guard, in which he rose to the grade of brigadier general in 1954. In 1988, Foss will be elected president of the National Rifle Association.

## 1962

- **Jan. 10–11, 1962.** Maj. Clyde P. Evely sets a recognized class record for great circle distance without landing (jet aircraft) of 12,532.28 miles from Kadena AB, Okinawa, to Madrid, Spain, in a Boeing B-52H Stratofortress.
- **Jan. 12, 1962.** Maj. Henry J. Deutschendorf Jr., sets two recognized class records for 2,000-kilometer speed over a closed circuit with payload (jet aircraft) of 1,061.81 mph in a Convair B-58A Hustler at Edwards AFB, Calif.
- **Jan. 17, 1962.** Defense Secretary Robert S. McNamara announces the Air Force will adopt the Navy's McDonnell F4H-1 Phantom II as an interim replacement for the F-105. The aircraft is later designated the F-110 Spectre. The first two aircraft, on loan from the Navy, will be flying in USAF colors by March. In June, the designation would be changed to F-4 to conform with the new DOD system, and Spectre would be dropped and the Navy nickname retained.

**Feb. 2, 1962.** A Fairchild C-123, used as part of Operation Ranch Hand and crewed by Capt. Fergus C. Groves, Capt. Robert D. Larson, and SSgt. Milo B. Coghill, crashes while spraying defoliant on a Viet Cong ambush site. It is the first Air Force crew and aircraft lost in South Vietnam.

#### **Ranch Hand**

- **Feb. 20, 1962.** Marine Lt. Col. John H. Glenn Jr., becomes the first US astronaut to orbit the Earth. His Friendship 7 flight lasts nearly five hours.
- **March 5, 1962.** Capts. Robert G. Sowers, Robert MacDonald, and John T. Walton, flying in a Convair B-58A Hustler bomber, are the only contestants in the 21st and last Bendix Trophy transcontinental race. Called Operation Heatrise, the crew completes the Los Angeles to New York course with an average speed of 1214.71 mph, and total elapsed time is two hours, 56 seconds.
- **April 30, 1962.** Company pilot Louis Schalk makes the first official flight of the Lockheed A-12, the forerunner of the SR-71 high-speed reconnaissance aircraft, at Groom Lake, Nev. Two earlier hops had been made on April 25 and 26.

#### **The Oxcart Story**

## **Black Shield**

- **May 24, 1962.** Navy Lt. Cmdr. Scott Carpenter makes the fourth flight of the Mercury space program. The flight is less than perfect, as a number of in-flight problems leads to the astronaut overshooting the recovery ship, the USS *Intrepid* (CVS-11) by more than 250 miles.
- **June 30, 1962.** The Department of Defense adopts a common designation system for all military aircraft. The new system is based on existing (and much simpler) Air Force designation methods. The designations for most Air Force aircraft are unchanged, but all Navy, Marine, and Coast Guard aircraft are redesignated, as the Navy's practice of including a letter to designate manufacturers is eliminated.
- **July 17, 1962.** Maj. Robert M. White pilots the North American X-15 research aircraft to an altitude of 314,750 feet, thus making the first spaceflight in a manned aircraft. The flight also sets the recognized absolute altitude record for aircraft launched from a carrier airplane.
- **Aug. 13, 1962.** Coast Guard Cmdr. Wallace C. Dahlgren sets three recognized class records (pistonengine amphibian aircraft) for speed over a 1,000 kilometer closed course (with payload) of 231.96 mph while flying a Grumman UF-2G Albatross from Floyd Bennett Field, N.Y., to CGAS Elizabeth City, N.C.
- **Sept. 12, 1962.** Navy Lt. Cmdrs. Don Moore and Fred Franke separately set two recognized class records for altitude with 1,000- and 2,000-kilogram payloads (piston-engine amphibians) of 29,475 feet and 27,404.93 feet, respectively, in a Grumman UF-2G Albatross, assigned to the Coast Guard at Floyd Bennett Field, N.Y.
- **Sept. 14, 1962.** Maj. F.L. Fulton sets a recognized class record for altitude with a 5,000-kilogram payload (jet aircraft) of 85,360.8 feet in a Convair B-58A Hustler at Edwards AFB, Calif.
- **Sept. 16, 1962.** Coast Guard Cmdr. Richard A. Hoffman sets a recognized class record (piston-engine amphibian aircraft) for average speed over a 5,000 kilometer course (with payload) of 151.39 mph in a Grumman UF-2G Albatross from Floyd Bennett Field, N.Y., to Plattsburg, N.Y., to Dupress, S.D. and back to Floyd Bennett Field.
- **Oct. 3, 1962.** Navy Cmdr. Walter M. "Wally" Schirra Jr., makes what is described as a textbook orbital flight during the fifth flight in the Mercury program. He flies in a 100x176-mile orbit, the highest to date, and completes nearly six orbits. He is also the first astronaut to splash down in the Pacific Ocean.

**Oct. 14, 1962.** Maj. R.S. Heyser, flying a Lockheed U-2E, returns to the United States with photographic evidence that Soviet SS-4 intermediate range nuclear missiles are being erected near San Christobal, Cuba. A Navy crew, flying a Lockheed P2V Neptune, returns later in the day carrying reconnaissance photographs of the Soviet freighter Omsk with oblong crates lashed to the deck that are likely missile containers. The Cuban Missile Crisis would end on Oct. 28.

## **Airpower and the Cuban Missile Crisis**

- **Oct. 22, 1962.** Before President John F. Kennedy publicly announces the Soviet buildup of offensive intermediate range missiles in Cuba, Strategic Air Command goes on actual airborne alert. B-52 crews are sent on 24-hour flights, fully armed, to areas within striking distance of possible enemy targets. These highly classified flights, which are continued until 1968, are called "Chrome Dome" missions.
- **Oct. 23, 1962.** Air Force pilots from the 363rd Tactical Reconnaissance Wing at Shaw AFB, S.C., flying McDonnell RF-101C Voodoos, make the first low level photo reconnaissance flights during the Cuban Missile Crisis.
- **Oct. 25, 1962.** Coast Guard Cmdr. William G. Fenlon sets a recognized class record for great circle distance without landing (piston-engine amphibians) of 3,571.65 miles from Kodiak, Alaska, to Pensacola, Fla., in a Grumman UF-2G Albatross.
- **Oct. 26, 1962.** The 744th and last Boeing B-52 Stratofortress is delivered to Strategic Air Command. The aircraft, an H model (serial # 61-040) is assigned to 4136th Strategic Wing at Minot AFB, N.D. Also on this date, SAC takes delivery of the last three (of 116) Convair B-58 Hustlers. The aircraft are assigned to the 305th Bomb Wing at Bunker Hill AFB. Ind.
- **Oct. 27, 1962.** Maj. Rudolph D. Anderson, flying a Lockheed U-2, is shot down by a Soviet built SA-2 Guideline surface-to-air missile while performing an overflight mission over Cuba. He is the only combat casualty of the Cuban Missile Crisis.

## **Valor: The First Air Force Cross**

- **Nov. 30, 1962.** The first tethered hovering flight is made by the Lockheed XV-4A Hummingbird vertical takeoff and landing airplane at Marietta, Ga.
- **Dec. 14, 1962.** NASA's Mariner II satellite scans the surface of Venus for 35 minutes as it flies past the planet at a distance of 21,642 miles.

## 1963

- **Jan. 17, 1963.** NASA pilot Joe Walker qualifies for astronaut wings by flying the North American X-15 to an altitude of 271,700 feet or 51.46 miles. He is the 11th man to pass the 50-mile mark.
- **Feb. 9, 1963.** The Boeing 727 tri-jet airliner makes its first flight, from Seattle to Everett, Wash. The 727 was the most-produced airliner of all time until surpassed by the Boeing 737.
- **Feb. 28, 1963.** USAF declares operational the first Minuteman ICBM squadron, the 10th Strategic Missile Squadron (SMS) at Malmstrom AFB, Mont.

**March 19, 1963.** Capt. Glenn A. Higginson sets a recognized class record (piston-engine amphibian aircraft) for average speed over a 1,000 kilometer course (with payload) of 153.65 mph in a Grumman HU-16B Albatross from Eglin AFB, Fla., to Albany, Ga.

**March 20, 1963.** Capt. Henry E. Erwin Jr. sets two recognized class records for altitude (19,747 feet) with a 5,000-kilogram payload and greatest payload (12,162.9 pounds) carried to an altitude of 6,600 feet in a Grumman HU-16B Albatross at Eglin AFB, Fla.

**April 11, 1963.** The first successful launch of a Boeing LGM-30 Minuteman I is conducted at Vandenberg AFB, Calif.

**May 15, 1963.** Maj. L. Gordon Cooper Jr. becomes the second Air Force astronaut in space as he makes nearly 22 orbits in his spacecraft, Faith 7. He is the last American to be launched into space alone, he is the first to spend a complete day in orbit, and because of a failure of the automatic system, he is the first to perform an entirely manual re-entry. This is the last Project Mercury space mission.

**June 8, 1963.** The Air Force activates the 570th Strategic Missile Squadron, the first Titan II unit, at Davis-Monthan AFB, Ariz.

**June 16–19, 1963.** Cosmonaut Jr. Lt. Valentina Tereshkova, a former cotton mill worker, becomes the first woman in space. Her Vostok 6 flight lasts nearly three days.

**Aug. 22, 1963.** NASA pilot Joe Walker achieves an unofficial world altitude record of 354,200 feet in the X-15.

**Sept. 22, 1963.** The Air Force Academy chapel—destined to become world famous—is dedicated. Six years earlier, the design was almost scrapped as an "insult to religion and Colorado."

"The Chapel That Nearly Wasn't," Air Force Magazine, December 1985 (not yet online)

**Oct. 17, 1963.** The first LGM-30A Minuteman I operational test launch is carried out at Vandenberg AFB, Calif., by a crew from Malmstrom AFB, Mont. The shot is a partial success. The re-entry vehicle overshoots the target.

**Oct. 22, 1963.** In Exercise Big Lift, the Air Force airlifts more than 15,000 men of the 2nd Armored Division and its supporting units from Ft. Hood, Tex., to bases near Frankfurt, West Germany. In completing the movement in 63 hours, five minutes, Military Air Transport Service (MATS) flies 223 missions without a fatality.

#### Big Lift: Boon, Bust, or Boondoggle?

**Oct. 30, 1963.** Navy Lt. James H. Flatley lands a Lockheed KC-130F Hercules on the aircraft carrier USS *Forrestal* (CVA-59) in the Atlantic off Boston, Mass., in a test to see if the Hercules could be used as a "Super COD" (carrier on-board delivery) aircraft. Flatley and crew will eventually make 21 unarrested full-stop landings and a like number of unassisted takeoffs from the carrier.

**Nov. 7, 1963.** The Northrop-developed three-parachute landing system for the Apollo command module is successfully tested at White Sands, N.M.

**Dec. 17, 1963.** With company pilots Leo Sullivan and Hank Dees at the controls, the Lockheed C-141A Starlifter, USAF's first jet-powered transport makes its first flight at Marietta, Ga.

**Dec. 17, 1963.** The Thunderbirds, the Air Force's aerial demonstration squadron, fly their 690th and last show in the North American F-100C Super Sabre.

## 1964

**Jan. 8, 1964.** The newest Air Force decoration, the Air Force Cross, is posthumously awarded to reconnaissance pilot Maj. Rudolf Anderson Jr., the only combat casualty of the 1962 Cuban Missile Crisis.

Valor: The First Air Force Cross

**Airpower and the Cuban Missile Crisis** 

**Feb. 3, 1964.** Four airmen locked in a spaceship simulator exhibit no ill effects after exposure to a pure oxygen atmosphere for 30 days.

**Feb. 29, 1964.** President Lyndon B. Johnson announces the existence of the Lockheed A-11, with a cruising speed of more than Mach 3 at altitudes above 70,000 feet. (Use of the designation A-11 to refer to the Air Force's YF-12A was deliberate to cloud the existence of the CIA's A-12, a single-seat reconnaissance aircraft that had been flying in secret and was the actual basis for the two-seat YF-12.) Only three YF-12A interceptors are built, and the SR-71 program for the Air Force takes precedence.

## **The Oxcart Story**

**April 26, 1964.** At Norfolk, Va., the USAF Thunderbirds fly their first show in the Republic F-105B Thunderchief. The team would only perform six shows in the Thud, as it was soon determined that it was not a suitable show aircraft.

**May 11, 1964.** The North American XB-70 Valkyrie is rolled out at Palmdale, Calif. Designed to fly at three times the speed of sound and at altitudes above 70,000 feet, the XB-70 is originally planned as a manned bomber, but funding limitations allow for only two aircraft, to be used strictly for testing and research.

The Ride of the Valkyrie

The Gutting of the Valkyrie

**August 1964.** USAF moves into Southeast Asia in force. B-57s from Clark AB, Philippines, deploy to Bien Hoa, South Vietnam and additional F-100s move to Da Nang on Aug. 5. Eighteen F-105s deploy from Japan to Korat RTAB, Thailand, beginning Aug. 6.

**Aug. 2, 1964.** The destroyer USS *Maddox* (DD-731) is attacked by North Vietnamese patrol boats in the Gulf of Tonkin. A second incident, involving USS *Turner Joy* (DD-731), reportedly occurs two days later. Congress passes the Gulf of Tonkin Resolution on Aug. 7.

**Encounters in the Tonkin Gulf** 

**Keeper File: Vietnam Warrant** 

**Aug. 19, 1964.** The Hughes Syncom III satellite is launched by a Thor-Delta launch vehicle. After several weeks of maneuvers, it becomes the world's first geosynchronous satellite.

**Sept. 21, 1964.** Company pilot Alvin S. White and USAF Col. Joseph F. Cotton make the first flight of the North American XB-70A Valkyrie from Air Force Plant 42 in Palmdale, Calif.

**Sept. 28, 1964.** USS *Daniel Webster* (SSBN-626), the first submarine equipped with the Lockheed UGM-27C (A3) Polaris sea-launched ballistic missile, departs Charleston, S.C., on its first patrol.

**Nov. 17–26, 1964.** C-130s flown by US Air Forces in Europe crews deliver Belgian paratroopers to the Congo for a rescue operation credited with saving the lives of nearly 2,000 hostages threatened by rebels at Stanleyville.

Dec. 14, 1964. US Air Force flies the first "Barrel Roll" armed reconnaissance mission in Laos.

#### **Barrel Roll**

**Dec. 15, 1964.** Taking off from Bien Hoa AB, South Vietnam, Capt. Jack Harvey and a crew of six—aided by test manager Capt. Ronald W. Terry—makes the first combat mission in the Douglas FC-47 (later redesignated AC-47) gunship, attacking enemy sampan, buildings, trails, and suspected jungle staging areas. A C-47 transport modified with three side firing General Electric SUU-11A 7.62 mm miniguns, the gunships, soon to be known by their radio call sign "Spooky," were an instant success.

#### The Awesome Power of Air Force Gunships

**Dec. 21, 1964.** Company pilots Richard Johnson and Val Prahl make the first flight of the variable-geometry General Dynamics F-111A from Air Force Plant 4 in Fort Worth, Tex. The flight lasts 22 minutes.

**Dec. 22, 1964.** Lockheed gets approval to start development for the Air Force of the CX-HLS transport, which will become the C-5A.

**Dec. 22, 1964.** Company pilot Bob Gilliland makes the first flight of the Lockheed SR-71A "Blackbird" strategic reconnaissance aircraft from Palmdale, Calif. He takes the aircraft to an altitude exceeding 45,000 feet and a speed of more than 1,000 mph on the flight.

## 1965

**Feb. 1, 1965.** The Air Force activates the first Boeing LGM-30F Minuteman II ICBM unit, the 447th Strategic Missile Squadron at Grand Forks AFB, N.D.

Feb. 1, 1965. Gen. John P. McConnell becomes Air Force Chief of Staff.

**Feb. 8, 1965.** The Air Force performs its first retaliatory air strike in North Vietnam. A North American F-100 Super Sabre flies cover for attacking South Vietnamese fighter aircraft, suppressing ground fire in the target area.

**Feb. 18, 1965.** First Air Force jet raids are flown against an enemy concentration in South Vietnam. American pilots fly Martin B-57 Canberra bombers and North American F-100 fighters against the Viet Cong in South Vietnam, near An Khe.

**Feb. 25, 1965.** The Douglas DC-9, the first airliner to have rear-mounted jet engines, makes its first flight. It enters service on Dec. 8 with Delta Air Lines.

**March 1, 1965.** An unarmed Boeing LGM-30B Minuteman I ICBM is successfully launched from an underground silo 10 miles north of Newell, S.D. It is the first time a site other than Vandenberg AFB, Calif., or Cape Kennedy (Canaveral) AFS, Fla., is used for an ICBM launch.

March 2, 1965. Operation Rolling Thunder, the air war against North Vietnam, begins.

#### **Rolling Thunder**

**March 2, 1965.** Capt. Hayden J. Lockhart, flying an F-100 in a raid against an ammunition dump north of the Vietnamese demilitarized zone, is shot down and becomes the first Air Force pilot to be taken prisoner by the North Vietnamese. He will not be released until Feb. 12, 1973.

**March 23, 1965.** Air Force Maj. Virgil I. "Gus" Grissom becomes the first astronaut in the manned spaceflight program to go aloft a second time, as he and Navy Lt. Cmdr. John W. Young are launched on the first Gemini mission, Gemini 3. This three-orbit, four-hour, 53-minute shakedown flight is also the first time a spacecraft's orbit is changed in space.

**May 1, 1965.** Using two Lockheed YF-12As, three Air Force crews set six class and absolute records at Edwards AFB, Calif. Col. Robert Stevens and RSO Lt. Col. Daniel Andre set the recognized absolute speed record with a mark of 2,070.115 mph over the 10.1-mile straight course.

May 10, 1965. Tactical control of aircraft in battle areas is assigned to the Air Force by the Joint Chiefs of Staff.

**June 3–7, 1965.** Air Force Maj. Edward H. White makes the first US spacewalk. He and Air Force Maj. James A. McDivitt set a space endurance record as Gemini 4 stays aloft for 97 hours and 32 seconds in 62 orbits. The Gemini 4 mission is the first US spaceflight to be controlled from the Manned Spaceflight Center in Houston, Tex.

**June 18, 1965.** SAC B-52s are used for the first time in Vietnam, when 28 aircraft strike Viet Cong targets near Saigon.

#### **Arc Light**

**July 10, 1965.** Capt. Thomas S. Roberts, with his backseater Capt. Ronald C. Anderson, and Capt. Kenneth E. Holcombe, and his backseater Capt. Arthur C. Clark, both flying McDonnell Douglas F-4C Phantom IIs, shoot down two MiG-17s, the first Air Force air-to-air victories of the Vietnam War.

**Aug. 11, 1965.** Flying in North American F-100D Super Sabres, the USAF Thunderbirds fly their 1,000th show at Waukegan, III.

**Aug. 18, 1965.** In an effort to combat mounting aircraft losses to North Vietnamese surface to air missiles, an Air Force committee headed by Brig. Gen. K.C. Dempster recommends the installation of radar homing and warning (RHAW) electronic equipment in North American F-100Fs. The Super Sabres will then be used as pathfinders for F-105 strike aircraft by finding and destroying the "Fan Song" radars that are used to direct SA-2 Guideline missiles. This secret modification program is originally known as Project Ferret, but is later changed to Project Wild Weasel.

**Aug. 21–29, 1965.** The Gemini 5 crew of Air Force Lt. Col. L. Gordon Cooper and Navy Lt. Cmdr. Charles Conrad carry out the US's first long-duration spaceflight, ending one orbit short of eight full days.

**Sept. 27, 1965.** Company test pilot John W. Conrad makes the first flight of the Navy's LTV YA-7A Corsair II attack aircraft at NAS Dallas, Tex. Conrad will make the first flight of the USAF version of the SLUF (Short Little Ugly Feller—polite form) on April 5, 1968. A-7s would be used by both services in Vietnam and will still be in Navy service during Desert Storm.

- Oct. 1, 1965. Harold Brown is sworn in as Secretary of the Air Force.
- **Oct. 14, 1965.** With company test pilot Al White and Col. Joe Cotton at the controls, the North American XB-70 Valkyrie research aircraft is taken to Mach 3 for the first time, the speed regime it is designed to investigate.
- **Nov. 14, 1965.** During a prolonged firefight in the la Drang Valley in South Vietnam, Army Capt. Ed Freeman, ignoring the fact that the landing zone had been "closed" by the on-scene commander, repeatedly makes resupply flights to the besieged 1st Battalion/7th Cavalry in his Bell UH-1H "Huey" and later makes 14 sorties to evacuate thirty wounded soldiers, who more than likely would have died without prompt medical attention. Captain Freeman is awarded the Distinguished Flying Cross. In 2001, Major Freeman (then retired) is awarded the Medal of Honor for his actions at LZ X-Ray, retroactively becoming the first Army helicopter pilot so honored.
- **Dec. 1, 1965.** Four crews flying modified North American F-100F Super Sabres carry out the first Wild Weasel radar suppression mission near the North Vietnam border. The Weasel crews find and attack Fan-Song ground based radars, while the F-105 crews they escort bomb the nearby surface to air missile launch equipment. These coordinated SAM site attacks were collectively known as Operation Ironhand.

#### Take It Down! The Wild Weasels in Vietnam

- **Dec. 15, 1965.** In a first for the US space program, the crews of Gemini 6 and Gemini 7 rendezvous in space. Unlike the Soviets who had earlier managed to get two spacecraft in close proximity to one another in orbit, the Gemini 6 crew of Navy Capt. Walter Schirra and USAF Maj. Tom Stafford maneuver to within four inches of Gemini 7.
- **Dec. 22, 1965.** Capt. Al Lamb (pilot) and Capt. Jack Donovan (electronic warfare officer), flying in a North American F-100F Super Sabre modified for the Wild Weasel radar suppression mission, knock out a North Vietnamese Fan-Song radar at the Yen Bai rail yards north of Hanoi, while the F-105 crews they were escorting destroy the nearby SA-2 SAM site. This attack marked the first success for the Wild Weasel program. Lamb and Donovan were each awarded the Distinguished Flying Cross for the mission.

Valor: Double Feature

## 1966

- Jan. 1, 1966. Military Air Transport Service is redesignated Military Airlift Command (MAC).
- **Jan. 1, 1966.** Military airlift units of the Air National Guard begin flying about 75 cargo flights a month to Southeast Asia. These flights are in addition to the more than 100 overseas missions a month flown by the ANG in augmenting Military Airlift Command's global airlift mission.
- **Jan. 17, 1966.** A B-52 loaded with four hydrogen bombs collides with a KC-135 while refueling near Palomares, Spain. Seven of the 11 crew members involved are killed. Three of the four weapons are quickly recovered. The fourth, which falls into the Mediterranean Sea, is not recovered until early spring.
- **Jan. 23, 1966.** Military Airlift Command completes Operation Blue Light, the airlift of the Army's 3rd Brigade, 25th Infantry Division, from Hawaii to Pleiku, South Vietnam, to offset the buildup of Communist forces there. The airlift begins on Dec. 23, 1965, and its 231 C-141 sorties move approximately 3,000 troops and 4,700 tons of equipment.
- Feb. 28, 1966. The US space program suffers its first fatalities, as the Gemini 9 prime crew of Elliot M.

See Jr. and Charles A. Bassett II are killed as their Northrop T-38 crashes in St. Louis, Mo., in bad weather. They were on a trip to inspect their spacecraft at the McDonnell Douglas plant at Lambert Field, Mo.

**March 4, 1966.** A flight of Air Force F-4C Phantoms is attacked by three MiG-17s in the first air-to-air combat of the war over North Vietnam. The MiGs make unsuccessful passes before fleeing to the sanctuary of the Communist capital area.

**March 10, 1966.** Maj. Bernard F. Fisher, a 1st Air Commando Squadron A-1E pilot, lands on the airstrip at A Shau, South Vietnam, after it has been overrun by North Vietnamese regulars, to rescue downed A-1E pilot Maj. D. Wayne "Jump" Myers. Fisher is later awarded the Medal of Honor for his heroic act.

## Valor: The Valley of Death

#### Into the Valley of Fire

**March 12–April 7, 1966.** A team of contractor and service pilots set a number of recognized helicopter class records for distance, speed, and altitude over a period of three weeks in the Hughes YOH-6A Cayuse, the preproduction version of the Army's new light observation helicopter.

**March 16, 1966.** The Gemini 8 crew, Neil A. Armstrong and USAF Maj. David R. Scott, successfully carry out the first docking with another vehicle in space.

**April 1, 1966.** Seventh Air Force, with headquarters at Saigon, is activated as a subcommand of Pacific Air Forces.

## **Disunity of Command**

**April 11, 1966.** A1C William H. Pitsenbarger descends from an Air Force rescue helicopter into the jungle near Bien Ba to help the US Army wounded in one of the most intense fire fights of the Vietnam War. As the casualties increase, he passes up his chance to get out, choosing to stay on the ground with the wounded. He exposes himself to enemy fire at least three times, helping distribute ammunition and pulling wounded soldiers to safer positions, before he is killed. After more than 30 years, the Medal of Honor is finally presented, posthumously, to Pitsenbarger on Dec. 8, 2000.

#### Pitsenbarger, Medal of Honor

**April 12, 1966.** With company test pilot Al White and Col. Joe Cotton at the controls, the North American XB-70 Valkyrie research aircraft records its highest speed, Mach 3.08.

**April 12, 1966.** Strategic Air Command B-52 bombers strike targets in North Vietnam for the first time. They hit a supply route in the Mu Gia Pass, about 85 miles north of the border.

**April 26, 1966.** Maj. Paul J. Gilmore and 1st Lt. William T. Smith became the first Air Force pilots to destroy a MiG-21. Flying escort for F-105 Thunderchiefs near Hanoi, North Vietnam, when the flight is attacked, the F-4C pilots down the MiG with an AIM-9 Sidewinder missile.

**April 26, 1966.** Secretary of Defense Robert S. McNamara approves a joint recommendation by the Secretaries of the Air Force and Navy to discontinue Navy participation in Military Airlift Command.

**June 8, 1966.** NASA test pilot Joe Walker is killed when his Lockheed F-104 makes contact with the No. 2 North American XB-70 Valkyrie in flight, gets caught in vortices coming off the Valkyrie's wingtips, and rolls through the XB-70's twin tails. XB-70 copilot Carl Cross is also killed and the Valkyrie, one of only two built, is destroyed.

**June 17, 1966.** Army Lt. Col. E.L. Nielsen sets a recognized class record for 100-kilometer speed over a closed course (turboprop aircraft) of 293.41 mph in a Grumman OV-1A Mohawk at Peconic River, N.Y.

Aug. 10, 1966. Air Training Command's Officer Training School graduates its 20,000th second lieutenant.

**Oct. 7, 1966.** The Air Force selects the University of Colorado to conduct independent investigations into unidentified flying object (UFO) reports.

**Nov. 11, 1966.** The Gemini program comes to an end as Navy Cmdr. James A. Lovell Jr. and Air Force Maj. Edwin E. "Buzz" Aldrin Jr. complete a successful mission on Gemini 12. Aldrin makes three space walks on the 59-orbit mission.

## 1967

**Jan. 2, 1967.** USAF 8th Tactical Fighter Wing pilots, led by Col. Robin Olds in the famous MiG sweep Operation Bolo mission, down seven North Vietnamese MiG-21s over the Red River Valley in North Vietnam.

## MiG Sweep

**Jan. 2, 1967.** By shooting down a MiG-21, Col. Robin Olds becomes the first and only USAF ace with victories in both World War II and Vietnam. Flying with Olds in the backseat of the McDonnell Douglas F-4C is 1st. Lt. Charles Clifton.

**Jan. 27, 1967.** Astronauts USAF Lt. Col. Virgil I. "Gus" Grissom, Navy Lt. Cmdr. Roger B. Chaffee, and USAF Lt. Col. Edward H. White II are killed in a flash fire aboard their Apollo 1 command module during a ground test. The disaster sets the moon-landing effort back two years.

**Feb. 24, 1967**. USAF Capt. Hilliard A. Wilbanks, a forward air controller, resorts to firing an M16 rifle out the side window of his Cessna O-1 Bird Dog to cover the retreat of a South Vietnamese Ranger Battalion caught in an ambush near Dalat, South Vietnam. Severely wounded by ground fire, Wilbanks crashes in the battle area but is rescued by the Rangers. He dies while being evacuated to a hospital. Wilbanks is later posthumously awarded the Medal of Honor for his actions.

Valor: The Tiger and the Hummingbird

**Bird Dog's Last Battle** 

**March 10, 1967.** Air Force F-105 Thunderchief and F-4C Phantom II crews bomb the Thai Nguyen steel plant in North Vietnam for the first time. Capt. Merlyn H. Dethlefsen, an F-105 pilot, is later awarded the Medal of Honor for his actions this day in suppressing enemy air defenses.

Valor: The Practice of Professionalism

**Calculated Courage at Thai Nguyen** 

**March 10, 1967.** Capt. Mac C. Brestel, an F-105 pilot with the 355th Tactical Fighter Squadron, Takhli RTAB, Thailand, becomes the first Air Force combat crewman to down two MiGs during a single mission.

**March 15, 1967.** The Sikorsky HH-53B, the largest and fastest helicopter in the USAF inventory, makes its first flight.

April 3, 1967. CMSgt. Paul W. Airey becomes the first Chief Master Sergeant of the Air Force.

## **Chief Airey**

**April 9, 1967.** Company pilots Brien Wygle and Lew Wallick make the first flight of the Boeing 737 airliner at Boeing Field, Seattle, Wash. After a 2.5 hour flight, the duo lands at Paine Field in Everett, Wash. The 737 introduced the concept of two-pilot cockpits and has gone on to become the world's best-selling passenger aircraft.

April 10, 1967. The first B-52 bombing mission is flown from U Tapao AB, Thailand.

**April 19, 1967.** Over North Vietnam, Maj. Leo K. Thorsness (along with his electronic warfare officer, Capt. Harold E. Johnson) destroys two enemy SAM sites, and then shoots down a MiG-17 before escorting search-and-rescue helicopters to a downed aircrew. Although the North American F-105 is very low on fuel, Thorsness attacks four MiG-17s in an effort to draw the enemy aircraft away from area. He then lands at a forward air base. Awarded the Medal of Honor for his actions this day, Thorsness would not receive his medal until 1973, as on April 30, 1967, he is shot down and spends the next six years as a POW.

Valor: Wild, Wild Weasel

#### **Full Day**

**April 20, 1967.** Leading a missile suppression mission over North Vietnam, Navy Lt. Cmdr. Michael Estocin destroys two SA-2 sites. His A-4 Skyhawk is hit by a SA-2 but he destroys a third SAM site. Streaming fuel, he finds a Douglas KA-3 tanker and stays connected all the way back to the USS *Ticonderoga* where he manages to land. Six days later, his aircraft is severely damaged and goes down near Haiphong. Estocin is posthumously awarded the Medal of Honor, but it is not awarded until 1978.

**April 28, 1967.** McDonnell Company and Douglas Aircraft Company officially merge, forming McDonnell Douglas Corp. However, the union is more of a takeover, as McDonnell buys 1.5 million shares of Douglas stock for \$68 million to complete the transaction, which had been approved by the Douglas board of directors on Jan. 13.

**May 13, 1967.** For the second time, pilots of the 8th Tactical Fighter Wing, Ubon RTAB, Thailand, shoot down seven MiGs in a single day's action over North Vietnam.

**May 20, 1967.** Col. Robin Olds (pilot) along with backseater 1st Lt. Stephen Croker, down two MiG-17s over the Bak Le rail yards, giving Olds four aerial victories in Vietnam. He also recorded 12 victories in World War II, making him the only ace to down enemy aircraft in two nonconsecutive wars.

**May 31–June 1, 1967.** Two Air Force crews flying Sikorsky HH-3E Jolly Green Giants make the first nonstop flight across the Atlantic by helicopter. The 4,271-mile flight takes 30 hours and 46 minutes, and requires nine inflight refuelings. Maj. Herb Zehnder, one of the pilots on this flight, would fly the exact same HH-3E three years later as part of the daring attempt to rescue American servicemen from the Son Tay prisoner of war camp in North Vietnam.

**Aug. 2, 1967.** Flying Republic F-105 Thunderchiefs, USAF pilots knock out the center span (and damage two others) of the Paul Doumer rail bridge north of Hanoi, a vital supply route and one of the most heavily defended targets in North Vietnam. The rebuilt Doumer Bridge would be attacked again on Oct. 25 and dropped again on Dec. 19.

**Aug. 19, 1967.** Flying a Bell UH-1E "Huey" gunship, Marine Capt. Stephen Pless tries to rescue four Army soldiers under savage attack by Viet Cong on a riverbank south of Da Nang. Pless scatters the VC with rockets and machine gun fire, lands to rescue the three living soldiers, and gets his overloaded Huey airborne, the skids of the helicopter striking the water on the way out. Pless is awarded the Medal of Honor.

**Aug. 26, 1967.** Badly injured after his North American F-100F is shot down over North Vietnam, Maj. George E. "Bud" Day is captured and severely tortured. He manages to escape and eventually makes it to the Demilitarized Zone. After several attempts to signal US aircraft, he is ambushed, recaptured, and is later moved to prison in Hanoi where he continues to offer maximum resistance to his captors. Finally released in 1973, Day is awarded the Medal of Honor for his conspicuous gallantry while a POW.

Valor: The Long Road to Freedom

The Strength of Bud Day

**Aug. 31, 1967.** Male Air Force Military Training Instructors (MTIs) start wearing the olive drab Army style "Smokey Bear" hats to readily identify themselves to others as drill sergeants. In 1974, the color will be changed to Air Force blue. Women MTIs will receive approval to wear their own distinctive style of Smokey Bear hats in 1976. The female instructor hats have the left brim turned upward.

**Sept. 9, 1967.** Sgt. Duane D. Hackney is presented with the Air Force Cross for bravery in rescuing an Air Force pilot in Vietnam. He is the first living enlisted man to receive the award.

**Valor: USAF's Most Decorated PJ** 

#### A Habit of Heroism

**Oct. 3, 1967.** Maj. William Knight flies the North American X-15A-2 to the unofficial absolute world speed record of Mach 6.72 (4,520 mph) over Edwards AFB, Calif.

**Oct. 24, 1967.** US airplanes attack North Vietnam's largest air base, Phuc Yen, for the first time in a combined Air Force, Navy, and Marine strike. During the attack, the Air Force downs its 69th MiG. The destruction of this MiG-21 marked the first time a weapons controller aboard an airborne radar aircraft (in this case, a Lockheed EC-121D) had ever directed a successful interception.

**Nov. 9, 1967.** While attempting to rescue an Army reconnaissance team, Capt. Gerald O. Young's Sikorsky HH-3E is shot down in Laos. Badly burned, he gives aid to a crew member who also escaped from the wreckage. After 17 hours of leading enemy forces away from his injured crewman and himself, the two are rescued. Young is later awarded the Medal of Honor for his actions.

Valor: A Hillside Near Khe Sanh

## Flak Trap

**Nov. 9, 1967.** While on a flight over Laos, Capt. Lance P. Sijan ejects from his disabled McDonnell Douglas F-4C and successfully evades capture for more than six weeks. He is caught but manages to escape. Recaptured and tortured, he later contracts pneumonia and dies. For his conspicuous gallantry as a POW, Sijan is posthumously awarded the Medal of Honor.

Valor: Lance Sijan's Incredible Journey

The Courage of Lance Sijan

**Nov. 17-Dec. 29, 1967.** Operation Eagle Thrust, the largest and longest airlift of troops and cargo from the US to Southeast Asia, begins by C-141 and C-133 aircraft. During the operation, 10,355 paratroopers and 5,118 tons of equipment are airlifted to the combat zone in record time.

**Dec. 11, 1967.** The Aerospatiale-built Concorde supersonic jetliner prototype rolls out at the company's plant in Toulouse, France.

## 1968

**Jan. 1, 1968.** Battle of Khe Sanh begins. Air Force airlifters bring in an average of 165 tons of materiel daily during the 77-day siege.

#### Airpower at Khe Sanh

**Jan. 6, 1968.** In an amazing feat of airmanship, Army Maj. Patrick Brady, despite dense fog, hilly terrain, close proximity to North Vietnamese troops, intense gunfire, exploding land mines, and injuries to two members of his crew, manages to evacuate 52 wounded US and South Vietnamese soldiers, using three Bell UH-1D "Huey" helicopters (two of which are heavily damaged during the flights) on seven sorties in a single day. He is awarded the Medal of Honor for his actions. In two tours of duty, Brady flies more than 2,000 "Dustoff" (medevac) flights in Vietnam.

**Jan. 12, 1968.** The Air Force announces a system for tactical units to carry with them everything they need to operate at "bare" bases equipped only with runways, taxiways, parking areas, and a water supply.

**Jan. 31, 1968.** A helicopter crew down near Hue, South Vietnam, CWO2 Frederick Ferguson quickly organizes an impromptu rescue force of three Bell UH-1 "Huey" gunships and his "slick' UH-1H. At Hue, the helicopters come under intense fire. Flying so low that the North Vietnamese are actually shooting down at him, Ferguson lands in an area with only a couple of feet clearance for his rotor blades. Four wounded Americans and a South Vietnamese soldier are loaded. Retracing his inbound flight, Ferguson finally lands at Hue Phu Bai, his helicopter so damaged it had to be airlifted out. Ferguson is awarded the Medal of Honor.

**Feb. 29, 1968.** Jeanne M. Holm, director of Women's Air Force, and Helen O'Day, assigned to the Office of the Air Force Chief of Staff, become the first women promoted to permanent colonel. (Under Public Law 90-130, signed by President Johnson Nov. 8, 1967.)

March 2, 1968. The first of 80 C-5A Galaxy transports rolls out at Lockheed's Marietta, Ga., facility.

March 11, 1968. SMSgt. Richard L. Etchberger dies while keeping the enemy at bay with an M-16 and saving the lives of three other airmen when North Vietnamese overrun the secret radar facility known as Lima Site 85 in the mountains of Laos. For his heroic actions, the Air Force declined to award the Medal of Honor, instead presenting an Air Force Cross to his widow in a closed ceremony to preserve the secrecy. (Some 42 years later and following an act of Congress, the award was upgraded to the Medal of Honor and presented on Sept. 21, 2010 by President Barack Obama to Etchberger's three sons during a White House ceremony.) (See Sept. 21, 2010 entry)

**Etchberger, Medal of Honor** 

The Fall of Lima Site 85

March 25, 1968. F-111s fly their first combat mission against military targets in North Vietnam.

**March 31**, **1968**. President Johnson announces a partial halt of bombing missions over North Vietnam and proposes peace talks.

**May 12, 1968.** Lt. Col. Joe M. Jackson, flying an unarmed Fairchild C-123 transport, lands at a forward outpost at Kham Duc, South Vietnam, in a rescue attempt of a Combat Control Team. After a rocket-propelled grenade fired directly at his aircraft proves to be a dud, Jackson takes off with the CCT on board and lands at Da Nang, South Vietnam. He is later awarded the Medal of Honor for his actions.

Valor: Deliverance at Kham Duc

**Rescue at Kham Duc** 

**May 18, 1968.** In response to a massive flood, the Air Force airlifts 88.5 tons of food and other supplies to Ethiopia.

**May 25, 1968.**The Grumman EA-6B electronic warfare/airborne jammer prototype makes its first flight at Long Island, NY. The prototype is a highly modified A-6A Intruder fitted with five jamming pods and a bullet fairing for more electronic equipment at the tip of the vertical fin. After the Air Force's EF-111 is retired in the 1990s, the EA-6B, later nicknamed Prowler, becomes the nation's premier tactical airborne jammer and is flown by joint Navy/Air Force and all-Air Force crews operating from Navy aircraft carriers.

**June 19, 1968.** In a dramatic rescue on a moonless, overcast night in North Vietnam that included two downed aviators (one of whom had a broken leg) traversing 70 yards of dense undergrowth with the enemy closing in behind them, two sets of illuminating flares going out, a rescue hoist that was too short, and a collision with a tree, Navy Lt. j.g. Clyde Lassen turns on the searchlight of his Kaman UH-2A Seasprite helicopter so the downed crew can find him. They climb aboard; Lieutenant Lassen redlines the helicopter, avoids automatic weapons fire and flak, and recovers, nearly out of fuel, aboard the USS *Jouett*. Lassen receives the Medal of Honor.

**June 30, 1968.** The world's largest aircraft, the Lockheed C-5A Galaxy makes its first flight, as company pilots Leo Sullivan and Walt Hensleigh use only 4,500 feet of the 10,000-foot runway at Dobbins AFB, Ga., to get airborne.

**July 1, 1968.** The first WAF in the Air National Guard is sworn in as a result of passage of Public Law 90-130, which allows ANG to enlist women.

**Aug. 13**, **1968.** The National Guard Technician Act of 1968 becomes a public law, placing full-time Air National Guard and Army National Guard technicians under federal Civil Service retirement.

**Aug. 16, 1968.** The first test launch of a Boeing LGM-30G Minuteman III ICBM is carried out from Cape Kennedy AFS, Fla.

**Aug. 21, 1968.** NASA pilot William H. Dana becomes the last pilot to fly into space in the North American X-15 research aircraft. One of seven pilots to earn their astronaut wings in the X-15, Dana attains an altitude of 264,000 feet and a speed of Mach 4.71 in the flight over Edwards AFB, Calif.

**Sept. 1, 1968.** Lt. Col. William A. Jones III leads a rescue mission for a downed pilot near Dong Hoi, North Vietnam. After several low passes, he finds the pilot and realizes he must destroy a nearby gun emplacement. On his second pass, Jones's aircraft is hit, and the cockpit of his Douglas A-1H is set ablaze. He tries to eject, but the extraction system fails. He then returns to base and, before receiving medical treatment for his burns, reports the exact position of the downed pilot, who is rescued the next

day. Jones dies in an aircraft accident in the US before he can be presented the Medal of Honor for his actions the day of the rescue.

Valor: A Triumph of Will

**Determination of a Sandy** 

Oct. 11–22, 1968. Apollo 7, the first test mission following the disastrous Apollo 1 fire, is successfully carried out. Navy Capt. Walter M. Schirra Jr., USAF Maj. Donn F. Eisele, and R. Walter Cunningham stay in Earth orbit for 10 days, 20 hours, nine minutes.

**Oct. 24, 1968.** With NASA test pilot William H. Dana at the controls, the North American X-15 makes the type's 199th and final flight, completing 10 years of flight testing at Edwards AFB, Calif. The airplane reaches a speed of Mach 5.04 and an altitude of 250,000 feet.

Nov. 1, 1968. President Johnson halts all bombing of North Vietnam.

**Nov. 26, 1968.** While returning to base, 1st. Lt. James P. Fleming and four other Bell UH-1F helicopter pilots get an urgent message from an Army Special Forces team pinned down near a river bank. One helicopter is downed and two others leave the area because of low fuel, but Fleming and another pilot flying in an armed Huey press on with the rescue effort. The first try fails; but not willing to give up, Fleming lands again and is successful in picking up the team. He then lands at his base near Duc Co, South Vietnam, nearly out of fuel. Fleming is later awarded the Medal of Honor for his actions.

**Valor: Bank Shot** 

**Nov. 30, 1968.** The Air Force's Thunderbirds fly their 471st and last show in the North American F-100D Super Sabre. Except for six shows in 1964 when they flew F-105s, the team had been performing in the F-100D's for 13 years.

**Dec. 21–27, 1968.** Apollo 8 becomes the first manned mission to use the Saturn V booster. Astronauts USAF Col. Frank Borman, Navy Cmdr. James A. Lovell Jr., and USAF Maj. William A. Anders become the first humans to orbit the moon.

**Dec. 31, 1968.** The Soviet Union conducts the first flight of the Tu-144, the world's first supersonic transport.

## 1969

**Jan. 1, 1969.** An Air Force Reserve crew with the 71st Special Operations Squadron flies the first AC-119 Shadow gunship combat mission in Vietnam. The AC-119 Stinger's multiple machine guns could strafe the ground even more effectively than those of the earlier gunship, the AC-47.

Valor: Making the First Team

**Feb. 4, 1969.** The surviving North American XB-70 Valkyrie high-speed research aircraft is retired to the Air Force Museum at Wright-Patterson AFB, Ohio. The two XB-70s (one was destroyed after a midair

collision) were flown 129 times for 252 hours and 28 minutes by seven contractor, Air Force, and NASA pilots. The two aircraft were flown at twice the speed of sound or better for nearly 52 hours.

## The Ride of the Valkyrie

## The Gutting of the Valkyrie

**Feb. 9, 1969.** Boeing conducts the first flight of the 747. The jumbo jet, with standard seating for 347 passengers, introduces high passenger volume to the world's airways.

Feb. 15, 1969. Robert C. Seamans Jr. becomes Secretary of the Air Force.

**Feb. 24, 1969.** After a North Vietnamese mortar shell rocks their Douglas AC-47 gunship, A1C John L. Levitow, stunned and wounded by shrapnel, flings himself on an activated, smoking magnesium flare, drags himself and the flare to the open cargo door, and tosses it out of the aircraft just before the flare ignites. For saving his fellow crew members and the gunship, Levitow is later awarded the Medal of Honor. He is the first enlisted man to receive the MOH for action in Vietnam.

## Valor: The Saving of Spooky 71

## **Twenty Seconds Over Long Binh**

**Feb. 27, 1969.** The aerobics physical fitness program developed by Lt. Col. Kenneth H. Cooper of Air Force Systems Command's Aerospace Medical Laboratory is adopted by the Air Force to replace the 5BX program.

**March 3–13, 1969.** Air Force astronauts Col. James A. McDivitt and Col. David R. Scott, along with civilian Russell L. Schweickart, carry out the first in-space test of the lunar module while in Earth orbit during the Apollo 9 mission. The flight also marks the first time a crew transfer is made between space vehicles using an internal connection.

**April 17, 1969.** Maj. Jerauld Gentry makes the first glide flight of the Martin Marietta X-24A lifting body aircraft at Edwards AFB, Calif. The X-24 is one of several aircraft designed to test the advantages of wedge-shaped, wingless aircraft that get their lift from body contours alone that will eventually pave the way to development of the space shuttle.

**May 18–26, 1969.** In a dress rehearsal for the moon landing, Apollo 10 astronauts USAF Col. Thomas P. Stafford and Cmdr. Eugene A. Cernan fly the lunar module Snoopy to within nine miles of the lunar surface. Astronaut Cmdr. John W. Young remains in orbit aboard Charlie Brown, the command module.

**June 1, 1969.** The USAF Thunderbirds fly their first show in the McDonnell Douglas F-4E Phantom II for the graduating seniors at the Air Force Academy. The F-4 is the team's sixth show aircraft.

**July 1, 1969.** Air Force service numbers for military personnel are replaced by Social Security account numbers.

**July 20, 1969.** Man sets foot on the moon for the first time. At 10:56 p.m. EDT, Apollo 11 astronaut Neil Armstrong puts his left foot on the lunar surface. He and lunar module pilot Col. Edwin E. "Buzz" Aldrin Jr., USAF, spend just under three hours walking on the moon. Command module pilot Lt. Col. Michael Collins, USAF, remains in orbit.

Aug. 1, 1969. Gen. John D. Ryan is appointed Air Force Chief of Staff.

Aug. 1, 1969. CMSqt. Donald L. Harlow becomes Chief Master Sergeant of the Air Force.

October 1969. Air Force Magazine cover story, "The Forgotten Americans of the Vietnam War," ignites

national concern for the prisoners of war and the missing in action. It is reprinted in condensed form as the lead article in the November 1969 issue of Reader's Digest, is read in its entirety on the floor of Congress, and is inserted into the Congressional Record on six different occasions. This article stirs the conscience of the nation and rallies millions to the cause of the POWs and MIAs. Air Force Magazine publishes an MIA/POW Action Report from June 1970 until September 1974.

## The Forgotten Americans of the Vietnam War

**Oct. 2, 1969.** Army CWO Michael Novosel and his crew extract 29 South Vietnamese soldiers who are under attack, surrounded, and nearly out of ammunition, on 15 trips in and out of an area of the Kien Tuong Province, South Vietnam. For nearly two hours, Novosel and his Dustoff (medevac) crew, flying in a Bell UH-1H "Huey" have no air cover. On the last pickup, Novosel is injured by machine gun fire. He then picks up 10 soldiers and flies to a Special Forces camp. Novosel, age 47, had piloted Boeing B-29 Superfortresses in World War II and was a lieutenant colonel in the Air Force Reserve before resigning and becoming an Army helicopter pilot, is awarded the Medal of Honor, the oldest pilot ever to be so honored.

**Oct. 31, 1969.** The last Boeing B-47 Stratojet jet bomber is retired from USAF service, as the aircraft, an EB-47E, is flown to Davis Monthan AFB, Ariz.

**Nov. 3, 1969.** The Air Force issues a request for proposal for a new bomber to meet its advanced manned strategic aircraft requirement. Its designation will be "B-1."

**Nov. 14–24, 1969.** Apollo 12 is hit by lightning on liftoff, but Cmdrs. Charles Conrad Jr. and Alan L. Bean make the second manned lunar landing with pinpoint accuracy. The lunar module Intrepid touches down about 200 yards from the Surveyor 3 probe, on the moon since 1967. The all-Navy crew, which also includes Cmdr. Richard F. Gordon Jr., is recovered in the Pacific Ocean by USS *Hornet* (CVS-12).

**Dec. 17, 1969.** Air Force Secretary Robert Seamans announces the termination of Project Blue Book, the service's program to investigate reports of UFOs.

**USAF** and the UFOs



## Up From Kitty Hawk 1970-1979

OV-10 Bronco pilot Capt. Steven Bennett (here receiving pilot wings in 1969) received posthumous Medal of Honor for June 29, 1972, action.

Articles noted throughout the chronology are hyperlinked to the online archive for *Air Force* Magazine and the *Daily Report*.



## 1970

**Feb. 2, 1970.** Over Montana, a Convair F-106 Delta Dart enters an uncontrollable flat spin and the pilot ejects. After the pilot and seat depart the aircraft, the aircraft recovers on its own (apparently due to balance and configuration changes), circles, and miraculously makes a gentle belly landing in a snow covered field near the town of Big Sandy. The aircraft is repaired and later returned to service.

Feb. 17, 1970. Crews flying Boeing B-52s bomb targets in northern Laos for the first time.

**March 15, 1970.** The overseas portion of the Automatic Voice Network (AUTOVON) is completed, making it possible to call any US military installation in the world without leaving one's desk.

**March 19, 1970.** Air Force Maj. Jerauld Gentry makes the first successful powered flight of the Martin Marietta X-24A lifting-body research aircraft over Edwards AFB, Calif.

**April 11–17, 1970.** An explosion in the Apollo 13 service module cripples the spaceship and forces the crew to use the lunar module as a lifeboat to get back to Earth. After a tense four days, the Apollo 13 crew safely splashes down in the Pacific.

**May 5, 1970.** The Air Force Reserve Officers Training Corps admits women after test programs at Ohio State, Auburn University, Drake University, and East Carolina University prove successful.

**June 6, 1970.** The Air Force receives the first operational Lockheed C-5A Galaxy transport, delivered to the 437th Military Airlift Wing at Charleston AFB, S.C. The debut, made before Rep. L. Mendel Rivers (D–S.C.) and most of the House Armed Services Committee, is less than auspicious: The giant aircraft loses a wheel and the tire next to that one blew out.

June 19, 1970. The first Minuteman III missile unit becomes operational at Minot AFB, N.D.

**Aug. 21, 1970.** Defense Secretary Melvin Laird announces the "Total Force" policy, leading to much greater reliance by the services on Guard and Reserve units.

**Origins of the Total Force** 

**Aug. 24, 1970.** Two Air Force crews complete the first nonstop trans-Pacific helicopter flight as they land their Sikorsky HH-53Cs at Da Nang AB, South Vietnam, after a 9,000-mile flight from Eglin AFB, Fla. The helicopters were refueled in flight.

**Nov. 21, 1970.** A special task force of Air Force and Army volunteers makes a daring attempt to rescue American servicemen from the Son Tay POW camp about 20 miles west of Hanoi.

## The Son Tay Raid

**Dec. 21, 1970.** The Grumman F-14A Tomcat fleet air defense fighter makes its first flight at Long Island, N.Y

## 1971

**Jan. 27**, **1971**. Navy Cmdr. D.H. Lilienthal sets a recognized class record for speed over a 15 to 25-kilometer course (turboprop aircraft) of 501.44 mph in a Lockheed P-3C Orion at NAS Patuxent River, Md.

**Feb. 26, 1971.** Army Capt. Jon E. Swanson, flying a Hughes OH-6 Cayuse helicopter, is called in to provide close air support to South Vietnamese ground troops in Cambodia. Flying at treetop level, he repeatedly exposes himself to enemy gunfire, firing grenades at targets and marking others with smoke rounds for other helicopter gunships in the area. His helicopter damaged, Swanson flies to safety, rearms, and reenters the fight to mark additional targets. Over the battle, his OH-6 is hit by ground fire and explodes. Swanson's remains and those of his observer, SSgt. Larry Harrison, are not recovered until 1999. Swanson is posthumously awarded the Medal of Honor on May 2, 2002, the day before he and Harrison are buried at Arlington National Cemetery.

**March 2, 1971.** A policy is announced, which allows Air Force women who become pregnant to request a waiver to remain on active duty or to be discharged and return to duty within 12 months of discharge.

**March 8, 1971.** Capt. Marcelite C. Jordan becomes the first female aircraft maintenance officer after completion of the Aircraft Maintenance Officer's School. She was previously an administrative officer.

**March 17, 1971.** Jane Leslie Holley, Auburn University, Alabama, becomes the first woman commissioned through Air Force ROTC.

**April 17, 1971.** Federal express begins air freight operations from Memphis, Tenn., guaranteeing overnight delivery anywhere in the United States. The first night, Fed Ex carries only 18 packages.

**May 25, 1971.** Army Maj. William Adams and his Bell UH-1H Huey medevac crew, along with a Huey gunship escort, to attempt to rescue three wounded soldiers from a firebase in Kontum Province, South Vietnam. The helicopters come under withering fire near the landing zone, but manage to get down. With the wounded secured, Adams lifts off, but the Huey is severely damaged by ground fire, hit again by a rocket-propelled grenade, rolls inverted, and crashes. All aboard are killed. Adams posthumously receives the Medal of Honor.

**July 16, 1971.** USAF promotes Jeanne M. Holm to brigadier general, making her the first female general officer in the Air Force.

July 26, 1971. Apollo 15 blasts off with an all-Air Force crew: Col. David R. Scott, Lt. Col. James B. Irwin,

and Maj. Alfred M. Worden. The mission is described as the most scientifically important and, potentially, the most perilous lunar trip since the first landing. Millions of viewers throughout the world watch as color-TV cameras cover Scott and Irwin exploring the lunar surface using a moon rover vehicle for the first time.

**July 29, 1971.** The Air Force completes its flight tests of the experimental X-24A lifting body. Data from these tests would contribute to development of NASA's space shuttle.

**Sept. 3, 1971.** President Richard M. Nixon dedicates the new US Air Force Museum building at Wright-Patterson AFB, in Dayton, Ohio. A drive to raise private funds for the new museum building had begun in 1960.

## The Heritage of the Force

Oct. 1, 1971. CMSqt. Richard D. Kisling becomes the third Chief Master Sergeant of the Air Force.

**Oct. 26–Nov. 4, 1971.** Army CWO James K. Church sets a recognized turbine engine helicopter class record for altitude in horizontal flight (36,122 feet), Capt. B.P. Blackwell sets a record for altitude (31,165 feet) with a 2,200-pound payload, CWO Eugene E. Price sets two records for altitude (31,480 feet and 25,518 feet) with 4,400-pound and 11,000-pound payloads, and CWO Delbert V. Hunt sets a record for time-to-climb to 29,700 feet (five minutes, 58 seconds) all in the same Sikorsky CH-54B at Stratford, Conn.

## 1972

**Feb. 20, 1972.** Lt. Col. Edgar Allison sets a recognized class record for great circle distance without landing (turboprop aircraft) of 8,732.09 miles, flying from Ching Chuan Kang AB, Taiwan, to Scott AFB, Ill., in a Lockheed HC-130.

March 1972. The North Vietnamese spring invasion is stopped and then turned back by US airpower.

## **The Easter Halt**

April 1, 1972. The Community College of the Air Force is established.

**April 6, 1972.** American aircraft and warships begin heavy, sustained attacks on North Vietnam for the first time since the cessation of bombing in October 1968.

**April 12, 1972.** Army Maj. John C. Henderson sets recognized turbine engine helicopter class time-to-climb records to 9,900 feet and 19,800 feet (one minute, 22 seconds and two minutes, 59 seconds) in a Sikorsky CH-54B at Stratford, Conn.

**April 27, 1972.** Four Air Force fighter crews, releasing Paveway I "smart" bombs, knock down the Thanh Hoa Bridge in North Vietnam. Previously, 871 conventional sorties resulted in only superficial damage to the bridge.

**Bridge Busting** 

**Breaking the Dragon's Jaw** 

**May 5**, **1972.** USAF's sea-launched ballistic-missile detection and warning system, dubbed Pave Phased-Array Warning System (Pave PAWS), reaches initial operational capability.

**May 8, 1972.** President Richard M. Nixon announces at 8 p.m. EST (May 9, 8 a.m., in Saigon) that Operation Linebacker I, the bombing of Hanoi and mining of ports, will begin on May 10.

**May 10, 1972.** USAF commences Operation Linebacker I. It would end Oct. 15, 1972. (Linebacker II would begin in December 1972.)

#### Linebacker I

**May 10**, **1972**. First flight of the Fairchild Republic YA-10A, marking the start of competitive flight evaluation in the A-X close air support program. Northrop's YA-9A would fly on May 20, 1972.

**May 10, 1972.** Navy Lt. Randy "Duke" Cunningham (pilot) and Lt. (j.g.) Willie Driscoll (radar intercept officer), flying McDonnell Douglas F-4J Phantom IIs from the USS *Constellation*, shoot down three MiG-17s, This, combined with their aerial victories on Jan. 19 and May 8, make Cunningham and Driscoll the first US aces of the Vietnam War.

**May 10, 1972.** Capt. Charles B. DeBellevue (WSO), flying with Capt. Richard S. Ritchie (pilot), in a McDonnell Douglas F-4D, records his first aerial victory. DeBellevue, who would go on to be the leading American ace of the Vietnam War, recorded four of his victories with Ritchie. Both airmen flew with the 555th Tactical Fighter Squadron.

**May 10–11, 1972.** F-4 Phantoms from the 8th Tactical Fighter Wing drop smart bombs on the Paul Doumer Bridge, causing enough damage to keep this mile-long highway and rail crossing at Hanoi out of use. It will not be rebuilt until air attacks on North Vietnam cease in 1973.

**June 29, 1972.** Capt. Steven L. Bennett attempts to assist a friendly ground unit being overrun near Quang Tri, South Vietnam. Bennett strafes the North Vietnamese regulars with his Rockwell OV-10 Bronco but is hit by a SAM. Unable to eject because the parachute of his backseater, a Marine artillery spotter, had been shredded by shrapnel, Bennett ditches the aircraft in the Gulf of Tonkin. The observer escapes, but Bennett is trapped and sinks with the wreckage. Bennett is posthumously awarded the Medal of Honor.

## Valor: A Gift of Life

#### Impossible Odds in SAM 7 Alley

**July 27, 1972.** One month ahead of schedule, company pilot Irv Burrows makes the first flight of the McDonnell Douglas F-15A Eagle air superiority fighter at Edwards AFB, Calif. The F-15 is the first USAF fighter to have a thrust-to-weight ratio greater than one-to-one, which means it can accelerate going straight up.

**Aug. 28, 1972.** Capt. Richard S. Ritchie, flying with Capt. Charles B. DeBellevue (weapons system officer), shoots down his fifth MiG-21 near Hanoi, becoming the Air Force's first ace since the Korean War.

**Sept. 9, 1972.** Capt. Charles B. DeBellevue (WSO), flying with Capt. John A. Madden Jr. (pilot), in an F-4D, shoots down two MiG-19s near Hanoi. These were his fifth and sixth victories, making him the leading American ace of the war. All of DeBellevue's victories came in a four-month period.

**Oct. 13, 1972.** Capt. Jeffrey S. Feinstein, a WSO in the backseat of an F-4, achieved ace status by shooting down his fifth MiG-21, becoming the third and final USAF ace of the Vietnam War.

**Nov. 4, 1972.** Navy Cmdr. Philip R. Hite sets a recognized class record for distance in a closed circuit (turboprop aircraft) of 6,278.05 miles at NAS Patuxent River, Md., in a Lockheed RP-3D Orion.

**Dec. 7–19, 1972.** The Apollo 17 mission is the last of the moon landings. It is also the first US manned launch to be conducted at night. Mission commander Navy Cmdr. Eugene A. Cernan and lunar module pilot/geologist Harrison H. Schmitt spend a record 75 hours on the lunar surface.

**Dec. 18, 1972.** President Richard M. Nixon directs the resumption of full-scale bombing and mining in North Vietnam under Operation Linebacker II, the 11-day bombing of Hanoi and Haiphong. Massive air strikes help persuade North Vietnam to conclude Paris peace negotiations, which will be finalized Jan. 27, 1973.

Linebacker II (1997 article)

Linebacker II (2012 article)

**Dec. 18, 1972.** SSgt. Samuel O. Turner, the tail gunner on a Boeing B-52D bomber, downs a trailing MiG-21 with a blast of .50-caliber machine guns while flying near Hanoi. Six days later, A1C Albert E. Moore, also a B-52 gunner, shoots down a second MiG-21 after a strike on the Thai Nguyen rail yard. These were the only aerial gunner victories of the war.

The B-52 Gunners

## 1973

**Jan. 8, 1973.** Capt. Paul D. Howman (pilot) and 1st Lt. Lawrence W. Kullman (WSO), flying in a McDonnell Douglas F-4D, record the last USAF victory in the Vietnam War as they shoot down a MiG-21 near Hanoi. It was the duo's only aerial victory.

**Jan. 15, 1973.** The Air Force suspends all mining, bombing, and other offensive operations against North Vietnam.

Jan. 17, 1973. USAF selects the Fairchild Republic YA-10A as winner in the A-X competition.

**Jan. 27, 1973.** On the day cease-fire agreements ending the war in Vietnam are signed in Paris, crews flying Boeing B-52 Stratofortresses bomb logistics targets such as truck parks and storage areas south of the 20th Parallel. At 4:10 p.m. local time, the last USAF aircraft to fly over Hanoi, a Ryan AQM-34L drone, photographs results of the Operation Linebacker II raids for bomb damage assessment. The cease-fire takes effect at 7 p.m. EDT, which makes the cease-fire date effective Jan. 28 in Vietnam.

**Feb. 12, 1973.** Operation Homecoming, the return of 591 American POWs from North Vietnam, begins. All of the ex-POWs, which come from all military services, are processed through Clark AB, Philippines, to military hospitals in the United States and from there they are quickly reunited with their families.

Valor: Valor en Masse

Weighing the Evidence on POWs

**Honor Bound** 

**April 10, 1973.** First flight of the Boeing T-43A navigation trainer occurs. The T-43 is developed from the 737-200 civil transport.

**April 17, 1973.** Taking off from Guam, Air Force crews flying Boeing B-52 Stratofortresses make the last bombing missions over Laos, attacking targets south of the Plain of Jars because of Communist cease-fire violations.

#### The Plain of Jars

**May 25–June 22, 1973.** An all-Navy crew of Capt. Charles "Pete" Conrad Jr. and Cmdrs. Joseph P. Kerwin and Paul J. Weitz salvage the Skylab program, as they repair the space station (which had been damaged on launch) in orbit. Their 28-day, 404-orbit mission is the longest in history to this point.

July 1, 1973. Authorization for the military draft ends.

**July 4, 1973.** Lt. Col. Charles H. Manning sets a recognized class altitude record of 32,883 feet for piston-engine amphibian aircraft in a Grumman HU-16B Albatross at Homestead AFB, Fla.

July 18, 1973. John L. McLucas becomes Secretary of the Air Force.

**July 28–Sept. 25, 1973.** The Skylab 3 crew of Navy Capt. Alan L. Bean, Marine Maj. Jack R. Lousma, and scientist Owen K. Garriott Jr. perform valuable science experiments and Earth observations during their 59-day, 892-orbit stay on the space station.

Aug. 1, 1973. Gen. George S. Brown becomes Air Force Chief of Staff.

**Aug. 15, 1973.** US bombing of targets in Cambodia cease. In the eight years and two months that Operation Arc Light was carried out, Strategic Air Command crews, flying Boeing B-52 Stratofortress bombers from Andersen AFB, Guam, released 2.9 million tons of bombs on 124,532 sorties (of the 126,615 sorties launched). Some 55 percent of the sorties were flown against targets in South Vietnam, 27 percent in Laos, 12 percent in Cambodia, and six percent in North Vietnam. During the Arc Light missions, the Air Force lost 31 B-52s—18 to hostile fire over North Vietnam and 13 to "other operational causes." However, Maj. John J. Hoskins and Capt. Lonnie O. Ratley, flying LTV A-7D Corsair IIs, make the last raids of war in Southeast Asia when they attack targets near Phnom Penh late in the afternoon. A Lockheed EC-121 crew out of Korat RTAB, Thailand, that lands after the A-7 pilots earns the distinction of making the last mission of the war.

Oct. 1, 1973. CMSgt. Thomas N. Barnes becomes Chief Master Sergeant of the Air Force.

**Nov. 10, 1973.** At New Orleans, the USAF Thunderbirds fly their 518th and last show in the McDonnell Douglas F-4E Phantom II. The team would convert to the Northrop T-38A Talon for the 1974 show season.

**Nov. 14, 1973.** The US ends its major airlift to Israel. In a 32-day operation during the Yom Kippur War, Military Airlift Command airlifts 22,318 tons of supplies.

#### **Nickel Grass**

**Nov. 14, 1973.** The first production McDonnell Douglas F-15A Eagle is delivered to the Air Force at Luke AFB, Ariz.

**Nov. 16, 1973–Feb. 8, 1974.** A crew of space rookies, Marine Lt. Col. Gerald Carr; Air Force Lt. Col. William Pogue, a former Thunderbird pilot; and Edward Gibson form the third and final Skylab crew. At 84 days, this crew, which observes the Comet Kohoutek during the mission, will hold the American space mission duration record until 1995.

## 1974

- **Jan. 21, 1974.** The General Dynamics YF-16 prototype makes a first, unplanned flight at Edwards AFB, Calif. As company test pilot Phil Oestricher conducts high-speed taxi tests, the aircraft lifts off the runway, and rather than risk damage to the aircraft, Oestricher elects to lift off and go around, making a normal landing.
- **Feb. 2, 1974.** The first "official" flight of the YF-16 takes place with General Dynamics test pilot Phil Oestricher at the controls.
- **June 9, 1974.** Company pilot Henry E. Chouteau makes the first flight of the Northrop YF-17 at Edwards AFB, Calif. Although the YF-17 would not be selected as the winner of the Air Force's Lightweight Fighter Technology evaluation program, it would become the progenitor of the Navy's F/A-18 Hornet.
- July 1, 1974. Gen. David C. Jones becomes Air Force Chief of Staff.
- **July 29, 1974.** The Department of Defense consolidates all military airlift aircraft under the Air Force as single manager for all of the armed forces.
- **Sept. 1, 1974.** Maj. James V. Sullivan and Maj. Noel Widdifield set a New York to London speed record of 1,806.964 mph in a Lockheed SR-71A. The trip takes one hour, 54 minutes, 55 seconds.
- **Oct. 24, 1974.** The Air Force's Space and Missile Systems Organization carries out a midair launch of a Boeing LGM-30A Minuteman I from the hold of a Lockheed C-5A.
- **Dec. 23, 1974.** Company pilot Charles Bock Jr., USAF Col. Emil Sturmthal, and flight test engineer Richard Abrams make the first flight of the Rockwell B-1A variable-geometry bomber from Palmdale, Calif.

## 1975

- **Jan. 13, 1975.** USAF announces that the General Dynamics YF-16 is the winner of the Air Force's Lightweight Fighter Technology evaluation program. The F-16 is also the leading candidate to become the Air Force's new air combat fighter.
- **Jan. 16–Feb. 1, 1975.** Three USAF pilots set eight recognized class records for time to climb (jet aircraft) in a modified McDonnell Douglas F-15A, nicknamed *Streak Eagle*, over a period of two weeks at Grand Forks AFB, N.D.
- **Jan. 26, 1975.** The Force Modernization program, a nine-year effort to replace all Boeing LGM-30B Minuteman Is with either Minuteman IIs (LGM-30F) or Minuteman IIIs (LGM-30G), is completed, as the last 10 LGM-30Gs are turned over to SAC at F.E. Warren AFB, Wyo.
- **Feb. 1, 1975.** Maj. Roger J. Smith sets a world time-to-climb record to 98,425 feet in three minutes, 27.8 seconds in the McDonnell Douglas F-15A Streak Eagle.
- April 30, 1975. North Vietnamese troops accept the surrender of Saigon.

The Fall of Saigon

**May 15, 1975.** Carrying 175 Marines, Air Force special operations helicopters land on Kho Tang Island, off the Cambodian coast, to begin rescue of the crew of the US merchant ship *Mayaguez*, which had been seized in international waters by the Cambodian Navy three days earlier.

Valor: The Mayaguez Incident

## The Mayaguez Rescue

**June 30, 1975.** The last Douglas C-47A Skytrain in routine Air Force use is retired to the US Air Force Museum at Wright-Patterson AFB, Ohio.

**July 15–24, 1975.** US astronauts Brig. Gen. Thomas P. Stafford, USAF, Vance D. Brand, and Donald K. Slayton rendezvous, dock, and shake hands with Soviet cosmonauts Alexei A. Leonov and Valeri N. Kubasov in orbit during the Apollo-Soyuz Test Project.

**Aug. 5, 1975.** NASA pilot John Manke makes the first landing of a lifting body aircraft on a conventional concrete runway (versus one of packed sand) when he brings the Martin Marietta X-24B in on the main runway at Edwards AFB, Calif. Lt. Col. Mike Love repeats this feat on Aug. 20.

**Aug. 20, 1975.** The Viking 1 mission to Mars is launched from Cape Canaveral AFS, Fla., on a Titan III booster. The spacecraft enters Mars orbit on June 19, 1976, and the lander, which takes soil samples and performs rudimentary analysis on them, soft-lands on July 20, 1976.

**Sept. 1, 1975.** Gen. Daniel "Chappie" James Jr., USAF, becomes the first black officer to achieve four-star rank in the US military.

**Oct. 21, 1975.** Fairchild Republic's A-10A Thunderbolt II makes its first flight. The first combat-ready A-10A wing will be the 354th Tactical Fighter Wing at Myrtle Beach, S.C., which will begin taking delivery of the fighters in March 1977.

**Nov. 26, 1975.** NASA pilot Thomas McMurtry makes the last flight of the Martin Marietta X-24 lifting body program at Edwards AFB, Calif. The aircraft, which underwent a significant external shape change midway through the flight test program, was flown a total of 54 times.

**Nov. 29, 1975.** The first Red Flag exercise at Nellis AFB, Nev., begins a new era of highly realistic training for combat aircrews.

**Red Flag** 

## 1976

Jan. 2, 1976. Thomas C. Reed becomes Secretary of the Air Force.

**Jan. 9, 1976.** USAF's first operational F-15 Eagle arrives at the 1st Tactical Fighter Wing, Langley AFB, Va.

**March 22, 1976.** The first A-10 Thunderbolt arrives at Davis-Monthan AFB, Ariz., for test and evaluation. The heavily armored jet attack aircraft, armed with a heavy Gatling gun in the nose and equipped with straight wings able to carry a variety of air-to-ground munitions, was designed for close air support missions.

**May 8, 1976.** At Mountain Home AFB, Idaho, the Thunderbirds fly the 2,000th show in their 23-year history. The team's Northrop T-38A Talons sport a special paint scheme for America's bicentennial celebration.

**June 28, 1976.** The Air Force Academy becomes the first of the big three service academies to admit women cadets when it admits Joan Olsen.

**July 3-4, 1976.** Israeli commandos, transported by C-130s, stage a surprise raid on Entebbe airport in the dead of night, fight a pitched battle with terrorists and Ugandan soldiers, and rescue more than 100 hostages who had been passengers aboard a hijacked Air France airliner.

#### **Entebbe**

**July 27–28, 1976.** Three SR-71 pilots (Maj. Adolphus H. Bledsoe Jr., Capt. Robert C. Helt, and Capt. Eldon W. Joersz) set three absolute world flight records over Beale AFB, Calif.: altitude in horizontal flight (85,068.997 feet), speed over a straight course (2,193.16 mph), and speed over a closed circuit (2,092.294 mph).

**Sept. 6, 1976.** Soviet pilot Lt. Victor Belenko, taking off from Sakharovka AB near Vladivostok, lands his MiG-25 (NATO reporting name "Foxbat") interceptor at the Hakodate Airport in northern Japan and asks for political asylum. He is flown to the US two days later. The defection provides an intelligence bonanza, as this gives the West its first detailed inspection of the Mach 3-capable fighter and a chance to debrief a front-line pilot. The aircraft is partially disassembled, flown to a Japanese Air Self Defense Force base near Tokyo on a US Air Force C-5 Galaxy, where it is then fully disassembled and inspected in detail. On Nov. 12, the MiG-25, in crates, is loaded on a Soviet freighter and returned.

**Sept. 29, 1976.** The first of two groups of 10 women pilot candidates enter undergraduate pilot training at Williams AFB, Ariz.

**The Quiet Pioneers** 

## 1977

**Jan. 8, 1977.** The first YC-141B (stretched C-141 Starlifter) rolls out of the Lockheed's Marietta, Ga., plant. Equipped with in-flight refueling capability, it was 23.3 feet longer than the original C-141A.

**March 10, 1977.** The prototype Grumman EF-111A airborne tactical jamming platform for the Air Force is flown for the first time at the company's Calverton, Long Island, N.Y., factory.

**March 23**, **1977**. Boeing delivers the first basic production version of the E-3A Sentry AWACS (No. 75-0557) to Tinker AFB, Okla. (The base would hold an official arrival ceremony on March 24.)

#### A Quarter Century of AWACS

April 6, 1977. John C. Stetson becomes Secretary of the Air Force.

**May 20, 1977.** The Sukoi T-10, the prototype of the Su-27 (NATO reporting name "Flanker") makes its first flight. The Su-27 is the first of a new generation of Soviet fighters (along with the MiG-29 'Fulcrum') to compete with, respectively, the US F-15 and F-16. Production numbers are in the low hundreds, and the type is flown by several other countries. Several successive aircraft, including the Su-30, -32, and -33 have been built around the basic Su-27 design.

**June 30, 1977.** President Jimmy Carter, citing the continued ability of the B-52 fleet and the development of cruise missiles, announces he is canceling the B-1A variable-geometry bomber program. Testing of the four B-1A prototypes will continue, however.

#### A Tale of Two Bombers

- Aug. 1, 1977. CMSgt. Robert D. Gaylor becomes Chief Master Sergeant of the Air Force.
- **Aug. 31, 1977.** Alexander Fedotov, flying in the MiG E-266M, a modified MiG-25 "Foxbat," sets the recognized absolute record for altitude, reaching 123,523.58 feet at Podmoskovnoye, USSR. The record is the only recognized absolute record not held by a pilot from the United States.
- **Oct. 1, 1977.** Volant Oak, the quarterly rotation of six Air National Guard and Air Force Reserve transports to Howard AFB, Panama, for in-place tactical airlift in Central and South America, begins.
- **Oct. 6, 1977.** The MiG-29 prototype (NATO reporting name "Fulcrum") makes its first flight. The MiG-29 is the second of a new generation of Soviet fighters (along with the Su-27) to compete with, respectively, the US F-16 and F-15. More than 800 aircraft have been built, and as of 2003, the aircraft is still in limited production and the more than 20 countries flying the MiG-29 are in the process of updating their fleets. MiG-29s are now flown by the air arms of two NATO members, Germany and Poland.
- **Dec. 1, 1977.** In total secrecy, company test pilot Bill Park makes the first flight of the Lockheed XST Have Blue demonstrator at Groom Lake, Nev. Developed in only 20 months, Have Blue is designed as a test bed for stealth technology.

**How the Skunk Works Fielded Stealth** 

## 1978

- **Jan. 24, 1978.** Tactical Air Command deploys eight F-15 Eagles from Langley AFB, Va., to Osan AB, South Korea, in the first operational-training deployment of F-15s to the Western Pacific.
- **Feb. 8-17, 1978.** In Operation Snow Blow II, USAF C-5s, C-141s, and C-130s airlifts 2,339 tons of snow-removal equipment, generators, communications gear, and more than 1,000 passengers after a severe snowstorm in southern New England.
- **Feb. 9, 1978.** An Atlas-Centaur booster hoists into orbit from Cape Canaveral, Fla., the first Fleet Satellite Communications System satellite.
- **Feb. 22, 1978.** The first test satellite in the Air Force's Navstar Global Positioning System is successfully launched into orbit on board an Atlas booster.

#### The Sensational Signal

**March 23, 1978.** Capt. Sandra M. Scott becomes the first female aircrew member to pull alert duty in SAC.

May 16-27, 1978. In Operation Zaire I, Military Airlift Command employs 43 C-141 and C-5 missions to transport 931 tons of cargo and 124 passengers to Zaire to aid Belgian and French troops who had intervened to rescue European workers threatened by a Katangan rebel invasion from Angola. For this operation, Lt. Col. Robert F. Schultz and Capt. Todd H. Hohberger and their C-5 crews earned the Mackay Trophy for overcoming fatigue, limited en route support, crippling mechanical problems, and adverse operational conditions in a hostile area.

**May 31-June 16, 1978.** In Operation Zaire II, USAF C-141s and C-5s airlift Belgian and French troops from Zaire, replacing them with African peacekeeping troops. In 72 missions, they transport 1,225 passengers and 1,619 tons of cargo.

July 1, 1978. Gen. Lew Allen Jr. becomes Air Force Chief of Staff.

**Nov. 22-29, 1978.** Three HH-53 Jolly Green Giant helicopters of the 55th Aerospace Rescue and Recovery Squadron airlift 911 bodies from a mass suicide in Jonestown to Georgetown, Guyana. HC-130s refuel the helicopters as they shuttle between the sites. At Georgetown the bodies are transferred to C-141 Starlifter aircraft for transport to the United States.

**Nov. 30, 1978.** The last Boeing LGM-30G Minuteman III ICBM is delivered to the Air Force at Hill AFB, Utah.

**Dec. 8-9, 1978.** Military Airlift Command airlifts some 900 evacuees from Tehran to bases in the US and Germany following political disturbances in Iran. The airlift includes 11 C-141 and C-5 missions. Some 5,700 US and third-country nationals leave Iran on regularly scheduled Military Airlift Command flights until Iran's revolutionary government closes the airport in February 1979.

## 1979

**Jan. 6, 1979.** The 388th Tactical Fighter Wing at Hill AFB, Utah, receives the first operational General Dynamics F-16A fighters.

**March 9, 1979.** Two E-3 Airborne Warning and Control System (AWACS) aircraft deploy to Saudi Arabia under Operation Flying Star in response to a threat on the country's southern border.

**March 31, 1979.** Maj. James E. McArdle Jr. and his four-man crew in an HH-3 helicopter from the 33rd Aerospace Rescue and Recovery Squadron at Osan, South Korea, rescue 28 Taiwanese seamen from a sinking ship in the Yellow Sea during a nighttime mission that earns McArdle the Mackay Trophy.

**July 9, 1979.** The Voyager 2 space probe, launched in 1977, flies within 399,560 miles of Jupiter's cloud tops. Voyager 2 will pass Neptune in 1989.

July 26, 1979. Hans Mark becomes Secretary of the Air Force.

Aug. 1, 1979. CMSqt. James M. McCoy becomes Chief Master Sergeant of the Air Force.

**Sept. 15-22, 1979.** Eight C-130s from the Air National Guard and Air Force Reserve units in California and Wyoming fly 254 sorties to drop 732,000 gallons of fire-suppressant liquid over fires in southern California—one of the largest aerial fire-fighting operations then on record.

**Oct. 1, 1979.** All atmospheric defense assets and missions of Aerospace Defense Command are transferred to Tactical Air Command (TAC). Also on this date, the Aerospace Audiovisual Service becomes the single manager for Air Force combat audiovisual documentation.

Air Force Magazine's Up From Kitty Hawk Aerospace Chronology resumes in Part 2 (1980-present).