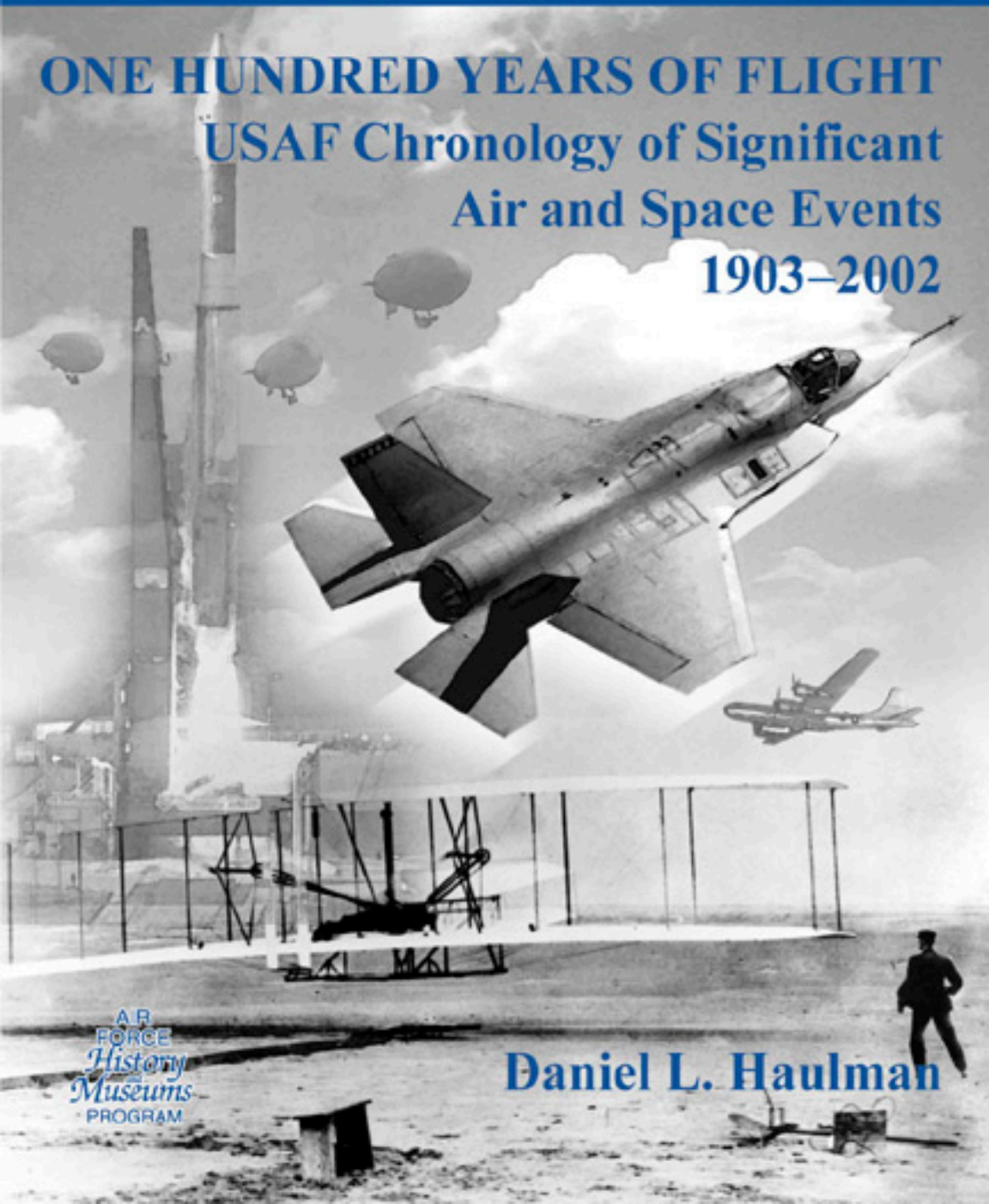
Air Force Centennial of Flight
Commemorative Edition

ONE HUNDRED YEARS OF FLIGHT

USAF Chronology of Significant Air and Space Events 1903–2002



Daniel L. Haulman

Air Force History & Museums Program

One Hundred Years of Flight

USAF Chronology of Significant Air and Space Events

1903–2002

Daniel L. Haulman

AIR FORCE HISTORY AND MUSEUMS PROGRAM
in association with
AIR UNIVERSITY PRESS

2003

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Air University Press
131 West Shumacher Avenue
Maxwell AFB AL 36112-6615

PREFACE

Commemorating the first century of aviation, this chronology is dedicated to the men and women who gave their lives to advance air and space flight. It includes significant air and space events since the Wright brothers first demonstrated in 1903 that humankind could fly in heavier-than-air machines. Although focused on the evolution of the United States Air Force (USAF), it also includes major developments in military, naval, civil, and international air power.*

Until World War I, military leaders had conceived of the airplane primarily as a reconnaissance and artillery-spotting tool. By the end of 1918, however, the airplane was already performing other missions, including air superiority, strategic bombardment, interdiction, close air support, and airlift. Aviation continued to evolve after the war, as evidenced by increased aircraft ranges, altitudes, and speeds. These growing capabilities allowed transcontinental and transoceanic flights as well as encouraged airline service and airmail. The U.S. Navy commissioned its first aircraft carrier in 1922. The U.S. Army Air Service made the first flight around the world in 1924, demonstrating the global reach of air power. Metal monoplanes featuring enclosed cockpits and retractable landing gear replaced fabric-skinned, open-cockpit biplanes with fixed wheels. The Army Air Corps, established in 1926, developed large, long-range bombers and a doctrine for their use.

World War II accelerated advances in aviation technology that saw production of faster, larger, higher-flying, and longer-range airplanes. Japan's surrender shortly after the first atomic bombs fell on Hiroshima and Nagasaki demonstrated that air power could be decisive in the outcome of wars. Jet aircraft, ballistic and cruise missiles, pressurized cabins, and radar were all legacies of the war. So too were the introductions of airborne operations, the helicopter as a military vehicle, and global air transport.

Recognizing the growing importance of aviation to national defense, Congress created an independent USAF in September 1947, just two years after World War II. That same year, Capt. Charles E. "Chuck" Yeager, USAF, pioneered supersonic flight. Almost immediately the new Air Force proved its worth by saving the western sectors of Berlin from Communist aggression with the largest airlift in history (1948–49). Air power won the first battle of the Cold War.

*References in the *Chronology* to the Air Force, Army, Navy, and Marine Corps are to United States forces unless otherwise specified.

During much of the Cold War, the USAF concentrated on developing a strategic nuclear deterrent. Superbombers, such as the B–36 and later the B–52, teamed with aerial tankers, enabling the United States to reach the cities of the Soviet Union within a day. The same aircraft companies that produced jet bombers and military transports also manufactured jet airliners, which revolutionized civil transportation.

During the 1950s, both the United States and the Soviet Union developed missiles capable of hitting targets on the other side of the globe within minutes. Some were submarine-launched, but most were intercontinental ballistic missiles. Along with the B–52 bombers, they served as deterrents during the Cold War. By the end of the decade, the same boosters carried satellites into space, transforming communication, navigation, intelligence, and exploration. In the 1960s, the two nations waged a "space race" that culminated in the first landings on the Moon.

Hot wars continued to break out in places such as Korea (1950–53) and Vietnam (1964–75), both of which were undeveloped areas with few strategic targets. Experience gained in these and shorter conflicts led to advances in tactical-aviation technology. The more dramatic innovations included stealth airplanes, satellite-linked airborne warning and control system aircraft, and extremely accurate precision-guided munitions. Experience in limited conflicts during the Cold War also resulted in more realistic and intensive training for USAF combat and combat-support crews.

Highly skilled air and space professionals working with cutting-edge technology contributed immensely to the quick victory in the Southwest Asia War of 1991 (also known unofficially as the Persian Gulf War of 1991). Although air power played a major role in the defeat of Iraq, it stole the show in the war with Serbia over Kosovo in 1999. Air power registered a quick victory in the first North Atlantic Treaty Organization conflict with a sovereign nation. Not one American was killed in combat. The air war over Serbia was also the first conflict to witness the use of the B–2 Spirit stealth bomber and the Predator unmanned aerial vehicle.

Air and space resources also contributed to the allied victory over the terrorist-dominated Taliban government in 2001. Destruction of key targets allowed friendly ground forces to overrun all major enemy strongholds within three months, resulting in the establishment of a new Afghan government.

Readers will note that the USAF not only has deterred and fought major wars, but also has taken part in numerous contingency operations—either delivering troops, materiel, and firepower, or evacuating Americans and other nationals to safety. Additionally, the service has flown relief equipment and supplies to countless victims of natural disasters, both at home and abroad. Throughout its life, the Air Force has evolved socially and organizationally, opening its leadership ranks to minorities and women.

Contrasting the fragile Wright Flyer with the International Space Station demonstrates how much the air and space world has changed in its first century. The next 100 years should witness the continuing transformation of air

and space power, not only for waging war, but also for moving people, property, and information more rapidly around the world and into space.

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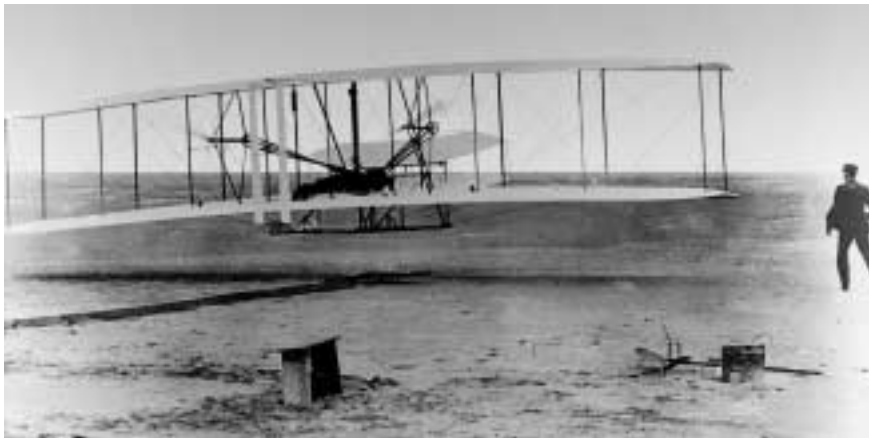
1903

December 17: Orville and Wilbur Wright piloted a powered heavier-than-air aircraft for the first time at Kill Devil Hill, near Kitty Hawk, North Carolina. Controlling the aircraft for pitch, yaw, and roll, Orville completed the first of four flights, soaring 120 feet in 12 seconds. Wilbur completed the longest flight of the day: 852 feet in 59 seconds. The brothers launched the airplane from a monorail track against a wind blowing slightly more than 20 miles per hour.



The first powered and controlled airplane flight at Kitty Hawk, North Carolina

1904

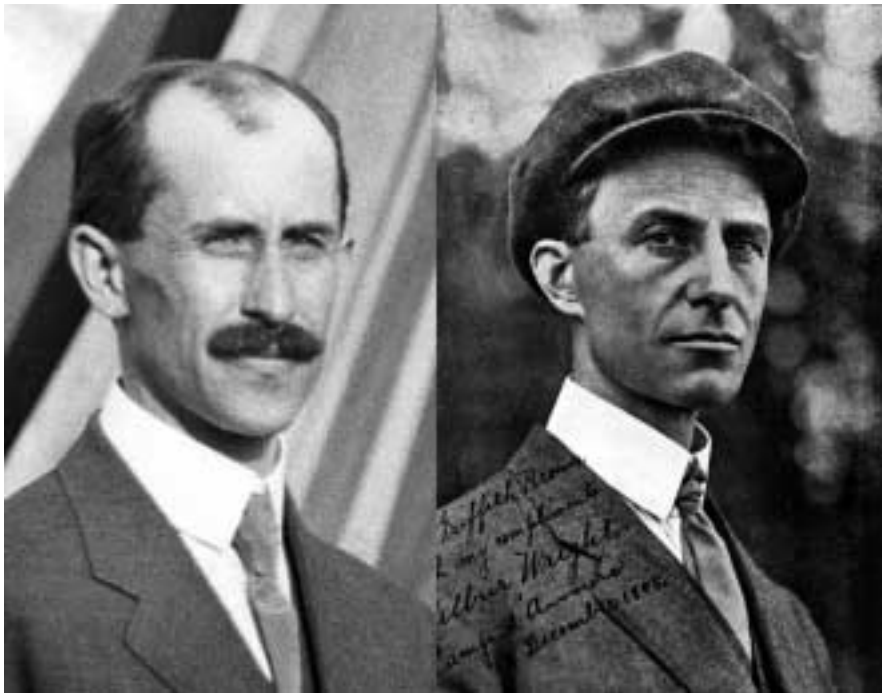
August 3: Capt. Thomas S. Baldwin demonstrated the first successful U.S. dirigible at Oakland, California, flying the airship in a circuit.

September 20: Wilbur Wright completed the first circular flight at Huffman Prairie, near Dayton, Ohio.

1905

October 5: The Wright brothers' Wright Flyer III, the first practical airplane, flew for more than half an hour near Dayton, Ohio, covering nearly 24 miles.

October 9: The Wright brothers wrote to the U.S. War Department, describing their new flying machine and offering it to the Army for purchase. Misunderstanding the offer as a request for funds to conduct invention research, the Board of Ordnance and Fortification turned them down.



Orville and Wilbur Wright. They took turns flying the first successful airplane.

1906

May 22: The U.S. Patent Office issued a patent on the Wright brothers' three-axial airplane-control system.

September 13: Alberto Santos-Dumont, a Brazilian living in France, made the first airplane flight in Europe at Bagatelle. His airplane flew only 23 feet that day, but on October 23 Santos-Dumont flew his machine 196 feet.

1907

August 1: The Army's Signal Corps established a new Aeronautical Division under Capt. Charles deForest Chandler to take charge of military ballooning and air machines.

December 23: Brig. Gen. James Allen, chief signal officer, issued the first specification for a military airplane. It called for an aircraft that could carry two people, fly at a minimum speed of 40 miles per hour, go 125 miles without stopping, be controllable for flight in any direction, and land at its takeoff point without damage.

1908

January 21: The Signal Corps announced a specification for an Army airship. It called for an aircraft that could fly for two hours, carry two persons, and maintain a minimum speed of 20 miles per hour.

February 10: The Wright brothers and Capt. Charles S. Wallace of the Signal Corps signed the first Army contract for an airplane.

February 24: The Army signed a contract with Capt. Thomas S. Baldwin for a government airship at a price of $6,750.

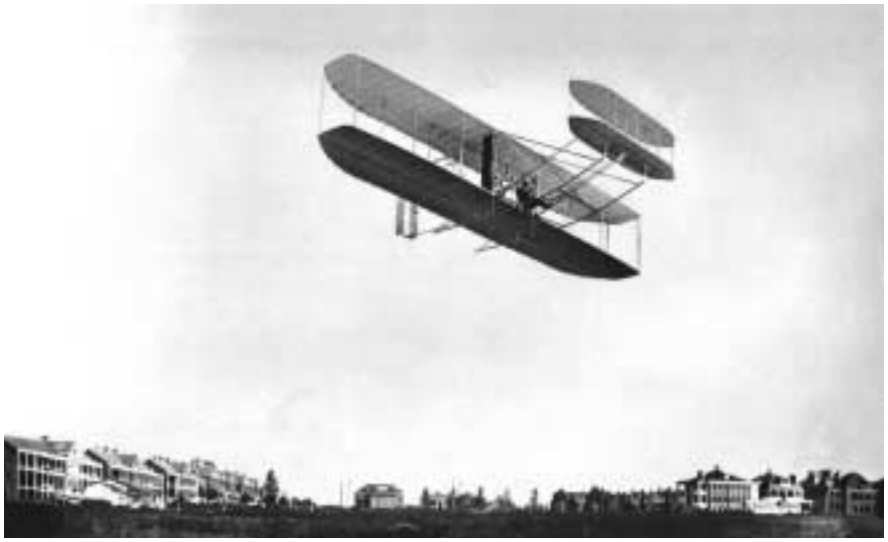
April 30: Aviation enthusiasts in the 1st Company, Signal Corps, New York National Guard, organized an "aeronautical corps" to learn ballooning—the earliest known involvement of guardsmen in aviation.

May 14: Charles Furnas became the first airplane passenger when he rode aboard an aircraft flown by Wilbur Wright at Kitty Hawk, North Carolina.

May 19: Lt. Thomas E. Selfridge flew an airplane called the *White Wing*, designed by F. W. "Casey" Baldwin, thus becoming the first Army officer to solo in an airplane.

August 28: After flight tests at Fort Myer, Virginia, the Army accepted Army Dirigible No. 1 from Capt. Thomas S. Baldwin.

September 3: Orville Wright began flight tests of the Wright Flyer at Fort Myer, Virginia.



The Wright Flyer. Its rear-mounted propeller pushed the biplane forward, and wing warping provided control.

Lt. Thomas E. Selfridge and Dr. Alexander Graham Bell

September 17: Lt. Thomas E. Selfridge of the Army became the first U.S. military member to die in an airplane accident when he crashed with pilot Orville Wright during a flight test at Fort Myer, Virginia. A propeller split and broke a wire supporting the rudder. The accident delayed Signal Corps acceptance of an airplane for almost a year.

1909

July 25: Louis Bleriot of France made the first flight in an airplane across the English Channel, flying from Les Barraques, France, to Dover, England.

July 27: Orville Wright, with Lt. Frank P. Lahm as passenger, performed the first official Army flight test at Fort Myer, Virginia. They flew for over an hour, meeting one of the specification requirements for a military airplane.

August 2: The Army accepted its first airplane from the Wright brothers after the aircraft met or surpassed all specifications in flight tests at Fort Myer, Virginia. The Army paid the Wrights the contract price of $25,000 plus $5,000 for speed in excess of 40 miles per hour.

August 25: The Army leased land at College Park, Maryland, for the first Signal Corps airfield.

The first Army airplane, a Wright Flyer

October 26: At College Park, Maryland, after instruction from Wilbur Wright, Lt. Frederick E. Humphreys and Lt. Frank P. Lahm became the first Army officers to solo in a Wright airplane.

November 3: Lt. George C. Sweet became the first Navy officer to fly when he accompanied Lt. Frank P. Lahm of the Army on a flight at College Park, Maryland. Lieutenant Sweet was the official observer for the Navy at the trials for the Wright Flyer.

1910

January 19: The Army's Lt. Paul W. Beck, flying with Louis Paulhan in a Farman airplane, dropped three two-pound sandbags over a target at an air meet in Los Angeles, testing the feasibility of using aircraft for bombing.

February 15: The Signal Corps moved flying training to Fort Sam Houston, near San Antonio, Texas, because of the cold, windy winter weather at College Park, Maryland.

March 2: Lt. Benjamin D. Foulois made his first solo flight at Fort Sam Houston, Texas. At the time, he was the only pilot assigned to the Aeronautical Division of the Army Signal Corps and, thus, the only one with flying duty.

March 19: At Montgomery, Alabama, Orville Wright opened the first Wright Flying School on a site that later became Maxwell Air Force Base.

July 1: Capt. Arthur S. Cowan replaced Capt. Charles deForest Chandler as commander of the Signal Corps's Aeronautical Division.

August 4: Elmo N. Pickerill made the first radio-telegraphic communication between the air and ground while flying solo in a Curtiss pusher from Mineola, Long Island, to Manhattan Beach and back.

An early Curtiss aircraft equipped with a steering wheel

August 18: At Fort Sam Houston, Texas, Oliver G. Simmons, the Army's first civilian airplane mechanic, and Cpl. Glen Madole added wheels to Signal Corps Airplane No. 1, producing a tricycle landing gear and eliminating the need for a launching rail or catapult.

August 20: The Army's Lt. Jacob Fickel fired a rifle from a Curtiss biplane toward the ground at Sheepshead Bay Track, near New York, becoming the first U.S. military member to shoot a firearm from an airplane.

September 2: Blanche Scott became the first American woman pilot when she soloed over Keuka Lake at Hammondsport, New York.

October 11: Over Saint Louis, Missouri, in a Wright biplane piloted by Arch Hoxsey, former president Theodore Roosevelt became the first U.S. president to fly.

November 14: Eugene Ely, a Curtiss exhibition pilot, took off from the deck of the USS *Birmingham* while it was anchored in Hampton Roads, Virginia, thus becoming the first pilot to fly from the deck of a Navy ship.

1911

January 17: Glenn H. Curtiss established an aviation school and experimental station on North Island, San Diego, California. This site later became the Signal Corps Aviation School.

January 18: Eugene Ely landed on the deck of the USS *Pennsylvania* while it was anchored in San Francisco harbor, becoming the first pilot to land on the deck of a ship.

January 21: Lt. Paul W. Beck made the Army's first radio communication from an airplane, sending telegraphic signals to a station on the ground at Selfridge Field, Michigan.

January 28: Lt. Theodore G. Ellyson became the first Navy officer to pilot an airplane when he inadvertently took off in a Curtiss pusher airplane while taxiing at San Diego.

February 27: At Fort McIntosh, Laredo, Texas, on the Mexican border, Lt. Benjamin D. Foulois and Wright instructor pilot Phillip O. Parmelee first demonstrated the use of an airplane in coordination with Army ground troops. They used a new Wright B Flyer lent by magazine publisher Robert F. Collier.

March 3: Congress passed the first direct appropriation for U.S. military aviation, devoting "not more than $125,000 . . . for the purchase, maintenance, operation and repair of aeroplanes and other aerial machines" for fiscal year 1912.

April 27: The Signal Corps accepted its second and third military airplanes, a Curtiss IV Model D and a Wright Type B, at Fort Sam Houston, San Antonio, Texas.

May 8: The Navy ordered its first airplane, an A–1 amphibian, from Glenn Curtiss. By July the service was flying this aircraft at Hammondsport, New York.

June 20: When he returned from the Army Signal School at Fort Leavenworth, Kansas, Capt. Charles deForest Chandler replaced Capt. Arthur S. Cowan as head of the Aeronautical Division.

July 3: The Army Signal Corps designated the flying field at College Park, Maryland, as the Signal Corps Aviation School. The War Department appointed Capt. Charles deForest Chandler as the school's commander. Among the school's instructors were 2d Lt. Henry H. "Hap" Arnold and 2d Lt. Thomas DeWitt Milling, who had just learned to fly at the Wright school in Dayton, Ohio.

Lt. Henry H. Arnold in a Wright B airplane, College Park, Maryland, 1911. Arnold was commander of the Army Air Forces in World War II.

July 19: Orville Wright delivered the Navy's first Wright airplane (a Wright B land machine) at Annapolis, Maryland. The aircraft was subsequently converted into a seaplane by the addition of twin floats.

September 23: Earle L. Ovington delivered mail by air from Nassau Aerodrome to Mineola, New York, for which he was named Airmail Pilot No. 1 by Postmaster General Frank H. Hitchcock. Ovington was the first airmail carrier to cover a set route from one regularly established post office to another.

Postmaster General Frank H. Hitchcock hands Earle L. Ovington a bag of mail for the first airmail delivery on September 23, 1911. The load consisted of 640 letters and 1,280 postcards.

October 10: At College Park, Maryland, Lt. Thomas DeWitt Milling tested a bombsight and bomb-dropping device invented by Riley E. Scott, who accompanied him in a Wright Flyer. These were the first Army tests of such devices.

October 18: Capt. George W. McKay of Michigan became the first National Guard pilot.

October 22: Capt. Carlo Piazza of Italy, piloting a Bleriot XI, conducted the first wartime military airplane flight, reconnoitering Turkish positions in Libya. That same day, another Italian airplane became the first to be hit by ground fire.

November 1: Lt. Giulio Gavotti of Italy, flying an Etrich Taube aircraft, dropped bombs from an airplane in war for the first time, attacking Turkish positions in Libya.

November 5: In 49 days, Calbraith Perry Rodgers, flying a Burgess-Wright biplane, completed the first transcontinental flight from New York to Pasadena, California—a distance of 3,390 miles.

November 28: The Signal Corps Army Aviation School moved temporarily from College Park, Maryland, to Augusta, Georgia, because the climate there was better for winter flying.

1912

February 17: The Army published its first physical examination requirements for pilots.

February 23: *War Department Bulletin* no. 2 for 1912 established the rating "military aviator."

March 1: Albert Berry made the first attached-type parachute jump over Jefferson Barracks, Saint Louis, Missouri, at an altitude of 1,500 feet from a Benoist pusher airplane.

March 21: Lt. Frank P. Lahm flew Signal Corps No. 7, a Wright Model B aircraft, at Fort William McKinley in the Philippine Islands—the first flight of an airplane at an overseas base.

May 30: At the age of 45, Wilbur Wright died of typhoid fever at Dayton, Ohio.

June 14: After training at the Army Air School in the Philippines, Cpl. Vernon Burge became the Army's first enlisted pilot.

July 5: Capt. Charles deForest Chandler, 2d Lt. Thomas D. Milling, and 2d Lt. Henry H. Arnold became the first Army pilots to qualify as military aviators.

November 5–13: The Army used aircraft for artillery adjustment for the first time at Fort Riley, Kansas. Capt. Frederick B. Hennessy, Lt. Henry H. Arnold, and Lt. Thomas DeWitt Milling signaled the ground, using radiotelegraphy, drop cards, and smoke signals.

November 12: Lt. Theodore G. Ellyson, the Navy's first pilot, successfully launched a Curtiss seaplane, using a catapult mounted on a float anchored in the Anacostia River opposite the Navy Yard in Washington, D.C. This device was a forerunner of the catapult used on aircraft carriers.

A Curtiss G tractor biplane. First purchased by the Army in 1911, its front-mounted propeller pulled the aircraft through the air.

December 8: The Signal Corps established an aviation school at North Island, San Diego, where Lt. Thomas DeWitt Milling developed the quick-release safety belt.

1913

February 17: The Army first tested an automatic pilot device made by Lawrence Sperry, who called it a gyrostabilizer.

March 2: Congress approved flight pay of 35 percent over base pay to reward officers who volunteered for aviation duty.

March 5: The Signal Corps established the 1st Provisional Aero Squadron at Texas City, Texas, to support U.S. troops responding to a revolution in Mexico. Designated a permanent unit in December and currently active as the 1st Reconnaissance Squadron, it is the oldest squadron in the Air Force.

May 10: Didier Masson, flying for Gen. Alvaro Obregon during the Mexican Revolution, conducted the first aerial bombing in the western hemisphere, attacking gunboats in the Gulf of California.

August 8: An airplane flew in Hawaii for the first time, piloted by Lt. Harold Geiger of the Army from a new aviation school at Fort Kamehameha.

The aircraft, a Curtiss E two-seater (Signal Corps No. 8), soared over Pearl Harbor. Established in July, the school operated only about a year.

c. November 30: Phil Rader and Dean Ivan Lamb, flying for opposing sides in the Mexican Revolution, engaged in the first aerial combat, firing pistol shots at one another over Naca, Mexico.

1914

January 1: Tony Jannus inaugurated America's first regularly scheduled airline when he flew passengers between Saint Petersburg and Tampa, Florida, in a Benoist flying boat.

January 15: The Signal Corps Aviation School at San Diego issued an order prescribing the first safety regulations, which required aviators to wear helmets and coats.

January 31: The Navy established its first air station at Pensacola, Florida.

February 24: An Army investigative board at the Signal Corps Aviation School at San Diego recommended discontinuance of pusher-type airplanes, noting the large number of accidents and deaths in them. In a crash, a rear-mounted engine would often break loose and fall on the pilot. This recommendation threatened to condemn the Army's Wright airplanes, all of which were pusher types.

May 6: A Curtiss AH–3 hydroairplane, flown by Lt. P. N. L. Bellinger and Lt. R. C. Saufley of the Navy in a reconnaissance mission over Mexican positions near Vera Cruz, became the first U.S. airplane hit by hostile ground fire.

June 24: The Signal Corps Aviation School at San Diego received its first Curtiss J, Signal Corps No. 29. Features of this airplane were later combined with those of the Curtiss N, received on December 11, to create the JN–2 trainer.

July 7: The U.S. government issued a patent to Dr. Robert H. Goddard for a multistage rocket design. On July 14, the government issued another patent to Goddard for a liquid-fueled rocket design. These designs laid the foundation for future spaceflights.

July 18: Congress passed a law creating an Aviation Section of the Army Signal Corps, which replaced the Aeronautical Division. Lt. Col. Samuel Reber, who had served as the last commander of the division, became the first commander of the Aviation Section, which consisted of only 19 officers and 101 enlisted men.

July 28: Austria-Hungary declared war on Serbia, setting off World War I. On behalf of Serbia, Russia mobilized for war with Austria-Hungary, and

when Russia refused to stop mobilization, Austria-Hungary's ally Germany on August 1 declared war on Russia. Two days later, Germany declared war on Russia's ally France and invaded Belgium, bringing Great Britain into the war on the side of France, Russia, and Serbia.

August 9–10: The French dirigible *Fleurus* became the first Allied aircraft to fly over enemy territory during World War I.

August 19: The British Royal Flying Corps began aerial reconnaissance of the German lines in Belgium.

August 24: By maneuvering, three Royal Flying Corps airplanes forced down a German airplane. The crew of one of the British planes landed, chased away the German crew, and then set the enemy airplane afire. This incident constituted the first aerial victory.

September 22: The first strategic bombardment mission took place when British aircraft bombed zeppelin sheds in Düsseldorf and Cologne, Germany.

December 11: Flying a Burgess-Wright biplane, Lt. Herbert A. Dargue and Lt. Joseph O. Mauborgne of the Army demonstrated two-way radio communications between the air and ground in the Philippines.

1915

January 19–20: Two German zeppelins, L.3 and L.4, bombed Great Britain for the first time, striking Great Yarmouth and King's Lynn.

March 3: Congress created the National Advisory Committee for Aeronautics, which eventually evolved into the National Aeronautics and Space Administration.

April 1: Lt. Roland Garros of France became the first pilot to shoot down an airplane with a machine gun attached to the fuselage so that it would point wherever the aircraft did. The gun was mounted behind the metal-plated propeller, which deflected the bullets that hit it.

May 20: The Army accepted its first Curtiss JN–2 aircraft, for use by the 1st Aero Squadron. This craft was the first mass-produced U.S. airplane.

May 31: Capt. Erich Linnarz and his crew in the German zeppelin LZ–38 dropped bombs on London for the first time. About 150 small bombs set approximately 41 fires that killed seven people and injured 35.

June 7: In a Morane-Sulnier monoplane, Sublieutenant Reginald A. J. Warneford, a British pilot, dropped 20-pound bombs on German zeppelin LZ–37 as it approached England from Belgium. The British govern-

ment awarded him the Victoria Cross for the first wartime destruction of an airship.

July 1: German aviator Kurt Wintgens became the first pilot to shoot down an enemy airplane with a machine gun synchronized to fire through the propeller without hitting it. Produced by Anthony Fokker, the device gave the Germans temporary air superiority.

August 12: A British seaplane launched a torpedo that destroyed an enemy vessel in the Dardanelles, marking the first time an airplane had sunk a ship.

November 1: Capt. Raynal Cawthorne Bolling organized the Aviation Detachment, 1st Battalion, Signal Corps (later the First Aero Company), New York National Guard, recognized as the first genuine National Guard aviation unit. Captain Bolling was appointed as the first commander.

November 6: Cmdr. Henry C. Mustin of the Navy launched the first airplane by catapult from a moving vessel—the USS *North Carolina*—in Pensacola Bay, Florida.

1916

March 15: The 1st Aero Squadron, under Capt. Benjamin D. Foulois, became the first U.S. aviation unit to engage in field operations when it joined Brig. Gen. John J. Pershing's punitive expedition against Mexican revolutionary leader Pancho Villa.

March 21: The French air service authorized formation of the Escadrille Americaine, later known as the Lafayette Escadrille. Composed of pilots from the United States, many of whom later served in U.S. air units, this French unit trained Americans in aerial combat.

April 7: Mexicans fired on Army aviators Lt. Herbert A. Dargue and Capt. Benjamin D. Foulois at Chihuahua City, Mexico, when they landed with dispatches for the U.S. consul.

Curtiss JN–3s of the 1st Aero Squadron at Columbus, New Mexico, during the campaign against Pancho Villa, 1916

May 20: Lt. Col. George O. Squier assumed command of the Signal Corps's Aviation Section, replacing Lt. Col. Samuel Reber.

June 18: H. Clyde Balsley of the Lafayette Escadrille became the first American aviator shot down during World War I.

June 30: For the first time, two nations conducted combined air operations when the British and the French air services worked together on the western front in preparation for the Somme offensive, which began on July 1.

July 13: Commanded by Capt. Raynal C. Bolling, the First Aero Company, New York National Guard, was mobilized during the border crisis with Mexico. It trained at Mineola, New York, but did not deploy to the Mexican border. This marked the first time a National Guard air unit was called up for federal service.

September 2: Army aviators first demonstrated airplane-to-airplane radio communication over North Island, San Diego, when Lt. William A. Robertson and Cpl. Albert D. Smith, flying in one plane, communicated by radiotelegraph with an airplane flown by Lt. Henry A. Dargue and Capt. Clarence C. Culver.

December 30: The Army established an aviation school just north of Hampton, Virginia. Renamed Langley Field in 1917, it is the oldest currently active USAF base.

1917

February 19: Lt. Col. John B. Bennet became chief of the Aviation Section of the Signal Corps, replacing Lt. Col. George O. Squier, who became chief signal officer.

April 6: President Woodrow Wilson signed a congressional declaration of war against Germany, by which the United States entered World War I.

April 30: Maj. William C. Mitchell became the first Army officer to fly over enemy lines in World War I, less than a month after the United States entered the war. He flew as an observer in a French aircraft.

May 16: President Woodrow Wilson established an Aircraft Production Board to supervise the manufacture of U.S. aircraft and parts for the nation's participation in World War I.

May 20: An airplane sank a submarine for the first time when a British flying boat destroyed German submarine U–36 in the North Sea.

May 26: Maj. Townsend F. Dodd became the first aviation officer on the staff of Maj. Gen. John J. Pershing, commander of the American Expeditionary Forces.

June 17: The Aeronautical Mission, Aircraft Production Board, led by Maj. Raynal C. Bolling (the Bolling Mission), sailed for Europe. It was charged with determining the types of aircraft the United States should build and with surveying British, French, and Italian aircraft-manufacturing techniques.

July 3: The American Expeditionary Forces began arriving in France.

July 24: Congress appropriated $640 million for Army aviation and authorized the Aviation Section to expand to 9,989 officers and 87,083 enlisted men. No earlier appropriation had come close to this amount.

July 27: A British DeHavilland DH–4 aircraft arrived in the United States to serve as a model for the first American-built aircraft equipped with the U.S.-made Liberty 12-cylinder engine.

September 3: Brig. Gen. William L. Kenly was appointed first chief of the Air Service, American Expeditionary Forces, thus becoming the first single head of all U.S. air activities in-theater. Col. William "Billy" Mitchell became air commander, Zone of Advance.

September 13: The 1st Aero Squadron arrived in France as the first air unit to serve with the American Expeditionary Forces.

October 18: The Signal Corps established an experimental laboratory at McCook Field, Dayton, Ohio, to test new aviation technology.

October 29: The first American-built DH–4 was completed and flown at Dayton, Ohio.

November 7: Eugene J. Bullard, an American in French service, became the first black fighter pilot to claim an aerial victory.

November 27: Brig. Gen. Benjamin D. Foulois replaced Brig. Gen. William L. Kenly as chief of the Air Service, American Expeditionary Forces.

1918

January 19: The U.S. School of Aviation Medicine began operations under Maj. William H. Wilmer at Hazelhurst Field, Mineola, New York, to train medical doctors and nurses to treat U.S. military aviation personnel.

January 20: Col. William "Billy" Mitchell became chief of Air Service, I Army Corps, upon its organization at Neufchateau, France.

February 5: Lt. Stephen W. Thompson, flying as a gunner in a French-piloted airplane, became the first Army soldier to score an aerial victory.

Many American pilots in World War I flew the Nieuport 28, a French fighter.

February 18: The 103d Aero Squadron, composed of former members of the Lafayette Escadrille and using Spad airplanes, began operating at the front under tactical control by the French.

March 5: The 2d Balloon Company became the first Army air unit to serve with American troops at the front in World War I when it began operations under I Corps at the Toul Sector.

March 11: Lt. Paul Baer of the 103d Aero Squadron earned the first Distinguished Service Cross awarded to a member of an Army air unit by becoming the first pilot with an American squadron to down an enemy airplane. U.S. pilots with earlier aerial victories had served with the French.

April 1: The Royal Air Force emerged from the combined resources of the Royal Flying Corps and the Royal Naval Air Service.

April 14: Lt. Douglas Campbell and Lt. Alan F. Winslow became the first members of the 94th Aero Squadron to shoot down enemy aircraft when they downed two German fighters within minutes of each other over Toul Airdrome.

April 21: Capt. A. Roy Brown, a Canadian member of Britain's Royal Air Force, shot down Baron Manfred von Richthofen, Germany's "Red Baron." Richthofen, the leading ace of the war, had shot down 80 airplanes.

April 23: The first shipment of U.S. Liberty aircraft engines arrived in France.

April 29: Lt. Edward V. Rickenbacker, who later became the leading U.S. ace of World War I with 26 victories, shot down his first airplane.

May 5: The 1st Pursuit Group was organized at Toul, France, to coordinate the 94th and 95th Aero Squadrons. Now the 1st Operations Group, 1st Fighter Wing, it is the oldest USAF group in existence.

May 11: The first American-built DH–4, equipped with a Liberty engine, arrived in France for service with the American Expeditionary Forces.

The DeHavilland DH–4. Many U.S. Air Service pilots in France during World War I flew this British-designed airplane.

May 15: Army pilots began flying the government's first permanent airmail route—Washington, D.C., to New York.

May 19: Raoul G. Lufbery, who earned 17 aerial victories with the Lafayette Escadrille before transferring to the American Expeditionary Forces, lost his life in combat. He had passed much of his knowledge of aerial warfare to fledgling American fighter pilots such as Eddie Rickenbacker.

May 20: Army aviation was separated from the Signal Corps with the formation of two new War Department bureaus—the Division of Military Aeronautics, under Maj. Gen. William L. Kenly, and the Bureau of Aircraft Production, under John D. Ryan, who was named director nine days later.

May 24: The War Department recognized the Division of Military Aeronautics and the Bureau of Aircraft Production as constituents of the Army Air Service.

May 29: Brig. Gen. Mason M. Patrick became chief of Air Service, American Expeditionary Forces.

June 12: The 96th Aero Squadron conducted the first daylight bombing by an American unit when it attacked enemy-held marshalling yards at Dommary-Baroncourt, France.

August 2: U.S.-built airplanes patrolled the front lines for the first time when 18 DH–4 airplanes of the 135th Observation Squadron flew from an airdrome at Ourches, France.

August 28: John D. Ryan, already the director of the Bureau of Aircraft Production, became assistant secretary of war and the first director of the Army Air Service, giving him control over both the Bureau of Aircraft Production and the Division of Military Aeronautics.

September 12–15: Brig. Gen. William "Billy" Mitchell commanded the largest air armada ever assembled—1,481 Allied airplanes—during the first major American offensive of the war at Saint-Mihiel, France.

September 25: Capt. Edward V. Rickenbacker of the 94th Aero Squadron earned the Medal of Honor by shooting down two enemy airplanes in a group of seven he attacked near Etain, France.

September 29: Lt. Frank Luke of the 27th Aero Squadron lost his life in aerial combat after having destroyed 18 enemy balloons and airplanes in 17 days. He was awarded the Medal of Honor posthumously.

October 2: The United States successfully flight-tested a pilotless aircraft called the Kettering "Bug" at Dayton, Ohio.

October 6: Second Lt. Erwin R. Bleckley of the Kansas National Guard, flying as an aircraft observer with the 50th Aero Squadron, and his pilot, 1st Lt. Harold E. Goettler, were killed after repeatedly trying to locate and resupply the famous "lost battalion," which had been cut off by German forces in the Argonne Forest. Each man was posthumously awarded the Medal of Honor, accounting for half of such awards made to Army aviators during World War I.

October 12: Members of the 185th Aero Squadron flew the first U.S. night-pursuit operations in France.

October 30: Capt. Edward V. Rickenbacker, the highest-ranking U.S. ace of World War I, scored his 26th and final aerial victory.

November 6: At Aberdeen Proving Ground, Maryland, Dr. Robert H. Goddard demonstrated tube-launched, solid-propellant rockets, forerunners of the bazooka—an antitank weapon of World War II.

November 10: The 3d Aero Squadron flew the last Army Air Service patrol over enemy lines in World War I. The next day, the Allies and Germany agreed to an armistice.

Capt. Edward V. Rickenbacker and a Spad 13

December 22: Four Curtiss JN–4 "Jenny" aircraft, with pilots under the command of Maj. Albert D. Smith, completed the Army's first transcontinental flight, landing at Jacksonville, Florida, after departing San Diego on December 4.

Many Air Service pilots first learned to fly in the Curtiss JN–4 "Jenny."

Personnel of the 11th Aero Squadron Day Bombardment, Maulan, France, 1918

1919

January 2: Maj. Gen. Charles T. Menoher became director of the Army Air Service.

April 28: At McCook Field, Ohio, Leslie L. Irvin first tested a free-type backpack parachute designed by James F. Smith for the Army, jumping from a DeHavilland DH–9 at 1,500 feet. Although he broke an ankle on landing, Irvin survived the test. After further testing, the Army ordered 400 such parachutes later that year from Irvin's company.

May 19: MSgt. Ralph W. Bottriell became the first member of the Army to jump from an airplane with a backpack-type parachute, later receiving the Distinguished Flying Cross for this feat.

May 27: Lt. Cmdr. Albert C. "Puffy" Read and his five-man crew in a Navy Curtiss NC–4 Flying Boat completed the first crossing of the Atlantic Ocean by air, traveling from Newfoundland to Portugal, stopping once in the Azores.

June 15: Capt. John Alcock and Lt. Arthur W. Brown of Great Britain completed the first nonstop crossing of the Atlantic Ocean by air, flying from Saint Johns, Newfoundland, to Clifden, Ireland.

July 13: The first airship to cross the Atlantic Ocean, the British R–34, landed at Roosevelt Field, Long Island, after leaving England on 2 July.

October 27: A board led by Maj. Gen. Charles T. Menoher, director of the Air Service, released a report that rejected the proposals of Rep. Charles F. Curry of California and Sen. Harry S. New of Indiana for an air force department separate from the Army and Navy.

October 30: Personnel at McCook Field, Dayton, Ohio, tested a reversible-pitch propeller, an invention that allowed an aircraft to slow down and stop more rapidly when landing on short runways.

November 9: Flying a Martin bomber, Lt. Col. Rutherford S. Hartz and his Army crew completed the first flight around the rim of the United States, covering 9,823 miles in 108 days.

1920

February 22: The first U.S. transcontinental mail-service flight landed in New York. U.S.-built DeHavilland DH–4s completed the mission in 14 segments.

June 4: Congress passed the National Defense Act to establish the Air Service on a permanent basis as a combatant arm of the Army, making it the equivalent of the infantry, cavalry, and artillery. Congress also created the rating of "airplane pilot" and authorized flying pay of 50 percent above base pay.

October 14: The Navy began tests to determine the effectiveness of aerial attacks against ships, dropping sand-filled dummy bombs on the old battleship *Indiana* at Tangier Sound in Chesapeake Bay.

November 1: Aeromarine West Indies Airways began flights between Key West, Florida, and Havana, Cuba, thus inaugurating U.S. international passenger service.

November 1: A Field Officers School opened at Langley Field, Virginia, under Maj. Thomas DeWitt Milling. Later known as the Air Service Tactical School and, later still, the Air Corps Tactical School, it taught students the tactical employment of aviation and became the most important source of Army air doctrine between the world wars.

1921

July 21: Under the leadership of Brig. Gen. William "Billy" Mitchell, Martin and Handley Page bombers from the Army's 1st Provisional Air Brigade bombed and sank the captured German battleship *Ostfriesland* in Chesapeake Bay. The tests proved General Mitchell's contention that airplanes could sink the largest and most powerful naval vessels.

July 29: Hoping to demonstrate the vulnerability of Atlantic seaboard cities to air attack, Brig. Gen. William "Billy" Mitchell led 19 bombers in a mock raid against New York City, after which he concluded that his target had been theoretically destroyed. He used this raid to support his

***Martin MB–2 bomber. Air Service pilots used such bombers to sink the* Ostfriesland.**

argument that the Army and its aviation arm should assume responsibility for defense of the nation's shores.

August: The Ordnance Engineering Corporation (Orenco), in association with Curtiss, delivered to the Army the Curtiss Orenco, the first single-seat fighter of indigenous U.S. design to achieve production status.

September 13: A report recommending a Department of National Defense with a branch for aviation, written by Brig. Gen. William "Billy" Mitchell for Maj. Gen. Charles T. Menoher, chief of the Air Service, was leaked to the press.

October 5: Maj. Gen. Mason M. Patrick replaced Maj. Gen. Charles T. Menoher as chief of the Air Service.

December 1: The Navy dirigible C–7 became the first helium-filled airship to fly when it journeyed from Hampton Roads, Virginia, to Washington, D.C., and returned.

Airships over Langley Field, Virginia, 1921

1922

March 20: At Norfolk, Virginia, the Navy commissioned its first aircraft carrier, the USS *Langley* (converted from the collier *Jupiter*).

1923

January 9: An autogiro aircraft designed by Juan de la Cierva made its first flight, in Spain, with Lt. Alejandro G. Spencer of the Spanish army at the controls. The revolutionary new aircraft looked like an airplane but depended on an overhead rotor instead of conventional wings for lift.

March 27: A War Department board headed by Maj. Gen. William Lassiter recommended legislation to reorganize and expand the Air Service, including a suggestion to provide aviation forces that could operate under a general headquarters to accomplish strategic missions independent of surface forces.

May 3: Flying a Fokker T–2 airplane, Lt. Oakley G. Kelly and Lt. John A. Macready completed the first nonstop transcontinental flight, traveling from New York to San Diego, a distance of 2,520 miles, in slightly less than 27 hours.

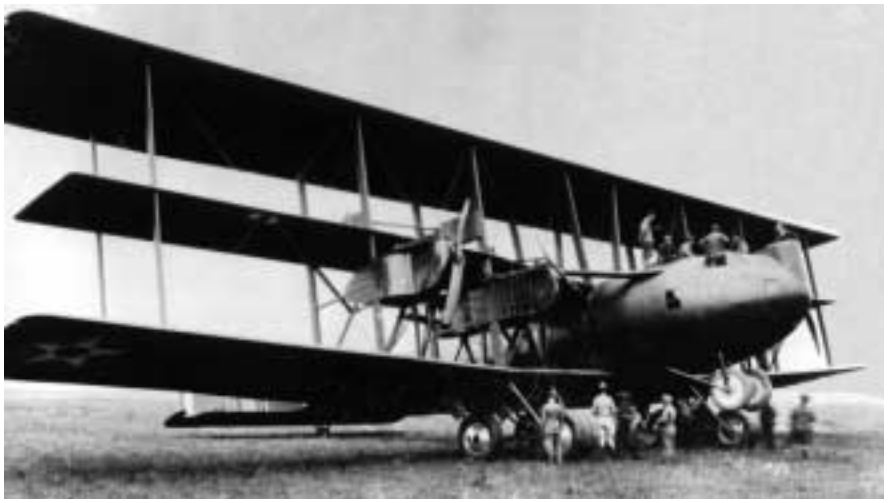
May 14: The Army accepted delivery of the first PW–8 prototype, the progenitor of the famed Curtiss Hawk series of sturdy post–World War I biplane pursuit aircraft. The "W" designated a water-cooled engine.

June 20: The Army's first all-metal airplane, the Gallaudet CO–1, a monoplane with a Liberty-12 400-horsepower engine, made its initial flight. The Air Service Engineering Division designed it as an observation airplane, but only three were built.

June 27: Lt. Lowell H. Smith and Lt. John P. Richter, flying a DH–4, together with Lt. Virgil Hine and Lt. Frank W. Seifert, flying another DH–4, performed the first pipeline aerial refueling, which occurred over San Diego.

August 22: The XNBL–1 Barling bomber, named after its designer, made its first flight. A six-engine (four tractor and two pusher engines) triplane, it was the Air Service's largest bomber and carried heavier loads than previous U.S. bombers; however, its slow speed made it impractical.

October 10: The Navy commissioned the first American-built dirigible, the *Shenandoah*, which used inert helium rather than explosive hydrogen gas for lift.



The NBL–1 Barling bomber could fly neither fast enough nor high enough to be practical.

1924

March 4: After six hours of bombing, Air Service crews in two Martin bombers and two DH–4s broke an ice jam in the Platte River at North Bend, Nebraska.

July 1: The U.S. Post Office began the first regular transcontinental airmail service with a route between New York and San Francisco, including stops at Chicago, Omaha, and Salt Lake City.

September 28: Flying two Douglas World Cruisers—the *Chicago* and the *New Orleans*—Lt. Lowell H. Smith, Lt. Leslie P. Arnold, Lt. Erik H. Nelson, and Lt. John Harding of the Air Service completed the first flight around the world, which they had begun on 6 April. Two other Douglas World Cruisers—the *Seattle* and the *Boston*—crashed on the way, but the pilot and mechanic of the *Boston*, Lt. Leigh Wade and SSgt. Henry H. Ogden, respectively, completed the flight in a replacement aircraft, the *Boston II*.

October 15: The German zeppelin ZR–3 completed a flight from Friedrichshafen, Germany, to Lakehurst, New Jersey. Renamed the *Los Angeles*, it was the first dirigible sent from Germany to the Navy under a reparations agreement.

October 28: In a fog-dispersing experiment, Air Service airplanes dropped electrically charged sand on cloud formations 13,000 feet over Bolling Field, Washington, D.C. The clouds diminished.

1925

April 13: Henry Ford established the first regularly scheduled commercial airfreight line in the United States between Detroit and Chicago.

September 3: The Navy dirigible *Shenandoah* broke apart and crashed during a violent storm over Ava, Ohio, killing 14 of 43 persons aboard.

September 5: Col. William "Billy" Mitchell charged that the loss of a Navy airplane on a flight from California to Hawaii and the loss of the Navy dirigible *Shenandoah* in Ohio resulted from "incompetency," "criminal negligence," and "almost treasonable administration" by the Navy and War Departments. As a result, President Calvin Coolidge ordered Mitchell's court-martial.

November 30: A board appointed by President Calvin Coolidge and headed by Dwight W. Morrow released a report recommending conservative reorganization of the Air Service and its redesignation as the Air Corps, rather than establishment of an independent air force coequal with the Army and Navy. The Morrow Board Report also recommended a five-year expansion plan for Army aviation.

December 17: After a seven-week trial, the Army convicted Col. William "Billy" Mitchell of violating the 96th article of war by having made "insubordinate" statements. Sentenced to five years' suspension of rank, pay, and command, he resigned from the Army shortly thereafter.

1926

March 16: At Auburn, Massachusetts, Dr. Robert H. Goddard successfully launched the world's first liquid-fueled rocket.

May 9: In a Fokker C–2 Trimotor monoplane, Lt. Cmdr. Richard E. Byrd of the Navy and civilian pilot Floyd Bennett completed the first flight over the North Pole, taking off and landing at the Norwegian island of Spitzbergen.

May 20: President Calvin Coolidge signed the Air Commerce Act, the first federal legislation to regulate civil aeronautics.

July 2: The Air Corps Act redesignated the Army Air Service as the Army Air Corps and created an assistant secretary of war for air, as recommended by the Morrow Board in November 1925. On the same day, Maj. Gen. Mason M. Patrick, chief of the Air Service, became chief of the Air Corps. Congress also established the Distinguished Flying Cross, directing that it be awarded to individuals for outstanding flying achievements since April 6, 1917.

1927

May 2: Maj. Herbert A. Dargue and his crews completed a Pan American goodwill flight, departing December 21, 1926, from San Antonio, Texas; visiting South American countries and the West Indies; and ending in Washington, D.C.—a distance of more than 22,000 miles. Five amphibious AO–1A airplanes had begun the flight, but one crashed in Argentina, killing two Air Service members.

May 21: In his airplane *Spirit of St. Louis*, Charles A. Lindbergh, a captain in the Missouri National Guard's 110th Observation Squadron, completed the first solo nonstop flight across the Atlantic Ocean, from New York to Paris, a distance of 3,610 miles, in 33 hours and 39 minutes. By act of Congress, Lindbergh received the Medal of Honor for this flight.

***Charles Lindbergh and the* Spirit of St. Louis**

June 29: Lt. Lester J. Maitland and Lt. Albert F. Hegenberger of the Air Corps completed the first nonstop flight between California and the Hawaiian Islands in a Fokker C–2 Trimotor called *Bird of Paradise*. They flew 2,407 miles from Oakland to Wheeler Field, Oahu, in 25 hours and 50 minutes.

November 16: The Navy commissioned its second aircraft carrier, the USS *Saratoga*. Much larger than the earlier USS *Langley*, the ship displaced 36,000 tons and had a flight deck almost 900 feet long, with an island superstructure for flight control.

December 14: Maj. Gen. James E. Fechet replaced Maj. Gen. Mason M. Patrick as chief of the Air Corps.

1928

June 8: In a Fokker F–7 trimotor called *Southern Cross,* Sir Charles Kingsford-Smith of Australia and a three-man crew completed the first flight from the United States to Australia, taking off at Oakland, California, and landing at Brisbane after stops in the Hawaiian and Fiji Islands. The flight covered 7,400 miles.

1929

January 7: Maj. Carl Spaatz, Capt. Ira C. Eaker, 1st Lt. Harry A. Halverson, 2d Lt. Elwood R. Quesada, and SSgt. Roy W. Hooe set an endurance record for a refueled airplane in flight, having flown for 150 hours, 40 minutes, and 15 seconds since January 1 in the *Question Mark,* a Fokker C–2 Trimotor airplane. Refueling 37 times in the air, they demonstrated the practicality of aerial refueling. Two Douglas C–1 aircraft, each with a three-man crew, provided the fuel. Capt. Ross G. Hoyt, 1st Lt. Auby C. Strickland, and 2d Lt. Irvin A. Woodring served as one tanker crew. 1st Lt. Odas Moon, 2d Lt. Andrew F. Solter, and 2d Lt. Joseph G. Hopkins served as the other.

The* Question Mark *set a flight-endurance record in 1929.

August 15: Flying a Buhl sesquiplane called *Spokane Sun God,* Lt. Nicholas B. Mamer and Arthur Walker traveled nonstop from Spokane, Washington, to the east coast and back, refueling in the air 11 times on the 7,200-mile flight.

August 29: *Graf Zeppelin,* under the command of Dr. Hugo Eckener, completed the first airship flight around the world. Originating and ending in Lakehurst, New Jersey, the trip took 21 days.

September 24: Lt. James H. "Jimmy" Doolittle made the first instruments-only flight, from takeoff to landing. He flew over Mitchel Field, New York, in a Consolidated NY–2 airplane with a completely covered cockpit, accompanied by a check pilot who monitored the flight.

November 29: Cmdr. Richard E. Byrd of the Navy made the first flight over the South Pole in the *Floyd Bennett,* a Ford C–4 Trimotor airplane piloted by Bernt Balchen and named for the pilot who had taken Byrd over the North Pole in 1926.

1930

June 20: The Air Corps established Randolph Field at San Antonio, Texas, for primary and basic pilot training. Known as the "West Point of the Air," the field eventually became headquarters of Air Education and Training Command.

October 8: Near Rome, Maj. Marinello Nelli of Italy's Regia Aeronautica completed the first official helicopter flight in a twin-rotor aircraft designed by Corrandino D'Ascanio. The craft flew to a height of 59 feet on a flight that lasted more than eight minutes.

October 25: Transcontinental and Western Air, Incorporated, inaugurated the first transcontinental passenger air service between New York and Los Angeles.

November 10: Flying a Lockheed Sirius Blue Flash powered by a Pratt and Whitney Wasp radial engine, Capt. Roy W. Ammel of the Army completed the first solo nonstop flight from New York to the Panama Canal Zone, having flown 2,700 miles in 24 hours and 35 minutes.

1931

January 9: Gen. Douglas MacArthur, Army chief of staff, and Adm. William V. Pratt, chief of naval operations, came to a verbal agreement that the Army Air Corps would have primary responsibility for coastal defense.

May 21–30: Brig. Gen. Benjamin D. Foulois, assistant to the chief of the Air Corps, commanded a provisional division in the largest Air Corps maneuvers to date, involving 667 airplanes and 1,400 men in flights over several northeastern and midwestern states. Foulois coordinated the operations of a pursuit wing, a bombardment wing, an attack group, two observation wings, and a transport group.

May 27: The National Advisory Committee for Aeronautics began operating the first full-scale wind tunnel for testing airplanes at Langley Field, Virginia.

July 15: The Air Corps Tactical School moved from Langley Field, Virginia, to Maxwell Field, Alabama. It produced most of the Air Corps's air doctrine during the 1930s, including the concept of long-range, high-altitude daylight precision bombing of selected military and industrial targets—the fundamental strategy of the Army Air Forces in World War II.

September 26: At Newport News, Virginia, the Navy laid the keel of the USS *Ranger,* the first ship designed from scratch as an aircraft carrier.

October 5: Clyde Pangborn and Hugh Herndon, Jr., completed the first nonstop flight across the Pacific, flying from Japan to Wenatchee, Washington.

October 7: The Navy, with Army observers present, tested a new bombsight invented by Carl J. Norden. Subsequently, the Navy provided the Air Corps with these Norden bombsights—the most advanced devices of their kind used by the Army Air Forces in World War II.

December 20: Maj. Gen. Benjamin D. Foulois succeeded Maj. Gen. James E. Fechet as chief of the Air Corps.

Maj. Gen. Benjamin D. Foulois, chief of the Air Corps from 1931 to 1935

1932

March 20: The Boeing XP–26, prototype of the P–26, flew for the first time. The P–26 became the first all-metal monoplane fighter procured by the Air Corps and the last Army pursuit airplane with an open cockpit, fixed landing gear, and external-wire wing bracing.

The metal Boeing P–26 of the 1930s was better than fabric-covered biplanes, but the drag of its nonretractable landing gear and open cockpit kept it from being as fast as contemporary bombers.

May 9: At Dayton, Ohio, Capt. Albert F. Hegenberger completed the first blind solo flight on instruments alone, without even a check pilot aboard.

May 21: Amelia Earhart completed the first solo nonstop flight across the Atlantic Ocean by a woman, flying in a Lockheed Vega from Newfoundland to Londonderry, Northern Ireland.

August 25: Amelia Earhart became the first woman to complete a nonstop transcontinental flight, from Los Angeles to Newark, New Jersey.

1933

April 4: The Navy dirigible *Akron* crashed into the Atlantic Ocean off the New Jersey coast, killing 73 people, including Rear Adm. William A. Moffett, chief of the Navy's Bureau of Aeronautics.

July 22: Wiley Post completed the first solo flight around the world, covering almost 15,600 miles in fewer than eight days. He flew a Lockheed Vega called *Winnie Mae.*

October 11: Secretary of War George H. Dern approved the report of an Army board chaired by Maj. Gen. Hugh A. Drum, which recommended establishment of a General Headquarters Air Force. The Drum Board recommended that the General Headquarters Air Force

be equipped with more than 1,000 aircraft that could be used in combat. Air Corps aircraft not assigned to General Headquarters Air Force would be used for garrison duty, Army observation, and training.

November 27: The Army accepted delivery of its first production-model Martin B–10, the nation's first all-metal monoplane bomber produced in quantity. The twin-engine airplane featured an internal bomb bay, retractable landing gear, rotating gun turret, and enclosed cockpit. A precursor of World War II bombers, the B–10 could fly faster than contemporary pursuit aircraft and much faster than previous biplane and triplane bombers.

The Martin B–10 bomber featured an enclosed cockpit and retractable landing gear.

1934

February 19: After President Franklin D. Roosevelt cancelled existing airmail contracts with commercial airlines because of perceived fraud and collusion, the Air Corps began delivering airmail. The Army initially flew 18 routes, with 62 trips a day—fewer than the commercial carriers had flown. However, the Air Corps could not handle this on just a 10-day notice, so the routes and schedules had to be reduced.

Airmail control officer dispatching a Douglas O–25C at Boise, Idaho

March 10: The Army Air Corps temporarily suspended domestic airmail deliveries because of nine crash fatalities. Lack of instruments in Army aircraft for night and bad-weather flying contributed to the accidents. After some reorganization, equipment overhauls, and reduction of routes and flights, Air Corps airmail flights resumed on March 19.

June 1: Commercial airlines resumed airmail service under new government contracts, relieving the Army Air Corps of that responsibility.

June 28: The Army and the Boeing Aircraft Company signed a contract for the design of a B–15, the first four-engine monoplane bomber and ancestor of the B–17 Flying Fortress.

July 18: A War Department board headed by Newton D. Baker, former secretary of war, issued a report recommending formation of a centrally controlled aerial strike force. The Drum Board had come to the same conclusion in its recommendation in 1933 for a General Headquarters Air Force.

August 20: Lt. Col. Henry H. Arnold and 10 Martin B–10 bomber crews completed a month-long air trip of more than 7,000 miles from Bolling Field, Washington, D.C., to Fairbanks, Alaska, and back.

1935

January 12: Amelia Earhart, flying a Lockheed Vega, completed the first solo flight from Hawaii to California.

February 12: The airship USS *Macon* crashed in the Pacific Ocean off the coast of California. Two persons died.

March 1: The War Department activated the General Headquarters Air Force under Brig. Gen. Frank M. Andrews at Langley Field, Virginia, to manage tactical air units in the United States, with the exception of observation squadrons allotted to ground forces. This action largely fulfilled the recommendations of the Drum and Baker Boards of 1933 and 1934.

March 14: Chancellor Adolf Hitler of Germany publicly celebrated the naming of a German fighter squadron after Manfred von Richthofen, revealing the existence of a German air force—the Luftwaffe. Such a force had been prohibited by the 1919 Treaty of Versailles.

March 28: Dr. Robert H. Goddard launched the first rocket equipped with gyroscopic controls. It reached a height of 4,800 feet and a speed of 550 miles per hour.

November 29: The Pan American Airways *China Clipper,* a Martin 130 four-engine flying boat, completed the first transpacific airmail flight between San Francisco and Manila, the Philippines.

December 17: The DC–3, a revolutionary new airliner that became the most popular transport in the world, flew for the first time.

December 22: Brig. Gen. Oscar Westover succeeded Maj. Gen. Benjamin D. Foulois as chief of the Air Corps.

December 27: The Air Corps's 5th Group (Composite) dropped bombs to divert lava flowing from Mauna Loa volcano, which was threatening the city of Hilo, Hawaii.

1936

February 19: William "Billy" Mitchell died in New York City. He was buried in Milwaukee, Wisconsin.

June 6: The Socony-Vacuum Oil Company of Paulsboro, New Jersey, began producing 100-octane aviation gasoline, which provided more power for aircraft engines, allowing planes to fly faster and carry heavier weights.

June 7: Flying from New York to Los Angeles entirely on instruments, Maj. Ira C. Eaker completed the first transcontinental "blind" flight.

June 16: Seversky Aircraft Company won a contract to provide the Air Corps with P–35 airplanes—the Army's first single-seat fighters with enclosed cockpits and retractable landing gear.

July 26: German airplanes arrived in Morocco to airlift the Army of Africa to Spain at the opening of the Spanish Civil War. Gen. Francisco Franco of Spain commanded this army.

November 4: The Pan American *Hawaiian Clipper* completed the first regular passenger transpacific flight from Alameda, California, to Manila, the Philippines, and back.

1937

March 1: The 2d Bombardment Group at Langley Field, Virginia, acquired its first YB–17A, the prototype of the B–17 Flying Fortress. Equipped with multiple machine guns to defend itself against fighters swift enough to catch it, the B–17 was designed to fly unescorted to long-range enemy targets.

April 12: Frank Whittle tested the first practical jet engine in a laboratory at Cambridge University, England.

April 26: German airplanes of the Kondor Legion bombed the Spanish town of Guernica, leaving 6,000 dead. The air raid inspired a famous antiwar painting by Pablo Picasso.

May 6: The German dirigible *Hindenburg,* the largest and most luxurious airship ever built, burned while mooring at Lakehurst, New Jersey. Thirty-five people died in the disaster.

July 2: Amelia Earhart and Fred Noonan disappeared over the Pacific Ocean in their attempt to fly around the world, a trip they had begun on May 21 from San Francisco eastward.

1938

February 27: A flight of six B–17s under Lt. Col. Robert D. Olds completed a goodwill flight from Miami, Florida, to Buenos Aires, Argentina, and back to Langley Field, Virginia. The flight of about 10,000 miles had begun on February 17.

May 12: Three Army B–17 crews intercepted the Italian ocean liner *Rex* in the Atlantic Ocean 700 miles from U.S. shores, proving the potential of long-range bombers in coastal defense. The demonstration backfired when the Navy demanded that Air Corps bombers be restricted to within 100 miles of the coast.

August 12: Three B–17 crews of the 2d Bombardment Group under the command of Maj. Vincent J. Meloy completed a goodwill mission from Langley Field, Virginia, to Bogotá, Colombia.

August 22: The Civil Aeronautics Act placed all nonmilitary aviation under the regulatory authority of the Civil Aeronautics Authority.

August 24: The Navy flew the first drone target in the United States—a radio-controlled JH–1—to test antiaircraft batteries on the aircraft carrier USS *Ranger*.

September 29: Maj. Gen. Henry H. Arnold became chief of the Army Air Corps, formally taking the place of Maj. Gen. Oscar Westover, who died in an airplane crash at Burbank, California, on September 21.

October 14: Edward Elliott conducted the first flight test of the Curtiss XP–40 at Buffalo, New York. The XP–40 was the prototype of the P–40 of World War II fame.

November 14: At a secret White House meeting with his military leaders, President Franklin D. Roosevelt called for an Air Corps of 20,000 air-

planes. Although he could not immediately request sufficient funds for the program from Congress, Roosevelt committed his administration to a vastly expanded air force.

1939

February 14: Maj. Caleb V. Haynes and his crew flew the Boeing XB–15, laden with more than 3,000 pounds of medical supplies, from Langley Field, Virginia, to Chile for the relief of earthquake victims. The flight demonstrated not only U.S. humanitarian-airlift capabilities, but also the range and payload of the new airplane.

April 3: President Franklin D. Roosevelt signed the National Defense Act of 1940, which provided the Army Air Corps more than 48,000 personnel, a $300 million budget, and 6,000 airplanes. It also authorized the Air Corps to train black pilots.

May 20: Pan American Airways initiated the first regularly scheduled passenger and airmail service across the Atlantic Ocean.

August 27: The Heinkel He–178 made the first jet-powered aircraft flight at Marienhe Airfield, Germany.

September 1: Germany invaded Poland, precipitating World War II. Two days later, Great Britain and France declared war on Germany.

December 16: Maj. Gen. Delos C. Emmons assumed command of General Headquarters Air Force, succeeding Maj. Gen. Frank Andrews.

1940

April 9: German troops invaded Denmark and Norway, landing troops from the air for the first time in war to seize an airfield at Stavanger, Norway.

April 15: The War Department issued a new field manual, FM 1-5, on the employment of Army aviation. It advocated the centralized use of air power against strategic and interdiction targets and mentioned that airplanes could be used to support tactical commanders on the battlefield.

May 13: Igor I. Sikorsky flew in his VS–300 (Vought-Sikorsky) helicopter in its first truly free flight. Previous experimental flights had consisted of short, tethered hops.

May 16: President Franklin D. Roosevelt called for the production of 50,000 airplanes a year.

July 8: The Air Corps established training centers at Randolph Field, Texas; Maxwell Field, Alabama; and Moffett Field, California.

July 8: The Boeing 307B Stratoliner, featuring a pressurized cabin, made its first commercial airline flight. Boeing later produced the first bombers with pressurized cabins.

August 8: The German Luftwaffe began a systematic and sustained campaign of air raids on British airfields, hoping to destroy the Royal Air Force so that a cross-channel invasion of Great Britain would be practical. Also known as Eagle Day, this date marked the beginning of the Battle of Britain.

September 2: The United States agreed to transfer 50 destroyers to Great Britain in exchange for air and naval bases at eight strategic points on islands in the Atlantic Ocean and the Caribbean Sea.

September 7: On the orders of Adolf Hitler, the Luftwaffe began to target British cities such as London, partly to avenge a British attack on Berlin and partly to destroy British morale. The shift from attacks on military targets only stiffened the will of the English people to resist and allowed the Royal Air Force to recover from the Luftwaffe campaign against its airfields.

September 16: Congress passed the Selective Service Act, which not only instituted a peacetime draft, but also required all arms and services to enlist blacks.

September 16: The War Department announced that the Civil Aeronautics Authority would cooperate with the Army to develop black aviation units.

September 17: Intelligence intercepts of German communications confirmed that Hitler had postponed the invasion of England. Because the Luftwaffe had failed to win control of the air over the English Channel, victory in the Battle of Britain went to the Royal Air Force.

October 8: The Royal Air Force announced formation of the first Eagle Squadron, a fighter unit consisting of U.S. pilot volunteers.

November 1: The Air Corps activated the Hawaiian Air Force, later redesignated Seventh Air Force, at Fort Shafter in the Hawaiian Islands.

1941

March 11: President Franklin D. Roosevelt signed the Lend-Lease Act, which authorized the lending of war materiel, including aircraft, to any nation whose defense he considered vital to that of the United States. By the end of the war, the United States had supplied its Allies

with some 43,000 airplanes, most of them ferried or shipped to Great Britain and the Soviet Union.

March 22: The 99th Pursuit Squadron, the first black flying unit, was activated at Chanute Field, Illinois, under the command of Capt. Harold R. Maddux.

April 9: The Danish government in exile agreed to allow the United States to construct and operate airfields in Greenland.

May 6: The Republic P–47 Thunderbolt flew for the first time, with company test pilot Lowery Brabham at the controls.

May 14: Twenty-one B–17 Flying Fortresses completed the first mass flight of bombers over the Pacific Ocean, landing at Hickam Field, Hawaii, after taking off from Hamilton Field, California, the previous day.

June 16: The Consolidated B–24 Liberator, a four-engine bomber that could fly faster and farther than the similarly sized B–17, entered the Air Corps inventory. More than 18,000 B–24s were produced during World War II, a greater number than any other U.S. aircraft.

The B–24 Liberator heavy bomber

June 20: The War Department established the Army Air Forces under Maj. Gen. Henry H. Arnold. It encompassed both the Office of the Chief of the Air Corps under Maj. Gen. George Brett, who was responsible for research, development, supply, and maintenance, and Air Force Combat Command (formerly General Headquarters Air Force) under Lt. Gen. Delos C. Emmons, who was responsible for doctrine and operational training.

Maj. Gen. Henry H. Arnold, chief of the Army Air Forces, and his staff in 1941.* Left to right: *Lt. Col. Edgar P. Sorenson, Lt. Col. Harold L. George, Brig. Gen. Carl Spaatz, Arnold, Maj. Haywood S. Hansell, Jr., Brig. Gen. Martin F. Scanlon, and Lt. Col. Arthur W. Vanaman

June 22: Nazi Germany and its Axis allies launched Operation BARBAROSSA, an overwhelming invasion of the Soviet Union by more than 100 divisions. The Luftwaffe spearheaded the assault, and by the end of the day, Germany claimed to have destroyed over 1,200 Soviet aircraft—899 on the ground and 400 in the air.

July 7: U.S. forces occupied Iceland, which became an important staging base for U.S. airplanes on the way to England.

July 8: The Royal Air Force used B–17s in war for the first time in a daylight raid on Wilhelmshaven, Germany.

July 19: Capt. Benjamin O. Davis, Jr., a West Point graduate whose father had been the first black graduate of the U.S. Military Academy, reported to Tuskegee Institute in Alabama with 12 aviation cadets to begin flight training as the first class of black pilot candidates in the U.S. military.

August 4: The Air War Plans Division of the War Department, which included Lt. Col. Harold L. George, Lt. Col. Kenneth N. Walker, Maj. Haywood S. "Possum" Hansell, Jr., and Maj. Laurence S. Kuter, began formulating a plan to project the aircraft necessary to defeat Germany. The plan, called AWPD-1, completed on August 12, outlined a strategic bombing campaign against key enemy target sets.

August 12: Capt. Homer Boushey, Jr., flying an Ercoupe civilian airplane, made the first rocket-assisted takeoff at Wright Field, Ohio. This technique later allowed heavily loaded airplanes to take off in less space and time.

September 12: Nine B–17 Flying Fortresses completed a weeklong flight from Hawaii to the Philippines by way of Midway; Wake Island; Port Moresby, New Guinea; and Darwin, Australia.

September 17: During the Louisiana maneuvers, the Army dropped paratroopers for the first time in a tactical exercise. Thirteen DC–3s acquired for the purpose dropped a parachute company.

September 20: The Army Air Forces activated the Philippine Department Air Force—later called Far East Air Force and still later Fifth Air Force—at Nichols Field, Luzon, in the Philippines.

December 1: By executive order, President Franklin D. Roosevelt established the Civil Air Patrol to facilitate civil defense during World War II. Including among its members 17-year-old men not yet of draft age, the Civil Air Patrol flew small liaison aircraft on disaster-relief missions or on missions to patrol the U.S. coasts to detect enemy submarine activity. In the fall of 1943, the Civil Air Patrol became an auxiliary of the Army Air Forces.

December 7: Japanese torpedo bombers, dive-bombers, and fighters from six aircraft carriers attacked naval and air installations around Pearl Harbor, Hawaii, crippling the U.S. Pacific Fleet. In two waves, the Japanese airplanes sank four U.S. battleships and damaged nine other major warships. The surprise attack, which killed some 2,390 personnel, propelled the United States into World War II. Air strikes on Hickam, Wheeler, and Bellows Fields killed 193 members of the Army Air Forces and destroyed 64 of the Hawaiian Air Force's airplanes. Six Army Air Forces pilots shot down 10 Japanese aircraft that day. Second Lt. George S. Welch shot down four, 2d Lt. Kenneth M. Taylor shot down two, and four other pilots each shot down one.

The Curtiss P–40 Warhawk, flown by the Flying Tigers (the American Volunteer Group) in China, also claimed the first aerial victories for the Army Air Forces during the Japanese attack on Pearl Harbor.

December 8: Within hours of the attack on Hawaii, Japan also attacked U.S. air and naval installations in the Philippines, on the other side of the international date line. Japanese airplanes destroyed more than 100 Army combat aircraft at Clark and Iba Airfields, including 17 B–17 bombers and 55 P–40s, most of them on the ground. The attack, which killed some 80 airmen and wounded approximately 150, left the Army Air Forces in the Philippines without striking power. Five U.S. pilots shot down seven of the attacking airplanes.

December 10: The 93d Bombardment Squadron of the 19th Bombardment Group used five B–17s to carry out the first heavy bomb mission of World War II, attacking a Japanese convoy as it landed troops on the northern coast of Luzon.

December 16: Lt. Boyd D. "Buzz" Wagner became the first U.S. ace of World War II after shooting down five enemy aircraft in four days. He flew with the 17th Pursuit Squadron against the Japanese in the Philippines.

December 20: Under the leadership of Claire Chennault, the American Volunteer Group, also called the "Flying Tigers," flew its first mission against the Japanese in China. The Flying Tigers, consisting of U.S. volunteer pilots, flew P–40 airplanes in the service of the Chinese government of Premier Chiang Kai-shek.

1942

January 15: The Army Air Forces activated the Alaskan Air Force at Elmendorf Field, Alaska. The next month the Alaskan Air Force was redesignated Eleventh Air Force. It later operated against the Japanese in the Aleutian and Kurile Islands.

January 28: The Army Air Forces activated Eighth Air Force at Savannah Army Air Base, Georgia, under Col. Asa N. Duncan. This strategic-bombardment organization later moved to England to work with the Royal Air Force in the Combined Bomber Offensive against Germany. Today it is the United States Air Forces in Europe.

February 12: The Army Air Forces activated Tenth Air Force at Patterson Field, Ohio. It later moved to South Asia for operations against the Japanese in China.

February 23: Maj. Gen. Ira C. Eaker assumed command of VIII Bomber Command, which would conduct the first heavy-bombardment missions of Eighth Air Force from England. The same day, the command established an advanced detachment in England.

March 6: The Army Air School at Tuskegee, Alabama, graduated the first five black military pilots, including Capt. Benjamin O. Davis, Jr.

March 9: By executive order, the War Department reorganized into three autonomous sections: Army Air Forces, Army Ground Forces, and Services of Supply. The Air Corps continued to exist as a combatant arm of the Army.

April 8: Two DC–3 aircraft acquired by the Army from Pan American Airlines airlifted gasoline and lubricating oil over the Himalaya Mountains from Dinjan in eastern India to Yunnan-yi in southern China. A total of eight such airplanes carried enough fuel and oil over the "Hump" to refuel and service U.S. B–25 bombers expected to land in China after a secret raid on Tokyo from an aircraft carrier in the Pacific. This marked the beginning of World War II's largest airlift, which delivered Allied supplies from India to China after the Japanese cut the Burma Road.

The B–25 Mitchell bomber. Sixteen such bombers took off from the aircraft carrier USS* Hornet *to carry out the Doolittle raid on Tokyo, Japan.

April 18: Col. James H. "Jimmy" Doolittle led 16 B–25s from the aircraft carrier *Hornet* to bomb Tokyo and other sites in the first U.S. air raid on Japan. Because of the range, the raiders had to crash-land in China. Although the raid caused little destruction, it raised U.S. morale and damaged that of the Japanese, reversing what had seemed to be an endless stream of Japanese victories. For leading this mission, Doolittle earned the Medal of Honor.

When he was a colonel, James H. "Jimmy" Doolittle led the first air raid on Tokyo.

May 7–8: The Battle of the Coral Sea was the first naval battle in which the opposing ships, beyond visual range, attacked each other entirely with aircraft. Both the United States and Japan lost an aircraft carrier, but the battle thwarted an invasion of Port Moresby, New Guinea, from which the Japanese could have invaded Australia.

May 17: Igor I. Sikorsky's XR–4, flown by Sikorsky and Les Morris, landed at Wright Field, Ohio, to complete delivery of the first Army Air Forces helicopter.

May 26: The Northrop prototype for the P–61 Black Widow, the first U.S. aircraft designed as a night fighter, first flew at Hawthorne, California, with test pilot Vance Breese at the controls.

June 4–5: The Japanese attempt to take the island of Midway in the mid-Pacific failed in a major battle—the most important turning point in the war in the Pacific. Having broken the Japanese code, U.S. forces were ready for the invaders. As a result of the Battle of Midway, fought primarily by carrier aircraft but also by some Army Air Forces aircraft from Midway, the Japanese lost four aircraft carriers, a heavy cruiser, 322 aircraft, and some 5,000 men, including many skilled pilots. The United States lost the USS *Yorktown*, one of its three aircraft carriers. After this battle, the Japanese were forced to go on the defensive.

June 12: The Army Air Forces launched its first strategic air raid in the European-African-Middle Eastern theater, sending 13 B–24 Liberator

bombers to attack the oil refineries of Ploesti, Rumania. Col. Harry A. Halverson led the raid from Fayid, Egypt, but it caused little damage.

July 4: In the first Army Air Forces mission over western Europe, the 15th Bombardment Squadron, flying six U.S.-built Boston bombers belonging to the Royal Air Force, participated in a British attack on four enemy airfields in the Netherlands.

July 4: The Army Air Forces Chinese Air Task Force was activated under Maj. Gen. Claire Chennault to replace the American Volunteer Group.

July 7: A Lockheed Vega A–29 of the 396th Bombardment Squadron attacked and sank a German submarine off Cherry Point, North Carolina—the first such sinking off the Atlantic coast by an Army Air Forces aircraft.

July 19: The Messerschmitt Me–262 flew for the first time, piloted by Fritz Wendel. The aircraft was the world's first operational jet fighter.

August 17: Eighth Air Force conducted its first heavy bomber raid in Europe. Twelve B–17s under the command of Col. Frank A. Armstrong, Jr., bombed railroad marshalling yards at Rouen in German-occupied France. The raid demonstrated the feasibility of daylight bombing.

On August 17, 1942, Eighth Air Force inaugurated U.S. strategic bombing of Nazi targets in Europe with the B–17E Flying Fortress.

August 20: The Army Air Forces activated Twelfth Air Force at Bolling Field, D.C. In November 1942, the Twelfth moved to the Mediterranean theater, providing the Allies with fighter and light-to-medium bomber operations in North Africa and Italy.

September: The first members of the Women's Army Auxiliary Corps began to serve with the Army Air Forces at Aircraft Warning Service stations. During the same month, the Women's Auxiliary Ferrying Squadron was activated at New Castle, Delaware, under the command of Nancy Harkness Love, and the Women's Flying Training Detachment under Jacqueline Cochran was established under Flying Training Command.

September 12: The 4th Fighter Group activated at Bushey Hall, England, to furnish the first U.S. fighter escorts for Eighth Air Force heavy bombers on missions over occupied Europe. Former members of the Eagle Squadrons, U.S. fighter pilots who had voluntarily served in the Royal Air Force before U.S. entry into the war, formed the nucleus of the new group.

September 15: Fifth Air Force transport planes airlifted the first U.S. troops to New Guinea, transporting men of the 126th Infantry Regiment from Australia to Seven-Mile Airdrome near Port Moresby, New Guinea.

October 2: At Muroc Field, California, Robert Stanley made the first flight in the Bell XP–59A, the first U.S. turbojet-powered aircraft.

October 3: Germany's liquid-fueled V–2, the world's first large operational ballistic missile, flew successfully for the first time.

November 8: Operation TORCH, the Anglo-American invasion of North Africa, began with amphibious landings in Morocco and Algeria. Twelfth Air Force supported the invasion with troop-carrying C–47s of the 60th Troop Carrier Group and Spitfire fighters of the 31st Fighter Group.

The Douglas C–47 Skytrain, derived from the DC–3 commercial airliner of the 1930s, served the Army Air Forces during World War II and the Air Force for decades after the war.

November 10–13: More than 100 P–40s of the 33d Fighter Group flew from two aircraft carriers—the USS *Chenango* and the HMS *Archer*—to Port Lyautey, Morocco.

November 12: Under Lt. Gen. Lewis H. Brereton, Ninth Air Force began combat operations in Egypt, providing tactical air support to the British in the drive westward across North Africa.

November 28: In the first Army Air Forces air raid on Thailand, nine B–24 Liberators flew 2,760 miles from Gaya, India, to bomb Bangkok.

December 1: Maj. Gen. Ira C. Eaker assumed command of Eighth Air Force in England, replacing Maj. Gen. Carl A. Spaatz, who transferred to the Mediterranean theater.

December 27: Second Lt. Richard I. Bong, flying a P–38 against the Japanese in the Pacific, scored his first two aerial victories. By the end of the war, he had earned 40 such credits, making him the top U.S. ace.

Capt. Richard I. Bong, the leading U.S. ace during World War II

1943

January 5: Gen. Dwight D. Eisenhower, commander of Operation TORCH, activated Allied Air Force under Maj. Gen. Carl A. Spaatz in the Northwest African theater.

January 13: The Army Air Forces activated Thirteenth Air Force in New Caledonia for fighter and bomber operations against the Japanese in the Southwest Pacific theater.

January 21: At the Casablanca Conference in Morocco, where U.S. and British leaders discussed war policy, Lt. Gen. Ira C. Eaker successfully presented his case for daytime bombing of Germany to Winston S. Churchill, prime minister of Great Britain.

January 27: For the first time, Eighth Air Force bombed a target in Germany. More than 50 B–17s and B–24s of the 1st Bombardment Wing attacked submarine construction facilities at Wilhelmshaven.

January 30–31: In a night raid on Hamburg, Germany, the Royal Air Force first used H2S, an airborne radar navigation system for finding ground targets not visible because of clouds or darkness.

February 1: Navy crews in PBY–5 Catalina aircraft rescued Thirteenth Air Force commander Maj. Gen. Nathan F. Twining and 14 others near the New Hebrides Islands after they were forced to ditch their aircraft and spend six days in life rafts.

February 17: Allied Force Headquarters constituted and activated Mediterranean Air Command under Air Chief Marshal Sir Arthur Tedder of Great Britain. It included three commands: Northwest African Air

Lt. Gen. Ira C. Eaker, commander of Eighth Air Force in 1943, directed early U.S. heavy bomber raids over Europe.

Forces, Middle East Air Command, and Royal Air Force Malta Command.

March 1: Lt. Gen. Carl A. Spaatz, newly promoted, assumed command of Twelfth Air Force.

March 2–4: In the Battle of the Bismarck Sea, Fifth Air Force heavy bombers, medium bombers, light bombers, and fighters attacked a 16-ship Japanese convoy on the way to New Guinea, sinking eight troop-laden transports and four of eight escorting warships. Modified B–25s participated in the attack, using low-level skip bombing for the first time.

Gen. Douglas MacArthur and Gen. George S. Kenney, head of Fifth Air Force, in the Southwest Pacific during World War II

March 10: The Army Air Forces activated Fourteenth Air Force at Kunming, China, under Maj. Gen. Claire L. Chennault, former commander of the American Volunteer Group, the "Flying Tigers." Fourteenth Air Force, which included a composite wing composed of U.S. and Chinese pilots, conducted tactical air operations against Japanese forces occupying China.

Maj. Gen. Claire Chennault, commander of Fourteenth Air Force in 1943

April 18: In P–38 aircraft over Bougainville, 1st Lt. Rex T. Barber and Capt. Thomas G. Lanphier, Jr., intercepted and shot down a Japanese bomber carrying Adm. Isoroku Yamamoto, the Japanese officer who had planned the attacks on Pearl Harbor and Midway. The interception, meticulously planned and executed on the first anniversary of the Doolittle raid, deprived the Japanese of one of their most brilliant naval officers. Maj. John W. Mitchell led the flight of 16 P–38s in which Barber and Lanphier flew.

The raid to intercept and shoot down Admiral Yamamoto used the P–38 Lightning aircraft, which was also flown by the two top U.S. aces.

June 10: The Royal Air Force and the Army Air Forces launched the Combined Bomber Offensive against Germany. Eighth Air Force struck enemy industrial targets by day, while the Royal Air Force attacked enemy cities by night. The around-the-clock bombing was designed to cripple and then destroy the Germans' ability and will to continue the war.

June 11: After a month-long aerial bombardment that had commenced on May 8, some 11,000 Italian troops on the island of Pantelleria, between Italy and Tunisia, surrendered to the Allies without firing a shot.

June 13: In a raid on Kiel, Germany, Eighth Air Force lost 26 of 60 bombers, demonstrating the need for fighter escorts.

June 15: The world's first operational jet bomber, the Arado Ar–234V–1 Blitz, first flew in Germany.

June 22: For the first time, Eighth Air Force bombed a target in the Ruhr industrial area of Germany. The chemical works and synthetic rubber plant at Huls was so severely damaged that it did not resume full production for six months.

July 2: Lt. Charles Hall of the 99th Fighter Squadron shot down a German FW–190 over Sicily, becoming the first black Army Air Forces pilot to shoot down an enemy airplane.

July 24–August 3: In Operation GOMORRAH, the Royal Air Force attempted to destroy the German city of Hamburg with four air raids at night. Eighth Air Force supported the operation with two daylight raids. The attacks produced firestorms that killed some 40,000 people. During these raids, the British first used "window"—strips of aluminum foil dropped from the bombers to confuse German radar.

August 1: Five Army Air Forces B–24 groups flying from Libya in North Africa conducted a low-level bombing raid on Ploesti, Rumania, to destroy Germany's most important oil refineries. The attack, codenamed Operation TIDALWAVE, reduced Ploesti's refining capacity by 40 percent. Fifty-four of 177 bombers were lost. Four of the flyers on the raid earned the Medal of Honor.

August 5: Jacqueline Cochran assumed duties as director of Women Airforce Service Pilots (WASP), a new organization that merged her Women's Flying Training Detachment with the Women's Auxiliary Ferrying Squadron (WAFS). Nancy Harkness Love, former WAFS commander, became WASP executive with the Ferrying Division of Air Transport Command.

August 17: More than 300 B–17s took off from the United Kingdom without fighter protection to bomb ball-bearing factories at Schweinfurt and

aircraft plants at Regensburg on the deepest U.S. air raid into Germany to date. Although the bombers dropped 724 tons of bombs, many did not hit their targets, and 60 of the Flying Fortresses were lost, mostly to enemy fighters. The high loss rate shook the confidence of Eighth Air Force leaders in the ability of heavy bombers to protect themselves on daylight raids. Eighth Air Force bombers did not return to raid a target in Germany until September 6.

September 12: In a daring glider operation, Capt. Otto Skorzeny, a German commando, landed troops at Gran Sasso in central Italy to free Italian dictator Benito Mussolini from captivity. The Germans flew Mussolini in an Fi–156 airplane to German-occupied northern Italy, where he set up a puppet state.

September 13: The 52d Troop Carrier Wing used more than 80 troop transports to drop more than 1,200 paratroopers of the 82d Airborne Division on the Salerno beachhead in Italy, without losing a single man or airplane, in one of the most successful Allied airborne operations of the war.

September 22–23: For the first time, Eighth Air Force B–17s took part in a Royal Air Force raid on Germany at night. At the time, the Eighth was considering switching from daylight to night bombing because of heavy loss rates.

September 27: For the first time, P–47s flew all the way with B–17s in a raid on Emden, Germany. The escorting P–47s were able to fly over 600 miles by carrying additional fuel tanks.

The P–47 Thunderbolt became a very effective air-to-ground attack aircraft in World War II, but it also rendered valuable service as a bomber escort.

October 7: The 422d Bombardment Squadron began special operations from the United Kingdom with a four-aircraft leaflet-dropping mission over Paris at night.

October 14: Eighth Air Force raided Schweinfurt, Germany, and its ball-bearing plants for the second time. Of some 230 attacking heavy bombers, 60 were lost to fighter interceptors and flak, and 138 more were damaged, causing the Eighth to temporarily discontinue daylight bombing of targets deep in Germany.

October 16: Ninth Air Force, which had led U.S. tactical air missions in North Africa and the Mediterranean, moved to England to prepare for the invasion of France.

November 1: Fifteenth Air Force activated at Tunis, Tunisia, for the strategic bombardment of enemy targets in Europe, first from bases in North Africa and later from Italy. Maj. Gen. James H. "Jimmy" Doolittle served as its first commander.

November 2: Fifteenth Air Force flew its first mission, sending more than 112 B–17s and B–24s against targets in the Wiener Neustadt area of Austria.

November 13: Fifty-seven B–24s and 62 B–25s bombed airfields at Alexishafen and Madang in the heaviest Allied air raid on New Guinea.

December 5: Pilots of Ninth Air Force's 354th Fighter Group flew their new P–51s for the first time into combat, escorting Eighth Air Force B–17 bombers for a record distance of 490 miles to targets in northern Germany. The fast and maneuverable aircraft, equipped with fuel tanks that allowed them to accompany the bombers all the way to the target, sharply reduced bomber losses to enemy fighters.

The North American P–51 Mustang was the fastest U.S. fighter in World War II and gained fame as a long-range bomber escort.

December 24: A total of 670 B–17s and B–24s bombed the Pas de Calais area of France in the first major Eighth Air Force attack on German V–weapon sites.

1944

January 4–5: Lt. Col. Clifford Heflin flew the first Army Air Forces mission in Operation CARPETBAGGER from Tempsford, England, to France to drop supplies at night to resistance forces.

January 6: Lt. Gen. Carl A. Spaatz, who had commanded U.S. air forces in the Mediterranean theater, assumed command of Eighth Air Force, replacing Lt. Gen. Ira C. Eaker. Spaatz had been Gen. Dwight D. Eisenhower's air commander in the Mediterranean. Eisenhower was moving to England to prepare for the invasion of France. At the same time, Eaker replaced Spaatz in the Mediterranean.

January 8: Test pilot Milo Burcham flew the Lockheed XP–80 *Lulu Belle* for the first time at Muroc Dry Lake, California. The P–80 became the first U.S. fighter to exceed 500 miles per hour in level flight.

January 22: The Mediterranean Allied Air Force launched some 1,200 sorties in support of Operation SHINGLE, the Allied amphibious invasion of Anzio on the western coast of Italy.

February 3: Col. Philip Cochran led five P–51s on the first air-commando combat mission against the Japanese in the China-Burma-India theater.

February 15: Some 250 Allied medium and heavy bombers attacked the Nazi-occupied Abbey of Monte Cassino, Italy, to open the way for the U.S. Fifth Army and the British Eighth Army to continue their offensive toward Rome.

February 20–26: In what came to be known as "Big Week," Eighth and Fifteenth Air Force B–17s and B–24s launched heavy raids on German aircraft factories and ball-bearing plants in an attempt to reduce the Luftwaffe threat. Fighter escorts limited bomber losses to 6 percent.

February 22: Eighth Air Force was redesignated U.S. Strategic Air Forces in Europe, and VIII Bomber Command was redesignated Eighth Air Force.

March 4: Thirty-one B–17 Flying Fortresses flew the first U.S. daylight air raid on the Berlin area of Germany, which had been bombed previously only by the Royal Air Force at night. Eighth Air Force had recalled the bombers after launch because of bad weather, but one group carried out the mission.

March 6: In its first major raid on the Berlin area, Eighth Air Force lost 69 of the 658 heavy bombers it launched—the highest number of bombers lost in a single day during the war. Nevertheless, the bombers dropped 1,600 tons of bombs on the German capital.

March 11: Essen, Germany, was the target for 4,738 tons of bombs dropped by 1,079 Eighth Air Force bombers—the highest tonnage of bombs dropped during World War II by the Army Air Forces on one target in a single mission.

March 11: Operation THURSDAY concluded. During this operation, the Allies airlifted more than 9,000 personnel and more than 1,400 mules and horses from India to a location 200 miles behind enemy lines in Burma.

March 19: To support an Allied offensive in Italy, the Mediterranean Allied Air Force launched a seven-week bombing campaign called Operation STRANGLE, targeting German supply lines. By May 11, the Allies had flown some 50,000 sorties and had dropped 26,000 tons of bombs.

March 25: Fifteenth Air Force attacked the Aviso Viaduct in the Brenner Pass, temporarily cutting the main highway between Italy and greater Germany. On this raid, the Army Air Forces used for the first time a VB–1 Azon radio-guided bomb—the crude predecessor of the precision-guided munitions developed and used with great success over a quarter century later.

March 28: Eighth Air Force activated the 801st Bombardment Group (Heavy) Provisional to conduct special operations missions in the European theater.

March 29: The 1st Air Commando Group was activated in India to provide airlift and air support to British soldiers behind enemy lines in Burma.

April 3: Mediterranean Allied Air Force sent 375 B–17 and B–24 heavy bombers on the first heavy air raid over Budapest, Hungary.

April 4: The Army Air Forces activated Twentieth Air Force in Washington, D.C., to manage B–29 Superfortress operations against Japan—first from India and China and later from the Mariana Islands in the Pacific.

April 8: Ninth Air Force launched one of the largest tactical air raids of the war, sending 163 B–26s and 101 P–47s against enemy-held facilities at Hasselt, Belgium.

April 25: Lt. Carter Harman of the 1st Air Commando Group, flying a Sikorsky YR–4 helicopter, rescued four men from the Burmese jungle in the first Army Air Forces combat rescue by helicopter.

May 10: Some 400,000 Chinese laborers completed the Chengtu Project, the construction of five very heavy bomber bases and six fighter fields in China for U.S. B–29 air operations. The project had begun in January.

June 2: Lt. Gen. Ira C. Eaker led bombers in the first shuttle-bombing mission, part of Operation FRANTIC, taking off from Italy and landing at a Soviet airfield at Poltava after bombing marshalling yards in Debrecen, Hungary. The operation involved bombing missions from Allied bases in both the United Kingdom and Italy that terminated at bases in the Soviet Union.

June 5: Twentieth Air Force's XX Bomber Command launched 98 Superfortresses from India on the first B–29 raid of the war, bombing railroad shops at Bangkok, Thailand.

June 5–6: More than 1,400 C–47s, C–53s, and gliders of Ninth Air Force dropped or landed three full airborne divisions in German-occupied France on the night before and during the Allied amphibious invasion of Normandy. The airborne troops endeavored to secure the land approaches to and from the beaches.

June 6: Allied forces based in the United Kingdom crossed the English Channel and invaded German-held Normandy in northern France to begin Operation OVERLORD, the largest amphibious attack in history. Previous Allied air attacks largely prevented interference by the Luftwaffe and cut German transportation arteries. On a day often called "D day," Eighth and Ninth Air Forces and the Royal Air Force supported the invasion with some 15,000 interdiction, close air support, and airlift sorties.

June 13: The Germans began launching V–1 jet-powered cruise missiles from France against England. Four of the first 11 hit London.

June 15: Brig. Gen. LaVerne G. Saunders of XX Bomber Command led the first B–29 Superfortress bombing raid on Japan. Forty-seven of 68 bombers launched from Chengtu, China, bombing steel works at Yawata on Kyushu—1,500 miles away—but they caused little damage because of poor aiming. Ironically, on the same day, U.S. marines invaded Saipan in the Marianas, Pacific islands that would later provide alternate and more effective B–29 bases.

June 19–20: During the Battle of the Philippine Sea—later called "The Great Marianas Turkey Shoot"—U.S. carrier-based aircraft shot down more than 300 Japanese carrier-based aircraft over the Pacific. Navy submarines and aircraft also sank three Japanese carriers. Japanese

naval air power never again posed a serious threat to U.S. forces in the Pacific.

June 22: After the second Operation FRANTIC mission of the previous day, the Luftwaffe attacked Army Air Forces B–17s at Poltava in the Soviet Union, destroying 47 and damaging 19 more.

July 8: Lt. Col. Clifford Heflin flew a C–47 on the first mission into France to rescue Allied airmen who had parachuted behind enemy lines.

July 17: Ninth Air Force dropped napalm bombs for the first time, releasing them from P–38s on a fuel depot at Coutances, near Saint-Lô, France. Napalm, a jellied gasoline, was a revolutionary incendiary compound with immense destructive potential.

July 25: In Operation COBRA, almost 1,500 Eighth Air Force heavy bombers conducted saturation bombing of the Saint-Lô area of northern France to allow Allied forces to break through German lines. Although the operation succeeded in its ultimate objective, some of the bombers hit the wrong area and killed or wounded almost 500 U.S. troops. Lt. Gen. Lesley J. McNair, commander of the U.S. Army Ground Forces, was one of the fatalities.

August 4: Eighth Air Force launched the first Operation APHRODITE mission, sending a radio-controlled B–17 bomber against a German V–1 rocket site in the Pas de Calais area of France. The pilotless bomber carried 10 tons of TNT. Largely experimental, Operation APHRODITE was abandoned after the number of V–1 attacks on Great Britain decreased, partly because conventional bombing could destroy the V–1 sites and partly because Allied ground advances took site areas.

August 8: Supreme Headquarters Allied Expeditionary Force announced the establishment of Combined Airborne Headquarters under Lt. Gen. Lewis H. Brereton of the Army Air Forces. Eight days later, the new organization was renamed the First Allied Airborne Army.

August 10: Japanese resistance on Guam ended, giving the United States full control of three of the Mariana Islands—Guam, Tinian, and Saipan—for the construction of B–29 bomber bases.

August 28: Maj. Joseph Myers and 2d Lt. Manford O. Croy, Jr., 82d Fighter Squadron P–47 pilots, shared credit for the first aerial victory over a jet aircraft—a German Me–262.

September 8: The Germans launched V–2s—the world's first ballistic missiles—against Paris and London. Rocket scientist Wernher von Braun had developed the missile, almost impossible to intercept because of its speed, at a secret base at Peenemünde, Germany.

September 10: The C–82, the first airplane designed in World War II to carry cargo exclusively, first flew at the Fairchild aircraft plant in Hagerstown, Maryland.

September 14: For the first time, Col. Floyd B. Wood, Maj. Harry Wexler, and Lt. Frank Reckord deliberately flew an aircraft—a Douglas A–20—into a hurricane to collect scientific data; they returned safely.

September 17: Operation MARKET GARDEN began when 1,546 Allied aircraft and 478 gliders carried airborne troops to the Netherlands in an attempt to secure bridges on the way to cross the Rhine River at Arnhem, the Netherlands.

October 24: Capt. David McCampbell of the Navy shot down nine Japanese fighters in a single day, a record unequaled by any other U.S. pilot. McCampbell later became the Navy's leading ace, with 34 aerial victories.

November 3: The Japanese first launched balloons with bombs attached, hoping the jet stream would carry them eastward across the Pacific to the United States. Some of the bomb balloons reached North America but caused little damage.

November 24: For the first time, B–29s bombed Tokyo. Previously unable to reach the Japanese capital from China, they took off this time from bases in the Mariana Islands. This was the first mission of XXI Bomber Command, under Brig. Gen. Haywood S. Hansell, Jr., and the first time Tokyo had been bombed since the Doolittle raid of April 18, 1942.

December 17: The 509th Composite Group, the first organization with the mission of dropping atomic weapons, was activated under the command of Col. Paul W. Tibbets, Jr., at Wendover Field, Utah. On the same day, Maj. Richard Bong of the Army Air Forces shot down his 40th enemy airplane in the Pacific—the highest total of any U.S. ace.

December 21: Gen. Henry H. Arnold became General of the Army. No other airman has ever held five-star rank.

December 26: Maj. Thomas B. McGuire, Jr., shot down four enemy airplanes for a total of 38, making him the second-leading U.S. ace—behind only Maj. Richard I. Bong. McGuire died in combat 12 days later.

1945

January 17: B–29s flew for the last time from Chengtu, China, when 91 Superfortresses took off to bomb a Japanese airfield at Shinchiku, Formosa. Capure of the islands of Tinian, Guam, and Saipan in the Mari-

anas in June and July 1944 provided B–29 bases in the Pacific that proved more useful in attacking the Japanese home islands.

January 20: Maj. Gen. Curtis E. LeMay succeeded Brig. Gen. Haywood S. Hansell, Jr., as commander of XXI Bomber Command in the Mariana Islands, taking charge of the nation's combat B–29s during a faltering strategic air campaign against Japan.

January 28: U.S. ground forces (XIV Corps) retook Clark Field, the most important air base in the Philippines, which had been in Japanese hands since January 1942.

February 16: Army Air Forces C–47s dropped 2,065 paratroopers on the Japanese-held island of Corregidor in Manila Bay in conjunction with a U.S. amphibious landing on the island. The goal was to secure the harbor of Manila, the most important city in the Philippines.

February 19: The Marine V Amphibious Corps landed on Iwo Jima, a Japanese island between the Mariana Islands and Japan. Its capture eliminated a major Japanese base, gave the United States an air base for escorts of B–29 bombers, and furnished an emergency landing field for B–29s on their way back from raids on Japan. Not until March 26 was the island secured.

February 22: Eighth and Fifteenth Air Forces embarked on Operation CLARION, launching air raids all over Germany to destroy transportation targets such as railroad marshalling yards and bridges.

February 26: Lt. Gen. Millard F. Harmon, commanding general, Army Air Forces, Pacific Ocean Areas, disappeared on a flight over the Pacific.

March 9–10: In a night air raid on Tokyo, more than 300 B–29 Superfortresses from bases in the Marianas dropped incendiary bombs that destroyed 16 square miles of the Japanese capital, about a fourth of the city. In terms of lives lost, this air raid was the most destructive in history. Undertaken by Maj. Gen. Curtis E. LeMay, commander of XXI Bomber Command, the attack reflected a shift in U.S. bombardment policy from high-altitude daylight attack on specific military targets to low-level area bombing at night. Fourteen B–29s were lost to flak, but none to interceptors.

March 18: Some 1,250 U.S. bombers escorted by 670 fighters dropped 3,000 tons of bombs on Berlin's transportation and industrial areas. In terms of numbers of bombers, this daylight attack was the largest of the war.

March 24: Eighth and Ninth Air Forces launched some 7,000 bombing, transport, reconnaissance, interdiction, air support, and other sorties in support of Operation VARSITY, the Allied crossing of the Rhine River. More than 2,000 transports and gliders of IX Troop Carrier

Command dropped two Allied airborne divisions on the other side of the Rhine near Wesel, Germany.

March 27–28: Almost 100 B–29 Superfortresses from bases in the Mariana Islands dropped mines in the Shimonoseki Strait of Japan to stop shipping between the islands of Honshu and Kyushu. This B–29 mining operation was the first of many against Japan.

March 30: The Army Air Forces launched its final B–29 mission from India. Twenty-six B–29s of XX Bomber Command raided Japanese facilities on Bakum Island near Singapore.

April 7: Twentieth Air Force launched the first fighter-escorted B–29 raid on Japan. Acquisition of the island of Iwo Jima, after heavy fighting in February and March, made this raid possible by providing a base within fighter range of Japan.

April 10: About 50 German jet aircraft shot down 10 U.S. bombers over the Berlin area—the largest single-mission loss of bombers to enemy jets. The same day, the bombers and their escorts shot down at least 20 of the German jets.

April 25: Eighth Air Force flew its last mission against an industrial target, launching 274 heavy bombers with escorts to bomb the Skoda Works at Pilsen, Czechoslovakia.

May 1–7: In Operation CHOWHOUND, Eighth Air Force and Royal Air Force bombers dropped 7,859 tons of food to starving people in the Netherlands. By agreement with the Germans, the food was dropped from low altitude on Dutch airfields, racetracks, golf courses, and other high ground near towns and cities of the largely flooded country.

May 8: World War II ended in Europe (V-E day).

May 16: In the largest use of napalm in the Pacific War, almost 100 Far East Air Force P–38s attacked the Ipo Dam area of Luzon in the Philippines.

July 16: Maj. Gen. Curtis E. LeMay assumed command of Twentieth Air Force, which had been commanded directly by Army Air Forces commander Gen. Henry H. Arnold.

July 16: The world's first atomic bomb, having an explosive yield equal to 19 kilotons of TNT, successfully detonated at Trinity Site near Alamagordo, New Mexico.

August 6: In the first atomic bomb attack in history, Col. Paul W. Tibbets piloted a B–29 called *Enola Gay* from the island of Tinian in the Marianas to Hiroshima, Japan, destroying the city with a single bomb.

Col. Paul W. Tibbets, Jr., led the atomic attack on Hiroshima.

August 9: Three days after the destruction of Hiroshima, Maj. Charles W. Sweeney and his crew, flying a B–29 called *Bock's Car,* bombed Nagasaki in the second and last atomic bomb attack, which largely destroyed the city and killed at least 35,000 people.

Boeing B–29 Superfortresses dropped atomic bombs on Hiroshima and Nagasaki, Japan.

August 14: Twentieth Air Force launched the final B–29 missions against Japan, mining waters around that country and bombing six cities with conventional weapons. By midnight, the Japanese had agreed to surrender, persuaded by a combination of the atomic bomb attacks, continued incendiary bombing, mining operations, and a Soviet declaration of war.

August 27: Twentieth Air Force B–29s completed their first supply-dropping mission to Allied prisoners of war at Weihsien camp near Peiping, China.

September 2: The Japanese officially surrendered to the Allied powers on board the USS *Missouri* in Tokyo Bay in a formal signing ceremony (V-J day).

October 11: At White Sands Proving Ground in New Mexico, the Army launched for the first time a U.S.-made ballistic missile—a Tiny Tim booster with a WAC (without altitude control) Corporal rocket, which reached an altitude of 43 miles.

October 24: An American Airlines aircraft completed a flight from New York to Hurn Airfield, England—the first land-plane commercial flight from North America to Europe.

November 29: The Army Air Forces School, formerly the Army Air Forces School of Applied Tactics, moved from Orlando, Florida, to Maxwell Field, Alabama, and was assigned directly to the Army Air Forces as a major command. It later became Air University.

December 3: The 412th Fighter Group received its first P–80 aircraft at March Field, California, becoming the first Army Air Forces fighter unit equipped with jet-propelled aircraft.

1946

March 1: Gen. Carl A. Spaatz replaced General of the Army Henry H. Arnold as commanding general, Army Air Forces. Spaatz had been acting commander since February 9, while General Arnold prepared to retire.

March 8: The Civil Aviation Authority granted the first commercial license for a helicopter, the two-seat Bell Model 47.

March 12: The Army Air Forces School at Maxwell Field, Alabama, was redesignated Air University, with jurisdiction over an Air Command and Staff School, an Air War College, and four bases.

March 21: Tactical Air Command was activated, Continental Air Forces was redesignated Strategic Air Command, and Air Defense Command was established.

April 16: At White Sands Proving Ground in New Mexico, the Army launched a German V–2 rocket in the United States for the first time.

July 1: An Army Air Forces crew in a B–29 called *Dave's Dream*, assigned to the 509th Composite Group, dropped an atomic bomb on 73 naval vessels off Bikini Atoll in the Pacific Ocean in a test known as Operation CROSSROADS. The explosion sank five ships and heavily damaged nine others.

July 21: Lt. Cmdr. James Davidson of the Navy, flying a McDonnell XFH–1 Phantom, made the first successful takeoff and landing of a jet-powered aircraft from an aircraft carrier—the USS *Franklin D. Roosevelt*.

August 17: Sgt. Lawrence Lambert became the first person in the United States to eject from an airplane by means of an ejection seat. He escaped from a P–61 flying more than 300 miles per hour over Ohio at an altitude of 7,800 feet.

September 18: At Muroc Dry Lake, California, Convair pilot Sam Shannon made the first flight in an experimental XF–92—the first true delta-wing aircraft.

1947

March 17: The North American XB–45—the first Army Air Forces multi-engine jet bomber—flew for the first time. Four Allison J35 engines powered the aircraft.

July 26: President Harry S. Truman signed the National Security Act, which created a Department of the Air Force equal to the Department of the Army and the Department of the Navy; a National Military Establishment under the secretary of defense; and an Air National Guard as a reserve component of the Air Force.

September 18: W. Stuart Symington took his oath as the first secretary of the Air Force.

September 25: President Harry S. Truman named Gen. Carl A. Spaatz as the first USAF chief of staff.

September 26: Defense Secretary James W. Forrestal ordered air personnel, bases, and materiel transferred from the Army to the new Department of the Air Force.

W. Stuart Symington, the first secretary of the Air Force, and Gen. Carl A. Spaatz, the first USAF chief of staff, in 1947

October 14: Capt. Charles E. "Chuck" Yeager made the first faster-than-sound flight at Muroc Air Base, California, in a rocket-powered USAF research plane—Bell XS–1—and won the Mackay Trophy for the most meritorious flight of the year.

December 30: The National Military Establishment (predecessor of the Department of Defense) gave the Air Force management responsibility for the Joint Long Range Proving Ground, including Cape Canaveral, Florida, and down-range sites.

1948

January 30: Orville Wright died in Dayton, Ohio, at the age of 76.

February 20: Strategic Air Command received its first B–50 Superfortress bomber, an improved version of the B–29 with larger engines, a taller tail fin and rudder, and equipment for in-flight refueling.

Gen. Curtis E. LeMay became commander of Strategic Air Command in 1948 and chief of staff of the Air Force in 1961.

April 26: Anticipating an executive order from President Harry S. Truman in July 1948, the Air Force became the first service to plan for racial integration.

June 1: The Air Force Air Transport Command and the Navy Air Transport Service merged into a new organization, the Military Air Transport Service under the command of Maj. Gen. Laurence S. Kuter.

June 12: Congress passed the Women's Armed Service Integration Act, establishing Women in the Air Force.

June 16: Col. Geraldine P. May became the first director of Women in the Air Force.

June 26: In response to a blockade instituted by the Soviet Union on June 24 of rail and road lines between the U.S., British, and French occupation zones of western Germany and their occupation sectors in western Berlin, the Allies launched the Berlin airlift. Called Operation VITTLES by the United States and Operation PLANE FARE by the British, the airlift delivered enough coal and food to sustain the city indefinitely and became the largest humanitarian airlift in history.

C–54 Skymaster aircraft like this one carried most of the cargo during the famous Berlin airlift of 1948–49.

June 26: The 7th Bombardment Group received the Air Force's first operational B–36 Peacemaker heavy bomber. With a length of 160 feet and wings spanning 230 feet, the Peacemaker was the world's largest warplane. The huge six-engine bomber was designed to deliver nuclear weapons against an enemy on the other side of the globe.

July 20: Sixteen F–80 Shooting Stars completed a mission from Selfridge Field, Michigan, to Scotland after nine hours and 20 minutes—the first west-to-east transatlantic flight by jet planes.

July 23: The Military Air Transport Service established Airlift Task Force with headquarters in Germany for relief to Berlin. Maj. Gen. William H. Tunner was named to command Task Force operations.

July 30: North American Aviation delivered to the Air Force its first operational jet bomber—the B–45A Tornado. Later it became the first USAF aircraft to carry a tactical nuclear bomb.

December 8: A B–36 completed a 9,400-mile nonstop flight from Texas to Hawaii and back without refueling.

December 9–28: On December 9, 1948, an arctic storm forced the crew of a C–47 Skytrain to land on the Greenland ice cap, stranding a crew of seven. Subsequent rescue attempts by a B–17 and a towed glider failed, stranding five rescuers as well. On December 28, Lt. Col. Emil Beaudry landed a ski-equipped Skytrain on the ice cap, rescuing the 12 airmen and subsequently winning the Mackay Trophy.

December 17: On the 45th anniversary of the first heavier-than-air aircraft flight, the Smithsonian Institution celebrated the return of the 1903 Wright Flyer, also called the *Kitty Hawk*, to the United States. The plane arrived in Washington, D.C., on November 22 from the Science Museum in London, where it had been displayed for 20 years.

1949

January 3: After severe blizzards hit eight western states, the Air Force began Operation HAYRIDE. By March 15 more than 200 airplanes had airlifted 4,778 tons of livestock feed, food, blankets, clothing, and medical supplies.

March 2: Capt. James G. Gallagher and his crew in *Lucky Lady II*, a B–50 Superfortress, completed the first nonstop flight around the world. They flew more than 23,450 miles in slightly more than 94 hours, taking off and landing at Carswell Air Force Base, Texas, and refueling in the air over the Azores, Arabia, the Philippines, and Hawaii. For this flight, the *Lucky Lady II* crew won the Mackay Trophy.

April 6: The Curtiss-Wright Company announced that the Bell X–1 rocket plane, powered by a Curtiss-Wright engine, flew at a record 1,000 miles per hour.

Above: ***The Boeing B–50 Superfortress, essentially an improved version of the B–29.*** **Below:** ***When the B–36 Peacemaker flew in March 1949, it was the largest bomber ever built, carrying six propeller engines, later supplemented with four jet engines, two on the end of each wing.***

May 11: President Harry S. Truman signed a bill authorizing a 3,000-mile guided-missile test range for the Air Force, subsequently established at Cape Canaveral, Florida.

May 12: Faced with the success of the Berlin airlift, the Soviet Union ended the land blockade of western Berlin. The airlift continued through September 30, building up stockpiles of food and coal in case of a renewed blockade.

July 1: The Air Force established the USAF Medical Service, headed by Maj. Gen. Malcolm C. Grow, the first surgeon general of the Air Force.

July 27: The DeHavilland Comet, the world's first commercial jet aircraft, flew for the first time.

August 10: President Harry S. Truman signed the National Security Act amendments of 1949, revising the unification legislation of 1947 and converting the National Military Establishment into the Department of Defense.

September 30: The Berlin airlift officially ended after 277,264 flights had delivered 2,343,301.5 tons of supplies—1,783,826 tons of which were carried by U.S. airplanes.

November 18: A C–74 Globemaster I became the first airplane to cross the Atlantic Ocean with more than 100 people aboard. The airplane flew from Mobile, Alabama, to Marham, England.

December 5: Upon the U.S. detection of a Soviet atomic explosion in August 1949, the Air Force diverted $50 million from other projects to begin construction of radar sites in Alaska and other areas of the United States.

1950

January 15: General of the Air Force Henry H. Arnold, USAF, retired, died of a heart ailment at Sonoma, California.

June 25: North Korean Communist forces invaded South Korea. North Korean fighter aircraft attacked nearby Kimpo Airfield, destroying a USAF C–54 on the ground. The United Nations Security Council passed a resolution calling for the evacuation of North Korean forces from South Korea, and Fifth Air Force prepared to airlift U.S. citizens from Seoul, the South Korean capital.

June 26: F–82 Twin Mustang aircraft from the 68th Fighter All-Weather Squadron provided fighter cover for a Norwegian ship evacuating U.S. citizens from Seoul by sea. SB–17 airplanes provided rescue cover for the ship, which sailed from Inchon to Japan.

June 27: Authorized by a United Nations Security Council resolution, President Harry S. Truman ordered the Air Force to enter the Korean conflict. C–54, C–47, and C–46 transport aircraft from the 374th Troop Carrier Wing and Headquarters Far East Air Forces began airlifting hundreds of evacuees from Seoul and Suwon Airfields to Japan. They were escorted by F–82s, F–80 jet fighters, and B–26 light bombers. On the same day, an F–82 Twin Mustang pilot, 1st Lt. William G. Hudson, earned the first aerial victory credit of the Korean War. He shot down a North Korean Yak–11 that was attacking a South Korean airfield near Seoul. Five other USAF pilots also shot down enemy airplanes.

June 28: The Far East Air Forces launched the first USAF air strikes of the Korean War, sending more than 20 B–26s of the 3d Bombardment Group to bomb the Munsan railroad yards near the 38th parallel and rail and road traffic between Seoul and the North Korean border. North Korean forces occupied Seoul, the South Korean capital, and nearby Kimpo Airfield.

June 29: Eighteen B–26s of the 3d Bombardment Group, based in Japan, attacked Heijo Airfield near Pyongyang, the North Korean capital, in the first Far East Air Forces action against North Korea.

June 30: As Far East Air Forces began evacuation of Suwon Airfield near Seoul, President Truman authorized the use of U.S. ground troops in Korea and a naval blockade of North Korea.

July 1: North Korean Communist forces occupied Suwon Airfield, the last major airfield in the Seoul area, ending the airlift from there and forcing U.S. fighters to operate from bases much farther south. The first U.S. troops arrived in South Korea by airlift, carried by 374th Troop Carrier Wing transports from Japan to Pusan.

July 6: The U.S. Air Force conducted the first strategic air attacks of the Korean War, sending nine B–29 Superfortresses to bomb the Rising Sun oil refinery at Wonsan and a chemical plant at Hungnam in North Korea.

July 14: The 35th Fighter-Interceptor Group moved from Japan to Pohang, becoming the first USAF fighter group based in South Korea during the Korean War. The 6132d Tactical Air Control Squadron, the first tactical air control unit in the war, activated at Taegu.

August 5: Maj. Louis J. Sebille, USAF, crashed his severely damaged F–51 Mustang fighter into an enemy position. For this action, Major Sebille earned the first Medal of Honor awarded to a member of the Air Force.

August 10: The first two Air Force Reserve units were mobilized for Korean War service. By 1953 all 25 Reserve flying wings had been mobilized.

August 16: In the largest employment of air power in direct support of ground forces since the Normandy invasion of World War II, 98 B–29s dropped more than 800 tons of 500-pound bombs on a 27-square-mile area near Waegwan, where large numbers of enemy troops were suspected to be concentrating for an attack on Taegu.

September 15: U.S. ground forces supported by U.S. Navy and Marine Corps air strikes invaded Inchon near Seoul in South Korea, far to the rear of enemy lines. The invasion, coupled with a USAF-supported Eighth Army advance from the Pusan perimeter that began the next day, turned the tide of the Korean War, eventually forcing the North Korean army to withdraw from South Korea.

September 15–October 28: The first contingent of 27th Fighter Escort Wing F–84E Thunderjet fighters left Bergstrom Air Force Base, Texas, on September 15, arriving in West Germany on September 18. The second contingent left Texas on October 15, arriving in West Germany on October 28. The 27th Fighter Escort Wing received the Mackay Trophy for this flight, the first mass deployment of jet-powered fighters flying over the Atlantic Ocean from the United States to Europe.

September 18: Forty-two B–29s of the 92d and 98th Bombardment Groups dropped 1,600 bombs on enemy troop concentrations near Waegwan, allowing Eighth Army to advance rapidly from the Pusan perimeter toward Seoul, Korea.

September 22: Col. David C. Schilling, USAF, completed the first nonstop flight over the Atlantic by a jet aircraft, landing his F–84 Thunderjet at Limestone, Maine, after flying 3,300 miles from England in 10 hours, one minute. He refueled three times from various converted bombers on the way.

September 29: Capt. Richard V. Wheeler, USAF, made a record parachute jump from an altitude of 42,449 feet at Holloman Air Force Base, New Mexico.

October 10: The first Air National Guard units were mobilized because of the Korean conflict. Eventually, 66 of the Guard's combat flying units were mobilized, and some 45,000 air guardsmen—approximately 80 percent of the force—were called into federal service during the war.

October 20–23: In the first airborne operation of the Korean War, more than 100 C–119s and C–47s dropped some 4,000 troops of the Army's 187th Airborne Regimental Combat Team and over 600 tons of materiel at Sukchon and Sunchon, 30 miles north of Pyongyang.

November 8: In history's first battle between jet aircraft, Lt. Russell J. Brown in an F–80 Shooting Star shot down a North Korean MiG–15. Seventy B–29 Superfortresses conducted the largest incendiary raid of the

Korean War, dropping some 580 tons of firebombs on Sinuiju, North Korea.

November 28–December 10: Combat Cargo Command C–119s and C–47s air-dropped and landed some 1,580 tons of equipment and supplies, including eight bridge spans, for the 1st Marine Division, which Communist Chinese forces had surrounded at the Chosin (Changjin) Reservoir area in northeastern North Korea. The C–47s also evacuated almost 5,000 sick and wounded marines from Hagaru-ri and Koto-ri.

December 5: Combat Cargo Command evacuated 3,925 patients from Korea on 131 flights—the most aeromedical airlift that occurred in one day during the Korean War. United Nations forces abandoned the North Korean capital of Pyongyang.

December 9: A USAF C–47 made the first successful night drop of agents behind enemy lines in Korea.

December 14–17: Combat Cargo Command evacuated 228 patients, 3,891 other passengers, and 20,088 tons of cargo from Yonpo Airfield as Chinese troops pressed X Corps in the Hamhung-Hungnam defense perimeter of northeastern Korea. Naval transports removed the remainder of X Corps by December 24.

December 17: For the first time, Far East Air Forces F–86s encountered North Korean MiG–15s in combat. Lt. Col. Bruce H. Hinton scored the first F–86 victory over a MiG–15.

The F–86 Sabre was the preeminent USAF air-superiority fighter in the Korean War.

December 20: In Operation CHRISTMAS KIDLIFT, 12 C–54s of the 61st Troop Carrier Group airlifted more than 800 endangered South Korean orphans from Kimpo to Cheju-do, an island off the South Korean coast.

1951

January 13: Far East Air Forces flew the first effective Tarzon mission against an enemy-held bridge at Kanggye, Korea, destroying 58 feet of the structure with one six-ton radio-guided bomb.

January 17: For the first time, F–86 Sabre jets flew missions as fighter-bombers against ground targets in Korea.

January 21: Lt. Col. William E. Bertram became the first USAF pilot to shoot down a MiG–15 while flying an F–84 Thunderjet.

February 13–16: More than 100 transport aircraft from the 315th Air Division (Combat Cargo) dropped supplies day and night to members of the U.S. 23d Regimental Combat Team and a French battalion that Chinese troops had surrounded temporarily at Chipyong-ni in central Korea. H–5 helicopters of the 3d Air Rescue Squadron delivered medical supplies and evacuated wounded despite a blinding snowstorm.

February 16: The Army began using the L–19 Bird Dog for forward air control, artillery spotting, and other frontline duties in Korea.

March 1: The Air Force established its northernmost operational base—Thule Air Base, Greenland—690 miles north of the Arctic Circle.

March 15: A Boeing KC–97A Stratofreighter tanker successfully refueled a B–47 jet bomber in flight, demonstrating the bomber's long-range potential.

March 23: In Operation TOMAHAWK, the second airborne operation of the Korean War and the largest to occur in one day, 120 USAF transports dropped more than 3,400 U.S. troops and 220 tons of their equipment and supplies behind enemy lines at Munsan-ni in Korea.

March 24: The Far East Air Forces used an H–19 helicopter for the first time for the air evacuation of wounded troops in Korea. The H–19 was larger, more powerful, and longer ranged than the H–5 helicopter used earlier.

April 17: Warrant Officer Donald Nichols earned the Distinguished Service Cross for leading a special operations team aboard a helicopter to recover MiG–15 wreckage and technical information.

The Air Force rescued 116 U.S. servicemen from behind enemy lines in Korea using the H–19 Chickasaw, first flown in 1949.

April 18: From Holloman Air Force Base, New Mexico, an Aerobee research rocket carried the first primate, a monkey, into space.

May 20: Capt. James Jabara, an F–86 Sabre pilot of the 334th Fighter-Interceptor Squadron, became the world's first jet ace, shooting down his fifth and sixth MiGs in the Korean War.

July 6: An Air Materiel Command KB–29M tanker, operated by a 43d Air Refueling Squadron crew, conducted the first in-flight refueling over enemy territory under combat conditions. The tanker refueled four RF–80 Shooting Stars flying reconnaissance missions over North Korea.

August 17: Flying a combat-equipped F–86E Sabre, Col. Fred J. Ascani set a world speed record of 635.6 miles per hour in the 100-kilometer closed-course competition at the National Air Races in Detroit, Michigan. This feat earned Colonel Ascani the Mackay Trophy for the most meritorious flight of 1951.

September 14: Capt. John S. Walmsley, Jr., USAF, lost his life illuminating an enemy supply train while piloting a searchlight-equipped B–26 Invader in Korea. After stopping the train with bombs, Captain Walmsley repeatedly passed over it to guide other aircraft to the target. His actions earned him the Medal of Honor.

September 20: A monkey and 11 mice survived an Aerobee flight to an altitude of 236,000 feet, marking the first time the Air Force had recovered animals from a rocket flight.

September 27: In Operation PELICAN, a C–124 Globemaster II flew for the first time from Japan to Korea, delivering 30,000 pounds of aircraft parts to Kimpo Airfield and demonstrating the potential of very large transport aircraft in a combat theater.

The Douglas C–124 Globemaster II could be loaded through large clamshell nose doors.

October 23: The first production B–47 Stratojet medium bomber entered service with the 306th Bombardment Wing, Medium. This aircraft became the workhorse for Strategic Air Command through most of the 1950s.

The Boeing XB–47, prototype of the B–47, the first all-jet strategic bomber

November 30: Maj. George A. Davis, Jr., became the first USAF ace of two wars, shooting down his fourth and fifth enemy airplanes in Korea after having shot down seven enemy aircraft during World War II.

1952

February 1: The Air Force acquired its first general-purpose, high-speed digital computer, a vacuum-tube-based Univac I.

February 10: Leading a flight of three F–86 Sabre jets on a combat air patrol mission near the Manchurian border, Maj. George A. Davis, Jr., engaged 12 enemy MiG–15 jet fighters in aerial combat. After shooting down two enemy aircraft and completely disrupting the enemy formation, Major Davis himself was shot down and killed. For engaging superior forces and shooting down enemy aircraft, he earned the Medal of Honor.

April 15: The YB–52, prototype of the eight-jet Stratofortress and the first all-jet intercontinental heavy bomber, flew for the first time.

May 2: The British-made DeHavilland Comet, the world's first jet airliner, made its first public demonstration flight in London.

May 3: A ski-and-wheel-equipped USAF C–47 Skytrain made the world's first successful North Pole landing.

June 23–24: Air Force, Navy, and Marine Corps aircraft in coordinated attacks virtually destroyed the hydroelectric power plants of North Korea. The two-day operation, involving over 1,200 sorties, was the largest single air effort since World War II.

July 16–17: With the help of aerial refueling, 58 F–84 Thunderjets of the 31st Fighter Escort Wing under Col. David C. Schilling completed the first mass flight of jet fighters across the Pacific Ocean. Departing from Turner Air Force Base, Georgia, on July 4, the airplanes stopped at the islands of Oahu, Midway, Wake, Eniwetok, Guam, and Iwo Jima on the way to Yokota Air Base, Japan.

July 29: An RB–45 assigned to the 91st Strategic Reconnaissance Wing completed the first nonstop jet aircraft flight across the Pacific Ocean. It flew from Elmendorf Air Force Base, Alaska, to Yokota Air Base, Japan. Maj. Louis H. Carrington, Jr., Maj. Frederick W. Shook, and Capt. Wallace D. Yancey earned the 1952 Mackay Trophy for this flight.

July 31: Two Sikorsky H–19 helicopters completed the first transatlantic helicopter flight, having flown in five stages from Westover Field, Massachusetts, to Prestwick, Scotland.

September 30: The Bell Rascal GAM–63 air-to-surface strategic missile was launched for the first time.

November 22: While leading a flight of four F–80 Shooting Star fighters in dive-bombing enemy gun positions, Maj. Charles J. Loring's aircraft was hit. He deliberately crashed his damaged aircraft into the gun emplacements, earning the Medal of Honor for his sacrifice.

November 26: The Northrop B–62 Snark—a turbojet-powered, subsonic, long-range missile—flew for the first time.

The Snark was the nation's first intercontinental guided missile.

1953

February 8: The American Medical Association recognized aviation medicine as a medical specialty, the first one to evolve from military practice and research.

March 1: The Air Guard's 138th Fighter-Interceptor Squadron at Syracuse, New York, and 194th Fighter-Bomber Squadron at Hayward, California, began an experimental augmentation of Air Defense Command's runway alert program, the beginning of what would become the Air Force's total-force approach to reserve components' utilization and training.

April 21: Operation LITTLE SWITCH began. By May 15, the Air Force had airlifted more than 150 sick and wounded former prisoners of war from Korea to Japan and from Japan to the United States after North Korea released them in a prisoner exchange.

May 18: Capt. Joseph C. McConnell, Jr., USAF, shot down his 16th enemy airplane in Korea to become the top ace of the war.

May 25: George Welch, North American test pilot, flew the prototype YF–100 Super Sabre for the first time, taking off and landing at the Air Force Flight Test Center, Edwards Air Force Base, California.

June 8: At Luke Air Force Base, Arizona, the USAF Thunderbirds, officially designated the 3600th Air Demonstration Flight, performed for the first time.

July 11: Maj. John F. Bolt, USMC, flying an F–86 Sabre, became the first Marine jet ace while on temporary duty with the 51st Fighter-Interceptor Wing.

July 27: Capt. Ralph S. Parr, Jr., USAF, scored the last aerial victory of the Korean War by shooting down an Il–2 on the day of the armistice.

August 6: Operation BIG SWITCH began. C–124, C–54, C–46, and C–47 transports airlifted more than 800 former prisoners of war from Korea to the United States by way of Japan after an armistice that ended the Korean War. The operation ended in October.

August 20: During Operation LONGSTRIDE, F–84 Thunderjets assigned to the 31st Strategic Fighter Wing flew from Albany, Georgia, to Nouasseur Air Base, Morocco. On the same day, 17 F–84 Thunderjets assigned to the 508th Strategic Fighter Wing flew nonstop 4,485 miles from Albany to Lakenheath, England. These first nonstop transatlantic flights by fighters demonstrated Strategic Air Command's capability for rapid, long-range deployment, earning the command the Mackay Trophy.

September 1: The Air Force announced the first in-flight refueling of jet-powered aircraft by jet-powered aircraft after a KB–47 refueled a standard B–47 Stratojet.

September 11: The Sidewinder infrared-guided air-to-air missile made its first successful interception, sending an F–6F drone down in flames. The missile revolutionized aerial combat, offering pilots a method other than gunfire for shooting down enemy aircraft.

October 1: The Air Force activated its first airborne early warning and control squadron, the 4701st, at McClellan Air Force Base, California. Under Air Defense Command, the squadron, forerunner of today's airborne warning and control system units, flew the RC–121 aircraft.

October 14: The X–10, prototype of the North American B–64 Navaho ramjet-propelled surface-to-surface guided missile, flew for the first time.

1954

March 1: The United States exploded the first hydrogen bomb in the Marshall Islands, located in the middle of the Pacific Ocean. A fusion weapon, the hydrogen bomb was many times more powerful than the earlier fission atomic bombs such as the one that destroyed Hiroshima in 1945.

April 1: President Dwight D. Eisenhower signed into law a bill creating the Air Force Academy.

June 21: The Air Force directed its Air Research and Development Command to create the Western Development Division under Brig. Gen. Bernard A. Schriever to oversee acceleration of the Atlas intercontinental ballistic missile program.

The first generation of U.S. intercontinental ballistic missiles included the Atlas.

June 24: Secretary of the Air Force Harold E. Talbott announced that the permanent location of the Air Force Academy would be a 15,000-acre tract of land six miles north of Colorado Springs, Colorado.

June 26: Operation WOUNDED WARRIOR began. At the conclusion of fighting in what had been French Indochina, the 315th Air Division and the Military Air Transport Service airlifted more than 500 wounded French soldiers from Vietnam via Japan and the United States to France and Algeria. The operation concluded on July 17.

July 15: The Boeing 707, the first U.S. jet-powered airliner, made its first flight near Seattle, Washington, with Boeing pilot A. M. "Tex" Johnston at the controls. This aircraft revolutionized commercial aviation, replacing slower propeller-driven airliners, and became the prototype of the C–135 transport and KC–135 tanker, the latter designed to refuel the new B–47 and B–52 jet bombers.

July 26: Lt. Gen. Hubert R. Harmon was appointed the first superintendent of the Air Force Academy.

August 6–7: Two B–47 Stratojets assigned to the 308th Bombardment Wing flew a 10,000-mile nonstop flight from Hunter Air Force Base, Georgia, to French Morocco and back. The 308th Bombardment Wing won the Mackay Trophy for this flight. During the same period, two B–47 Stratojet wings assigned to the 38th Air Division departed Hunter Air Force Base, flew a simulated bombing mission, and recovered in French Morocco, demonstrating the capability of strategic bombers to operate from forward bases.

October 27: Benjamin O. Davis, Jr., became the first black general officer in the Air Force. He had served as commander of the 332d Fighter Group, the "Tuskegee Airmen"—the first fighter group that included black pilots.

November 1: The B–29 Superfortress, the aircraft famed for having dropped atomic bombs on Hiroshima and Nagasaki, Japan, was withdrawn from the inventory after fewer than 12 years of service.

December 10: In a rocket-propelled sled run, Col. John P. Stapp, USAF, attained a speed of 632 miles per hour and sustained greater G forces than humans had ever endured in recorded deceleration tests—the equivalent of Mach 1.7 at 35,000 feet. The test determined that humans could survive ejection from aircraft at supersonic speeds.

1955

February 26: George Smith, a North American Aviation test pilot, ejected from an F–100 Super Sabre traveling at Mach 1.05, becoming the first person to survive ejection from an aircraft flying at supersonic speed.

April 6: The Air Force launched an air-to-air guided missile with an atomic warhead from a B–36 Peacemaker bomber to produce a nuclear explosion some six miles above Yucca Flat, Nevada—the highest known altitude of any nuclear blast.

June 29: The Boeing Aircraft Company delivered the first B–52 Stratofortress to enter USAF operational service to the 93d Bombardment Wing at Cas-

tle Air Force Base, California. The B–52 became—and continues to be—an important part of the Air Force's strategic bomber inventory.

The Boeing B–52 eight-engine bomber, designed to drop nuclear weapons from high altitude, was used as a conventional bomber in Vietnam in the 1960s and 1970s and in Southwest Asia in 1991, 2001, and 2002.

July 11: The Air Force Academy admitted its first class, 306 cadets, at Lowry Air Force Base, Colorado—a temporary location until it could move to Colorado Springs.

August 4: Captured on January 13, 1953, crew members of a special operations B–29 called *Stardust 40* were released by China. They were held longer than any other prisoners of war during the Korean conflict.

August 20: Col. Horace A. Hanes, USAF, flying an F–100 Super Sabre over the Mojave Desert, established a new speed record of 822.135 miles per hour. Colonel Hanes, director of flight testing, Air Force Flight Test Center, Edwards Air Force Base, California, received the Mackay Trophy for this record-breaking flight.

1956

January 17: The Defense Department revealed the existence of SAGE (semi-automatic ground environment)—an automated, electronic air-defense system. Its radar transmitted data rapidly via telephone lines to direction/combat centers, where large computers processed the information for interception aircraft.

May 21: At an altitude of 50,000 feet, a B–52 Stratofortress bomber piloted by Maj. David Crichlow, USAF, dropped the first airborne hydrogen bomb, which exploded on Bikini Atoll in the Pacific Ocean during Operation REDWING.

August 23–24: An Army crew in an H–21 helicopter made the first transcontinental nonstop helicopter flight, covering 2,610 miles from San Diego to Washington, D.C.

September 7: Capt. Iven C. Kincheloe, Jr., USAF, set the altitude record for manned flight at Edwards Air Force Base, California, piloting a Bell X–2 transonic, rocket-powered aircraft to a height of 126,200 feet. Captain Kincheloe received the Mackay Trophy for this flight.

September 27: Capt. Milburn G. Apt, USAF, while flying a Bell X–2 rocket-powered airplane launched from a B–50 bomber, became the first pilot to fly at three times the speed of sound. Unfortunately, the flight ended in a fatal crash.

October 1: The National Advisory Committee on Aeronautics awarded its Distinguished Service Medal to Dr. Richard T. Whitcomb, inventor of the area-rule concept for the design of supersonic aircraft. The F–102 was the first aircraft to incorporate the concept.

October 20: Cmdr. Conrad Shinn and Lt. Cmdr. Roy E. Curtis, USN, made the first airplane landing at the South Pole.

October 26: At Fort Worth, Texas, Bell pilot Floyd Carlson piloted the first flight of the XH–40 helicopter, later redesignated the UH–1 or Iroquois (Huey)—one of the most useful of the U.S. helicopters in Vietnam.

November 26: Secretary of Defense Charles E. Wilson issued a memorandum to the Armed Forces Policy Council, giving the Air Force responsibility for developing intercontinental ballistic missiles.

November 30: A Martin TM–61 Matador, a jet-propelled missile, completed its final flight test and became the Air Force's first operational tactical missile. With a range of several hundred miles, the Matador cruised at 650 miles per hour and had a ceiling of 35,000 feet. It equipped the 701st Tactical Missile Wing at Hahn Air Base, Germany.

December 9: The 463d Troop Carrier Wing received the Air Force's first C–130 Hercules tactical-airlift aircraft. This four-engine turboprop airlifter had an unrefueled range of over 2,500 miles, could carry outsized cargo of almost 50,000 pounds or up to 92 troops, and could take off and land within about 3,600 feet.

December 11: Operation SAFE HAVEN began. By June 30, 1957, cargo aircraft of the Military Air Transport Service had airlifted more than 10,000 Hungarian refugees from West Germany to asylum in the United States. The refugees had fled their country when Soviet troops crushed an anticommunist rebellion there.

1957

January 18: Commanded by Maj. Gen. Archie J. Old, Jr., USAF, three B–52 Stratofortresses completed the first around-the-world nonstop flight by jet aircraft. The bombers covered the 24,325-mile distance in 45 hours and 19 minutes, flying at an average speed of 534 miles per hour. The National Aeronautic Association recognized this flight, called Operation POWER FLITE, as the most outstanding for 1957 and awarded the Mackay Trophy to the 93d Strategic Bombardment Wing.

June 2: Capt. Joseph W. Kittinger, Jr., USAF, established the altitude-endurance record for manned lighter-than-air aircraft by remaining aloft in a balloon over Minnesota for six hours, 34 minutes. He spent two hours above 96,000 feet.

June 11: The first U–2 high-altitude, long-range reconnaissance aircraft was delivered to the 4080th Strategic Reconnaissance Wing at Laughlin Air Force Base, Texas. The U–2 could fly 10-hour missions at exceptionally high altitudes at a top speed of 600 miles per hour.

June 28: Assigned to the 93d Air Refueling Squadron, the first KC–135 Stratotanker arrived at Castle Air Force Base, California. The jet tanker could cruise at the same speed as jet bombers while refueling, drastically reducing the time for in-flight refueling missions.

The KC–135 Stratotanker, the first jet tanker in the USAF inventory, refueled a variety of aircraft, including F–16 fighters, pictured here.

July 1: The first intercontinental ballistic missile wing, the 704th Strategic Missile Wing, activated at Cooke (later, Vandenberg) Air Force Base, California.

July 31: The distant early warning line, a string of radar installations extending across the Canadian Arctic to warn of impending aircraft attacks, was declared fully operational.

August 1: The North American Air Defense Command, a joint United States–Canadian command with an air-defense mission, was informally established. An agreement ratified on May 12, 1958, formalized its existence.

August 15: Gen. Nathan F. Twining became the first USAF officer to serve as chairman of the Joint Chiefs of Staff.

October 4: The Soviet Union used an intercontinental ballistic missile booster to launch *Sputnik I*, the world's first artificial space satellite, into Earth orbit.

October 16: The Air Force successfully launched an Aerobee rocket to a height of 35 miles, where its nose cone separated and traveled to a height of 54 miles. At this point, shaped charges blasted pellets into space at a speed of 33,000 miles per hour, surpassing by 8,000 miles per hour the speed necessary to escape from Earth's gravity.

October 22: In Operation FAR SIDE, a four-stage, 10-engine, solid-propellant rocket, fired from a balloon at 100,000 feet above Eniwetok, penetrated at least 2,700 miles into outer space, boosting a scientific-research capsule.

November 3: A dog named Laika became the first animal to be launched into Earth orbit, carried aloft in a Soviet spacecraft called *Sputnik II*.

November 29: Gen. Thomas D. White, USAF chief of staff, announced the assignment of the intercontinental and intermediate-range ballistic missile programs to Strategic Air Command and transferred the 1st Missile Division to that command.

December 6: The first U.S. attempt to launch a satellite into orbit failed when the Navy's Vanguard rocket exploded on its launch platform.

December 15: The 556th Strategic Missile Squadron, the first SM–62 Snark operational squadron, activated at Patrick Air Force Base, Florida. An air-breathing jet cruise missile equipped with two rockets for launch, the Snark was essentially a pilotless airplane with a warhead.

December 17: The Air Force first test-launched an Atlas intercontinental ballistic missile. Its reentry vehicle landed in the target area after a flight of some 500 miles.

1958

January 1: The Air Force activated the 672d Strategic Missile Squadron, the first with Thor intermediate-range ballistic missiles, at Cooke (later, Vandenberg) Air Force Base, California.

The Thor missile, produced by Douglas Aircraft Corporation, was the free world's first operational intermediate-range ballistic missile.

January 15: The Air Force activated the 475th Air Defense Missile Wing to train Bomarc missile units. The Bomarc was an unmanned, supersonic antiaircraft missile capable of intercepting and destroying targets at ranges between 250 and 450 nautical miles.

January 31: *Explorer I*, the first U.S. satellite to go into orbit, was launched by the Army's Jupiter C rocket from Cape Canaveral, Florida.

February 1: Francis E. Warren Air Force Base, Wyoming, became the first intercontinental ballistic missile base of Strategic Air Command.

February 27: Missile director William M. Holaday approved the Minuteman Project, a program for building 5,000-mile-range solid-fuel ballistic missiles launched from underground installations.

The Minuteman intercontinental ballistic missile was conceived in the late 1950s and deployed in silos during the 1960s.

March 17: *Vanguard I,* the first solar-powered satellite, was launched into orbit from Cape Canaveral, Florida.

March 23: The Navy conducted the first underwater test-firing of a Polaris ballistic missile launched from a nuclear submarine. The test took place in the Pacific Ocean near Los Angeles.

April 28: After an in-flight explosion, the pilot and navigator of a 341st Bombardment Wing B–47 ejected successfully. While attempting to egress, the copilot, 1st Lt. James E. Obenauf, noticed another crew member unconscious and incapable of escape. Instead of ejecting, Lieutenant Obenauf remained on the crippled and burning aircraft, piloting it from the backseat position to a safe landing at Dyess Air Force Base, Texas. He received the Distinguished Flying Cross for his heroism.

May 27: Company pilot Robert Little made the first flight of the McDonnell F4H–1 (F–4) Phantom II from Saint Louis, Missouri.

July 9: A Thor-Able reentry test vehicle, in the first nose-cone test at intercontinental ballistic missile range and velocity, carried a mouse some 6,000 miles over the Atlantic Ocean in flight from Cape Canaveral, Florida, to the Ascension Island area.

July 14: President Dwight D. Eisenhower launched Operation BLUE BAT to restore order in Lebanon after civil unrest threatened to overthrow its government. During the operation, the Air Force airlifted troops to Beirut after U.S. marines had landed by sea to secure its airport. The

intervention resulted in political negotiations that produced years of peace.

September 3–9: Responding to Chinese Communist threats to the Taiwan Strait, a Tactical Air Command composite air strike force (including F–100 Super Sabre, F–101 Voodoo, B–57 Canberra, and C–130 Hercules aircraft) deployed to the Far East as part of Operation X-RAY TANGO. The force's rapid and effective deployment earned it the Mackay Trophy.

September 24: From a distance of 75 miles, a Bomarc missile pilotless interceptor, launched from Cape Canaveral, Florida, by a semiautomatic ground-environment unit in Kingston, New York, destroyed a 1,000-miles-per-hour target flying 48,000 feet over the Atlantic Ocean.

October 1: Replacing the National Advisory Committee for Aeronautics, the National Aeronautics and Space Administration was established to control nonmilitary U.S. scientific space projects.

October 4: A British Comet IV with 31 passengers aboard completed the first transatlantic commercial jet flight.

October 11: The Air Force launched the *Pioneer I* lunar probe vehicle, which attained a height of approximately 80,000 miles before falling back to Earth on October 13.

December 10: National Air Lines inaugurated the first jet domestic passenger service in the United States with a Boeing 707 flight between New York and Miami, Florida.

December 16: The Pacific Missile Range began launching operations with the successful flight of a Thor missile, the first ballistic missile launched over the Pacific Ocean.

December 18: The Air Force placed in orbit the first artificial communications satellite, a Project Score relay vehicle integral with the four-ton Atlas launcher. The next day, the satellite broadcast a taped recording of President Dwight D. Eisenhower's Christmas message—the first time a human voice had been heard from space.

1959

January 21: The Army's first Jupiter intermediate-range ballistic missile struck its target area after a 1,700-mile flight test. The Jupiter eventually became a USAF weapon system.

February 6: The Air Force successfully launched the first Titan I intercontinental ballistic missile. With a range of 5,500 nautical miles, the two-

stage liquid-fueled missile was to be deployed in underground silos and raised to the surface before launch.

February 12: Strategic Air Command retired its last B–36 Peacemaker, thus becoming an all-jet bomber force.

February 28: The Air Force successfully launched the *Discoverer I* satellite into polar orbit from Vandenberg Air Force Base, California. A polar orbit allows a satellite to fly over all surface points because of Earth's rotation.

April 6: The National Aeronautics and Space Administration announced the selection of seven pilots from the U.S. armed services as astronauts for Project Mercury. Among them were three USAF captains: L. Gordon Cooper, Jr., Virgil I. "Gus" Grissom, and Donald K. "Deke" Slayton.

April 23: The GAM–77 (AGM–28) Hound Dog supersonic missile, designed to deliver a nuclear warhead over a distance of several hundred miles, was test-fired for the first time from a B–52 bomber at Eglin Air Force Base, Florida.

A Hound Dog (AGM–28) missile, designed during the Cold War to be fired from B–52 Stratofortress bombers

May 25: Air Defense Command accepted its first F–106 Delta Dart, a new interceptor designed to replace the F–102 Delta Dagger.

May 28: Two chimpanzees were recovered alive from the Atlantic Ocean near Antigua Island after a flight to an altitude of 300 miles in the nose cone of a Jupiter missile launched from Cape Canaveral, Florida.

June 3: The Air Force Academy graduated its first class. Of the 207 graduates, 205 were commissioned as regular USAF officers.

June 8: Scott Crossfield piloted an experimental X–15 rocket airplane on its first flight, a nonpowered glide from a B–52. Designed for speeds up to 4,000 miles per hour and altitudes up to 100 miles, the X–15 could reach the edge of outer space.

The X–15's 199 flights between 1960 and 1968 provided research data that influenced the design of the space shuttle.

June 28: A Soviet Tu–114, then the largest passenger aircraft in the world, completed the first nonstop flight from Moscow to New York, a distance of 5,092 miles, in 11 hours, six minutes.

August 7: *Explorer 6*, a U.S. satellite, transmitted the first television pictures from outer space. The first intercontinental relay of a voice message by satellite also took place. The voice was that of Maj. Robert G. Mathis, USAF.

September 9: A Strategic Air Command crew fired an Atlas intercontinental ballistic missile from Vandenberg Air Force Base, California—the first firing of the missile from the west coast. The missile traveled 4,300 miles at 16,000 miles per hour. After this shot, Gen. Thomas S. Power, commander of Strategic Air Command, declared the Atlas system

operational. By the end of the year, the Atlas had become the first U.S. long-range ballistic missile equipped with a nuclear warhead to be placed on alert status.

September 12: The Soviet Union launched *Luna 2*, the first man-made object to reach the Moon.

December 30: The Navy commissioned the USS *George Washington*, the first U.S. ballistic-missile-carrying submarine, at Groton, Connecticut.

1960

January 25: An Army MIM–23 Hawk antiaircraft missile intercepted and shot down an unarmed MGR–1 Honest John surface-to-surface rocket in the first known destruction of one ballistic missile by another.

April 1: *Television Infrared Observation Satellite (TIROS) I*, the world's first meteorological satellite, was launched from Cape Canaveral, Florida, atop a Thor missile.

May 1: Francis Gary Powers, a Central Intelligence Agency U–2 pilot, was shot down over Sverdlovsk in the Soviet Union. Captured and put on trial for espionage, he was later exchanged for a Soviet agent captured by the United States.

May 23: The Air Force began one of its largest humanitarian airlifts to relieve the victims of a series of earthquakes in Chile. Within a month, cargo aircraft had delivered more than 1,000 tons of relief equipment and supplies from bases in the United States, some 4,500 miles away from the stricken region. The airlift was called Operation AMIGOS.

July 8: Operation NEW TAPE began after chaos threatened the newly independent Democratic Republic of the Congo in Africa. After evacuating U.S. citizens by air and delivering food, the Air Force began transporting United Nations troops from all over the world to the country. The airlifts continued for four years.

August 1: The 43d Bombardment Wing at Carswell Air Force Base, Texas, accepted the first operational B–58 Hustler medium bomber. The first U.S. supersonic bomber, the delta-wing aircraft could fly at twice the speed of sound and could be refueled in flight.

August 11: Navy frogmen made the first recovery of an object ejected from an orbiting satellite when they retrieved a 300-pound capsule from the Air Force's *Discoverer XIII*.

August 16: Capt. Joseph W. Kittinger, Jr., USAF, jumped from an aircraft 102,800 feet over Tularosa, New Mexico, and landed unharmed 13 minutes, 45 seconds later. He fell freely for 84,700 feet and reached a

speed of 614 miles per hour before opening his parachute. This was the highest jump and longest free fall on record.

August 19: Piloting a C–119, Capt. Harold F. Mitchell, USAF, retrieved the *Discoverer XIV* reentry capsule in midair, marking the first successful aerial recovery of a returning space capsule.

August 30: With six Atlas missiles ready to launch, the 564th Strategic Missile Squadron at Francis E. Warren Air Force Base, Wyoming, became the first fully operational intercontinental ballistic missile squadron.

September 21: In a ceremony at Nellis Air Force Base, Nevada, Tactical Air Command accepted the first Republic F–105D Thunderchief, an all-weather fighter able to carry a nuclear weapon.

1961

January 31: The Mercury space capsule life-support system was first tested on a space mission, carrying a chimpanzee named Ham.

February 1: The ballistic missile early warning system site at Thule, Greenland, became operational. Subsequently, other sites became operational at Clear, Alaska, and Fylingdales in the United Kingdom. Operated by the North American Air Defense Command, the system could provide the United States warning of an impending Soviet missile attack in time to respond.

February 1: The Minuteman intercontinental ballistic missile was launched for the first time at Cape Canaveral, Florida, in a major test. Under full guidance, it traveled 4,600 miles to its target area. The solid-fueled Minuteman could be stored more easily and fired more quickly than the liquid-fueled Atlas and Titan intercontinental ballistic missiles.

February 3: As part of a project called "LOOKING GLASS," Strategic Air Command began flying EC–135s to provide a 24-hour-a-day airborne command post for the president and secretary of defense in case enemy attack wiped out land-based command and control sites that controlled strategic bombers and intercontinental ballistic missiles.

February 13: The Air Force first launched its solid-fueled air-to-surface missile, the GAM–83B Bullpup, from an F–100 Super Sabre. The missile could fly at supersonic speed, carry a nuclear weapon, and be guided to its target by the pilot of the launching aircraft.

March 7: Strategic Air Command declared the Quail operational. The B–52 would use this missile (GAM–72A) as a diversionary device.

April 12: Cosmonaut Yuri Gagarin of the Union of Soviet Socialist Republics became the first person to be launched into space and the first to orbit Earth.

April 14: At Hurlburt Field, Florida, the Air Force activated the 4400th Combat Crew Training Squadron—its first special-operations unit since the Korean War.

April 19: Alabama Air National Guard B–26 crew members Riley Shamburger, Wade C. Gray, Pete W. Ray, and Leo F. Baker were killed while flying special-operations missions during the Bay of Pigs invasion of Cuba.

May 5: By making a suborbital flight in Mercury capsule *Freedom 7,* Cmdr. Alan B. Shepard, Jr., United States Navy, became the first U.S. astronaut in space.

Recovery of Mercury capsule* Freedom 7 *on May 5, 1961

May 26: A B–58 Hustler supersonic bomber from the 43d Bombardment Wing set a speed record, flying from New York to Paris in three hours, 19 minutes, 41 seconds at an average speed of 1,302 miles per hour. The crew, consisting of Maj. William R. Payne, Capt. William L. Polhemus, and Capt. Raymond Wagener, won the Mackay Trophy for this flight.

June 1: At Kincheloe Air Force Base, Michigan, the first Bomarc-B pilotless interceptor site was declared operational.

June 9: Delivery of the first C–135 Stratolifter introduced jet cargo aircraft into the fleet of the Military Air Transport Service.

July 1: North American Air Defense Command began systematically detecting, tracking, and cataloging man-made objects in space.

July 21: Capt. Virgil I. Grissom became the second U.S. and the first USAF astronaut in space. He attained an altitude of 118 miles and a speed of 5,310 miles per hour in a 303-mile suborbital spaceflight.

August 1: Five Air Force Reserve C–124 groups and more than 15,000 reservists were mobilized as part of the administration's response to the Communists' construction of the Berlin Wall.

August 8: The Air Force launched an Atlas F missile from Cape Canaveral, Florida, for the first time. The Atlas F, designed for long-term storage of liquid fuels and for shortened countdown, was the only Atlas model destined for emplacement in hardened, underground silos.

October 30: As part of Operation STAIR STEP, the first of 216 Air National Guard fighters from units mobilized on October 1 during the Berlin crisis began deploying across the Atlantic Ocean to European bases.

November 15: The 2d Advanced Echelon, Thirteenth Air Force, activated in Saigon, Republic of Vietnam (South Vietnam), marking the official entry of the Air Force into the Vietnam War. In an operation called FARM GATE, a detachment of the 4400th Combat Crew Training Squadron began deployment to South Vietnam with special-operations aircraft.

December 15: The North American Air Defense Command semiautomatic ground-environment system became fully operational with completion of its 21st and last control center at Sioux City, Iowa.

1962

February 2: A C–123 Provider aircraft crashed in South Vietnam while spraying defoliant during Operation RANCH HAND, marking the first USAF aircraft loss in South Vietnam.

February 20: Lt. Col. John H. Glenn, Jr., United States Marine Corps, became the first U.S. astronaut to orbit Earth. He flew for nearly five hours in Mercury capsule *Friendship 7*.

March 5: The crew of a B–58 Hustler bomber assigned to the 43d Bombardment Wing set three speed records in a round-trip flight between New

York City and Los Angeles. The Hustler made the trip in four hours, 41 minutes, 15 seconds, averaging 1,044.46 miles per hour. The crew received the Mackay Trophy and the last Bendix Trophy for this flight.

April 18: At Lowry Air Force Base, Colorado, Strategic Air Command declared operational the Air Force's first Titan I unit—the 724th Strategic Missile Squadron. Its nine missiles were the first to be placed in hardened underground silos.

Test launch of a Titan I missile

June 29: A USAF team fired a Minuteman missile from an underground silo at Cape Canaveral, Florida, to a target area 2,300 miles downrange. This Minuteman was the first to be launched by a military crew.

July 8: In Operation DOMINIC, a Thor rocket launched from Johnston Island carried a megaton-plus hydrogen device to an altitude above 200 miles—the highest altitude for a U.S. thermonuclear blast.

July 17: Maj. Robert M. White, USAF, piloted the X–15–1 hypersonic experimental aircraft to a world-record altitude of 58.7 miles, its initial design altitude. Maximum speed was 3,784 miles per hour.

July 19: A Nike-Zeus antimissile missile fired from Kwajalein Island in the Pacific Ocean made the first known interception of an intercontinen-

tal ballistic missile when it brought down the nose cone of an Atlas missile launched from Vandenberg Air Force Base, California.

August 26: The National Aeronautics and Space Administration launched *Mariner 2,* an unmanned space vehicle that encountered the planet Venus on December 14, marking the first step in unmanned exploration of the solar system by the United States.

October 14–15: The Cuban missile crisis began when Maj. Richard S. Heyser and Maj. Rudolf Anderson, Jr., conducting U–2 reconnaissance flights over Cuba, proved that Soviet missile sites were under construction there.

October 18: Eight Air Force Reserve troop-carrier wings and six aerial-port squadrons were mobilized during the Cuban missile crisis.

October 27: A 4080th Strategic Wing U–2 reconnaissance aircraft piloted by Maj. Rudolf Anderson, Jr., was shot down over Cuba. Lost with his aircraft, Major Anderson was posthumously awarded the first Air Force Cross.

October 27: Strategic Air Command placed on alert the first 10 Minuteman I intercontinental ballistic missiles, emplaced in hardened silos and assigned to the 10th Strategic Missile Squadron at Malmstrom Air Force Base, Montana.

November 2: President John F. Kennedy launched Operation LONG SKIP to airlift military equipment and supplies to India after China invaded that country. In 14 days, the Military Air Transport Service airlifted more than 1,000 tons of cargo to Calcutta, relying on new C–135 jet transports.

November 20: President John F. Kennedy announced that the blockade of Cuba was over because all Soviet missiles had been removed.

1963

May 7: Dr. Theodore von Kármán, distinguished U.S. physicist whose work contributed to USAF air and space technology, died in Aachen, West Germany, a few days before his 82d birthday.

May 15: Astronaut Maj. L. Gordon Cooper, Jr., USAF, launched from Cape Canaveral, Florida, in Project Mercury capsule *Faith 7*. On May 16, after completing 22 orbits of Earth, he landed in the Pacific. Cooper was the last astronaut of Project Mercury and the first to orbit Earth for more than 24 hours.

June 8: The 570th Strategic Missile Squadron, the first Titan II unit, was activated at Davis-Monthan Air Force Base, Arizona.

June 16: Jr. Lt. Valentina Tereshkova, a Soviet cosmonaut, became the first woman in space. Her flight in *Vostok 6* lasted three days.

July 20: The six crew members of C–47 *Extol Pink* evacuated wounded Vietnamese at night under heavy fire. For their heroism, Capt. Warren P. Tomsett, Capt. John R. Ordemann, Capt. Donald R. Mack, TSgt. Edsol P. Inlow, SSgt. Jack E. Morgan, and SSgt. Frank C. Barrett earned the Mackay Trophy.

July 26: *Syncon 2* became the world's first satellite to be placed in geosynchronous orbit. It orbited at the same speed as the rotating Earth, allowing it to remain over the same geographic area.

October 16: At Cape Canaveral, Florida, the Air Force inaugurated a space-based nuclear-detection system by launching twin satellites to assume circular 7,000-mile-high orbits on opposite sides of Earth. The 475-pound, 20-sided satellites, known as Project Vela Hotel or Project 823, could detect nuclear explosions anyplace on Earth.

November 29: A week after the assassination of President John F. Kennedy, President Lyndon B. Johnson issued an executive order changing the name of Cape Canaveral, Florida, to Cape Kennedy and redesignating space facilities there as the John F. Kennedy Space Center.

December 10: Secretary of Defense Robert S. McNamara assigned development of the Manned Orbiting Laboratory to the Air Force.

1964

March 28: After a massive earthquake in the area of Anchorage, Alaska, the United States launched Operation HELPING HAND. By April 17, USAF cargo aircraft, including C–124s, C–123s, C–130s, and C–97s, had delivered 1,850 tons of relief equipment and supplies.

April 21: The number of intercontinental ballistic missiles equaled the number of bombers on Strategic Air Command ground alert for the first time. Afterwards, the number of missiles surpassed the number of bombers in the nuclear-deterrent force.

July 28: The National Aeronautics and Space Administration launched its *Ranger VII* spacecraft from Cape Kennedy on a flight to the Moon. On July 31, *Ranger VII* completed its mission of taking and relaying 4,316 high-quality close-up pictures of the lunar surface before crashing into an area northwest of the Sea of Clouds.

September 21: At Palmdale, California, North American Aviation's B–70A Valkyrie flew for the first time, with company pilot Alvin White and Col. Joseph Cotton, USAF, at the controls. The huge delta-wing air-

craft was a strategic bomber that could fly up to three times the speed of sound and at altitudes above 70,000 feet, but advances in enemy surface-to-air-missile technology prevented its production beyond the prototype stage.

November 17: Operation DRAGON ROUGE began. C–130 Hercules aircrews of the 464th Troop Carrier Wing carried paratroopers from Belgium to rescue 1,400 hostages from captivity in Zaire, the former Belgian Congo. They airlifted the refugees from there to France, an action for which they received the Mackay Trophy.

December 15: Flying an FC–47, Capt. Jack Harvey and his crew conducted the first gunship mission in Vietnam. The FC–47, later called the AC–47, carried in its cargo bay a set of side-firing Gatling guns to strafe ground targets.

December 22: Operation BIGLIFT began. By January 22, 1965, USAF cargo aircraft had delivered more than 1,500 tons of food, clothing, bedding, fuel, hay, grain, vehicles, pipe, and medical supplies to flood victims in California and Oregon.

1965

January 1: The Air Force's first SR–71 Blackbird unit, the 4200th Strategic Reconnaissance Wing, activated at Beale Air Force Base, California. The SR–71 could attain a speed of more than Mach 3 and altitudes beyond 70,000 feet, but it required special fuel and maintenance support.

The Lockheed SR–71 Blackbird, a strategic reconnaissance aircraft and the world's fastest and highest-flying production airplane, first flew in 1964.

February 4: Air Defense Command fighter pilots scored their first interception of a Bomarc drone target, which was flying at more than 1,500 miles per hour at an altitude of more than 50,000 feet.

February 8: The U.S. Air Force performed its first retaliatory air strike in North Vietnam. A North American F–100 Super Sabre flew cover for attacking South Vietnamese fighter aircraft, suppressing ground fire in the target area.

February 18: B–57s and F–100s attacked Vietcong targets near An Khe in the first USAF jet raids against enemy troop concentrations in South Vietnam.

March 2: Lt. Hayden J. Lockhart became the first USAF prisoner of war in Vietnam after his F–100 was shot down in a raid over North Vietnam. He evaded the enemy for a week before he was captured and remained a prisoner until February 12, 1973.

March 18: Alexei Leonov of the Union of Soviet Socialist Republics became the first man to walk in space, performing the extravehicular activity from the *Voskhod 2*.

March 23: The National Aeronautics and Space Administration launched the first Gemini manned flight. Aboard the two-man capsule were Maj. Virgil I. Grissom, USAF, the first astronaut to go into space a second time, and Lt. Cmdr. John W. Young, United States Navy. This was also the first spaceflight during which the orbit was deliberately changed.

April 20: Strategic Air Command shipped its last Atlas missile to storage facilities to be used as a launch vehicle in various research and development programs, thus completing the phaseout of the first generation of intercontinental ballistic missiles, all of which were liquid-fueled.

April 23: The first operational Lockheed C–141 Starlifter aircraft was delivered to Travis Air Force Base, California. Capable of crossing any ocean nonstop at more than 500 miles per hour, the Starlifter could transport up to 70,000 pounds of payload, including 154 troops, 123 paratroopers, or a combination of troops and supplies.

April 29–May 5: Scores of C–130s and C–124s moved some 12,000 troops and 17,250 tons of their equipment and supplies from Pope Air Force Base, North Carolina, to San Isidro, Dominican Republic. The airlift, part of Operation POWER PACK, allowed the United States to bring stability to this Caribbean island nation and prevent unfriendly elements from taking it over. Reserve transports, Air National Guard communications aircraft, and USAF fighter and reconnaissance airplanes also took part in the operation.

June 3–7: Maj. James A. McDivitt, USAF, and Maj. Edward H. White, USAF, set a U.S. space-endurance record of 97 hours, 30 seconds in 63 orbits around Earth. During this *Gemini 4* mission, Major White became the first U.S. astronaut to "walk" in space.

June 18: Strategic Air Command B–52s flew for the first time in the Vietnam conflict when 28 Stratofortresses from Guam bombed Vietcong targets near Saigon. This was the first time B–52s had dropped bombs, although not nuclear weapons, in war.

June 30: At Francis E. Warren Air Force Base, Wyoming, the last of 800 Minuteman I missiles became operational when Strategic Air Command accepted the fifth Minuteman wing from Air Force Systems Command.

July 8: The National Aeronautics and Space Administration transferred its *Syncom II* and *Syncom III* satellites to the Department of Defense; the Air Force Satellite Control Facility and its remote tracking stations in the Pacific and Indian Oceans became responsible for their orbital control.

July 10: Scoring the first USAF aerial victories in Southeast Asia, two F–4C aircrews of the 45th Tactical Fighter Squadron shot down two Communist MiG–17 jet fighters over North Vietnam.

Originally designed for the Navy, the F–4 Phantom served the Air Force as the leading fighter in Vietnam.

July 14: The National Aeronautics and Space Administration's *Mariner 4*, which had been launched on November 28, 1964, reached the vicinity of Mars, becoming the first spacecraft to send close photographs of the Red Planet back to Earth.

October 1: The Air Force constituted its first heavy-repair civil-engineering squadrons, ancestors of the Rapid Engineer Deployable, Heavy Operational Repair Squadron Engineer (RED HORSE) units. They provided the service with a mobile, rapid-response civil-engineer force.

October 18: The 107th Tactical Fighter Group, New York Air National Guard, became the first tactical Air National Guard unit deployed in peacetime to the Pacific for a joint-service exercise.

October 31: Strategic Air Command accepted its first 10 Minuteman II missiles, assigning them to the 447th Strategic Missile Squadron at Grand Forks Air Force Base, North Dakota. The Minuteman II was larger and more advanced than the Minuteman I, but it could be fired from the same silos.

November 1: Col. Jeanne M. Holm became director of Women of the Air Force.

December 8: The secretary of defense announced plans to phase out older models of the B–52 bombers and all B–58 bombers. Newer B–52 models made the older ones obsolete, and the B–58 had proven impractical because of its high fuel consumption.

1966

January 1: Military Air Transport Service was redesignated Military Airlift Command. At the same time, Eastern Air Transport Force and Western Air Transport Force were redesignated Twenty-First Air Force and Twenty-Second Air Force, respectively.

January 1: Air National Guard military airlift units began flying about 75 cargo flights a month to Southeast Asia. These flights were in addition to the more than 100 overseas missions flown monthly by the Air National Guard in augmenting the global airlift mission of Military Airlift Command.

January 17: A B–52 bomber and a KC–135 tanker collided and crashed near Palomares, Spain, killing seven of the 11 crew members. All four nuclear bombs on board the B–52 were recovered, one only after an extensive search.

January 22: The Air Force completed Operation BLUE LIGHT, history's largest airlift of troops and equipment into a combat zone. Since December 27, 1965, more than 4,600 tons of equipment and over 3,000 troops of the Army's 3d Infantry Brigade had flown from Hickam Air Force Base, Hawaii, to Pleiku, South Vietnam.

In 1966 Maj. Bernard F. Fisher became the first USAF Medal of Honor winner in Vietnam.

March 10: To rescue Maj. Dafford W. Myers, a downed A–1E pilot, Maj. Bernard F. Fisher, USAF, a 1st Air Commando Squadron A–1E pilot, landed on the A Shau airstrip after it had been overrun by North Vietnamese regulars. Major Fisher was later awarded the Medal of Honor for this heroic act.

March 16: Astronauts Neil Armstrong and David Scott blasted into space atop a Titan II missile on the *Gemini 8* mission. The two astronauts later performed the first docking maneuver in space, linking their capsule with an Agena target vehicle that had been launched by an Atlas booster. At the conclusion of the mission, 20 minutes after splashdown in the Pacific Ocean 500 miles east of Okinawa, USAF pararescuemen attached flotation gear to the *Gemini 8* space capsule, marking the first time USAF rescue forces had participated in the recovery of a Gemini capsule.

March 31: Strategic Air Command phased out its last B–47 Stratojet. The first all-jet strategic bomber, it had entered active service in 1951, 15 years earlier.

April 6: The Army agreed to transfer its CV–2 Caribou and CV–7 Buffalo aircraft to the Air Force, which would be responsible for all future intratheater fixed-wing tactical aircraft. The Air Force designated them the C–7A Caribou and C–8A Buffalo.

April 11: Despite his own mortal wounds, A1C William H. Pitsenbarger, pararescue jumper with the 3d Aerospace Rescue and Recovery

Group, treated wounded U.S. soldiers during a battle in Vietnam. This action merited the posthumous awarding of the Medal of Honor.

April 12: B–52 bombers struck targets in North Vietnam for the first time, hitting a supply route in the Mu Gia Pass about 85 miles north of the border.

April 26: Maj. Paul J. Gilmore, pilot, and 1st Lt. William T. Smith, weapon system officer, became the first USAF aircrew to destroy a MiG–21. Flying escort for F–105 Thunderchiefs near Hanoi when the flight was attacked, the F–4C crew shot down the MiG with a Sidewinder missile.

June 2: *Surveyor I* became the first U.S. spacecraft to make a soft landing on the Moon.

June 16: A Titan IIIC boosted seven experimental communications satellites and one gravity-gradient satellite into orbit 18,000 nautical miles above the equator. The satellites demonstrated the feasibility of a global military-communications satellite system.

September 20: Lt. Col. Donald M. Sorlie became the first USAF pilot to fly the National Aeronautics and Space Administration lifting body from the Air Force Flight Test Center at Edwards Air Force Base, California. Air-launched from a B–52 at an altitude of 45,000 feet, the craft reached a speed of nearly 400 miles per hour during the three-and-one-half-minute flight. It tested the concept that a space capsule could fly back from outer space rather than falling by parachute into the sea for ship recovery.

November 14: A C–141 Starlifter became the first jet aircraft to land in the Antarctic. Commanded by Capt. Howard Geddes, 86th Military Airlift Squadron, Travis Air Force Base, California, the aircraft landed on the ice at McMurdo Sound after a 2,200-mile flight from Christchurch, New Zealand.

1967

January 2: In Operation BOLO, F–4 Phantom pilots of the 8th Tactical Fighter Wing shot down seven MiG–21s over the Red River Valley, North Vietnam, to establish a one-day aerial victory record, matched only once, on May 13, 1967, during the Vietnam War. Col. Robin Olds, 8th Tactical Fighter Wing commander, shot down a MiG–21 to become the only USAF ace with aerial victories in both World War II and Vietnam.

January 27: Three astronauts, Lt. Col. Virgil Grissom and Lt. Col. Edward H. White, USAF, and Lt. Cmdr. Robert B. Chaffee, United States Navy,

were trapped and killed by a flash fire in an Apollo capsule while conducting a preflight rehearsal at Cape Kennedy, Florida.

February 6: North American Aerospace Defense Command's Space Defense Center moved into Cheyenne Mountain, Colorado, completing the movement of all units into the hardened, underground command and control facility.

February 22: Twenty-three C–130s provided airlift for the first paratroop drop of the Vietnam War. The 173d Airborne Brigade made the jump in support of Operation JUNCTION CITY.

February 24: Flying an unarmed and unarmored O–1 Bird Dog aircraft near Di Linh, South Vietnam, forward air controller Capt. Hilliard A. Wilbanks, USAF, attacked a large body of Vietcong, who had ambushed a numerically inferior force of South Vietnamese rangers. Repeatedly flying over the enemy force, Captain Wilbanks used smoke rockets and a rifle to draw the fire of the enemy force and interrupt its advance. He sacrificed his life to protect the withdrawing rangers, earning the Medal of Honor for his bravery.

March 10: F–105 Thunderchiefs and F–4C Phantom IIs bombed the Thai Nguyen steel plant in North Vietnam for the first time. During this attack, Capt. Merlyn Hans Dethlefsen earned the Medal of Honor for silencing enemy defenses with his severely damaged F–105 Thunderchief despite intense enemy ground fire and fighter attacks.

March 11: Navy fighters attacked North Vietnamese targets using a new television-guided Walleye glide bomb, thereby introducing precision-guided weapons into the Vietnam conflict.

March 15: The Sikorsky HH–53B, the largest and fastest helicopter in the USAF inventory, made its first flight. It would be used for air rescue operations in Southeast Asia.

April 3: Paul W. Airey became the first chief master sergeant of the Air Force. As the highest-ranking enlisted member, he advised the USAF leadership on enlisted issues.

April 19: Maj. Leo K. Thorsness earned the Medal of Honor for protecting a mission to rescue downed airmen in North Vietnamese territory. Flying an F–105 Thunderchief critically low on fuel, Major Thorsness shot down one MiG–17, damaged another, and drove off three more. Despite his urgent need for fuel, Major Thorsness elected to recover at a forward operating base, allowing another aircraft in emergency condition to refuel from an aerial tanker. Shortly after this incident, Thorsness was shot down, captured, and held prisoner until his release on March 4, 1973.

April 25: Maj. Gen. Benjamin D. Foulois, America's oldest military pilot, having flown the first Army aircraft under the tutelage of the Wright brothers in 1909, died at Andrews Air Force Base, Maryland, at the age of 87.

April 28: Air National Guard volunteer crews and KC–97L tankers began flying air-refueling missions for United States Air Forces in Europe fighters from Ramstein Air Base, Germany, in Operation CREEK PARTY, which lasted 10 years. This was the first sustained volunteer operation overseas by Air National Guard units in support of USAF "real world" requirements.

May 31: While piloting a KC–135 Stratotanker over the Gulf of Tonkin, Maj. John H. Casteel, USAF, and his three-man crew from the 902d Air Refueling Squadron carried out a spectacular series of emergency refuelings that saved six fuel-starved Navy fighters. The action earned Major Casteel and his crew the Mackay Trophy.

June 1: The Republic of Vietnam Air Force officially accepted 20 F–5 aircraft, its first jets, from the U.S. Air Force. The F–5 was a fighter version of the T–38.

June 1: In the first nonstop transatlantic helicopter flight, USAF crews flew two HH–3E helicopters from New York to Paris in 30 hours, 46 minutes, 10 seconds with nine air refuelings.

June 5: Surrounded by the forces of several Arab nations threatening to attack, Israel launched preemptive air raids against Egyptian, Jordanian, and Syrian airfields. Having established control of the air, Israeli forces occupied the Sinai Peninsula, the west bank of the Jordan River, and the Golan Heights within a week.

August 26: The North Vietnamese captured Maj. George E. Day, USAF, after shooting down his F–100 Super Sabre aircraft. Severely wounded, he was taken to a prison camp for interrogation and torture. Despite his crippling injuries, Major Day escaped and evaded the enemy for two weeks. He had crossed the demilitarized zone and come within two miles of a Marine Corps base when he was shot and recaptured. Back in prison and in poor health, he continued to resist his captors until he was released in 1973. For his bravery, he earned the Medal of Honor.

September 9: Sgt. Duane D. Hackney received the Air Force Cross for bravery during the rescue of a USAF pilot in Vietnam, thereby becoming the first living enlisted man to receive the award.

October 16: The first operational F–111A supersonic tactical fighter landed at Nellis Air Force Base, Nevada. The variable swept-wing jet used its terrain-following radar-guidance controls for the flight from Fort Worth, Texas.

The F–111, sometimes called the Aardvark, featured swing wings that could be swept forward for slow flight or backward for greater speed.

November 9: Enemy gunners shot down a helicopter piloted by Capt. Gerald O. Young, USAF, during efforts to rescue an Army reconnaissance team near Khe Sanh, Republic of Vietnam. Captain Young survived the crash, and although badly burned, he aided another wounded crewman. Later, he attempted to divert hostile forces from the crash site. Refusing rescue because of the proximity of enemy forces, he successfully evaded capture for 17 hours before finally being evacuated. These actions earned Captain Young the Medal of Honor. He was the first Air Force Academy graduate to receive the award.

November 9: Capt. Lance P. Sijan, USAF, ejected from his F–4C Phantom over North Vietnam and successfully evaded capture for more than six weeks. The enemy eventually captured him, but the severely weakened and injured pilot managed to escape. Recaptured and tortured, he contracted pneumonia and died. Captain Sijan received the Medal of Honor posthumously.

November 17: Operation EAGLE THRUST began. C–141 Starlifters and C–130 Hercules aircraft transported 10,356 paratroopers and 5,118 tons of equipment to the combat zone in the largest and longest-range airlift of troops and cargo from the United States to Southeast Asia.

For several decades in the latter part of the twentieth century, the C–141 Starlifter served as the Air Force's primary long-range jet transport.

1968

January 12: The Air Force announced a system by which tactical air units would carry with them all they needed to operate at "bare" bases equipped only with runways, taxiways, parking areas, and a water supply.

January 21: Vietnamese Communist forces began a 77-day siege of the Marine Corps stronghold at Khe Sanh, South Vietnam. Air strikes and aerial deliveries of supplies allowed marines to hold out until ground forces could break their encirclement in April.

January 25–26: The Air Force called to active duty Air National Guard and Air Force Reserve elements in response to the North Korean seizure of the USS *Pueblo* off the coast of Korea on January 24.

February 3: At the Arnold Engineering Development Center at Tullahoma, Tennessee, a laser beam was used for the first time as a light source for photographing aircraft and missile models at high velocity.

February 29: Col. Jeanne M. Holm, director of Women in the Air Force, and Col. Helen O'Day, assigned to the Office of the Air Force Chief of Staff, became the first USAF women promoted to the permanent rank of colonel under the public law that removed restrictions on promoting women to higher ranks in all the armed services.

March 25: The Air Force flew F–111s for the first time in combat against military targets in North Vietnam.

March 25: The 944th Military Airlift Group (Associate) was activated at Norton Air Force Base, California, becoming the first Reserve group to function under the new associate-unit concept. Members of the Reserve unit flew and maintained aircraft assigned to the associated active-force unit.

May 1: For the first time, Air National Guard tactical-refueling units completed one year of overseas duty on a continuous basis without mobilization.

May 3: The first Air National Guard unit called to active duty in the Vietnam conflict—the 120th Tactical Fighter Squadron from Buckley Air National Guard Base, Colorado—arrived in South Vietnam and began flying combat missions two days later.

May 12: Lt. Col. Joe M. Jackson landed his C–123 Provider aircraft at a special-forces camp being overrun by the enemy. Despite intense hostile fire, including that from light artillery, Colonel Jackson rescued a three-man combat control team and thus earned the Medal of Honor.

May 13: In response to the Communist offensive in South Vietnam, President Lyndon Johnson mobilized 22,200 reservists and guardsmen, including 1,333 members of the Air National Guard. Seven Air Force Reserve units were mobilized.

June 13: A Titan IIIC launch vehicle successfully placed in orbit eight communications satellites from Cape Kennedy, Florida, to augment the initial Defense Satellite Communications System.

June 17: The first C–9 Nightingale aeromedical-evacuation aircraft ordered by Military Airlift Command for the airlift of patients within the United States rolled out at McDonnell Douglas Corporation, Long Beach, California.

Lt. Col. Joe M. Jackson earned the Medal of Honor in Vietnam.

August 1: Headquarters Air Force Reserve was organized at Robins Air Force Base, Georgia, replacing Continental Air Command as manager of Air Reserve resources. At the same time, the Air Reserve Personnel Center at Denver, Colorado, was established as a separate operating agency.

August 25: The North American OV–10 Bronco, the Air Force's newest forward-air-control aircraft, began a 90-day combat-evaluation program in South Vietnam.

September 1: Serving as the on-scene commander during the attempted rescue of a downed American pilot, Lt. Col. William A. Jones, III, USAF, repeatedly flew his A1–H Skyraider aircraft over enemy gun emplacements, sustaining heavy damage and severe burns. Discovering that his radio transmitters were inoperative, Colonel Jones refused to egress his crippled aircraft and, in extreme pain, flew back to base, where he reported the downed pilot's location. For his heroic efforts, he received the Medal of Honor.

October 11: USAF units supported the launch from Cape Kennedy, Florida, of *Apollo 7,* the first manned Apollo space mission. One of the three astronauts was Maj. Donn F. Eisele, USAF.

November 26: Piloting a UH–1F helicopter, 1st Lt. James P. Fleming, USAF, twice exposed his aircraft to intense hostile fire while rescuing a special forces reconnaissance patrol, earning the Medal of Honor.

December 21: The National Aeronautics and Space Administration launched *Apollo 8* atop a Saturn V booster from Cape Kennedy, Florida. The astronauts aboard included Col. Frank Borman and Col. William A. Anders, USAF, and Capt. James A. Lovell, Jr., United States Navy. A few days later, the three men achieved the first lunar orbit.

The Saturn V, the largest rocket the United States had ever developed, was designed to send men to the Moon.

December 31: The Tupolev Tu–144 flew for the first time in the Soviet Union, marking the first flight of an airliner designed to operate at sustained supersonic speed.

1969

January 1: The 71st Special Operations Squadron of the Air Force Reserve flew the first AC–119 Shadow gunship combat mission in Vietnam. The AC–119's multiple machine guns could strafe the ground even more effectively than those of its predecessor, the AC–47.

February 9: The Boeing Corporation flew its 747 "jumbo jet" aircraft for the first time. The huge airliner could hold 347 passengers.

February 9: The free world's first tactical communications satellite, the 1,600-pound *TACSAT 1*, blasted into geostationary orbit from the Air Force Eastern Test Range, Florida, atop a Titan IIIC launch vehicle. TACSAT was designed to relay communications among small land-mobile, airborne, or shipborne tactical stations.

February 24: An enemy mortar shell struck an AC–47 gunship on which A1C John L. Levitow served as loadmaster during a night mission in support of a South Vietnamese army post. Although seriously wounded and stunned, Airman Levitow flung himself on a smoking magnesium flare that was rolling in the cargo compartment, dragged it to an open cargo door, and threw it out of the aircraft. Almost immediately the flare ignited. For this selfless heroism, Levitow became the fourth enlisted airman to win the Medal of Honor and the only enlisted airman to win the nation's highest military honor in Vietnam.

March 2: The Anglo-French Concorde—the first Western airliner designed to fly at supersonic speed—flew for the first time from Toulouse, France.

April 4–10: The 49th Tactical Fighter Wing redeployed its 72 F–4D aircraft from Spangdahlem Air Base, Germany, to Holloman Air Force Base, New Mexico, conducting 504 successful aerial refuelings. For this feat, the wing received the Mackay Trophy.

May 14: Operation COMBAT MOSQUITO began. During the operation, two C–141 flights airlifted 50 tons of insecticide to Ecuador to combat an encephalitis epidemic there, and two UC–123s sprayed the insecticide over that country's coastal marshes. By the end of May, the operation had exterminated up to 95 percent of the area's mosquitoes.

June 10: Air Force Systems Command presented its number-one X–15 hypersonic, rocket-powered manned research aircraft to the Smithsonian Institution, Washington, D.C., for display with other historic aircraft.

July 8: C–141 Starlifters airlifted the first of 25,000 troops withdrawn from Southeast Asia under President Richard M. Nixon's Vietnamization policy, flying them from Vietnam to McChord Air Force Base, Washington.

July 20: Four days after launching from the Kennedy Space Center in Florida and a few hours after the landing of the lunar module, *Apollo 11* crew members Neil Armstrong, a civilian, and Col. Edwin E. Aldrin, Jr., USAF, became the first men to walk on the Moon. At the same time, Lt. Col. Michael Collins, USAF, orbited the Moon in the mission's command module.

August 19: The Air Force began airlifting relief equipment and supplies to southern Mississippi to relieve the victims of Hurricane Camille, the strongest hurricane ever to hit the United States. By September 16, the service had airlifted more than 5,900 tons of relief cargo, flying at least six kinds of transport aircraft. This humanitarian airlift operation was one of the largest such efforts in history.

December 18: Air Force Missile Development Center crews completed the first guided launch of the Maverick—an air-to-surface television-guided missile capable of attacking moving targets at short range. Designated the AGM–65, the missile would eventually be carried by a variety of bomber, fighter, and attack aircraft.

1970

January 5: Aerospace Defense Command's Backup Intercept Control III radar system became fully operational with the acceptance of the facility at the 80th Air Defense Group, Fortuna Air Force Station, North Dakota. Designed to provide immediate information on any airborne threat to North America, this system augmented the semiautomatic ground-environment system.

February 27: The Department of Defense selected Pratt and Whitney Aircraft to develop and produce engines for both the USAF F–15 and the Navy F–14B aircraft.

March 15: The overseas portion of the worldwide automatic voice network was completed, connecting all U.S. military installations by telephone.

April 10: Air Training Command completed shipment of 872 trainers to Southeast Asia under Project Pacer Bravo in support of the South Vietnamese air force improvement and modernization program.

April 11–17: The Air Force supported the launch and recovery of the three-man *Apollo 13* crew, who, despite suffering an onboard explosion, journeyed around the Moon and returned safely to Earth.

April 14: A C–141 Starlifter crew conducted the first airlift of an operational Minuteman III missile, transporting it from Hill Air Force Base, Utah, to Minot Air Force Base, North Dakota.

May 5: The Air Force Reserve Officer Training Corps expanded to include women after test programs at Ohio State, Drake, East Carolina, and Auburn Universities proved successful.

May 8: An AC–119K Shadow gunship crew attacked one of the most heavily defended road sections in Southeast Asia. Despite the loss of 15 feet of the aircraft's right wing and one aileron, the crew destroyed three enemy supply trucks and successfully returned to base. For this feat, the crew received the Mackay Trophy.

June 2: U.S. Air Forces Southern Command personnel and aircraft from Howard Air Force Base (AFB) and Albrook AFB, Canal Zone, and C–130s from Lockbourne AFB, Ohio, began disaster-relief operations for victims of a devastating earthquake in Peru that killed 70,000 and left 800,000 homeless. In 31 days, Southern Command crews airlifted 1.5 million pounds of supplies and equipment and 2,827 passengers; they also made 501 medical evacuations—all while operating under practically bare-base conditions 1,500 miles from their home base.

June 6: Gen. Jack J. Catton, commander of Military Airlift Command, accepted delivery of the first C–5 Galaxy for operational use in the Air Force. At the time, the C–5 was the largest operational airplane in the world.

June 19: The first Minuteman III missile unit became operational at Minot Air Force Base, North Dakota. The Minuteman III could launch multiple, independently targetable warheads.

The C–5 Galaxy

July 31: The first class of Vietnamese students under the Vietnamization Program completed the Undergraduate Pilot Training course at Keesler Air Force Base, Mississippi.

August 21: Secretary of Defense Melvin Laird announced the Total Force Concept of the armed services, making the Air Force Reserve and Air National Guard, rather than the draft, the initial sources for augmentation of the active force.

August 24: Two search-and-rescue HH–53 Sea Stallions successfully completed a 9,000-mile flight from Eglin Air Force Base, Florida, to Da Nang Airport, Vietnam—the first nonstop transpacific helicopter crossing.

September 27–October 28: USAF transports participated in Operation FIG HILL, carrying 200 medical personnel, two mobile military hospitals, and more than 186 tons of medical equipment and supplies, water-purification equipment, food, tents, and vehicles to Jordan after its military forces clashed with Palestinian Liberation Organization forces residing in the country.

October 2: The Special Operations Center at Hurlburt Field, Florida, took possession of the new UH–1N Bell Twin Huey, making the center the first operational USAF organization to have the helicopter.

November 18–December 16: C–141 and C–130 cargo airplanes airlifted more than 140 tons of relief equipment and supplies from the United States and from U.S. bases in the Far East to East Pakistan after a cyclone flooded the country. Some of the flights covered almost 10,000 miles.

November 21: A special task force of Air Force and Army volunteers attempted to rescue American servicemen from the Son Tay prisoner-of-war camp 20 miles west of Hanoi. Brig. Gen. Leroy J. Manor, USAF, commanded the operation, while Col. Arthur D. Simons of the Army led the search-and-rescue team. Unfortunately, the prisoners had been moved elsewhere.

1971

March 17: Jane Leslie Holley became the first woman commissioned through the Air Force Reserve Officer Training Corps program.

April 19: *Salyut I* became the first space station in orbit.

April 26: Crewing an SR–71 Blackbird strategic-reconnaissance aircraft assigned to the 9th Strategic Reconnaissance Wing, Lt. Col. Thomas B. Estes, USAF, aircraft commander, and Maj. Dewain C. Vick, USAF, reconnaissance systems officer, made a record-breaking 15,000-mile

nonstop flight, at times attaining speeds in excess of Mach 3. For this flight, the crew received the Mackay Trophy.

June 16–July 18: In Operation BONNY JACK, USAF transports airlifted some 23,000 refugees from Tripura province in India, to which they had fled from civil war in East Pakistan, to resettlement areas in Gauhati province in another part of India. The C–130s and C–141s also delivered more than 2,000 tons of food, medical supplies, and other relief cargo to the refugees.

July 16: Jeanne M. Holm, director of Women of the Air Force, was promoted to brigadier general, becoming the first woman general in the Air Force.

July 23: Hughes Aircraft Company was awarded a $70 million contract to build 2,000 Maverick (AGM–65A) air-to-surface missiles for use on F–4E and A–7D aircraft.

July 26: With an all-USAF crew composed of Col. David R. Scott, Lt. Col. James B. Irwin, and Maj. Alfred M. Worden, *Apollo 15* blasted off from Cape Kennedy, Florida. The mission was the first to use a vehicle called a lunar rover on the surface of the Moon.

July 29: The Air Force completed its flight tests of the experimental X–24A lifting body. Data from these tests contributed to the development of the National Aeronautics and Space Administration space shuttle.

1972

February 17: *Air Force One,* a VC–137 Stratoliner aircraft belonging to the 89th Military Airlift Wing, departed Andrews Air Force Base, Maryland, carrying President Richard M. Nixon and his wife on their historic trip to China to meet with Mao Tse-tung and Chinese premier Chou En-lai. This was the first time a U.S. president had visited China, and it marked a new relationship between two countries that had been Cold War enemies since 1949.

April 7–May 13: In Operation CONSTANT GUARD, the Air Force deployed 12 squadrons and 200 aircraft from the United States to Southeast Asia to blunt a full-scale North Vietnamese invasion of South Vietnam.

April 27: Four USAF fighter crews, releasing Paveway I laser-guided “smart” bombs, knocked down the Thanh Hoa bridge in North Vietnam. Previously, 871 conventional sorties had resulted in only superficial damage to the bridge.

May 5: The Air Force’s sea-launched ballistic-missile detection and warning system—Pave Phased Array Warning System (PAWS)—achieved initial operational capability.

May 10–11: F–4 Phantoms from the 8th Tactical Fighter Wing dropped precision-guided munitions on the Paul Doumer Bridge in Hanoi, North Vietnam, closing it to traffic.

May 26: President Richard M. Nixon and General Secretary Leonid I. Brezhnev of the Union of Soviet Socialist Republics signed a Strategic Arms Limitation agreement which limited the number of land-based and sea-based launchers for both sides in the Cold War.

June 11: B–52 Stratofortress aircraft used laser-guided bombs to destroy a major hydroelectric plant near Hanoi, North Vietnam.

June 29: Forward air controller Capt. Steven L. Bennett, USAF, and his observer spotted enemy troops attacking a friendly unit and strafed them, forcing a retreat. But a surface-to-air missile crippled the OV–10 Bronco and shredded the observer's parachute. Captain Bennett, knowing that the observer could not bail out, ditched the OV–10 in the Gulf of Tonkin. He died, but his observer survived. For his heroic sacrifice, Captain Bennett was awarded the Medal of Honor posthumously.

July 21–August 15: In Operation SAKLOLO, Pacific Air Forces airlifted more than 2,000 tons of food, medical supplies, clothing, fuel, and other relief supplies to Luzon for the relief of flood victims in the Philippines. C–130s as well as H–3 and H–43 helicopters transported more than 1,500 passengers, including disaster-assistance relief teams and medical evacuees.

August 28: Capt. Richard S. "Steve" Ritchie, USAF, flying with Capt. Charles B. DeBellevue, USAF, his weapon system officer, became the Vietnam War's first ace by shooting down his fifth MiG–21.

September 9: Capt. Charles B. DeBellevue, flying as weapon system officer in the backseat of an F–4, earned his fifth and sixth aerial victories, becoming the leading ace of the Vietnam War.

September 11: Using precision-guided munitions, U.S. aircraft destroyed the Long Bien bridge over the Red River in downtown Hanoi, North Vietnam.

October 13: Capt. Jeffrey S. Feinstein, USAF, a weapon system officer 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.

November 22: A B–52 was hit by a surface-to-air missile while on a mission over North Vietnam, becoming the first Stratofortress lost to enemy action. The crew members ejected over Thailand, where they were rescued.

December 7–19: *Apollo 17*, the final Apollo mission, was also the last manned space operation to land on the Moon.

December 18: President Richard M. Nixon directed the resumption of full-scale bombing and mining in North Vietnam—an operation known as LINEBACKER II. SSgt. Samuel O. Turner, USAF, became the first B–52 tail gunner to shoot down an enemy airplane.

1973

January 8: Capt. Paul D. Howman, USAF, and 1st Lt. Lawrence W. Kullman, USAF, flying an F–4D Phantom, scored the last aerial victory of the Vietnam War when they shot down a MiG southwest of Hanoi, North Vietnam, with a radar-guided AIM–7 missile.

January 27: In Paris, North Vietnam and the United States signed an "Agreement on Ending the War and Restoring Peace to Vietnam." The cease-fire was set to begin on January 29.

January 28: A B–52 Stratofortress crew performed the last Operation ARC LIGHT sortie, bombing enemy targets in South Vietnam at 0628 hours local time. This operation had continued since 1965.

February 12: Military Airlift Command pilots initiated Operation HOME-COMING, flying the first of 590 released American prisoners of war from Hanoi, North Vietnam, to Clark Air Base in the Philippines. The operation concluded on April 9.

March 28: The last USAF aircraft departed South Vietnam.

May 15: Operation AUTHENTIC ASSISTANCE began. In six months, USAF airplanes airlifted 9,250 tons of food, seed grain, medical supplies, and vehicles to and within the African countries of Mali, Chad, and Mauritania to relieve the victims of drought and famine.

May 25–June 22: In a space mission, three U.S. astronauts repaired the *Skylab* space station, which had been damaged during its launch, so that it could conduct orbital research.

July 1: Military conscription (the draft) in the United States ended, but the Selective Service continued to register young men of military age.

July 15: An A–7D Corsair II of the 354th Tactical Fighter Wing, based in Thailand, flew the last combat mission of the Southeast Asian War. All told, since February 2, 1962, the Air Force had flown 5.25 million sorties over South Vietnam, North Vietnam, Laos, and Cambodia, losing 2,251 aircraft—1,737 to hostile action and 514 for other operational reasons.

August 20: The United States began an airlift of 2,400 tons of relief equipment and supplies to Pakistan for the victims of flooding. The airlift

Skylab, ***a science and engineering laboratory, launched into Earth orbit on May 14, 1973. It fell from orbit on July 11, 1979.***

Maj. Gen. Jeanne M. Holm, the first USAF woman general, received her second star on June 1, 1973. Richard I. Borda, assistant secretary of the Air Force, and Gen. Horace Wade, USAF vice chief of staff, participated in the promotion ceremony.

involved the resources of Military Airlift Command, Tactical Air Command, and the Air Force Reserve.

October 14–November 14: During the "Yom Kippur War," USAF airlifters supporting Operation NICKEL GRASS flew 567 sorties from the United States, delivering 22,318 tons of war materiel to Israel. Regular and Reserve units participated.

December 3: *Pioneer 10* became the first space probe to reach the vicinity of Jupiter.

1974

April 10: United States Air Forces in Europe used C–130 communication flights to support Operation NIMBUS STAR, a minesweeping operation to reopen the Suez Canal to navigation.

June 9: Northrop test pilot Henry E. "Hank" Chouteau made the first flight in the YF–17 prototype aircraft at Edwards Air Force Base, California. Although the YF–16 was selected over the YF–17 as the Air Force's newest fighter aircraft, the YF–17 was the progenitor of the Navy's F–18 Hornet.

September 3: Strategic Air Command removed from alert its last Minuteman I intercontinental ballistic missile at the 90th Strategic Missile Wing, Warren Air Force Base, Wyoming, during conversion to Minuteman III missiles.

September 16: The 8th Tactical Fighter Wing completed its redeployment from Ubon Airfield, Thailand, to Kunsan Air Base, South Korea.

November 24: President Gerald R. Ford and General Secretary Leonid I. Brezhnev of the Union of Soviet Socialist Republics signed the Vladivostok Strategic Arms Limitation Accord, which limited deployment of both strategic-delivery vehicles and multiple, independently targetable reentry vehicles.

1975

January 13: Dr. John L. McLucas, secretary of the Air Force, authorized purchase of the General Dynamics F–16—a low-cost, lightweight, highly maneuverable aircraft.

January 16–February 1: By setting eight time-to-climb records in the F–15 Eagle, Maj. Roger J. Smith, Maj. David W. Peterson, and Maj. Willard R. MacFarlane earned the Mackay Trophy.

March 25: The United States organized an airlift to evacuate about 10,000 people a day from Da Nang, South Vietnam. Communist forces had completely cut land routes between this coastal provincial city and the rest of the country.

March 31: Completing the consolidation of all military airlift under a single manager, the Air Force transferred the tactical airlift resources of Pacific Air Forces, United States Air Forces in Europe, and Alaskan Air Command to Military Airlift Command. In December 1974, the Air Force had consolidated Tactical Air Command's airlift resources, including C–130s, with those of Military Airlift Command, which became the single airlift manager.

April 4: Operation BABYLIFT, the aerial evacuation of orphans from Saigon, South Vietnam, began tragically as a C–5 Galaxy crashed in a rice field near the city. Miraculously, 175 of the 330 people on board survived the accident. The United States also began the fixed-wing aerial evacuation of Phnom Penh, Cambodia, which was surrounded by Khmer Rouge forces. By April 11, some 875 Cambodians had flown to Thailand aboard USAF C–130s.

April 12: In Operation EAGLE PULL, Marine Corps and USAF helicopters, escorted by USAF fighters and gunships, performed the final aerial evacuation of 287 people from Phnom Penh, capital of Cambodia, which was surrounded by advancing Communist forces. The city fell on April 17 to the Khmer Rouge.

April 29: By this date, in Operation NEW LIFE, the Air Force had evacuated by air more than 45,000 people from Saigon, South Vietnam, including some 5,600 U.S. citizens, on 201 C–141 and 174 C–130 sorties.

April 29: Operation FREQUENT WIND began. Marine Corps, Navy, and USAF helicopters took part in this final evacuation of Saigon, South Vietnam, which concluded on April 30, when Saigon fell to enemy forces. The helicopters airlifted more than 6,000 evacuees from the South Vietnamese capital in two days. This major operation was the first to involve the flights of USAF helicopters from the deck of an aircraft carrier—the USS *Midway*.

April 29–September 16: During Operation NEW ARRIVALS, 251 C–141 and C–130 flights and 349 commercial flights airlifted more than 120,000 Indochinese refugees from Pacific island staging areas to the United States.

May 12: Cambodian gunboats seized the U.S. merchant ship *Mayaguez* and its 40-man crew near the Wai Islands, 60 miles from the Cambodian coast. In response, Military Airlift Command transported U.S. marines and equipment from the Philippines and Okinawa to Thailand.

May 15: Cambodia returned the *Mayaguez* crew after marines, supported by USAF helicopters and A–7 aircraft, captured the empty ship and assaulted Koh Tang Island, where the crew was mistakenly thought to have been taken. Maj. Robert W. Undorf received the Mackay Trophy for conspicuous gallantry, initiative, and resourcefulness during this military operation—the last major American military action in Southeast Asia.

June 6: The last 16 B–52 Stratofortress aircraft remaining at U-Tapao, Thailand, began redeploying to the United States.

June 15: The last F–111 unit in Thailand began redeployment to the United States.

July 1: For the first time, an Air National Guard air refueling squadron began supporting Strategic Air Command operations. Air Force Reserve and Air National Guard units received KC–135s over a four-year period.

July 15–24: Three U.S. astronauts and two Soviet cosmonauts rendezvoused and docked their space vehicles in orbit during the Apollo-Soyuz mission.

August 8–15: Five Air Force Reserve and Air National Guard C–130s flew 104 sorties to drop 1,400 tons of fire-retardant chemicals over forest fires in southern California.

September 1: Gen. Daniel "Chappie" James, Jr., USAF, became the first black four-star general.

October 29: The first F–5E Tiger II aircraft entered the Air Force's inventory at Nellis Air Force Base, Nevada.

November 29: The first annual RED FLAG exercise began at Nellis Air Force Base, Nevada, ushering in a new era of highly realistic USAF air combat training for pilots and aircrews.

1976

January 9: The first operational F–15 Eagle, a new air-superiority fighter aircraft, arrived at the 1st Tactical Fighter Wing, Langley Air Force Base, Virginia. The F–15 was the first fighter to have a thrust greater than its weight, allowing it to accelerate while going straight up.

January 19: The 180th Tactical Fighter GROUP became the first Air National Guard unit to participate in the RED FLAG training program at Nellis Air Force Base, Nevada.

February 4–June 30: Using C–5s, C–141s, and C–130s, the Air Force airlifted 927 tons of relief equipment and supplies to Guatemala after a severe

Col. Daniel "Chappie" James, Jr., next to his F–4 Phantom in Thailand during the Vietnam War

In the last quarter of the twentieth century, the F–15 Eagle served the Air Force as its premier air-superiority aircraft.

earthquake. The aircraft also transported 696 medical, engineering, and communications personnel. The effort was called Operation EARTHQUAKE.

March 22: The first A–10 Thunderbolt was delivered to Davis-Monthan Air Force Base, Arizona, 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 23–June 9: After Typhoon Pamela hit Guam, C–5s, C–141s, and one C–130 airlifted 2,652 tons of relief equipment and supplies to the island.

June 28: Joan Olsen became the first woman cadet to enter the Air Force Academy and the first woman to enter any of the three Department of Defense service academies.

July 3: Using C–130 aircraft, Israeli commandos led an assault on Entebbe airport in Uganda, rescuing 105 hostages held by pro-Palestinian terrorists.

July 15: Consolidated interservice aerial-navigation training began for Navy and Marine Corps personnel at Mather Air Force Base, California.

July 20: The *Viking I* space probe landed successfully on the surface of the planet Mars and began transmitting television photographs of the Martian landscape.

September 6: A Soviet pilot landed his MiG–25 Foxbat jet fighter in Hokkaido, Japan, and asked for asylum in the United States. Japanese and U.S. officials closely examined the aircraft and on November 15, returned it, dismantled, to the Soviet Union.

September 16: The United States officially returned Eniwetok Atoll, site of the first U.S. hydrogen bomb explosion, to its former inhabitants.

September 29: The first of two groups of 10 women pilot candidates entered undergraduate pilot training at Williams Air Force Base, Arizona—the first time since World War II that women could train to become pilots of U.S. military aircraft.

1977

January 8: The first YC–141B (stretched C–141 Starlifter) rolled out of the Lockheed-Georgia Marietta plant. Equipped with in-flight refueling capability, it was 23.3 feet longer than the original C–141A, enabling it to carry more troops and cargo.

January 31–February 8: In Operation SNO GO, C–5s, C–141s, and C–130s airlifted 1,160 tons of snow-removal equipment and 430 passengers after more than 100 inches of snow fell on western New York and Pennsylvania, paralyzing Buffalo and Pittsburgh.

March 23: Tactical Air Command's first E–3A Sentry aircraft arrived at Tinker Air Force Base, Oklahoma. The Sentry, the Air Force's first airborne warning and control system aircraft, carried a large rotating radar disk above its fuselage.

March 27–30: Following the collision of two Boeing 747 airliners with a total of 643 passengers at Tenerife, Canary Islands, a United States Air Forces in Europe C–130 transported medical personnel to Tenerife and airlifted 56 crash survivors to Las Palmas, Canary Islands. A Military Airlift Command C–141 airlifted the survivors on to various locations in the United States for medical treatment. The Tenerife airliner collision was the world's worst civil-aviation disaster of the twentieth century.

May 19: Capt. James A. Yule, USAF, was awarded the Mackay Trophy for gallantry and unusual presence of mind during an in-flight emergency while flying as an instructor pilot of a B–52 Stratofortress.

June 19: A C–5 Galaxy flew nonstop from Chicago to Moscow carrying a 40-ton superconducting magnet, the first time a C–5 had ever landed in the Soviet Union. The flight of 5,124 nautical miles required two aerial refuelings.

June 30: President James E. "Jimmy" Carter, Jr., announced cancellation of the B–1 Lancer bomber program after the production of four prototypes, citing the continuing reliability of B–52s and the development of cruise missiles.

August 12: Released at an altitude of 22,800 feet from the top of a specially modified Boeing 747, *Enterprise*—the first space shuttle—completed its first descent and landing.

August 23: At Shafter, California, cyclist Bryan Allen successfully made the first sustained, maneuverable, man-powered flight. He propelled the *Gossamer Condor*—an aircraft with a framework of aluminum braced with stainless steel and a covering of Mylar plastic—by pedaling.

August 31: Soviet pilot Alexander Fedotov flew a modified MiG–25 Foxbat to a record altitude of 123,523.58 feet over Podmosconvnoe in the Union of Soviet Socialist Republics.

October 1: The Air Force began VOLANT OAK, a quarterly rotation of Air Force Reserve and Air National Guard C–130 aircraft and crews to Howard Air Force Base in the Panama Canal Zone.

October 12: The first class of USAF women navigators graduated, with three of the five assigned to Military Airlift Command aircrews.

1978

January 24: Tactical Air Command deployed eight F–15 Eagle aircraft from Langley Air Force Base, Virginia, to Osan Air Base, Republic of Korea, in the first operational-training deployment of F–15s to the Western Pacific.

February 8–17: In Operation SNOW BLOW II, USAF C–5s, C–141s, and C–130s airlifted 2,339 tons of snow-removal equipment, generators, communications gear, and more than 1,000 passengers after a severe snowstorm in southern New England.

February 9: From Cape Canaveral, Florida, an Atlas-Centaur booster hoisted into orbit the first Fleet Satellite Communications System satellite.

February 22: An Atlas booster launched the first Global Positioning System satellite. A "constellation" of such satellites revolutionized navigation.

May 16–27: In Operation ZAIRE I, Military Airlift Command used 43 C–141 and C–5 missions to transport 931 tons of cargo and 124 passengers to Zaire in support of Belgian and French troops who had intervened to rescue European workers threatened by a Katangan rebel invasion of Zaire from Angola. During 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: In Operation ZAIRE II, C–141s and C–5s airlifted Belgian and French troops from Zaire, replacing them with African peace-keeping troops. In 72 missions, they transported 1,225 passengers and 1,619 tons of cargo.

August 11–17: Ben Abruzzo, Maxie Anderson, and Larry Newman, flying in the *Double Eagle II*, completed the first balloon crossing of the Atlantic Ocean. The flight from Maine to France covered 3,100 miles.

November 22–29: Three HH–53 Jolly Green Giant helicopters of the 55th Aerospace Rescue and Recovery Squadron airlifted 911 bodies from a mass suicide in Jonestown to Georgetown, Guyana. HC–130s refueled the helicopters as they shuttled between the sites. At Georgetown the bodies were transferred to C–141 Starlifter aircraft, which transported them to the United States.

December 8–9: As a result of political tensions and disturbances in Iran, Military Airlift Command airlifted some 900 evacuees from Tehran to bases in the United States and Germany. The airlift included 11 C–141 and C–5 missions. Some 5,700 U.S. and third-country nationals left Iran on regularly scheduled Military Airlift Command flights until Iran's revolutionary government closed the airport in February 1979.

1979

January 6: The 388th Tactical Fighter Wing at Hill Air Force Base, Utah, received the first General Dynamics F–16 delivered to the Air Force. The F–16, the newest multirole fighter, could perform strike as well as air-superiority missions.

The F–16 Fighting Falcon served the Air Force in the late twentieth century as a multirole fighter.

March 9: In Operation FLYING STAR, two E–3 airborne warning and control system aircraft deployed to Saudi Arabia in response to a threat on the country's southern border.

The E–3 Sentry provides all-weather surveillance, command, control, and communications.

March 31: Maj. James E. McArdle, Jr., USAF, and his four-man crew in an H–3 helicopter hoisted 28 Taiwanese seamen shipwrecked in the Yellow Sea after their ship ran aground, earning Major McArdle the Mackay Trophy.

March 31: After a nuclear power-plant accident at Pennsylvania's Three-Mile Island on March 28, C–5, C–141, and C–130 aircraft airlifted testing equipment, lead-shielding materiel, and chemicals to the area.

May 2–3: Two E–3A Sentry aircraft flew the first airborne warning and control system training mission over central Europe.

June 12: Cyclist Bryan Allen made the first human-powered flight across the English Channel in the aircraft *Gossamer Albatross*.

July 9: *Voyager 2*, an unmanned space probe launched in 1977, reached the vicinity of the planet Jupiter and began sending back photographs.

August 31: The Air Force began flying relief missions to victims of Hurricanes David and Frederic, which hit several islands in the West Indies before striking the United States. By November 21, C–5, C–141, and C–130 cargo airplanes had delivered more than 2,900 tons of disaster-relief cargo to the Caribbean.

September 15–22: In one of the largest aerial fire-fighting operations on record, eight C–130s from the Air Force Reserve and from Air National Guard units in California and Wyoming flew 254 sorties to drop 732,000 gallons of fire-suppressant liquid over fires in southern California.

October 19–21: Two C–141 Starlifter aircraft equipped for aeromedical evacuation transported 38 severely burned U.S. marines from Yokota Air Base, Japan, to Kelly Air Force Base, Texas, following a fire that swept through an enlisted men's barracks at a Marine Corps base at Mount Fuji, Japan.

November 4: More than 3,000 Iranian militants stormed the U.S. Embassy in Tehran, Iran, and took 66 U.S. citizens hostage. President James E. "Jimmy" Carter decided to exhaust diplomatic options before resorting to a military response.

December 27: The Soviet Union led a coup in Afghanistan that set up a new puppet regime, provoking a civil war and the entrance of thousands of Soviet troops, many of them by airlift, into the country.

1980

March 12–14: Two B–52 crews from the 644th Bombardment Squadron and the 410th Bombardment Wing flew nonstop around the world in 43.55 hours, averaging 488 miles per hour over 21,256 statute miles, to

locate Soviet naval vessels operating in the Arabian Sea. This accomplishment earned the aircrews the Mackay Trophy.

April 6: A 443d Military Airlift Wing aircrew flew nonstop from Beale Air Force Base, California, to Royal Air Force Mildenhall in the United Kingdom on the first C–141B operational mission. It refueled only once on the 11-hour, 12-minute flight.

April 24: President James E. "Jimmy" Carter aborted Operation EAGLE CLAW, an elaborate attempt to rescue U.S. citizens being held since November 4, 1979, as hostages in Tehran. Three of eight special-operations helicopters suffered mechanical problems and had to be abandoned or withdrawn. In the subsequent withdrawal operation, an RH–53 helicopter collided with an EC–130, resulting in an explosion that killed eight men and destroyed both aircraft. Hastily departing on C–130s, the mission team abandoned the remaining four helicopters in the Iranian desert.

May 18–June 5: Following the eruption of Mount Saint Helens in northwest Washington State, the Aerospace Rescue and Recovery Service, Military Airlift Command, and the 9th Strategic Reconnaissance Wing conducted humanitarian-relief efforts. During the operation, helicopter crews lifted 61 people to safety, while SR–71 airplanes conducted aerial photographic reconnaissance to assist rescue-and-recovery efforts.

July 10–October 3: During Operation PROUD PHANTOM, the Air Force deployed tactical fighters to Egypt for the first time. Twelve F–4Es flew from Moody Air Force Base, Georgia, to Cairo, Egypt, for tactical training exercises that benefited both the U.S. Air Force and the Egyptian air force, which was purchasing F–4s from the United States.

September 18: An explosion destroyed the 308th Strategic Missile Wing's Titan II launch complex 374-7 in Little Rock, Arkansas, killing one person.

October 1: Operation ELF began with the deployment of four USAF E–3A airborne warning and control system aircraft to Riyadh, Saudi Arabia, to protect Saudi airspace during the Iran-Iraq War. Three KC–135s also deployed during the operation.

October 3: Piloting an HH–3 Jolly Green Giant helicopter, Capt. John J. Walters, USAF, and his crew rescued 61 passengers and crewmen from the burning Dutch luxury liner *Prinsendam* in the Pacific Ocean, hoisting and airlifting them from lifeboats to a supertanker. For this rescue, Captain Walters earned the Mackay Trophy.

1981

January–June: Operating from Corpus Christi, Texas, and Little Rock, Arkansas, C–130s delivered 500 tons of arms, ammunition, helicopters, and other war materiel to El Salvador to help the government combat leftist guerrillas.

January 11: The Boeing Company delivered the first USAF air-launched cruise missiles to the 416th Bombardment Wing at Griffiss Air Force Base, New York. Capable of delivering a nuclear weapon to a target 1,500 miles away, the new missiles contained a terrain-contour-matching system that allows extremely low-altitude flight to avoid detection by enemy radar.

January 18–25: Two C–9 Nightingales transported 52 Americans held by Iran for 444 days from Tehran to Rhein-Main Air Base, Germany. After four days at the USAF hospital in Wiesbaden, Germany, the former hostages returned to the United States on a VC–137.

March 17: McDonnell Douglas Aircraft Company delivered the first KC–10A Extender tanker/cargo aircraft to Strategic Air Command. Substantially larger than the KC–135 tanker/cargo aircraft, the Extender not only could carry more fuel and cargo, but also could refuel more types of aircraft, including other KC–10s.

The primary mission of the KC–10A Extender was aerial refueling, but it also carried cargo and passengers.

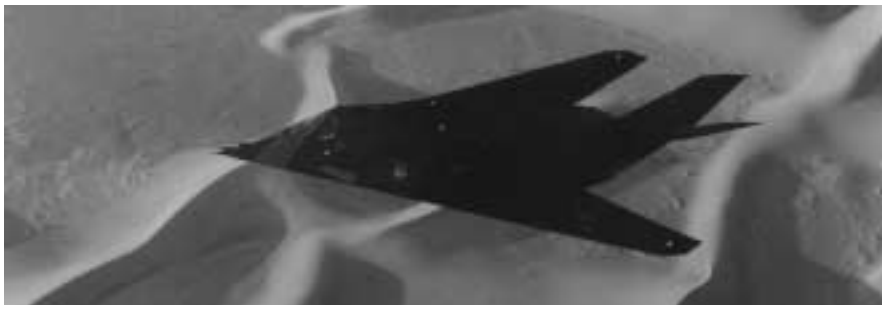
April 12: John W. Young and Capt. Robert L. Crippen, United States Navy, flew the *Columbia* into space—the first space shuttle to do so. Launched like a rocket, the shuttle landed like an airplane and could be flown again.

May 2: An airborne laser destroyed an aerial target for the first time when the Airborne Laser Laboratory (ALL), a modified KC–135 aircraft armed

with a carbon dioxide laser, shot down a drone over White Sands Missile Range, New Mexico. Two years later, the ALL successfully shot down five Sidewinder air-to-air missiles, proving its utility as an antimissile system.

June 7: Israeli F–16 and F–15 aircraft destroyed the Osirak nuclear reactor near Baghdad to prevent the Iraqis from acquiring material to manufacture a nuclear weapon.

June 18: The F–117 Nighthawk, the world's first stealth combat aircraft, flew for the first time. Hal Farley piloted the revolutionary aircraft, which presented very little radar image, at Tonopah Test Range, Nevada.



The F–117A Nighthawk

August 3: USAF air-traffic controllers began to man U.S. airport facilities, replacing striking federal civilian personnel. This action allowed commercial airlines to continue service despite the illegal strike.

September 15: Strategic Air Command received its first TR–1A reconnaissance aircraft. Built by Lockheed-California, this improved and enlarged version of the U–2 reconnaissance aircraft could conduct all-weather day-and-night missions at altitudes exceeding 70,000 feet.

October 2: Reversing former president James E. "Jimmy" Carter's decision to end the B–1 Lancer program, President Ronald W. Reagan announced that the Air Force would build and deploy 100 of these aircraft. President Reagan also announced that the M–X missile would be deployed initially in existing missile silos.

October 14: Tactical Air Command deployed two E–3A Sentry airborne warning and control system aircraft to Egypt to help ensure calm after the assassination of Prime Minister Anwar Sadat.

November 5: The first operational EF–111A defense-suppression aircraft was delivered to the 388th Electronic Combat Squadron at Mountain Home Air Force Base, Idaho. The EF–111A would eventually replace EB–66 and EB–57 aircraft to provide worldwide support of tactical air strike forces.

November 23: During the BRIGHT STAR ’82 exercise, eight B–52 bombers assigned to the strategic-projection force established a record for the longest nonstop B–52 bombing mission. Flying a distance of 15,000 miles with three midair refuelings in 31 hours from air bases in North Dakota, the bombers delivered their conventional munitions on a simulated runway in Egypt.

1982

April 2: With the help of air power, Argentina invaded and captured the Falkland Islands, a British crown colony.

May 4: An Argentine airplane sank the British destroyer HMS *Sheffield* with an Exocet missile during fighting over the Falkland Islands. Later that month, Argentine aircraft sank three more British ships, including two frigates and a destroyer.

June 9–11: Israeli pilots flying U.S.-made fighters achieved an unmatched 82-0 aerial victory ratio in combat against Syrian fighter pilots in Soviet-made MiGs over Lebanon’s Bekaa Valley. They also destroyed 19 Syrian surface-to-air missile batteries and suffered no losses.

June 10: Strategic Air Command’s first all-woman KC–135 crew, assigned to the 924th Air Refueling Squadron, Castle Air Force Base, California, performed a five-hour training mission that included a midair refueling of a B–52 Stratofortress aircraft.

June 14: The last Argentine forces surrendered to British troops in the Falkland Islands. British carrier-based Harrier aircraft, which could take off and land vertically and hover, had supported the British forces in their successful campaign.

June 21: Strategic Air Command conducted a successful aerial refueling only 750 miles from the South Pole. During this southernmost in-flight refueling, a KC–10A Extender transferred 67,400 pounds of aviation fuel to a Military Airlift Command transport that was conducting resupply operations in Antarctica.

July 1: United States Air Forces in Europe activated the 501st Tactical Missile Wing at Royal Air Force Greenham Common, United Kingdom. This unit was the first of six ground-launched cruise missile wings in Europe.

September 1: The Air Force activated Space Command, redesignated Air Force Space Command on November 15, 1985, following activation of United States Space Command—a joint organization—at Peterson Air Force Base, Colorado, on September 23, 1985.

September 16: Capt. Ron Cavendish, USAF, and his crew successfully landed their B–52 Stratofortress after the aircraft lost both of its rudder-elevator hydraulic systems. Never before had this feat been accomplished without significant damage to or complete destruction of the aircraft. For this achievement, the crew earned the Mackay Trophy.

September 21: A B–52 Stratofortress of the 416th Bombardment Wing, Griffiss Air Force Base, New York, conducted the first operational test of an air-launched cruise missile.

September 30: H. Ross Perot, Jr., and Jay Coburn completed the first helicopter circumnavigation of the world. They flew a Bell 206L Longranger, starting and finishing at Fort Worth, Texas.

1983

February 3: To modernize America's retaliatory capability, Strategic Air Command completed the retrofitting of 300 Minuteman III intercontinental ballistic missiles with new reentry systems.

March 1: Military Airlift Command activated Twenty-Third Air Force at Scott Air Force Base, Illinois, to provide combat rescue, special operations, weather reconnaissance, atmospheric sampling, security support for missile sites, training of helicopter and HC–130 crewmen, and pararescue training.

April 1–May 1: The Air Force transferred 31 units and four installations from Strategic Air Command to Space Command, which took over missile warning and space surveillance systems.

June 13: *Pioneer 10* became the first spacecraft to leave the solar system.

June 17: The Peacekeeper intercontinental ballistic missile, carrying multiple warheads, was launched for the first time at Vandenberg Air Force Base, California. The unarmed warheads landed in the Kwajalein target area in the Pacific Ocean.

June 18: Sally K. Ride became the first U.S. woman to journey into outer space. She was a *Challenger* crew member of the seventh space-shuttle mission.

July 1: As a war raged between Iran and Iraq, posing a threat to the oil-rich nations of the Persian Gulf, the Air Force activated its first unit in Saudi Arabia—a provisional support squadron at Riyadh Air Base.

July 22: Dick Smith, an Australian, completed the first solo flight around the world in a helicopter.

August 30: Lt. Col. Guion S. Bluford, USAF, became the first black astronaut to journey into space. He rode aboard *Challenger* on the eighth space-shuttle mission.

September 1: A Soviet Su–15 interceptor shot down a Boeing 747 Korean airliner with 269 people aboard near Sakhalin Island, north of Japan. Three HC–130 Hercules aircraft from the 33d Aerospace Rescue and Recovery Squadron at Kadena Air Base, Japan, participated in the subsequent search but found no survivors. KC–135 Stratotankers also supported the search operation.

September 3–25: As part of Operation RUBBER WALL, Military Airlift Command flew 85 C–141 Starlifter, 24 C–5 Galaxy, and four C–130 Hercules missions to transport about 4,000 tons of supplies from the United States to American marines in Lebanon.

September 5: A KC–135 Stratotanker crew led by Capt. Robert J. Goodman saved an F–4E Phantom and its crew over the Pacific. The KC–135 refueled the F–4E four times and towed it with a refueling boom. The crew received the Mackay Trophy for the most meritorious flight of the year.

October 23–December 9: After a terrorist bomb exploded at a Marine Corps barracks in Beirut, Lebanon, Military Airlift Command and Air Force Reserve cargo and aeromedical-evacuation aircraft transported 239 dead and 95 wounded Americans to the United States and Europe for burial and medical treatment.

October 24–November 3: In Operation URGENT FURY, American military forces raided the Caribbean island of Grenada to evacuate U.S. citizens, restore democracy, and eliminate a hostile Cuban/Soviet base. Military Airlift Command and Air Force Reserve C–5 Galaxy, C–141 Starlifter, and C–130 Hercules aircraft flew 496 missions to transport 11,389 passengers and 7,709 tons of cargo to Grenada. Strategic Air Command tankers and Tactical Air Command fighters, as well as Air National Guard EC–130Es, supported the operation, which accomplished its triple mission. During Operation URGENT FURY, Lt. Col. James L. Hobson, Jr., USAF, led a flight of MC–130 Hercules aircraft that successfully completed an airborne assault on Point Salinas, dropping paratroopers at the exact planned time over target in a hail of antiaircraft fire. For his actions in assuming the assault lead from a disabled aircraft, Colonel Hobson earned the Mackay Trophy.

1984

February 24: Military Airlift Command flew two C–141 Starlifter missions from Larnaca, Cyprus, to Cherry Point, North Carolina, to support the

withdrawal from Lebanon of U.S. marines who had served as part of a multinational peacekeeping force.

March 19–April 9: The Air Force flew 28 C–5 Galaxy and 17 C–141 Starlifter missions and deployed an E–3A Sentry in support of Egypt and Sudan against threats from Libya.

April 6–13: A crew in the space shuttle *Challenger* conducted the national space program's first satellite-repair mission, retrieving an orbiting vehicle, fixing it, and then releasing it.

May 16: C–141 Starlifters delivered 22 tons of medical supplies to Afghan refugees at Peshawar, Pakistan. The refugees had fled their country because of war.

July: The first Harpoon (AGM–84) missile was delivered to the 69th Bombardment Squadron, 42d Bombardment Wing, Loring Air Force Base, Maine. B–52s could launch the missiles to destroy enemy ships.

August 7–October 2: In Operation INTENSE LOOK—the deployment of U.S. minesweeping assets to the Red Sea—Military Airlift Command flew 44 missions to transport 983 passengers and 1,324 tons of cargo. Egypt and Saudi Arabia had requested the minesweeping after mysterious shipping explosions.

August 28: A C–5 Galaxy arrived at Florennes Air Base, Belgium, with the first shipment of support equipment for ground-launched cruise missiles in Europe.

September 18: Col. Joe Kittinger, Jr., USAF, retired, completed the first successful solo crossing of the Atlantic Ocean in a balloon, having traveled from Caribou, Maine, to Savona, Italy, in 84 hours. The 3,550-mile flight set a new balloon distance record.

October 5–13: During a space-shuttle mission, the crew of *Challenger* refueled a satellite in orbit for the first time.

1985

January 1: Lt. Col. David E. Faught, a 97th Bombardment Wing instructor pilot, earned the Mackay Trophy by preventing the loss of a KC–135 Stratotanker and saving the lives of seven fellow crewmen. He landed the aircraft despite the fact that its nose gear would not extend.

January 24: Col. Loren J. Shriver, USAF, led the four-man crew of *Discovery* on the first all-military space-shuttle mission.

June 21–July 25: Flying 73 sorties, three C–123K Provider crews sprayed more than 735,000 acres of public land in southern Idaho from the air to stop a grasshopper infestation.

July 1: A C–141 Starlifter from the 438th Military Airlift Wing transported 39 passengers released from Trans World Airlines flight 847, which was hijacked on June 30 by two Shiite Muslims. At Rhein-Main Air Base, Germany, Vice President George H. W. Bush greeted the survivors upon their arrival from Damascus, Syria.

July 7: Strategic Air Command accepted its first operational B–1 Lancer, a long-range bomber with variable swept wings. It went to the 96th Bombardment Wing at Dyess Air Force Base, Texas.

August 23: Air Force Systems Command successfully conducted its first "cold launch" from an underground silo, a modified Minuteman launch facility at Vandenberg Air Force Base, California. The cold-launch technique ejected the missile from the silo by gas pressure, and the propellant ignited after it became airborne. This technique caused less damage to the silo and reduced the time needed for another launch.

September 13: The first antisatellite intercept test took place when a weapon launched from an F–15 successfully destroyed a satellite orbiting at a speed of 17,500 miles per hour approximately 290 miles above Earth.

September 21–30: USAF airlift units flew more than 360 tons of relief cargo to Mexico City following massive earthquakes there. On September 23, the 89th Military Airlift Wing transported First Lady Nancy Reagan to Mexico City to express the nation's concern and to deliver a check for $1 million.

December 12–January 20, 1986: C–130 Hercules and C–141 Starlifter aircraft flew 26 airlift missions to transport to the United States the remains of 248 paratroopers of the 101st Airborne Division and eight civilians killed in a December 12 crash of an Arrow Air DC–8 at Gander, Newfoundland. The transports also moved 770 passengers and 125 tons of cargo.

1986

January 8: Military Airlift Command accepted delivery of its first C–5B Galaxy, an improved version of the C–5A, at Altus Air Force Base, Oklahoma.

January 28: The seven crew members of the space shuttle *Challenger* were killed in an explosion shortly after liftoff from the John F. Kennedy Space Center in Florida. The disaster delayed the U.S. manned space program for more than two years.

February 18–22: The 129th Aerospace Rescue and Recovery Group and the 41st Aerospace Rescue and Recovery Squadron employed four H–3 Jolly Green Giant helicopters, two HH–53 helicopters, and three C–130 Hercules aircraft to assist flood victims of the Russian and Yuba Rivers of northern California. The airmen evacuated 520 flood victims, saved 33 lives, and supplied over 3,000 sandbags to Army troops at the disaster site.

March 4: During Exercise BRIGHT STAR, a combined U.S.-Egyptian training operation, USAF tankers refueled foreign aircraft for the first time.

March 5: During a CORONET EAST deployment, Capt. Marc C. Felman and his KC–10 Extender crew performed an emergency refueling of Marine A–4M aircraft in the middle of the Atlantic, an action for which they earned the Mackay Trophy for the most meritorious flight of the year.

March 25: For the first time, an all-woman Minuteman missile crew served on alert duty; the crew was assigned to the 351st Strategic Missile Wing, Whiteman Air Force Base, Missouri.

April 14–15: During Operation ELDORADO CANYON, 18 F–111 aircraft, refueled by KC–10 and KC–135 tankers on a long flight from England around France and Spain, bombed terrorist targets in Libya. USAF EF–111s and Navy aircraft supported the F–111s, jamming enemy radar and attacking Libyan air defenses and other targets. The air raids forced Libya to stop sponsoring terrorism for years thereafter.

April 28–May 7: Air Weather Service units supported the efforts of the United States to track the movement of radioactive contamination from the Chernobyl nuclear-reactor accident in the Union of Soviet Socialist Republics. WC–130 Hercules aircraft flew air-sampling missions.

In order to fly into hurricanes to take meterological measurements, the WC–130E has more powerful engines and greater range than the conventional C–130 transport.

June 19: All USAF Rapier surface-to-air missile units in Europe became operationally ready.

July 19–28: Twenty-four C–141 Starlifters and eight C–130 Hercules aircraft flew 32 missions during Operation SOUTHERN HAYLIFT, supplying some 536 tons of donated hay (more than 19,000 bales) to drought-stricken farmers in several southeastern states. The operation saved hundreds of cattle as well as the livelihoods of a great many Southern livestock farmers.

October 1: The Goldwater-Nichols Act reorganized the Department of Defense's chain of command, giving theater commanders increased control of forces provided from the various armed services.

October 10: The Air Force placed the LGM–118A, also called the Peacekeeper or MX missile, on alert duty. Each of these new intercontinental ballistic missiles could deliver warheads to 10 different targets.

The Peacekeeper, a four-stage intercontinental ballistic missile, became operational near the end of the Cold War.

December 23: Richard G. Rutan and Jeana L. Yeager completed the first nonstop, unrefueled flight around the world in an experimental aircraft called *Voyager*. They covered 24,986.7 miles after taking off from Edwards Air Force Base, California, on December 14.

1987

May 5: Strategic Air Command removed the last liquid-fueled Titan II missile from alert duty at Little Rock Air Force Base, Arkansas, ending the operational life of the nation's largest intercontinental ballistic missile and the last one with liquid fuel.

July 4: For setting a dozen records for speed with payload in a new Rockwell B–1B, Lt. Col. Robert Chamberlain and his crew earned part of the Mackay Trophy for most meritorious flight of the year (see entry for September 17, below).

A B–1B Lancer soars over Wyoming. A long-range strategic bomber, the B–1B is capable of flying intercontinental missions without refueling and then penetrating sophisticated enemy defenses.

July 24: In Operation EARNEST WILL, the United States began providing protection to reflagged Kuwaiti oil tankers in the Persian Gulf during the Iran-Iraq War. The Air Force provided E–3 airborne warning and control system aircraft to warn of aerial threats, C–5 and C–141 aircraft to airlift minesweeping personnel and equipment to the theater, and KC–10 and KC–135 aircraft to refuel escorting Navy fighters. The operation continued until November 17, 1988.

September 17: For setting nine flight records for speed in a B–1B aircraft, Maj. Brent A. Hedgpeth and his crew earned part of the Mackay Trophy for most meritorious flight of the year (see entry for July 4, above).

October 1: Air Force Systems Command relinquished Onizuka Air Force Station, California, and the Air Force Satellite Control Network—a set of worldwide remote-tracking stations—to Air Force Space Command.

December 8: The United States and the Union of Soviet Socialist Republics signed the Intermediate-Range Nuclear Forces Treaty, agreeing to remove all intermediate-range (620–3,415 statute miles) missiles from Europe. The agreement resulted in the inactivation of six USAF tactical missile wings equipped with ground-launched cruise missiles.

1988

January 1: Strategic Air Command changed Minuteman and Peacekeeper crew-assignment policy to permit mixed male/female crews in launch facilities.

March 17–18: USAF transport aircraft carried some 3,200 U.S. soldiers to the Republic of Honduras to support Exercise GOLDEN PHEASANT. The Honduran government requested the deployment after experiencing an incursion of Sandinista forces from Nicaragua.

April 5–8: Eight C–5 Galaxies and 22 C–141 Starlifters of Military Airlift Command transported 1,300 security specialists from the United States to the Republic of Panama to counteract political instability that threatened the safety of several thousand U.S. citizens in the Canal Zone.

April 17–July 23: Capt. Michael Eastman, USAF, and his C–5 Galaxy transport crew were the first U.S. airmen to land at Semipalatinsk, Republic of Kazakhstan, Union of Soviet Socialist Republics. They delivered sensitive verification equipment for monitoring nuclear tests under existing international agreements. Captain Eastman received the Mackay Trophy for successful execution of this mission.

August 15–28: C–5 Galaxies airlifted a 500-member United Nations peacekeeping force from Canada to Turkey and Iraq to monitor a cease-fire agreement between the two countries.

September 29: The launch of the space shuttle *Discovery* marked the resumption of the U.S. manned space program, delayed in the wake of the *Challenger* disaster of January 28, 1986.

November 10: The Air Force revealed the F–117 stealth fighter to the public for the first time. Manufactured by Lockheed, the F–117 could evade most radar detection with its radical shape and radar-absorbent surface.

November 15: The Soviet Union launched *Buran*, its first space shuttle.

November 30: The Soviet Union rolled out its An–225 transport, the world's largest aircraft.

December 9: For the first time, the United States flew airplanes directly to the Soviet Union without Soviet personnel on board as observers. The flights were part of the first humanitarian airlift to the Communist country, which earlier had refused such assistance. Over the course of eight weeks, Military Airlift Command aircraft and crews delivered more than 311 tons of relief cargo to victims of an earthquake in Yerevan, Armenia.

1989

March 27: Military Airlift Command began transporting more than 1,000 tons of equipment and supplies to Alaska to help clean up a 10-million-gallon oil spill from the tanker *Exxon Valdez*.

May 4–8: For the first time, a space-shuttle flight launched an interplanetary spacecraft, the *Magellan Venus Radar Mapper*, which then ignited its own boosters for the trip to Venus.

May 13–18: In Operation NIMROD DANCER, U.S. troops deployed with USAF airlift support to the Canal Zone because of an increasing threat to U.S. personnel in Panama.

June 10: Capt. Jacquelyn S. Parker, USAF, became the first woman to graduate from the Air Force Test Pilot School at Edwards Air Force Base, California.

June 14: On its first launch, the Martin Marietta Titan IV heavy-lift booster, nearly 20 stories tall, successfully lifted a Defense Department satellite into orbit.

July 6: The last Pershing ballistic missile was destroyed according to terms of the Intermediate-Range Nuclear Forces Treaty.

August 24: The space probe *Voyager 2* left the solar system after a 12-year journey.

September 21–November 15: Scores of USAF aircraft transported 4,330 tons of relief equipment and supplies to the victims of Hurricane Hugo in the Caribbean Sea and South Carolina. The airplanes also airlifted some 2,000 passengers, including evacuees and medical and engineering personnel, during the emergency.

October 4: B–1B crew members of the 96th Bombardment Wing at Dyess Air Force Base, Texas, landed their aircraft successfully despite a retracted landing gear in the nose. No aircrew member was injured, and the airplane suffered only minimal damage. For this feat, the crew earned the Mackay Trophy for 1989.

October 4: A 60th Military Airlift Wing crew landed a C–5B Galaxy in Antarctica for the first time. With a load of 72 passengers and 84 tons of cargo, including two fully assembled Bell UH–1N helicopters, the huge aircraft landed without skis at McMurdo Station.

December 14: For the first time, women assumed USAF combat-crew roles as they began to serve on C–130 and C–141 airdrop missions.

December 17–February 14, 1990: In Operation JUST CAUSE, USAF aircraft hit military targets, airlifted troops, and flew special operations to

restore democracy in Panama. F–117 Nighthawk stealth fighter-bombers flew in combat for the first time. In the largest night-combat airdrop since World War II, Military Airlift Command aircraft transported 9,500 airborne troops from Pope Air Force Base, North Carolina, to Panama in fewer than 36 hours. Aircraft and crews of the 1st Special Operations Wing, 919th Special Operations Group, and 193d Special Operations Group earned the Mackay Trophy for special operations during JUST CAUSE.

December 29–31: Two C–130 Hercules aircraft of the 435th Tactical Airlift Wing and the 37th Tactical Airlift Squadron transported 31 tons of medical supplies to Bucharest, Rumania, for treatment of civilians wounded in a violent but successful anticommunist revolution.

1990

April 24: The National Aeronautics and Space Administration launched the Hubble Space Telescope into Earth orbit aboard the space shuttle *Discovery*. Designed to observe objects in outer space from beyond the distortions of Earth's atmosphere, the new telescope promised to be the most accurate ever used.

May 4: The AIM–120A advanced medium-range air-to-air missile passed its final flight test for use on U.S. fighters.

May 22: The Air Force redesignated Twenty-Third Air Force as Air Force Special Operations Command.

July 24: EC–135 Looking Glass flights ended after nearly 30 years. During the Cold War, they provided airborne nuclear command and control facilities.

August 2: Iraq invaded Kuwait and quickly occupied the entire country, provoking the Southwest Asia War.

August 7: The United States launched Operation DESERT SHIELD to defend Saudi Arabia from a possible Iraqi invasion. Among the first deployments was a 15-hour, 8,000-mile flight of 24 F–15C Eagles from Langley Air Force Base, Virginia, to Dhahran, Saudi Arabia, with 12 in-flight refuelings. The aircraft arrived on August 8.

August 9: Alaskan Air Command was redesignated Eleventh Air Force and assigned to Pacific Air Forces.

August 17: President George H. W. Bush activated the Civil Reserve Air Fleet for the first time since it was authorized in 1952. The activation increased airlift resources available to deploy U.S. troops to the Persian Gulf area.

August 22: President George H. W. Bush authorized a 90-day call-up of 200,000 reservists for Operation DESERT SHIELD. Eventually, more than 20,000 USAF reservists and 12,000 Air National Guard personnel served in that operation and its successor, DESERT STORM.

August 23: The 89th Military Airlift Wing received the first of two Boeing VC–25A presidential transport aircraft at Andrews Air Force Base, Maryland. The VC–25A was a modified 747–200B commercial transport that replaced the VC–137C for service as *Air Force One*.

September 8: Marcelite Jordan Harris became the first black woman to hold the grade of brigadier general in the Air Force.

September 18–28: The 436th and 438th Military Airlift Wings transported 107 pallets of tents, cots, and blankets to Jordan for the relief of some 100,000 foreign workers who had fled from Kuwait because of the Iraqi invasion.

October 1: Air Force Systems Command relinquished Patrick Air Force Base, Florida, and the space-launch mission to Air Force Space Command.

December 29: The 169th Tactical Fighter Group was the first Air National Guard unit to deploy to the Persian Gulf region for Operation DESERT SHIELD.

1991

January 15: Strategic Air Command relinquished Vandenberg Air Force Base, California, and its launch facilities to Air Force Space Command.

January 17: Operation DESERT STORM, the liberation of Kuwait from Iraqi military occupation, opened with a massive barrage of air and cruise-missile strikes against targets in Iraq and Kuwait. USAF special operations MH–53 helicopters initiated combat by leading an Army helicopter force that destroyed enemy radar sites. During the first 14 hours, aircraft from a U.S.-led coalition flew more than 1,200 combat sorties. B–52G Stratofortress crews from the 2d Bomb Wing of Eighth Air Force, Strategic Air Command, flew from Barksdale Air Force Base, Louisiana, to launch 35 cruise missiles against targets in Iraq and returned home, completing the longest bombing mission in history. Constituting less than 2.5 percent of all coalition aircraft, the F–117A stealth fighter-bomber successfully attacked over 31 percent of Iraqi strategic targets the first day.

January 21: Capt. Paul T. Johnson, USAF, in his A–10 Thunderbolt II aircraft, located a Navy fighter pilot who had ejected in Iraqi territory. The A–10 destroyed a threatening Iraqi truck to allow a USAF MH–53J Pave Low

helicopter to rescue the pilot. Captain Johnson thus earned the Air Force Cross, and the Pave Low helicopter crew earned the Mackay Trophy.

The A–10A features a large gun, armor, high load capacity, long loiter time, and a wide combat radius for close air support.

January 22: The Air Force began using precision-guided munitions against Iraqi hardened aircraft shelters. These attacks were so successful that Iraqi fighters began flying to Iran to escape destruction.

A hardened aircraft shelter in Iraq after air attack with precision-guided munitions

January 27: After the Iraqis began releasing huge amounts of crude oil into the Persian Gulf from a refinery in Kuwait, two F–111F aircraft dropped precision-guided munitions on the facility, stopping the worst deliberate oil spill in history.

January 29: The Battle of Khafji began as Iraqi forces crossed from Kuwait into Saudi Arabia. Coalition air forces suffered their greatest loss when an AC–130H Spectre gunship was shot down, resulting in the death of all 14 crew members. USAF tactical air strikes helped coalition ground forces rout the invaders within three days.

February 6: Capt. Robert R. Swain, Jr., of the 706th Tactical Fighter Squadron, Air Force Reserve, scored the first-ever A–10 Thunderbolt II air-to-air kill by shooting down an Iraqi helicopter.

February 24: After more than a month of air strikes that severely weakened Iraqi forces, the U.S.-led coalition launched a ground offensive from Saudi Arabia. C–130s had already airlifted elements of the Army XVIII Airborne Corps from eastern Saudi Arabia to Rafha, on the Saudi-Iraqi border. Flying more than 300 sorties a day in 10-minute intervals, the C–130s delivered 13,843 troops and 9,396 tons of cargo. This movement enabled coalition forces to encircle Iraq's Republican Guard in what Gen. Norman Schwarzkopf, combatant commander of US Central Command, described as the "Hail Mary maneuver." Within 100 hours, coalition ground forces, coupled with continued air attacks, totally overwhelmed the Iraqi ground troops. Between February 24 and 28, the Air Force flew 3,000 reconnaissance, close air support, and interdiction sorties.

February 28: Operation DESERT STORM ended at 0800 hours with a coalition-declared cease-fire. During the war, coalition forces released approximately 16,000 precision-guided munitions against Iraqi forces and dropped some 210,000 unguided bombs. In 42 days of around-the-clock operations, USAF aircraft flew 59 percent of the nearly 110,000 combat sorties. U.S. aerial strength of approximately 1,990 aircraft comprised 75 percent of the total coalition air power. Extensive use of satellite technology during DESERT STORM persuaded some USAF leaders subsequently to refer to the operation as the "first space war."

March 8–c. June 30: Forty-five C–5 and C–141 flights airlifted more than 1,000 tons of fire-fighting equipment and over 100 firefighters to Kuwait to extinguish hundreds of oil-well fires set by Iraqi forces as they evacuated the country.

April 5: Operation PROVIDE COMFORT began. By July 15, C–5, C–141, and C–130 aircraft had airlifted more than 7,000 tons of relief supplies to Kurdish refugees who had fled their homes in northern Iraq to the Turkish border after Iraqi forces threatened to exterminate them. The operation

later provided aerial protection for a security zone in northern Iraq so that the Kurds could return to their homes. This area became a no-fly zone—an area in which Iraqi aircraft were forbidden to fly.

April 18: The Air Force completed the first successful flight test of a new Martin Marietta/Boeing MGM–134A small intercontinental ballistic missile. The missile traveled 4,000 miles from Vandenberg Air Force Base, California, to the Pacific Island target area at the Kwajalein Missile Range.

May 10–June 13: In Operation SEA ANGEL, USAF transport aircraft airlifted more than 3,000 tons of relief equipment and supplies to Bangladesh after a typhoon and tidal wave. C–5s and C–141s carried most of the cargo, including five Army Black Hawk helicopters and their crews, to the city of Dacca. From there, C–130s and the helicopters transported relief supplies to the flooded area.

June 8–July 2: The eruption of Mount Pinatubo in the Philippines buried Clark Air Base and two other U.S. military installations with volcanic ash, forcing the Air Force to evacuate some 15,000 people to Guam and the United States. FIERY VIGIL became the largest evacuation operation since the fall of South Vietnam in 1975. Clark Air Base in the Philippines, the oldest and largest USAF overseas base, closed permanently.

September 27: President George H. W. Bush ordered termination of Strategic Air Command's alert, initiated in October 1957, during which time crews stood ready around the clock to launch nuclear strikes. This event heralded the conclusion of the Cold War between the United States and the Soviet Union.

November 1: After the crash of a Canadian C–130 Hercules in Greenland, a Twenty-Second Air Force C–5 Galaxy from Elmendorf Air Force Base, Alaska, loaded with a 36-member search-and-rescue team from the Alaskan Air National Guard, and two MH–60G Pave Hawk helicopters flew to Thule, Greenland. The American airmen located the crash scene some 300 miles from the North Pole and rescued 13 survivors.

December 21: The AC–130U Spectre gunship flew for the first time. The new-generation gunship combined increased firepower, reliability, and accuracy with the latest target-location technology.

1992

January 17: To modernize its fleet of training aircraft, the Air Force accepted the first production model T–1A Jayhawk.

February 10–26: In Operation PROVIDE HOPE I, 15 USAF wings and groups airlifted 2,274 tons of food, medical supplies, and other relief cargo to 24 cities of the Commonwealth of Independent States, which

replaced the recently dissolved Union of Soviet Socialist Republics. The humanitarian supplies, which came from North Atlantic Treaty Organization stockpiles in Italy, the Netherlands, Germany, and the United Kingdom, relieved people suffering from a collapsed Communist economic system.

March 4: Two B–52 Stratofortresses landed in Russia on a friendship mission. This was the first landing by U.S. bombers in Russia since World War II.

March 24: The United States joined 24 other nations in signing the Open Skies Treaty, which allowed any one of them to fly unarmed aerial-reconnaissance missions over any other signatory nation.

April 24: Two Peruvian fighters attacked and heavily damaged an unarmed USAF C–130 Hercules aircraft flying in international airspace off Peru. For making a safe emergency landing, the C–130 crew earned the Mackay Trophy.

June 1: In a major reorganization, the Air Force inactivated Strategic Air Command, Tactical Air Command, and Military Airlift Command; it then activated Air Combat Command and Air Mobility Command. Air Combat Command received Strategic Air Command's bombers and missiles and Tactical Air Command's fighters, while Air Mobility Command inherited Military Airlift Command's transports and Strategic Air Command's tankers. Air Force Space Command assumed management responsibility for the Air Force Satellite Communications System, formerly managed by Strategic Air Command.

June 1: The Department of Defense activated United States Strategic Command, which assumed wartime responsibility for U.S. nuclear forces and their long-range delivery systems. The last commander of Strategic Air Command, Gen. George L. Butler, USAF, became the first commander of United States Strategic Command.

July 1: Continuing its reorganization, the Air Force inactivated Air Force Logistics Command and Air Force Systems Command; it then activated Air Force Materiel Command to replace them.

July 2: Operation PROVIDE PROMISE began, delivering food, medical supplies, and other relief cargo to Sarajevo and other communities in newly independent Bosnia-Herzegovina, which was suffering a civil war in the wake of its independence from Serbia. PROVIDE PROMISE became the longest sustained relief operation in USAF history. By early January 1996, when the operation ended, it had delivered nearly 160,000 tons of relief supplies, some of them by airdrop and some by landing on airfields under hostile gunfire.

August 14: To save victims of drought and civil war in Somalia from starvation, the United States launched Operation PROVIDE RELIEF. By the time it

ended on February 28 of the next year, 46 USAF transport aircraft had airlifted more than 23,000 tons of food, water, medical supplies, and other relief cargo to Somalia and to Somali refugees in Kenya.

August 25: A day after Hurricane Andrew smashed into southern Florida, the Air Force embarked on one of its largest domestic humanitarian-airlift operations. Despite devastation that caused the closing of Homestead Air Force Base, by September 25, Air Mobility Command, Air Force Reserve, and Air National Guard transports, augmented by airliners under contract, had delivered more than 21,000 tons of relief supplies and had transported more than 13,500 passengers.

August 26: The United States launched Operation SOUTHERN WATCH to enforce United Nations sanctions against Iraq. USAF aircraft began patrolling a no-fly zone south of 32 degrees north latitude in southern Iraq to provide protection to Shiite Muslims living there and to discourage any renewed Iraqi military activity against Kuwait or Saudi Arabia.

September 12–October 18: Following Typhoon Iniki, which devastated Kauai in the Hawaiian archipelago, Air Mobility Command, Pacific Air Forces, Air Force Reserve, and Air National Guard aircraft and crews airlifted 6,888 tons of relief equipment and supplies to Hawaii. The operation also airlifted more than 12,000 passengers, including evacuees as well as military and civilian relief workers.

September 13–29: During Operation IMPRESSIVE LIFT, Air Mobility Command moved United Nations peacekeeping troops from Pakistan to Somalia. In 94 missions, USAF cargo aircraft moved 974 passengers and 1,168 tons of equipment and supplies. The troops attempted to ensure a fair distribution of food being delivered in Operation PROVIDE RELIEF.

December 4: President George H. W. Bush launched Operation RESTORE HOPE I, which transported some 32,000 international troops to Somalia to establish order for international famine-relief efforts. Most of the troops flew on contracted commercial airliners, but by the end of the operation on May 4, 1993, the Air Force had airlifted 32,000 tons of their equipment and supplies.

December 16: On a night flight, a 668th Bombardment Squadron B–52 lost two of its eight engines when one exploded and damaged its neighbor. At about the same time, two more engines on the same side of the aircraft flamed out. Frantically working, the crew was able to restart the two flamed-out engines and land safely. For this extraordinary feat, the crew earned the Mackay Trophy.

December 27: A USAF pilot patrolling the southern United Nations no-fly zone in Iraq shot down an Iraqi MiG–25, scoring the first aerial victory

by an F–16 Fighting Falcon. This was also the first victory using the AIM–120A advanced medium-range air-to-air missile.

1993

January 1: The first Air Force Reserve space unit, the 7th Space Operations Squadron, activated at Falcon Air Force Base, Colorado.

January 3: President George H. W. Bush of the United States and President Boris Yeltsin of Russia signed the second Strategic Arms Reduction Treaty, the most far-reaching nuclear-arms reduction pact in history. The agreement committed the United States and Russia to the elimination of all intercontinental ballistic missiles carrying multiple, independently targetable reentry vehicles and the reduction of the number of nuclear weapons carried by bombers.

January 13: President George H. W. Bush ordered punitive air strikes against 32 Iraqi missile sites and air-defense command centers after the United States discovered an Iraqi troop foray across the newly demarcated border with Kuwait and active Iraqi surface-to-air missile sites in the no-fly zone.

January 13: Maj. Susan Helms, USAF, a member of the space shuttle *Endeavour* crew, became the first U.S. military woman in space.

April 12: The North Atlantic Treaty Organization launched DENY FLIGHT, its first combat operation, to enforce a United Nations Security Council resolution that authorized a no-fly zone over Bosnia. The U.S. Air Force provided the bulk of the resources for this operation.

April 19–24: Units in Alaska participated in the Air Force's first combined exercise with the Russian air force, a search-and-rescue exercise in Siberia.

April 28: Secretary of Defense Les Aspin announced that women would be allowed to serve in combat roles, including the flying of USAF combat aircraft.

June 11: AC–130 Spectre gunships participated in a United Nations raid on Somali warlord forces in retaliation for a June 5 attack on United Nations forces in Mogadishu, Somalia.

June 14: The Air Force acquired its first C–17A Globemaster III transport aircraft, which was delivered to the 437th Airlift Wing at Charleston Air Force Base, South Carolina. Capable of delivering outsized cargo to a tactical environment, the Globemaster III increased the Air Force's ability to airlift to relatively small airfields, eliminating the need to shift cargo from larger to smaller transports.

June 17: Lt. Col. Patricia Fornes, USAF, assumed command of the 740th Missile Squadron at Minot Air Force Base, North Dakota, becoming the first woman commander of a combat missile squadron.

Becoming operational in the 1990s, the C–17 Globemaster III was the first USAF large transport able to land on relatively short runways.

July 5–12: USAF cargo aircraft airlifted U.S. soldiers and their equipment from Germany to Macedonia to help United Nations forces prevent the spread of fighting in Serbia.

August 6: Dr. Sheila E. Widnall became the first woman secretary of the Air Force and the first woman to head any of the military services.

September 30: Reflecting a post–Cold War downsizing trend, five USAF bases closed, including Chanute (Illinois), Mather (California), Williams (Arizona), Bergstrom (Texas), and Carswell (Texas).

October 3–4: After an Army MH–60 Black Hawk helicopter was shot down during a battle in Mogadishu, Somalia, pararescueman TSgt Timothy A. Wilkerson, USAF, ran through enemy fire repeatedly to carry out five wounded Army Rangers. For his heroism, he earned the Air Force Cross.

October 5–13: In Operation RESTORE HOPE II, C–5 Galaxy and C–141 Starlifter aircraft transported 1,300 troops, 18 M–1 Abrams tanks, and 44 Bradley infantry fighting vehicles from the United States to Somalia in nine days. Some flights went nonstop in 18 hours with four aerial refuelings on the way. The purpose of the deployments was to protect U.S.

forces who had come under heavy attack during a United Nations food-distribution effort in Somalia.

December 2–13: In one of the most challenging space missions ever, astronauts aboard the space shuttle *Endeavour,* piloted by Col. Richard O. Covey, USAF, performed a record five spacewalks to repair the Hubble Space Telescope.

December 7: The Air Force Reserve acquired its first B–52 bombers, which went to the 917th Wing at Barksdale Air Force Base, Louisiana.

December 17: The first B–2 Spirit bomber, *The Spirit of Missouri,* arrived at Whiteman Air Force Base, Missouri. The B–2, essentially a flying wing, was the first "stealth" heavy bomber.

1994

January 10: Crewmen in a 56th Rescue Squadron HH–60G Pave Hawk helicopter earned the Mackay Trophy by rescuing six sailors from their damaged tugboat off the coast of Iceland.

January 13: The final F–15 Eagle of the 32d Fighter Group departed Soesterberg Air Base, ending 40 years of USAF operations in the Netherlands.

January 15: Hungary, Rumania, and Bulgaria granted overflight rights for F–16 Fighting Falcons deploying from Germany to Turkey, saving them two hours and marking the first flight of USAF fighters on an operational mission over these countries since World War II.

January 25: A Titan II booster launched the unmanned space probe *Clementine I* toward the Moon—part of the first U.S. lunar mission since *Apollo 17* in 1972.

February 7: The first Titan IV/Centaur rocket boosted the first Military Strategic and Tactical Relay Satellite into geostationary orbit. This system would provide the U.S. military secure, survivable communications through all levels of conflict.

February 10: Lt. Jeannie Flynn completed training in an F–15E Eagle to become the first woman fighter pilot in the Air Force.

February 18: USAF aircraft deployed to France for the first time in more than 20 years. The five KC–135 Stratotankers flew from French bases to refuel aircraft patrolling airspace over Bosnia-Herzegovina in Operation DENY FLIGHT.

February 28: As part of Operation DENY FLIGHT, two F–16 Fighting Falcon pilots of the 526th Fighter Squadron shot down four Serb Jastreb-

Galeb attack aircraft over Bosnia during the first combat in North Atlantic Treaty Organization history.

April 10: Two F–16 Fighting Falcons struck a Bosnian Serb command post near Gorazde in Serbia after Bosnian Serbs attacked United Nations personnel in the enclave. This was the first close air support mission of Operation DENY FLIGHT and the first air-to-ground bombing in the history of the North Atlantic Treaty Organization.

April 14: Two F–15 Eagles of the 53d Fighter Squadron mistakenly shot down two Army UH–60 Black Hawk helicopters over northern Iraq, killing 26 people, including 15 Americans.

May 3: The last B–52G Stratofortress went into storage at Davis-Monthan Air Force Base, Arizona. The only B–52s left in the active USAF inventory were H models.

May 6: 1st Lt. Leslie DeAnn Crosby became the first Air Force Reserve woman fighter pilot after she graduated from an F–16 Fighting Falcon training course in Tucson, Arizona.

June 26: A 60th Military Airlift Wing C–5 Galaxy airlifted a 34-ton magnetic-resonance imaging system to Chernobyl, Ukraine, to help medical personnel treat victims of a 1986 nuclear accident.

June 29: A U.S. space shuttle visited the Russian space station *Mir* for the first time.

June 30: United States Air Forces in Europe ended its presence in Berlin, Germany, after 46 years.

July 1: Responsibility for maintaining the readiness of the nation's intercontinental ballistic missile force transferred from Air Combat Command to Air Force Space Command, which had previously assumed responsibility for missile warning, space surveillance, space launch, and satellite control.

July 1: The 184th Bombardment Group in Kansas became the first Air National Guard unit to be equipped with the B–1B Lancer.

July 22: As part of Operation SUPPORT HOPE, a humanitarian-relief operation for refugees from the Rwandan civil war, C–5s and C–141s began airlifting equipment and supplies from Germany to Uganda and Kenya. C–130s transported the cargo from there to refugee camps in Zaire. By August 7, they had delivered 3,660 tons of relief cargo. At least 22 airlift wings and groups participated.

August 2: Two B–52 Stratofortresses of the 2d Bombardment Wing on a show-of-force mission to Kuwait set a world record circumnavigating Earth. The 47-hour flight took five aerial refuelings and delivered 54

bombs to a range near the Iraqi border on the fourth anniversary of Iraq's invasion of Kuwait.

September 19: Operation UPHOLD DEMOCRACY commenced. U.S. military forces deployed to Haiti to restore the country's democratically elected president and stem the flow of Haitian refugees to the United States. The Air Force provided airlift for the peaceful invasion.

September 26: A B–52 Stratofortress, a B–1B Lancer, and a KC–10 Extender landed at Poltava Air Base, Ukraine, marking the first time since World War II that U.S. bombers had landed in that country. B–17 Flying Fortresses had flown there 50 years earlier on shuttle bombing missions against Nazi targets in eastern Europe.

September 30: Reflecting the continuing downsizing trend that occurred in the wake of the Cold War, five more USAF bases closed, including Grissom (Indiana), Loring (Maine), Lowry (Colorado), Richards-Gebaur (Missouri), and Rickenbacker (Ohio).

October 4: F–16 Fighting Falcons replaced the last F–4 Wild Weasel aircraft in the performance of suppression of enemy air defenses missions.

October 10: After Iraqi troops massed near the Kuwaiti border, USAF cargo planes began flying additional U.S. forces to the Persian Gulf region in an operation called VIGILANT WARRIOR. During October the number of USAF aircraft in-theater increased from 77 to 270, including F–15E Eagles, F–16 Fighting Falcons, and A–10 Thunderbolt IIs.

October 14–16: In their first strategic mission, two C–17 Globemaster IIIs transported military equipment and supplies from Langley Air Force Base, Virginia, to Saudi Arabia.

November 21–23: As part of Project SAPPHIRE, C–5s transported more than 1,300 pounds of highly enriched uranium from the former Soviet Republic of Kazakhstan to the United States to protect it from terrorists, smugglers, and unfriendly governments.

1995

January 1: The first Air Force Reserve KC–135 associate unit, the 931st Air Refueling Group, activated.

February 3: Lt. Col. Eileen M. Collins, USAF, became the first woman pilot of a space shuttle.

March 31: The first woman USAF bomber pilot, 2d Lt. Kelly Flinn, began B–52 flight training at Barksdale Air Force Base, Louisiana.

April 8: Despite being hit 12 times by small-arms fire during takeoff, a USAF C–130 Hercules aircraft returned safely to Italy after delivering flour to Sarajevo, Bosnia, as part of Operation PROVIDE PROMISE.

April 19: After a truck bomb exploded and partially destroyed a federal building in Oklahoma City, killing 169 people and injuring more than 400 others, the Air Force airlifted firefighters, urban search-and-rescue teams, investigators, and medical personnel from all over the United States to Oklahoma.

April 27: Air Force Space Command declared the Global Positioning System satellite constellation fully operational. The system provides accurate geographical coordinates for personnel moving on the ground, sea, or air.

June 2–3: Two B–1B Lancer bomber crews flew around the world in a record 36 hours, 13 minutes, 36 seconds, refueling in flight six times and earning the crews the Mackay Trophy.

June 2–8: After a surface-to-air missile downed his F–16 Fighting Falcon fighter over Bosnia, Capt. Scott O'Grady, USAF, evaded capture by hostile forces for six days until he was rescued by Marine Corps helicopters.

June 27–July 7: For the first time, a U.S. space shuttle, the *Atlantis,* docked with the Russian space station *Mir.*

June 30–August 10: In Operation QUICK LIFT, C–5 Galaxies and C–141 Starlifters airlifted British and Dutch forces, comprising a United Nations rapid-reaction force, to Croatia.

July 29: Air Combat Command activated the 11th Reconnaissance Squadron, the first unit of unmanned aerial vehicles, reflecting the Air Force's increasing reliance on unmanned aircraft in combat-support roles.

August 30: The North Atlantic Treaty Organization launched Operation DELIBERATE FORCE, an intensive air campaign against Serb ground targets in Bosnia-Herzegovina. Together with a Bosnian-Croatian ground offensive, the air attacks persuaded the Serbs to agree to peace terms by the end of the year.

September 14–30: The Air Force airlifted more than 30 tons of medical supplies from Charleston Air Force Base, South Carolina, to Hanoi, Vietnam, marking the first USAF humanitarian-airlift mission to Vietnam since 1975.

September 15–21: After Hurricane Marilyn devastated islands in the eastern Caribbean Sea, Air Mobility Command, Air Force Reserve, and Air National Guard cargo aircraft airlifted nearly 1,000 tons of relief cargo to the Virgin Islands. This disaster-relief operation was the first to employ C–17 Globemaster III aircraft.

September 30: Reflecting ongoing reductions in the post–Cold War Air Force, two former Strategic Air Command bases closed—Castle in California and Plattsburgh in New York.

October 28–December 18: In an operation called VIGILANT SENTINEL, the Air Force first tested the air expeditionary force concept, deploying F–16 Fighting Falcons of the 20th Fighter Wing and the 347th Wing to Bahrain.

December 6: Transports began airlifting American troops and equipment into Bosnia in support of a North Atlantic Treaty Organization peacekeeping operation called JOINT ENDEAVOR. The operation enforced a peace agreement initialed by the presidents of Bosnia, Croatia, and Serbia at Wright-Patterson Air Force Base, Ohio, and later signed in Paris, France.

1996

January 9: After three-and-a-half years, Operation PROVIDE PROMISE officially ended. During this international operation—the longest sustained humanitarian airlift in history—the U.S. Air Force flew more than 4,500 sorties to deliver 62,802 metric tons of cargo to Sarajevo and other parts of Bosnia-Herzegovina.

April 3: Secretary of Commerce Ronald Brown was among the people killed when the 76th Airlift Squadron CT–43 transport airplane in which he was a passenger crashed into a hillside near Dubrovnik, Croatia. Secretary Brown had been on an economic-development mission to Serbia.

April 9–25: Operation ASSURED RESPONSE evacuated by air more than 2,000 noncombatants from Liberia during civil unrest there. For this operation, USAF aircraft, including MH–53 Pave Low helicopters, KC–135 Stratotankers, C–130 Hercules cargo airplanes, MC–130 Combat Talons, and AC–130 Spectre aircraft flew 94 missions.

May 5: Col. Betty L. Mullis, USAF, assumed command of the 940th Air Refueling Wing, becoming the first woman to command a flying wing.

May 31: The Air Force awarded the largest military contracts ever for the production of 80 additional C–17 Globemaster III transports over the course of seven years at a cost of $16.2 billion. The new aircraft would bring the C–17 fleet up to a total of 120, which would allow the retirement of most of the aging C–141 Starlifters.

June 11: Air Combat Command acquired its first E–8 joint surveillance target attack radar system aircraft. The E–8 airplane, capable of providing detailed radar information about ground targets, had been tested

during its development phase in Operations DESERT STORM and JOINT ENDEAVOR.

June 25: Terrorists bombed the Khobar Towers near King Abdul-Aziz Air Base in Saudi Arabia, killing 19 USAF members and injuring some 300 other Americans in the worst terrorist attack against American military personnel since the bombing of a Marine Corps barracks in Beirut, Lebanon, in 1983. The Americans were participating in Operation SOUTHERN WATCH to deter Iraqi aggression against Kuwait and Saudi Arabia. As a result of the bombing, most USAF personnel in Saudi Arabia moved to remoter and more easily defended sites in the desert.

September 2–3: As part of Operation DESERT STRIKE, the Air Force flew B–52 Stratofortresses to the Middle East to launch 13 cruise missiles against military targets in Iraq. This operation came in response to Iraqi troops' seizure of the city of Irbil, located in a zone protected by the United States for Kurds in northern Iraq.

September 3: The 11th Reconnaissance Squadron began operating the RQ–1B Predator, an unmanned aerial vehicle designed for aerial surveillance and reconnaissance, over Bosnia-Herzegovina.

September 15: Operation PACIFIC HAVEN commenced. The Air Force airlifted thousands of refugees driven from their homes in northern Iraq to Andersen Air Force Base, Guam, where they were processed for settlement in the United States.

1997

January 1: Operation NORTHERN WATCH replaced Operation PROVIDE COMFORT, enforcing a no-fly zone in northern Iraq above the 36th parallel of latitude.

January 6: The Air Force commissioned Abdullah Hamza Al-Mubarek, its first Muslim chaplain candidate.

January 31: This date marked the activation of the 31st Air Expeditionary Wing—the first expeditionary wing in the Air Force. Such wings would be available for rotational deployments worldwide.

February 17: The Air Force Reserve became a major command—the Air Force Reserve Command—reflecting the growing integration of Reserve and regular forces and the increasing role of the Reserve in regular USAF operations.

February 18–March 3: In Operation ASSURED LIFT, the Air Force airlifted African peacekeeping forces to Liberia to restore order after a civil war there. Five C–130s of the 37th Airlift Squadron, 3d Air Expeditionary

Group, airlifted 1,160 peacekeepers and 452 tons of their cargo from various African countries to Liberia.

March 17: Operation GUARDIAN RETRIEVAL evacuated U.S. citizens and other foreigners from Zaire, where civil unrest threatened them. Special Operations Command provided personnel and aircraft for the joint task force, including MC–130s and MH–53s. Air Mobility Command C–5s, C–17s, C–141s, and KC–135s also took part. By the end of March, the operation had flown 57 missions and had transported 532 passengers.

March 21: At Pensacola, Florida, Lt. Col. Marcelyn A. Atwood became the first woman to command a training squadron and the first USAF officer to command a Navy squadron. The squadron trained both Air Force and Navy pilots.

April 1: B–2s became operational at Whiteman Air Force Base, Missouri, where six of the aircraft were initially based to serve with the 509th Bomb Wing.

The Air Force's B–2 Spirit, with an unrefueled range of approximately 6,000 nautical miles, can deliver a variety of precision-guided munitions.

April 1: Air Mobility Command acquired all stateside C–130 units from Air Combat Command.

June 10: An MC–130 crew from the 352d Special Operations Group evacuated 56 people, including 30 U.S. citizens, from Brazzaville, Congo, to save them from civil strife. Under the command of Lt. Col. Frank J. Kisner, USAF, the crew earned the Mackay Trophy for the outstanding flight of the year.

August 1: The aircraft corporations Boeing and McDonnell Douglas merged, leaving only one U.S. manufacturer of large airliners.

September 7: At Dobbins Air Reserve Base, Georgia, test pilot Paul Metz piloted the extremely maneuverable F–22 Raptor in its first flight. A new stealth fighter with the ability to cruise supersonically, the F–22 would replace the venerable F–15 for air-superiority missions.

An F–22 Raptor launches an AIM–9 Sidewinder missile during a test.

October 12: The Air Force began a relief airlift to Indonesia to help fight forest fires there. Three Wyoming Air National Guard C–130s from the 153d Airlift Wing, equipped with the Modular Airborne Fire Fighting System, dropped 685,000 gallons of water and fire retardant on fires in Java and Sumatra, each airplane dropping up to 3,000 gallons at a time. The operation concluded in early December after 194 sorties.

December 27: After Typhoon Paka struck Guam with winds up to 236 miles per hour, C–5s, C–141s, C–130s, and KC–135s airlifted relief equipment and supplies to Andersen Air Force Base on the island, delivering more than 2.5 million pounds of cargo by January 4.

1998

February 11: A B–1B bomber first dropped a Joint Direct Attack Munition, a conventional bomb fitted with satellite-guidance equipment, over a test range at China Lake, California.

February 23: B–2s deployed overseas for the first time, flying from Whiteman Air Force Base, Missouri, to Andersen Air Force Base, Guam.

February 28: The RQ–4 Global Hawk first flew. This new unmanned aerial vehicle, designed for high-altitude, long-range, long-endurance reconnaissance missions, took off from Edwards Air Force Base, California, on a 56-minute flight. The aircraft, with a wingspan of 116 feet, was

built to fly at an altitude of up to 65,000 feet and photograph an area the size of Kentucky in 24 hours.

July 25: The Navy commissioned the USS *Harry Truman*, its eighth *Nimitz*-class aircraft carrier, at Norfolk, Virginia.

August 20: The United States launched more than 75 Tomahawk land-attack missiles from ships and submarines against terrorist targets in Afghanistan and Sudan in retaliation for the bombings of US Embassies in Kenya and Tanzania on August 7 that killed 257 people.

September 22: The Air Force began airlifting relief supplies to the victims of Hurricane Georges. Air Mobility Command, Air Force Reserve, and Air National Guard transport crews delivered water, generators, construction supplies, plastic sheeting, and ice from all over the United States to Puerto Rico, the Dominican Republic, and southern Mississippi, flying at least 150 missions.

October 29: Former senator John H. Glenn, Jr., the first U.S. astronaut to orbit Earth (1962), returned to space in the space shuttle *Discovery* to test the effects of microgravity on the elderly. At 76 years of age, he was the oldest person ever to enter space.

November 6: USAF transport crews and aircraft began airlifting 7.4 million pounds of relief cargo to Honduras, Nicaragua, Guatemala, and El Salvador after those countries were devastated by Hurricane Mitch, which claimed more than 10,000 lives. By the time the airlift ended on March 19, 1999, the crews had flown more than 200 missions.

December 4–15: The crew of the space shuttle *Endeavour* completed the first International Space Station assembly mission, which involved delivery and attachment of *Unity*, the first U.S. module, to Russia's previously launched *Zarya* module. The crew members also launched the USAF *MightySat I* to evaluate composite materials, advanced solar cells, and other technology.

December 9: President William J. Clinton awarded an honorary fourth star to Gen. Benjamin O. Davis, Jr., the first black USAF general and the leader of the "Tuskegee Airmen" in World War II.

December 16: Operation DESERT FOX commenced with the launch of cruise missiles and air strikes by the United States and Great Britain against Iraqi targets after Iraq refused to allow United Nations weapons inspectors to continue their work. The four-day operation, which hit some 100 enemy sites, destroyed weapons-production facilities. The largest air campaign against Iraq since the Southwest Asia War of 1991, DESERT FOX involved the first combat use of B–1B Lancer bombers.

1999

January 24: A Navy F–18 launched the Raytheon-built AGM–154A joint standoff weapon for the first time in combat against an Iraqi air defense site.

February 7: From Cape Canaveral, Florida, a Delta II rocket launched *Stardust,* the first spacecraft designed to intercept a comet and return samples to Earth. The National Aeronautics and Space Administration scheduled *Stardust* to rendezvous with *Comet Wild-2* on January 2, 2004.

February 17: The first C–130J, a new transport with six-bladed propellers, advanced avionics, and shorter takeoff and landing capability, arrived at Keesler Air Force Base, Mississippi, to serve with the 403d Wing.

March 21: Bertrand Piccard of Switzerland and Brian Jones of Britain completed the first balloon flight around the world, landing near D'khla, Egypt, after ascending from Chateau-d'Oex, Switzerland, on March 1.

March 24: To save ethnic Albanians living in the Serb province of Kosovo from forced eviction and genocide, the North Atlantic Treaty Organization launched Operation ALLIED FORCE against Yugoslavia. Exclusively an air campaign, ALLIED FORCE was the first combat operation against a sovereign nation in the 50-year history of the alliance. The United States, which called its portion of the operation NOBLE ANVIL, used B–2 Spirit bombers for the first time in combat. F–15 pilots shot down two enemy MiG–29s on the first day of the conflict.

March 26: On the third day of Operation ALLIED FORCE, one F–15C pilot shot down two MiG–29s in aerial combat over Yugoslavia.

March 27: For the first time, an F–117 stealth fighter was shot down in combat. Enemy ground fire brought down the Nighthawk over Yugoslavia. Capt. John A. Cherrey, an A–10 pilot, earned the Silver Star for locating the downed pilot, who was rescued by helicopter the same day.

March 27: A computer virus called "Melissa" swept across the Internet, destroying electronic programs and databases. Air Force systems escaped serious damage with the help of an Air Combat Command antivirus program.

April 4: A USAF C–17 Globemaster III airlifted relief supplies from Dover Air Force Base, Delaware, to Tirana, Albania, for refugees from Kosovo at the start of Operation SUSTAIN HOPE (SHINING HOPE), a humanitarian-airlift counterpart of the ongoing Operation ALLIED FORCE (NOBLE ANVIL). In the first month, allied transports, including C–5s, C–17s, and C–130s, airlifted more than 3,000 tons of food, medicine, tents, supplies, cots, blankets, sleeping bags, and other relief cargo to refugees who had fled to camps in Albania, Macedonia, and

Montenegro. Maj. Gen. William S. Hinton, Jr., USAF, commanded the operation.

April 17: For the first time, the Air Force sent the RQ–1 Predator on flights in a combat zone. The unmanned aerial vehicle performed reconnaissance over Serbia during Operation ALLIED FORCE.

May 1: The first Air Force Reserve Command units that were mobilized in support of Operation ALLIED FORCE entered active duty service. Eventually, six tanker wings and one rescue wing were called to active duty.

May 2: Serbian ground forces shot down an F–16 over Yugoslavia, the second and last USAF aircraft lost to enemy fire in Operation ALLIED FORCE; an MH–60 helicopter crew rescued the pilot.

May 4: An F–16CJ pilot shot down a Yugoslavian MiG–29 fighter over Kosovo, the fifth and final USAF aerial victory in Operation ALLIED FORCE.

June 10: The North Atlantic Treaty Organization suspended air strikes against Yugoslavia after its president agreed in writing to the withdrawal of Serb forces from Kosovo, their replacement with multinational peacekeeping forces, and the return of hundreds of thousands of ethnic Albanians to that province. Noted military historian John Keegan claimed that ALLIED FORCE was the first war in history won by air power alone.

July 23: Col. Eileen M. Collins, USAF, who had been the first woman pilot of a space shuttle in 1995, became the first woman commander of a space-shuttle mission on a flight of the *Columbia*.

September 20: C–130s began airlifting U.S. troops from Australia to Dili in East Timor in a United Nations peacekeeping operation called STABILISE. After East Timor declared its independence from Indonesia, a bloody war ensued. Twenty-one C–130s, three KC–135s, two C–17s, and one C–141 eventually took part in the operation, which airlifted international peacekeeping troops to East Timor by way of Australia.

October 1: Aerospace Expeditionary Force 1 deployed to Southwest Asia—the first of 10 such forces to rotate availability for deployment duty. The new system allowed the Air Force to respond more effectively with ready forces for operations overseas and increased morale by making deployments more predictable.

October 6: The United States destroyed the first of 150 Minuteman III silos in eastern North Dakota, in accordance with the terms of the Strategic Arms Reduction Treaty with Russia.

November 2: The Air Force announced the official transfer of Howard Air Base to Panama, in accordance with the terms of the Panama Canal

Treaty of 1977. The United States had operated the base in the Canal Zone for 82 years.

November 20–21: China launched, monitored, controlled, and landed *Shenzhou*—its first unmanned spaceship.

December 20–28: At least six C–130s, one C–5, and two MH–60 aircraft of the Air Force took part in a humanitarian operation to Venezuela to relieve the victims of a flood that left an estimated 200,000 people homeless.

2000

March 2: After floods in Mozambique that left an estimated million people homeless, Operation ATLAS RESPONSE commenced. C–5s and C–17s flew 4,600 miles from a base in Germany to southern Africa, where C–130s and MH–53 and HH–60 helicopters distributed food, water, medicine, and tents. Maj. Gen. Joseph H. Wehrle, Jr., USAF, served as the joint task force commander.

May 3: Gen. Joseph W. Ralston became the first USAF officer in 37 years to serve as supreme allied commander, Europe—head of all North Atlantic Treaty Organization forces.

May 23: The first production-model T–6A Texan II aircraft arrived at Randolph Air Force Base, Texas. As a primary training aircraft, it would replace both the Air Force T–37, which had been in service for 38 years, and the Navy T–34, which had been in service for 23 years.

July 15: The final B–2 arrived at Whiteman Air Force Base, Missouri. The Air Force planned to add no more new bombers to its inventory for 35 years.

September 18: The first USAF CV–22 Osprey arrived at Edwards Air Force Base, California. Designed originally for the Navy, the tilt-wing Osprey could take off like a helicopter and fly like an airplane.

October 15: Crews from the 75th Airlift Squadron and the 86th Aeromedical Evacuation Squadron earned the 2000 Mackay Trophy for evacuating survivors of a terrorist attack from Europe across the Atlantic Ocean to Norfolk, Virginia. The 28 victims were injured in a terrorist attack on the Navy warship USS *Cole* on October 12, when it was docked at Aden in Yemen. The attack left six dead and a 20x40-foot hole in the ship's hull.

October 31: Two Russian cosmonauts and one U.S. astronaut blasted off from Baikonur Cosmodrome in Kazakhstan into space to become the first residents of the International Space Station.

The RQ–1 Predator—a medium-altitude, long-endurance unmanned aerial vehicle system—is used primarily for reconnaissance and target acquisition but sometimes to deliver ordnance.

2001

February 3: Four C–17s delivered relief equipment and supplies to India after an earthquake that killed as many as 30,000 people and left hundreds of thousands homeless. The C–17s airlifted the relief cargo from Guam, where it had been delivered by two C–5s from California. KC–135s refueled the transports as they crossed the Pacific and Indian Oceans.

February 21: An RQ–1 Predator fired a Hellfire missile to hit a tank at Nellis Air Force Base, Nevada, becoming the first unmanned aerial vehicle to destroy a ground target. Until then, the remotely controlled airplane had been used only for reconnaissance.

February 24: Lt. Col. Stayce D. Harris became the first black woman to command a USAF flying squadron, the 729th Airlift Squadron at March Air Force Base, California.

March 4: Nancy Reagan christened the newest Navy aircraft carrier, the *Ronald Reagan*, at Newport News, Virginia.

March 23: After more than 15 years of service in orbit, Russia's *Mir* space station fell to Earth.

April 1: A Chinese fighter pilot rammed a Navy EP–3 reconnaissance aircraft over international waters of the South China Sea, forcing the Navy plane to land with severe damage on Hainan Island in China. After 11 days, diplomatic efforts persuaded China to release the 24-man crew, which included one USAF member.

April 23: The RQ–4A Global Hawk completed the first nonstop crossing of the Pacific Ocean by an unmanned aerial vehicle. It flew from Edwards Air Force Base, California, to Edinburgh, Australia—a distance of 7,500 miles—in about 23 hours. The flight demonstrated the potential of the world's most advanced high-altitude, long-range, remotely operated aircraft.

May 8: Secretary of Defense Donald H. Rumsfeld designated the Air Force as executive agent for the Pentagon's space activities.

June 5: For the first time, the Air Force promoted the Air Force Reserve commander to three-star rank, reflecting the growing importance of the Reserve in the "total force." The commander was Lt. Gen. James E. Serrard, III.

July 13: Kelly Air Force Base, Texas, and McClellan Air Force Base, California, were closed, reflecting the continued reduction of the Air Force.

August 13: The Helios, an experimental, solar-powered, remotely piloted National Aeronautics and Space Administration aircraft, reached a record altitude of 96,500 feet on a flight that lasted almost 17 hours.

August 24: At Grand Forks Air Force Base, North Dakota, the Air Force imploded the last of the Minuteman III missile silos in accordance with the terms of the first Strategic Arms Reduction Treaty.

September 11: Arab terrorists hijacked four U.S. airliners, crashing two of them into the 110-story twin towers of the World Trade Center in New York and one into the Pentagon in Washington, D.C. Both towers and part of the Pentagon collapsed, and more than 3,000 people died. Heroic passengers rushed hijackers in the fourth aircraft, and it crashed in a field in Pennsylvania instead of hitting another target. The Federal Aviation Administration grounded all airliners in the United States for several days. President George W. Bush announced a war on terrorism and initiated homeland-defense efforts, including Operation NOBLE EAGLE, which involved combat air patrols within the United States.

September 14: President George W. Bush authorized the call-up of 50,000 reservists to active duty for the war on terrorism.

September 19: The Air Force awarded a contract for low-rate initial production of the F–22 to the Lockheed Martin Corporation. The contract called for production of 10 of the new stealthy air-superiority fighters.

September 20: President George W. Bush announced he was setting up an Office of Homeland Security with former Pennsylvania governor Thomas Ridge as its head.

September 27: Secretary of Defense Donald Rumsfeld announced that President George W. Bush had given authority to certain military commanders to order the destruction of hijacked civilian airliners.

September 29: The United States launched satellites from Alaska for the first time, using the Kodiak Launch Complex. Previous U.S. spacecraft had been launched only from Florida or California.

October 1: The Air Force reassigned the Space and Missile Systems Center from Air Materiel Command to Air Force Space Command, giving the latter cradle-to-grave oversight of space systems.

October 1: Gen. Richard B. Myers, USAF, assumed command as chairman of the Joint Chiefs of Staff. A USAF general had not held that office, the highest in the military, for 19 years.

October 7: Operation ENDURING FREEDOM started with air strikes against terrorist and Taliban targets in Afghanistan. B–2 Spirit bombers of the 509th Bomb Wing flew round-trip from Whiteman Air Force Base, Missouri, to Afghanistan on the longest bombing missions in aviation history. Other committed USAF aircraft included B–1 and B–52 bombers; F–15E strike fighters and AC–130 gunships; KC–10 and KC–135 tankers; E–3 airborne warning and control system airplanes; EC–130 electronic-combat aircraft; and AC–130, MC–130, and MH–53 special-operations airplanes. Navy F–14, F/A–18, and AV–8 aircraft from three carriers in the Indian Ocean also took part in the operation. Lt. Gen. Charles F. Wald, USAF, served as Operation ENDURING FREEDOM's first joint force air component commander.

October 8: As part of Operation ENDURING FREEDOM, C–17s made their first airdrops in a combat zone. The wide-bodied cargo airplanes dropped food over areas of Afghanistan under control of friendly forces.

October 9: The North Atlantic Treaty Organization (NATO) launched Operation EAGLE ASSIST, deploying airborne warning and control system aircraft from Europe to the United States to help patrol the skies after the terrorist attacks of September 11. This was the first time NATO forces were deployed in the United States for a real contingency. By the end of the operation on May 16, 2002, seven NATO aircraft had flown 360 sorties.

October 26: The Defense Department chose Lockheed Martin over Boeing to build the Joint Strike Fighter. The Air Force, Navy, and Marine Corps planned to purchase thousands of the stealthy aircraft, designated the F–35.

November 2: During Operation ENDURING FREEDOM, an MH–53 Pave Low helicopter crew from the 20th Special Operations Squadron

Lockheed Martin's X–35A Joint Strike Fighter landing at Edwards Air Force Base, California, after its first flight on October 24, 2000

earned the Mackay Trophy by rescuing another MH–53 crew whose helicopter had crashed on a rescue mission in the mountains of Afghanistan.

November 28: C–17s landed in Afghanistan on an airstrip about 80 miles south of Kandahar to deliver Navy Seabees as part of Operation SWIFT FREEDOM, which introduced U.S. ground forces into Afghanistan.

December 12: A B–1B on a bombing mission to Afghanistan crashed in the Indian Ocean about 10 miles north of its island base, Diego Garcia, but the crew survived. It was the first USAF aircraft lost in the war in Afghanistan and the first B–1 lost in combat.

December 13: President George W. Bush informed Russia that the United States would withdraw from the Antiballistic Missile Treaty of 1972, which prevented the United States from developing and implementing a missile defense system.

December 17: USAF C–17 Globemaster III airplanes began airlifting French troops from Istres Air Base, France, to Afghanistan as part of Operation ENDURING FREEDOM.

December 26: Undersecretary of Defense Pete Aldridge announced Pentagon approval of low-rate initial production of the one-ton Joint Air-to-

Surface Standoff Missile, which can penetrate enemy air defenses at ranges beyond 200 miles and destroy enemy targets with precision.

2002

January 11: A 445th Airlift Wing crew in a C–141 Starlifter airlifted the first load of Taliban and al Qaeda detainees captured in Afghanistan to the U.S. naval base at Guantanamo, Cuba.

January 31: U.S. military forces joined Philippine forces in a campaign against Abu Sayyaf, a terrorist organization seeking an independent Islamic state in the southern Philippines.

February 4: An unmanned aerial vehicle destroyed an enemy target for the first time when a remotely controlled MQ–1B Predator fired a Hellfire missile to kill a group of senior al Qaeda members in southeastern Afghanistan.

March 1: As part of Operation ENDURING FREEDOM, the United States and coalition partners launched Operation ANACONDA in eastern Afghanistan. B–52s, B–1s, AC–130s, A–10s, and F–15s supported the operation to surround and kill Taliban and al Qaeda forces regrouping south of Gardez or force them to surrender. USAF aircraft dropped laser-guided "thermobaric" bombs, designed to suck out all the air from cave complexes and kill the enemy inside.

March 1: Brig. Gen. Teresa M. Peterson, USAF, became the first active duty woman to command an operational flying wing when she assumed leadership of the 305th Air Mobility Wing at McGuire Air Force Base, New Jersey.

March 4: During Operation ANACONDA, the Air Force experienced its first combat deaths since the Southwest Asia War of 1991. Two airmen were among seven U.S. servicemen killed in two helicopter assaults near Gardez in eastern Afghanistan.

April 18: The MC2A–X, an experimental aircraft designed for electronic communications and command and control over a combat area, made its first flight at Hanscom Air Force Base, Massachusetts. Since its maiden flight occurred 227 years to the day since Paul Revere's famous ride, the new aircraft was dubbed "Paul Revere."

April 22: The Air Force announced a new standard wing structure that would include four groups: operations, maintenance, missions support, and medical.

May 13: President George W. Bush announced an agreement between the United States and Russia that would reduce the number of nuclear weapons in their arsenals by two-thirds.

May 22: The X–45A unmanned combat air vehicle flew for the first time at Edwards Air Force Base, California. It was the first unmanned aircraft designed for combat operations, such as suppression of enemy air defenses, in an extremely hostile environment.

July 22: At McConnell Air Force Base, Kansas, the YAL–1A, destined to become the world's first directed-energy combat aircraft, completed its first flight. A modified Boeing 747, the YAL–1A was designed to carry an airborne laser to destroy enemy missiles in their boost phases.

August 21: The first Lockheed-Martin Atlas V lifted off from Cape Canaveral, Florida, inaugurating a new type of launch missile. Part of the Air Force's Evolved Expendable Launch Vehicle program, the system used a standard booster, adding supplemental boosters as needed for a variety of payloads.

October 1: U.S. Northern Command activated as a new unified command under Gen. Ralph Eberhart, USAF, who remained commander of the North American Aerospace Defense Command. Including elements of all the U.S. armed services, the new command assumed responsibility for the military protection of North America.

October 1: Gen. John Jumper, Air Force chief of staff, authorized deactivation of the Peacekeeper intercontinental ballistic missile system. Each missile was originally designed to carry 10 independently targeted warheads, but the end of the Cold War made the system unnecessary.

December 9: United Airlines, the nation's second-largest airline company, declared the largest bankruptcy in aviation history.

Errata

November 9 1967: Page 102 incorrectly notes that Capt. Gerald O. Young was the first Air Force Academy graduate to earn the Medal of Honor. That particular distinction should have been credited to Capt. Lance P. Sinjan, who also earned the Medal of Honor on that date. Capt. Young was not an Air Force Academy graduate.

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