25 Years Ago, June 1991

June 26  The Sentinel 1000 airship flies for the first time. It is powered by two gimbled Porsche automobile engines, is 67 meters long and has a volume of 10,000 cubic meters filled with helium. It is built by Westinghouse Airships of Weeksville, North Carolina. The target market for the airship is law enforcement agencies for maritime and drug interdiction use. David Baker, Flight and Flying: A Chronology, p. 485.

50 Years Ago, June 1966

June 1  The unmanned Augmented Target Docking Adapter, or ATDA, for the Gemini 9-A mission is launched by an Atlas booster from the Kennedy Space Center in Florida into a 298-kilometer orbit. New York Times, June 2, p. 1.

June 2  The Surveyor 1 becomes the first U.S. spacecraft to soft land on the moon when it touches down in the Ocean of Storms and starts to transmit more than 10,000 detailed TV photos of the lunar terrain to NASA's Jet Propulsion Laboratory receiving station in Goldstone, California. New York Times, June 3, p. 2; Washington Post, June 15, p. A10; Aviation Week, June 6, pp. 27-28.

June 3  The Gemini 9 spacecraft, flown by command pilot Thomas Stafford and pilot Eugene Cernan, is launched from the Kennedy Space Center by a Titan 2 booster. Its mission includes docking with the ATDA, launched on June 1, as well as to evaluate extravehicular life-support and maneuvering equipment and procedures. The docking is completed, and on June 5, Cernan makes a “space walk” to retrieve a micrometeoroid impact detector attached to the spacecraft and moves to the full length of his 7.6-meter tether to take photos. Later, he ventures out again to test the Astronaut Maneuvering Unit. Altogether, Cernan spends more than two hours, a new record, for extravehicular activities. A highly accurate reentry and splashdown is made on June 6. New York Times, June 4, pp. 1, 10, and June 7, pp. A1, A6.

June 6  The Orbiting Geophysical Observatory, OGO 3, is launched from the Kennedy Space Center in an Atlas-Agena B booster. It is the third in a series of seven in the OGO program that studies solar wind, solar flares, magnetic field disturbances, radiation belt particles, aurora events and other phenomena. New York Times, June 8, p. 15.

50 Years Ago, June 1966

June 3  Edgar Bush, a senior technician at NASA's Goddard Spaceflight Center since 1959, who designed the first microelectronic circuitry used for spaceflight computers, dies. Bush had designed the computers for the Vanguard 3 Explorer satellites and lunar orbiters. Washington Evening Star, June 7, p. B5.

June 8  The XB-70 No. 2 experimental bomber and its F-104 chase plane collide near Barstow, California, killing its famed NASA test pilot Joseph Walker and co-pilot, Major Carl Cross. Walker held world records for flights in the X-15 rocket research aircraft. President Johnson praises the pilots who gave “their lives in advancing science and technology.” Flight International, June 12, p. 1033.


June 20  British aviatix Sheila Scott lands her Piper Comanche 260B at London's Heathrow Airport, completing the longest solo flight in a single-engine aircraft to date. Scott, who had begun her flight from Heathrow on May 18, flew some 46,116 kilometers at an average speed of over 58 kph, setting many new world flight records. Flight International, June 30, p. 1109.

June 22  PAGEOS 1, the Passive Geodetic Earth-Orbiting Satellite, is launched from Vandenberg Air Force Base, California. Similar to the earlier Echo balloon-type passive communications satellite, the PAGEOS consists of a balloon folded and packaged into a spherical canister ejected into space, then separated and automatically inflated to a 30-meter diameter sphere. It contains no instruments and is used to reflect sunlight as a source of light to be photographed over a five-year period to more accurately...
measure the size and shape of Earth than previously possible. The PAGEOS system includes multiple camera stations around the world. Washington Post, June 24, p. A5.

**June 25** A new Concorde supersonic airliner flight simulator is unveiled at France’s Sud-Aviation laboratories in Toulouse, France. Minister of Transport Andre Bettencourt hosts the ceremony that includes top French and British aviation officials and representatives from the aviation industries of both nations. Andre Turcat, Sud Aviation’s flight-test director, conducts the supersonic flight simulation. Flight International, June 30, p. 1078.

**75 Years Ago, June 1941**

**June 17** Famed American pilot Jacqueline Cochran becomes the first woman to fly a bomber across the Atlantic Ocean. Despite objections from male pilots, Cochran makes the flight after the intercession of Lord Beaverbrook who authorizes Cochran to fly after she performs 60 takeoffs and landings in Montreal. To appease male pilots who were threatening to strike, Cochran agrees to let her male co-pilot take off and land the aircraft, despite her obvious ability to do so. David Baker, Flight and Flying: A Chronology, p. 263.


**June 22** Germany invades the USSR in a massive surprise air attack known as Operation Barbarossa. This is the largest air operation conducted to date, stretching over a 3,200-kilometer front. Among the aircraft used are the Messerschmitt Bf 109 fighter, Junkers Ju-87 Stuka dive bomber and the Junkers Ju-52 transport. By nightfall, some 1,811 Soviet aircraft are destroyed, including 1,489 on the ground, while German losses amount to only 35 aircraft. Eugene Emme, ed., Aeronautics and Astronautics 1915-60, p. 41.


**June 30** Northrop Aircraft is awarded a joint Army-Navy contract to design an aircraft gas turbine engine capable of developing 2,500 horsepower at a weight of less than 1,460 kilograms. Later known as the Northrop Turbodyne, this engine becomes the first turboprop power plant to operate in North America. Eugene Emme, ed., Aeronautics and Astronautics 1915-60, p. 41; R. Schlaifer, Development of Aircraft Engines, pp. 447-448.

**100 Years Ago, June 1916**

**June 13** Robert Goddard experiments with firing a gun and a rocket in a vacuum. These tests are fundamental to proving that a reaction motion can work in either air or in a vacuum. This means that the rocket will work in the vacuum of space just as it works on Earth. This contradicts the centuries-old belief that the rocket needs air to push against. Goddard details the experiments in his Method of Reaching Extreme Altitudes (1919), but there are still many, including an editor of The New York Times, who do not understand the principle. Esther Goddard and G. Edward Pendray, eds., The Papers of Robert H. Goddard, Vol. I, pp. 167-169.

**June 18** Clyde Balsley, member of the Lafayette Escadrille flying corps, is the first U.S. pilot shot down in World War I. Balsley survives the shooting, which occurred near Verdun, France. Francis K. Mason and Martin Windrow, Know Aviation, p. 18.

**June 23** Victor Chapman becomes the first American aviator to be killed during World War I when he is shot down while flying his Nieuport in Verdun. He was flying for the famed Lafayette Escadrille before the U.S. enters the war. Edward Jablonski, The Knight Skies, p. 103, et. seq; Ezra Bowen, Knights of the Air, 102.