

25 Years Ago, April 1982

April 10 INSAT 1, India's first commercial satellite, is launched. The first of two such spacecraft built for India by Ford Aerospace, it is equipped for telecommunications, direct-broadcast TV, and weather. Prime Minister Indira Gandhi plans to use it to broadcast the coming Asian Games. However, on September 6 it fails to respond to ground commands. NASA, *Aeronautics and Astronautics, 1979-84*, pp. 363, 605.

50 Years Ago, April 1957

April 4 Covering 30,000 mi. in 43 days, three Lockheed P2V Neptunes complete the first round-the-world goodwill flight of the Royal Australian Air Force. *Flight*, April 12, 1957, p. 469.

April 4 Perry W. Pratt (no relation to the founder of Pratt & Whitney) and C. Branson Smith present their idea to Pratt & Whitney Aircraft for initiating development of a high- I_{sp} liquid oxygen (LOX)/liquid hydrogen upper-stage rocket engine. The engine could considerably increase the throw weight of an ICBM, where it could have the capability to launch a satellite. The proposal is later formalized and develops into the Pratt & Whitney RL-10 LOX/hydrogen 15,000-lb-thrust engine. Used in pairs, it becomes the Centaur upper stage and is widely used to boost space probes. D. Baker, *Spaceflight and Rocketry: A Chronology*, p. 63.

F-101B



April 8 The first two-seat version of McDonnell's Voodoo interceptor, the F-101B, flies for the first time, powered by two Pratt & Whitney J57 turbojet engines. Radar and its operator allow the Voodoo to fly in all weather. *Aircraft Yearbook*, p. 386.



Ryan X-13

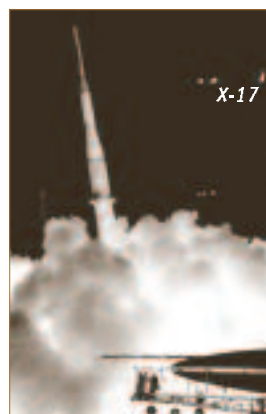
April 11 Launched by the Navy to an altitude of 126 mi., a U.S. International Geophysical Year satellite is tested above the Earth for the first time. It carries instruments to measure temperature, pressure, cosmic rays, and meteoric dust. E. Emme, ed., *Aeronautics and Astronautics, 1915-60*, p. 85.

April 11 The jet-powered Ryan X-13, which can make vertical takeoffs and landings, performs successfully in its first flight tests at Edwards AFB, Calif. E. Emme, ed., *Aeronautics and Astronautics, 1915-60*, p. 85; J. Miller, *The X-Planes*, pp. 103-104.

April 23 Details of the rocket-powered hypersonic North American X-15 research aircraft are publicly revealed for the first time. It is to be powered by a 50,000-lb-thrust XLR-99 engine from the Reaction Motors Div. of Thiokol Chemical and to be capable of speeds above Mach 5. But development problems with the advanced XLR-99 cause delays, and the first 30 or so flights are made with an "interim engine" consisting of two XLR-11 engines of the type used in the Bell X-1. Even so, with both the Interim and XLR-99, the X-15 breaks many records, some of which still stand. It makes almost 200 flights from 1959 to 1968. E. Emme, ed., *Aeronautics and Astronautics, 1915-60*, p. 85; J. Miller, *The X-Planes*, pp. 113-130.



X-15



April 24 The Lockheed all-solid-fuel X-17 research rocket, which tests reentry nosecones, reaches a speed of 9,000 mph at Patrick AFB, Fla. E. Emme, ed., *Aeronautics and Astronautics, 1915-60*, p. 85.

April 29 Jean Lennox Bird, the first woman pilot to win RAF wings, dies in the takeoff crash of her Miles Aerovan at Ringway Airport, Manchester, England. After becoming a pilot for the RAF in 1952, Pilot Officer Bird accumulated over 3,100 hr in more than 90 different aircraft types. *Flight*, May 3, 1957.



Jean Lennox Bird

April 30 Aerobee-Hi sounding rocket No. 41, launched from White Sands Proving Grounds, N.M., reaches a speed of 4,900 mph and a top altitude of 193 mi. E. Emme, ed., *Aeronautics and Astronautics, 1915-60*, p. 85.



James Van Allen

And During April 1957

—The Upper Atmosphere Rocket Research Panel is renamed the Rocket and Satellite Research Panel, chaired by James Van Allen of the State University of Iowa. Later, the radiation belts around Earth discovered by the Explorer 1 satellite are named the Van Allen Radiation Belt after him because he is responsible for the satellite's scientific instrumentation. The panel was

Past

An Aerospace Chronology
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formed in 1946 as simply the V-2 Panel of the Navy's Applied Physics Lab. E. Emme, ed., *Aeronautics and Astronautics, 1915-60*, p. 85; D. DeVorkin, *Science with a Vengeance*, p. 168.

75 Years Ago, April 1932

April 2 The American Relay League demonstrates radio communication between aircraft and amateur radio stations when Joseph Lyman of Boston flies between New York and Boston while radio operator D. Kelly contacts several stations en route. *Aero Digest*, May 1932, p. 73.

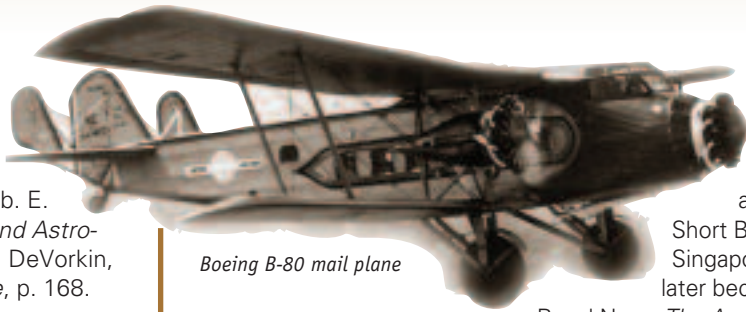
April 5 French pilot Baron Charles de Verniel-Puyrazeau, with a navigator and mechanic, covers 13,350 mi. from Istres, near Marseilles, France, to Noumea, New Caledonia, a French colony in the Pacific, in 15 flying days. They fly in the Biarritz, a Couzinet 33 monoplane with three 120-hp De Havilland Gipsy III engines. Their route takes them from Istres to Tripoli, Cairo, Basra, Karachi, Alla-

Biarritz



habad, Calcutta, Moulmein, Alor Star, Batavia, Bima, Koepang, Port Darwin, Longreach, and Brisbane to Noumea. *The Aeroplane*, April 13, 1932, p. 640.

April 8 Eustace Short of the British aircraft manufacturer Short Brothers is found dead in the cockpit of the Short Mussel amphibian plane he is testing. Eustace and his two brothers were British aviation pioneers who began making balloons in 1900. In 1906 they won a prize and became the official balloon makers to the Aero Club of Great Britain. Their interest in making airplanes began in 1907 when Eustace flew with Wilbur Wright during a visit to England. The Shorts specialized in seaplanes, which gave excellent service



Boeing B-80 mail plane

during WW I. After the war they produced the first all-metal airplane in Britain, the Silver Streak. Short Brothers seaplanes such as the Singapore, Calcutta, Rangoon, and Kent later became standard aircraft for the Royal Navy. *The Aeroplane*, April 13, 1932, p. 638.

April 10 The first three-way aerial broadcast takes place when three United Air Lines mail planes talk to each other and to ground controllers while the conversations are broadcast by NBC. The half-hour program is presented in collaboration with the Post Office Dept. both as entertainment and to teach the public about operation of the Air Mail Service. *U.S. Air Services*, May 1932, p. 13.

April 15 Ruth Nichols starts a 3,000-mi. goodwill tour in a Lockheed Vega on behalf of the National Council of Women. She stops at Pittsburgh, St. Louis, Tulsa, Oklahoma City, Wichita, Kansas City, Des Moines, and Chicago. On the tour she collects petitions signed by club women asking foreign governments to send distinguished representatives to the International Congress of Women to be held in Chicago in 1933. *Aero Digest*, May 1932, p. 76.



Ruth Nichols

April 16 French aviators Marcel Goulette and André Salel make a record 113-hr 30-min flight from Le Bourget, Paris, to Capetown in a Farman 190 monoplane. They land at four places en route and face heavy sandstorms. *The Aeroplane*, April 27, 1932, pp. 740-741.



Robert H. Goddard

April 19 Robert H. Goddard launches his first rocket with gyroscopically controlled vanes for automatically stabilized flight at Roswell, N.M. Four vanes are in the path of the exhaust gases and four project outside the nozzle area. The 10-ft 9.5-in.-long rocket, propelled by LOX and gasoline, rises to 135 ft in a 5-sec flight. E. Emme, ed., *Aeronautics and Astronautics, 1915-60*, p. 29; E. Goddard and G. Pendray, eds., *The Papers of Robert H. Goddard, Vol. III*, p. 1663.

April 24 Spanish pilot Fernando Rein Loring leaves Getafe Airport near Madrid in an attempt to make the first long-distance flight from Spain to Manila, Philippines. This is also the first time an aircraft of Spanish design and construction is used on such a venture. Loring flies a Loring E.II, a high-wing externally-braced monoplane powered by a 100-hp radial-cooled Kinner engine. Flying solo, he lands in Manila on July 11. *The Aeroplane*, June 8, 1932.

April 28 C.W.A. Scott lands at Port Darwin, Australia, beating C.A. Butler's record for the England-to-Australia flight by 5 hr 45 min. Scott makes the 10,200-mi. trip in a Comper Swift. *The Aeroplane*, May 4, 1932, p. 40.

100 Years Ago, April 1907

—Louis Blériot begins to test both his canard and Libellule flying machines, which are his first primitive monoplanes. The tests continue in July. C. Gibbs-Smith, *Aviation*, p. 244.

