

TRAVELING TIME AND SPACE

Glenn L. Martin and the Loughead brothers, Allan and Malcolm, are just getting off the ground. Literally, in 1909 and 1913, respectively, they complete maiden voyages in their own flying machines to join the ranks of the world's aviation pioneers. They soon forge their own aircraft companies and set up shops in California.



▶ **1909** Aviation pioneer Glenn L. Martin launches the maiden voyage of his first aeroplane, made of silk and bamboo, in Santa Ana, California.

▶ **1911** Heritage company Sperry successfully tests its first gyrocompass aboard the USS Delaware. It is the first major improvement in direction-finding since the magnetic compass, developed hundreds of years before. The technology wins a Collier Trophy in 1914.



▶ **1912** Allan and Malcolm Loughead form the Alco Hydro-Aeroplane Company.

The Glenn L. Martin Company is officially incorporated in Los Angeles. Among the company's early contributors are engineers Donald Douglas, James McDonnell, Chance Vought and C.A. Van Dusen, draftsman Dutch Kindelberger and factory manager Larry Bell.

Martin performs the world's first major over-ocean flight--34 miles--in his own hydroplane.



▶ **1913** Aircraft designers Allan and Malcolm Loughead fly their wood and fabric seaplane over the San Francisco Bay.

▶ **1914** The Glenn L. Martin Company delivers its first Model TT Trainer planes to the U.S. Army Signal Corps.



▶ **1915** Trying to drum up interest in his aeroplanes, Glenn L. Martin stars with Mary Pickford and his Model T plane in *A Girl of Yesterday*.

▶ **1916** The Loughead brothers establish the Loughead Aircraft Manufacturing Company in Santa Barbara, California.

The Glenn L. Martin Company merges with the Wright Company to form the Wright-Martin Aircraft Company.

Sperry introduces advanced aircraft instruments, including compass, air speed indicator, altimeter, bank indicator, angle of attack and stall warning. A compass synchronized drift site wins Elmer Sperry a Collier Trophy.

▶ **1917** Backed by a group of Ohio investors that included the owner of the Cleveland Indians baseball team, Glenn Martin pulls out of the Wright-Martin Company and reestablishes the Glenn L. Martin Company in Ohio.



▶ **1918** The Loughead F-1 Flying Boat makes its first flight. Loughead makes its first military sale--of Curtiss HS-2L flying boats--to the U.S. Navy.

Martin builds the first twin engine bomber, the MB-2.

1920S

Loughead becomes Lockheed and temporarily a division of Detroit Aircraft. Martin, also temporarily, merges with the Wright Brothers' company. The Lockheed Vega, a four-passenger monoplane, sets its first of many records -- a nonstop transcontinental flight. By decade end, both companies are supplying aircraft to the U.S. military.

▶ **1924** The Martin SC-1, a torpedo-scout bomber built for the U.S. Navy, becomes the forerunner to more than 300 subsequent Martin bombers.



▶ **1926** After the demise of the original company, Allan Loughead officially forms the Lockheed Aircraft Company, this time in Hollywood, California. The name is spelled phonetically to alleviate earlier problems with pronunciation.



► **1928** The first nonstop transcontinental flight is completed in 19 hours in a Lockheed Vega, a four-passenger wooden monoplane.

The Glenn L. Martin Company incorporates in Maryland and opens an aircraft manufacturing plant in Middle River, near Baltimore (and still in operation today). The first airplane built at the new facility is the XT5M-1 bomber.

► **1929** Lockheed Aircraft becomes a division of Detroit Aircraft. (A group of investors buys the company back in 1932.)

1930S

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As the war in Europe escalates, so too do the ranks of the Lockheed and Martin companies. Between them, the companies produce many of the country's best known war planes and transport aircraft, including Martin's China Clipper and the B-26 Marauder, and the Lockheed P-38 Lightning and XP-900, the company's first fighter. The Lindberghs and Amelia Earhart break records and inspire a nation -- all in Lockheed planes.



► **1930** Charles and Anne Lindbergh in front of Sirius. They set a transcontinental speed record in April 1930. The Lindberghs made Pan Am survey flights in 1931 and 1933, flying 30,000 miles over 4 continents.

The DL-1, the first Detroit-Lockheed made, becomes the first Lockheed aircraft to be ordered by the U.S. armed forces.

Lockheed's first fighter, the XP-900, sets a world trend in fighter design. It is the first fighter to break from the traditional configuration -- externally braced biplanes with open cockpits -- with a newly designed metal fuselage and new 600-horsepower engine.



► **1932** Amelia Earhart lands her Lockheed Vega in a meadow in Northern Ireland, becoming the first woman to fly solo across the Atlantic.

The Martin YB-10 becomes the world's fastest bomber. Martin wins a Collier Trophy for the effort. RCA (later purchased by heritage company GE Aerospace) introduces 33 1/3 disk records.

► **1933** Wiley Post makes the first solo flight around the world -- and in record time (7 days, 19 hours) in his Lockheed Vega, dubbed Winnie Mae.



▶ **1934** The Lockheed [Model 10 Electra](#) flies for the first time. The all-metal transport plane -- the first to be pressurized -- is the forerunner to today's commercial aircraft.

Robert Gross, who with a group of investors rescued the Lockheed Aircraft Company from receivership in 1932, is named chairman of the reborn company. His vision will be credited with transforming Lockheed into the aerospace giant it is to become.



▶ **1935** The Martin M-130, dubbed the 'China Clipper' by customer Pan Am, makes the first-ever scheduled trans-Pacific flight.

▶ **1937** Contract awarded for the [Lockheed P-38](#) multi-engine fighter. The P-38 would later go on to become the first U.S. Army Air Forces (predecessor to modern day Army and Air Forces) plane to shoot down a Nazi aircraft. Lockheed would produce nearly 10,000 of the planes, named "Lightning," which were recognized as one of the great fighters of World War II.

Martin develops the first power-operated revolving gun turret, a key feature on more than a dozen American and Allied aircraft during World War II.



▶ **1938** The Lockheed Model 14 Super Electra makes another record for circling the globe -- in 3 days, 19 hours and 14 minutes. This time, the pilot is eccentric millionaire Howard Hughes. One thousand police officers are on hand at New York's Floyd Bennett Field to control the throngs of people who show up to greet Hughes.

1940S

Complementing Lockheed and Martin's wartime efforts, heritage companies GE Aerospace and Goodyear Aerospace produce radar and maritime patrol ships respectively. When peacetime arrives, the Lockheed and Martin companies scale back accordingly. Lockheed keeps up production of its fighter and transport planes, while Martin focuses on the commercial airline industry, and ventures into production of missiles, rockets, and other modern weapons.



▶ **1940** Martin introduces the first [B-26 Marauder](#) medium bomber, which goes on to achieve the best survivability rate of any World War II bomber. More than 5,200 are produced.

▶ **1943** Lockheed's Burbank, California operation begins development of a new jet fighter for the U.S. Army Air Corps

(predecessor to modern military branches) -- in secret. The development team adopts the name "Skunk Works".



▶ **1944** Lockheed's XP-80 Shooting Star, the first American jet fighter, flies for the first time. The plane is built in complete secrecy by the Skunk Works. In 1947, it sets a new world air speed record, at 623.8 mph.



▶ **1945** Two B-29 heavy bombers, built by Martin and dubbed the Enola Gay and Bock's Car, drop bombs on Hiroshima and Nagasaki, ending the Pacific conflict.

Heritage company RCA begins selling its first black and white television sets for \$375.



▶ **1947** Heritage company Vought produces the Regulus I missile for the U.S. Navy. It is one of the military's first jet-powered guided missiles.

The Lockheed Navy P2V Neptune ("The Turtle"), the first land-plane designed exclusively for the Naval patrol submarine warfare mission, sets a world long-distance record, flying 11,236 miles from Perth, Australia to Port Columbus, Ohio.

▶ **1949** The Martin Matador TM-61 U.S. Air Force tactical missile flies for the first time.

The Martin Navy Viking research rocket sets a record for high altitude research at White Sands, New Mexico, by reaching space -- 158 miles above the Earth.