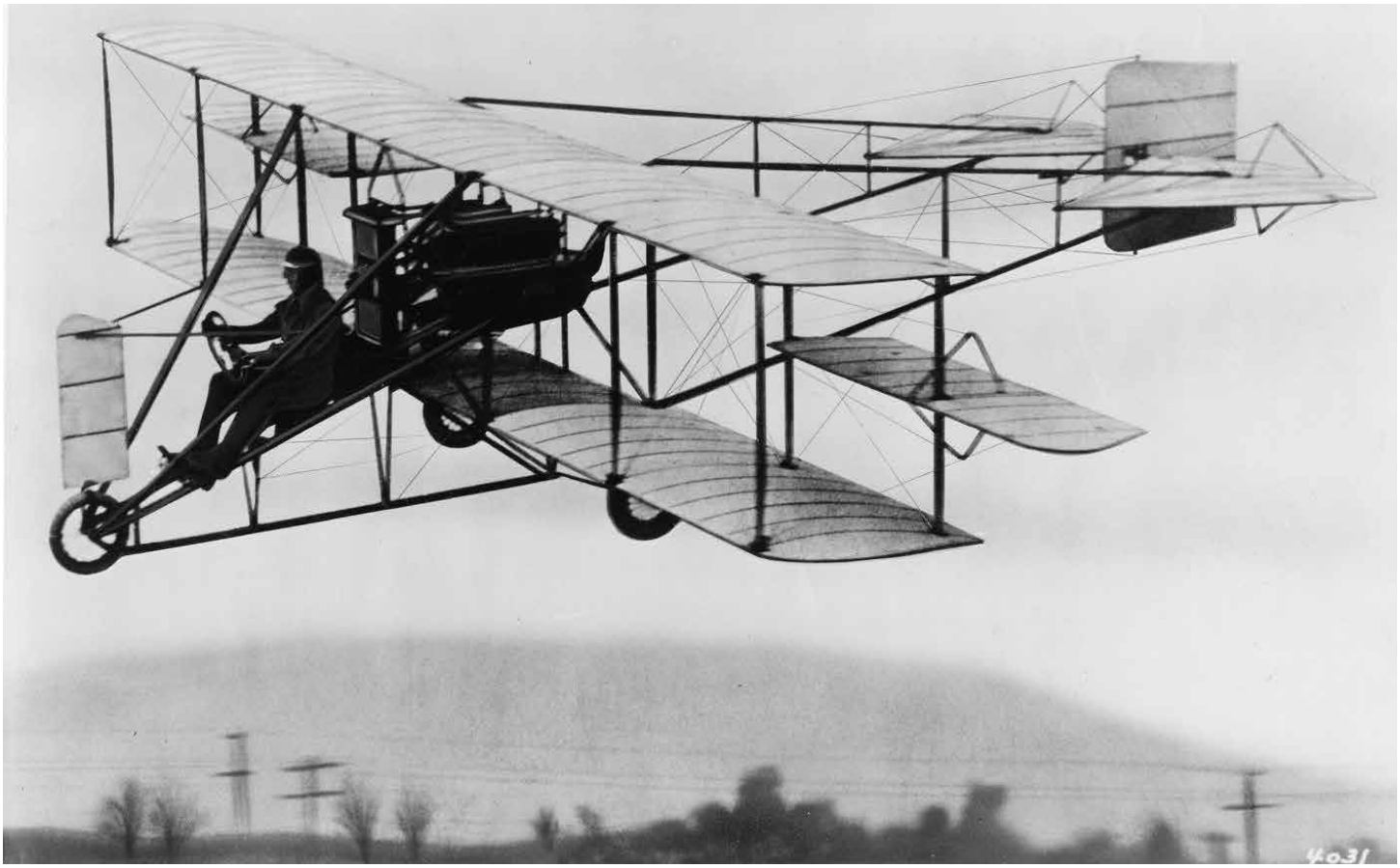
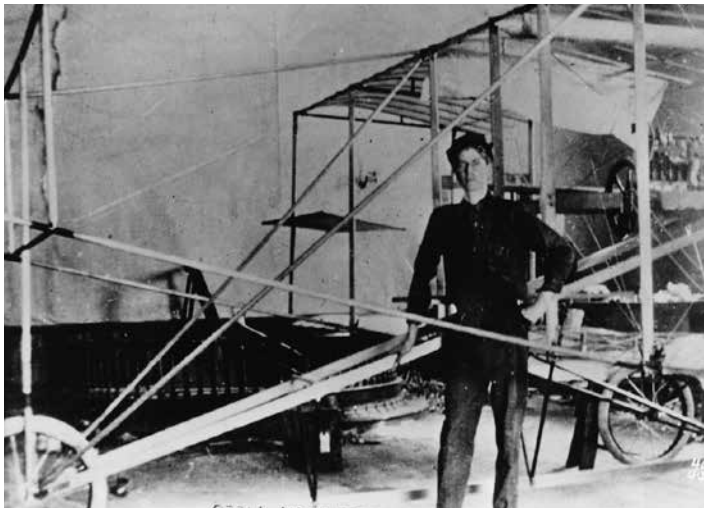


The "Flying Dude" rises above the treetops in his early aircraft.

Glenn L. Martin -- Aviation Pioneer

The pioneering aviator and industrialist, Glenn Luther Martin was born in Macksburg, Iowa on January 17, 1886 to parents Clarence and Arminta. Along with his older sister Della the family moved to Liberal Kansas where Clarence established a hardware business in 1890s while young Glenn received a formal business education. Following the westward movement to California in the early 1900s the Martin's establish a fledgling motor car and thriving garage business in Santa Ana. When the first aviation meet arrived at Dominguez Field near Los Angeles in late 1909, Glenn was highly attracted to the lore of powered flight and set his course to build his own aeroplane. Utilizing the Curtiss Pusher design and with help from his garage mechanics he assembled his first machine in a rented church emerging in August 1910 where a successful first flight was achieved on the 9th. Martin quickly converted his success into a fledgling factory business utilizing a converted cannery, establishing a flying school and performing at early barnstorming events that would take him across the country and into Canada. Incorporating in 1912 he moved to a new factory in downtown Los Angeles, attracting many of the earliest aviation pioneers including Caleb and Larry Bell and



A young Glenn Martin works on an early version of his pusher.

The Martin B-1 bomber revolutionized airial warfare

Martin T-3M torpedo bombers was built in the 1920s.

The Martin B-10 was the first all-metal bomber and was the fastest aircraft at the time.

MIT engineer Donald Douglas. New designs emerged from their genius that provided military training plane contracts that soon led to a short-lived merger with the Wright business consortium. The Wright-Martin company of 1916 hoped to capitalize on war armaments to the European combatants of WWI. Soon pressure to manufacture only licensed-built engines led Martin to abandoned California for a new start in Cleveland, OH opening a newly-built factory in 1918. Too late for war needs **Martin's MB-serie**s of aircraft became the first indigenous Air Service and Navy aerial and torpedo bombing designs that operated through the 1920s. Martin also developed a line of carrier and float-equipped torpedo bombers as the **T3M/T4M** that kept the factory humming till his next move to Maryland. With an interest in developing seaplanes for the military and commercial needs Martin saw the benefit in a mid-Atlantic coastal location, incorporating in Maryland in 1928 and quietly purchasing land in the Middle River water front community. A new metal-fabricating factory was opened in October, 1929 within two weeks of the impending stock market crash. Undaunted but struggling through the early 30's the new plant rolled out a number of naval dive bombing and patrol aircraft while a new all-metal bombing aircraft for the Air Corp began service in 1935 as the **B-10** series. As well, Martin was tapped by Pan-American Airways to construct the first Trans-Pacific flying boat beginning service in 1935 as the **China Clipper** that remains as the company's most cherished product. The late 30s brought considerable expansion to the Middle River plant with the building of the massive "B" Building

The Martin M-130 "China Clipper" helped open trans-ocean passenger service.

in 1937 intended to construct large seaplanes beginning with the Model162 as the **PBM Mariner** in 1939. Further a massive flying patrol bomber the Model 170, later name **Mars,** was begun but would not fly until 1942. With war braking out in Europe in September, 1939 Martin received a contract from the French to build a light bomber design as Model 167 that they affectionately called the "**Glenn**." A new factory, "C" Building" was raised in 78 days to meet France's needs but the contract was later turned over to the British when France capitulated in June, 1940. The British converted their metric "**Glenns**" into **Maryland**'s and used them effectively in the North Africa campaign. A follow on design the Model 187 came out of the factory in the summer of 1941 as the **Baltimore** with over 1500 serving in a similar role. While Martin was expanding with foreign sales the Army Air Corps ordered right off the drawing board Martin's Model 179 as the **B-26**, a medium bomber. A new government-financed factory as Plant II was operating by early 1942 near the main

Martin PBM Mariner was used from WII into the Cold War.

complex to handle the thousands ordered. Martin's four main combat aircraft served throughout the WWII conflict. Over 53,000 employees by the 1944 peak were tasked to production along with another 9,000 operating a second source **B-26** line in Nebraska. The McCrook field facility in Omaha would later be converted to **B-29** production where 536 Superfortresses, including 45 of the 50 Silver Plate, nuclear capable modified bombers, were completed. As the war neared its end production was curtailed and manpower was quickly cut back but Martin had new military aircraft in development along with a modern civilian passenger airliner. Prototypes of the Model 210 **XBTM-1/AM-1 Maule**r and the Model 219 **XP4M-1 Mercato**r were flying by

Martin Baltimore was used by British during WWII.

The Martin Company produced over 5,000 B-26 Marauders duinr the war. Few survive.

The AM-1 Mauler set records for bomb loads.

VJ-Day and would proceed to production contracts in the late 1940s. The innovative Model **2O2/3O3** twin-engine feeder liners ware introduced to the post-war commercial market in 1946 with the **2O2** being operated initially by Northwest Airlines. Civil Aeronautics Administration certification, though, was protracted requiring major re-work on the already delivered airframes. Subsequent losses and a weather induced crash effectively ended the **2O2** and **3O3** programs requiring restructuring loans that effectively forced Glenn Martin out of direct control of his empire. Corporately damaged the company soldiered on building its

The JRM Mars was the largest aircraft ever built for the Navy,

Martin 2-0-2 airliner was the precursor to the 4-0-4.

The Martin XB-51 made its maiden flight in 1949, but ironically lost out to the Canberra.

first two experimental jet aircraft. Neither the contemporary six-jet Model 223 **XB-48,** and the futuristic Model 234 **XB-51** would see production contracts, but the advent of turbine and rocket technology would lead the company into the upcoming space age. Initially Martin made use of German V-2 rocket technology launching the Navy **Viking** sounding rocket program that would later evolve in the mid-50s to the multi-stage **Vanguard** rocket and into satellite boosting. Advancing technology though didn't deter Martin from continuing its long focus on seaplane designs. Maturing hull technologies allowed the previously cumbersome patrol seaplanes to now compete with land-based designs. The Navy's post-war water-based needs kept the **PBM** production line open till 1947 while a new design, the Model 237 **P5M Marlin**, moved to production by 1950. The **Marlin** would actually become the last production aircraft to leave the factory in December, 1960. Commercial airliners had one last gasp in 1950 when TWA head,

Howard Hughes revitalized the feederliner concept ordering a pressurized version of the **2O2**, now designated the **4O4,** while taking on a dozen unfinished **2O2** airframes as **2O2As**. Eventually 102 **4O4**s were completed but Korean War needs delayed primary materials for production delaying airline contractual deliveries again creating financial losses that permanently moved Glenn Martin into forced retirement. This opened the stage for the dynamic George M. Bunker, who would transform the company into a space-age conglomerate during his tenure. Bunker's first project was securing a contract for the USAF to build under license the British Canberra B2 as a night intruder bomber for use in Korea. Over 400 would be built including a long-wing version serving as an early high-altitude surveillance platform. Seaplanes were still in the Navy's interests especially with turbine power. Looking for its own nuclear-capable deterrent, but curiously disguised as a high speed minelayer, the Model 275 **P6M SeaMaster** was rolled out in late 1954. The **P6M** was intended to

The Martin P5M served with the Navy into the 1960s.

be the centerpiece of an elusive Seaplane Strike Force concept that allowed the Navy to position strike aircraft in any navigable body of water supported by submarine or tenders. A design flaw in the two prototypes precipitated their loss in testing but pre-production demonstrators and eight production airframes were nearing initial squadron deployment when the Navy abruptly cancelled the program in August, 1959. The Polaris submarine and nuclear carrier programs gave the Navy its nuclear deterrent relegating the **SeaMaster** to the scrapper's torch. The Martin seaplane area was at its end when the last **Marlin** left the factory late in 1960 but the company under Bunker was heading in a new direction. Already in production at a new facility in Denver, CO was the massive **Titan** ICBM that eventually saw a 50-year production history as both a nuclear deterrent and a satellite launcher. As well, the US manned space program chose the Model 424 **Titan II** as the launch vehicle for the Gemini missions of the mid-60s. The missile cores were shipped to Middle River for man-rating redundancy of the **Titan**'s various systems to insure astro-

Martin P6M SeaMaster was designed as a nuclear bomber but the Navy canceled the contract.

naut safety of the 10 orbiting missions. Always looking for business opportunities Bunker also established an industrial research laboratory that boasted hundreds of patents in varied scientific fields. Another factory complex was established in Orlando, FL to build small missiles, initially the air-to-surface **Bullpup** and later the **Sprint** anti-ballistic missile interceptor and **Pershing** a mobile theatre ballistic missile. Numerous electronics programs were also produced including **Missile Master**, an integrated air defense network to guard the US from Russian bomber attack remained in service for decades. In 1961, the now Martin Company, saw its first major merger with an unusual alliance with American Marietta, whose product line ran from paints, chemicals, aluminum, concrete and aggregates. The Martin Marietta (**MM**) marriage under Bunker proved to be a profitable move that saw numerous other acquisitions throughout the 60s into the 1990s making the corporation a well-diversified entity. With the corporate move away from aircraft production the advent of nuclear power lured the company into an intensive research into developing a series of radioisotope thermoelectric generators (RTGs) for use in remote areas and in spacecraft. Hypersonics and lifting body research was also under development at this point and Martin Marietta became a prime contractor for the Model 366 **X-20 DynaSoar** space plane providing a modified Titan II booster. Fear of militarizing space caused that program's demise but the technology was quickly reapplied to the **PRIME X-23** and **X-24** lifting body demonstrators that became the basis for the Space Shuttle program that **MM** would later build the External Tanks for all 135 launches. Locally Martin's original Middle River plant, through the 70s and continuing into the present, has taken on numerous rolls as an aircraft modification center, built sub-components for other manufacturers, and today assembles engine thrust-reverser assemblies and **Vertical Launch System** (VLS) canisters for the Aegis cruiser fleet. Corporately the company continued to thrive into the 1990s under changing leadership, acquiring the Space Systems Division from General Dynamics in 1994 moving into astronautics and a year later arranged another bold consolidating merger. A 10 billion dollar exchange of stock between Martin Marietta and Lockheed formed the **Lockheed Martin Corporation** creating, at that time, the largest aerospace entity in existence-a **legacy** that continues today maintaining the name of its progenitor.

Martin X-24 lifting body was developed for NASA.

Titan II rocket assembled in Martin's Middle River plant.