**By Jack Breihan,**

Retired Professor of History at Loyola University Maryland

A plane the size of a Boeing 747 jumbo jet powered by propellers, the Martin Mars was decades ahead of its time. These huge flying boats were built in Baltimore County between 1941 and 1945 at Martin State Airport. Remarkably preserved and still flying more than half a century after they were built, one of these pioneer airplanes may return home to Middle River to be the centerpiece display of the Maryland Aviation Museum.

The story of the mighty Mars goes back to the glamorous days of Pan American Airlines' "China Clippers" carrying rich and famous passengers, generals and diplomats (and not a few spies) to the Orient. Powered by four huge engines, the Martin Clippers, also built at Middle River, could carry up to 45 passengers, luggage, and airmail. But on the long over water route from San Francisco to Hawaii, the passenger load shrank to eight. At a cruising speed of only 163 miles per hour, it took nearly 18 hours to reach Honolulu and five days of flying to reach Manila. Pan American pampered passengers with a crew of ten, private berths, and overnights at company hotels enroute.

After building the first three China Clippers, the Glenn L. Martin Aircraft Company looked to bigger and better long-range flying boats. In 1938, the U.S. Navy ordered the prototype Mars as a patrol bomber. The Museum owns the original wind tunnel model used during the design - the 20% scale model has a 40 foot wingspan! Twice the size of the China Clippers, the Mars was originally designed as an "aerial battleship" carrying ten tons of bombs and bristling with four powered machine-gun turrets. With a wingspan of 200 feet and a two-story hull 120 feet long, the Mars seemed more like a ship than an airplane. Like a ship, it was built from the keel up and launched backwards into the water after being christened by the obligatory bottle of champagne. The spacious interior included a galley, showers, and sleeping rooms for a crew of 13. There were even separate officers' and enlisted men's messes! The aircraft carried 301 passengers plus crew on one recording breaking flight.

The Mars began flight trials in 1941, just before Pearl Harbor. Early combat experience proved to the Navy that the lumbering aerial battleship (like most flying boats, the original Mars was slow, managing cruising speeds of only 140-185 miles per hour) would be fatally vulnerable to fighters. But the war furnished another urgent mission for long-range aircraft - flying cargo across the submarine-infested Atlantic. As losses of merchant ships mounted, transatlantic airfreight looked like an attractive alternative to the vulnerable Liberty Ships. The industrialist Henry Kaiser declared that he could build 500 Mars in a year in his shipyards. Glenn Martin, reluctant to hand over the plans to his prized aircraft, countered with proposals to build even larger six-engine flying boats.

Improvements in antisubmarine warfare eventually ended this discussion. The original Mars, shorn of her warlike turrets and bomb-bays, was then converted into a transport. It ferried tons of rare ores from Africa and priority cargo to Hawaii. The Navy was so pleased with the ex-bomber that it ordered twenty more Mars configured as cargo planes. Six were built before postwar cutbacks terminated the program, marking the end of Glenn Martin's dream of giant flying-boat airliners. Speedier and more efficient wheeled airliners were now possible, using the network of modern land airports constructed during the war.

For eleven years between 1945 and 1956 the Mars fleet traversed the wide Pacific. Like ships, each had been named: Philippines, Hawaii, Marianas, Caroline, and Marshall Mars. The Navy Mars carried cargoes of blood plasma and spare parts to Pacific bases, and flew back with litters of wounded soldiers from Korea.

By 1956, newer and faster landplanes made the Mars obsolete. The Navy sold the four remaining planes to Forest Industries Flying Tankers, Limited, a Canadian company that continues to operate the two remaining aircraft. Based at Sproat Lake in British Columbia, the Mars were converted from long-range cargo planes into short-range water bombers. Special scoops were mounted, enabling the planes to take on 60,000 gallons during a 20-second water run - then rain it down on a forest fire nearby. The Marianas Mars was lost in an early training accident and the Caroline Mars to hurricane winds on Sproat Lake. But the Hawaii and Philippine Mars, lovingly maintained, fought each summer's forest fires for more than forty years.

Now one of these fabled giants might come home to Baltimore County. A cross-continent flight in a huge, slow aircraft will offer a neat challenge to flight planners. As the Mars can land only on water, a route will need to be identified that offers a sufficient number of rivers and lakes along the way. Back in Middle River (where it has always been remembered in names like Mars Estates and Mars supermarkets), the giant aircraft will serve as a beacon for visitors and a monument to the area's heritage. Particular focus will be on the young, whose appreciation for this technological marvel of the past will encourage dreams of future marvels to come.

**Mars (Navy JRM) vs. Boeing 747-100**

Designed:
     Mars 1938-40
     747 1966-69
Wingspan:
      Mars 200 ft
      747 195 ft. 8 in.
Hull/Fuselage Length:
      Mars 120 ft. 3 in.
      747 231 ft. 10 in.
Engines:
     Mars 4 Wright R3350 prop engines
     747 4 Pratt & Whitney, GE, or Rolls Royce fanjets
Maximum take-off weight:
    Mars 148,500 lbs.
    747 735,000 lbs.