

HISTORIAN'S CORNER –

October 2004 – The Martin B-10 Bomber

by Matt Grogan

Lee Bogema recently gave me an interesting 3-ring binder of material containing the instructions for assembling the Martin B-10 bomber from the 1930s. Lee, who retired from Martin Denver in 1988, acquired the material in 1978 from Bucky Merrill, then president of the Baltimore Division, when Lee was Chief Engineer at Baltimore.

The binder contains assembly drawings, procedures, descriptions of the necessary tools and handling equipment, photographs and specifications collected by H. McAlister, an Orlando retiree, who worked on the B-10 at Baltimore and signed many of the drawings dated from 1934 to 1937. The first paragraph in the binder gives the feeling for the relative informality of the processes during that era: "All Model 139-WT airplanes (the Martin designation for the export version of the B-10) are completely assembled and flight tested at the factory. Immediately after the flight tests, these airplanes are carefully disassembled, the loose parts are wrapped and packed, and the entire airplane is carefully crated in 10 large boxes for export. These airplanes should be received in perfect knock-down conditions, and that by strict adherence to the following instructions no difficulty should be experienced in reassembly of the airplane."

The general configuration of the B-10 is shown in the picture on the following page. I decided to learn a little more about the history of the B-10 and found two informative web sites that I used for the rest of the story. The first is the Glenn L. Martin Maryland Aviation Museum site (<https://www.mdairmuseum.org/>), which has an extensive write-up on the B-10 and other Martin aircraft. The second is the USAF Museum site at Wright Patterson AFB (<https://www.nationalmuseum.af.mil/Visit/Museum-Exhibits/Fact-Sheets/Display/Article/197393/martin-b-10/>), which in addition to write-ups on past aircraft also has an overview of the military aviation situation at the time of the B-10.

The B-10 was the first "modern" bomber acquired by the Army Air Corps in the 1930s. The Air Corps issued a design directive in 1929 (like an RFP) and Fokker, Keystone, Douglas, Ford and Boeing all submitted designs and prototypes before Martin. After incorporation of a series of improvements suggested by the Army's Material Division, the final XB-907A Martin design won out over the Boeing and

Douglas designs in 1932 and the Air Corps awarded Martin a contract for 48 airplanes costing \$2.5M. The Air Corps eventually purchased a total of 151 aircraft between 1933 and 1936, and Martin received orders for 189 more planes from other countries. The all-metal monoplane had enclosed cockpits, streamlined monocoque fuselage, two radial engines with variable-pitch propellers, cantilevered wings with lift-enhancing flaps, integral fuel tanks, internal bomb storage, and retractable landing gear. With a top speed of 230 mph, the B-10 matched or exceeded the speed of the US pursuit aircraft of the time. Glenn L. Martin was awarded the Collier Trophy for the B-10 in 1932.

In 1934 the Air Corp needed a show of air power, and ten B-10's under command of Lt. Col. Henry "Hap" Arnold left Bolling Field near Washington, DC on July 19 for Alaska. Flying by the way of Winnipeg and Edmonton, they arrived safely in Fairbanks, Alaska, on July 24. For the next month, they flew numerous exploratory flights over Alaska, including aerial photography of 23,000 square miles of territory in only three days. The planes left Fairbanks on August 16 and returned to Washington, DC by way of Seattle and Omaha. They landed at Bolling Field on August 20, completing the round trip of more than 7,000 miles, much of it over uncharted wilderness. For commanding this flight, Hap Arnold won the 1934 Mackay Trophy. All ten of the aircraft made it back, including one that made a forced landing in Cook's Inlet in Anchorage and was dried out!

After 1936, the Air Corps lost interest in the B-10 when it was decided a longer-range bomber capable of daylight precision bombing was needed. This eventually led to the B-17 and B-29, although 119 of the 121 of the B-10s purchased by the Air Corps were still in service in the spring of 1940. The last remaining B-10 is displayed in the Air Force Museum at Wright Patterson AFB. In a letter to George Bunker, General McConnell (then Executive Director of the Air Force Museum Foundation at WPAFB) called the B-10, "one of the most significant airplanes in the history of world-wide military aviation."