

THE AIR MUSEUM

by

The Rev. Boardman C. Reed

Airplanes preserved in museums are usually of two general types, allied warplanes or famous civil aircraft. Genuine military aircraft from the "Golden Age of Flight" years -- about 1927 thru the nineteen-thirties, however, are rare indeed, and enemy warplanes of World War II are equally scarce. That some are not extinct altogether is due mainly to the untiring efforts and determination of AAHS member Edward T. Maloney of Claremont, California. (See his introduction: Vol 1, No 2, page 60)

Where in the world can the serious student of aeronautical engineering or history see in a glance the evolution of single-seater biplanes spanning almost forty years? Or examine three generations of combat fighter aircraft representing four nations? Compare pioneer German and American progress in jet propulsion during World War II? Or inspect four different Japanese combat aircraft? Or find the last remaining example of a flying wing? Only at the Air Museum can you find all these, and more.

The Air Museum is located about thirty miles or so east of Los Angeles on the northside of Foothill Boulevard (U.S. Route 66), close by the little Cable-Claremont Airport, in Southern California. The mailing address is 1625 North Mills Avenue, Claremont, California. It is believed to be the only privately owned museum in the world now open and known to feature airplanes and aeronautical exhibits exclusively, and probably its only competition is the U.S. government-operated Air Force Museum at Wright-Patterson Air Force Base in Ohio (see Vol 1, page 111). Many other museum aircraft can be found listed in various issues of the AAHS Journal.

It all started with an air-minded seven-year-old lad who loved to collect anything that had to do with military airplanes, especially historical or combat types. Countless thousands of boys have had the same general idea, including this writer some thirty years ago, but only Ed Maloney persevered and made his vision pay off. There were the inevitable model-building activities of course -- over two hundred are now on display, and he also collected thousands of photographs and technical publications.

In 1945 General Henry H. "Hap" Arnold, concerned with the historical blindness of civilians and the military alike, started a "Save One of Each" movement which developed into the present U.S. Air Force Museum mentioned above. This concept made a lasting impression on Edward Maloney, now in high school, and generated a new dream. Then came the spark: he acquired, appropriately enough, a spark-plug from a Japanese "Zero". Who could imagine he would soon have several complete Zero fighters!

Shortly after the end of World War II, Ed was looking around junk piles of scrap metal and discovered a rare Japanese rocket interceptor just ready to be cut up and melted down. He purchased it for its scrap metal value, carted home the pieces, and identified it as a Mitsubishi J8M-1 "Shusui", c/n 403, patterned after the German Messerschmitt Me 163-B "Komet". Only three had been built in Japan experimentally and this is now the last one in existence. His museum-to-be had its first piece of

real hardware. It also provided one of the first of many little problems and headaches: an inquisitive tax assessor noticed the canvas-covered fuselage behind his garage and demanded to know the value of his Chris-Craft speed boat! Not all of his problems have been so humorous or so easily resolved, however. Ed Maloney's battles continue against indifference, red-tape, and carelessness, and his own lack of funds.

Now thoroughly alert to the situation, Ed kept his eyes and ears open -- always seeking, always asking. He was soon rewarded with reports of a dusty biplane in an old warehouse. This was a real treasure, a World War I French Hanriot HD-1 single-seat scout, c/n 1398, with a 130 h.p. Clerget 9B rotary engine. It was Capt. Charles Nungesser's own personal fighter plane, complete with two Vickers .303 machine guns. The Hanriot HD-1 was flown mostly by Belgians and Italians although some other allied countries did use them to a lesser extent, and it is interesting to note that the very first U. S. Navy fighter of any description was also a Hanriot HD-1. This French fighter was contemporary with the more famous Nieuport 17. Maloney's Hanriot biplane once carried the U. S. civil registration 5934, having been flown for Hollywood movies during the late 1920's. Captain Nungesser's famous skull-and-crossbones insignia together with a coffin and two candles, all within a black heart, are on both sides of the fuselage. It is all silver, with original French insignia on wings and rudder.

Dusty old relics in obscure barns were getting hard to find even then, but scrap metal salvage yards provided a bonanza shortly after the end of World War II. In such a place Ed found the fuselage of a Japanese rocket-powered flying bomb, the Fuji Oka 11, c/n 1049. (Oka, like sakura, means "cherry blossom" in Japanese.) The fuselage still bears its original serial 1-18 indicating the eighteenth aircraft of the 1st Special Attack Corps. Japanese called them "Kamikaze" or Divine Storm, while war-time Americans mixed the two languages and called them "Baka Bombs" or foolish bombs (see Zero by M. Okumiya and Caiden, p 250 ff). After Ed had found the fuselage he searched further and finally uncovered its wings and twin tail. Such discoveries certainly require perseverance but in addition Ed has the practiced eyes that can spot small recognition features as well as the mechanical ability to rebuild airframes.

Possibly quite a number of airmen had glanced at the old fuselage rotting away behind a technical school without giving it a thought, but when Ed Maloney discovered it he immediately visualized the grand old Army P-12 of an almost forgotten era for most flyers. "They don't hardly come like that no more!" It wasn't easy to locate the remaining pieces, and one or two parts are still missing. No one dreamed that he would ever find a speed-ring cowling but years later, in another state, he did. This particular biplane is a Boeing P-12E, AC 32-17, c/n 1512. It never carried a civil registration. He completely disassembled it, cleaned and painted or plated every part, and rebuilt it a section at a time (see photo and data, Vol 1, pp 134-135, 160). It is now in its original colors: olive-drab fuselage and chrome-yellow wings, together with its first organizational insignia, the kicking mule of the famous 95th Pursuit Squadron, then at March Field, California.

Somewhere in the eastern United States, Ed next located a 1945 Japanese Army fighter in good condition but waiting to be scrapped, and he had it shipped out to the Air Museum at considerable expense. It was a Nakajima Ki.84 "Hayate" (Allied code: "Frank"), complete with a 1970 h.p. (sea-level take-off power) Nakajima Ha. 45/21 eighteen-cylinder radial engine developing 2050 h.p. in war emergency power at 2500 feet, and swinging a four-bladed, constant-speed, electrical propeller. Its Japanese number was c/n 1446, and this was continued when the U. S. Navy assigned to it Bu Aero Number 1446. The U. S. Army Air Force once flew a captured Frank at 427 m.p.h. at 20,000 feet. Ed Maloney has completely disassembled his Hayate with great care, and

is carefully restoring it at present. A few experienced and faithful friends are helping, and this writer had the privilege of joining in with the thrilling work.

The historic "Zero" fighter of the Imperial Japanese Navy is represented by two Mitsubishi A6M-5 "Zeko 52" fighters which were also rescued from scrap salvage dumps. The aft fuselage and tail section of one has been reassembled and repainted, and still retains its original number 61-120, but restoration of the remainder of this Zero is being held in abeyance until work on the Hayate is completed, among other projects.

This particular Mitsubishi A6M-5 "Zeko 52", c/n 5357, has an interesting history. The squadron marking code 61-120 indicates that it is the 120th aircraft assigned to the 261st Corps, although the first figure 2 has been omitted to conceal the identity of the organization. This was one of two Navy Zeko 52's captured in flying condition on Asilito Airfield, Saipan in July 1944, and was later flown by many American pilots.

The second Mitsubishi A6M-5 Zeko 52, c/n 82020, with the carrier code HK-102, is in such poor condition that it is used as an outside advertisement for the Air Museum. Two separate newspaper articles in the December 8, 1957 issue of the Nichi Bei Times, 1375 Eddy Street, San Francisco 15, apparently refer to both of these Zeros in an incomplete review of existing Japanese warplanes.

The last remaining Northrop flying wing was obtained from the USAF after it had been rejected by government museums. This is the Northrop N-9M-B, the last of four single-seat flying scale-models used to test and evaluate flight characteristics of the large Northrop XB-35 before a flying-wing bomber ever flew. Anyone knowing the constructor's number or other serial of this N-9M-B is urged to notify Ed Maloney. This small research aircraft is powered by two experimental and practically unknown 8-cylinder horizontally-opposed Franklin XO-540-7 engines rated something in excess of 350 h.p. although their exact power is not known. It is interesting to compare this flying wing with photos of old X-216H of 1929, Jack Northrop's first "wing".

Ed towed his flying wing behind a half-ton pick-up truck from the Norton Air Force Base, San Bernardino, and both wing stubs just barely rubbed each side of the main gate as they carefully eased it thru. His wife followed close behind to protect the trailing aircraft from other cars on the long drive home. Just as this caravan approached a bridge, the lashing used to secure one of the pusher propellers broke loose. At about 30 m.p.h. the propeller windmilled perfectly, missing every steel girder along the bridge. Louise Maloney followed in horror hardly daring to breathe. There was a loud twang as the last slanting steel beam just nicked the edge of the propeller tip, but fortunately the damage was slight.

From an aeronautical trade school that was closing up and going out of business, Ed was able to purchase one of the pioneer operational jet fighters of the world, a Messerschmitt Me 262-A which had been captured from the German Luftwaffe at the end of World War II. The USAF Evaluation serial was FE-4012. This identical airplane had experienced another period of excitement in 1948 when the USAF had asked the Hughes Aircraft Co. of Culver City to modify and clean up this particular Me 262-A for flight evaluation tests against contemporary American jet aircraft. At that time (1948) the original basic design of this twin-jet Messerschmitt was already ten years old!

From the same defunct trade school, Ed also purchased four standard examples of our wartime army fighters, but some remain in storage waiting for the time when more display space is available, a real problem even for big museums.

These four are:

Curtiss	P-40N-30-CU	Warhawk	AF 42-7369 (NX21549)	Allison V-1710-99
Republic*	P-47G-15-CU	Thunderbolt	AF 42-25234	P & W R-2800-21
North American	P-51A-10-NA	Mustang II	AF 43-6251	Allison V-1710-81
Bell	P-63A-7-BE	Kingcobra	AF 42-69080 (NX32750)	Allison V-1710-93

Note that the Republic P-47G-15-CU was built by Curtiss in Buffalo, New York. The P-51A-10-NA bears the North American factory designation NA-99, and c/n 99-22354. The pilot's door is missing from the P-63A Kingcobra, and Ed would be very grateful if someone would donate a door. In fact, any parts or pieces of any aircraft are always welcome. Anything aeronautical may be of value; don't throw it away -- offer it to the Air Museum! Pilot's handbooks and maintenance manuals are especially needed.

The Air Museum's "oldest" aircraft was actually constructed hardly five years ago, a beautiful replica of the 1896 Chanute hang-glider biplane. It had been stored in a garage that leaked with every rain, but it is now on display in the museum. In the late summer of 1957 the USAF temporarily borrowed and transported it in a big C-124 Globemaster II to the air show at Andrews Air Force Base near Washington, D.C.

The next airplane acquired in point of time is, like its P-12E predecessor, another rare example of that wonderful golden age of flight. This is a Boeing P-26A, AC 33-123, powered by a 600 h.p. P&W R-1340-27 "Wasp SE". It was originally delivered on June 26, 1934 to the 27th Pursuit Squadron of the 1st Pursuit Group at Selfridge Field, Michigan. It carried the squadron number 23 on its fin, and was assigned to Lt. Thayer S. Olds, the 27th Squadron operations officer. This type was the pioneer American monoplane fighter to go into production and operational service. A very few may yet remain in the southern Americas or elsewhere, probably in very questionable condition, and it is to Ed Maloney's everlasting credit that he was the first to bring one back to the States and immediately make it available for permanent public inspection. Perhaps the big Air Force Museum, the Boeing Airplane Company, or others may have another P-26A shipped home, perhaps not, but Ed's Air Museum is the first. It was delivered as deck cargo on a ship in the early summer of 1957 at really great personal expense, and also involving much time and seemingly endless red tape.

Civil aircraft are represented by two experimental ultra-light private planes, both built by Ray Stits of nearby Riverside, California. One is the Stits SA-1 "Junior", c/n 1, registration N1293, a low-wing single-seater with an overall wing span of but 8 feet 10 inches, and mounting a Continental C-85 engine. The other is the Stits SA-8 "Skeeto", c/n 301, registration N6048C, a single-seat parasol monoplane weighing only 260 pounds, less pilot. It had a 25 h.p. Evinrude outboard boat motor.

From the USAF, Ed next obtained a North American F-51D-30-NT "Mustang IV" model NA-124, AF 45-11582, c/n 124-48335, with a 1590 h.p. Packard-built Rolls-Royce V-1650-7 "Merlin 69" liquid-cooled V-12 engine. The writer had the pleasure of flying this magnificent fighter on its ferry flight from Sacramento to the small Cable-Claremont Airport near the Air Museum on 6 November 1957, at which time it carried the experimental civil registration N5441V. This has since been removed, however, and the F-51D's colors and insignia are being restored to its latest USAF configuration.

Early in 1958, Ed was able to get a little red Culver NR-D single-seat aerial target drone, c/n N-2774. It was Air Force model PQ-14A, AF 45-59042 or U. S. Navy TD2C-1 serial 120262. It has a 155 h.p. Franklin O-300-11 six-cylinder engine.

Then in March 1958, Ed purchased from a technical college a historic aircraft of our modern age; this is one of the very few remaining examples of the first jet ever to fly in America. It is the Bell YP-59A "Airacomet", AF 42-108773. Its factory designation is Bell model 27, c/n 27-10, and it is powered by two Whittle-type primitive reverse-flow General Electric I-16 (J-31-1) aircraft gas turbines for jet propulsion. To make it even more interesting, this particular jet fighter has been modified with an extra cockpit in the nose for an observer or passenger. Were this airplane flyable, that seat can provide a thrilling flight, as this writer discovered in the third XP-59A similarly modified, just after World War II.

By the time this is published perhaps the Air Museum will have even more old or historic airplanes. At the time this article is being completed the end of April 1958 there is some hope of obtaining three U. S. Navy Grummans: an F6F-5 Hellcat, an F8F-2 Bearcat, and a TBM-3S2 Avenger. Ed is constantly trying to obtain more equipment, so probably this article will have to be supplemented at a later date.

In addition to the engines installed in each aircraft, the museum also displays a 90 h.p. Curtiss OX-5 (the type around which pioneer airmen have organized a world-wide club), a 110 h.p. Le Rhone 9J-B rotary, a 180 h.p. Mercedes as used in the Fokker D-7, a 300 h.p. Menasco C6S-5 such as powered small racers, and several other aero-engines.

There is a propeller from a Liberty-powered DH-4, the writer's OX-5 prop for a Curtiss JN4D, and a 1923-1925 Curtiss-Reed bent metal propeller, among many others. In addition there are numerous exhibits of aircraft equipment and parts, two rudders from Douglas O-38 biplanes, a Nieuport 28 aileron, pilot's wings, insignia, uniforms, flying clothing including a German flight suit, and literally scores of other items.

The ordnance section has many machine guns, some bombs, and even rocket missiles. The aircraft machine guns include .303 Vickers, .30, .50, and experimental .60 calibre Brownings, and Japanese 7.7 mm (near .50 cal) machine guns. There are both American and Japanese 20 mm, and German 30 mm aircraft cannons. Many of these are installed on their aircraft. The writer gave Ed his 100-pound steel aerial bomb of World War I vintage, then Maloney found a mate for it and they may be slung under the Boeing P-12E if proper bomb-racks can be acquired. From World War II there are several 100-pound sand-filled "Blue Devil" practice bombs, and two massive casings for 1000-pound bombs. Rocket missiles are represented by a 2.75-inch Scar, a Mighty Mouse, Loki, Holy Moses, and others. Jane's "Aircraft" 1957-58 describes the Loki as a "spin-stabilized barrage type anti-aircraft unguided rocket, based on German Taifun".

From the very beginning, storage space has always been a difficult problem. Even after the present temporary museum building became available, space remains second only to finances as the most critical and limiting factor. For some time, dismantled aircraft were scattered about in rented garages and relatives' back lots. At one period the Northrop wing and one Zero were on the Maloney's front lawn, the Shusui and P-12 in the back yard, while the Hanriot shared the family garage with the Kamikaze bomb. Other planes have been parked among the trees at the edge of an orange grove. Finally the Maloneys had to move to a larger house!

Visiting Ed and his charming wife Louise during those difficult days was always a lesson in gracious living, and it remains so to this day. While it is obviously true that without Ed's drive and determination, many of these planes would not have been saved, it is equally true that his wife's loving patience, understanding, and active help were also vitally necessary. We who thrill to the Air Museum also owe a debt of gratitude to Louise Maloney. Together with their young son and two daughters, this

happy and devout family is still another proof that home and hobby can be shared successfully.

It required two years of searching and negotiations before suitable quarters were obtained for his airplanes. After more hard work, Ed opened the doors of the Air Museum to the public on Saturday, January 12, 1957-- and it rained all day! Slim profits from the modest entrance fees are plowed back into rent, maintenance, and new exhibits, so the museum has managed to pay its own way from the beginning. It is incorporated as a non-profit organization. All of this is in addition to Ed's full-time job on the outside. The hard work and the problems continue.

What of the future? More aircraft are always needed, but in particular he would like to get a Spitfire, and so far there is also an obvious lack of U. S. Navy planes. A tight budget prevents him from obtaining several desirable but expensive airplanes. Slowly, Ed hopes to restore some of his craft to near-mint condition as he did with his P-12E. A few may even be made flyable in special cases. Also in the future is the dream of a proper permanent building with separate rooms for models, ordnance, engines, equipment, and a library adjoining the main concourse of aircraft.

For the motion-picture producer who "discovers" the Air Museum, Ed Maloney can provide a gold mine of information and equipment, much of it available nowhere else in the world. Future aviation movies should be far better because of it. For the relative newcomer in aviation who stops by to visit the Air Museum, it is an education to be able to see, all at once, so many of the historical old airplanes which are the direct ancestors of today's sophisticated jet and rocket equipment.

For those of us who grew up with these kites, living with them and loving them, and sometimes being scared half to death in them, it is like meeting long lost friends just to touch them once again. Some we flew for fun and some we flew for a fight, and some were flown by our friends the enemy. Walking among them brings a flood of nostalgic memories, of half-forgotten names and places -- of sounds and smells, and we suddenly realize that time passes much too quickly. We also know very well that in those days we never would have talked like this or even thought anything about it. We must be getting old . . . but it certainly felt good to visit the Air Museum.

THE CURTISS SOC "SEAGULL"

by

David Brazelton

One of the more handsome aircraft built between the World Wars was the Curtiss SOC. The series started with the XO3C-1 of 1934, and ended with the XS02C-1 of 1937. Although some SOC's saw service in World War II, the last SOC-4's were built prior to 1940 and were rapidly being replaced by the SO3C and Vought OS2U at the outbreak of war.

The role of the SOC was Battleship Observation and Cruiser Scouting, or "the eyes of the fleet". To accomplish this it was fitted for either wheels or floats, a configuration known officially as "convertable". Its normal operation was on floats, being catapulted for take-off and recovered from the sea by hoist upon landing.

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