

Photo-Gallery

(The captions for each photo are given on a separate page following each photo.)



Picture of Minovitch as a boy of 10 visiting Mt. Wilson Observatory





Picture of Minovitch at the controls of a Lockheed Constellation in the TWA hanger area at Los Angeles airport where he used to go on weekends to be with airplanes. His cousin, Danny Drovie, is sitting in the co-pilot's seat. (Picture taken in 1948.)



Picture of Minovitch at the controls of a Lockheed Constellation in the TWA hanger area at Los Angeles airport where he used to go on weekends to be with airplanes. (Picture taken in 1948.)



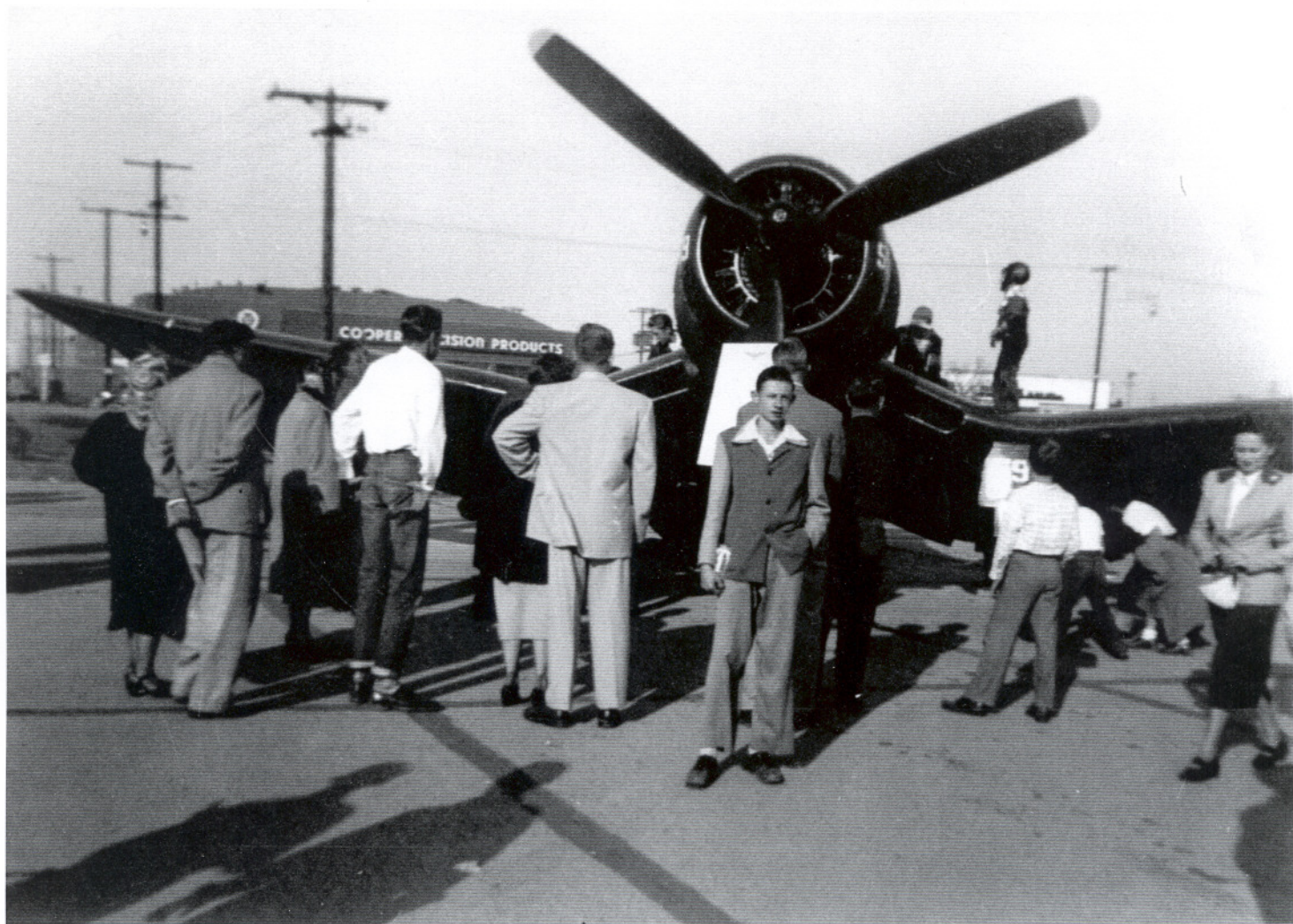
Picture of TWA's hanger area during 1948 showing two DC-3's where Minovitch used to spend weekends sitting in the cockpits of various airplanes and talking to the mechanics. Picture taken by Michael Minovitch.



Picture of one of TWA's beautiful giant Lockheed Constellation's preparing for takeoff from runway 25R Los Angeles Airport in 1948. Picture taken by Michael Minovitch at beginning of the runways where he used to wave to the pilots as they flew over at 100 feet prior to landing.



Picture of a DC-3 airliner landing at Los Angeles Airport. The pilots and passengers were clearly visible to Minovitch standing and waving just outside the small fence.



Picture of Minovitch in front of a World War 2 Corsair Fighter Plane in 1949 during an airshow.



Picture of some of Minovitch's war surplus radios that he used to listen to the special aviation frequencies after school. The first radio on the left is an ARC-5 aircraft receiver having a frequency range of 3 - 6 Mc. The second radio shown in the picture was also an ARC-5 but had a frequency range of 190 kc to 550 kc. He used this radio for listening to the various low frequency radio range stations that generated the "on-course" beam signals that pilots followed for navigation at night and during bad weather. Another aircraft radio that Minovitch used (not shown) was the SCR-522. This was a VHF transceiver that enabled Minovitch to listen to communications between the control tower and the pilots. The map shown in the background is an aeronautical "sectional chart" of the Los Angeles area. Minovitch bought several of these sectionals in 1948 and literally wall-papered his entire bedroom with these sectionals joined end-to-end.

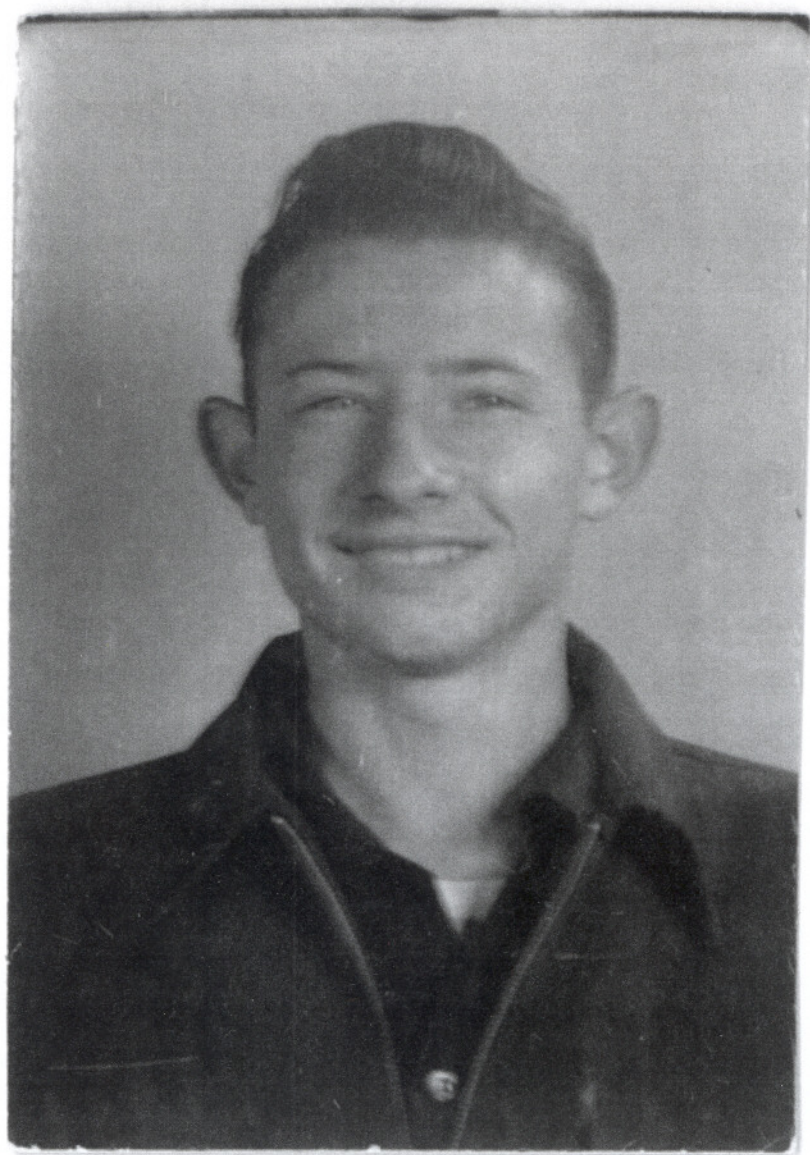
Since all the war surplus aircraft radios were designed to operate on 28 volt DC current, Minovitch had to modify the power input wiring designs of all his surplus radios so that they would operate using standard 110 volt AC current. He did this by following the schematic wiring diagrams in a special book he bought showing how this modification procedure can be done on all surplus aircraft radios. What should be noted is that these schematic wiring diagrams were written for professional electronic engineers or for licenced amateur radio operators that knew the theory and principles of radio. Minovitch was only 13 and still in Junior High School when he started buying and modifying the radios.

During this process of learning how to read and interpret schematic wiring diagrams and the basic principles of radio theory he became interested in obtaining an amateur radio license. After a few months of studying he passed the examinations and received his license - WN6QUJ. (It was issued under his birth, name Michael A. Minovich Jr.) He built and operated several 80 meter band CW transmitters. The high voltage power supply that Minovitch built to power the transmitters is shown on the right side of the photograph. He also built a huge rotating beam antenna of his own design and mounted it on the roof of his home in Inglewood California. He manually rotated the beam antenna in any direction by using the mechanical antenna rotating mechanism of a surplus aircraft radio compass system. The direction indicator of the radio compass is also shown on the right side of the photograph.

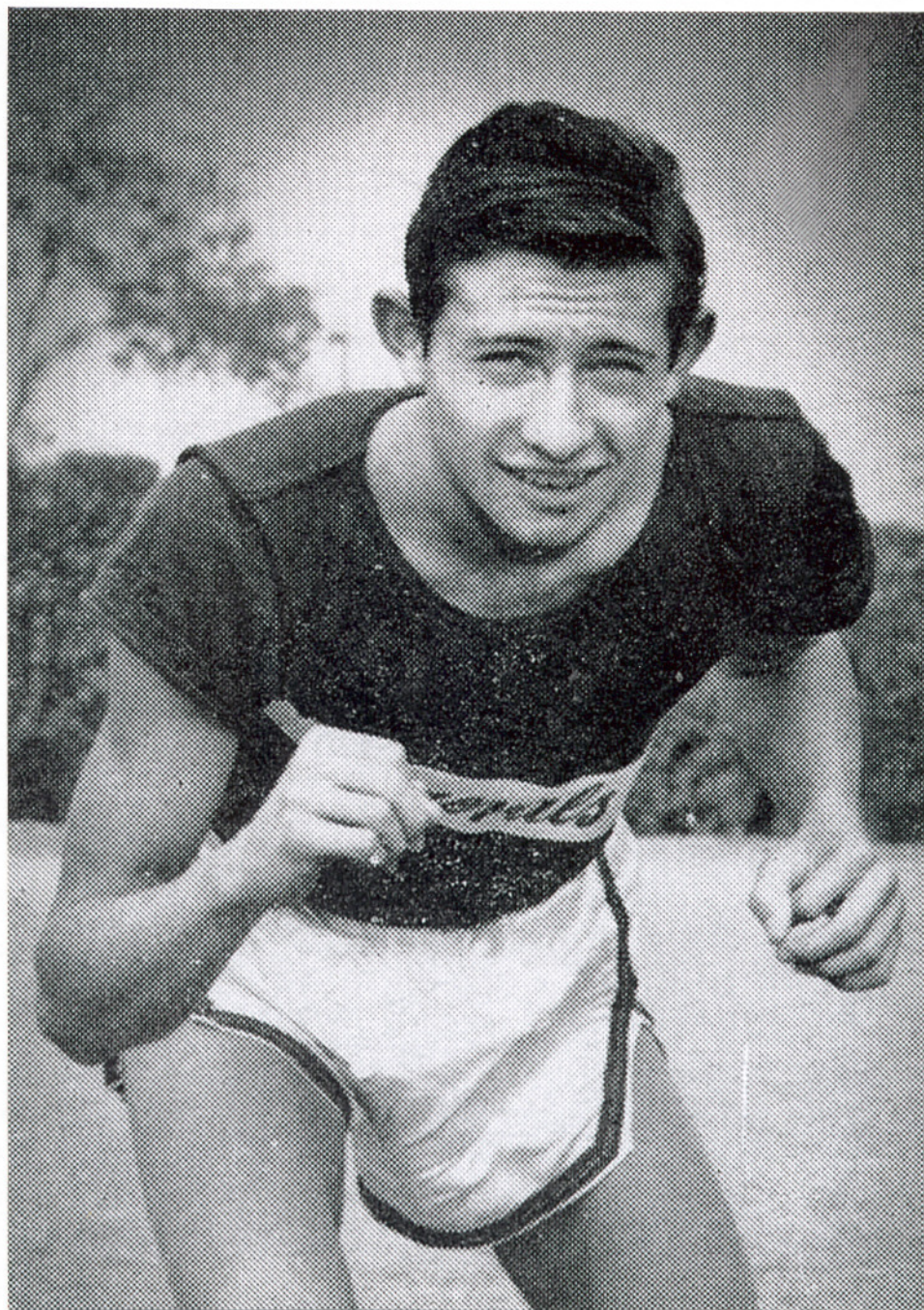
What should be pointed out is that the amateur radio license examinations at that time consisted of two separate parts. The first involved demonstrating a proficiency in sending and receiving Morse code. The second was a test on the theory and principals of radio. This required an understanding of resistors, capacitors, inductors,

tuned circuits, oscillators, etc., and the equations and formulas describing these basic components. But this required a basic working knowledge of algebra. Since Minovitch was so young at the time he started buying and modifying his surplus radios he never had any class in algebra and did not understand it. However, his interest in radio and obtaining an amateur radio license was so strong that he taught himself algebra by studying several text books. He was still only 13 and in Junior High School where algebra was considered too advanced to be taught even in the highest grade (9th). At the time he passed the examinations he was told by a few of his teachers that he was the first student to obtain an amateur radio license before graduating. What his teachers never knew was that this achievement was the result of his early love of aviation and the encouragement and friendships he developed among the mechanics at TWA working at Los Angeles Airport that let him spend many hours in the cockpits of airliners. And these individuals included the technical staff that taught him how to fly on instruments in the famous "link trainer" located on the second floor of TWA's administration building.

By the time Minovitch graduated from senior high school, his growing interest in physics and his recognition of the beauty of advanced mathematics gradually replaced his initial love for aviation and his interest in amateur radio. But it all started from this love and the people at TWA who encouraged it.



Picture of Michael Minovitch when he was in 10th grade George Washington High School Los Angeles California. (Picture taken in 1952.)



Picture of Minovitch as a member of the George Washington High School Varsity Cross-Country team. (Picture taken 1953.)



Picture of Minovitch (3rd from left front row) as a member of the George Washington High School Varsity Cross-Country team. (Picture taken 1953.)