

Colonel Frederic C. E. Oder
Inducted 1989



Colonel Frederic C. E. Oder was born October 23, 1919, in Los Angeles, California. He attended the California Institute of Technology (Cal Tech), receiving his Bachelor's in geology in 1940. He enlisted in the US Army Air Corps as a Flying Cadet in September 1940. The Corps sent him back to Cal Tech to study meteorology, in which he received his Master's degree in 1941. He was commissioned a second lieutenant at that time, and was assigned as the Base Weather Officer at Pendleton Air Base, Pendleton, Oregon. From then until the end of World War II, he served in various weather posts at Ft. Douglas, Utah, in Java, Australia, New Guinea, Florida, and North Carolina. He participated in forecasting the weather for the Battle of the Bismarck Sea, accurately predicting the good weather that enabled the US to fly enough sorties to inflict significant damage on the Japanese fleet. He returned to the United States in the middle of 1943.

At the close of World War II, he attended the Command and General Staff School, Fort Leavenworth, Kansas. He faced the choice of attending flying school or graduate school in the fall of 1946. Since as a pilot he would have had only few hundred hours of flying experience when many pilots had thousands of hours, and he was technically inclined anyway, he opted for further academic studies. Subsequently, the Army Air Forces sent him to graduate school at the University of California at Los Angeles where he completed the course work in meteorology and physics in two years.

From September 1949 to August 1951, he served as the Director of the Geophysical Research Directorate (GRD) at the Air Force Cambridge (Massachusetts) Research Center. Colonel Oder

had his first real experience with R&D at Air Force Cambridge. He worked on the instrumentation of the V-2 and the smaller Aerobee rocket both of which the Air Force used to gather information on the structure of the atmosphere. Before moving to the Western Development Division (WDD), Colonel Oder served as an Intelligence Officer with the Central Intelligence Agency from October 1952 to August 1955. He worked in the Physics and Electronics Division of the Office of Scientific Intelligence.

Beginning in 1956, Colonel Oder organized and directed the original Air Force Weapon System 117L satellite program at the Western Development Division. He provided leadership for the development and use of concepts that fostered the evolution of missile warning, communications, meteorology, and other advanced reconnaissance satellites. His efforts contributed specifically to the success of the MIDAS, SAMOS, and Discoverer programs. Effectively, he was director of Weapon System 117L from August 1956 to September 1960, serving as the Assistant for WS-117L, Technical Operations, WDD, from August 1956 to March 1957; as Director, WS-117L, Weapon Systems, WDD from March 1957 to November 1959; and as Assistant Deputy Commander for Space Systems, Deputy Commander for Space Programs at the WDD from November 1959 to September 1960.

Significantly, Colonel Oder founded the WS-117L program which developed satellites that were programmable and recoverable, and which the Air Force could place in high-precision orbits. Moreover, his associates could command and monitor functions within the satellite by either preprogramming or adding instructions from the ground. He successfully advocated the development of a recoverable satellite. This was an aspect of the program which President Dwight D. Eisenhower, himself, approved.

Colonel Oder retired from the Air Force in September 1960. After his retirement, Colonel Oder worked for Eastman as Assistant Director of Research and Engineering of the Apparatus and Optical Division. He joined the Lockheed Missiles and Space Company, in 1966, as Vice President, Space Systems Programs and Engineering. He retired from Lockheed as Executive Vice President and General Manager.

In 1980, the National Academy of Engineering elected Colonel Oder a member "for [his] leadership in conceiving and developing civil and military satellites." Five years later, the American Institute of Aeronautics and Astronautics awarded him its Goddard Astronautical Medal "for his contributions over three decades to the pioneering development and successful operation of over 200 civil and military satellites." He now resides in Los Altos, California. Colonel Oder passed away in May 2006.