



STRATOPEDIA

ROSS, Malcolm D. (1919 - 1985)

Malcolm D. Ross Was an atmospheric scientist and pilot of several manned balloon flight for the US Navy Stratolab program. Along his career he set and broke several records for altitude and accumulated more than 100 hours of flight in gas balloons.



Ross was born on October 15, 1919 in Momence, Illinois. He graduated from Linden High School in Montgomery County, Indiana, in 1936 and received a scholarship to attend Purdue University where he graduated in June 1941 with a BS in physics. After college, he married with Marjorie Martin, and worked in the radio broadcasting field until January 1943, when he was commissioned in the United States Naval Reserve. **There he was sent to the University of Chicago for training that completed in June 1944, receiving a professional certificate in meteorology and atmospheric science.**



The Navy initially assigned Ross to the Fleet Weather Center at Pearl Harbor and later he was transferred to the USS Saratoga as aerology officer. After the war, he returned to civilian life running an advertising agency in Pasadena, California, until June 1950 when was recalled to active duty due to the Korean War. He acted as instructor in radiological defense for the Naval Damage Control Training Center in San Francisco but **in 1951 the Navy reassigned him to work as the liaison officer for the Office of Naval Research (ONR) in Minneapolis. This was his first contact with the already established balloon program of the Navy. By those times the Twin Cities area was the main center of production, development and launch of balloons for scientific purposes of the United States.**



In 1953, Ross was transferred to the air branch of the Office of Naval Research (ONR) in Washington D.C. as Balloon Projects Director. In this position, he began to be directly involved in the organization of several balloon launch campaigns for the US Navy Skyhook program. The launch sites ranged from Galapagos Islands near the Equator to the cold Canadian thundra along with several places in the United States.

Ross had a fundamental role in the inception of the Navy's manned balloon program called Strato-Lab, first as a strong advocate of its importance and then becoming the first active duty military officer qualified and licensed as a free balloon pilot based solely on plastic balloon experience.

He participated in four flights of the Stratolab-Low series carried out in an open gondola ascending up to 40.000 ft. on August 10, 1956 with Lt.Cdr. Morton L. Lewis to study airplane vapor trails; on June 27, 1957 with atmospheric physicist Charles B. Moore, from the top of Mt. Withington, New Mexico, to investigate the interior of a thunderstorm; in May 6, 1958 with astronomer Alfred H. Mikesell to study the origin of the scintillation of stars and finally in August 10, 1959 with Robert Cooper to make to study the Sun's corona with a coronagraph.

He also piloted five flights of the Stratolab-High series using a sealed gondola: in November 8, 1956, October 18, 1957, and July 26, 1958 with Lt.Cdr. Morton L.Lewis; on November 28, 1959 with Charles B. Moore and the final flight of the program in May 1961 along with Victor Prather. This late flight established a new altitude record reaching 113,740 feet, that still stands today, but was a devastating one for Ross as Prather drowned after slipping from the helicopter that rescued him.

After that last Stratolab mission Ross continued to advocate the use of balloons for scientific research, and talked with pride of their accomplishments, but he never flew a balloon again. Although there were stories regarding that the death of Prather was a big shock for him and forced his decision to quit, it was not the reason for the change of bussiness, which he had decided a time before. After leaving the navy, he worked in space research at General Motors, as an executive for Merrill Lynch Pierce Fenner and Smith, Inc. and Bloomfield Hills.

Ross finally retired from the US Naval Reserve as a Captain on July 1, 1973.

Along his career, Malcolm D. Ross received several prizes and trophies: in 1957 the Navy League's Parsons Award for Scientific and Technical Progress, and the Navy's Meritorious Civilian Service Award. Also he received the Harmon International Trophy twice: the first time in 1958 jointly with Lt. Commander Lewis, and in 1962, jointly with Victor Prather.

He died at his home in Birmingham, Michigan, on October 8, 1985 and was buried at the Arlington National Cemetery, Virginia.

List of balloon flights piloted by ROSS

Launch base	Date	Flight Duration	Experiment	Payload landing place or cause of the failure
 New Brighton (MN)	8/10/1956	---	STRATOLAB LOW I (Lewis - Ross)	--- No Data ---

 Stratobowl (SD)	11/8/1956	---	STRATOLAB HIGH I (Lewis - Ross)	Near Bownlee, Nebraska, US
 Crosby (MN)	10/18/1957	10 h	STRATOLAB HIGH II (Lewis - Ross)	--- No Data ---
 Crosby (MN)	5/6/1958	11 h 25 m	STRATOLAB LOW III - (Mikesell - Ross)	13km E-SE of Dubuque, Iowa, US
 Crosby (MN)	7/26/1958	34 h 30 m	STRATOLAB HIGH III - (Lewis - Ross)	--- No Data ---
 Stratobowl (SD)	8/7/1959	8 h 46 m	STRATOLAB LOW - HALOG-I (Cooper - Ross)	Near Milford, Iowa, US
 Stratobowl (SD)	11/28/1959	28 h 15 m	STRATOLAB HIGH IV - (Moore - Ross)	Near Blaine, Kansas, US
 USS Antietam	5/4/1961	~ 11 h	STRATOLAB HIGH V (Prather - Ross)	--- No Data ---