

In Memoriam
Paul L. Smith
1932-2019

Paul L. Smith was born in Columbia, Missouri, in 1932, and died in Rapid City, South Dakota, in 2019 at the age of 86, after a brief illness. He grew up in the St. Joseph, Missouri, area, the oldest of 9 children. Paul earned his Ph.D. in electrical engineering from Carnegie Tech in 1961. It was there he met Mary “Cissie” Noel. They married and started a family. After several years at the Midwest Research Institute in Kansas City, he joined a growing weather modification research group, the Institute of Atmospheric Sciences (IAS), at the South Dakota School of Mines and Technology (SDSMT) in Rapid City, led at that time by Dr. Richard Schleusener. Strong research support from the U.S. Bureau of Reclamation and the National Science Foundation helped IAS develop an internationally-recognized research program, with a staff numbering more than 50 by the 1970s. Paul was an integral part of this success. Dr. Smith was very involved in weather modification activities throughout his career. Notable projects in which he was involved included the Hailswath Project, the National Hail Research Experiment, the High Plains Experiment, the Cooperative Convective Precipitation Experiment, the Alberta Hail Program, Grossversuch (multiple iterations), the North Dakota Thunderstorm Project, the North Dakota Tracer Experiment, and many others.

For many years Paul was the facility manager for the South Dakota School of Mines and Technology (SDSMT) T-28 armored and instrumented storm penetration aircraft, overseeing its successful deployments in many field programs, including most of those previously listed. The T-28 remains a remarkable success story, to this day being the only instrumented aircraft capable of deliberate penetration of hailstorms (to a point!). Since 2004, when the T-28 was retired from service, no aircraft has been available for penetration of severe storms.



Paul was committed to rigor in statistical analyses and interpretation of observations. He was involved in the conduct and analysis of many weather modification programs during the 1960s through early 1980s, including NHRE, several projects in South and North Dakota in which the IAS was a partner, HIPLEX, the North Dakota Cloud Modification Project (NDCMP), and Grossversuch (in Switzerland). He was a co-author on summary statistical and observational analyses of almost all of these projects. He was well known for his expertise in radar meteorology, although his expertise extended well beyond that to include many aspects of airborne research and observational science.

Dr. Smith was instrumental in convincing the National Science Foundation (NSF) to establish its Lower Atmospheric Research Facility which, among other activities, provides base support for observing facilities at universities and at the National Center for Atmospheric Research (NCAR) that serve the needs of the broad atmospheric research community. The armored T-28 was an NSF-supported facility from 1987-2004. He was

also influential in developing and sustaining the NOAA Federal-State Cooperative program in Atmospheric Modification.

Paul put his many talents to work serving his profession. He was a member of numerous national and international committees throughout his career. He served on the AMS Committee on Radar Meteorology in the 1970s, and again in the 1990s, and took the chairmanship of this committee for two years during each of these decades. He was on the International Commission on Clouds and Precipitation from 1988-1996, the North American Interstate Weather Modification Council from the 1980s into the 1990s, and several National Research Council advisory committees. Among these, his longest tenure was on the NEXRAD Technical Advisory Committee.

Paul was recognized by his colleagues through many awards and honors. He was a Fellow of the AMS, and was acknowledged with an Editor's Award by the Journal of Applied Meteorology (1992). The Weather Modification Association honored him with the Thunderbird Award in 1995. The National Research Council named him a National Associate in 2004. In 2006 he was named the prestigious AMS Remote Sensing Lecturer. He was serving on the American Society of Civil Engineers Atmospheric Water Management Standards Committee at the time of his death.

As a professor emeritus he maintained an office on campus that he occupied most afternoons (when he was in town), up until the last few weeks of his life. His last scientific paper was published in April 2019, less than a month before his passing!

It was early on, at Carnegie Tech, that Paul took up the bagpipes and developed his singing and performing abilities. His piping enlivened picnics at numerous field projects. His love of his wife and family were always evident.

After Cissie died in 2000, Paul's focus became his extended family. He travelled extensively to attend weddings, birthdays, baptisms, and graduations.

By the time of his passing, in addition to 5 adult children, there were 20 grandchildren and 23 great grandchildren.

Dr. Smith was a skilled scientist and educator, an excellent administrator, a valued colleague, and a dear friend to many. We will miss his sense of humor and the perspective on science that he brought us.