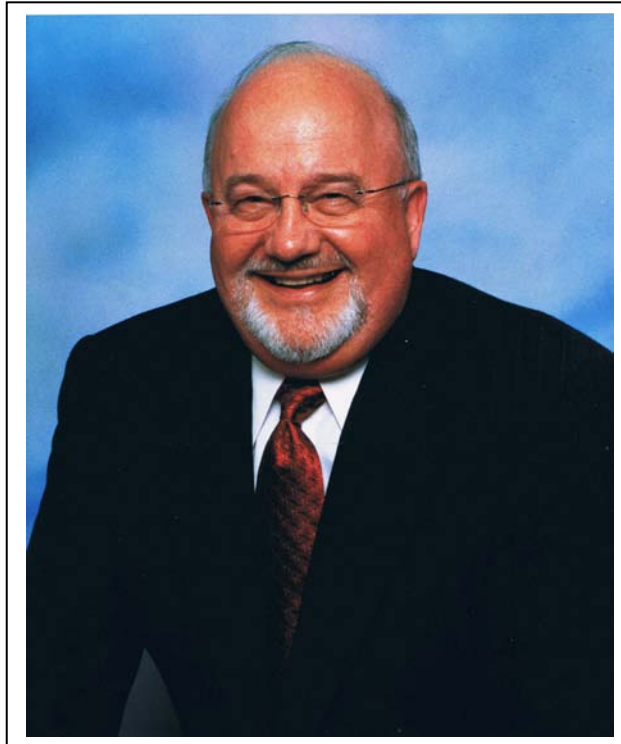


**Biography and CV**  
**George L Frederick, Jr.**

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**EXPERIENCE**

George L. Frederick, President and CEO of Falcon Consultants LLC is a meteorological consultant specializing in operational applications and instrumentation. In this role, he promotes the use of wind profiler technology and meteorological systems around the world. Expansion of the use of this technology in Asia and China, in particular, has found Mr. Frederick providing seminars and training to a wide range of the user community. With over 46 years of meteorological experience and 17 years in the wind profiler business, he is recognized as a leading expert on the application of meteorological technology for operational use. He previously served as general manager for Vaisala Wind Profilers in Boulder, Colorado and prior to that he was a Senior Staff Scientist and Project Manager for the Wind Profiler business of Radian in Austin, Texas. During his active period with Radian and Vaisala between 1993 and 2005 he managed numerous projects and programs which provided hundreds of wind profilers and other meteorological sensors to users around the globe. Large programs such as the US Army Mobile Profiler program in support of its test ranges, projects at Cape Canaveral and Vandenberg in support of space launch facilities, numerous individual projects in support of air

quality operations, and large tropospheric profiler projects in the UK, China and Germany, all fell under his purview.

He began his career in meteorology as a weather officer in the U.S. Air Force, after graduating from the Air Force Academy in 1963 with a degree in engineering science. He retired as the Commander of the Air Weather Service after 30 years in the Air Force. During his military career, he planned for the use of unmanned aerial vehicles for weather reconnaissance, developed the roadmap for modernization of the Air Weather Service, and directed planning for weather support for numerous weapons systems. He served in Viet Nam and helped manage the buildup of weather support during Operation Desert Storm in the Middle East. He led and managed weather units from detachment level to squadron to wing and finally the Air Weather Service which had oversight of weather support to the entire Air Force and Army. He earned numerous awards for his work including the Bronze Star and the Legion of Merit.

Among his many roles within the scientific community, he served as president of the American Meteorological Society (AMS) and the National Weather Association, is an AMS fellow, a Certified Consulting Meteorologist and has served on the AMS Council and Executive Committee. He first studied meteorology at UCLA and earned his master's degree in meteorology at the University of Wisconsin. He was the first Commissioner of the AMS Weather and Climate Enterprise Commission and continues to serve the profession as Chair of the ad hoc Committee on a Nationwide Network of Networks. He received the Charles Franklin Brooks award from the AMS in 2002 for his service to the Society and the Kenneth Spengler award in 2010 for leadership in the public-private-academic partnership enterprise. He was awarded the Certified Consulting Meteorologist designation by AMS in 2008. He was born in Sandusky Michigan and is married to the former Sharon Reinelt of Argyle Michigan. They have two sons, a daughter and four grandchildren.

Career Details appear below:

- U.S. Air Force (Air Weather Service):
  - Wing Weather Officer, McConnell AFB, Kansas, 1965
  - Staff Meteorologist, Air Force Flight Test Center, Edwards AFB, California, 1969
  - Division Weather Officer, Qui Nhon Army Airfield and Chu Lai Army Installation, Republic of Vietnam, 1970
  - Asst. Div. Ch., Aerospace Sciences, Air Weather Service, Scott AFB, Illinois, 1971
  - Staff Weather Officer, U.S. Army III Corps and Ft. Hood, Texas, 1975
  - Director, Technical Plans, HQ, Air Weather Service, Scott AFB, Illinois, 1979
  - Commander, 31st Weather Squadron, Rhein Main & Sembach ABs, Germany, 1981
  - Chief, Forecasting Services Division, Air Force Global Weather Central, Offutt AFB, Nebraska, 1983
  - Asst. Chief, Airspace and Air Traffic Services Division, HQ U.S. Air Force, Pentagon, District of Columbia, 1985
  - Vice Commander, 3rd Weather Wing, Offutt AFB, Nebraska, 1987
  - Commander 3rd Weather Wing and Staff Weather Officer, Strategic Air Command, Offutt AFB, Nebraska, 1988
  - Vice Commander, Air Weather Service, Scott AFB, Illinois, 1990
  - Commander, Air Weather Service, Scott AFB, Illinois, 1991.
  - Retired in the grade of Colonel, 1993
- Radian International LLC

- Senior Scientist, Radian Electronics Division, Meteorological Remote Sensing, Austin, Texas, 1993
- Project Manager, 1994
- Project Manager & Senior Staff Scientist, Radian Electronic Systems, Meteorological Systems, 1995
- Vaisala Inc
  - General Manager, Wind Profiler Business Unit, Boulder CO, 2001
  - Strategic Development Manager, Wind Profiler, Vaisala, Georgetown TX 2005.
  - Meteorological Consultant, Vaisala, Georgetown TX 2009
- Falcon Consultants LLC
  - President and CEO, Georgetown TX, 2005

## **EDUCATION**

- Undergraduate, Engineering Physics, Michigan Technological University, Houghton MI, 1958-59
- B.S., Engineering Science, United States Air Force Academy, USAF Academy, Colorado, 1959-63
- Air Force Basic Meteorology Special Graduate Program, University of California at Los Angeles, Los Angeles, California, 1964-65;
- M.S., Meteorology, University of Wisconsin, Madison, Wisconsin, 1967-69
- Diploma, US Army Command and General Staff College, Ft. Leavenworth, Kansas, 1974-75
- Diploma, National Defense University, Ft McNair, District of Columbia, 1977.

## **PROFESSIONAL INTERESTS**

- Operational meteorology
- Numerical weather prediction
- Boundary layer dynamics
- Meteorological instrumentation
- Atmospheric observations
- Aviation and aerospace meteorology
- Radar and remote sensing

## **SERVICE ACTIVITIES**

- American Meteorological Society (AMS)
  - Member since 1968
  - AMS Fellow, 1993
  - AMS President 1999
  - AMS Weather and Climate Enterprise Commissioner 2005
  - Active in local chapters from 1969-Present
  - Certified Consulting Meteorologist 2008
- National Weather Association (NWA)
  - Charter Member
  - Vice President, 1981
  - President, 1986
- Air Weather Association (AWA): Charter Member.

## **HONORS AND AWARDS**

- Numerous military awards and citations including
  - Legion of Merit (2 awards)

- Bronze Star Medal
- Meritorious Service Medal (5 awards)
- Air Force Commendation Medal
- Army Commendation Medal
- Combat Readiness Medal
- American Meteorological Society (AMS)
  - AMS Fellow, 1993
  - AMS Charles Franklin Brooks Award, 2002
  - AMS Certified Consulting Meteorologist, 2008
  - AMS Kenneth Spengler Award, 2010

## Publications

- Presented numerous technical papers at AMS, NWA, and the Air & Waste Management Association conferences over the past 30 years with papers published in conference proceedings.
- Authored many operational articles which appeared in a wide range of military organizational journals, newspapers and magazines.
- Partial listing of citations appears below:

**Citations**  
**George L Frederick**  
**as of 11/30/09**

Frederick, George L, 1969: Estimates of Vorticity, Divergence, and Vertical Velocity in a Surface Layer. Thesis in support of Master of Science degree, University of Wisconsin, Madison WI.

Frederick, George L, 1991-93: Command Line. *Air Weather Service Observer*, Scott AFB IL

Frederick, George L, Riese, Charles E, and Zeigler, Gary S, 1994: Sodar, Radar, and RASS Operating Principles and PAMS Applications. *Proceedings of the 1994 US EPA/A&WMA International Symposium; Measurement of Toxic and Related Air Pollutants*, Durham NC.

Riese, CE, Best, DL and Frederick, George L, 1996: Composite Wind and Temperature Profiles from in situ Sodar and Radar Profiler Instruments. *Proceedings of the 9<sup>th</sup> Joint Conference on Air Pollution Meteorology with A&WMA*, 547-550. Atlanta GA.

Peterman, KR, Frederick, GL, MacDonald, AE, Ware, R, and Sickler, G, 2001: The Texas Mesonet, GPS Slant Delay, and JET: A Test Bed for Improved Mesoscale Forecasting. *Proceedings, 5<sup>th</sup> Integrated Observing Systems Conference*, 156-157. Albuquerque NM.

Barron, EJ, Frederick GL, et al, 2001: *A Climate Services Vision: First Steps Toward the Future*. National Research Council, The National Academies Press, 84 pp.

Barron, EJ, Frederick GL, et al, 2002: *Communicating Uncertainties in Weather and Climate Information*. National Research Council, National Academy Press, 49 pp.

Anthes, RA, Frederick GL, et al, 2003. *Satellite Observations of the Earth's Environment: Accelerating the Transition of Research to Operations*. National Research Council, The National Academies Press, 163 pp.

Snow, J, Frederick G, et al, 2004: *Where the Weather Meets the Road: A Research Agenda for Improving Road Weather Services*. National Research Council, The National Academies Press, 121 pp.

Dabberdt, WF, Frederick, GL, Hardesty, RM, Lee, W-C, Underwood, K, 2004: Advances in Meteorological Instrumentation for Air Quality and Emergency Response. *Meteorology and Atmospheric Physics*, **87**, 57-88. DOI 10.1007/s00703-003-0061-8.

Wilbanks, T, Frederick G, et al, 2007: *Assessment of The NASA Applied Sciences Program*. National Research Council, The National Academies Press, 150 pp.

COST Office, 2009. Integrated Ground-based Remote-Sensing Stations for Atmospheric Profiling, COST Action 720—Final Report. GL Frederick Co-Author of Chapter on Windprofiler/RASS. ISBN 978-92-898-0050-1. 2009.

Ware, Randolph, Solheim F, and Frederick G, 2010: *Microwave Profiler Temperature Sounding Accuracy*, US EPA AIRNOW Conference Poster, Raleigh NC.

Baxter, Robert, Frederick G, et al, 2010: *Continuous Thermodynamic Profiling for Air Quality Applications*, US EPA AIRNOW Conference Poster, Raleigh NC.

Cimini, D., FS Marzano, and G Visconti, eds., 2010. Integrated Ground Based Observing Systems: Applications for Climate, Meteorology, and Civil Protection. GL Frederick Author Chapter II.9, Technology Transfer to Business and Industry. Springer-Verlag Berlin Heidelberg 2010. ISBN 978-3-642-12967-4; DOI 10.1007/978-3-642-12968-1.