

## Memorial Address

12:00 Noon to 1:30 PM, Ballroom 104 D

### Honoree



**Paul Richard Wolf** was born in Mazomanie, Wisconsin in 1934. He graduated from Mazomanie High School and served in the U.S. Army in Japan. Later, he attended the University of Wisconsin-Platteville and UW-Madison, graduating with a degree in Civil Engineering in 1960. Wolf began his career as a highway engineer for the Wisconsin Department of Transportation, then joined

UW-Madison as an instructor in 1963, and completed his MS and PhD degrees in the area of surveying and analytical photogrammetry. In 1967, he joined the Civil Engineering faculty at the University of California-Berkeley. In 1970, he returned to continue his teaching and research career at his *alma mater*. Wolf was known as an extremely gifted teacher and mentor, and enjoyed a wonderful relationship with his students. He helped to educate hundreds. Virtually all of his approximately 50 graduate students now hold distinguished positions in education, government, and business throughout the world. He had graduate students from at least eight different countries on four continents.

Wolf's global impact on education in the broad fields of surveying, mapping, and photogrammetry was also accomplished through his authorship of three well-known textbooks on these subjects:

***Elements of Photogrammetry*** – translated into several foreign languages, now co-authored with Bon Dewitt, one of Wolf's graduate students, now on the faculty at the University of Florida.

***Elementary Surveying*** – distributed in Australia and Southeast Asia, now co-authored with Charles Ghilani, another of Wolf's graduate students, now on the faculty at Penn State University.

***Adjustment Computations*** – also co-authored with Charles Ghilani.

From 1979 until his retirement in 1993, Professor Wolf led the Surveying, Photogrammetry, and Remote Sensing Program within Civil and Environmental Engineering at UW-Madison. Perhaps his greatest legacy is the stream of

students coming out of this program who went on to become educators around the world. Graduates of the program have populated the faculties of at least 12 universities in the United States and at least eight other universities around the world. This accomplishment was recognized by his peers, when in 1993, Wolf was presented with a special award from the North American Surveying and Mapping Teachers' Conference, recognizing the excellence of the program at UW-Madison and its long line of graduates who had gone on to become educators themselves. There is now a second generation of Wolf's students, that is, students of his students who have, in turn, gone on to become educators.

Professor Wolf received numerous other awards from scientific and professional organizations. Among the most noteworthy are the Talbert Abrams National Award from ASP; the Earle J. Fennell Award from ACSM; an Honorary Award for Educational Contributions from the Wisconsin Society of Land Surveyors; the Surveying and Mapping Award from ASCE; and five Presidential Citations from ASPRS, spanning 17 years from 1972 through 1988.

Wolf was a fellow member of ASPRS and ACSM and a life member of ASCE. In addition, he was an active member of the International Society for Photogrammetry and Remote Sensing (attending all ISPRS international Congresses from 1972 until 2000). He was Charter President of the Wisconsin Chapter of ASP and served as National Director from the Western Great Lakes Region for six years. He was the ASPRS representative to Commission VI of ISPRS from 1972 to 1980. He was Chair of ASP's Nomenclature Committee and author of Chapter 19 of the Fourth Edition of the *Manual of Photogrammetry*.

In retirement, Professor Wolf continued his writings, with new editions of all three of his textbooks. He also devoted time to consulting work and became known nationwide as an expert in forensic photogrammetry.

Soon after Wolf passed away in March, 2002 at the age of 67, ASPRS established the Paul R. Wolf Scholarship, granted annually to an outstanding student committed to educating others in photogrammetry and the mapping sciences.

**Presenter**

Alan P. Vonderohe is Professor Emeritus in the Department of Civil and Environmental Engineering at the University of Wisconsin – Madison. He is a native of Illinois, having received his undergraduate and graduate degrees, with specialty in photogrammetry and geodetic science, from the University of Illinois at Urbana – Champaign. Vonderohe worked as a surveyor beginning in 1965 and served as an officer in the NOAA Corps from 1970 to 1973. While completing his PhD thesis in 1978, he applied for an open faculty position in the Surveying, Photogrammetry, and Remote Sensing Program at the University of Wisconsin – Madison. Paul Wolf was Chair of the search committee and, thus, began a long professional and personal relationship between them. Vonderohe already knew Wolf as a scholar and educator, having learned from *Elements of Photogrammetry* as a student.

Under Wolf's mentorship at UW-Madison, Vonderohe expanded his horizons to include GIS, remote sensing, and the broader umbrella of geospatial information science and engineering. He became involved in adaption of GIS and other spatial technologies to transportation problems, leading to active work with the Transportation Research Board. In his 27+ years at UW-Madison, he taught more than 30 different courses and had 30 graduate students. Since his retirement in 2006, Vonderohe has been a consultant on projects ranging from automated machine guidance for highway construction to strategic planning for adoption of spatial technologies in large government organizations.

Vonderohe has been active with ASPRS, having served as President of the Western Great Lakes Region and having received a Presidential Citation for Meritorious Service. He has presented a number of workshops and papers at ASPRS annual meetings and is serving on the technical program committee for the 2011 annual meeting. He also received the Earle J. Fennell Award from ACSM for outstanding contributions to education.

**Awards Presentations**

- Presidential Citations
- Region Awards
  - Region of the Year
  - Region Newsletter of the Year
  - Region Website of the Year
- GeoLeague Challenge Awards

**Technical Sessions**

1:30 PM to 3:00 PM

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**NGA Special Session IIIC - Compressive Sensing**Moderator: Ed Bosch, *NGA*

Room: 202 C

Roundtable Discussions on Compressive Sensing Issues

**Applications and Challenges of Compressive Sensing in Imaging and Spectroscopy**Kevin Kelly, *Rice University***Compressing Lidar Waveform Data: Surface Classification and Peak Detection**Charles Toth, *Ohio State*

Dorota Grejner-Brzezinska, S. Laky, and P. Zaletnyik

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**PDAD Special Session 3 - Lidar Quality Assurance and Interoperability**Moderators: Lewis Graham, *GeoCue*, and Karl Heidemann,*U. S. Geological Survey*

Room: 201 B

Seven panel members selected from Industry and government.

Lidar "calibration" refers to the process of boresight corrections, adjustment to surveyed control, and the removal of various system-specific systematic errors within the point cloud data and is performed by the data producer. This contrasts with lidar "instrument calibration" which is performed by the instrument manufacturer at the factory. Lidar calibration is accomplished through a wide range of techniques and varies widely across different data vendors. At present, there are no standard, consistent, industry-wide methods for assessing and reporting how successful the calibration process was on any given project. Moreover, the current standard practice of measuring and reporting the accuracy of a "lidar collection" is based on assessment of the derived output DEM, rather than on the source lidar point cloud data itself. While the hope of data users is that vendors would not process point data that is of questionable accuracy into DEMs, the industry has no standard means or practices to assure this is the case. The panel will address these issues.