

David Allen Landgrebe

1934-2020

Remembering David Landgrebe

This month, the world lost a giant in the world of quantitative remote sensing. David A. Landgrebe passed away on November 21, 2020 at the age of 86.

Landgrebe was a pioneer of digital remote sensing and data processing. He and his team at Purdue's Laboratory for Applications of Remote Sensing (LARS) developed data processing, digital analysis, and pattern recognition techniques that are still regularly used today in the field of remote sensing.

Landgrebe's career was in many ways entwined with the Landsat program. He was there from the very beginning. Prior to Landsat 1's launch, Landgrebe chaired a sensor panel for the National Academy of Sciences that convinced decision-makers that digital multispectral scanning held a wealth of information and was worthwhile flying on the Earth-observing satellite that was to become Landsat.

He also chaired the seminal 1975 NASA Thematic Mapper Working Group that defined the spectral bands for the second-generation Landsat sensors (versions of those bands are still part of current-generation Landsat 8 and 9 sensors).

Throughout this time his research yielded important digital image processing techniques for quantitatively analyzing multispectral imagery. His lab was also involved in early remote sensing training and technology transfer, creating some of the very first remote sensing short courses.

Landgrebe published hundreds of scholarly papers during his career including a summary of "*The Evolution of Landsat Data Analysis*."

The Landsat Legacy Project Team was fortunate enough to interview Landgrebe in April 2009 for a round-table Landsat oral history discussion.

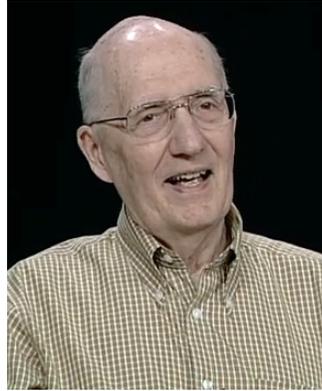
~ Laura E.P. Rocchio,
Landsat Legacy Project Team

Dave Landgrebe, 86, passed away November 21, 2020. He leaves behind friends, colleagues, and family who will miss his love, intellect, and humor. He was born and raised in Huntingburg, Indiana by parents Albert and Sarah Landgrebe with his brother John, who is also deceased. After

graduating from Huntingburg High School in 1952, he went to Purdue University where he earned his BS, MS, and PhD degrees and where he spent his career teaching and doing research in Electrical and Computer Engineering (ECE). He served as Department Head of ECE and as Associate Dean of Engineering.

Dave married his wife Margaret Ann in 1959, and they were inseparable for 56 years until her death in 2016. They are survived by daughters Carole of Cincinnati, Mary of Norfolk, Virginia and by son J.D. and his wife Sue of Cincinnati. Dave will be remembered by his family for his loyalty and love and as someone who was a teacher to many, always kept the focus on doing the right thing, and insisted on helping others. Dave's work ethic, which began in his childhood working in his family's clothing store, built foundations on which others could stand and grow. Dave's example lives on to influence his grandson Chris Landgrebe, his granddaughter, Katie Marshall, her husband Colin, and their baby daughter.

Dave's career at Purdue was a distinguished one. He led pioneering research in the field of remote sensing. This built understanding of how to analyze the earth from space and was a foundation of NASA's ongoing Landsat



program where the legacy of Dave's research is still influential today. The Institute of Electrical and Electronics Engineers' (IEEE) lifetime achievement award is named after Dave in the field of Geoscience and Remote Sensing. At Purdue, Dave was a collaborator and leader. He directed a lab

that grew to more than 120 people and which brought together researchers from fields as diverse as geology and forestry. He authored several books and received numerous awards and accolades including NASA's Exceptional Scientific Achievement Medal. At the time of his death, he was one of 22 current and retired Purdue faculty who had been inducted into the National Academy of Engineering. These honors were grounded in authoring hundreds of scientific journal articles and mentoring dozens of students to their PhDs - launching them into their own distinguished careers that ranged from professor to groundbreaking engineer to even diplomat and foreign minister of their country. Dave was especially proud of the recognitions he received for excellence in teaching Electrical Engineering to undergraduate students. These came in the form of multiple "best teacher" awards from his ECE department and from Purdue Engineering as a whole.

Dave loved the community of the Lafayette Rotary Club where he served in several positions, including Treasurer. In later years, Dave enjoyed the community at University Place where he and Ann lived in West Lafayette. Dave was active in Faith Presbyterian Church.