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Oran Richard “Dick” White (1932–2020)

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Oran Richard (Dick) White died on Sunday the 19th of December, 2020.

Dick White was born in Clovis, New Mexico on September 23, 1932. In 1948 his family moved to Tucson, where Dick finished high school. From an early age Dick had a deep interest in science and engineering, and he won a prize in the Westinghouse National Science Talent Search in 1950, which led to a scholarship at the University of Colorado (CU). He received his undergraduate degree in engineering physics from CU in 1955. Dick then served for two years in the Air Force as a Project Physicist at the Armaments Center at the Elgin AFB, Florida, and continued for eight years in the Air Force reserves. In 1958, Dick joined the newly-formed Astro-Geophysics Department at CU as one of their first five graduate students. He worked summers at the Sacramento Peak Observatory (SPO) making solar observations for Grant Athay and John Jefferies, and in 1962 he completed his thesis, which analyzed center-to-limb variations of the Sun’s H- α , H- β , and H- γ emissions. He continued research as a member of the Senior Scientific Staff at SPO where he supervised the observational program in the Big Dome.

Credit: unknown.

In 1969 Dick returned to Boulder as a Senior Scientist at the High Altitude Observatory (HAO). In addition to pursuing ground-based observations, he became actively involved in satellite measurements, including the University’s OSO-8 (1975 to 1978) and the Solar Mesosphere Explorer (1981 to 1989). Dick was a strong advocate for synoptic time series of solar and stellar data. In 1974 Dick and Bill Livingston began calcium H and K line observations from the National Solar Observatory at Kitt Peak that continued until 2010.

Dick felt a strong responsibility to collect solar data of each and every type for extended time periods, not only ground-based observations but also data from newly developing satellites. He recognized that these data must be processed and analyzed properly to remove instrumental effects and noise. Dick and Jim Brault wrote the cornerstone paper, *The Analysis and Restoration of Astronomical Data via the Fast Fourier Transform* [1].

In 1981 Dick took a step back from active research and became owner of the Lazy FW Ranch, Mancos, Colorado. Dick always had a deep love for the Southwest — for the environment, the land and the people. He was familiar with the “Solar Dagger” at Chaco Canyon and would gladly lead willing followers to the top of that mesa. While busy raising horses, cattle, and irrigating the land he continued to be deeply involved in solar research — still writing and reviewing papers, supporting proposals for new ventures, and encouraging scientists young and old.

In 1991 Dick returned to HAO while still commuting to his ranch. There he led the 1994 HAO total solar eclipse expedition to Chile and played a critical role in ground-based projects such as the NSF Precision Solar Photometric Telescope (PSPT). He also became Co-Investigator on NASA’s SORCE, TIMED, and SDO missions. After the SORCE launch in 2003 Dick stayed involved in the data analysis and regularly attended the annual SORCE Sun-Climate Symposiums.

Dick was always looking to identify new and promising solar research, and he especially sought out and encouraged young up-and-coming scientists and students. He was an excellent teacher as well as a motivating and supportive mentor who inspired young scientists and influenced many scientific careers. Many remember his generosity, kindness, and modesty. He was a friend and colleague to all. His legacy lives on throughout the solar community.

Surviving Dick are his wife Pat Johnson, two sons Will and Tim, and their families, including two grandchildren and four great grandchildren.

His PhD graduate advisor and long-time friend John Jefferies reflects on Dick’s career, commenting that “Dick’s beneficent influence on solar physics is undoubted. Furthermore, he was at least half cowboy, and he remained so.”

Dick died at home in Green Valley, Arizona, at the age of 88.

Additional Sources

- [Article about Dick White in 1976 in the NCAR Staff Notes](#)
- [Summary of 2010 Sun-Climate Symposium in Keystone, CO that included Tribute to Oran Richard White](#)
- [YouTube video of Dick White’s Talk at HAO’s 75th Anniversary in Aug 2015](#)

Citations

1. Brault, J. W., & White, O. R. (1971). The Analysis and Restoration of Astronomical Data via the Fast Fourier Transform. *Astronomy and Astrophysics*, 13, 169. [↵](#)