LEROY ELSWORTH DOGGETT, 1941-1996

LeRoy Doggett, Head of the Nautical Almanac Office at the U.S. Naval Observatory, died peacefully on 16 April 1996, after a battle with cancer. He was an expert in celestial mechanics, ancient and contemporary calendar systems, astronomical phenomena and history of astronomy as well as archaeoastronomy. For the last 20 years, he compiled and edited The Astronomical Almanac, the world standard authority for the precise determination of astronomical events and positions of celestial objects. He was also responsible for the Nautical Almanac and the Air Almanac.
LeRoy was born on 22 October 1941 in Waterloo, Iowa. He received a BS from the University of Michigan in 1964, an MS from Georgetown in 1970, and his PhD in engineering mechanics from North Carolina State University in 1981. He worked as an astronomer in the Nautical Almanac Office from 1965 and headed that office from 1991 until his passing. His dissertation in celestial mechanics was on the use of Chebyshev polynomials for the generation of a high precision ephemeris of Mars. The early, practical application of these polynomials by Doggett, with others, made those functions the choice for digital representation and transmission of astronomical data. The Almanac for Computers, introduced in 1976, the Floppy Almanac (1986), and the Multiyear Interactive Computer Almanac (1993), are among the important applications based on those compact polynomials.

His research at the Naval Observatory centered on celestial mechanics and calendar systems. Doggett investigated a great diversity of calendars from ancient and indigenous cultures from all over the world; he contributed the Calendars chapter to the new edition of the Explanatory Supplement to The Astronomical Almanac which is widely regarded as the most practical description of the major calendar systems now in use and has in press several major essays for the Garland Encyclopedia of the History of Astronomy. His work in progress at his death was an encyclopedic treatment of calendrical topics, including associated chronological eras and cycles. Doggett was the U.S. expert on the subject and was frequently consulted by other scientists, the media, and the general public on calendrical topics as well as astronomical phenomena, the history of astronomy and archaeoastronomy. When consulted by Islamic scholars concerning the first visibility of the lunar crescent and the beginning of Ramadan, he organized nationwide Moon watches which provided a massive body of observations for critical cases over the United States.

LeRoy was also active in the Historical Astronomy Division of the AAS, and was serving as Secretary/Treasurer when he died. Always meticulous and uncompromising when it came to the art of publishing, he turned the HAD Newsletter into an exemplar of desktop publishing. He was also active in the Division on Dynamical Astronomy, the IAU and the Institute of Navigation. He authored over 40 scientific publications and was coeditor of Sky with Ocean Joined. In 1986, LeRoy received the USNO’s Gilliss Award for his work on the Almanacs and the 1995 Simon Newcomb Award for his research on calendrics. He is the first to receive both of these awards.

LeRoy was a pioneer in the interdisciplines of archaeoastronomy and ethnoastronomy, studies of astronomy in culture. From 1980 until his death, the fine touch of his editorial skills combined with an inimitable sense of humor could be seen in the pages of the Archaeoastronomy Journal where he served as Associate Editor. He also created the Archaeoastronomy and Ethnoastronomy News Bulletin in 1991 to broaden contact between amateurs and professionals.

LeRoy maintained a wonderful sense of humor and positive spirit in his declining health, talking with friends, meeting with colleagues and continuing the research on world calendar systems until his final days. He never lost his passion for life. Reflecting his spirit, memorial services at the USNO highlighted LeRoy’s life-long love, and profound appreciation, for classical music. Among his many honors, a minor planet has been named Asteroid 6363 Doggett. Two forthcoming volumes of Archaeoastronomy will be dedicated in his memory, as will the Fifth Oxford International Conference on Archaeoastronomy.

This notice is based upon an obituary prepared by K. Seidelmann and P. Janiczek of the USNO, which was published in a recent HAD Newsletter and in abbreviated form in the 18 April New York Times (p. B9) and 19 April Washington Post (p. B4).

LeRoy is survived by his wife, Jane Ozenberger, a stepdaughter, Maia Whang, and a brother, Marion. His marriage to Rachel Doggett ended in divorce.

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