

C. T. Elvey

(1899-1970)

The death of Dr. C. T. Elvey occurred in Tucson, Arizona, on 25 March 1970. He was Director of the Geophysical Institute of the University of Alaska from 1952 to 1963, Vice-President for Research and Advanced Study from 1961 to 1963, and University Research Professor and Special Assistant to the President from 1963 until his retirement in 1967. At the Commencement ceremony of May 1967, he was named Director of the Geophysical Institute, Emeritus, and received the Honorary Degree of Doctor of Science at the Commencement of May 1969 — the day after the dedication of the C. T. Elvey Building, the \$4 million new home of the Institute. He is survived by his wife Marjorie, a son Thomas, and a daughter Christena.

Born in Phoenix, Arizona, on 1 April 1899, Chris Elvey graduated from the University of Kansas in astronomy and physics (B.A. 1921, M.A. 1923) and received the Ph.D. in astrophysics from the University of Chicago in 1930. He held positions at the Yerkes Observatory, Northwestern University, and at the McDonald University where he was Astronomer-in-Charge. His numerous publications in astrophysics were chiefly concerned with stellar and nebular spectra. With O. Struve he developed the method for obtaining rotations of stars from the profiles of absorption lines, and in the late 1930's Struve, Van Biesbroeck and he were responsible for introducing the 150-foot nebular spectrograph of the McDonald Observatory, which provided the first information on the distribution and quantity of hydrogen in the Milky Way. It was also during this period with the observatories, at a time when few others were concerned with the subject, that Dr. Elvey became interested in the light of the night sky and applied photo-electric techniques to the detection and photometry of the gegenschein and the color of the zodiacal light. Later, in conjunction with Frank E. Roach, he carried out the first thorough photometric investigation of the light of the night sky. This interest in the night sky was instrumental, after the war, in bringing him to Alaska. During the war years and immediately following, he worked in applied research on the internal ballistics of rockets at the California Institute of Technology and, later, on propellants and high explosives at the U.S. Naval Ordnance Test Station at China Lake where, by 1951, he was Head of Staff.

Dr. Elvey moved to Alaska in 1952 to become Head of the Department of Geophysics and Director of the Geophysical Institute. He personally undertook a study

of the morphology of the aurora, contributed to the design of an all-sky camera for the IGY, and formulated a unifying policy for the Institute based on the theme of 'particle bombardment of the atmosphere'.

At the administrative level he was successful in winning the confidence and support of the Electronics Research Directorate of AFCRL, which greatly strengthened the financial position of the young Institute during the 1950's. He secured major funding for the IGY program from the National Science Foundation, and there is little doubt that the consequent output of geophysical research during and following the IGY did much to focus favourable attention on the Institute and the University of Alaska, both in the United States and abroad. To recount just a few other items: His research proposal of 1958 for conjugate point studies proved to be a far-sighted suggestion which gave the Institute a handsome lead in this field; such studies are still in progress at the Institute, though in more elaborate forms today than Chris originally envisaged. In 1961 he created the Advisory Committee which has been influential in determining broad (scientific and other) policies of the Institute over the years. Its first chairman was Dr. John C. Reed, then Executive Director of the Arctic Institute of North America. Late in 1962 Dr. Elvey set up a long-range planning committee (which he kindly invited me to co-chair with himself) to think through the significant lines of future research and emphasis of the Institute. And one of his final acts as director was to call together a committee of the staff to begin planning for a new building — the building we now occupy and which bears his name.

In the wider sphere, Dr. Elvey was well known as a member of many U.S. and international scientific organizations, and was prominent in the affairs of the IGY and the IQSY. Until 1962 he was Chairman of the Aurora and Airglow Committee of the IUGG and also served as a member of the Scientific Advisory Board of the U.S. Air Force.

The rise of the Geophysical Institute from a small and rather unsettled group early in the 1950's to its position of prominence in high latitude research in the 1960's is surely its own indisputable testimony to effective leadership and scientific direction during the intervening decade. He came to Alaska with a distinguished career already behind him, yet he carved a new career in the far North. Chris Elvey will be missed by his colleagues round the world, by the many friends he made in Alaska and especially by those of us who came to know him — and the integrity he stood for — so well.

Keith B. Mather