

In Memoriam Johan van Heerden

<http://dx.doi.org/10.17159/2410-972X/2018/v28n1a7>

Johan van Heerden was born in Pretoria on the 16th of September and was the eldest of three children. He matriculated from Afrikaans Boys High in 1959 and attained the National Diploma for Meteorological Technicians. Between 1964 and 1967, Johan was seconded to the School of Technical Education. He was promoted to Lieutenant at this unit and during this time he married Sophie Pelser. Between the years of 1967- and 1972 he was a weather forecaster at various forecasting stations. In 1973, he relocated with his family to Pretoria after which he earned the following degrees: BSc, B. (Hons) and M. He was the first person to be awarded DSc (Meteorology) at the University of Pretoria (1984).

In 1976, he was appointed as Meteorologist and did research for the development of the Numerical Forecasting Unit and the Satellite Meteorological Group. In 1979, he became Head Meteorologist (Numerical Forecasting) and part-time lecturer in Dynamic Meteorology at the University of Pretoria. He represented the South African Weather Service (SAWS) at various local and international conferences and has published widely. Under his leadership, highly specialized satellite imaging and graphic systems were acquired for the SAWS.

In short, he was one of the first researchers who became an expert in the use of satellite data for weather forecasting. As a result, in 1980 he was invited to join the International Satellite Cloud Climatology Organization where he developed a system to archive Meteosat data for calibration purposes. In that year, he also published the first book about weather forecasting in the Afrikaans language and for this he was honoured by the ATKV (The Afrikaans Language and Culture Association). In 1984, he was promoted to Vice-Director for Research and he initiated and led research projects regarding long-term weather forecasting in South Africa.

In 1989, he became Professor and was the head of the Department of Meteorology at the University of Pretoria. This is, and has always been the only institution that offers a degree course in Meteorology in South Africa. During this time, he got more and more involved in field projects where, for example, he placed rainfall stations in the veldt in order to establish a comparison between satellite rainfall and measured rainfall. During this time he also started his endeavors in cloud and fog

harvesting. This activity continued long after his retirement in 1999. In 2016, he participated in the research team that was tasked to examine the feasibility of cloud harvesting on the iconic Table Mountain in Cape Town, a very topical issue today. After Johan's retirement he stayed closely involved with his alma mater. He still supervised postgraduate students and took part in research projects. His contribution was mainly with BSc (Hons) level where he lectured in classical forecasting techniques and he was able to share his wealth of experience. Johan educated more than one generation of meteorologists and was mentor and friend for more than 30 postgraduate students.

During his illustrious career he visited many countries for research purposes and conferences and among them were Russia, Brazil, Chile, Australia and Antarctica. He was a member of 17 national and international research committees and he was president of the South African Society for Atmospheric Sciences (SASAS) for 6 years. He was also a member of the South African Scientific Committee for Antarctic Research and he was the representative for South Africa at the International Association of Meteorology and Atmospheric Sciences (IAMAS).

Apart from his pioneering research on the use of satellite images for weather forecasting, he was also one of the first scientists who noticed a connection between the El Nino phenomenon and South African rainfall. In his most recent research, not only did he focus on cloud harvesting but, with Ben van Rensburg, Bobby McEwan and Jack Mellet, they also designed and built a unique cloud harvesting system. During his retirement in Plettenberg Bay, Western Cape he was very involved in the local community and with his friend Paul Pretorius endeavored to make the Poortjies area safer with a camera security system. And finally, last but not least, Johan had the ability to inspire those around him and to cement eternal friendships. He will be missed.

Originally written by his daughter, Esbie van Heerden and published by the University of Pretoria and the South African Society for Atmospheric Science, this version has undergone minor editing for content.