



**Erik Herbert Palmén**  
**In Memoriam**

*Professor Erik Palmén*, former member of the Academy of Finland, died on 19 March, 1985, at the age of 86 years. His death is a great loss for the geophysical sciences of the world. As a member not only of the »Chicago school» but, in a way, also of the »Bergen school» he was one of this century's major contributors to meteorology and also one of the great figures in oceanography.

Erik Palmén was born in Vaasa, Finland, on 31 August, 1898. He studied astronomy, physics and mathematics at the University of Helsinki and took his PhD in 1927. He worked at the Institute of Marine Research from 1922 to 1947, and from 1939 was the Director of the institute. In 1947 he received a personal professorship in meteorology at the University of Helsinki. In 1948, when the Academy of Finland was established, Palmén was appointed a life-long member. He then worked for more than three decades at the Department of Meteorology, University of Helsinki, making several shorter or longer scientific visits abroad. Such, in brief outline, was the career of this great scientist and international figure.

Erik Palmén became interested in weather while still a schoolboy. Even at the age of seven or eight he used to follow the movement of the clouds and changes in weather, often making his own forecasts. He saved money to buy his first barograph at the age of less than ten. This keen interest in weather was also very

characteristic of him later. The first thing he used to do in the morning after coming to his office (and lighting his cigar, of course!) was always to look at the record of his own barograph and other available weather information. He had an excellent memory and could recollect unusual weather conditions occurred even several decades ago. His interest in the actual weather continued till the very end: during his last two days when his energy was already fading the only thing in the daily newspaper that still raised his interest was the weather information.

Palmén never studied meteorology officially simply because at the time of his university studies there was no opportunity to do so in Finland. Hence, as a meteorologist Palmén was a self-made man.

Depending on the profession and interests of a person, the same weather situation can be »good» for one and »bad» for another. For Erik Palmén it was the change that mattered: rapidly changing weather situations were always exciting, stationary weather of any kind dull. Unpredicted elements of weather fascinated him most. I remember him once saying something like »If it were possible to forecast exactly tomorrow's weather, I would not be interested in meteorology».

Palmén never got involved in exploring the methods of numerical weather forecasting and the use of computers; a hand-driven desk calculator was the most sophisticated technical device he ever used in his investigations. However, he fully realized the necessity and potential of developing numerical weather prediction methods and was happy to acknowledge the rapid advance in this area.

Almost all Erik Palmén's scientific papers are observational studies. However, the core of his papers was always the physical interpretation of the observational data and the diagnostic results derived from them. He had an intuitive ability to distinguish important aspects of a problem from minor ones. This is one of the reasons why also pure theoreticians such as Jule Charney highly valued discussions with him.

In many of his pioneer studies Palmén had the magical skill of deriving from a small amount of data results which later research, based on a much larger body of data, has shown to be essentially correct. A good example of this is his estimation of the intensity of the wintertime meridional mass circulation in the tropics. The estimate he calculated in the early 1950's by using upper-wind data below 700 mb from only 19 stations around the latitude 13°N is  $220 \times 10^9 \text{ kg s}^{-1}$ . This value is well within the margins of error of the corresponding estimates obtainable today.

The students and colleagues of Erik Palmén remember him not only as a great scientist and teacher but also as a man with a good sense of humor and an astonishingly wide interest in various aspects of life. For example, in summer he keenly followed the harvest prospects of different crops. This is unusual for a man that has never lived in the countryside.

Erik Palmén, if anyone, should have written his memoirs. Characteristically, he absolutely refused to do so. However, his interview for the WMO Bulletin in 1981 (Vol. 30, No. 2, pp. 92–100) is probably a good summary of such »memoirs that should have been».

In 1977 Palmén wrote his own evaluation of the contributions he had made to world science. These reflections (originally written in Swedish, Palmén's mother tongue) are found in the following pages. They represent the characteristic style of »Maestro» Palmén: presenting just the facts and being very modest in talking about his own achievements.

Eero Holopainen