



VILHO VÄISÄLÄ's 70th ANNIVERSARY

by

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VILHO VÄISÄLÄ was born on the 28th September, 1889, at Kontio-lahti in Eastern Finland. He graduated from high school in 1908 and entered the University of Helsinki, from which he graduated in 1912 after successful studies in mathematics, physics, astronomy and chemistry. In the same year VÄISÄLÄ also began his official career as an assistant at the Central Meteorological Office, Helsinki, where he continued to work until 1948, a period of about 36 years.

During the years 1912—1919, when engaged on a magnetic survey of Finland, he performed magnetic field measurements in different parts of the country, and later published the results of these observations. In 1918, he obtained the degree of Ph.D. at the University of Helsinki for a mathematical thesis entitled »Ensimmäisen lajin elliptisen integraalin käänteisfunktion yksikäsitteisyys» (On the uniqueness of the inverse function of an elliptic integral of the first kind).

Aerology, however, gradually became VILHO VÄISÄLÄ's principal field of activity. In 1916, he was appointed head of the kite station at Ilmala and with the reorganization of the Central Meteorological Office in 1919, VÄISÄLÄ was appointed chief of the aerological section of this institute. The following year he continued his studies in Norway and at the University of Göttingen in Germany. Since then, he has made numerous visits to meteorological institutes in a number of countries on both the European and American continents.

The development of the aerological branch of meteorology in Finland is inseparably associated with the name of VILHO VÄISÄLÄ. Under his leadership the unassuming kite station at Ilmala was gradually built up into a representative aerological observatory and a center of aerological research work. Within the first few years after his appointment the kite models used were improved so that a maximum height of about 5 km could be reached. Later on, meteorological aircraft ascents were introduced and a number of pilot stations, working in close co-operation with the Finnish Air Force, were established in different parts of the country. One of the instruments which VÄISÄLÄ designed during this period is a miniature meteorograph weighing 18 grams (1933).

His experiments with the VÄISÄLÄ radiosonde began as long ago as 1931 and the instrument was presented to the meteorological world at a meeting of the International Aerological Commission in Warsaw in autumn 1935.

In spring 1936 the instrument had reached a stage of development which could be considered entirely satisfactory.

During the summer 1937, the Väisälä radiosonde was successfully used by a Finnish expedition to Spitzbergen and in the same year an aerological diagram chart with scales for height calculation bearing VÄISÄLÄ's name was published. In autumn 1939 VÄISÄLÄ himself conducted a three-man aerological expedition to the South-Atlantic sponsored mainly by the Finnish Academy of Sciences and Letters, on board a freighter of the Finland—South America Line. Two further instruments,

which, among others, have been designed by VÄISÄLÄ, will also be mentioned here, namely a statoscope (1929) and an anemograph (1932). For his contributions to the advancement of Finnish aerology, the title of Professor was conferred on VÄISÄLÄ in 1940.

VÄISÄLÄ has also created a branch of Finnish industry concerned with his special field. A company for the production of VÄISÄLÄ radiosonde equipment on a commercial scale was established in 1944. The enterprise has developed from an unassuming start to a solid new industry and the VÄISÄLÄ SOUNDING SYSTEM and VAISALA OY/Ltd are now well-known in meteorological circles throughout the world. A new up-to-date factory was built on the outskirts of Helsinki at the end of 1954 and at present employs about one hundred persons and exports radiosondes to fifteen countries.

The VÄISÄLÄ SOUNDING SYSTEM was completed by the introduction of a radiotheodolite in the early fifties. This instrument enables simultaneous PTU and upper-wind soundings to be carried out by means of one and the same radiosonde without any extra equipment for the sonde.

An aerological station operating under the supervision of the factory management and carrying out regular radiosounding on all workdays was established close to the factory last year.

In addition to his activities at the Central Meteorological Office and as industrial manager, VÄISÄLÄ embarked on an academic career at the University at an early age. He has also taken part in schemes for international collaboration in the field of meteorology.

During the period 1919—1922, VÄISÄLÄ acted as teaching assistant at the Institute of Physics and 1926 he was appointed lecturer in meteorology. In 1948, he accepted a personal extraordinary professorship in meteorology at the University of Helsinki, retiring from this position in 1958 at the age of 69.

Thanks to his efforts, modern premises were reserved for the Institute of Meteorology on the topmost floor of a new building of Helsinki University, called »Porthania». The building, which is situated in the center of the town, was opened in 1956.

In addition to his teaching activities, VÄISÄLÄ has published a large number of papers (about 80), most of them dealing with instruments and problems of theoretical meteorology and aerology, e.g. critical studies concerning the effect of solar radiation upon aerological instruments. The present standard of aerology in Finland is largely a consequence of his

numerous investigations and practical experiments. As a teacher he exerted a stimulating influence and several of his students have attained the degree of Ph.D. in meteorology at the University of Helsinki under his supervision.

During the period of his professorship, VÄISÄLÄ assisted the University to maintain the necessary staff at the meteorological institute by considerable yearly donations. A special foundation granting scholarships for students of meteorology has been established in the current year at the University of Helsinki based upon a donation of Vaisala Oy made at the suggestion of VÄISÄLÄ and bearing his name.

For his work for the advancement of meteorological science in Finland VILHO VÄISÄLÄ was awarded the »G. G. Hällström Prize» by the Finnish Society of Science at its centenary celebration in 1938. In 1954, he was awarded the honorary prize of the Finnish Academy of Sciences and Letters for his outstanding contribution to meteorology.

VÄISÄLÄ is a member of the Finnish Academy of Sciences and Letters, the Geographical Society of Finland (chairman 1946), the Geophysical Society of Finland (chairman 1927, 1937, 1945 and 1954 he was elected the second honorary member of the Society), the Finnish National Committee of IUGG, the Executive Committee of the Meteorological Association of IUGG (1948—1954), The Finnish National Committee of URSI, the Finnish National Committee for IGY (vice-chairman), the Physical Society of Finland, the American Meteorological Society, the American Geophysical Union, the International Aerological Commission, and since the reorganization of international meteorological co-operation he has been a member of the Commission for Aerology (CAe) and the Commission for Instruments and Methods of Observation (CI MO) of WMO. He has also acted as chairman of the Editorial Board of »Geophysica».

VÄISÄLÄ has represented his country at numerous international conferences and radiosonde comparisons of WMO and IUGG, at the annual meetings of the directors of the Scandinavian meteorological services, etc.

A man of VÄISÄLÄ's capacity is naturally also in need of relaxation. This he finds in his love of music. As a testimony to this interest is his long-continued membership of a male-voice choir of first rank in Helsinki, the »Laulumiehet». In VÄISÄLÄ's beautiful summer residence on the south coast, in the vicinity of the picturesque little town of Porvoo, he has the opportunity to devote himself to his other great hobby, gardening.

On the occasion of the 70th birthday of Professor VILHO VÄISÄLÄ the Geophysical Society of Finland struck a medal with the inscription:

The Finnish Pioneer of Aerology. On Professor VÄISÄLÄ's anniversary, the Society joins in congratulations presented both to the outstanding scientist and the popular Managing Director of Vaisala Oy/Ltd.

