Orbituary
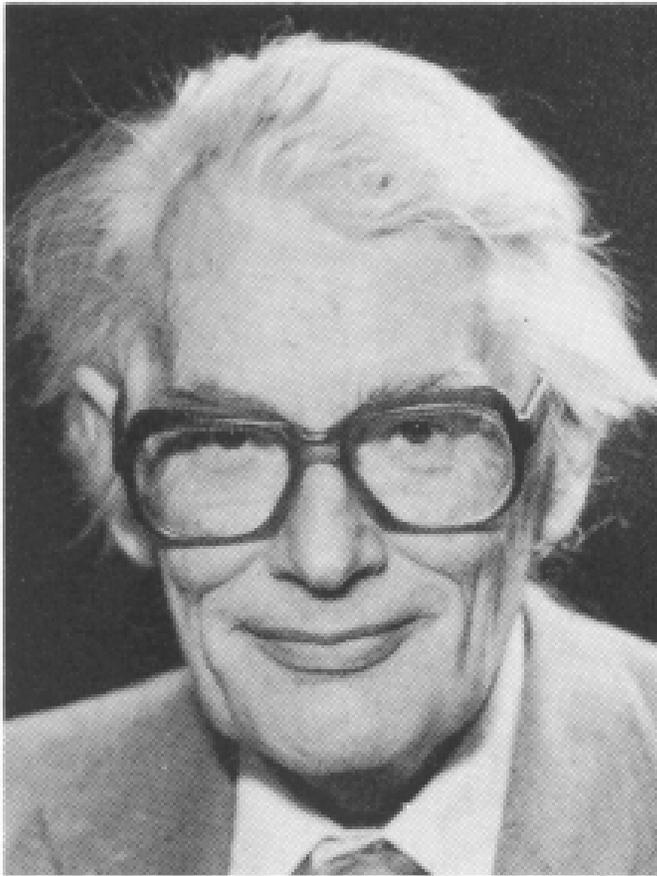
Former Stategeodesist, Dr.tech.h.c. Torben Krarup died November 24, 2005, 86 years old. He was born in Odder, Denmark om March 2, 1919 a small city close to Horsens, where her lived since his retirement from the Geodetic Institute of Denmark in 1986.

After high school in 1938 he studied mathematics, physics, astronomy and chemistry at the University of Copenhagen and graduated as cand.mag. in mathematics in 1945. In 1949 he was offered a position at the Geodetic Institute, initially working with photogrammetry. In 1952 he graduated as mag.scient in geodesy and came to work at the Geodetic Department I, the research department of the institute.

During his work with the conversion of positions in the national coordinate system to UTM coordinates in ED1950 he developed a profound interest in geodetic data electronic processing and its use in all fields of geodesy.

At that time the computer market was dominated by IBM computers, which had numerical properties and functions which were not optimal for geodesy. Krarup became member of a team with the task of designing a "geodetic" computer, and this lead to the

construction of the first fully transistorized computer GIER (Geodætisk Instituts Elektroniske Regnemaskine), which was commercialized by the Danisk company "Regnecentralen".

Having access to an efficient computer, Krarup became deeply engaged in the development of fundamental geodetic software for network adjustment and coordinate transformation.

In 1959 Kraup was introduced to the theory of Molodenskij, which presented a new rigorous view on physical geodesy. Here the theory of the gravimetric boundary value problem presented challenges both theoretically and computationally, which was a great inspiration to Krarup. He became member of IAG Special Study Group 5.31 on mathematical methods in geodesy. With the encouragement of its president, Prof. Helmut Moritz, he continued his theoretical work, which was circulated in the form of "Letters" to the Study Group.

The high point was the publication in 1969 of "A contribution to the Mathematical Foundation of Physical Geodesy". This publication has had a profound impact on geodesy. On high point was the introduction of least-squares collocation, which permits the rigorous combination of all types of measurements related to the gravity field for the construction of a numerical model of the gravity field.

He further developed his ideas into a theory of "Integrated geodesy" in which physical and geometric measurements may be treated within the same mathematical model and computational framework.

At the occasion of his 70'th birthday a "Festschrift" was published in which a full listing of Krarup's scientific publications can be found. However, he has until his death in 2005 continued scientific work resulting in publications co-authored with distinguished colleagues. He was honored for his work by the Technical University of Graz, Austria, by a Dr.tech. h.c. degree in 1982, and was in 1999 awarded the IAG Levallois Medal.

Torben Krarup was a wonderful person: kind, gentle, helpful, unselfish and impeccably honest.

C.C.Tscherning

Reference:

Kejlsø, E., K.Poder and C.C.Tscherning (Ed.): Festschrift to Torben Krarup. Geodætisk Institut, Meddelelse No. 58, København, 1989.