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History of the meteorological measurements at Keszthely, one of the eldest stations in Hungary

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The meteorological station of Keszthely began its work between those few important stations of Hungary, that started the measurements for the first time in the history of the Hungarian meteorological observations. The first meteorological station worked in the frameworks of the Georgikon Agricultural Academy. Due to the professors the registration of the values of the observed meteorological elements has been unbroken until nowadays, in spite of the fact that the station became removed several times. At the beginning of the measurements there were not so strict rules for placing of the station, so the observations were made in the central building of the Academy. When the influence of the buildings and of the town on the value of the meteorological elements was discovered, the station became removed to the outskirts. From 1865. to 1867. meteorological measurements were done, but just periodically. From 1867. *Mihály Soós* - professor of Meteorology and Climatology - observed the meteorological events. The exact position of the station was: longitude East $17^o14'$, latitude Nord $46^o46'$, altitude respect the see 117 m. Following professor Soós, professor *Sándor Lovassy* continued to register the measure of the meteorological elements The points of time of the measurements were “XVIII, II, X o’clock”, according to the rules of the Meteorological Institute of Wien.

Between 1938., and 1962. the measure of the meteorological elements was registered at two stations. One was the original meteorological station in the building of the Academy, the other was placed on the research-station of the Georgikon Faculty. From 1962., the whole station was removed to this place. The exact position of the station was: longitude East $17^o15'$, latitude North $46^o47'$, altitude respect the see 143 m.

From 1966 - because of the urbanization - the meteorological station was removed to the outskirts, near Lake Balaton, as the Observatory of the Hungarian Meteorological Service. Between 1966., and 1995. the station was replaced at the nearest place to the lake from all the meteorological stations of the town, and had the widest and most frequent observational schedule. The exact position of the station was: longitude East 17^o14', latitude Nord 46^o45', altitude respect the see 116 m. Five meteorologist-technicians worked continuously in the observatory, during the whole day. They provided actual weather observations hourly.

In 1971 an Agro-meteorological Research Station was founded in the shared frameworks of the Hungarian Meteorological Service and of the University of Agriculture, the Georgikon Faculty. This station was placed at "Tanyakereszt", a peripheral part of the town, and continued the measurements of the meteorological elements from 1995. The exact position of the station: longitude East 17^o14', latitude Nord 46^o44', altitude respect the see 114.2 m. From the autumn of 1996., a MILOS 500 automatic meteorological station was settled at the agro-meteorological station in Tanyakereszt. In the winter of 2000., the MILOS 500 automatic weather station was changed into a QLC 50 automatic meteorological station. The automatic station forwards the measured data to the central data set ORACLE of the Hungarian Meteorological Service by ISDN line connection. QLC 50 provides the following parameters: global radiation, velocity and direction of the wind, air temperature, air humidity, temperature of the soil in various depth (5, 10, 20, 50 cm), grass temperature and precipitation amount. Now the station operationally belongs to the Department of Meteorology and Water Management in the University of Pannonia Georgikon Faculty of Agronomy, and is a vital part of the Hungarian Meteorological Observation Network. Parallel with traditional meteorological observations, the station also gives special information such as different pan evaporations, evapotranspiration values and other investigations concerning plant eco-physiological characters. The 24 Thornthwaite type compensation evapotranspirometers (lysimeters) are the last ones in the Transdanubian area of Hungary.