

50 ANNIVERSARY OF MOUNTAIN METEOROLOGICAL STATION ON ZAVIŽAN

After meteorological service had separated from the scientific and educational institutions on 1947 when Meteorological administration has been established (which is now Meteorological and Hydrological Service of Croatia) the meteorological network has been growing very fast. On 1 October 1953, regular observations on meteorological station Zavižan on northern Velebit has started. Croatian Meteorological Society and Meteorological and Hydrological Service of Croatia are preparing the monography *Zavižan* to mark the 50 anniversary of the station. Meteorological station Zavižan is placed under the Vučjak hill, on the height of 1594 m above sea level, which makes it the highest meteorological station in Croatia.

At the beginning Zavižan was climatological station with three observations daily. The measurement program grew with time and more and more new modern and complicated instruments were put in regular work there. From 1 September 1964 daily special reports for weather forecast has been sent from Zavižan, what upgraded its level, and the station got the status of synoptic station. From 1 April 1964 phenological measurements were established, too (observing of developing phases of trees, brushwood and herbs).

The simultaneous measurements of climatological parameters on the top of Velebit, on stations at Lika plateau, on the coastal area in the Velebit Channel and on the islands of Rab, Pag, Lošinj and Krk, give the possibility for detail determination of the climate of Velebit, the most important mountain in Croatia, on which two national parks are placed.

Measurements on mountain meteorological station Zavižan are used for the estimation of dependence of climatological parameters with height. This is very useful for charts making.

The measurement program is much wider then on ordinary, low level stations. Special measurements like the precipitation amount from the fog, snow density and water content in snow, snow crystal form estimation and vertical profile of minimal air temperature are performed only on Zavižan station. Simultaneous microclimatological measurements of specific phytocenosas are very useful for forest science and practice. Air quality measurements are very important for transboundary pollution transport estimation.

The visibility at Zavižan is very good, what makes atmospheric phenomena observations at long distance possible. These data could be applied in warnings of dangerous atmospheric situations and processes.

Location, program and data quality make mountain meteorological station Zavižan one of the most important stations in Croatia. By celebrating the 50 anniversary of its work we give the honor to the meteorology as one of the natural sciences and make it important social, cultural and sport event.

Meteorological observers on Zavižan work really enthusiastic despite very hard conditions due to chilly weather on Velebit through almost the whole year (snowstorm, blizzard, fog, heavy precipitation, severe wind). Sometimes they are cut from outside world, sometimes without the electricity.

(adapted and translated by Vesna Đuričić)

photo: **Vesna Đuričić, dipl. ing Ante Vukušić**



The highest mountain meteorological station Zavižan (1594 m)



Short summer on Velebit



Meteorological observer Drago Vukušić



Frozen thermometric screen



Enclosure of the meteorological stations



Enclosure of the meteorological station



The view to the Adriatic Sea



Heliograph covered with hoar-frost
(heliograph measures sunshine duration)