



The updated Hungarian weather radar network

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The establishment of the Hungarian Radar Network began in the early eighties. According to the technical facilities of the era, three MRL-5 type, Russian made equipments came to installation in Budapest, Napkor and Farkasfa. This network served the Hungarian radarmeteorology for nearly fifteen years. Due to the development of science, and consequently of the radartechnology more and more modern devices appeared, so the extant network became obsolete that made the update of the radar network necessary.

Within the framework of the modernization, a C-band (~ 5.5 cm wavelength) dual-polarimetric Doppler-radar was installed in the radar station of the Hungarian Meteorological Service in Budapest, and then installation of two additional radars of the same type followed it in Napkor and Pogányvár in 2003 and 2004, respectively. In addition to the reflectivity information, measurement of radial wind component and the differential reflectivity became also possible by using the new system. The equipments in Napkor and Poganyvar are suitable to measure the parameters on phase shift that means the differential propagation phase, specific differential phase shift and the cross-correlation coefficient. So a dual-polarimetric Doppler-radar network works in operational use in Hungary from 2005.

We show, in details, the structure of the Hungarian radar network and the technical parameters of the individual radars. We detail the settings applied in the course of the operational work and the scanning strategy. The generated products, our plans and purposes are also reviewed.