6.23 MONITORING OF CALIBRATION HOMOGENITY OF HUNGARIAN WEATHER RADAR NETWORK

MARIANNA HADVÁRI[1], PETER NEMETH[1], ROLAND STEIB[1]

[1] Hungarian Meteorological Service, Hungary
hadvari.m@met.hu

Hungarian weather radar network consists of four dual-polarized C band radars measuring up to 240 km distance, covering the whole area of Hungary. Three old radars were upgraded from alternate polarization method to simultaneous method in the last few years. A new radar site was established and the new radar using simultaneous method was also installed in 2014.

In order to analyze the homogenity of calibration level in the network a comparison was conducted for horizontal reflectivity measured above the overlapped area. Reflectivity is scanned in operativ manner in every 5 minutes on 10 different elevation angles. The measured values are interpolated into a 16 vertical level 3D grid, with 1 km horizontal and vertical resolution.

The comparison is made for the suitable vertical levels where the difference of cross-section area of the bins is sufficiently small, neither ground clutter nor partial beam blockage exist.