Geophysical Research Abstracts,
Vol. 11, EGU2009-9374, 2009
EGU General Assembly 2009

Monthly and seasonally verification of precipitation in Poland

K. STAROSTA and J Linkowska

INSTITUTE OF METEOROLOGY AND WATER MANAGEMENT, Numerical Weather Forecasts, WARSAW, Poland (katarzyna.starosta@imgw.pl)

The national meteorological service of Poland - the Institute of Meteorology and Water Management (IMWM) joined COSMO - The Consortium for Small Scale Modelling on July 2004. In Poland, the COSMO _PL model version 3.5 had run till June 2007. Since July 2007, the model version 4.0 has been running. The model runs in an operational mode at 14-km grid spacing, twice a day (00 UTC, 12 UTC). For scientific research also model with 7-km grid spacing is ran.

Monthly and seasonally verification for the 24–hours (06 UTC - 06 UTC) accumulated precipitation is presented in this paper. The precipitation field of COSMO_LM had been verified against rain gauges network (308 points). The verification had been made for every month and all seasons from December 2007 to December 2008. The verification was made for three forecast days for selected thresholds: 0.5, 1, 2.5, 5, 10, 20, 25, 30 mm.

Following indices from contingency table were calculated: FBI (bias), POD (probability of detection), PON (probability of detection of non event), FAR (False alarm rate), TSS (True sill statistic), HSS (Heidke skill score), ETS (Equitable skill score). Also percentile ranks and ROC-relative operating characteristic are presented. The ROC is a graph of the hit rate (Y-axis) against false alarm rate (X-axis) for different decision thresholds