



Hydrometeorological forecasting and warning system in the Czech Republic

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Czech Republic (CZ) experienced large floods (1997, 2002, and 2006) that left behind more than 60 fatalities and serious total financial loss. Therefore role of forecasting and warning service (FWS) is increasing. An efficient FWS must consist of meteorological forecasting, hydrological runoff modeling, forecast outputs dissemination and correct interpretation by its users. Czech Hydrometeorological Institute (CHMI) is responsible for meteorological as well as hydrological forecasting in CZ. One unified system (SIVS) is used for warning of meteorological and hydrological hazards. Warning consists of meteorological forecast, expected hydrological response and list of recommendation for general public. SIVS is meteoalarm.eu compatible. National emergency system disseminates warnings to responsible flood authorities. Warnings are also published on CHMI web page and provided to other partners (f.e. mass media, neighboring countries). Hydrological modeling systems cover the whole CZ producing freely accessible (CHMI web page) forecasts of more than 70 profiles. Due to geographical conditions quantitative precipitation forecast (QPF) of NWP ALADIN inputs directly hydrological models. However meteorologist's expertise is used to correct inputting QPF. To interpret hydrological forecast correctly CHMI representatives are members of flood commissions and crisis management staffs. Five flood events occurred and tested the whole FWS and emergency system in CZ in 2006 and 2007. CHMI warnings announced flood occurrence at least 2 to 6 days before "flood" stage providing the same or longer lead-time than European flood alert system. Distribution of reports and the response of flood authorities to CHMI warnings were also tested by large flood practice in 2007 incidentally at the same time of real flood. CHMI and the whole flood protection system coped without problems both real flood and practice

together although “occurred” in the same area and time.