

## GEOMAGNETIC OBSERVATIONS AND SPACE WEATHER STUDIES IN THE CZECH REPUBLIC

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The long tradition of geomagnetic observations on the Czech territory dates back to 1839, when regular observations in Prague-Klementinum were started. As the oldest geomagnetic data have been recently recognized as an important source of information for re-calibration of Sunspot Numbers, digitization and analysis of the data was now started. The Prague observatory was closed down in 1926 due to the increasing industrial magnetic noise, was replaced by the Pruhonic near Prague observatory in 1946 and moved to its recent quiet location in Budkov in south Bohemia in 1967. The observatory became part of INTERMAGNET in 1994.

The Geomagnetic Department of the IG ASCR has been issuing daily forecasts of geomagnetic activity since 1994. Since 1998 the forecasts have been sent to Czech TV, where they are presented as part of the Weather Forecast. Simultaneously, forecasting methods based on the analysis of geoeffectiveness of solar X-ray flares were developed. It was shown that the probability of geomagnetic response depends on the solar flare class and its position on the solar disc. The flares in the central region were found to be more geoeffective. The probability further increases if the flare was accompanied by Type II and/or Type IV of solar radio bursts. The results indicated that X-ray flares accompanied by solar radio bursts represent a good proxy of coronal mass ejections which are believed to be the principal cause of increased geomagnetic activity.