



Warning against the dangers of wildfires in the Czech Republic

M. Mozny (1), D. Bares (1), M. Virag (2), and J. Stalmacher (1)

(1) Czech Hydrometeorological Institute, Doksany 105, 41182 Doksany, Czech Republic, (martin.mozny@chmi.cz, daniel.bares@chmi.cz, stalmacher@chmi.cz), (2) Automated Systems & Consulting, Javorova 3774, 27601 Melnik, Czech Republic, (michal.virag@asconsult.cz)

Many fire risk models have been developed for various temporal and spatial scales and application purposes. The integrated warning service in the Czech Republic is used for wildfire risk assessment model of FDI (Fire Danger Index). The FDI model is being developed in the Doksany observatory based on evaluation of weather conditions. FDI model describes danger of wildfire for vegetation covered countryside. There are five levels of danger: 1 - very low risk, 2 - low risk, 3 - moderate risk, 4 - high risk, 5 - very high risk. Simply say higher index value, reflects to higher risk of wildfire. As input data, the model uses measured values from the Czech Hydrometeorological Institute stations network as well as ALADIN's model predicted conditions. The modelling process computes upper soil profile moisture, surface moistening and the spreading speed of fire. Early warning system for wildfires prevention in the Czech Republic is used since 2006.