



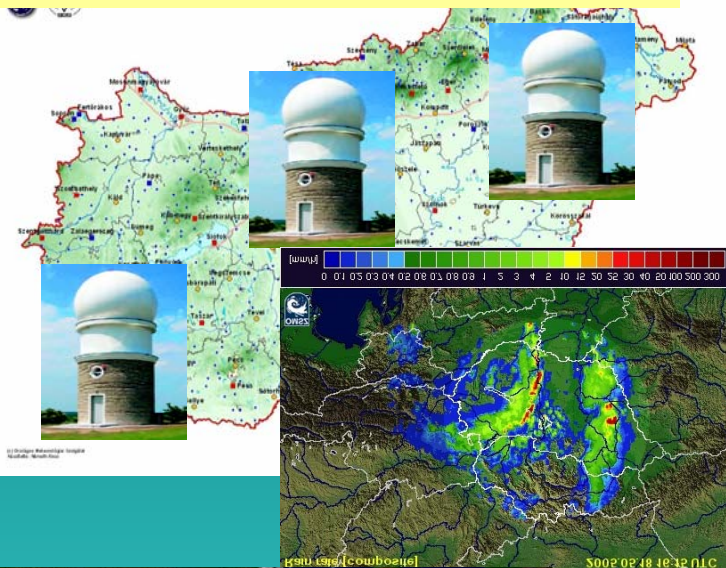
Bonta. I. Hungarian Meteorological Service (HMS)

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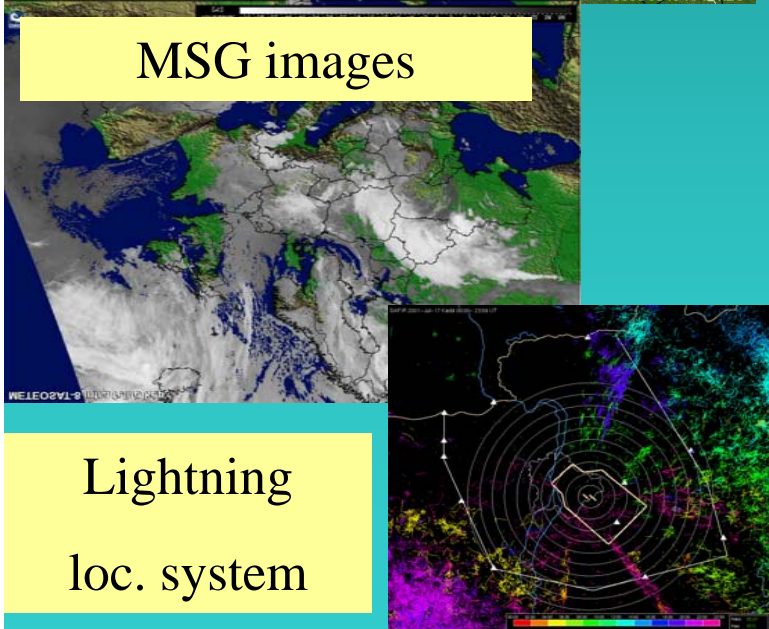
Meteorological input for hydrological ensemble forecast

The most important tools and information support water management

3 doppler radars

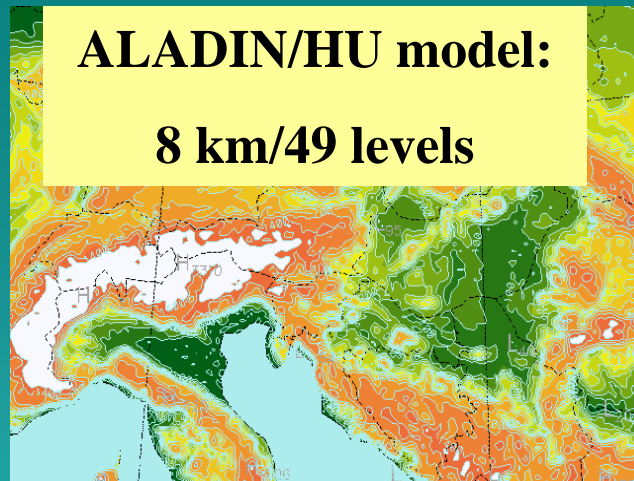


MSG images

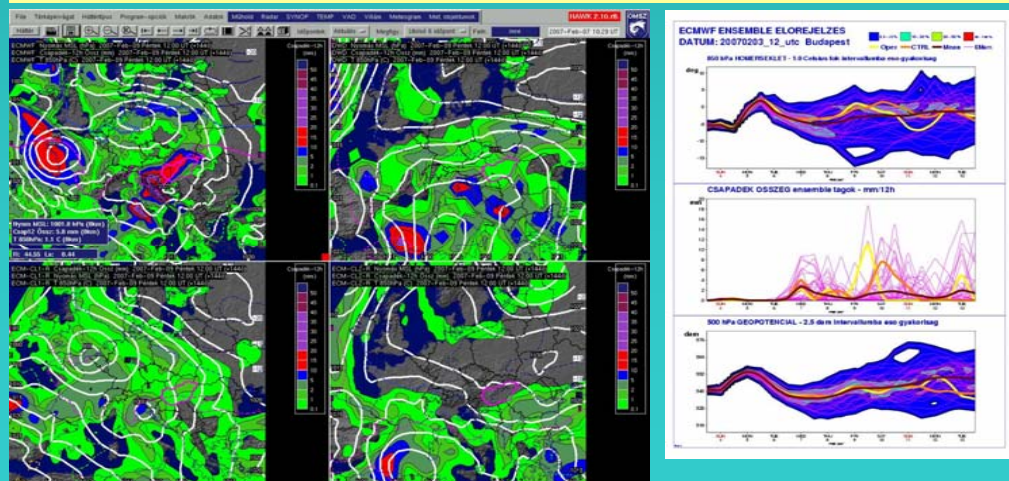


Lightning loc. system

ALADIN/HU model: 8 km/49 levels

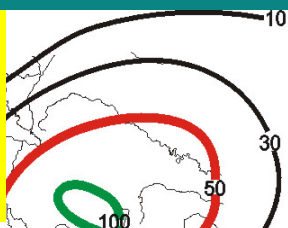


Different EPS products of ECMWF model: clusters, plum diagrams, probability fields



Case study connected with flood in Upper-Tisza 03.03.2001

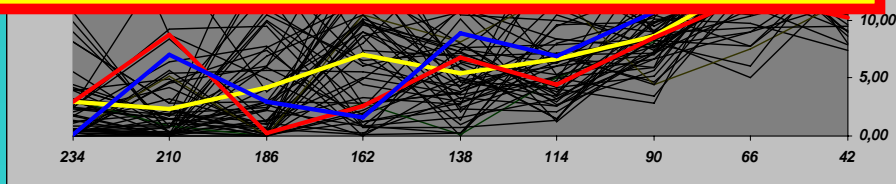
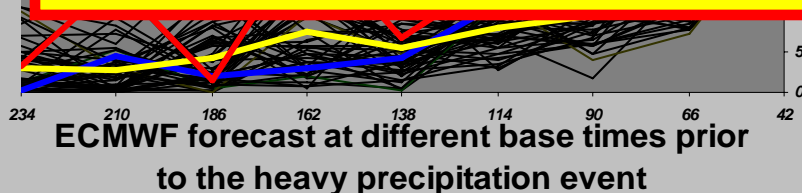
**Measured
values 03.03.
2001.**



**03. 03 2001. 24 h predicted
precipitation field by ALADIN model**

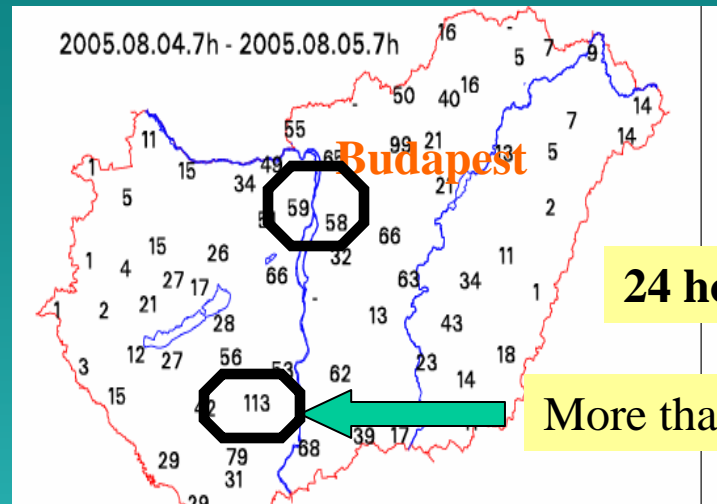


Generally ensemble mean produces better results than the deterministic model in all catchments areas after 3-4 days. However, in those catchments, which are situated in orographic region during heavy precipitation the operational version due its higher resolution might give better results not only in the first 1-3 days, but up to 10 days as well, because this version was more able to capture the orography effect.

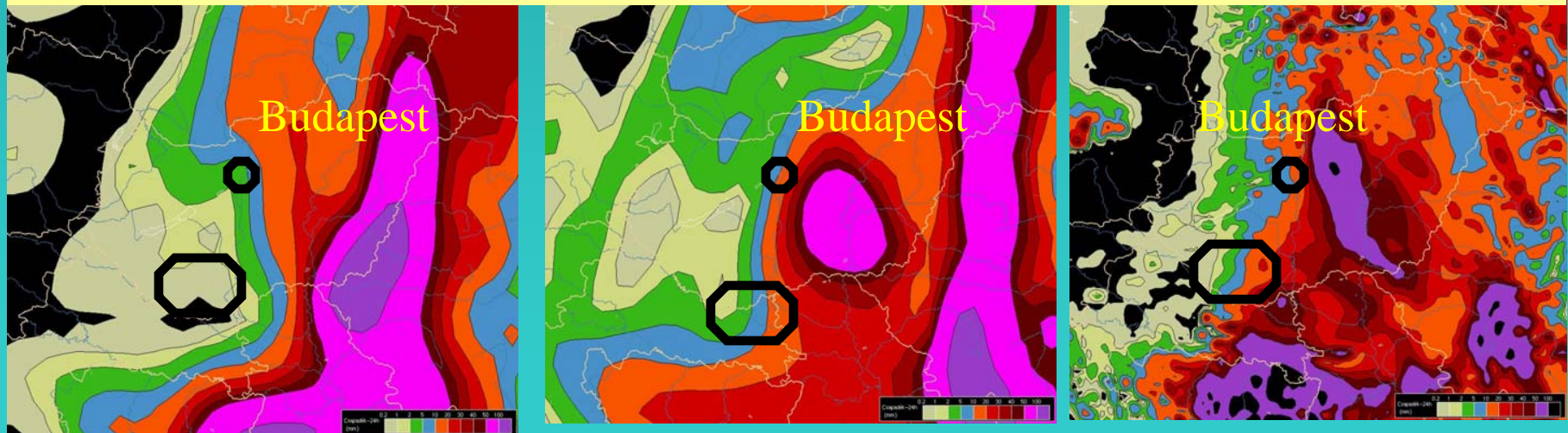


EPS or deterministic model for short range

Heavy precipitation in August 2005



Just as in the ECMWF deterministic forecasts (based on 02. 08. 2005 12 UTC and 03. 08. 2005 12 UTC), the precipitation over Hungary is largely missed in ALADIN model as well.



In contrast to the T511 forecast, which predicted the event too far east, the EPS was more successful in predicting the area of the event the 20 % of the members showing a consistent signal more to the west, closer to the event.

