



**LVGMC**

# **SIMULATOR EXERCISE**

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## **In this exercise...**

we will simulate weather forecasting using a real life example and data.



## **The objective ...**

of this exercise is to introduce us with forecasting the development of convective processes and to demonstrate your skills in forecasting the weather.

## **This exercise consists of...**

1. Briefing (10 minutes) at “12 UTC”.
2. Forecasting (~ 20 minutes). Your shift begins at “12 UTC” and ends at “15:00 UTC”, and the time runs 10 times faster than in reality. The information will be updated continuously.
3. Preparation of a simple forecast.
4. Debriefing.

Confusion, Technical problems: ask Zanita

Forecasting help: ask anyone in the room

Take a break when you need it

# Your shift will begin at 12:00 UTC and finish at 15:00 UTC



**12.00 UTC** Take part in the briefing.

**12.00-13.00 UTC** Your shift begins. Learn the system and get acquainted with the weather situation.

**13.00-13.30 UTC** Prepare a very short convection nowcast to cities Parma and Ferrara (Italy) for 15-18 UTC. Be short – use maximum 20 words for your forecast.

**13.30-14.30 UTC** Monitor your forecast.

**14.30-15.00 UTC** Update forecast if needed.

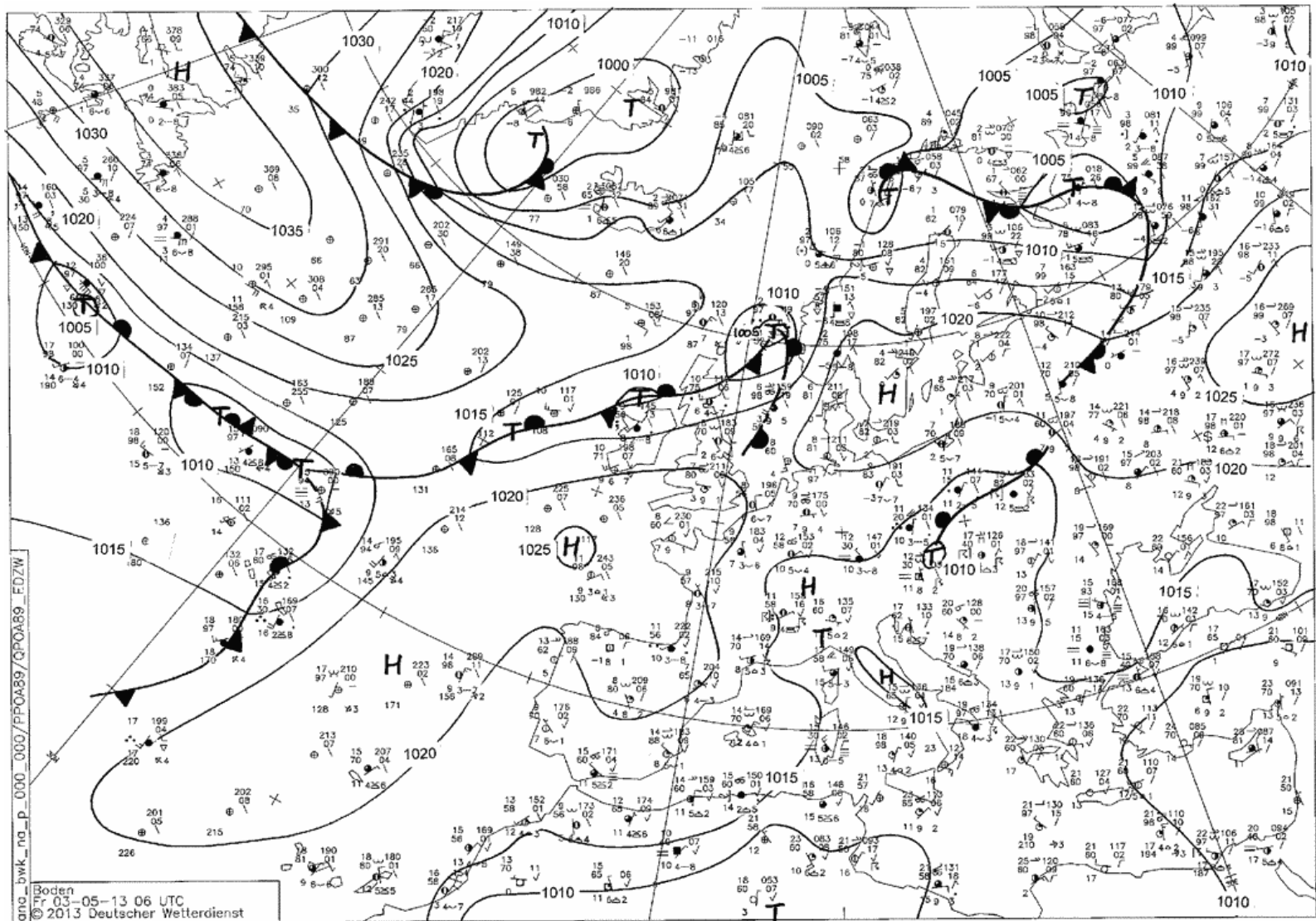
**15.00 UTC** Shift ends.

**15.00-16.00 UTC** Debriefing.



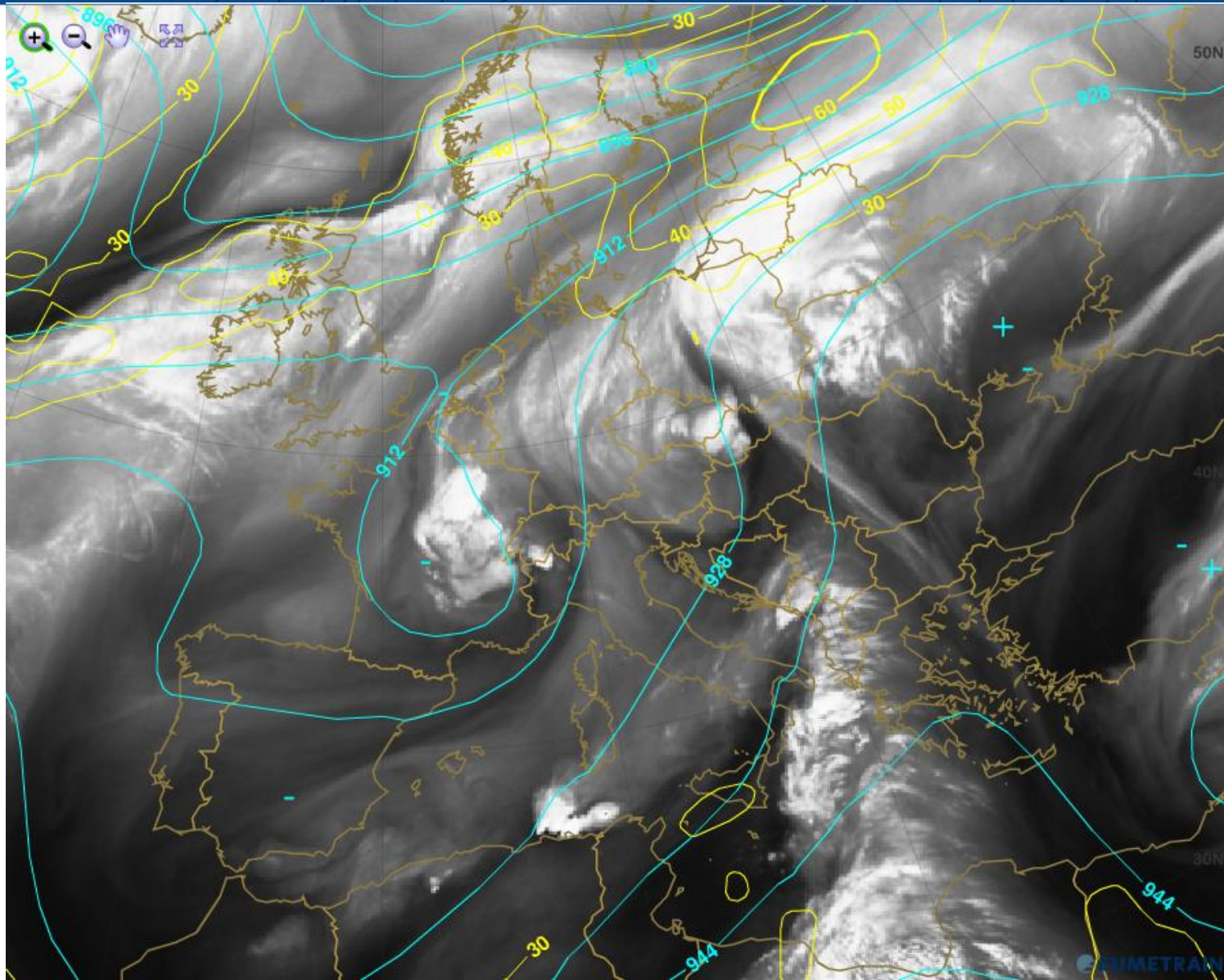
*\* You should only use the material provided in this exercise*

# Briefing material as for 06:00 UTC: Surface analysis DWD



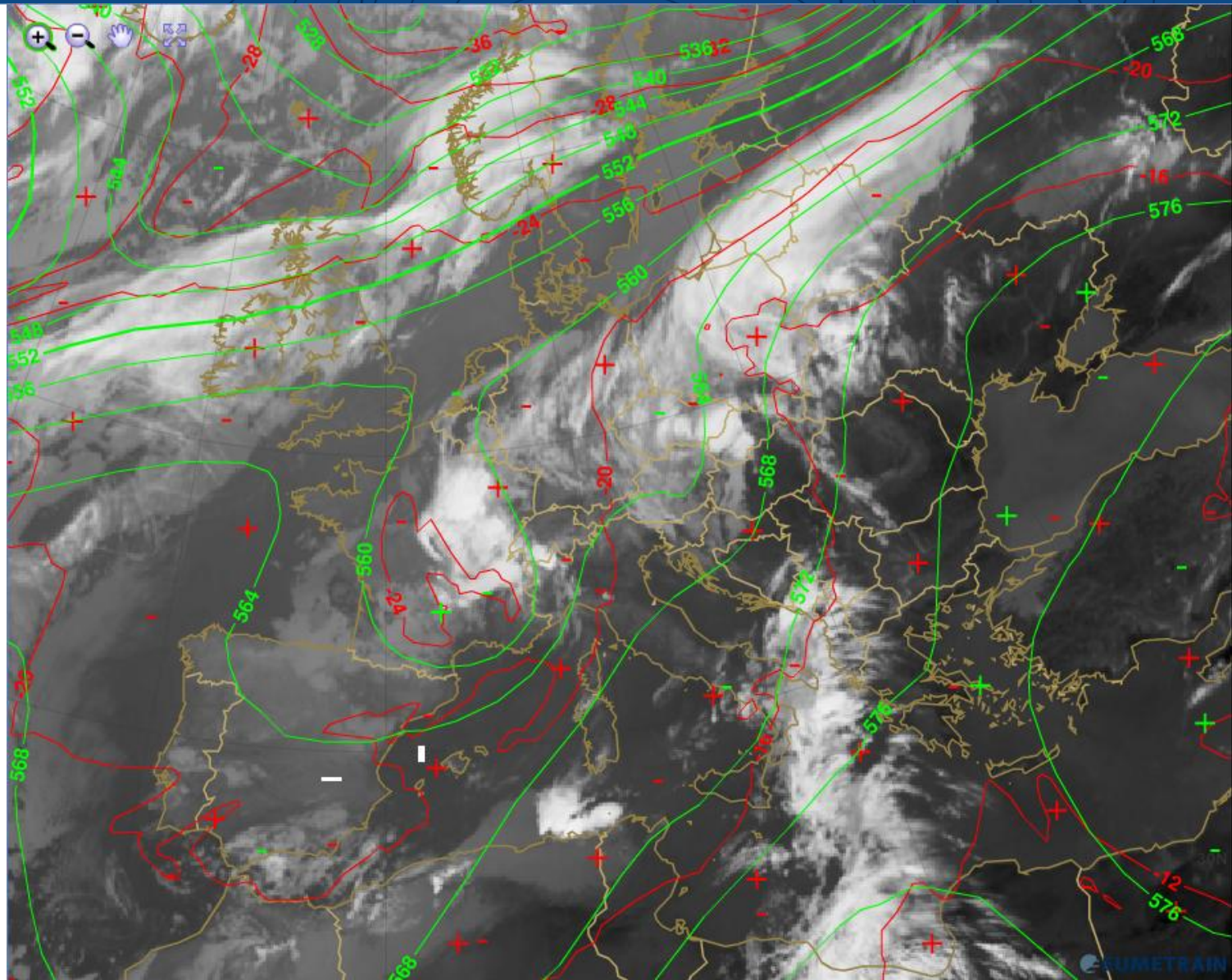


# Briefing material as for 06:00 UTC: WV 6.2 + 300 hPa Z / Isotachs





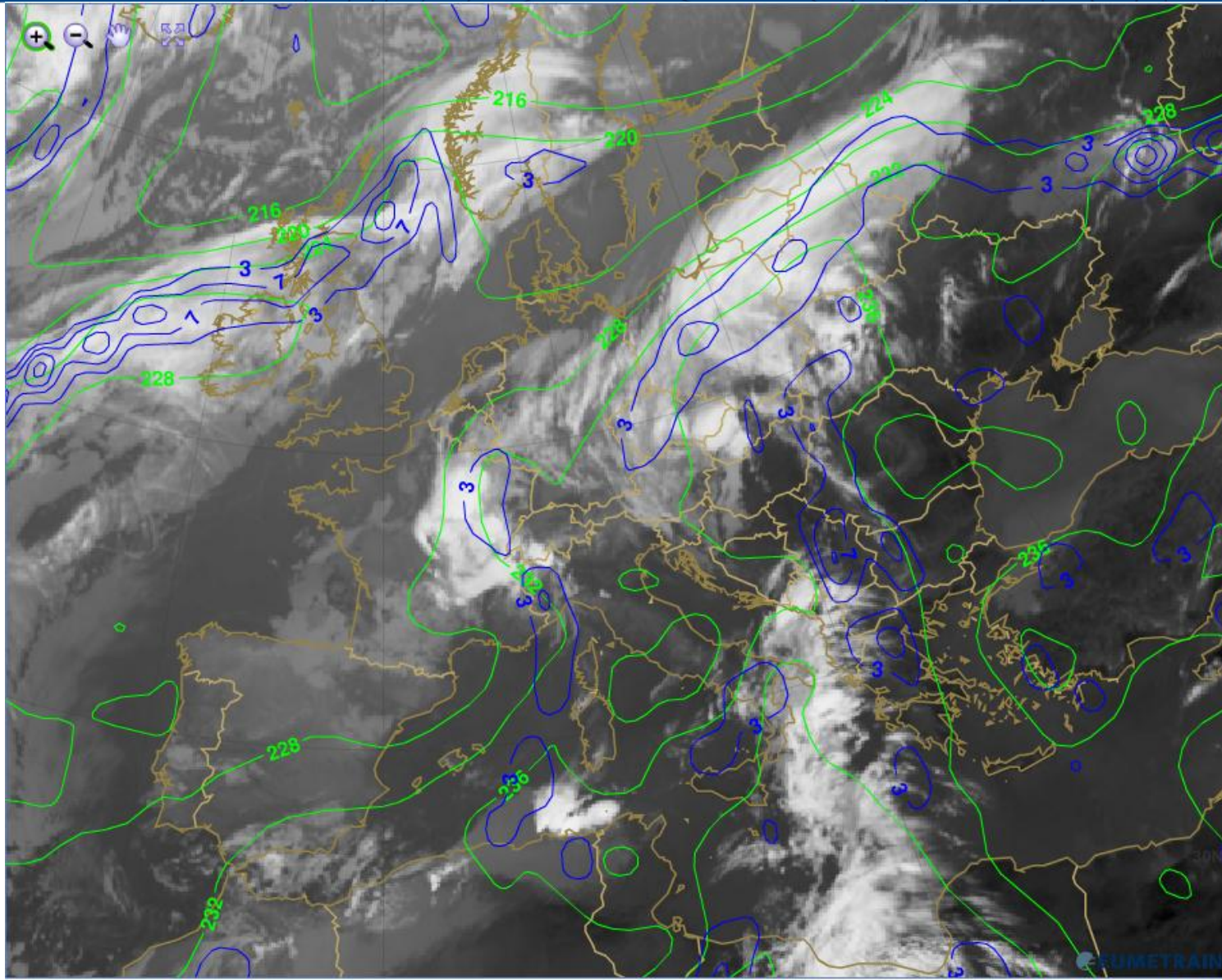
# Briefing material as for 06:00 UTC: IR 10.8 + 500 hPa Z / T





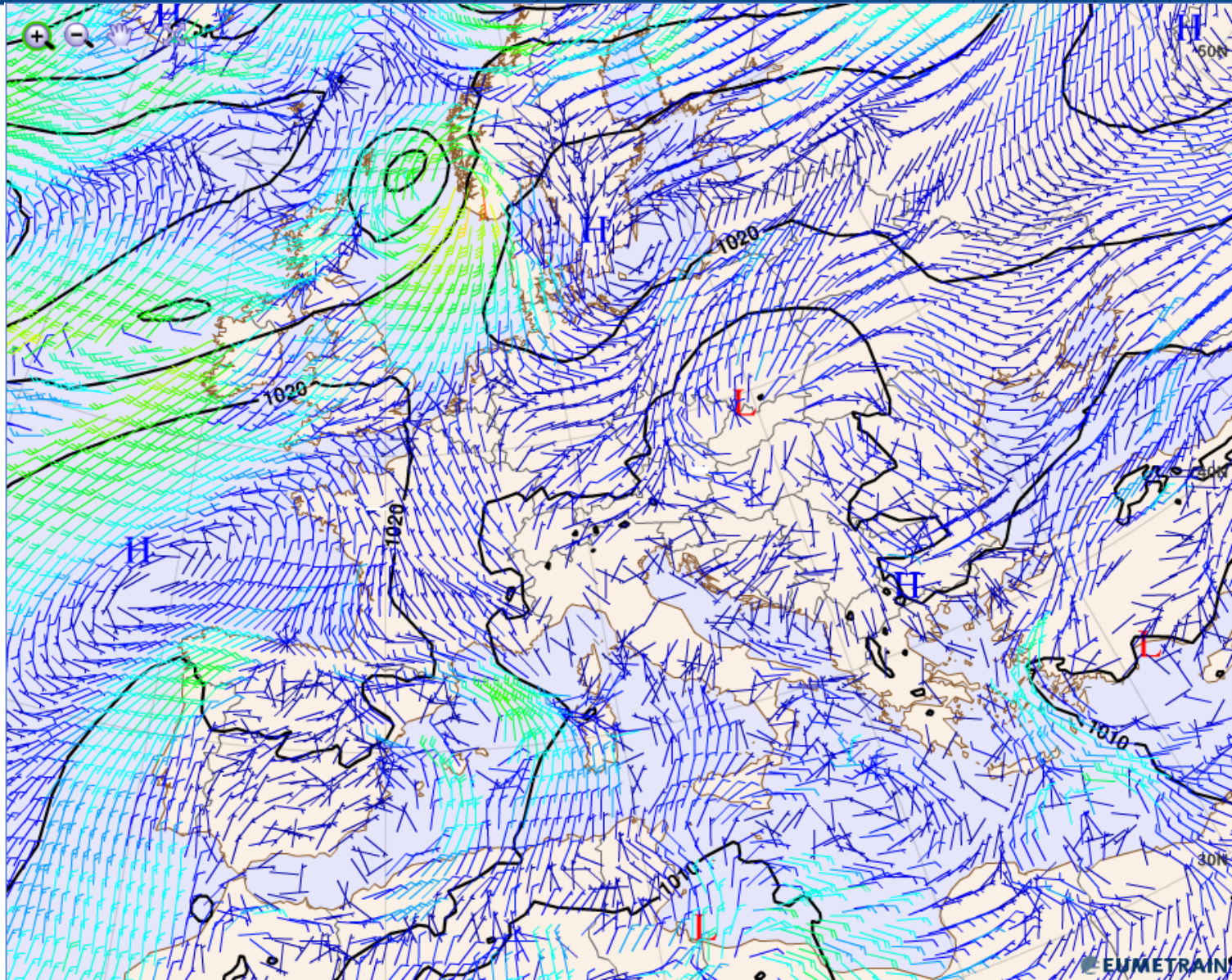
Briefing material as for 06:00 UTC:

IR 10.8 + Thermal Front Parameter + Thickness 850-500 hPa



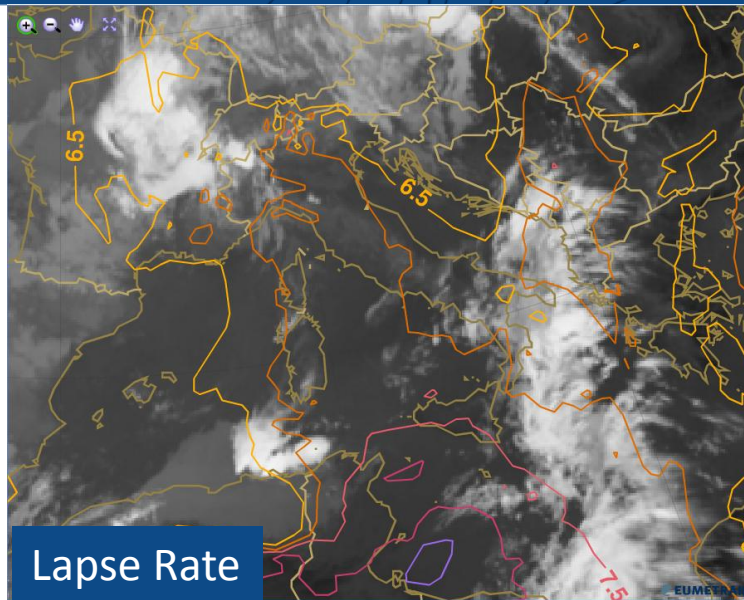


# Briefing material as for 06:00 UTC: 10 m wind + MSLP

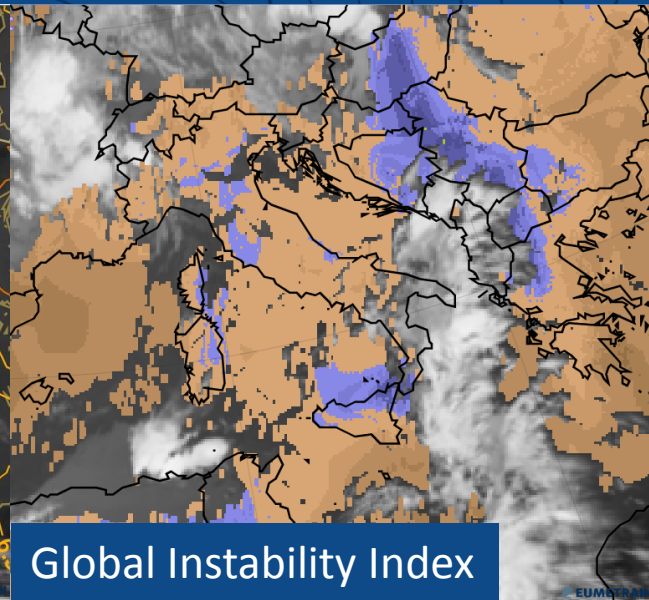




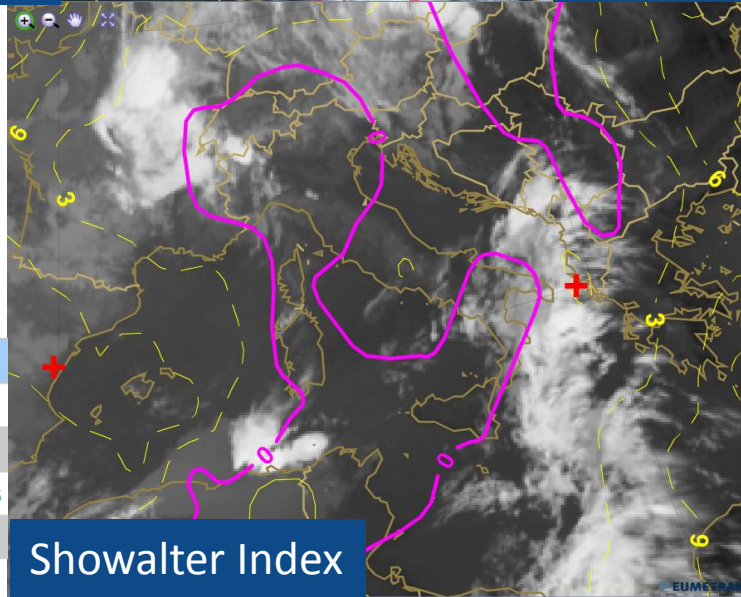
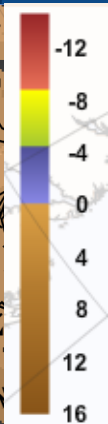
# Briefing material as for 06:00 UTC: Convection indices



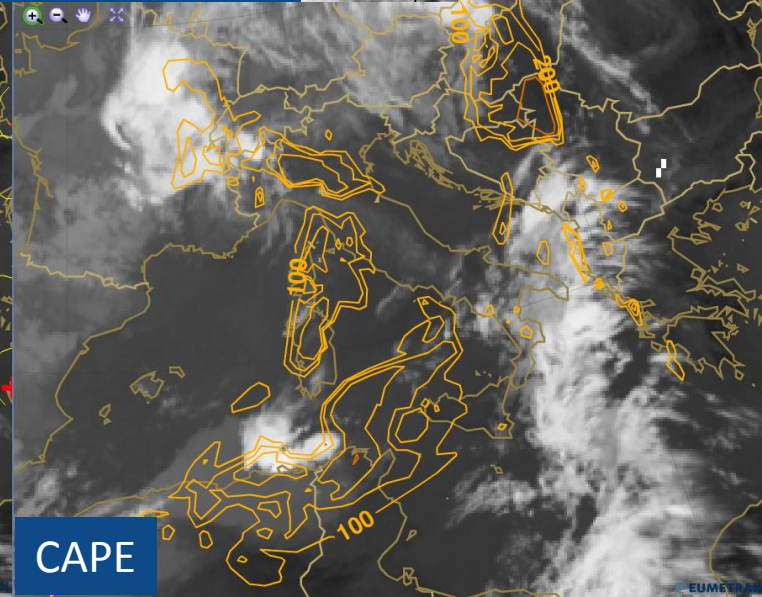
Lapse Rate



Global Instability Index



Showalter Index



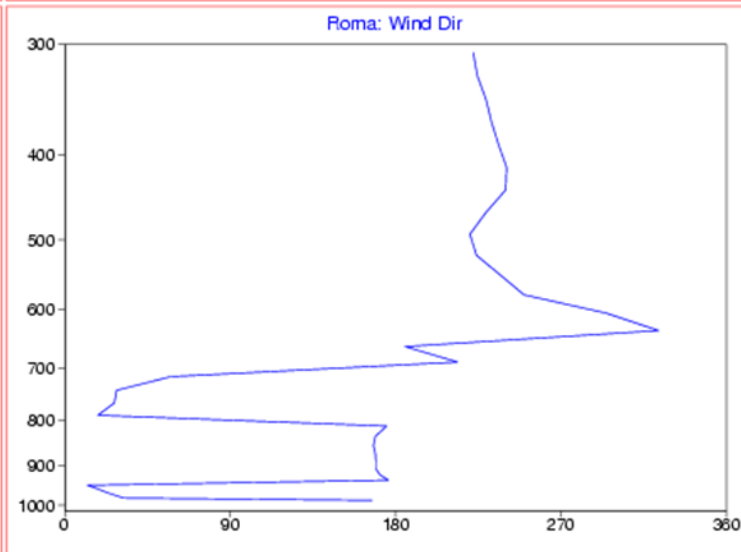
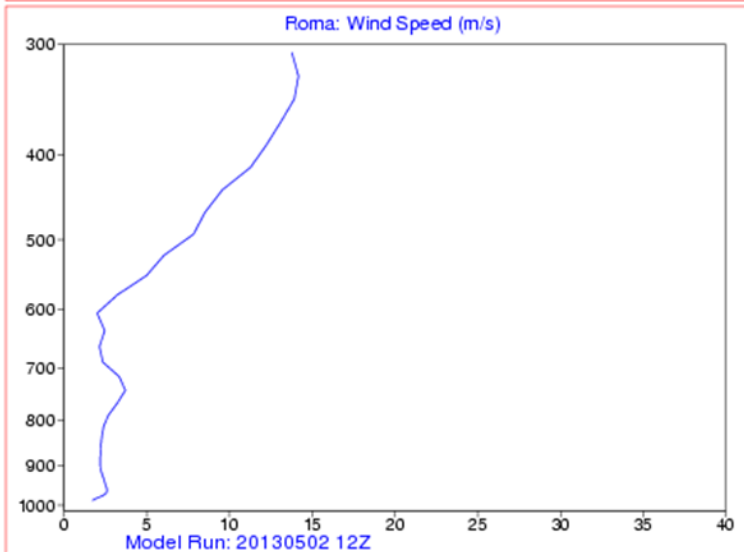
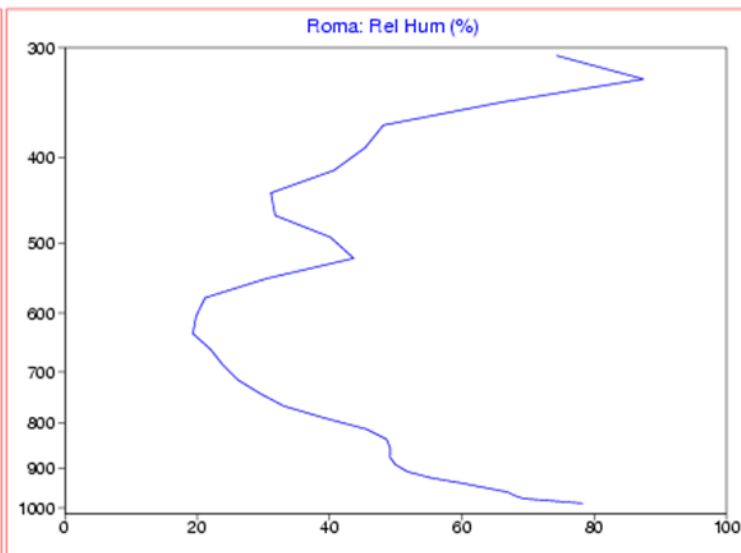
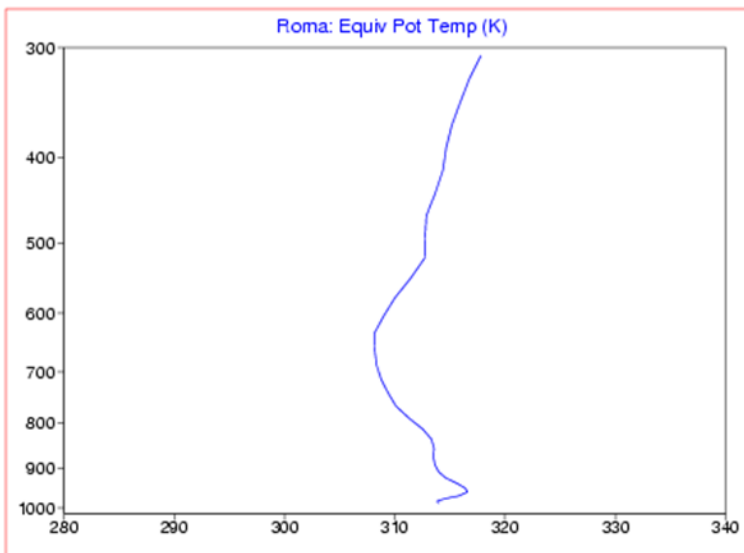
CAPE

Showalter Index	TS Probability
>3	Thunderstorms unlikely
0 - 3	Isolated Thunderstorms
-3 to 0	Numerous Thunderstorms
<-3	Thunderstorms very likely

# Briefing material as for 06:00 UTC: Convection indices and ECMWF sounding for Rome

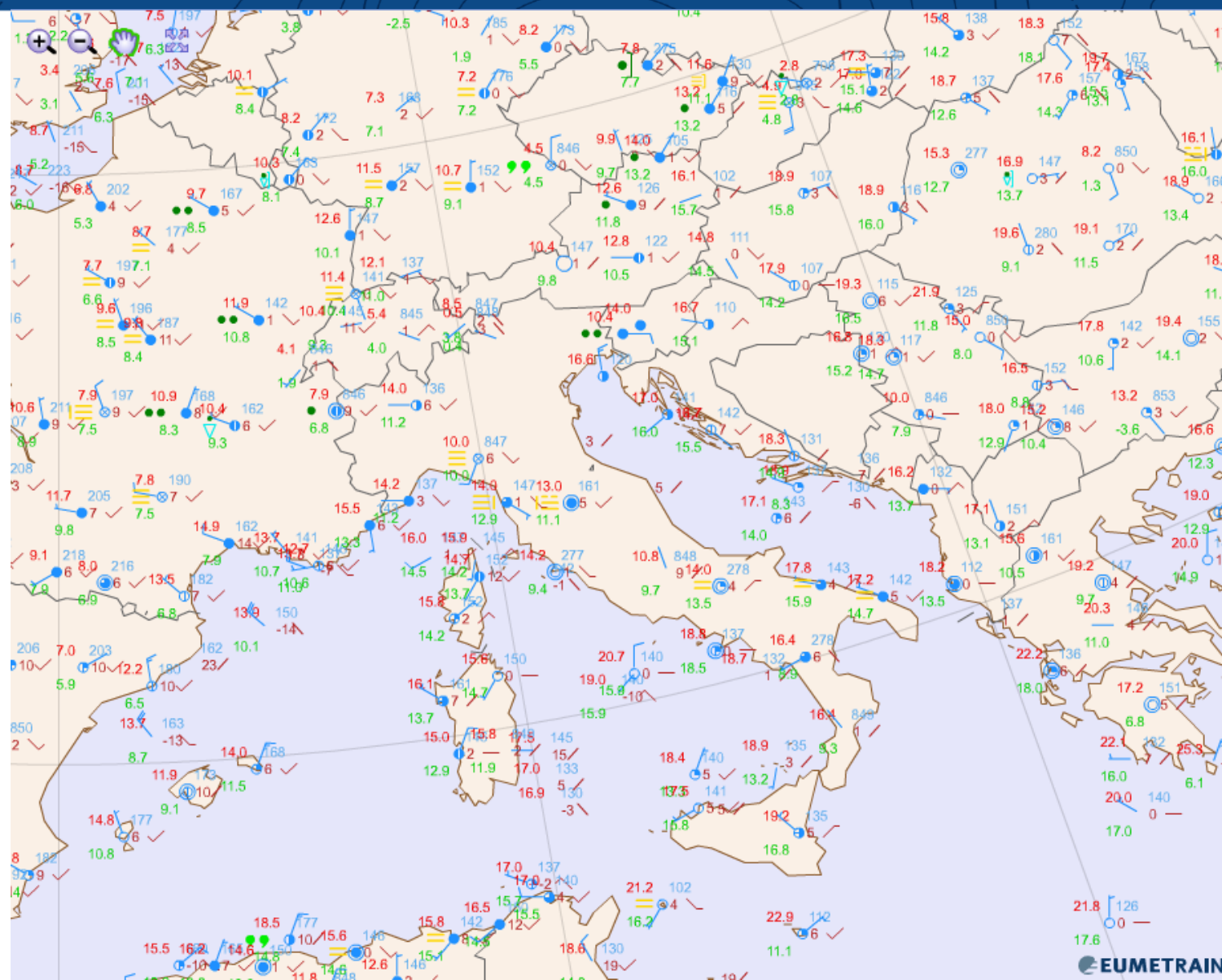


ECMWF Radio Sounding: Rome





# Briefing material as for 06:00 UTC: Current weather





- Open the simulator file **simulator.html** in the folder ***Simulator*** on your desktop  
[http://personal.inet.fi/koti/vesanie/web/simulator\\_demo/sim\\_fast.html](http://personal.inet.fi/koti/vesanie/web/simulator_demo/sim_fast.html)
- Use either Google Chrome or FireFox, but **NOT** Internet Explorer
- **DO NOT REFRESH OR CLOSE** the page during the simulation

Ready.  
Set.  
**GO!!!**

And good luck! 😊