Thunderstorms on Central Italy 25/06/2018 13.00-15.00 UTC

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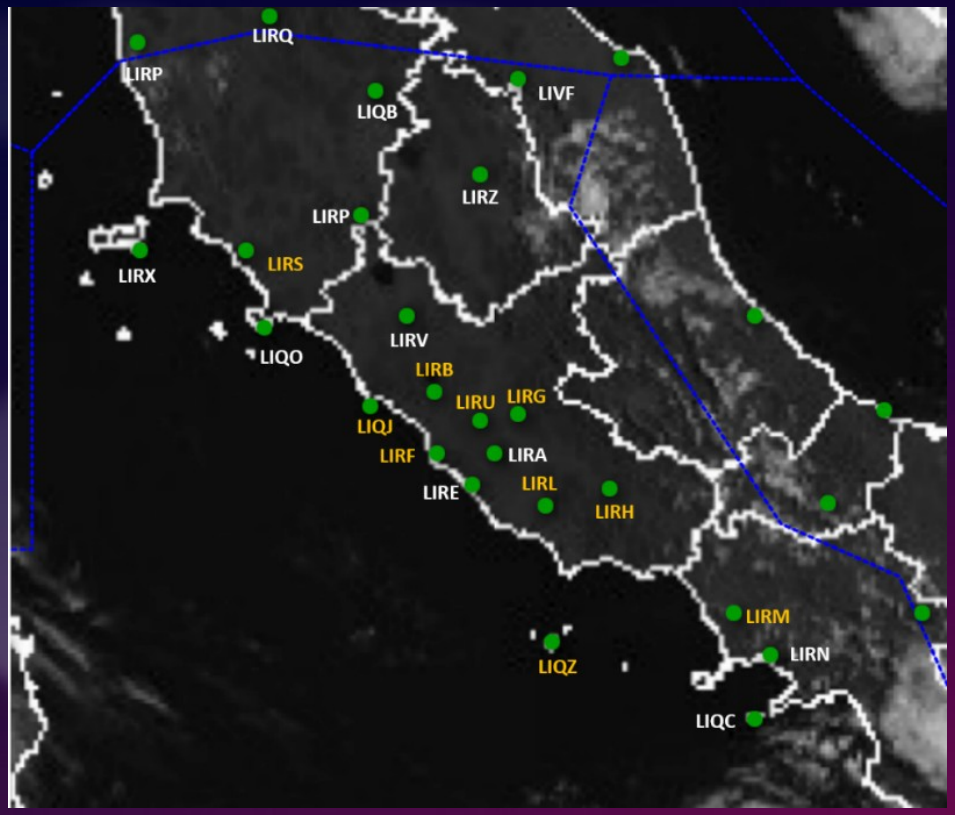
Italian Air Force

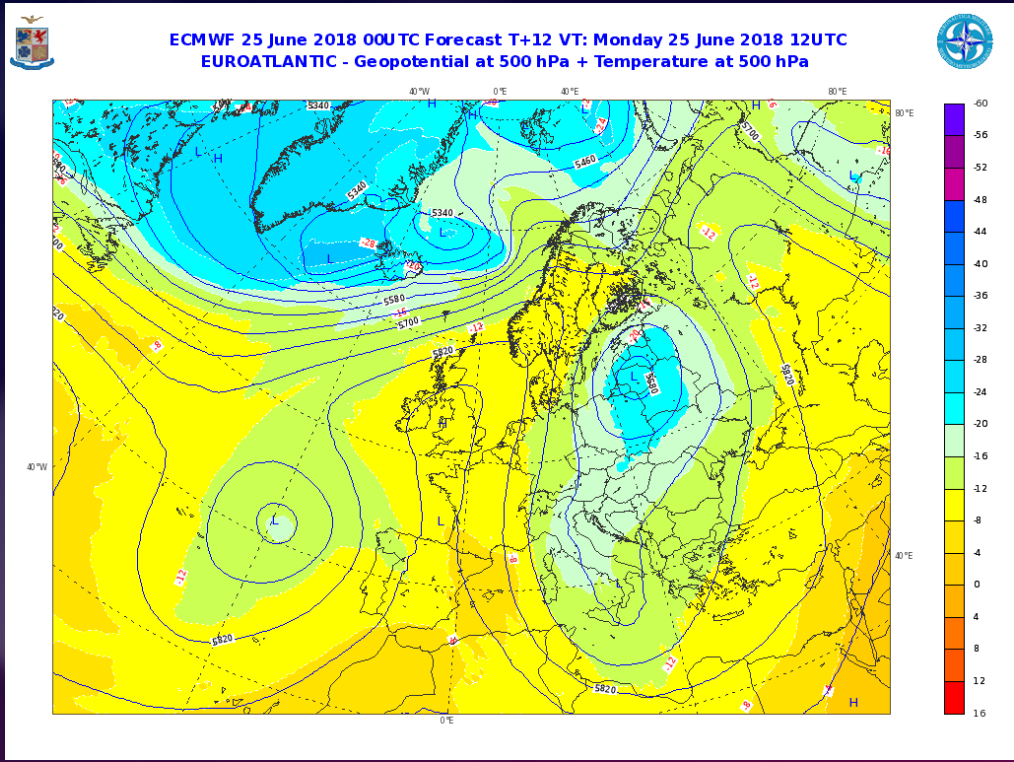
7th Autumn School on Satellite Techniques for Severe Weather Nowcasting
Thessaloniki, Greece 2-5 September 2019

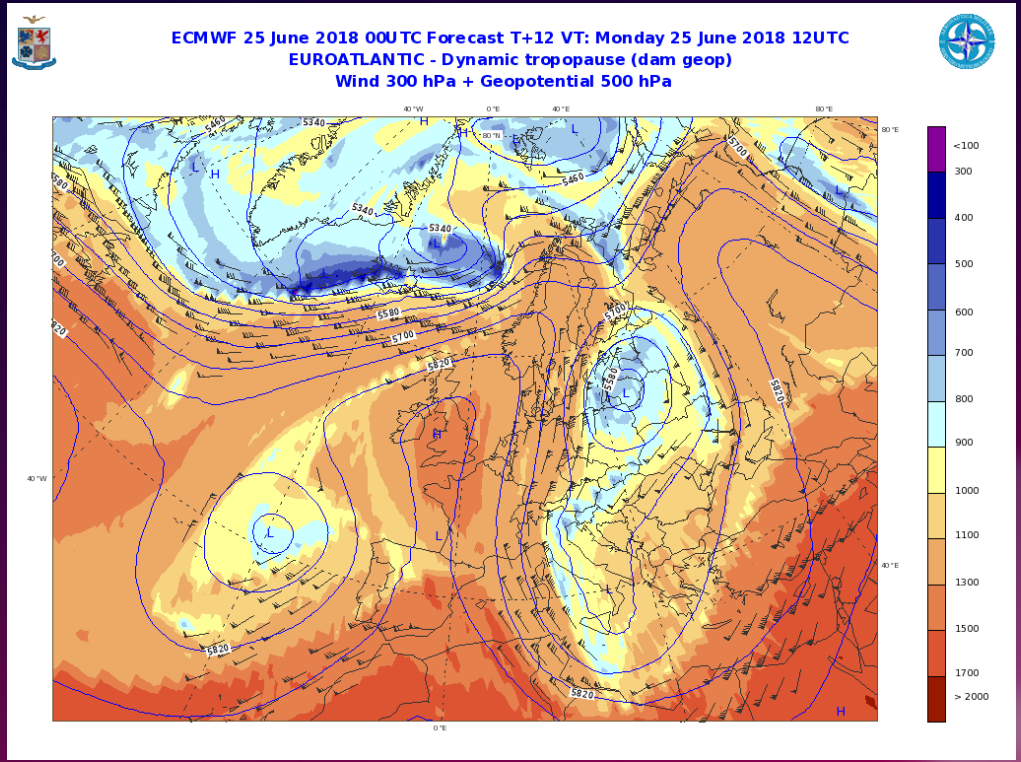
Introduction



- **METAR from stations in the area (13 – 21 UTC)**
- **Cumulated precipitations 13 – 16 UTC / DEWETRA Software Civil Protection Department**

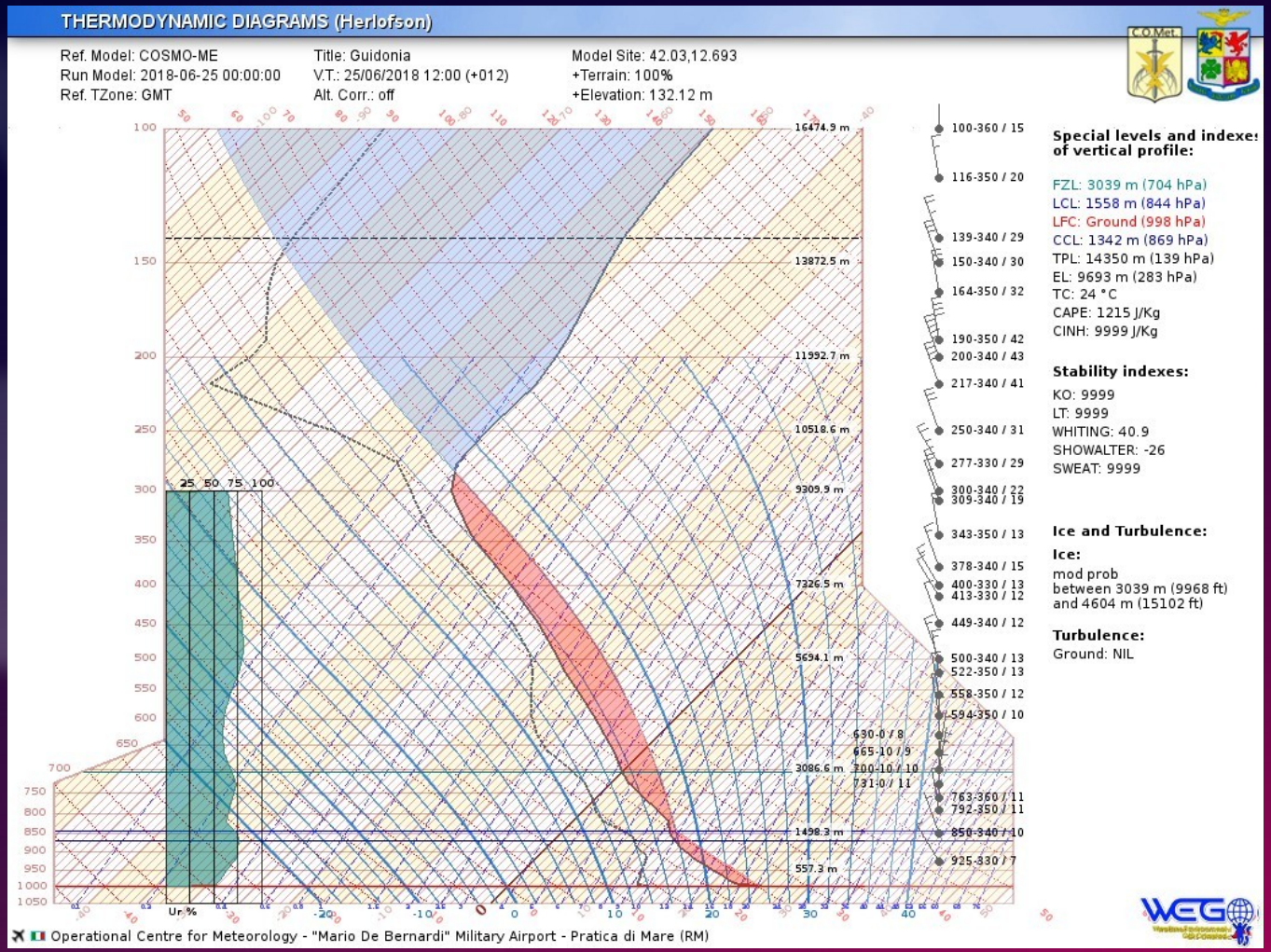
Forecasting





- **Cut – off on North-Eastern Europe**
- **Cold air descending on Central Italy**
- **Jet streak**

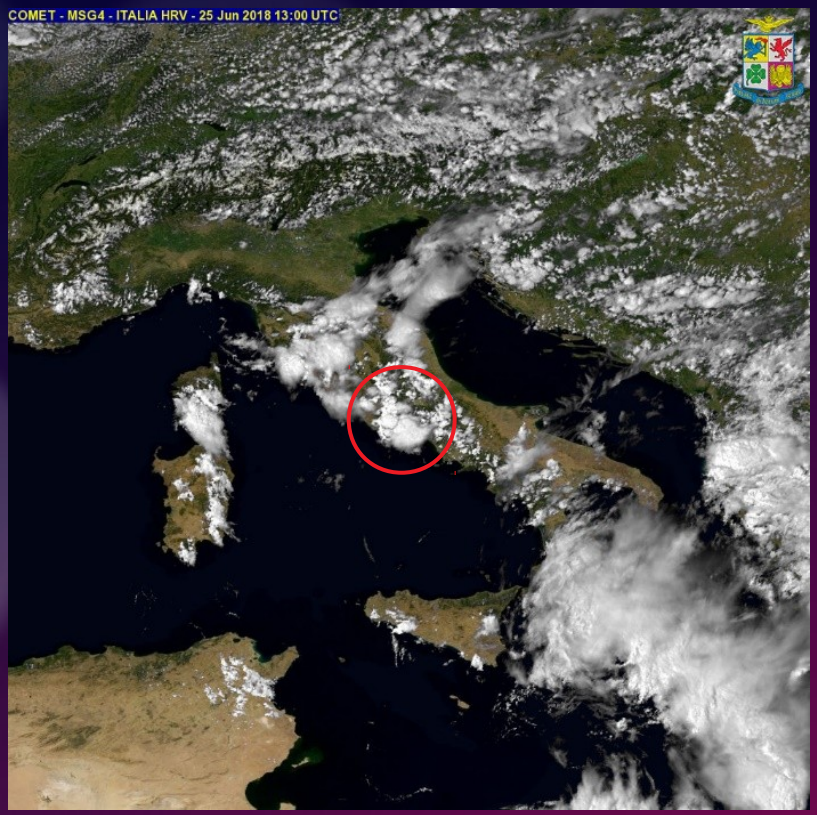
Forecasting



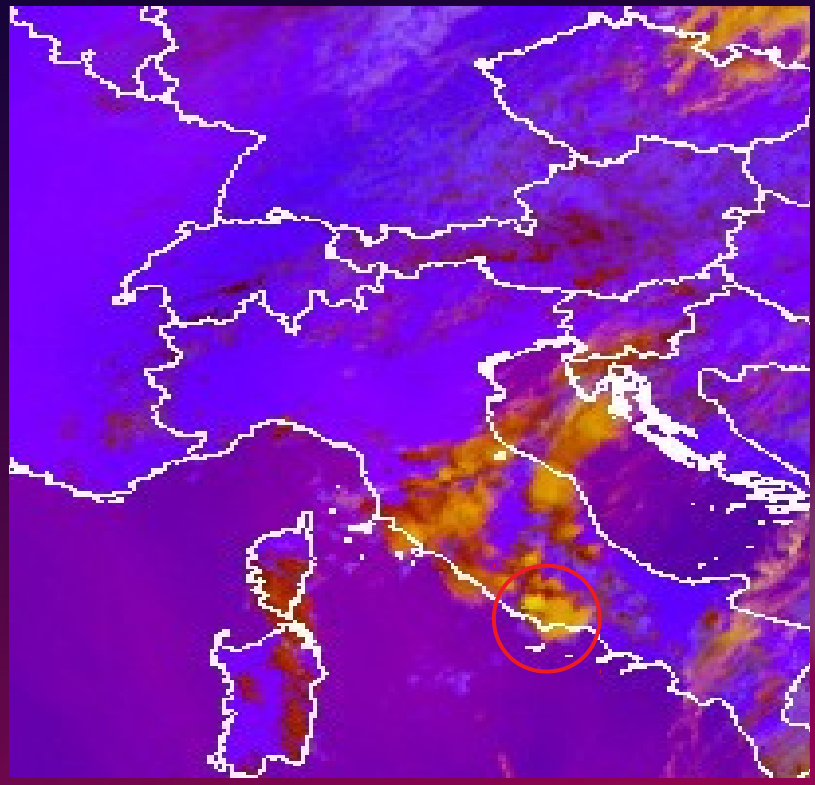
Sounding on Guidonia

- **CAPE: 1215 J/Kg**
- **Whiting Index: 40.9**

Satellite Imagery

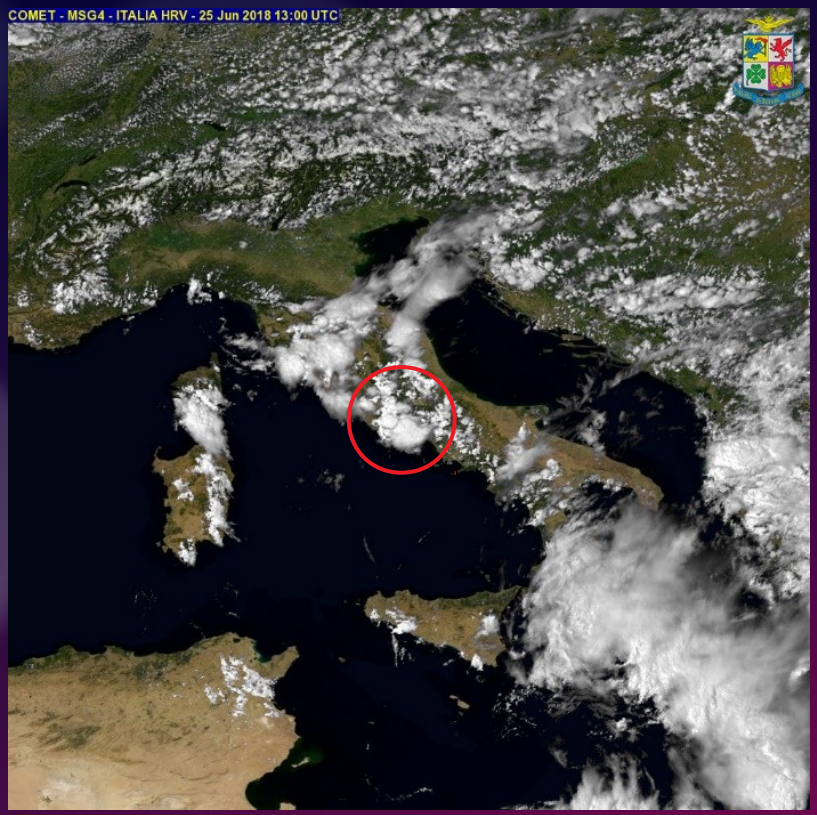


MSG4 HRV Channel – 1300 UTC

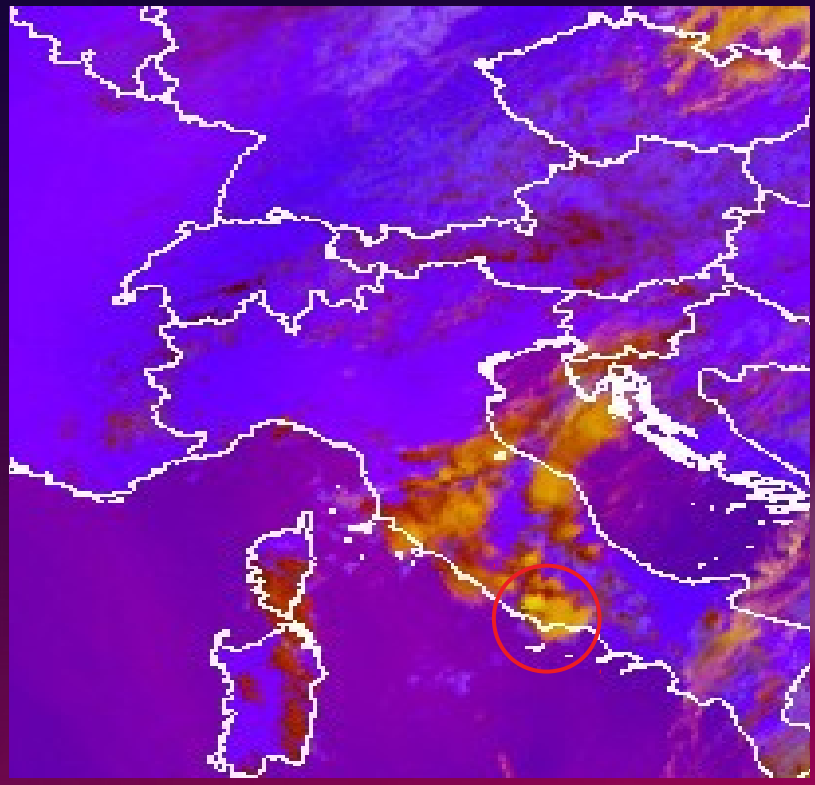


Convection RGB – 1300 UTC

Satellite Imagery

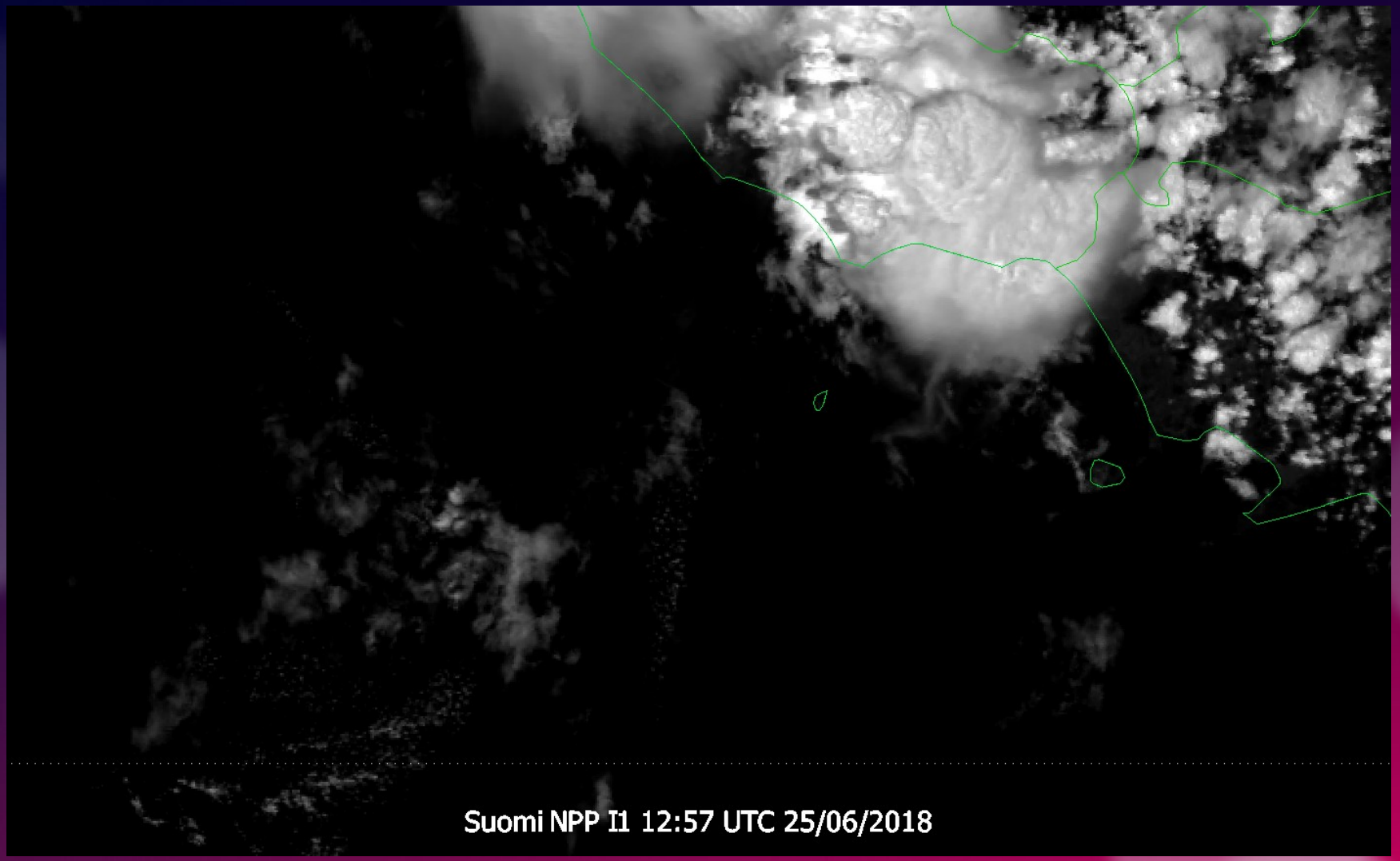


MSG4 HRV Channel – 1300 UTC



Convection RGB – 1300 UTC

Satellite Imagery



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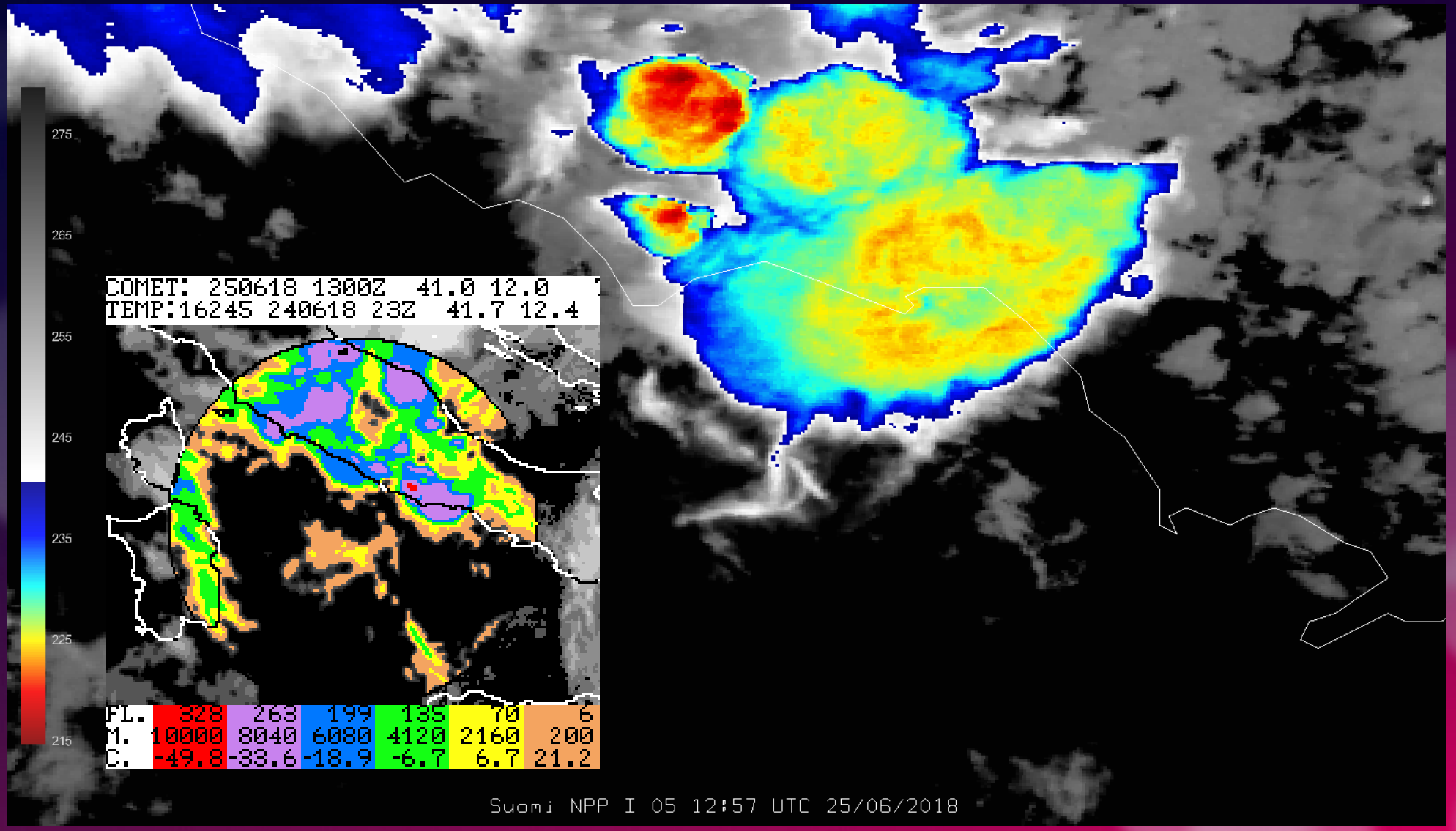
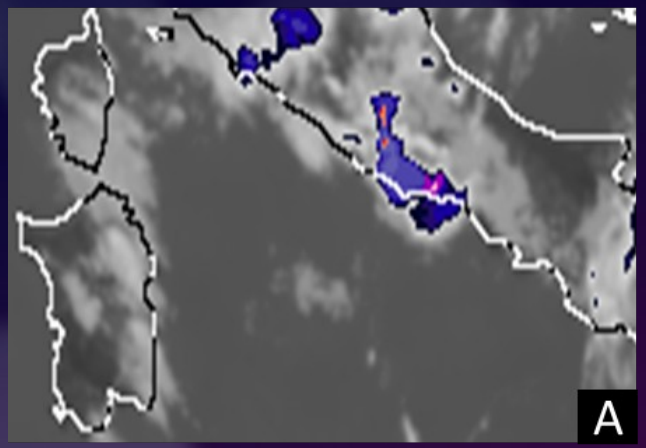
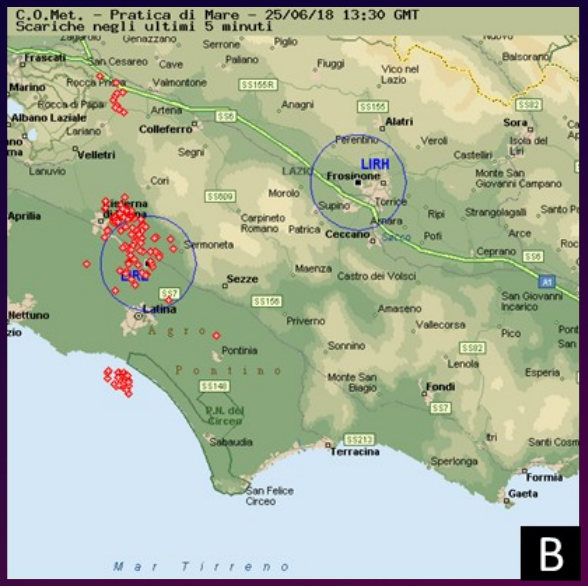
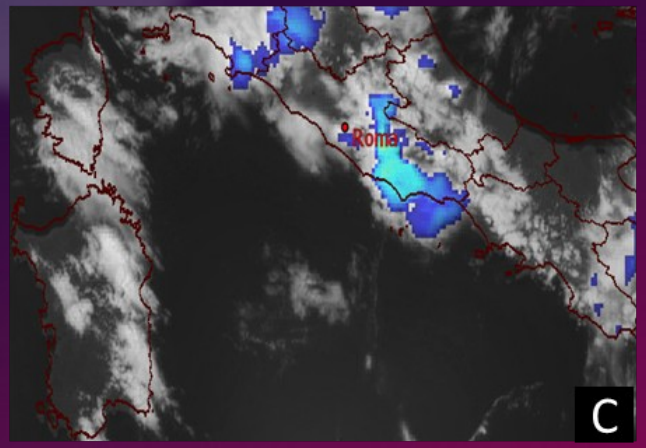
Satellite Imagery

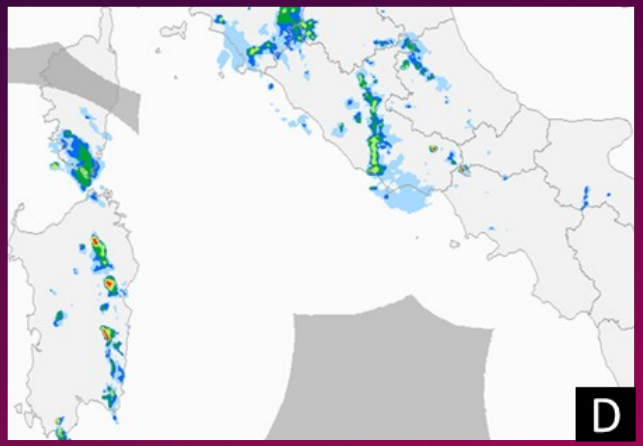


Ground Observations









13:30 UTC

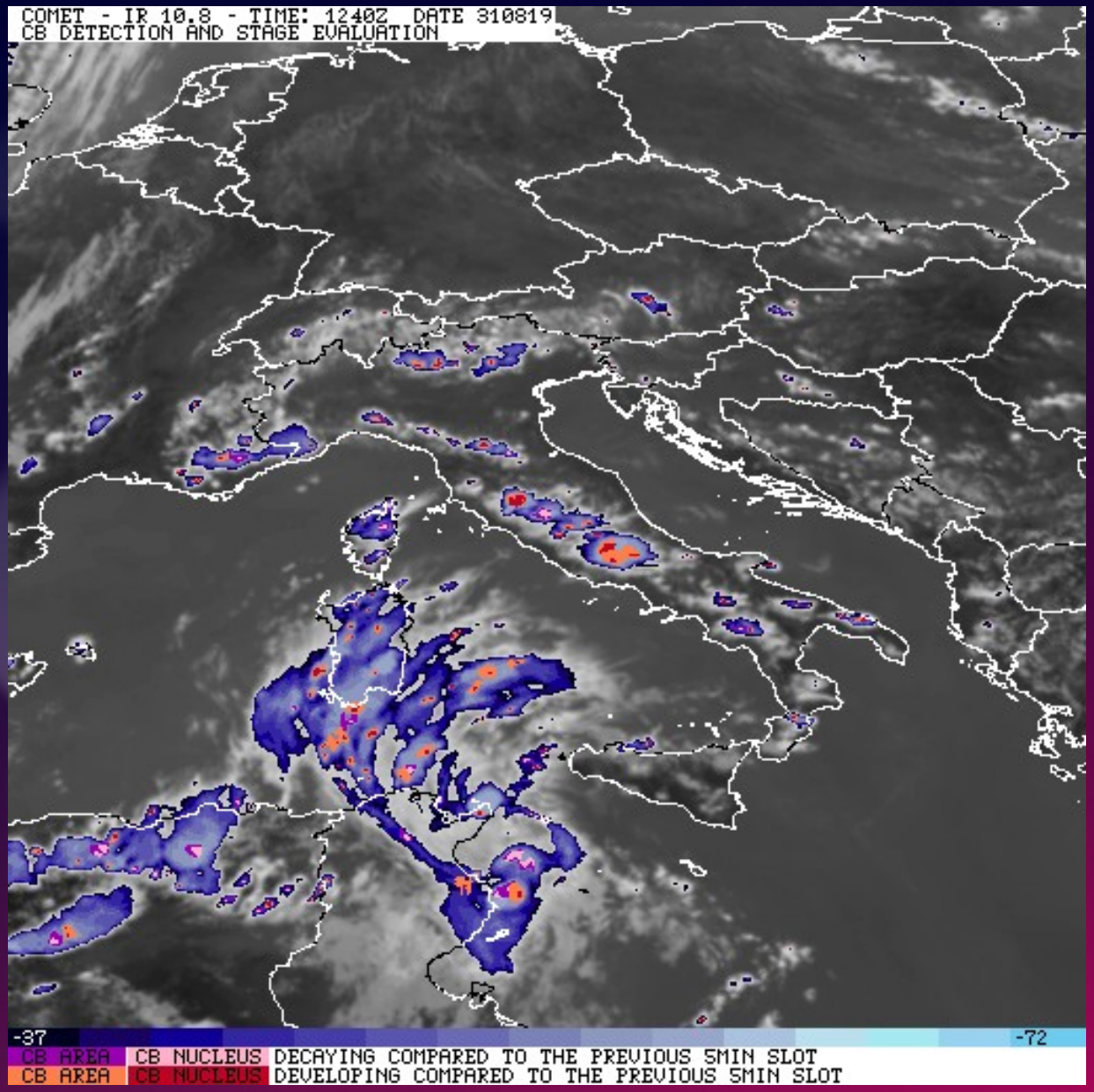
A) NEFODINA

B) LAMPINET

C) IR 10.8 ENHANCED

D) SRI Radar National Network

Nefodina



Application:

To assess the presence of thunderstorms and their intensity and to monitor their life cycle (developing/dissolving phase) using geostationary satellite data.

NEFODINA provides information on convective nuclei inside cloudy systems using a multichannel approach. The product consists of the last infrared image (ch10.8) where the convective cells and their phase are represented. This graphical output image is associated to an ASCII file where the minimum, medium and modal BT of the IR1, WV1, WV2 channels are reported with position, shape, slope area and other information for each convective cell since when it was detected.

http://www.meteoam.it/nefodina/en
https://www.essl.org/cwg/


THANK YOU!!!