

# NWCSAF CLOUD PRODUCTS – CASE STUDIES

## The Forecaster Perspective of Cloud Type and Cloud Top Height

Thomas Krennert, Forecasting & more @ ZAMG Vienna, Austria



[t.krennert@zamg.ac.at](mailto:t.krennert@zamg.ac.at)



**ZAMG**  
Zentralanstalt für  
Meteorologie und  
Geodynamik



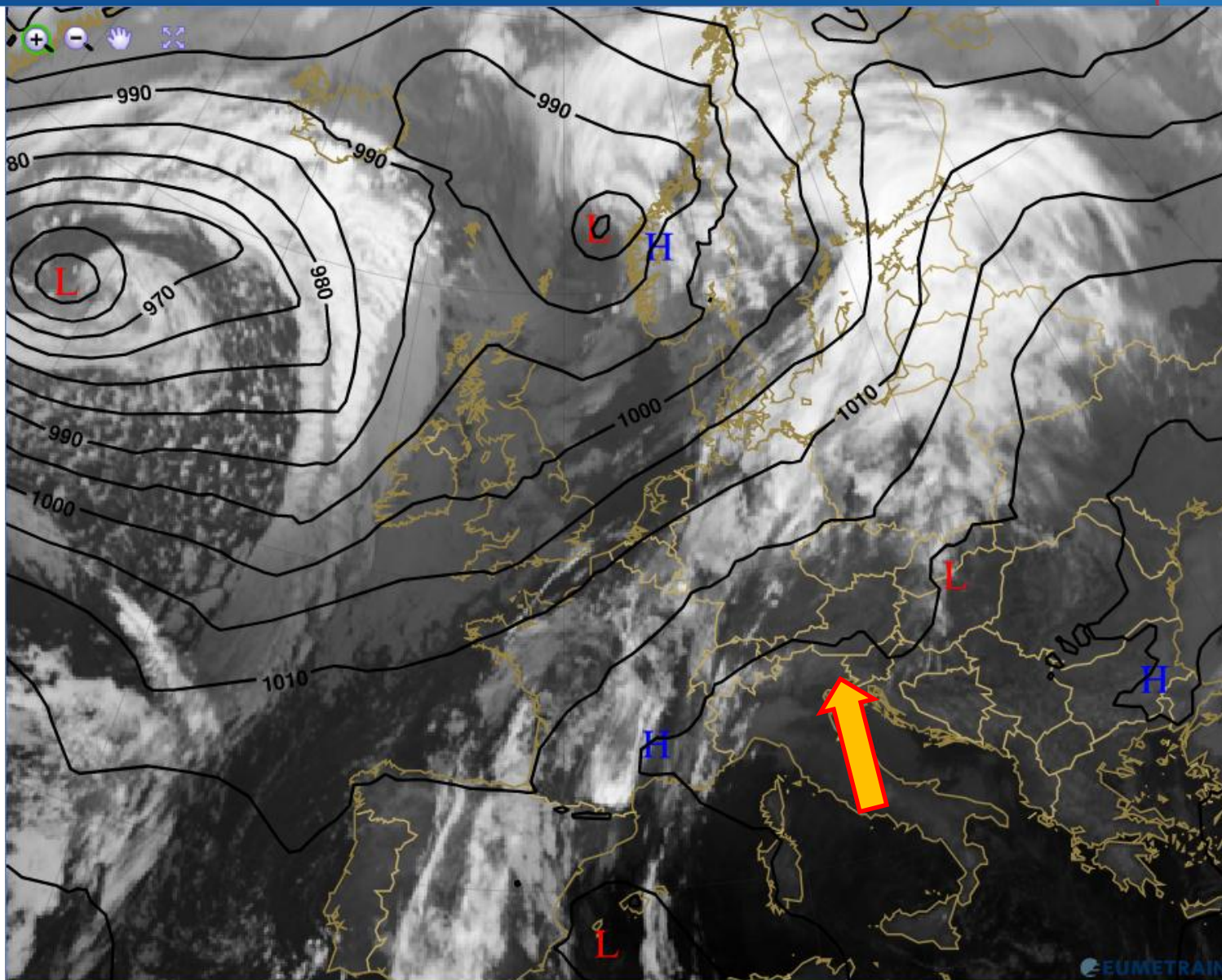
**Cloud Type and Cloud Top Height are quite useful during Fog – season**

**2 cases over central Europe from last month**

- **26 October 2013**
- **03 October 2013**

**Characteristics of NWCSAF products from practical experience viewpoint**

# CASE 131026 0600UTC, IR10.8 $\mu$ , MSLP (ECMWF)

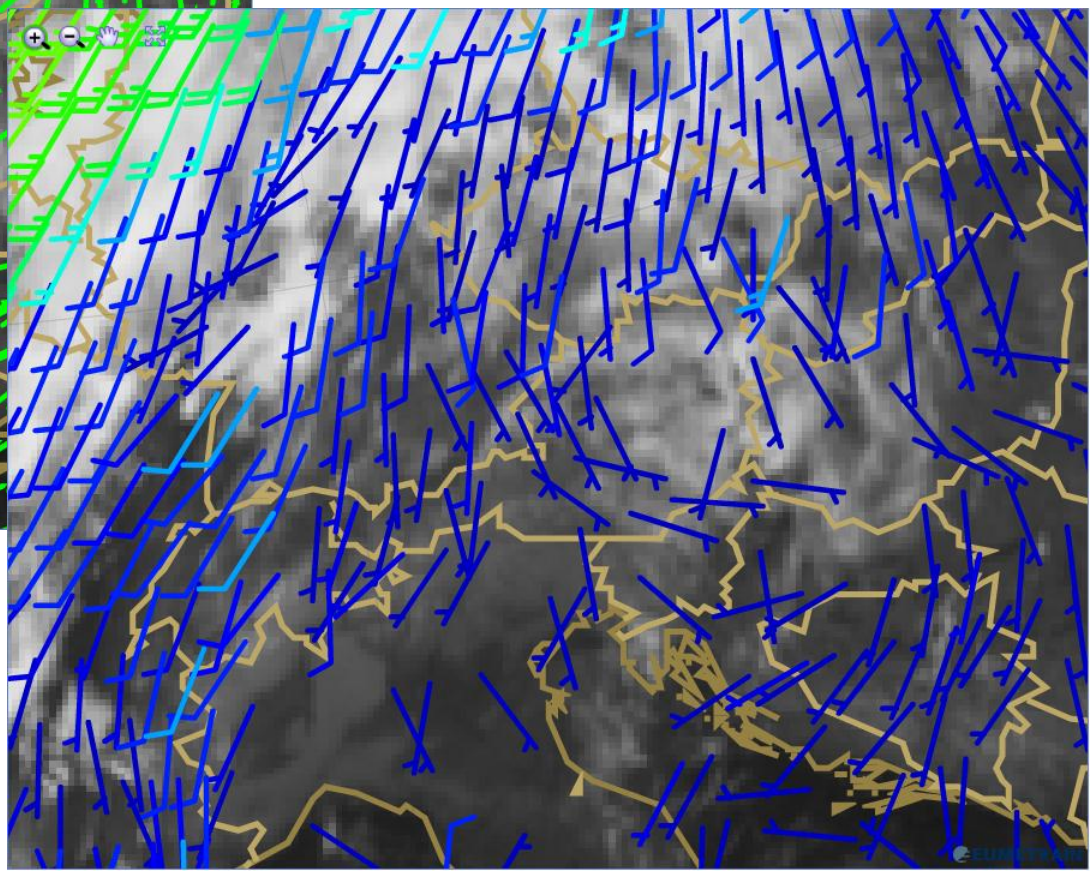
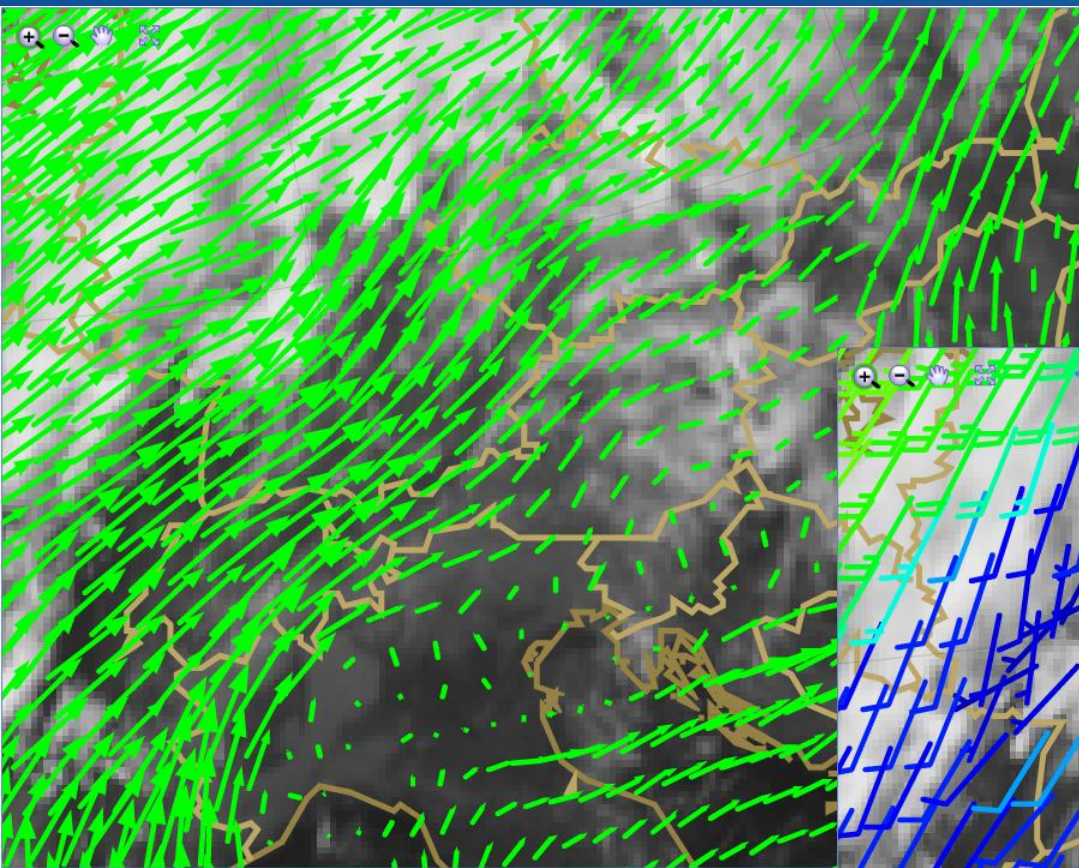


Source:  
EUMETRAIN  
eport

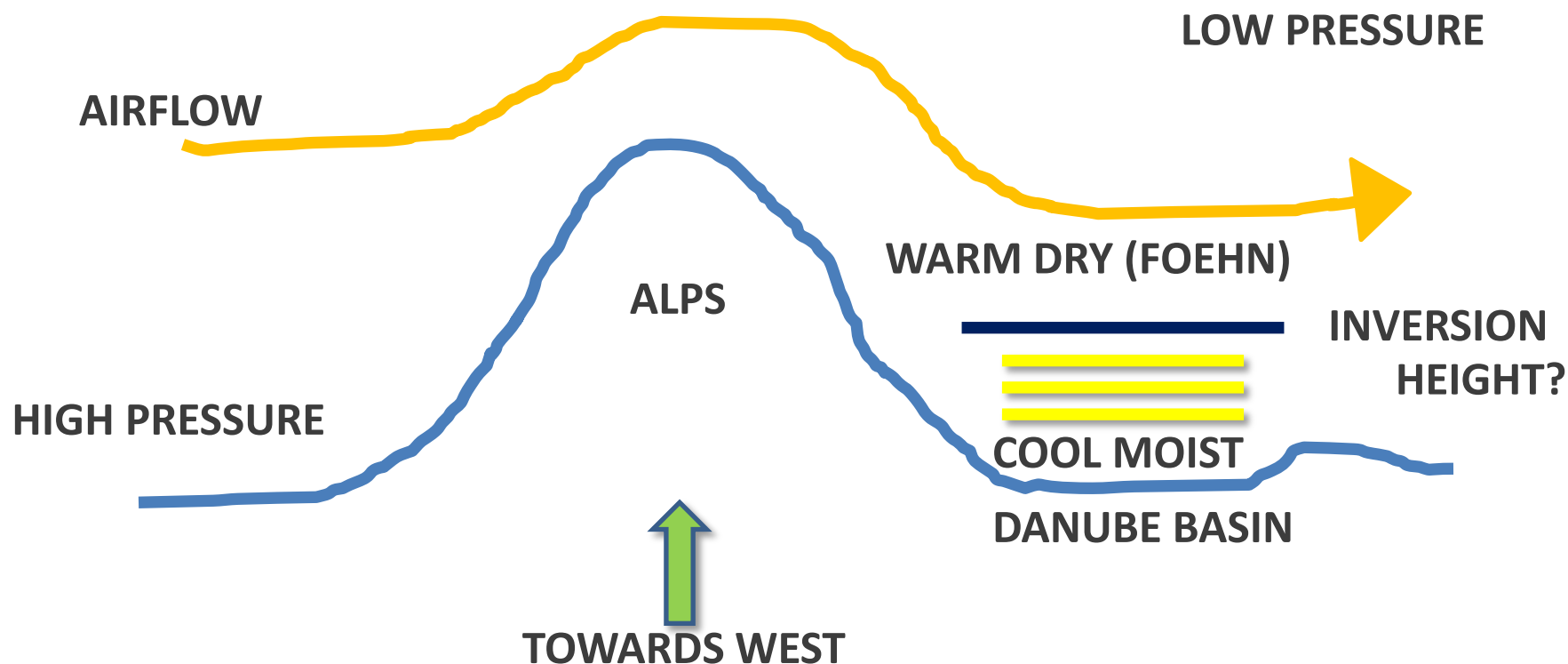
CASE 131026 0000UTC , WIND at 850 hPa and 10m (ECMWF)



**INITIAL CONDITION OF THE FLOW**

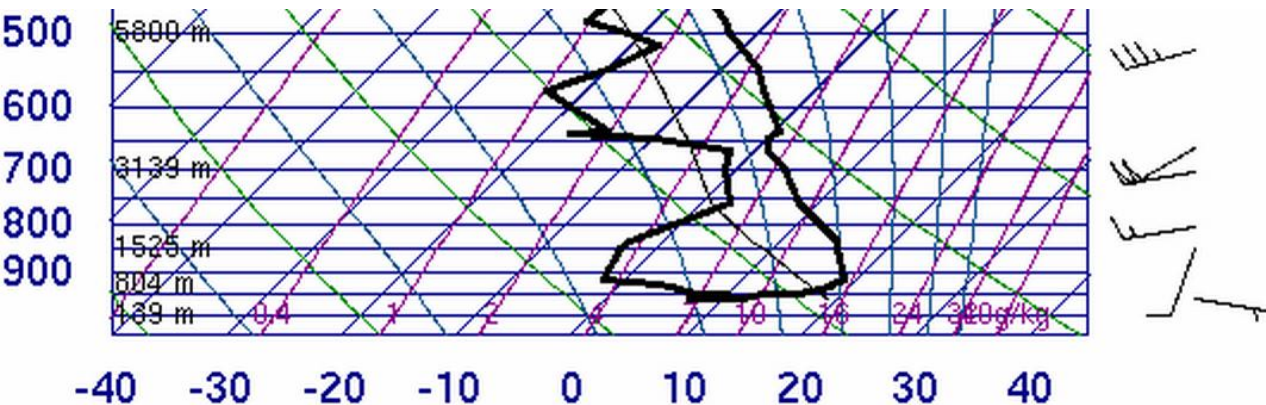


## CASE 131026 SHALLOW FOEHN CONCEPT



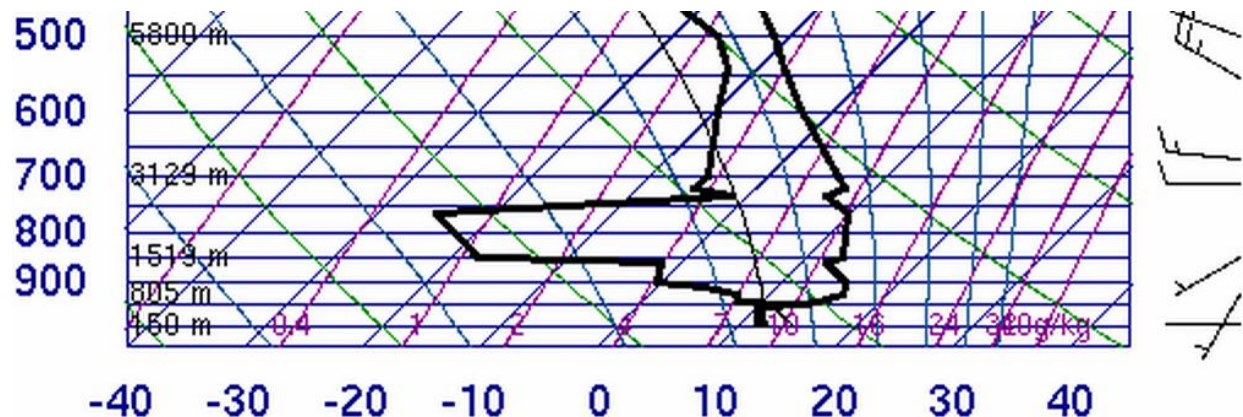
***Determine the height of the inversion!***

## CASE 131026 0000 UTC, RADIO SOUNDING

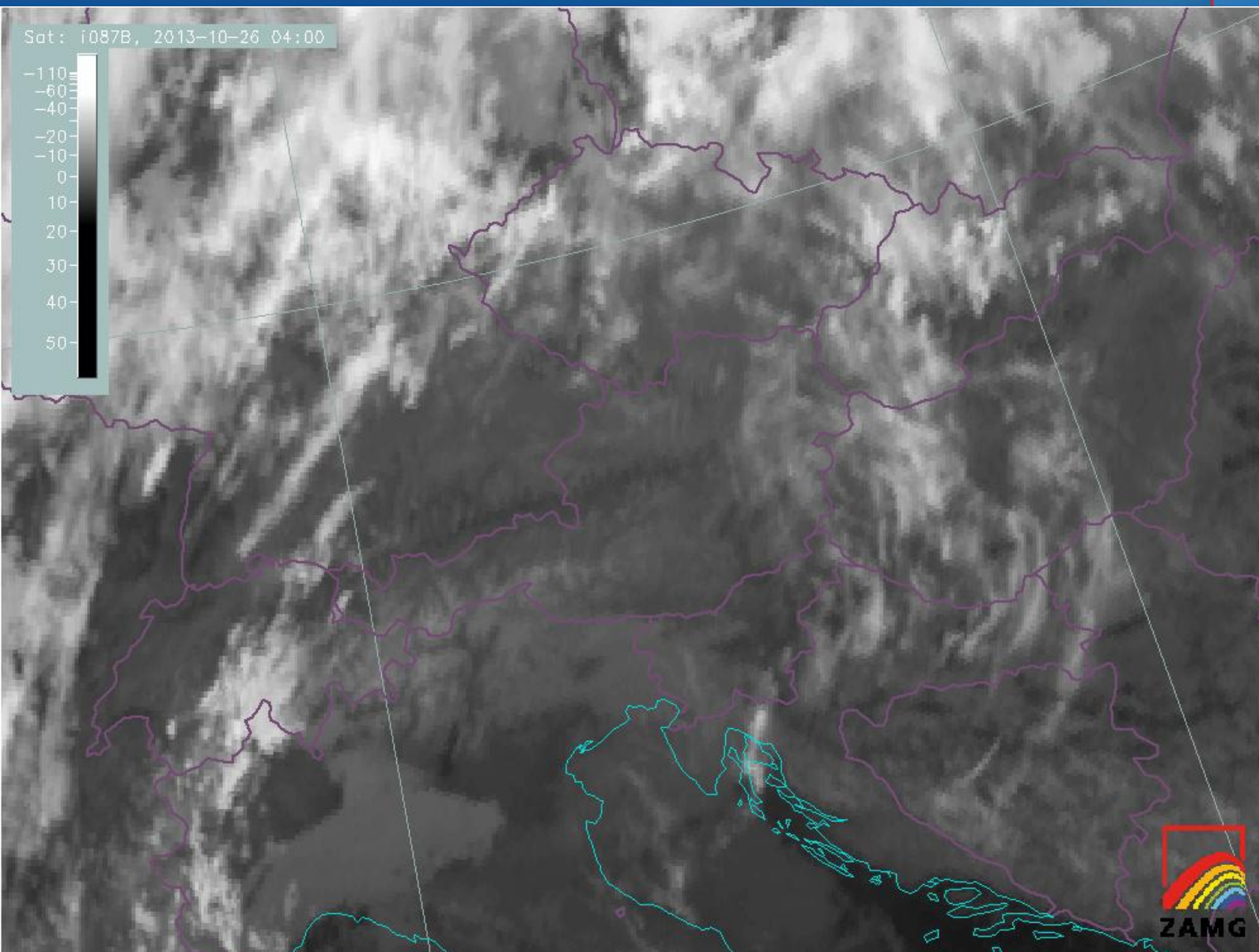


10868 Munich  
131026, 0000UTC

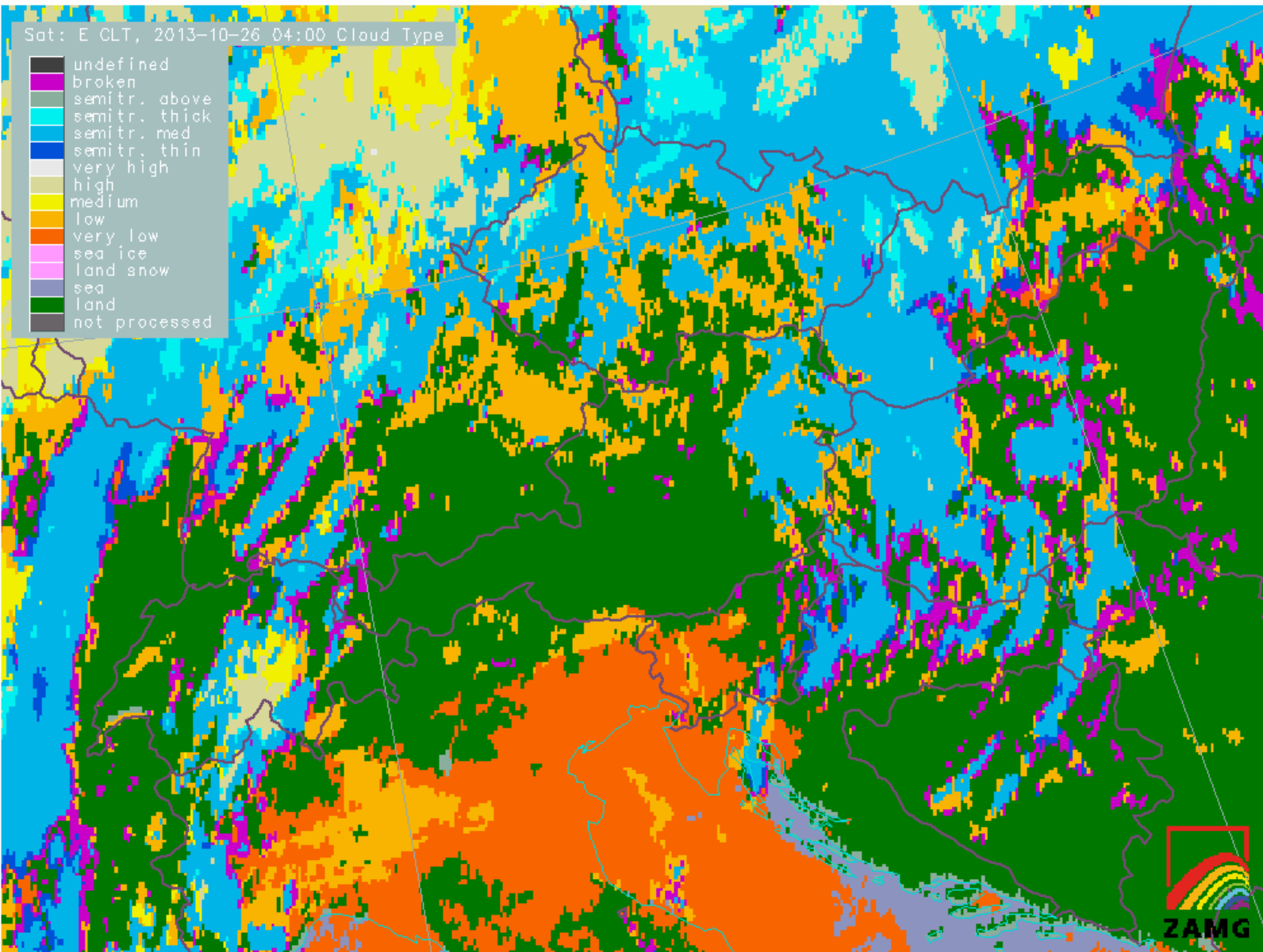
11035 Vienna  
131026, 0000UTC



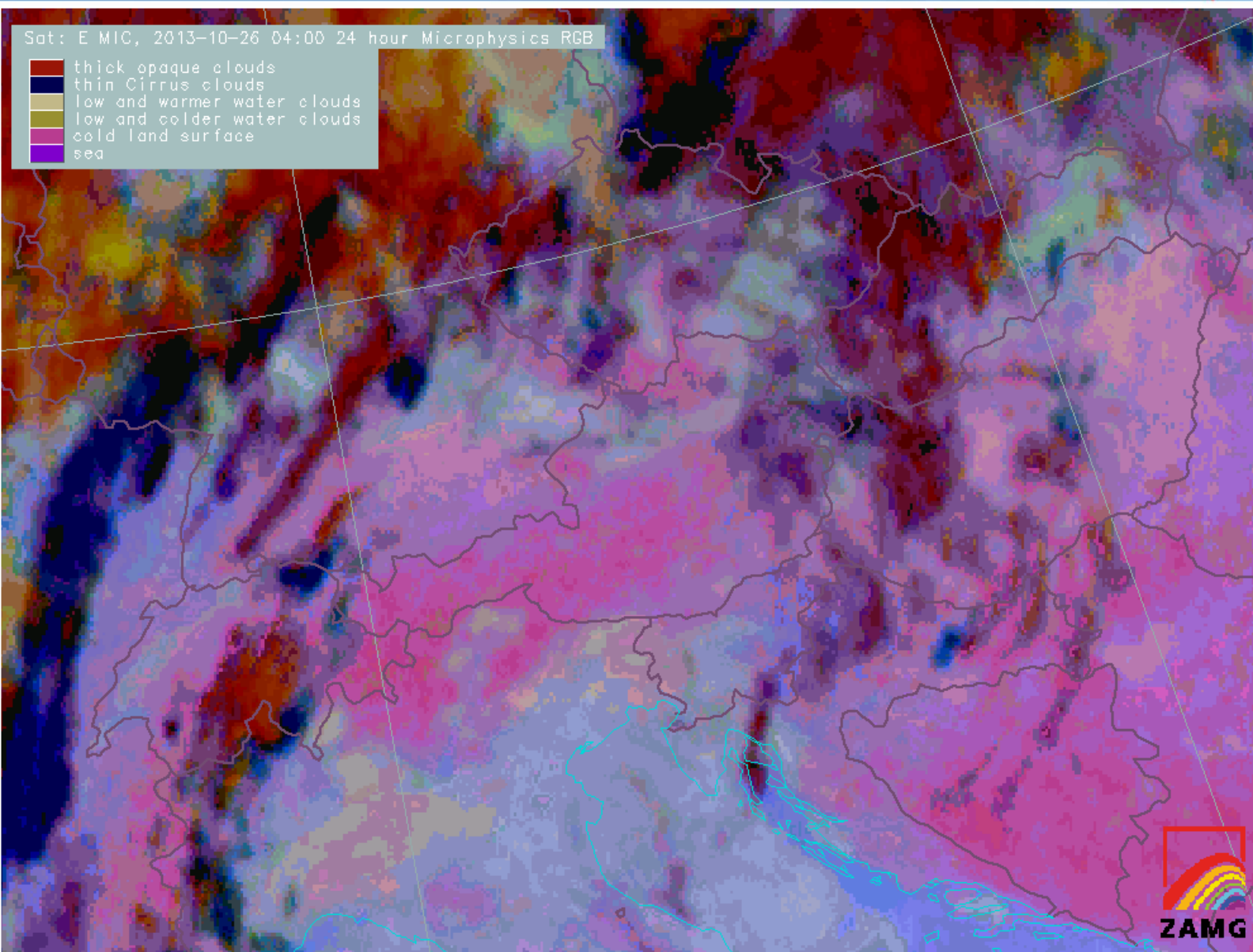
# CASE 131026 0400UTC, IR8.7 $\mu$



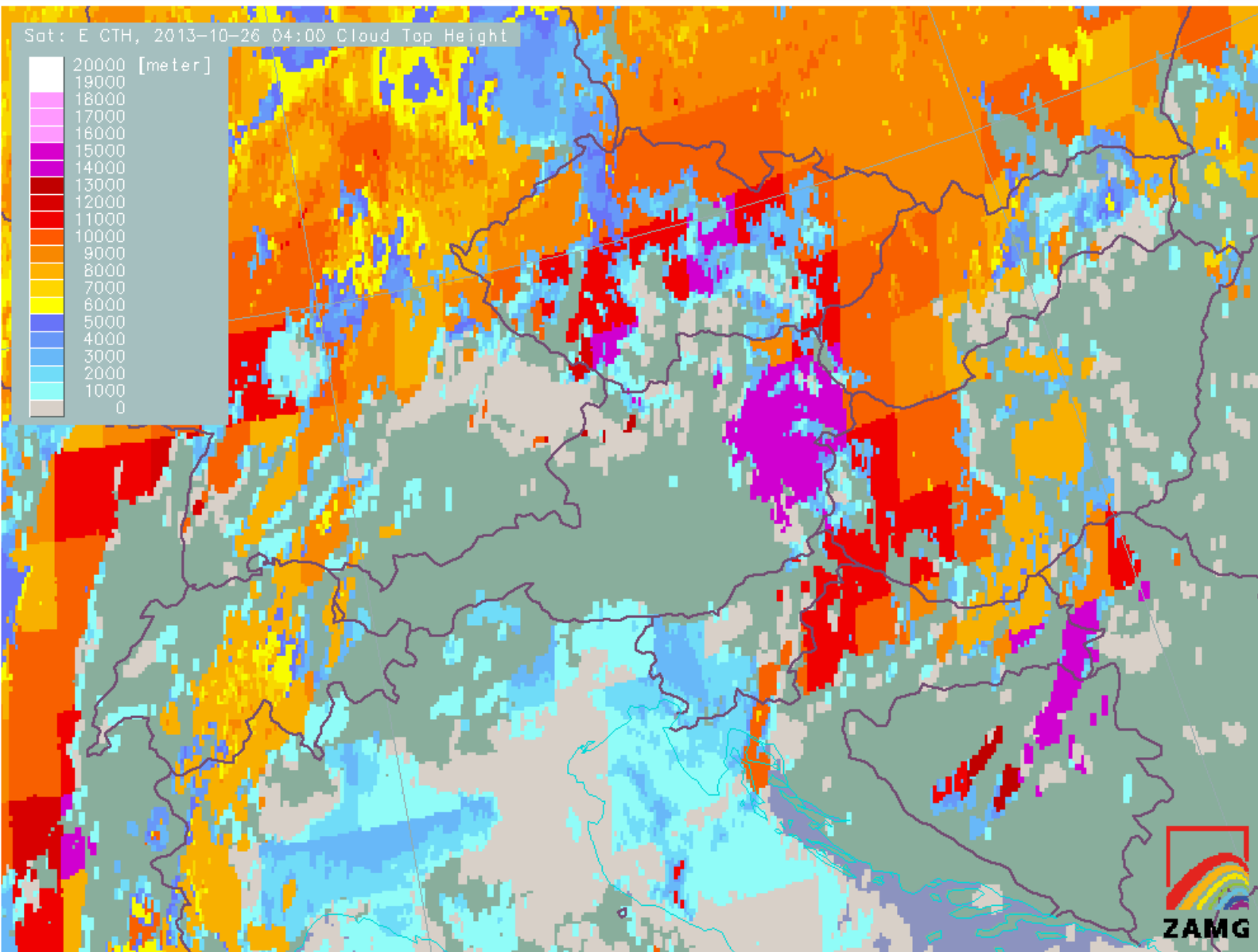
## CASE 131026 0400UTC, NWCSAF Cloud Type



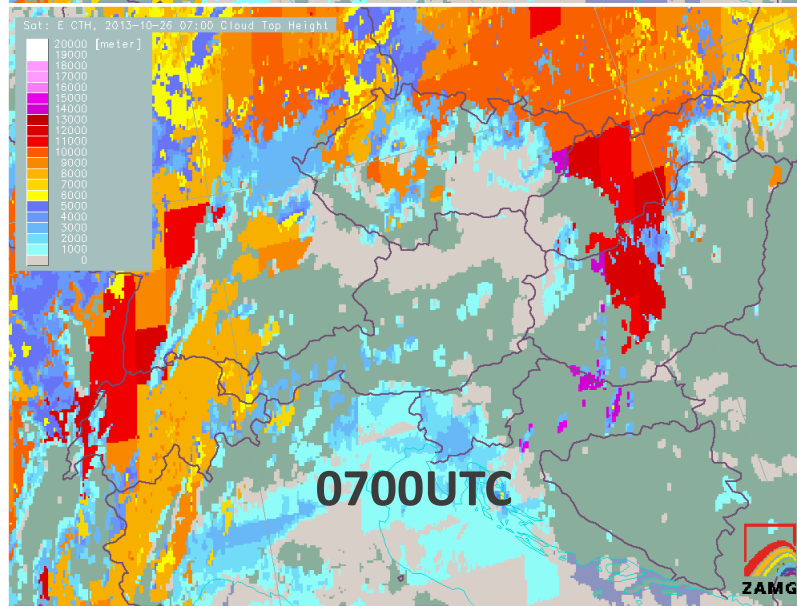
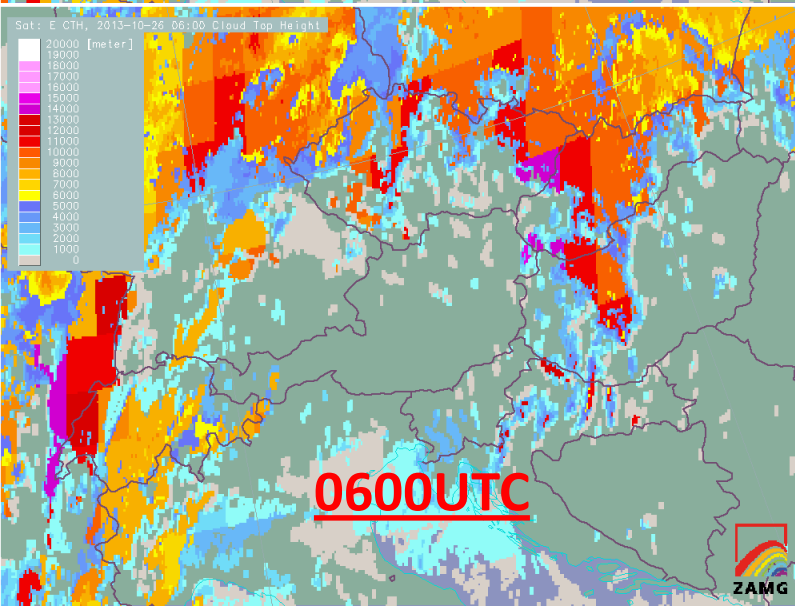
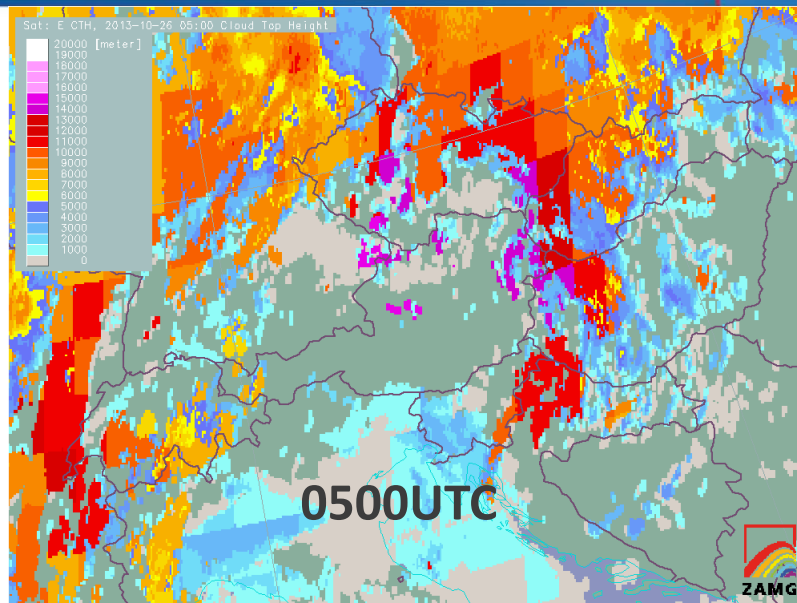
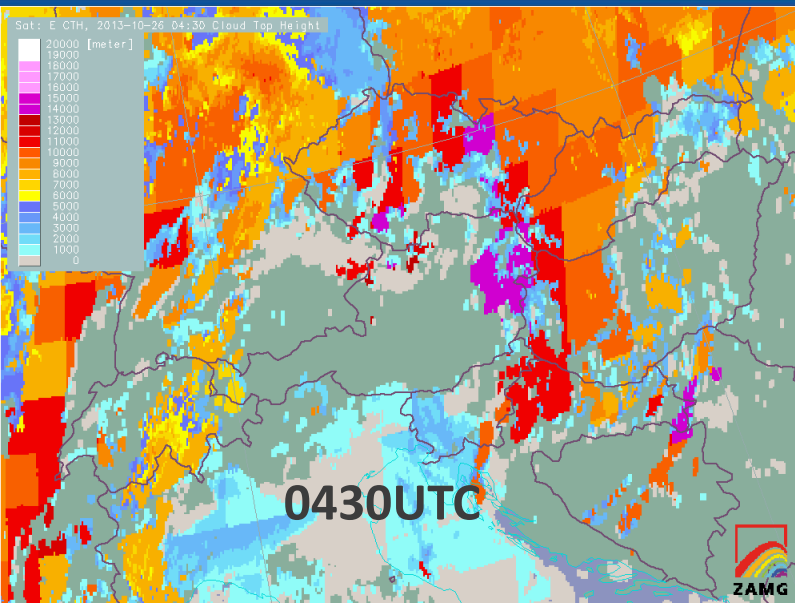
# CASE 131026 0400UTC, MSG RGB Microphysics 24hour



## CASE 131026 0400UTC, NWCSAF Cloud Top Height

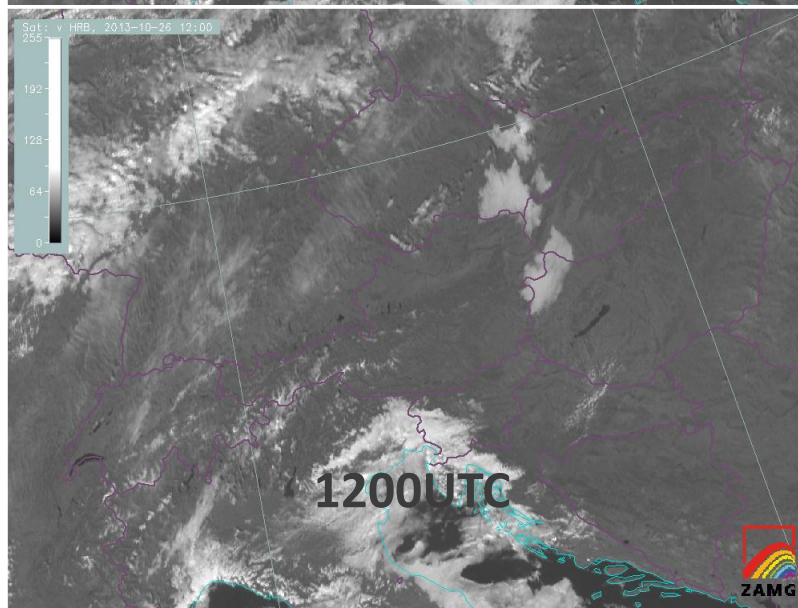
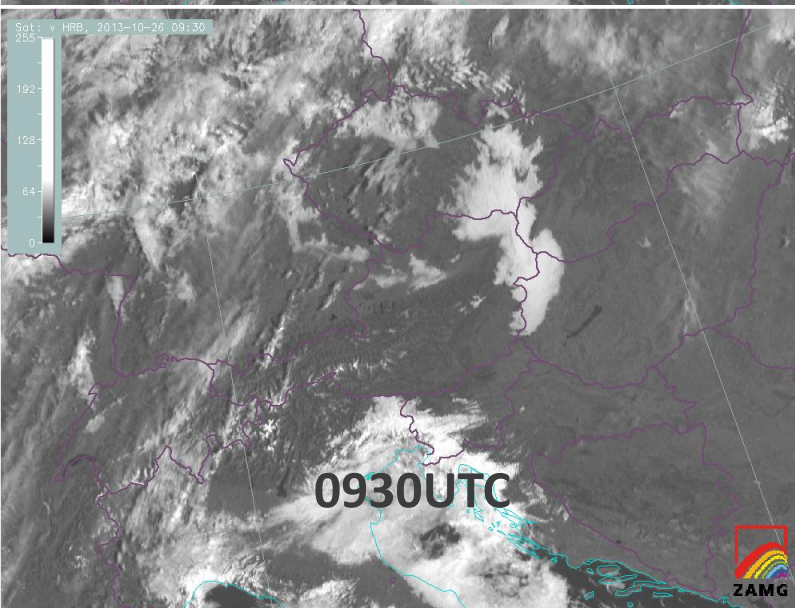
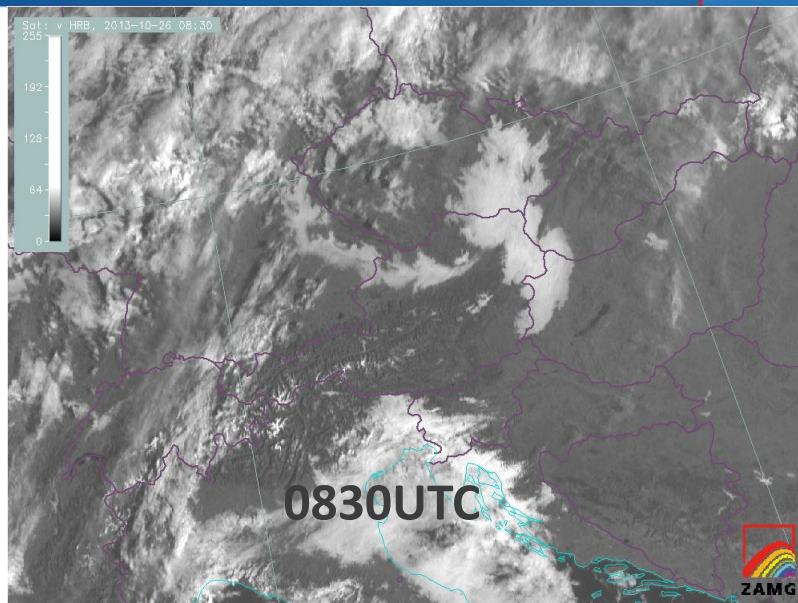
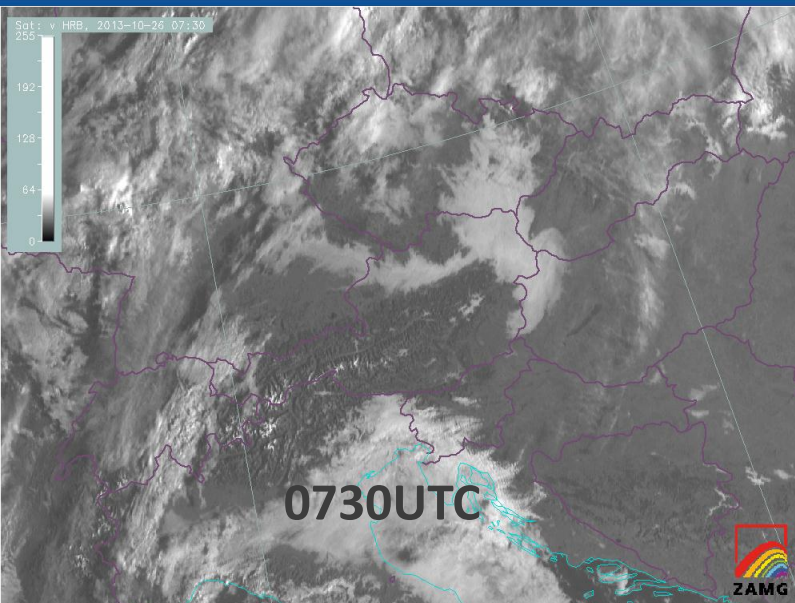


# CASE 131026 0430 – 0700 UTC, NWCSAF Cloud Top Height

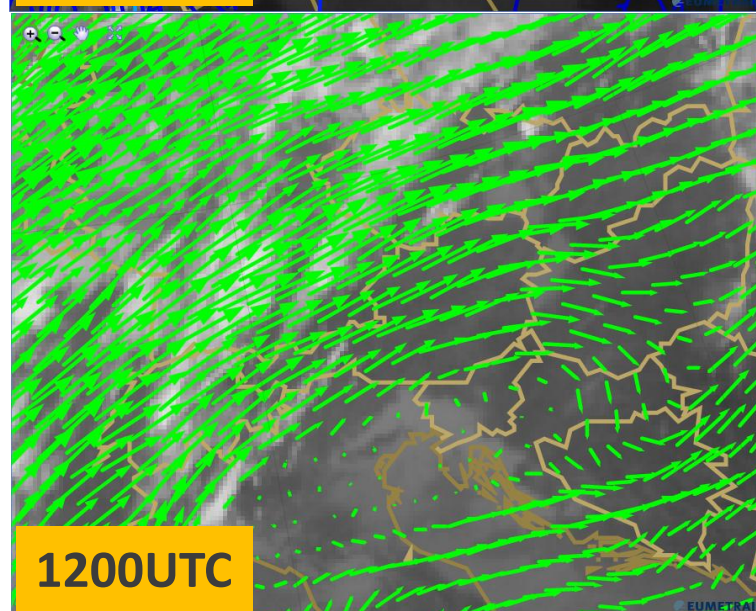
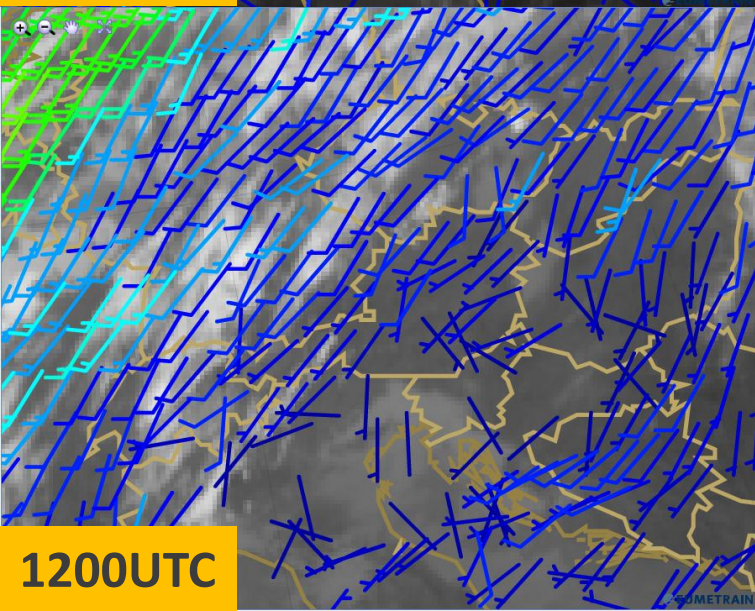
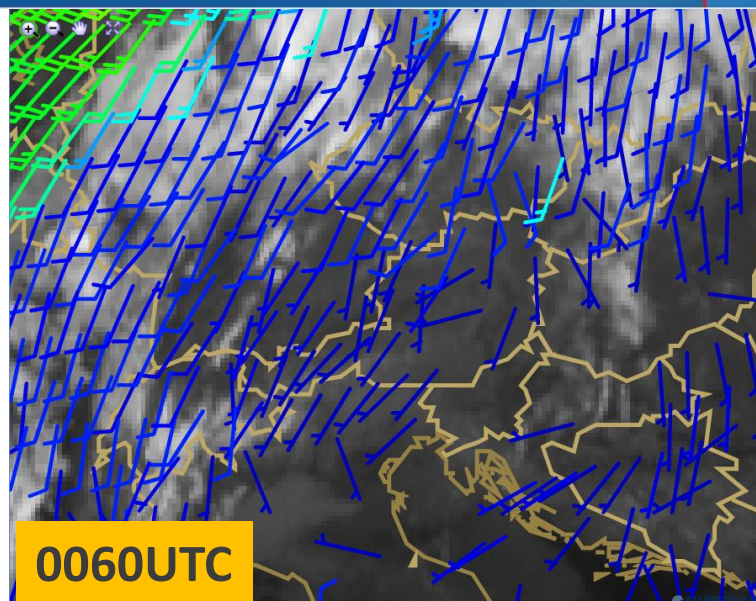
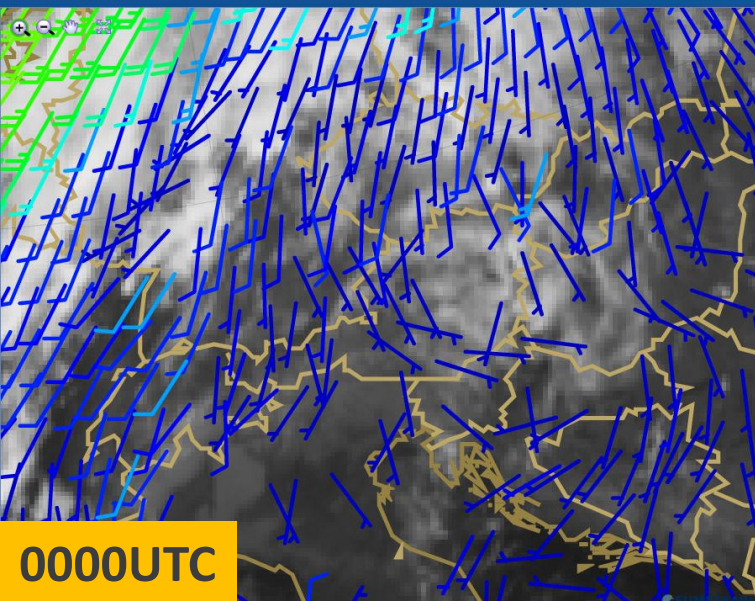


VOTE!

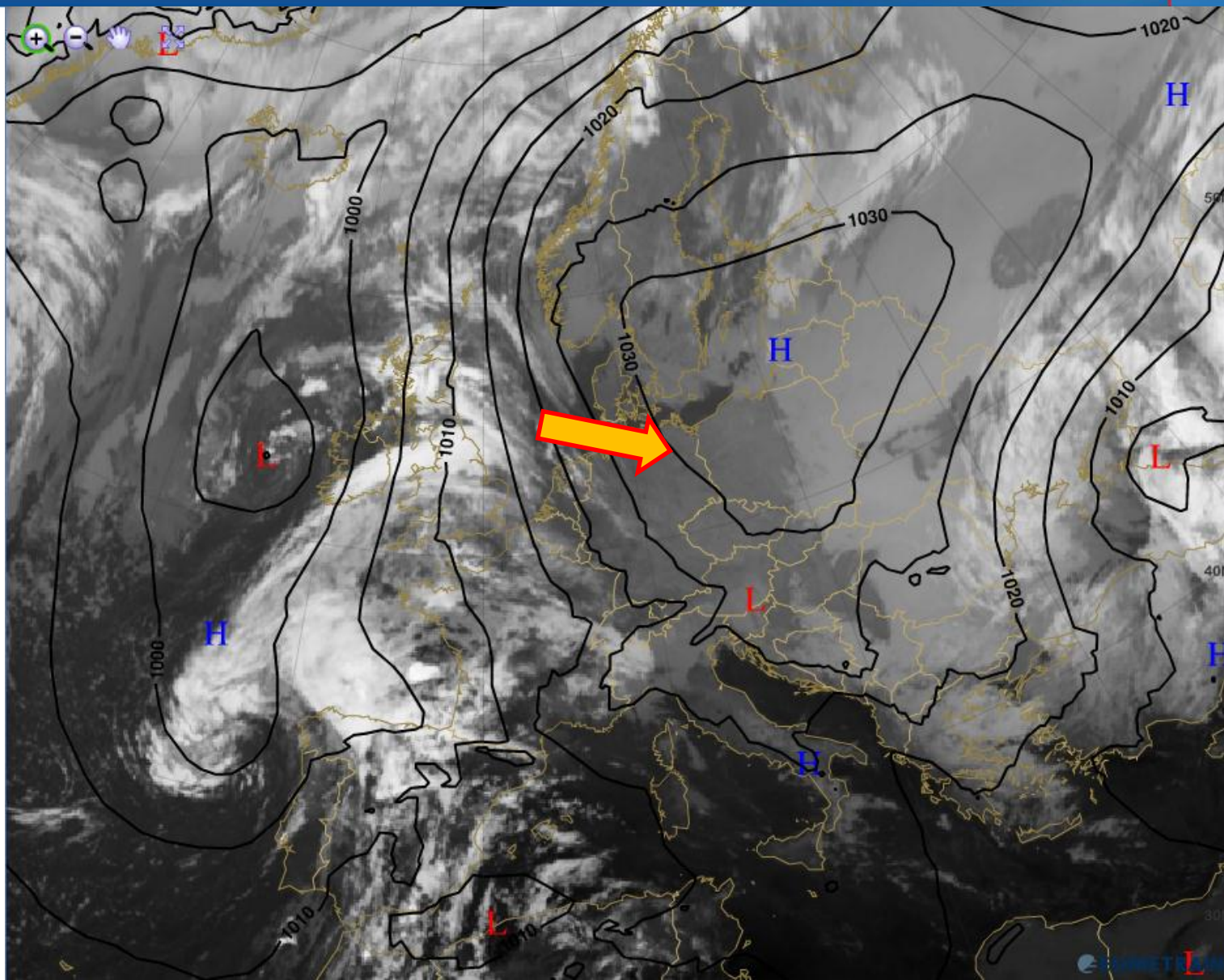
# CASE 131026 0730 – 1200 UTC, HRVIS



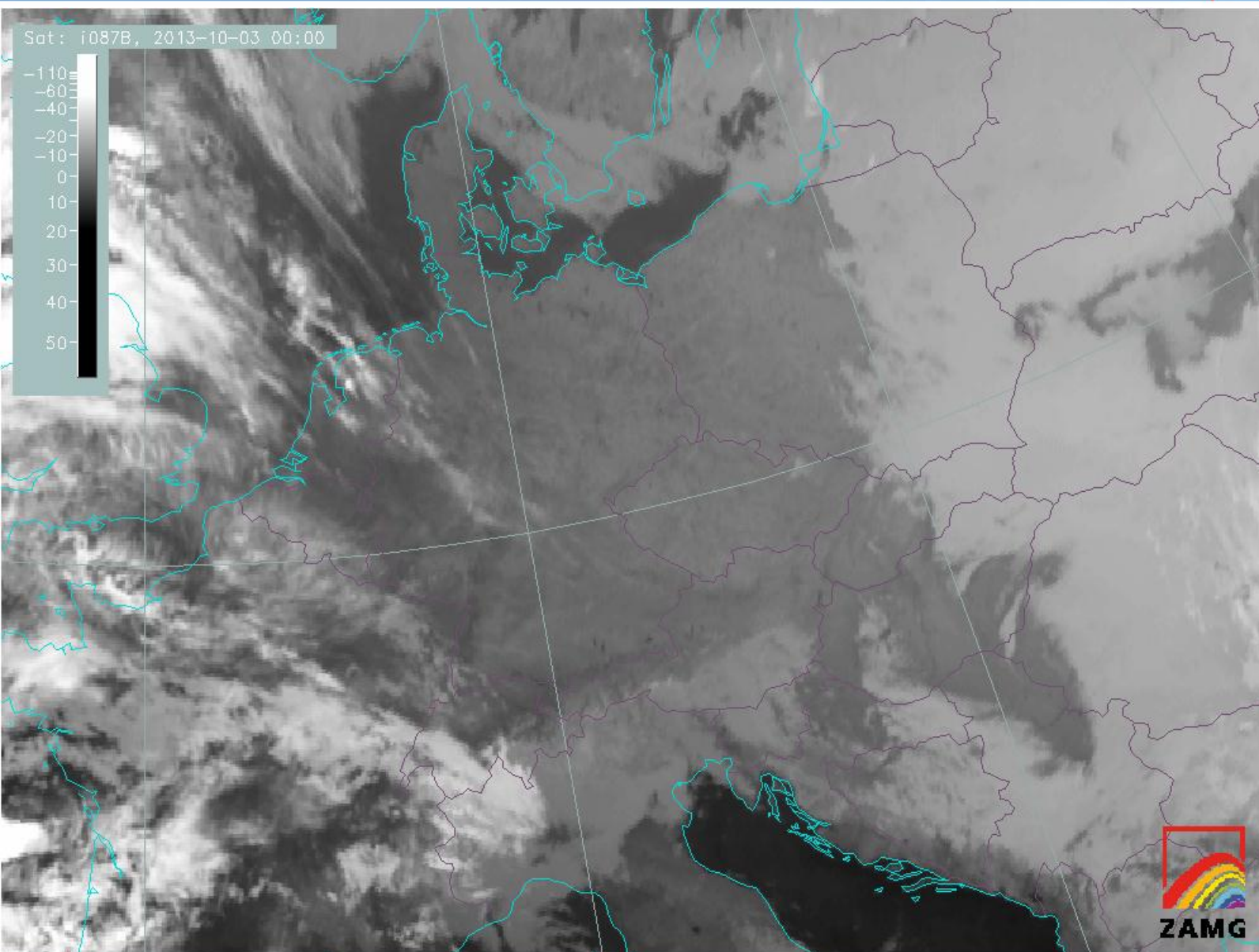
# CASE 131026 0000 – 1200 UTC, WIND (10m/850hPa) (ECMWF)



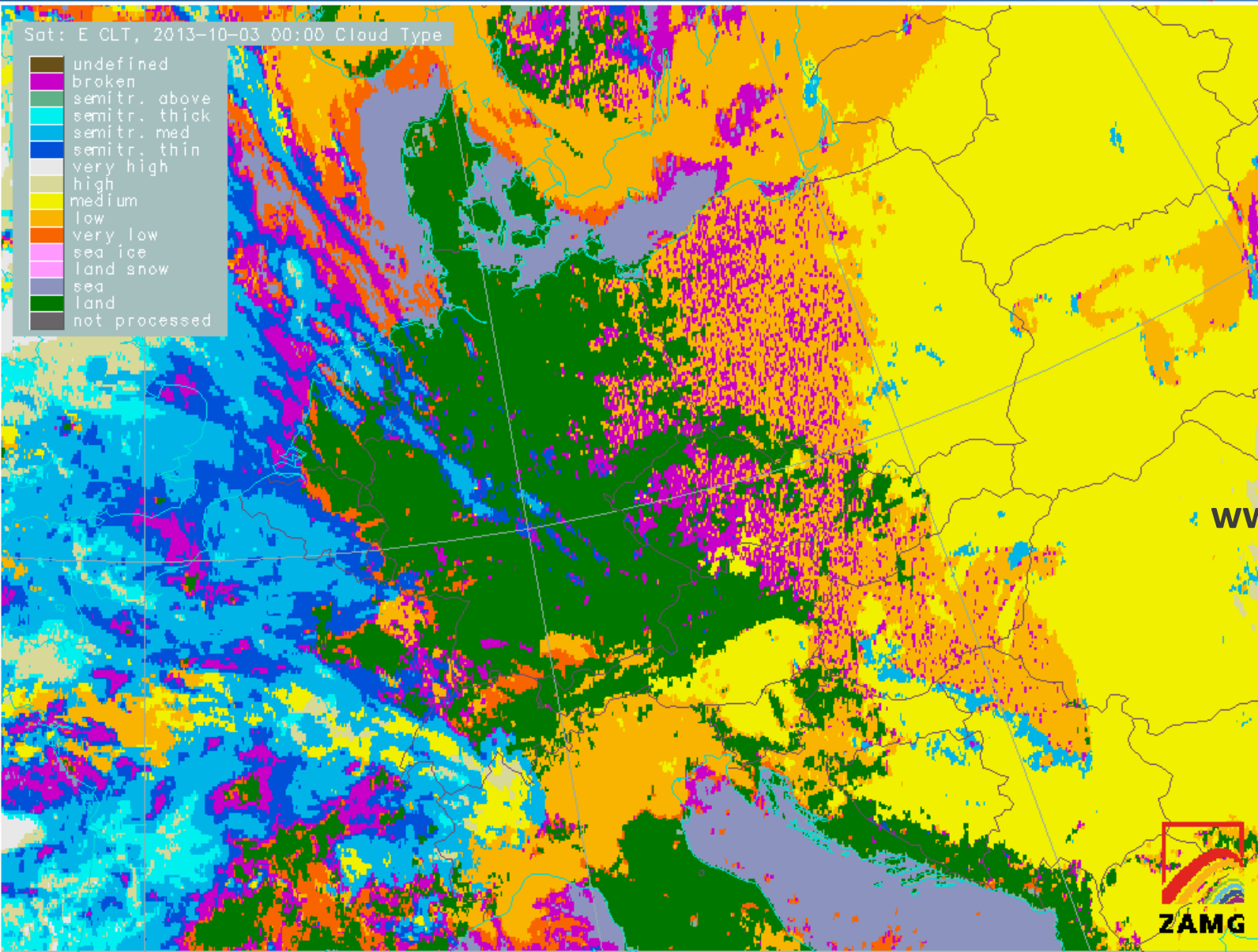
# CASE 131003 0000UTC, IR10.8 $\mu$ , MSLP (ECMWF)



# CASE 131003 0000UTC, IR8.7 $\mu$



## CASE 131003 0000UTC, NWCSAF Cloud Type



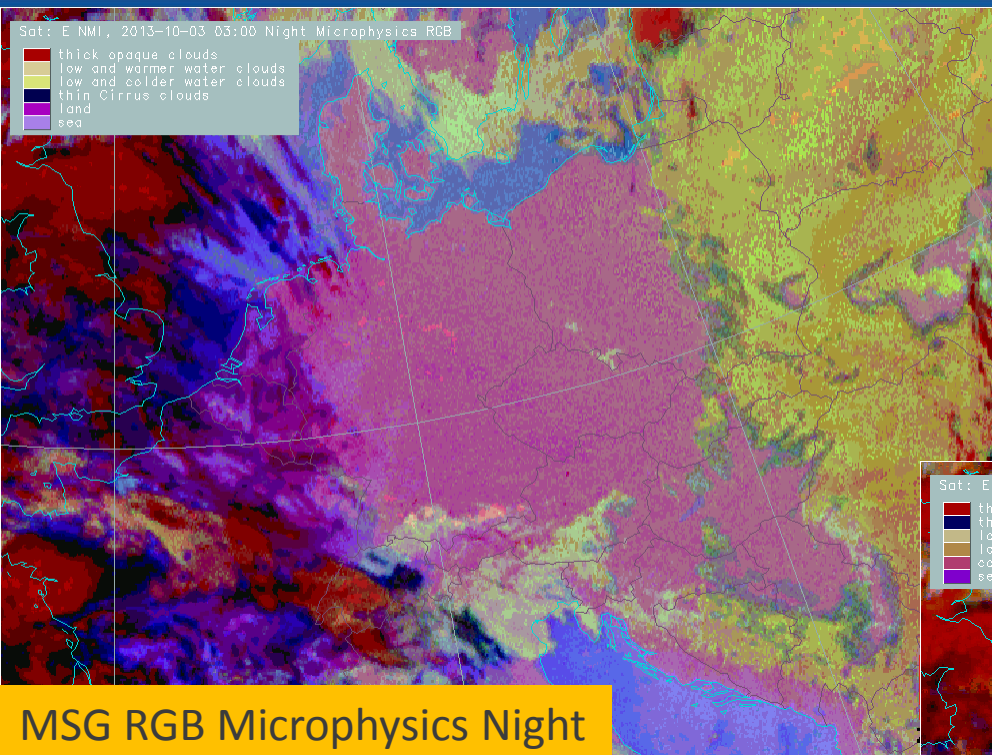
Haze, mist?

Ts – included,  
NWP model?

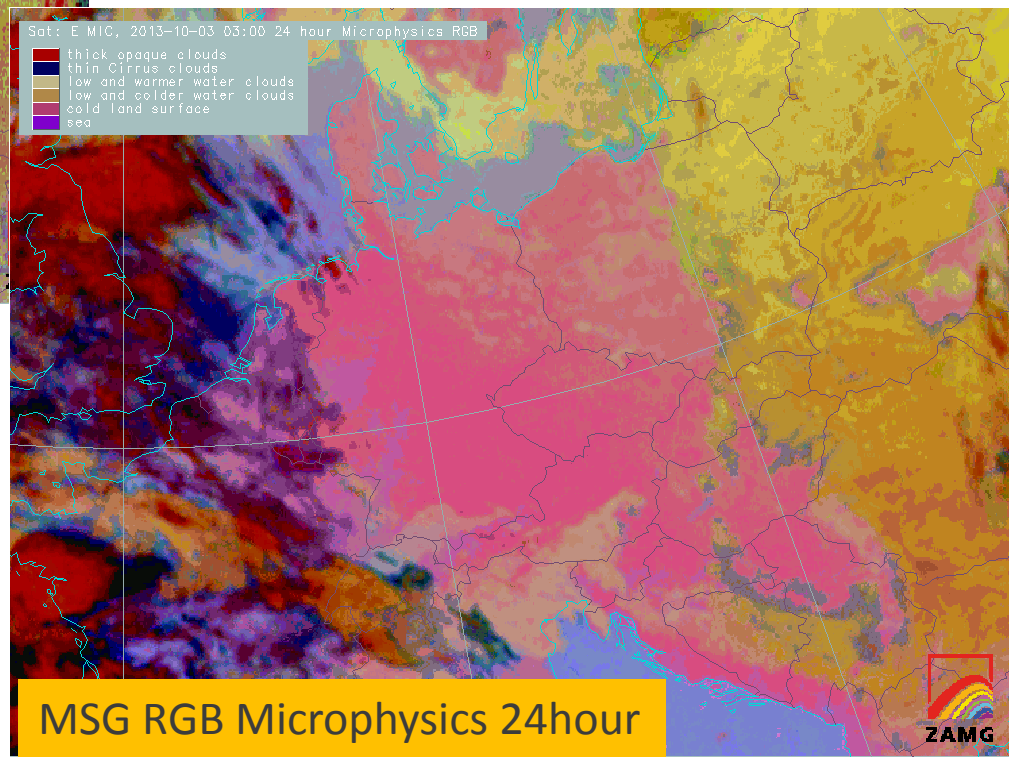
[www.nwcsaf.org](http://www.nwcsaf.org)



# CASE 131003 0300UTC, MSG RGB Microphysics (Night / 24hour)

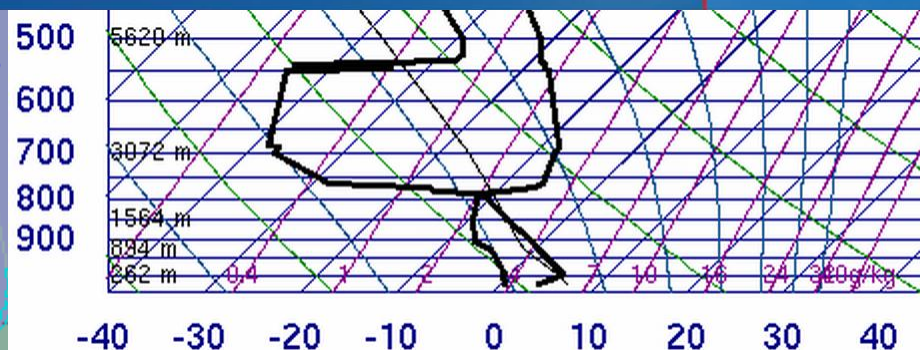
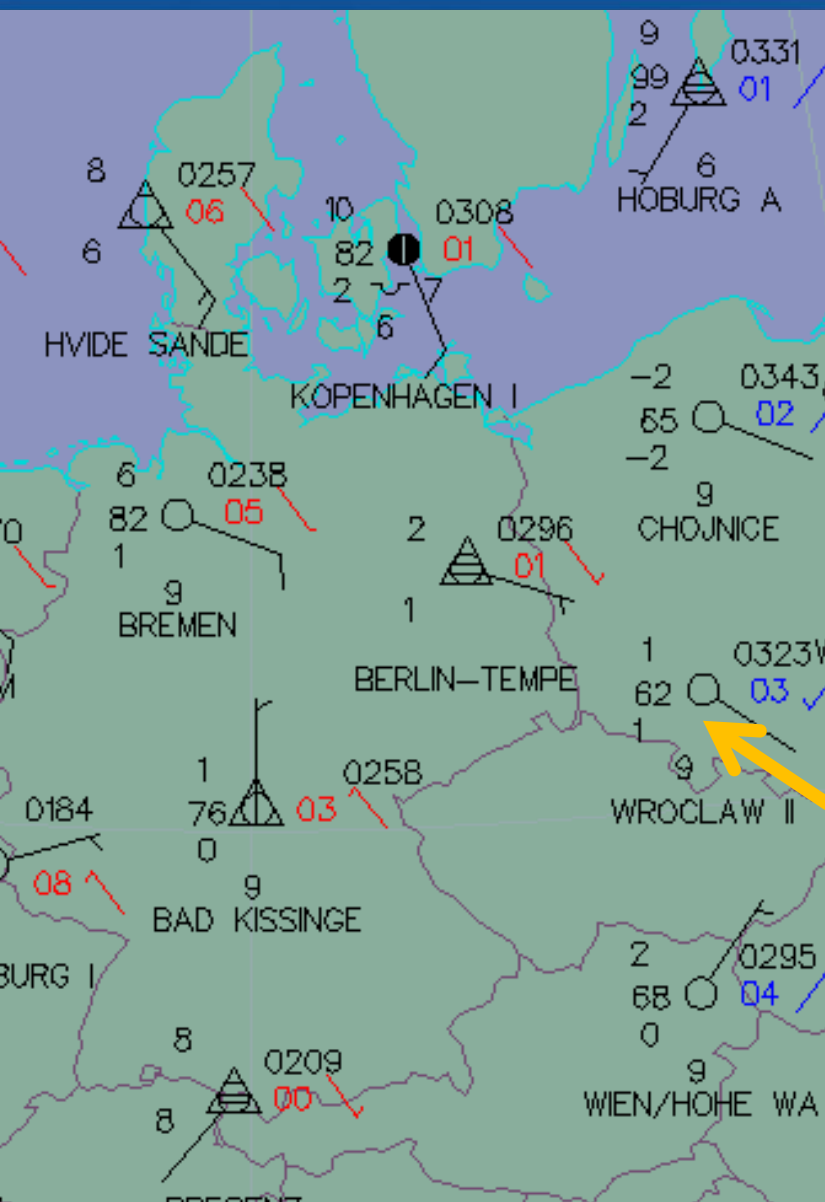


MSG RGB Microphysics Night

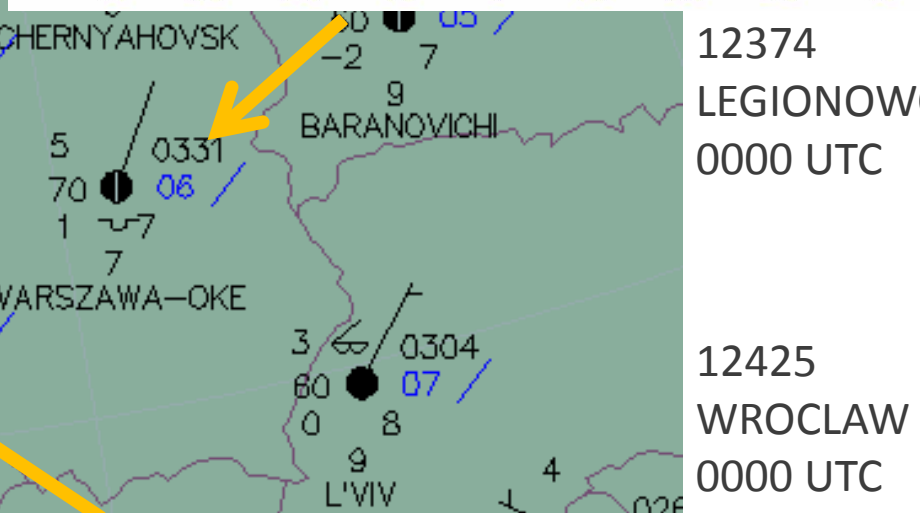


MSG RGB Microphysics 24hour

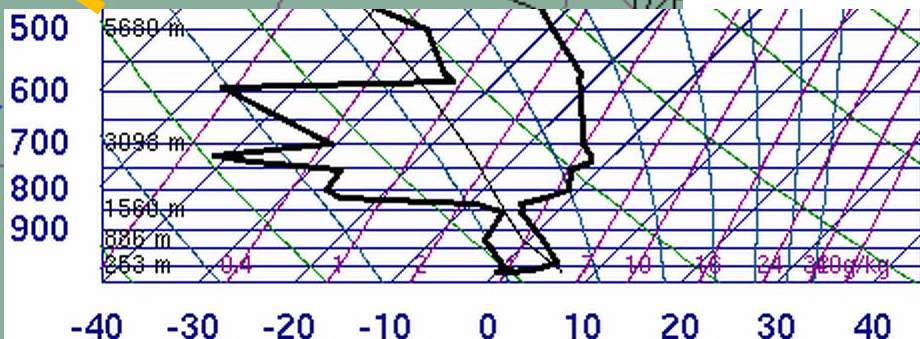
# CASE 131003 0300UTC, SYNOP STATIONS, RADIO SOUNDING



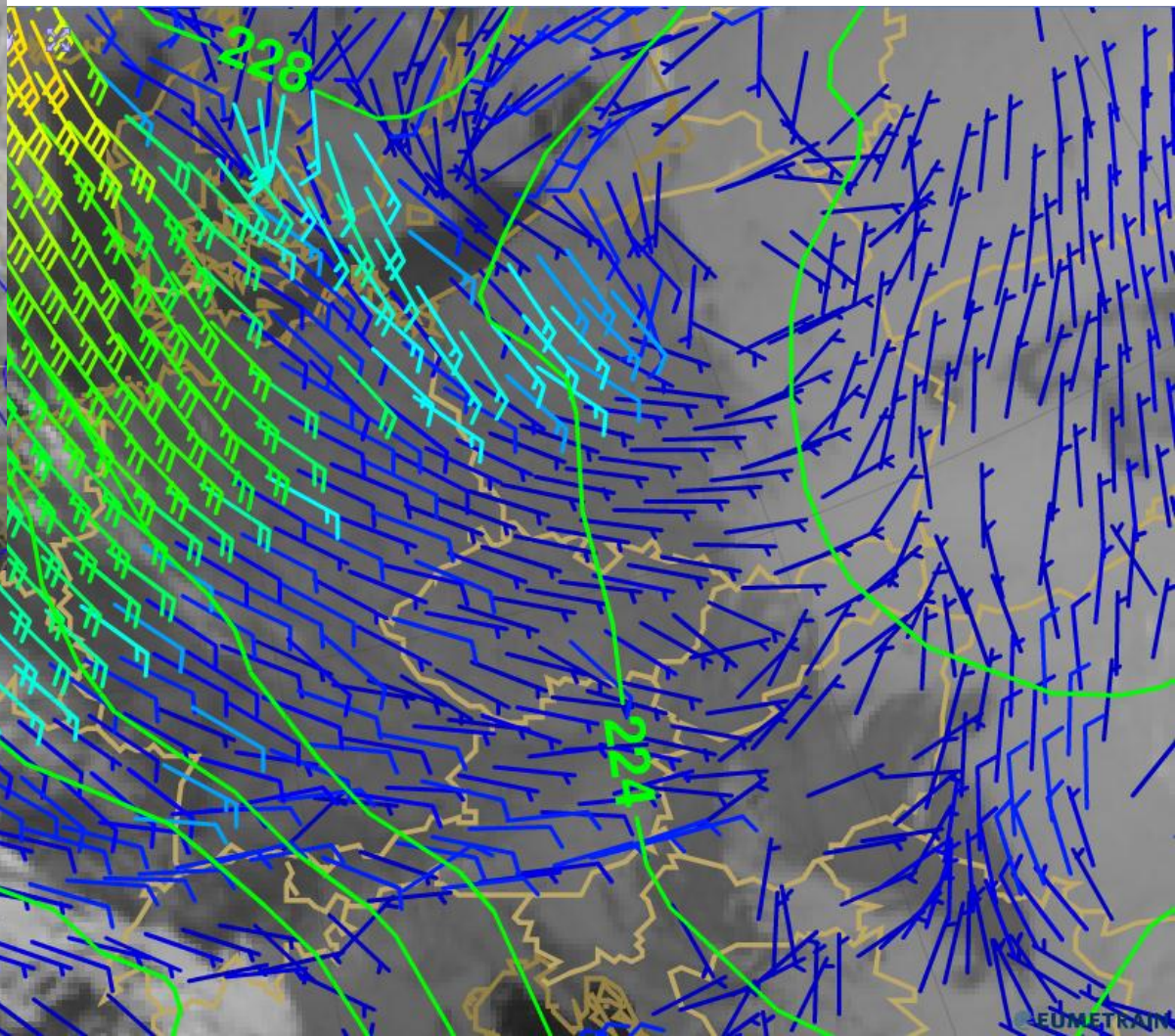
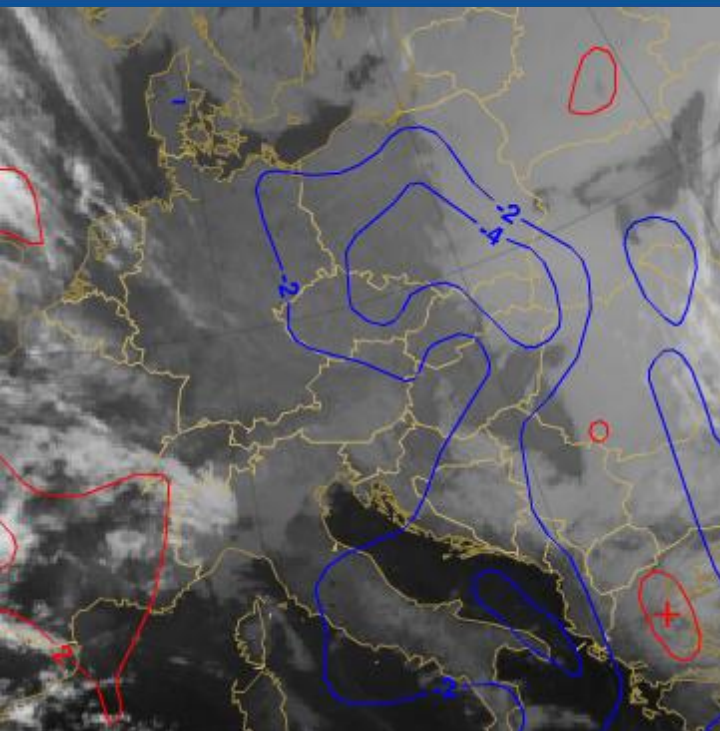
12374  
LEGIONOWO  
0000 UTC



12425  
WROCLAW  
0000 UTC



# CASE 131003 0000UTC, IR10.8 $\mu$ , TA / WIND 10m & EQ THICKNESS



**Cold air advection**



**LOOP:**

**131003 0000 – 0700UTC, MSG RGB Microphysics 24hour**

**Conclusion:**

**It is always important to know how your tools really work!**