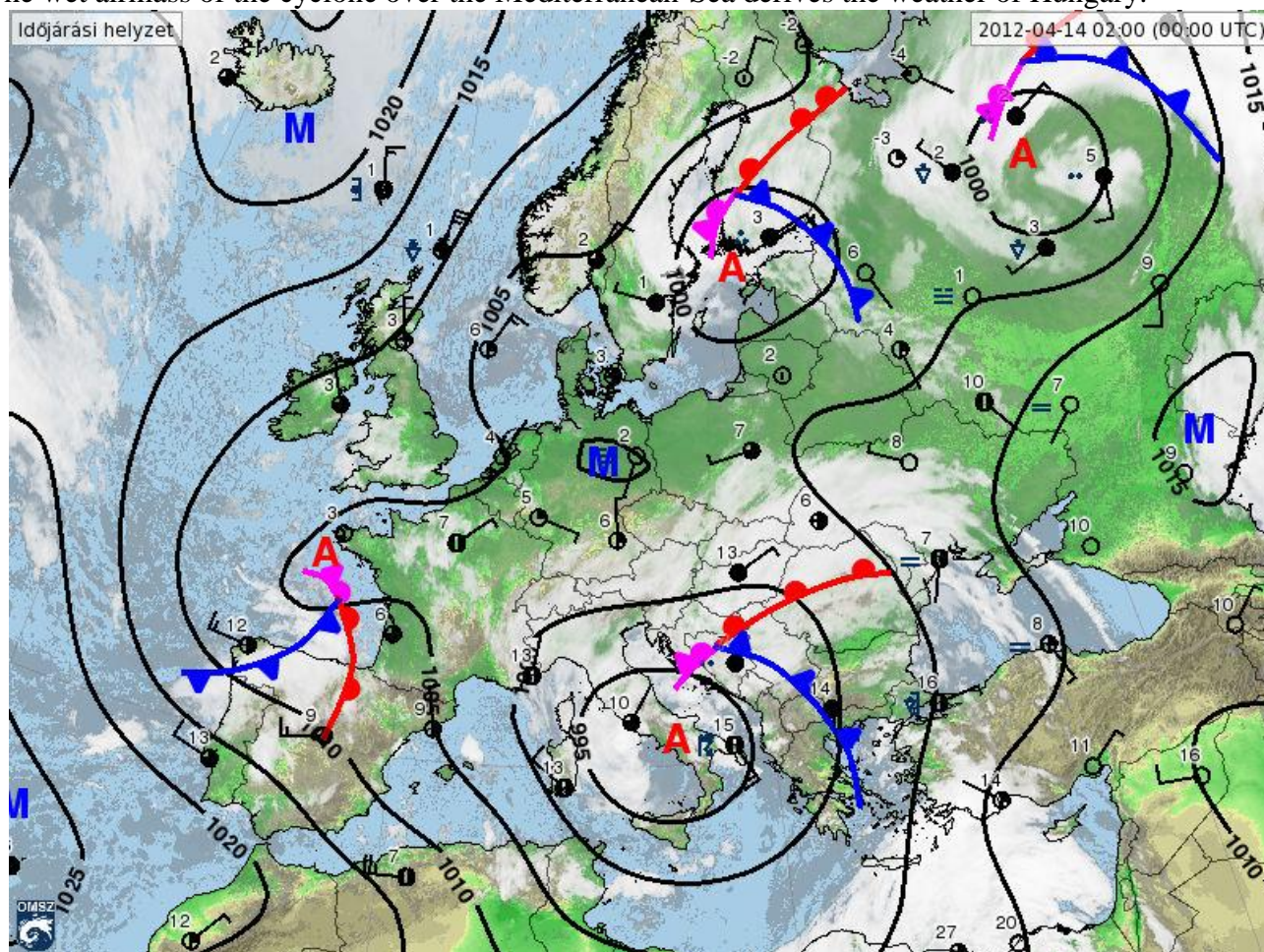


<b>PRODUCT NAME: PR-OBS-5</b>		
<b>CASE STUDY PERIOD:</b> 14 April 2012	<b>METEOROLOGICAL EVENT:</b> a mediterranean cyclone over Mediterranean Sea	
<b>VALIDATION INSTITUTE:</b> OMSZ- Hungarian Meteorological Service	<b>Responsible:</b> Judit Kerényi	<b>Contact point:</b> kerenyi.j@met.hu
<b>PRODUCT DEVELOPER INSTITUTE:</b> CNR- ISAC	<b>Developers:</b> Mugnai A. , Sanò P.	<b>Contact point:</b> <a href="mailto:a.mugnai@isac.cnr.it">a.mugnai@isac.cnr.it</a>
<b>OPERATIONAL CHAIN INSTITUTE:</b> CNMCA	<b>Responsables:</b> Zauli F, Melfi D.	<b>Contact point:</b> <a href="mailto:zauli@meteoam.it">zauli@meteoam.it</a>

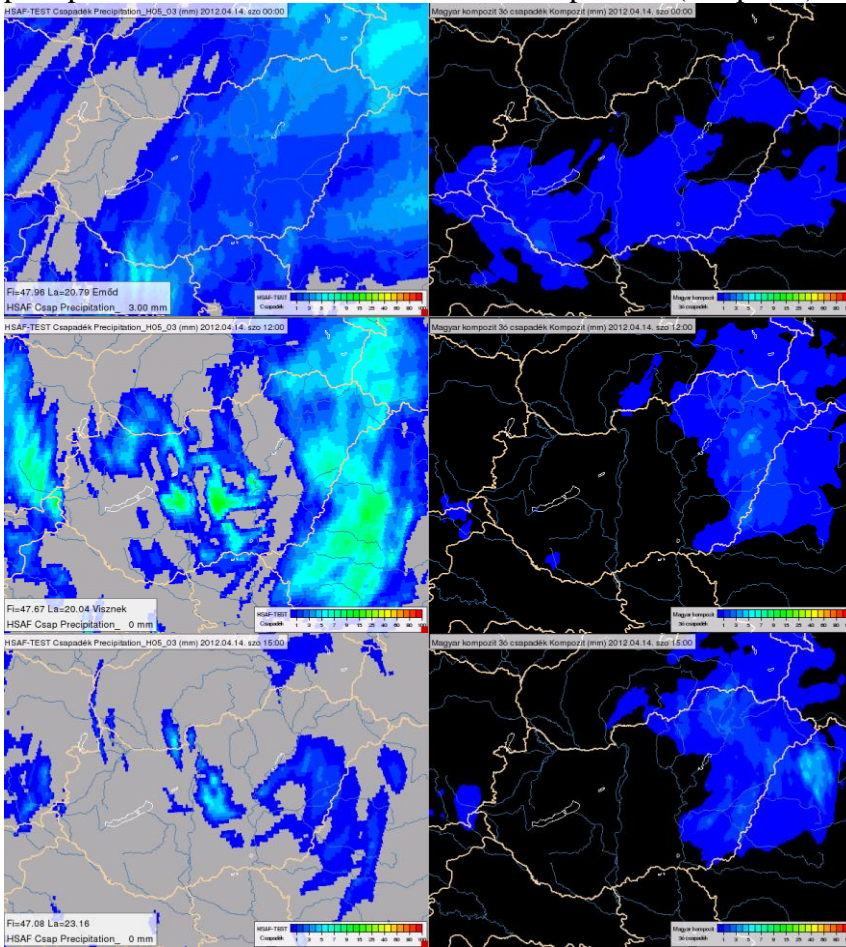
### METEOROLOGICAL EVENT DESCRIPTION

The wet airmass of the cyclone over the Mediterranean-Sea derives the weather of Hungary.



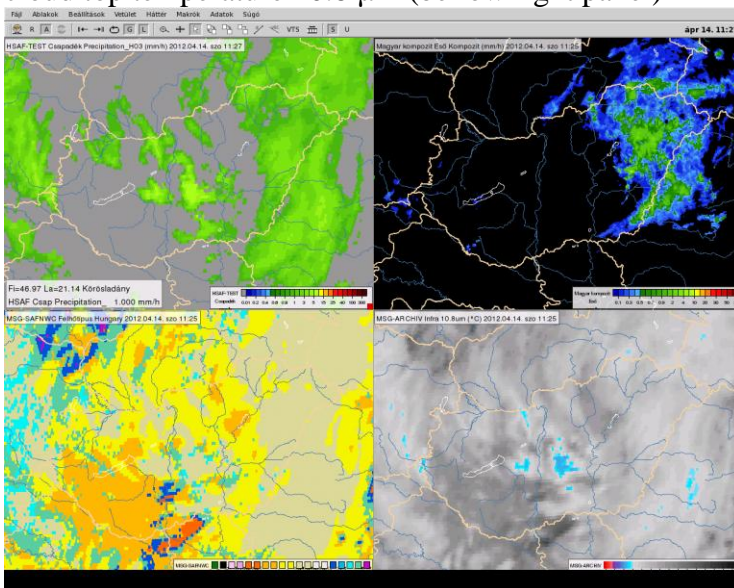
## DATA/PRODUCTS USED

precipitation rate information from the Hungarian radar network (right panel)  
 precipitation rate information from the H05 product (left panel)



3 hour precipitation field at 00 12, 15 UTC

precipitation rate information from the Hungarian radar network (top right panel)  
 precipitation rate information from the H03 product (top left panel)  
 cloud classification from NWC-SAF (bellow left panel)  
 cloud top temperature 10.8  $\mu\text{m}$  (bellow right panel)



- 0 non-processed
- 1 cloud free land, no contamination by snow/ice covered surface,
- 2 cloud free sea, no contamination by snow/ice covered surface
- 3 land contaminated by snow
- 4 sea contaminated by snow/ice
- 5 ---
- 6 very low opaque clouds
- 7 ---
- 8 low opaque clouds
- 9 ---
- 10 medium opaque clouds
- 11 ---
- 12 high opaque clouds
- 13 ---
- 14 very high opaque clouds
- 15 high semitransparent thin clouds
- 16 high semitransparent meanly thick clouds
- 17 high semitransparent thick clouds
- 18 high semitransparent above low or medium clouds
- 19 fractional clouds (sub-pixel water clouds)
- 20 undefined (undefined by CMA)

### **RESULTS OF COMPARISON**

During the investigated period (9-15 UTC) the radar measured moderate precipitation intensity in the east part of Hungary. If we look at the H05 product fields we can see it gives precipitation from convective clouds in the middle part of Hungary. To check the situation we have looked at the H03 product with cloud type from NWC-SAF and brightness temperature. As you can see in the middle part of Hungary a high opaque clouds were detected by NWC-SAF(11:30 UTC).

### **COMMENTS**

The H05 gave precipitation to the middle part of Hungary, while the radar did not measure any precipitation.

### **INDICATION TO DEVELOPERS**

It seems that further studies are needed at H05 at high opaque clouds.