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**Ufficio federale di meteorologia e climatologia MeteoSvizzera**

# Inverno 2010-2011

Retrospektiva meteoclimatica

Matteo Buzzi (Fosco Spinedi, Luca Nisi, Stefano Zanini)



# Panoramica

- Andamento rispetto ai valori normali 1961-1990
  - Temperatura
  - Precipitazioni
  - Soleggiamento
- Situazioni meteorologiche preponderanti
  - Distribuzione nell'autunno 2010
- Alcuni casi interessanti





2011-01-31 13:20  
TanomM v1.0  
© MeteoSwiss

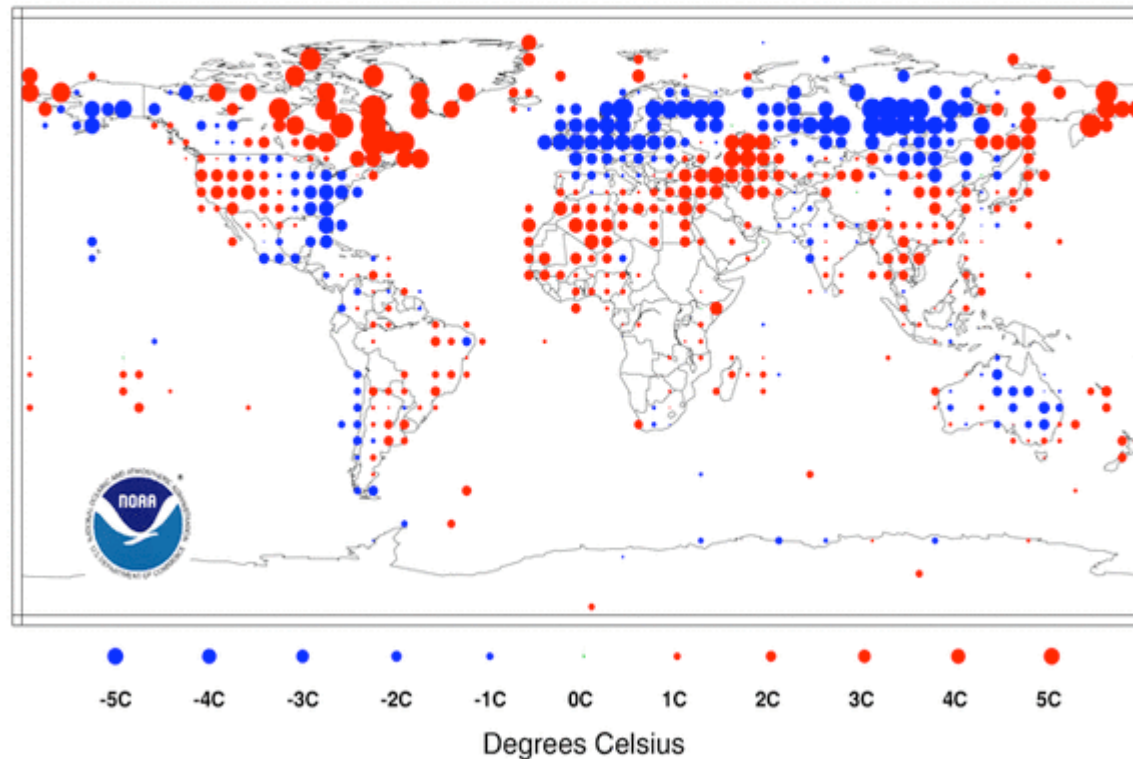


# Temperatura: anomalie globali dicembre

## Temperature Anomalies December 2010

(with respect to a 1961-1990 base period)

National Climatic Data Center/NESDIS/NOAA





2011-02-28 12:10  
TanomM v1.0  
© MeteoSwiss

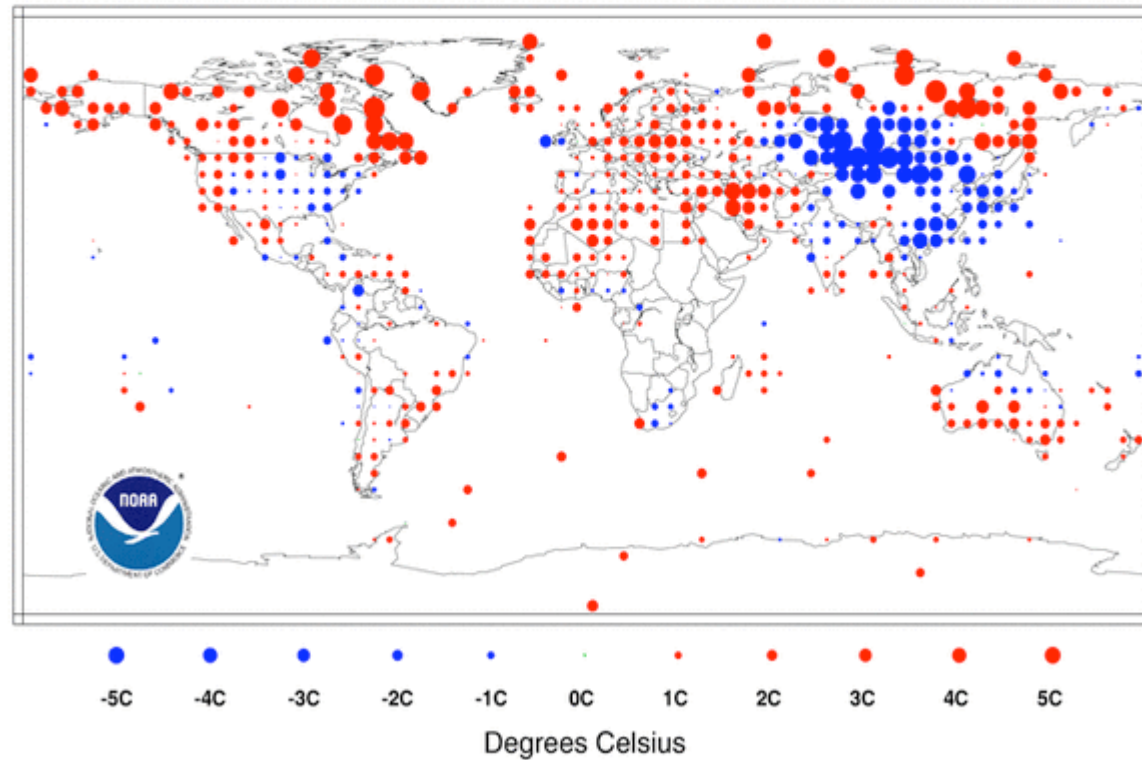


# Temperatura: anomalie globali gennaio

## Temperature Anomalies January 2011

(with respect to a 1961-1990 base period)

National Climatic Data Center/NESDIS/NOAA





2011-03-05 17:05  
TanomM v1.0  
© MeteoSwiss

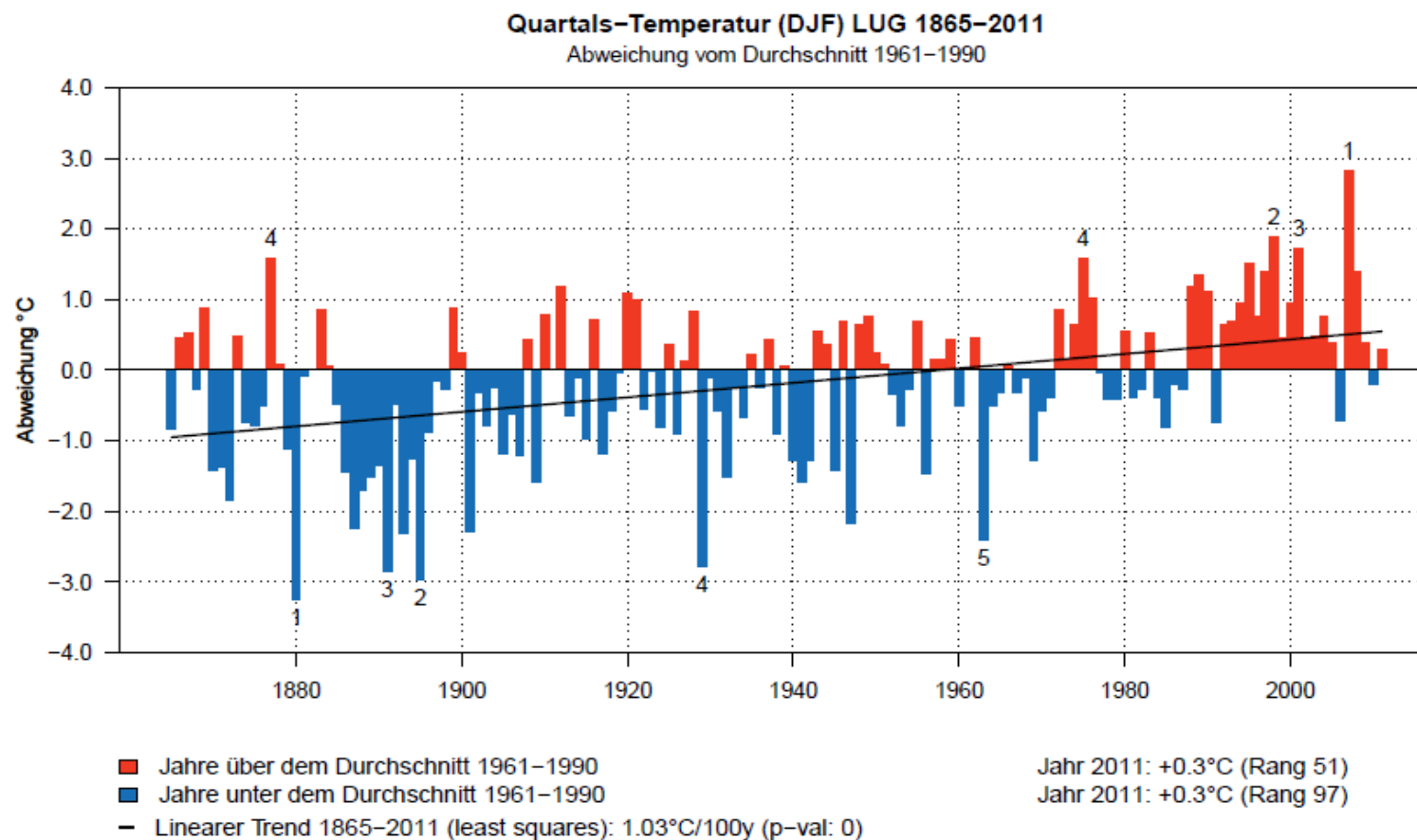
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TanomM v1.0  
© MeteoSwiss



## **Temperatura: anomalie globali dicembre**



# L'inverno 2010-2011 rispetto agli altri

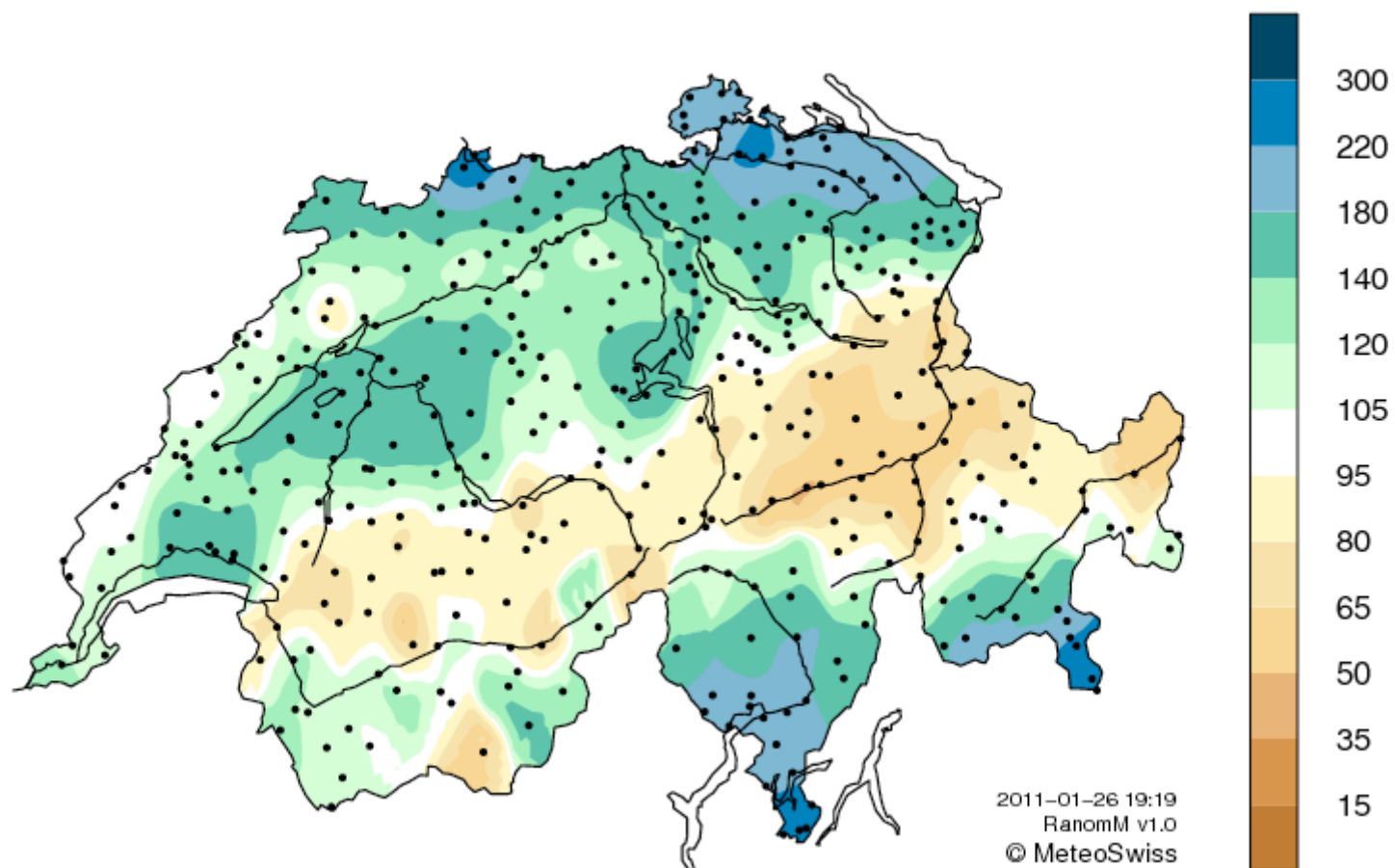






# Precipitazioni: dicembre 2010

Monthly Precipitation Anomaly (%) Dec 2010

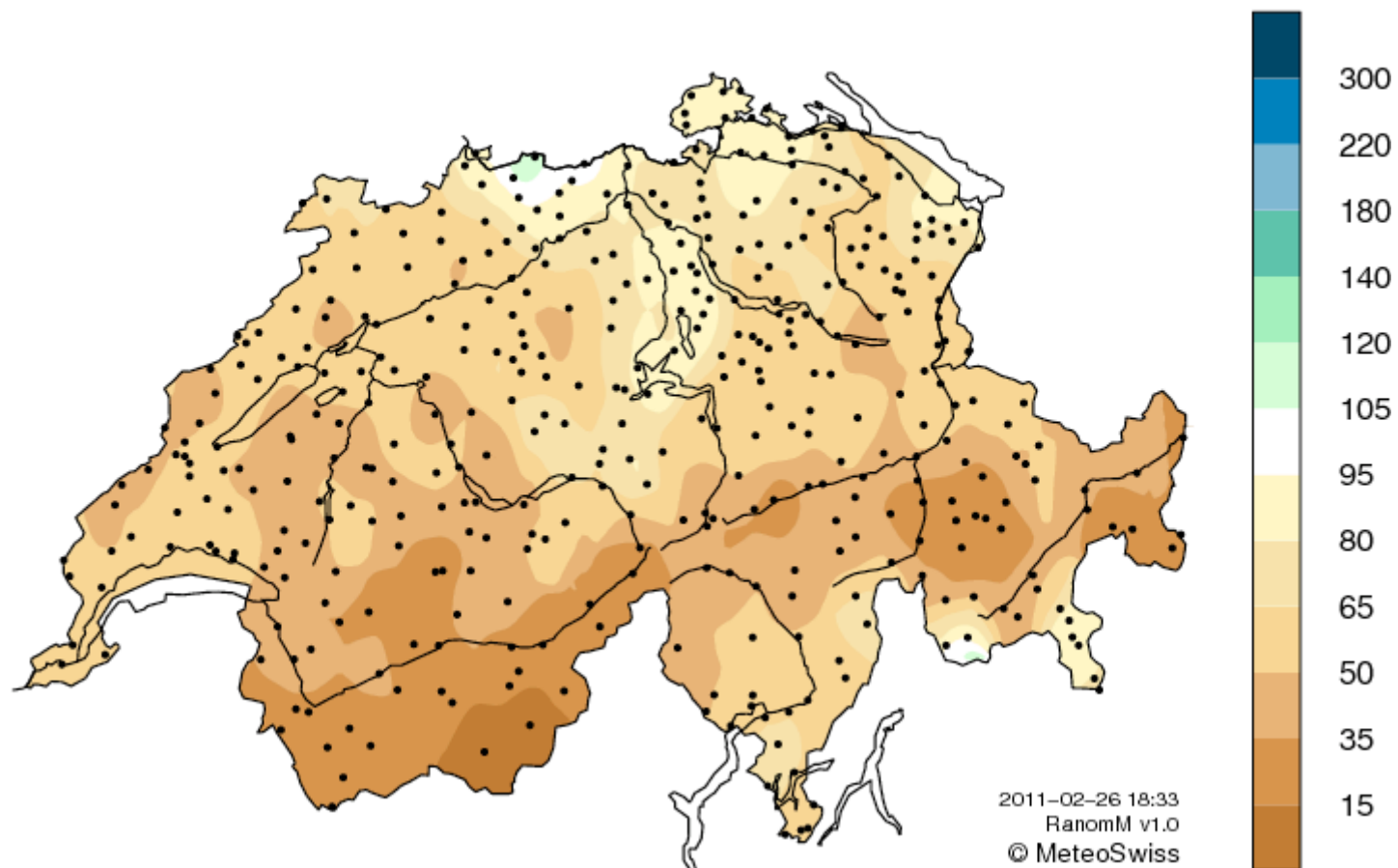






# Precipitazioni: gennaio 2010

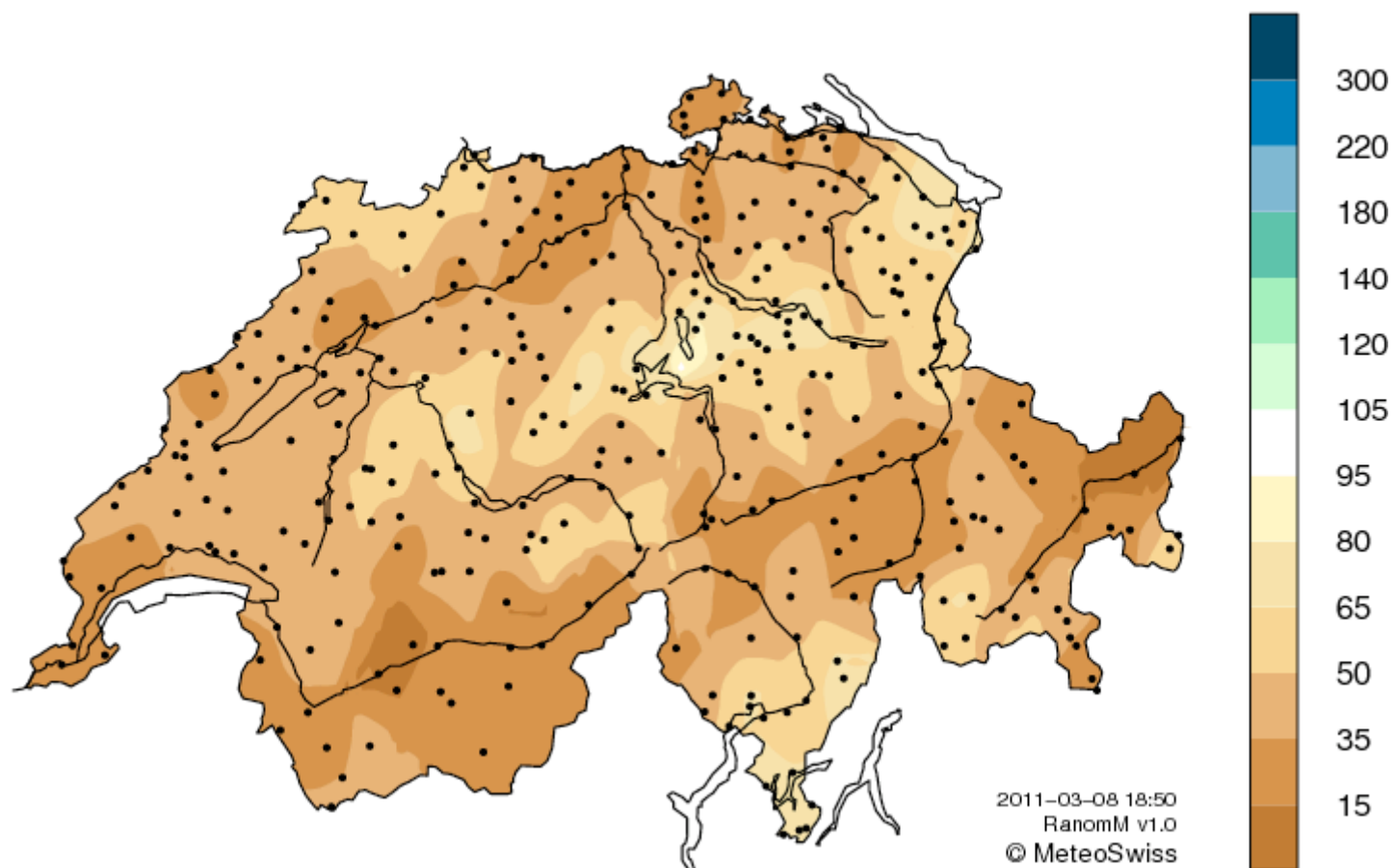
Monthly Precipitation Anomaly (%) Jan 2011 (Ref. 1961–1990)





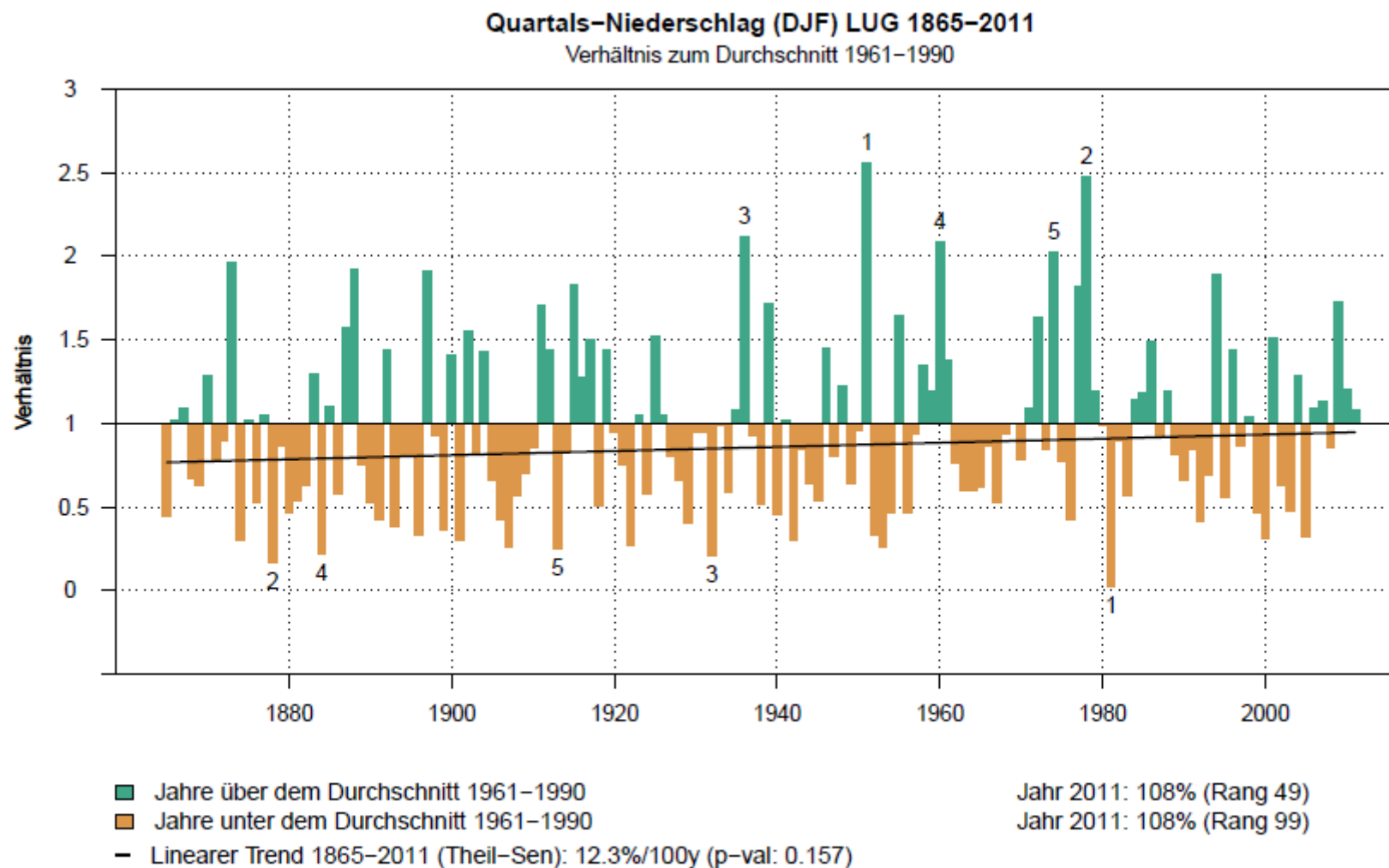
# Precipitazioni

Monthly Precipitation Anomaly (%) Feb 2011 (Ref. 1961–1990)



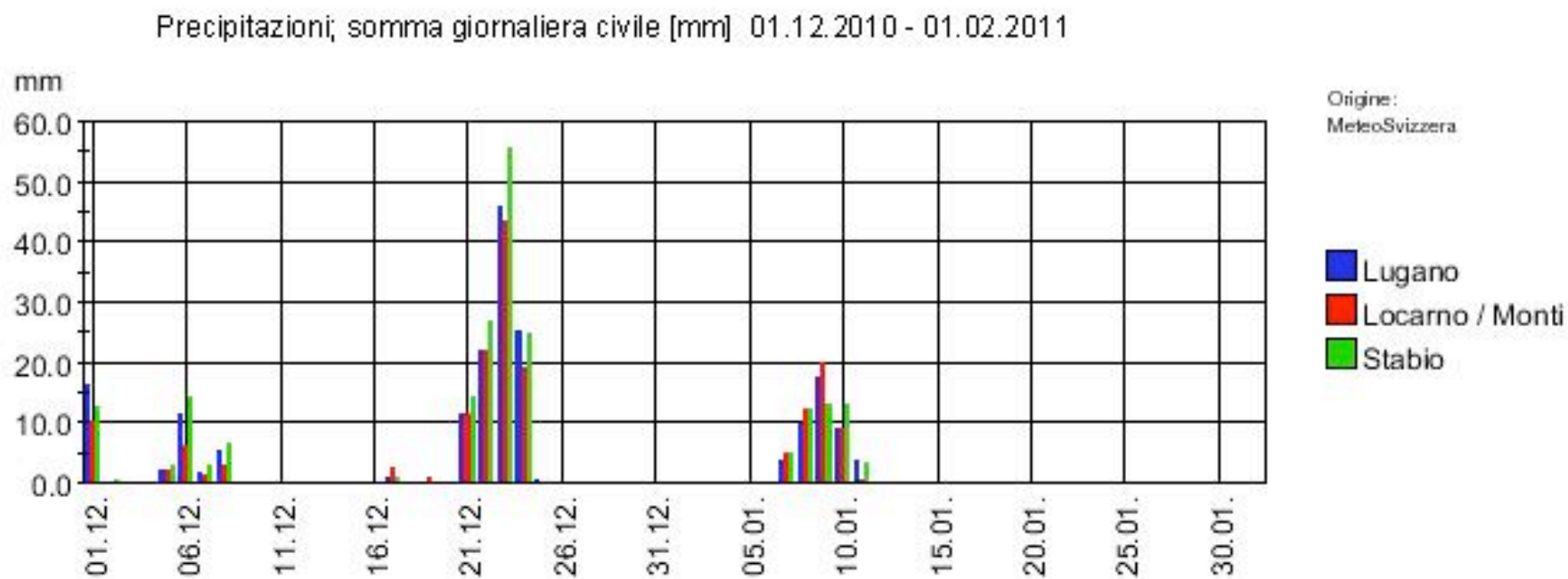


# L'inverno 2010-2011 rispetto agli altri





# Precipitazioni giornaliere



3 eventi con precipitazioni: 5-8.12.2010, 21-24.12.2010, 7-11.1.2011



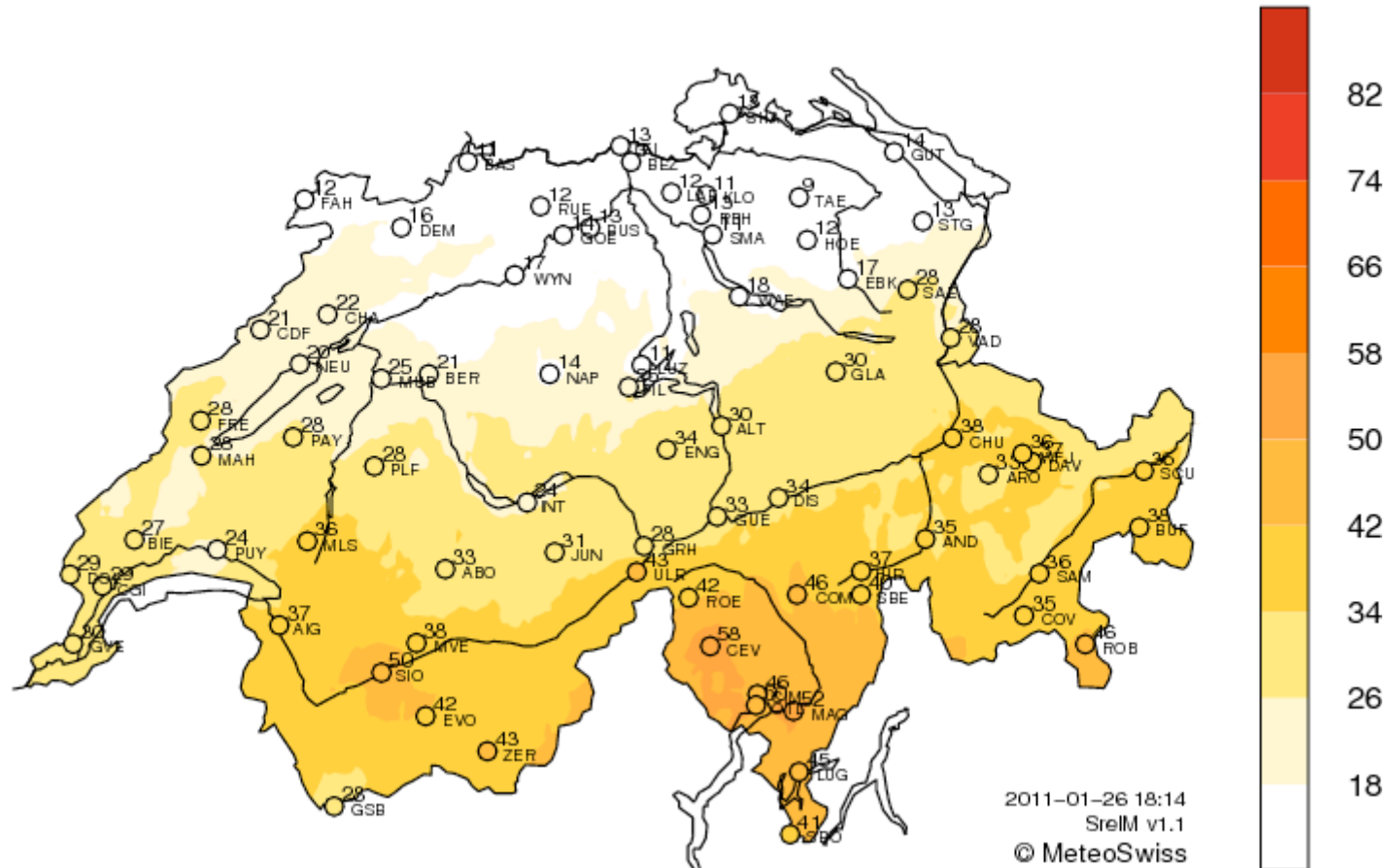
2011-01-26 18:16  
SanomM v1.1  
© MeteoSwiss

2011-01-26 18:16  
SanomM v1.1  
© MeteoSwiss



# Soleggiamento relativo: dicembre

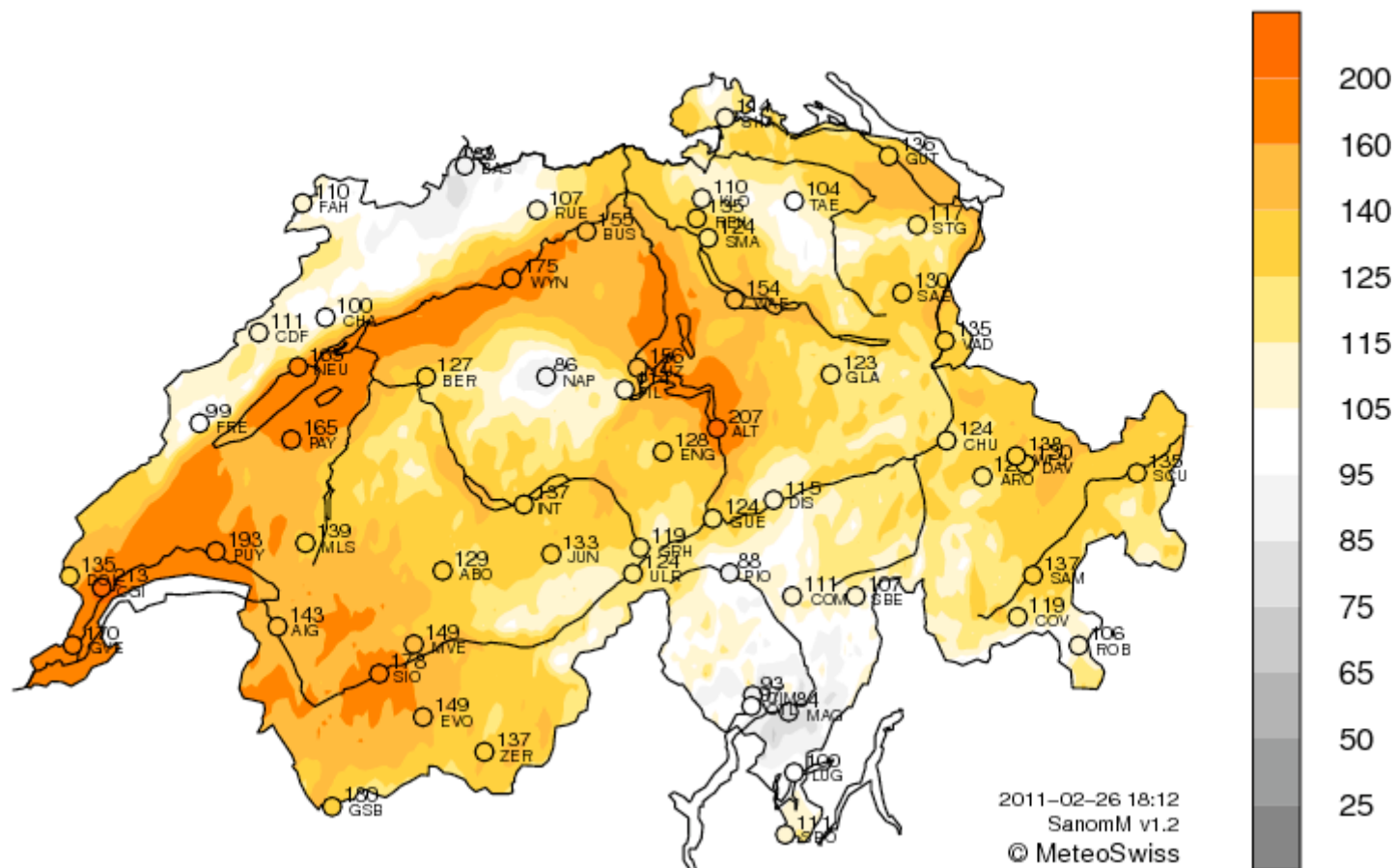
Monthly Relative Sunshine Duration (%) Dec 2010





# Soleggiamento: anomalia gennaio

Monthly Sunshine Duration Anomaly (%) Jan 2011 (Ref. 1961–1990)

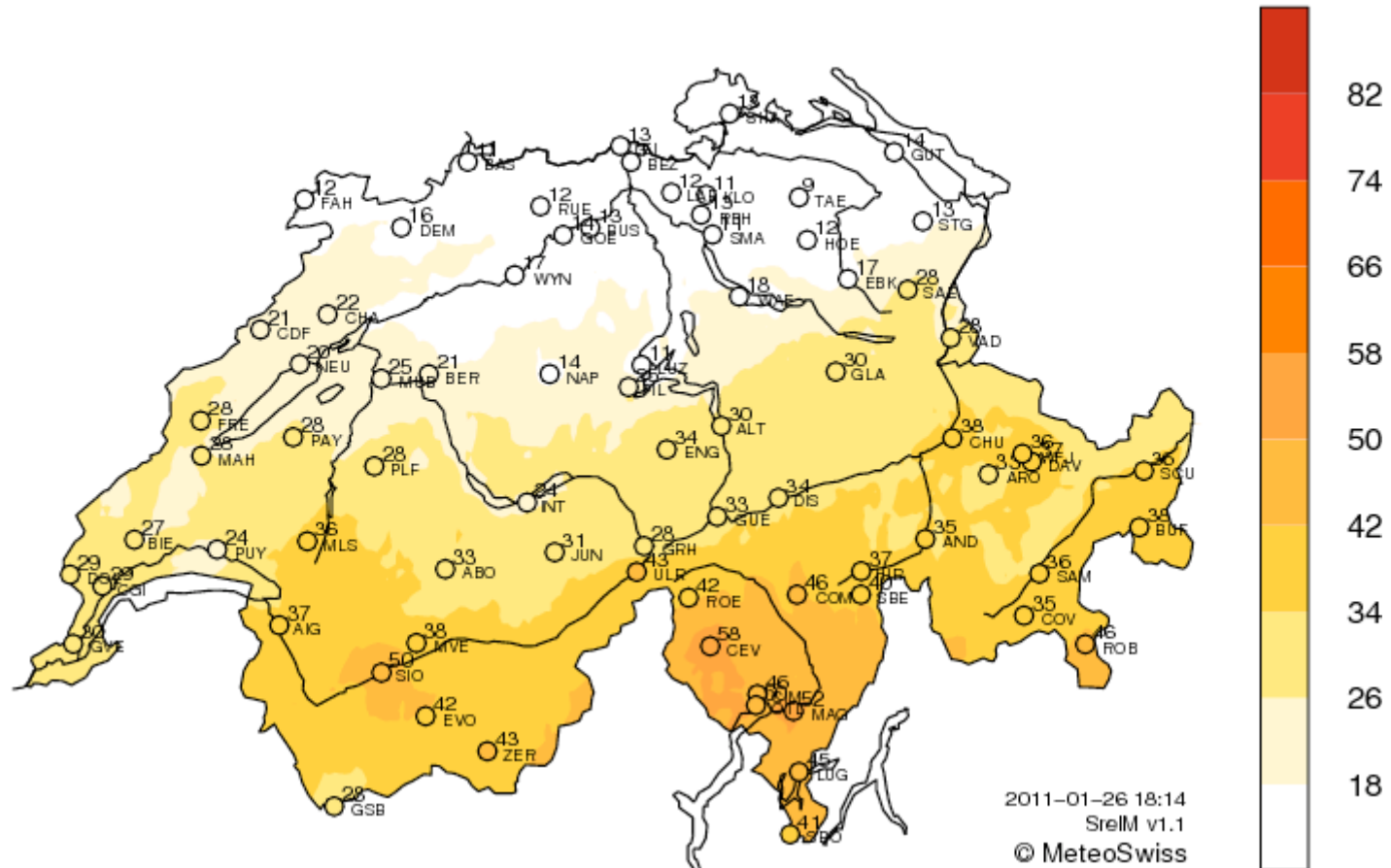






# Soleggiamento relativo: gennaio

Monthly Relative Sunshine Duration (%) Dec 2010

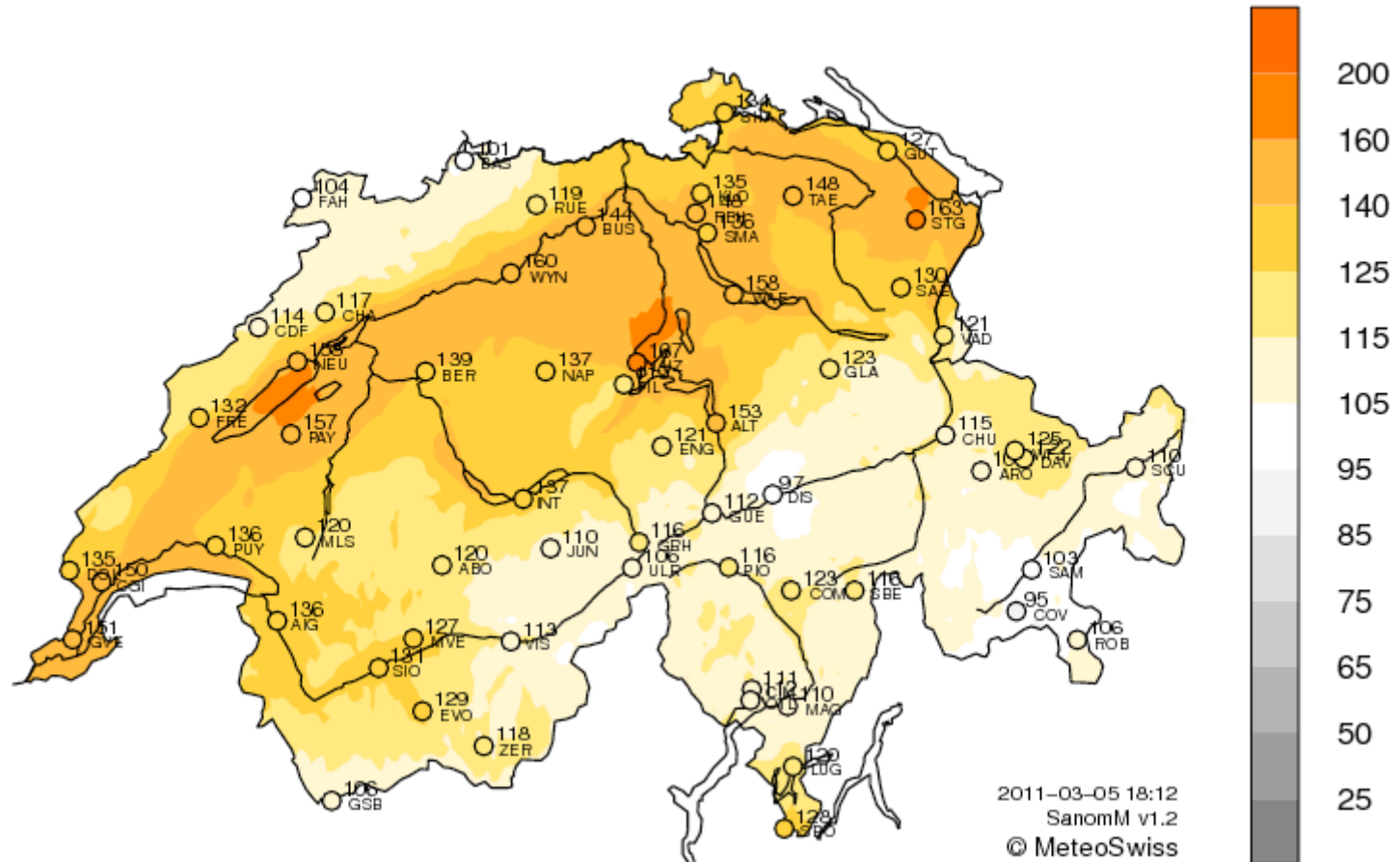






# Soleggiamento: anomalia febbraio

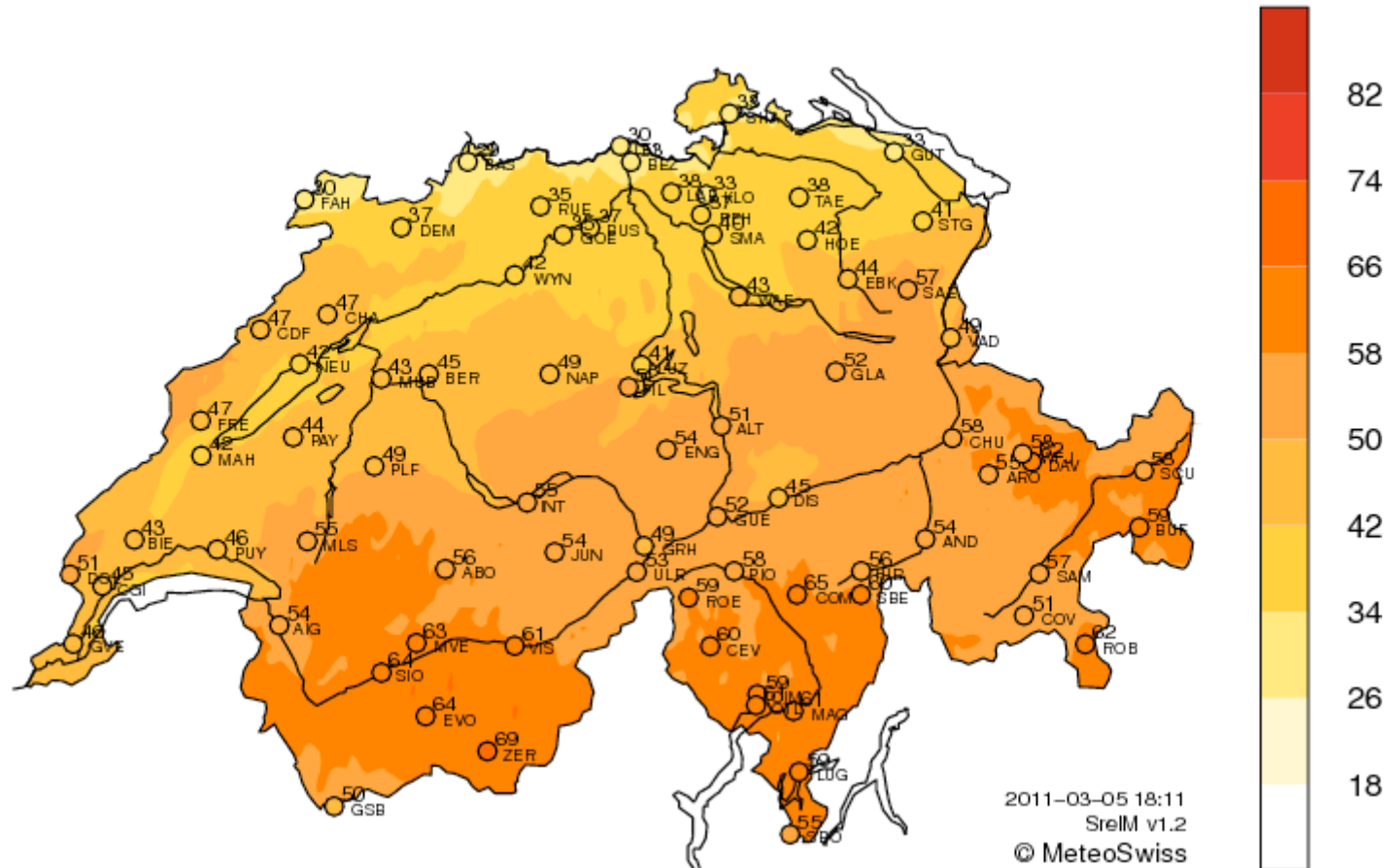
Monthly Sunshine Duration Anomaly (%) Feb 2011 (Ref. 1961–1990)





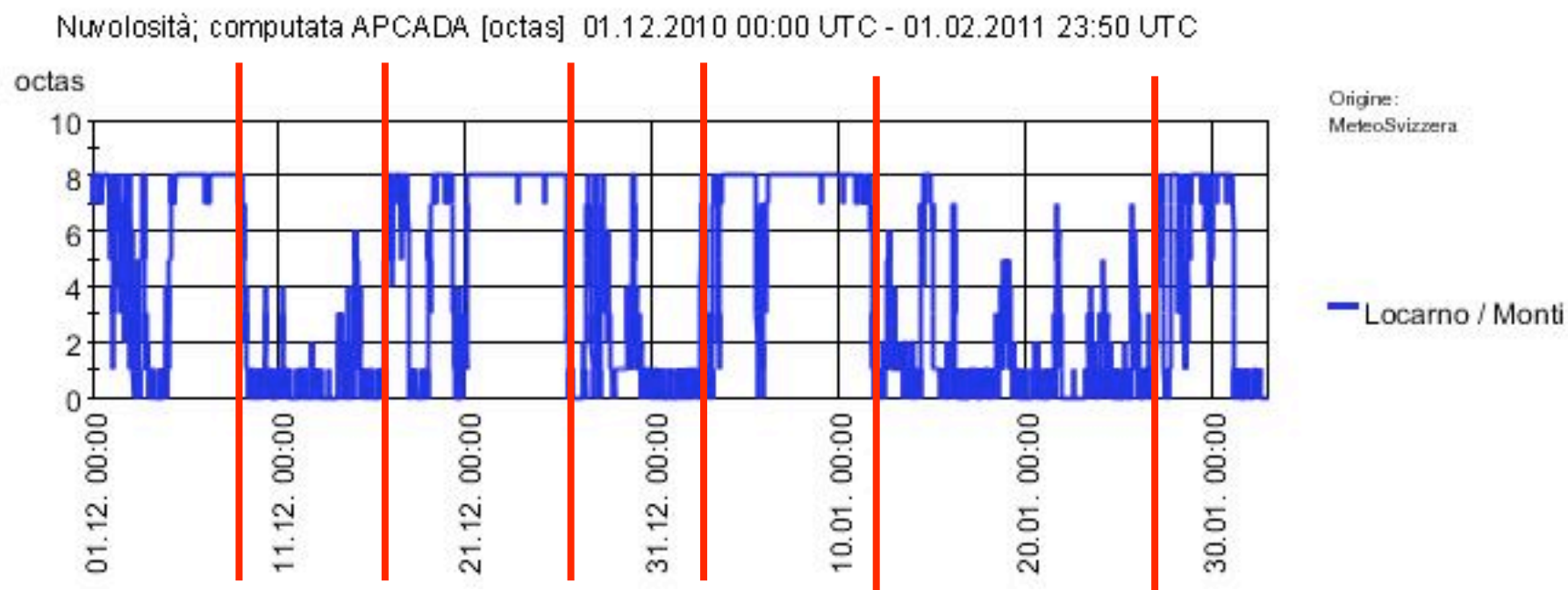
# Soleggiamento relativo: febbraio

Monthly Relative Sunshine Duration (%) Feb 2011





# Nuvolosità







30.12.2010, foto: Luca Nisi





31.12.2010, foto: Luca Nisi





foto: Luca Nisi

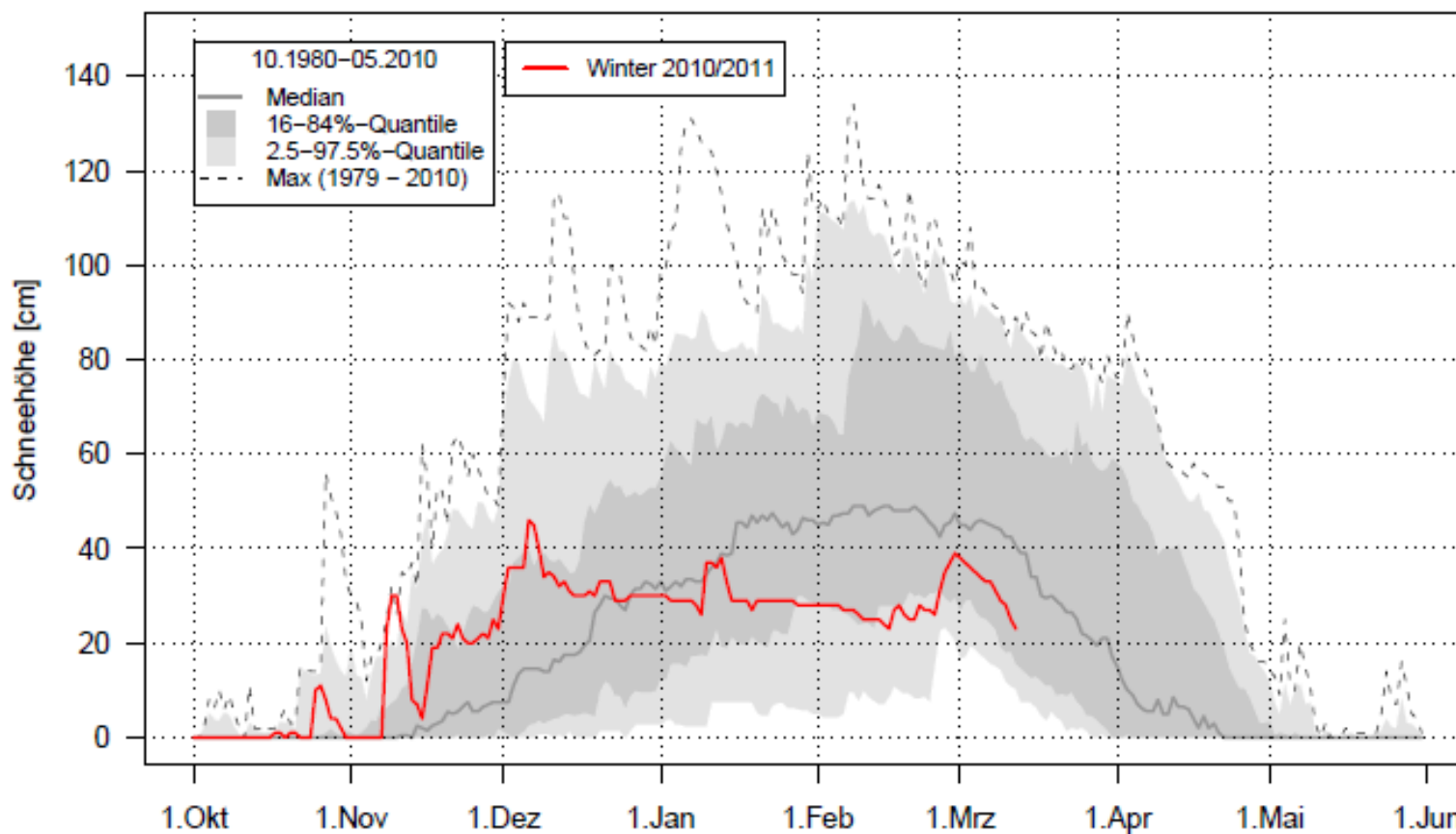




# Altezza della neve: Samedan

## Schneehöhenverlauf Samedan (1709 m ü.M.)

Wintersaison 2010/2011 (01. Oktober – 12. März)

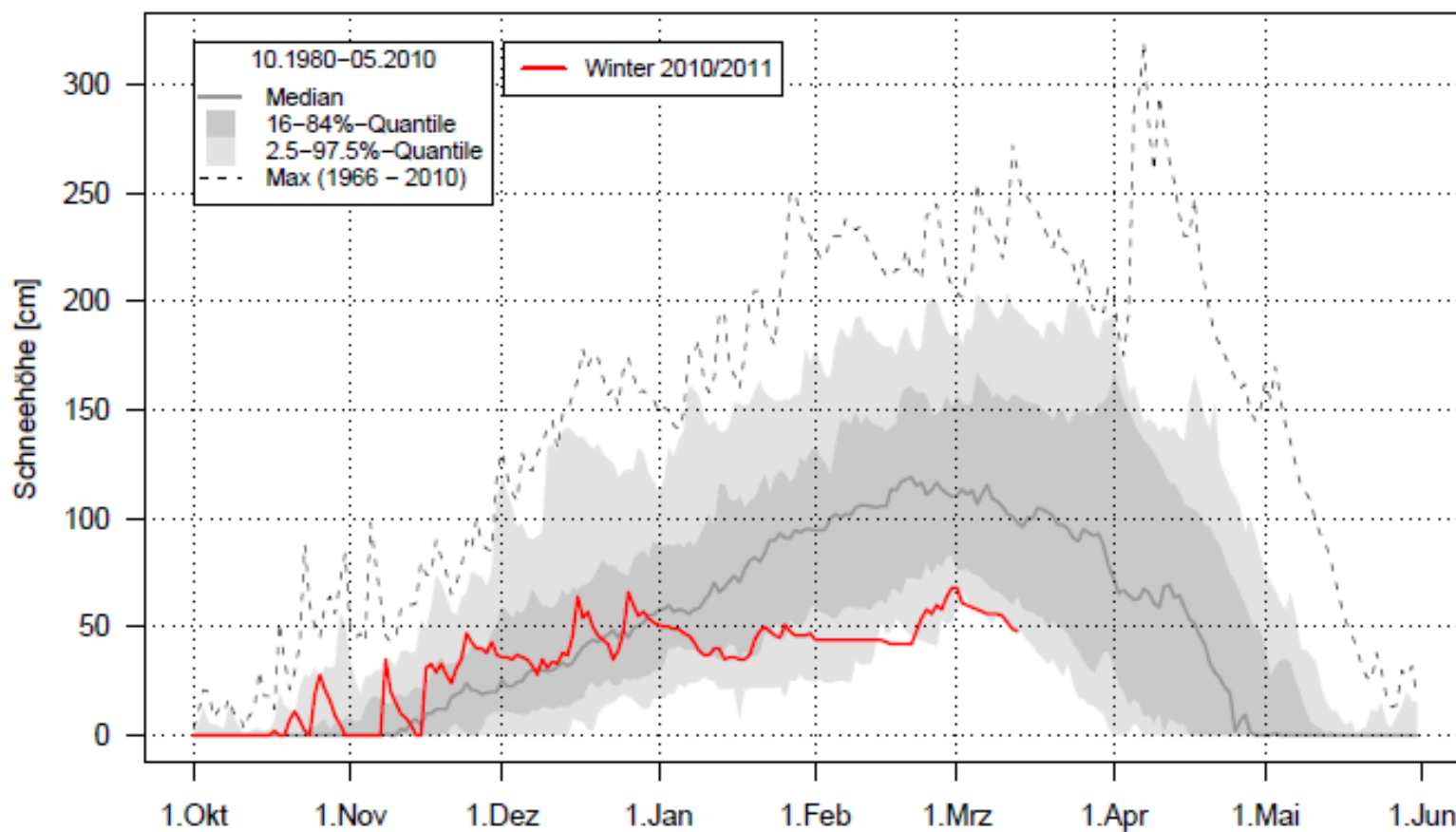




# Altezza della neve: Samedan

Schneehöhenverlauf Andermatt (1442 m ü.M.)

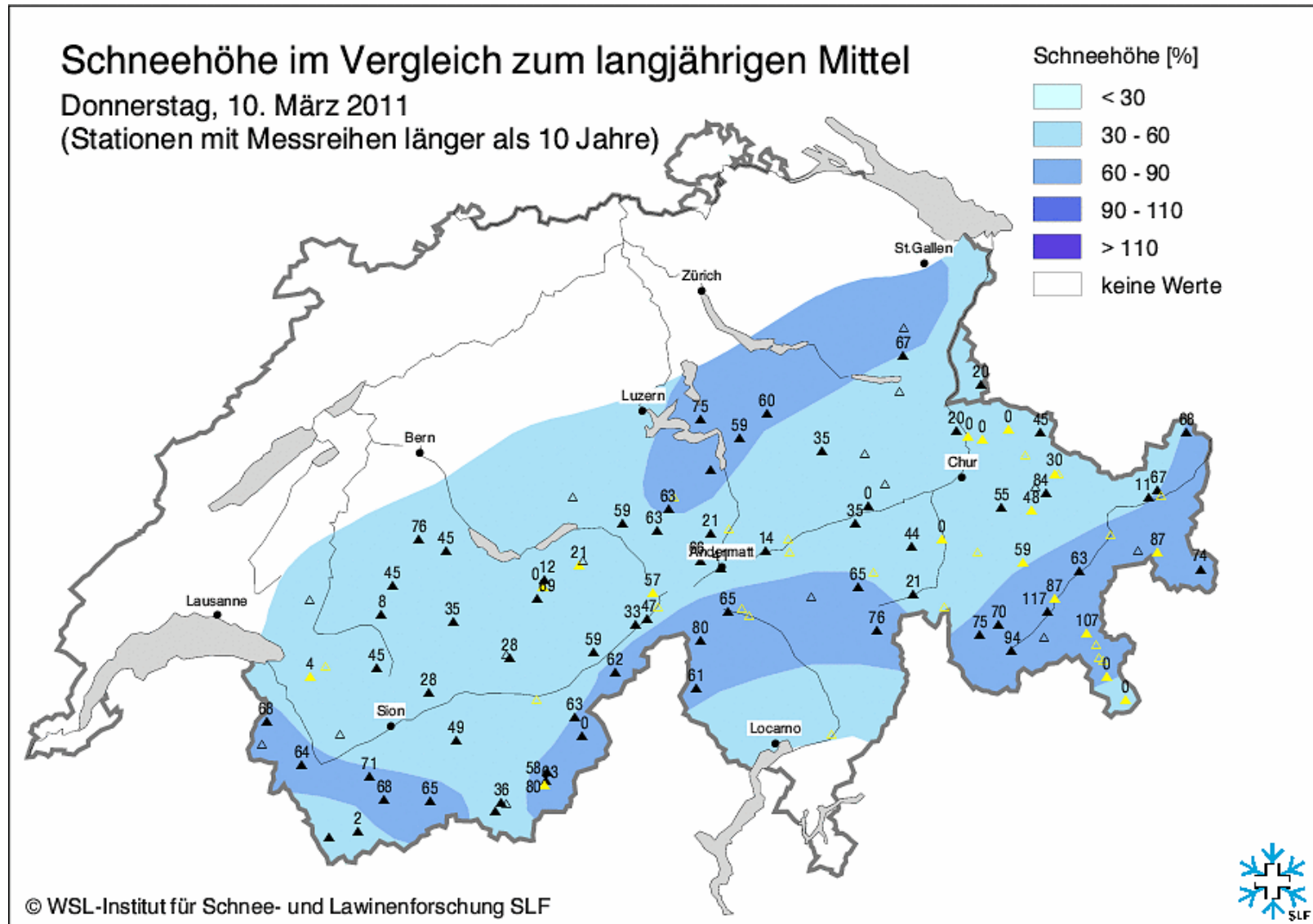
Wintersaison 2010/2011 (01. Oktober – 13. März)





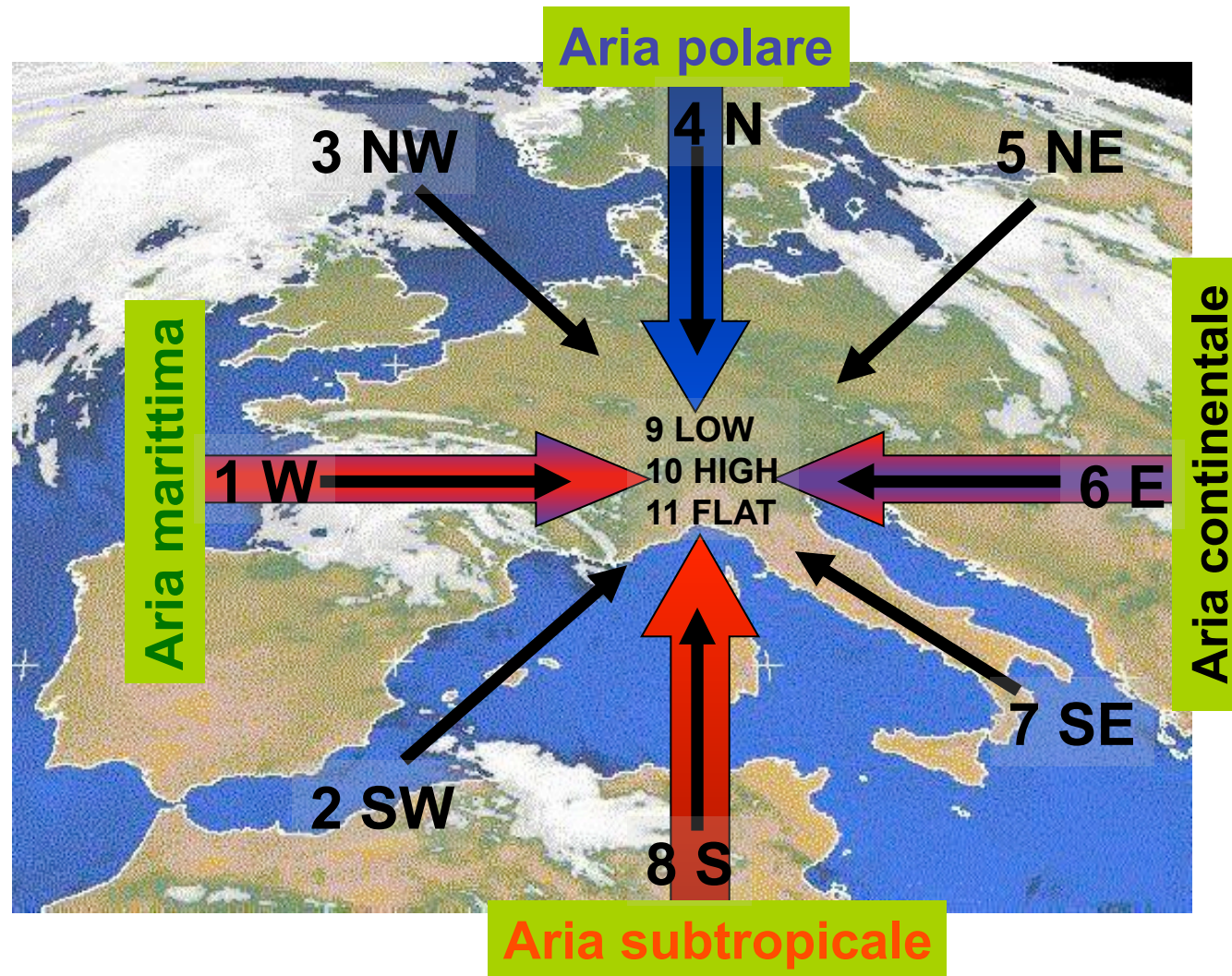


# Altezza della neve rispetto alla media



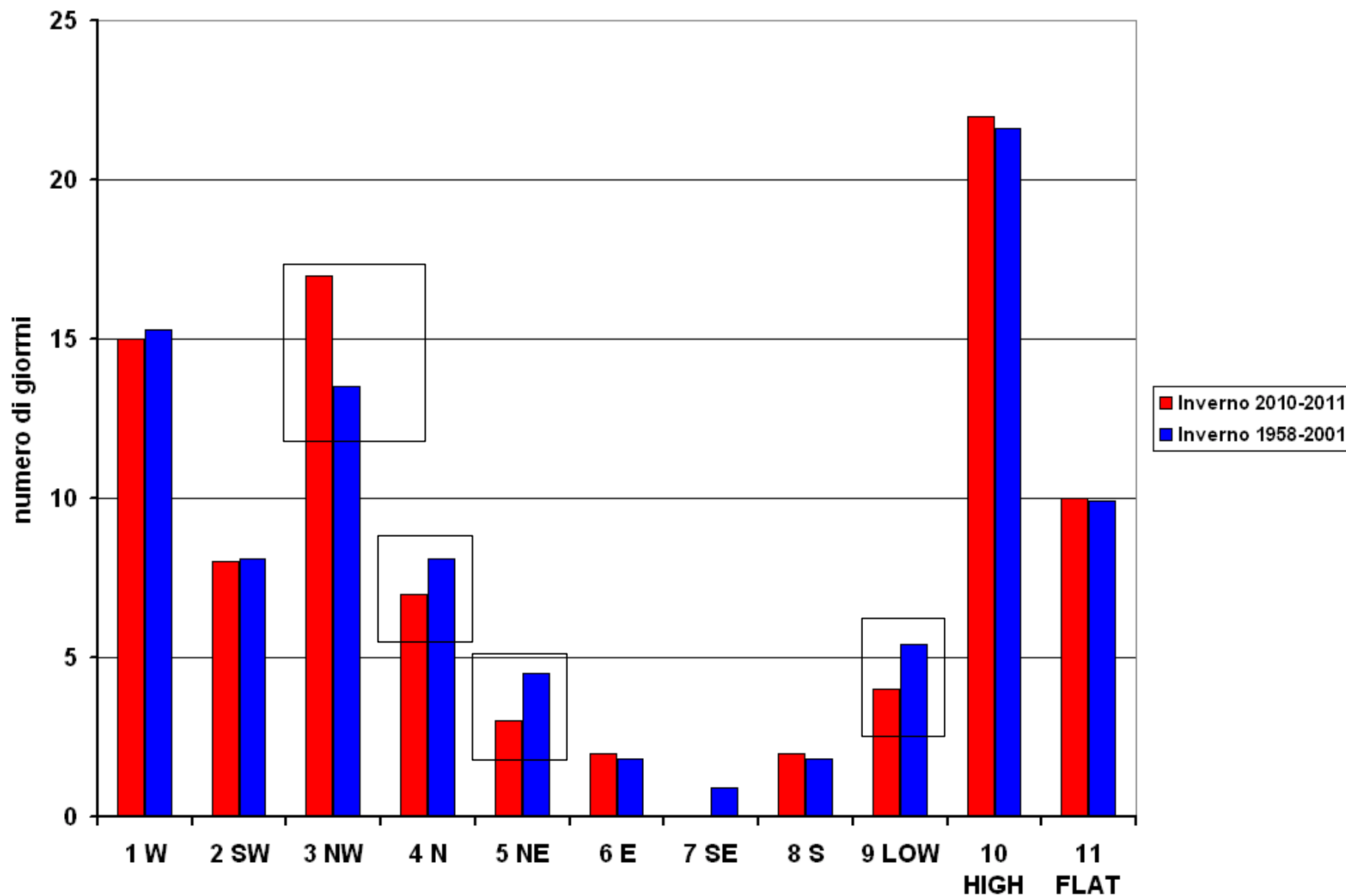


## Masse d'aria diverse, tempo diverso, situazioni diverse



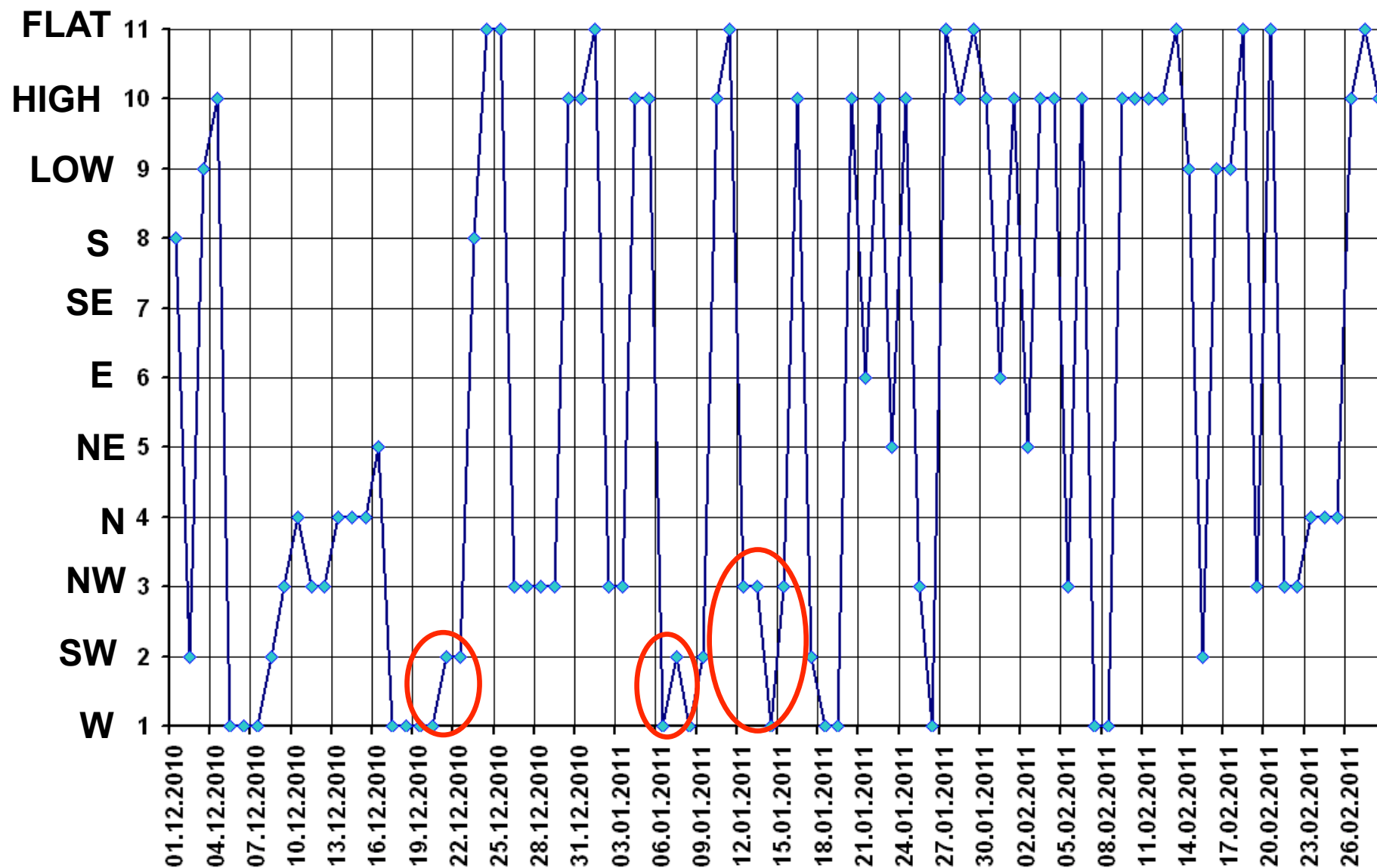


# Le situazioni dell'inverno 2010-2011





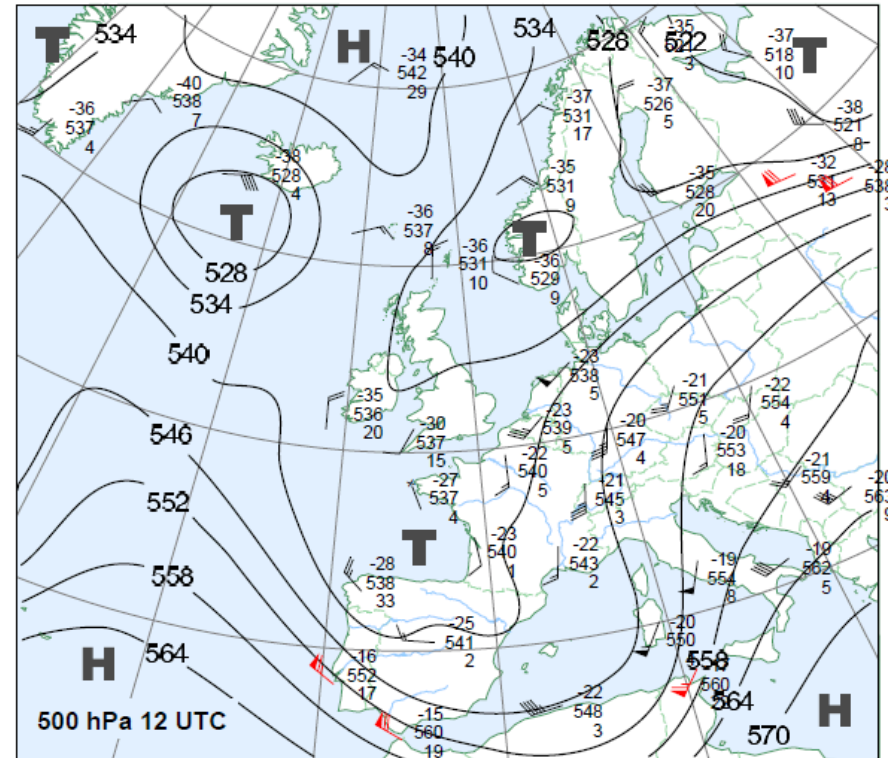
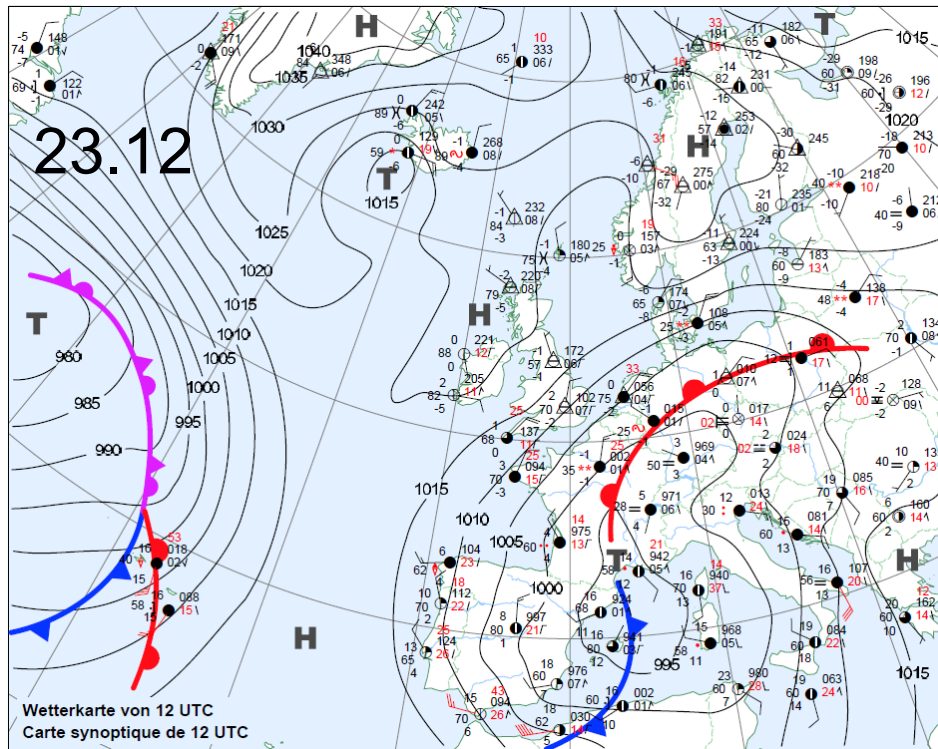
# Le situazioni dell'inverno 2010-2011







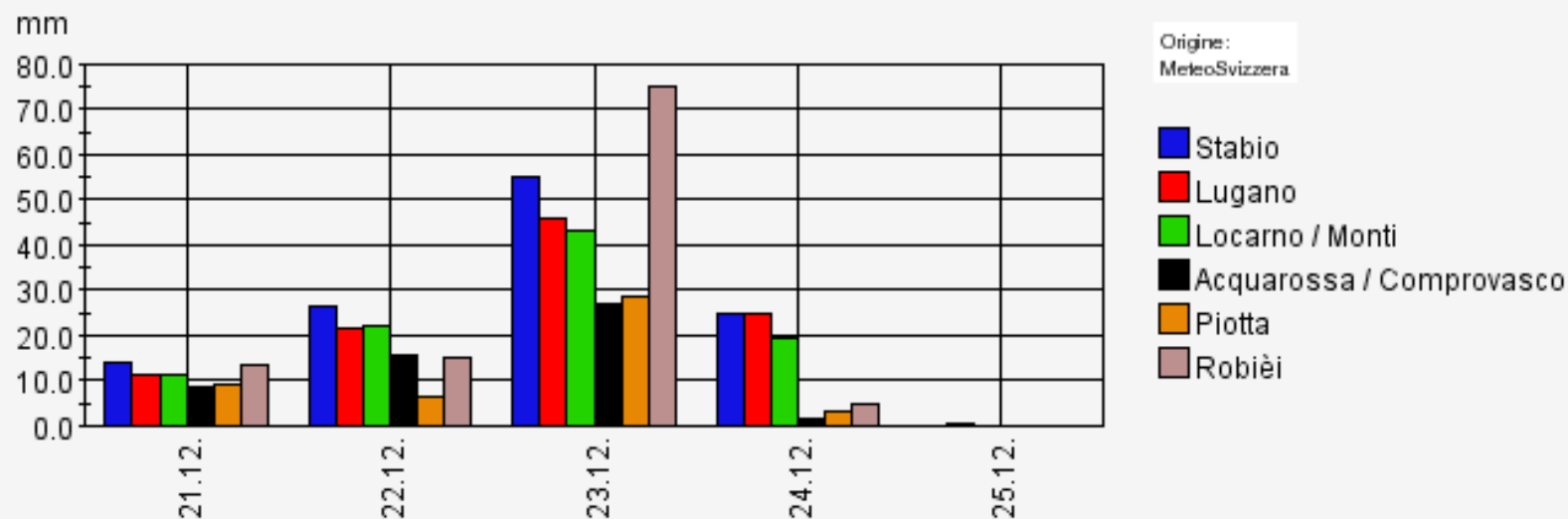
# 21-24.12.2011



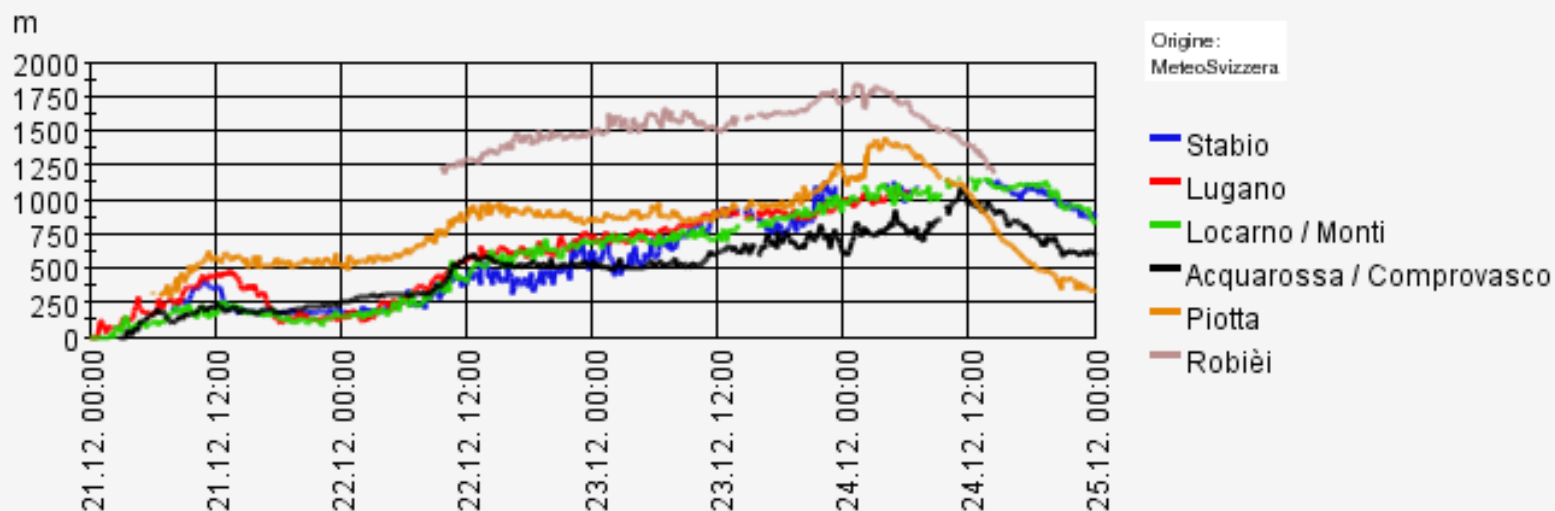


# 21-24.12.2011

Precipitazioni; somma giornaliera civile [mm] 21.12.2010 - 25.12.2010

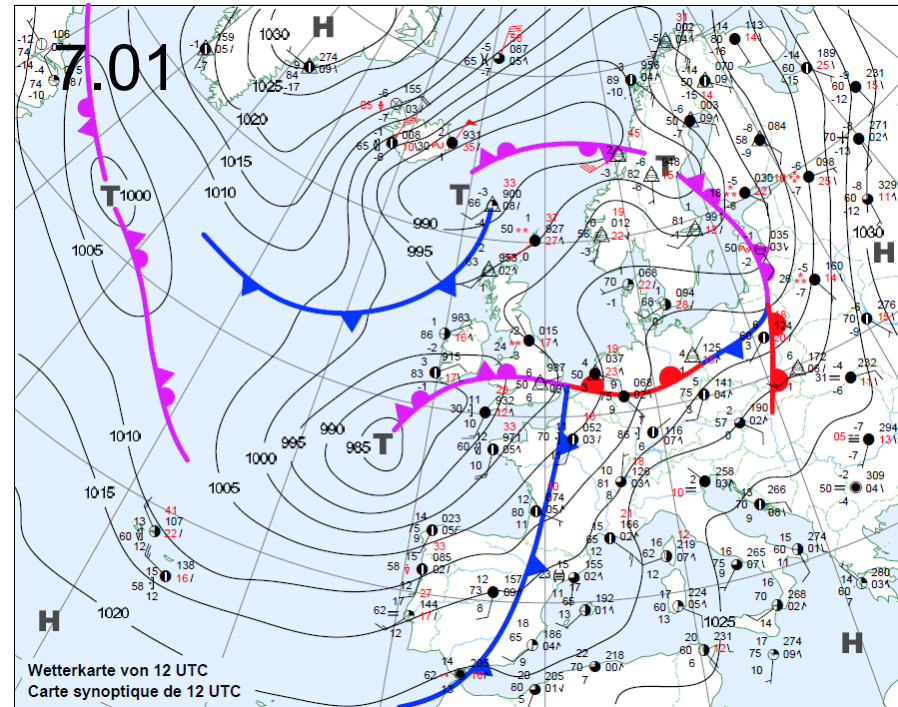
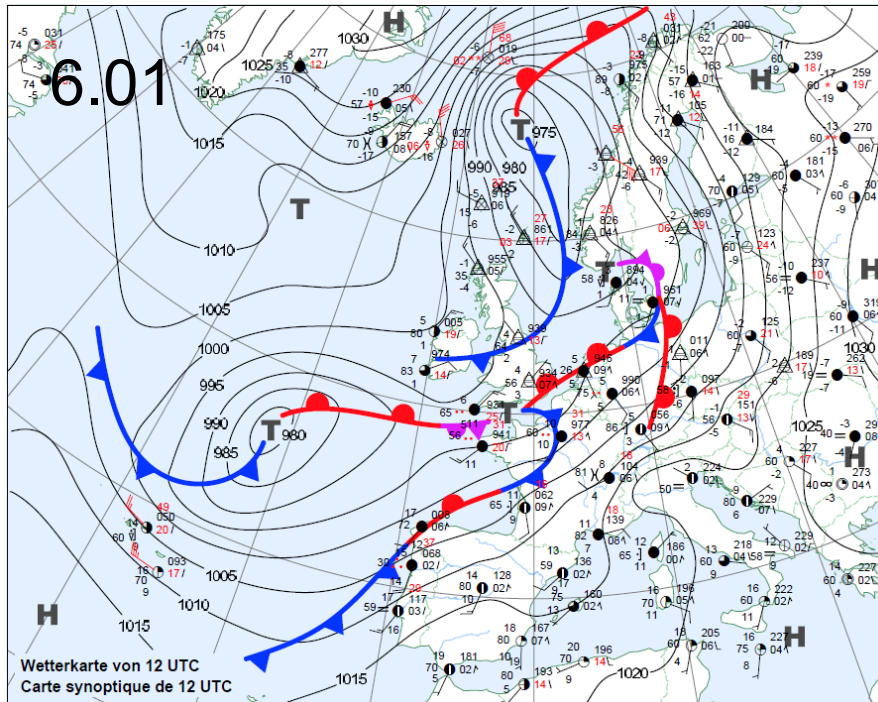


Limite della neve; computato [m] 21.12.2010 00:00 UTC - 25.12.2010 00:00 UTC





# 6-8.01.2011: gelicidio







# 7-8.01.2011: gelicidio



Monte Orfano, Brescia



Parmense

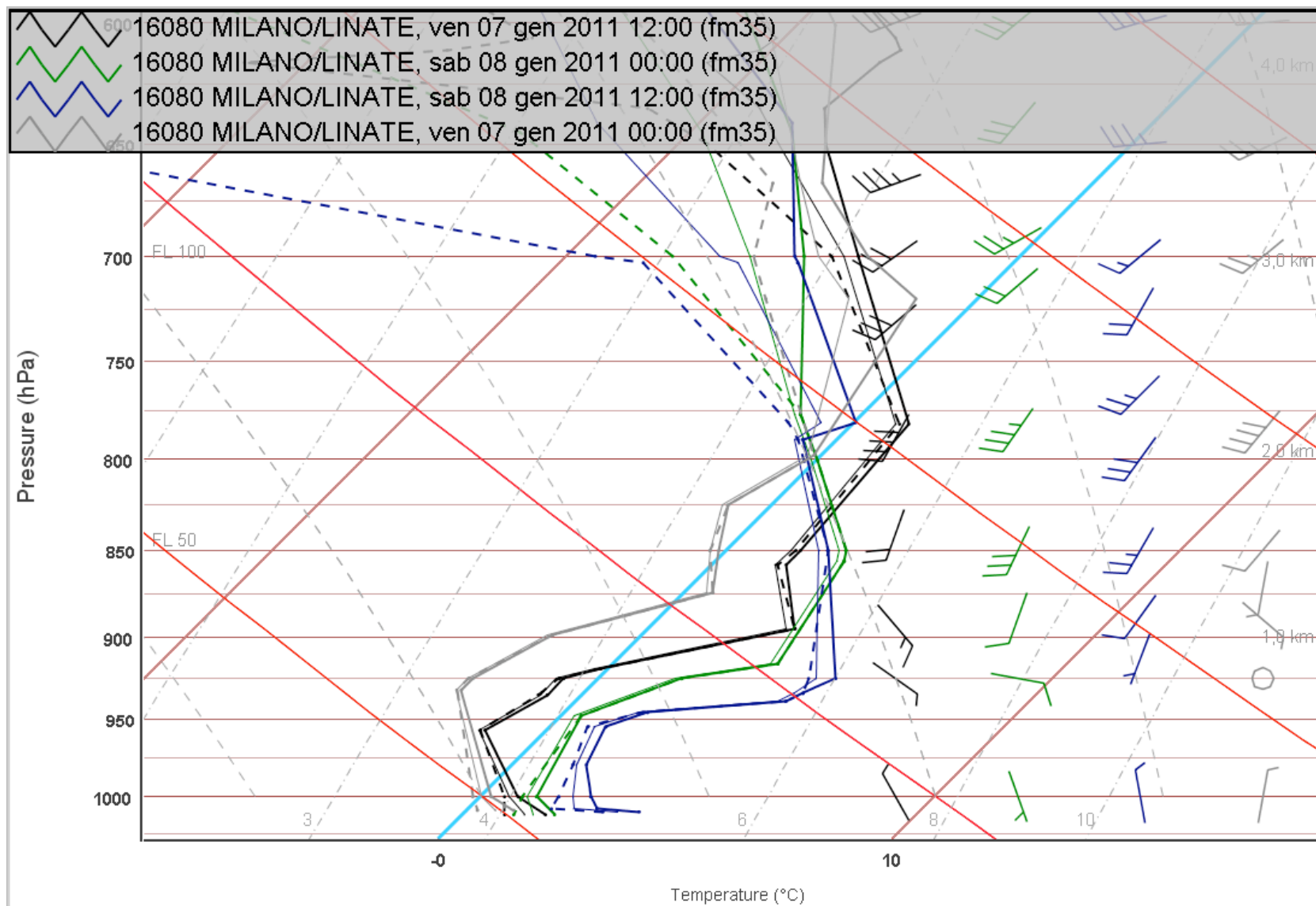


Val Lemme, Piemonte/Alessandria





# 7-8.01.2011: gelicidio

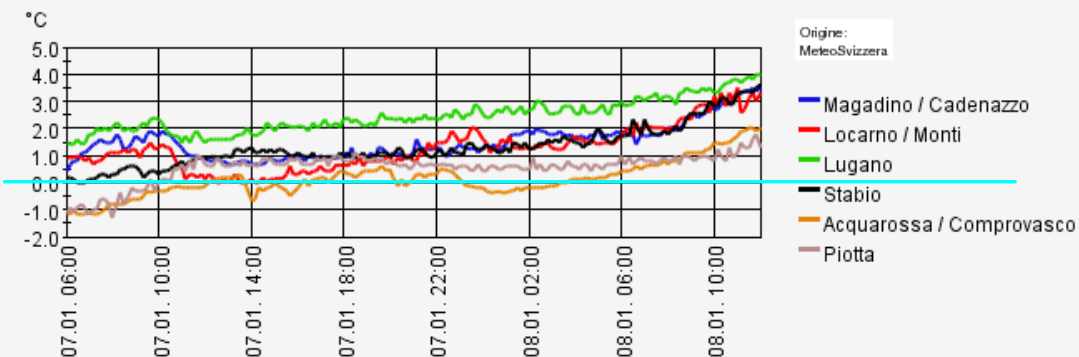




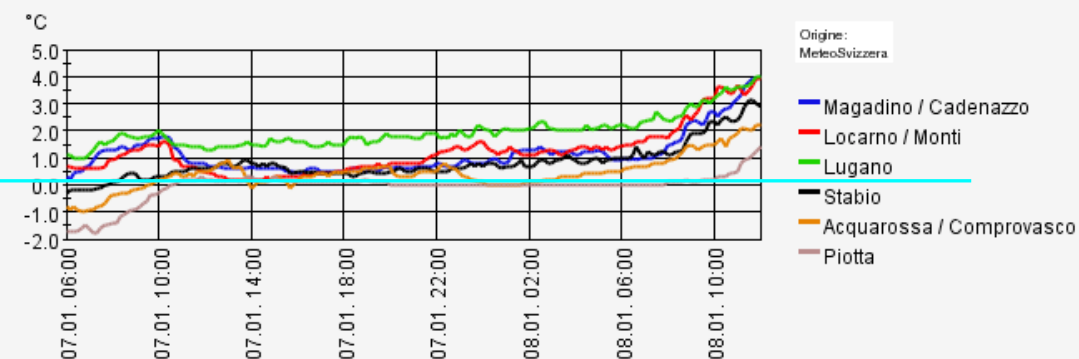
# 7-8.01.2011

## 450-1000 m

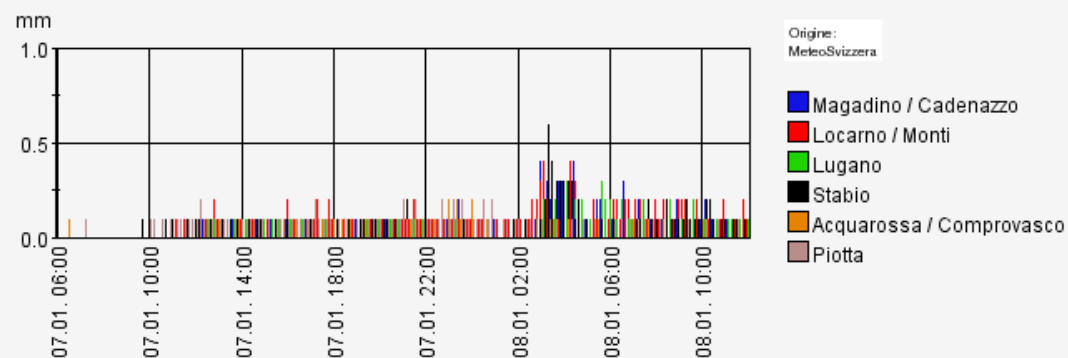
Temperatura dell'aria a 2 m; valore momentaneo [°C] 07.01.2011 06:00 UTC - 08.01.2011 12:00 UTC



Temperatura 5 cm sull'erba; valore momentaneo [°C] 07.01.2011 06:00 UTC - 08.01.2011 12:00 UTC

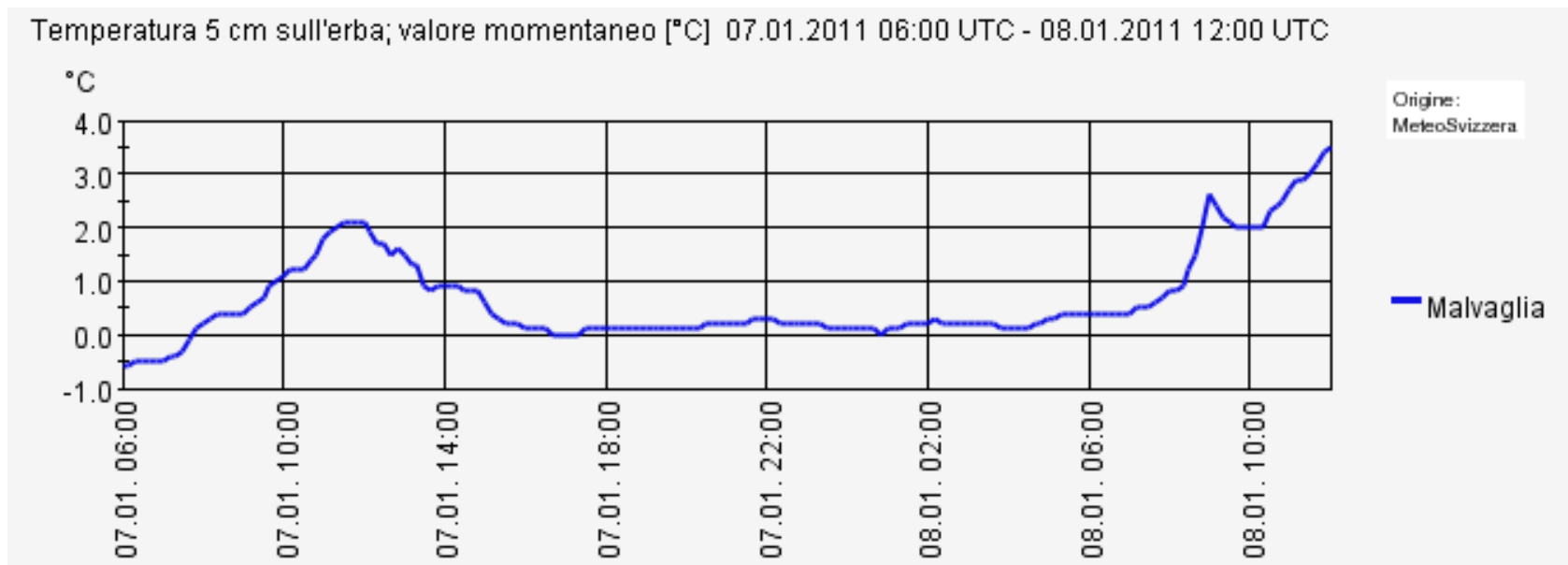


Precipitazioni; somma su dieci minuti [mm] 07.01.2011 06:00 UTC - 08.01.2011 12:00 UTC



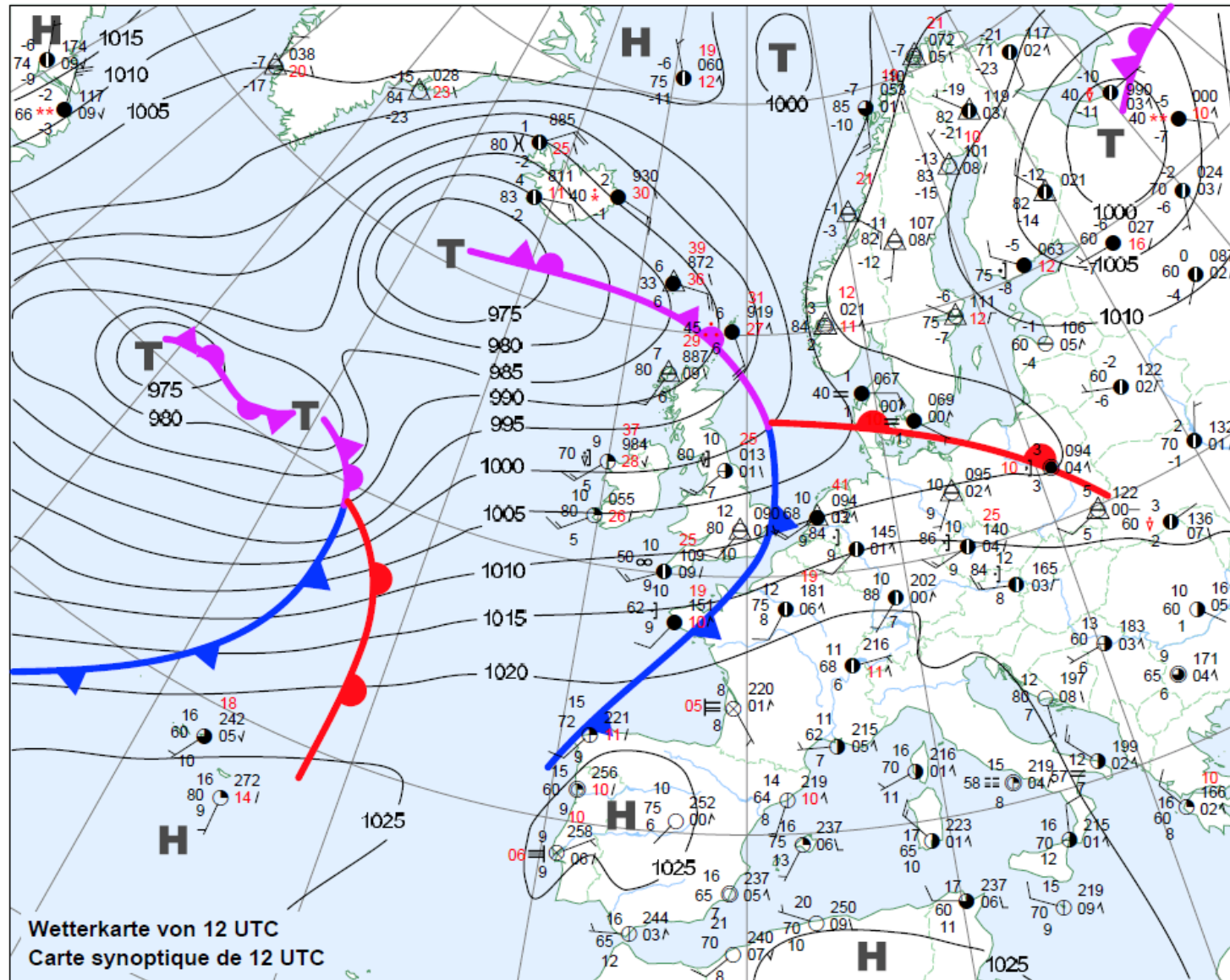


## 7-8.01.2011: un gelicidio insolito



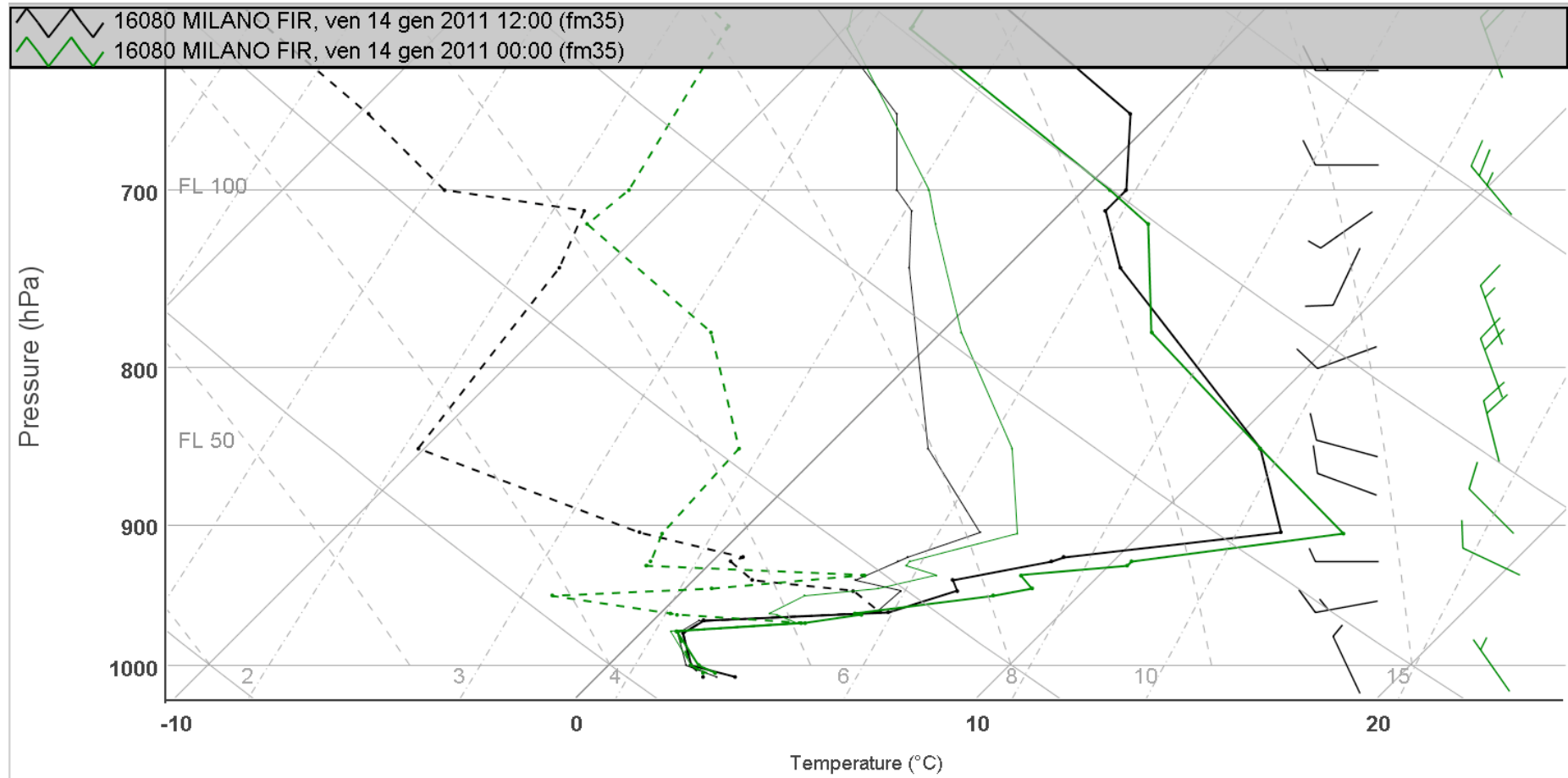


# 14.01.2011





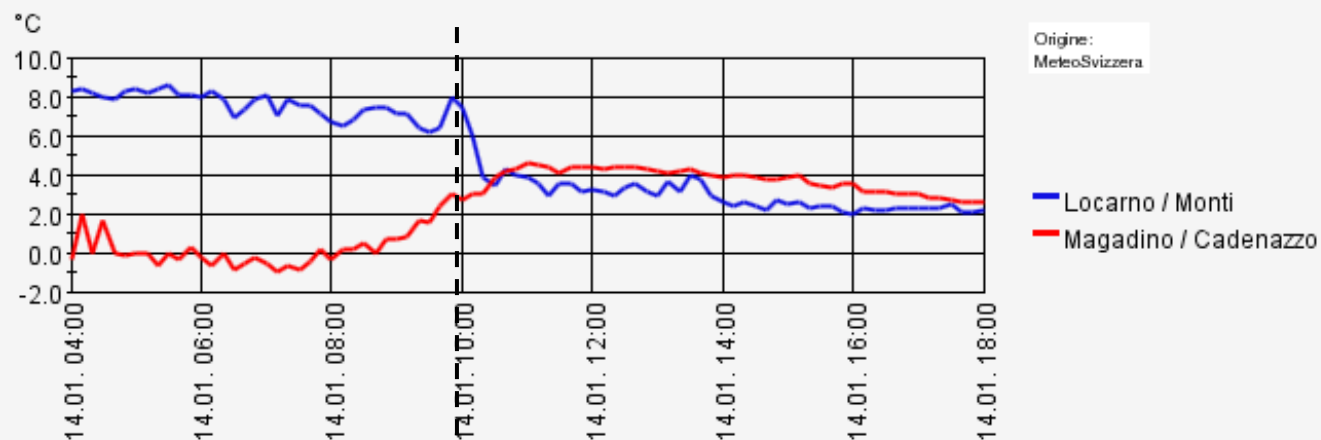
# 14.01.2011



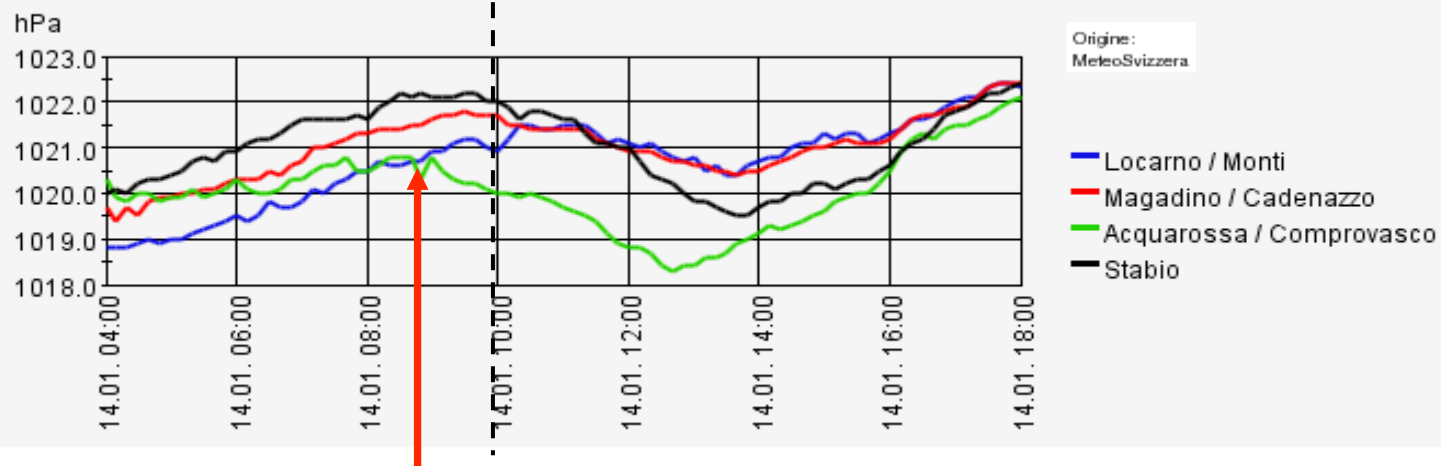


# 14.01.2011

Temperatura dell'aria a 2 m; valore momentaneo [°C] 14.01.2011 04:00 UTC - 14.01.2011 18:00 UTC



Pressione ridotta al livello del mare (QFF); valore momentaneo [hPa] 14.01.2011 04:00 UTC - 14.01.2011 18:00 UTC

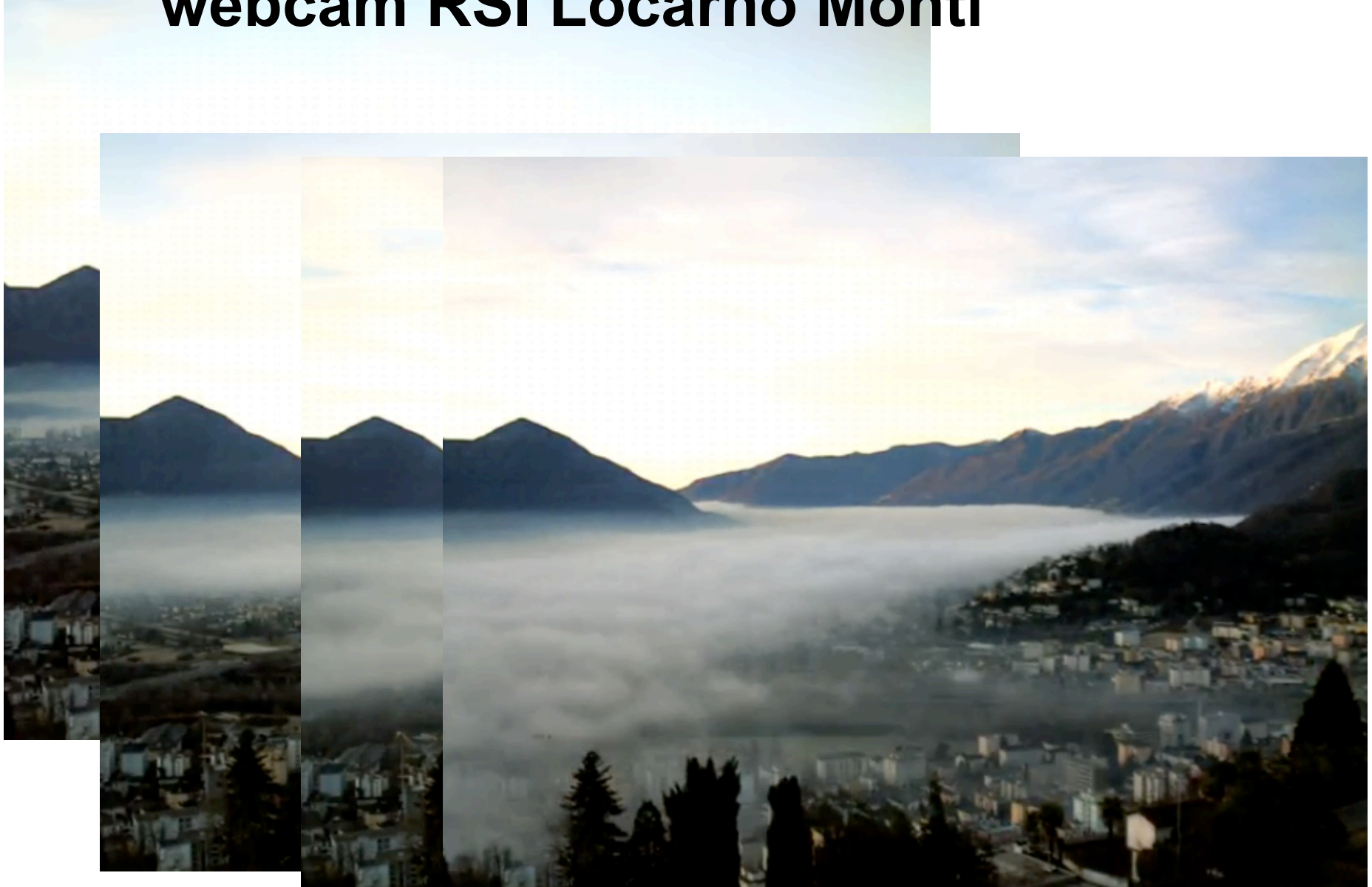






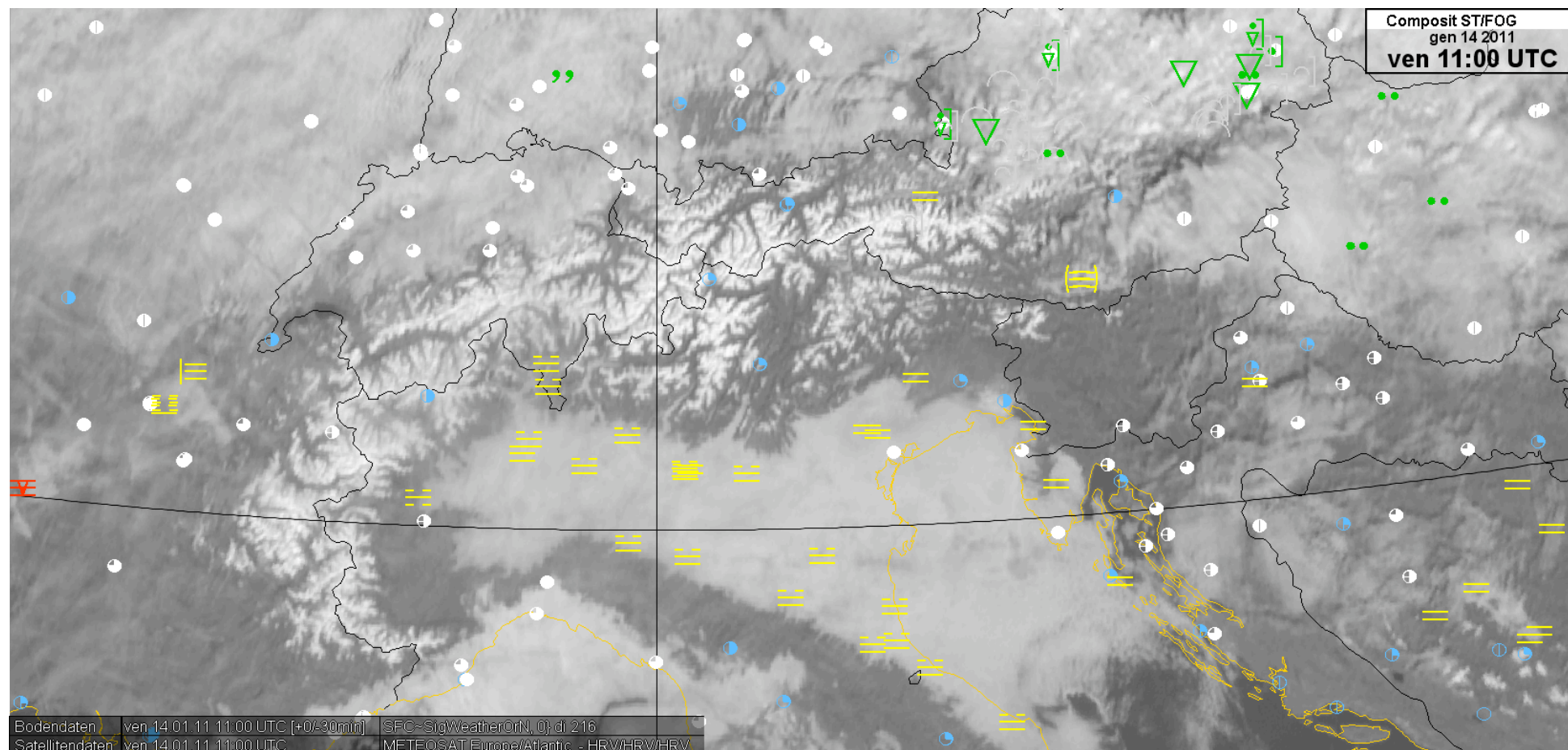
**14.1.2011: 8:30-10:00**

**webcam RSI Locarno Monti**



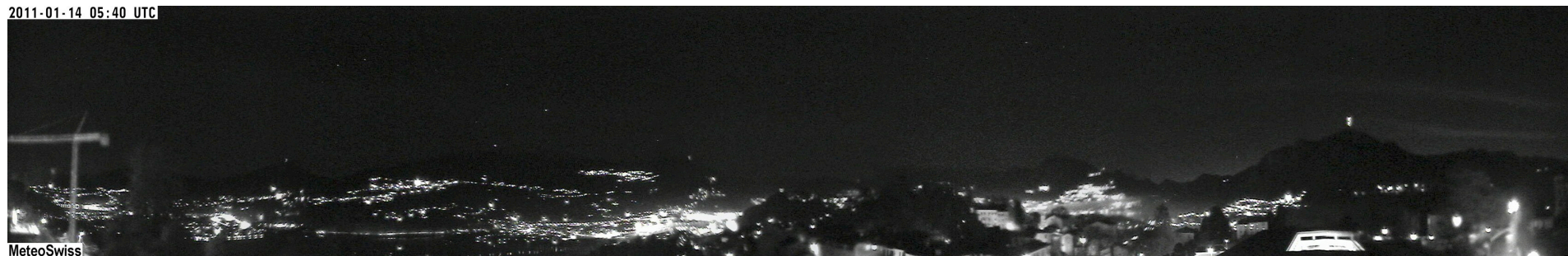


# 14.01.2011



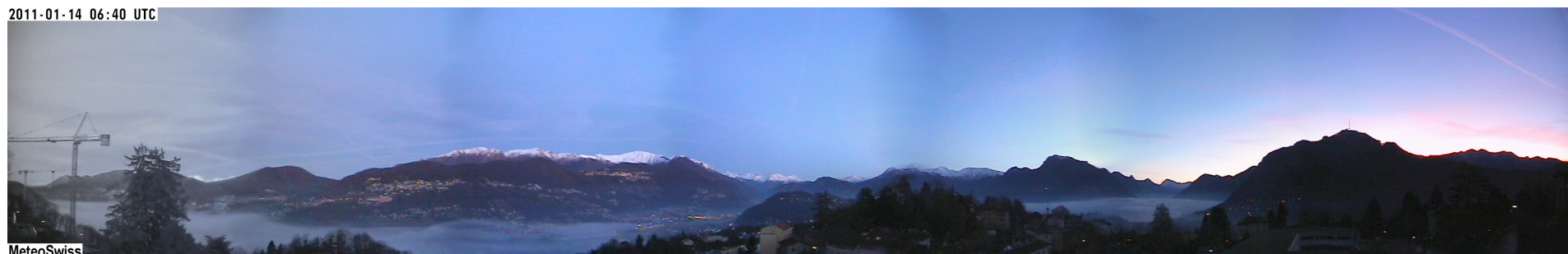


2011-01-14 05:40 UTC



MeteoSwiss

2011-01-14 06:40 UTC



MeteoSwiss

2011-01-14 07:40 UTC



MeteoSwiss

2011-01-14 09:40 UTC

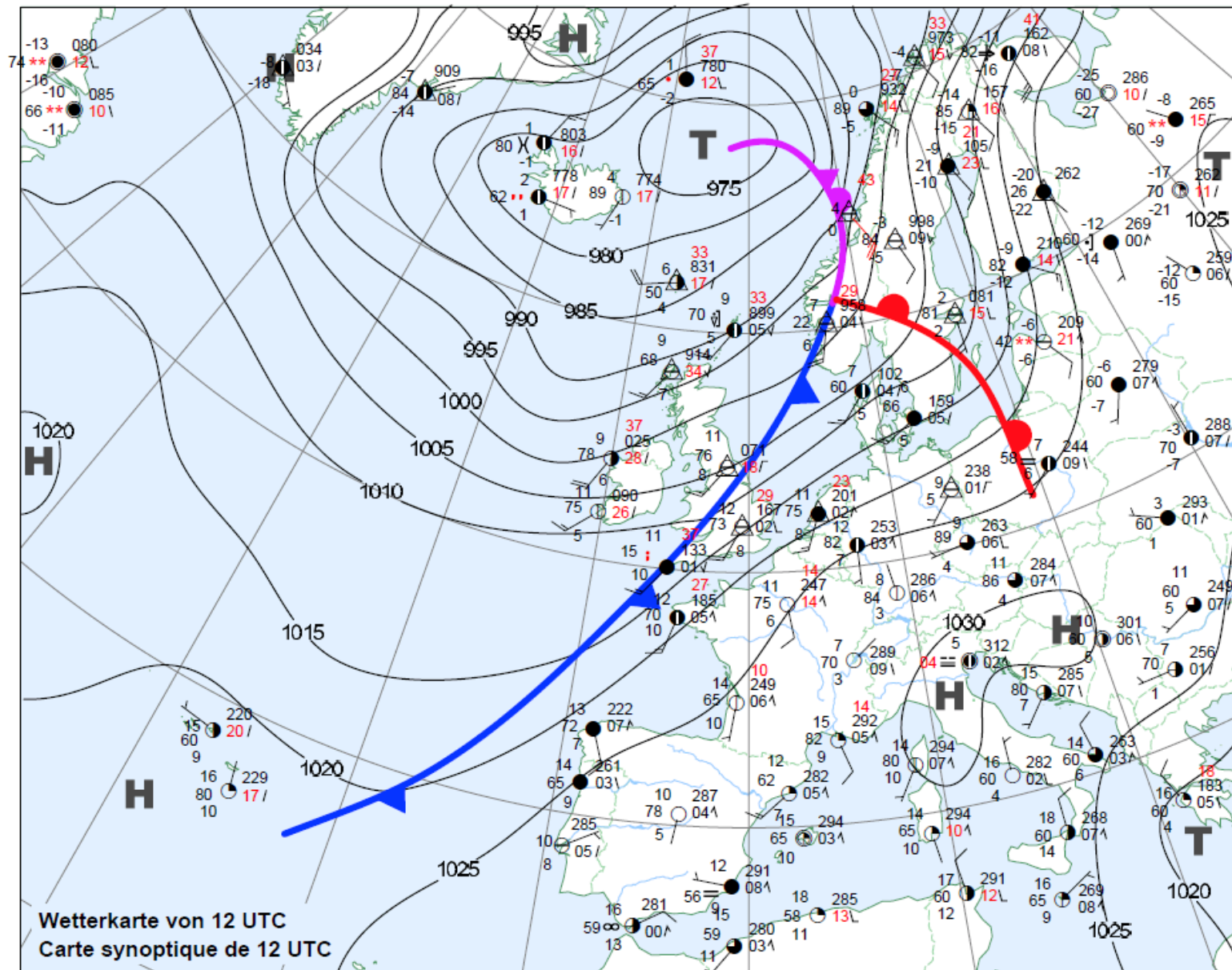


MeteoSwiss





# 16.1.2011





# 16.1.2011

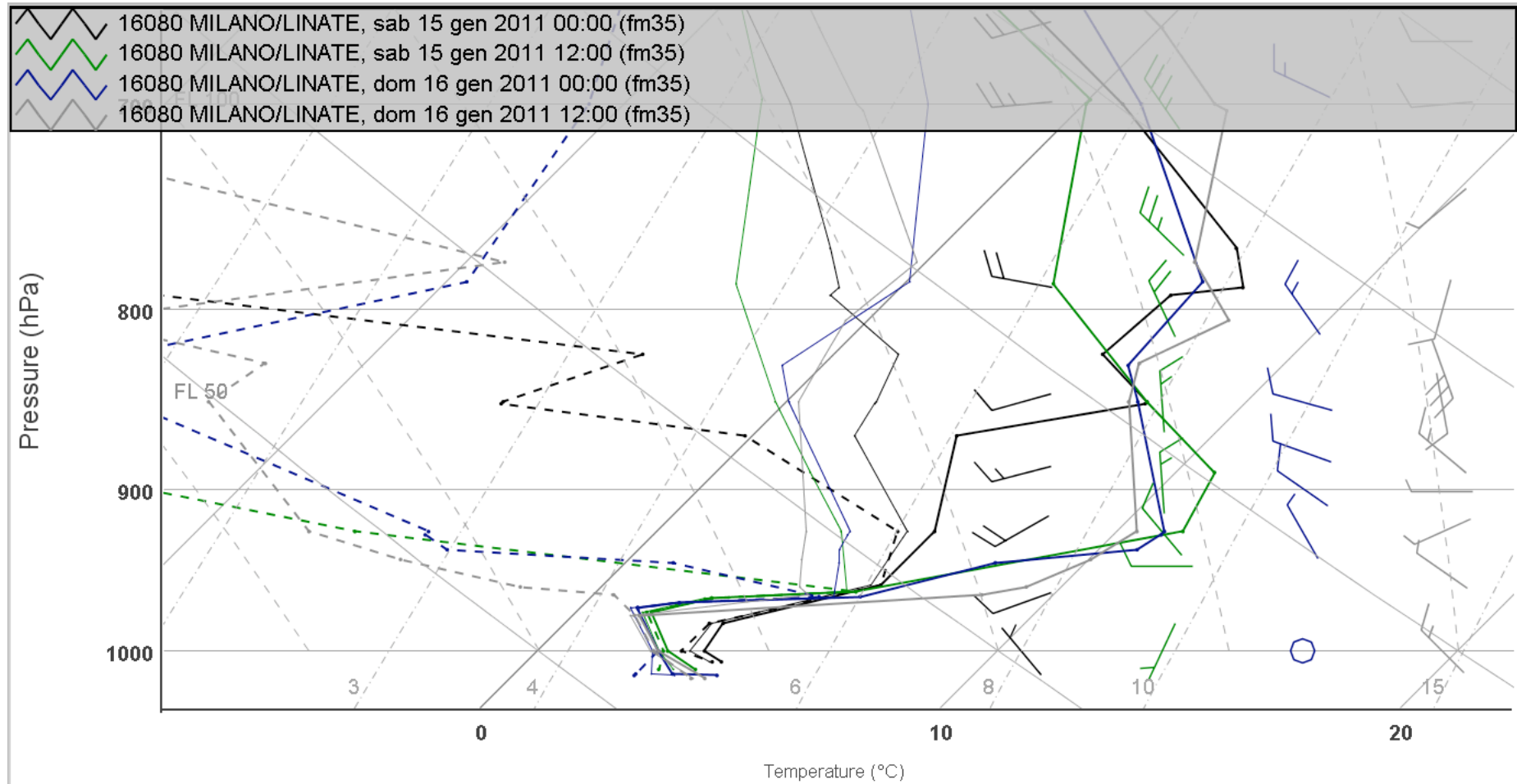




Foto: S. Zanini





Foto: S. Zanini





Foto: S. Zanini

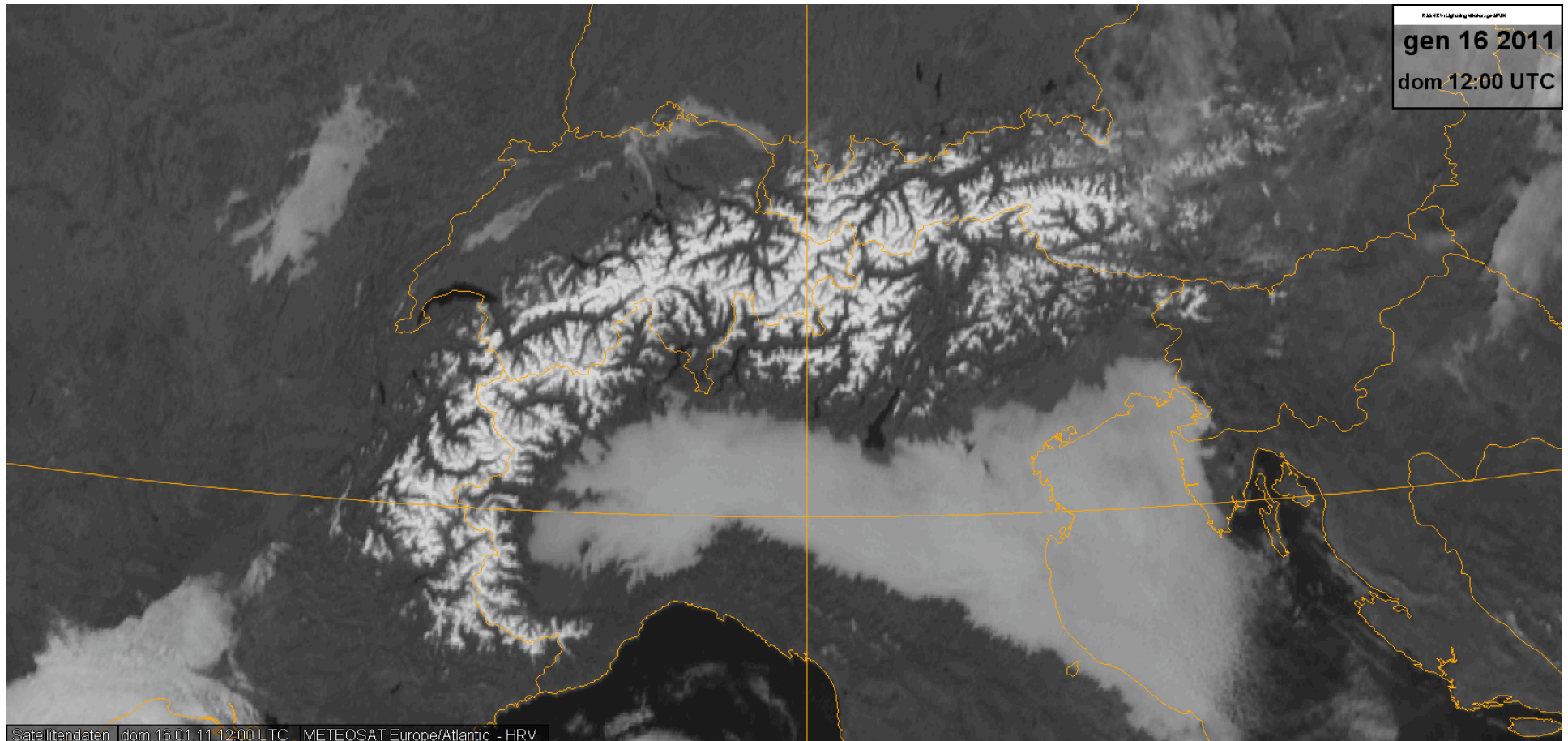




Foto: S. Zanini



# 16.1.2011

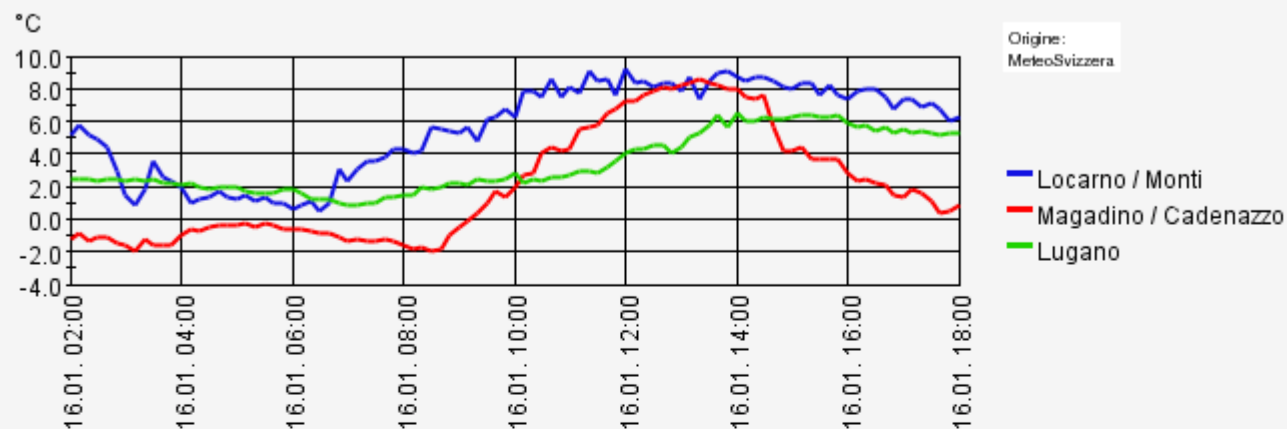




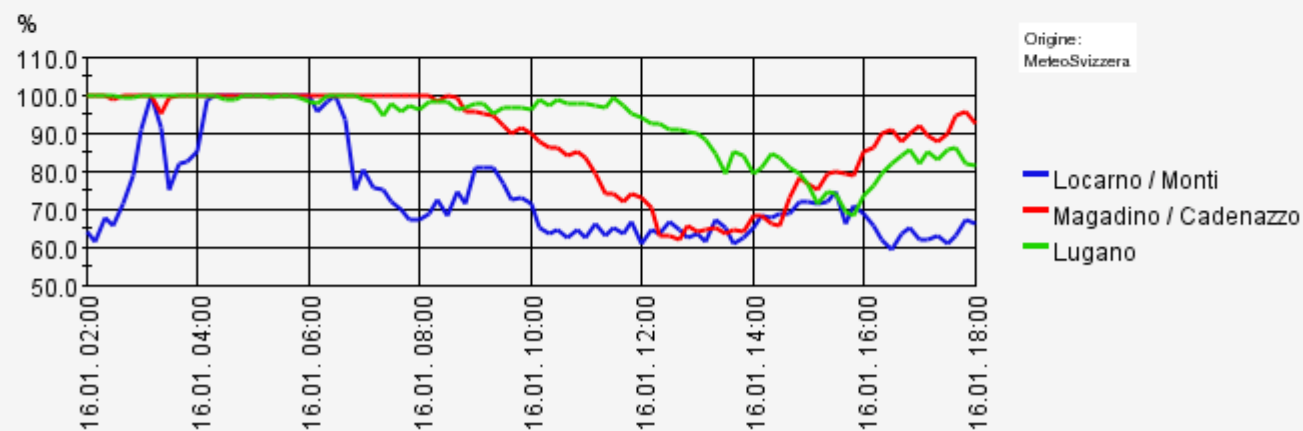


# 16.1.2011

Temperatura dell'aria a 2 m; valore momentaneo [°C] 16.01.2011 02:00 UTC - 16.01.2011 18:00 UTC

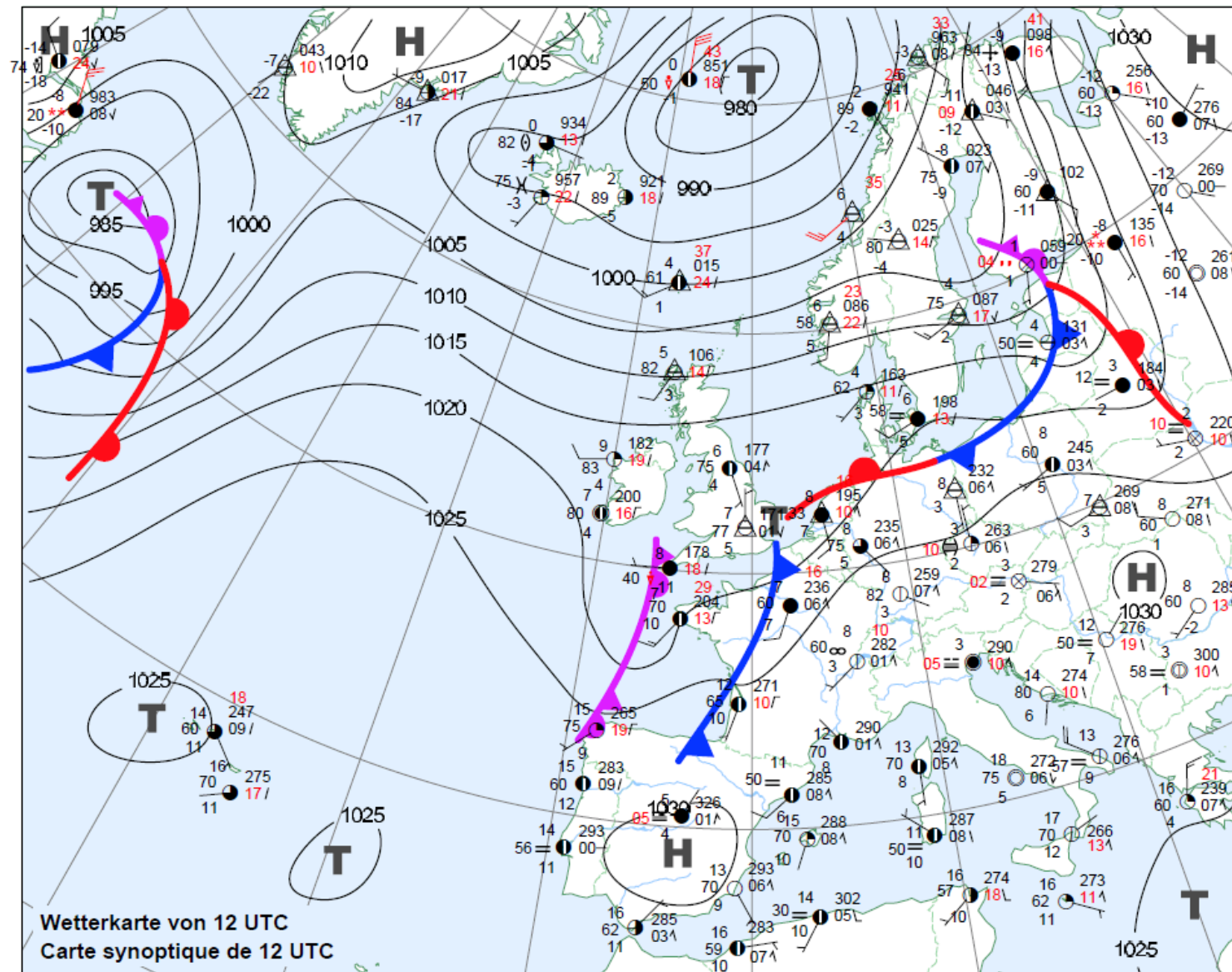


Umidità relativa dell'aria a 2 m; valore momentaneo [%] 16.01.2011 02:00 UTC - 16.01.2011 18:00 UTC



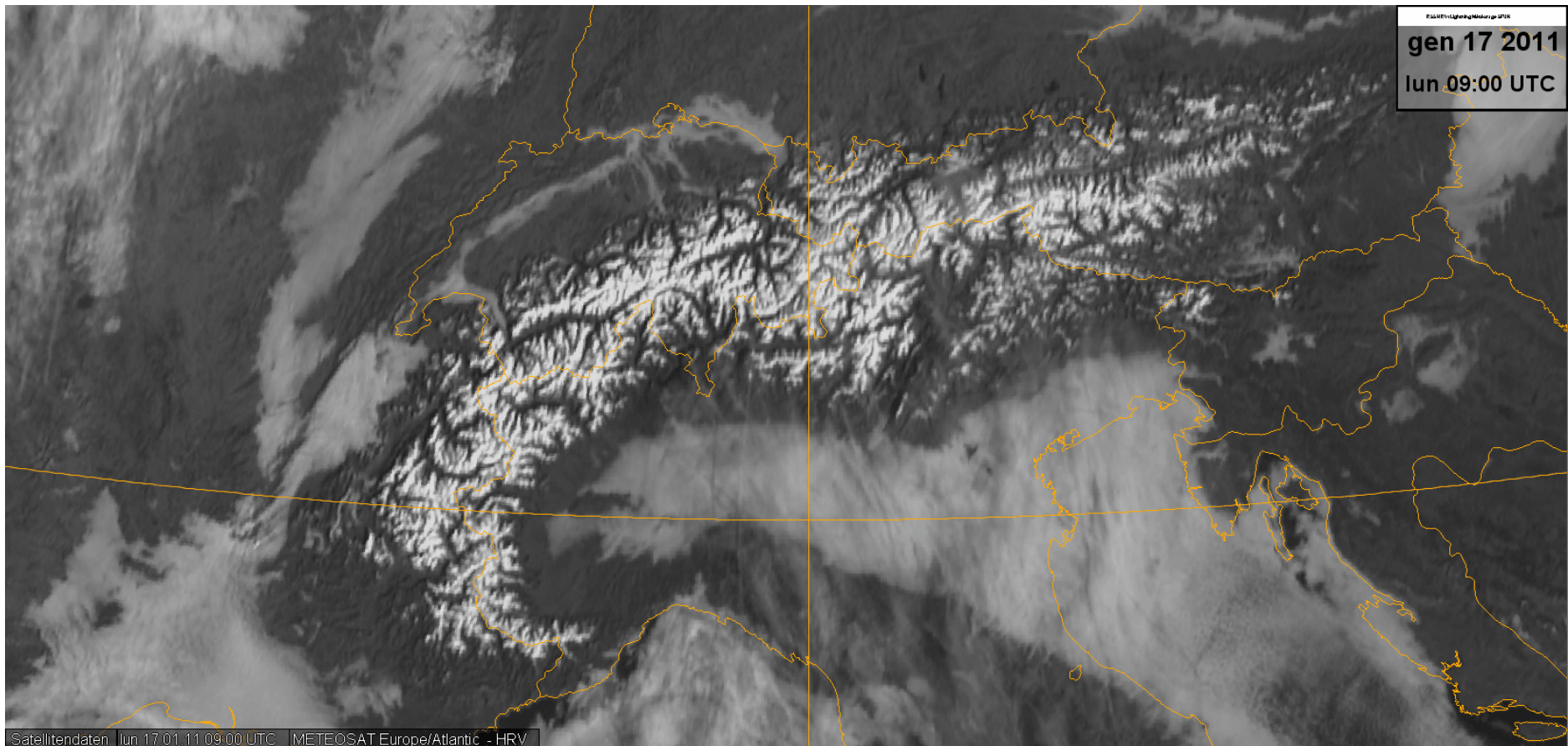


# 17.01.2011





# 17.1.2011





## Links: **www.meteosvizzera.ch**

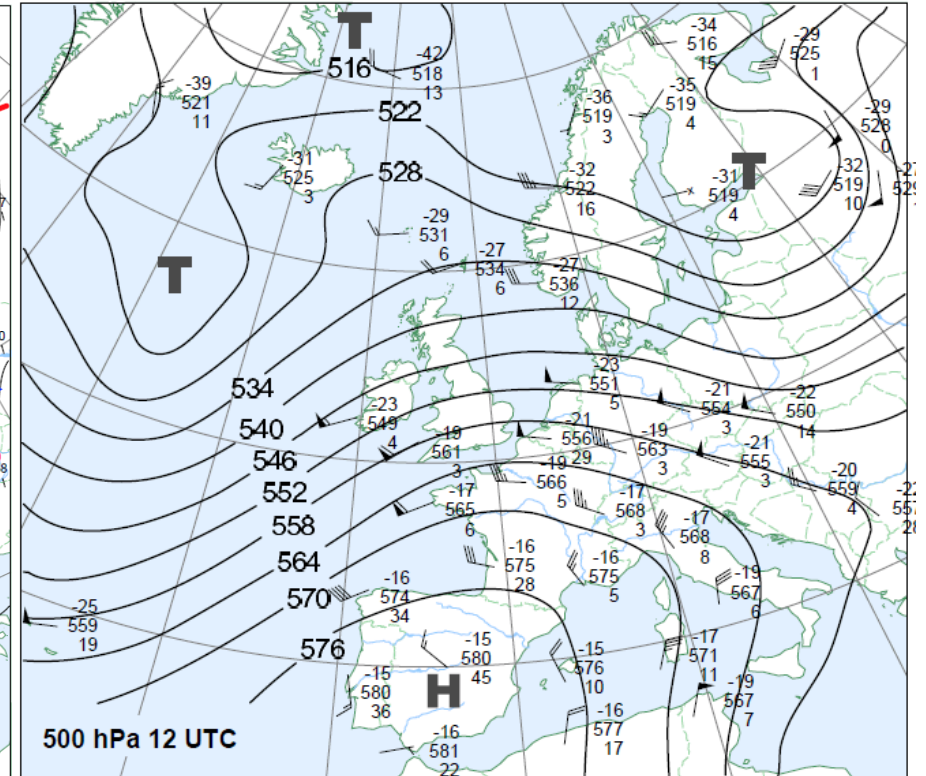
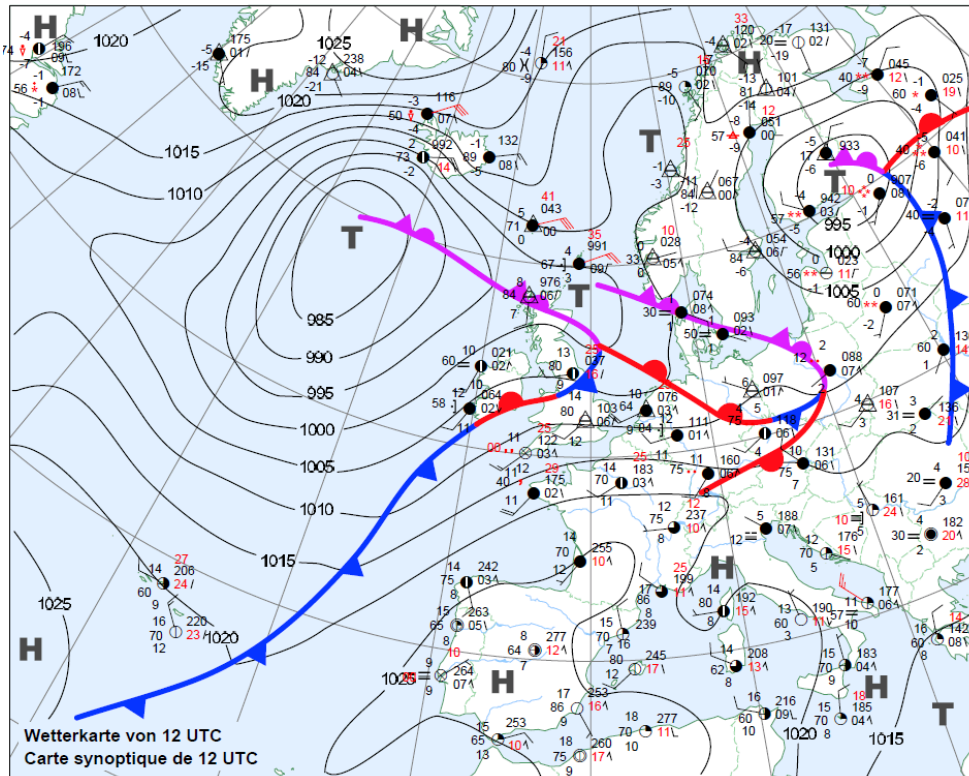
- [http://www.meteosvizzera.admin.ch/web/it/meteo/attualita\\_sul\\_tempo/bianco\\_natale\\_2010.html](http://www.meteosvizzera.admin.ch/web/it/meteo/attualita_sul_tempo/bianco_natale_2010.html)
- [http://www.meteosvizzera.admin.ch/web/it/meteo/attualita\\_sul\\_tempo/tempo-mite-gennaio2011.html](http://www.meteosvizzera.admin.ch/web/it/meteo/attualita_sul_tempo/tempo-mite-gennaio2011.html)
- [http://www.meteosvizzera.admin.ch/web/it/meteo/attualita\\_sul\\_tempo/Caligine.html](http://www.meteosvizzera.admin.ch/web/it/meteo/attualita_sul_tempo/Caligine.html)
- [http://www.meteosvizzera.admin.ch/web/it/meteo/attualita\\_sul\\_tempo/Febbraio\\_mite.html](http://www.meteosvizzera.admin.ch/web/it/meteo/attualita_sul_tempo/Febbraio_mite.html)
- [http://www.meteosvizzera.admin.ch/web/it/meteo/attualita\\_sul\\_tempo/20110217.html](http://www.meteosvizzera.admin.ch/web/it/meteo/attualita_sul_tempo/20110217.html)
- [http://www.meteosvizzera.admin.ch/web/it/clima/clima\\_oggi/archivio\\_rapporti.html](http://www.meteosvizzera.admin.ch/web/it/clima/clima_oggi/archivio_rapporti.html)

**<http://www.meteoticino.ch/amicimeteo>**





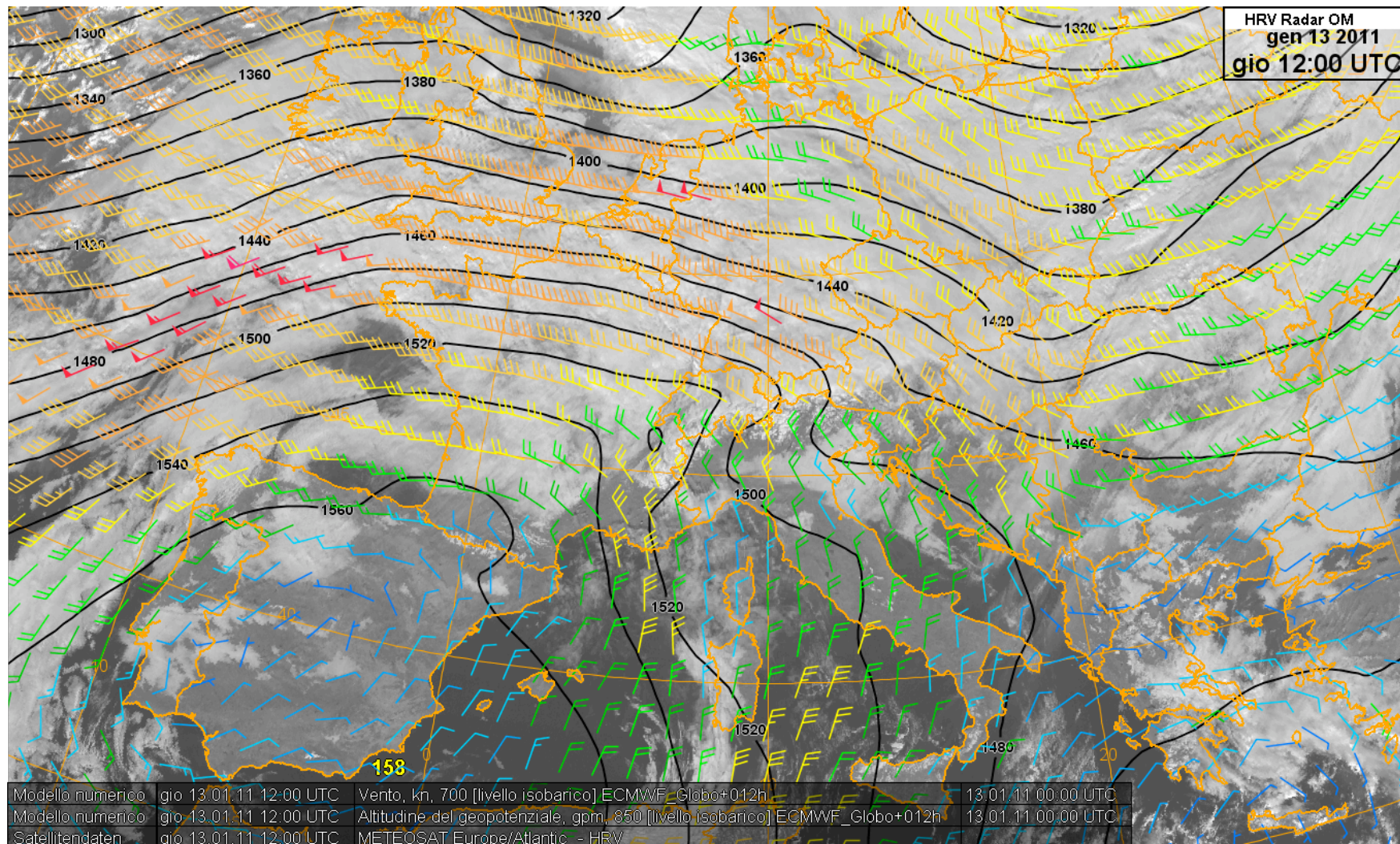
# 13.01.2011: situazione favonica?







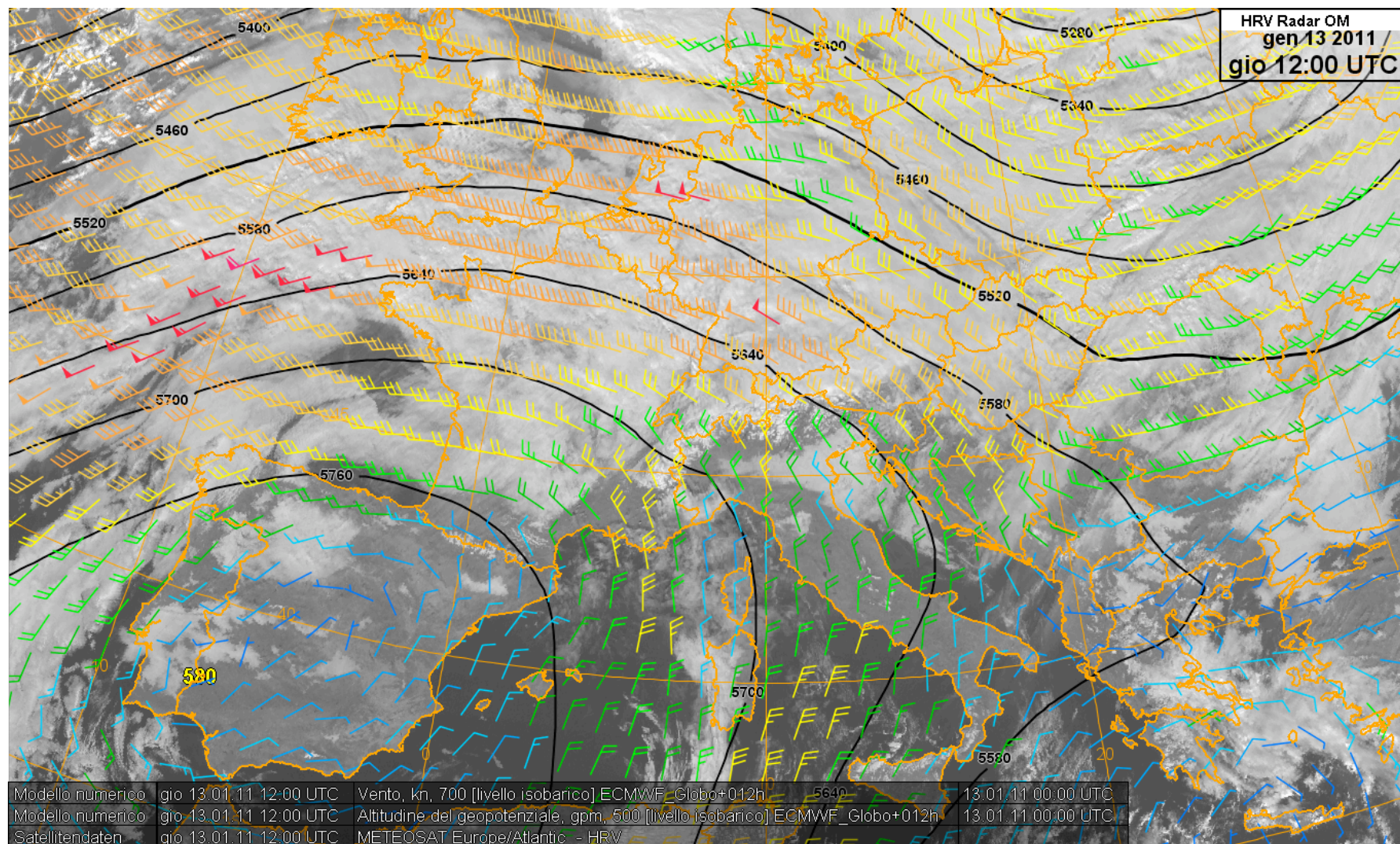
# 13.01.2011: Z@ 850 hPa





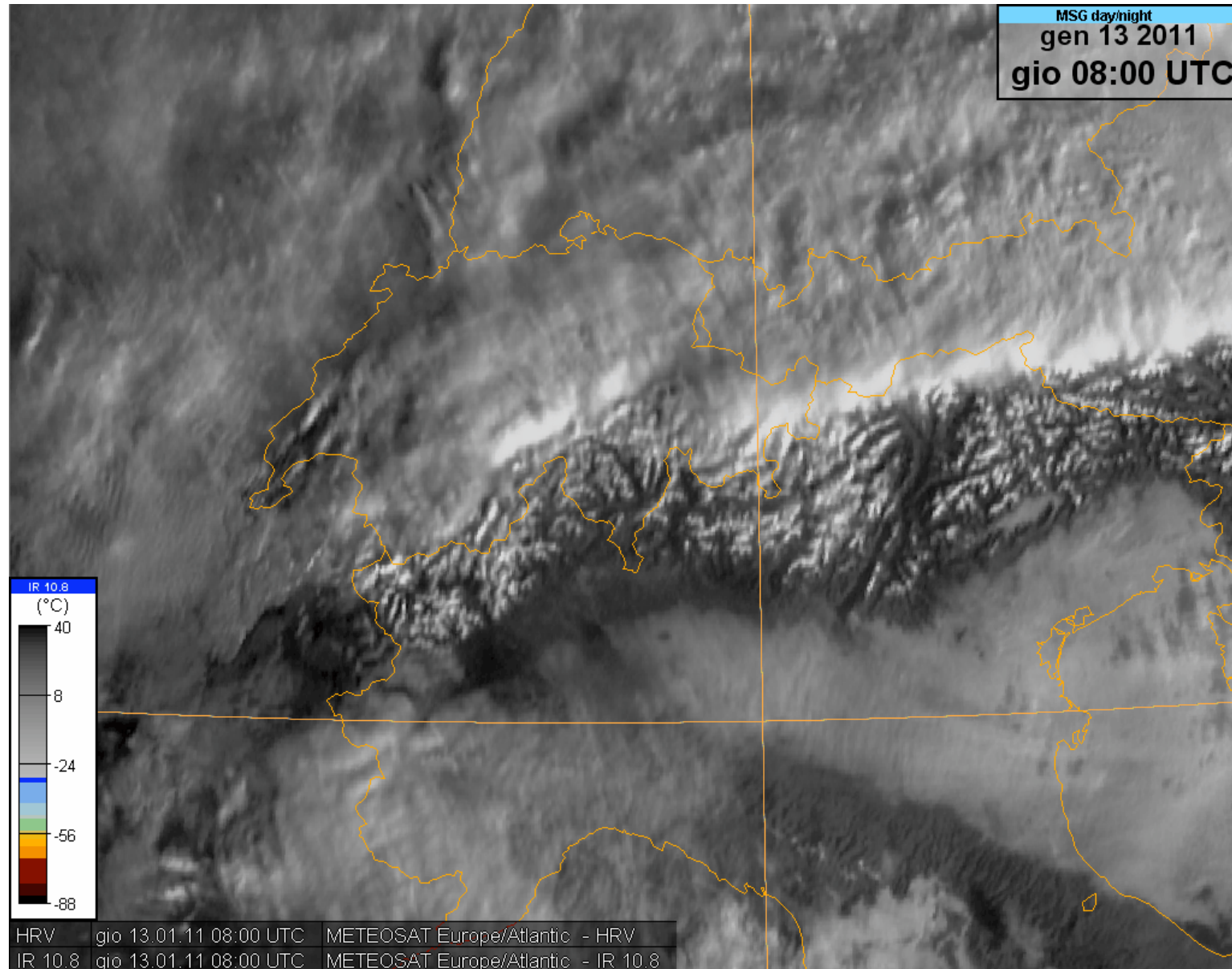


# 13.01.2011: Z @ 500 hPa





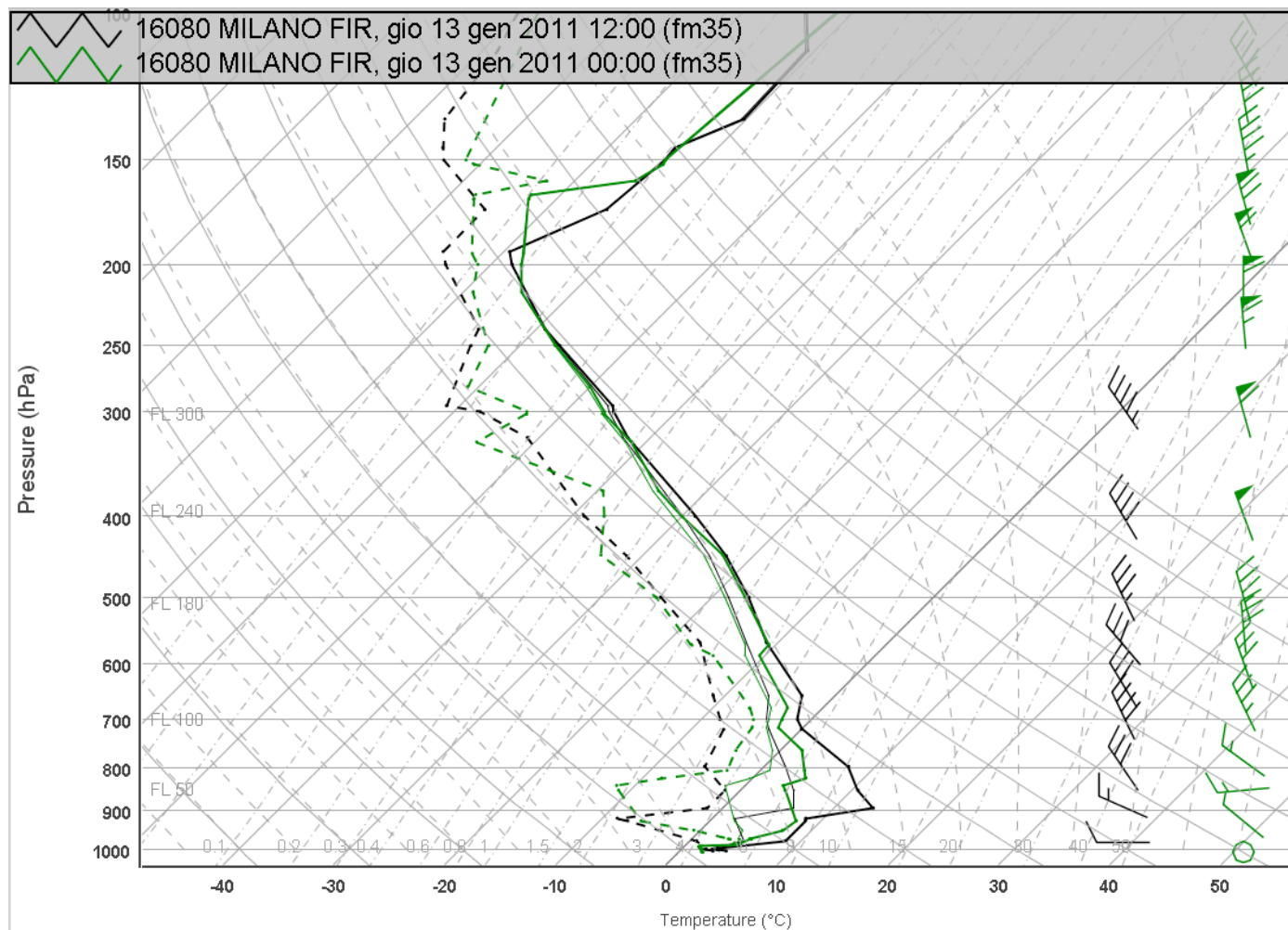
# 13.01.2011: satellite







# 13.01.2011: profili verticali







13.01.2011

