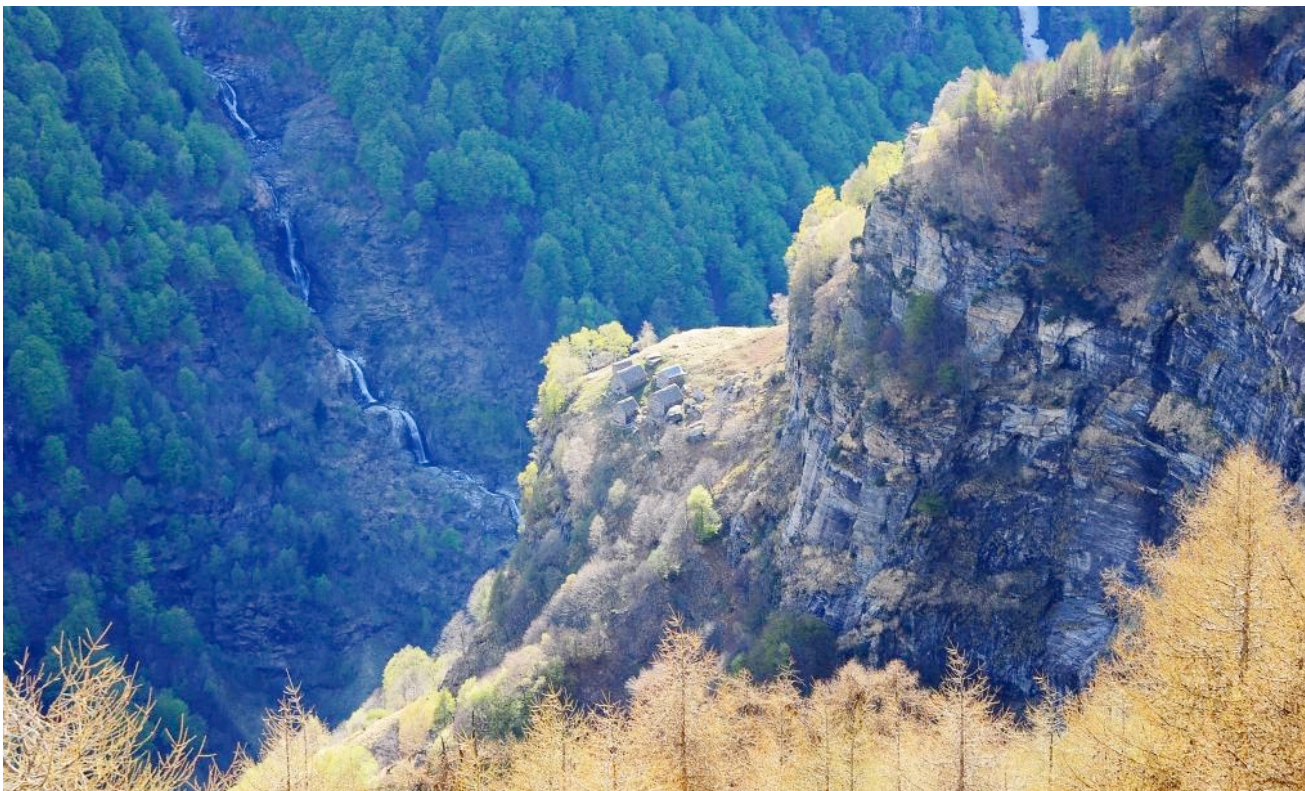




Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Dipartimento federale dell'interno DFI
Ufficio federale di meteorologia e climatologia MeteoSvizzera

Primavera 2011



Retrospettiva meteoclimatica

Matteo Buzzi (Fosco Spinedi, Stefano Zanini, Daniel Gerstgrasser, Mauro Guerini)



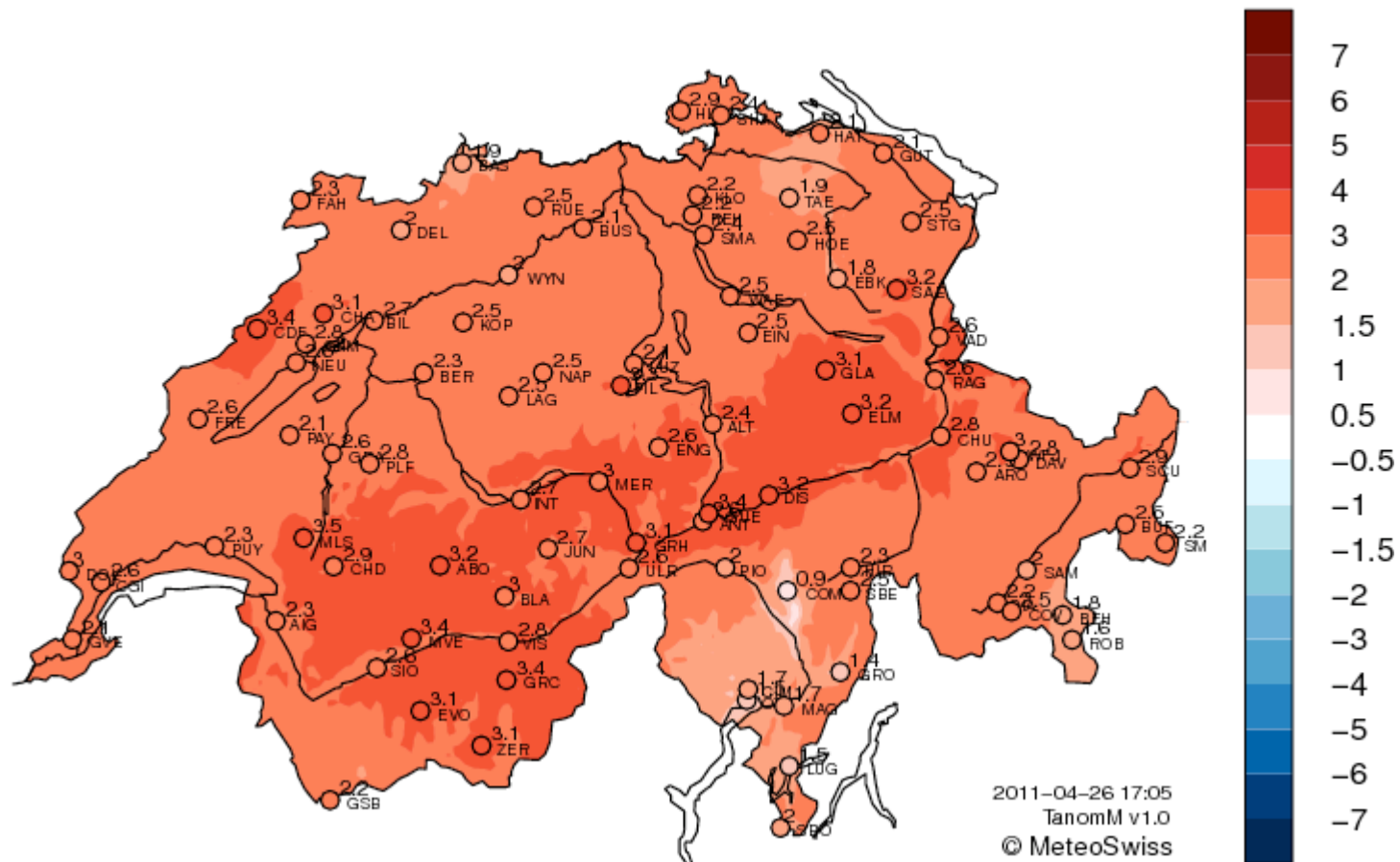
Panoramica

- Andamento rispetto ai valori normali 1961-1990
 - Temperatura
 - Precipitazioni
 - Soleggiamento
- Situazioni meteorologiche preponderanti
 - Distribuzione della primavera 2011
 - Alcuni casi interessanti



Temperatura: marzo 2011

Monthly Temperature Anomaly (degC) Mar 2011 (Ref. 1961–1990)



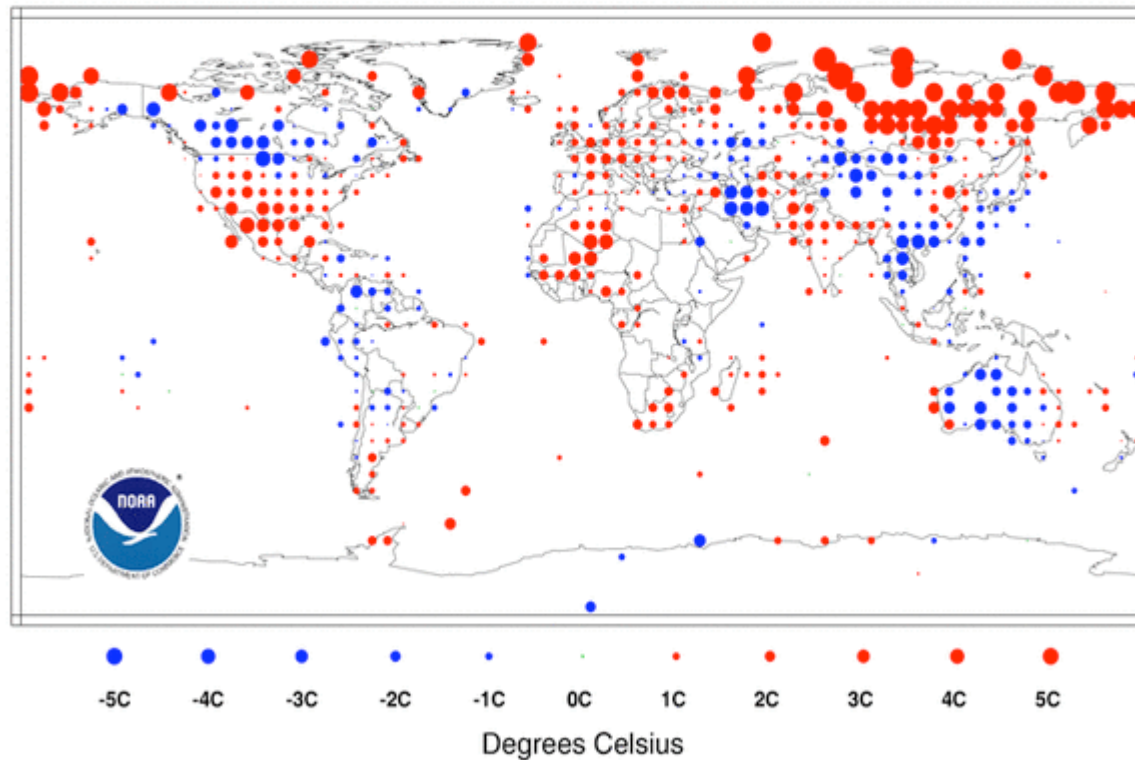


Temperatura: anomalie globali marzo 2011

Temperature Anomalies March 2011

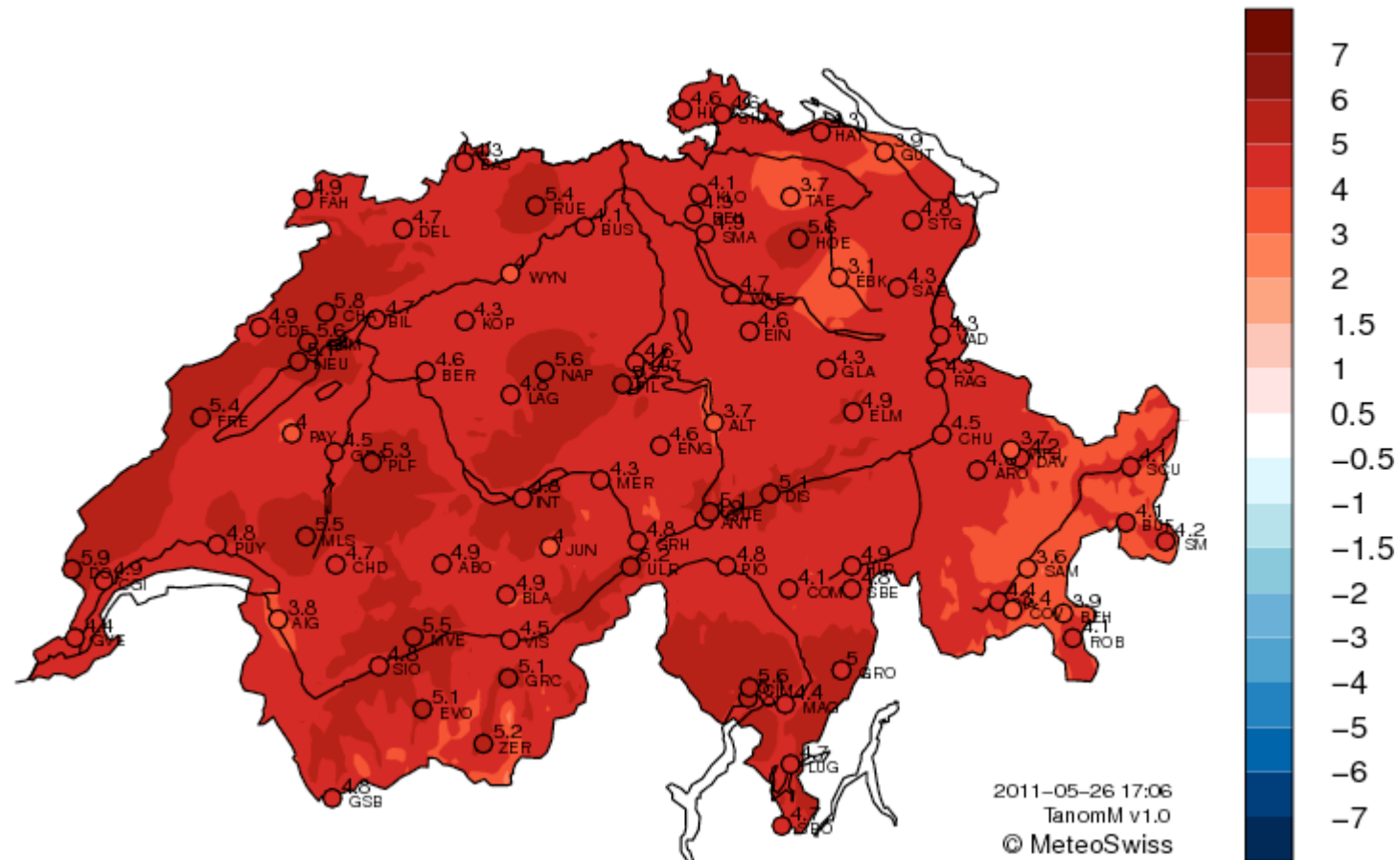
(with respect to a 1961-1990 base period)

National Climatic Data Center/NESDIS/NOAA





Monthly Temperature Anomaly (degC) Apr 2011 (Ref. 1961–1990)



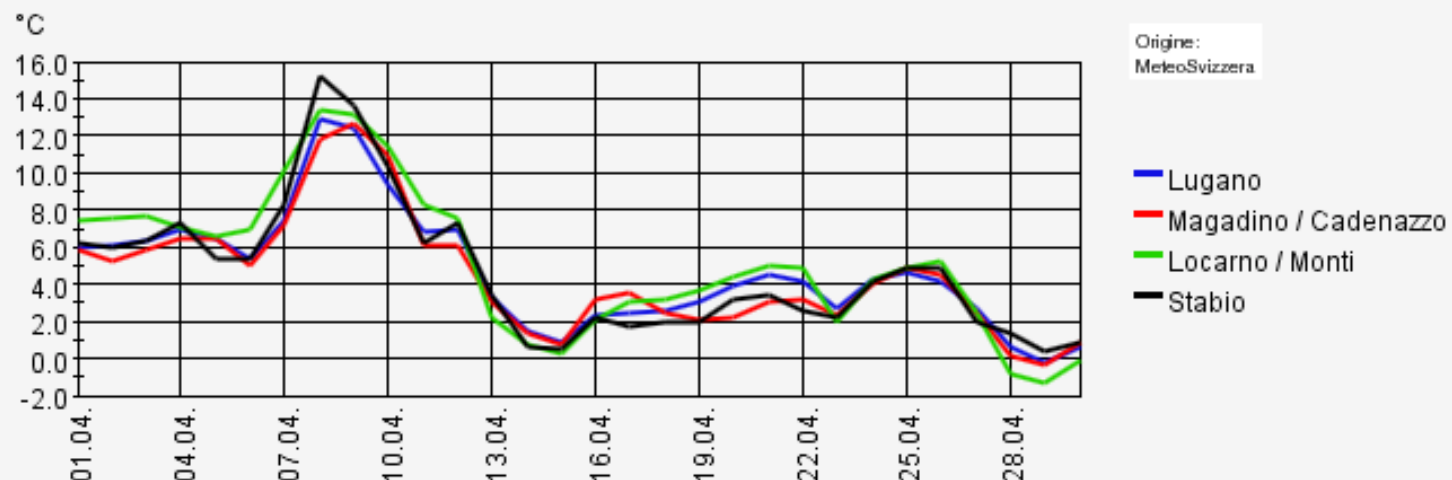


Temperatura: i record di aprile 2011

Nuovi record di temperatura per il mese di aprile

	Vecchio record	8.4.2011	9.4.2011
Lugano	28.9 (20.04.1949)	30.8	31.6
Locarno Monti	26.9 (20.04.1984, 19-20.04.1949)	29.6	31.8
Magadino (dal 1979)	27.8 (24.04.1984)	29.8	30.7
Stabio (dal 1981)	27.5 (24.04.2007)	29.2	29.9

Temperatura dell'aria a 2 m; deviazione dalla norma della media giornaliera [°C] 01.04.2011 - 30.04.2011





Temperatura: i record di aprile 2011

Abweichung vom Temperaturmittel (degC)

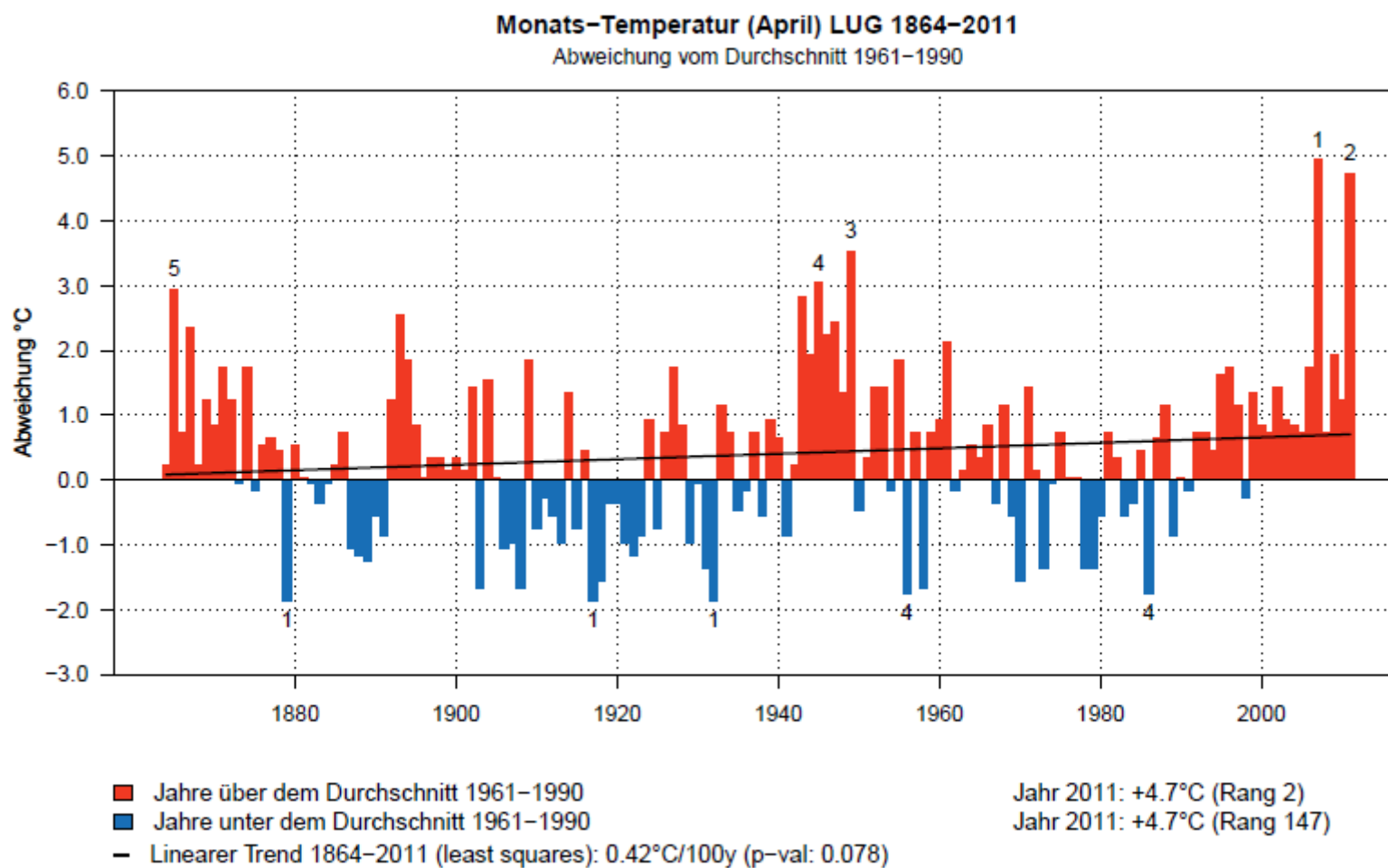
April 2011

Referenzperiode: 1961 – 1990

	NNW-CH				Mittelland West				Mittelland Zentral/Ost								Täler Alpennordhang				Jura				Berglagen				Täler GR				Wallis				Alpensüdseite												
	SHA	RUE	BAS	FAH	GVE	PUY	NEU	BER	WYN	LUZ	BUS	GUT	KLO	TAE	SMA	STG	CHU	VAD	ALT	ENG	ABO	CDF	CHA	DOL	MLS	NAP	PIL	SAE	WFJ	JUN	DAV	SCU	SAM	HIR	DIS	ULR	VIS	SIO	MVE	ZER	ROB	SBE	CIM	PIO	COM	OTL	LUG	SBO	
1	7.3	7.7	7.4	7.8	5.1	5.6	6.4	7.1	6.7	6.9	7.0	6.9	7.3	7.3	7.4	7.4	7.2	7.1	5.7	6.9	6.8	7.9	7.8	8.4	8.4	7.2	8.0	6.6	6.3	6.8	6.8	6.7	5.8	5.9	6.6	6.9	6.3	5.8	6.5	6.4	7.2	7.3	9.3	8.0	6.3	7.4	6.0	6.2	1
2	7.7	10.3	8.7	10.3	6.3	7.4	6.7	7.7	6.3	7.3	7.0	6.3	7.0	6.7	8.5	9.2	8.7	8.9	4.9	8.9	9.7	9.7	11.4	11.3	11.2	12.0	11.6	10.7	10.0	9.7	8.4	7.5	5.2	6.7	9.1	7.4	7.0	7.1	9.7	8.4	5.5	6.3	8.9	7.0	6.2	7.5	6.1	6.0	2
3	9.1	10.7	9.1	9.4	9.2	8.6	8.5	8.7	7.9	9.0	8.4	8.1	8.9	8.8	9.9	10.8	8.7	9.4	6.8	9.6	9.8	9.7	10.2	9.7	9.9	10.9	10.2	9.6	9.7	8.4	8.5	8.1	5.7	6.7	9.8	7.9	7.8	7.7	9.5	9.3	6.1	6.4	9.2	7.5	6.4	7.7	6.3	6.3	3
4	3.5	3.1	3.3	2.9	3.2	3.3	3.1	3.4	3.5	2.6	3.5	3.2	3.5	3.4	2.9	2.9	3.2	2.8	2.4	2.4	2.3	3.2	2.2	2.4	1.9	2.2	2.2	2.6	3.3	3.2	3.0	3.3	3.6	4.4	3.6	5.3	3.6	3.4	3.9	4.3	4.8	4.2	7.2	4.8	5.7	7.1	7.0	7.3	4
5	4.1	4.8	4.2	4.3	2.3	2.9	3.1	4.0	3.1	3.9	3.5	3.0	3.8	4.2	4.4	4.4	4.4	4.1	3.2	4.2	3.7	4.3	5.4	6.2	5.1	5.1	4.8	3.1	2.2	4.5	3.9	3.8	4.5	4.8	4.0	5.2	3.9	3.3	4.3	4.4	6.8	5.5	6.2	6.8	6.7	6.6	6.4	5.4	5
6	7.4	8.5	7.1	7.9	5.7	6.9	7.5	7.1	6.9	7.3	7.1	5.9	7.4	6.9	7.9	7.4	6.3	6.4	5.3	7.7	8.4	8.6	10.8	11.0	10.7	9.4	10.2	8.1	7.3	9.8	6.9	6.5	6.9	6.6	7.8	7.6	5.8	6.1	8.4	8.0	7.5	8.8	10.6	8.4	6.7	6.9	5.4	5.3	6
7	9.6	11.3	9.8	10.5	7.9	9.0	9.5	9.3	8.8	9.2	9.0	9.2	8.9	9.2	10.3	11.4	10.7	10.9	7.5	10.6	11.1	10.3	12.7	12.6	12.6	12.2	12.9	11.5	11.2	10.3	10.6	9.7	9.1	10.5	11.5	11.0	9.1	8.7	11.7	11.0	10.5	12.2	14.2	11.1	10.8	10.1	7.4	8.3	7
8	8.0	8.3	6.9	7.8	8.6	10.0	9.0	8.8	7.4	8.7	7.0	7.6	7.2	6.8	9.0	8.2	9.4	7.8	7.6	8.9	9.4	8.1	10.1	11.3	10.3	9.4	9.1	7.9	7.5	8.7	9.2	8.5	8.1	10.4	9.7	9.9	8.9	9.2	11.0	10.2	12.6	10.8	13.5	11.6	11.4	13.4	12.9	15.2	8
9	7.4	8.4	5.8	7.9	8.0	9.5	10.4	8.3	7.2	8.0	7.7	6.4	7.4	6.1	8.4	7.8	7.7	6.8	6.1	8.3	9.9	10.8	11.7	12.0	12.5	10.0	11.0	9.4	8.4	9.2	8.0	7.3	6.7	8.6	9.3	10.4	8.1	8.5	10.9	10.0	10.3	11.1	14.0	11.1	10.3	13.2	12.4	13.6	9
10	6.9	8.0	5.4	7.3	7.4	8.8	10.1	7.8	7.0	7.4	6.7	5.4	6.7	4.9	7.5	6.4	6.5	5.4	5.1	7.4	9.0	9.4	10.5	11.3	10.3	9.3	8.8	7.5	6.5	8.2	6.9	6.6	5.9	7.5	8.2	10.5	7.4	7.8	9.9	9.2	10.2	9.3	11.9	9.3	9.8	11.5	9.4	10.4	10
11	7.2	8.2	7.0	8.1	6.8	7.3	8.1	6.7	6.6	6.8	6.9	6.1	6.4	6.3	7.8	7.1	6.8	6.3	4.9	7.2	8.1	7.6	9.5	9.1	9.2	9.0	9.2	7.4	6.7	6.1	7.0	6.1	5.7	7.6	8.1	8.2	7.2	7.3	8.8	8.7	8.1	9.2	9.8	8.1	7.4	8.3	6.8	6.2	11
12	2.4	1.7	2.1	1.9	3.8	3.0	3.2	2.9	2.7	1.9	2.8	2.4	2.6	2.6	2.3	1.6	0.8	1.3	0.7	1.0	1.8	1.9	0.9	1.3	1.2	1.1	1.2	1.2	1.5	0.8	1.7	2.3	3.1	3.3	2.2	2.8	4.3	3.0	3.1	4.6	5.9	4.6	6.6	4.2	4.9	7.5	7.0	7.3	12
13	-2.0	-1.5	-1.5	-1.4	0.4	0.1	-0.1	-0.9	-1.1	-1.1	-1.7	-1.9	-1.4	-1.2	-1.1	-2.2	-2.6	-2.5	-2.0	-1.9	-2.2	-0.8	-2.2	-1.1	-2.3	-2.4	-3.7	-5.1	-6.9	-5.0	-3.5	-3.1	-2.1	-1.2	-2.5	-0.4	0.0	0.5	-0.8	0.1	-0.7	-1.3	0.3	-0.8	0.0	2.2	3.3	3.4	13
14	-0.6	-0.2	0.0	0.1	1.4	0.6	1.0	-0.5	-0.4	-0.1	-0.5	-1.3	-0.7	-1.0	-0.3	-1.1	-1.2	-1.8	-0.9	-1.9	-1.8	0.4	-0.8	-0.5	-1.8	-1.1	-2.7	-3.9	-4.2	-2.3	-1.7	-2.4	-1.1	-0.7	-1.6	0.4	-0.8	0.1	-1.2	-0.9	-0.2	-0.7	0.3	-0.1	0.1	0.7	1.5	0.6	14
15	-0.2	-0.3	-0.9	-0.4	1.1	1.0	1.3	-0.3	-0.2	0.0	-0.5	-0.6	-0.6	-1.9	-0.2	-1.3	-0.7	-1.7	-0.8	-1.0	-0.1	0.4	0.1	0.1	-0.5	-0.9	-2.1	-2.8	-2.8	-0.4	-0.8	-1.4	-1.0	0.6	0.2	0.8	0.8	1.0	0.7	1.0	-0.9	0.3	-0.7	0.1	-0.8	0.3	0.9	0.5	15
16	0.8	0.7	-0.3	0.5	0.3	1.0	1.9	0.2	-0.1	0.4	-0.3	0.2	-0.4	-1.6	0.3	-0.5	0.1	-1.2	-0.3	0.5	1.2	0.8	1.3	2.0	1.7	1.2	1.1	0.2	-0.3	2.0	0.8	0.4	0.8	3.0	1.5	2.0	0.9	1.5	1.7	1.9	0.1	2.2	0.5	2.1	1.0	2.1	2.3	2.2	16
17	1.9	2.5	1.1	2.5	1.3	2.3	2.8	1.5	0.8	1.8	0.9	0.9	0.9	-0.2	2.0	1.6	1.6	0.2	0.6	1.9	2.7	2.1	3.2	3.7	3.3	3.0	2.4	1.6	1.5	3.6	2.2	1.8	2.1	3.9	3.1	3.4	2.0	2.4	3.2	3.0	0.1	2.3	1.3	2.7	1.7	3.1	2.5	1.7	17
18	3.1	5.1	2.9	4.5	3.1	3.7	3.2	3.2	2.3	3.7	2.4	1.7	2.4	1.6	4.0	3.7	3.8	3.6	2.3	4.1	4.4	3.2	5.7	5.8	4.6	6.5	4.0	3.7	3.4	4.2	4.0	4.1	2.8	4.6	5.0	4.3	3.2	3.8	4.8	4.2	1.2	2.8	2.8	3.4	2.0	3.2	2.6	1.9	18
19	4.8	6.4	4.6	6.2	3.9	4.7	4.8	4.4	3.6	5.1	3.6	3.9	3.9	2.9	5.6	5.4	5.2	5.3	3.4	4.8	5.6	4.6	7.2	6.4	5.6	7.1	5.7	4.9	4.7	4.4	5.0	5.2	3.0	5.1	5.8	4.4	4.5	4.9	6.1	5.0	1.5	2.8	4.0	3.2	1.9	3.6	3.0	2.0	19
20	5.9	7.6	5.4	6.8	5.7	6.0	5.7	5.7	4.6	5.7	4.9	4.9	5.0	4.5	6.8	7.1	7.1	7.1	6.2	6.3	6.2	5.2	8.3	6.5	6.9	7.7	7.2	6.5	5.4	3.3	5.5	5.0	3.3	5.9	6.3	4.4	5.8	6.1	7.0	5.0	2.5	3.3	4.9	3.6	2.6	4.4	3.9	3.2	20
21	6.2	8.2	5.9	7.0	5.5	5.7	6.4	6.2	5.0	6.3	5.2	5.7	5.2	5.1	7.2	8.5	7.1	8.0	8.3	6.9	6.5	6.1	7.7	7.2	6.9	7.8	7.2	6.5	5.3	3.6	5.5	5.5	3.9	5.8	6.5	4.2	5.8	5.7	6.7	4.9	3.0	4.2	5.5	4.5	3.8	5.0	4.5	3.4	21
22	6.4	8.2	5.9	6.9	5.5	6.2	6.0	5.9	4.7	6.9	4.9	6.6	5.4	5.3	7.9	9.4	7.4	9.5	9.4	7.7	7.2	5.8	8.3	7.8	6.9	8.3	7.2	6.7	5.3	2.2	5.4	5.3	3.6	5.9	6.4	4.1	5.6	5.6	6.5	4.8	3.4	4.6	5.4	4.5	3.9	4.9	4.1	2.6	22
23	6.5	7.8	6.2	7.2	5.7	6.1	6.4	6.1	4.8	7.2	5.0	6.6	4.8	5.8	7.4	9.2	6.5	8.9	9.2	7.6	7.1	5.1	7.5	5.9	6.7	8.4	7.1	6.1	4.1	3.7	5.0	4.5	3.5	4.7	5.6	5.3	6.1	6.8	6.4	5.1	1.9	3.2	2.3	2.8	1.7	1.9	2.7	2.2	23
24	6.1	5.8	5.8	5.4	5.5	5.4	5.6	6.3	5.6	6.0	5.5	6.3	5.5	6.2	6.1	6.6	4.9	5.7	4.4	5.5	5.4	5.5	5.5	4.9	5.0	5.4	5.2	5.1	4.5	5.3	4.7	4.7	4.8	6.3	5.9	6.0	4.7	6.1	5.8	5.5	3.4	5.7	5.6	4.1	2.9	4.3	4.3	4.1	24
25	6.4	6.6	5.2	6.5	6.9	7.3	7.8	7.0	5.8	6.6	5.9	5.3	6.0	5.3	6.3	5.6	5.5	5.2	5.2	6.1	6.3	6.7	7.6	7.2	7.2	7.1	5.9	4.4	4.4	4.9	5.0	5.6	5.4	6.7	6.8	6.8	5.3	6.4	6.6	5.9	4.5	6.6	5.5	5.9	4.5	4.9	4.6	4.9	25
26	3.8	4.1	3.0	3.6	5.6	5.3	5.8	3.7	3.8	3.6	3.5																																						



Temperatura: aprile 2011 e gli altri



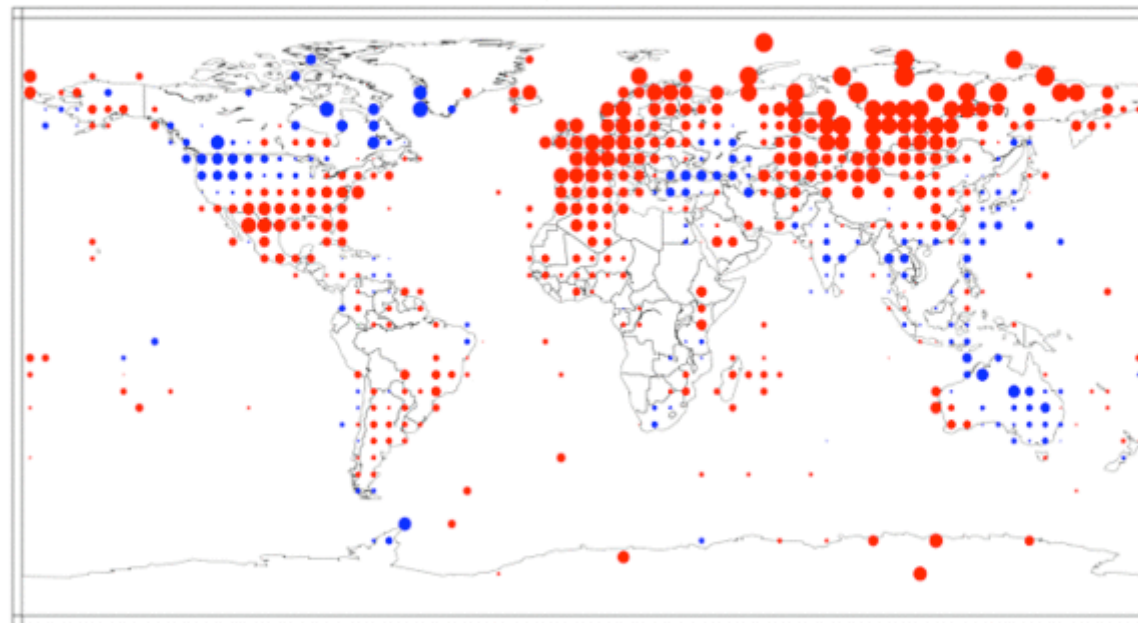


Temperatura: anomalie globali aprile 2011

Temperature Anomalies April 2011

(with respect to a 1961-1990 base period)

National Climatic Data Center/NESDIS/NOAA



-5C -4C -3C -2C -1C 0C 1C 2C 3C 4C 5C

Degrees Celsius





Temperatura: anomalie globali aprile 2011

April	Anomaly		Rank (out of 132 years)	Warmest on Record		
	°C	°F		Year	°C	°F
Global						
Land	+1.12 ± 0.11	+2.02 ± 0.20	6 th warmest	2007	+1.44	+2.59
Ocean	+0.39 ± 0.04	+0.70 ± 0.07	11 th warmest	2010	+0.57	+1.03
Land and Ocean	+0.59 ± 0.07	+1.06 ± 0.13	7 th warmest	2010	+0.78	+1.40
Northern Hemisphere						
Land	+1.38 ± 0.15	+2.48 ± 0.27	4 th warmest*	2000	+1.62	+2.92
Ocean	+0.34 ± 0.04	+0.61 ± 0.07	12 th warmest*	2010	+0.59	+1.06
Land and Ocean	+0.73 ± 0.11	+1.31 ± 0.20	6 th warmest	2010	+0.94	+1.69
Southern Hemisphere						
Land	+0.43 ± 0.14	+0.77 ± 0.25	25 th warmest	2005	+1.06	+1.91
Ocean	+0.44 ± 0.04	+0.79 ± 0.07	10 th warmest*	1998	+0.61	+1.10
Land and Ocean	+0.44 ± 0.06	+0.79 ± 0.11	13 th warmest	1998	+0.66	+1.19

*Signifies a tie



2011-06-05 17:05
TanomM v1.0
© MeteSwiss

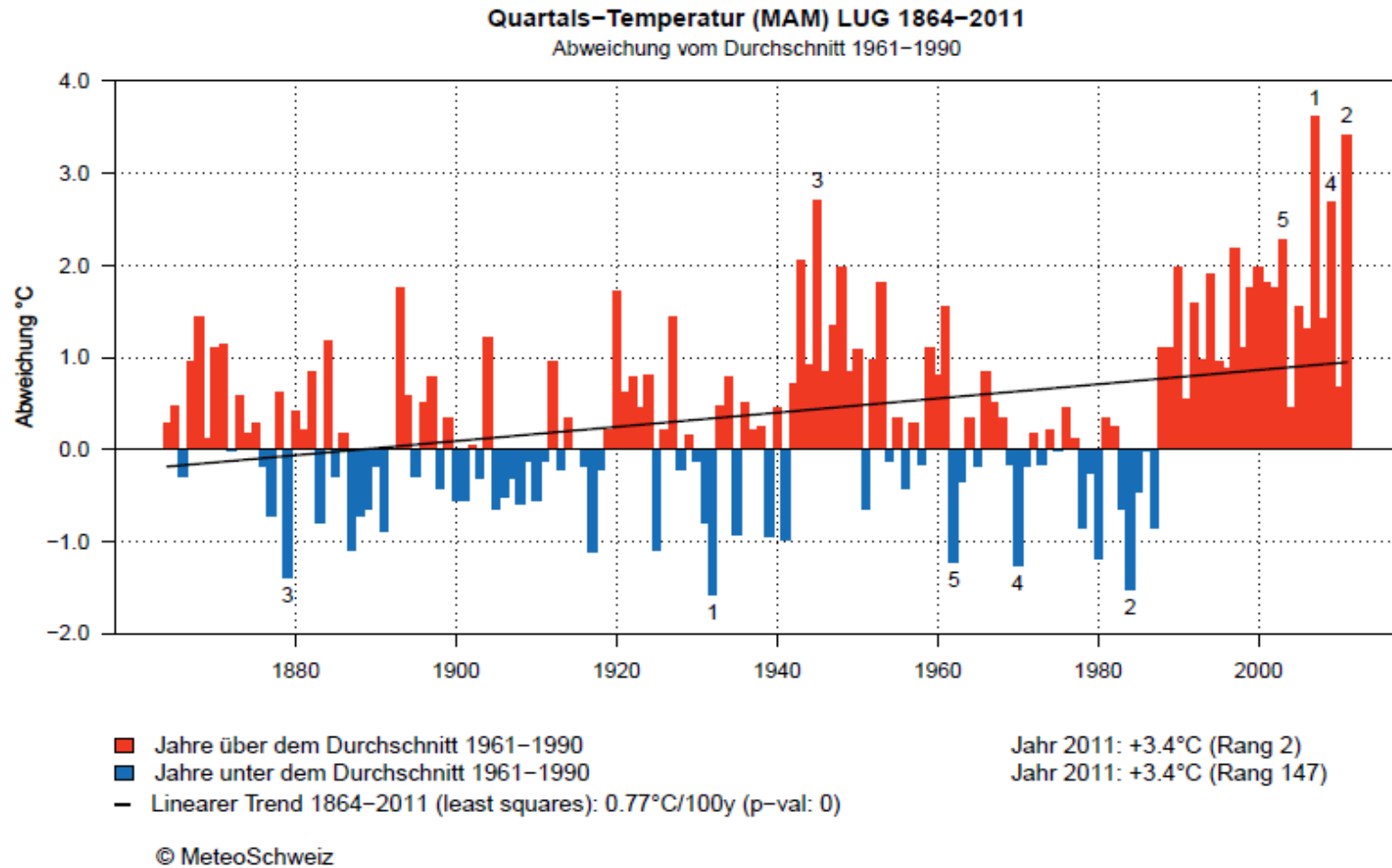
2011-06-05 17:05
TanomM v1.0
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Temperatura: anomalie globali maggio 2011

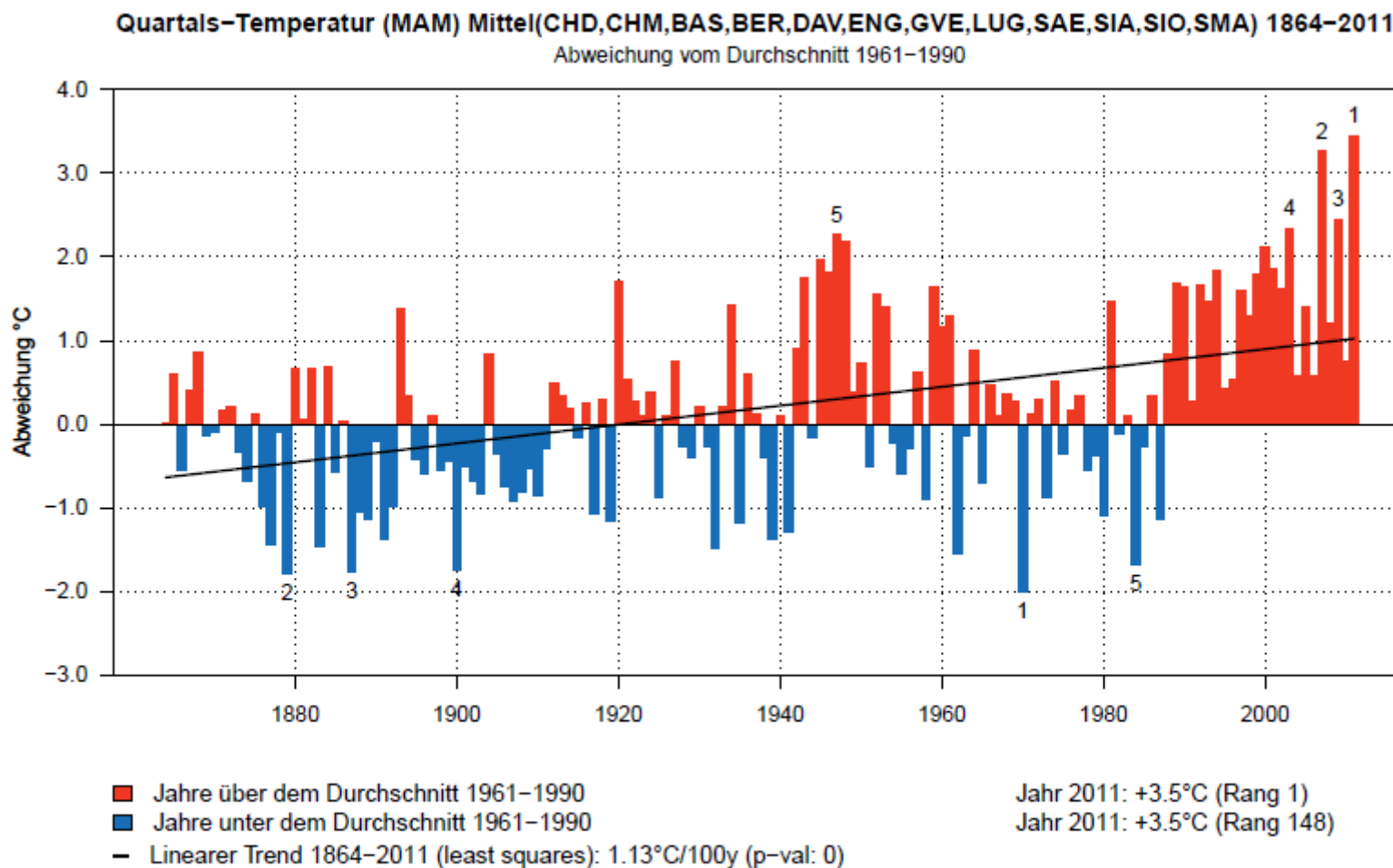


La primavera TI 2011 rispetto alle altre





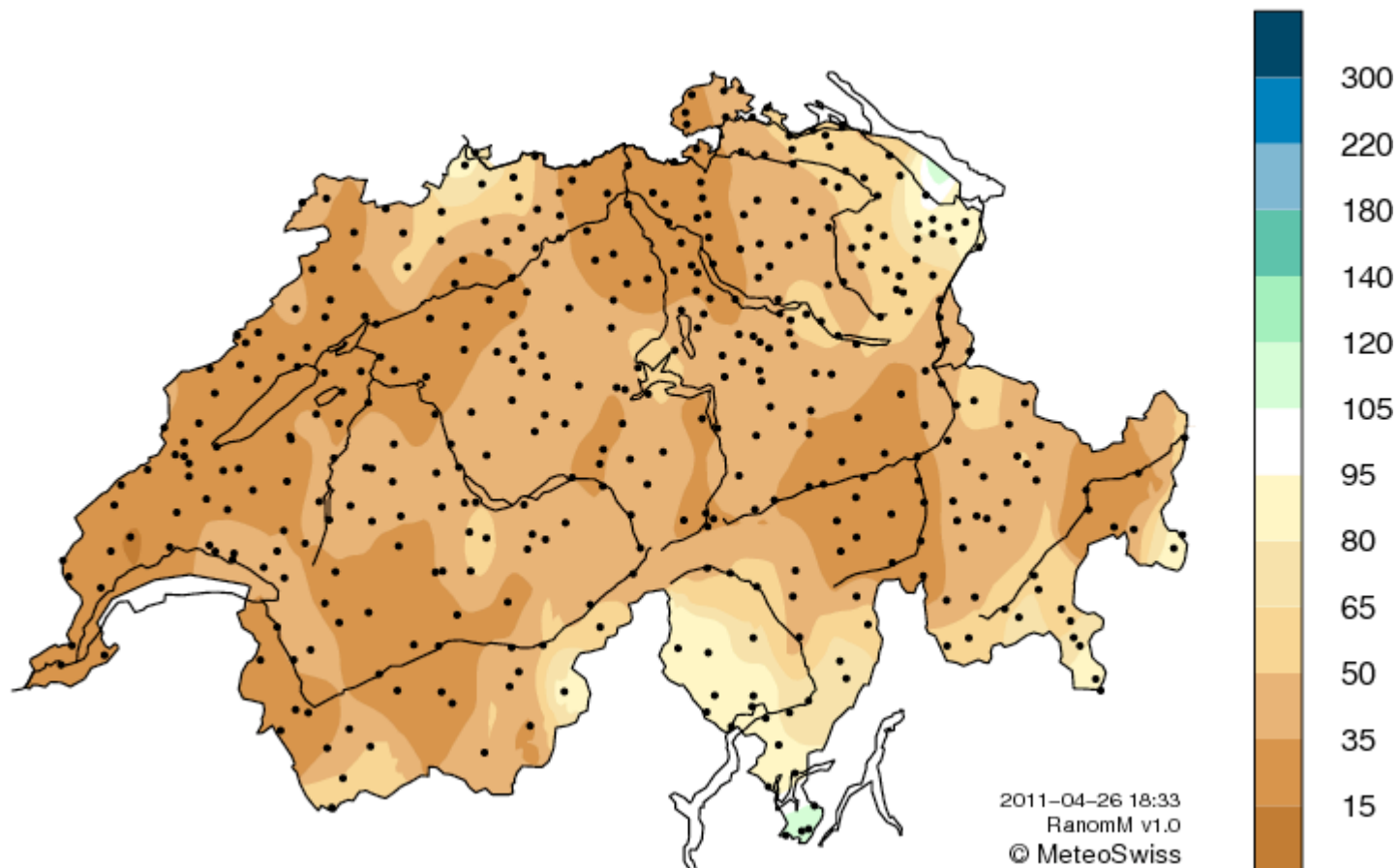
La primavera CH 2011 rispetto alle altre





Precipitazioni: marzo 2011

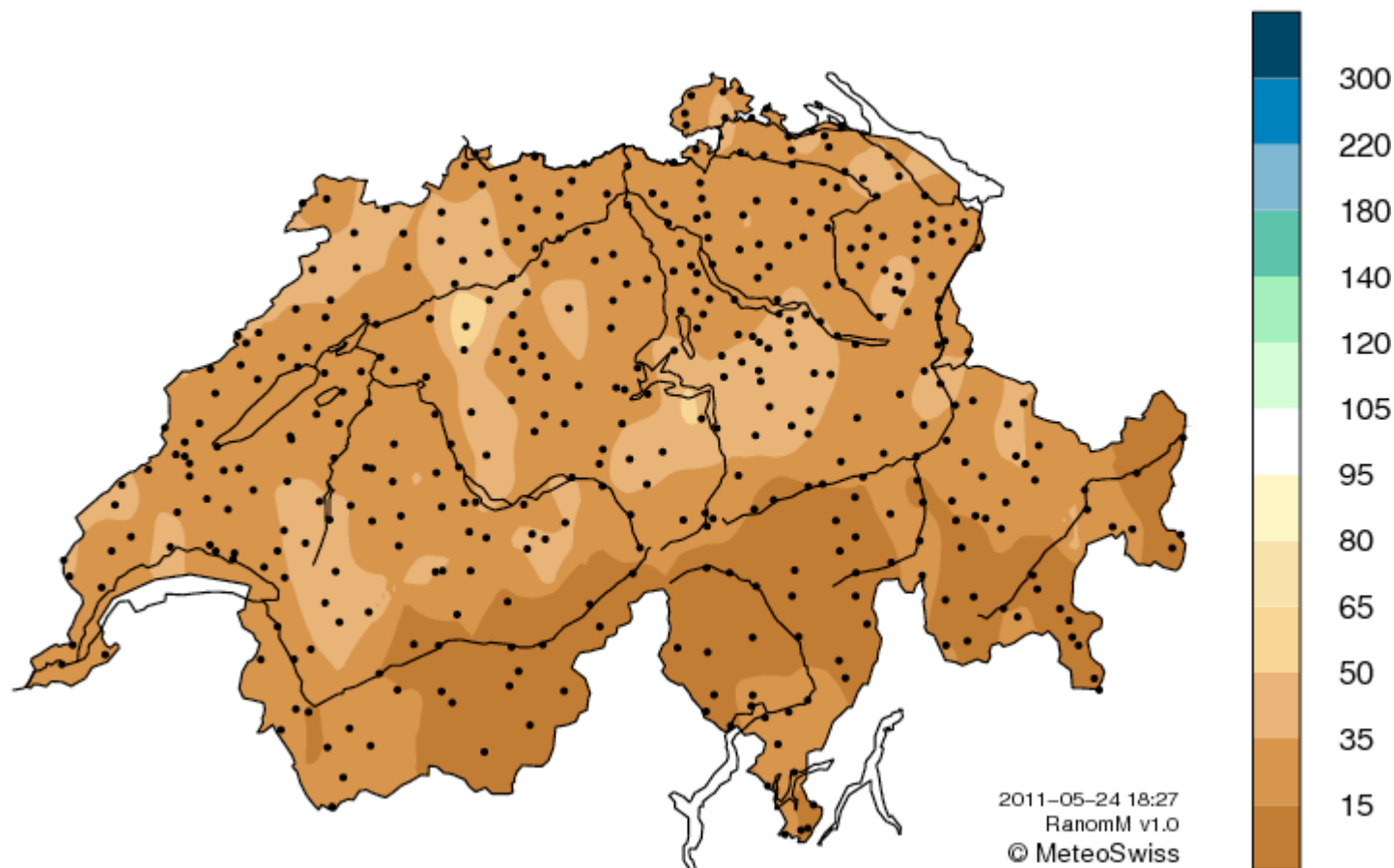
Monthly Precipitation Anomaly (%) Mar 2011 (Ref. 1961–1990)





Precipitazioni: aprile 2011

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





Precipitazioni: aprile 2011

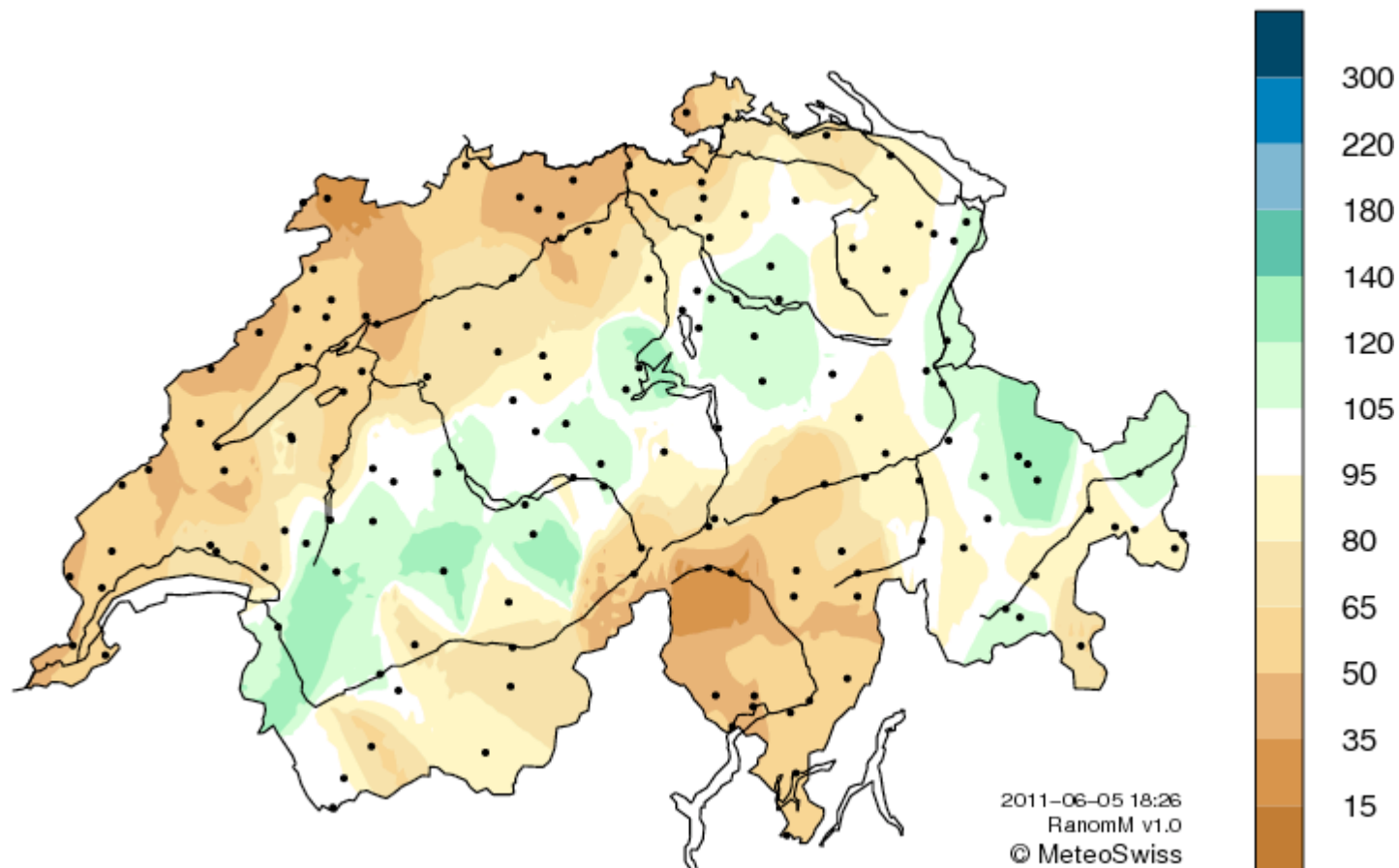
Aprile 2011

		Airolo	Piotta	Biasca	Olivone	Comprovasco	Bellinzona	San Bernardino	Robiei	Bosco Gurin	Locarno-Monti	Lugano	Coldrerio	Stabio	Poschiavo	Samedan
Somma delle precipitazioni del mese	mm	2	8	10	5	5	40	17	35	25	34	24	12	41	7	6
Percento della norma	%	1	6	7	4	4	27	9	15	12	21	16	8	27	9	13



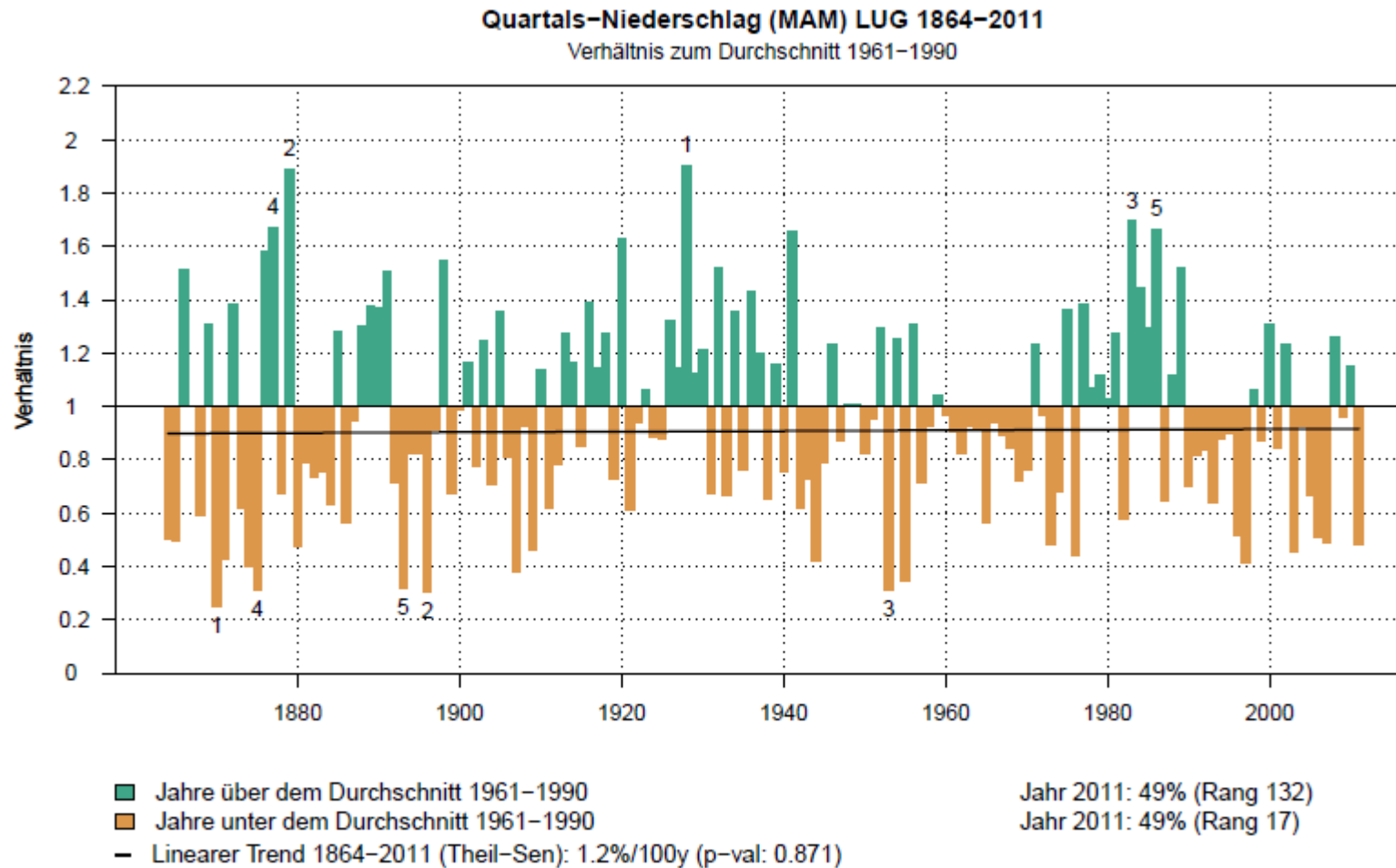
Precipitazioni maggio 2011

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



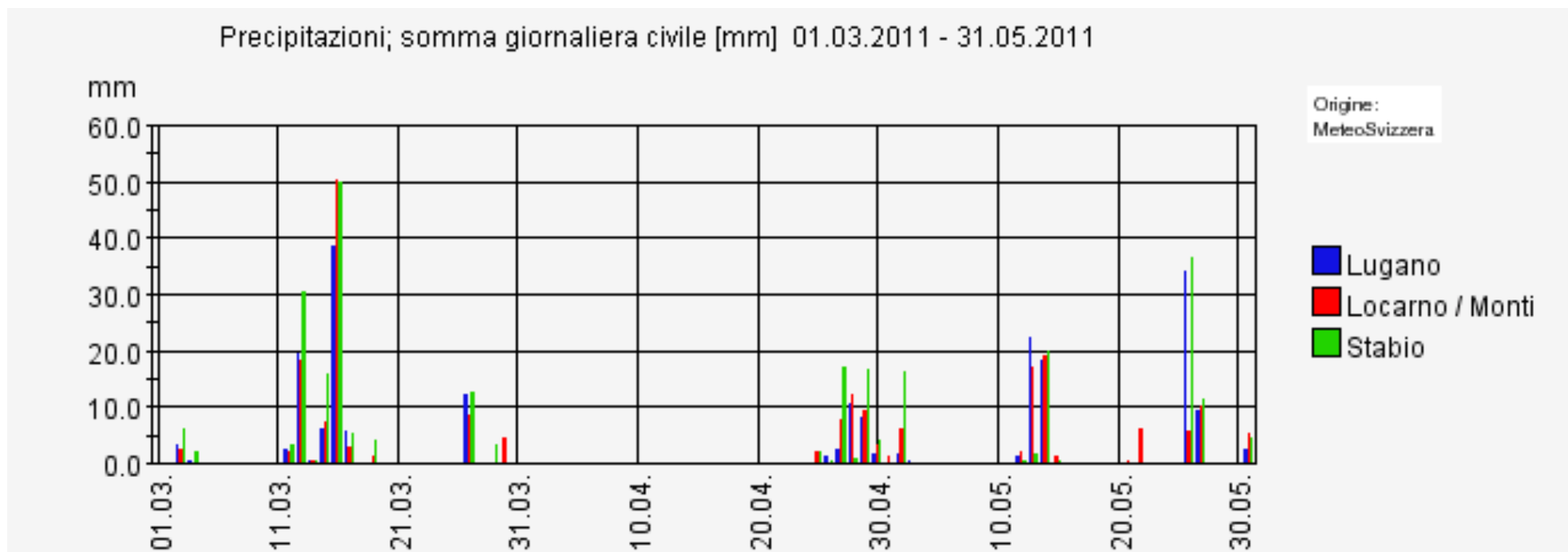


La primavera 2011 rispetto alle altre





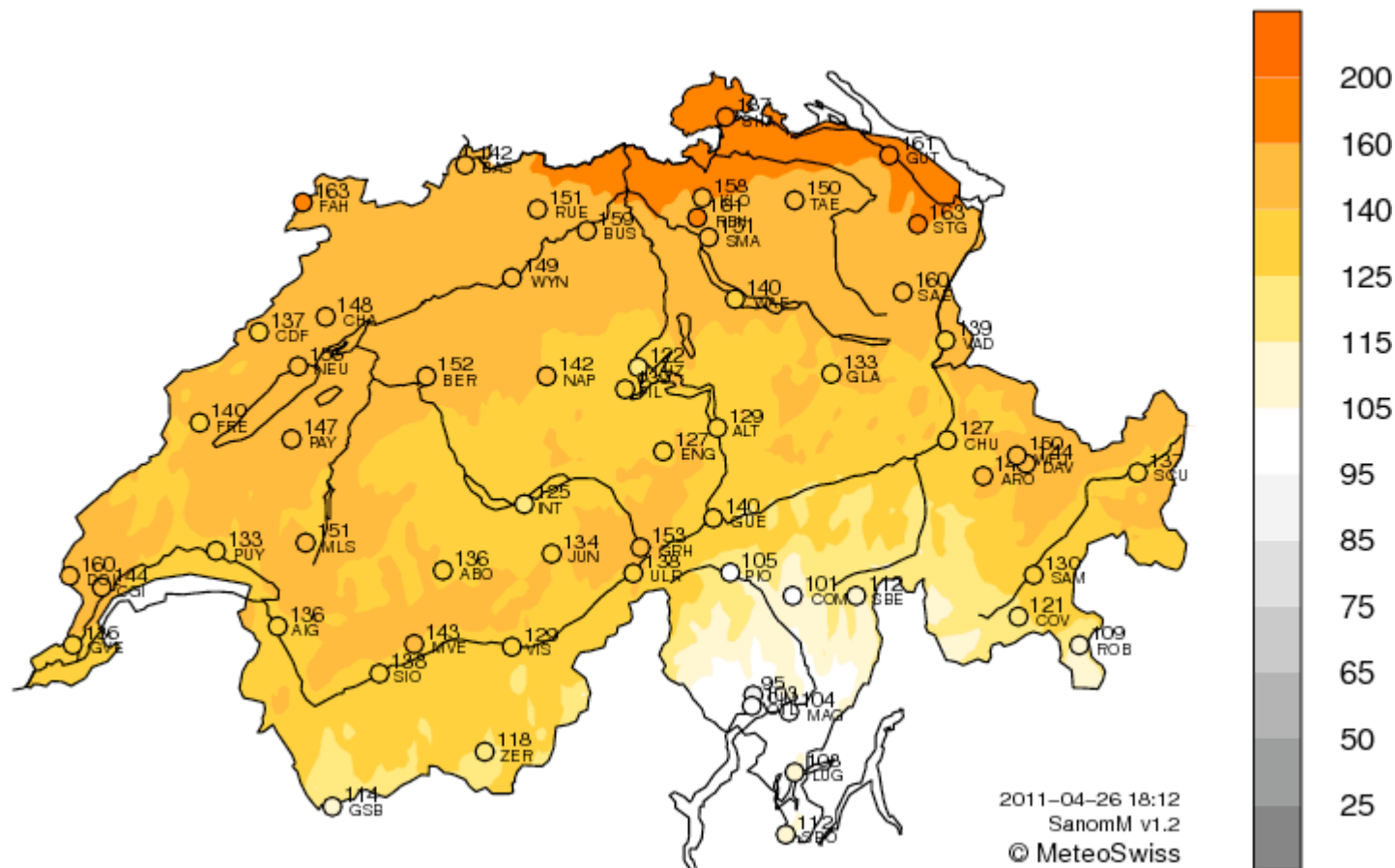
Precipitazioni giornaliere





Soleggiamento: anomalia marzo 2011

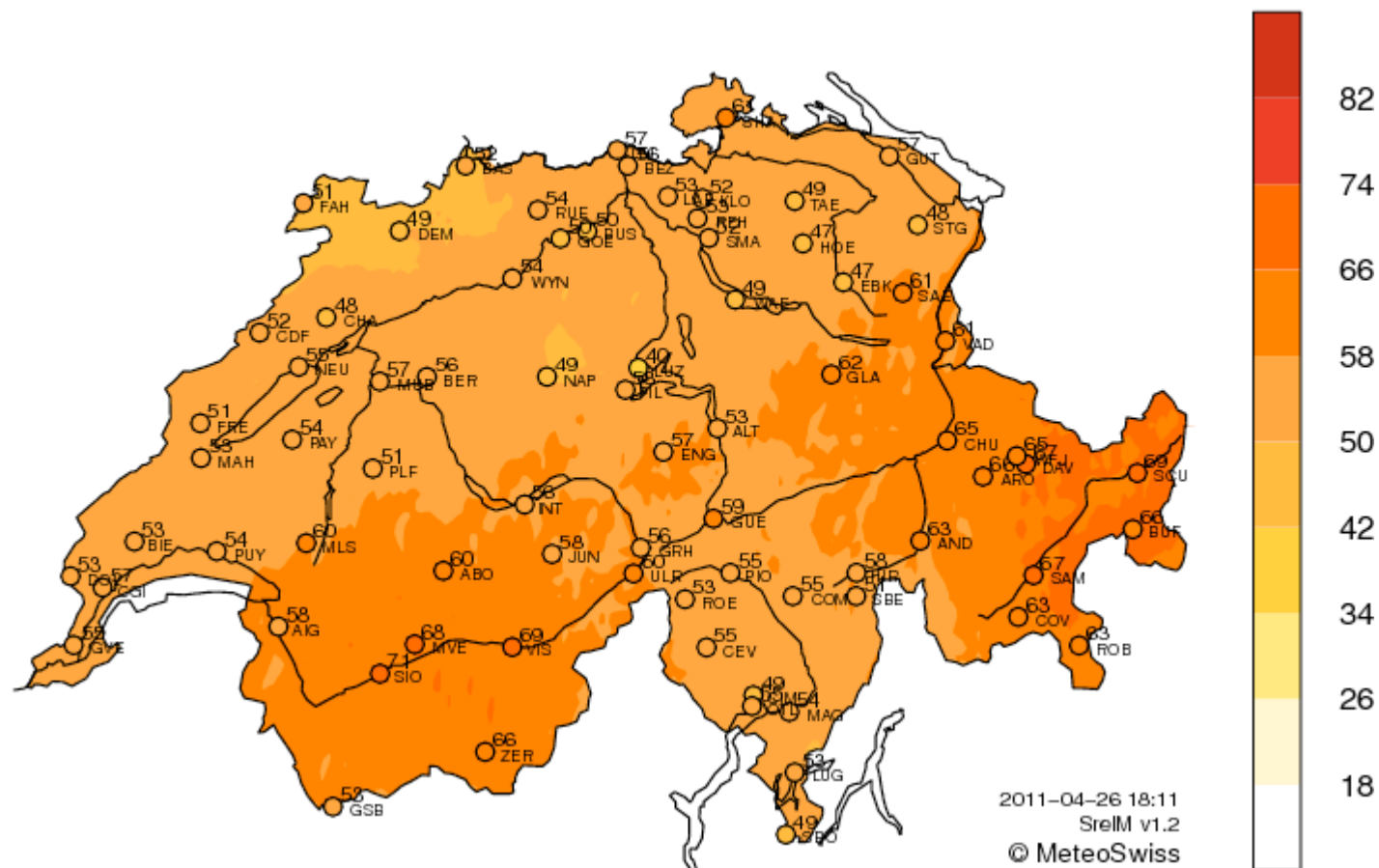
Monthly Sunshine Duration Anomaly (%) Mar 2011 (Ref. 1961–1990)





Soleggiamento relativo: marzo 2011

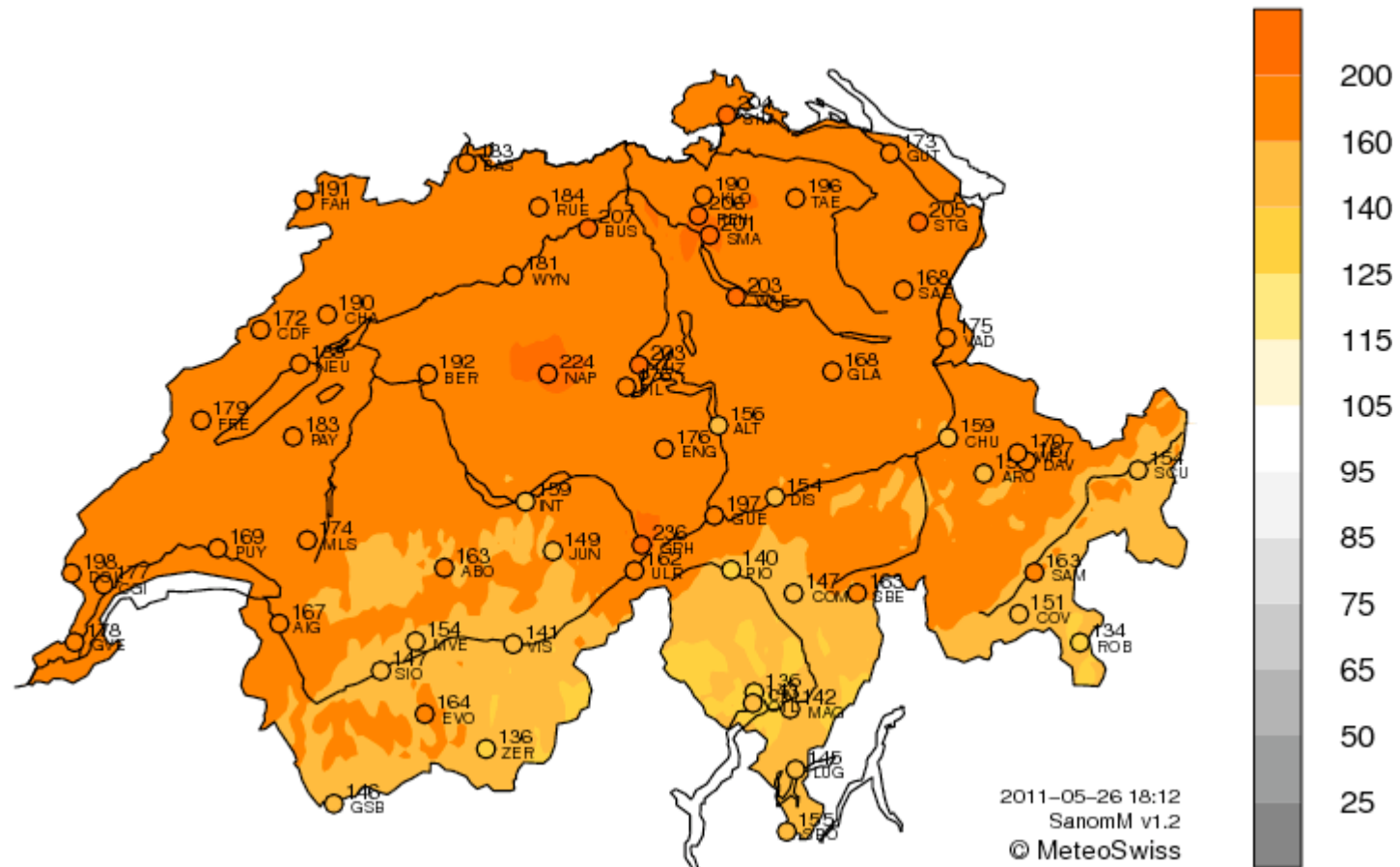
Monthly Relative Sunshine Duration (%) Mar 2011





Soleggiamento: anomalia aprile 2011

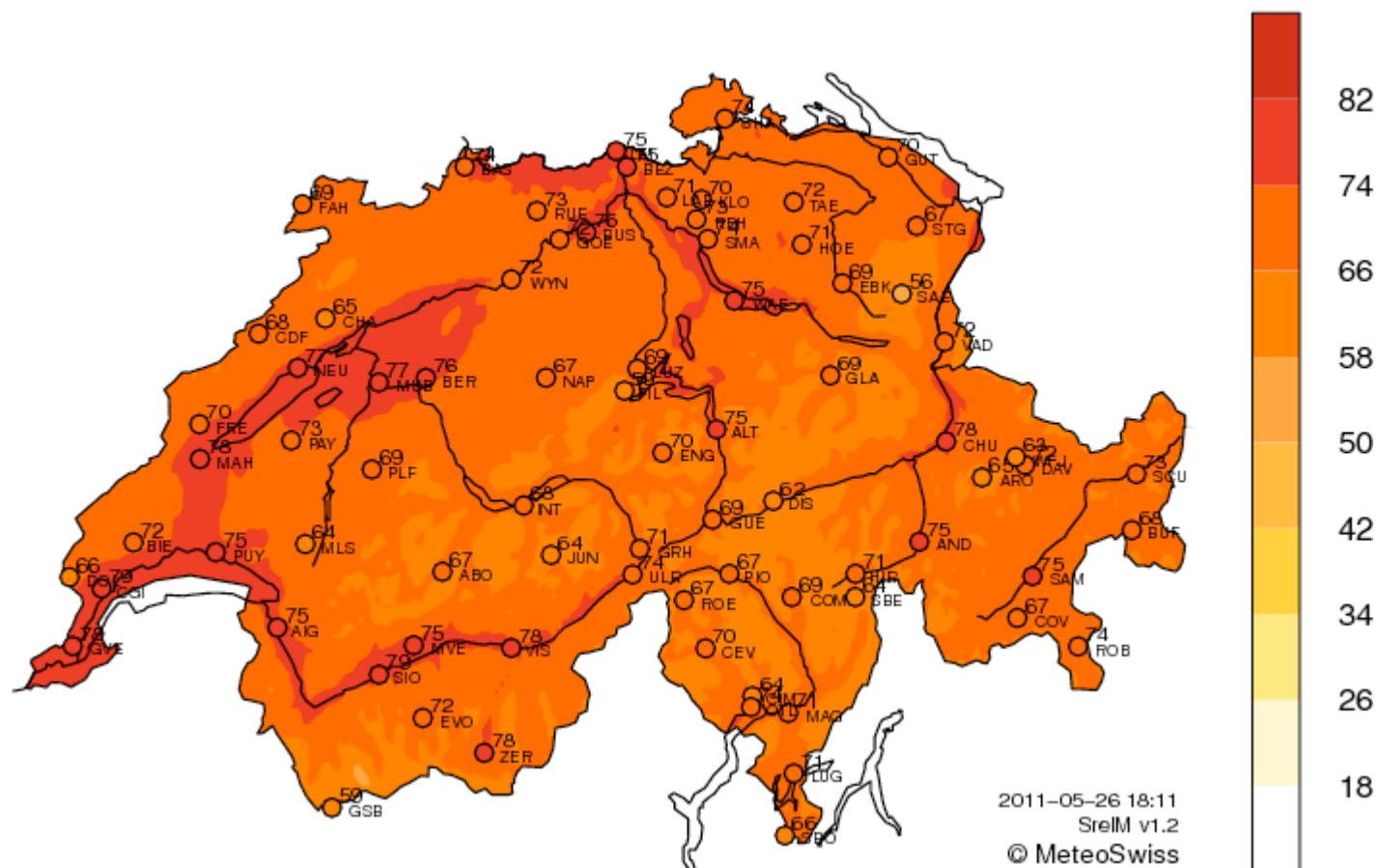
Monthly Sunshine Duration Anomaly (%) Apr 2011 (Ref. 1961–1990)





Soleggiamento relativo: aprile 2011

Monthly Relative Sunshine Duration (%) Apr 2011





2011-06-05 18:12
SanomM v1.2
© MeteoSwiss



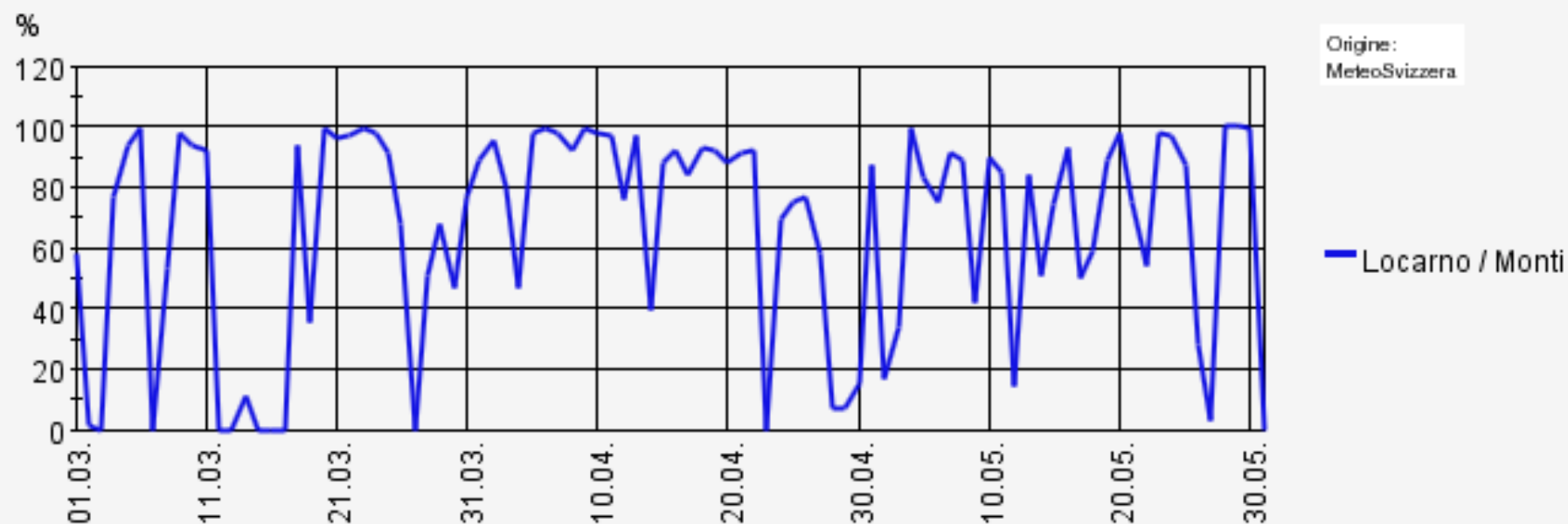
2011-06-05 18:11
SrelM v1.2
© MeteoSwiss

2011-06-05 18:11
SrelM v1.2
© MeteoSwiss



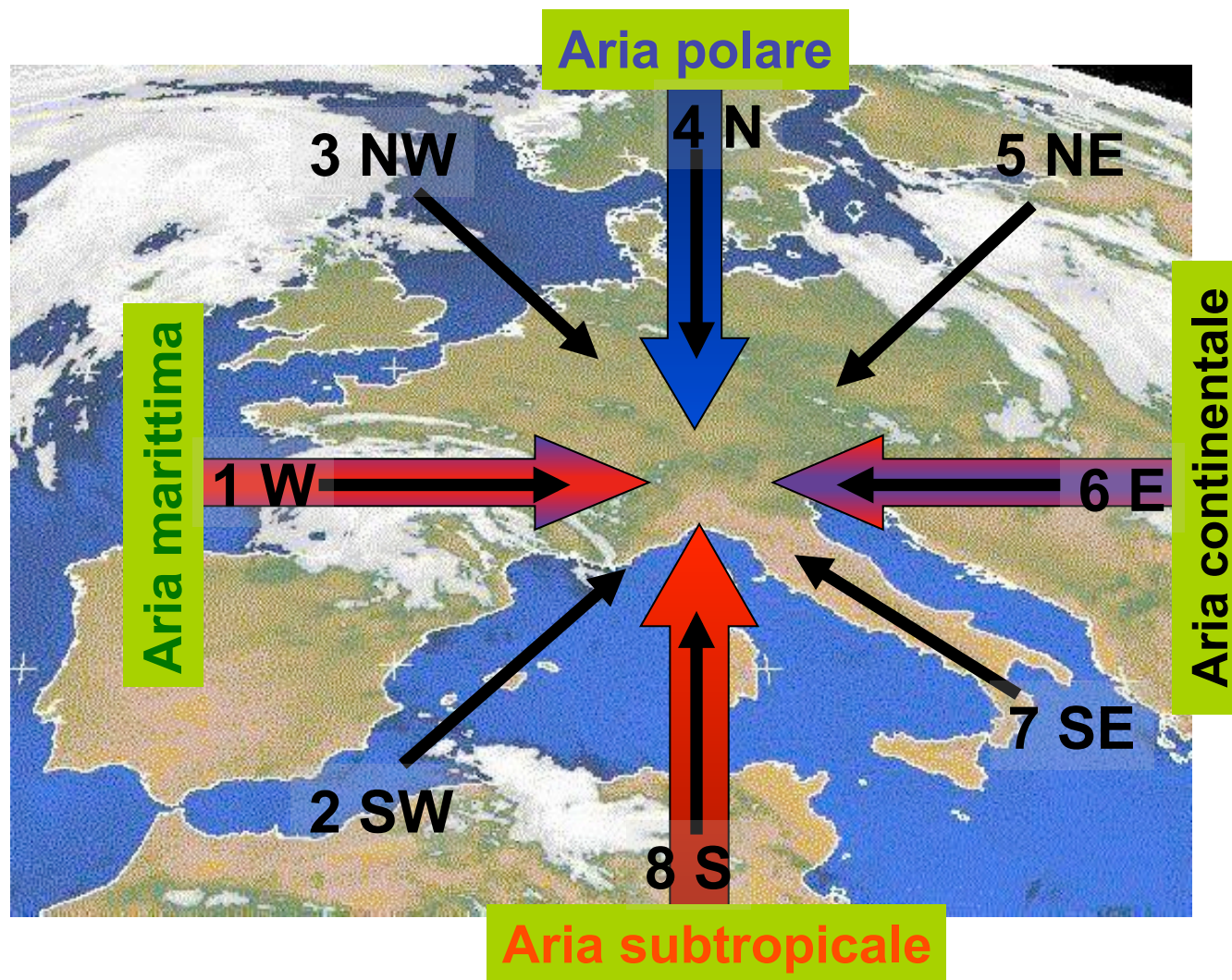
Soleggiamento Locarno

Soleggiamento; rispetto al massimo giornaliero possibile [%] 01.03.2011 - 31.05.2011



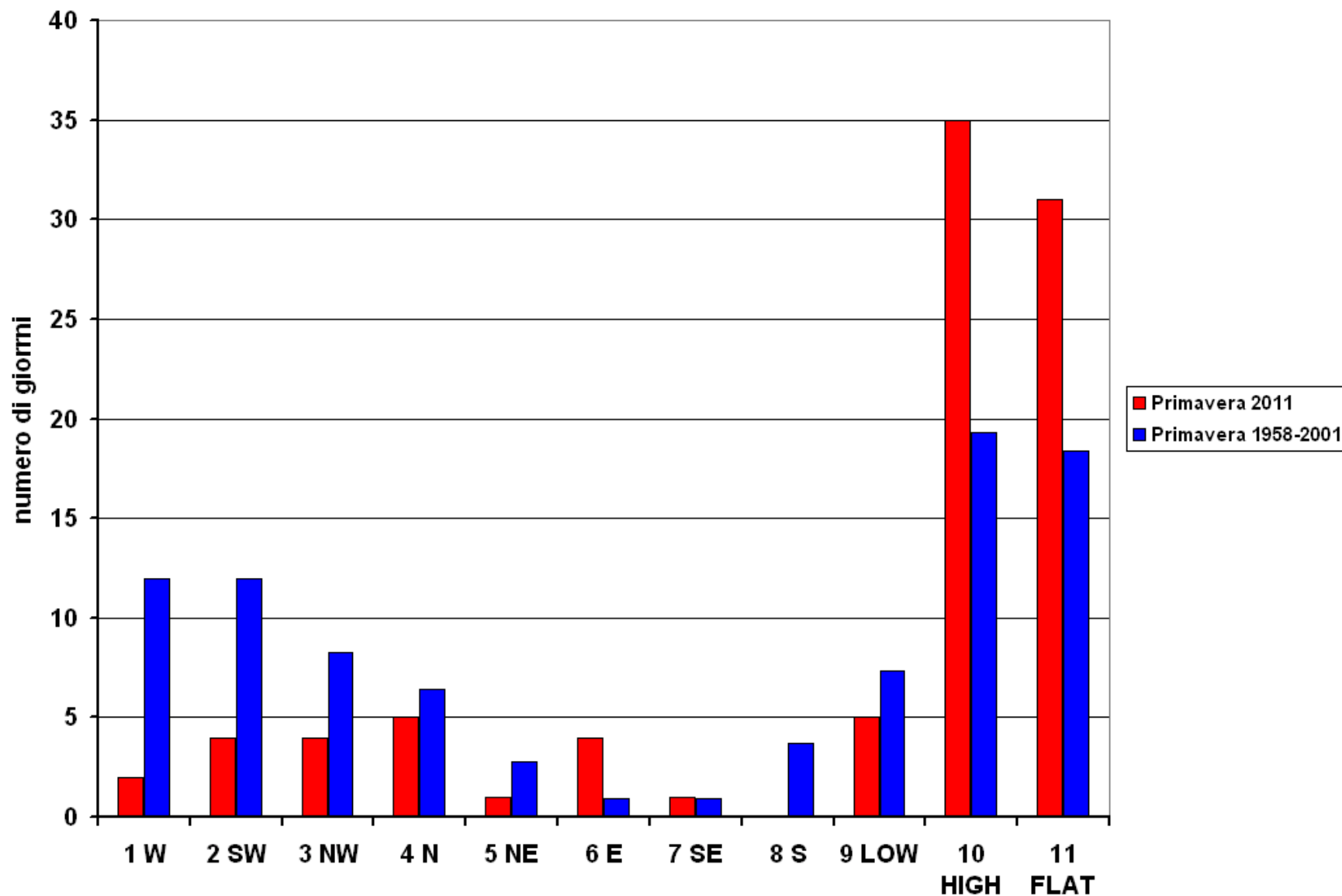


Masse d'aria diverse, tempo diverso, situazioni diverse



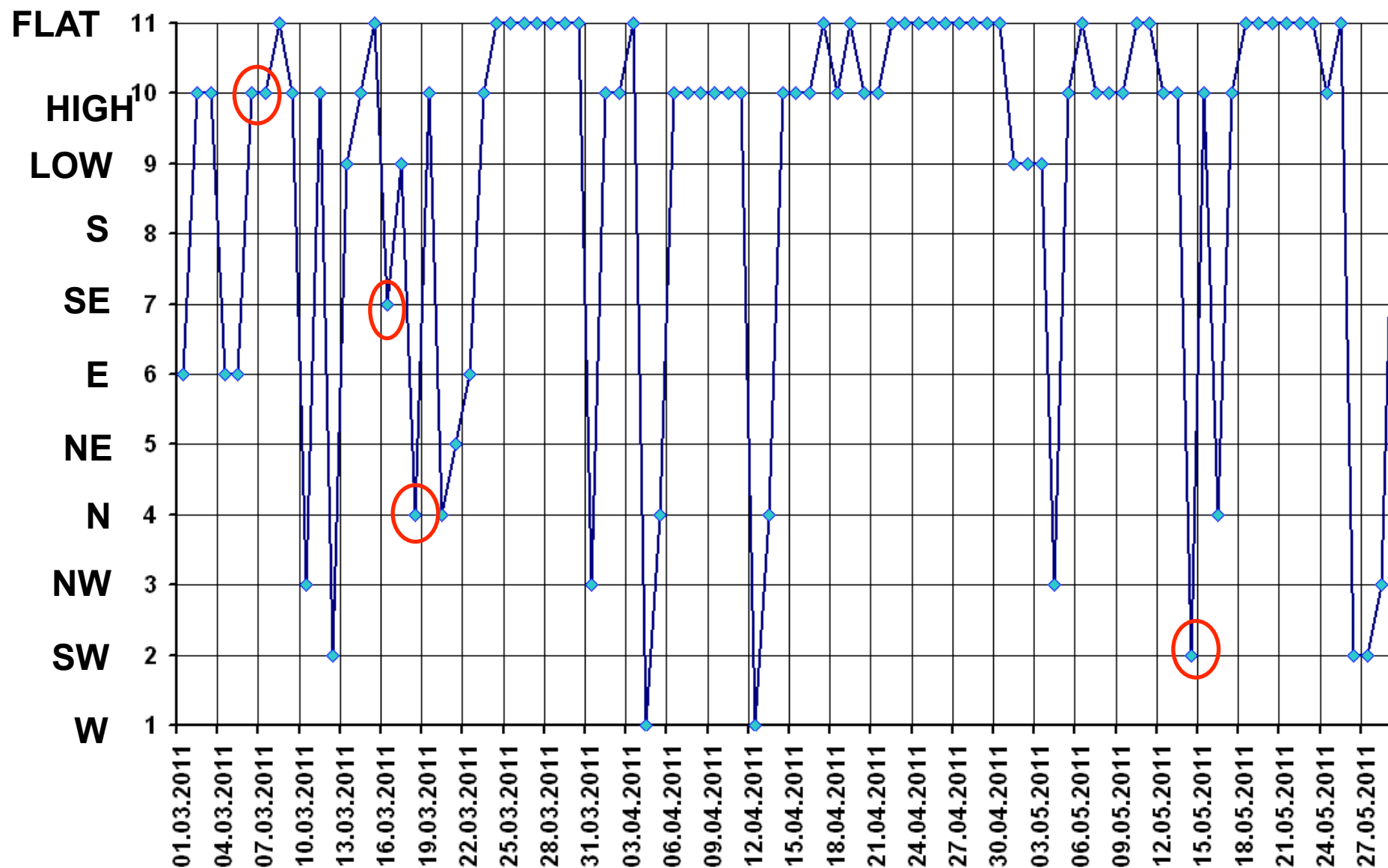


La distribuzione delle situazioni





L'evoluzione delle situazioni





6-7 marzo 2011: retour d'est

Wetterübersicht vom Sonntag

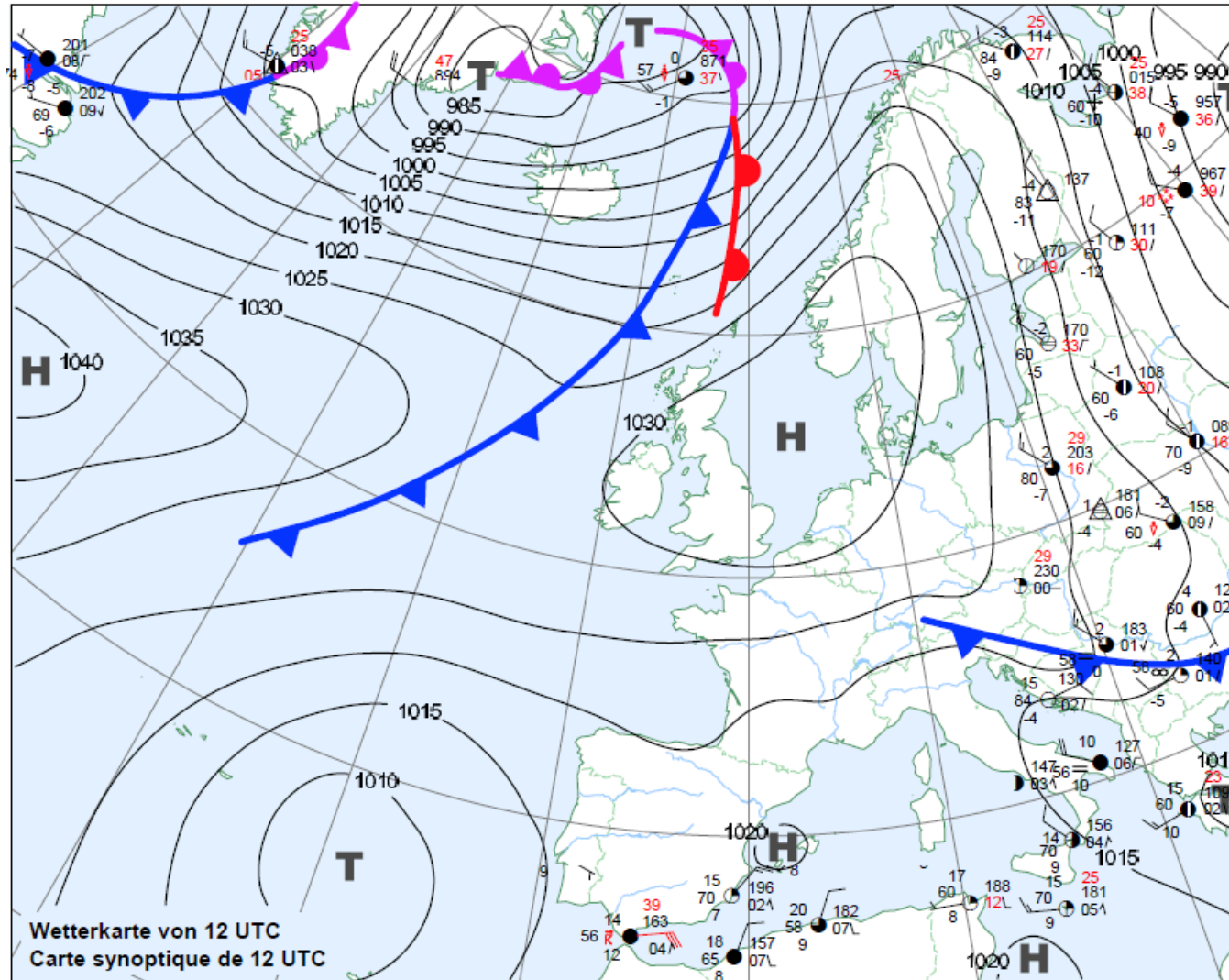
Résumé météorologique du Dimanche

6.3.2011



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6-7 marzo 2011: retour d'est

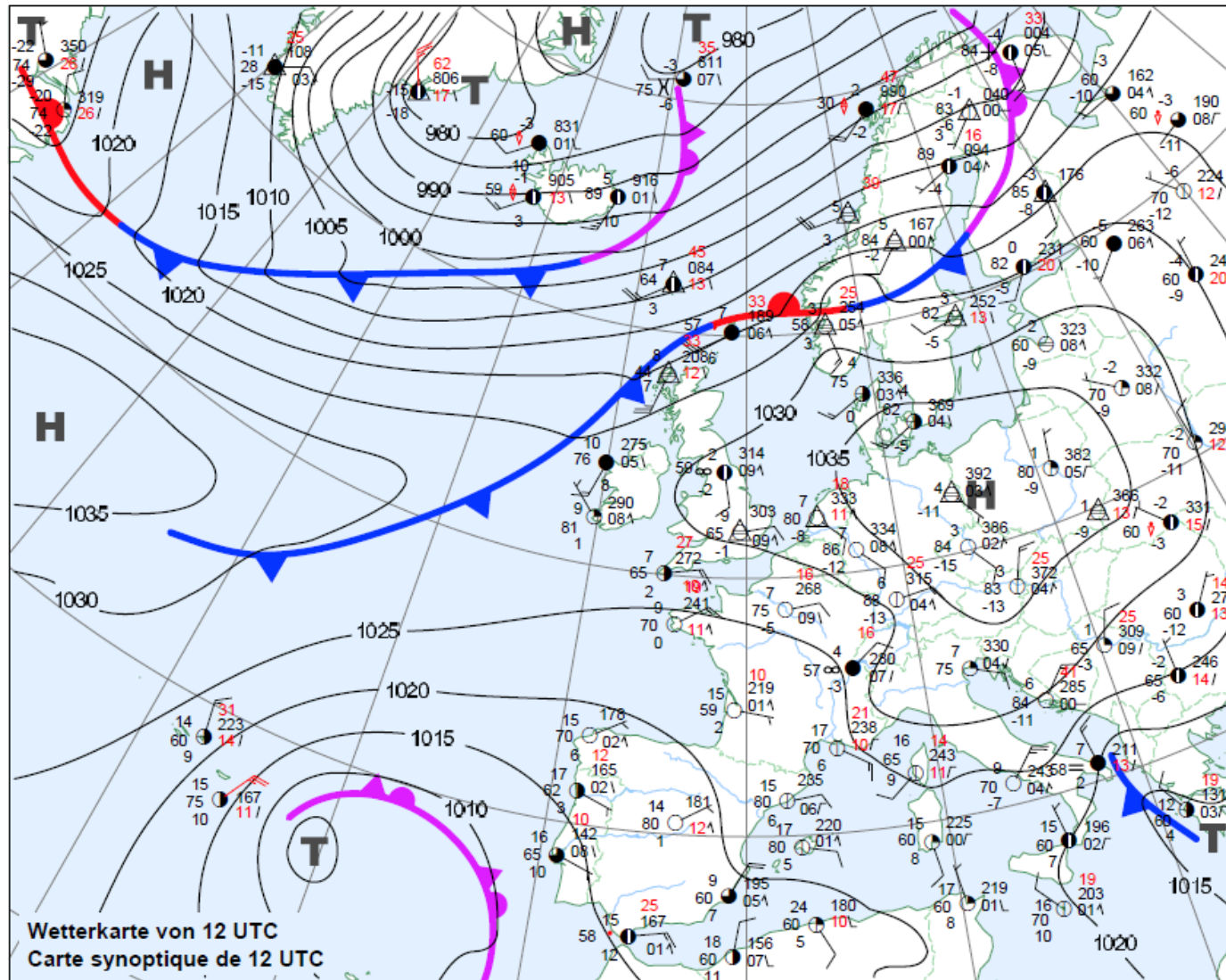
Wetterübersicht vom Montag
Résumé météorologique du Lundi

7.3.2011



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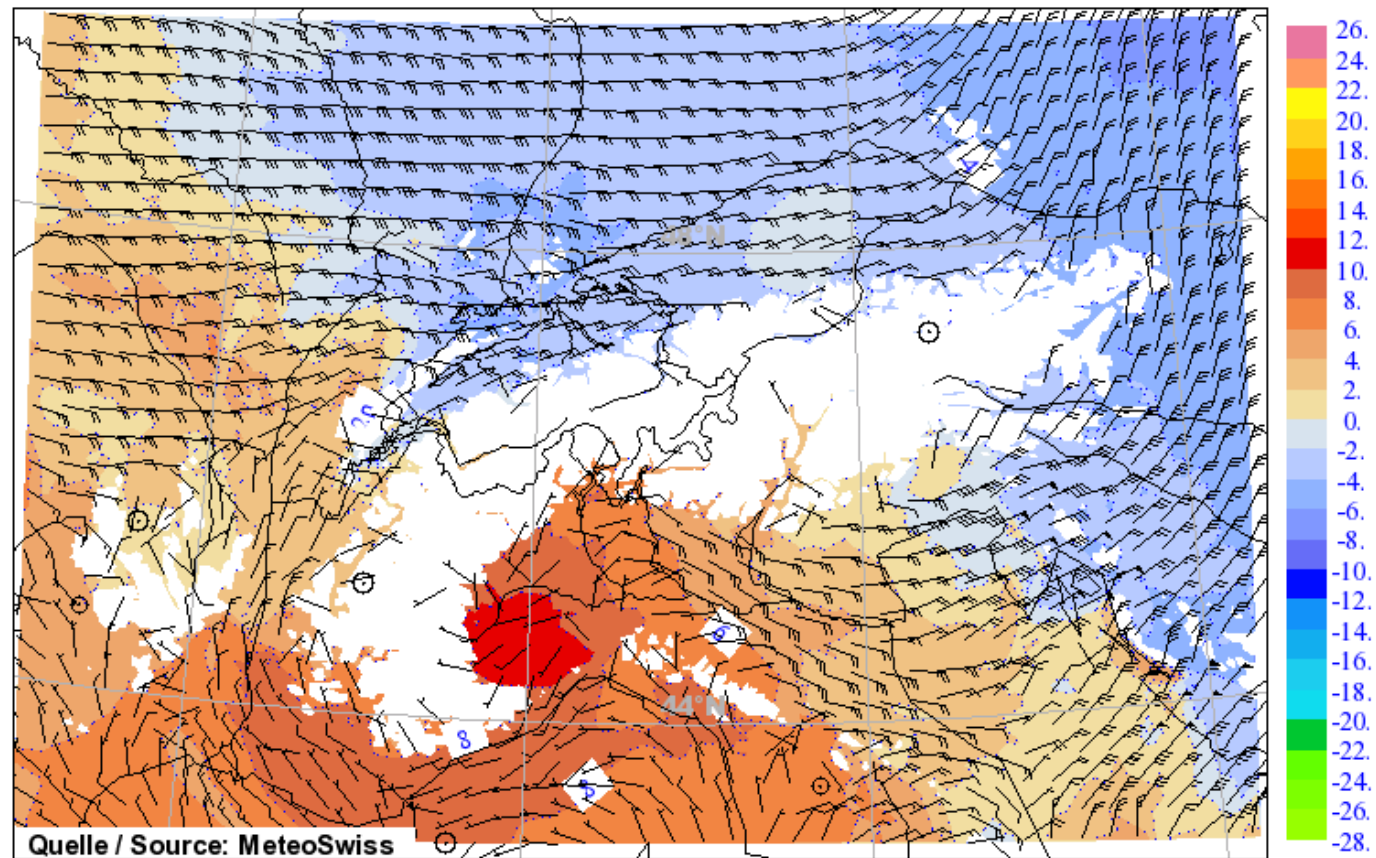
Vento e temperatura a 1000 m

COSMO-2 Analysis for: **Sun 6 Mar 2011 21 UTC**

Version: opr 2km (895)

Temperature in °C at 1km height and wind every 12 grid points

Run: 06.03.2011 21UTC+0h





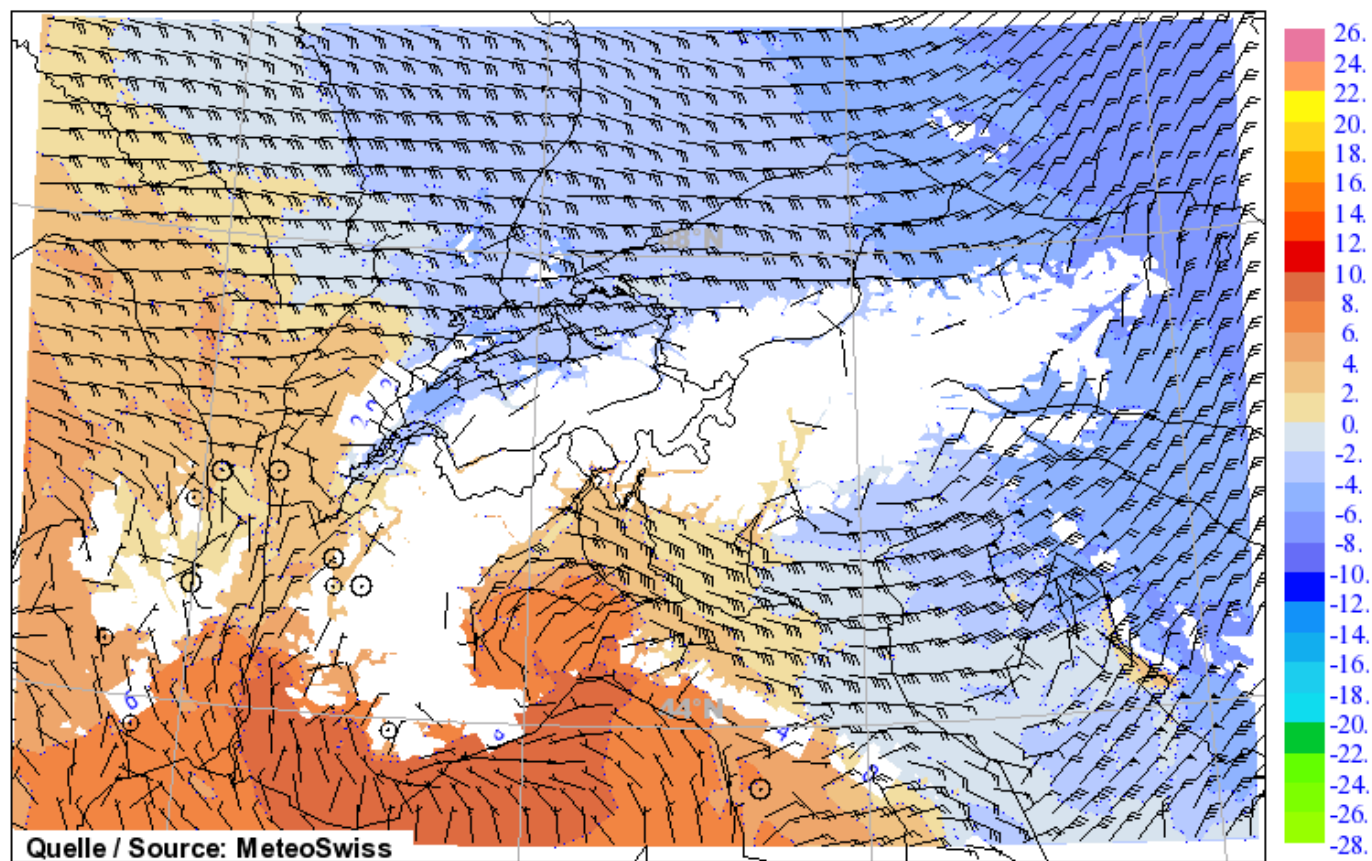
Vento e temperatura a 1000 m

COSMO-2 Forecast for: **Mon 7 Mar 2011 00 UTC**

Version: opr 2km (895)

Temperature in °C at 1km height and wind every 12 grid points

Run: 06.03.2011 21UTC+3h





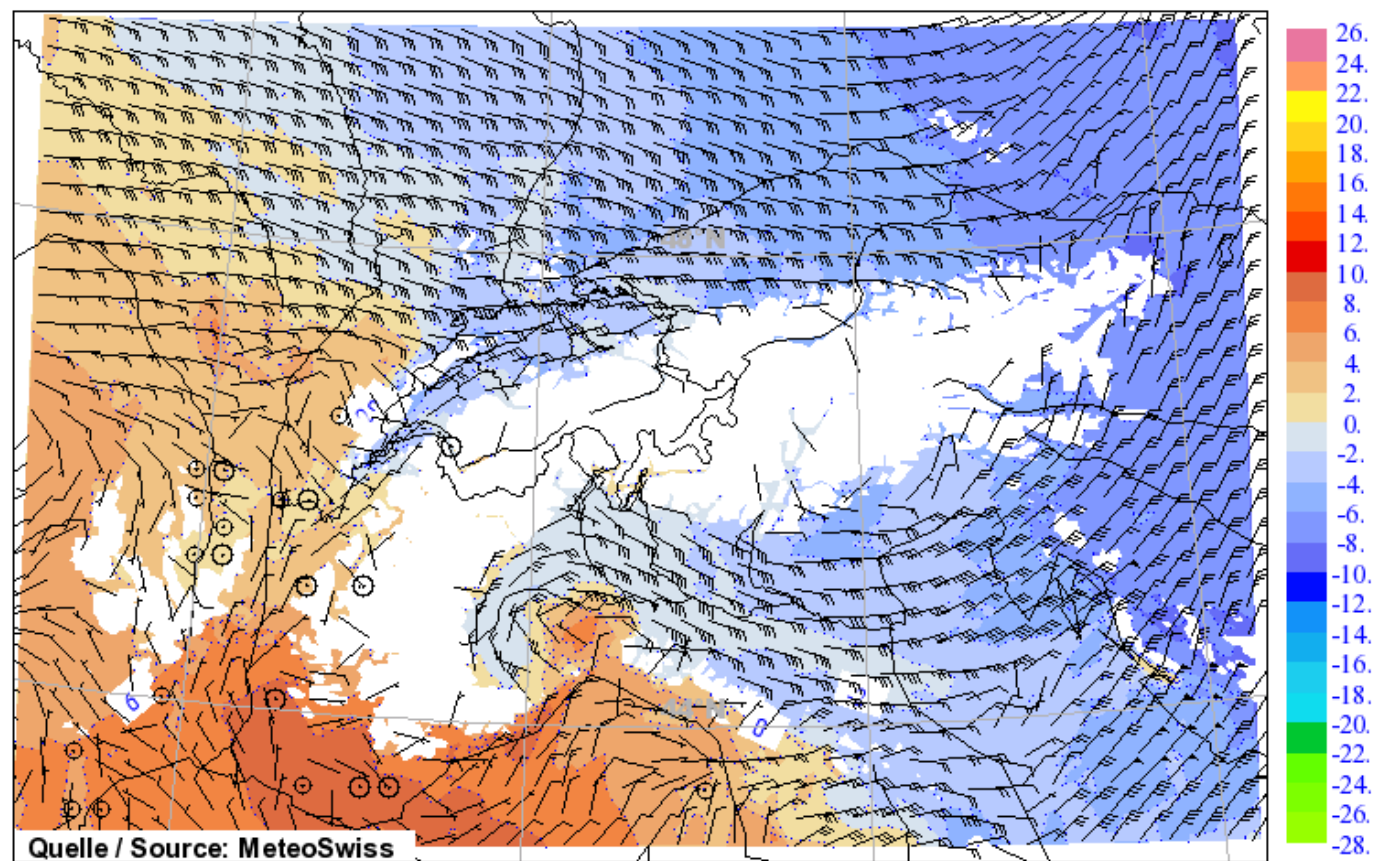
Vento e temperatura a 1000 m

COSMO-2 Forecast for: **Mon 7 Mar 2011 03 UTC**

Version: opr 2km (895)

Temperature in °C at 1km height and wind every 12 grid points

Run: 06.03.2011 21UTC+6h





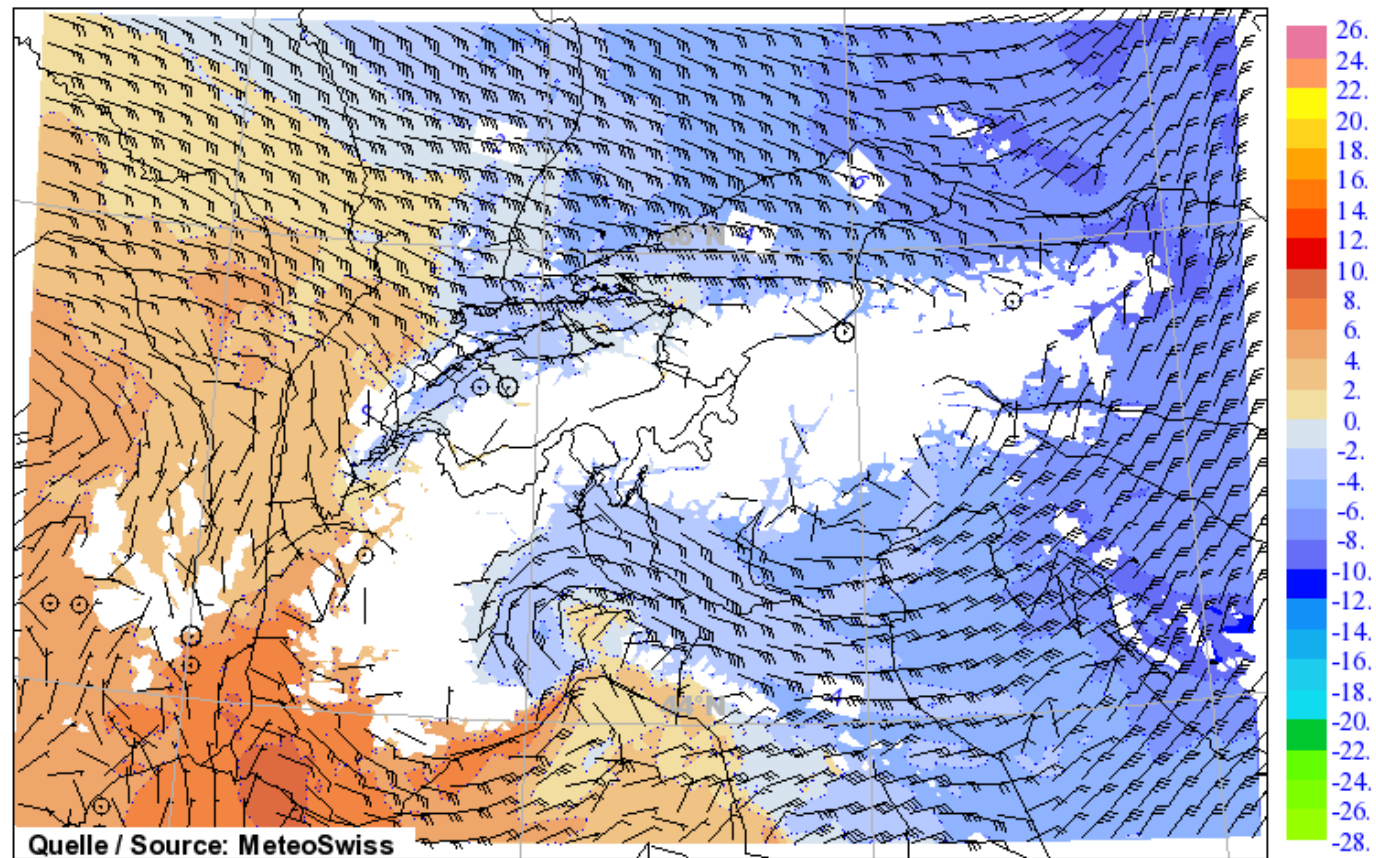
Vento e temperatura a 1000 m

COSMO-2 Forecast for: **Mon 7 Mar 2011 06 UTC**

Version: opr 2km (895)

Temperature in °C at 1km height and wind every 12 grid points

Run: 06.03.2011 21UTC+9h





Tendenza della pressione al suolo

COSMO-2 Forecast for: **Mon 7 Mar 2011 00 UTC**

Version: opr 2km (895)

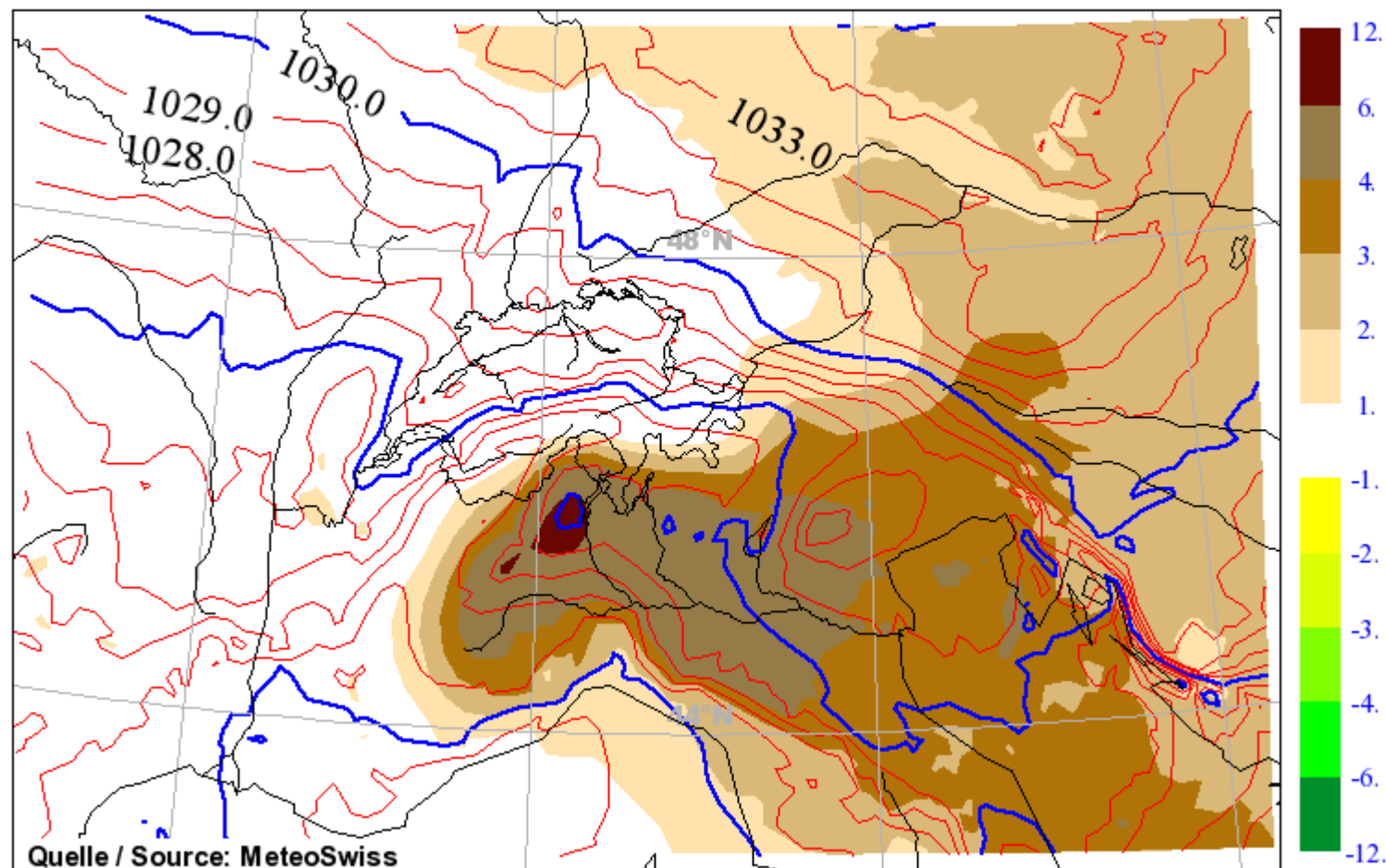
Sea Surface Pressure

Mean: 1026.44 hPa

Surface Pressure Tendency

Mean: 1.571 hPa/3h

Run: 06.03.2011 21UTC+3h





Tendenza della pressione al suolo

COSMO-2 Forecast for: **Mon 7 Mar 2011 03 UTC**

Version: opr 2km (895)

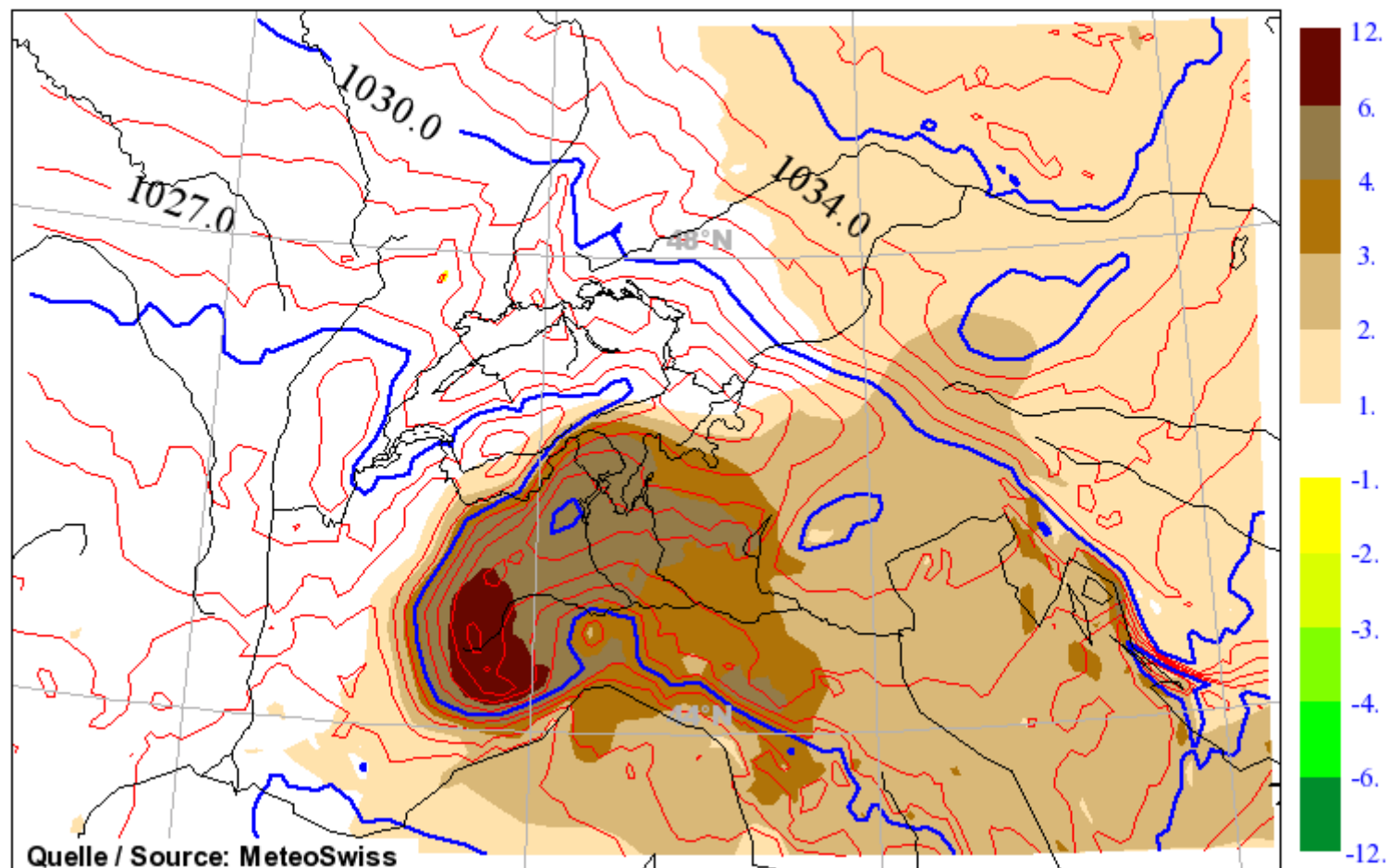
Sea Surface Pressure

Mean: 1027.831 hPa

Surface Pressure Tendency

Mean: 1.39 hPa/3h

Run: 06.03.2011 21UTC+6h





Tendenza della pressione al suolo

COSMO-2 Forecast for: **Mon 7 Mar 2011 06 UTC**

Version: opr 2km (895)

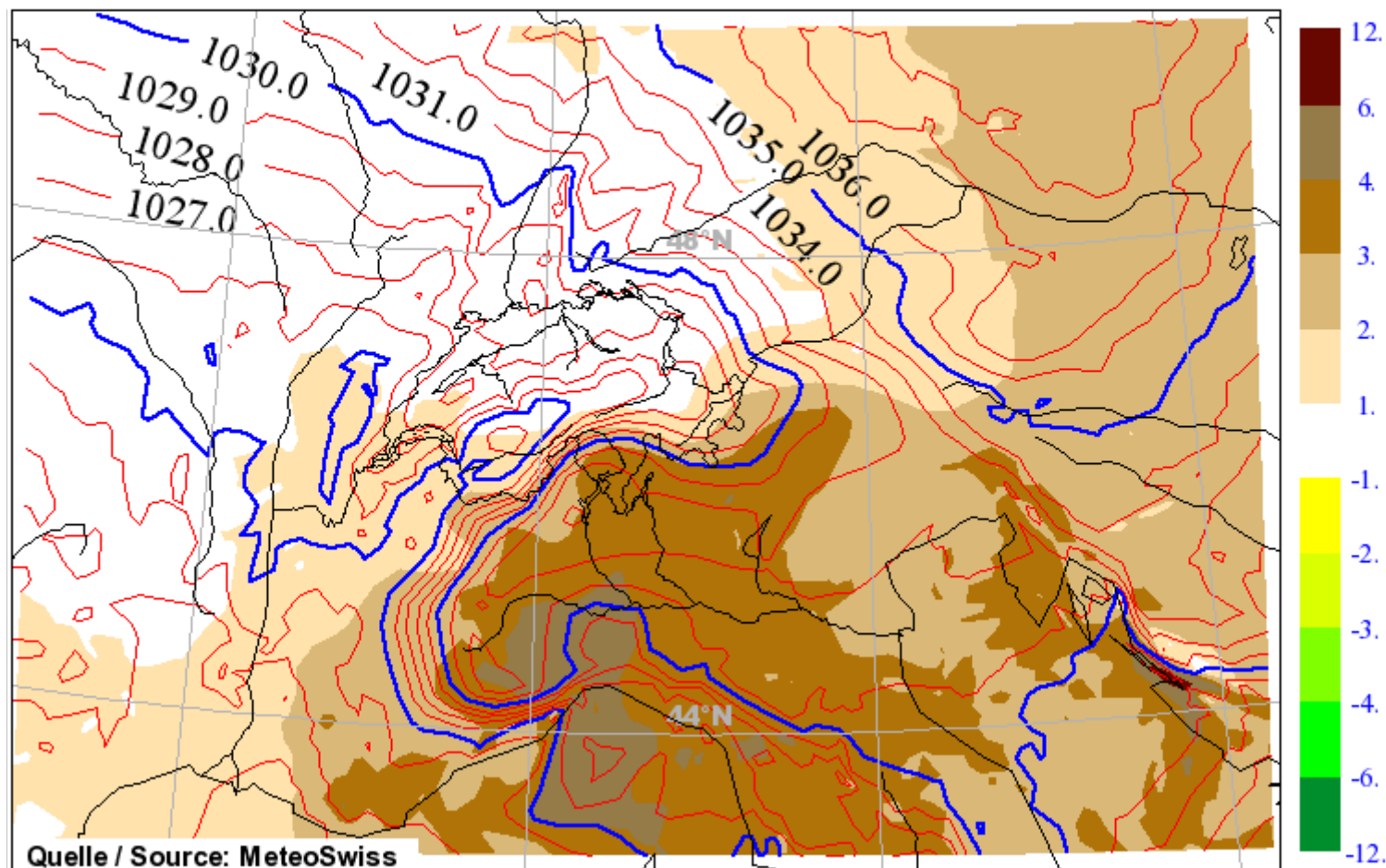
Sea Surface Pressure

Mean: 1029.697 hPa

Surface Pressure Tendency

Mean: 1.866 hPa/3h

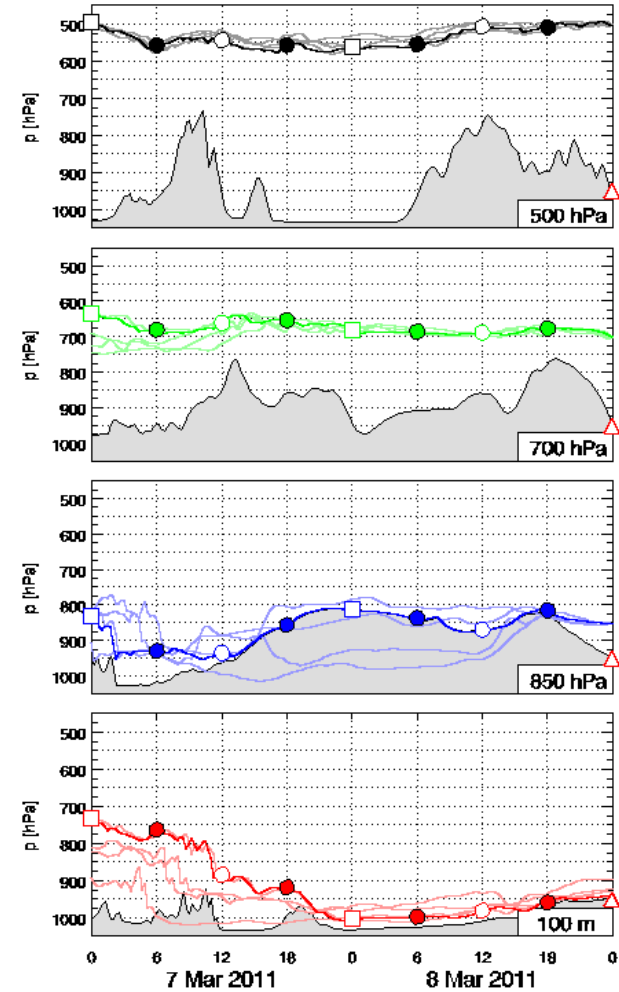
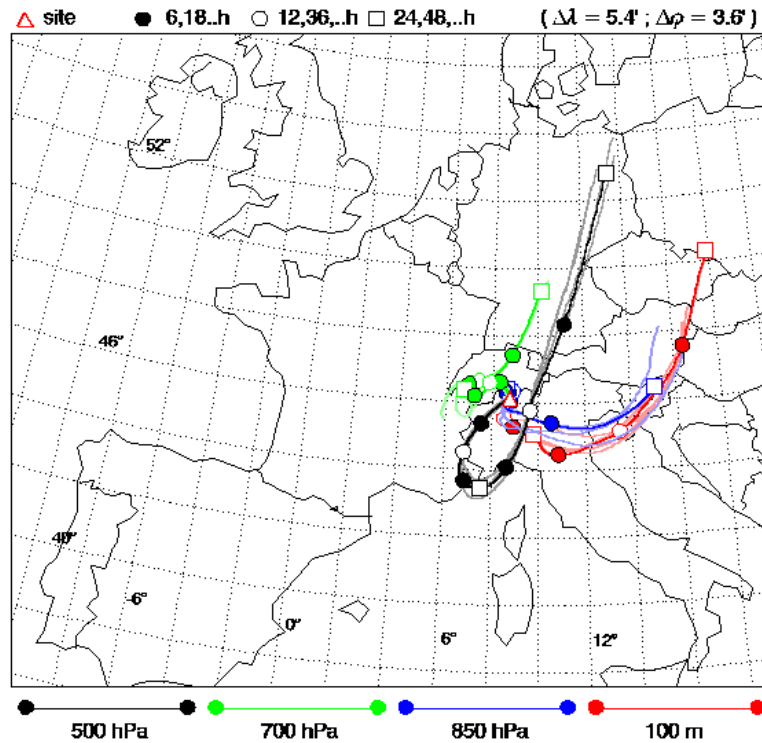
Run: 06.03.2011 21UTC+9h





Traiettorie

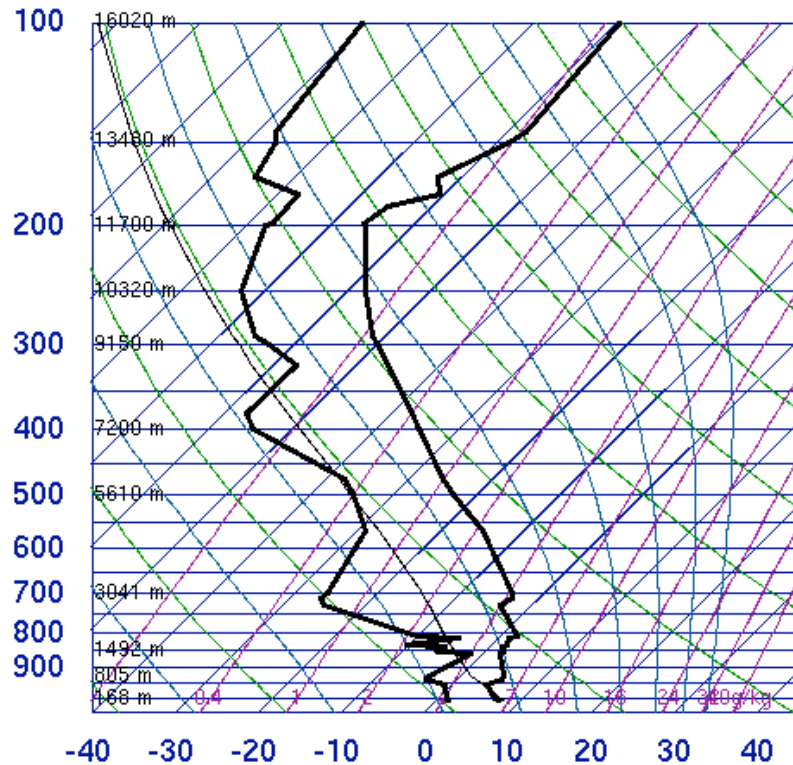
TRAJECTORIES	COSMO-7	7 Mar 2011 00 UTC
Site: LocarnoMonti (46°10' N ; 8°46' E)		
Type: Backward		
Arrival: 9 Mar 2011 00 UTC		





Rdiosondaggi: prima e dopo

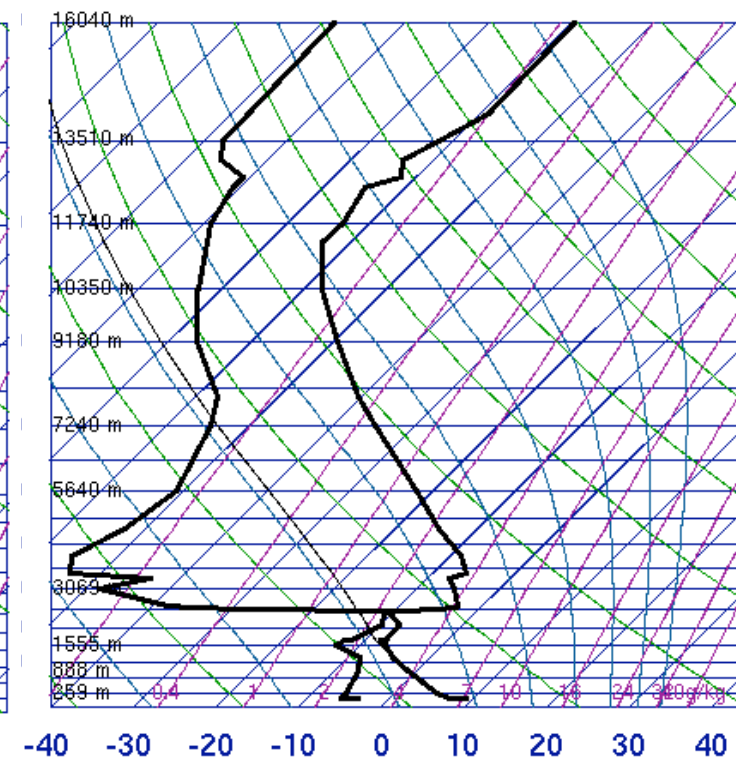
16080 LIML Milano



00Z 07 Mar 2011


University of Wyoming

16040 LIML Milano



07 Mar 2011

University of Wyoming

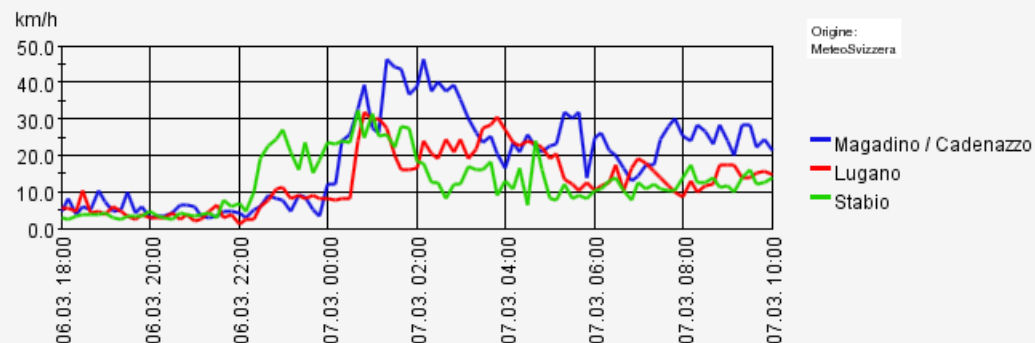


SLAT	45.43
SLON	9.28
SELV	103.0
SHOW	19.00
LIFT	17.85
LFTV	17.83
SWET	56.00
KINX	-40.9
CTOT	9.00
VTOT	15.00
TOTL	24.00
CAPE	0.00
CAPV	0.00
CINS	0.00
CINV	0.00
EQLV	-9999
EQTV	-9999
LFCT	-9999
LFV	-9999
BRCH	0.00
BRCV	0.00
LCLT	264.8
LCLP	840.9
MLTH	278.3
MLMR	2.45
THCK	5381.
PWAT	6.43

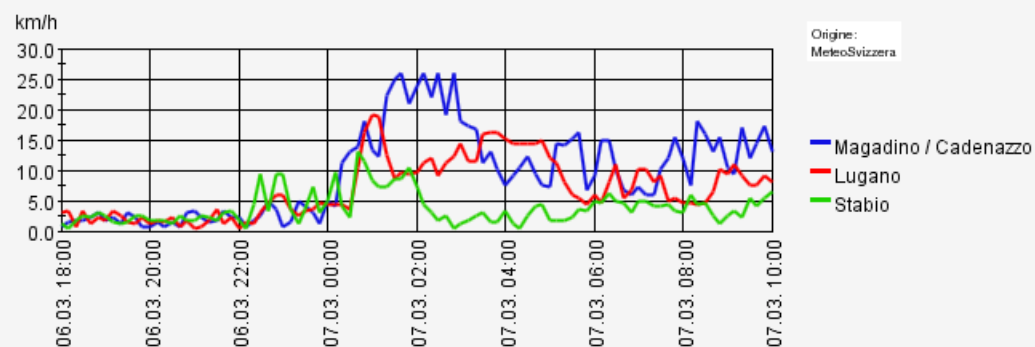


Vento a 10 m

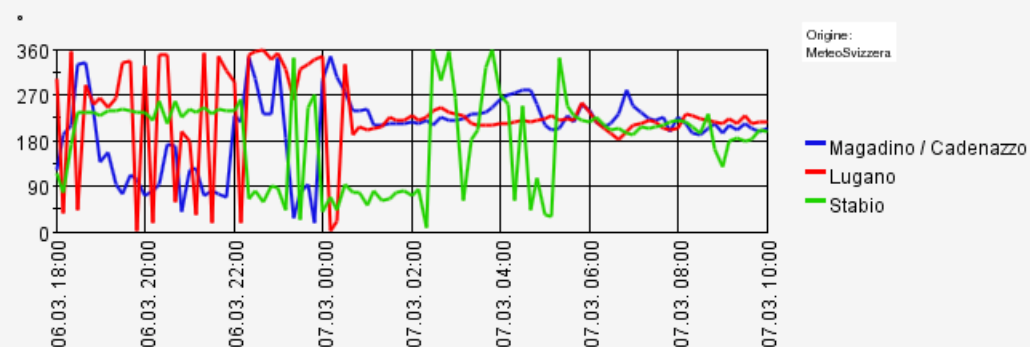
Raffica del vento (su un secondo); massima [km/h] 06.03.2011 18:00 UTC - 07.03.2011 10:00 UTC



Velocità del vento; media su 10' [km/h] 06.03.2011 18:00 UTC - 07.03.2011 10:00 UTC

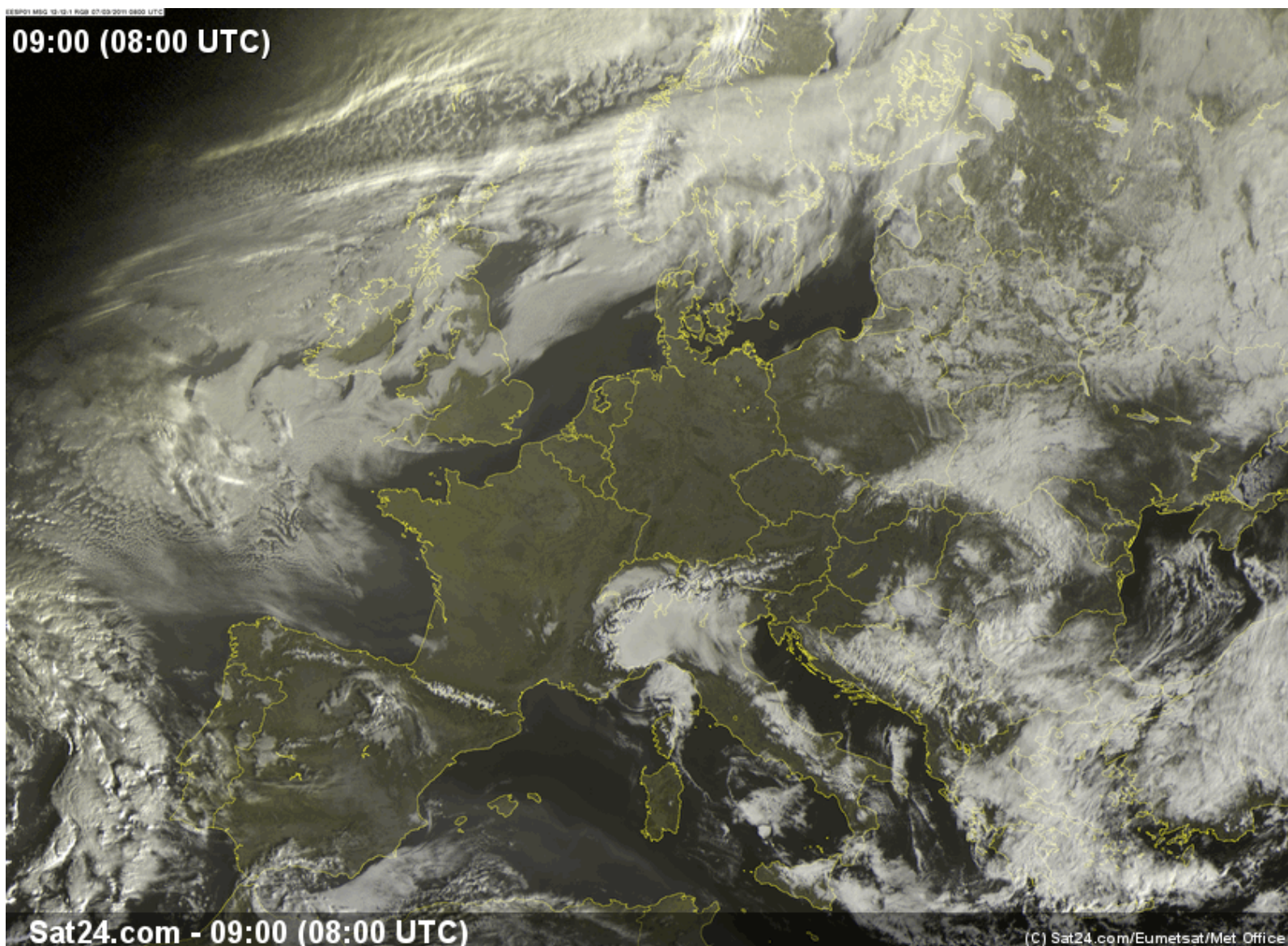


Direzione del vento; media su 10' [°] 06.03.2011 18:00 UTC - 07.03.2011 10:00 UTC





Dal satellite





Dalla webcam

2011-03-07 05:00 UTC



MeteoSwiss

2011-03-07 06:00 UTC



MeteoSwiss

2011-03-07 07:00 UTC



MeteoSwiss



15-16.3 depressione sul Golfo di Genova

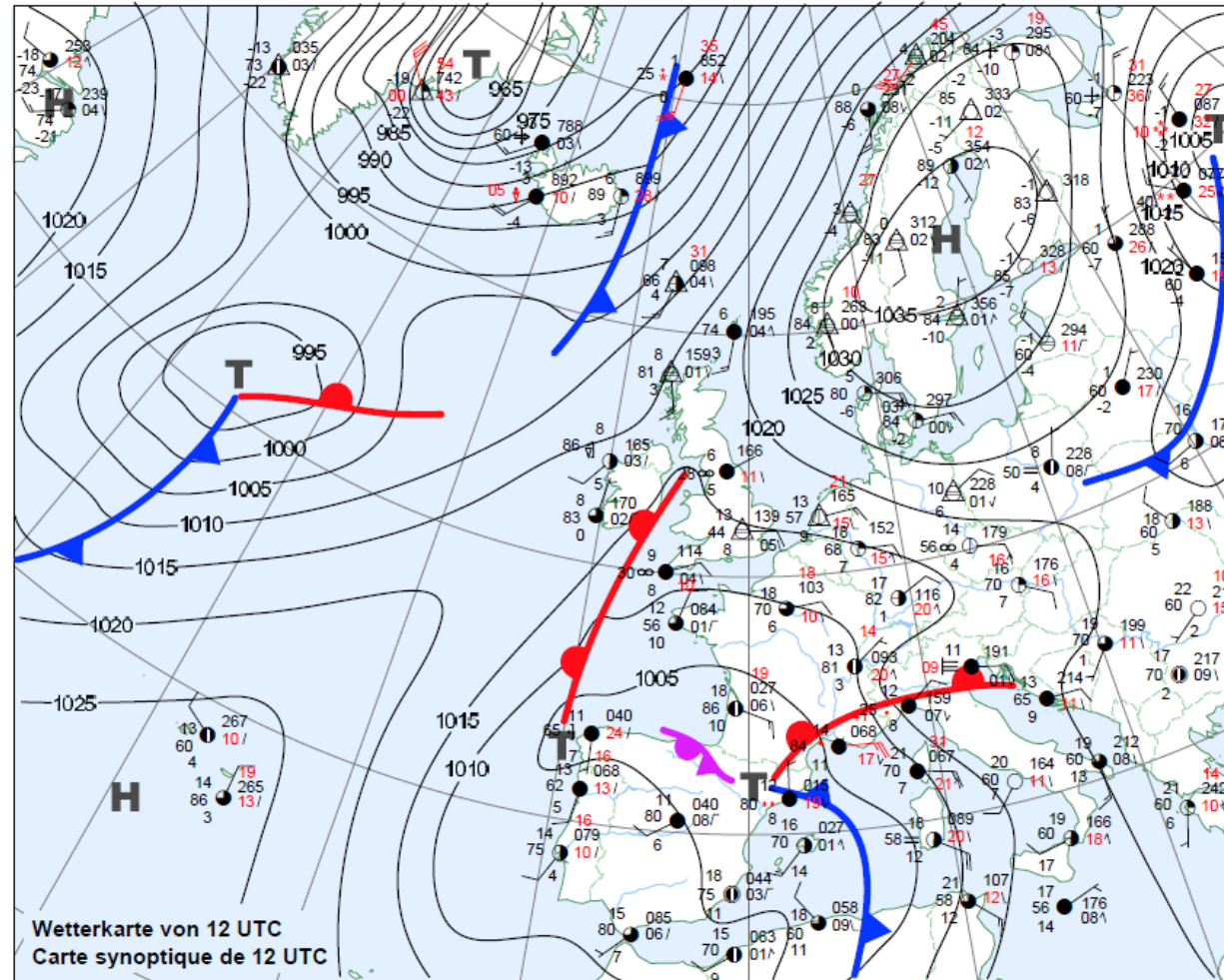
Wetterübersicht vom Dienstag
Résumé météorologique du Mardi

15.3.2011



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15-16.3 depressione sul Golfo di Genova

Wetterübersicht vom Mittwoch

Résumé météorologique du Mercredi

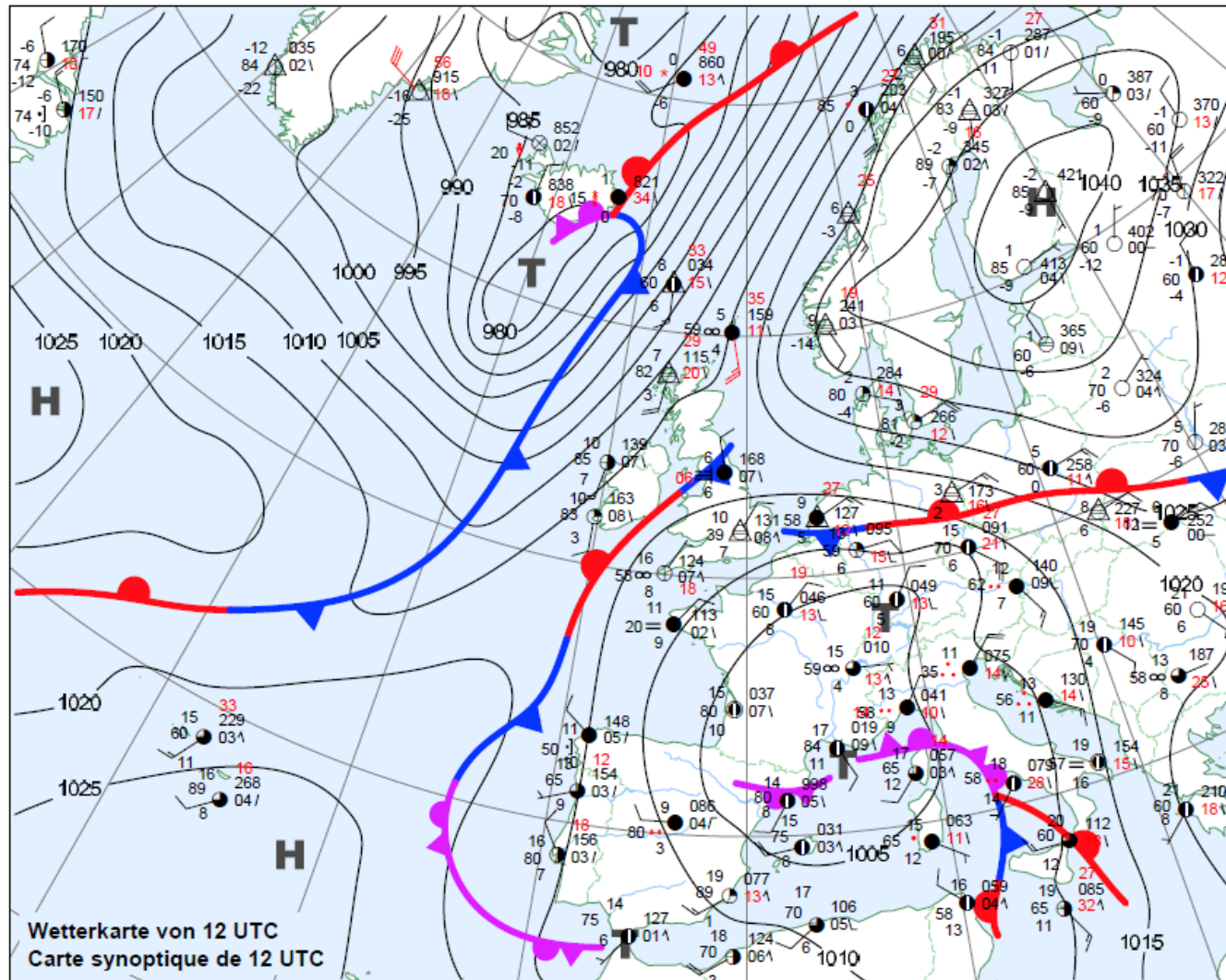
16.3.2011



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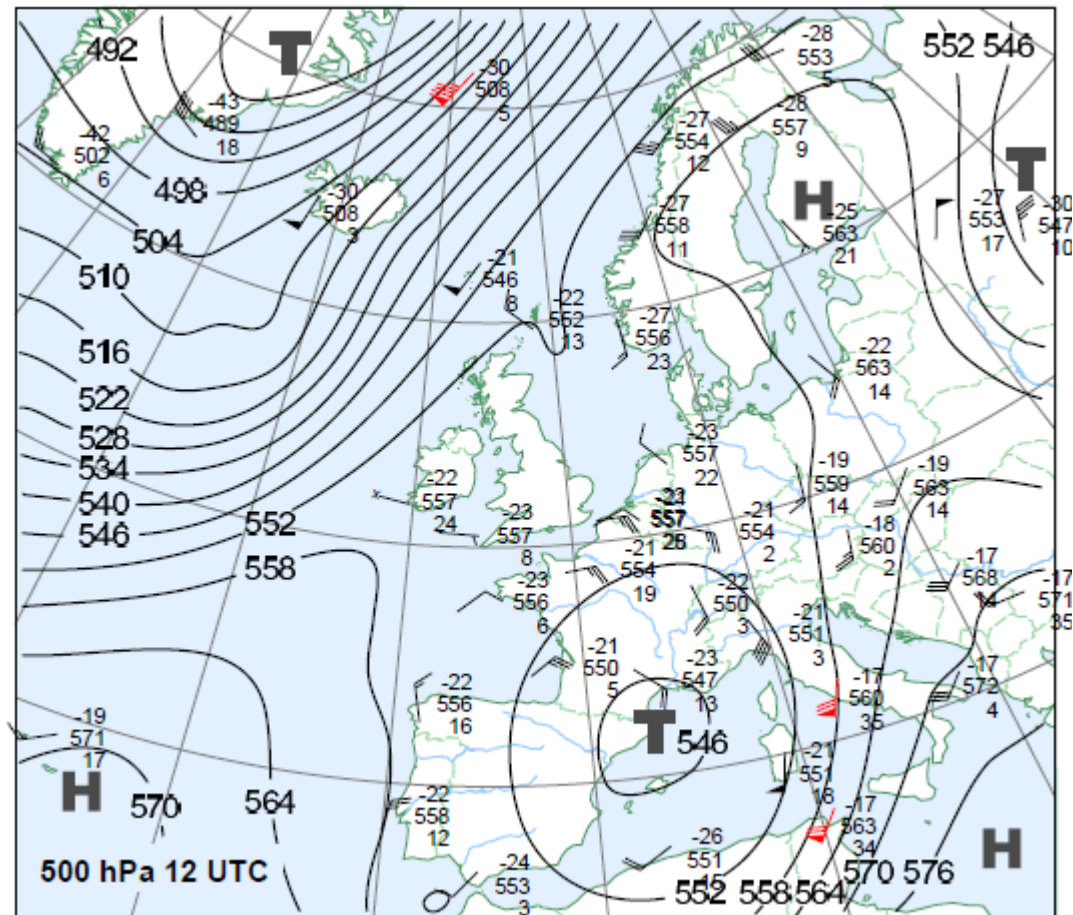
Eidgenössisches Departement des Innern EDI
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Bundesamt für Meteorologie und Klimatologie MeteoSchweiz
Office fédéral de météorologie et de climatologie MétéoSuisse





15-16.3 depressione sul Golfo di Genova





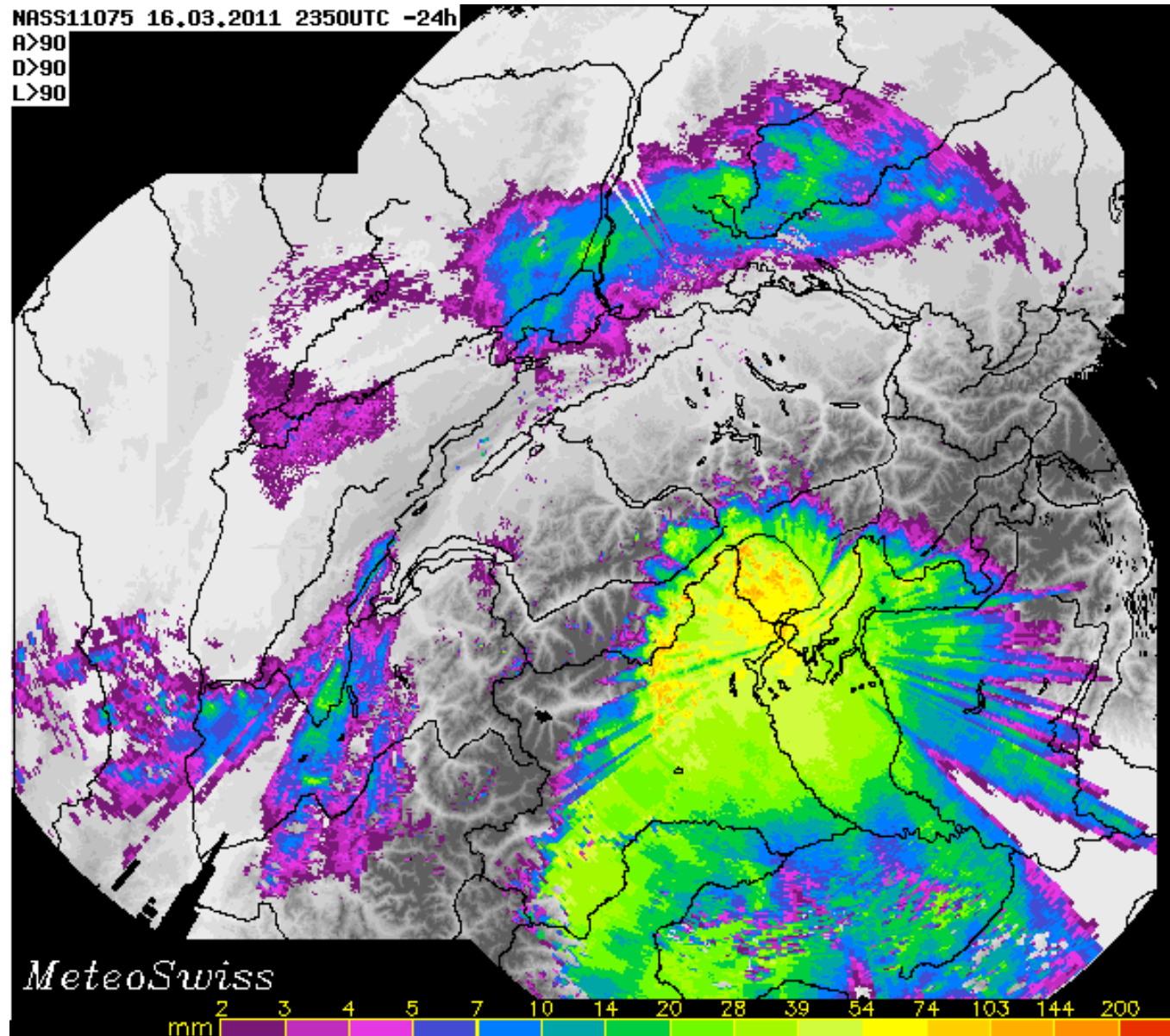
Radar

NASS11075 16.03.2011 2350UTC -24h

A>90

D>90

L>90





19.3.2011: i primi temporali

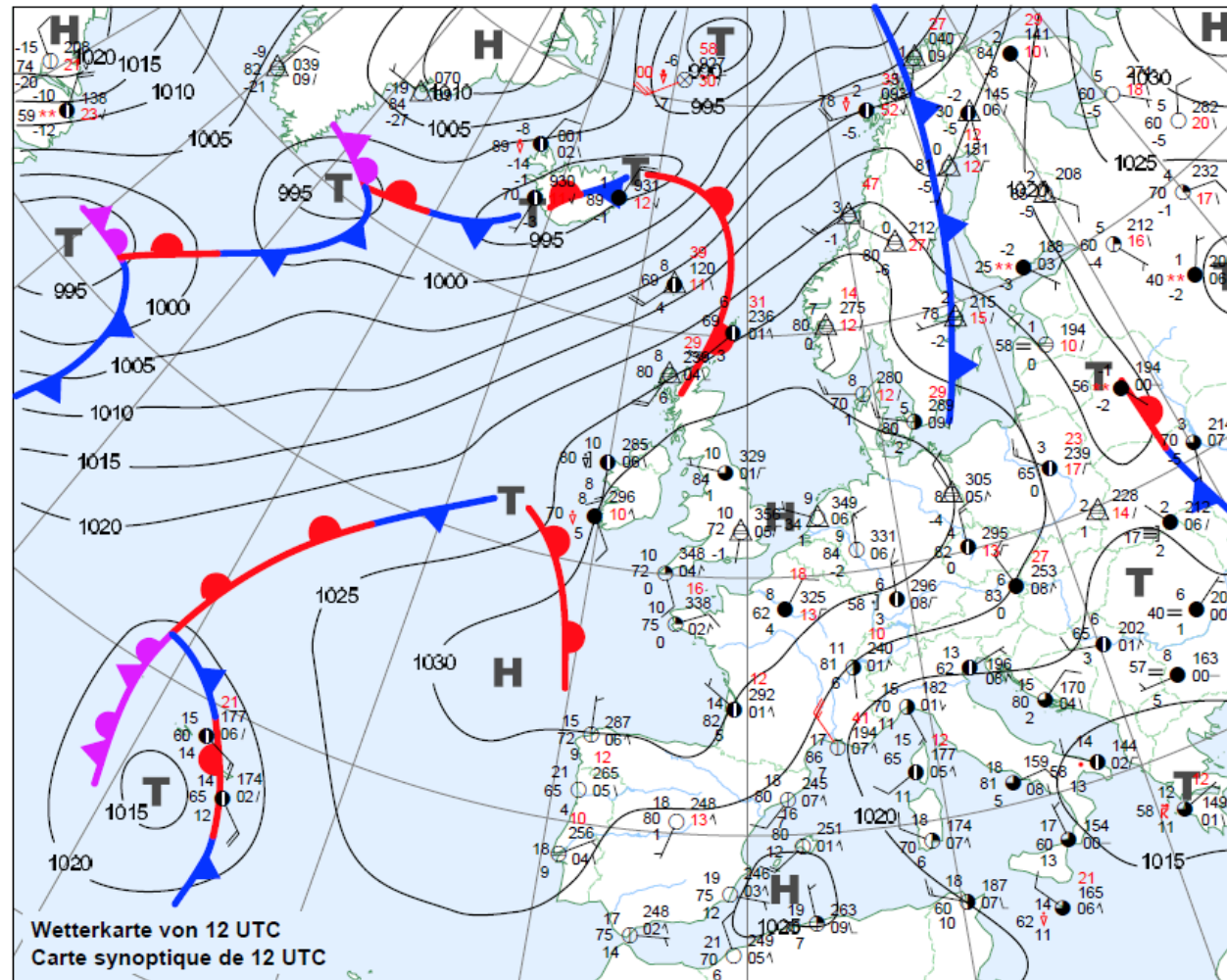
Wetterübersicht vom Samstag
Résumé météorologique du Samedi

19.3.2011



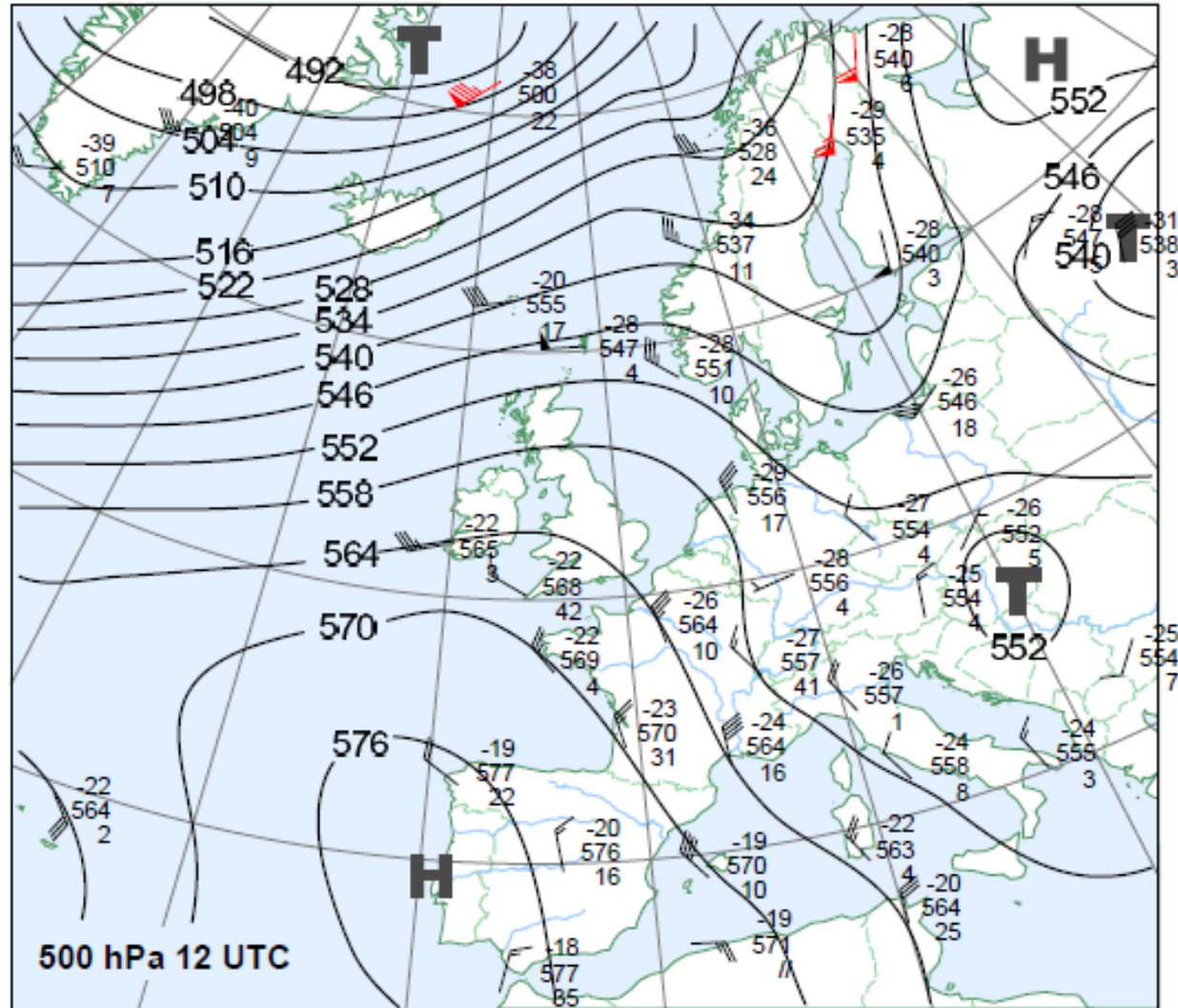
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19.3.2011: i primi temporali





Dal satellite

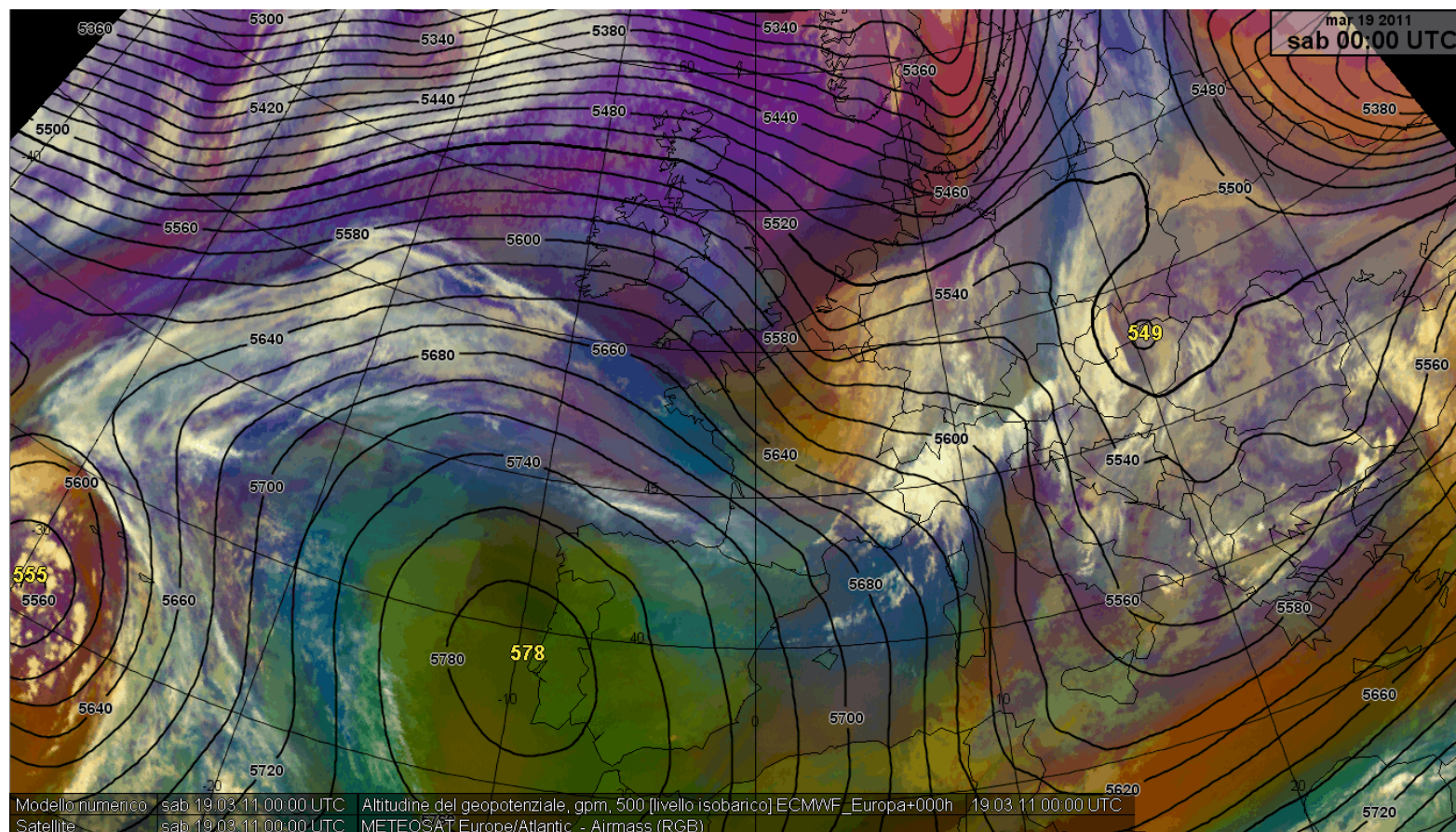
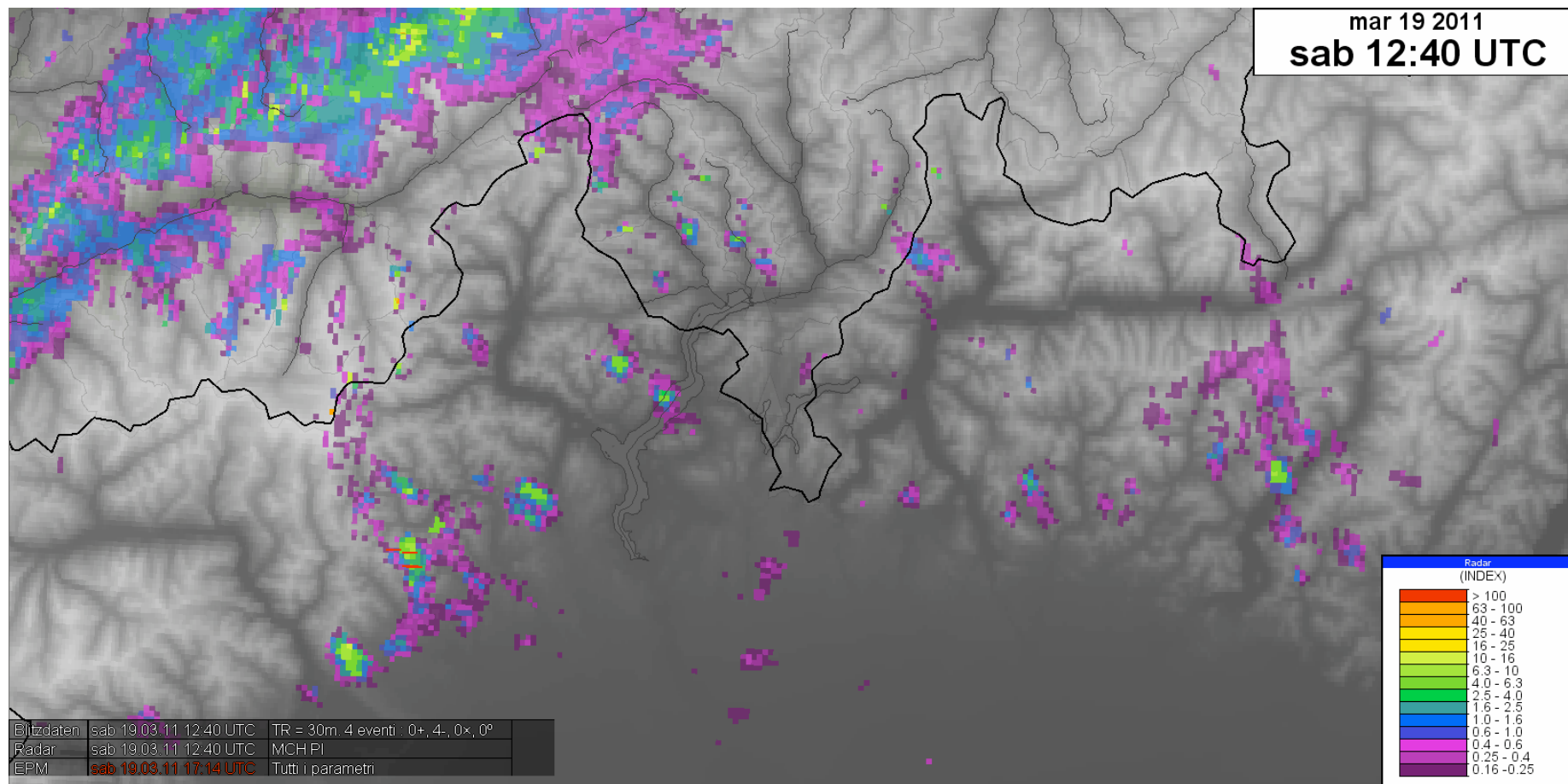




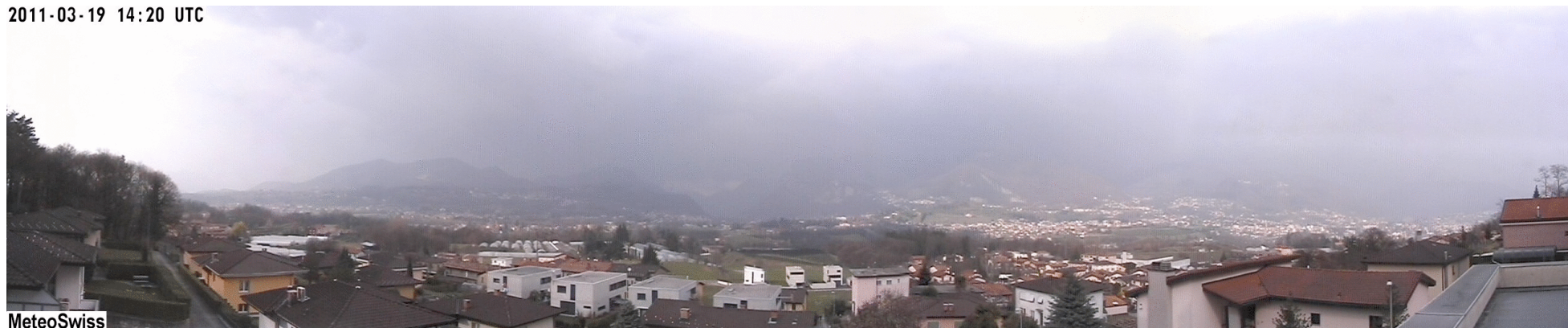
Immagine radar con fulmini





Dalla webcam

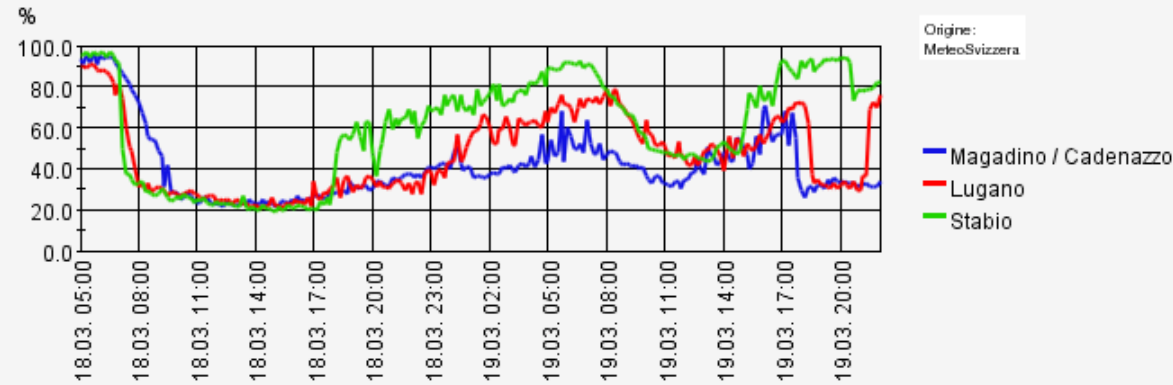
2011-03-19 14:20 UTC



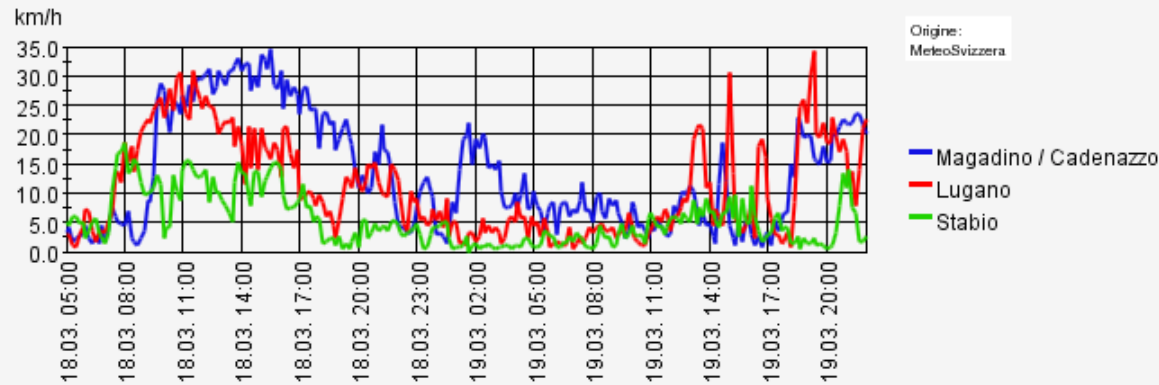
MeteoSwiss

Valori al suolo

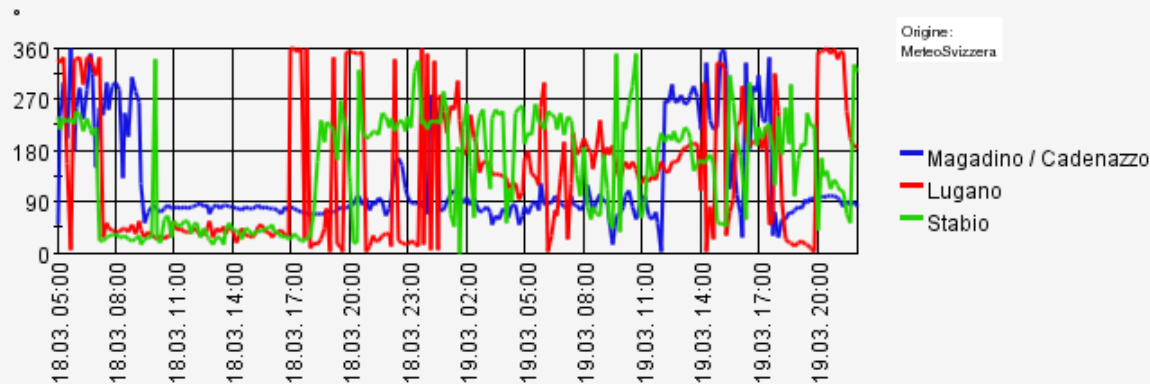
Umidità relativa dell'aria a 2 m; valore momentaneo [%] 18.03.2011 05:00 UTC - 19.03.2011 22:00 UTC



Velocità del vento; media su 10' [km/h] 18.03.2011 05:00 UTC - 19.03.2011 22:00 UTC



Direzione del vento; media su 10' [°] 18.03.2011 05:00 UTC - 19.03.2011 22:00 UTC





14-15 maggio 2011: passaggio

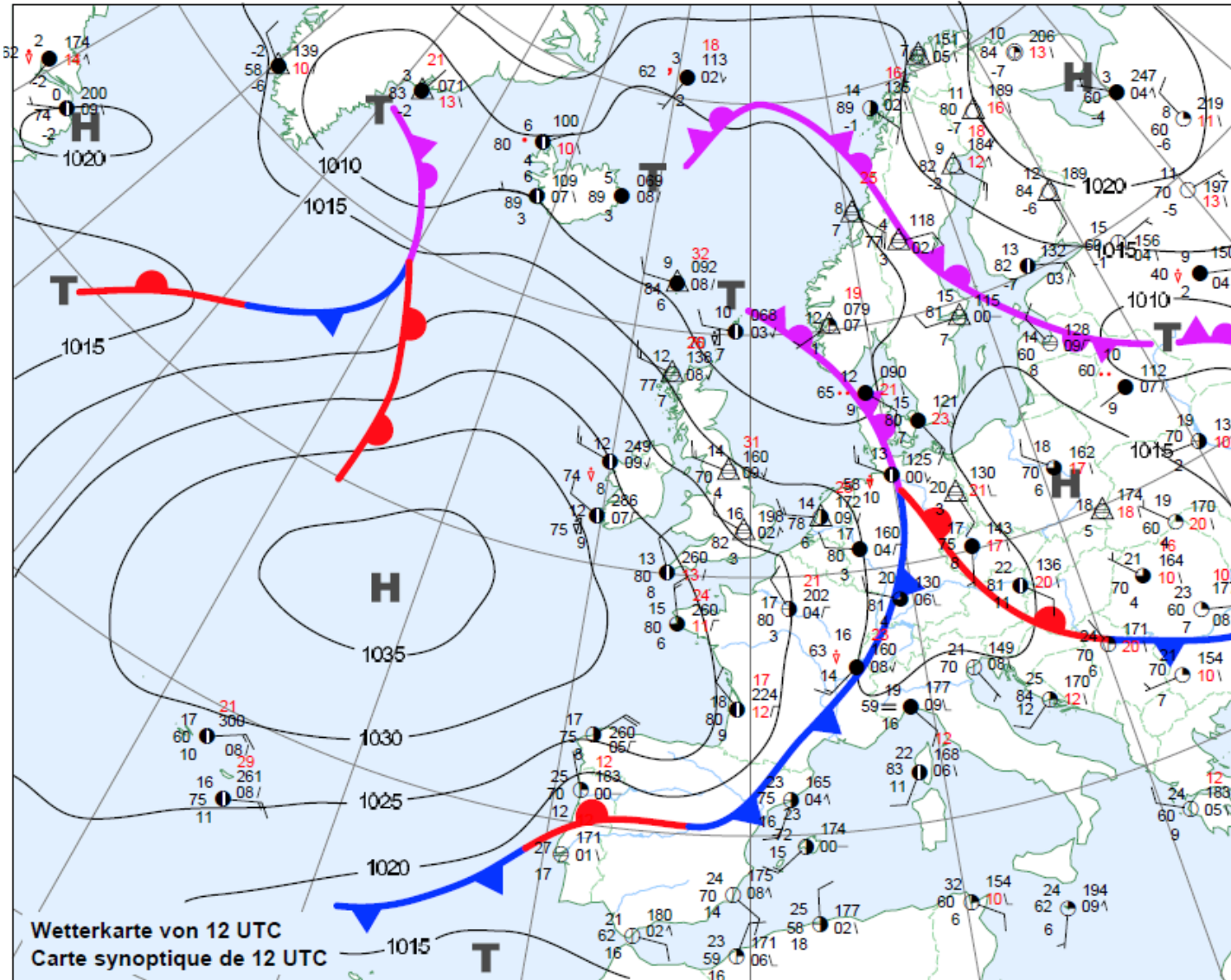
f Wetterübersicht vom Samstag
f Résumé météorologique du Samedi

14.5.2011



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14-15 maggio 2011: passaggio

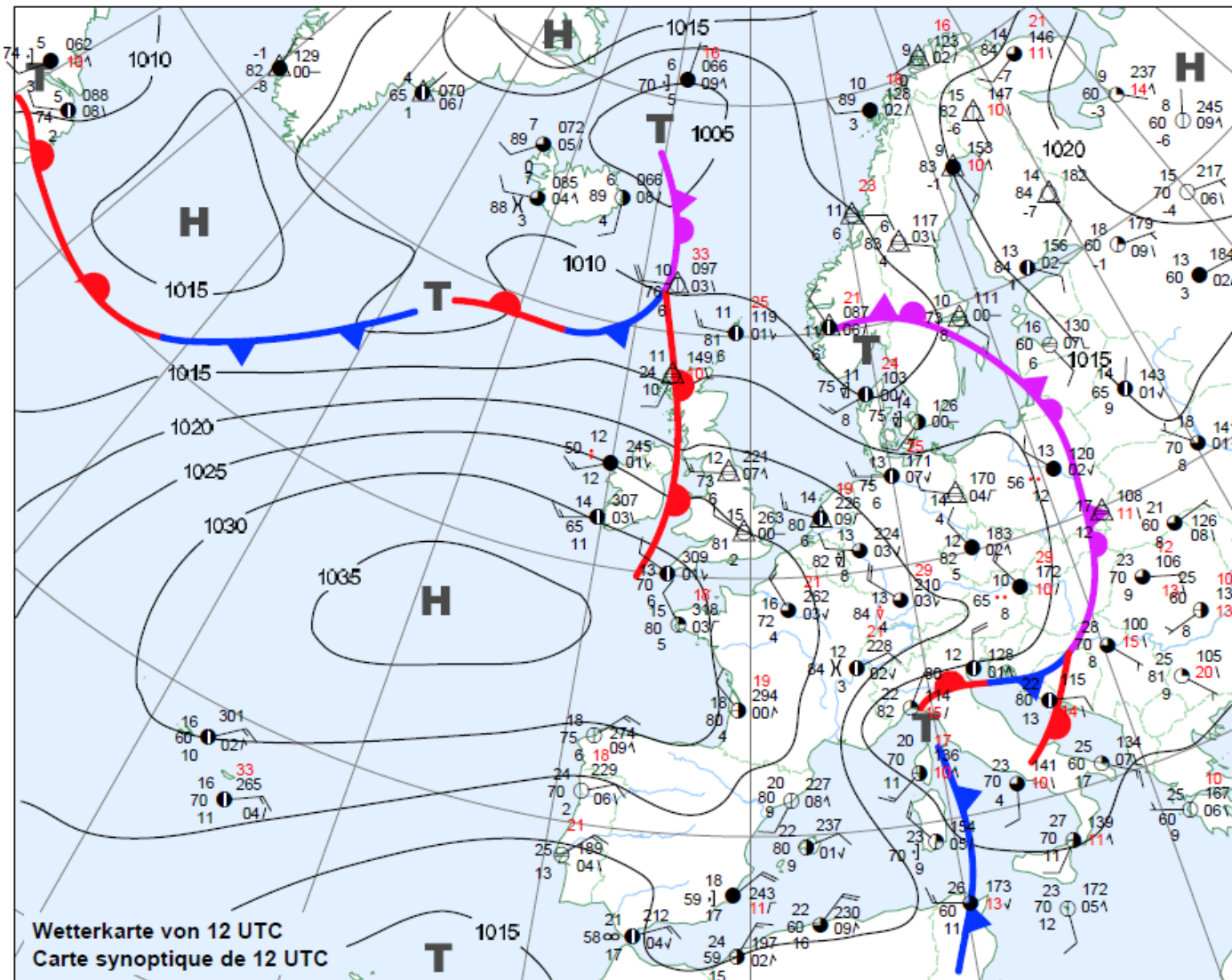
f Wetterübersicht vom Sonntag
Résumé météorologique du Dimanche

15.5.2011



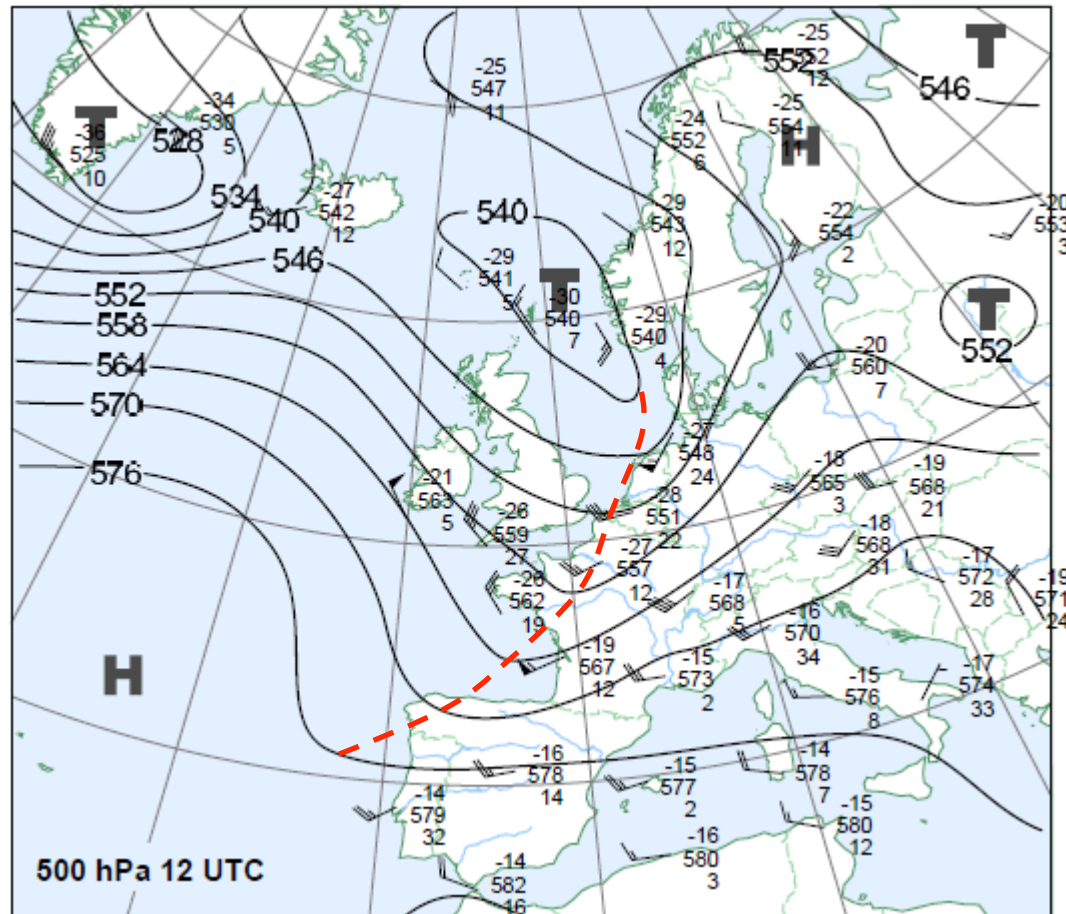
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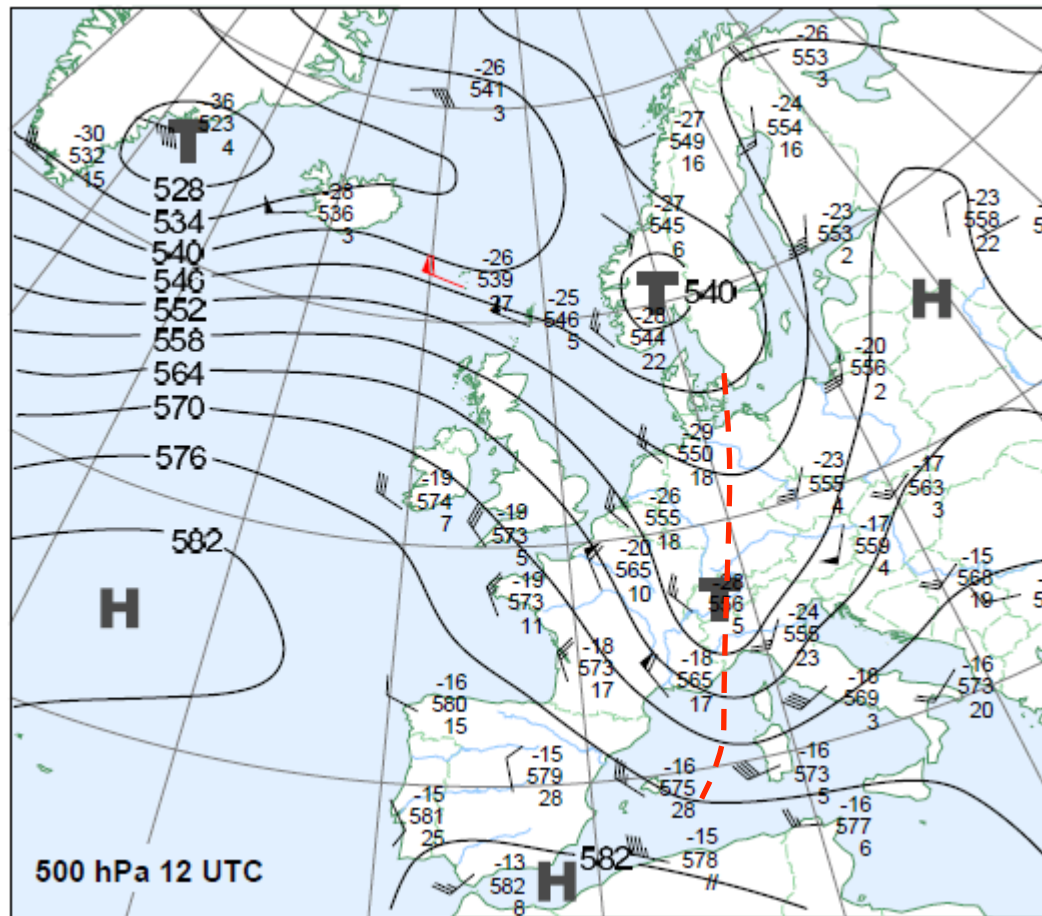


Z@500hPa: 14.5.2011



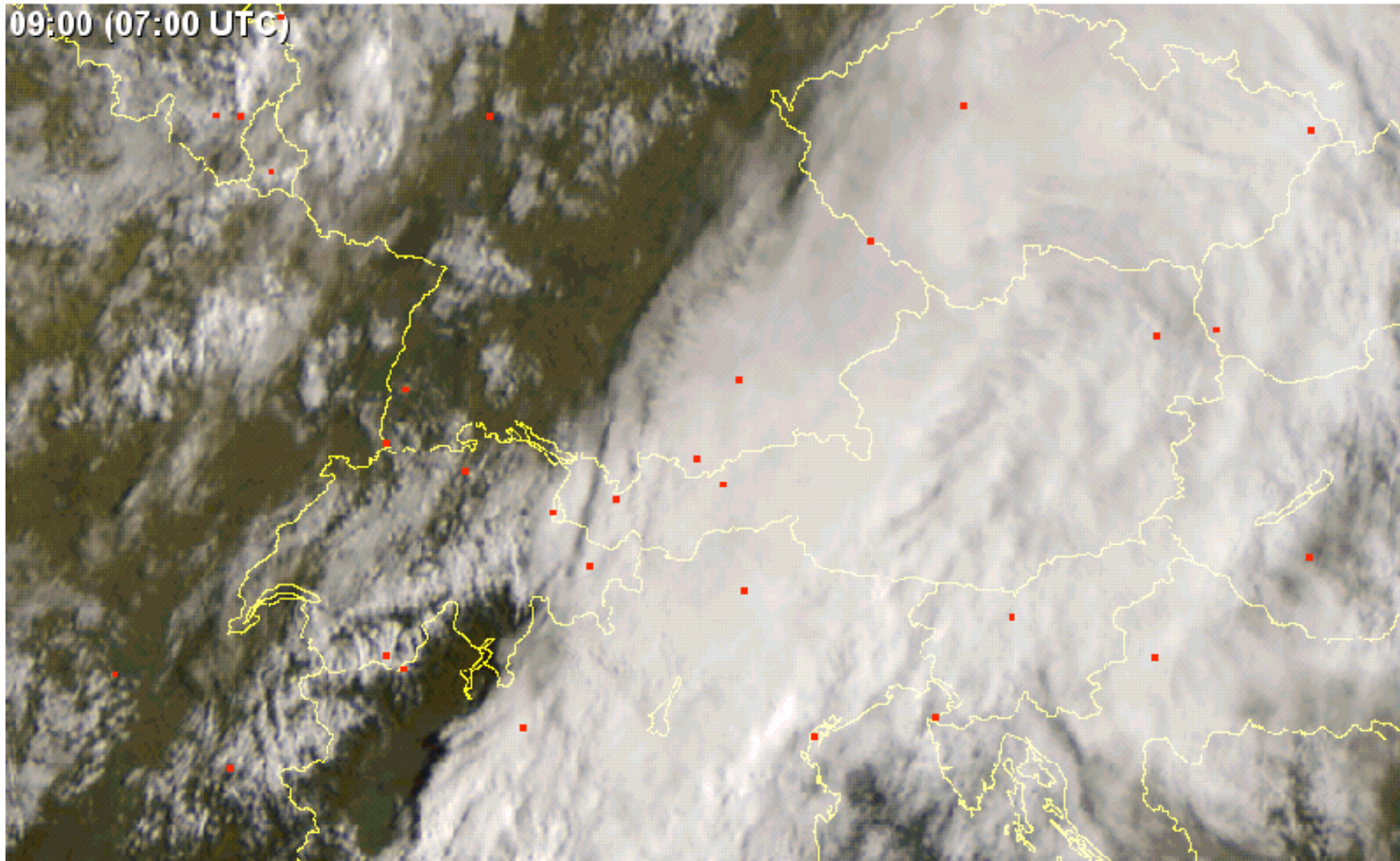


Z@500hPa: 15.5.2011





15 maggio 2011: passaggio frontale





Foto



Foto: Mauro Guerini



Foto

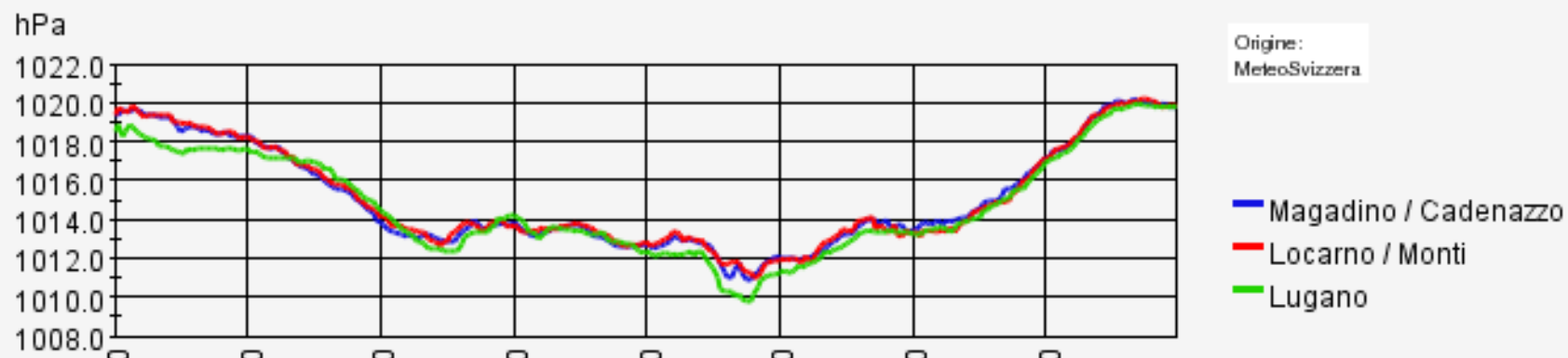


Foto: Mauro Guerini

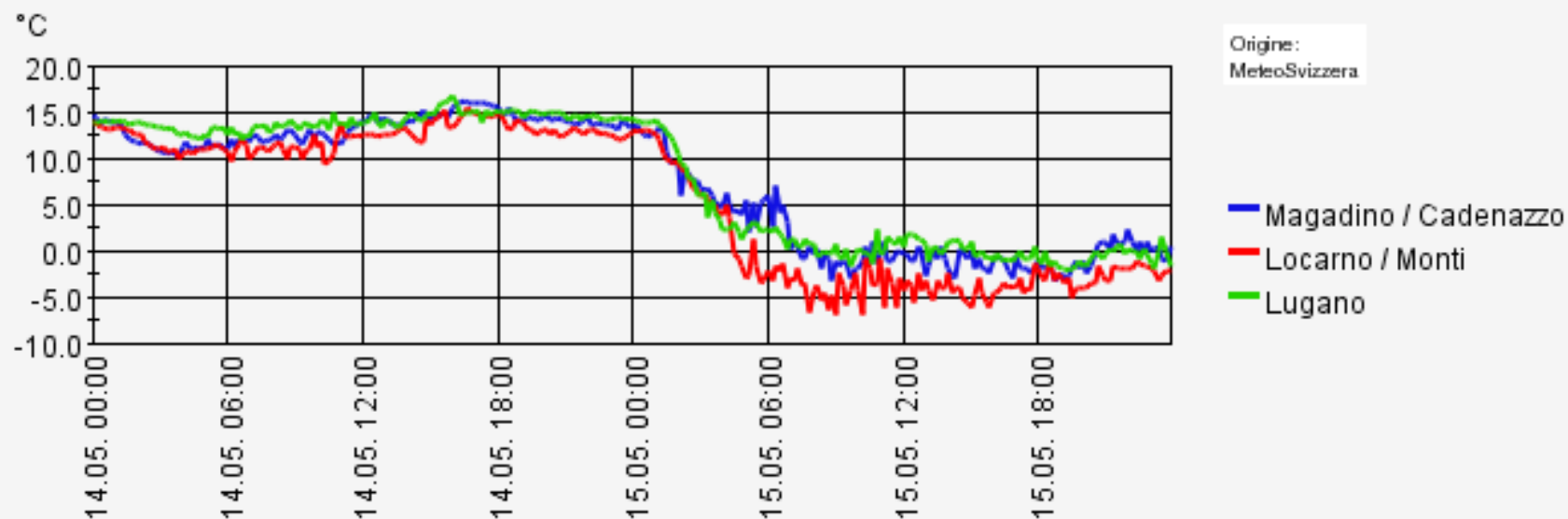


Pressione e punto di rugiada

Pressione ridotta al livello del mare (QFF); valore momentaneo [hPa] 14.05.2011 00:00 UTC - 15.05.2011 23:50 UTC

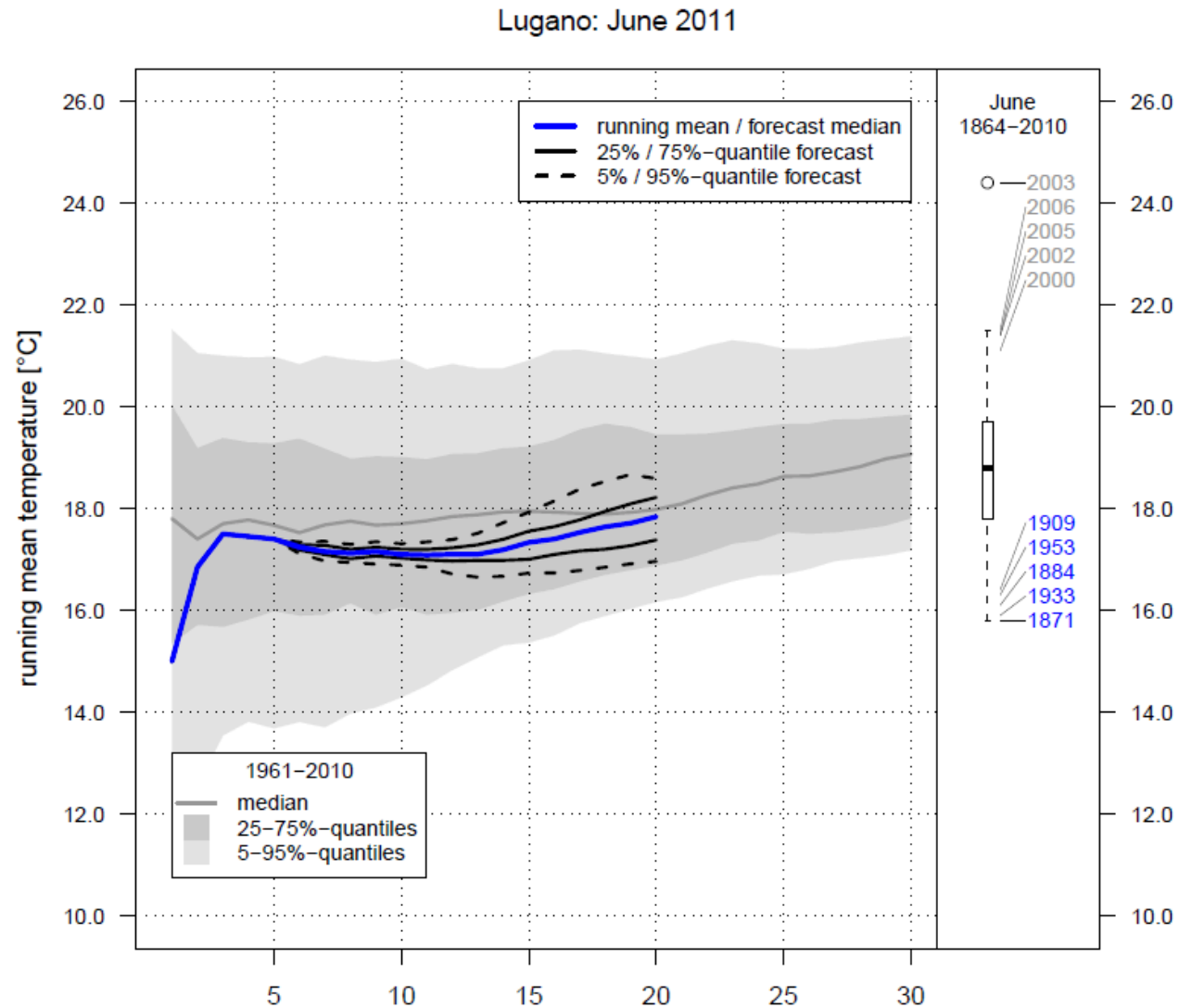


Punto di rugiada a 2 m; valore momentaneo [°C] 14.05.2011 00:00 UTC - 15.05.2011 23:50 UTC



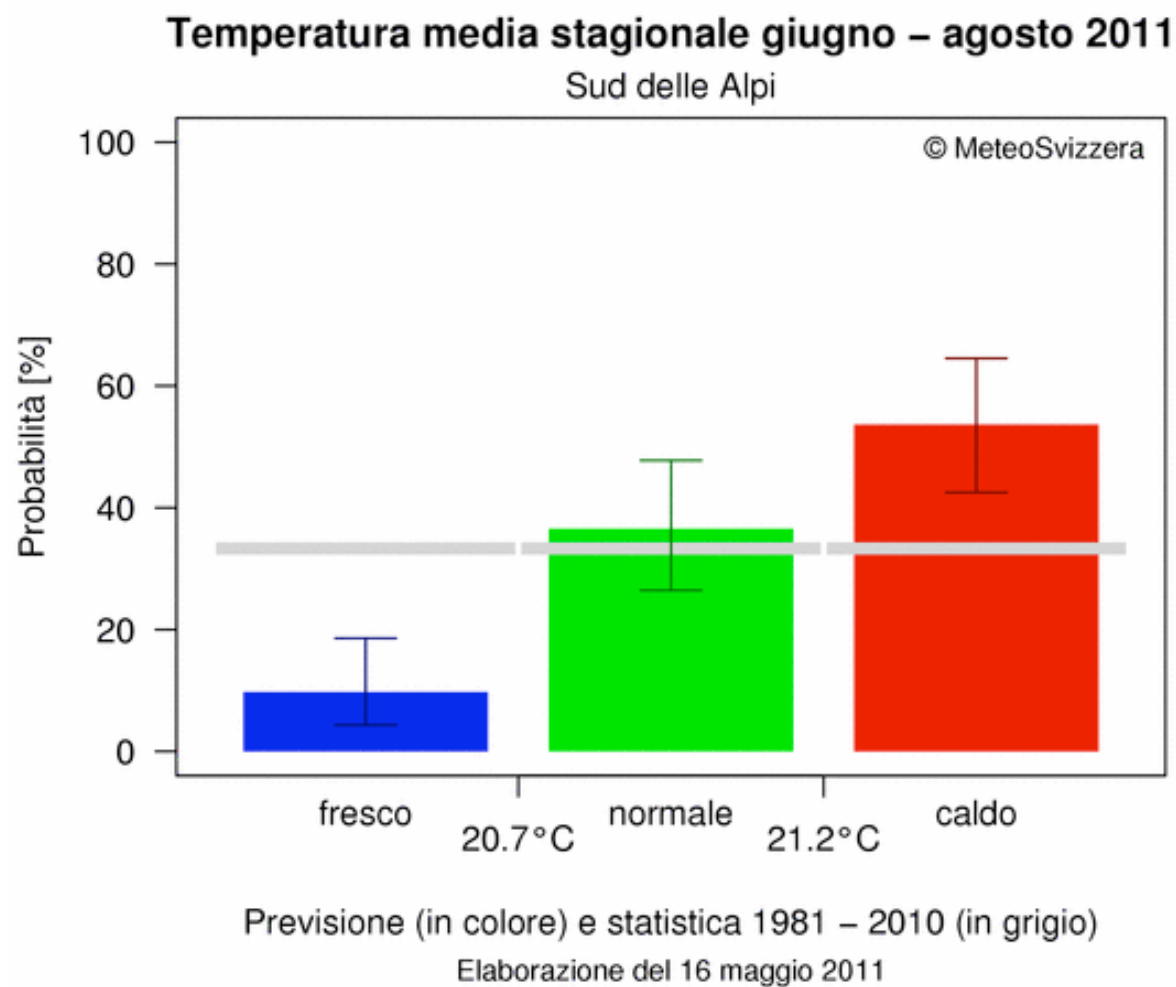


La previsione per i prossimi 10 giorni?





La previsione per l'estate?





Stratus e Altocumulus (S. Zanini)



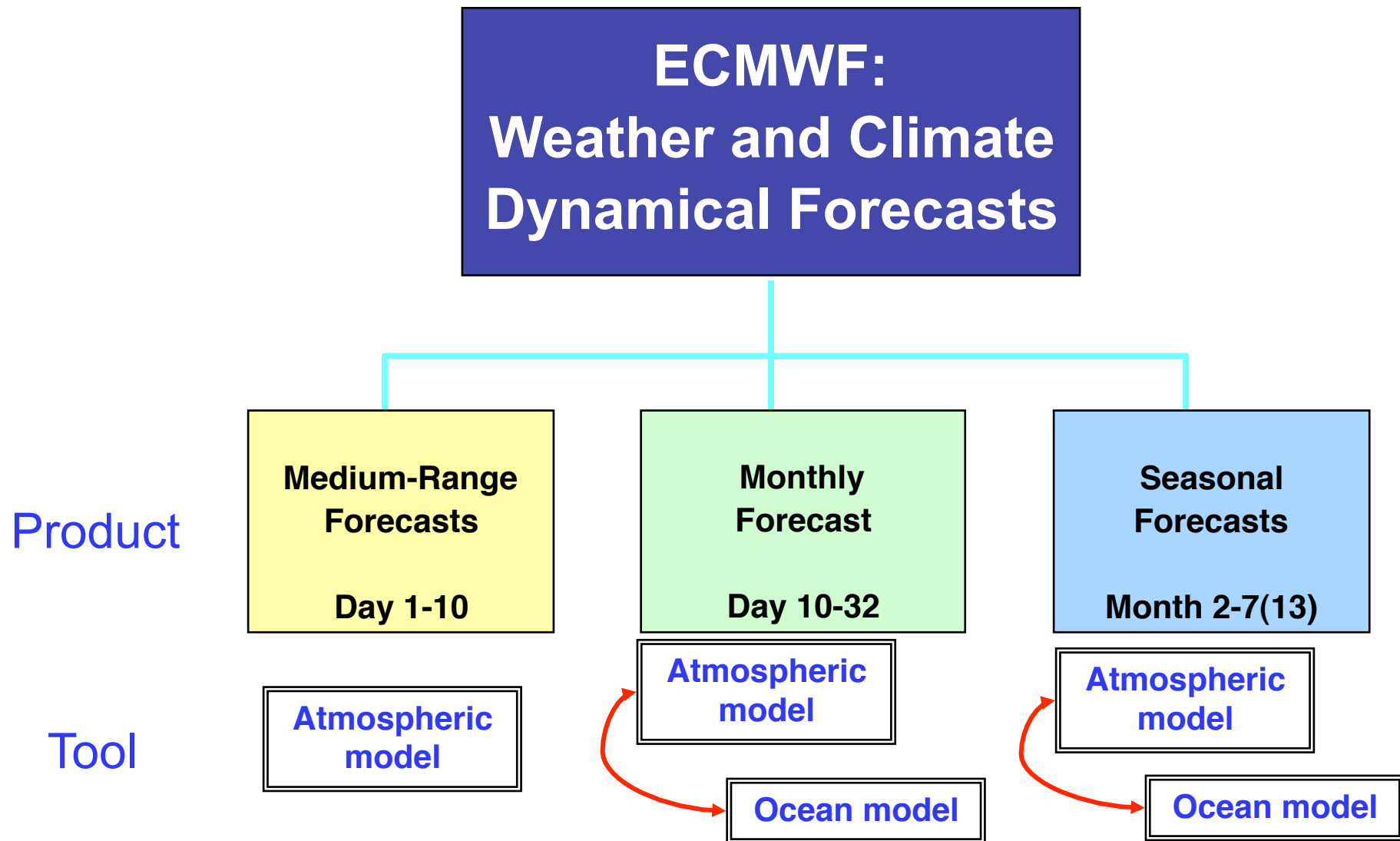
Cumulonimbus incus (D. Gerstgrasser)



Altocumulus Castellanus (S. Zanini)

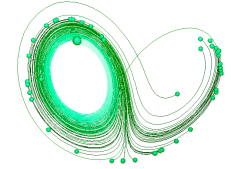


Forecasting at ECMWF

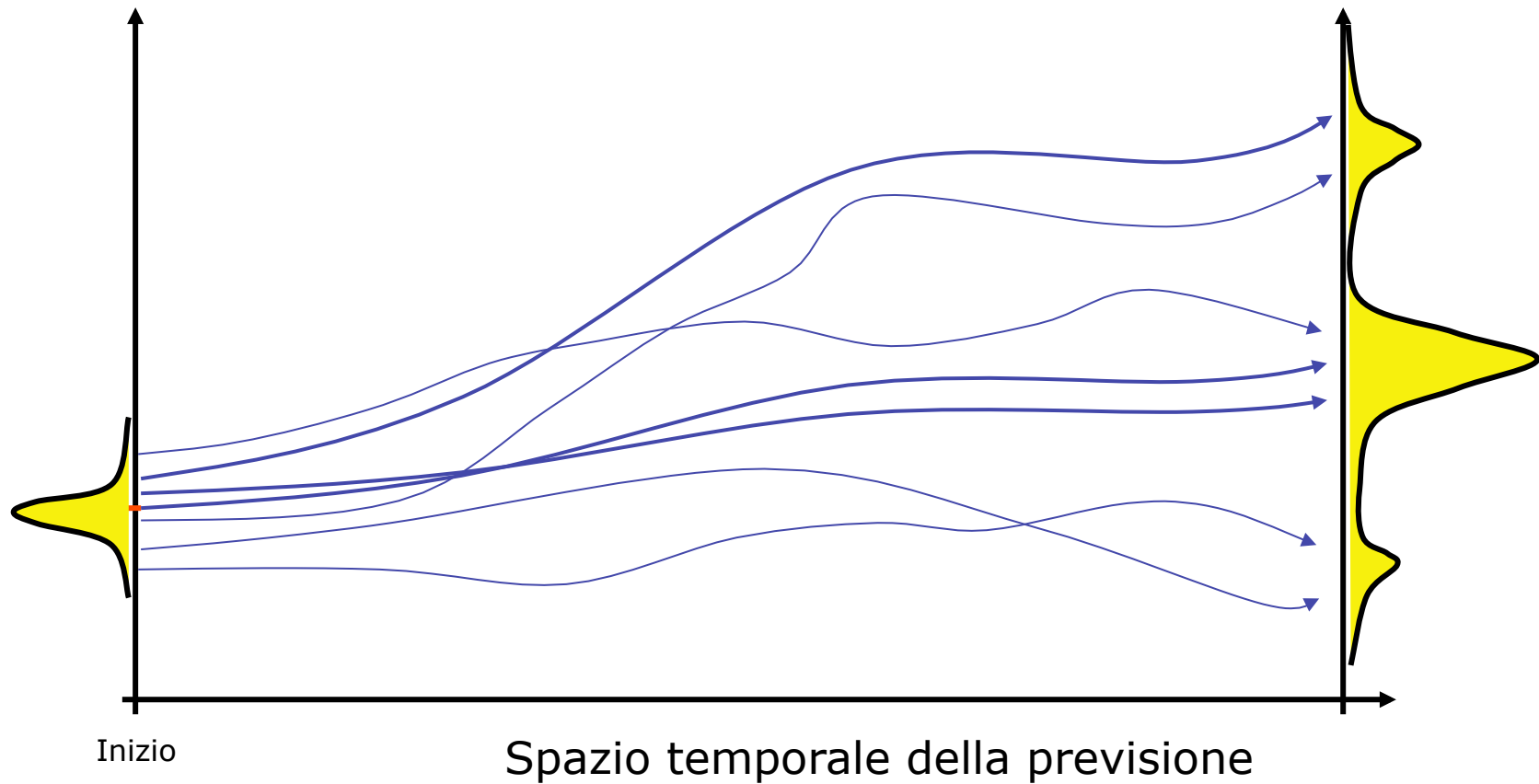




Incerteza della previsione



Il sistema meteorologico è caotico → piccole perturbazioni crescono velocemente (effetto farfalla):



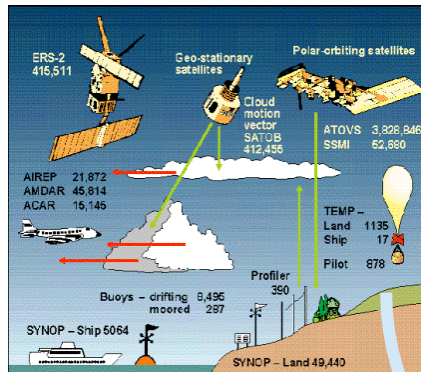
ECMWF Monthly/Seasonal Forecasting System

Observations

Data
Assimilation

Coupled
model

Forecast
Products



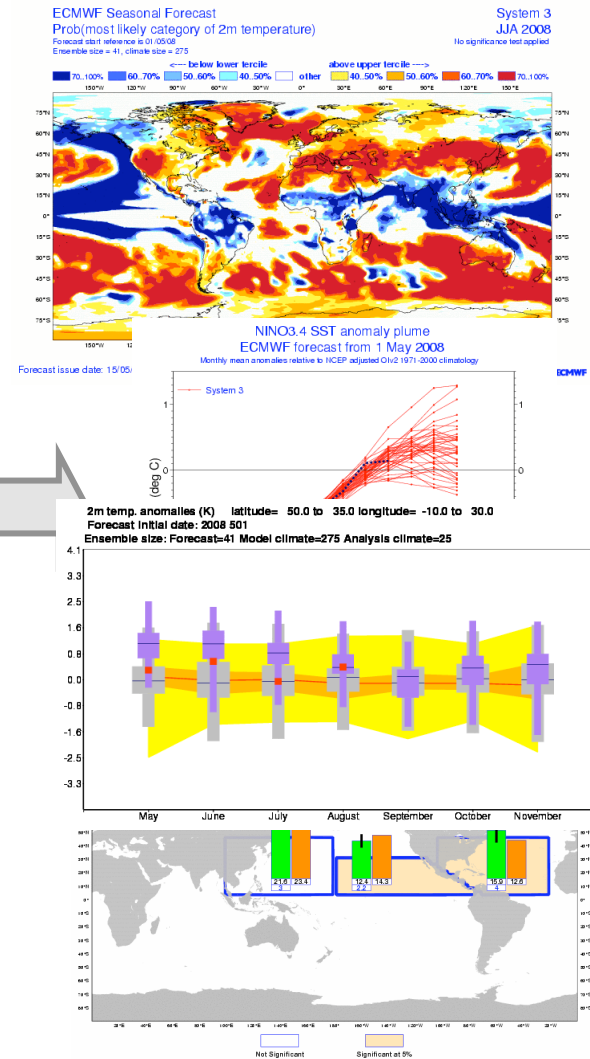
Current state
of the
atmosphere

Atmospheric
model

Coupler

Ocean
Model

Current state
of the
ocean





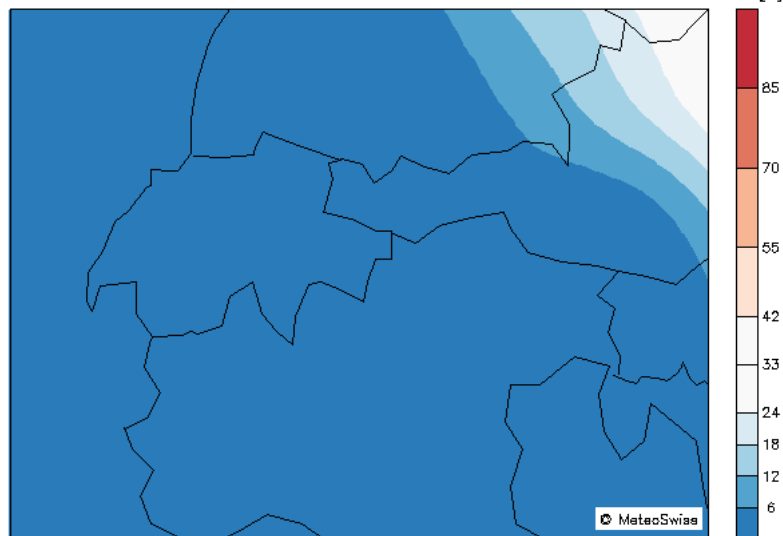
La previsione per i prossimo mese?

2m Temperature (upper tercile)

Reference Period: 1993 - 2010

started on 02-06-2011

Week 1: Mon 06 Jun - Sun 12 Jun

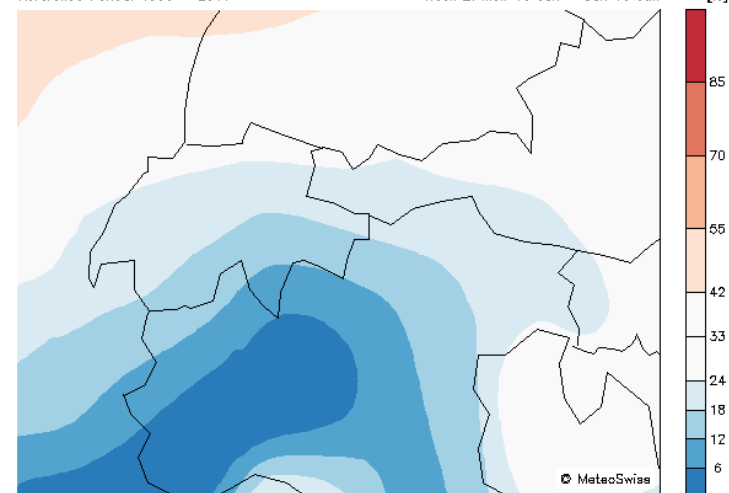


2m Temperature (upper tercile)

Reference Period: 1993 - 2010

started on 02-06-2011

Week 2: Mon 13 Jun - Sun 19 Jun

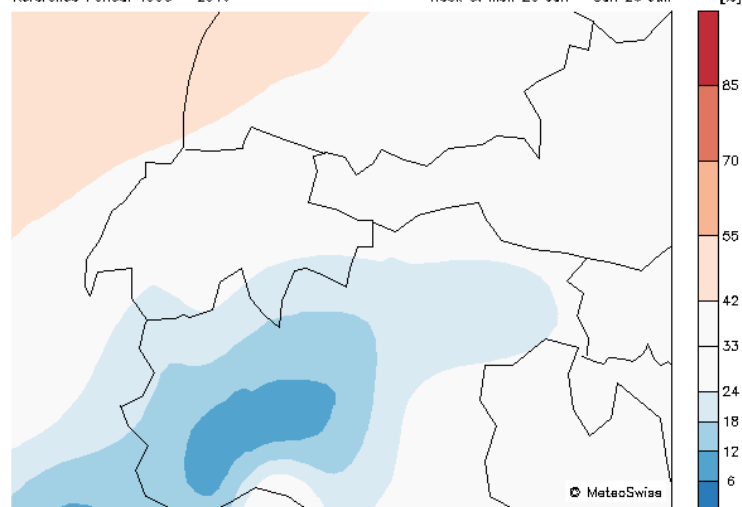


2m Temperature (upper tercile)

Reference Period: 1993 - 2010

started on 02-06-2011

Week 3: Mon 20 Jun - Sun 26 Jun



2m Temperature (upper tercile)

Reference Period: 1993 - 2010

started on 02-06-2011

Week 4: Mon 27 Jun - Sun 03 Jul

