



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

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

# Autunno 2011



## Retrospettiva meteoclimatica

Matteo Buzzi (Luca Silvanti, Stefano Zanini)



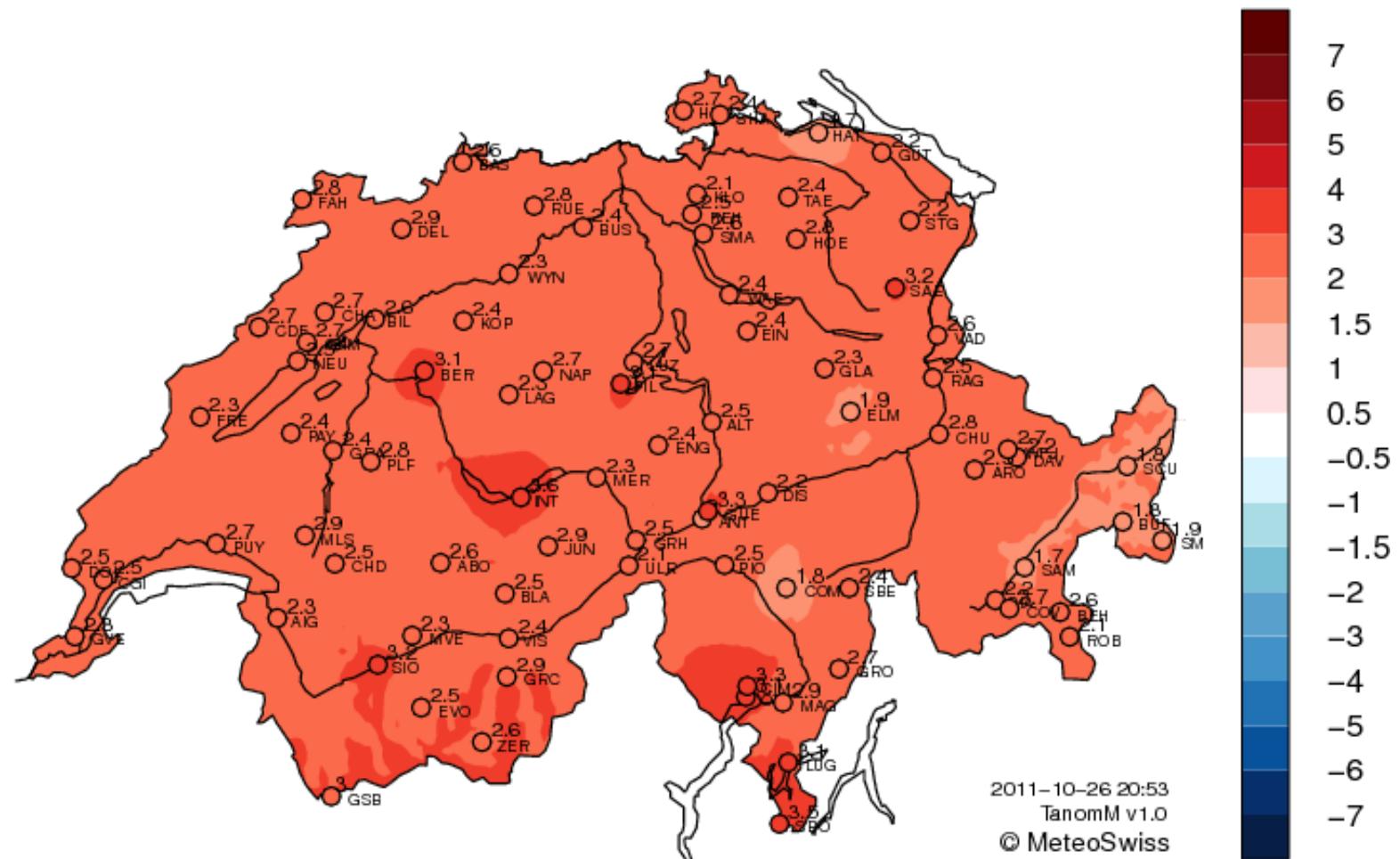
# Panoramica

- Andamento rispetto ai valori normali 1961-1990, confronto con le anomalie globali
  - Temperatura
  - Precipitazioni
  - Soleggiamento
- Situazioni meteorologiche preponderanti
  - Distribuzione dell'‘autunno 2011
  - Alcuni casi interessanti



# Temperatura: settembre 2011

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



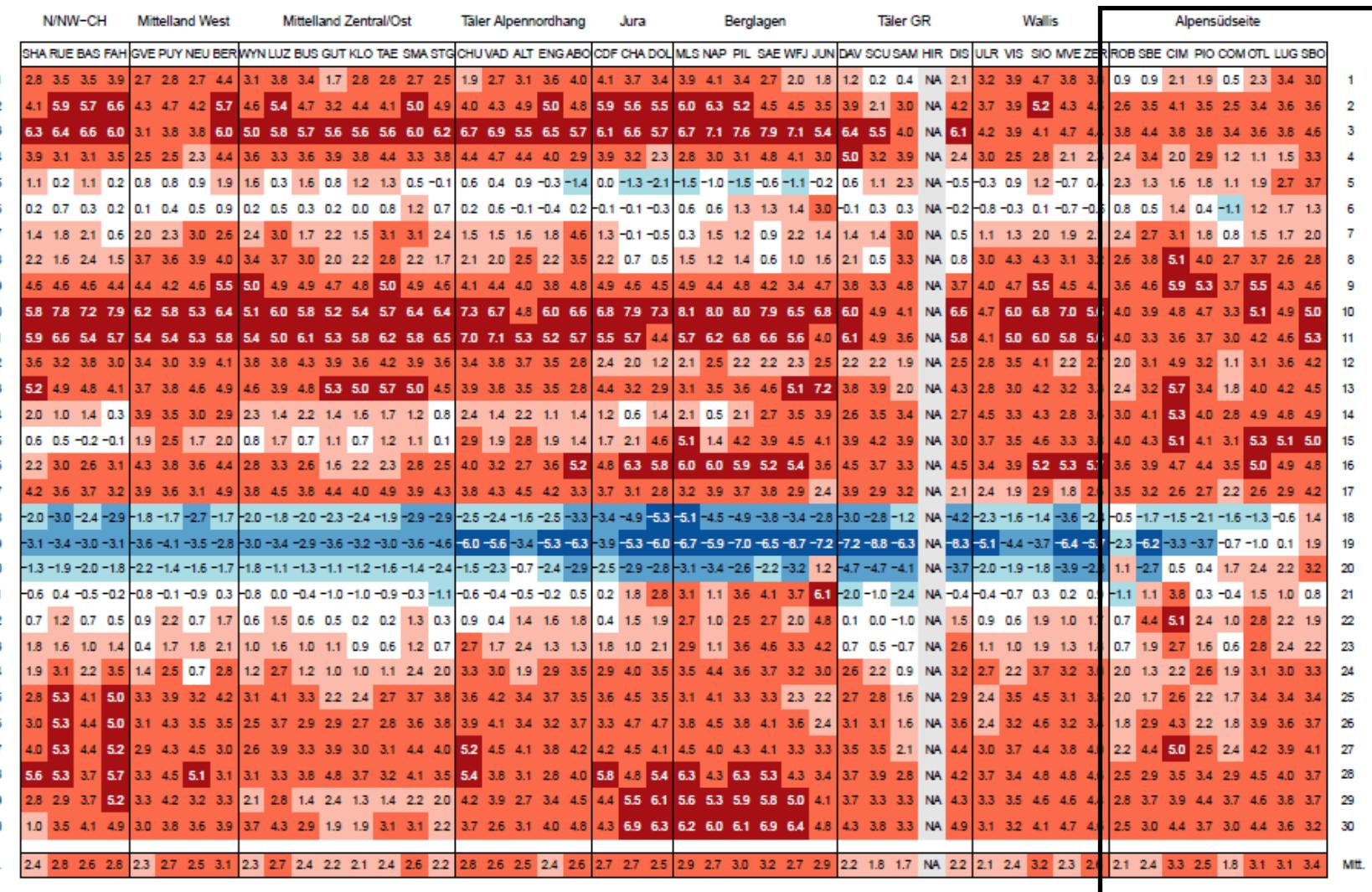


# Temperatura: settembre 2011

Abweichung vom Temperaturmittel (degC)

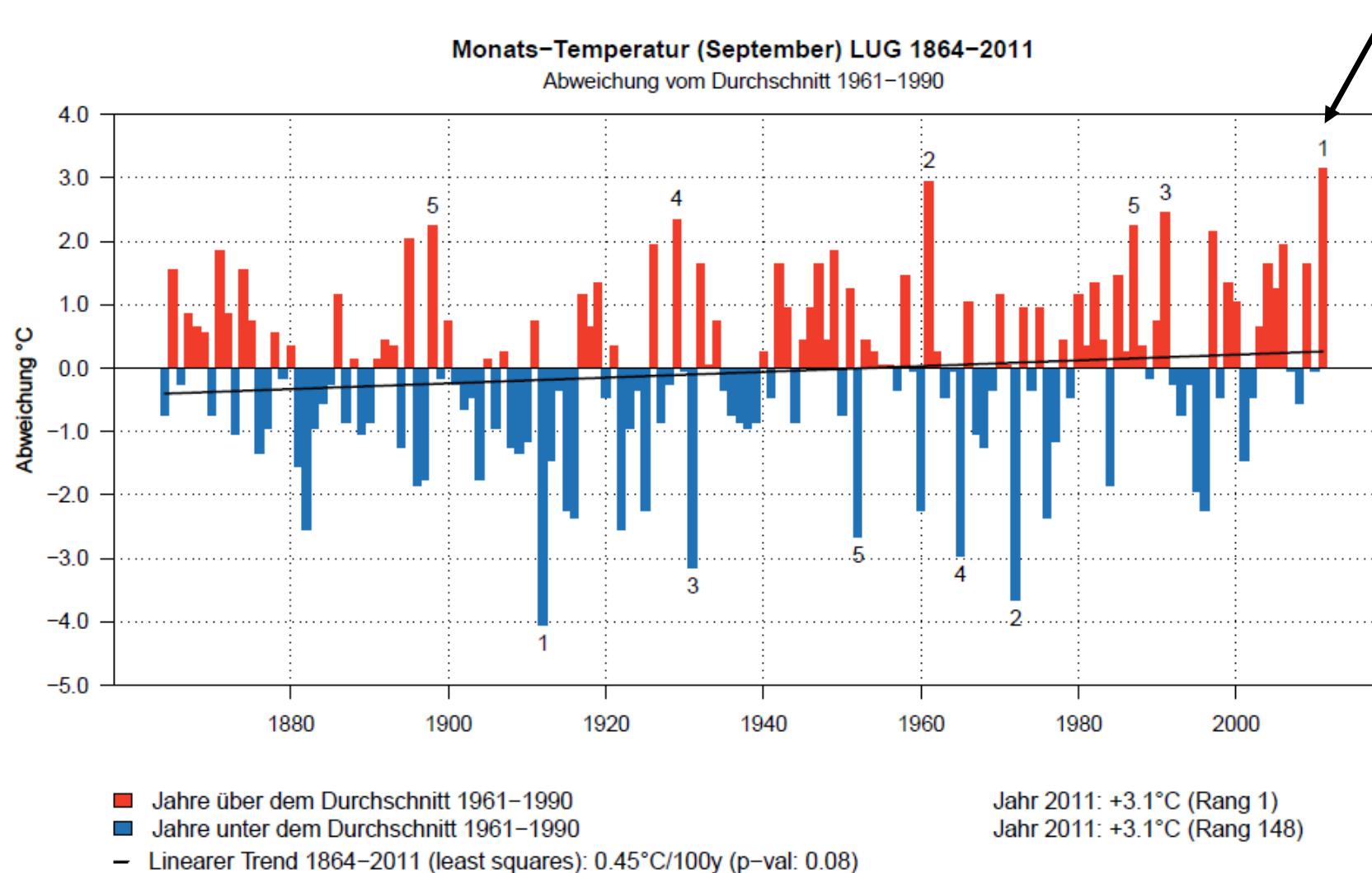
September 2011

Referenzperiode: 1961 – 1990





# Temperatura: settembre 2011 e gli altri



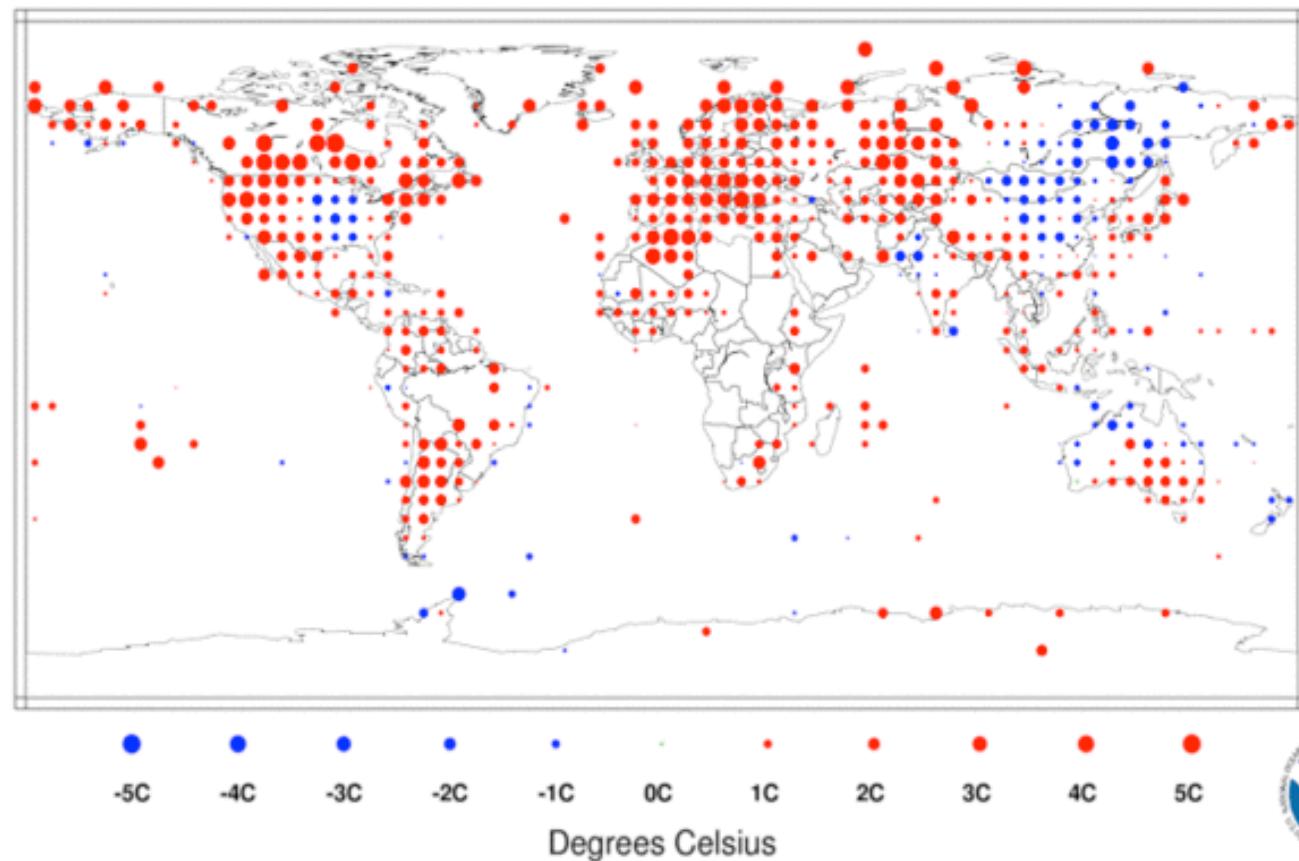


# Temperatura: anomalie globali settembre 2011

## Temperature Anomalies September 2011

(with respect to a 1961-1990 base period)

National Climatic Data Center/NESDIS/NOAA





# Temperatura: anomalie globali settembre 2011

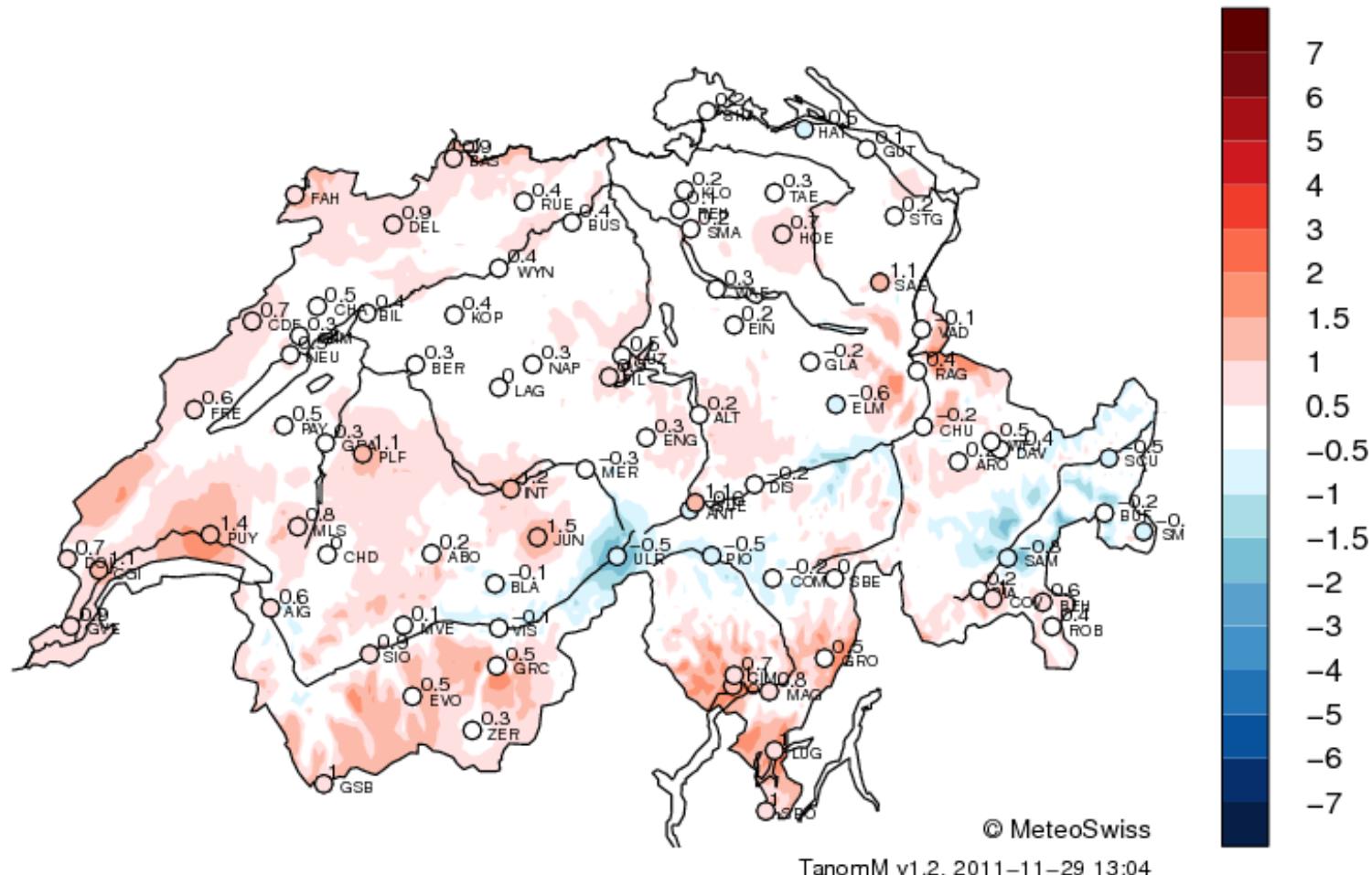
September	Anomaly		Rank (out of 132 years)	Records		
	°C	°F		Year(s)	°C	°F
<b>Global</b>						
<b>Land</b>	+0.87 ± 0.24	+1.57 ± 0.43	4 <sup>th</sup> Warmest	Warmest: 2005	+1.00	+1.80
			129 <sup>th</sup> Coolest	Coolest: 1912	-0.78	-1.40
<b>Ocean</b>	+0.40 ± 0.04	+0.72 ± 0.07	14 <sup>th</sup> Warmest	Warmest: 2003	+0.57	+1.03
			119 <sup>th</sup> Coolest	Coolest: 1912	-0.45	-0.81
<b>Land and Ocean</b>	+0.53 ± 0.11	+0.95 ± 0.20	8 <sup>th</sup> Warmest	Warmest: 2005	+0.66	+1.19
			125 <sup>th</sup> Coolest	Coolest: 1912	-0.54	-0.97
<b>Northern Hemisphere</b>						
<b>Land</b>	+0.88 ± 0.25	+1.58 ± 0.45	3 <sup>rd</sup> Warmest	Warmest: 2005	+1.16	+2.09
			130 <sup>th</sup> Coolest	Coolest: 1912	-0.91	-1.64
<b>Ocean</b>	+0.43 ± 0.04	+0.77 ± 0.07	13 <sup>th</sup> Warmest	Warmest: 2003	+0.66	+1.19
			120 <sup>th</sup> Coolest	Coolest: 1912	-0.56	-1.01
<b>Land and Ocean</b>	+0.60 ± 0.15	+1.08 ± 0.27	6 <sup>th</sup> Warmest	Warmest: 2005	+0.82	+1.48
			127 <sup>th</sup> Coolest	Coolest: 1912	-0.69	-1.24
<b>Southern Hemisphere</b>						
<b>Land</b>	+0.85 ± 0.15	+1.53 ± 0.27	3 <sup>rd</sup> Warmest	Warmest: 1997	+1.07	+1.93
			130 <sup>th</sup> Coolest	Coolest: 1894	-0.81	-1.46
<b>Ocean</b>	+0.39 ± 0.04	+0.70 ± 0.07	14 <sup>th</sup> Warmest	Warmest: 1997	+0.57	+1.03
			119 <sup>th</sup> Coolest	Coolest: 1911	-0.51	-0.92
<b>Land and Ocean</b>	+0.46 ± 0.07	+0.83 ± 0.13	9 <sup>th</sup> Warmest	Warmest: 1997	+0.65	+1.17
			124 <sup>th</sup> Coolest	Coolest: 1911	-0.54	-0.97
	Ties: 2000, 2001, 2004					





# Temperatura: ottobre 2011

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





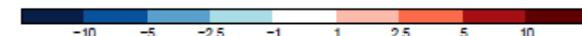
# Temperatura: ottobre 2011

Abweichung vom Temperaturnittel (degC)

Oktobere 2011

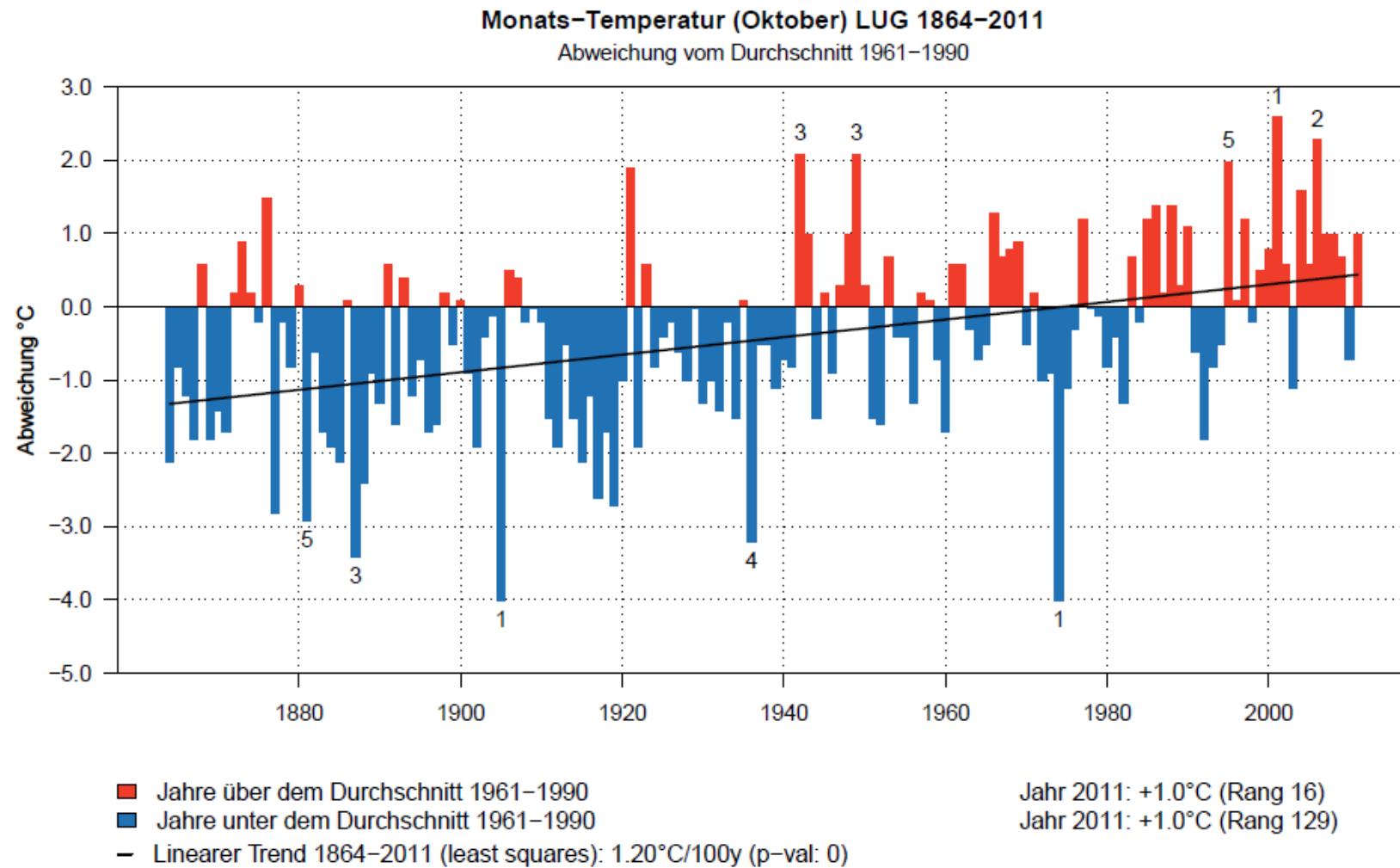
Referenzperiode: 1961 – 1990

	N/NW-CH	Mittelland West	Mittelland Zentral/Ost	Täler Alpennordhang	Jura	Berglagen	Täler GR	Wallis	Alpensüdseite
1	1.4 4.1 4.1 5.5	2.9 4.2 2.4 3.0	2.9 3.4 2.9 2.2 2.2 2.7 3.1 3.0	3.8 2.4 2.3 4.2 4.8	3.7 7.1 6.4 6.6 6.0 7.0 7.6 6.9 7.8	5.0 4.7 2.8 NA 5.1	3.3 3.1 4.3 4.8	5.0 2.9 3.4 6.0 3.3 2.9 4.9 4.4 4.3	1
2	2.4 4.7 4.4 5.7	3.1 4.2 2.7 3.2	3.2 3.3 3.1 2.2 2.5 2.6 3.2 3.8	3.5 3.0 2.5 4.3 4.9	3.8 7.1 6.6 7.0 6.1 6.7 7.2 6.5 7.6	4.5 4.6 3.4 NA 4.7	3.3 3.1 4.8 4.6	5.0 3.4 5.0 6.5 3.6 3.4 5.3 4.6 4.4	2
3	3.3 5.7 4.8 5.4	3.7 4.7 3.1 3.9	3.4 4.2 4.1 3.2 3.7 3.7 4.5 5.1	3.9 4.9 2.9 4.3 4.4	3.2 5.7 6.3 6.3 5.6 6.3 6.7 6.1 7.0	3.9 4.1 2.6 NA 4.5	3.1 2.9 4.6 4.5	5.3 3.2 3.5 5.6 3.2 3.4 5.4 5.0 4.8	3
4	3.6 6.1 4.8 5.4	3.3 4.5 4.1 3.8	3.4 4.4 3.8 3.3 3.4 4.3 4.8 5.5	3.7 4.4 3.3 4.0 3.7	2.3 4.4 4.4 4.8 4.8 4.4 4.1 4.5 4.6	3.4 2.9 1.7 NA 4.1	2.4 2.3 4.1 3.8	3.6 2.4 6.5 6.7 3.8 2.8 5.4 5.1 5.0	4
5	3.8 4.1 4.1 3.6	2.5 4.0 3.6 2.5	2.4 4.2 2.8 4.1 3.3 3.9 4.3 4.0	2.7 3.6 2.9 3.2 2.1	1.6 1.6 3.4 3.4 2.0 3.4 3.8 5.5 5.0	1.9 2.2 1.4 NA 2.7	1.7 1.9 3.3 2.6	3.0 2.1 4.7 6.2 3.5 2.5 4.9 4.9 4.9	5
6	4.2 3.7 3.9 2.8	3.2 3.6 3.6 3.4	3.6 4.4 3.3 4.5 4.2 4.7 4.3 4.5	4.8 5.2 4.6 3.4 3.1	2.2 1.5 1.4 2.2 1.6 2.5 2.6 4.0 2.6	3.3 3.7 2.7 NA 3.8	2.4 2.3 3.4 2.4	3.0 4.8 3.3 3.4 4.0 4.0 5.0 4.9 5.1	6
7	-2.2 -3.5 -1.8 -3.4	-1.3 -2.2 -2.5 -2.5	-2.3 -2.3 -2.2 -2.6 -2.4 -2.2 -3.1 -4.0	-3.1 -3.1 -2.3 -4.3 -5.4	-4.3 -6.9 -7.1 -7.8 -7.1 -8.2 -7.5 -7.9 -7.6	-4.6 -3.8 -2.7 NA -5.4	-3.2 -1.4 -1.7 -5.5	-1.4 -0.1 -3.0 -2.9 -2.3 0.3 1.3 1.6 2.5	7
8	-2.9 -4.3 -2.7 -3.4	-3.4 -3.5 -3.7 -3.3	-2.8 -3.2 -3.0 -3.3 -3.1 -3.0 -4.3	-5.1 -7.5 -5.8 -4.3 -6.4 -7.7	-4.5 -7.0 -7.4 -8.0 -7.6 -8.4 -8.1 -8.7 -8.4	-7.4 -6.9 -5.8 NA -8.7	-5.8 -3.8 -3.4 -7.4	-1.8 -2.2 -6.0 -6.0 -5.5 -4.4 -2.1 -0.5 0.5	8
9	-2.1 -2.2 -0.7 -1.4	-2.3 -1.8 -1.8 -1.0	-0.6 -1.1 -1.3 -2.3 -1.8 -1.9 -2.8 -3.9	-5.2 -3.6 -1.1 -3.4 -5.4	-2.1 -5.0 -4.4 -5.2 -5.5 -6.4 -7.4 -9.0 -5.3	-6.4 -6.6 -6.2 NA -7.8	-3.4 -0.7 -0.2 -4.0	-1.3 -3.3 -5.0 -3.6 -1.9 -2.8 -1.3 -0.1 0.2	9
10	3.0 3.3 3.8 3.4	2.1 1.6 2.8 2.7	3.0 1.8 2.9 2.8 2.5 3.8 1.4 3.0	-3.7 -2.7 -1.0 1.6 0.1	3.4 1.5 2.2 2.1 1.6 1.1 1.3 0.4	3.3 -2.7 -4.8 -2.5 NA -4.7	-2.7 -0.9 1.5 0.7 -1.1	1.8 3.5 3.5 1.7 -0.8 0.0 0.2 -0.7	10
11	4.7 2.7 3.8 2.0	2.4 3.2 3.2 3.9	4.0 3.6 3.9 5.2 4.4 5.6 4.2 5.0	0.6 2.8 0.5 2.9 4.7	3.9 4.7 5.2 4.9 4.4 3.7 2.4 1.9	0.9 -0.3 -0.4 -0.4 NA -0.7	-0.7 2.0 3.8 3.0 2.6	8.5 6.6 8.1 5.0 4.7 6.6 4.0 4.4	11
12	3.4 1.2 2.9 1.3	2.1 3.2 2.8 2.9	2.7 3.4 3.0 3.1 3.0 3.3 2.4 1.7	0.6 1.4 2.7 1.4 3.7	0.5 0.7 3.2 3.4 1.4 2.4 1.4 2.6	2.1 1.7 2.3 1.0 NA 0.6	0.8 1.3 2.7 3.9 3.0	6.2 7.2 8.9 5.9 6.2 6.6 3.7 2.9	12
13	2.2 1.1 2.6 1.6	3.7 4.0 3.5 3.3	3.5 3.2 2.9 1.9 2.5 2.4 1.5 0.7	1.9 1.1 2.8 1.3 0.2	1.7 -0.7 -0.4 1.5 -1.2 -1.9 -2.3 -2.8	0.9 0.3 0.8 0.7 NA 0.3	2.0 2.7 3.1 -0.4 0.3	6.7 2.1 4.0 3.2 5.2 7.4 6.1 4.1	13
14	-0.4 -2.2 0.8 -0.9	1.8 0.8 0.3 -0.3	0.1 0.3 -0.4 0.0 -0.6 -0.4 -1.1 -1.9	-0.1 -0.8 1.0 -1.1 -1.4	-0.1 -2.9 -2.4 0.2 -4.5 -1.8 -1.7 -2.1	1.1 -2.4 -1.1 -2.3 NA -1.0	-1.7 -1.0 0.2 -1.7 -0.6	-0.1 -2.6 -0.7 -0.7 0.7 0.5 1.6	14
15	-5.1 -4.3 -2.9 -3.1	0.3 0.3 -1.9 -2.5	-2.2 -1.7 -3.2 -4.9 -4.4 -4.5 -4.4	-5.6 -3.7 -0.9 -3.3 -1.2	-0.7 0.5 1.2 2.1 -0.8 2.8 4.3 3.1 4.4	-1.3 -2.4 -3.4 NA -1.3	-1.7 -1.7 -0.5 -0.8 -0.1	-1.2 -3.1 -3.3 -2.3 -1.9 -0.6 -0.9 -1.7	15
16	-3.0 -1.9 -0.5 -0.2	0.7 0.9 -1.5 -1.4	-0.7 -0.2 -1.1 -2.9 -1.7 -2.2 -2.3	-3.5 -3.6 -4.4 -2.0 -1.2 -0.2	-0.9 0.8 1.1 2.0 1.0 2.5 4.0 3.4 3.6	-0.5 -1.0 -2.2 NA -0.5	-1.4 -2.5 -0.7 -0.5 -0.5	-5.2 -2.9 -0.8 -3.6 -3.0 -0.9 -1.4 -3.0	16
17	0.1 0.4 1.3 1.4	0.0 1.3 0.0 -0.1	0.2 -0.2 0.4 -1.4 0.4 0.1 0.2 -1.4	-2.0 -2.2 -2.2 -1.0 -0.8	-0.6 0.4 0.5 1.0 -0.5 1.2 1.2 1.6 2.5	-0.6 -0.4 -1.0 NA -0.4	-1.4 -2.1 -0.5 -1.0 -0.2	-3.1 -1.0 -0.6 -3.8 -2.5 -1.2 -1.2 -2.4	17
18	2.2 3.7 2.6 4.2	1.8 1.8 2.4 0.4	2.6 0.3 2.9 -0.4 2.0 2.3 2.2 4.3	0.6 2.7 -0.5 2.2 2.8 3.3 4.0 3.7 3.0 2.7 3.0 2.5 1.3 -0.6	0.3 -0.4 -0.4 NA 1.1	-1.4 -1.5 0.1 0.5 0.3	-1.7 0.1 -0.2 -2.7 -2.5 -1.4 -1.3 -1.7	18	
19	-1.7 -3.7 -3.2 -3.1	0.5 -0.3 -0.4 0.4	-0.3 -1.7 -1.0 -1.6 -0.9 -0.3 -1.6 -1.2	-0.2 1.1 1.5 -1.4 -0.3 -2.1 -4.3 -4.3 -3.3 -3.2 -3.1 -2.5 -2.5 -2.3	-0.6 -1.1 1.1 NA -0.1	-0.2 -0.3 -0.6 -1.0 -0.2	-1.1 -2.2 -2.5 -1.6 -1.7 -1.4 -0.5 0.5	19	
20	-3.1 -4.3 -3.2 -3.7	-3.1 -2.5 -2.8 -3.4	-3.1 -3.6 -3.1 -3.8 -3.5 -3.8 -4.2 -4.6	-4.4 -5.0 -3.0 -5.3 -6.1	-4.5 -7.3 -7.2 -9.0 -7.5 -8.7 -9.1 -9.9 -8.2	-6.1 -4.4 -4.7 NA -5.7	-2.7 -2.7 -2.3 -5.8	-7.0 -7.4 -4.5 -3.9 -2.4 -0.4 0.9 1.0 1.8	20
21	-4.4 -5.2 -6.0 -5.2	-3.8 -3.7 -3.9 -5.2	-4.5 -4.3 -4.3 -3.5 -4.8 -4.9 -4.8 -5.3	-5.1 -4.9 -4.7 -5.9 -6.9	-5.3 -6.7 -5.7 -6.6 -7.5	-4.5 -4.7 -5.0 -6.1	-7.5 -5.9 -7.5 NA -5.7	-5.5 -6.5 -4.3 -5.9	21
22	-5.1 -5.4 -4.2 -4.4	-4.3 -1.9 -4.8 -5.1	-5.0 -4.8 -5.2 -5.1 -5.3 -4.6	-5.6 -6.0 -5.3 -6.3 -5.5	-4.9 -4.8 -3.5 -2.8 -2.7	-3.6 -3.5 -2.1 0.0 -1.4	0.7 -6.0 -5.5 -5.6 NA -4.5	-4.9 -5.8 -4.0 -4.2 -1.8	22
23	-4.0 -5.0 -3.2 -1.6	-2.8 -1.3 -3.6 -5.1	-4.9 -4.3 -4.6 -4.1 -4.0 -5.2 -4.5 -4.8	-3.4 -4.3 -4.6 -3.2 -3.4	-2.7 -2.1 -2.0 -1.7 -2.4 -1.1	-1.0 -3.4 NA -2.5	-3.3 -4.9 -3.4 -2.9 -2.8	-2.8 -4.6 -5.8 -4.3 -3.6 -2.2 -3.4 -4.7	23
24	-0.5 -1.4 -1.4 -1.9	-0.8 -0.5 -3.8 -3.5	-1.7 -0.7 -0.9 0.0 -0.5 -1.3 -1.0 -0.3	1.1 2.6 3.6 0.3 -0.1	2.4 0.9 0.4 1.7 2.2 1.8 -0.1 -3.8	0.3 -2.5 -2.0 -1.6 NA -1.3	-1.8 -0.1 0.0 -1.3 -1.4	-1.8 -4.2 -5.6 -3.6 -3.1 -3.2 -2.9 -2.6	24
25	0.8 0.8 -0.1 0.6	0.9 1.5 0.5 0.3	0.5 0.5 0.5 0.4 0.5 1.0 0.4 4.6	3.9 8.1 6.0 5.7 2.1	2.7 1.7 -0.2 1.3 2.7 2.2 2.3 0.6 -1.6	2.8 0.3 0.4 NA 0.8	0.1 2.8 2.2 -0.3 -1.4	-0.1 -3.4 -3.8 -4.4 -4.6 -4.2 -3.4 -1.5	25
26	1.8 2.0 2.3 1.3	0.0 1.9 1.6 1.6	1.6 1.9 1.6 1.9 1.5 1.6 1.9 1.5	1.5 1.4 1.8 0.8 -0.2	0.3 -1.5 -1.0 1.3 -0.9 -0.8 -0.2 0.0	-1.1 1.0 2.0 1.6 NA -0.5	1.3 1.3 1.7 0.3 -1.1	1.4 -1.2 -0.2 -0.6 -0.8 -0.8 -0.2 1.5	26
27	0.8 0.2 1.2 0.8	-0.1 1.1 -1.1 -1.9	-1.2 -0.6 -0.2 0.2 0.3 -0.4 0.2 -0.7	3.7 -0.1 0.1 0.9 1.4 2.9 2.0 2.7 2.6 4.2 4.7 2.7 4.0	0.9 0.9 -0.8 NA 1.1	-0.4 3.0 2.2 2.1 0.0	-0.6 -1.9 0.2 -1.9 -0.9 0.2 0.2 1.2	27	
28	0.2 2.7 2.3 3.2	2.0 2.6 0.5 0.5	-0.4 -0.3 -0.2 1.0 -0.4 -1.2 0.4 2.5	2.0 0.0 -0.4 2.6 2.8 3.3 3.9 4.3 4.1 4.6 4.9 5.3 5.3 5.7	1.7 0.6 0.4 NA 3.0	0.8 1.4 2.2 2.5 2.5	-0.1 -0.5 1.7 -1.3 0.0 0.3 0.5 0.4	28	
29	0.1 3.8 3.0 4.6	3.7 3.7 2.8 2.4	0.7 0.6 0.3 0.5 -0.3 -0.8 1.0 2.0 1.1 0.8 3.4 4.1 5.7 6.1 6.1 5.2 5.8 6.4 7.0 5.8 4.9	3.1 2.2 1.5 NA 3.3	1.1 1.0 1.8 3.8 3.6	0.5 2.1 4.6 -0.4 0.7 0.6 0.4 1.2	29		
30	2.7 4.7 3.5 5.1	4.9 4.9 4.2 3.5	3.0 3.2 2.7 1.5 2.4 1.7 3.2 3.7	1.0 1.5 0.6 3.2 3.3 5.1 3.3 3.2 2.9 3.6 3.4 4.5 4.5 4.7	2.4 2.6 1.6 NA 3.5	1.4 0.7 2.4 2.7 3.1	0.8 4.3 5.1 -0.6 1.1 1.5 1.2 2.2	30	
31	0.7 1.9 2.4 3.9	4.4 4.3 2.1 1.4	2.1 2.5 1.7 0.8 1.3 0.9 1.1 -0.1	-0.6 -2.5 -0.2 2.3 2.6 3.5 3.6 3.2 3.2 3.7 5.4 6.4 4.8 4.3	3.8 2.4 1.5 NA 5.2	1.8 -0.1 2.1 3.5 3.8	0.3 0.9 4.3 -1.2 0.3 1.5 2.0 2.7	31	
Mitt.	0.2 0.4 0.9 1.0	0.9 1.4 0.5 0.3	0.4 0.5 0.4 0.1 0.2 0.3 0.1 0.2	-0.2 -0.1 0.2 0.3 0.2	0.7 0.5 0.6 0.7 0.3 0.9 1.1 0.5 1.5	-0.4 -0.5 -0.8 NA -0.2	-0.5 -0.1 0.9 0.1 0.3	0.4 0.0 0.7 -0.6 -0.2 1.1 1.0 1.0	Mitt.





# Temperatura: ottobre 2011 e gli altri



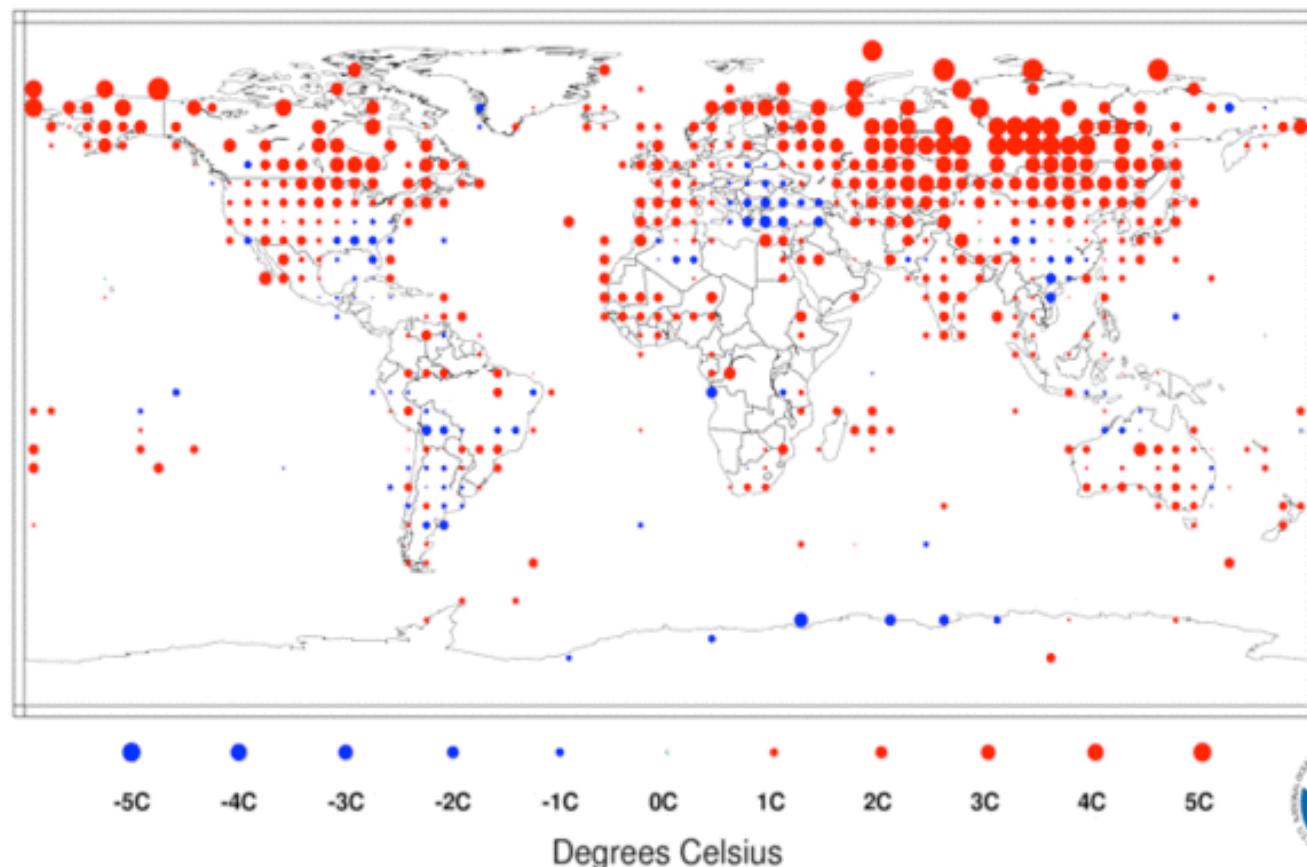


# Temperatura: anomalie globali ottobre 2011

## Temperature Anomalies October 2011

(with respect to a 1961-1990 base period)

National Climatic Data Center/NESDIS/NOAA





# Temperatura: anomalie globali ottobre 2011

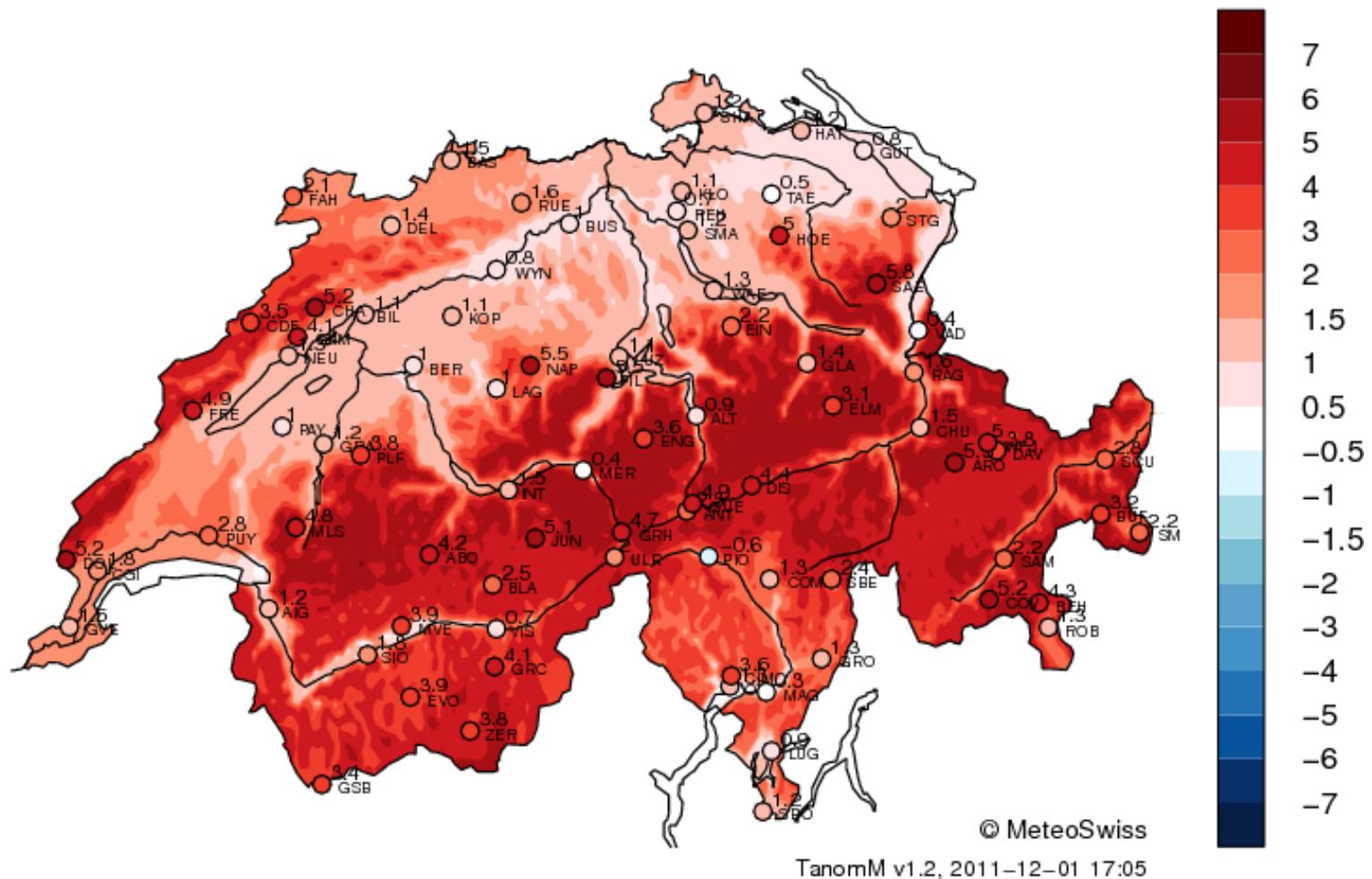
October	Anomaly		Rank (out of 132 years)	Records		
	°C	°F		Year(s)	°C	°F
<b>Global</b>						
<b>Land</b>	+1.10 ± 0.11	+1.98 ± 0.20	2 <sup>nd</sup> Warmest	Warmest: 2005	+1.14	+2.05
			131 <sup>st</sup> Coolest	Coolest: 1976	-0.88	-1.58
<b>Ocean</b>	+0.39 ± 0.04	+0.70 ± 0.07	11 <sup>th</sup> Warmest	Warmest: 2003	+0.58	+1.04
			122 <sup>nd</sup> Coolest	Coolest: 1909	-0.47	-0.85
Ties: 1998						
<b>Land and Ocean</b>	+0.58 ± 0.07	+1.04 ± 0.13	8 <sup>th</sup> Warmest	Warmest: 2003	+0.72	+1.30
			125 <sup>th</sup> Coolest	Coolest: 1912	-0.54	-0.97
<b>Northern Hemisphere</b>						
<b>Land</b>	+1.29 ± 0.11	+2.32 ± 0.20	1 <sup>st</sup> Warmest	Warmest: 2003	+1.25	+2.25
			132 <sup>nd</sup> Coolest	Coolest: 1912	-1.15	-2.07
<b>Ocean</b>	+0.40 ± 0.04	+0.72 ± 0.07	12 <sup>th</sup> Warmest	Warmest: 2003, 2006	+0.65	+1.17
			121 <sup>st</sup> Coolest	Coolest: 1912	-0.50	-0.90
<b>Land and Ocean</b>	+0.73 ± 0.08	+1.31 ± 0.14	5 <sup>th</sup> Warmest	Warmest: 2003	+0.88	+1.58
			128 <sup>th</sup> Coolest	Coolest: 1912	-0.74	-1.33
<b>Southern Hemisphere</b>						
<b>Land</b>	+0.58 ± 0.17	+1.04 ± 0.31	16 <sup>th</sup> Warmest	Warmest: 2006	+1.15	+2.07
			117 <sup>th</sup> Coolest	Coolest: 1910	-0.74	-1.33
<b>Ocean</b>	+0.39 ± 0.04	+0.70 ± 0.07	13 <sup>th</sup> Warmest	Warmest: 1997	+0.59	+1.06
			120 <sup>th</sup> Coolest	Coolest: 1910	-0.46	-0.83
<b>Land and Ocean</b>	+0.42 ± 0.06	+0.76 ± 0.11	12 <sup>th</sup> Warmest	Warmest: 1997	+0.62	+1.12
			121 <sup>st</sup> Coolest	Coolest: 1910	-0.51	-0.92
Ties: 1996, 2001, 2007						





# Temperatura: novembre 2011

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



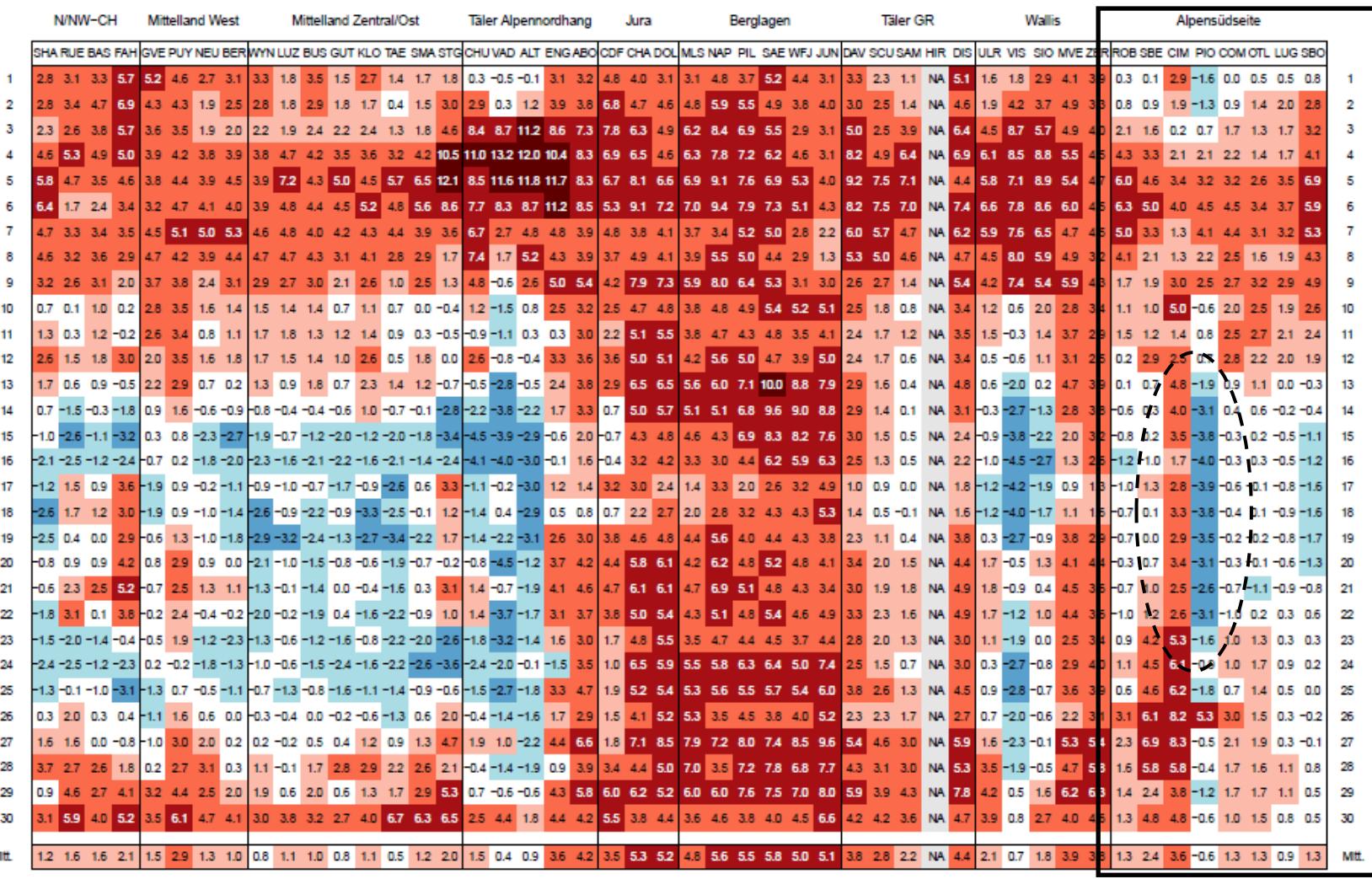


# Temperatura: novembre 2011

Abweichung vom Temperaturmittel (degC)

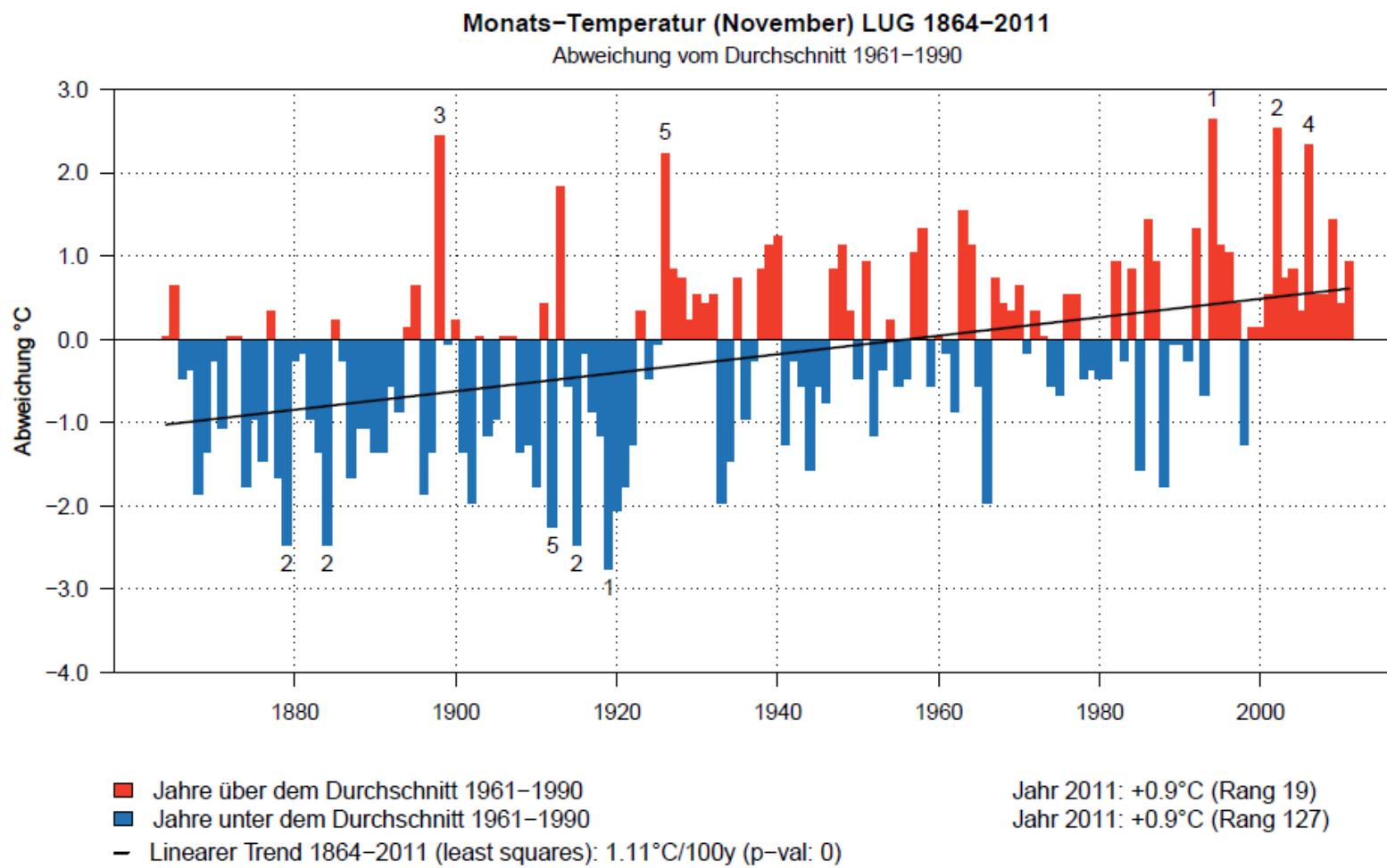
November 2011

Referenzperiode: 1961 – 1990



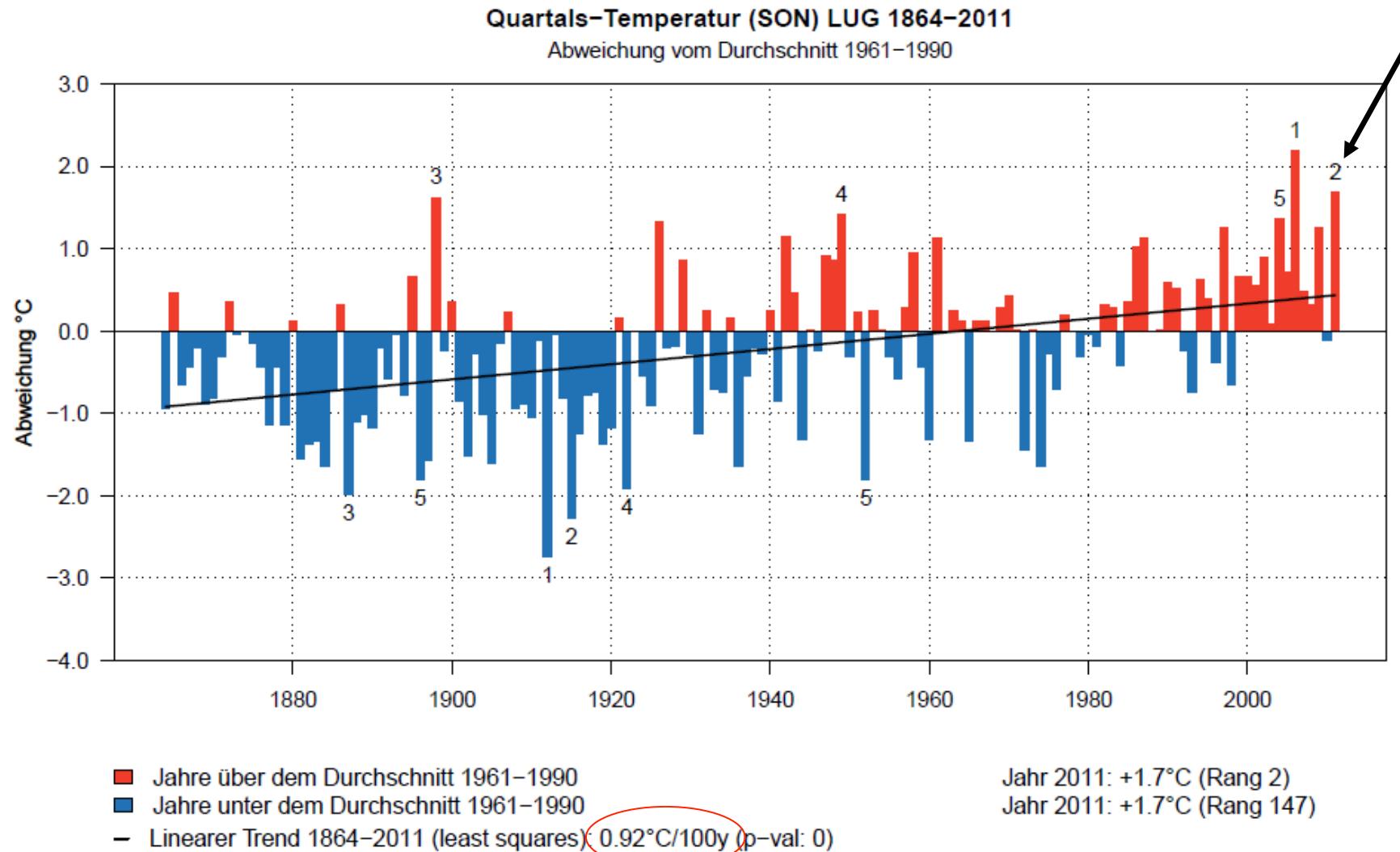


# Temperatura: novembre TI 2011 e gli altri





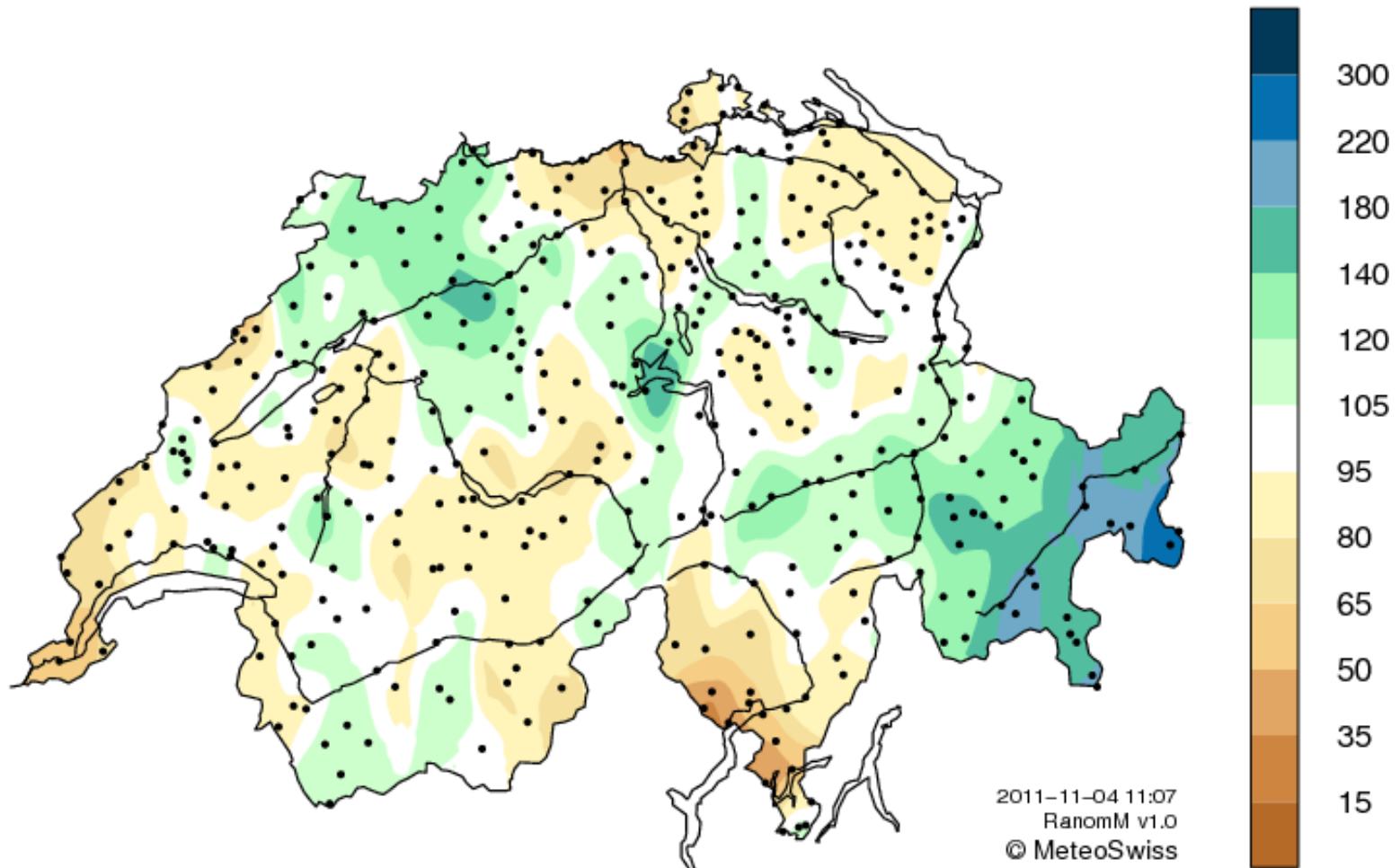
# L'autunno TI 2011 rispetto agli altri





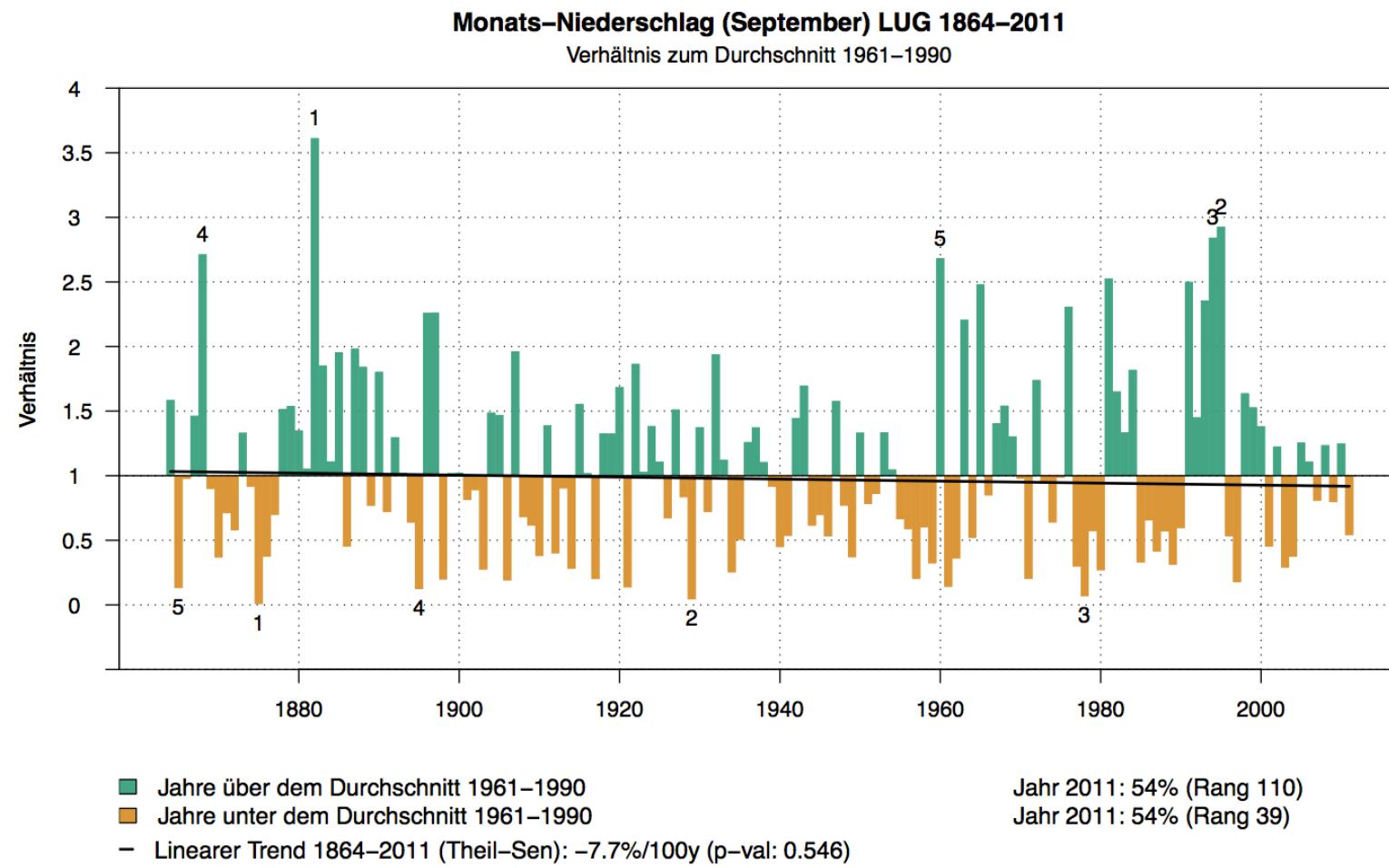
# Precipitazioni: settembre 2011

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





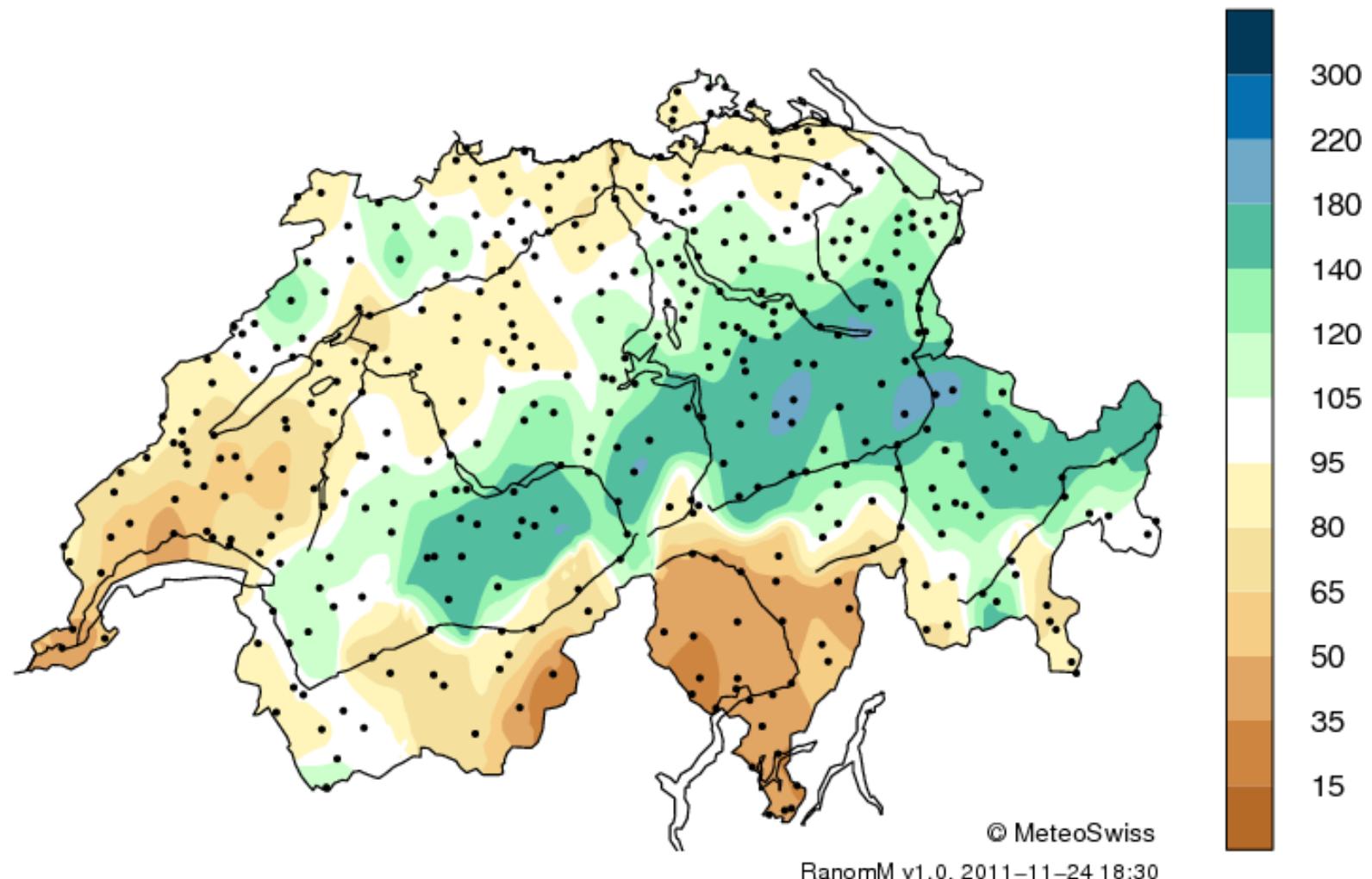
# Settembre 2011 e gli altri





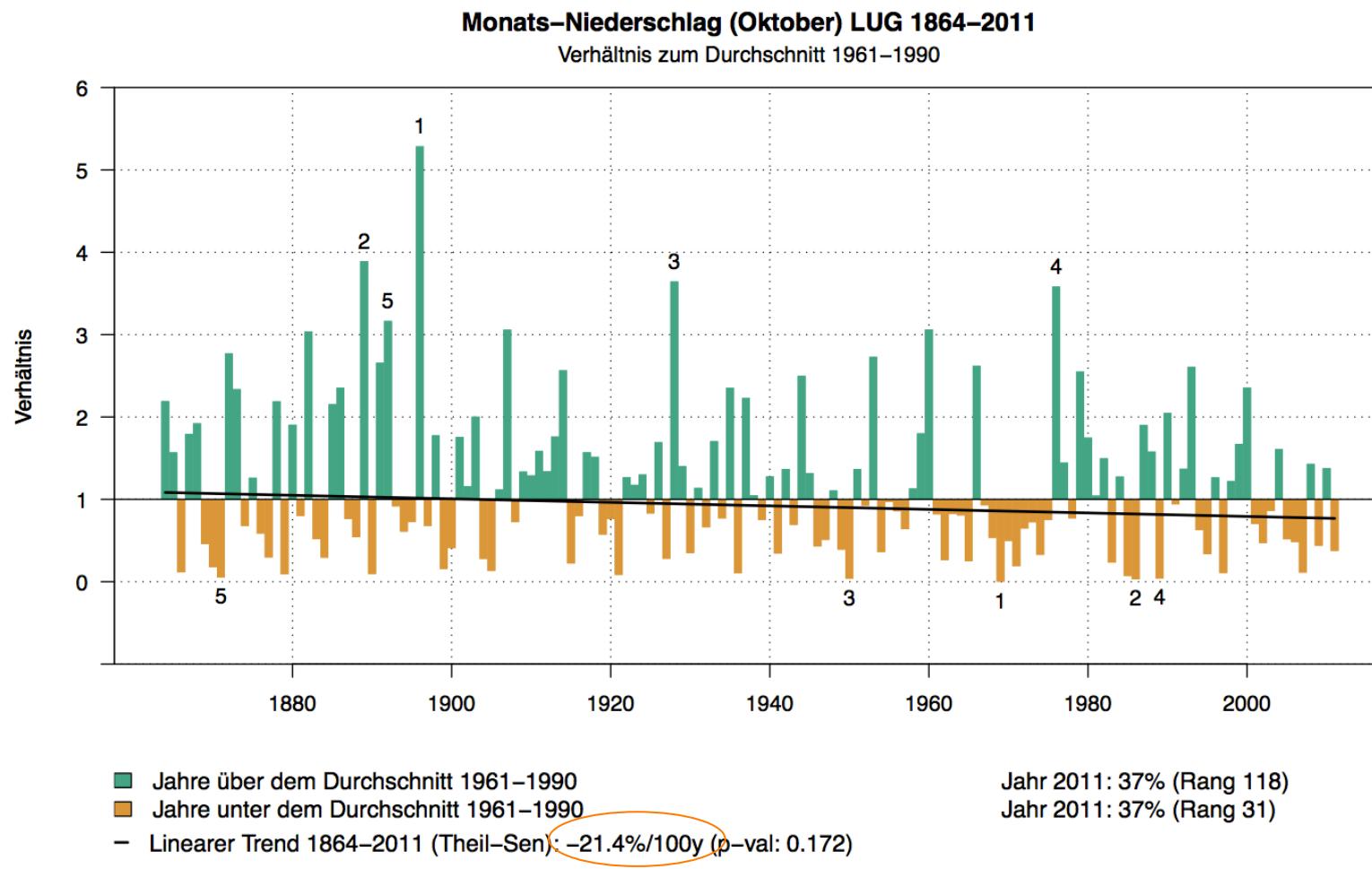
# Precipitazioni: ottobre 2011

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





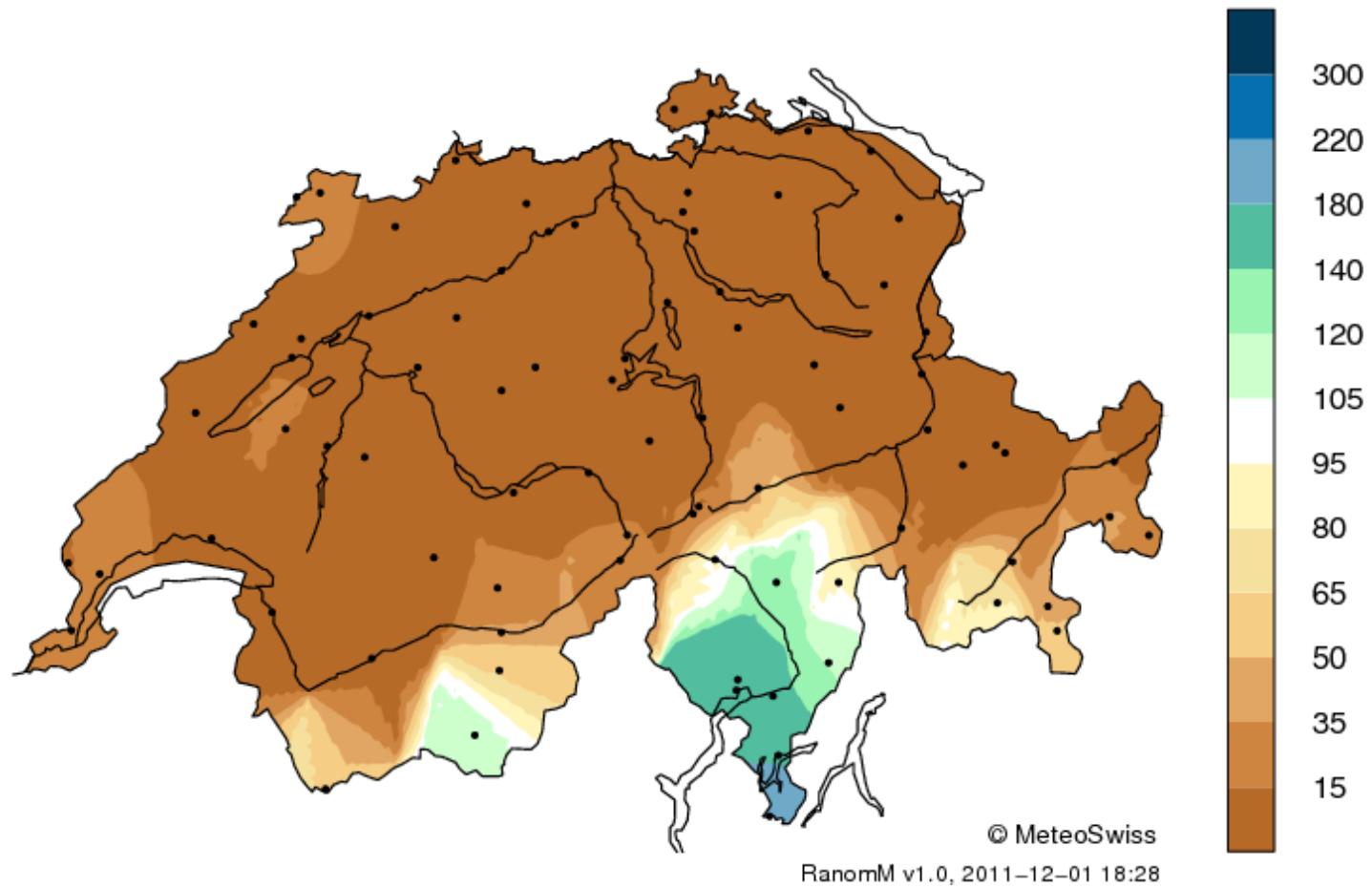
# Ottobre 2011 e gli altri





# Precipitazioni novembre 2011

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

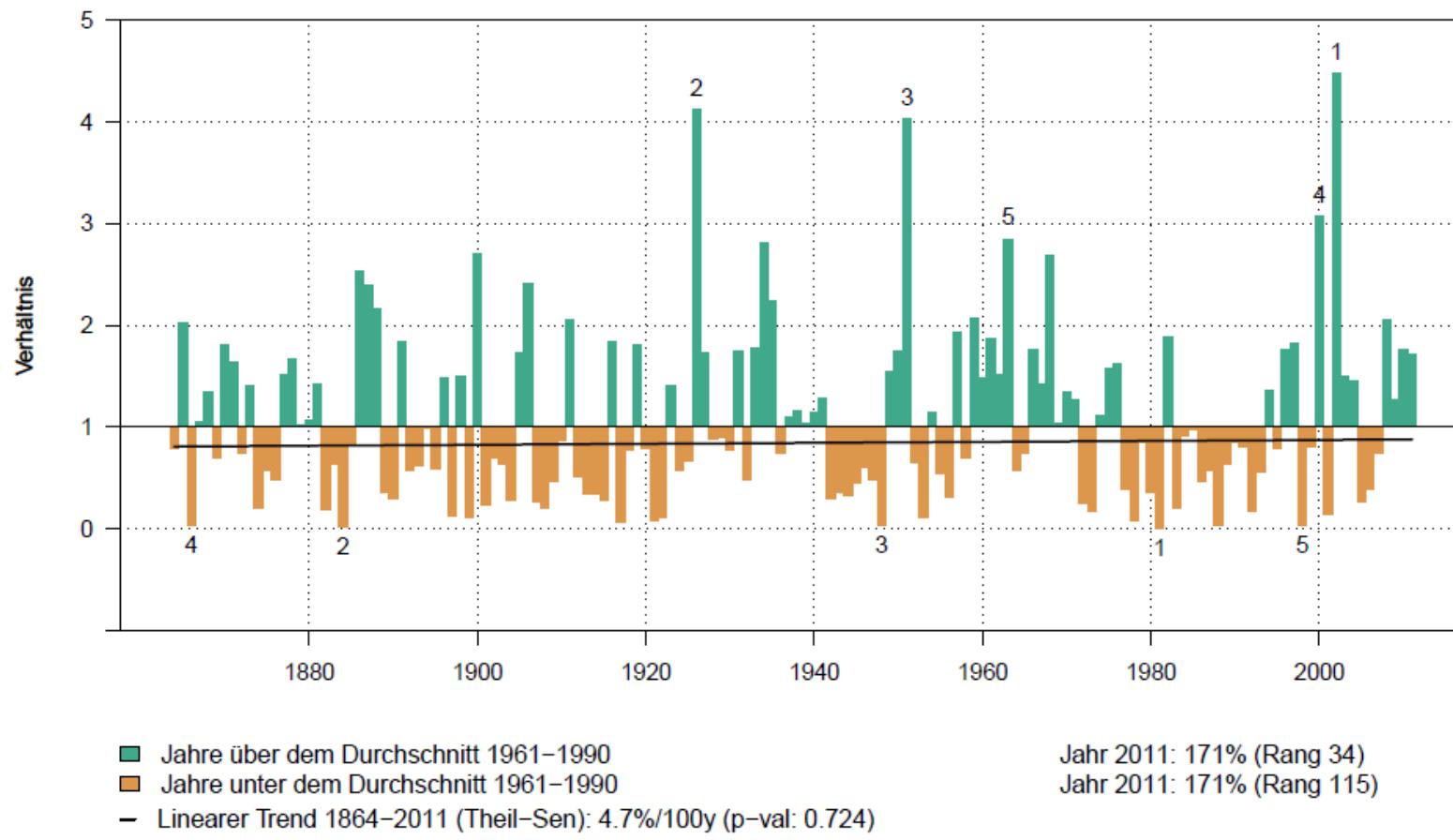




# Novembre 2011 e gli altri

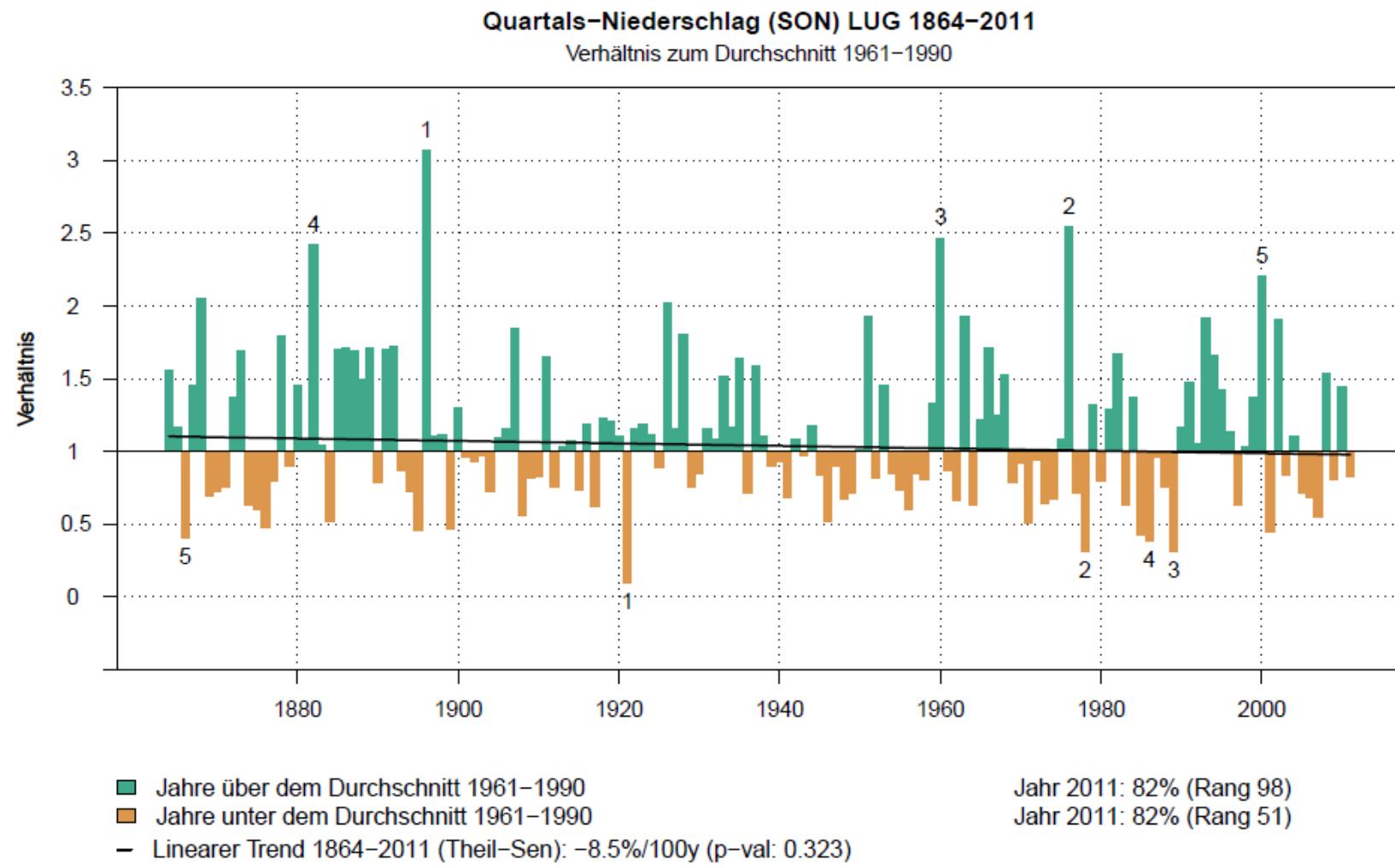
Monats-Niederschlag (November) LUG 1864–2011

Verhältnis zum Durchschnitt 1961–1990



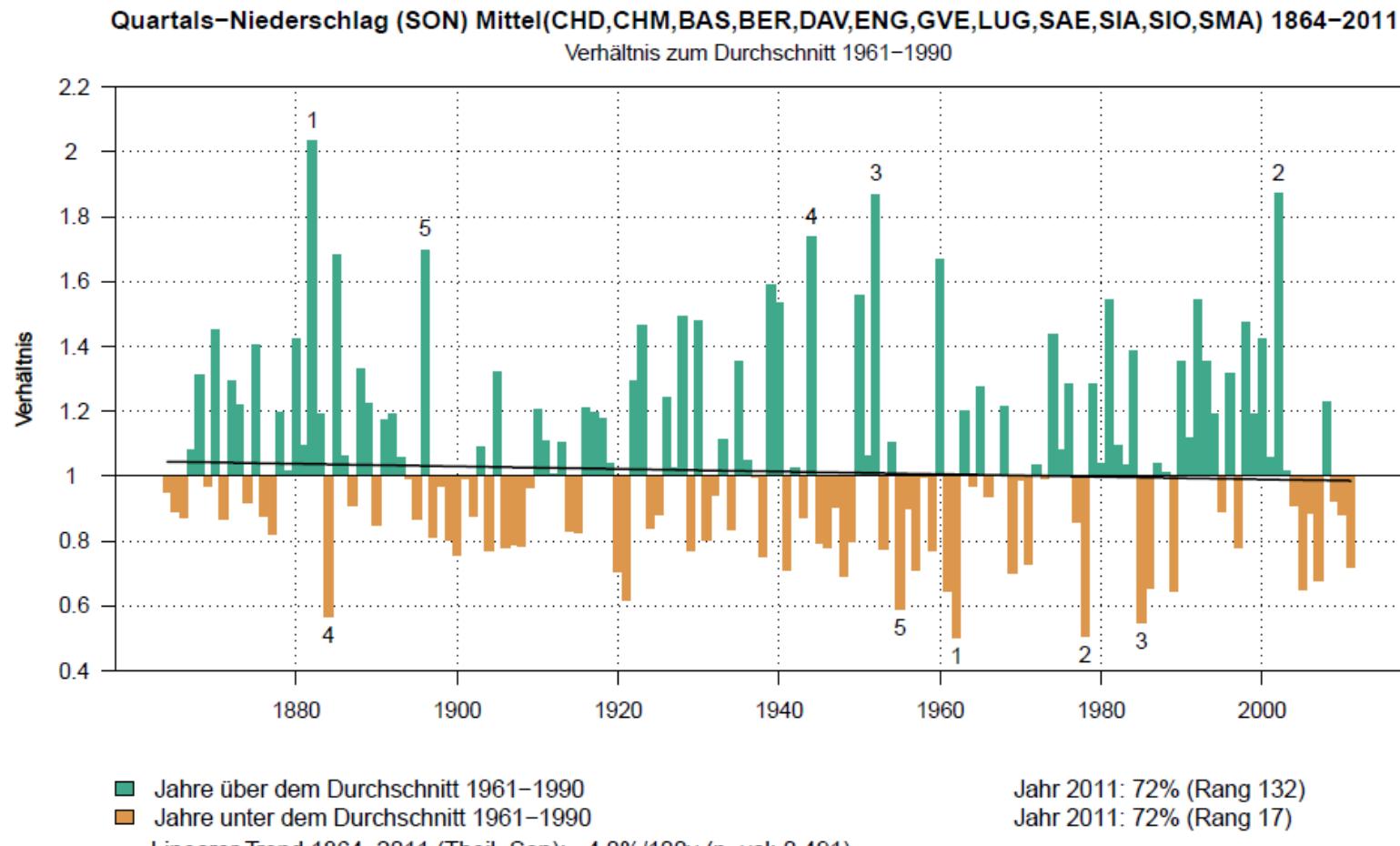


# L'autunno TI 2011 rispetto agli altri





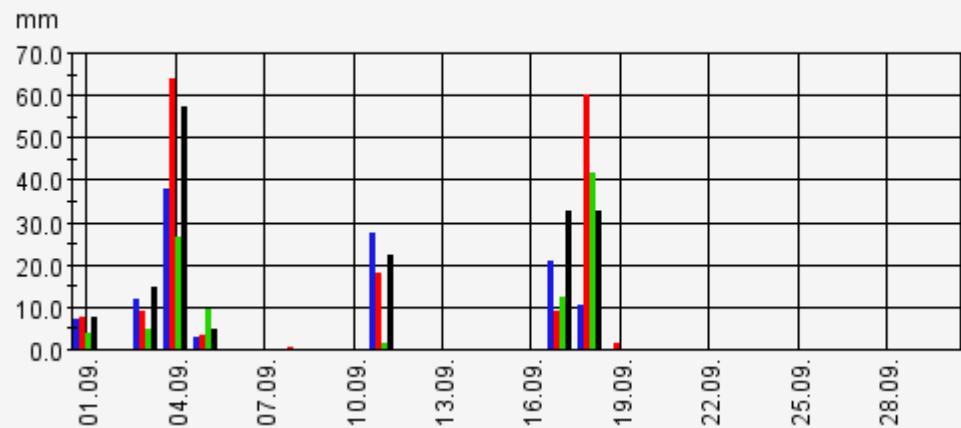
# L'autunno CH 2011 rispetto agli altri





# Precipitazioni giornaliere

Precipitazioni; somma giornaliera civile [mm] 01.09.2011 - 30.09.2011

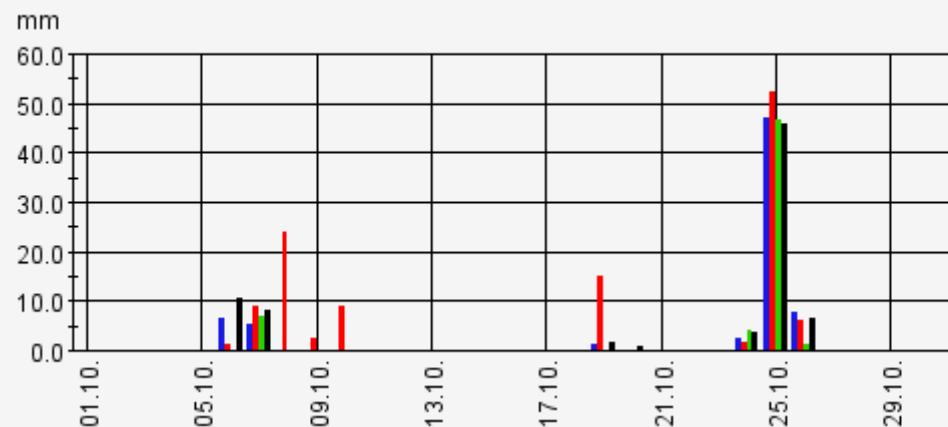


settembre

Origine:  
MeteoSvizzera

- Locarno / Monti
- Robièi
- Stabio
- Magadino / Cadenazzo

Precipitazioni; somma giornaliera civile [mm] 01.10.2011 - 31.10.2011



ottobre

Origine:  
MeteoSvizzera

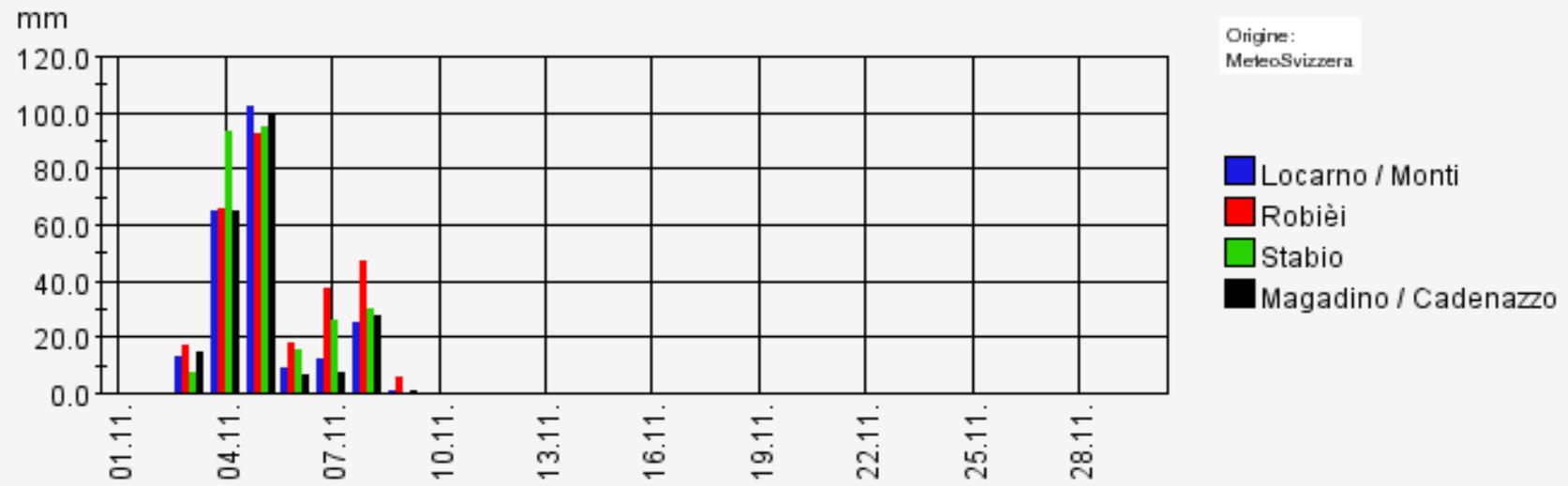
- Locarno / Monti
- Robièi
- Stabio
- Magadino / Cadenazzo



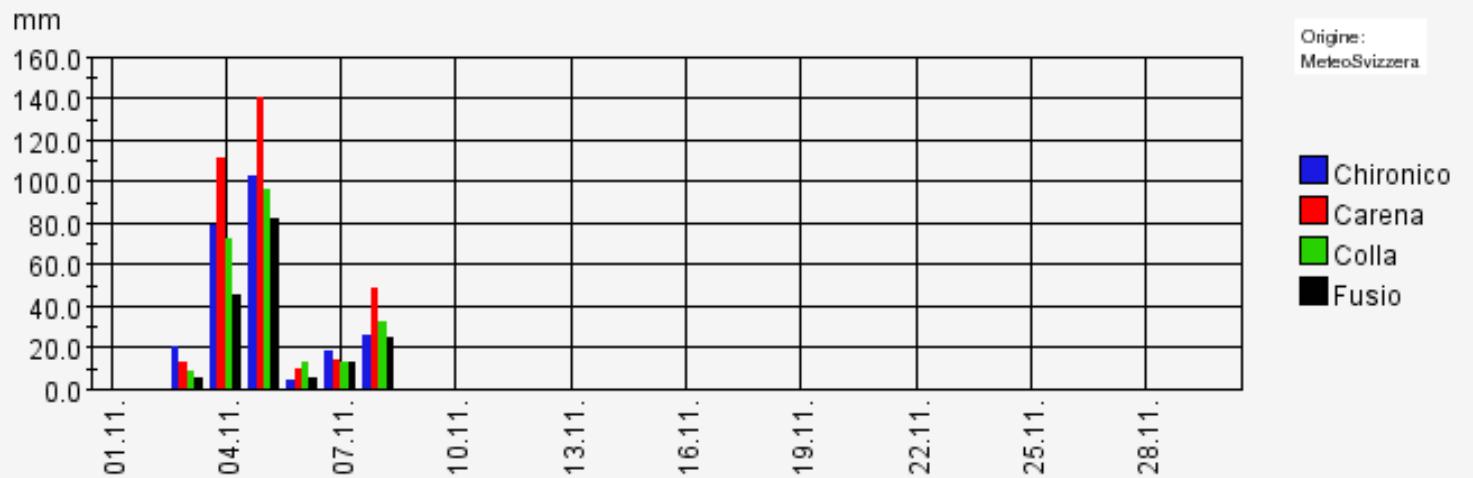
# Precipitazioni giornaliere

novembre

Precipitazioni; somma giornaliera civile [mm] 01.11.2011 - 30.11.2011



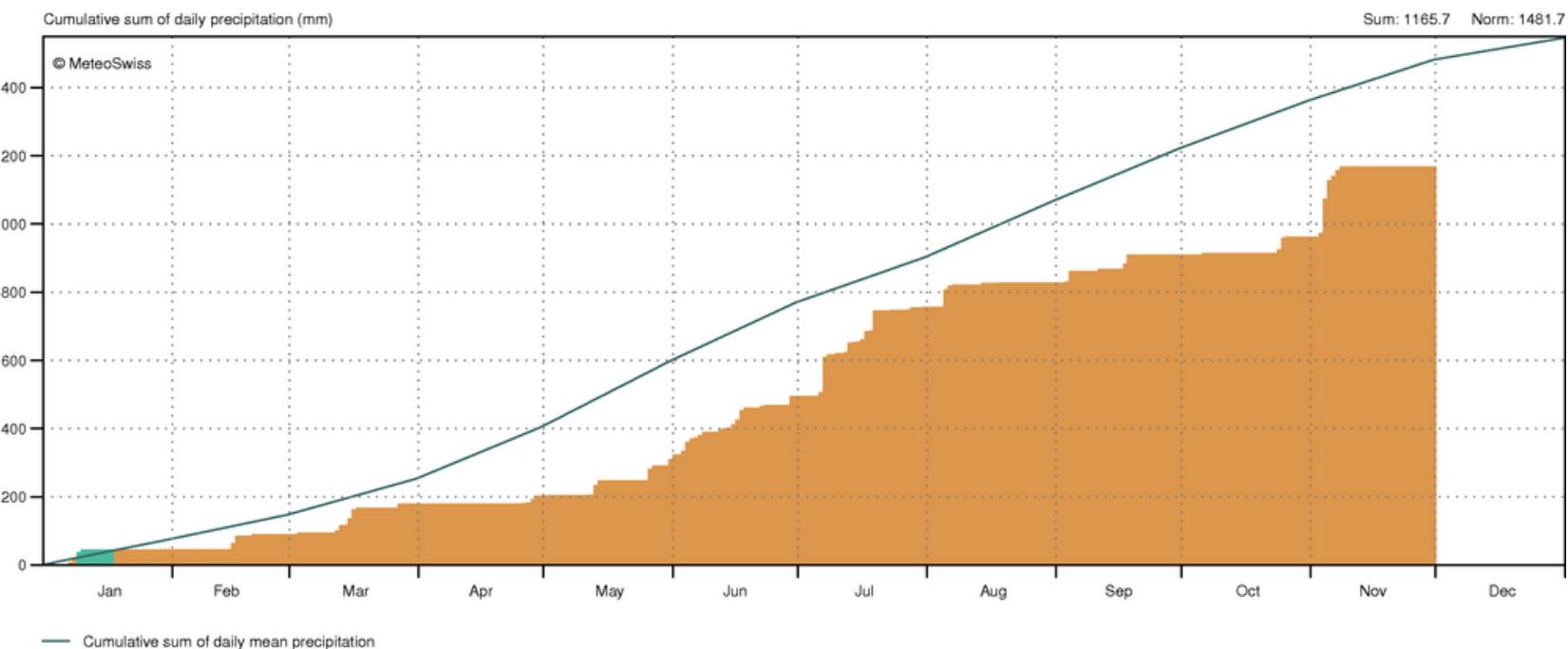
Precipitazioni; somma giornaliera civile [mm] 01.11.2011 - 30.11.2011





# Il deficit idrico del 2011

Lugano (273 m)  
01.01.2011 – 30.11.2011

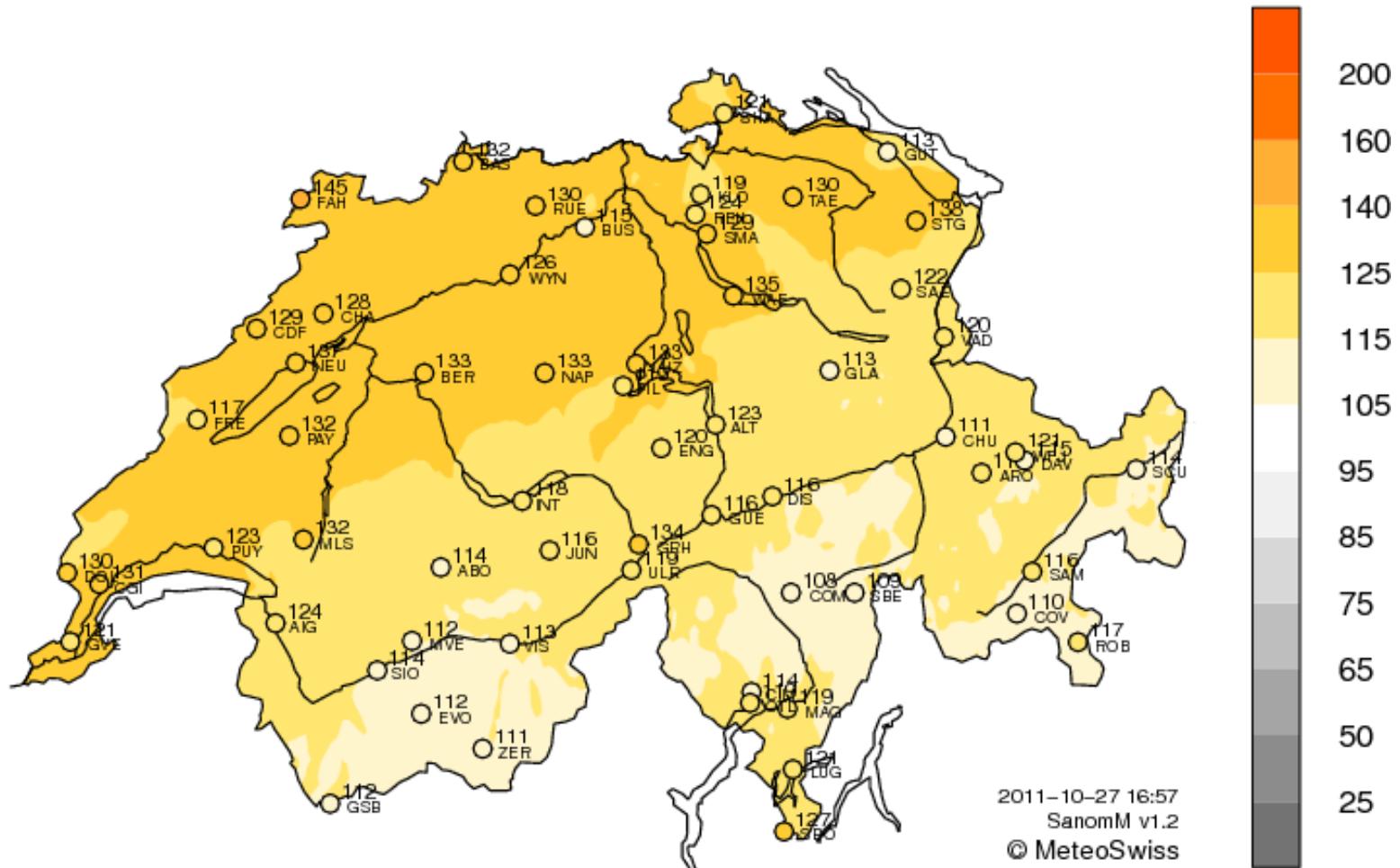


Status: 01.12.2011



# Soleggiamento: anomalia settembre 2011

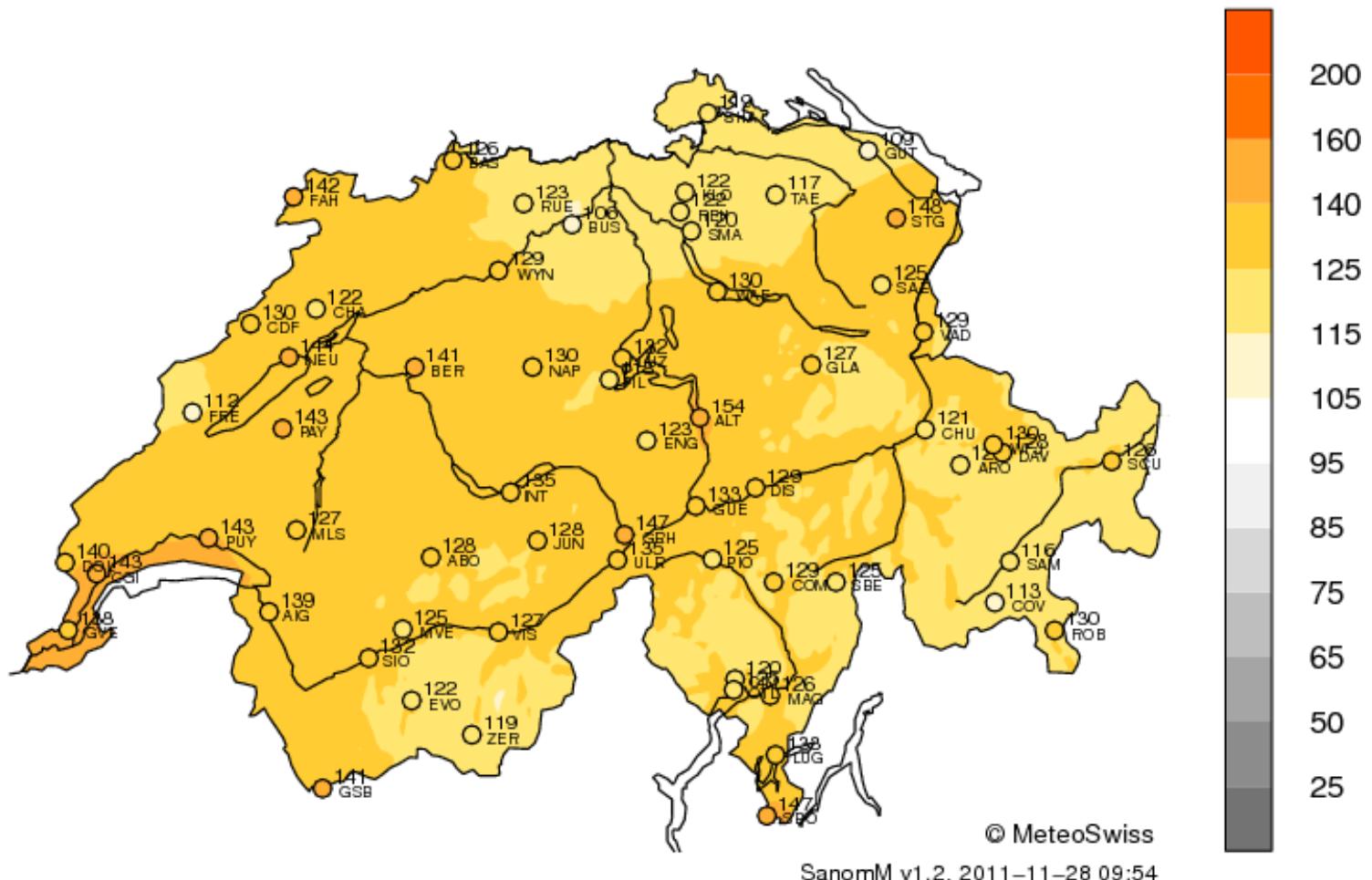
Monthly Sunshine Duration Anomaly (%) Sep 2011 (Ref. 1961–1990)





# Soleggiamento: anomalia ottobre 2011

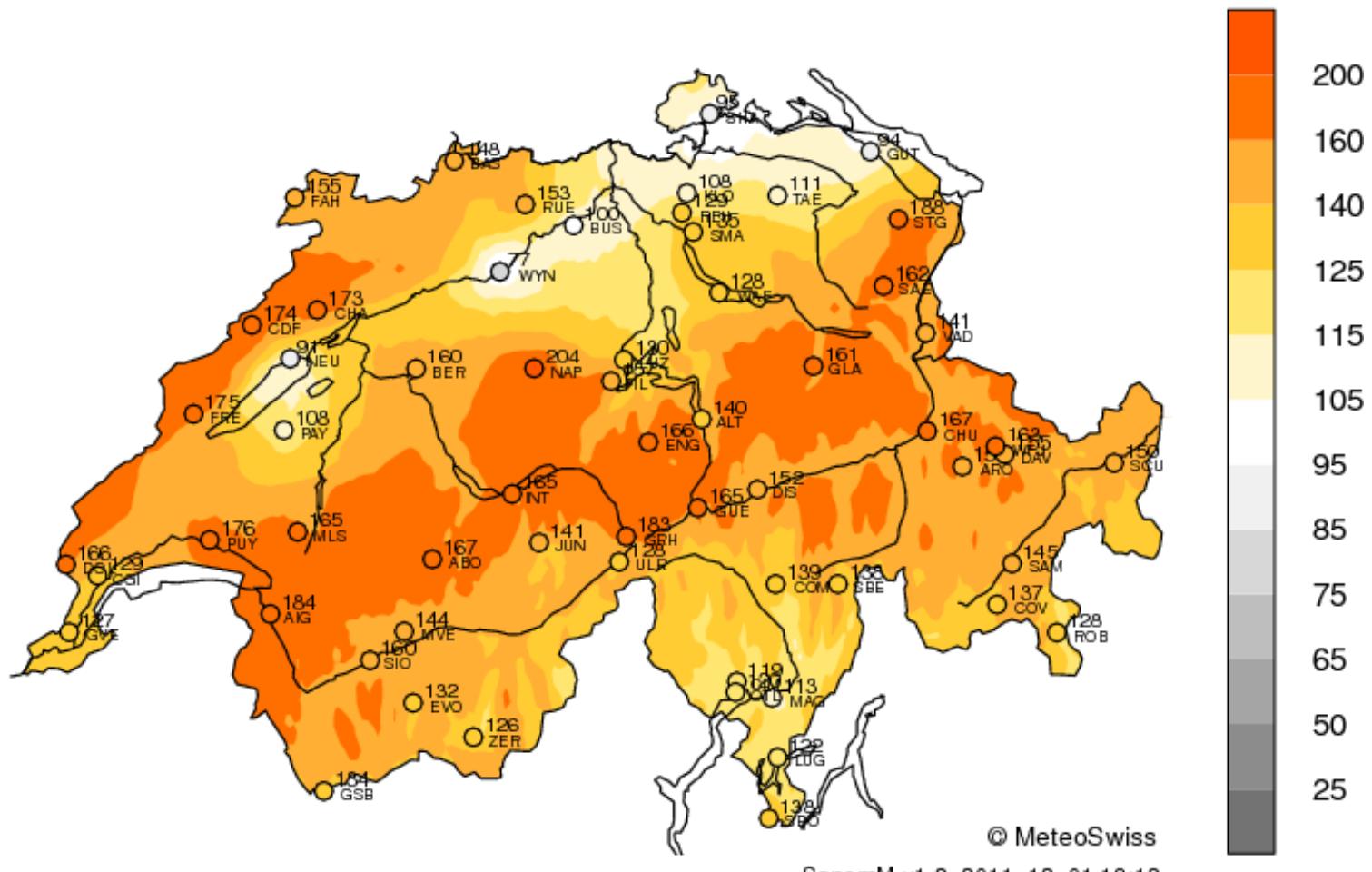
Monthly Sunshine Duration Anomaly (%) Oct 2011 (Ref. 1961–1990)





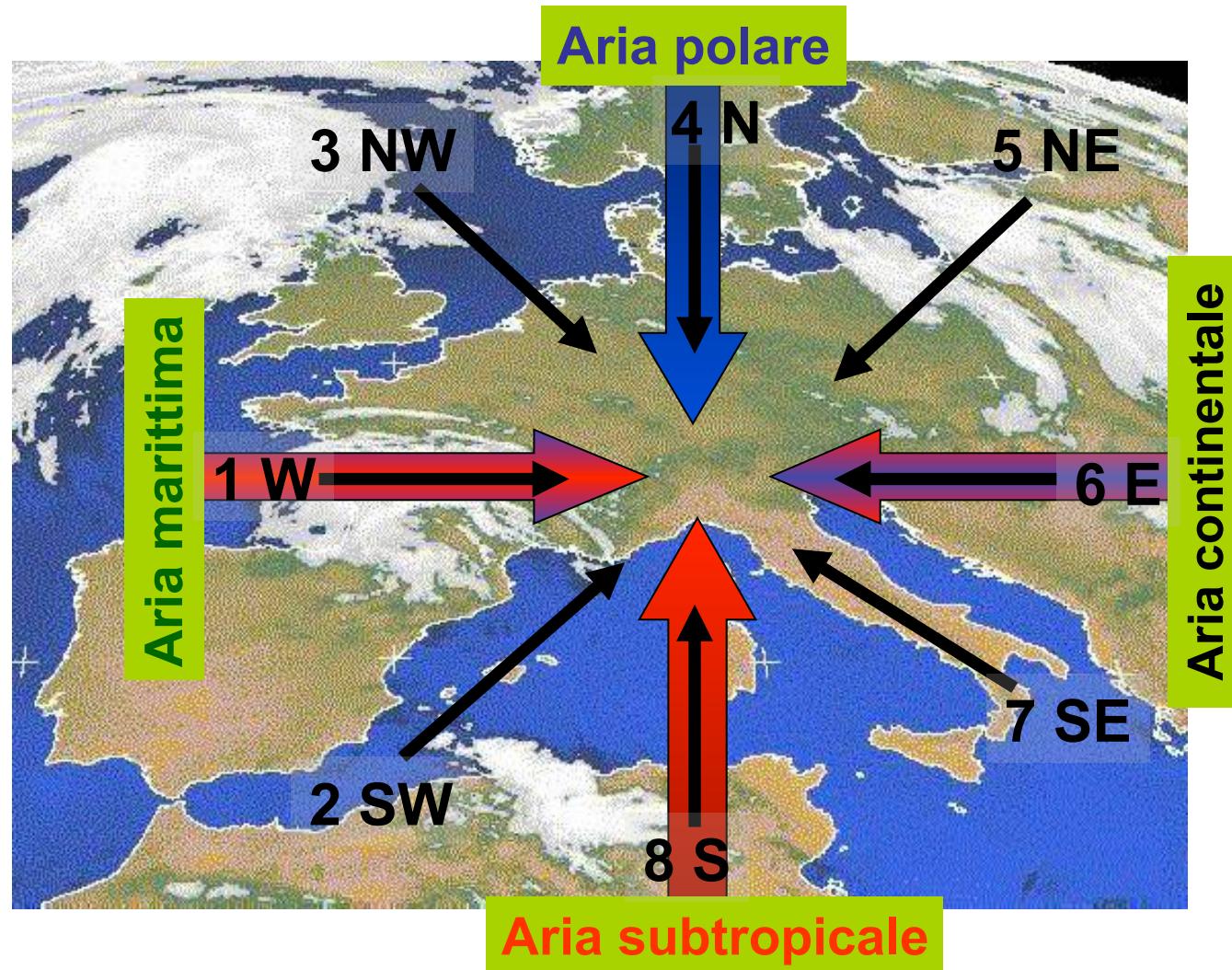
# Soleggiamento: anomalia novembre 2011

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



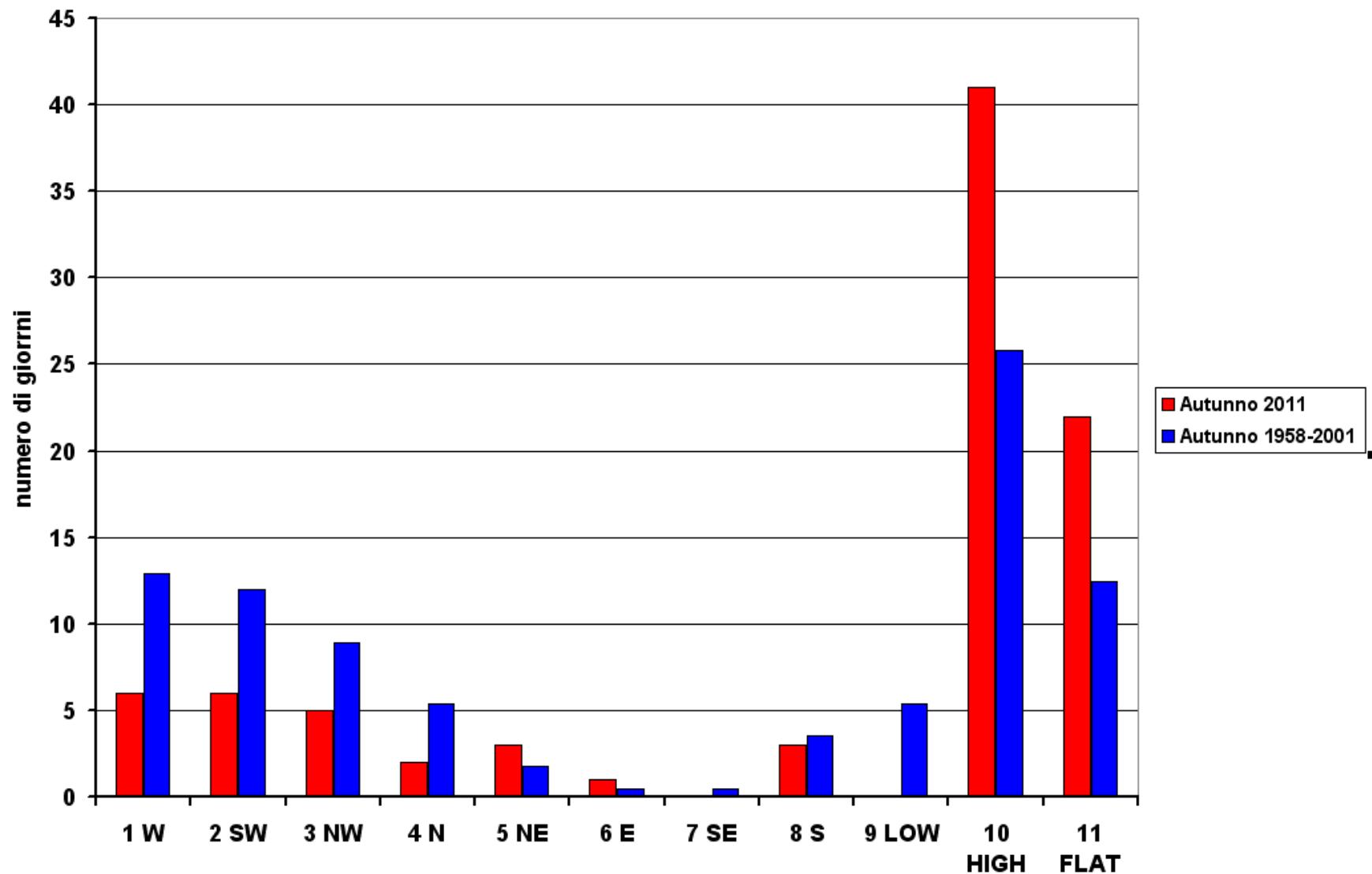


# Massa d'aria diverse, tempo diverso, situazioni diverse



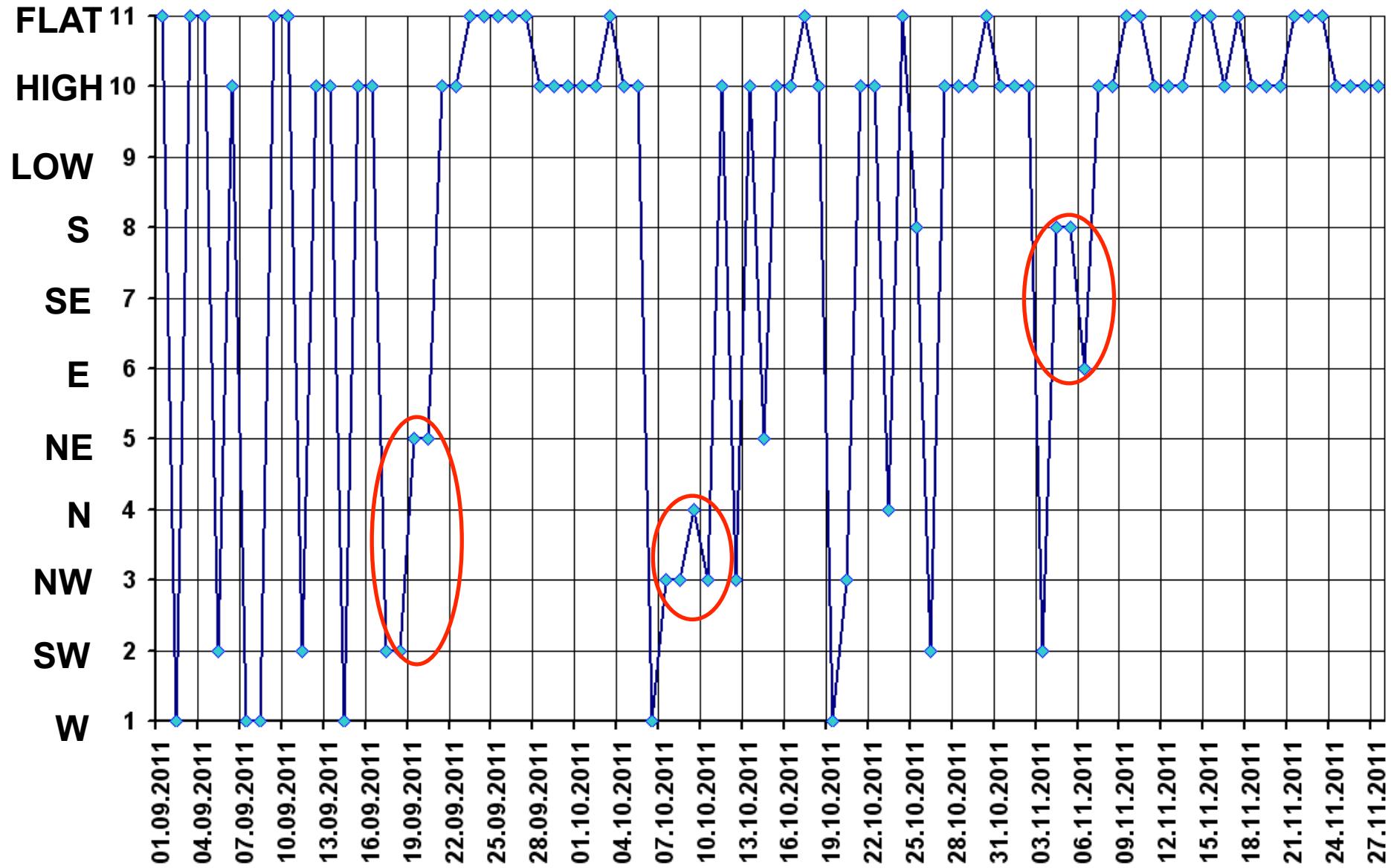


# La distribuzione delle situazioni





# L'evoluzione delle situazioni



DIENSTAG, 29. NOVEMBER 2011, 17:33 UHR

NACHRICHTEN

FINANZEN

Startseite · Politik · Wirtschaft ·

Nachrichten → Panorama

19. September 2011, 08:02, NZZ Online

## Früher Wintereinbruch in den Alpen

*Mehrere Pässe gesperrt*



Blick.ch > News > Schweiz > «Ganz St. Moritz ist im Einsatz»

**News für BILD oder BLICK? 8989**

**Rekord-Schnee in Graubünden  
«Ganz St. Moritz ist im Einsatz»**

ST. MORITZ GR - Die Nacht brachte Schnee in den Kanton Graubünden. 45 Zentimeter Neuschnee wurden in St. Moritz gemessen. Die Gemeinde versucht nun, Straßen und Schienen wieder frei zu schaufeln.

Aktualisiert um 17:29 | 19.09.2011



St. Moritz (Leserreporter)

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Ihre Story, Ihre Informationen, Ihr Hinweis? [feedback@zominuten.ch](mailto:feedback@zominuten.ch)

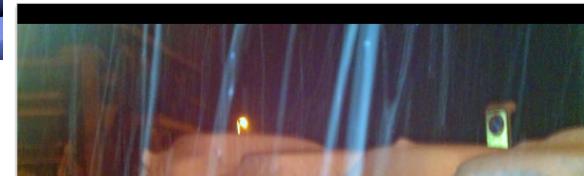
WINTEREINBRUCH IM SEPTEMBER

19. September 2011 09:08; Akt: 19.09.2011 14:34

## Schneefälle wie seit 17 Jahren nicht mehr

Die Schneefälle im Bündnerland sind rekordverdächtig: St. Moritz bedecken rund 50 Zentimeter, Arosa 40 und Davos 30. Das letzte derartige Extremereignis liegt 17 Jahre zurück.

[Bildstrecke im Grossformat »](#)



## SÜDOSTSCHWEIZ.CH

Region Schweiz Ausland Sport Wirtschaft Kultur Panorama Dossier Leben  
Südostschweiz Graubünden Glarus Gaster / See

GRAUBÜNDEN | VERMISCHTES

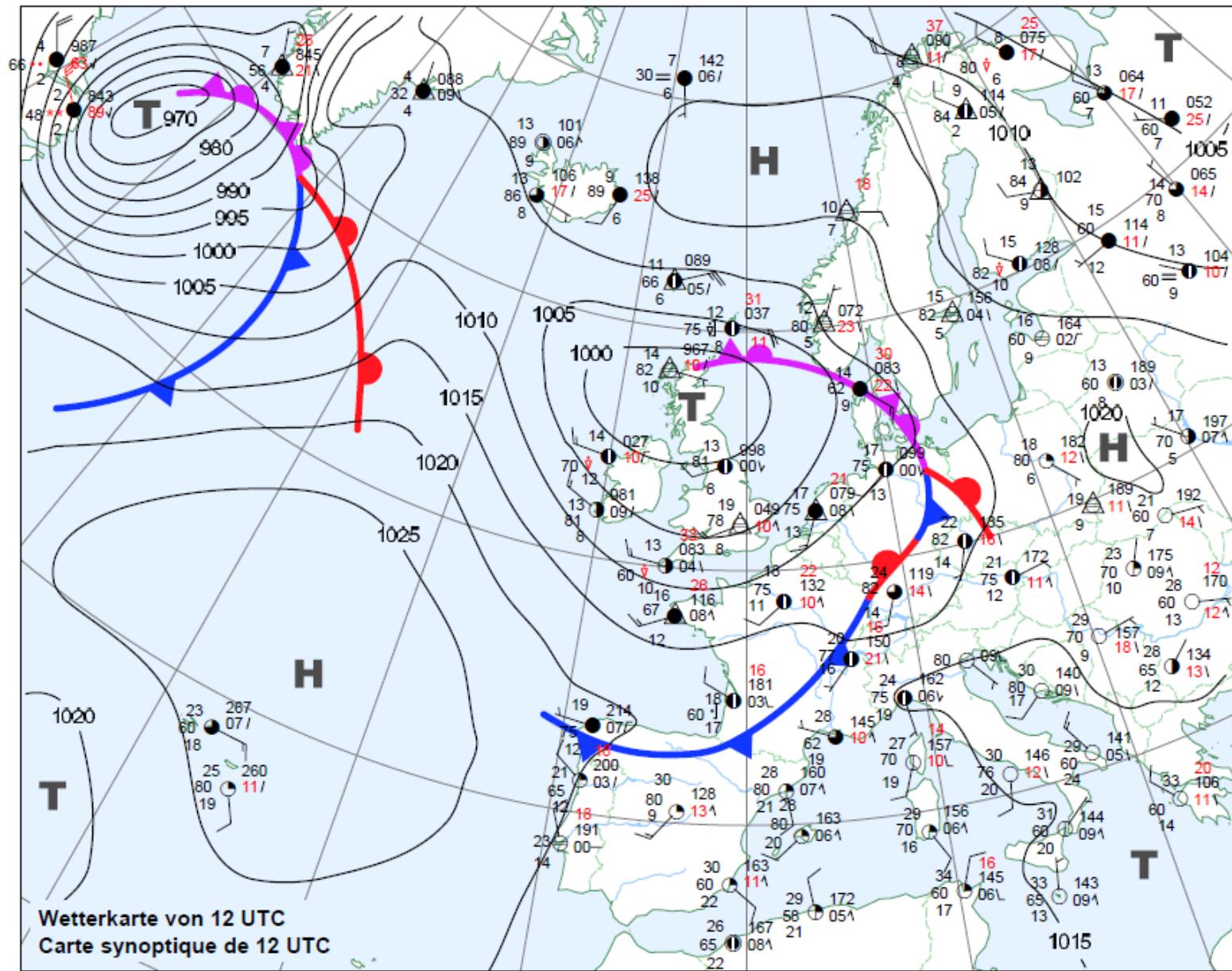
## Der Wintereinbruch stoppt Züge und den Individualverkehr

Umgestürzte Bäume haben auf verschiedenen Linien der Rhätischen Bahn zu Unterbrüchen und Betriebsstörungen geführt.



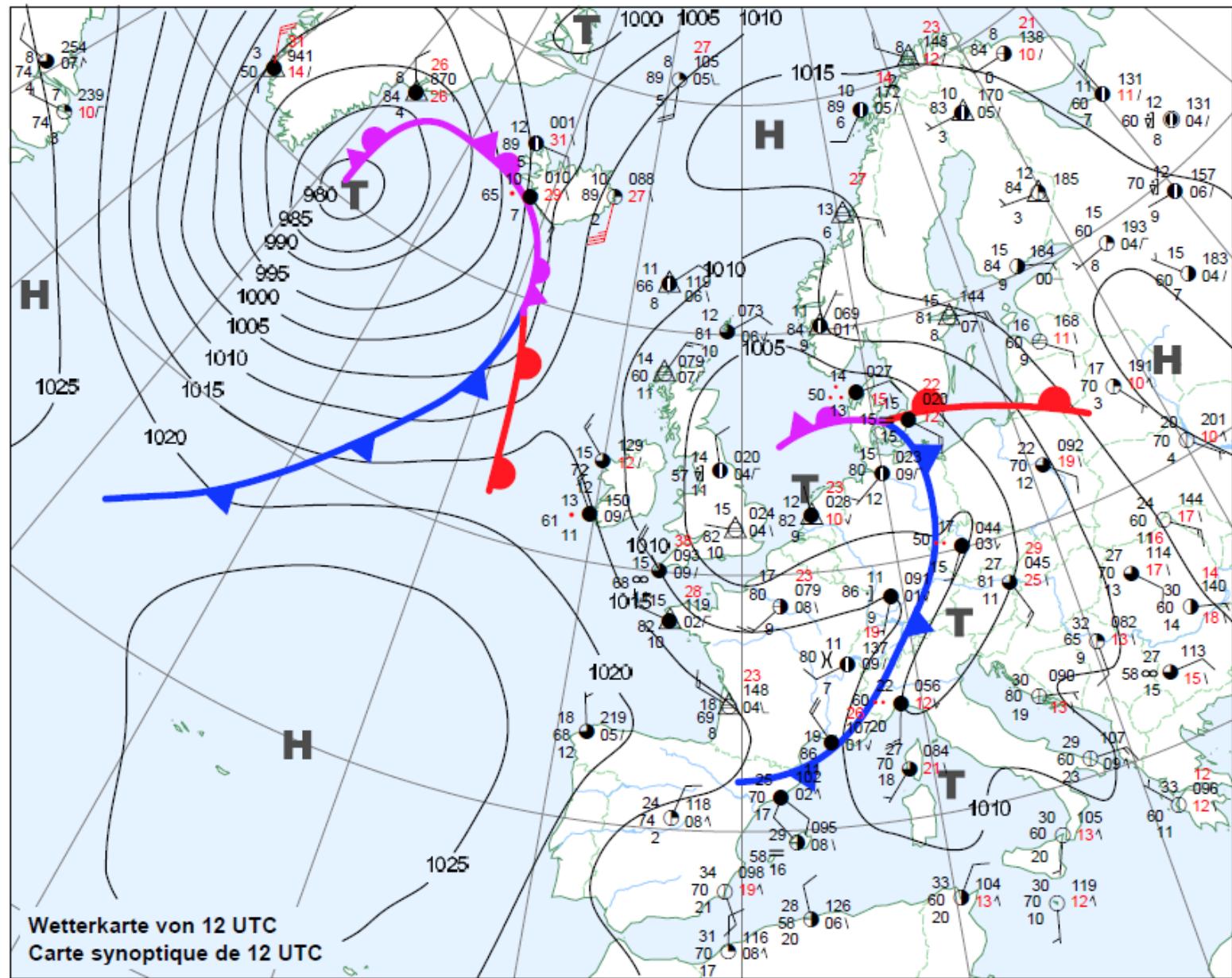


# 17 settembre 2011: carta al suolo



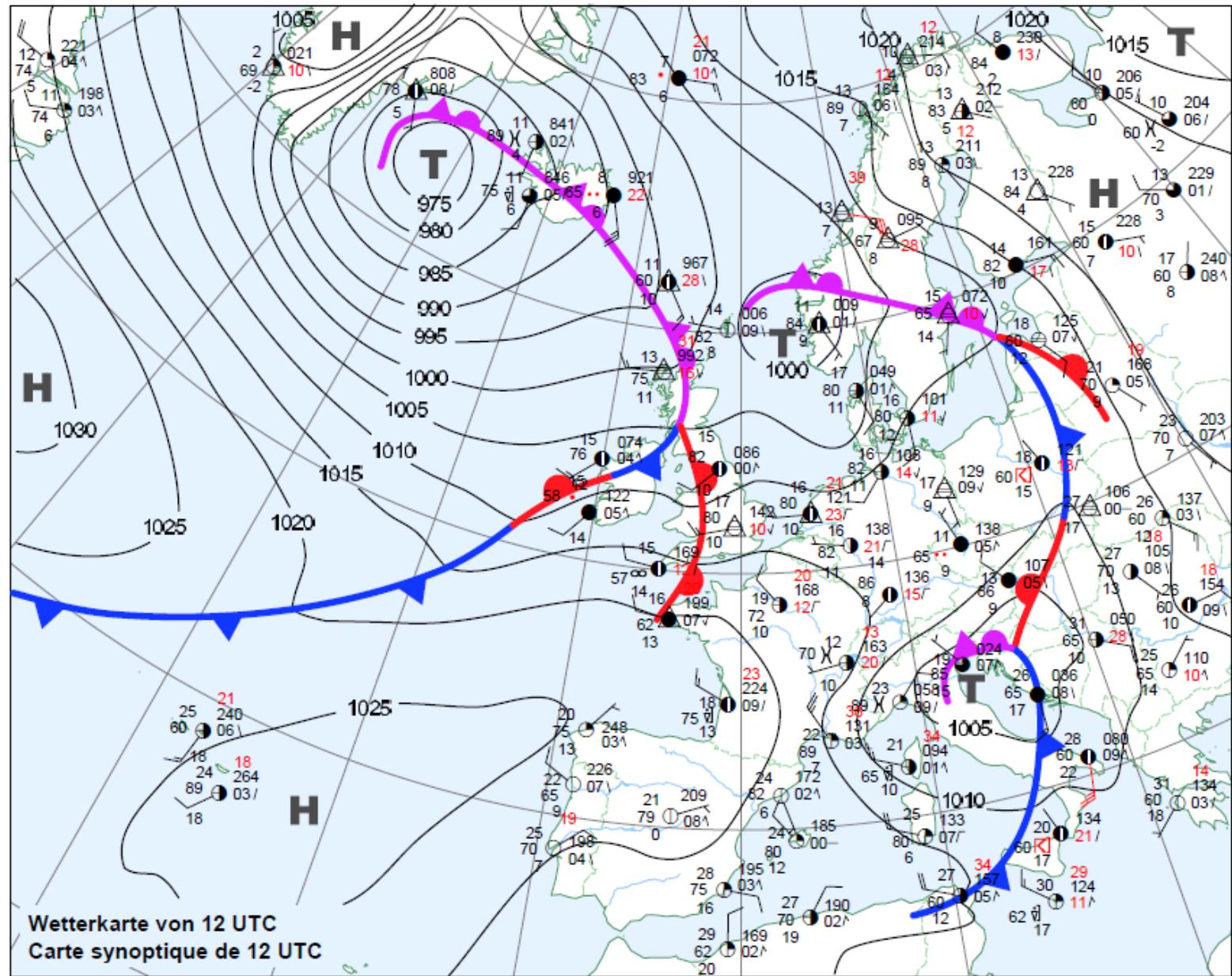


# 18 settembre 2011: carta al suolo



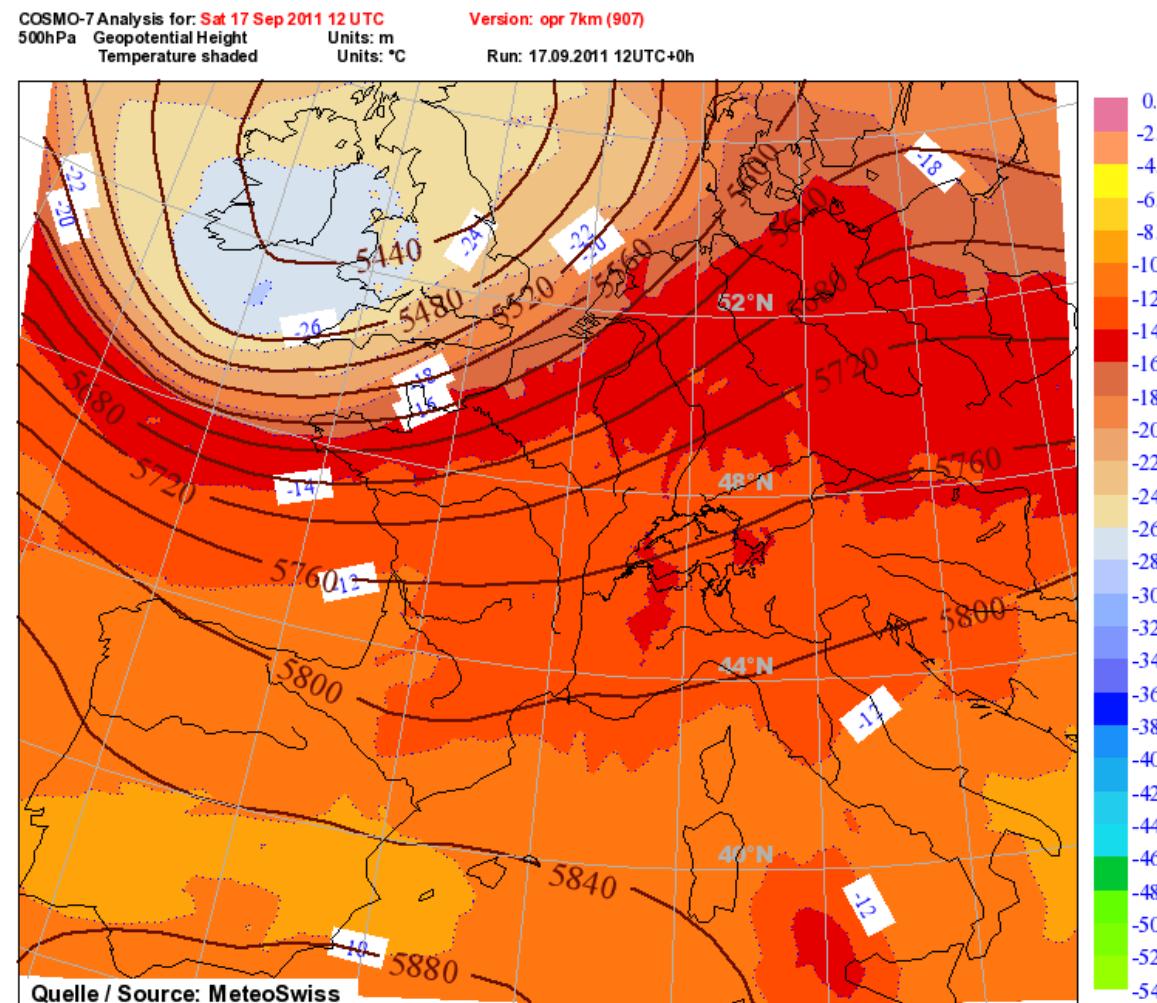


# 19 settembre 2011



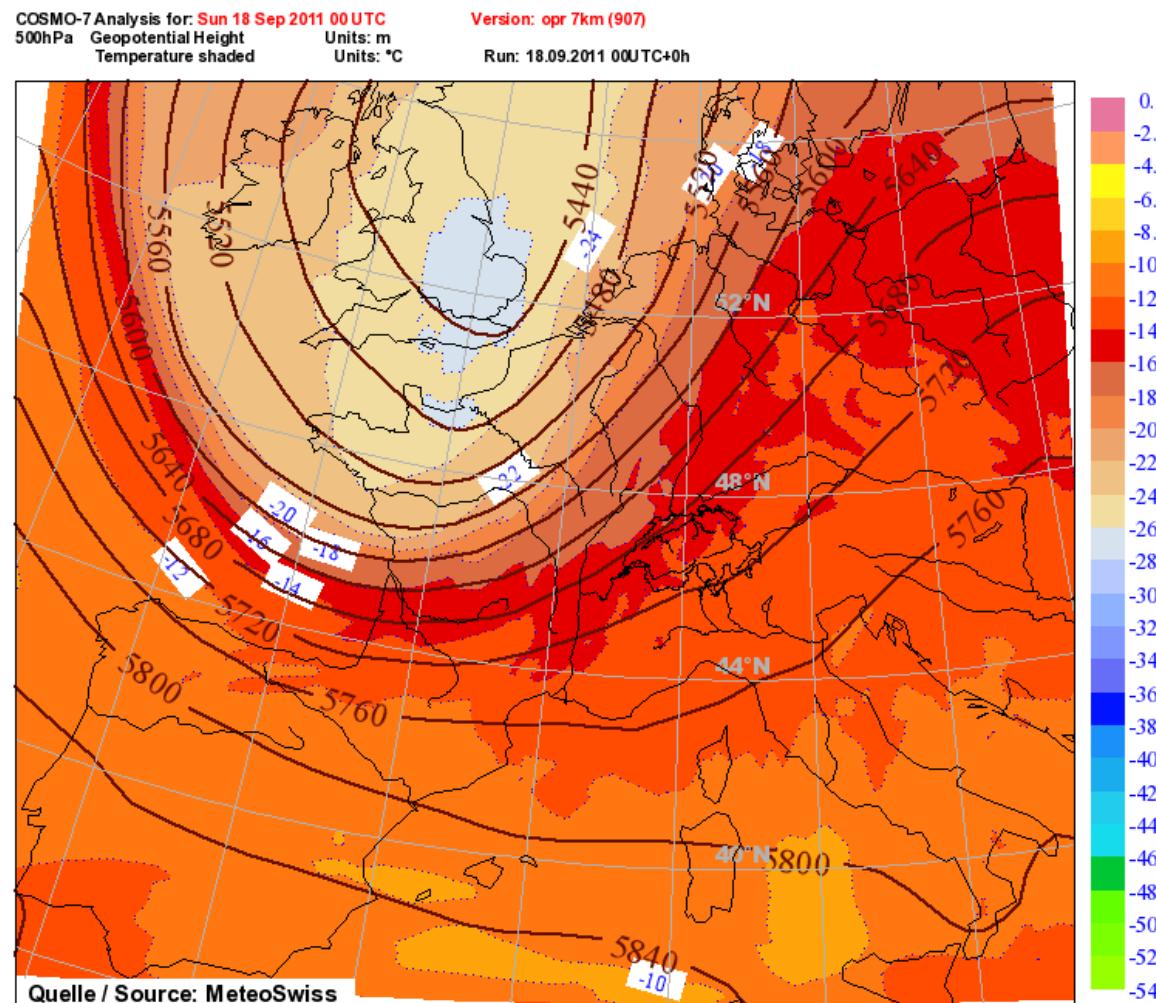


# Z@500 hPa 17 12UTC



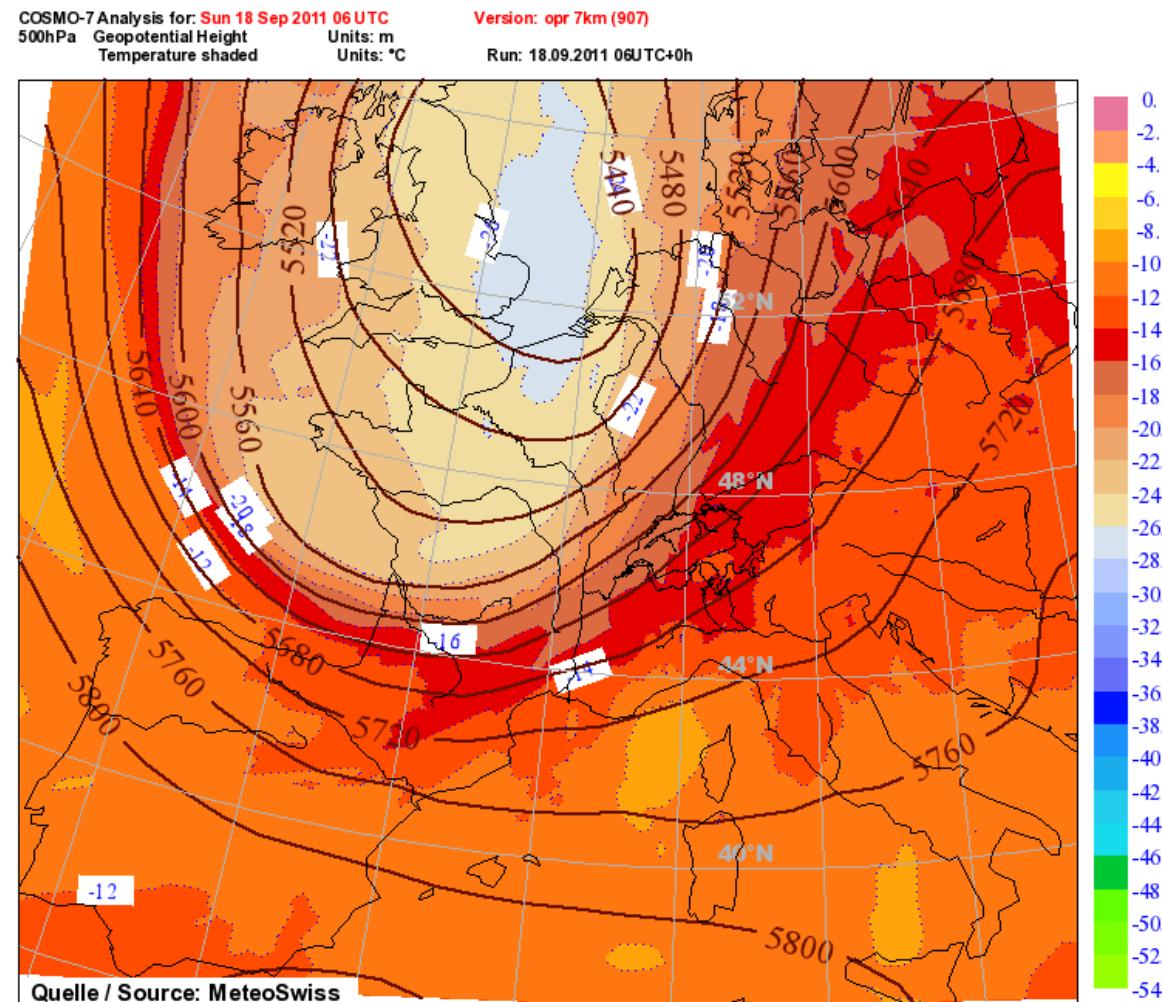


# Z@500 hPa 18 00UTC



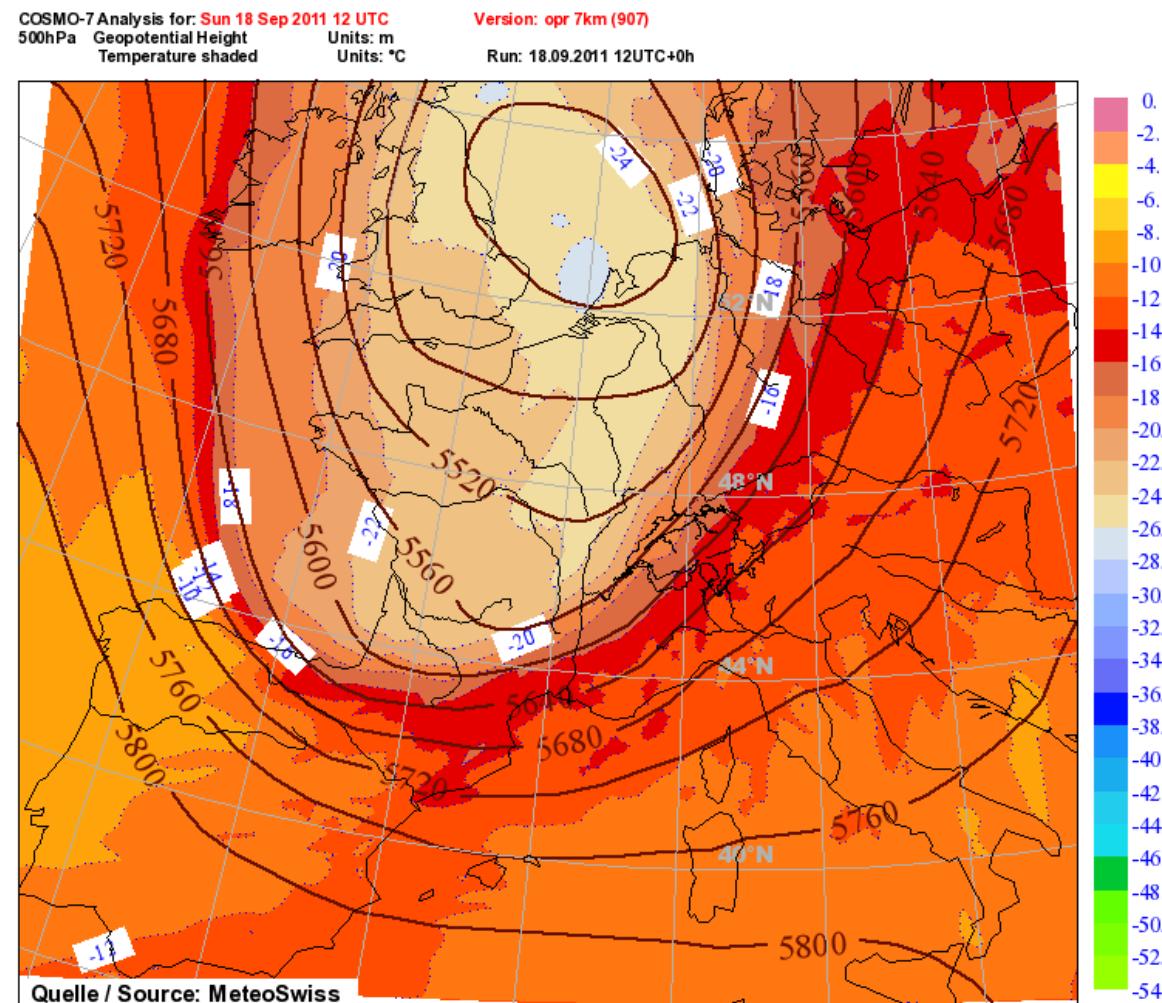


# Z@500 hPa 18 06UTC



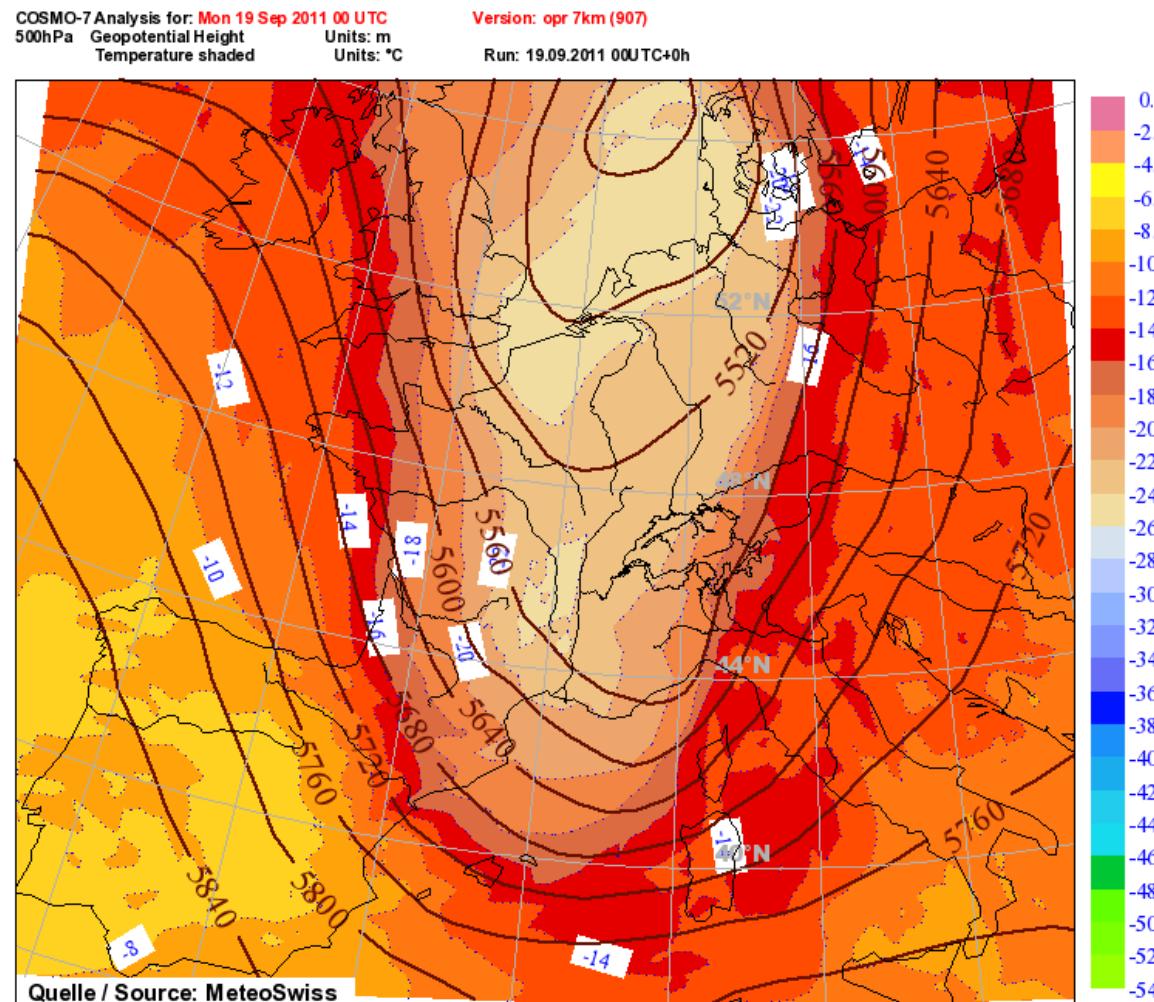


# Z@500 hPa 18 12UTC



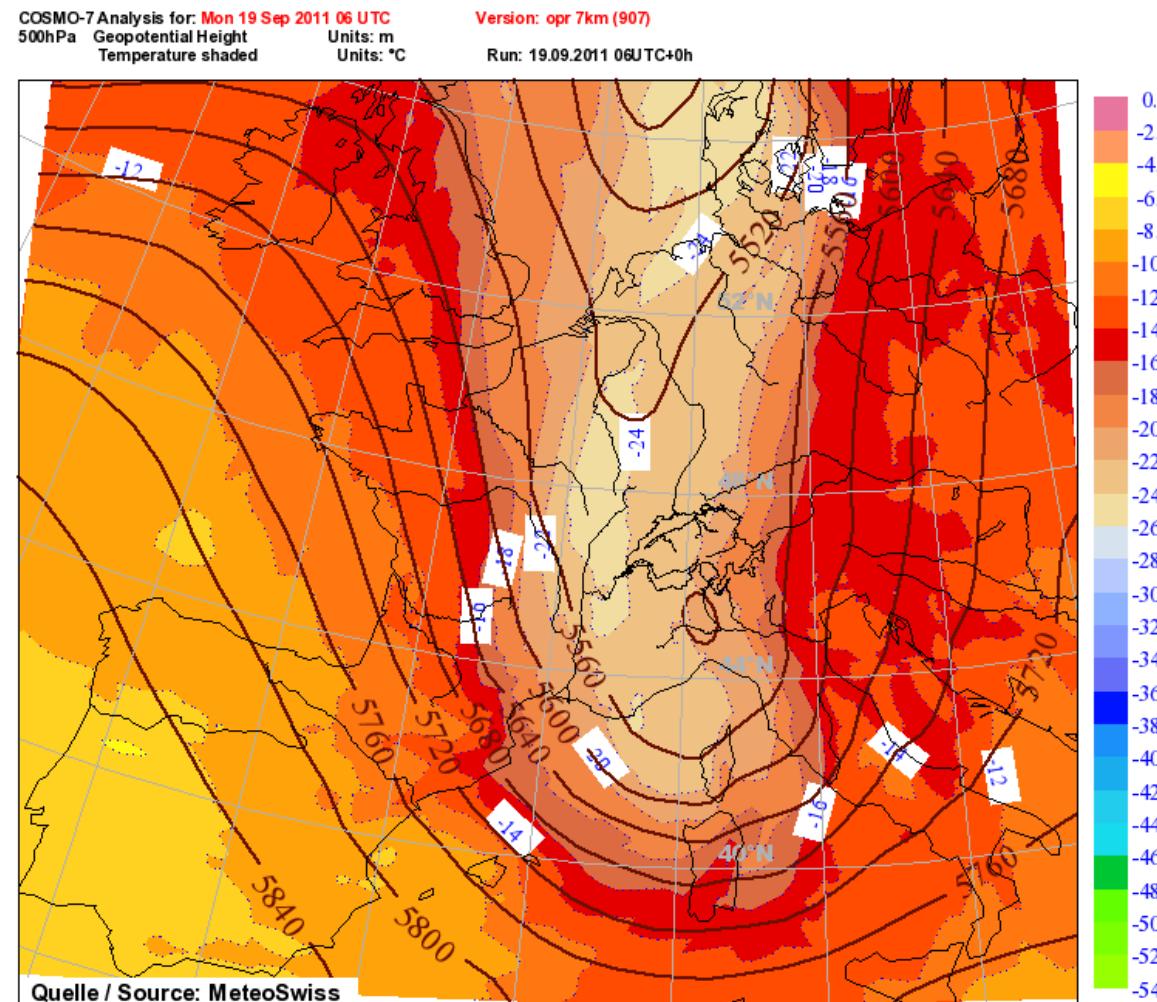


# Z@500 hPa 19 00UTC



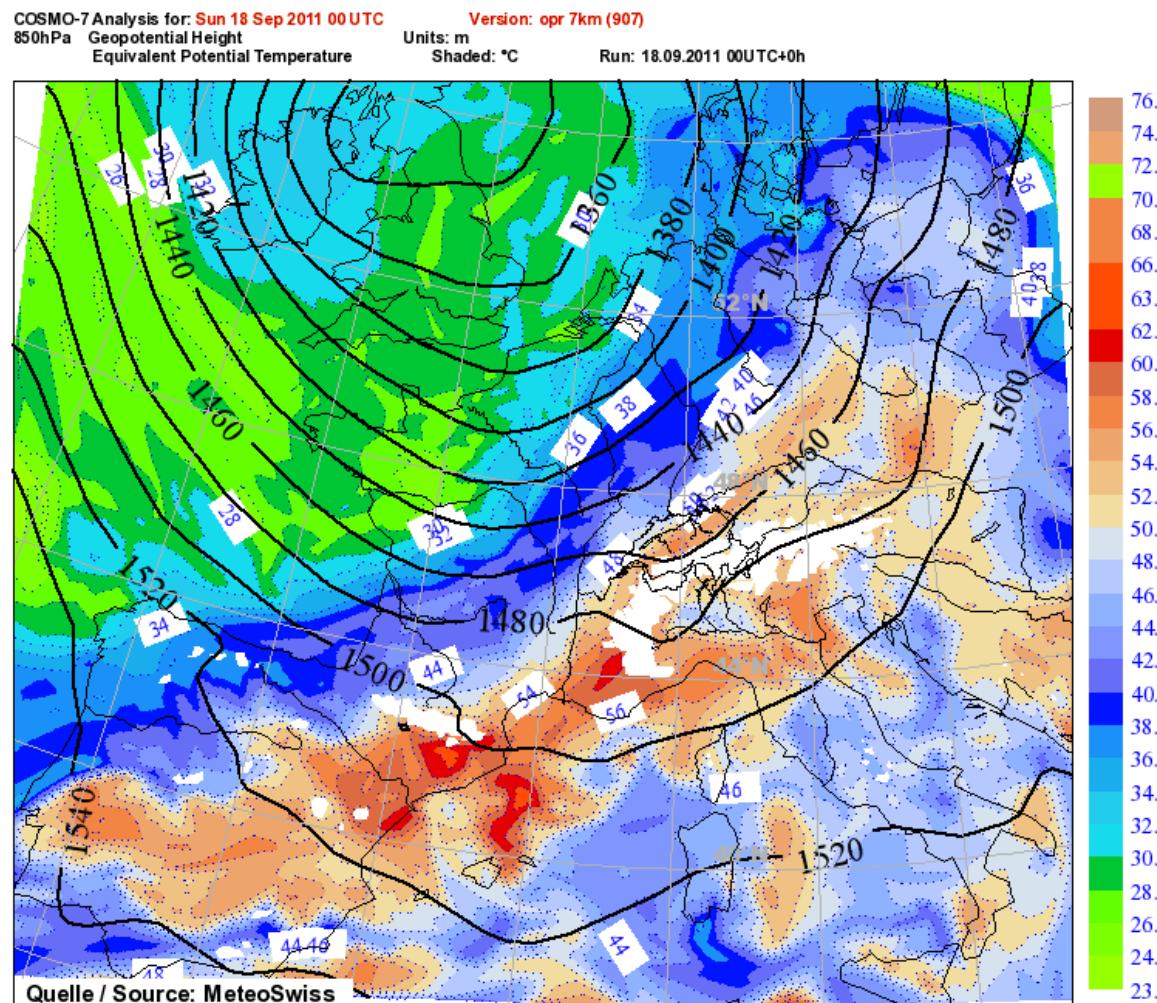


# Z@500 hPa 19 06UTC



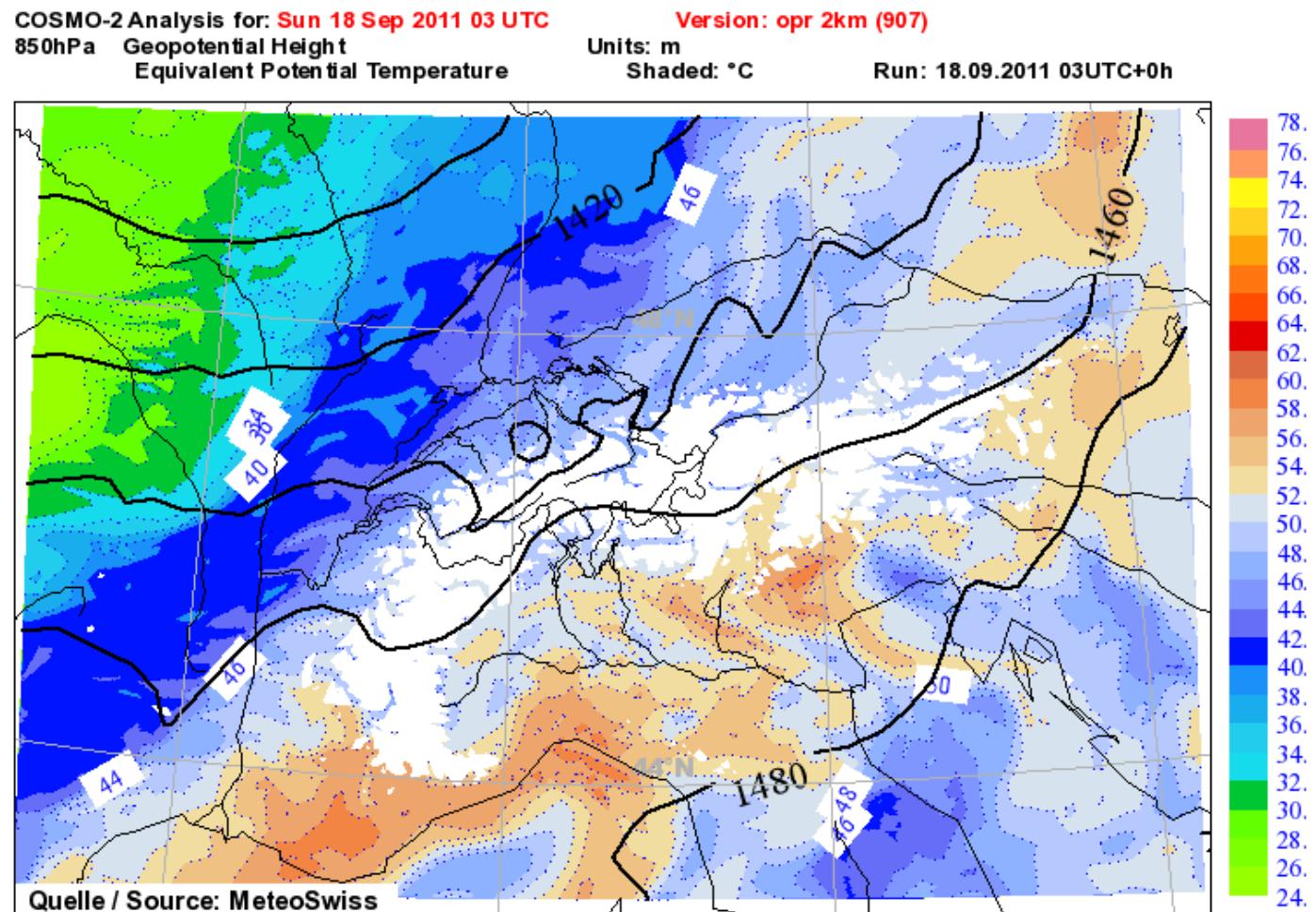


# Temperatura equipotenziale 18 00UTC



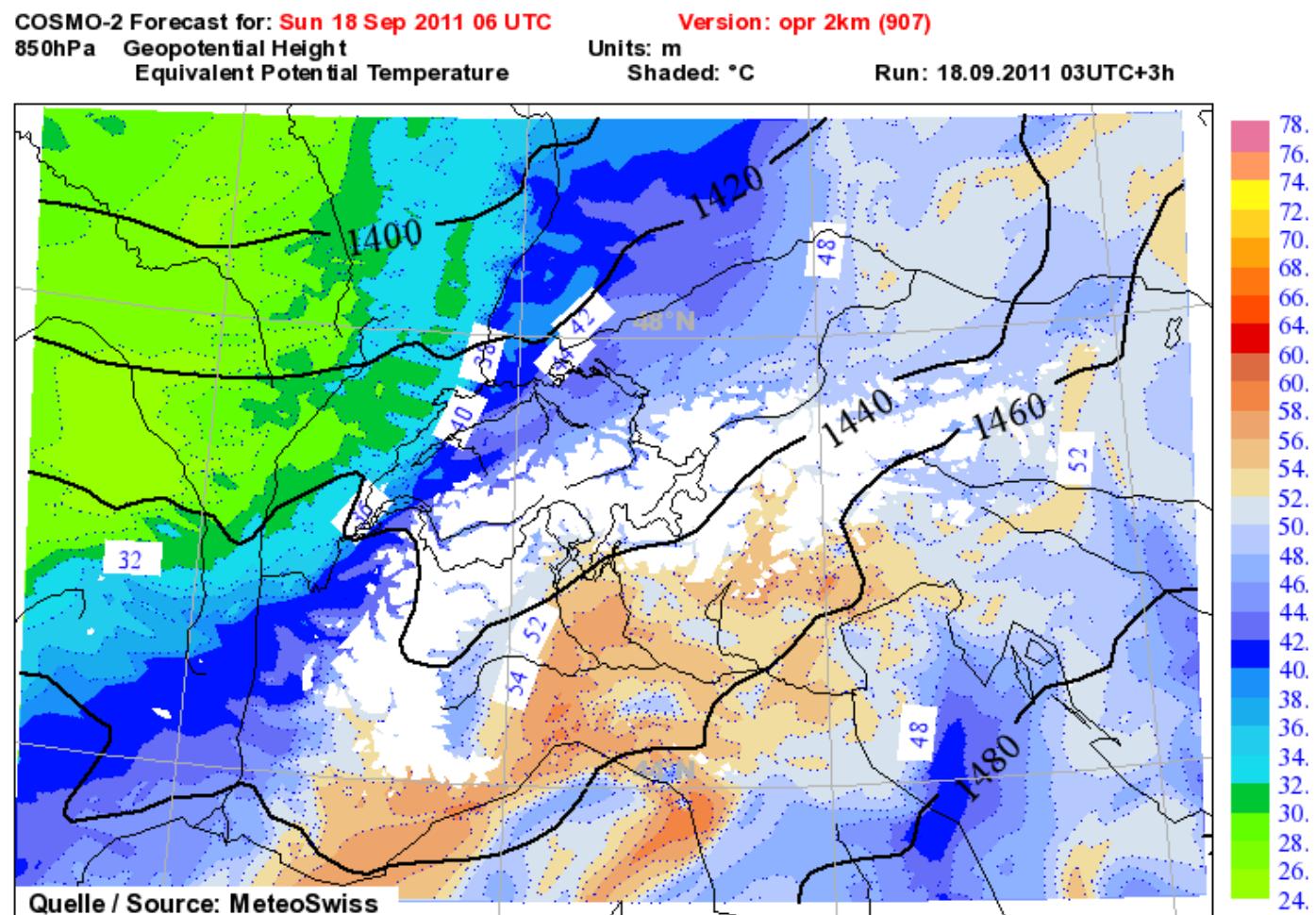


# Temperatura equipotenziale 18 03UTC



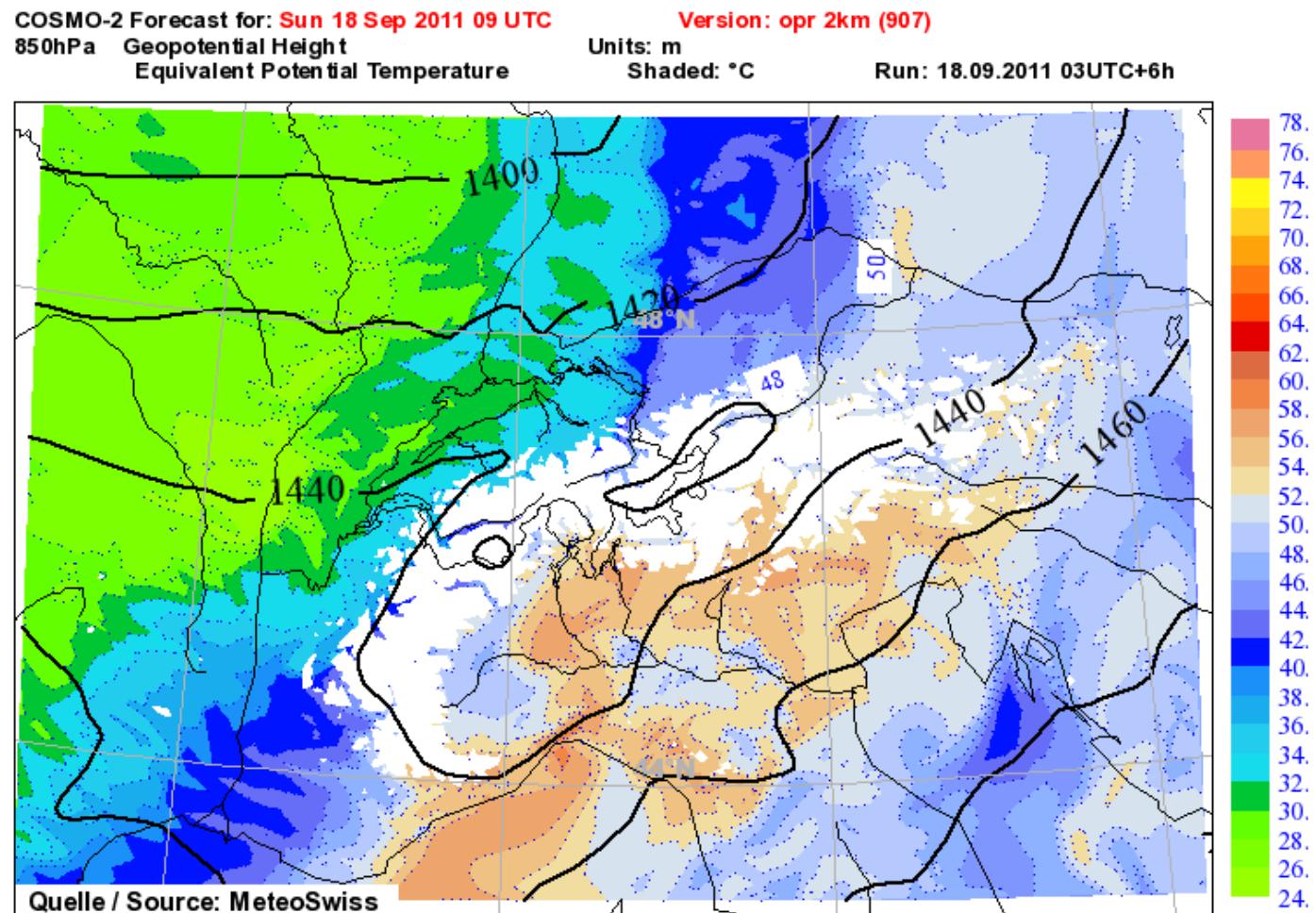


# Temperatura equipotenziale 18 06UTC



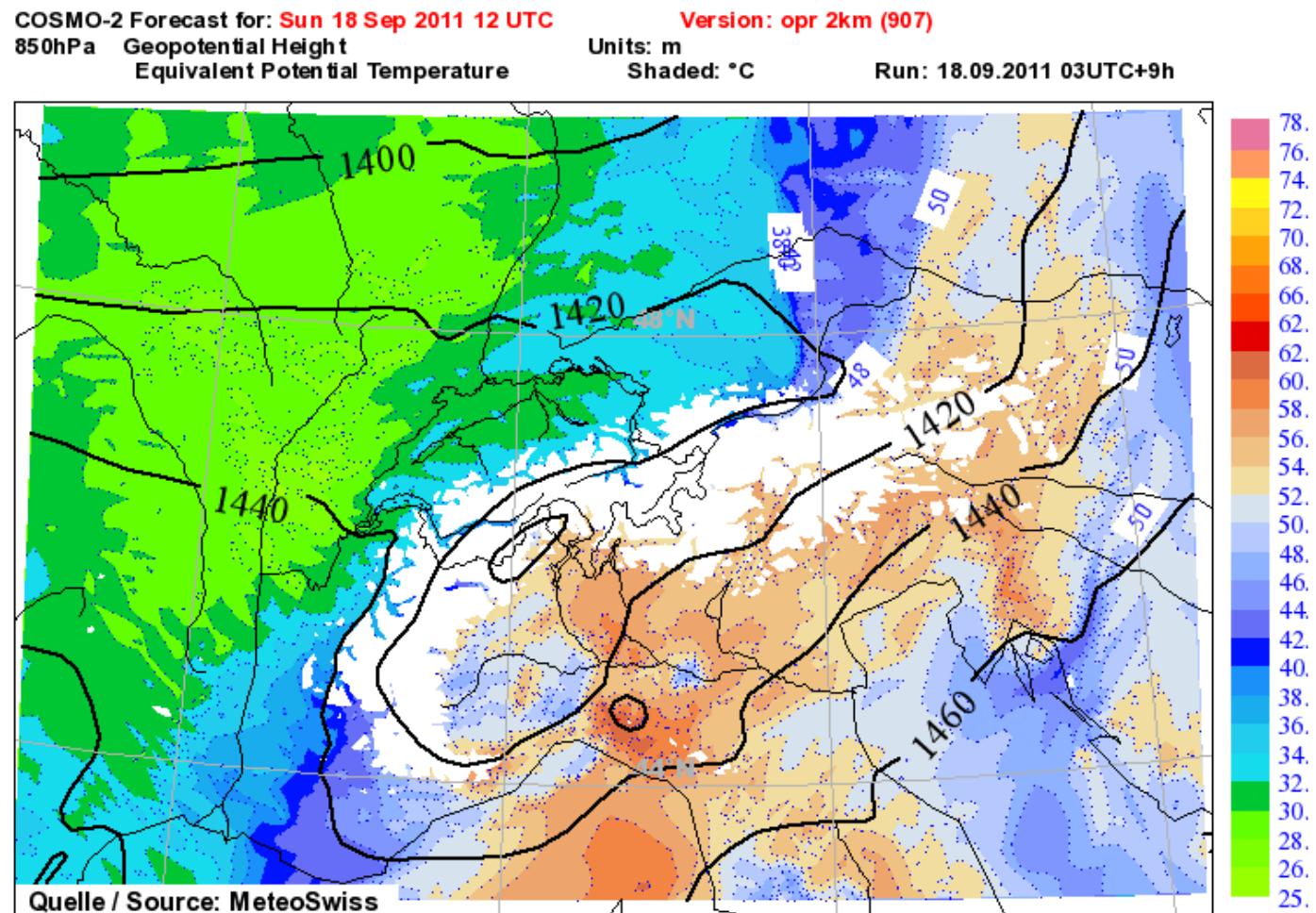


# Temperatura equipotenziale 18 09UTC



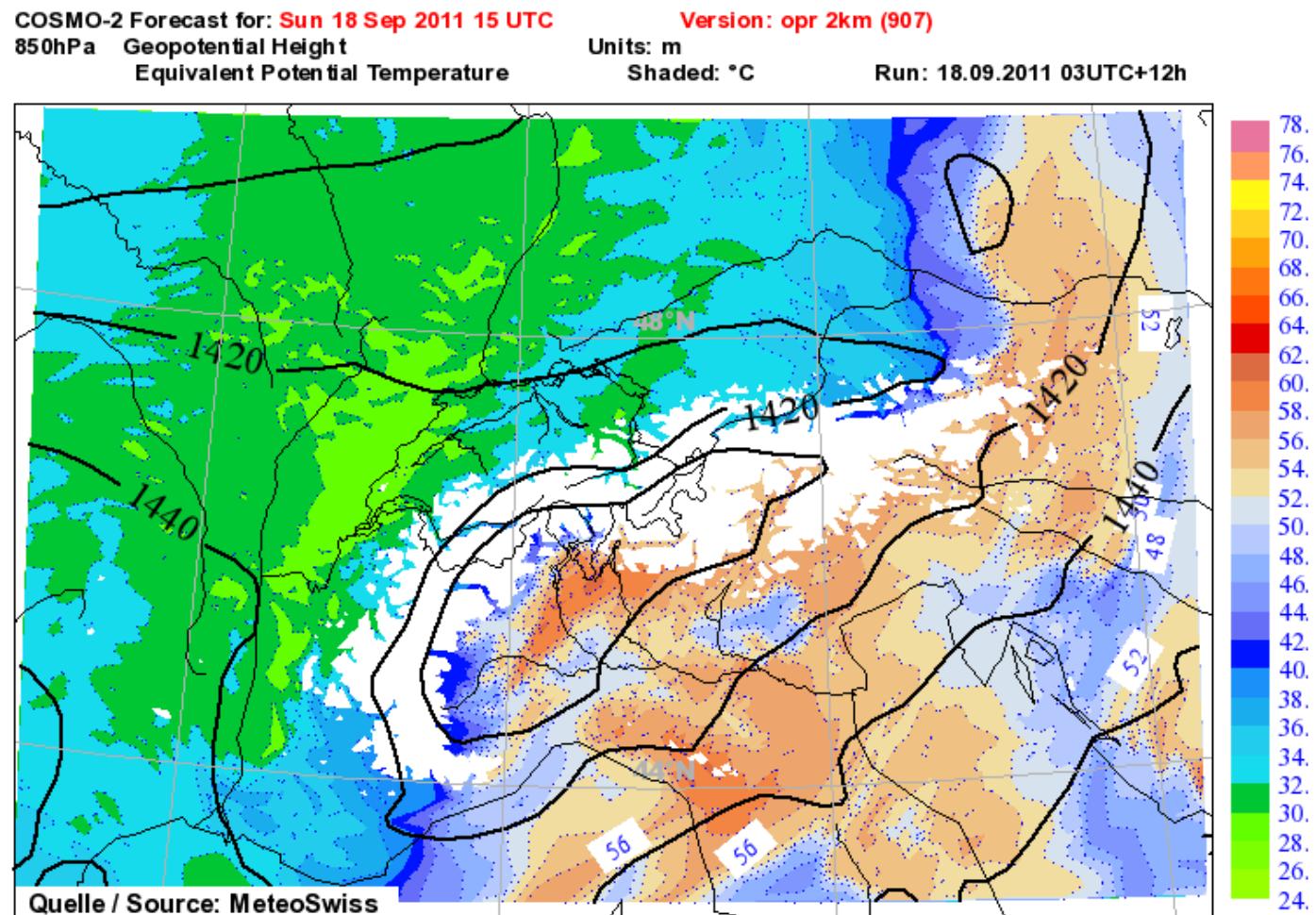


# Temperatura equipotenziale 18 12UTC



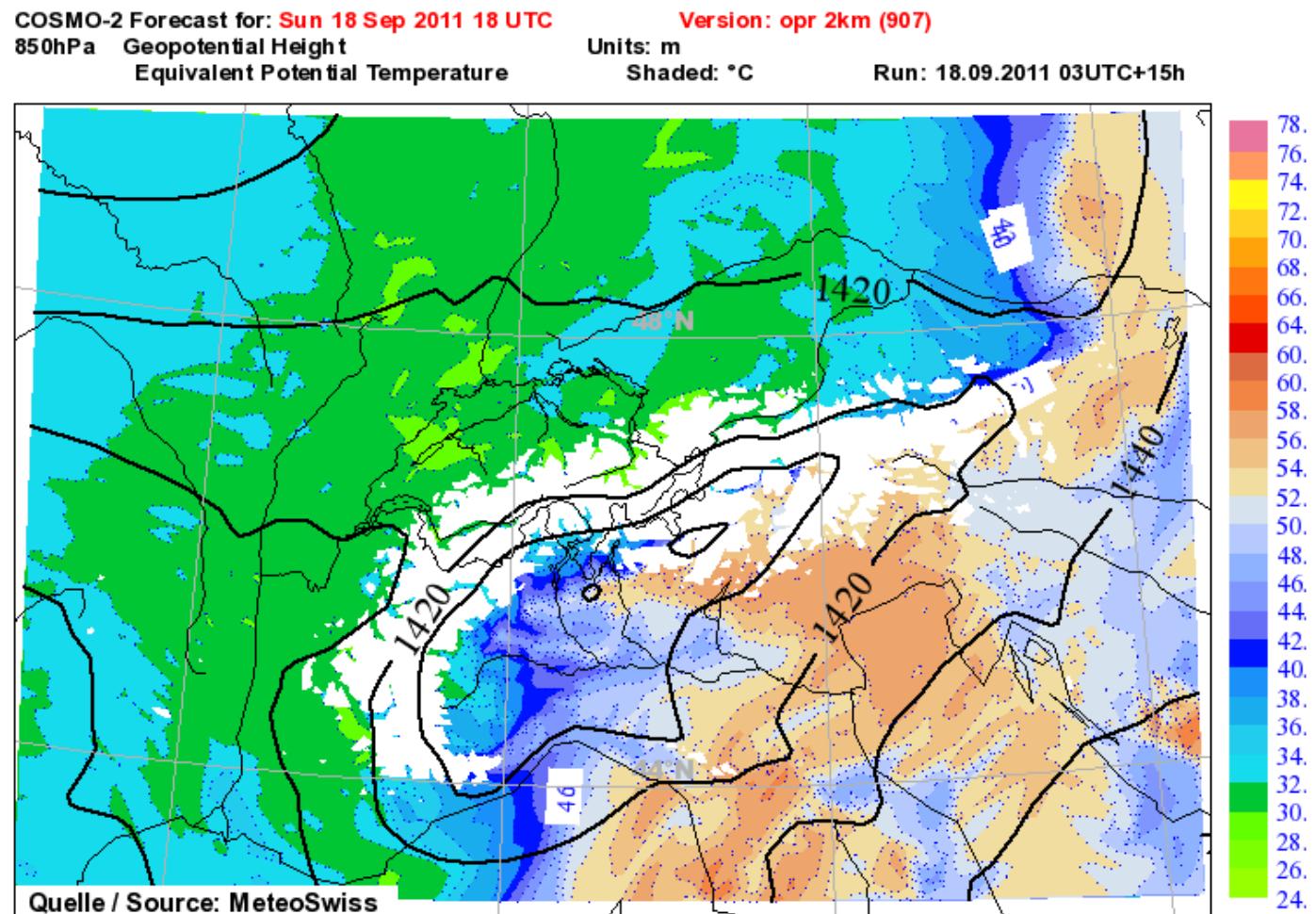


# Temperatura equipotenziale 18 15UTC



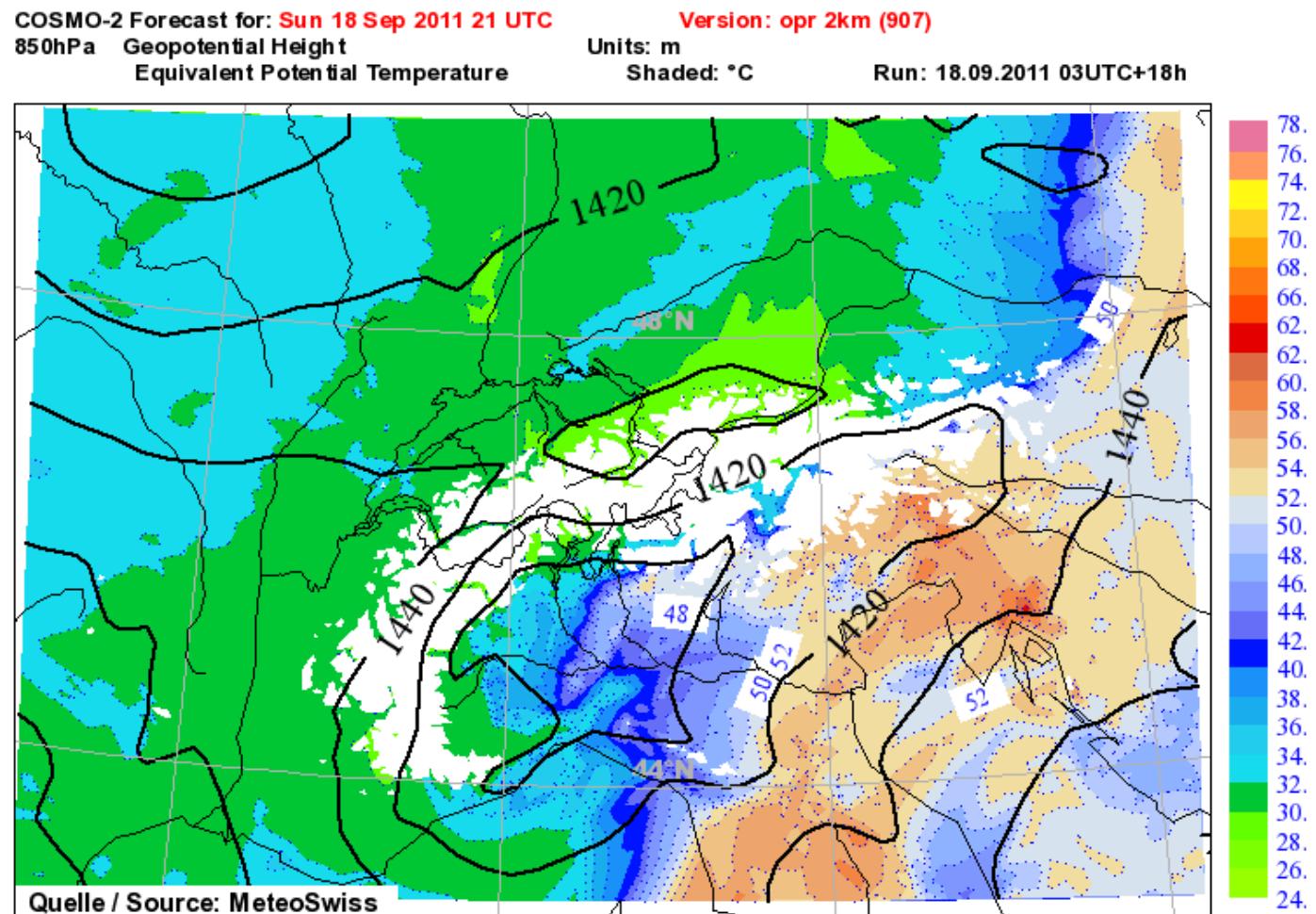


# Temperatura equipotenziale 18 18UTC



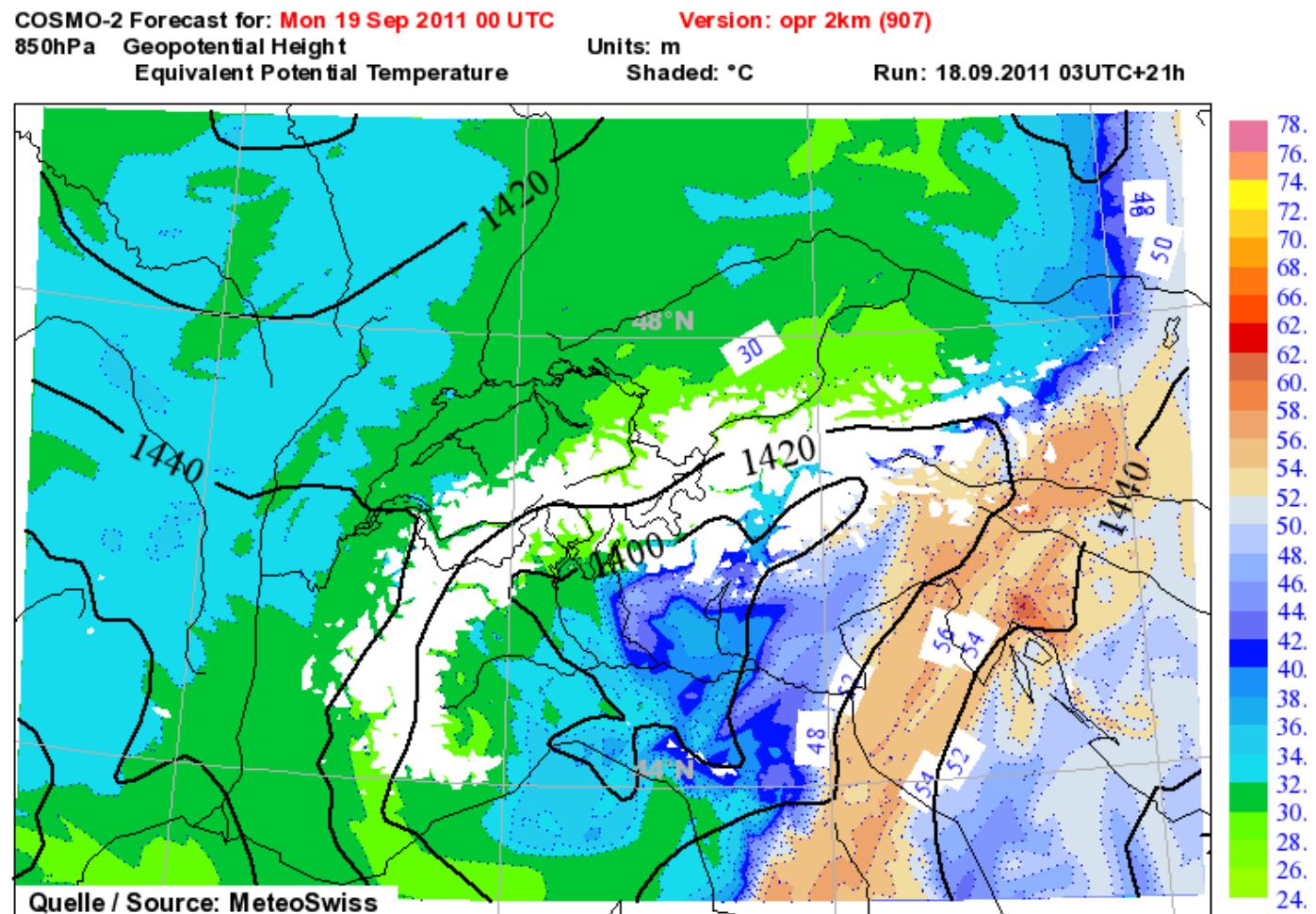


# Temperatura equipotenziale 18 21UTC



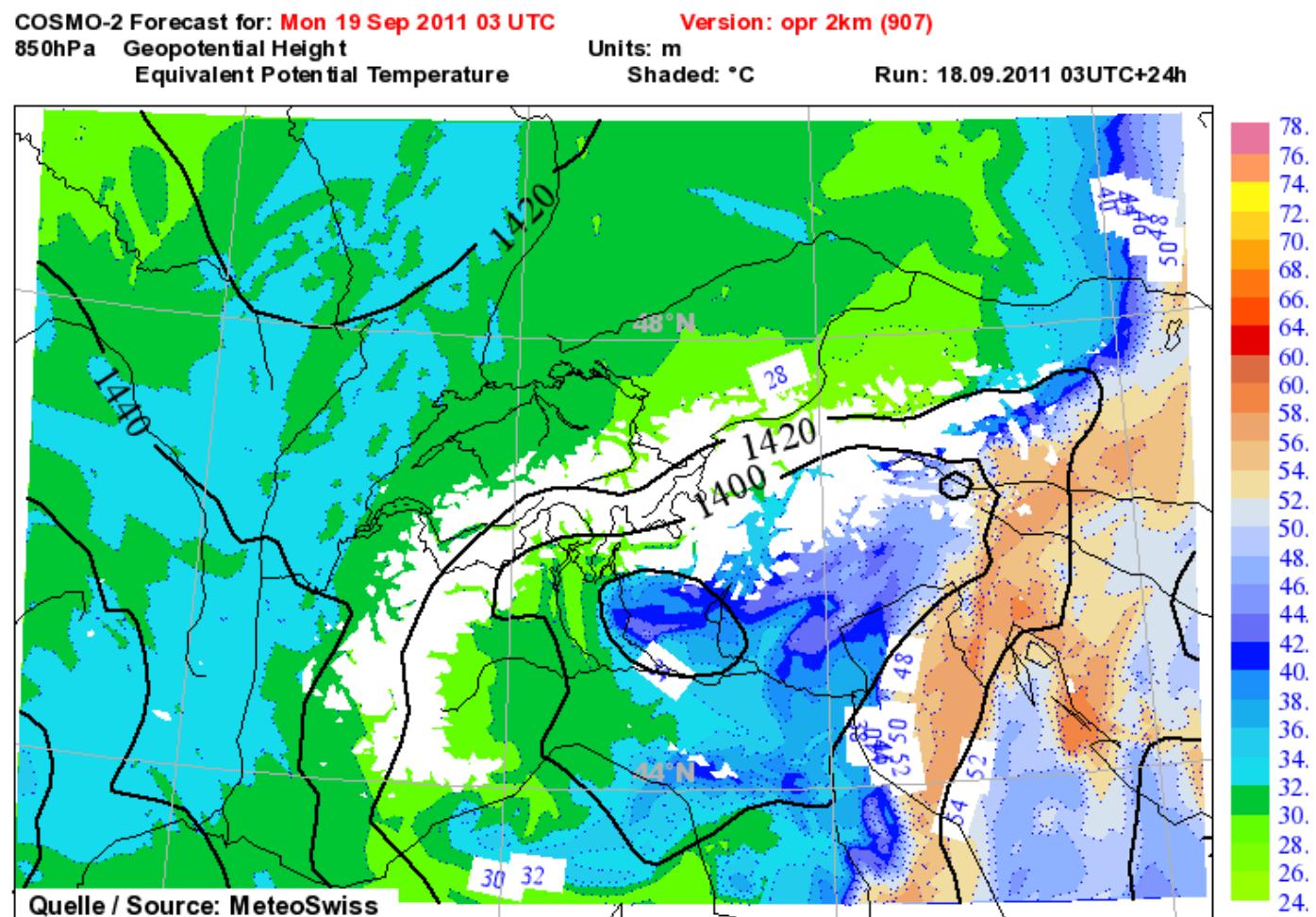


# Temperatura equipotenziale 19 00UTC



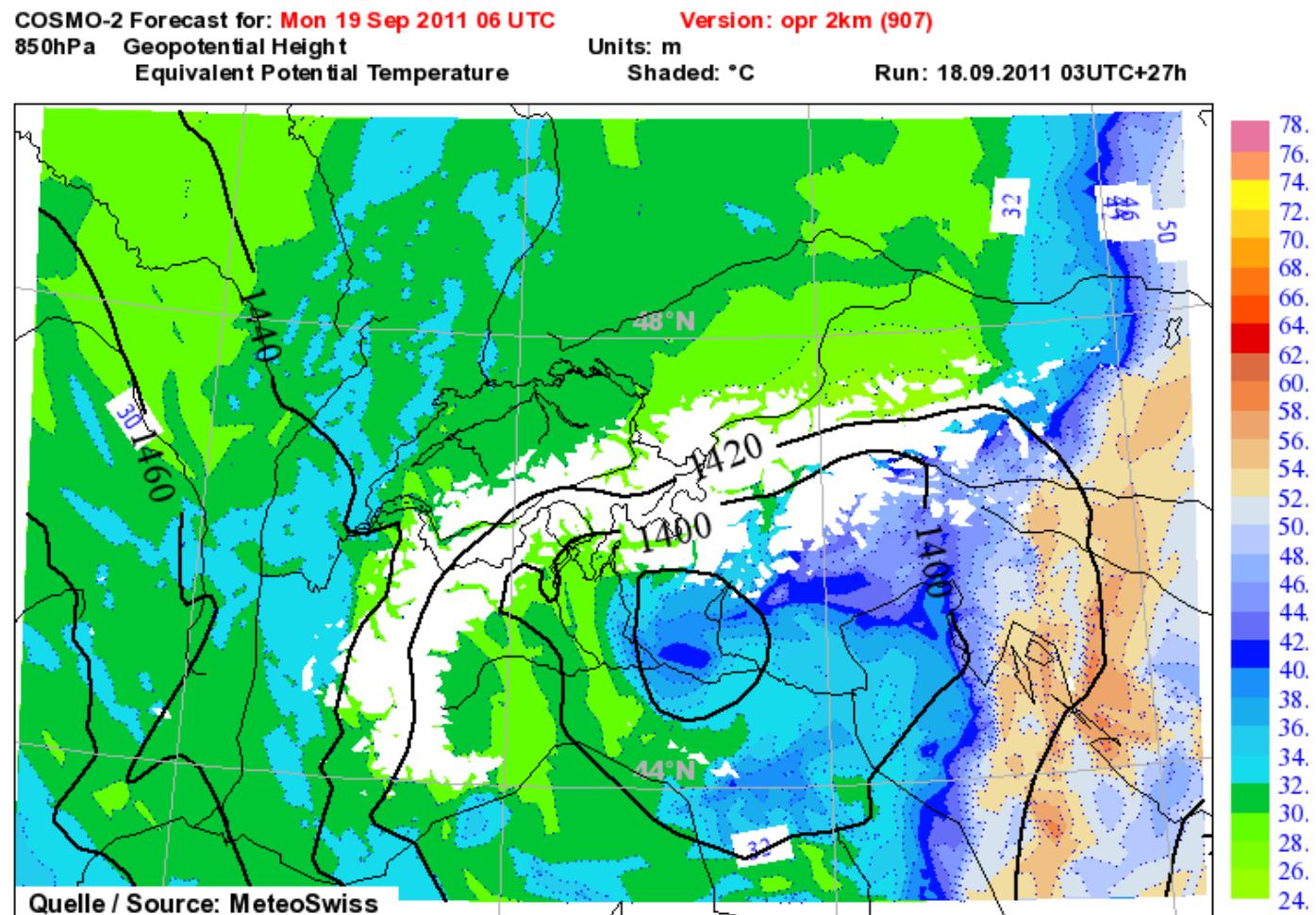


# Temperatura equipotenziale 19 03UTC





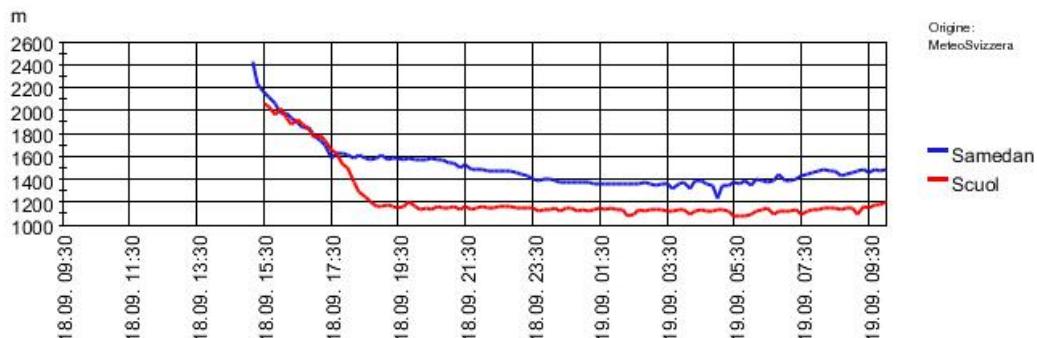
# Temperatura equipotenziale 19 06UTC



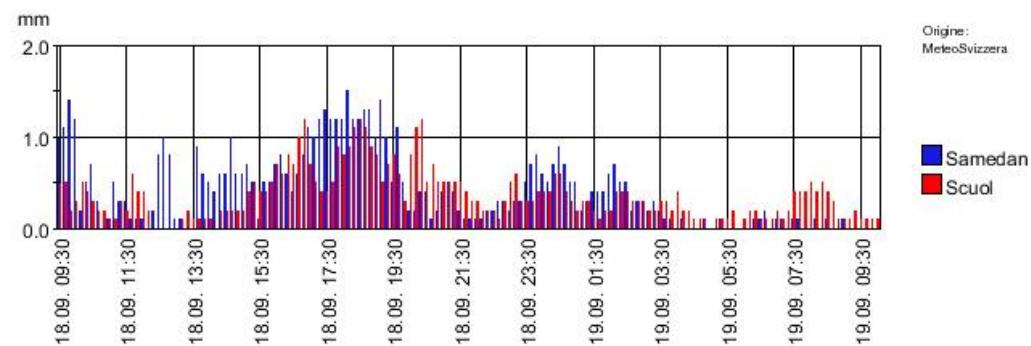


# Limite delle nevicate e precipitazioni

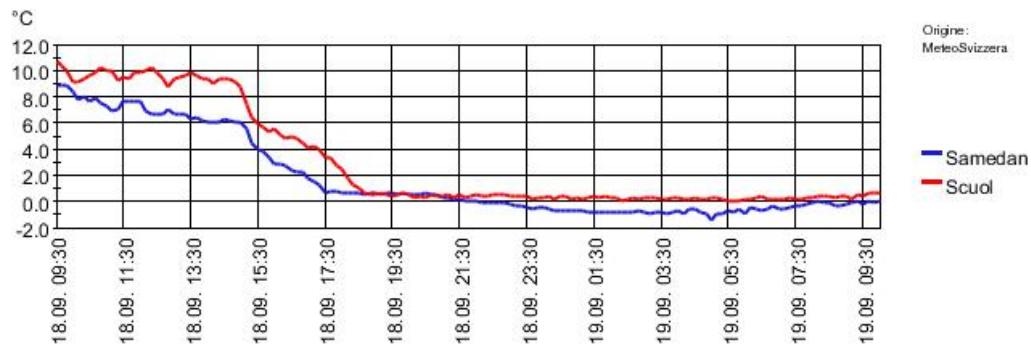
Limite della neve; computato [m] 18.09.2011 09:30 UTC - 19.09.2011 10:00 UTC



Precipitazioni; somma su dieci minuti [mm] 18.09.2011 09:30 UTC - 19.09.2011 10:00 UTC

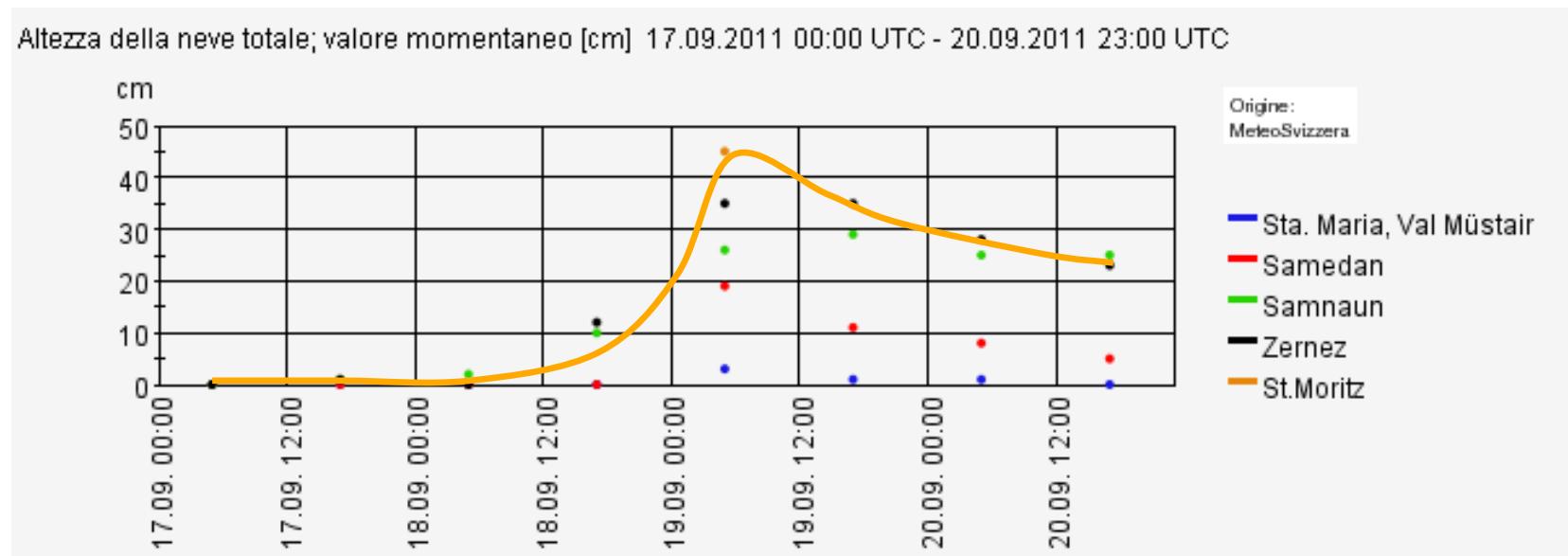


Temperatura del wet-bulb (temperatura psicrometro) a 2 m; valore momentaneo [°C] 18.09.2011 09:30 UTC - 19.09.2011 10:00 UTC





# 18-19.09: altezza della neve osservata





# 18-19.09: accumuli di neve osservati

Ort	Sils-Maria	Arosa	Sta. Maria	Davos
Höhe	1798 m	1840 m	1390 m	1594 m
Messreihe	seit 1864	seit 1890	seit 1931	seit 1931
Rang 1	40 cm 30.9.1973	44 cm 21.9.1979	4 cm 30.9.1957	34 cm 21.9.1979
Rang 2	35 cm 18.9.2011 und 21.9.1979	42 cm 11.9.1899	3 cm 18.9.2011 und 30.9.1973	30 cm 26.9.1974
Rang 3		40 cm 19.9.1897		29 cm 13.9.1996
Rang 4	28 cm 19.9.1916	39 cm 18.9.2011	2 cm 10.9.1976 und 28.9.1952	27 cm 18.9.2011

Ort	Höhe	Neuschneehöhen im Vergleich		
		18.9.2011	21.9.1979	5.9.1984
St. Moritz	1890 m	45 cm	----	----
Weissfluhjoch	2540 m	41 cm	42 cm	39 cm
Innerglass	1820 m	40 cm	----	----
Arosa	1818 m	39 cm	44 cm	36 cm
Sils-Maria	1798 m	35 cm	35 cm	7 cm
Buffalora	1970 m	34 cm	25 cm	9 cm
Motta Naluns	2150 m	32 cm	----	----
Samedan	1750 m	29 cm	----	----
Davos	1560 m	27 cm	34 cm	25 cm
Splügen	1457 m	19 cm	----	----
Innerferrera	1460 m	18 cm	----	----
Sedrun	1420 m	5 cm	5 cm	24 cm
Sta. Maria	1390 m	3 cm	0 cm	0 cm
Chur	556 m	0 cm	6 cm	4 cm



# 7-10.10.2011 forte situazione da nord: estate-inverno-estate

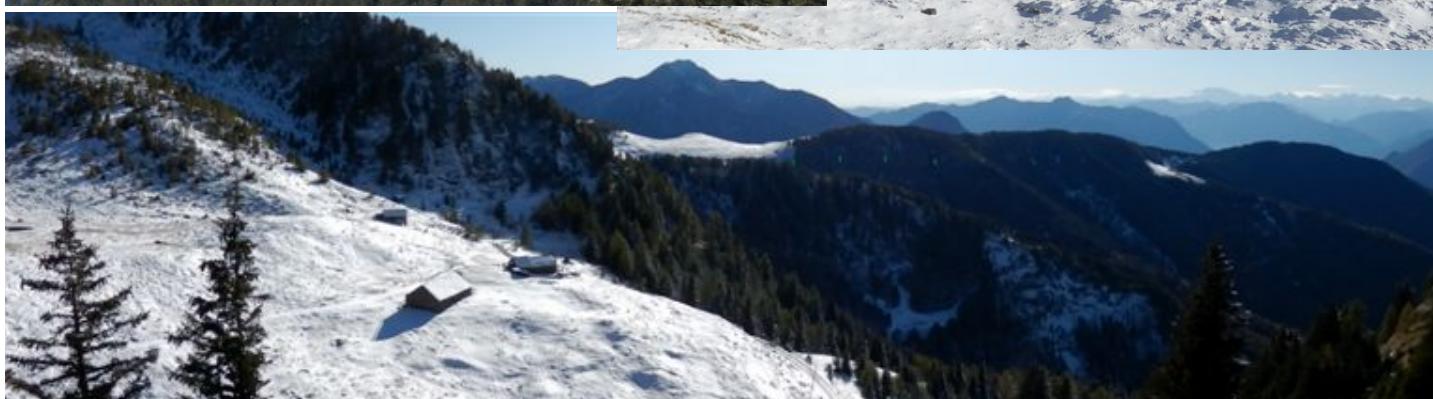
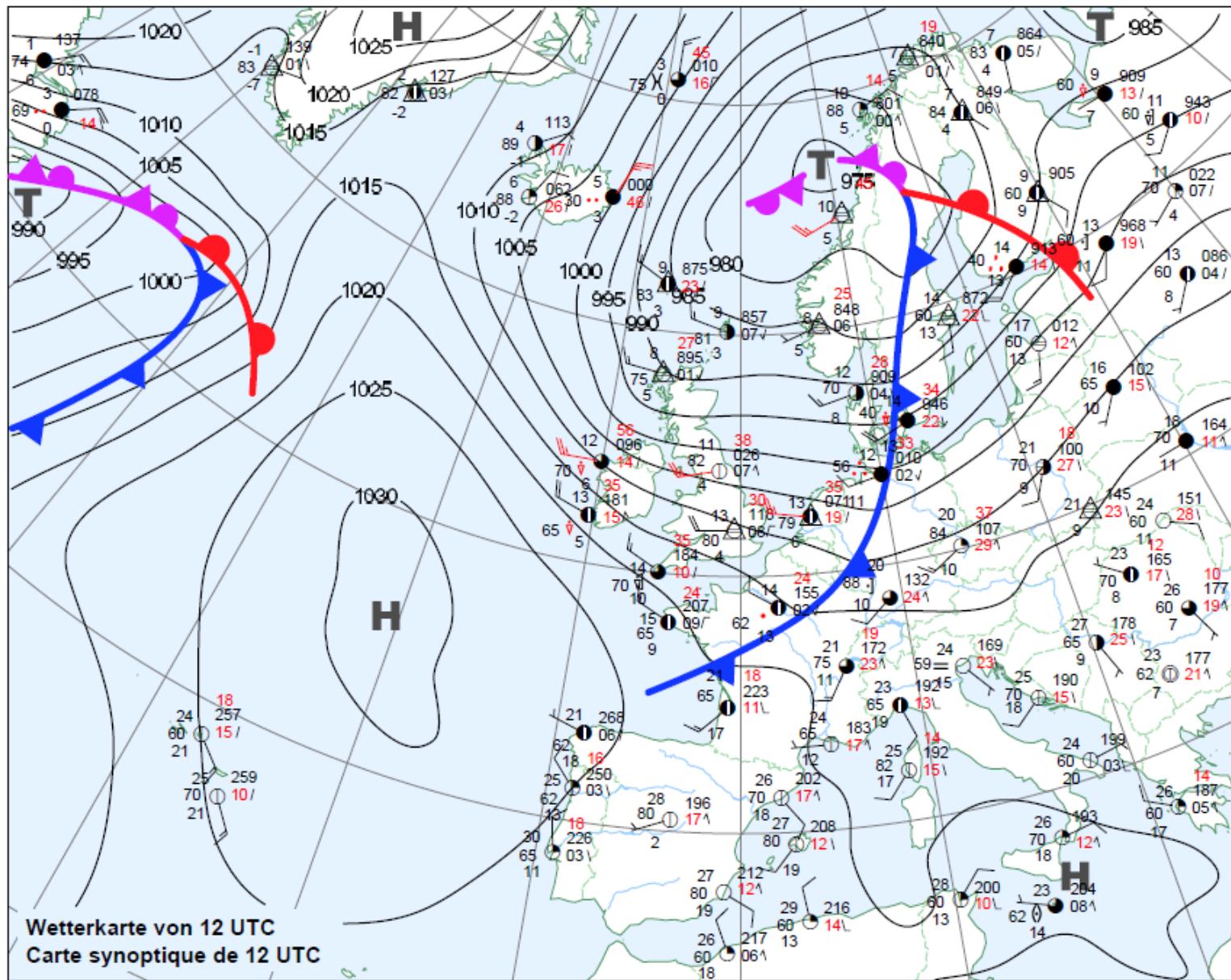


Foto: Luca Silvanti

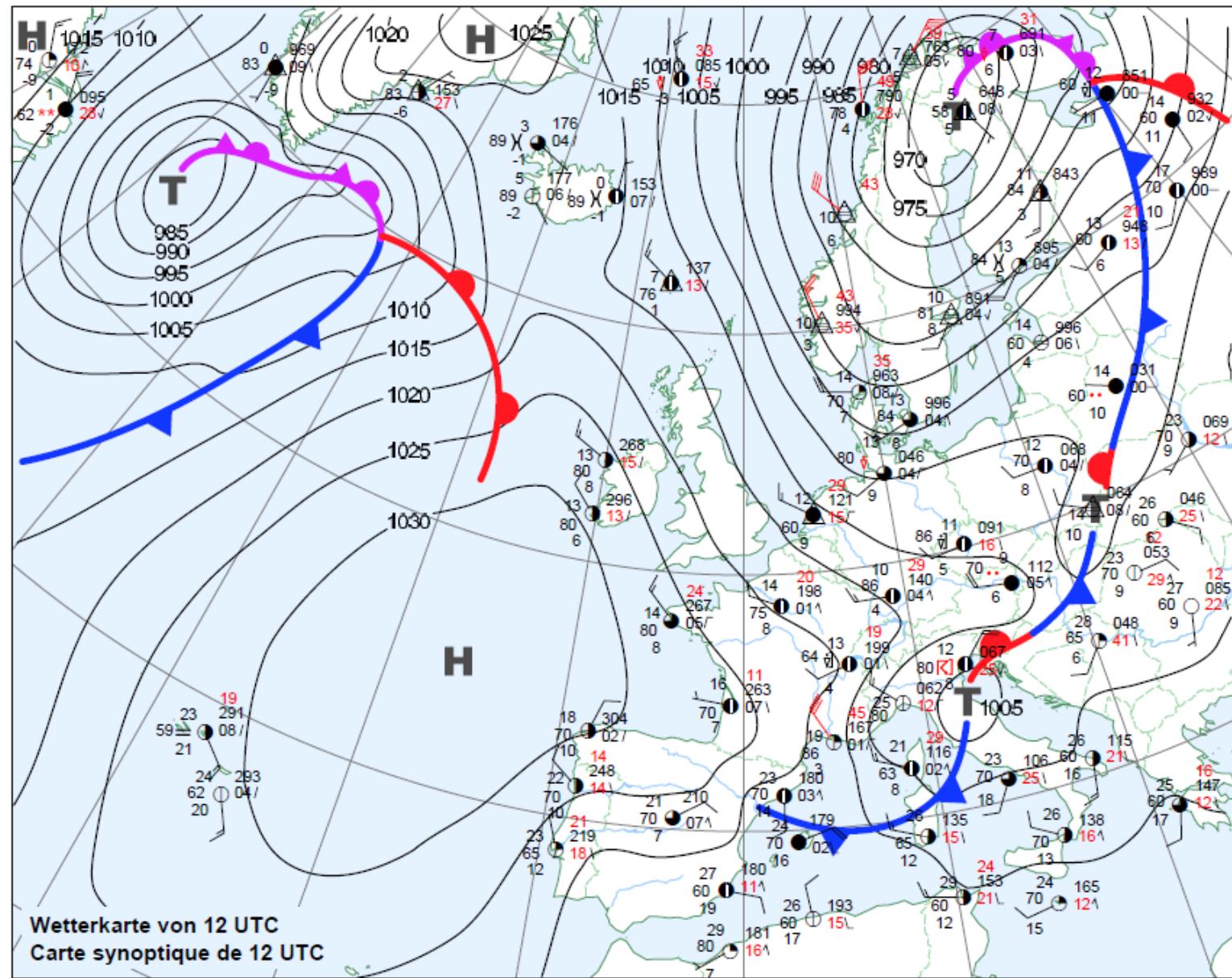


# 6 ottobre 2011: carta al suolo



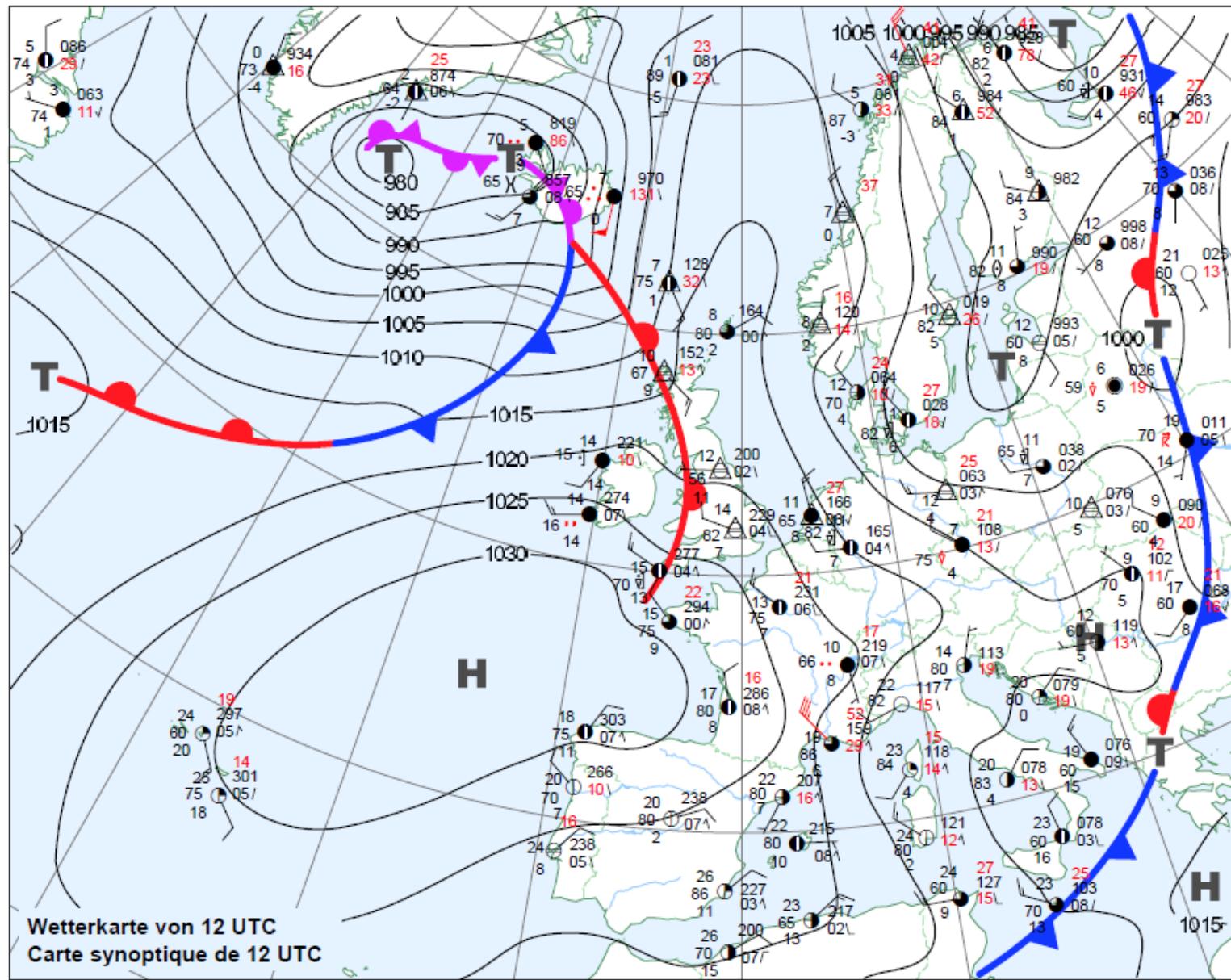


# 7 ottobre 2011: carta al suolo



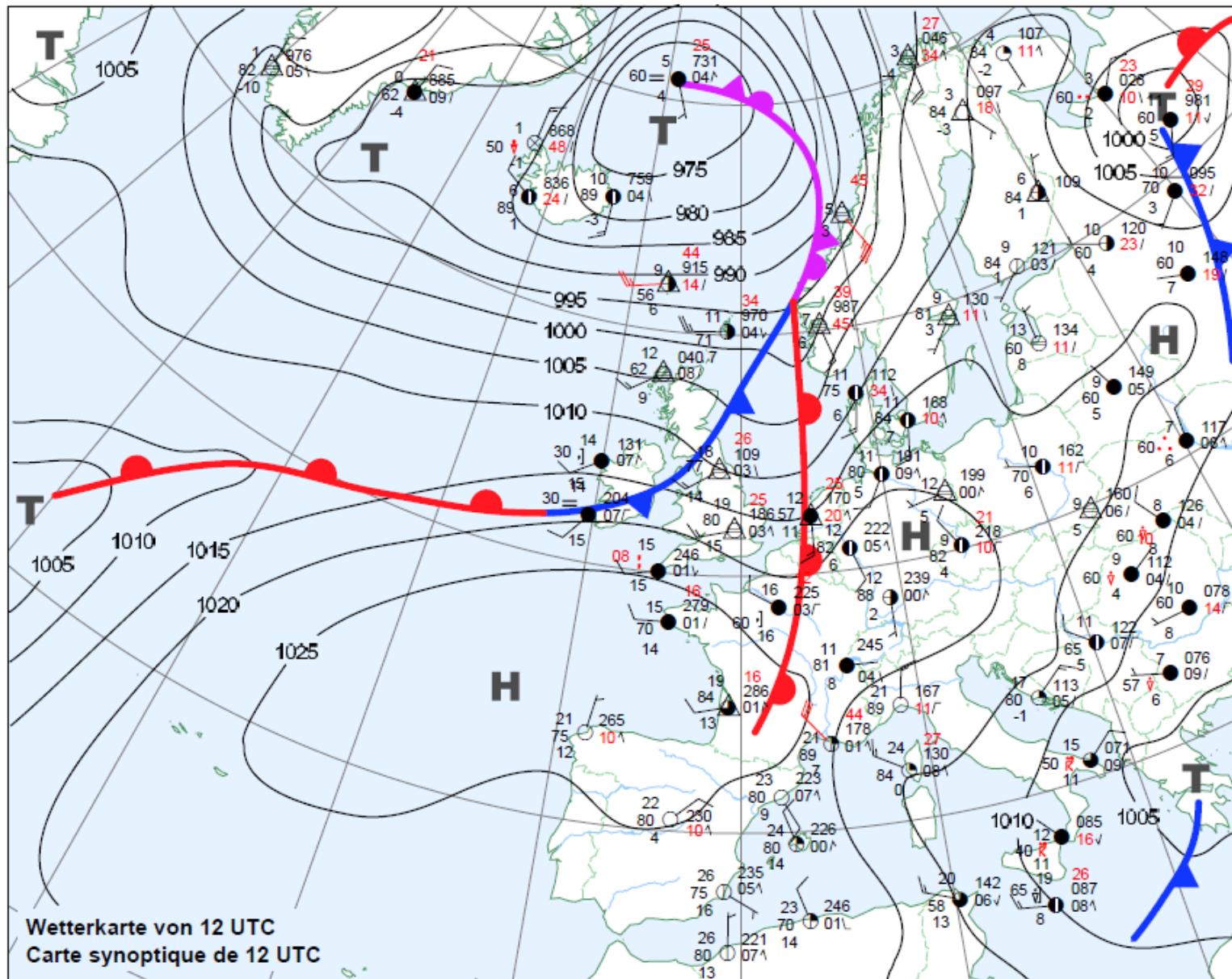


# 8 ottobre 2011: carta al suolo



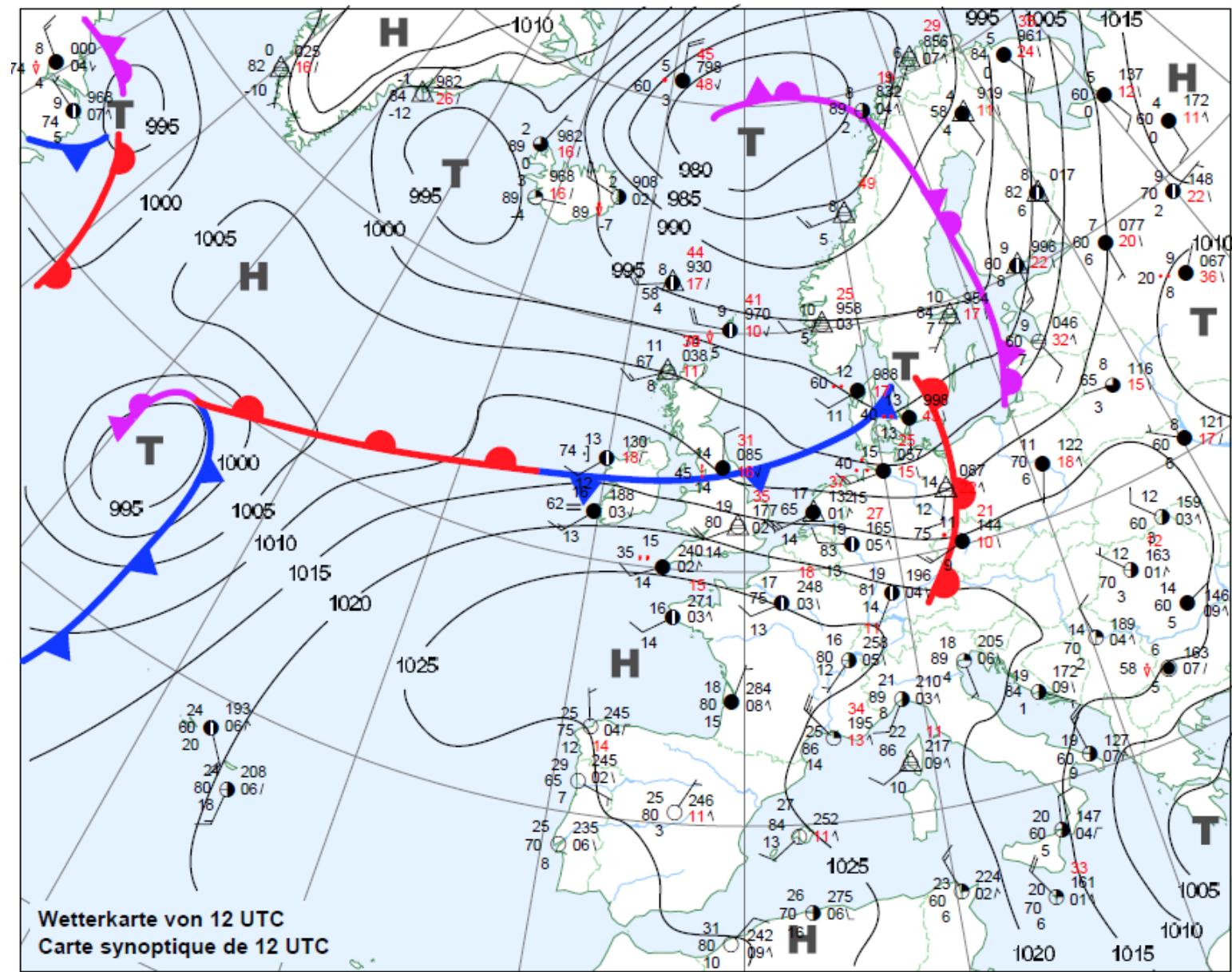


# 9 ottobre 2011: carta al suolo



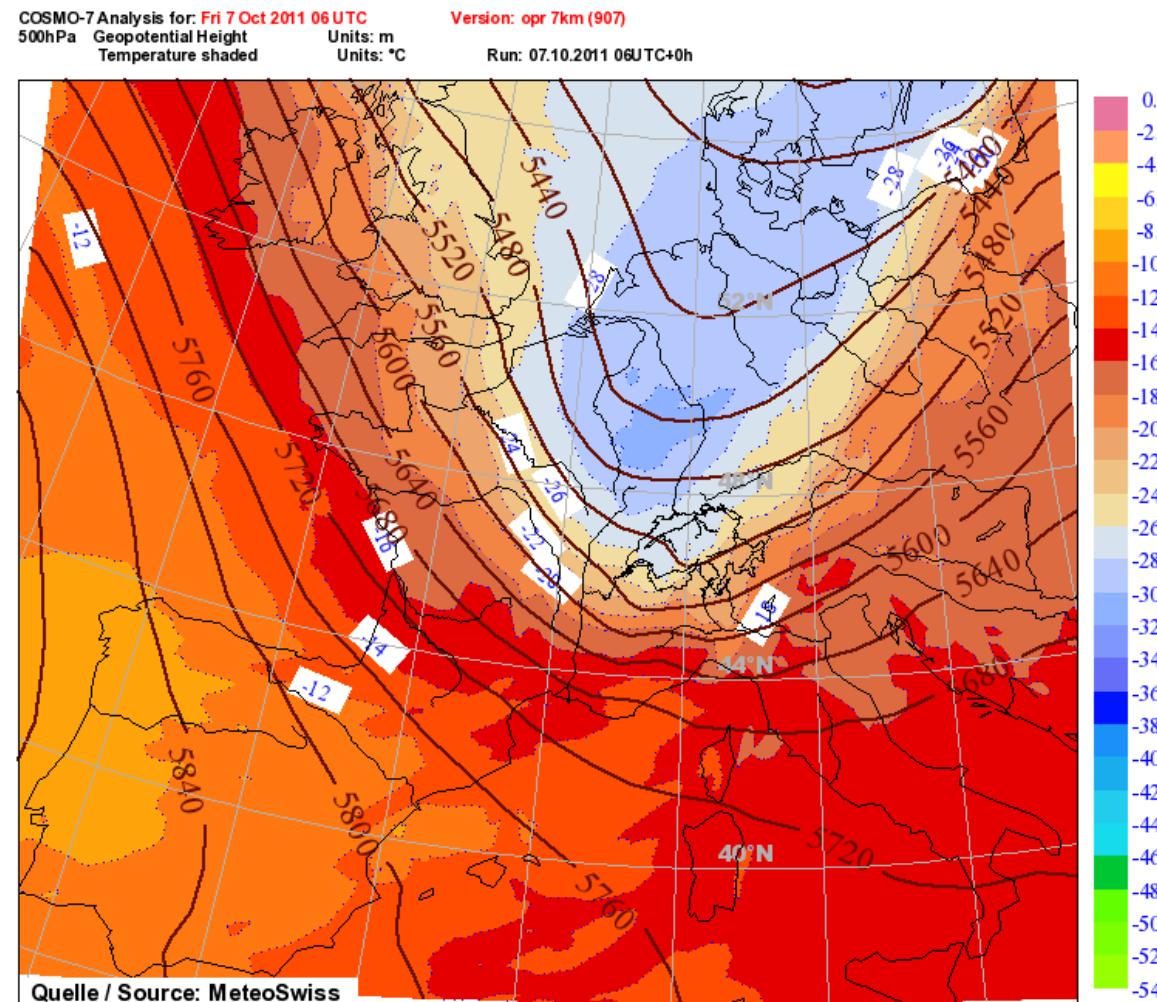


# **10 ottobre 2011: carta al suolo**



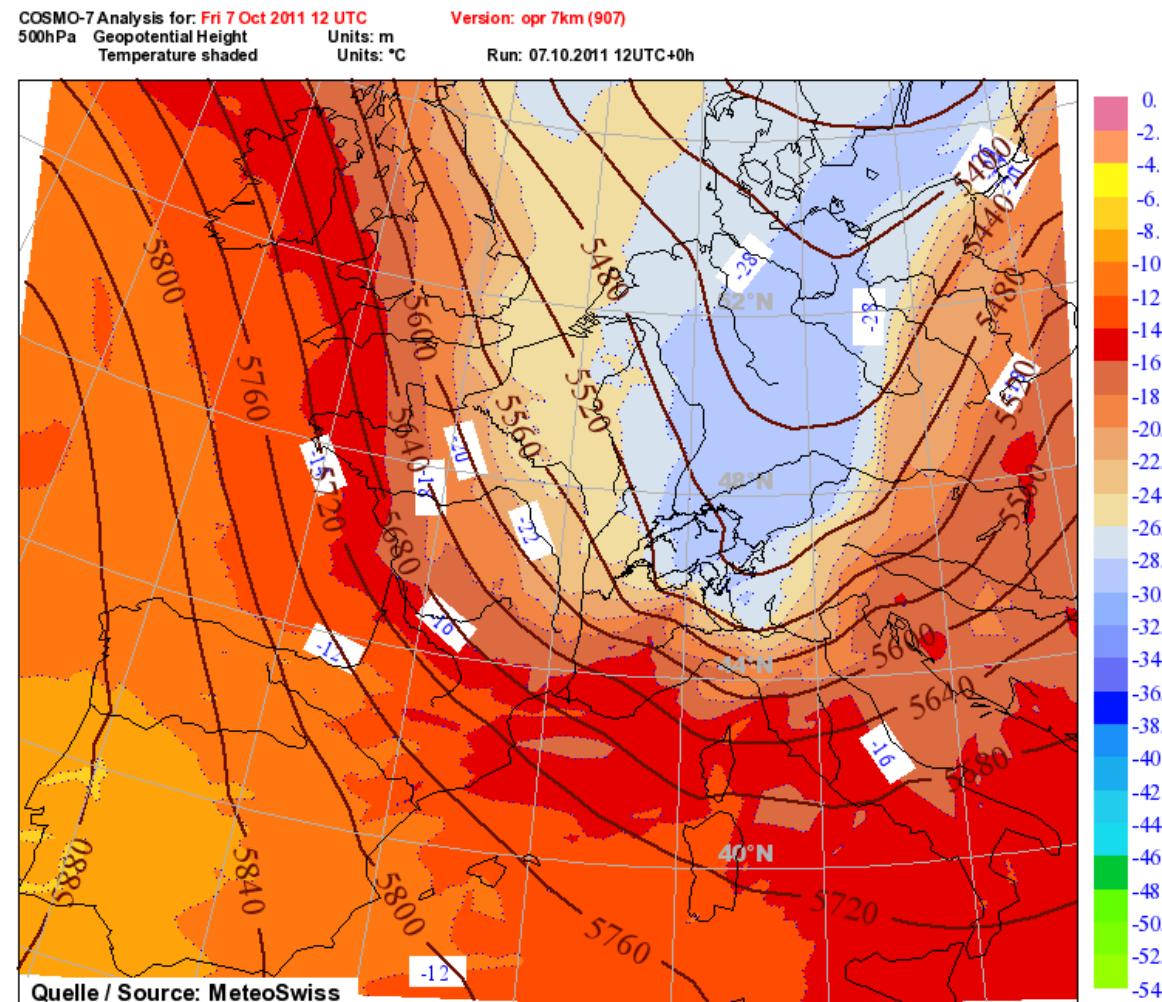


# Z@500 hPa: 7 06UTC



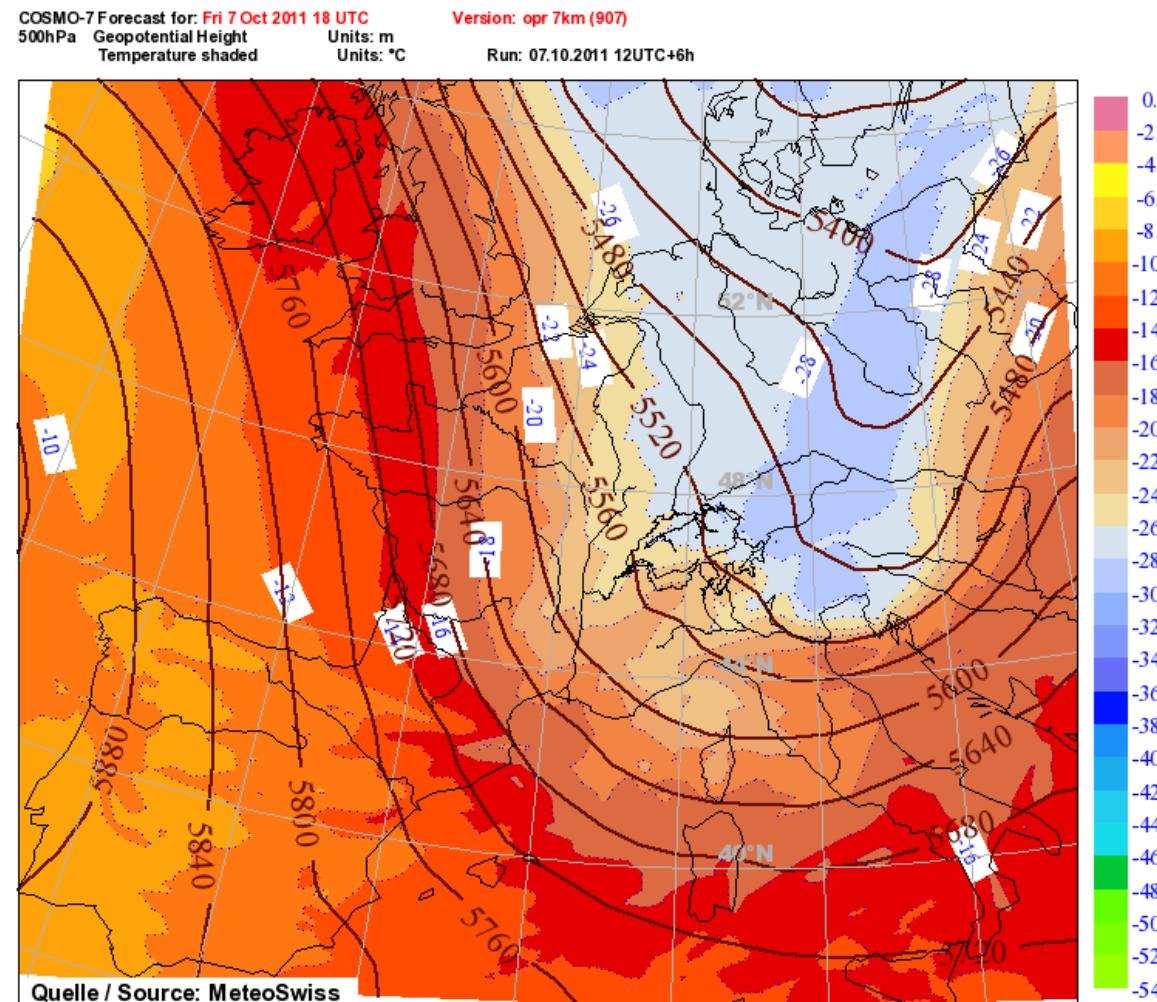


# Z@500 hPa: 7 12UTC



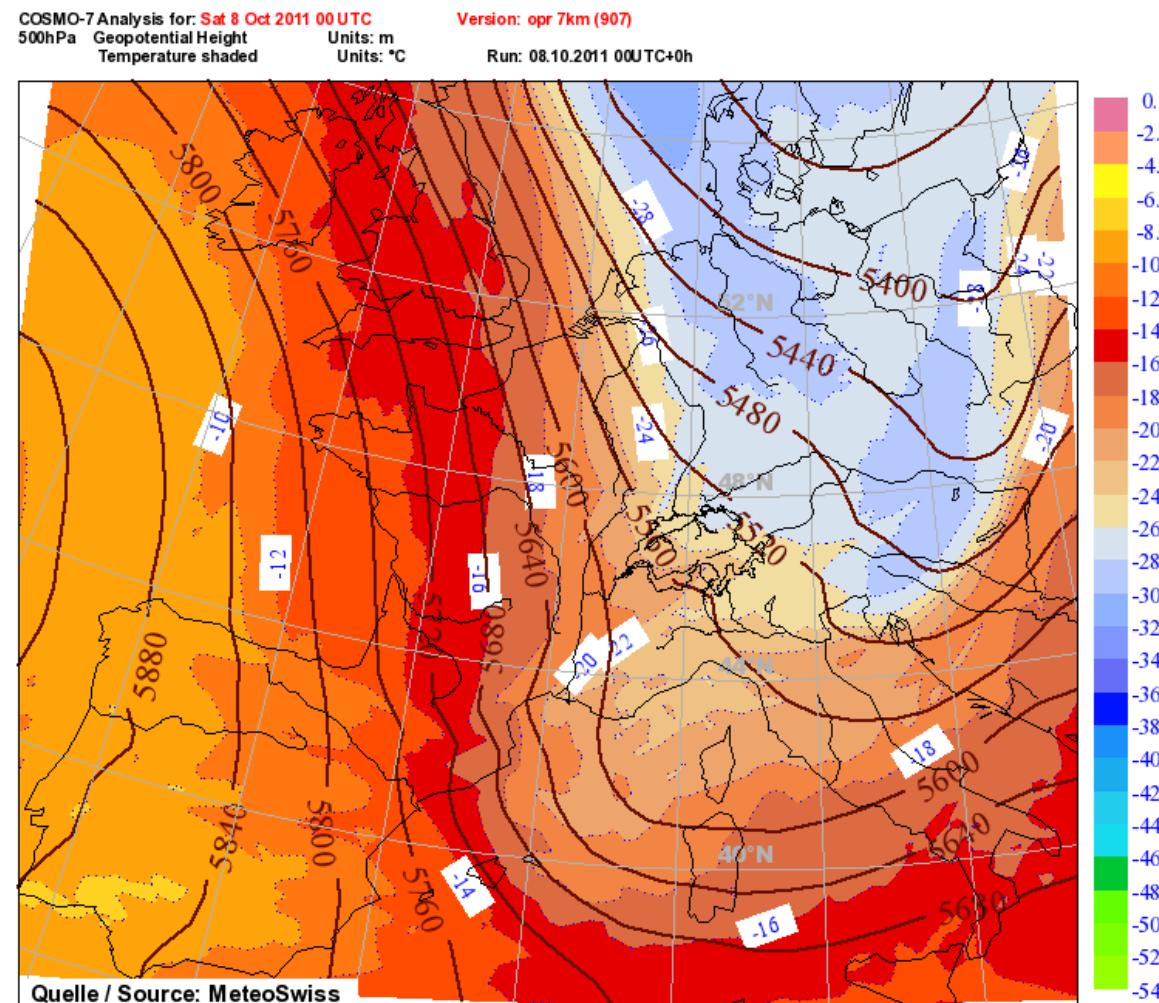


# Z@500 hPa: 7 18UTC



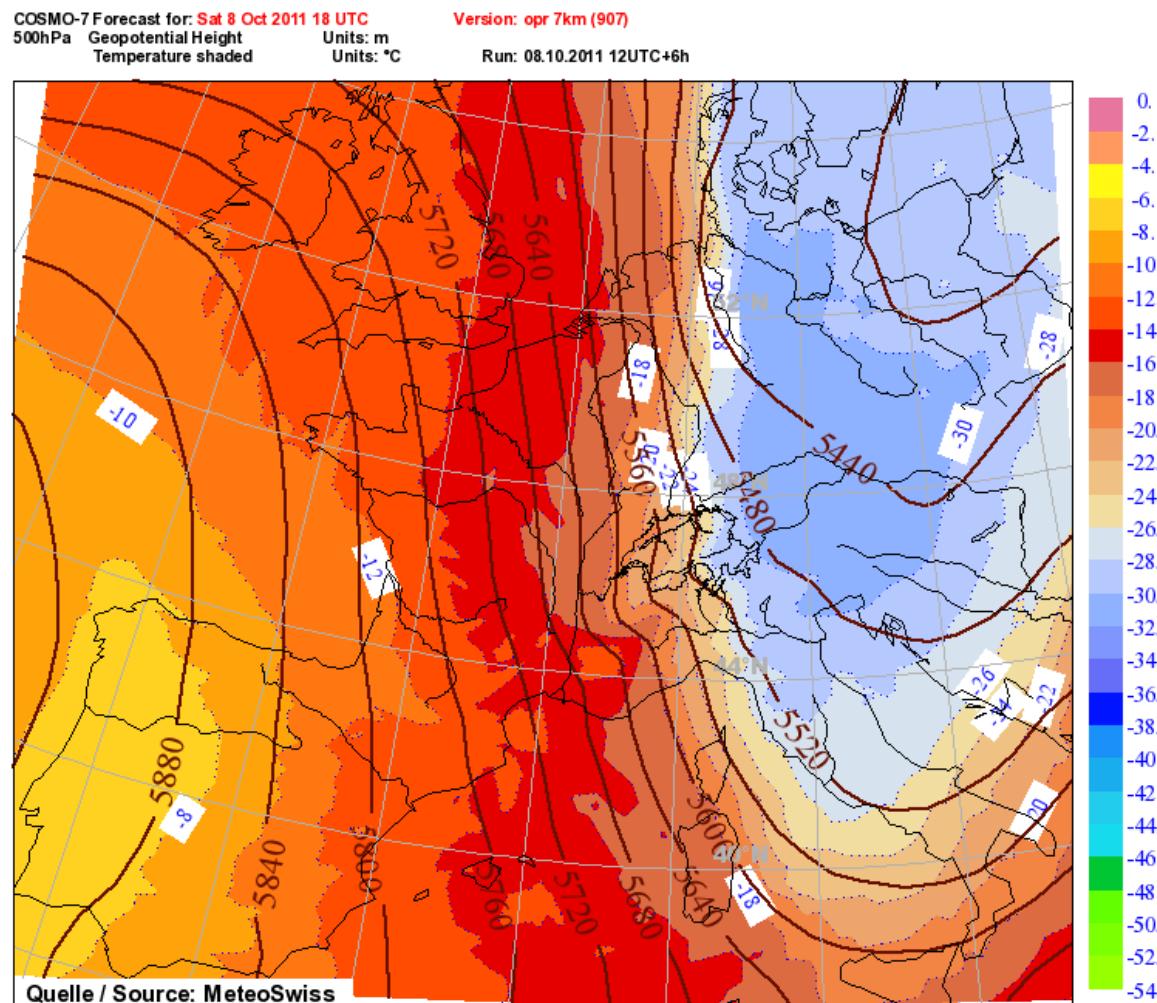


# Z@500 hPa: 8 00UTC



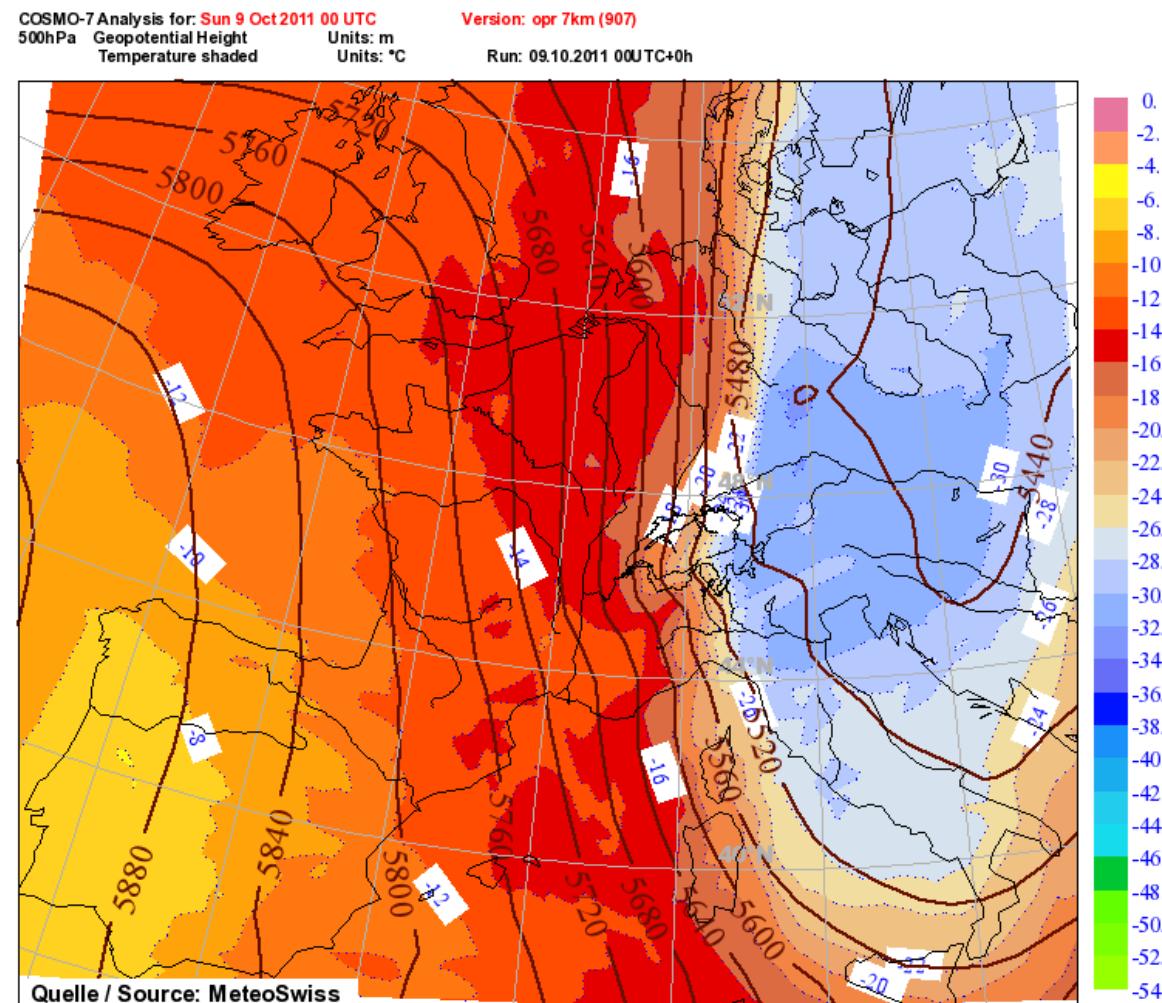


# Z@500 hPa: 8 12UTC



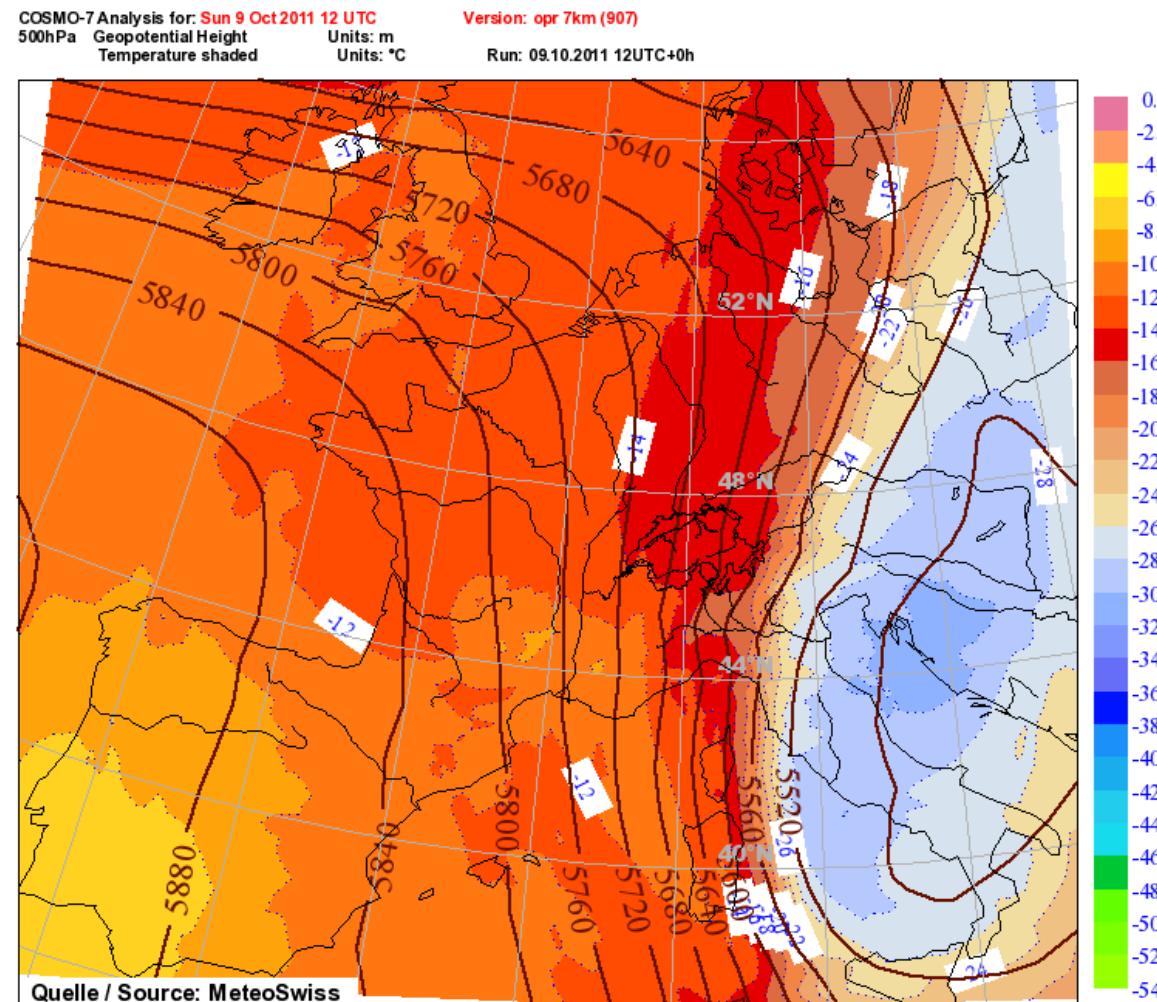


# Z@500 hPa: 9 00UTC



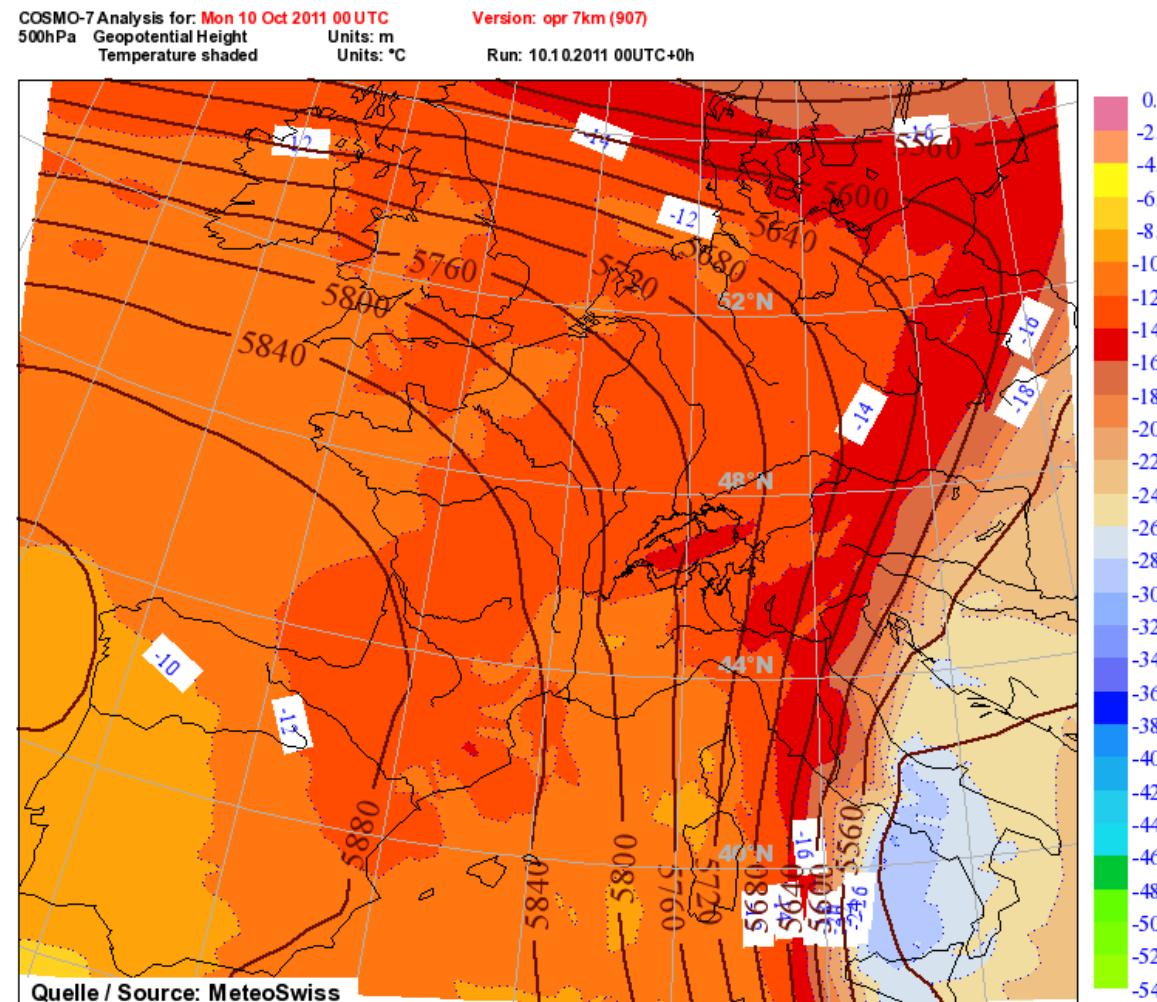


# Z@500 hPa: 9 12UTC



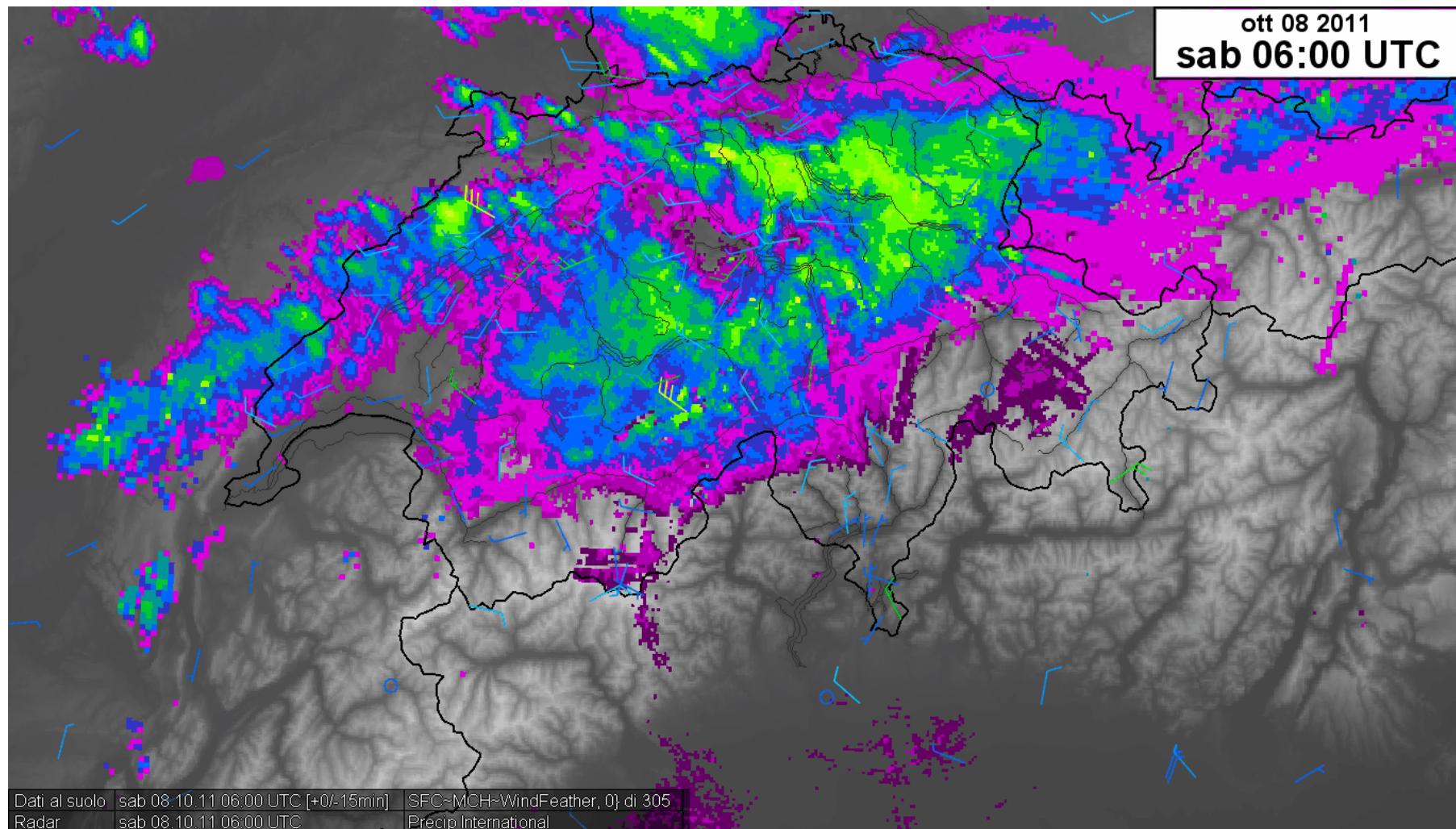


# Z@500 hPa: 10 00UTC



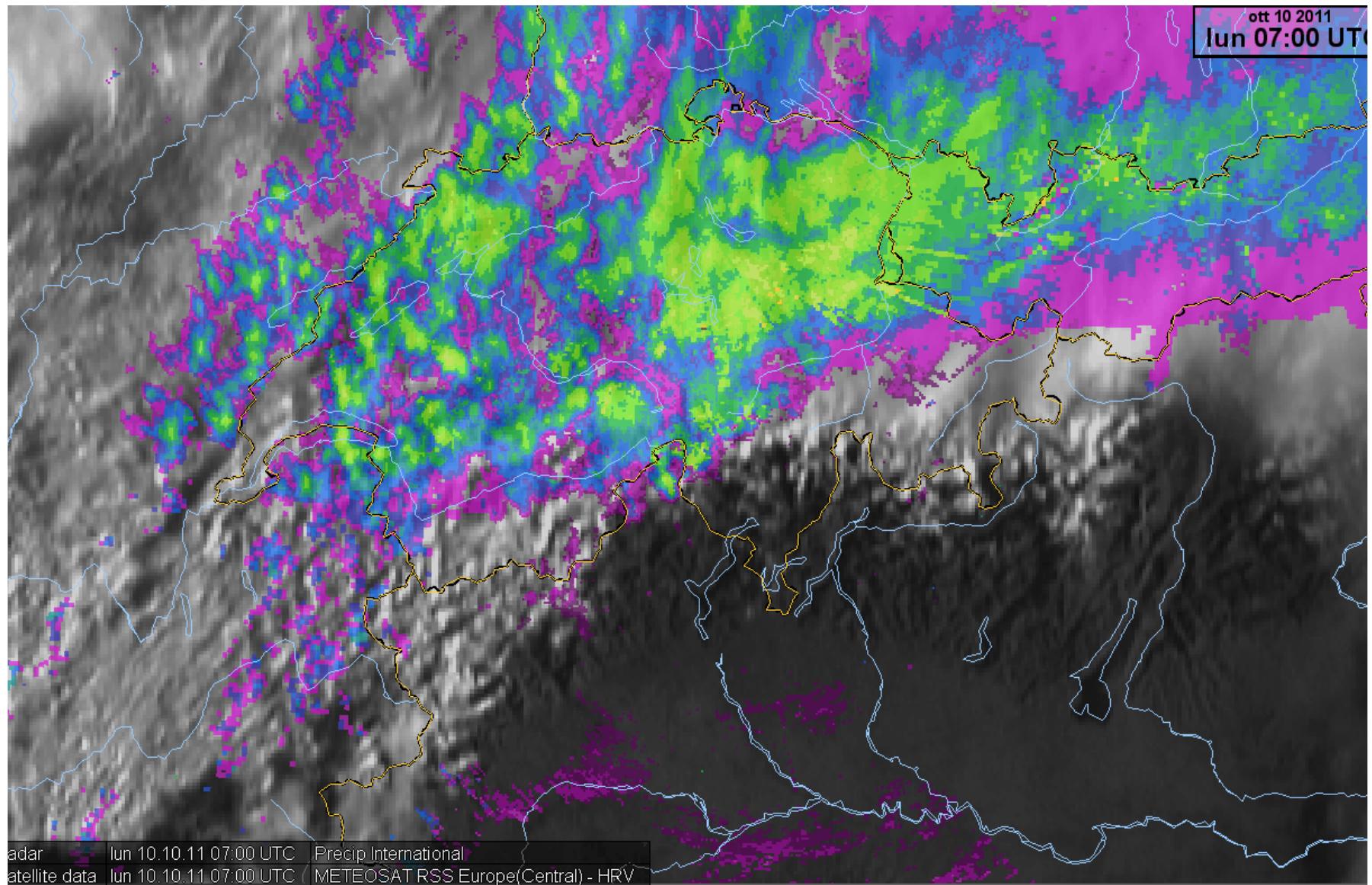


# 8-9.10 radar e satellite



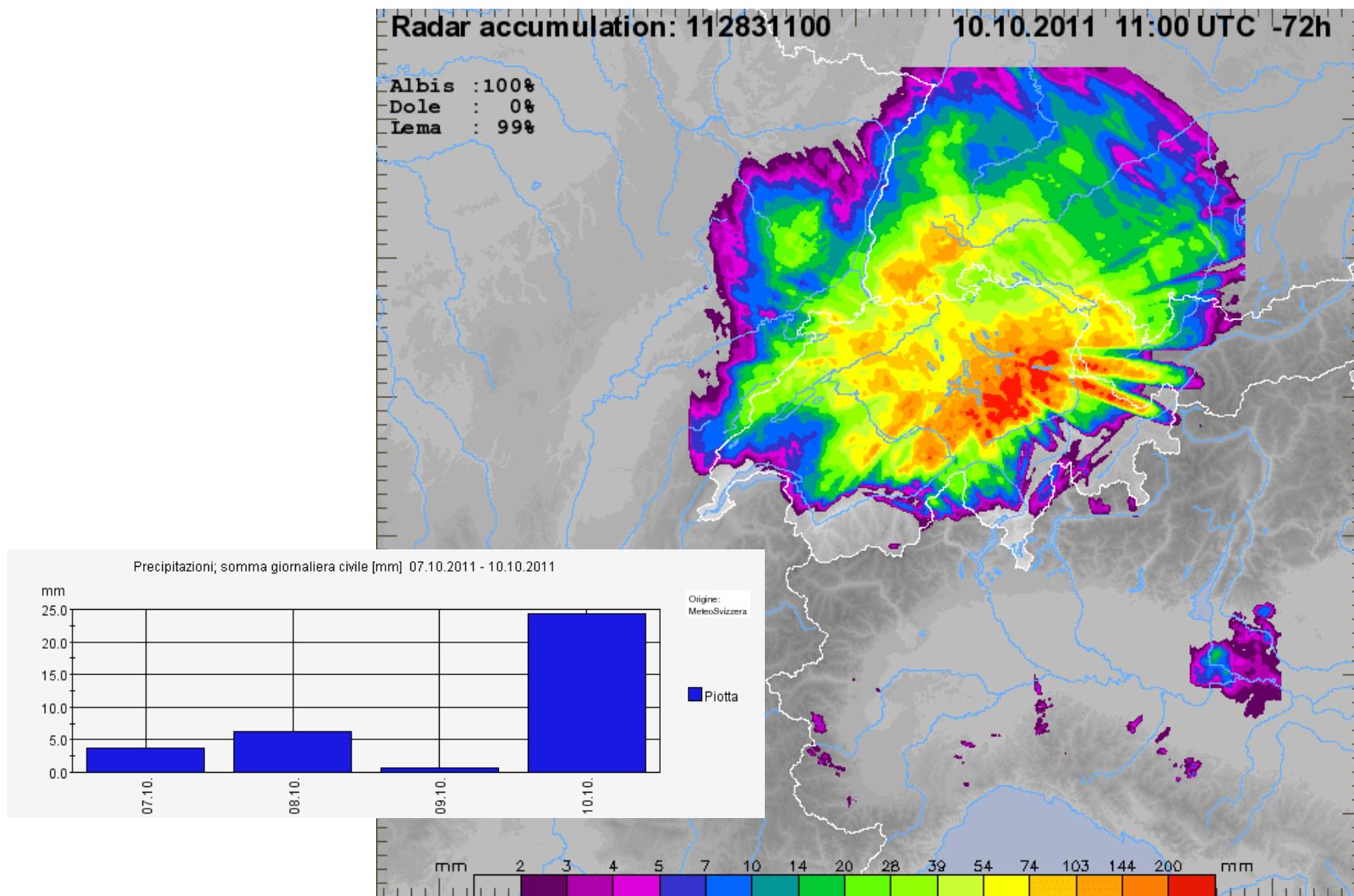


# 10.10 radar e satellite



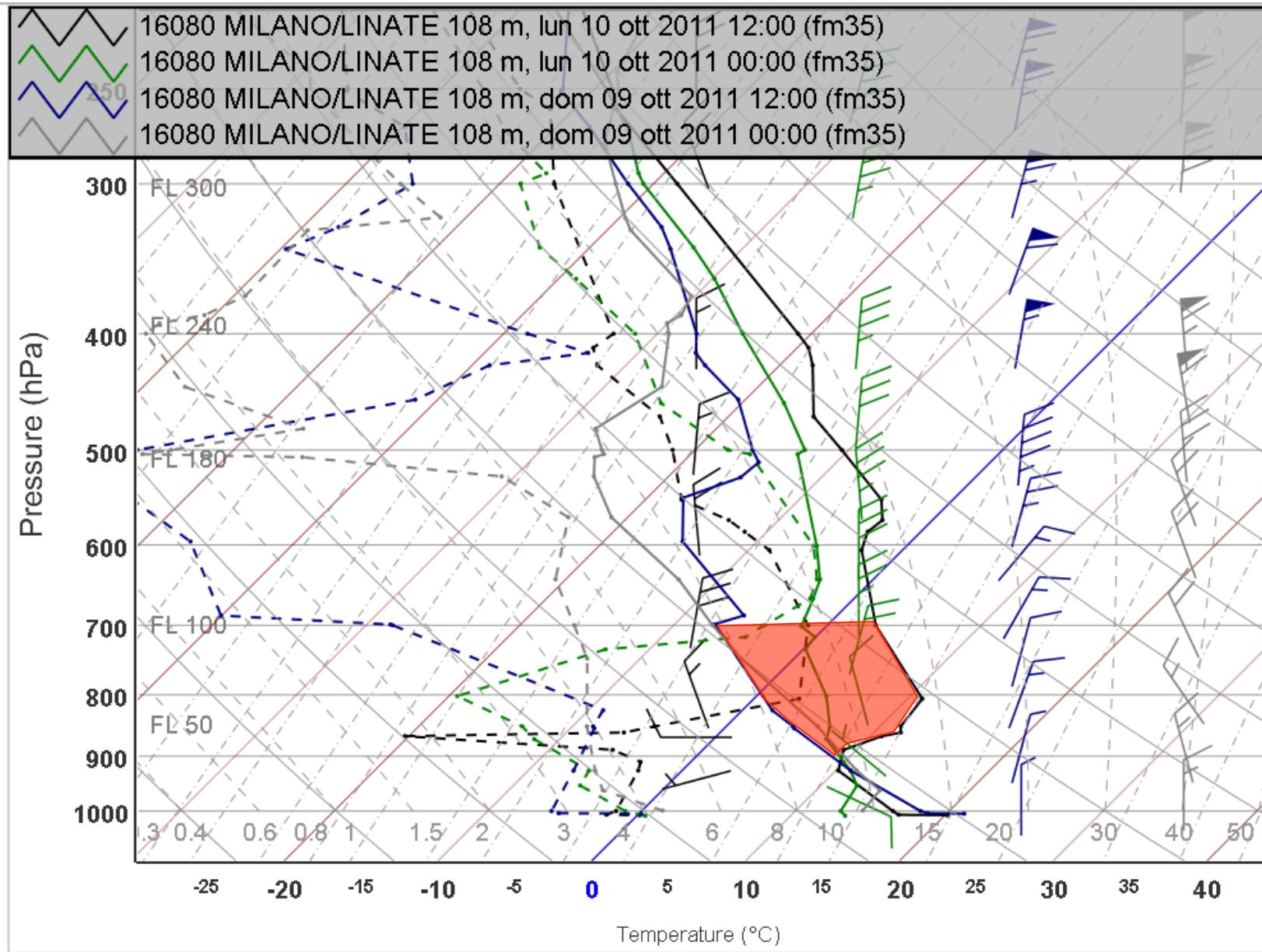


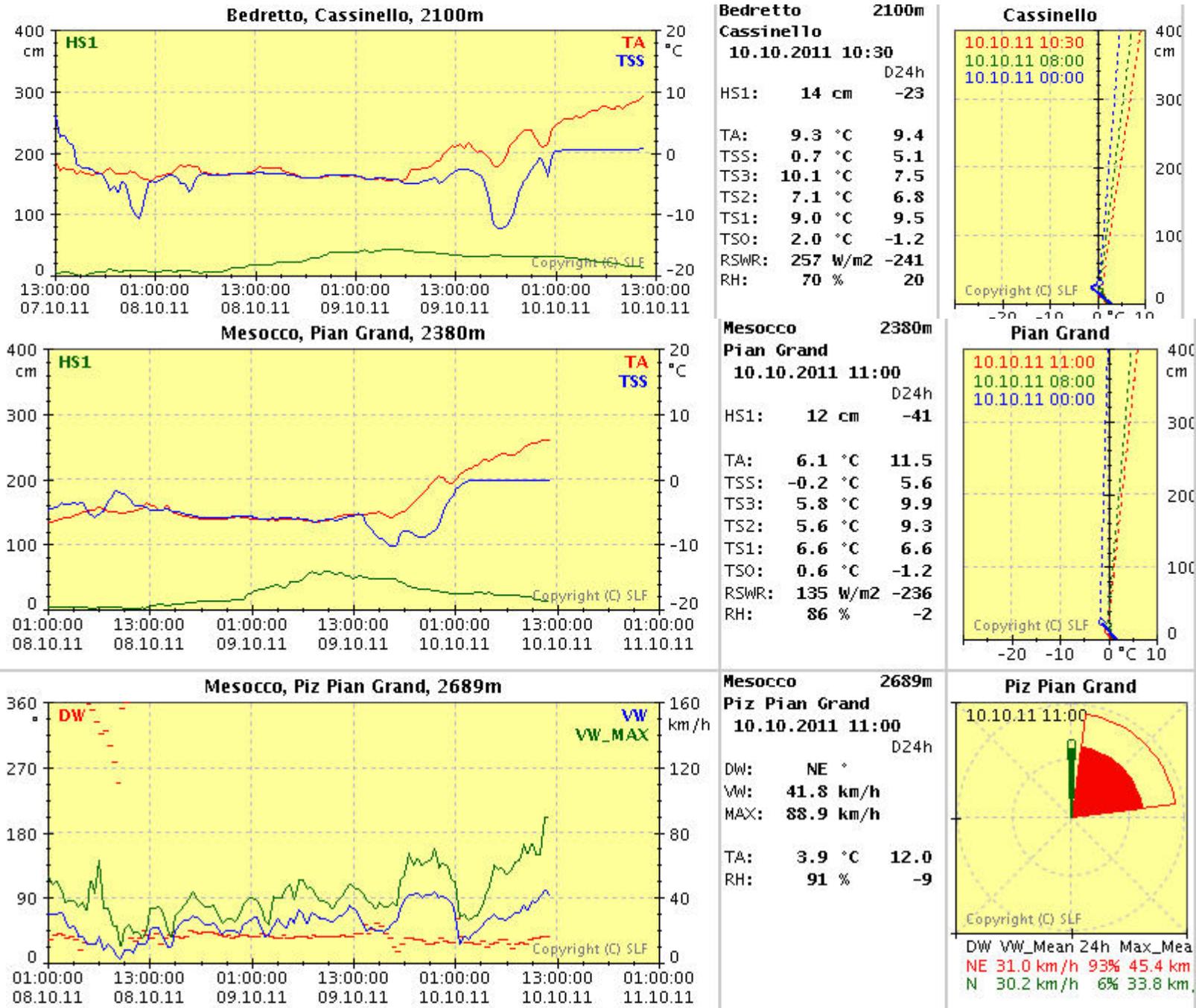
# Accumuli di precipitazione





# Radiosondaggi verticali

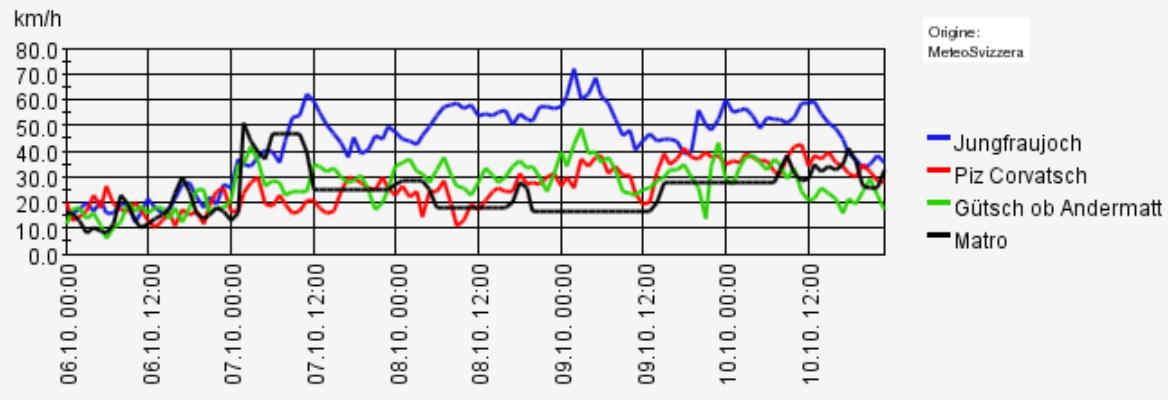




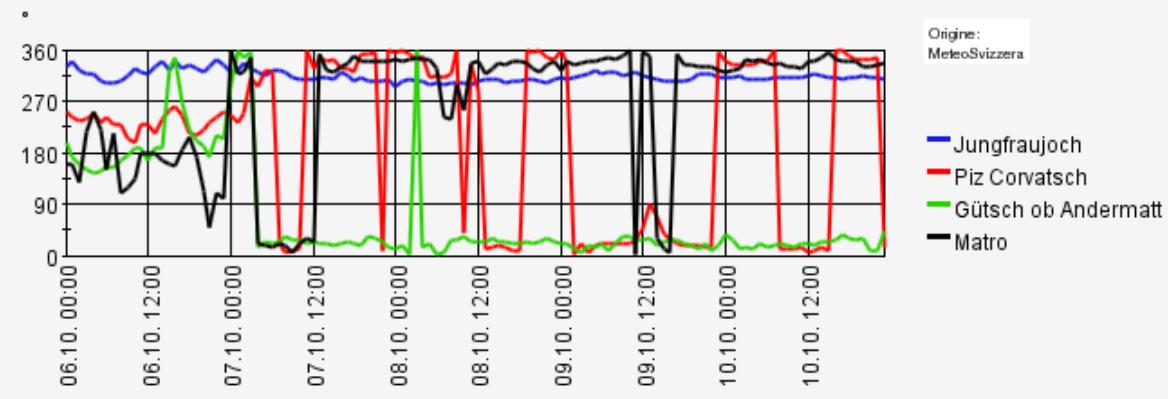


# Vento

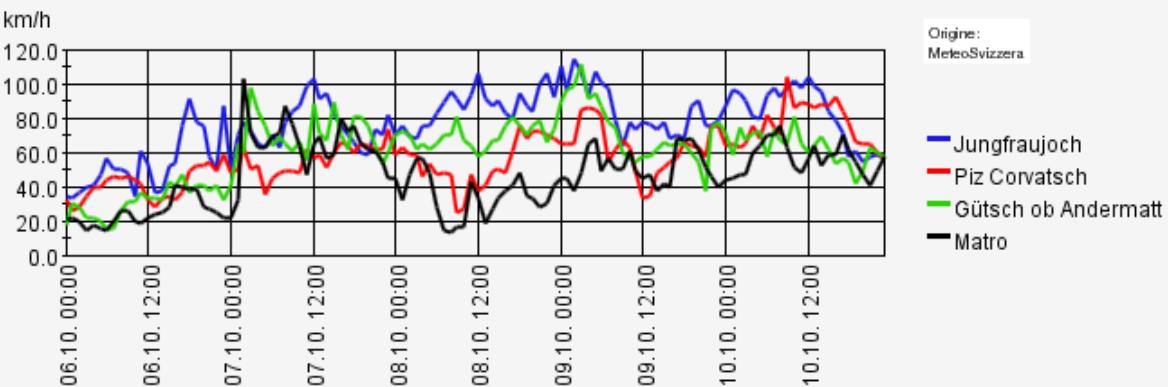
Velocità del vento scalare; media oraria [km/h] 06.10.2011 00:00 UTC - 10.10.2011 23:00 UTC



Direzione del vento; media oraria [°] 06.10.2011 00:00 UTC - 10.10.2011 23:00 UTC



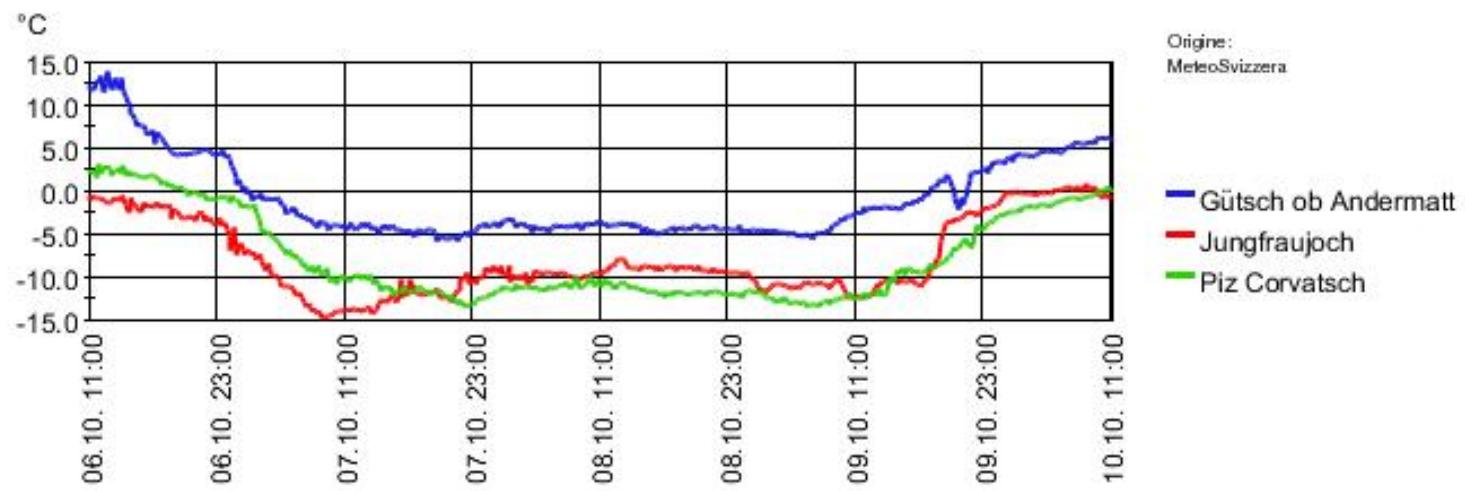
Raffica del vento (su un secondo); massima oraria [km/h] 06.10.2011 00:00 UTC - 10.10.2011 23:00 UTC





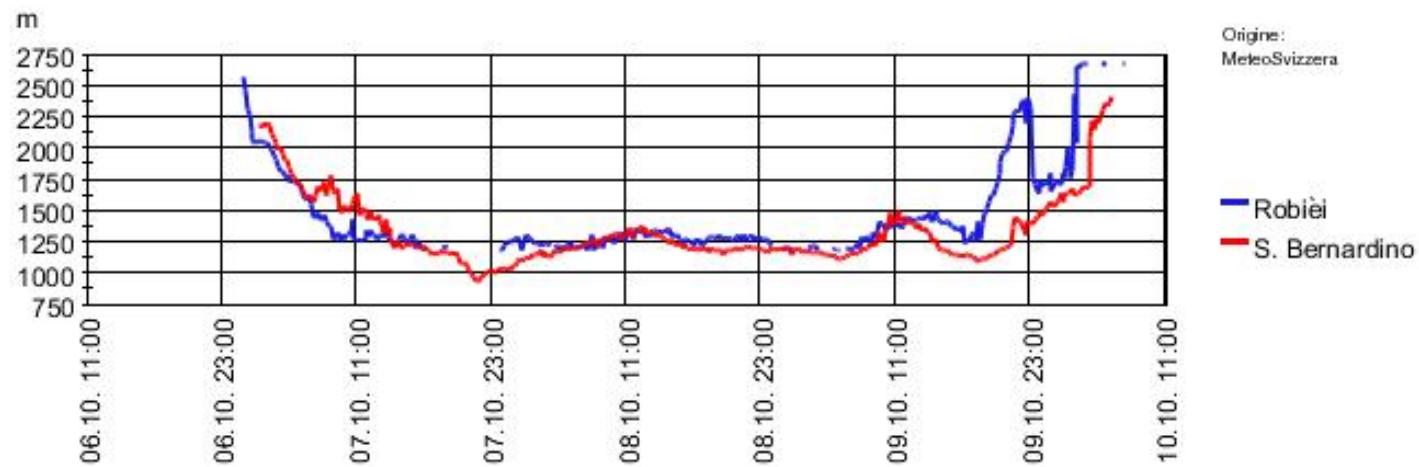
# Temperatura in quota

Temperatura dell'aria a 2 m; valore momentaneo [°C] 06.10.2011 11:00 UTC - 10.10.2011 11:10 UTC

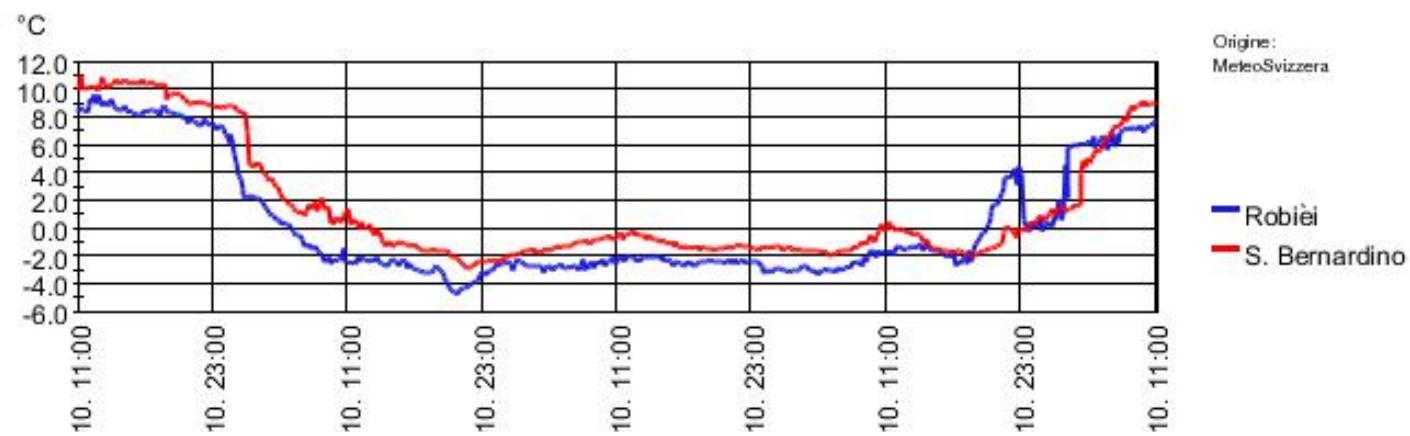




# Limite delle nevicate

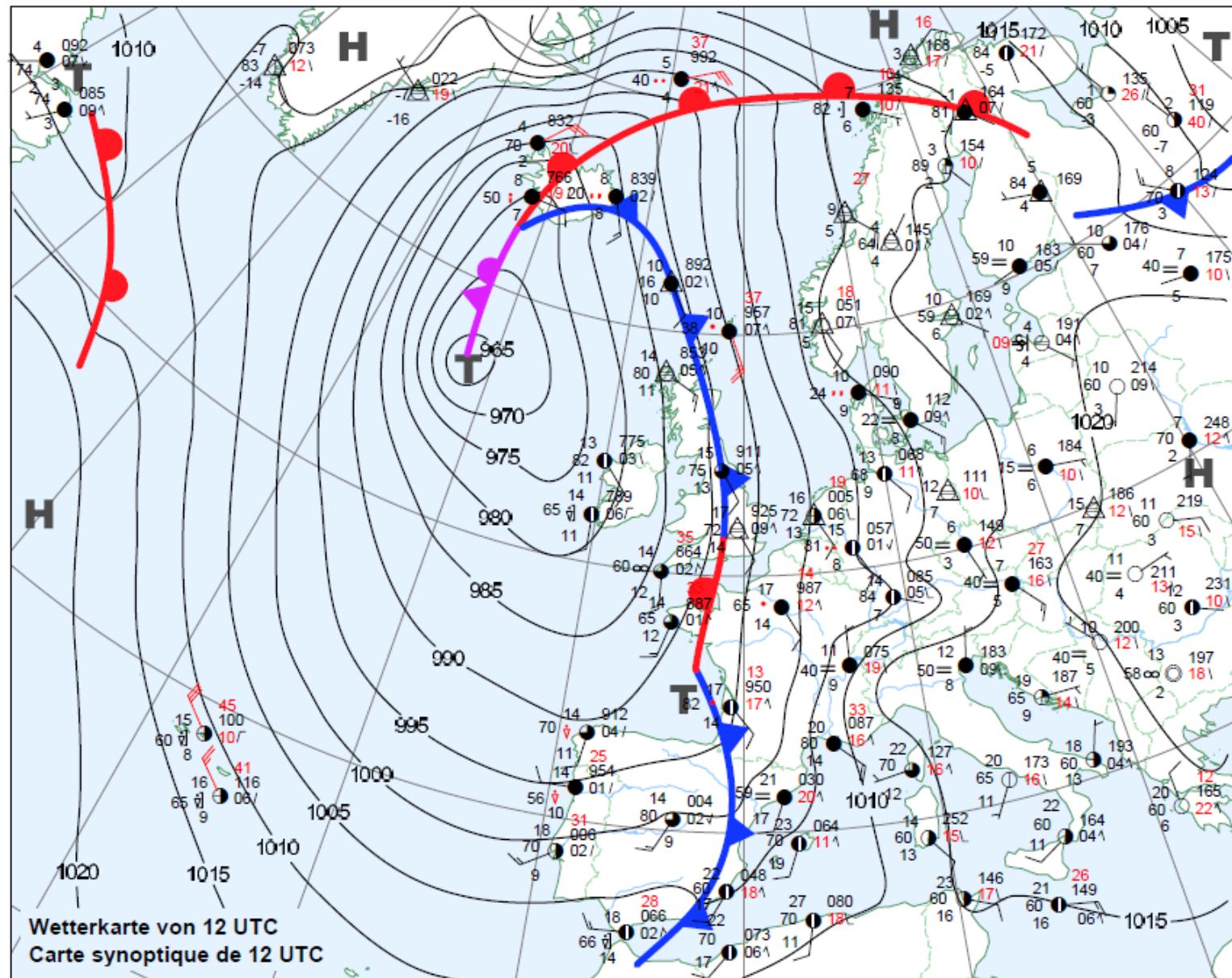


Temperatura del wet-bulb (temperatura psicrometro) a 2 m; valore momentaneo [°C] 06.10.2011 11:00 UTC - 10.10.2011 11:10 UT



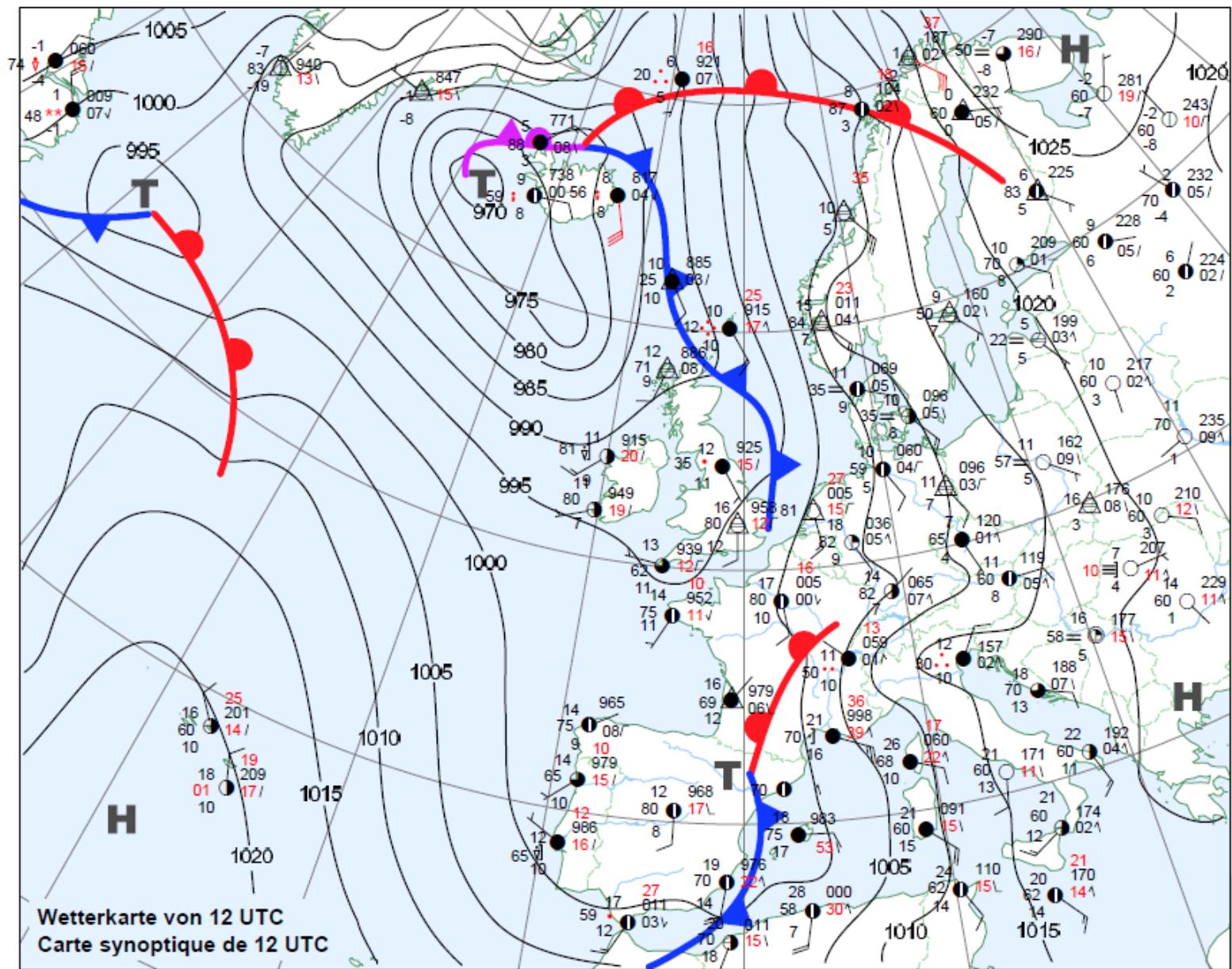


## 3.11 Situazione di sbarramento



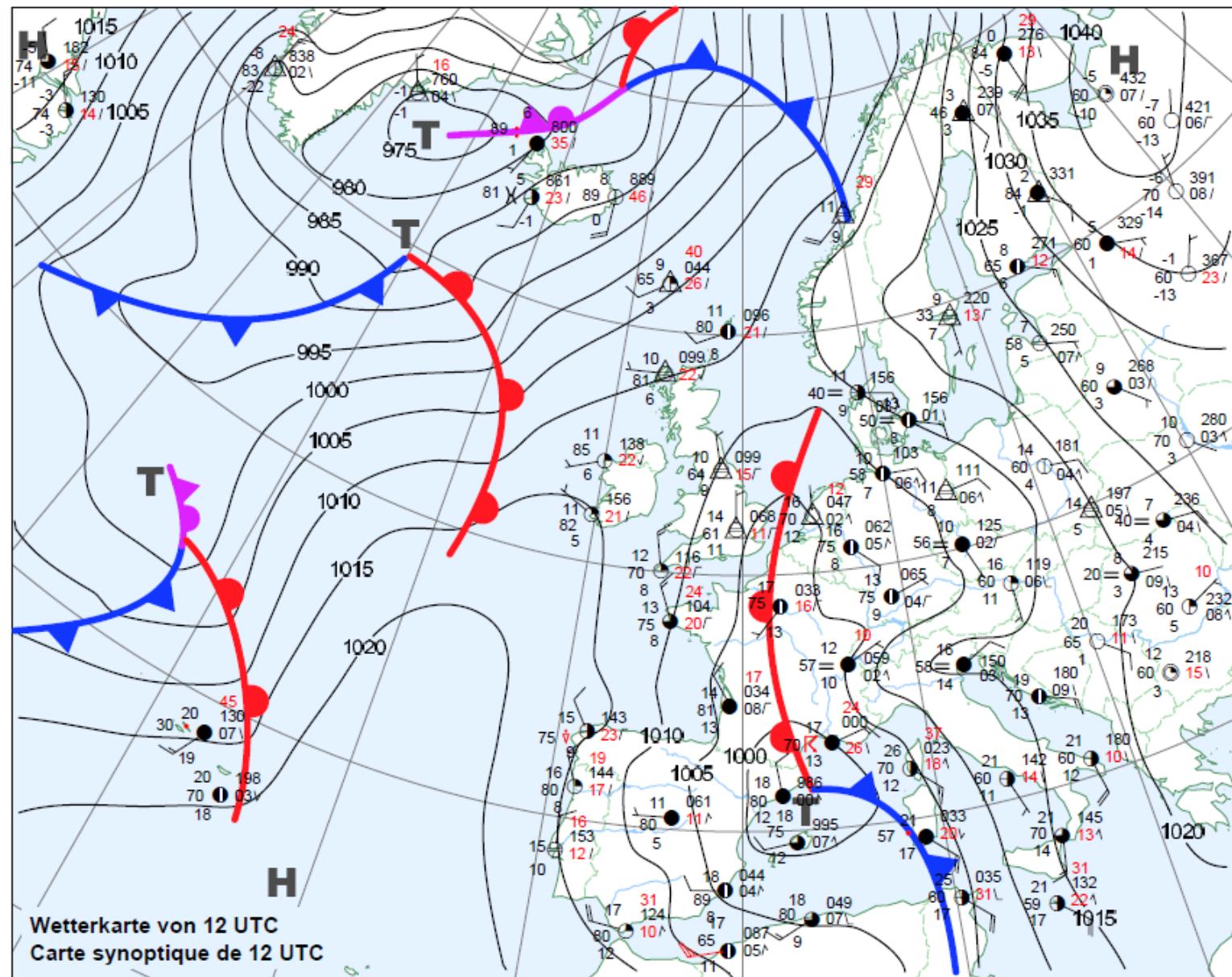


## 4.11 Situazione di sbarramento



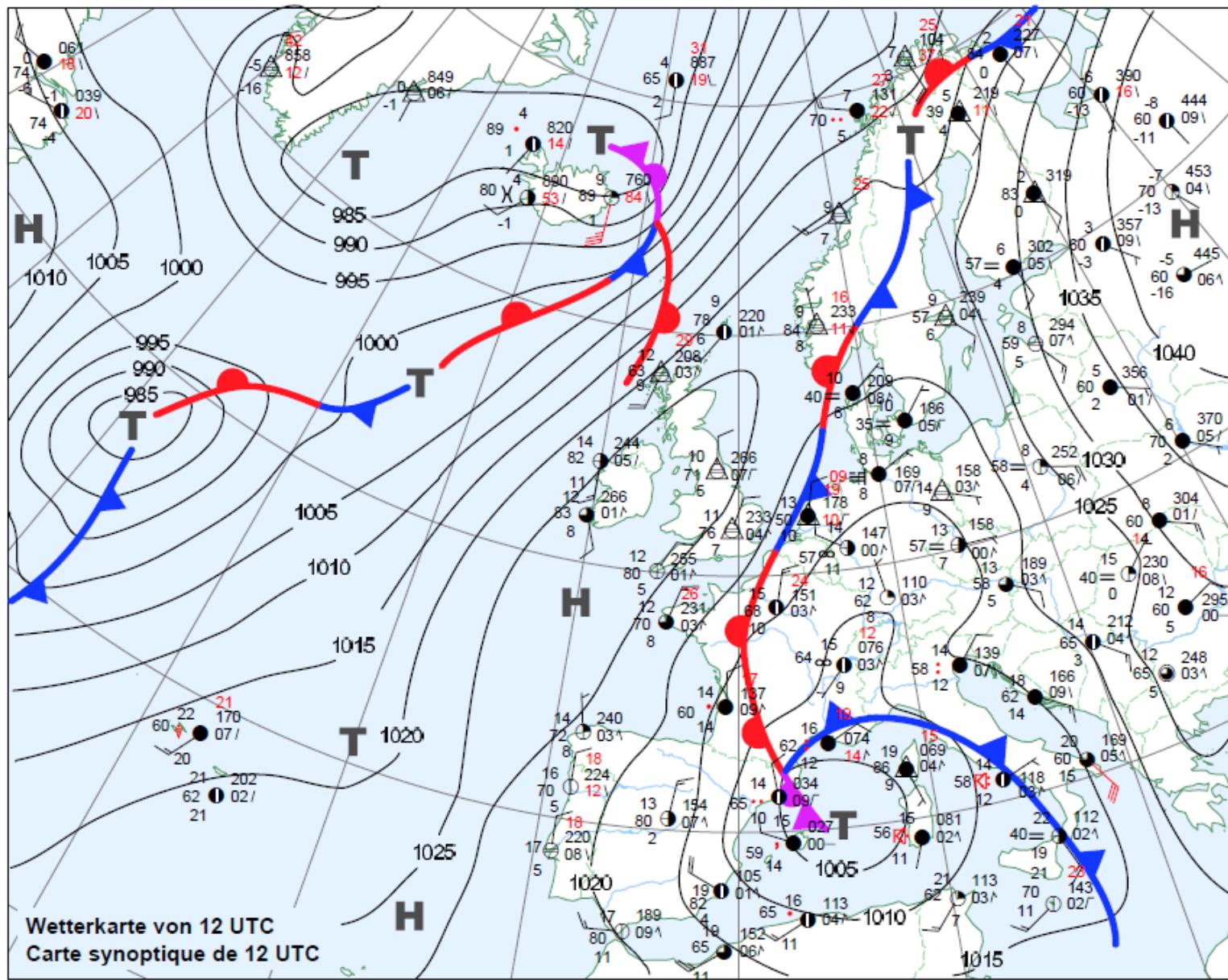


## 5.11 Situazione di sbarramento



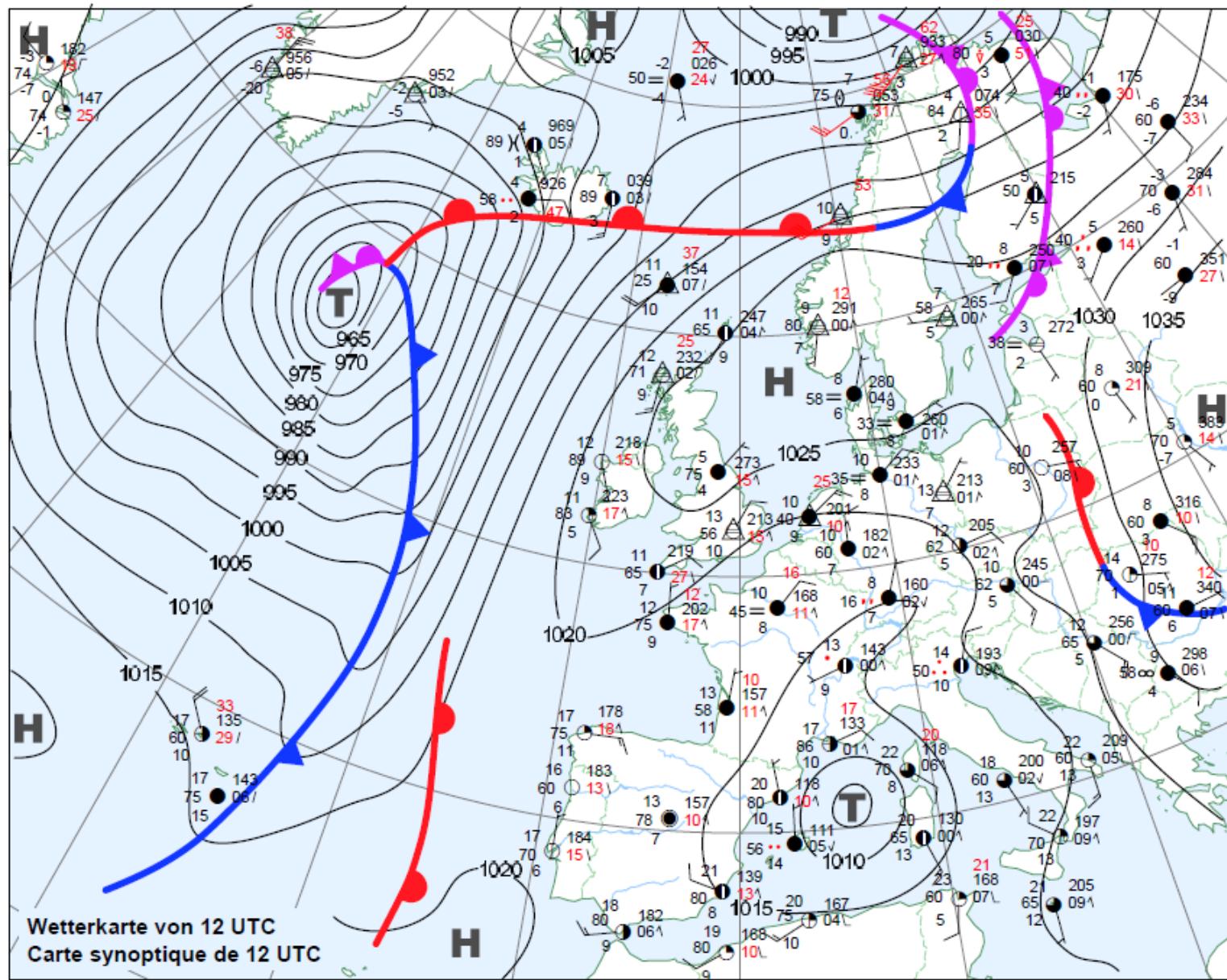


## 6.11 Situazione di sbarramento



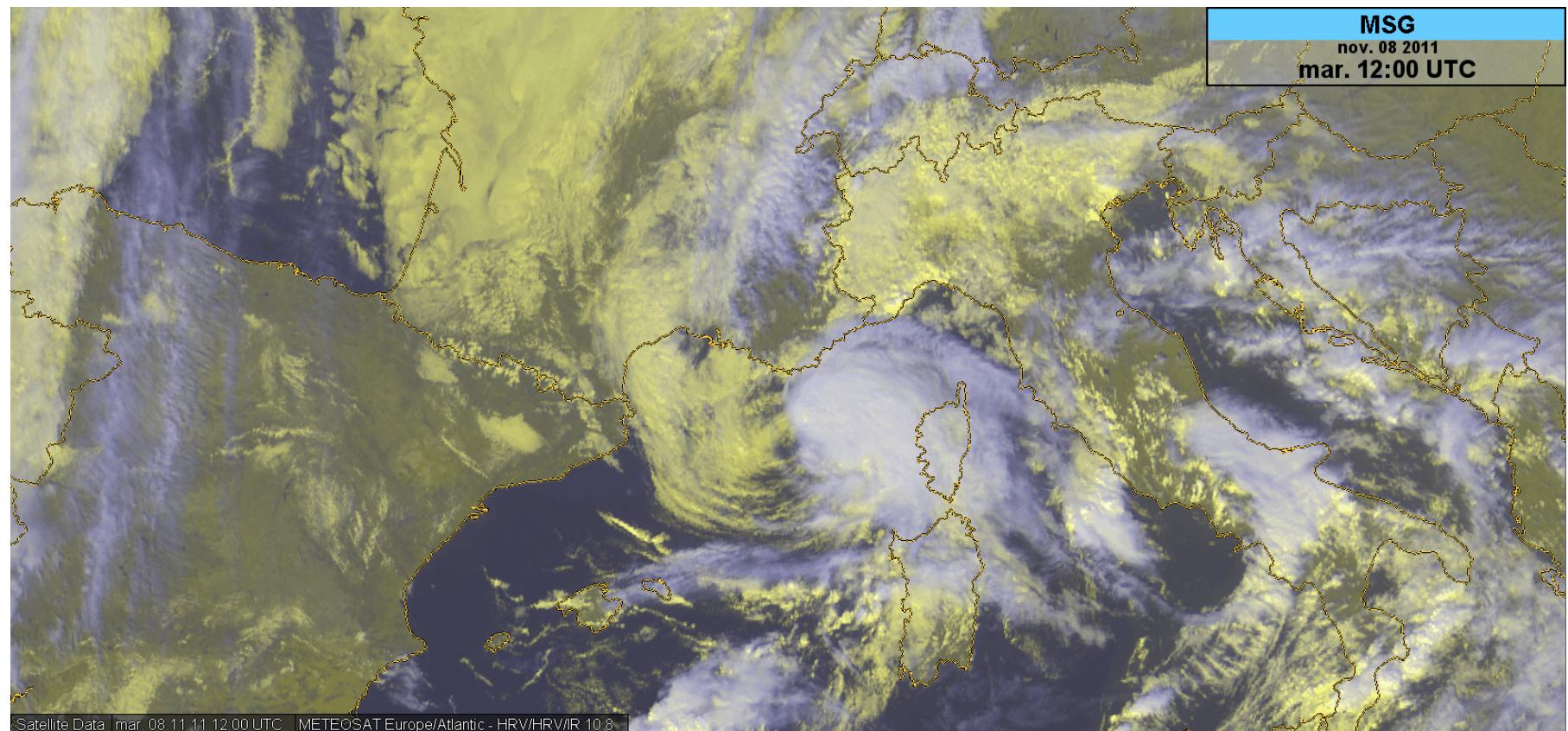


## 7.11 Situazione di sbarramento





# 7-8.11 Medicane?





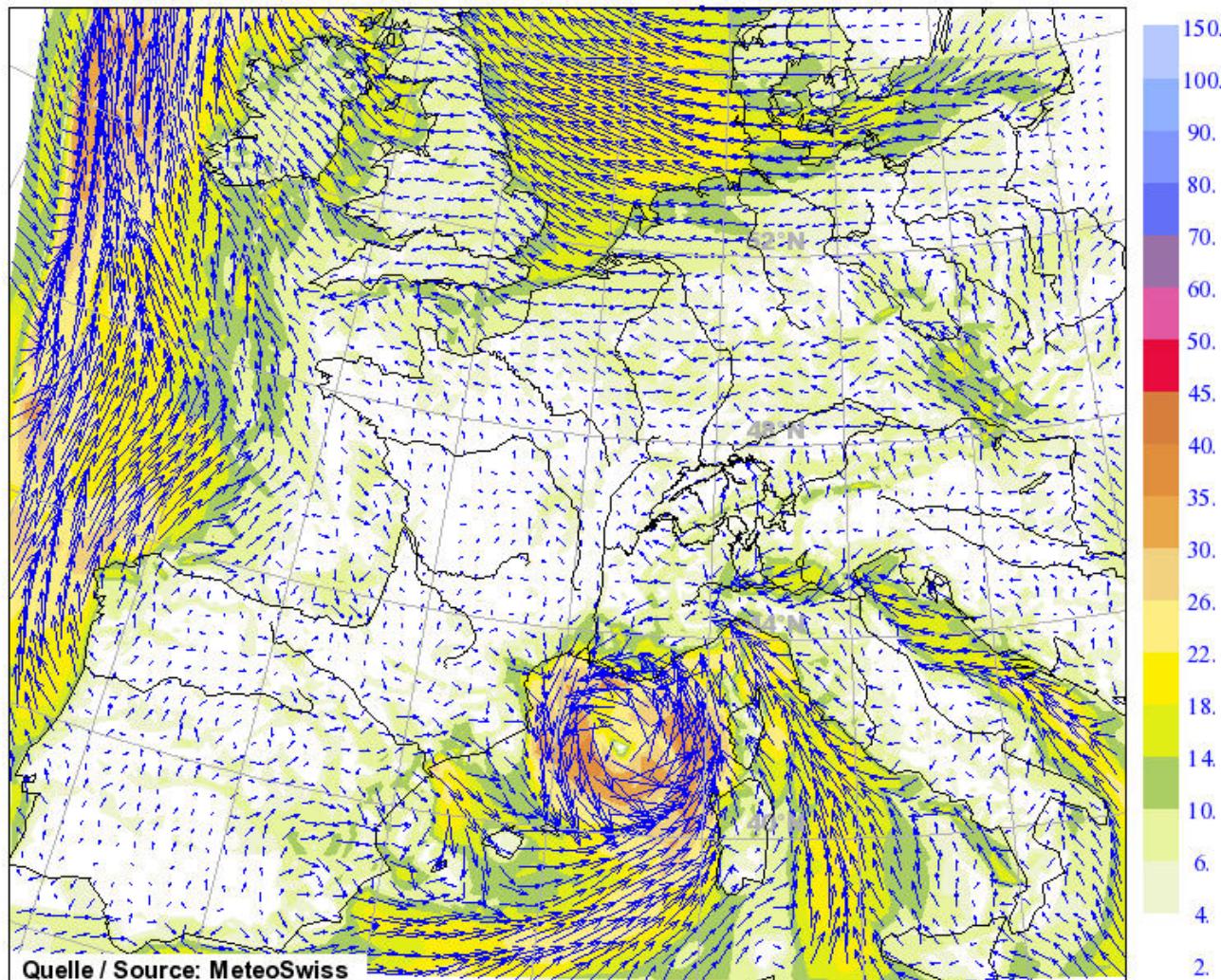
# 7-8.11 Medicane?

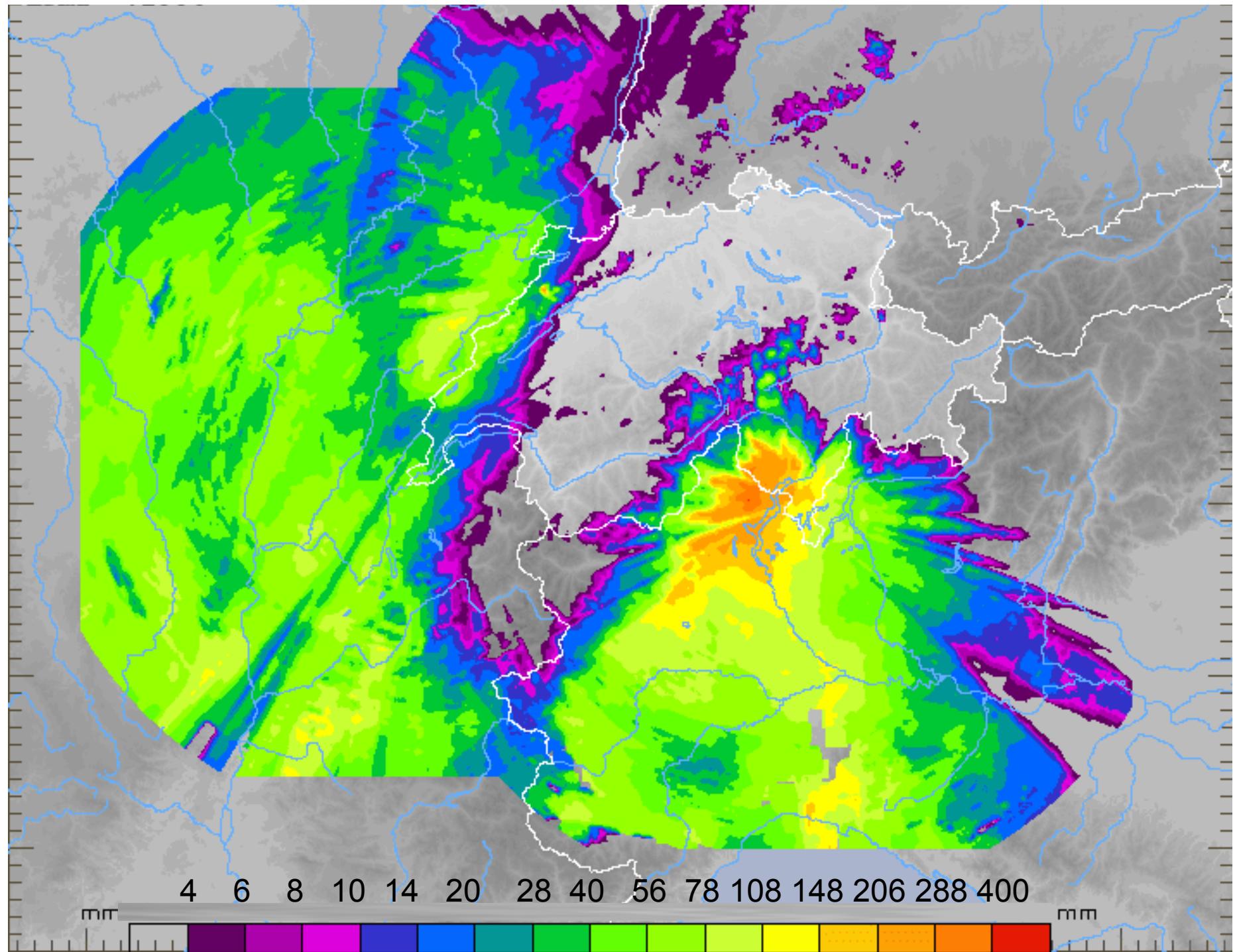
COSMO-7 Analysis for: Tue 8 Nov 2011 06 UTC

10m Wind every 6 grid points and speed in knots shaded

Version: opr 7km (907)

Run: 08.11.2011 06UTC+0h





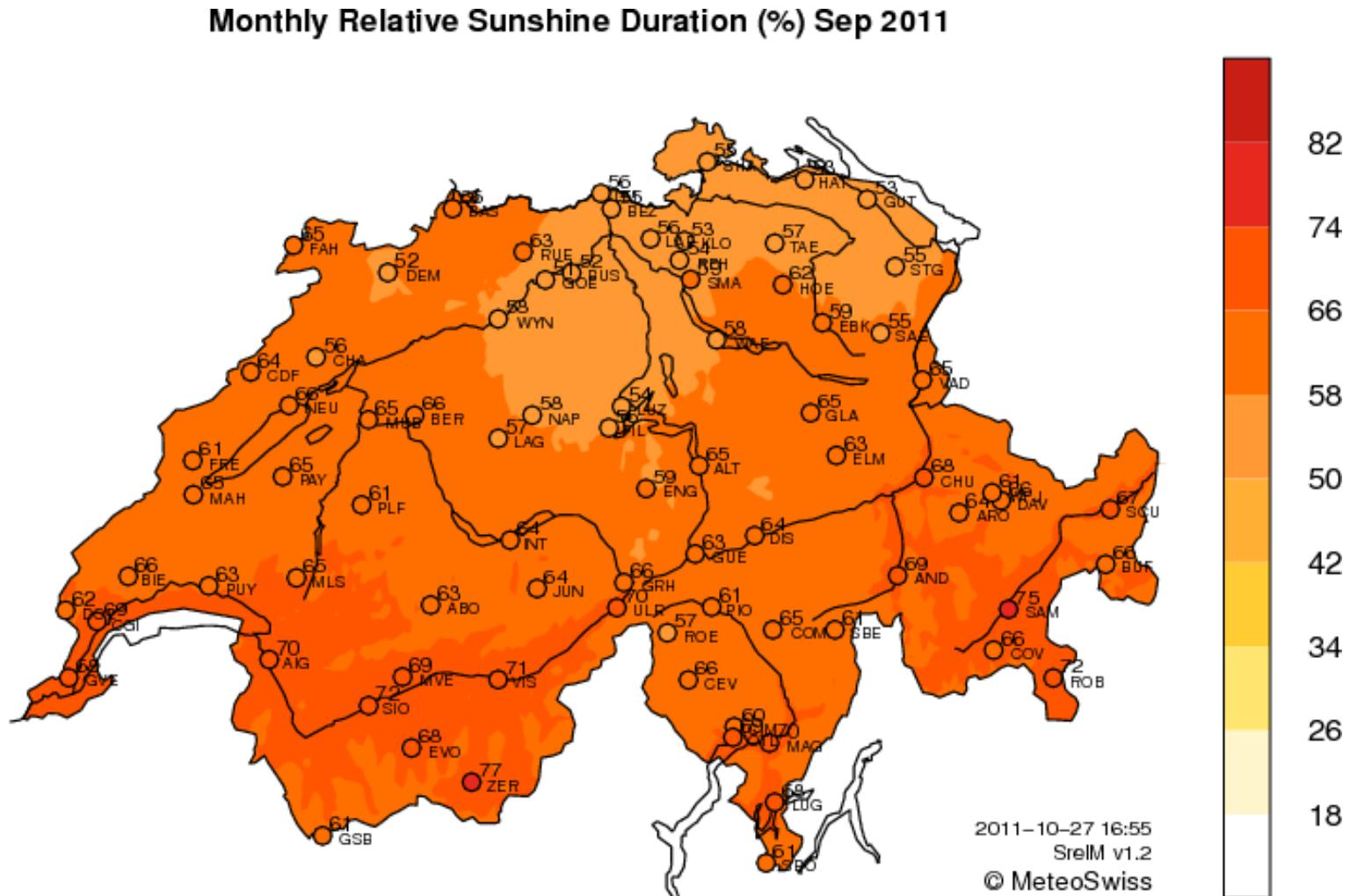


# Grazie per l'attenzione!



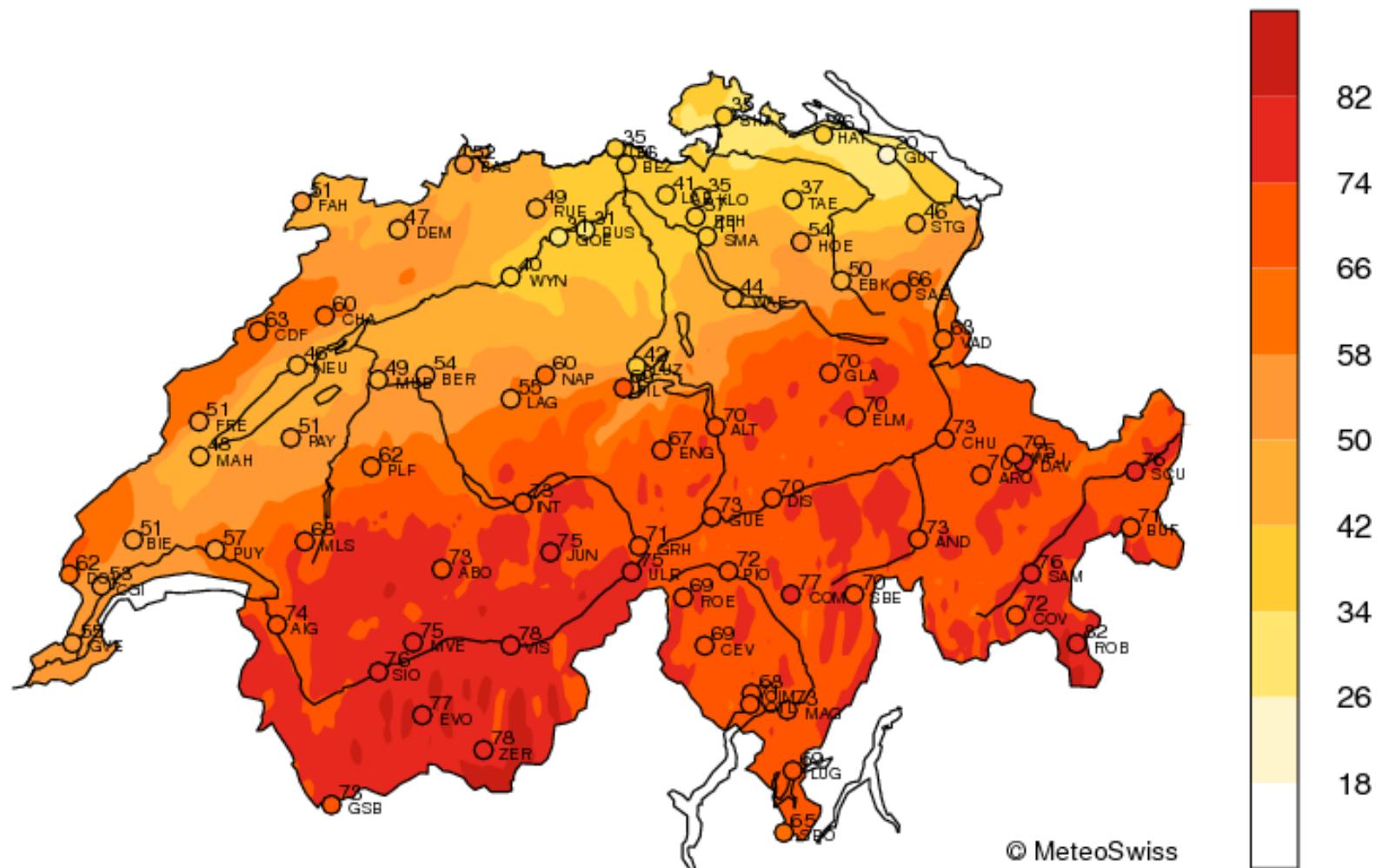


# Soleggiamento relativo: settembre 2011





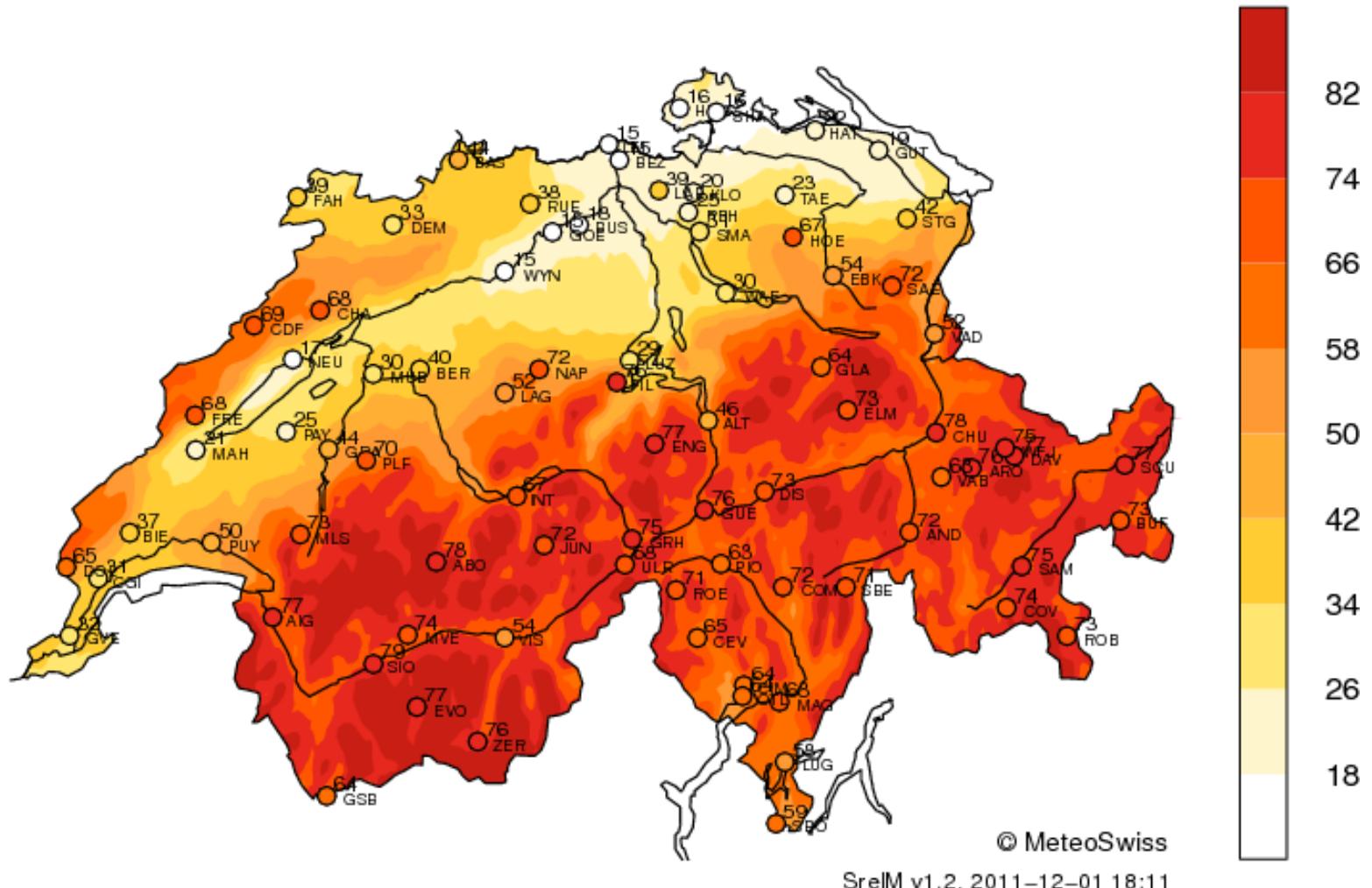
# **Soleggiamento relativo: ottobre 2011**





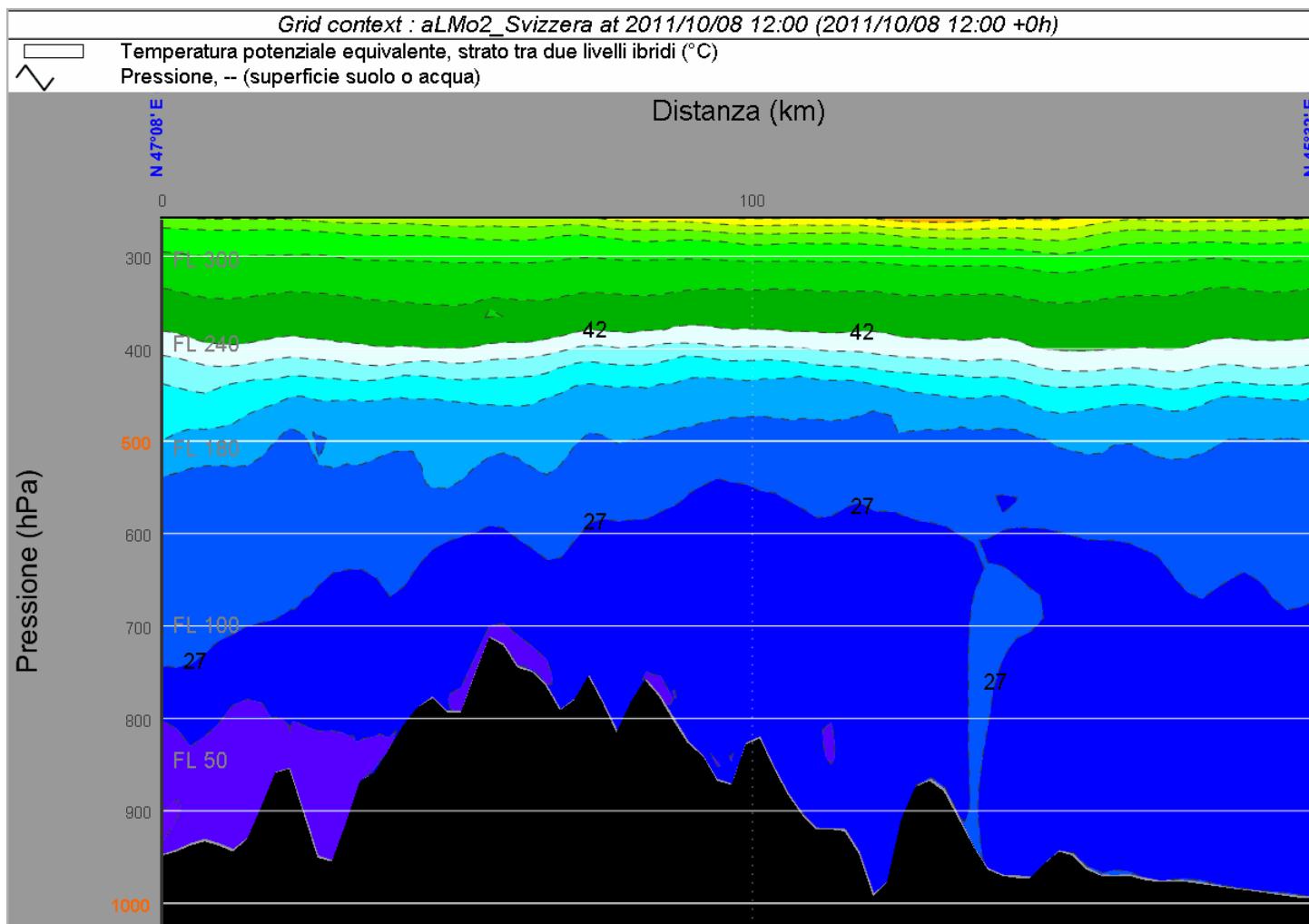
# Soleggiamento relativo: novembre 2011

Monthly Relative Sunshine Duration (%) Nov 2011



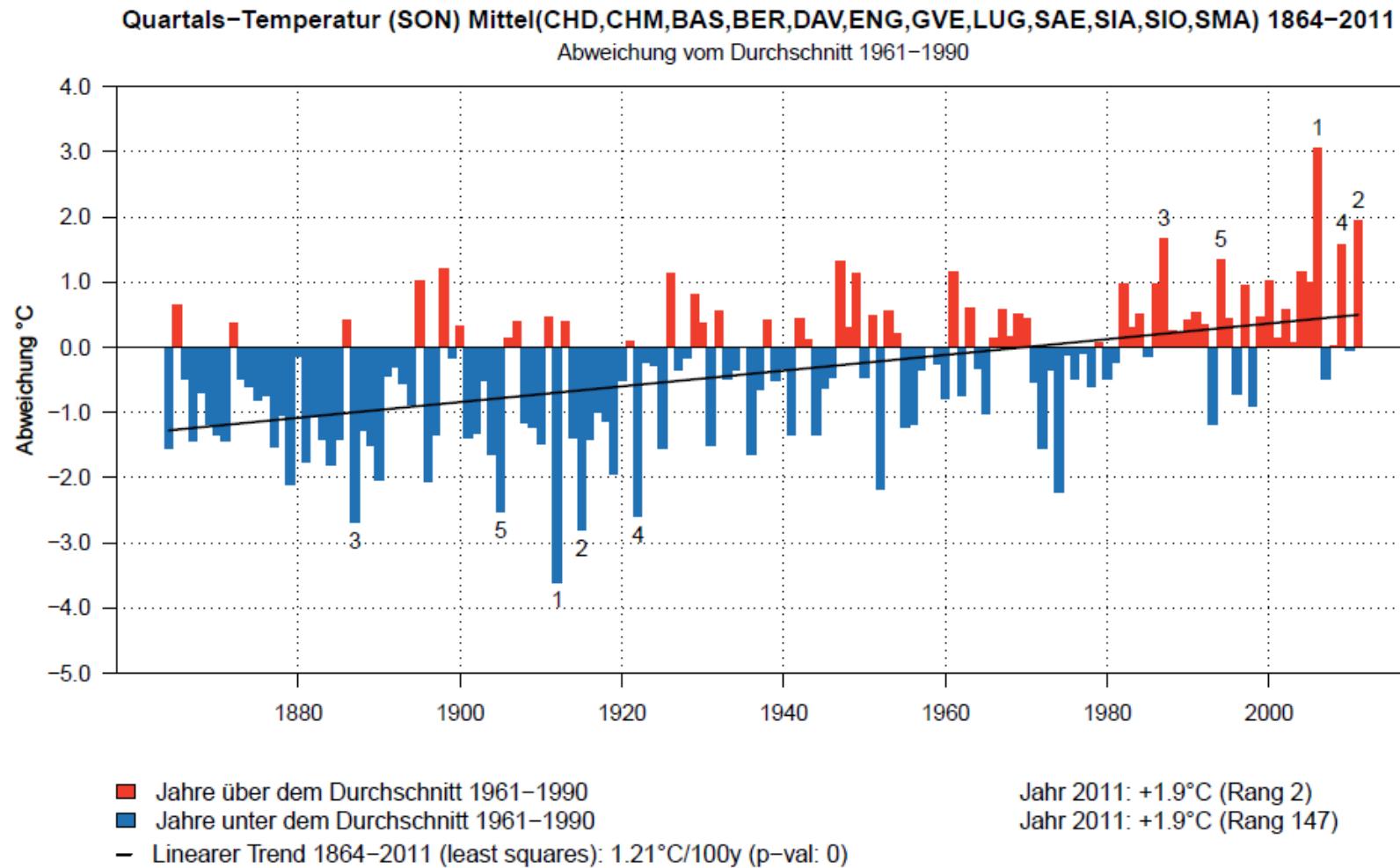


## Temperatura: anomalie globali novembre 2011



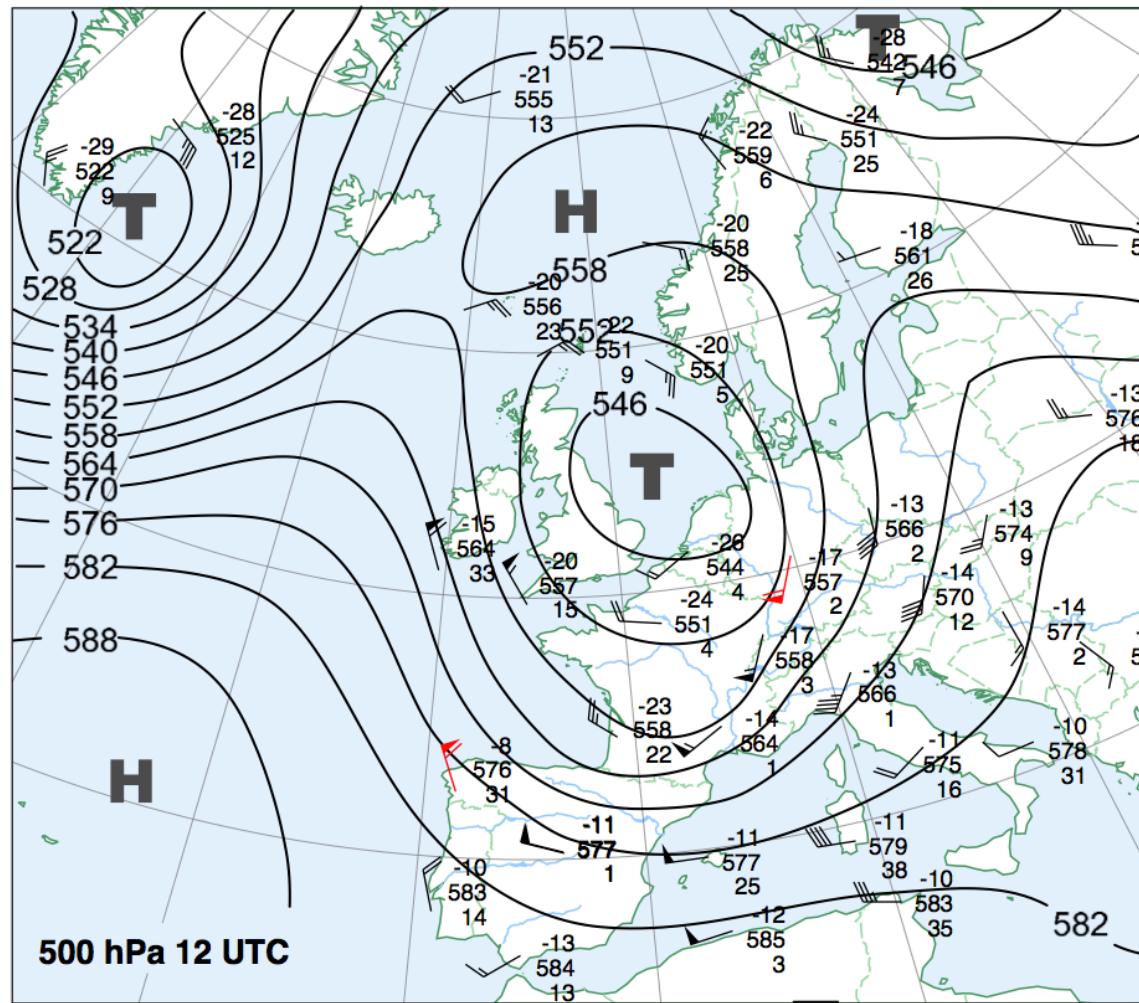


# L'autunno CH 2011 rispetto agli altri



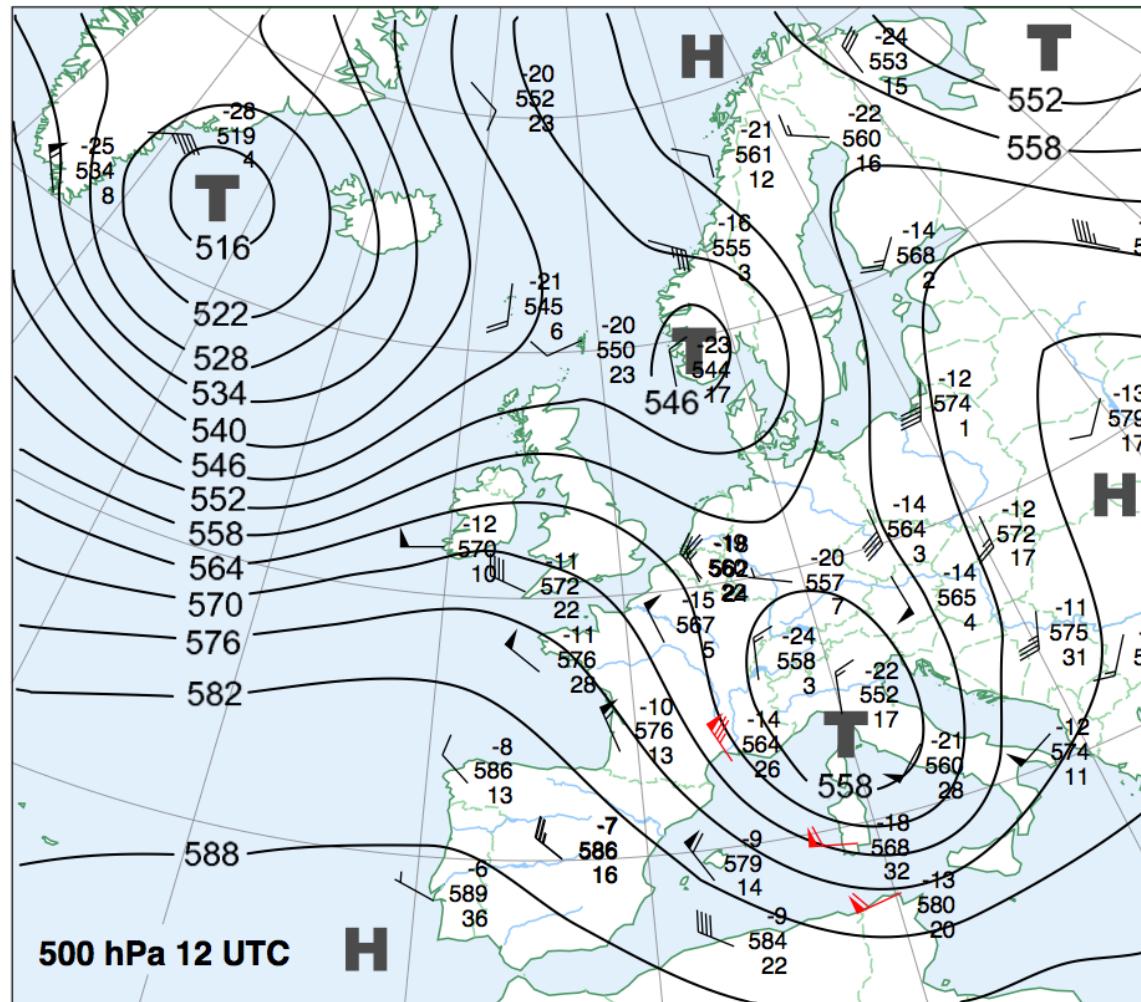


# 18 settembre 2011: Z@500 hPa



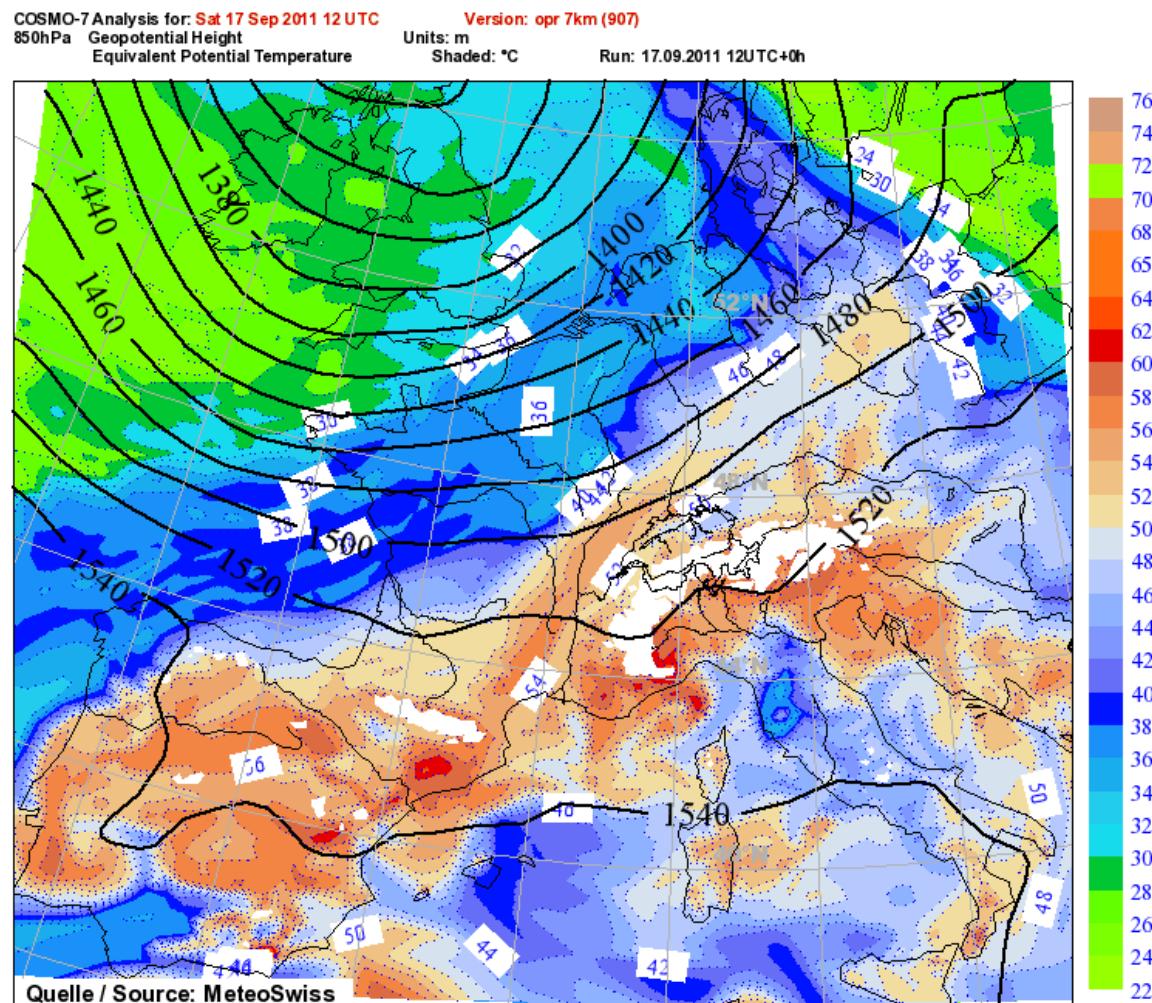


# 19 settembre 2011: Z@500 hPa



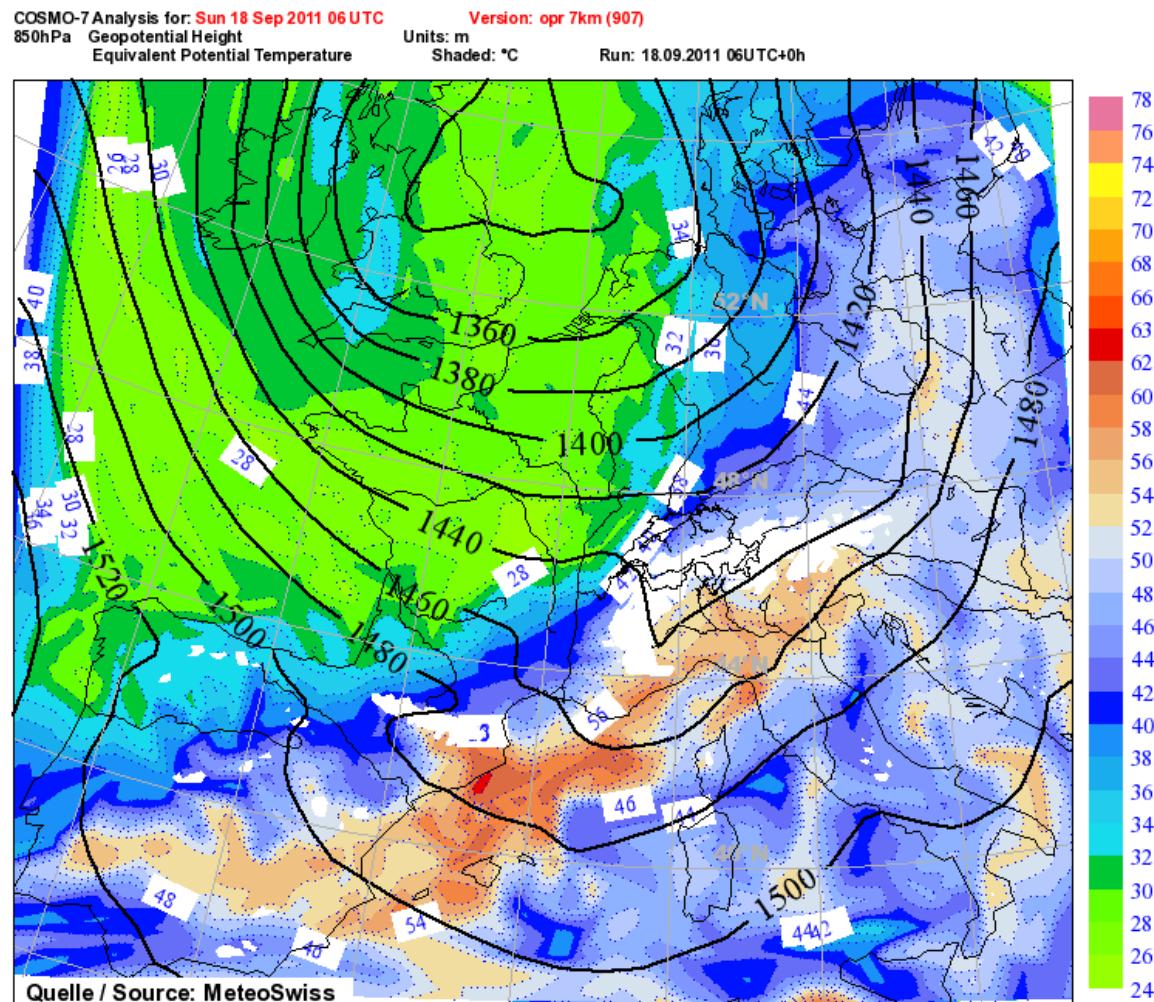


# Temperatura equipotenziale 17 12UTC



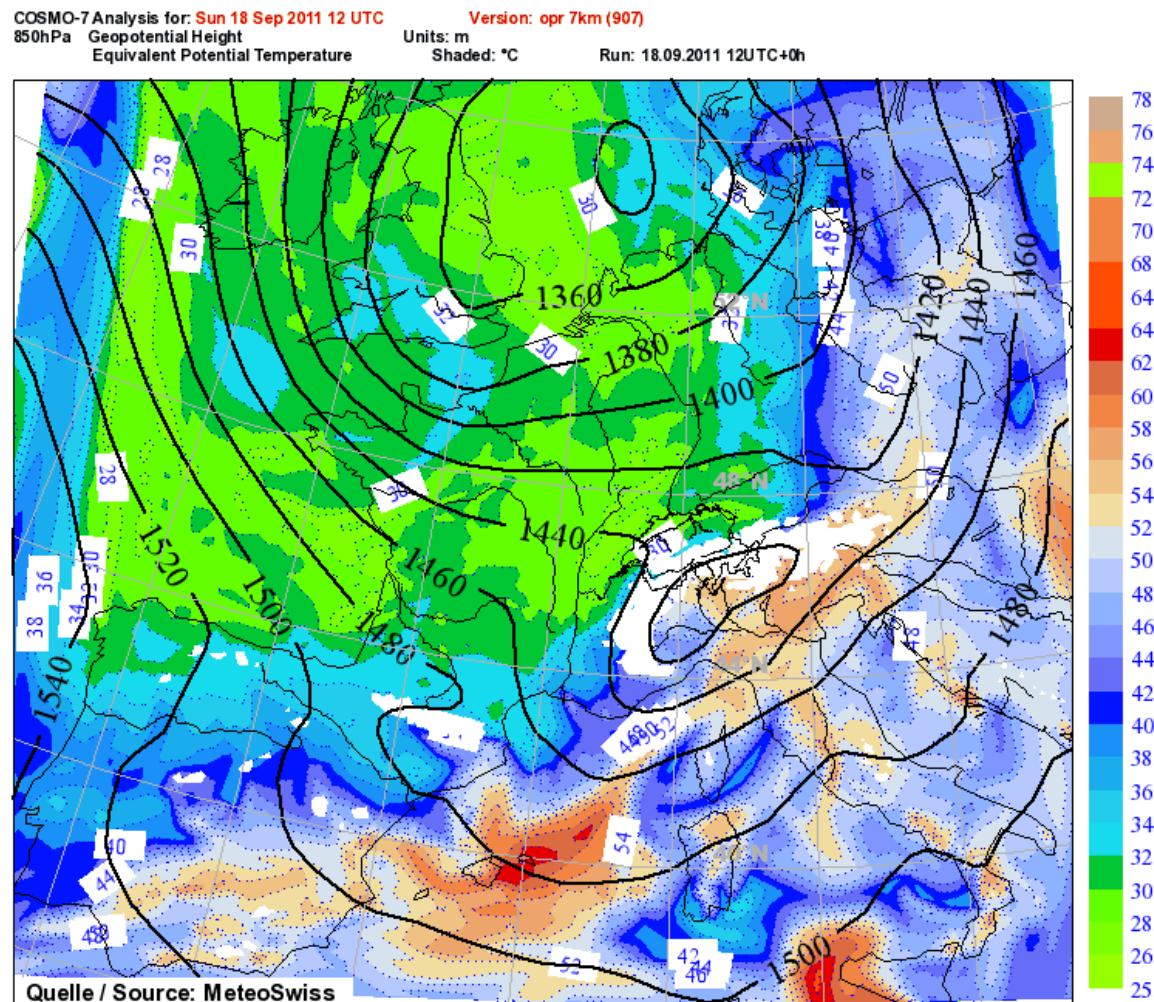


# Temperatura equipotenziale 18 06UTC



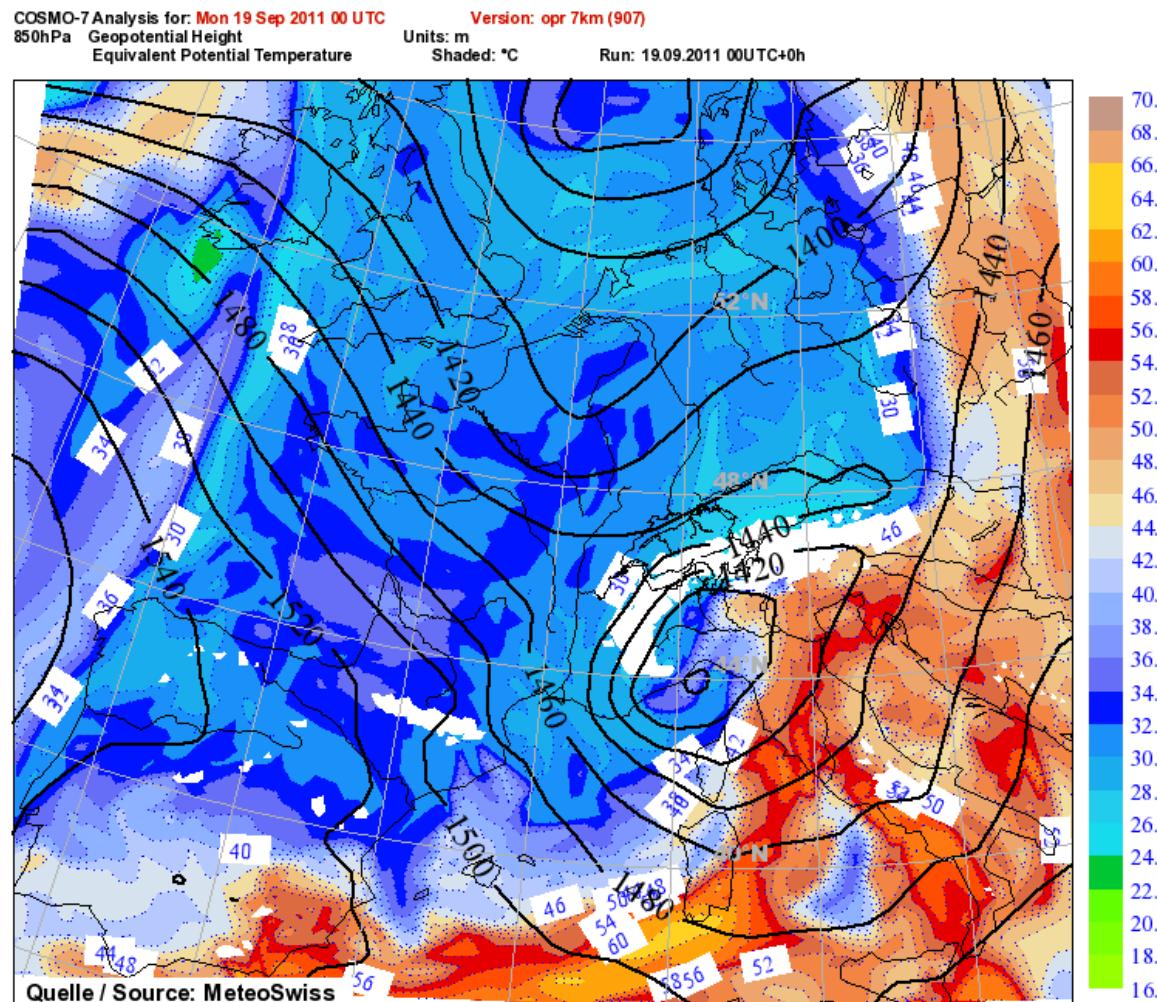


# Temperatura equipotenziale 18 12UTC



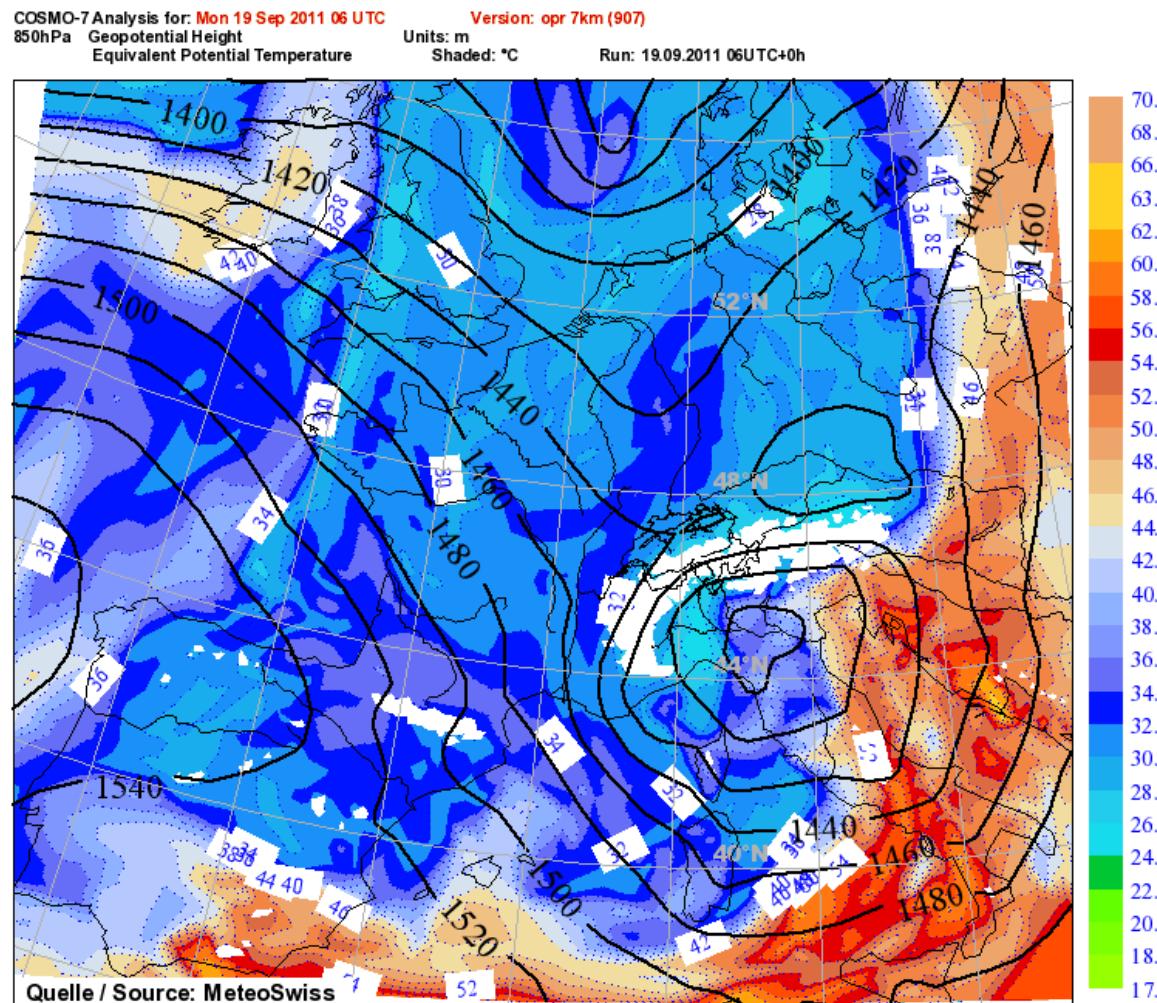


# Temperatura equipotenziale 19 00UTC



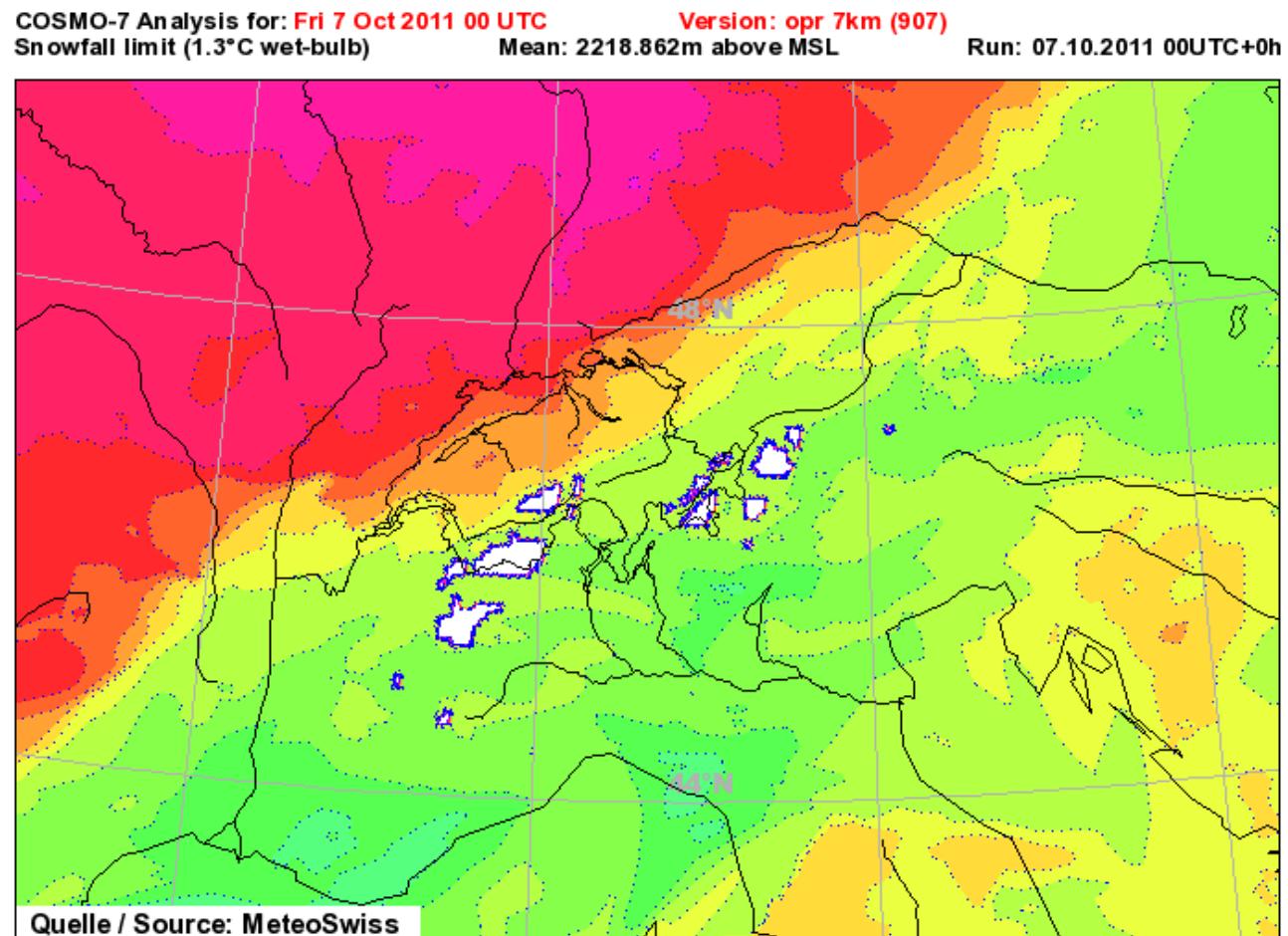


# Temperatura equipotenziale 19 06UTC





# Limite delle nevicate 7 00UTC

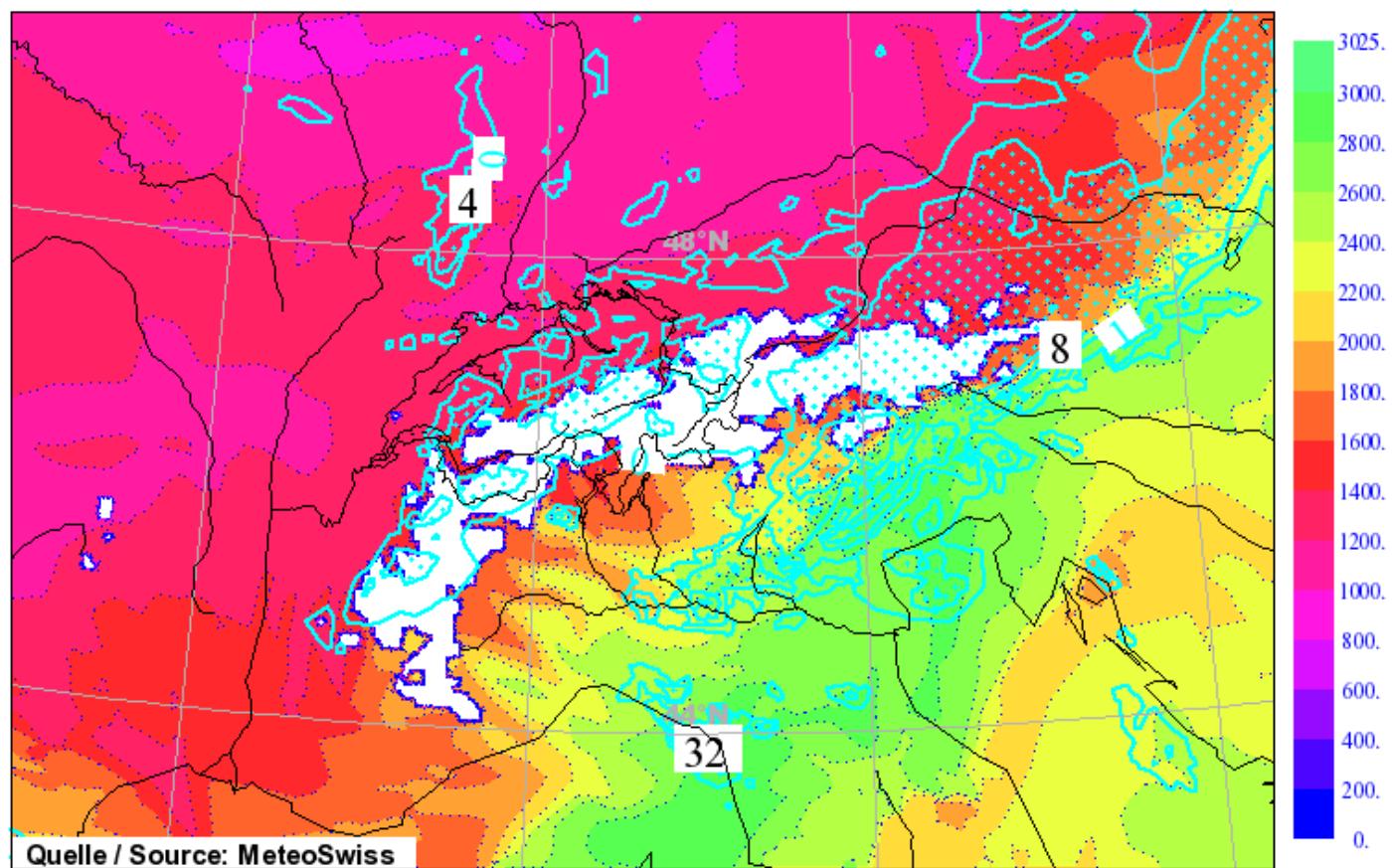




# Limite delle nevicate 7 06UTC

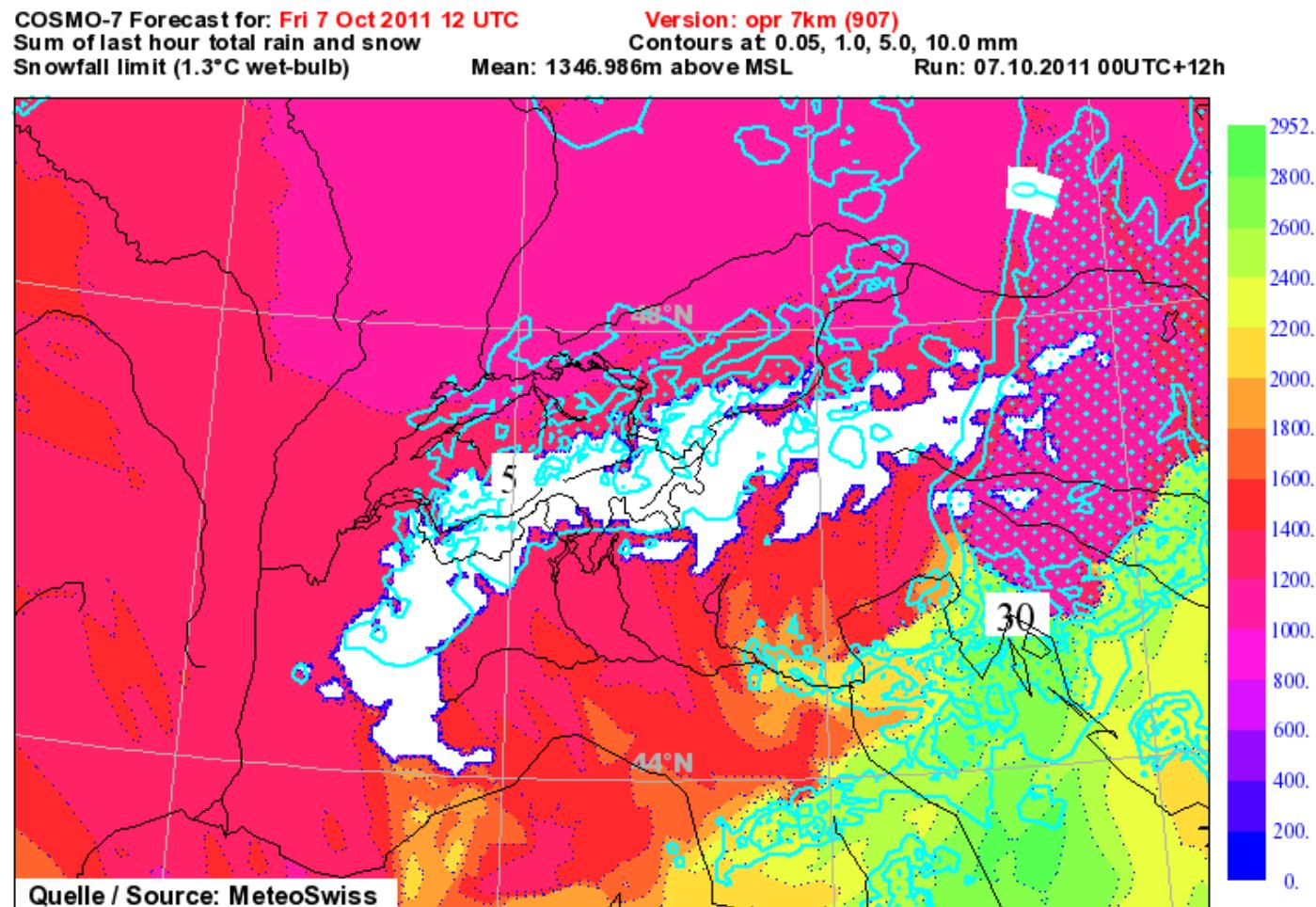
COSMO-7 Forecast for: Fri 7 Oct 2011 06 UTC  
Sum of last hour total rain and snow  
Snowfall limit (1.3°C wet-bulb)

Version: opr 7km (907)  
Contours at 0.05, 1.0, 5.0, 10.0 mm  
Mean: 1665.422m above MSL  
Run: 07.10.2011 00UTC+6h



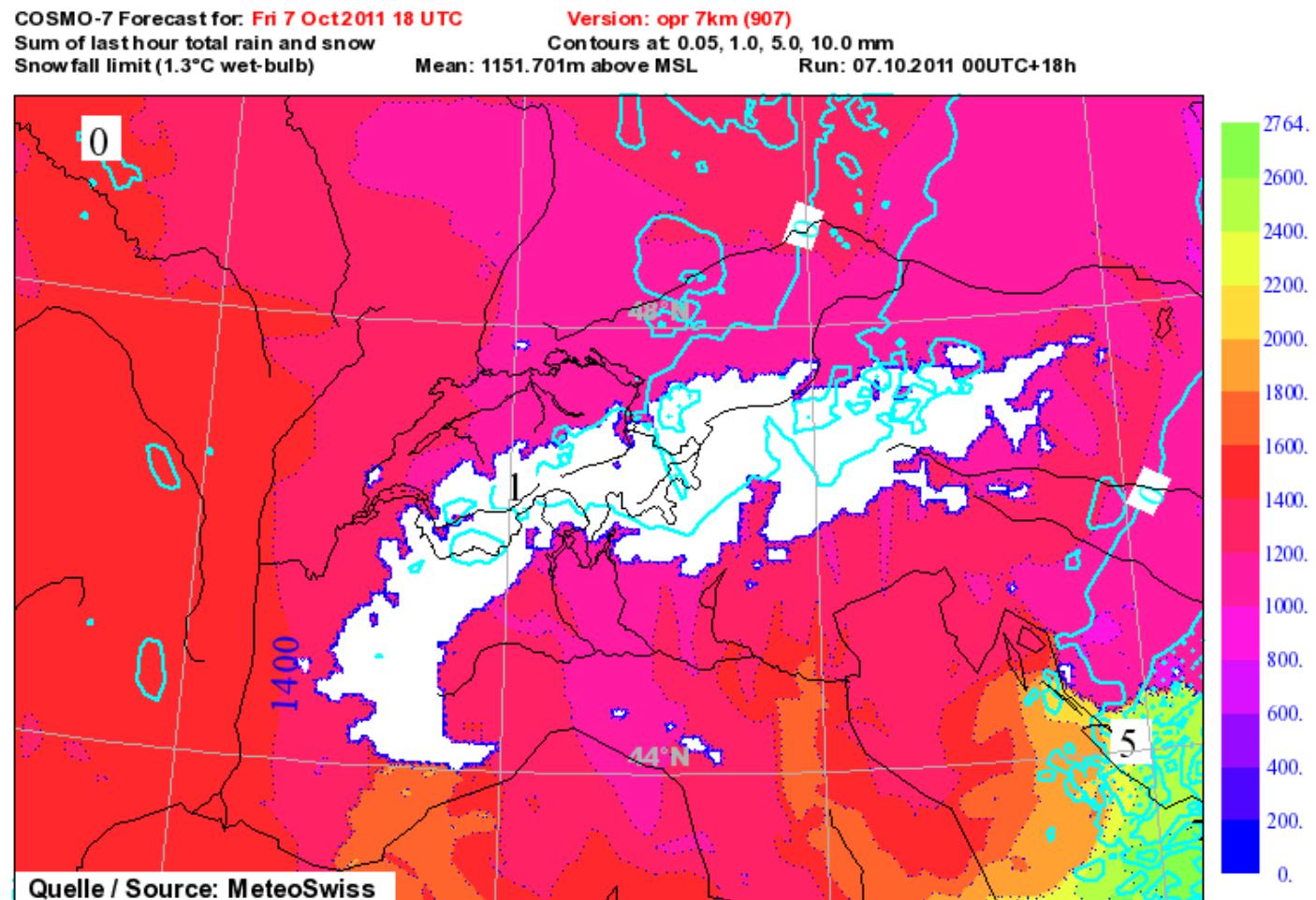


# Limite delle nevicate 7 12UTC



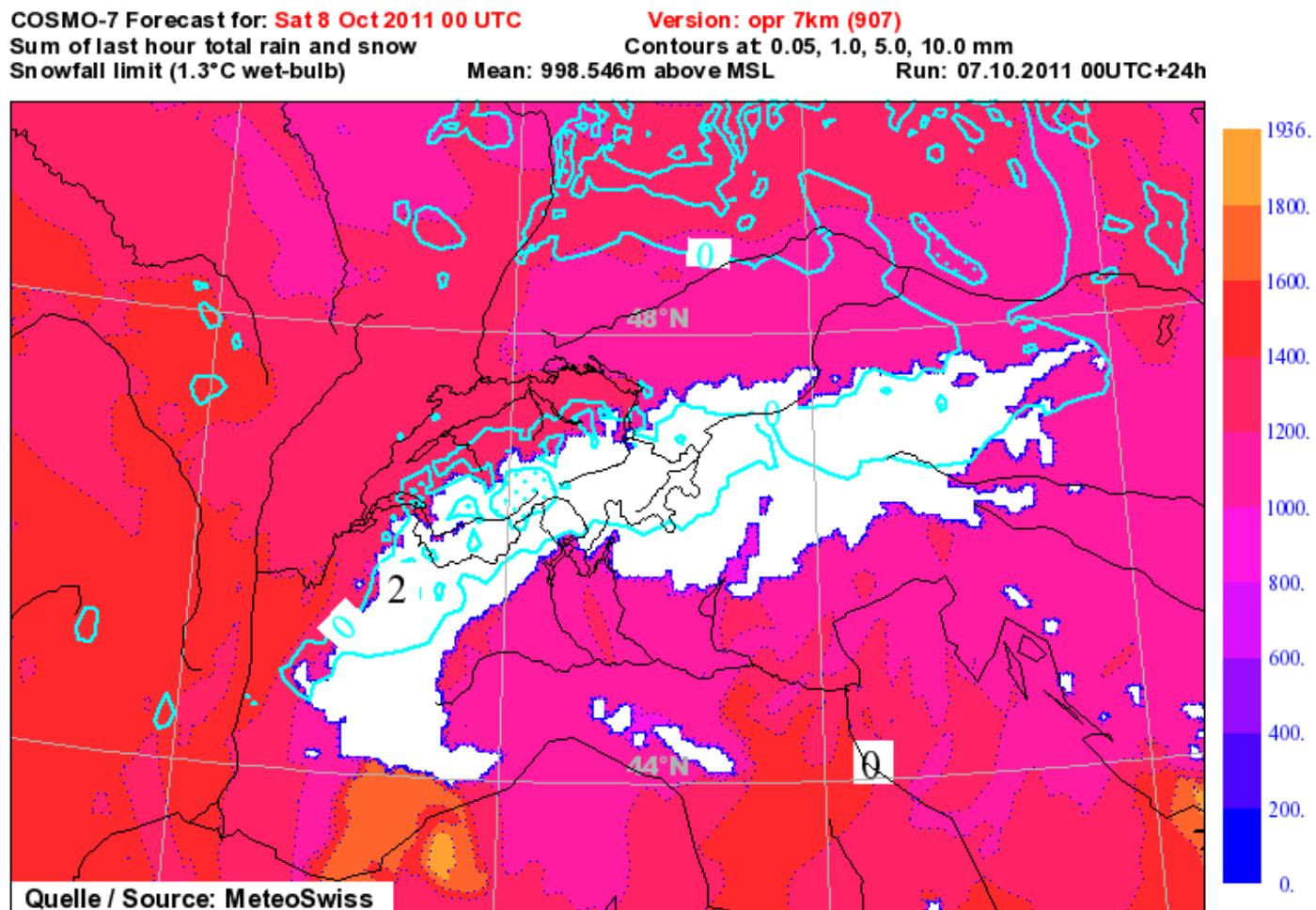


# Limite delle nevicate 7 18UTC





# Limite delle nevicate 8 00UTC

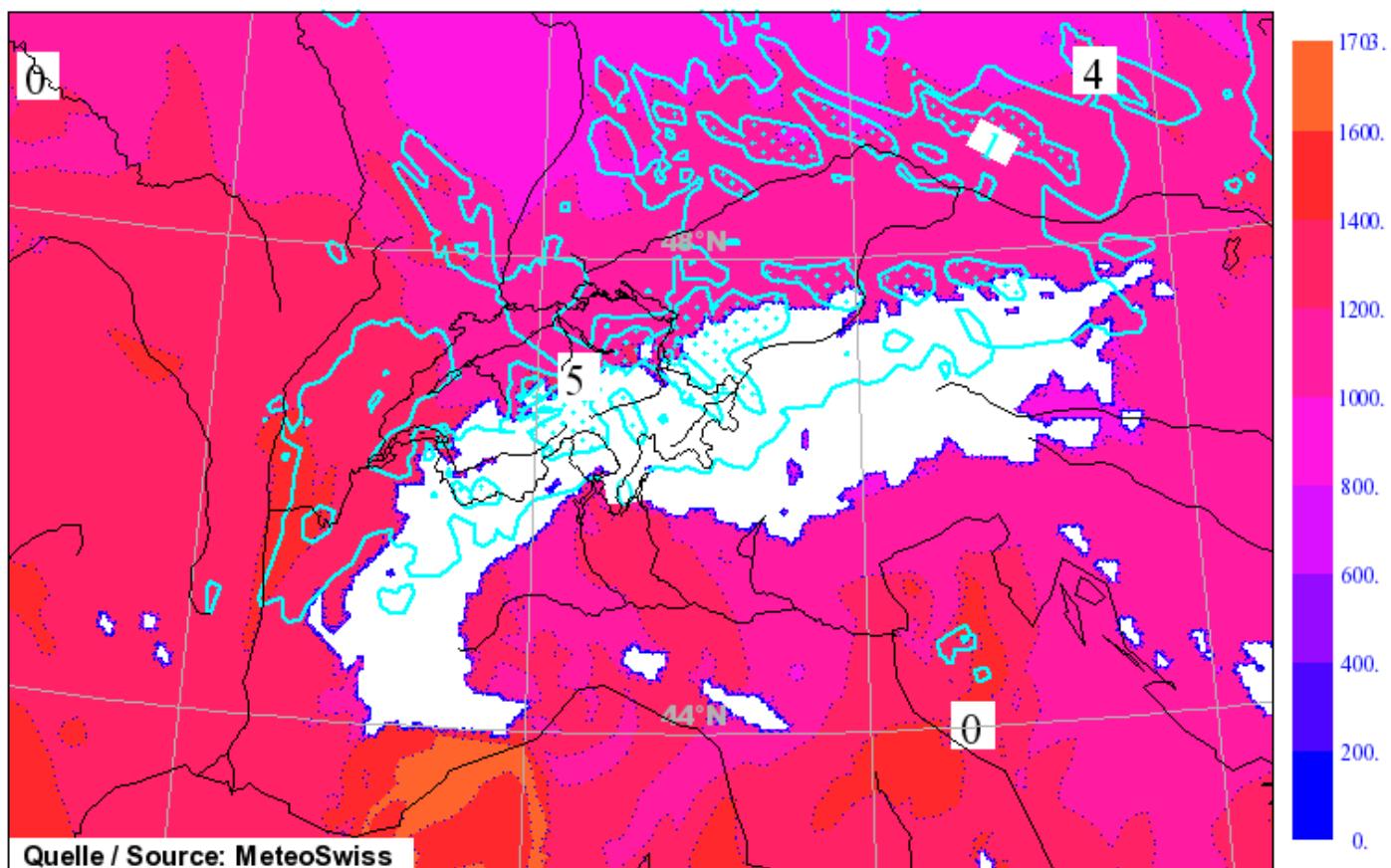




# Limite delle nevicate 8 06UTC

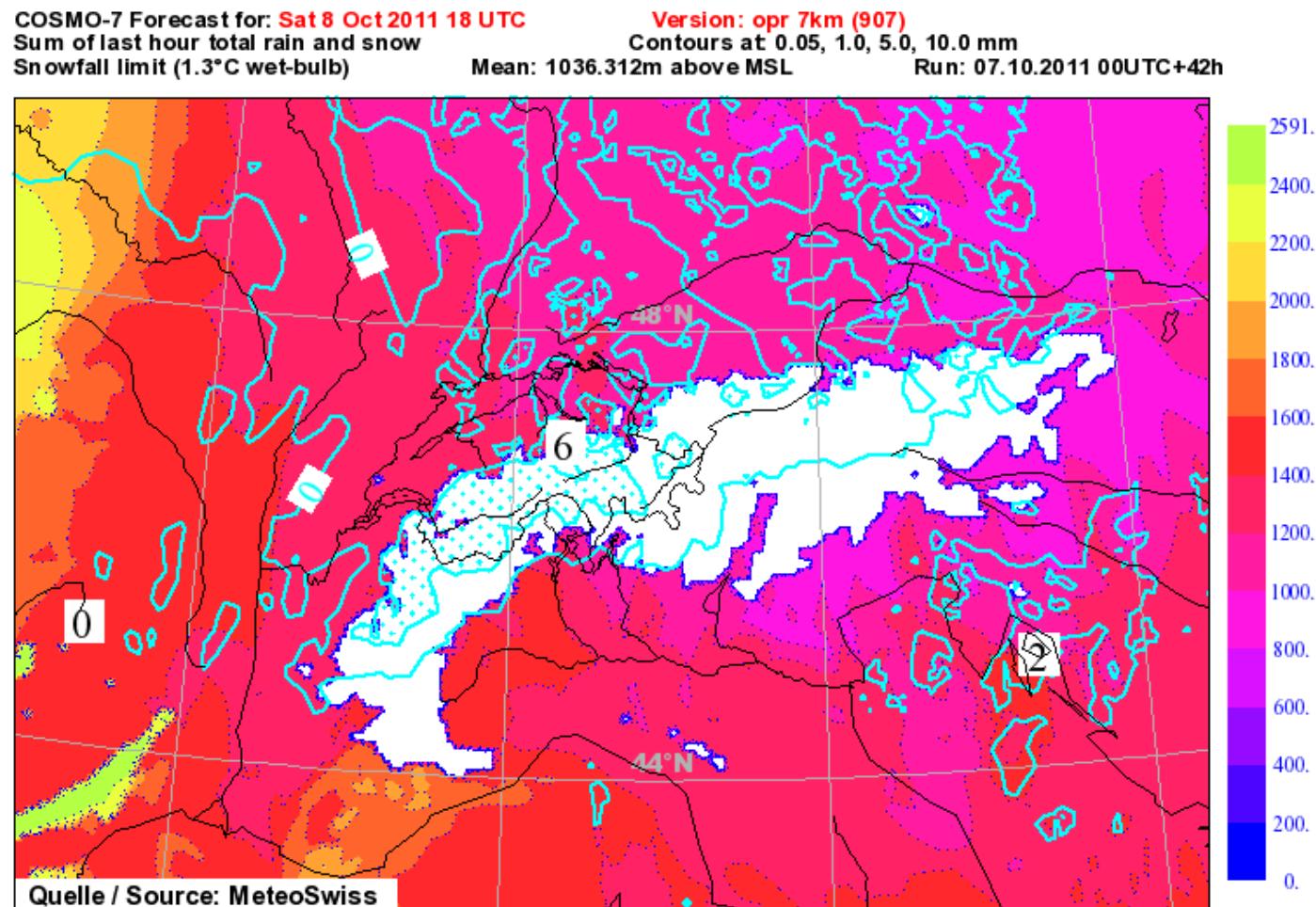
COSMO-7 Forecast for: Sat 8 Oct 2011 06 UTC  
Sum of last hour total rain and snow  
Snowfall limit (1.3°C wet-bulb)

Version: opr 7km (907)  
Contours at 0.05, 1.0, 5.0, 10.0 mm  
Mean: 915.836m above MSL  
Run: 07.10.2011 00UTC+30h



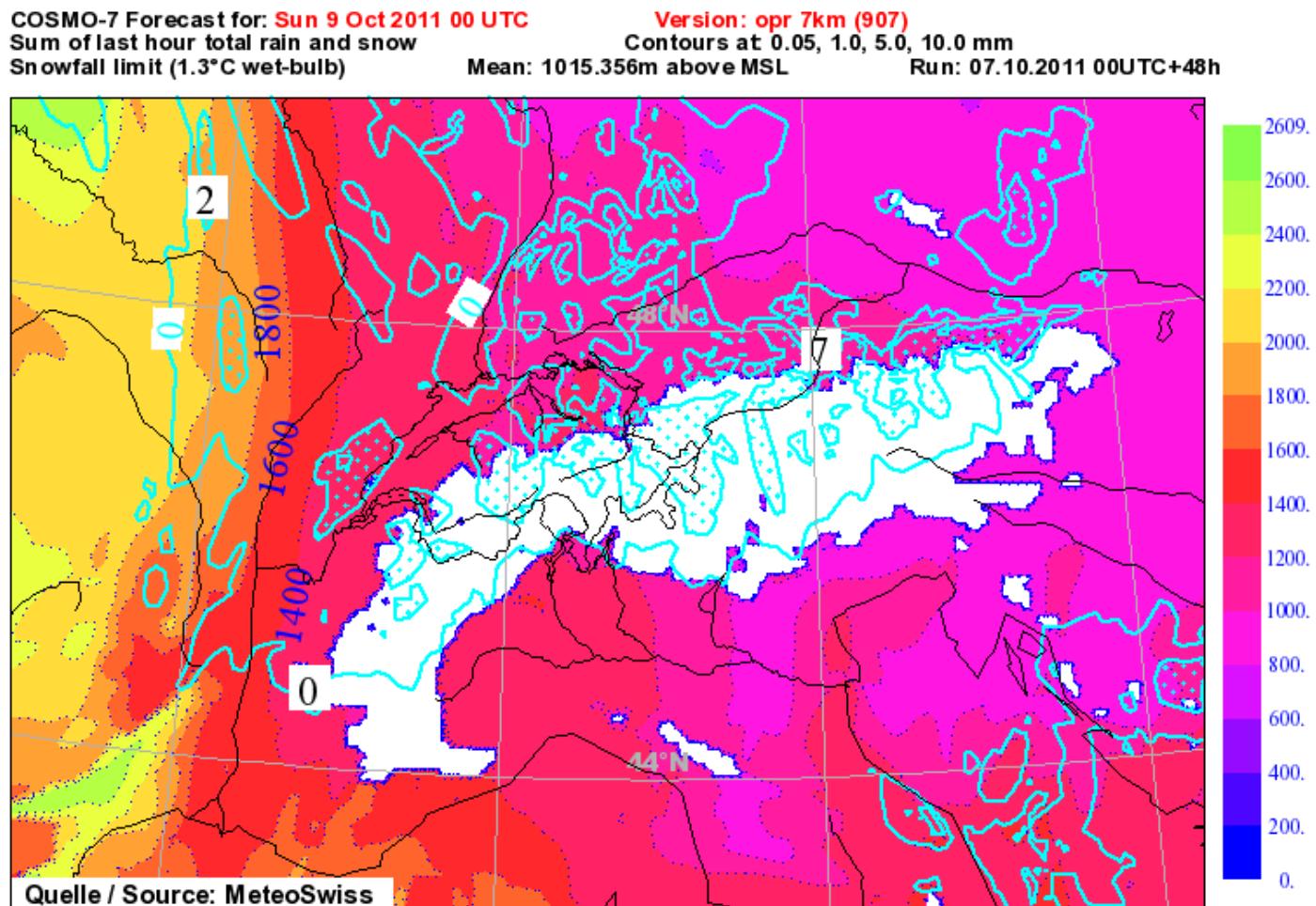


# Limite delle nevicate 8 18UTC





# Limite delle nevicate 9 00UTC

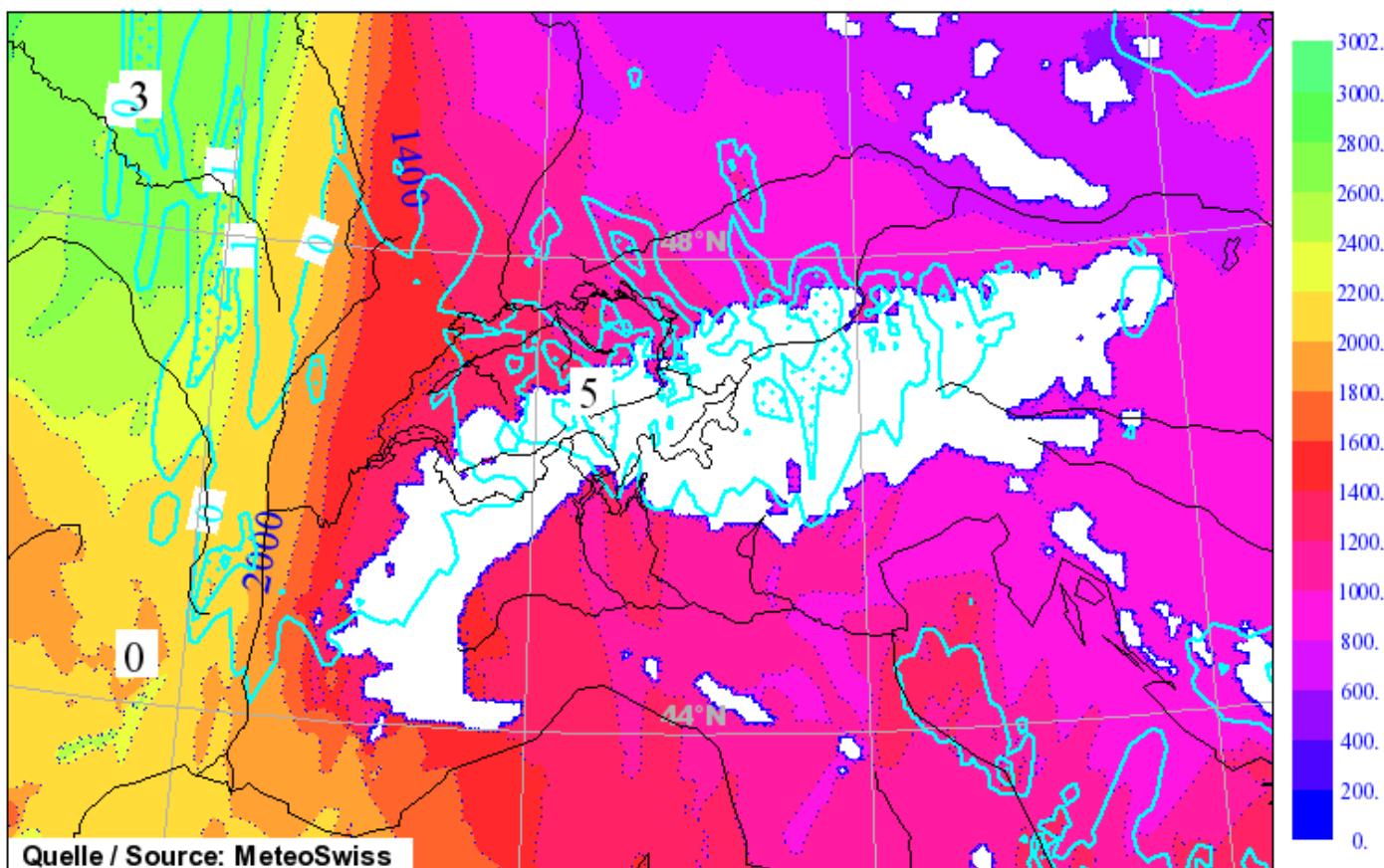




# Limite delle nevicate 9 06UTC

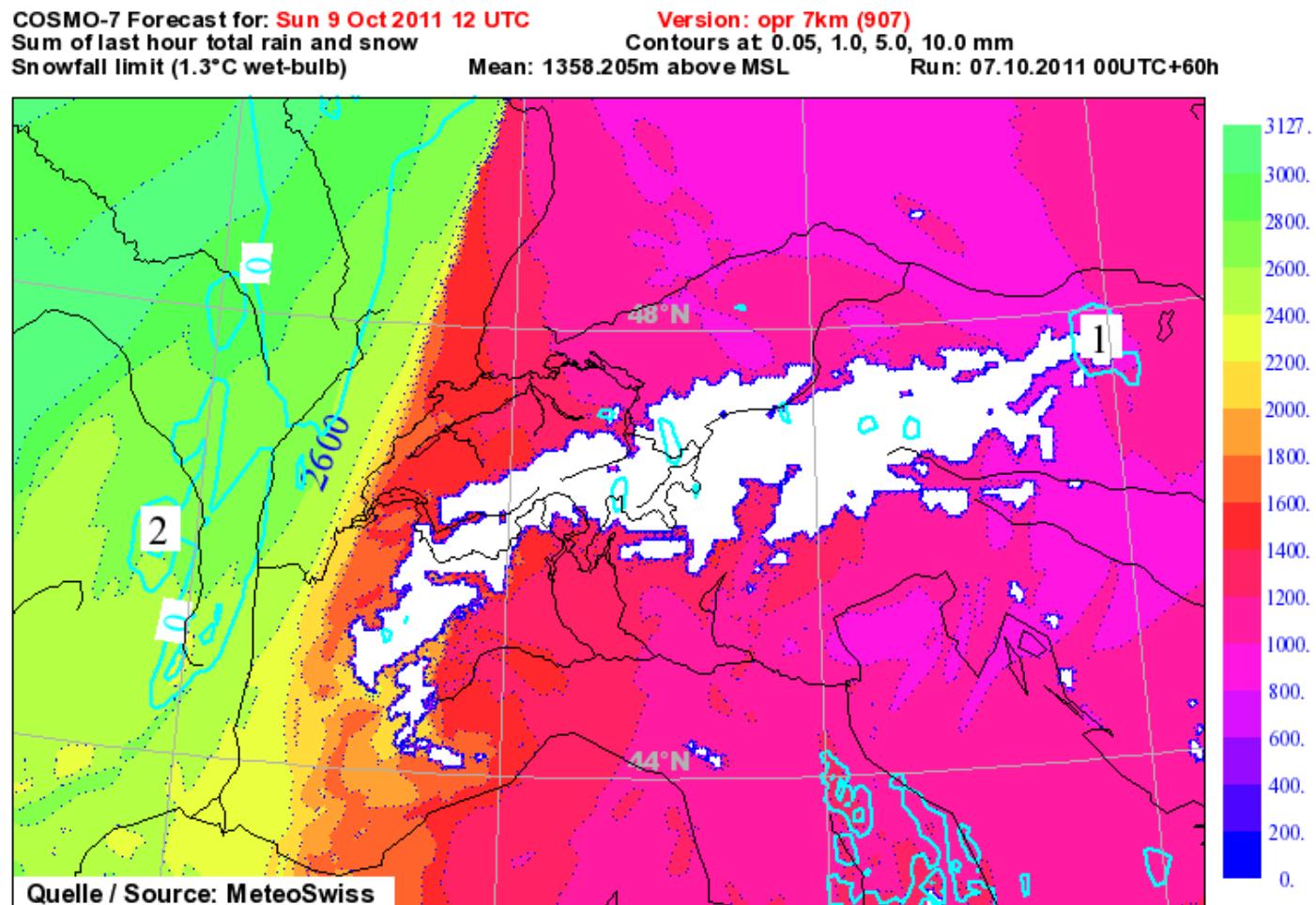
COSMO-7 Forecast for: Sun 9 Oct 2011 06 UTC  
Sum of last hour total rain and snow  
Snowfall limit (1.3°C wet-bulb)

Version: opr 7km (907)  
Contours at 0.05, 1.0, 5.0, 10.0 mm  
Mean: 1002.967m above MSL Run: 07.10.2011 00UTC+54h



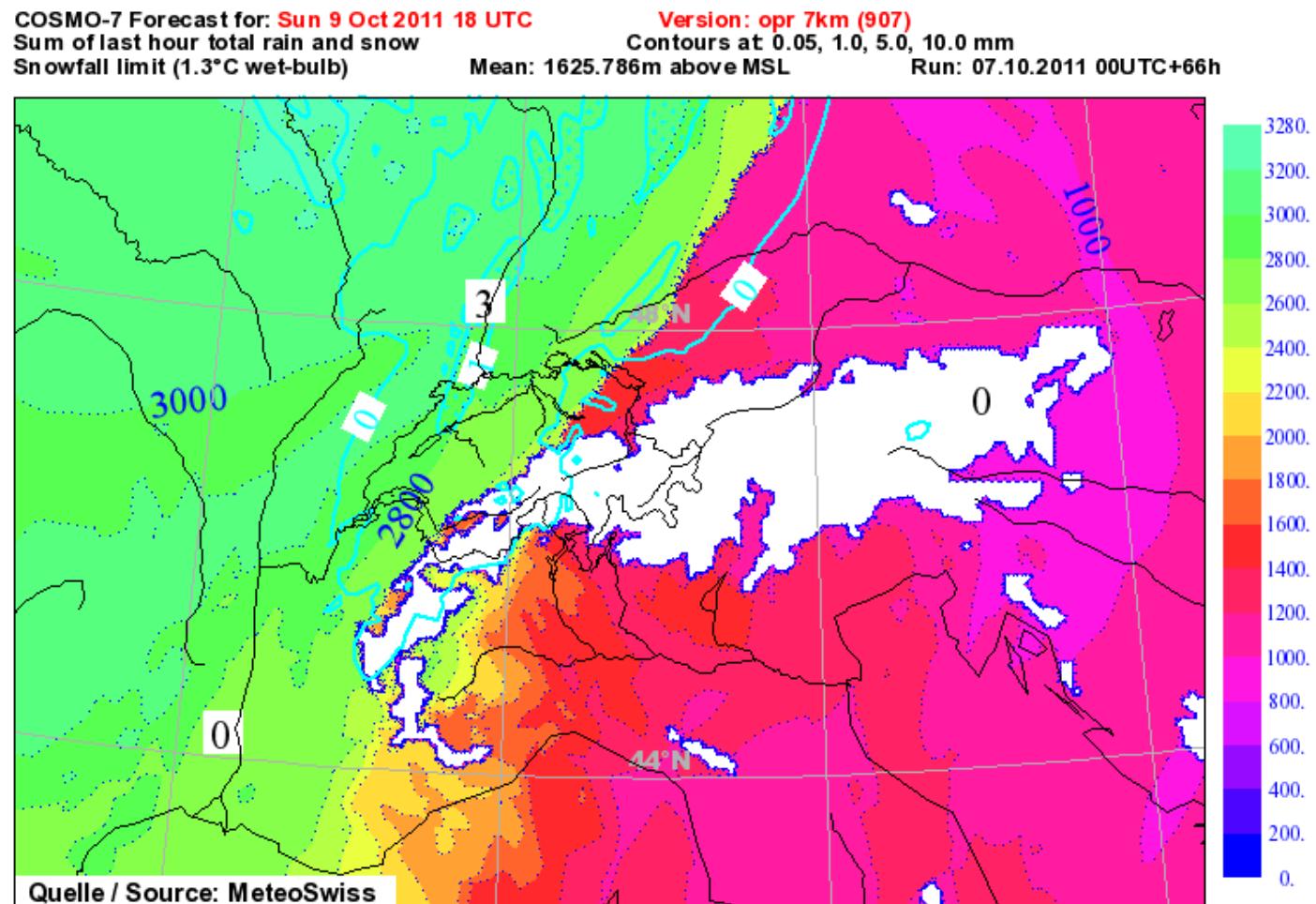


# Limite delle nevicate 9 12UTC



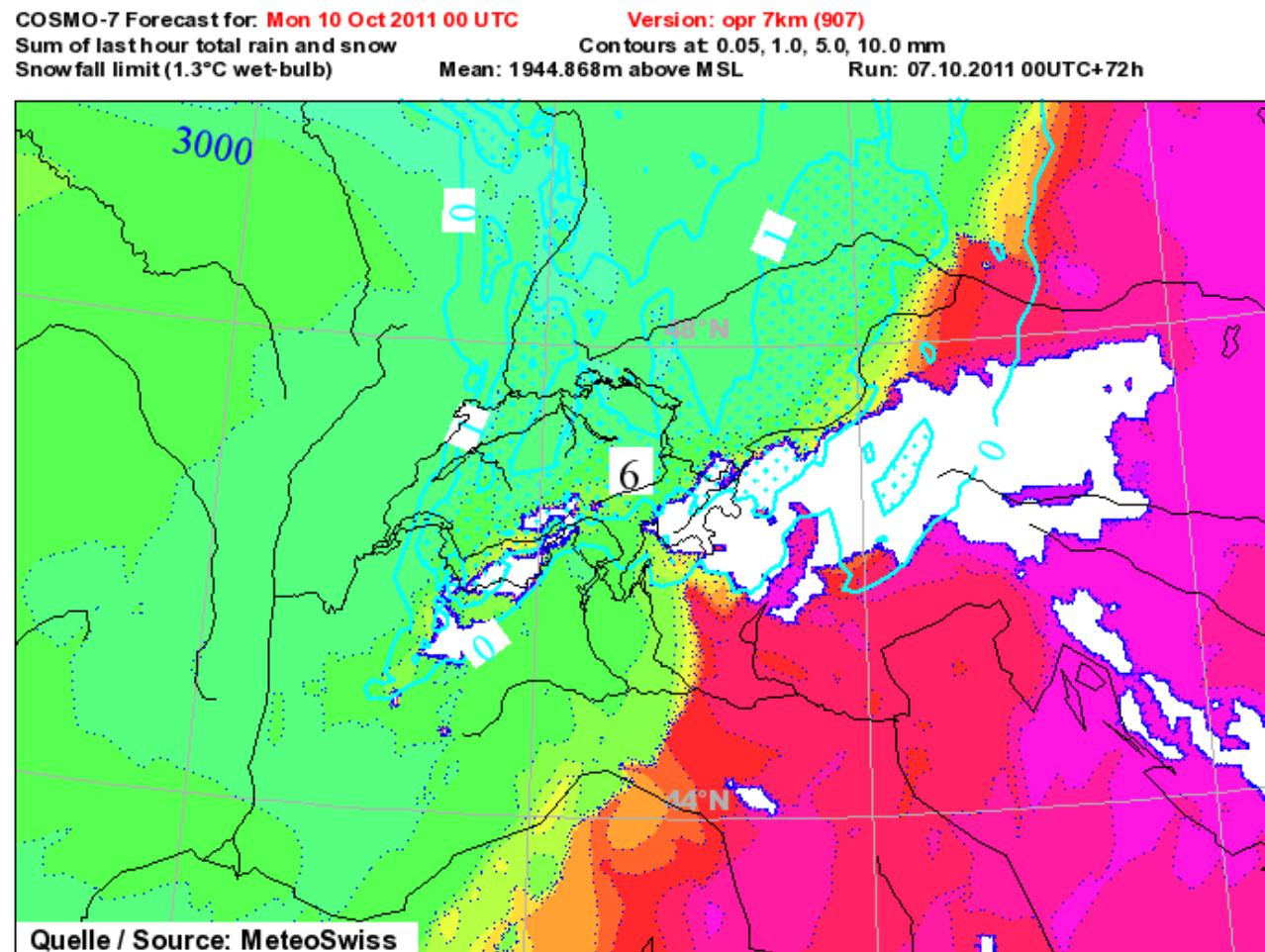


# Limite delle nevicate 9 18UTC



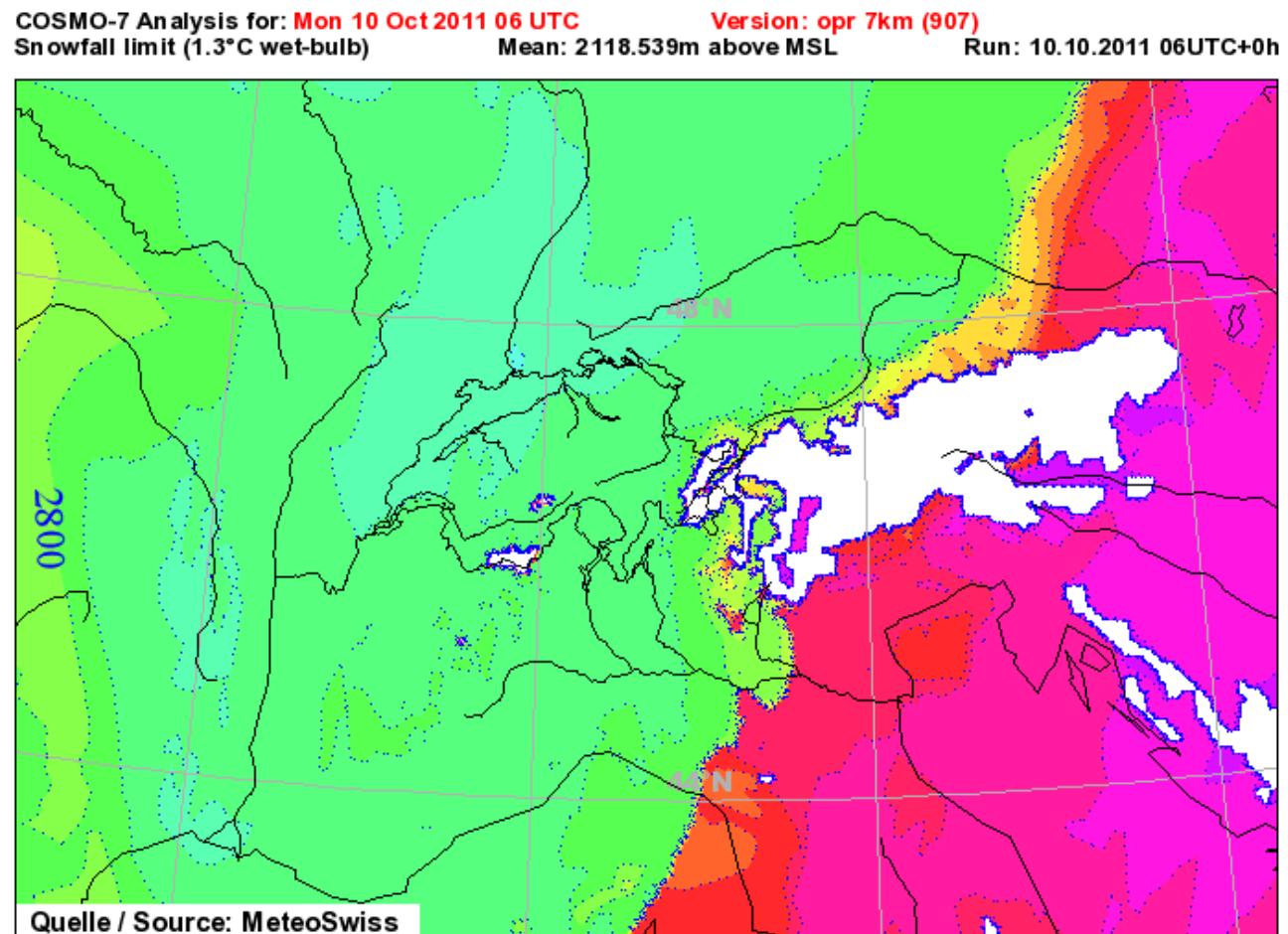


# Limite delle nevicate 10 00UTC



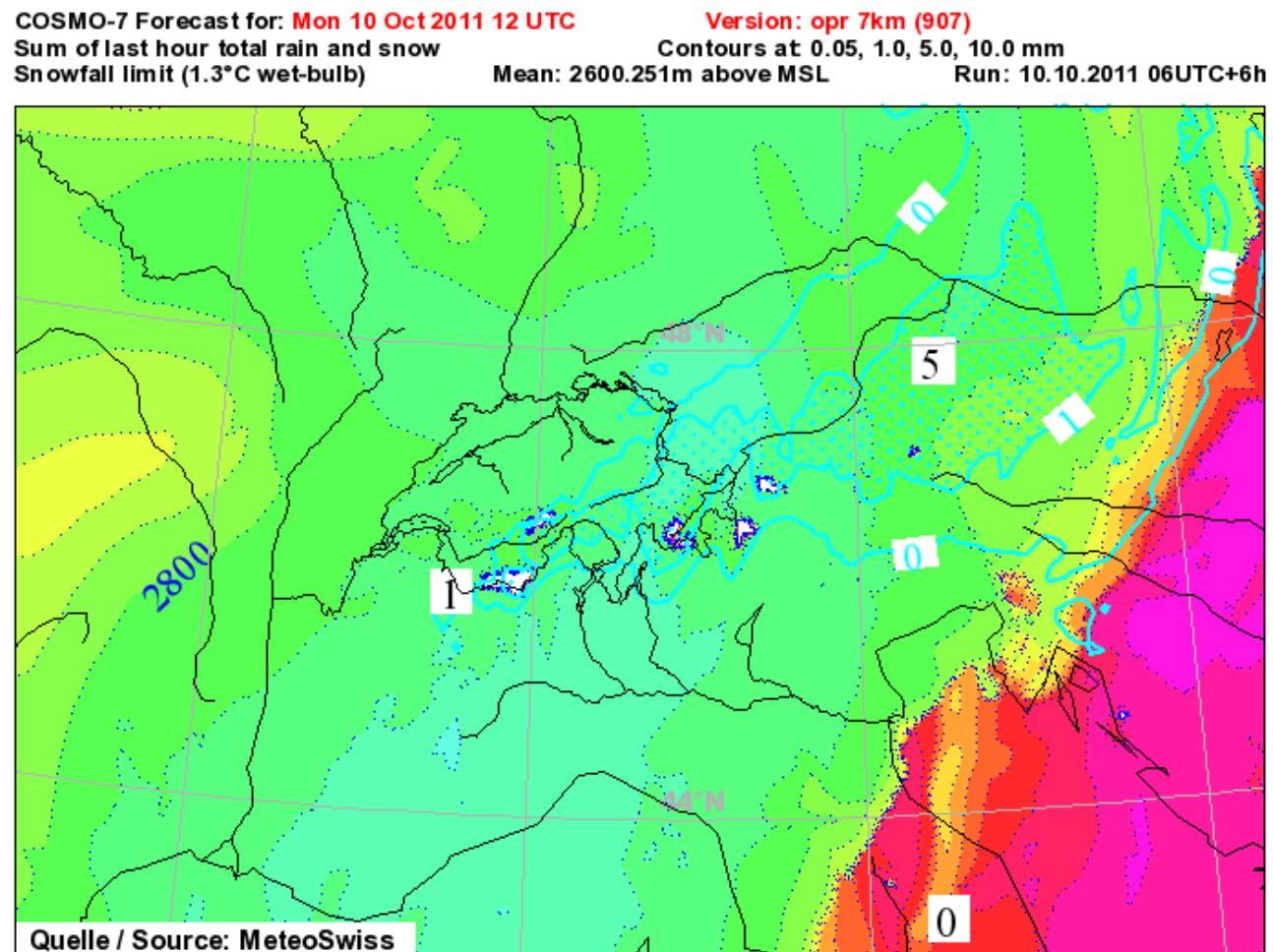


# Limite delle nevicate 10 06UTC





# Limite delle nevicate 10 12UTC





# **Evoluzione della temperatura e del limite delle nevicate**