

METEOCLIMATIC REPORT

April 2020

April showed a poor synoptic dynamism when compared to the climatic one of the month, with a limited number of disturbed passages linked to the westerly and an equally modest Mediterranean cyclogenesis. Only in two episodes - of which the most significant occurred between the 20th and the 22nd of the month - did the weather turn out to be really disturbed, with brief episodes of instability and with the formation of the first seasonal storms. As has happened in recent months, therefore, a trend towards the concentration of meteorological phenomena in short but intense phases - as typical of a historical phase of meteorological climatic extremity - has been confirmed, while the general thermal framework has been around the thirty-year climatic averages, resulting to be more fresh compared to that of the last decade. The month start in a more typical situation of late winter than spring, with a couple of mild frontal passages fed by cold polar air which have resulted in lower than average temperatures with weak night frosts, however uncommon in the last decade (figs. 1 and 2).

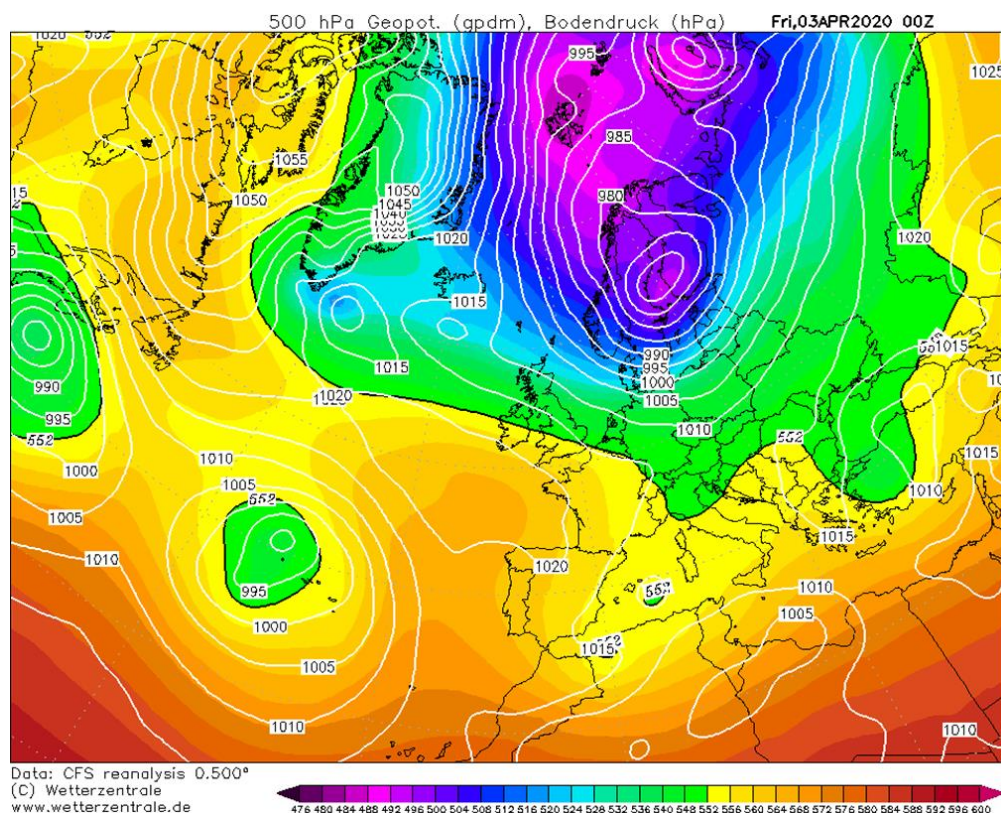


Figure 1 - ground pressures and geopotential at 500 hPa referring to 6Z on april 3th

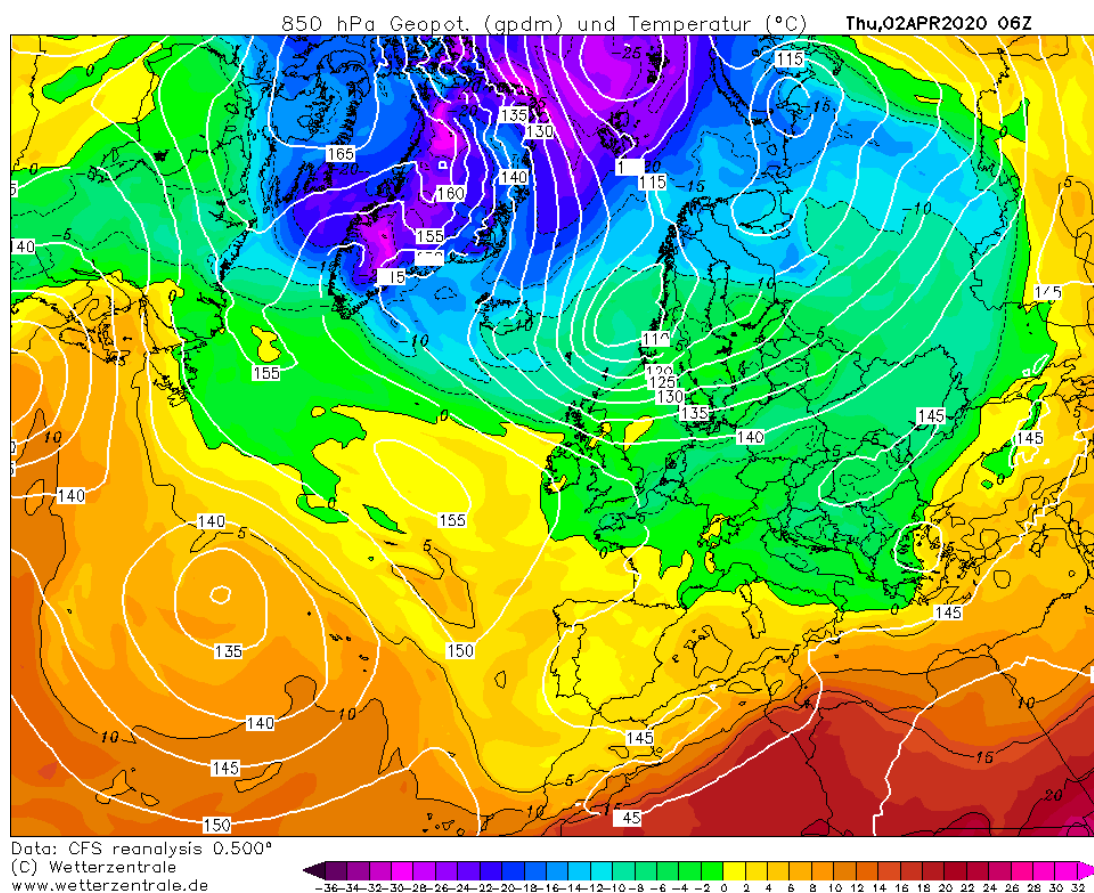


Figure 2 – geopotential and relative temperature at 850 hPa, relating to the 06Z of April 2th

A phase of weather follows - mostly stable and rather sunny - linked to the persistence of anti-cyclonic conditions of Atlantic origin, with sensitive diurnal temperature variations.

This synoptic situation is interrupted briefly on day 14, with the passage of a instability line and significantly on day 19 when a deep cyclogenesis is activated in the southern Mediterranean which between 20 and 21 focuses on the lower Tyrrhenian Sea and insists above all with its sector occluded in the southern Marche.

This results in the first mentioned significant worsening of the weather with abundant rainfall between 20 and 22. They represent about 80% of the monthly cumulative. The temperatures decrease considerably below the climatic averages of the decade and then gradually increase above these values in the last week of the month, although characterized by very uncertain weather.

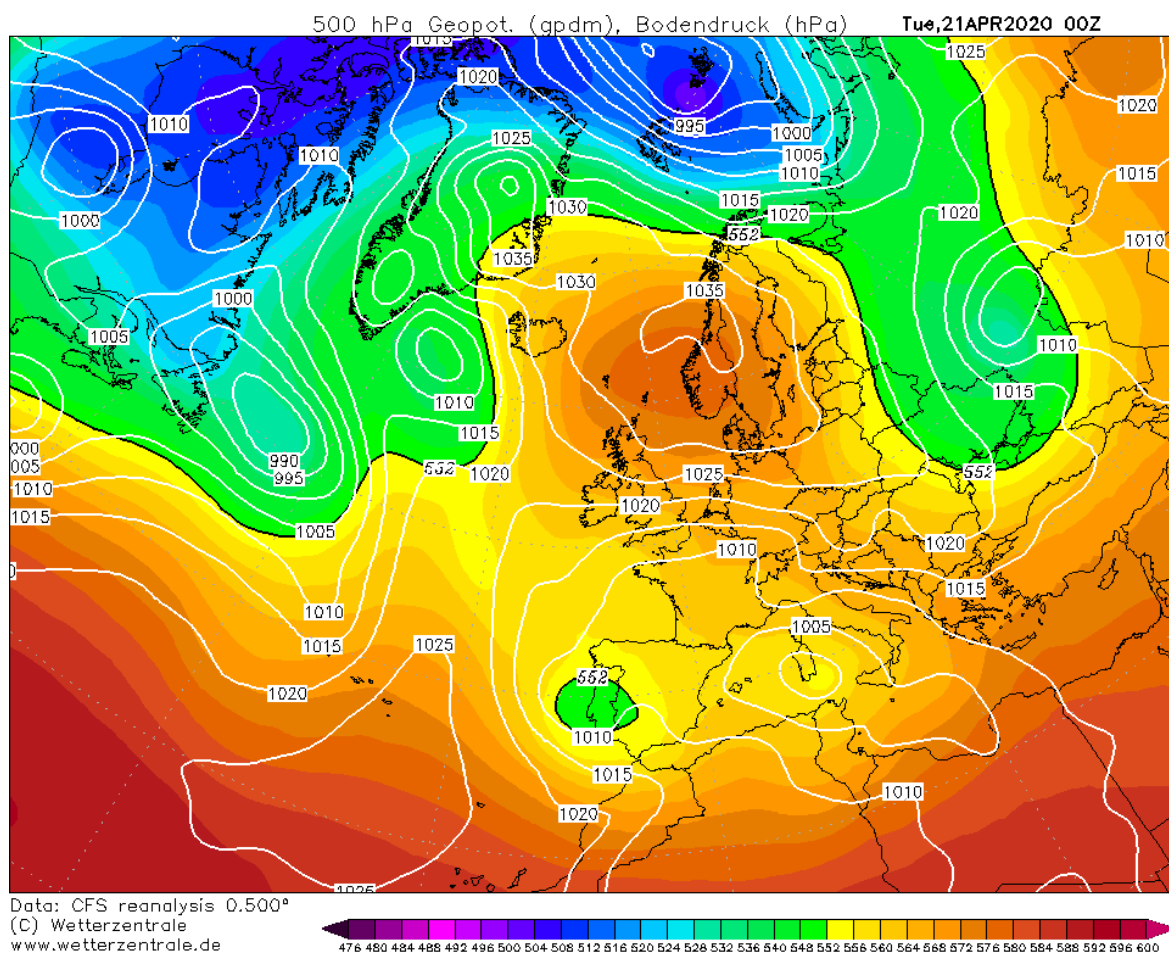


Figure 3 - ground pressure and geopotential 500 hPa, relating to the 00Z of April 21th

The analysis of the complete thermometric data (tab.1), show that the average monthly temperature was around 13 °C; the minimum one of 6.3 °C the maximum one of 19.7 °C; as a consequence, the monthly temperature range was around 13.5 °C.

From the comparison with the average values for the thirty-year period CLINO 1981-2010 for the Ascoli Piceno station, one notes a correspondence in the values albeit in presence of a more continental overall signal, given that the minimum values were a couple of degrees more low than the average and the highest maximum of the same value. On the other hand, if you compare the data with those concerning the last fifteen years for the same station in Brecciarolo, a value below the average of more than 2 °C emerges, as it happened for the previous month of March.

As regards the precipitation, as happened for the month of March, there was a meteoric surplus (92 mm Vs 74 mm of climatic average) but, as previously highlighted, 80% of the precipitations concentrated between 20 and 21 of the month, a signal that once again

confirms a significant extreme in the rainfall range. Consequently, the abundant rains did not have particularly important effects on the recharge of the surface aquifers.

Table 1 and figure 4 show daily climatic data with the respective monthly averages and the relative thermo-rainfall graph

Year	Month	Day	AvTmin	AvTmed	AvTmax	Prec mm	RD	SD	ID
2020	3	1	4	9,9	15,7	1,8	*		
2020	3	2	13,1	17,0	20,8	0,8			
2020	3	3	7,2	12,4	17,5	0			
2020	3	4	2,7	9,0	15,2	0			
2020	3	5	1,4	8,3	15,2	0			
2020	3	6	6	11,9	17,8	0,6			
2020	3	7	3,3	7,4	11,5	4,2	*		
2020	3	8	2,3	7,4	12,4	3,6	*		
2020	3	9	0,6	7,5	14,3	0			
2020	3	10	5,1	10,5	15,8	0			
2020	3	11	3,1	11,8	20,5	0			
2020	3	12	3,8	12,2	20,5	0			
2020	3	13	4,3	12,8	21,2	0			
2020	3	14	5,7	12,3	18,9	0			
2020	3	15	1,7	8,1	14,5	0			
2020	3	16	0,5	8,1	15,6	0			
2020	3	17	1,5	9,6	17,7	0			
2020	3	18	1,6	10,6	19,6	0			
2020	3	19	5,7	13,5	21,2	0			
2020	3	20	3,8	12,2	20,5	0			
2020	3	21	6	12,7	19,3	0			
2020	3	22	6,5	10,5	14,5	0			
2020	3	23	2,6	6,0	9,4	0			
2020	3	24	1,5	4,3	7,1	6,8	*		
2020	3	25	1,6	3,2	4,8	14,8	*	*	
2020	3	26	2,6	4,6	6,5	60,6	*		
2020	3	27	6,5	8,9	11,2	70,6	*		
2020	3	28	5,5	10,2	14,8	2,8	*		
2020	3	29	4,9	11,7	18,5	0			
2020	3	30	4,5	10,3	16	0,2			
2020	3	31	5,2	7,8	10,4	11,6	*		
AVER			4,0	9,7	15,4	176,6	9	1	
AVER 81-10			5,2	9,3	13,2	64			
AVER 03-18				11,4					

Table 1– Daily summary of weather data available for December 2018. LEGEND: AvTmin: minimum temperature; AvTmed: average temperature; AvTmax: maximum temperature; prec mm: daily precipitation; Rd= rainy days> 1mm; Id: frost days (tmin>0°C); sd = snowy days

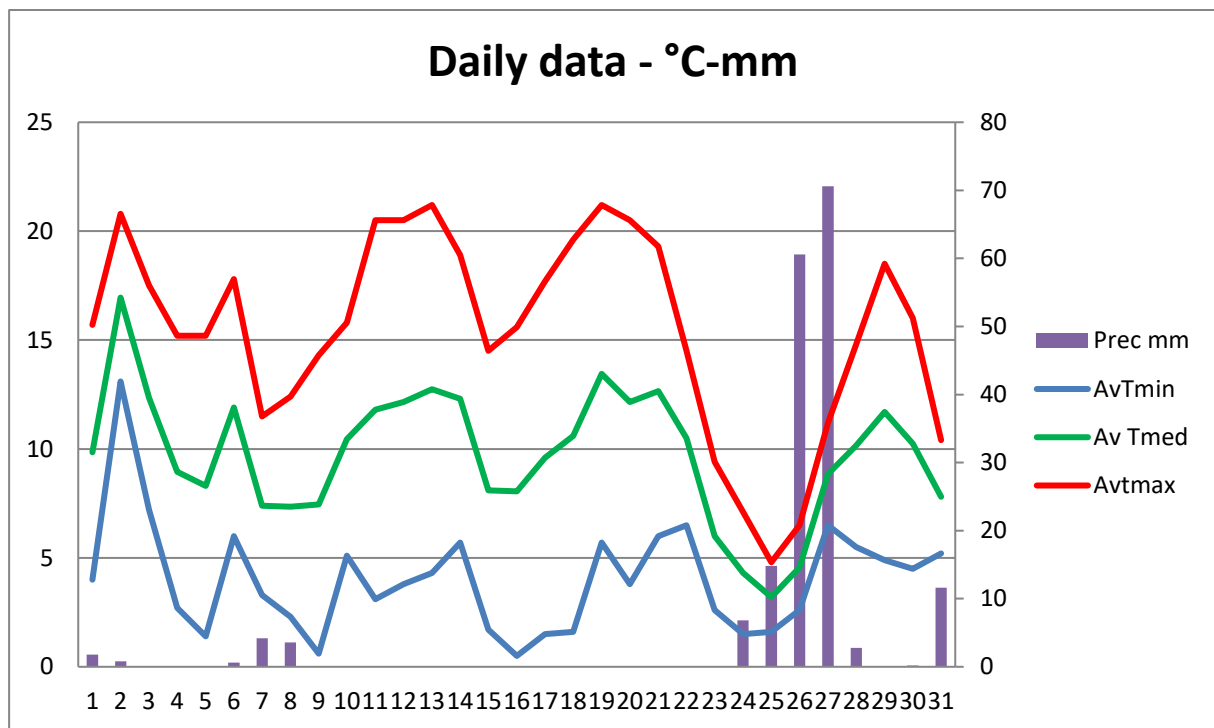


Figure 4 – graph of thermo- meteoric daily data