

METEOCLIMATIC REPORT AND ACTIVITIES ANNEXED TO THE RURITAGE PROJECT

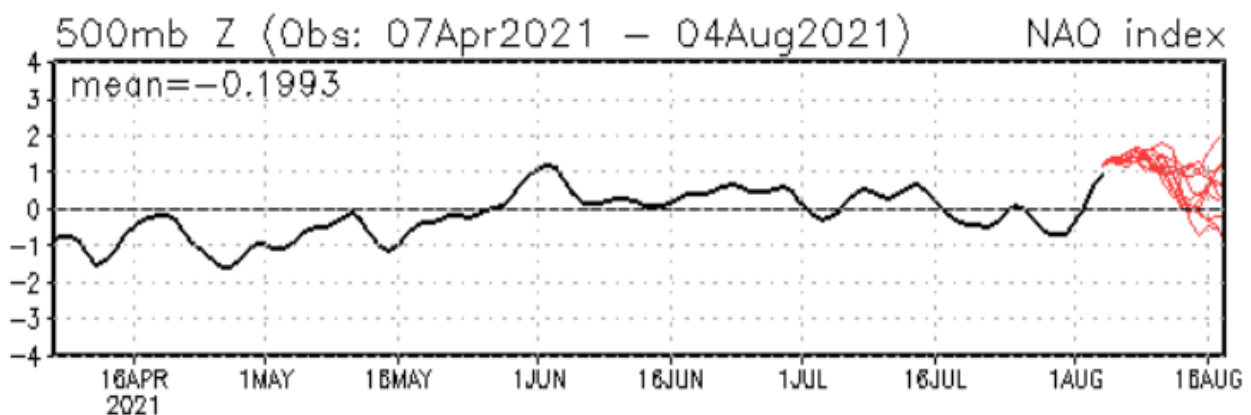
MAY 2021

As was the case for most of the first months of 2021, May also showed thermal connotations in line or slightly lower than the historical and recent climatological averages while rainfall were very poor and concentrated in a few daily events.

It was a month substantially devoid of any weather evidence - significant climatological, that could bring operational problems in the Civil Protection.

The NAO signal remained mostly negative and only towards the end of the month it assumed neutral or slightly positive values. Nevertheless, time has been characterized by a remarkable atmospheric stability without evident frontal passages or lines of instability so much that they have missed completely the phenomena of a showers character. Despite even significant oscillations that temporarily determined a neutral signal. (fig.1)

Figure 1 - standardized monthly NAO signal



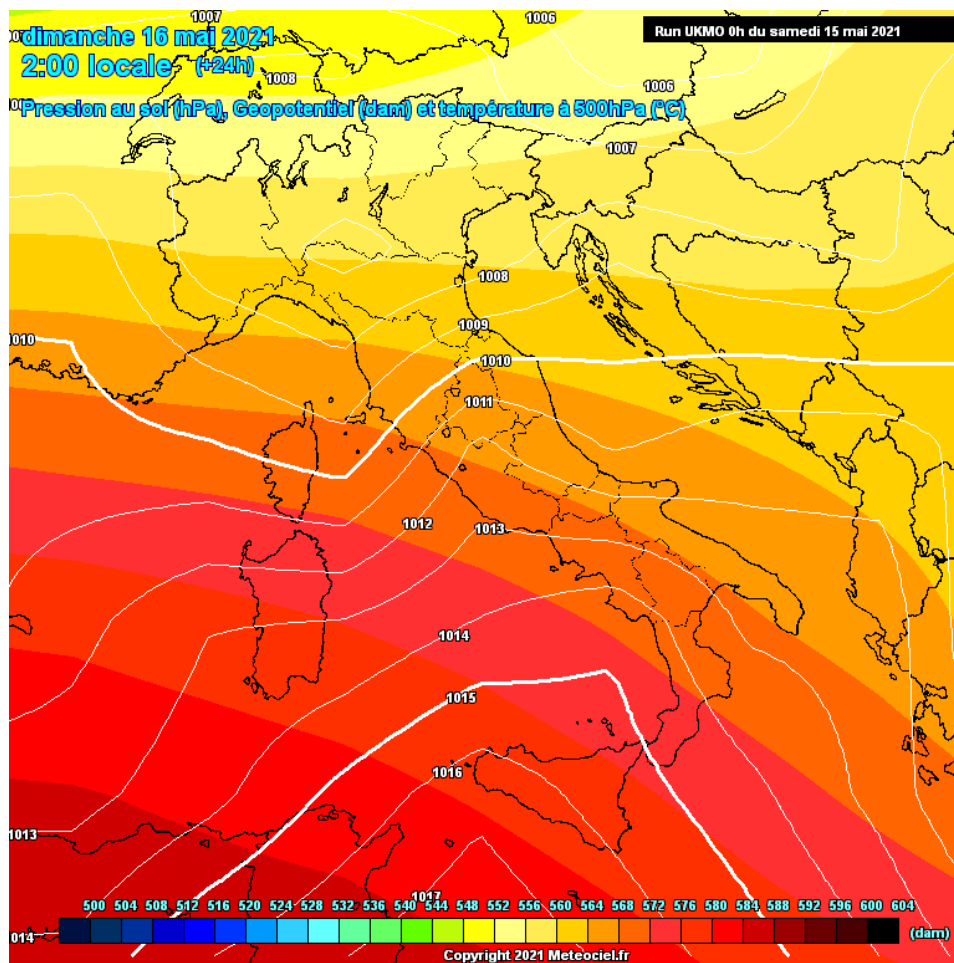
As in the first three months of the year, temperatures remained below those of the corresponding months of the last millennium; In particular, the minimum values have remained about half a degree

below the averages of the last forty years, while the maxima have shown a substantial identity with the corresponding values.

With regard to the meteoric picture, the monthly cumulate has not even reached 20 millimeters, compared to 4 rainy days and 2 days with 1mm rainfall. This is the driest May of the new millennium. The monthly atmospheric dynamics have been characterized by a continuous going on of weak polar jet undulations, never deep to allow the formation of incisive depressions or frontal passages on the middle Adriatic side of the Italian peninsula.

In reality, however, this signal has brought little rainfall, however, concentrated in the period of 5-20 of the month while the last decade has shown more stable time with temperatures gradually increasing to reach very high values at the end of the month.

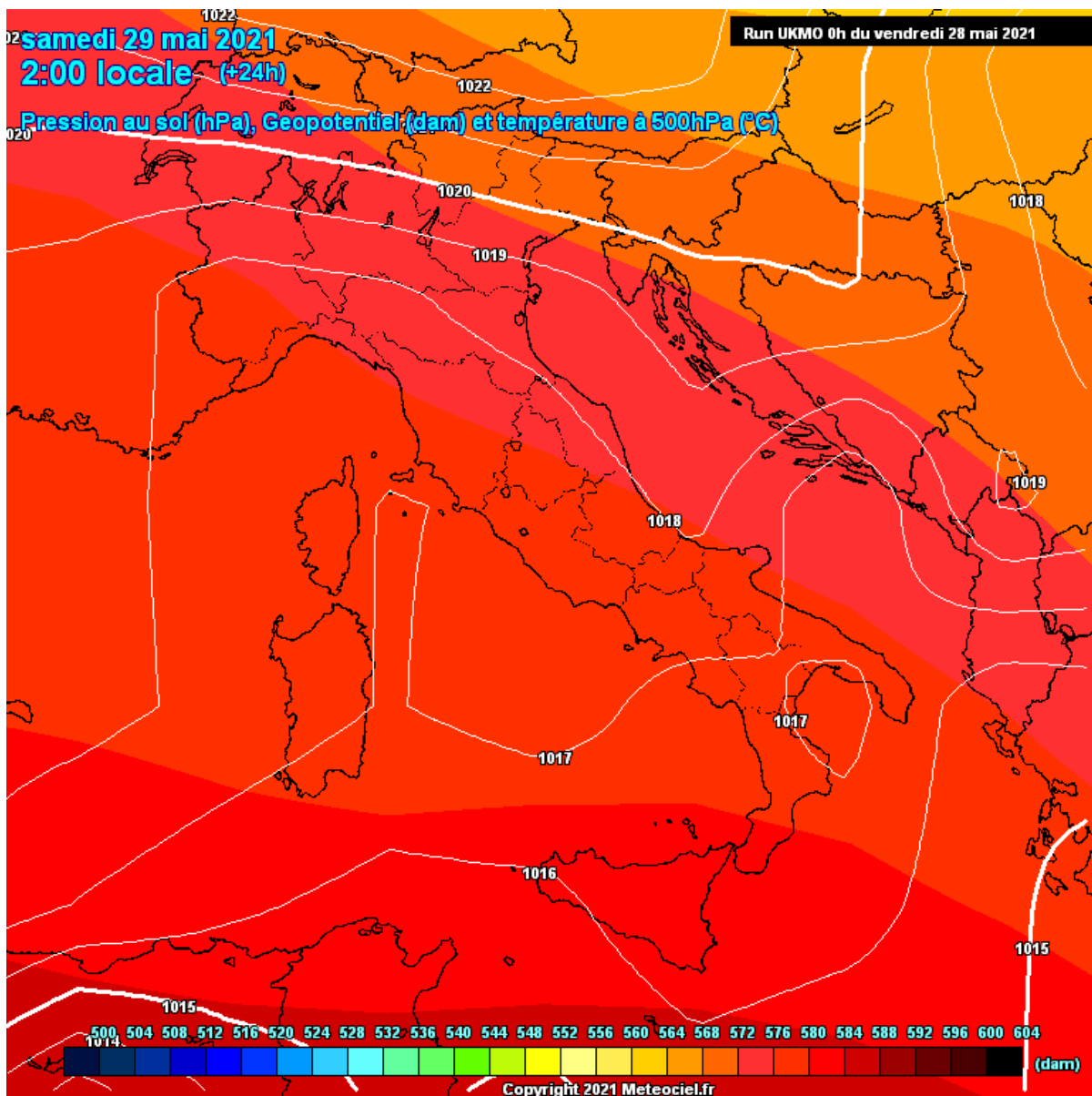
Figure 2 - ground map and geopotential 500 hPa, relative at 00 AM of May 16th



In figure 2, it is evident the bland talweg at the ground with associated westerly at 500 hPa that has determined the passage of a weak perturbation responsible for the only significant rainy event of the month.

In the third decade, circulation took on more typically late spring connotations, with a more frequent expansion of the dynamic anticyclone of the Azores towards the central - northern Mediterranean (fig.3).

Figure 3- ground map and geopotential 500 hPa, related to 00AM on may 29th



From the analysis of complete thermometric data (Table 1 and Figure 4), it can be observed that the average monthly temperature was about 17.7 ° C, the average minimum and maximum respectively of 11.3 ° C and 23.2 ° C; consequently the average daily temperature range was found to be about 12 ° C, more than half a degree higher than the climatic average of about 11.4 ° C. The absolute minimum temperature was recorded on day 7, with 27.6 ° C.

Compared to the monthly climatological average calculated for the meteorological station of Ascoli Piceno and relating to the period 1981-2015 - of about 17.6 ° C, - a substantial identity is observed, with a slight negative difference in the minimum values and an equally slight negative positive in the maximum ones. If we consider the monthly average data of the last fifteen years and related to the station under analysis, the thermal deficit can be quantified in just over half a degree.

With regard to rainfall, the monthly cumulative, as previously highlighted, touched 20 mm distributed over 4 days with a cumulative liquid or equivalent from the solid > 1mm. They consider a monthly climatic average referring to the Ascoli Piceno weather station is about 66 mm, the monthly cumulative recorded shows a deficit in the cumulative of about 75%, a worrying value in view of the upcoming summer season

Figure 4 and Table 1 show the thermo-pluviometric graph and the daily climatic data with the respective monthly averages.

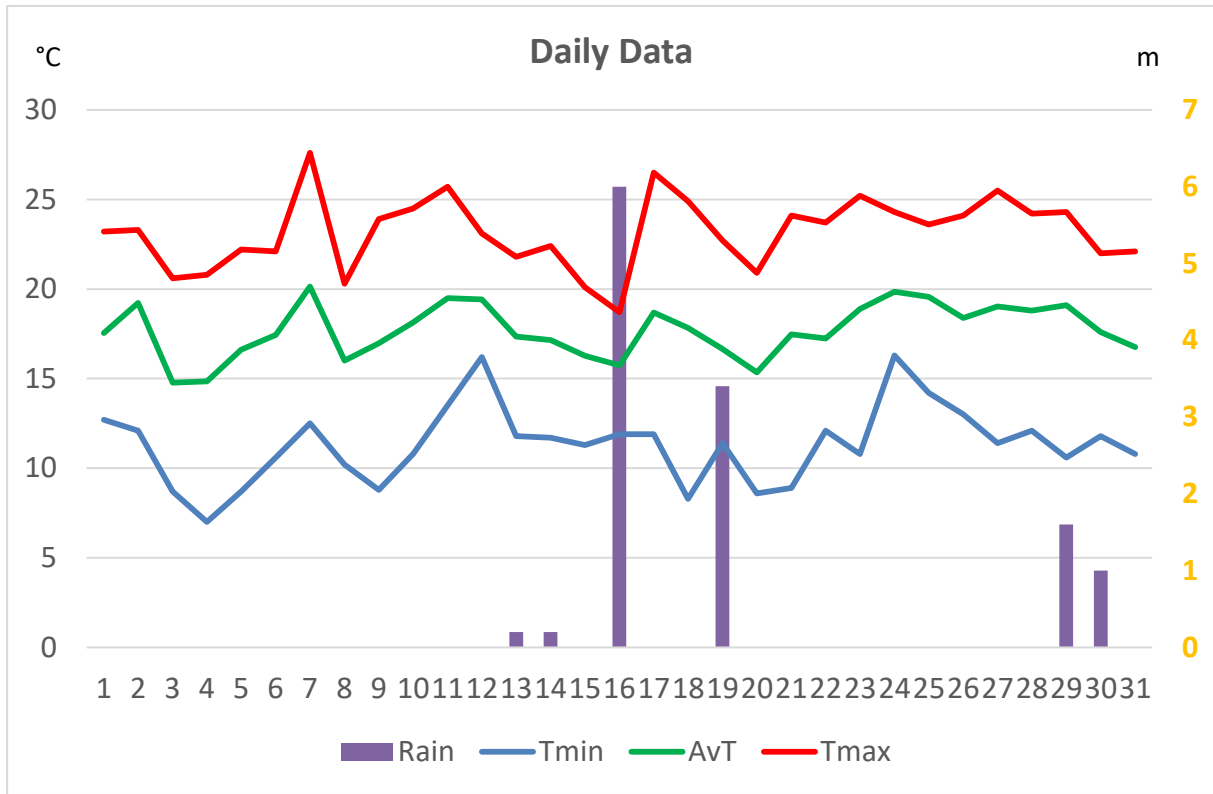


Figure 4 - meteo - climatic daily data

Y	M	D	Tmin	AVT	Tmax	Rain	RA	TS
2021	5	1	12,7	17,5	23,2	0		
2021	5	2	12,1	19,2	23,3	0		
2021	5	3	8,7	14,8	20,6	0		
2021	5	4	7	14,9	20,8	0		
2021	5	5	8,7	16,6	22,2	0		
2021	5	6	10,6	17,4	22,1	0		
2021	5	7	12,5	20,1	27,6	0		
2021	5	8	10,2	16,0	20,3	0		
2021	5	9	8,8	17,0	23,9	0		
2021	5	10	10,8	18,1	24,5	0		
2021	5	11	13,5	19,5	25,7	0		
2021	5	12	16,2	19,4	23,1	0		
2021	5	13	11,8	17,4	21,8	0,2		
2021	5	14	11,7	17,2	22,4	0,2		
2021	5	15	11,3	16,3	20,1	0		
2021	5	16	11,9	15,7	18,7	6 *		
2021	5	17	11,9	18,7	26,5	0		
2021	5	18	8,3	17,8	24,9	0		
2021	5	19	11,4	16,7	22,7	3,4 *		
2021	5	20	8,6	15,4	20,9	0		
2021	5	21	8,9	17,5	24,1	0		
2021	5	22	12,1	17,3	23,7	0		
2021	5	23	10,8	18,9	25,2	0		
2021	5	24	16,3	19,9	24,3	0		
2021	5	25	14,2	19,6	23,6	0		
2021	5	26	13	18,4	24,1	0		
2021	5	27	11,4	19,0	25,5	0		
2021	5	28	12,1	18,8	24,2	0		
2021	5	29	10,6	19,1	24,3	1,6 *		
2021	5	30	11,8	17,6	22	1 *		
2021	5	31	10,8	16,8	22,1	0		
AVER			11,3	17,7	23,2	12,4	4	0
AVER 81-15			11,9	17,6	23,3	91	7,4	
AVER 03-19				18,3				

Table 1 – daily summary of available meteorological data. LEGEND: Tmin: minimum temperature; avt: average temperature; Tmax: maximum temperature; prec. mm: daily precipitation; monthly sum of total precipitation; RD: days with precipitation > 1mm, TS : days with thunderstorms