

METEOCLIMATIC REPORT AND ACTIVITIES ANNEXED TO THE RURITAGE PROJECT

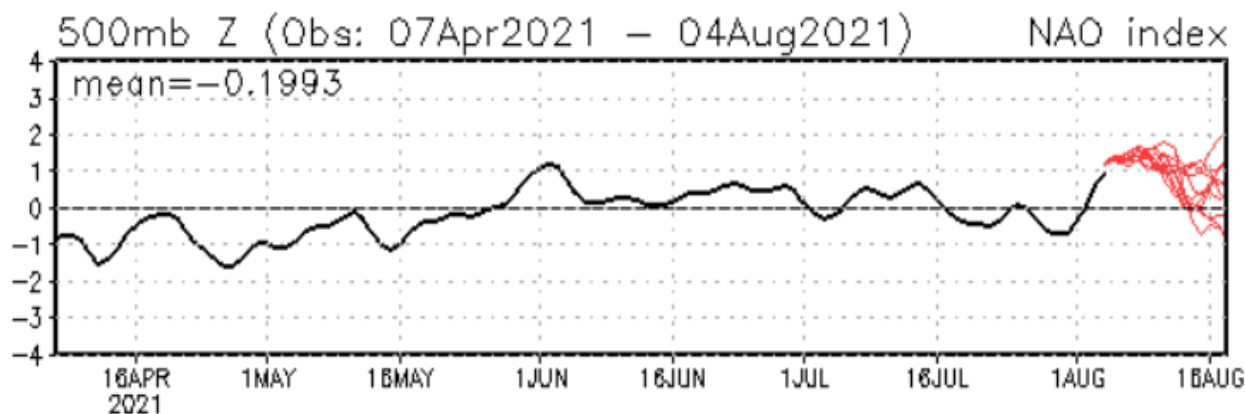
JUNE 2021

The first month of the meteorological summer 2021 was characterized by long anticyclonic periods interrupted only in two moments by unstable passages, in a thermal context higher than the climatic averages calculated over longer and coinciding with those of the last fifteen years. Precipitation, concentrated almost entirely in two events, proved once again to be poor.

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

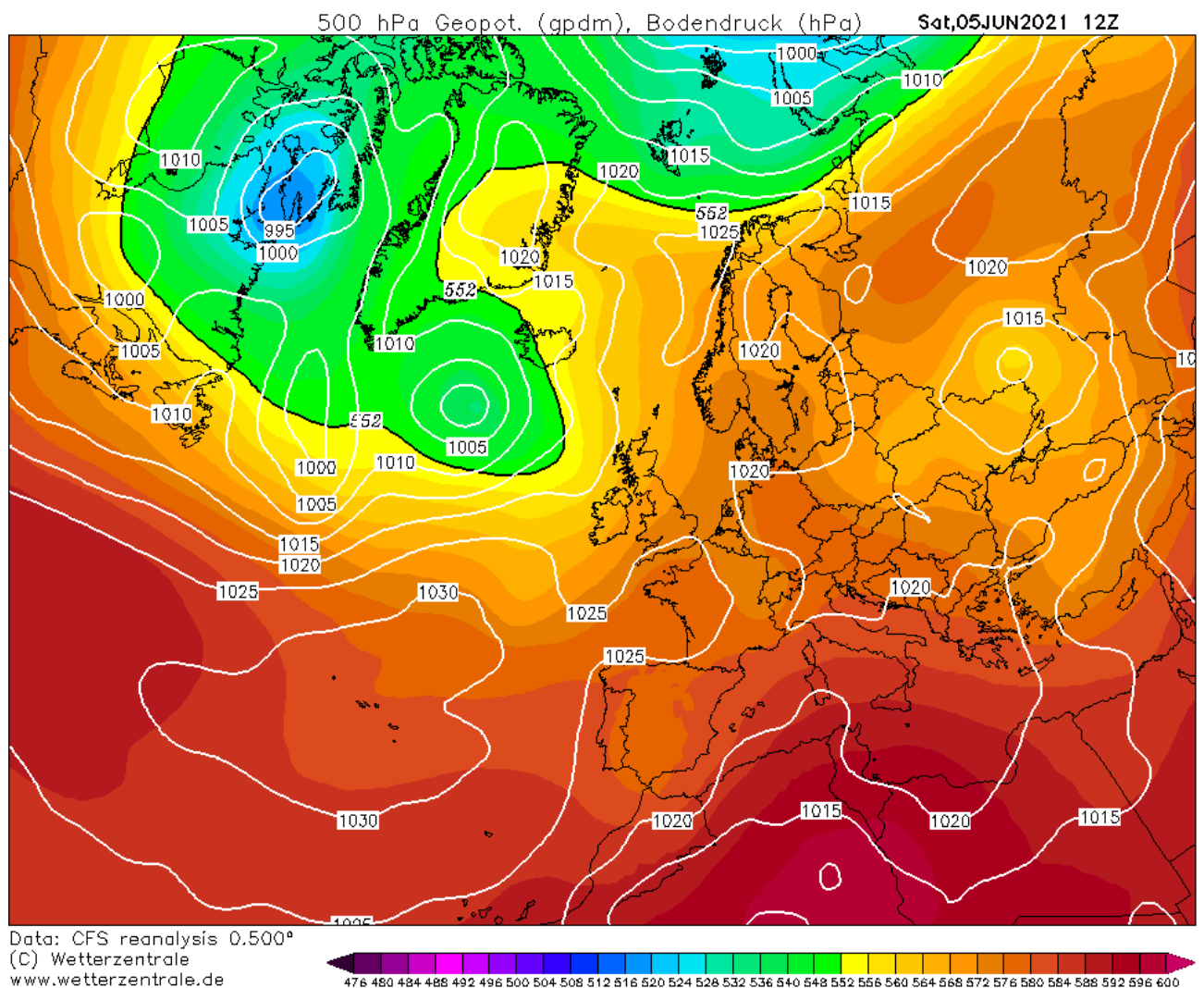
The NAO signal remained mostly slightly positive, (fig. 1), due to a decisive persistence first of the Atlantic anticyclone, then of the African one which brought, towards the end of the month, the first intense heat of the season. As previously anticipated, therefore, the weather was characterized by a remarkable atmospheric stability if we exclude the passage of two lines of instability on days 6-7 and 17-18 which, however, did not bring noteworthy phénoménologies except short thunderstorms.

Figure 1 - standardized monthly NAO signal



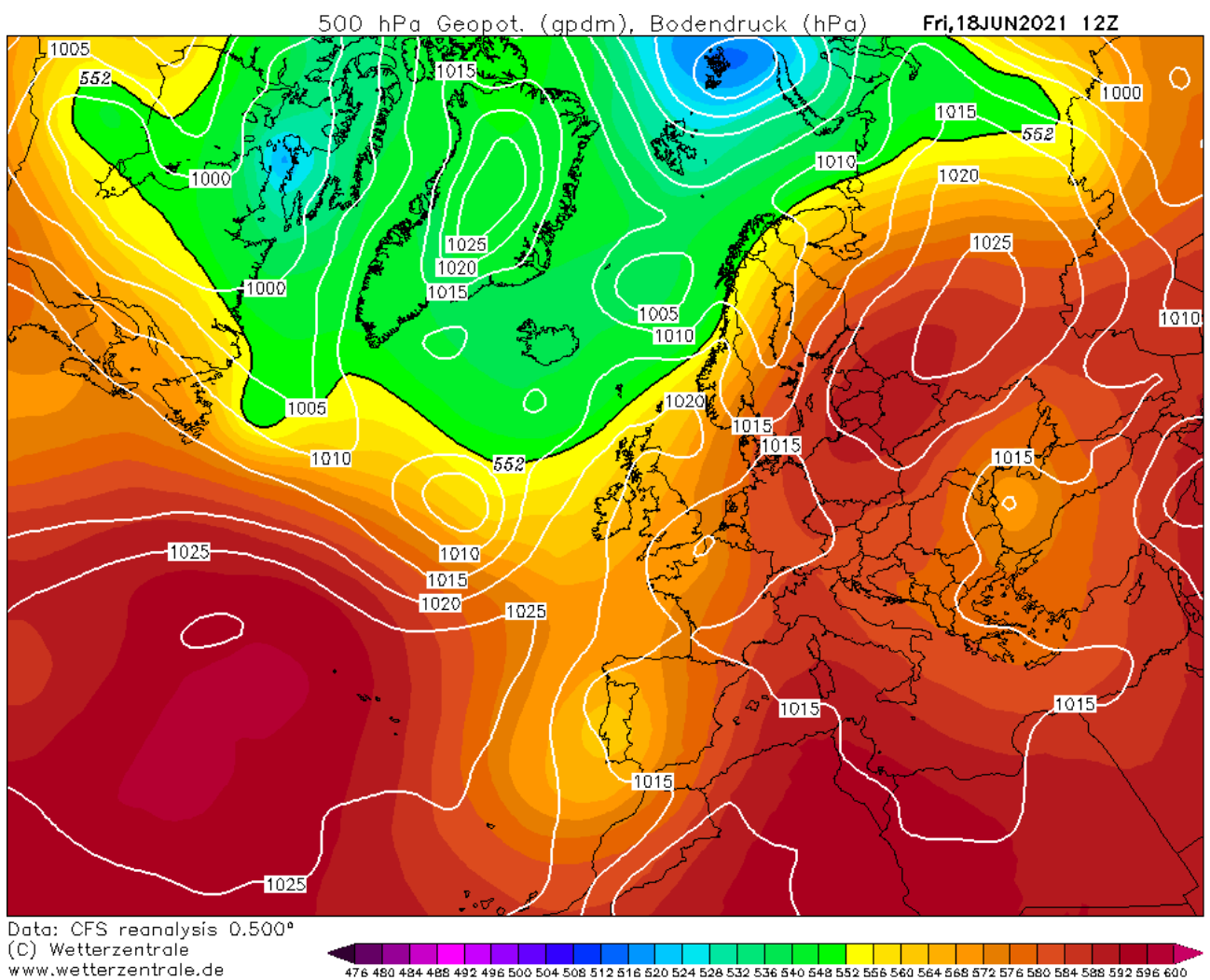
After an overall cooler first part of the year than recent averages, in this month, after a decidedly cool start and after the first unstable passage, temperatures gradually began to rise until reaching constantly high values in the last decade. In particular, both minimum and maximum values were more than one degree above the climatic averages of the last forty years. With regard to the meteoric picture, the monthly cumulative reached 35 millimeters, compared to 4 rainy days. The monthly atmospheric dynamics was, as mentioned above, characterized by a notable predominance of anticyclonic conditions (figs. 2 and 3), scratched on only two occasions by unstable North-Atlantic passages capable of determining short downpours.

Figure 2 - ground map and geopotential 500 hPa, relative at 12 AM of June5th



In figure 2, the decisive ascent of the continental subtropical anticyclone towards the north is evident, affecting the entire peninsula. The two unstable passages of 6 and 18 were equal in terms of intensity and cumulative meteoric but while in the first case, the unstable passage resulted from a temporary subsidence on its eastern edge of the anticyclone, in the second case, our area is it is found ON THE EDGE OF A DEEP CLOSED DEPRESSION THAT HAS DETERMINED EXTENDED AND INTENSE PRECIPITATIONS ON THE BALKANS (fig. 3)

Figure 3- ground map and geopotential 500 hPa, related to 12AM on June 18th

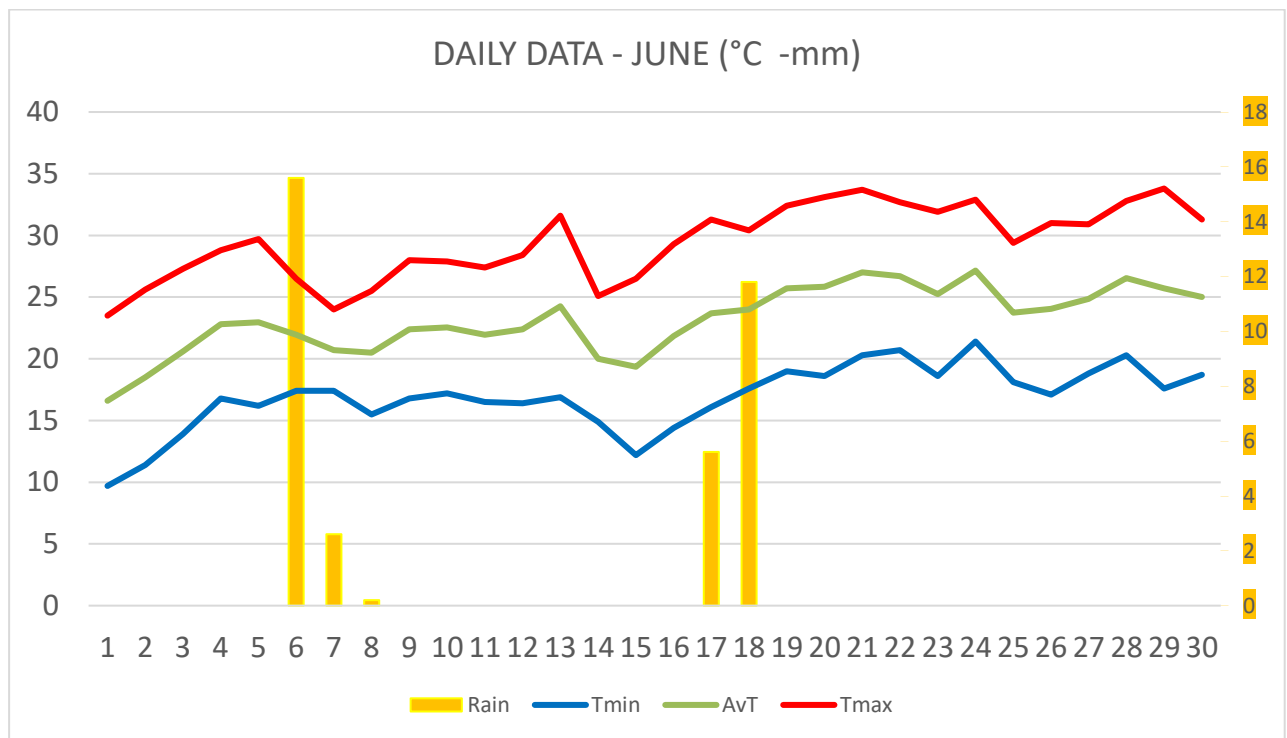


From the analysis of the complete thermometric data (table 1 and figure 4), it can be seen that the average monthly temperature was about 23.2 ° C, the average minimum and maximum respectively of 16.9 ° C and 29.4 ° C; consequently the average daily temperature range was found to be about 9.5 ° C, about one degree lower than the climatic average of about 10.4 ° C. The absolute minimum temperature was 9.6 ° C on day 1 while the absolute maximum was recorded on day 29, with 33.8 ° C. Compared to the monthly climatological average calculated for the meteorological station of Ascoli Piceno and relating to the period 1981-2015 - of about

21.7 ° C, - a surplus of 1.5 ° C is observed, measured equally between minimum and maximum values. If we consider the monthly average data of the last fifteen years and related to the station under analysis, we observe a substantial identity in the values. With regard to rainfall, the monthly cumulative, as previously highlighted, touched 36 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 58 mm, the monthly cumulative recorded shows a deficit in the cumulative of about 75%, a value that is repeated in recent months and highly worrying in view of the upcoming summer season, since there are already conditions of severe seasonal water drought.

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	VHD	TRN
2021	6	1	9,7	16,6	23,5	0				
2021	6	2	11,4	18,5	25,6	0				
2021	6	3	13,9	20,6	27,3	0				
2021	6	4	16,8	22,8	28,8	0				
2021	6	5	16,2	23,0	29,7	0				
2021	6	6	17,4	22,0	26,5	15,6 *		*		
2021	6	7	17,4	20,7	24	2,6 *				
2021	6	8	15,5	20,5	25,5	0,2				
2021	6	9	16,8	22,4	28	0				
2021	6	10	17,2	22,6	27,9	0				
2021	6	11	16,5	22,0	27,4	0				
2021	6	12	16,4	22,4	28,4	0				
2021	6	13	16,9	24,3	31,6	0				
2021	6	14	14,9	20,0	25,1	0				
2021	6	15	12,2	19,4	26,5	0				
2021	6	16	14,4	21,9	29,3	0				
2021	6	17	16,1	23,7	31,3	5,6 *				
2021	6	18	17,6	24,0	30,4	11,8 *		*		
2021	6	19	19	25,7	32,4	0				
2021	6	20	18,6	25,9	33,1	0				
2021	6	21	20,3	27,0	33,7	0				*
2021	6	22	20,7	26,7	32,7	0				*
2021	6	23	18,6	25,3	31,9	0				
2021	6	24	21,4	27,2	32,9	0				*
2021	6	25	18,1	23,8	29,4	0				
2021	6	26	17,1	24,1	31	0				
2021	6	27	18,8	24,9	30,9	0				
2021	6	28	20,3	26,6	32,8	0				*
2021	6	29	17,6	25,7	33,8	0				
2021	6	30	18,7	25,0	31,3	0				
AVER			16,9	23,2	29,4	35,8	4	2	0	4
AVER 81-15			15,5	21,7	27,7	58	7,6			
AVER 03-19				23,3						

Table 1 – daily summary of available meteorological data. LEGEND: Tmin: minimum temperature; avt: average temperature; Tmax: maximum temperature; RAIN: daily precipitation: monthly sum of total precipitation; RA : rainy days, RD: days with precipitation > 1mm, TS : days with thunderstorms, VHD : very hot days ; TRN : Tropical night