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Zakład Klimatologii i Ochrony Atmosfery
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Położenie obserwatorium (observatory location)

Współrzędne geograficzne (coordinates): 15°30'44"E 50°27'47"N

Wysokość nad poziomem morza (altitude): 1364 m

Czas podawany w biuletynie jest czasem UTC.

UTC time is used in the bulletin.

| Parametr Parameter | Opis | Description |
|--------------------|--|---------------------------------------|
| D | Dzień | Day |
| T | Temperatura powietrza | Air temperature |
| Tmax | Temperatura maksymalna | Maximum temperature |
| Tmin | Temperatura minimalna | Minimum temperature |
| Tmin5 | Temperatura minimalna przy gruncie | Minimum temperature near the ground |
| U | Wilgotność względna | Relative humidity |
| e | Ciśnienie pary wodnej | Vapour pressure |
| P | Ciśnienie atmosferyczne na poziomie stacji | Atmospheric pressure at station level |
| V | Prędkość wiatru | Wind speed |
| α | Kierunek wiatru | Wind direction |
| R | Dobowa suma opadu | Precipitation |
| HS | Wysokość pokrywy śnieżnej | Snow depth |
| SD | Usłonecznienie | Sunshine duration |
| NA | Brak danych | No data |
| m | Średnia dobowa | Daily mean |
| • | Zjawisko nie wystąpiło | Lack of phenomenon |

Tabela 1. Temperatura powietrza (T), wilgotność względna (U) i ciśnienie atmosferyczne (P)
Table 1. Air temperature (T), relative humidity (U) and atmospheric pressure (P)

| D | T [°C] | | | | | | | | U [%] | | | | | P [hPa] | | | | |
|----|--------|------|------|------|------|------|------|-------|-------|-----|-----|-----|-----|---------|-------|-------|-------|-------|
| | 00 | 07 | 12 | 18 | Tm | Tmax | Tmin | Tmin5 | 00 | 06 | 12 | 18 | Um | 00 | 06 | 12 | 18 | Pm |
| 1 | 1.5 | 1.8 | 2.2 | 1.8 | 1.8 | 3.1 | 0.9 | -0.8 | 100 | 92 | 97 | 88 | 94 | 856.9 | 857.3 | 858.3 | 859.0 | 857.9 |
| 2 | 1.3 | 0.6 | -1.1 | -3.4 | -0.7 | 2.3 | -3.4 | -3.4 | 97 | 100 | 99 | 99 | 99 | 858.9 | 858.9 | 860.3 | 859.2 | 859.3 |
| 3 | -3.1 | -3.1 | -3.7 | -3.0 | -3.2 | -2.2 | -5.7 | -5.7 | 99 | 99 | 98 | 99 | 99 | 857.0 | 858.7 | 860.9 | 859.9 | 859.1 |
| 4 | -3.4 | -4.6 | -4.0 | -4.1 | -4.0 | -2.6 | -5.2 | -5.2 | 99 | 98 | 98 | 98 | 98 | 856.1 | 855.7 | 861.6 | 866.8 | 860.0 |
| 5 | -4.4 | -4.3 | -0.3 | -1.7 | -2.7 | 0.2 | -8.2 | -11.4 | 98 | 49 | 56 | 38 | 60 | 868.2 | 867.9 | 867.3 | 865.0 | 867.1 |
| 6 | 0.3 | -1.3 | -2.5 | -3.4 | -1.7 | 1.2 | -3.7 | -4.9 | 53 | 82 | 90 | 93 | 80 | 863.2 | 860.2 | 861.6 | 862.9 | 862.0 |
| 7 | -3.6 | -4.0 | -2.8 | -0.4 | -2.7 | -0.4 | -4.4 | -4.4 | 97 | 98 | 97 | 100 | 98 | 862.5 | 859.1 | 857.1 | 856.6 | 858.8 |
| 8 | -0.5 | 0.0 | 0.7 | 2.1 | 0.6 | 2.1 | -1.6 | -1.5 | 100 | 100 | 100 | 100 | 100 | 858.6 | 860.7 | 862.7 | 863.0 | 861.2 |
| 9 | 2.3 | 3.0 | 3.6 | 2.7 | 2.9 | 3.6 | 1.7 | 0.5 | 100 | 100 | 100 | 99 | 100 | 863.5 | 864.5 | 865.9 | 865.6 | 864.9 |
| 10 | 4.0 | 3.9 | 1.8 | -1.6 | 2.0 | 4.4 | -1.6 | -1.9 | 100 | 100 | 100 | 97 | 99 | 865.0 | 864.9 | 867.1 | 869.4 | 866.6 |
| 11 | -2.0 | -2.9 | 3.2 | 0.0 | -0.4 | 3.8 | -4.7 | -9.2 | 96 | 38 | 29 | 53 | 54 | 871.7 | 871.5 | 869.6 | 865.8 | 869.6 |
| 12 | 0.4 | 1.3 | 3.2 | 1.5 | 1.6 | 4.7 | -0.9 | -2.1 | 92 | 98 | 99 | 98 | 97 | 863.4 | 860.6 | 859.5 | 858.7 | 860.5 |
| 13 | -1.5 | -3.0 | -2.0 | -0.2 | -1.7 | 1.8 | -3.5 | -3.4 | 99 | 99 | 98 | 100 | 99 | 858.2 | 854.2 | 844.6 | 839.9 | 849.2 |
| 14 | -4.1 | -3.9 | -3.5 | -0.3 | -3.0 | -0.1 | -5.1 | -5.4 | 100 | 100 | 97 | 100 | 99 | 845.0 | 850.6 | 853.6 | 852.0 | 850.3 |
| 15 | -0.4 | -2.3 | -1.4 | 0.0 | -1.0 | 0.6 | -2.3 | -2.1 | 99 | 98 | 99 | 100 | 99 | 853.4 | 854.5 | 854.1 | 850.7 | 853.2 |
| 16 | -2.0 | -5.3 | -4.3 | -4.4 | -4.0 | 0.1 | -5.6 | -5.4 | 100 | 99 | 96 | 98 | 98 | 849.2 | 851.9 | 852.1 | 850.1 | 850.8 |
| 17 | -5.3 | -5.8 | -7.0 | -6.2 | -6.1 | -4.2 | -7.0 | -7.0 | 99 | 99 | 98 | 96 | 98 | 847.5 | 843.4 | 846.8 | 849.3 | 846.8 |
| 18 | -6.3 | -6.8 | -5.4 | -4.8 | -5.8 | -4.8 | -7.5 | -7.6 | 97 | 98 | 99 | 97 | 98 | 851.6 | 853.4 | 853.1 | 852.4 | 852.6 |
| 19 | -4.3 | -1.6 | -0.4 | -5.1 | -2.9 | -0.2 | -5.1 | -4.6 | 98 | 98 | 100 | 97 | 98 | 850.0 | 842.6 | 841.7 | 844.9 | 844.8 |
| 20 | -6.6 | -7.7 | -5.4 | -6.1 | -6.5 | -4.8 | -7.8 | -7.5 | 98 | 97 | 95 | 96 | 97 | 847.5 | 848.3 | 850.4 | 851.0 | 849.3 |
| 21 | -7.0 | -7.6 | -4.9 | -4.9 | -6.1 | -3.8 | -7.7 | -7.7 | 96 | 97 | 97 | 97 | 97 | 852.5 | 853.9 | 856.0 | 858.1 | 855.1 |
| 22 | -6.5 | -7.0 | -2.2 | -3.0 | -4.7 | -1.3 | -7.2 | -12.5 | 95 | 91 | 87 | 99 | 93 | 860.9 | 863.0 | 864.6 | 863.7 | 863.0 |
| 23 | -2.3 | -1.0 | 0.2 | 2.7 | -0.1 | 2.7 | -3.0 | -2.9 | 99 | 100 | 100 | 100 | 100 | 863.4 | 862.6 | 862.3 | 860.1 | 862.1 |
| 24 | 3.6 | 3.4 | -0.3 | -1.4 | 1.3 | 4.2 | -1.8 | -1.4 | 100 | 100 | 100 | 97 | 99 | 856.2 | 852.6 | 853.7 | 854.1 | 854.1 |
| 25 | -2.2 | -3.0 | -0.6 | 3.3 | -0.6 | 3.7 | -3.5 | -3.9 | 92 | 86 | 100 | 100 | 95 | 855.8 | 854.8 | 851.6 | 845.8 | 852.0 |
| 26 | -0.5 | -3.9 | -3.8 | -4.4 | -3.2 | 3.5 | -4.6 | -3.6 | 100 | 98 | 98 | 98 | 99 | 844.2 | 845.1 | 848.7 | 851.2 | 847.3 |
| 27 | -5.7 | -7.1 | -5.0 | -6.3 | -6.0 | -4.3 | -7.1 | -7.1 | 98 | 98 | 97 | 96 | 97 | 855.0 | 856.9 | 861.0 | 862.9 | 859.0 |
| 28 | -6.3 | -6.2 | -2.6 | -3.6 | -4.7 | -1.6 | -7.9 | -12.8 | 90 | 84 | 73 | 82 | 82 | 864.5 | 864.2 | 863.7 | 862.3 | 863.7 |
| 29 | -3.7 | -1.2 | 1.0 | 2.7 | -0.3 | 3.1 | -3.8 | -5.6 | 66 | 95 | 100 | 100 | 90 | 862.8 | 862.3 | 863.2 | 864.9 | 863.3 |
| 30 | 2.4 | 1.4 | 2.8 | 3.2 | 2.5 | 4.0 | 1.4 | 0.4 | 100 | 100 | 100 | 91 | 98 | 866.0 | 866.8 | 867.3 | 864.2 | 866.1 |
| 31 | 4.8 | 5.4 | 6.5 | 3.9 | 5.2 | 7.7 | 3.2 | -0.1 | 90 | 78 | 72 | 100 | 85 | 860.7 | 858.3 | 856.3 | 854.5 | 857.5 |

Tabela 2. Prędkość (V) i kierunek (α) wiatru, dobowa suma opadu (R) i wysokość pokrywy śnieżnej (HS)Table 2. Wind speed (V) and direction (α), daily sum of precipitation (R) and snow cover depth (HS)

| D | V [m/s] | | | | α [1-32] | | | R[mm] | HS[cm] |
|----|---------|----|----|------|-----------------|----|----|-------|--------|
| | 06 | 12 | 18 | Vm | 06 | 12 | 18 | | |
| 1 | 12 | 11 | 6 | 9.7 | 18 | 22 | 22 | 1.4 | 97 |
| 2 | 2 | 5 | 16 | 7.7 | 32 | 28 | 22 | 9.0 | 95 |
| 3 | 19 | 17 | 14 | 16.7 | 28 | 28 | 20 | 2.8 | 104 |
| 4 | 16 | 15 | 10 | 13.7 | 28 | 30 | 28 | 5.7 | 103 |
| 5 | 2 | 7 | 14 | 7.7 | 22 | 18 | 18 | • | 104 |
| 6 | 13 | 10 | 10 | 11.0 | 24 | 24 | 24 | 0.2 | 104 |
| 7 | 23 | 25 | 17 | 21.7 | 20 | 20 | 26 | 8.8 | 104 |
| 8 | 9 | 6 | 11 | 8.7 | 24 | 24 | 20 | 1.2 | 104 |
| 9 | 15 | 12 | 16 | 14.3 | 22 | 20 | 20 | 0.6 | 101 |
| 10 | 15 | 12 | 8 | 11.7 | 22 | 24 | 28 | 0.3 | 93 |
| 11 | 4 | 3 | 17 | 8.0 | 22 | 20 | 18 | • | 90 |
| 12 | 17 | 15 | 10 | 14.0 | 20 | 20 | 24 | 2.8 | 89 |
| 13 | 22 | 36 | 35 | 31.0 | 22 | 22 | 22 | 11.7 | 83 |
| 14 | 26 | 28 | 32 | 28.7 | 26 | 24 | 24 | 15.2 | 83 |
| 15 | 10 | 14 | 24 | 16.0 | 24 | 24 | 22 | 15.0 | 87 |
| 16 | 14 | 20 | 17 | 17.0 | 26 | 24 | 22 | 3.0 | 98 |
| 17 | 19 | 20 | 22 | 20.3 | 24 | 26 | 22 | 4.6 | 101 |
| 18 | 22 | 20 | 18 | 20.0 | 22 | 22 | 22 | 7.7 | 102 |
| 19 | 33 | 25 | 13 | 23.7 | 22 | 22 | 24 | 15.0 | 113 |
| 20 | 15 | 14 | 19 | 16.0 | 28 | 24 | 26 | 3.2 | 130 |
| 21 | 8 | 7 | 4 | 6.3 | 26 | 24 | 4 | 0.3 | 129 |
| 22 | 1 | 10 | 20 | 10.3 | 4 | 16 | 20 | 1.1 | 130 |
| 23 | 20 | 22 | 26 | 22.7 | 20 | 20 | 20 | 7.8 | 130 |
| 24 | 30 | 25 | 22 | 25.7 | 20 | 24 | 24 | 9.9 | 109 |
| 25 | 20 | 17 | 30 | 22.3 | 24 | 20 | 22 | 13.9 | 105 |
| 26 | 16 | 16 | 16 | 16.0 | 24 | 24 | 28 | 4.4 | 101 |
| 27 | 10 | 8 | 10 | 9.3 | 26 | 28 | 32 | 0.9 | 102 |
| 28 | 9 | 10 | 14 | 11.0 | 18 | 16 | 18 | • | 102 |
| 29 | 20 | 18 | 10 | 16.0 | 20 | 20 | 22 | 7.4 | 101 |
| 30 | 6 | 3 | 11 | 6.7 | 22 | 24 | 16 | • | 96 |
| 31 | 10 | 18 | 21 | 16.3 | 18 | 20 | 20 | 0.7 | 87 |

Tabela 3. Liczba dni charakterystycznych w bieżącym miesiącu oraz średnia liczba dni charakterystycznych dla tego miesiąca w wieloleciu 1960 - 2000

Table 3. Number of days with threshold value in current month and monthly average number of days with threshold value in the 1960- 2000 period

| Nazwa / Name | 1960-2000 | 1994-III |
|------------------------------|-----------|----------|
| Przymrozkowe (Tmin < 0°C) | 28 | 27 |
| Mroźne (Tmax < 0°C) | 17 | 12 |
| Bardzo mroźne (Tmin < -10°C) | 5 | 0 |
| Ciepłe (Tmax > 20°C) | 0 | 0 |
| Gorące (Tmax > 25°C) | 0 | 0 |
| R > 1 mm | 15 | 21 |
| R > 10 mm | 3 | 5 |
| Liczba dni z pokrywą śnieżną | 30 | 31 |

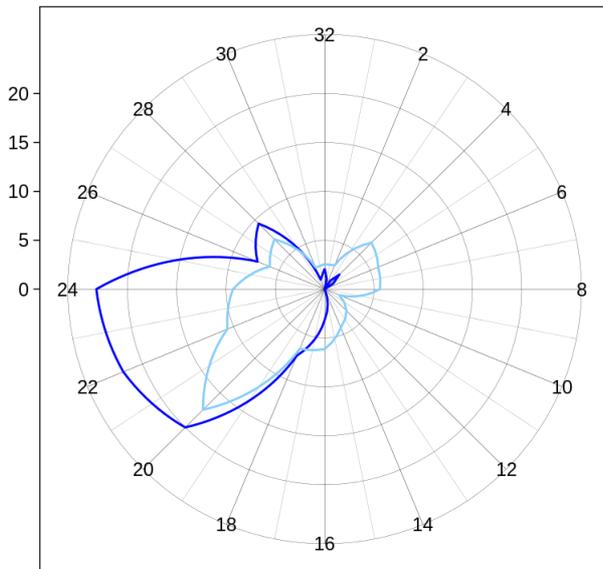
Tabela 4. Wartości średnie i ekstrema miesięczne na tle charakterystyk miesięcznych dla wielolecia 1960 - 2000

Table 4. Average and extreme monthly values vs. average monthly characteristics for the 1960- 2000 period

| | Opis | Description | 1960-2000 | 1994-III |
|---------|---------------------------|-----------------------|--------------------|--------------------|
| T [°C] | Średnia miesięczna | Monthly average | -3.4 | -1.7 |
| | Maksymalna średnia dobowa | Maximum daily average | -0.8 | 0.9 |
| | Minimalna średnia dobowa | Minimum daily average | -5.7 | -4.0 |
| | Średnie maksimum | Average maximum | 8.9 (1981-03-31) | 5.2 (1994-03-31) |
| | Absolutne maksimum | Absolute maximum | 13.2 (1982-03-27) | 7.7 (1994-03-31) |
| | Średnie minimum | Average minimum | -22.5 (1981-03-31) | -6.5 (1994-03-31) |
| | Absolutne minimum | Absolute minimum | -23.8 (1971-03-04) | -8.2 (1994-03-05) |
| P [hPa] | Średnia miesięczna | Monthly average | 856.7 | 857.7 |
| | Maksimum | Maximum | 878.9 (1990-03-16) | 869.6 (1994-03-11) |
| | Minimum | Minimum | 830.7 (1988-03-01) | 844.8 (1994-03-19) |
| V [m/s] | Średnia miesięczna | Monthly average | 11.3 | 15.5 |
| | Średnie maksimum | Average maximum | 14.5 | 19.5 |
| | Absolutne maksimum | Absolute maximum | 40.0 (1992-03-13) | 36.0 (1994-03-13) |
| R [mm] | Suma miesięczna | Monthly sum | 94.2 | 154.6 |
| | Maksymalna suma dobowa | Maximum daily sum | 48.4 (2000-03-08) | 15.2 (1994-03-14) |

(a) Wind direction frequency [%]

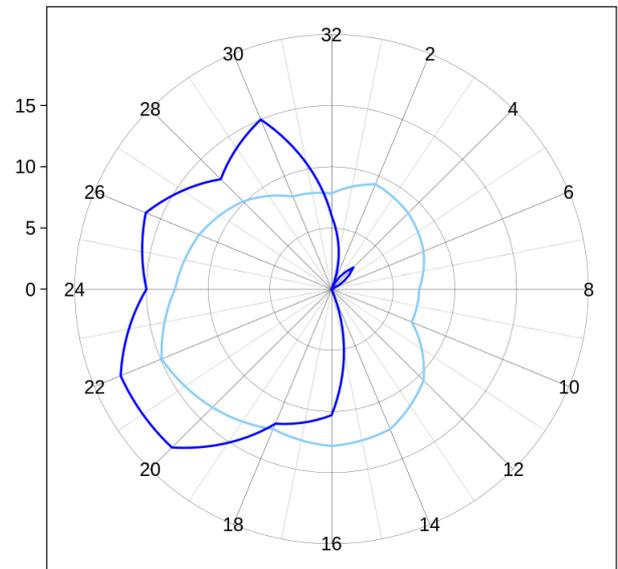
Calm: current NA % Calm 1960-200 1.8 %



— March 1960-2000 — March 1994

(b) Wind velocity [m/s]

Calm current NA % Calm 1960-2000 1.8 %

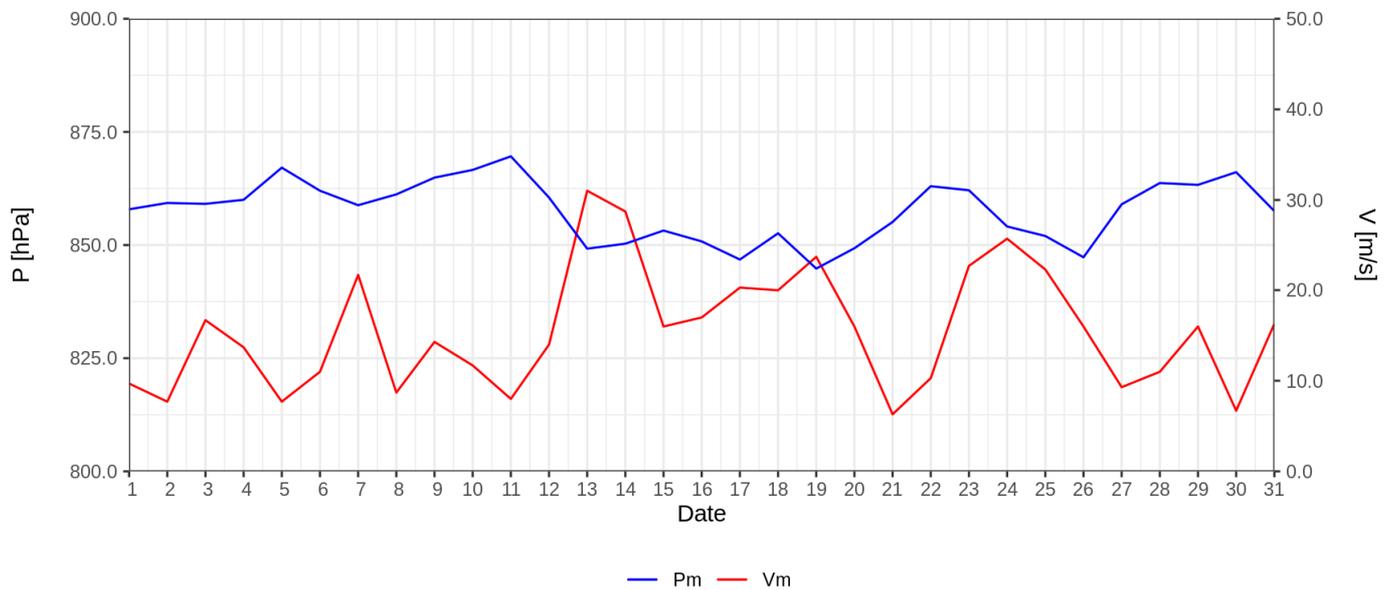


— March 1960-2000 — March 1994

Ryc. 1. Częstość (a) i prędkość wiatru (b) wg kierunków

Fig. 1. Wind direction frequency (a) and wind velocity for a given direction (b)

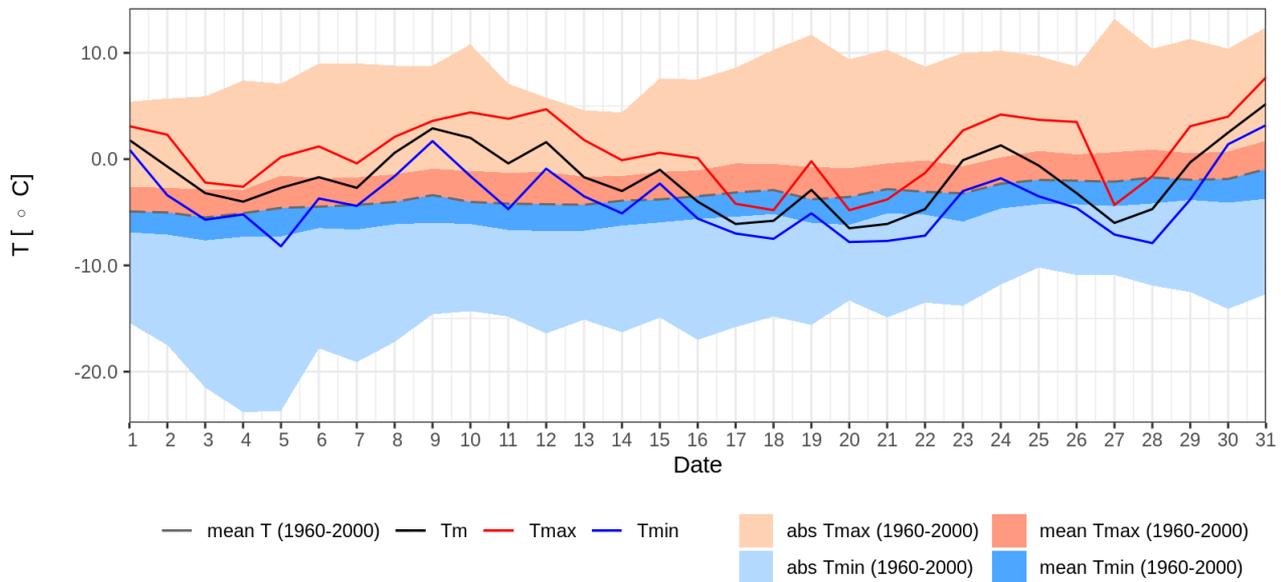
*) W statystyce dotyczącej kierunku wiatru uwzględniono kierunki wiatru odpowiadające skali 16 stopniowej prezentowanej wartościami [2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32].



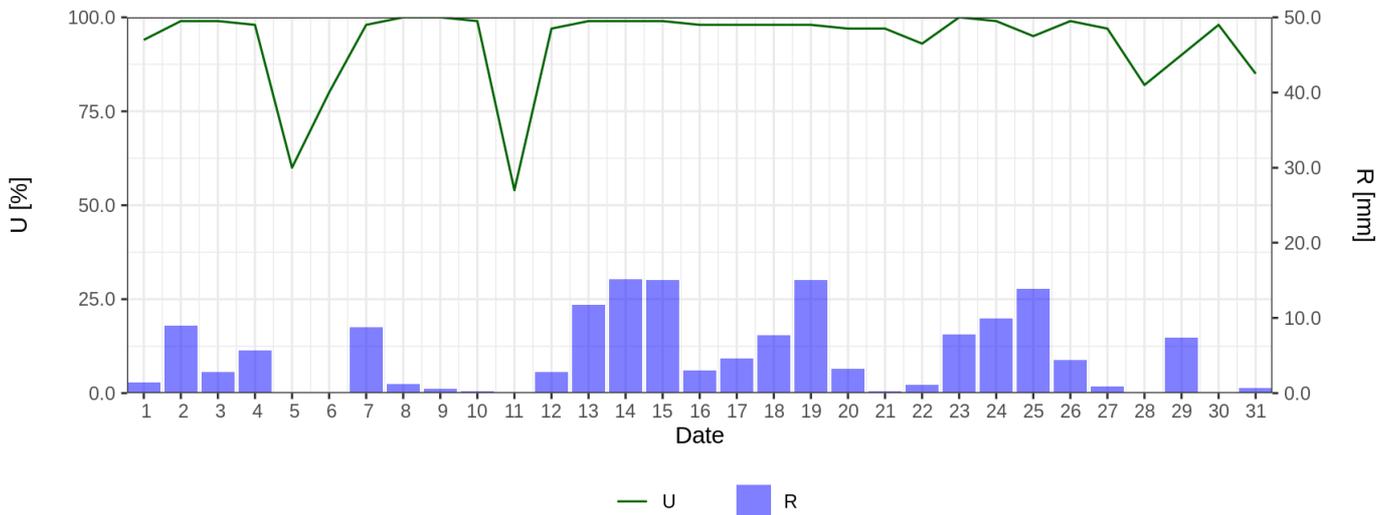
— Pm — Vm

Ryc. 2. Średnie dobowe ciśnienie atmosferyczne i prędkość wiatru

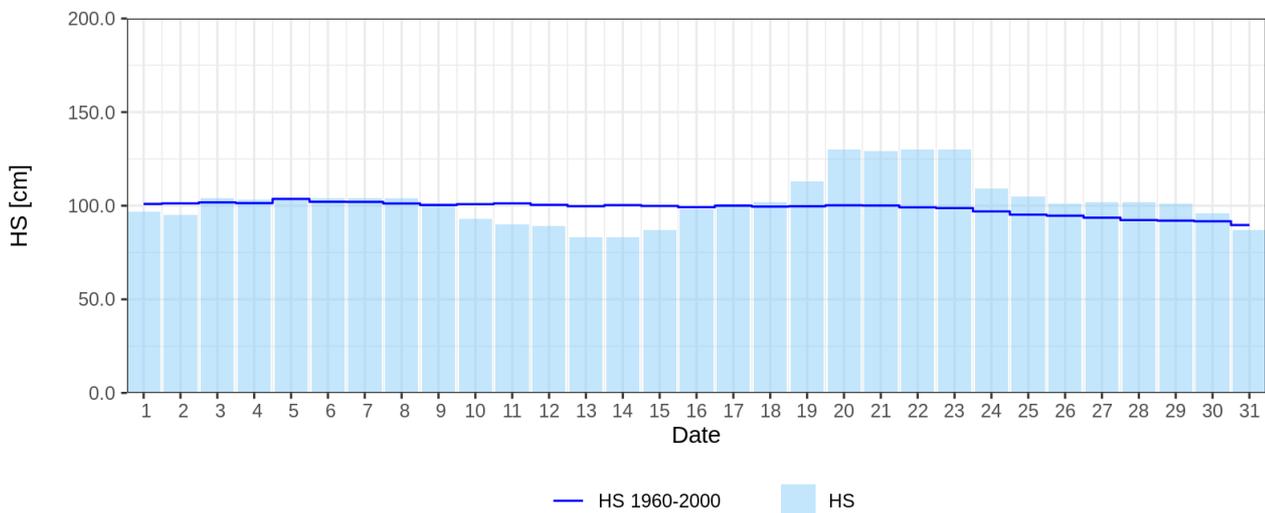
Fig. 2. Daily average air pressure and wind speed



Ryc. 3. Średnia dobowa, minimalna i maksymalna temperatura powietrza dla miesiąca na tle danych z wielolecia 1960 - 2000
 Fig. 3. Daily mean, maximum and minimum air temperature for given month and 1960-2000 period



Ryc. 4. Średnia dobowa wilgotność względna powietrza i dobowe sumy opadu atmosferycznego
 Fig. 4. Mean daily relative humidity and daily sum of precipitation



Ryc. 5. Wysokość pokrywy śnieżnej
 Fig. 5. Snow cover depth