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Zakład Klimatologii i Ochrony Atmosfery
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Uniwersytet Wrocławski
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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 dobową | 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] | | | |
|----|--------|------|------|------|------|------|-------|-------|-----|-----|-----|---------|-------|-------|-------|
| | 07 | 12 | 18 | Tm | Tmax | Tmin | Tmin5 | 06 | 12 | 18 | Um | 06 | 12 | 18 | Pm |
| 1 | 15.0 | 18.0 | 13.6 | 15.1 | 19.7 | 12.6 | 8.6 | 71 | 73 | 94 | 79 | 865.0 | 865.5 | 866.6 | 865.7 |
| 2 | 12.8 | 16.7 | 12.2 | 13.5 | 17.1 | 12.0 | 7.8 | 80 | 62 | 80 | 74 | 867.2 | 868.2 | 867.8 | 867.7 |
| 3 | 11.8 | 16.6 | 12.6 | 13.4 | 17.1 | 10.3 | 7.4 | 82 | 56 | 83 | 74 | 866.6 | 866.9 | 866.8 | 866.8 |
| 4 | 10.2 | 9.8 | 8.4 | 9.2 | 12.8 | 7.5 | 6.7 | 99 | 100 | 100 | 100 | 867.3 | 869.1 | 870.5 | 869.0 |
| 5 | 10.5 | 13.6 | 11.1 | 11.6 | 14.8 | 8.1 | 1.4 | 98 | 84 | 90 | 91 | 870.7 | 871.4 | 871.8 | 871.3 |
| 6 | 11.0 | 13.2 | 10.9 | 11.5 | 14.0 | 10.0 | 1.2 | 86 | 79 | 97 | 87 | 872.5 | 871.6 | 869.9 | 871.3 |
| 7 | 9.8 | 11.0 | 11.7 | 11.1 | 11.9 | 9.0 | 6.9 | 100 | 100 | 100 | 100 | 869.0 | 869.5 | 869.1 | 869.2 |
| 8 | 8.0 | 8.9 | 8.0 | 8.2 | 11.7 | 7.5 | 6.6 | 100 | 97 | 100 | 99 | 867.2 | 866.7 | 861.5 | 865.1 |
| 9 | 3.7 | 3.1 | 1.7 | 2.6 | 9.0 | 1.2 | 0.0 | 99 | 100 | 100 | 100 | 859.1 | 863.6 | 866.2 | 863.0 |
| 10 | 0.3 | 1.9 | 1.8 | 1.5 | 3.0 | -0.2 | -1.5 | 98 | 86 | 99 | 94 | 866.6 | 867.3 | 863.9 | 865.9 |
| 11 | 4.7 | 7.8 | 8.7 | 7.5 | 9.1 | 1.4 | 0.5 | 100 | 100 | 100 | 100 | 862.4 | 865.4 | 867.5 | 865.1 |
| 12 | 9.4 | 11.6 | 4.2 | 7.4 | 13.0 | 4.0 | 3.2 | 100 | 95 | 96 | 97 | 865.2 | 864.9 | 866.7 | 865.6 |
| 13 | 0.9 | 3.4 | 0.4 | 1.3 | 4.5 | -0.3 | -4.3 | 100 | 65 | 75 | 80 | 869.0 | 871.5 | 873.9 | 871.5 |
| 14 | 0.3 | 3.8 | 3.9 | 3.0 | 5.9 | -1.5 | -5.5 | 85 | 76 | 74 | 78 | 873.7 | 871.4 | 867.3 | 870.8 |
| 15 | 5.0 | 5.5 | 3.2 | 4.2 | 6.1 | 2.8 | 1.1 | 100 | 100 | 100 | 100 | 863.5 | 861.0 | 857.7 | 860.7 |
| 16 | -1.3 | -0.6 | -0.6 | -0.8 | 3.4 | -1.9 | -2.6 | 99 | 99 | 99 | 99 | 856.5 | 857.9 | 860.3 | 858.2 |
| 17 | -1.0 | 2.2 | -0.8 | -0.1 | 3.2 | -1.6 | -3.8 | 100 | 84 | 92 | 92 | 860.3 | 862.0 | 863.9 | 862.1 |
| 18 | -0.8 | 0.3 | 0.1 | -0.1 | 1.8 | -1.3 | -4.3 | 99 | 95 | 99 | 98 | 864.5 | 865.4 | 865.5 | 865.1 |
| 19 | -1.3 | -1.8 | -1.3 | -1.4 | 0.5 | -2.2 | -3.1 | 99 | 99 | 99 | 99 | 864.2 | 866.3 | 866.6 | 865.7 |
| 20 | -0.7 | 0.5 | 0.8 | 0.4 | 0.8 | -1.5 | -2.4 | 100 | 100 | 100 | 100 | 864.8 | 865.1 | 863.8 | 864.6 |
| 21 | 1.5 | 1.1 | 0.9 | 1.1 | 1.8 | 0.1 | -1.3 | 100 | 100 | 100 | 100 | 859.8 | 858.8 | 859.0 | 859.2 |
| 22 | 1.8 | 2.1 | 2.9 | 2.4 | 2.9 | 0.5 | -0.5 | 99 | 100 | 100 | 100 | 858.1 | 859.7 | 862.7 | 860.2 |
| 23 | 1.7 | 3.1 | 1.9 | 2.2 | 3.5 | 1.0 | -1.3 | 100 | 100 | 100 | 100 | 863.7 | 865.1 | 865.4 | 864.7 |
| 24 | 0.6 | 3.1 | -0.3 | 0.8 | 3.6 | -0.7 | -2.3 | 99 | 100 | 95 | 98 | 866.1 | 866.7 | 866.8 | 866.5 |
| 25 | -0.7 | 3.9 | 0.1 | 0.9 | 4.6 | -1.5 | -5.2 | 95 | 66 | 86 | 82 | 865.9 | 867.6 | 869.4 | 867.6 |
| 26 | 0.0 | 3.4 | 0.9 | 1.3 | 4.4 | -1.1 | -10.7 | 85 | 80 | 86 | 84 | 869.3 | 871.5 | 871.9 | 870.9 |
| 27 | -0.3 | 2.7 | -1.4 | -0.1 | 3.2 | -1.9 | -7.4 | 92 | 54 | 85 | 77 | 872.2 | 874.3 | 874.7 | 873.7 |
| 28 | -1.6 | 5.0 | -0.1 | 0.8 | 5.6 | -3.1 | -5.2 | 94 | 56 | 86 | 79 | 873.3 | 872.5 | 870.9 | 872.2 |
| 29 | 3.4 | 3.7 | 5.0 | 4.3 | 5.2 | -0.3 | -0.7 | 77 | 99 | 100 | 92 | 868.3 | 869.1 | 869.5 | 869.0 |
| 30 | 3.5 | 4.5 | 5.4 | 4.7 | 6.3 | 2.9 | 3.3 | 99 | 100 | 87 | 95 | 863.8 | 861.8 | 862.1 | 862.6 |

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 | 7 | 2 | 3 | 4.0 | 18 | 16 | 16 | • | NA |
| 2 | 5 | 6 | 9 | 6.7 | 20 | 18 | 16 | • | NA |
| 3 | 8 | 7 | 6 | 7.0 | 20 | 18 | 18 | 35.8 | NA |
| 4 | 3 | 5 | 3 | 3.7 | 6 | 4 | 6 | 12.0 | NA |
| 5 | 3 | 2 | 1 | 2.0 | 18 | 20 | 18 | • | NA |
| 6 | 1 | 5 | 15 | 7.0 | 26 | 20 | 20 | • | NA |
| 7 | 13 | 11 | 2 | 8.7 | 22 | 22 | 26 | 11.0 | NA |
| 8 | 2 | 2 | 6 | 3.3 | 4 | 20 | 20 | 5.6 | NA |
| 9 | 7 | 7 | 11 | 8.3 | 28 | 28 | 28 | 4.0 | NA |
| 10 | 8 | 11 | 12 | 10.3 | 28 | 26 | 22 | 9.2 | NA |
| 11 | 14 | 11 | 10 | 11.7 | 22 | 24 | 24 | 7.5 | NA |
| 12 | 13 | 14 | 7 | 11.3 | 22 | 20 | 26 | 0.5 | NA |
| 13 | 5 | 4 | 5 | 4.7 | 30 | 2 | 28 | • | NA |
| 14 | 5 | 18 | 18 | 13.7 | 24 | 20 | 20 | 1.1 | NA |
| 15 | 15 | 14 | 14 | 14.3 | 26 | 26 | 26 | 12.7 | NA |
| 16 | 6 | 8 | 4 | 6.0 | 28 | 28 | 28 | 7.9 | NA |
| 17 | 3 | 4 | 3 | 3.3 | 32 | 2 | 4 | 0.2 | 2 |
| 18 | 6 | 8 | 11 | 8.3 | 6 | 4 | 4 | 4.3 | NA |
| 19 | 15 | 7 | 4 | 8.7 | 2 | 4 | 4 | 7.2 | 2 |
| 20 | 3 | 3 | 4 | 3.3 | 10 | 6 | 10 | 0.4 | 5 |
| 21 | 6 | 6 | 3 | 5.0 | 8 | 4 | 4 | 3.8 | NA |
| 22 | 7 | 6 | 8 | 7.0 | 24 | 32 | 32 | 11.3 | NA |
| 23 | 10 | 9 | 8 | 9.0 | 2 | 4 | 4 | 10.2 | NA |
| 24 | 4 | 5 | 5 | 4.7 | 4 | 4 | 8 | • | NA |
| 25 | 5 | 3 | 3 | 3.7 | 8 | 6 | 14 | • | NA |
| 26 | 3 | 5 | 1 | 3.0 | 4 | 8 | 16 | • | NA |
| 27 | 0 | 4 | 7 | 3.7 | 0 | 6 | 16 | • | NA |
| 28 | 10 | 15 | 19 | 14.7 | 18 | 18 | 20 | • | NA |
| 29 | 20 | 13 | 12 | 15.0 | 20 | 22 | 22 | 1.0 | NA |
| 30 | 21 | 24 | 15 | 20.0 | 20 | 20 | 24 | • | NA |

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 | 1977-IX |
|------------------------------|-----------|---------|
| Przymrozkowe (Tmin < 0°C) | 3 | 14 |
| Mroźne (Tmax < 0°C) | 0 | 0 |
| Bardzo mroźne (Tmin < -10°C) | 0 | 0 |
| Ciepłe (Tmax > 20°C) | 0 | 0 |
| Gorące (Tmax > 25°C) | 0 | 0 |
| R > 1 mm | 12 | 15 |
| R > 10 mm | 4 | 6 |
| Liczba dni z pokrywą śnieżną | 1 | 3 |

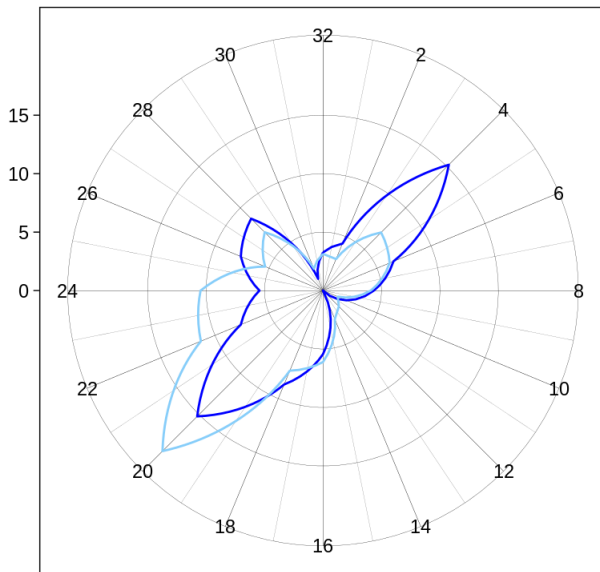
Tabela 4. Wartości średnie i ekstrema miesięczne na tle charakterystyk miesięcznych dla wielolecia 1960 - 2000

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

| | Opis | Description | 1960-2000 | 1977-IX |
|---------|---------------------------|-----------------------|--------------------|--------------------|
| T [°C] | Średnia miesięczna | Monthly average | 7.1 | 4.6 |
| | Maksymalna średnia dobowa | Maximum daily average | 10.3 | 7.4 |
| | Minimalna średnia dobowa | Minimum daily average | 4.6 | 2.4 |
| | Średnie maksimum | Average maximum | 21.4 (1975-09-17) | 15.1 (1977-09-01) |
| | Absolutne maksimum | Absolute maximum | 25.0 (1975-09-17) | 19.7 (1977-09-01) |
| | Średnie minimum | Average minimum | -2.0 (1975-09-17) | -1.4 (1977-09-01) |
| | Absolutne minimum | Absolute minimum | -3.2 (1972-09-30) | -3.1 (1977-09-28) |
| P [hPa] | Średnia miesięczna | Monthly average | 863.4 | 866.4 |
| | Maksimum | Maximum | 880.3 (1965-09-21) | 873.7 (1977-09-27) |
| | Minimum | Minimum | 841.0 (1998-09-13) | 858.2 (1977-09-16) |
| V [m/s] | Średnia miesięczna | Monthly average | 8.6 | 7.7 |
| | Średnie maksimum | Average maximum | 11.2 | 10.2 |
| | Absolutne maksimum | Absolute maximum | 31.0 (1965-09-03) | 24.0 (1977-09-30) |
| R [mm] | Suma miesięczna | Monthly sum | 116.9 | 145.7 |
| | Maksymalna suma dobowa | Maximum daily sum | 65.8 (1984-09-09) | 35.8 (1977-09-03) |

(a) Wind direction frequency [%]

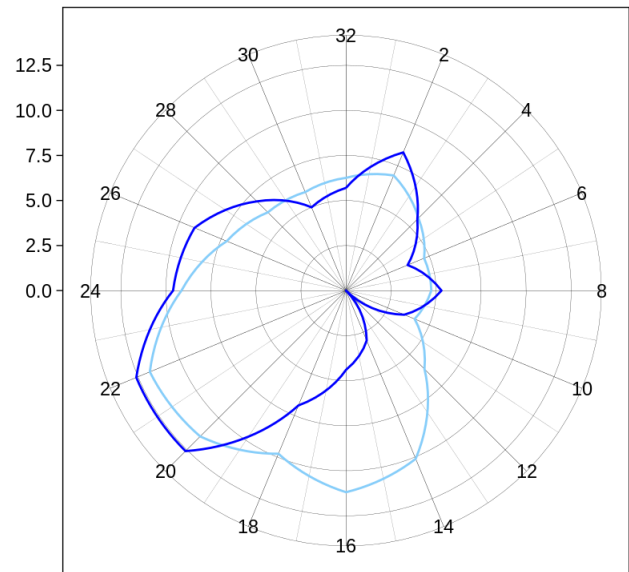
Calm: current NA % Calm 1960-200 1.6 %



— September 1960-2000 — September 1977

(b) Wind velocity [m/s]

Calm current NA % Calm 1960-2000 1.6 %

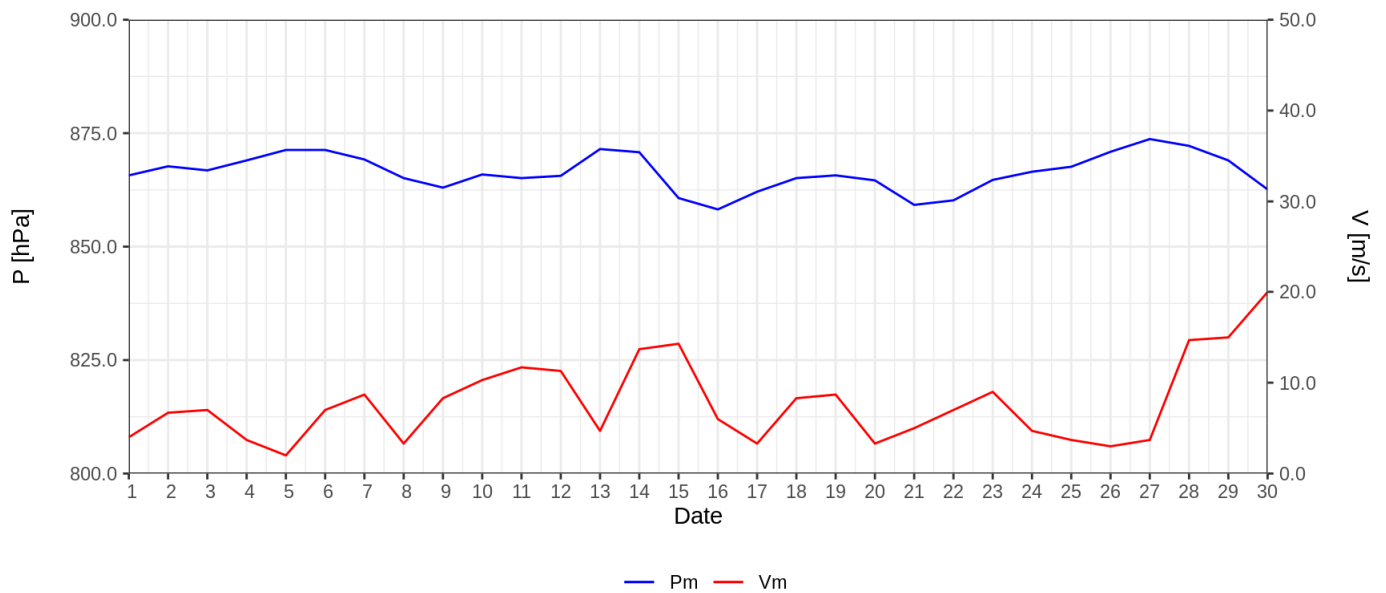


— September 1960-2000 — September 1977

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

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

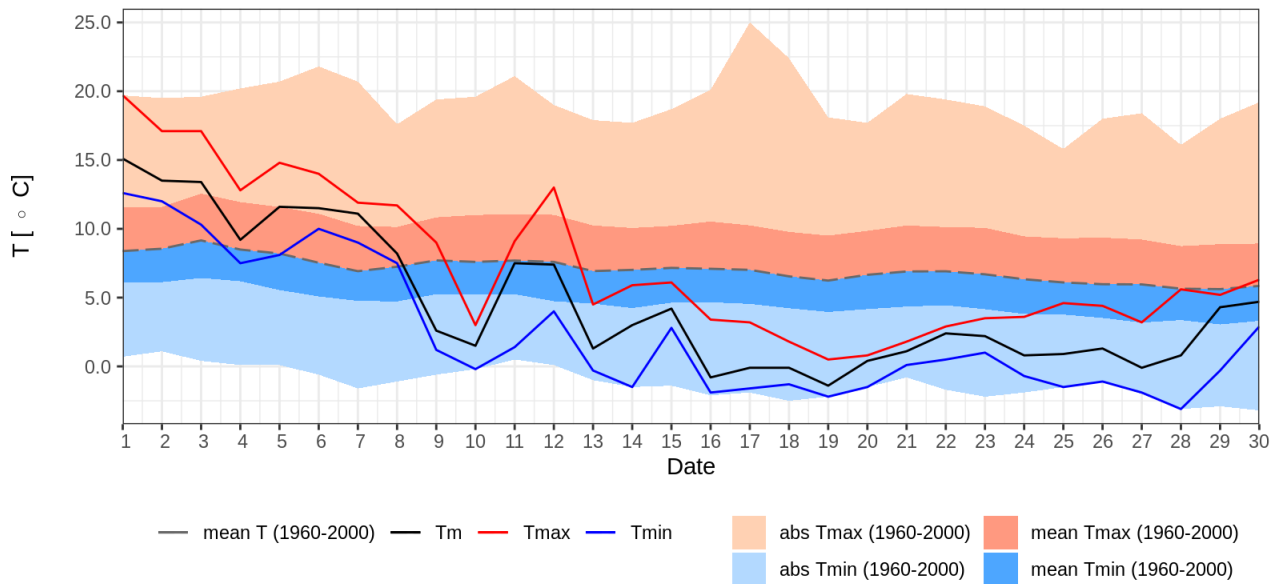
*) W statystyce dotyczącej kierunku wiatru uwzględniono kierunki wiatru odpowiadające skali 16 stopniowej prezentowanej wartościami [2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32].



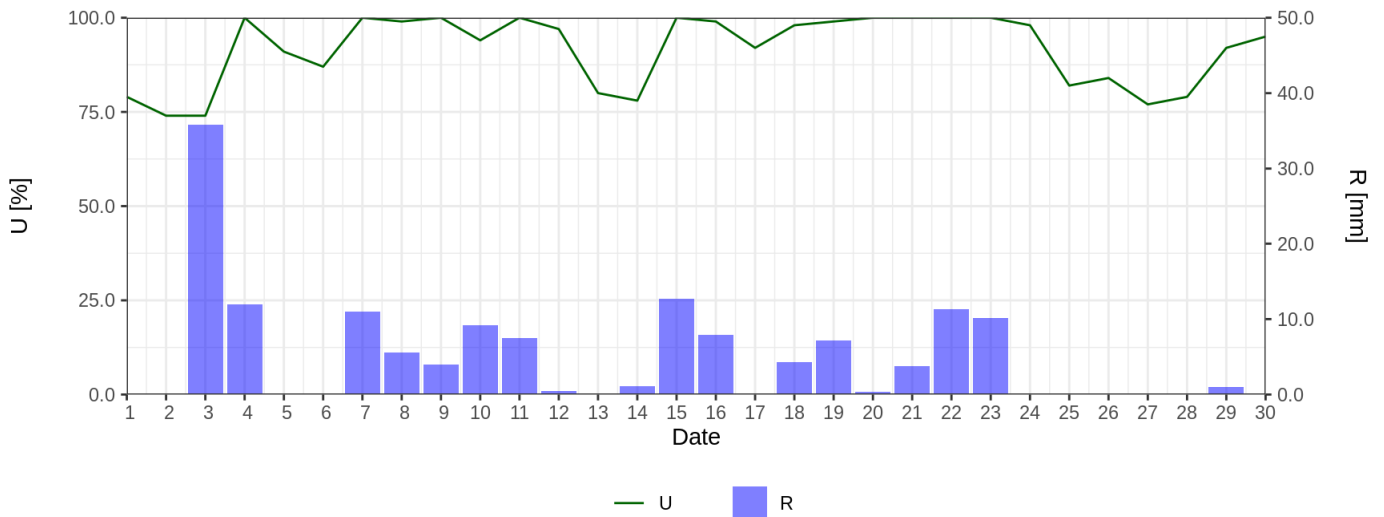
— Pm — Vm

Ryc. 2. Średnie dobowe ciśnienie atmosferyczne i prędkość wiatru

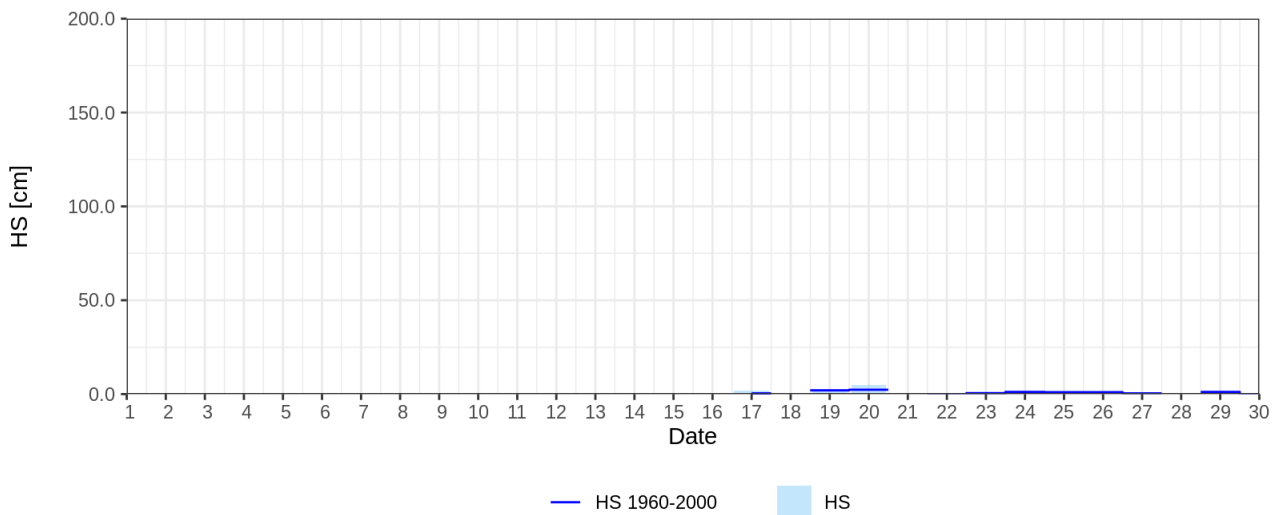
Fig. 2. Daily average air pressure and wind speed



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