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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 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 | -1.0 | -1.3 | -1.0 | 0.0 | -0.8 | 0.0 | -1.9 | -2.3 | 99 | 99 | 99 | 98 | 99 | 860.5 | 857.5 | 856.9 | 854.9 | 857.5 |
| 2 | -0.1 | -1.0 | -1.2 | -3.5 | -1.5 | 0.0 | -3.6 | -3.9 | 99 | 99 | 99 | 97 | 99 | 854.1 | 853.9 | 852.9 | 853.2 | 853.5 |
| 3 | -3.7 | -3.8 | -0.4 | -1.8 | -2.4 | 0.2 | -4.5 | -5.1 | 96 | 95 | 97 | 86 | 94 | 851.1 | 849.0 | 847.5 | 847.9 | 848.9 |
| 4 | -2.4 | -5.0 | -4.8 | -7.0 | -4.8 | -1.8 | -7.2 | -6.9 | 93 | 99 | 99 | 93 | 96 | 848.1 | 847.2 | 849.3 | 850.3 | 848.7 |
| 5 | -7.2 | -6.9 | -5.4 | -7.2 | -6.7 | -3.9 | -7.7 | -9.2 | 96 | 98 | 95 | 87 | 94 | 850.2 | 849.3 | 848.2 | 844.3 | 848.0 |
| 6 | -5.9 | -5.2 | -3.6 | -4.1 | -4.7 | -2.9 | -7.7 | -8.7 | 93 | 99 | 98 | 98 | 97 | 838.7 | 840.0 | 844.2 | 846.8 | 842.4 |
| 7 | -5.8 | -6.1 | -3.9 | -5.0 | -5.2 | -3.5 | -6.2 | -7.9 | 98 | 98 | 94 | 99 | 97 | 848.9 | 851.9 | 854.4 | 856.1 | 852.8 |
| 8 | -6.1 | -7.6 | -4.6 | -4.7 | -5.8 | -3.4 | -7.8 | -9.7 | 96 | 93 | 80 | 71 | 85 | 856.3 | 854.3 | 853.6 | 852.9 | 854.3 |
| 9 | -4.1 | -3.9 | -1.1 | -3.5 | -3.2 | 0.1 | -6.8 | -9.3 | 68 | 44 | 61 | 91 | 66 | 853.5 | 855.0 | 858.6 | 861.4 | 857.1 |
| 10 | -5.3 | -4.9 | -2.0 | -3.4 | -3.9 | -0.9 | -5.3 | -6.7 | 97 | 99 | 88 | 97 | 95 | 863.7 | 864.9 | 866.0 | 865.6 | 865.0 |
| 11 | -4.5 | -4.1 | -0.4 | -3.4 | -3.1 | -0.1 | -5.0 | -7.8 | 86 | 55 | 61 | 91 | 73 | 865.3 | 864.5 | 865.1 | 865.5 | 865.1 |
| 12 | -1.4 | -2.2 | -1.4 | -4.0 | -2.3 | 1.0 | -4.0 | -8.9 | 31 | 39 | 75 | 98 | 61 | 866.1 | 866.8 | 868.1 | 869.0 | 867.5 |
| 13 | -5.1 | -4.8 | -5.4 | -7.3 | -5.7 | -3.3 | -7.3 | -7.2 | 99 | 99 | 99 | 95 | 98 | 868.9 | 869.4 | 868.6 | 864.4 | 867.8 |
| 14 | -11.4 | -14.0 | -7.5 | -7.0 | -10.0 | -6.0 | -14.0 | -14.4 | 94 | 97 | 97 | 98 | 97 | 859.9 | 856.7 | 855.9 | 853.6 | 856.5 |
| 15 | -8.0 | -9.2 | -7.2 | -6.3 | -7.7 | -6.1 | -9.3 | -9.0 | 99 | 99 | 95 | 96 | 97 | 850.4 | 845.3 | 843.3 | 840.9 | 845.0 |
| 16 | -6.1 | -5.9 | -4.0 | -6.1 | -5.5 | -2.6 | -6.3 | -6.4 | 98 | 99 | 98 | 98 | 98 | 843.4 | 844.7 | 846.0 | 849.8 | 846.0 |
| 17 | -6.4 | -5.7 | -3.5 | -2.8 | -4.6 | -2.6 | -6.5 | -6.6 | 99 | 99 | 99 | 99 | 99 | 851.1 | 850.2 | 847.4 | 843.3 | 848.0 |
| 18 | -1.0 | -2.5 | -2.9 | -2.7 | -2.3 | -0.8 | -3.3 | -3.4 | 99 | 99 | 99 | 92 | 97 | 841.9 | 842.9 | 845.7 | 848.6 | 844.8 |
| 19 | -2.8 | -3.3 | -2.2 | -3.6 | -3.0 | -2.0 | -3.8 | -3.7 | 96 | 99 | 100 | 97 | 98 | 847.8 | 843.9 | 843.7 | 847.2 | 845.6 |
| 20 | -5.5 | -7.4 | -5.7 | -5.3 | -6.0 | -3.5 | -7.7 | -8.4 | 95 | 95 | 95 | 95 | 95 | 848.6 | 849.4 | 851.2 | 852.5 | 850.4 |
| 21 | -5.4 | -6.1 | -4.5 | -4.5 | -5.1 | -3.7 | -6.1 | -5.3 | 96 | 96 | 100 | 100 | 98 | 852.2 | 854.8 | 859.0 | 862.2 | 857.0 |
| 22 | -6.7 | -7.8 | -5.8 | -6.0 | -6.6 | -3.9 | -7.8 | -8.0 | 98 | 97 | 92 | 88 | 94 | 866.1 | 869.7 | 871.9 | 871.4 | 869.8 |
| 23 | -5.6 | -4.8 | -0.8 | -2.0 | -3.3 | -0.8 | -6.4 | -6.5 | 90 | 95 | 90 | 95 | 93 | 869.6 | 867.2 | 868.2 | 867.7 | 868.2 |
| 24 | -1.2 | -1.6 | 2.4 | 3.3 | 0.7 | 4.7 | -2.6 | -3.0 | 89 | 63 | 65 | 40 | 64 | 867.1 | 865.3 | 863.4 | 861.4 | 864.3 |
| 25 | 0.2 | -0.8 | 1.4 | -4.3 | -0.9 | 3.5 | -4.4 | -3.9 | 44 | 76 | 85 | 98 | 76 | 858.7 | 853.5 | 850.0 | 851.8 | 853.5 |
| 26 | -6.4 | -6.7 | -4.4 | -3.1 | -5.2 | -2.8 | -7.1 | -6.7 | 96 | 94 | 98 | 97 | 96 | 854.3 | 852.7 | 851.9 | 849.4 | 852.1 |
| 27 | -1.2 | -2.0 | -3.4 | -8.0 | -3.7 | -0.4 | -8.4 | -8.3 | 99 | 98 | 97 | 97 | 98 | 844.7 | 836.8 | 828.7 | 835.1 | 836.3 |
| 28 | -9.8 | -11.1 | -8.8 | -8.6 | -9.6 | -7.6 | -11.9 | -11.3 | 95 | 95 | 99 | 94 | 96 | 840.5 | 842.9 | 843.5 | 841.2 | 842.0 |
| 29 | -9.0 | -9.4 | -7.2 | -7.4 | -8.3 | -6.6 | -9.4 | -9.2 | 97 | 99 | 98 | 97 | 98 | 838.8 | 833.6 | 836.1 | 844.7 | 838.3 |
| 30 | -8.0 | -8.7 | -7.0 | -6.9 | -7.7 | -5.2 | -9.2 | -9.4 | 99 | 99 | 93 | 96 | 97 | 853.5 | 857.0 | 862.2 | 865.1 | 859.5 |
| 31 | -7.8 | -8.0 | -5.0 | -5.6 | -6.6 | -4.1 | -8.4 | -10.3 | 94 | 90 | 85 | 95 | 91 | 866.8 | 866.5 | 865.6 | 864.2 | 865.8 |

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 | 26 | 26 | 19 | 23.7 | 20 | 18 | 20 | • | 80 |
| 2 | 12 | 18 | 16 | 15.3 | 20 | 20 | 22 | 2.2 | 80 |
| 3 | 24 | 21 | 5 | 16.7 | 20 | 18 | 16 | 0.6 | 83 |
| 4 | 7 | 5 | 7 | 6.3 | 2 | 4 | 4 | 8.6 | 82 |
| 5 | 2 | 11 | 15 | 9.3 | 4 | 18 | 16 | 0.9 | 87 |
| 6 | 16 | 16 | 17 | 16.3 | 20 | 20 | 22 | 0.2 | 85 |
| 7 | 2 | 7 | 7 | 5.3 | 26 | 22 | 20 | 0.2 | 84 |
| 8 | 10 | 13 | 12 | 11.7 | 16 | 16 | 18 | • | 85 |
| 9 | 2 | 3 | 2 | 2.3 | 18 | 2 | 2 | 2.8 | 85 |
| 10 | 4 | 4 | 7 | 5.0 | 6 | 6 | 6 | 0.1 | 91 |
| 11 | 10 | 7 | 6 | 7.7 | 10 | 6 | 6 | • | 87 |
| 12 | 4 | 3 | 6 | 4.3 | 8 | 6 | 6 | 0.5 | 87 |
| 13 | 11 | 10 | 18 | 13.0 | 6 | 6 | 6 | 4.9 | 86 |
| 14 | 5 | 18 | 15 | 12.7 | 6 | 12 | 12 | 1.1 | 87 |
| 15 | 15 | 25 | 30 | 23.3 | 16 | 16 | 20 | 1.0 | 87 |
| 16 | 26 | 11 | 15 | 17.3 | 20 | 20 | 24 | 1.3 | 87 |
| 17 | 20 | 25 | 35 | 26.7 | 22 | 22 | 20 | 2.2 | 87 |
| 18 | 22 | 20 | 21 | 21.0 | 26 | 24 | 26 | 1.6 | 86 |
| 19 | 19 | 16 | 9 | 14.7 | 22 | 26 | 28 | 1.8 | 86 |
| 20 | 12 | 15 | 20 | 15.7 | 28 | 28 | 28 | 3.8 | 86 |
| 21 | 20 | 10 | 10 | 13.3 | 20 | 6 | 10 | 7.5 | 89 |
| 22 | 8 | 4 | 11 | 7.7 | 16 | 4 | 28 | 1.5 | 93 |
| 23 | 16 | 9 | 8 | 11.0 | 10 | 4 | 28 | • | 94 |
| 24 | 11 | 16 | 16 | 14.3 | 28 | 26 | 26 | • | 93 |
| 25 | 22 | 25 | 25 | 24.0 | 26 | 28 | 28 | 1.1 | 91 |
| 26 | 15 | 15 | 25 | 18.3 | 24 | 28 | 28 | 3.0 | 91 |
| 27 | 32 | 25 | 20 | 25.7 | 28 | 28 | 30 | 4.8 | 96 |
| 28 | 20 | 21 | 20 | 20.3 | 30 | 28 | 28 | 0.8 | 103 |
| 29 | 17 | 10 | 13 | 13.3 | 22 | 10 | 8 | 13.5 | 109 |
| 30 | 15 | 10 | 8 | 11.0 | 4 | 2 | 4 | 0.8 | 109 |
| 31 | 5 | 4 | 8 | 5.7 | 30 | 26 | 24 | 0.6 | 107 |

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 | 1995-III |
|------------------------------|-----------|----------|
| Przymrozkowe (Tmin < 0°C) | 28 | 31 |
| Mroźne (Tmax < 0°C) | 17 | 24 |
| Bardzo mroźne (Tmin < -10°C) | 5 | 2 |
| Ciepłe (Tmax > 20°C) | 0 | 0 |
| Gorące (Tmax > 25°C) | 0 | 0 |
| R > 1 mm | 15 | 16 |
| R > 10 mm | 3 | 1 |
| Liczba dni z pokrywą śnieżną | 30 | 31 |

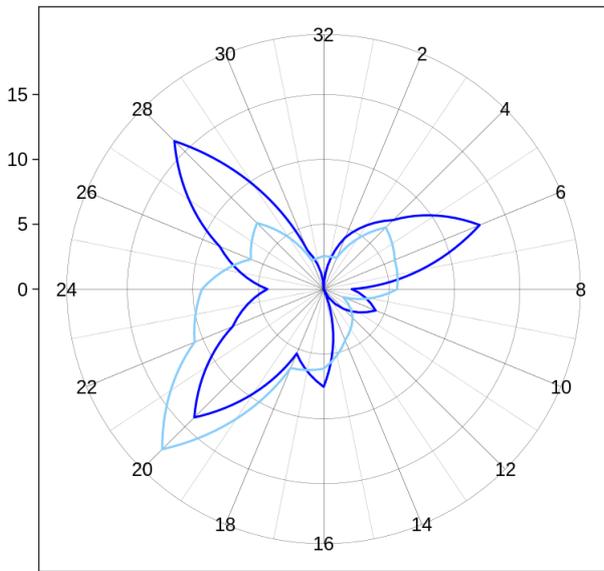
Tabela 4. Wartości średnie i ekstrema miesięczne na tle charakterystyk miesięcznych dla wielolecia 1960 - 2000

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

| | Opis | Description | 1960-2000 | 1995-III |
|---------|---------------------------|-----------------------|--------------------|--------------------|
| T [°C] | Średnia miesięczna | Monthly average | -3.4 | -4.7 |
| | Maksymalna średnia dobowa | Maximum daily average | -0.8 | -2.2 |
| | Minimalna średnia dobowa | Minimum daily average | -5.7 | -6.7 |
| | Średnie maksimum | Average maximum | 8.9 (1981-03-31) | 0.7 (1995-03-24) |
| | Absolutne maksimum | Absolute maximum | 13.2 (1982-03-27) | 4.7 (1995-03-24) |
| | Średnie minimum | Average minimum | -22.5 (1981-03-31) | -10.0 (1995-03-24) |
| | Absolutne minimum | Absolute minimum | -23.8 (1971-03-04) | -14.0 (1995-03-14) |
| P [hPa] | Średnia miesięczna | Monthly average | 856.7 | 853.9 |
| | Maksimum | Maximum | 878.9 (1990-03-16) | 869.8 (1995-03-22) |
| | Minimum | Minimum | 830.7 (1988-03-01) | 836.3 (1995-03-27) |
| V [m/s] | Średnia miesięczna | Monthly average | 11.3 | 14.0 |
| | Średnie maksimum | Average maximum | 14.5 | 17.6 |
| | Absolutne maksimum | Absolute maximum | 40.0 (1992-03-13) | 35.0 (1995-03-17) |
| R [mm] | Suma miesięczna | Monthly sum | 94.2 | 67.4 |
| | Maksymalna suma dobowa | Maximum daily sum | 48.4 (2000-03-08) | 13.5 (1995-03-29) |

(a) Wind direction frequency [%]

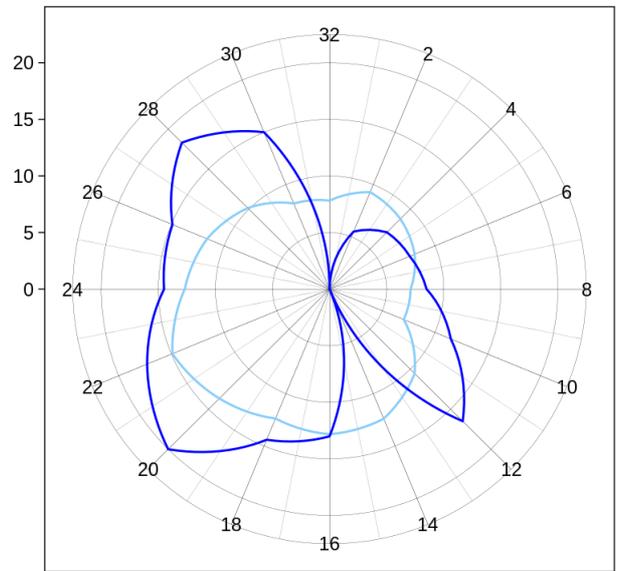
Calm: current NA % Calm 1960-200 1.8 %



— March 1960-2000 — March 1995

(b) Wind velocity [m/s]

Calm current NA % Calm 1960-2000 1.8 %

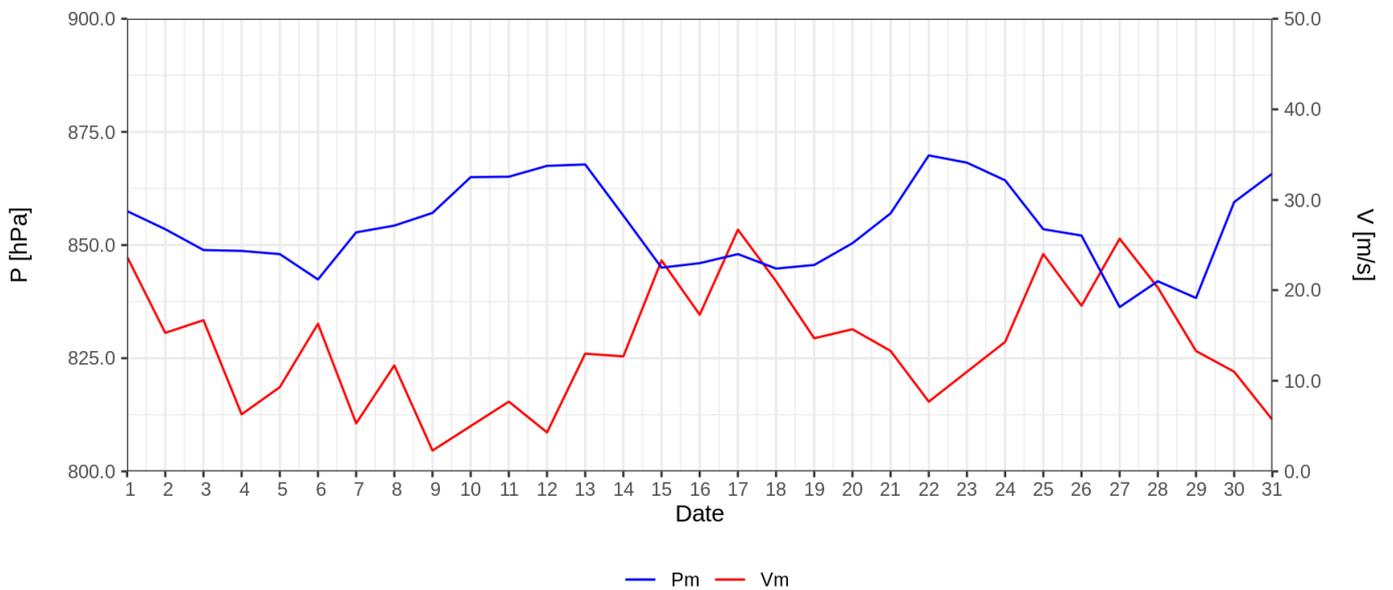


— March 1960-2000 — March 1995

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

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

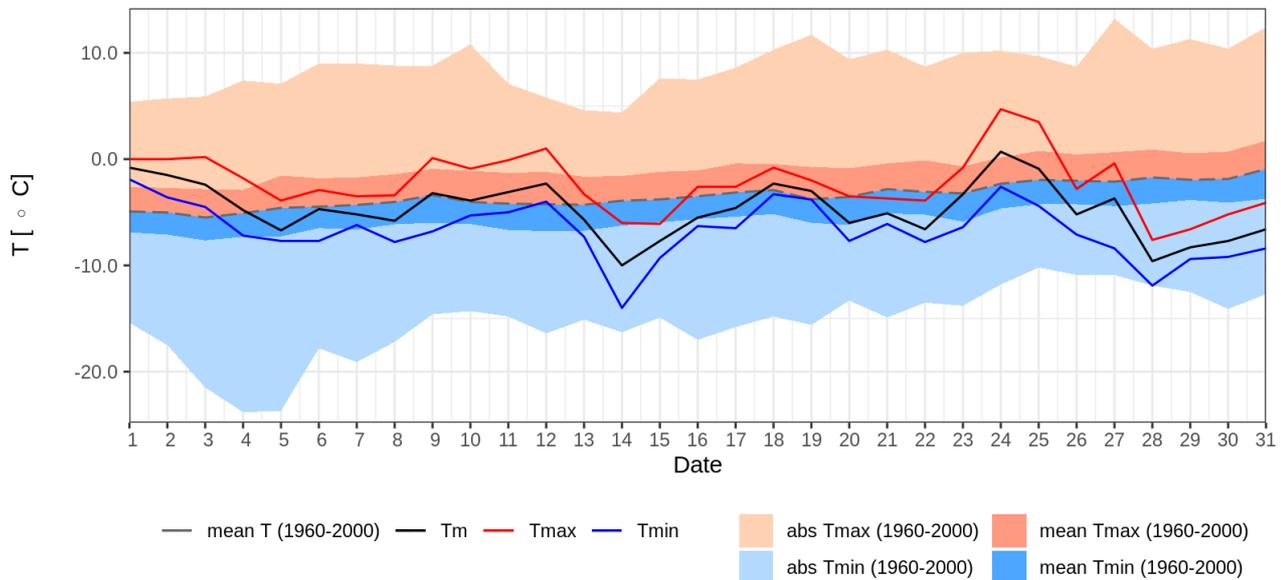
*) W statystyce dotyczącej kierunku wiatru uwzględniono kierunki wiatru odpowiadające skali 16 stopniowej prezentowanej wartościami [2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32].



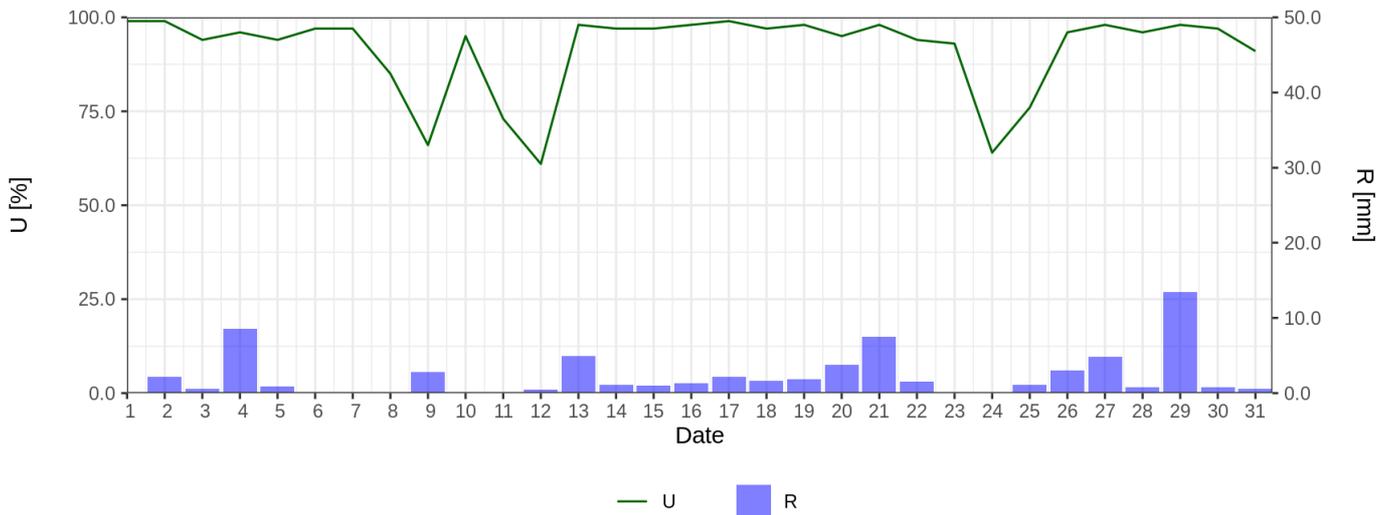
— Pm — Vm

Ryc. 2. Średnie dobowe ciśnienie atmosferyczne i prędkość wiatru

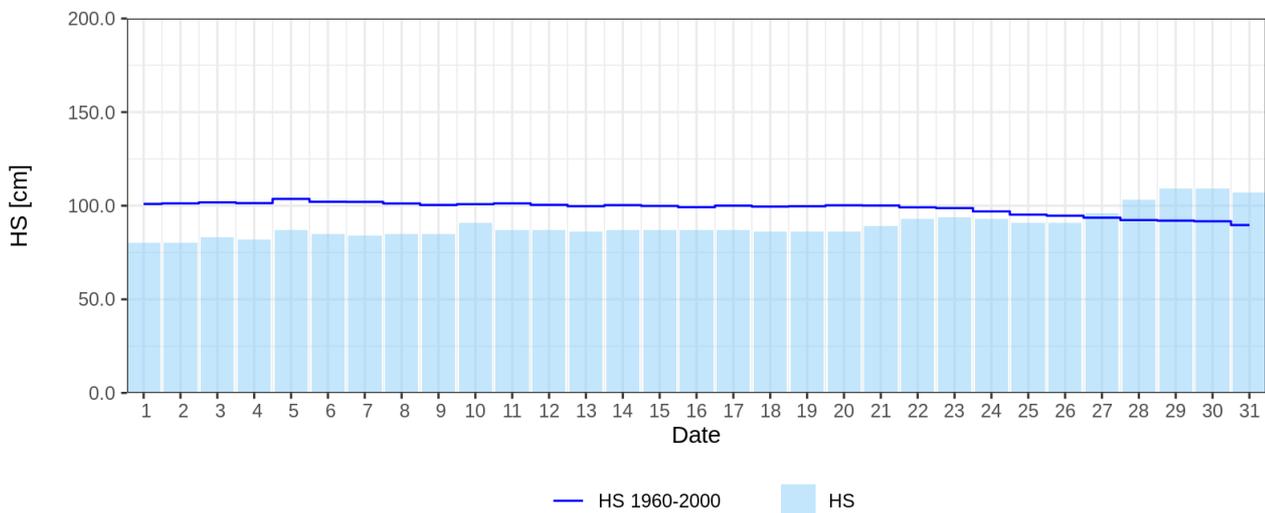
Fig. 2. Daily average air pressure and wind speed



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