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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 bieuletynie 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] | | | |
|----|--------|------|------|------|------|------|-------|-------|-----|-----|----|---------|-------|-------|-------|
| | 07 | 12 | 18 | Tm | Tmax | Tmin | Tmin5 | 06 | 12 | 18 | Um | 06 | 12 | 18 | Pm |
| 1 | -4.9 | -4.2 | -4.2 | -4.4 | -3.6 | -6.1 | -6.8 | 99 | 98 | 98 | 98 | 848.4 | 848.5 | 849.2 | 848.7 |
| 2 | -4.9 | -3.8 | -2.8 | -3.6 | -2.0 | -4.9 | -5.8 | 99 | 98 | 97 | 98 | 850.7 | 850.9 | 854.5 | 852.0 |
| 3 | -3.9 | -3.9 | -3.8 | -3.9 | -2.4 | -5.0 | -5.8 | 98 | 98 | 98 | 98 | 857.3 | 858.6 | 858.6 | 858.2 |
| 4 | -4.9 | -2.2 | -3.9 | -3.7 | -1.2 | -5.7 | -7.3 | 90 | 87 | 83 | 87 | 857.3 | 858.7 | 860.7 | 858.9 |
| 5 | -4.9 | -2.8 | -5.2 | -4.5 | -1.9 | -6.2 | -13.9 | 97 | 99 | 84 | 93 | 862.6 | 864.7 | 867.0 | 864.8 |
| 6 | -5.4 | -2.6 | -4.9 | -4.5 | -1.9 | -5.9 | -12.9 | 98 | 89 | 90 | 92 | 868.4 | 869.8 | 871.8 | 870.0 |
| 7 | -3.9 | -1.2 | -2.4 | -2.5 | -0.7 | -5.4 | -14.6 | 76 | 66 | 57 | 66 | 872.0 | 871.7 | 871.6 | 871.8 |
| 8 | -0.2 | 0.0 | -3.0 | -1.6 | 0.7 | -3.4 | -10.4 | 81 | 95 | 90 | 89 | 869.9 | 869.0 | 867.6 | 868.8 |
| 9 | -2.0 | 0.0 | -2.1 | -1.6 | 0.2 | -4.0 | -11.4 | 40 | 59 | 69 | 56 | 864.8 | 863.8 | 858.5 | 862.4 |
| 10 | -0.9 | 1.1 | -0.3 | -0.1 | 1.7 | -3.0 | -4.3 | 100 | 98 | 99 | 99 | 857.4 | 857.7 | 859.6 | 858.2 |
| 11 | -2.3 | -1.9 | 0.0 | -1.1 | 0.0 | -2.5 | -3.3 | 99 | 98 | 97 | 98 | 859.4 | 857.1 | 856.7 | 857.7 |
| 12 | -1.1 | -1.2 | -0.3 | -0.7 | 0.0 | -2.2 | -2.9 | 99 | 95 | 95 | 96 | 853.8 | 853.4 | 852.7 | 853.3 |
| 13 | -3.3 | -2.9 | -2.3 | -2.7 | -0.3 | -3.8 | -5.4 | 98 | 97 | 91 | 95 | 854.4 | 856.6 | 857.8 | 856.3 |
| 14 | 0.4 | 2.9 | 1.6 | 1.6 | 3.4 | -2.3 | -5.3 | 75 | 64 | 73 | 71 | 857.0 | 857.6 | 857.9 | 857.5 |
| 15 | 5.3 | 6.2 | 5.1 | 5.4 | 7.3 | 1.2 | -2.6 | 43 | 36 | 43 | 41 | 857.9 | 857.7 | 858.4 | 858.0 |
| 16 | 6.2 | 6.6 | 0.5 | 3.5 | 6.8 | 0.5 | -0.7 | 41 | 51 | 100 | 64 | 854.0 | 852.6 | 853.0 | 853.2 |
| 17 | 0.1 | 1.4 | 0.9 | 0.8 | 1.4 | 0.1 | -0.4 | 99 | 99 | 98 | 99 | 859.7 | 860.7 | 862.4 | 860.9 |
| 18 | 2.2 | 6.2 | 5.5 | 4.9 | 6.4 | 0.3 | -2.4 | 96 | 57 | 49 | 67 | 861.0 | 858.7 | 856.7 | 858.8 |
| 19 | 1.2 | -1.2 | -4.2 | -2.1 | 5.9 | -4.4 | -4.5 | 98 | 100 | 96 | 98 | 851.8 | 853.3 | 855.7 | 853.6 |
| 20 | -4.6 | -3.8 | -4.7 | -4.5 | -3.8 | -4.7 | -5.5 | 97 | 100 | 91 | 96 | 857.1 | 856.6 | 857.8 | 857.2 |
| 21 | -2.5 | -1.2 | -1.2 | -1.5 | -0.9 | -4.7 | -5.2 | 98 | 98 | 100 | 99 | 858.7 | 860.8 | 861.8 | 860.4 |
| 22 | -1.3 | -0.8 | -1.9 | -1.5 | -0.6 | -1.9 | -2.2 | 97 | 96 | 87 | 93 | 861.2 | 859.9 | 859.6 | 860.2 |
| 23 | -0.7 | 0.3 | 1.0 | 0.4 | 1.1 | -1.9 | -2.3 | 100 | 98 | 99 | 99 | 858.7 | 860.0 | 860.9 | 859.9 |
| 24 | -0.3 | -0.7 | -1.5 | -1.0 | 1.0 | -1.5 | -1.6 | 99 | 98 | 99 | 99 | 860.5 | 859.3 | 856.6 | 858.8 |
| 25 | -0.5 | -0.4 | -3.9 | -2.2 | -0.1 | -3.9 | -3.9 | 100 | 99 | 98 | 99 | 850.9 | 845.7 | 848.9 | 848.5 |
| 26 | -4.6 | -4.8 | -4.6 | -4.7 | -3.3 | -4.9 | -4.9 | 97 | 98 | 97 | 97 | 849.2 | 847.6 | 846.9 | 847.9 |
| 27 | -4.9 | -4.5 | -5.9 | -5.3 | -4.0 | -6.0 | -6.0 | 97 | 96 | 99 | 97 | 846.8 | 847.8 | 837.6 | 844.1 |
| 28 | -4.8 | -5.7 | -4.7 | -5.0 | -3.6 | -6.2 | -6.2 | 98 | 98 | 97 | 98 | 830.7 | 831.6 | 829.4 | 830.6 |
| 29 | -4.7 | -4.5 | -5.7 | -5.2 | -4.0 | -6.6 | -6.6 | 100 | 98 | 98 | 99 | 835.9 | 838.6 | 843.6 | 839.4 |
| 30 | -5.1 | -4.5 | -5.0 | -4.9 | -4.1 | -6.1 | -6.1 | 98 | 98 | 100 | 99 | 847.8 | 849.9 | 851.6 | 849.8 |

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 | 15 | 14 | 9 | 12.7 | 22 | 22 | 24 | 9.8 | 102 |
| 2 | 8 | 7 | 8 | 7.7 | 28 | 22 | 30 | 7.8 | 121 |
| 3 | 11 | 7 | 4 | 7.3 | 32 | 28 | 28 | 0.5 | 123 |
| 4 | 2 | 2 | 0 | 1.3 | 28 | 26 | 0 | 0.5 | 121 |
| 5 | 2 | 1 | 3 | 2.0 | 2 | 32 | 28 | 0.0 | 119 |
| 6 | 3 | 1 | 3 | 2.3 | 28 | 14 | 6 | • | 118 |
| 7 | 2 | 1 | 3 | 2.0 | 32 | 6 | 2 | • | 116 |
| 8 | 3 | 1 | 4 | 2.7 | 4 | 4 | 24 | • | 115 |
| 9 | 6 | 9 | 23 | 12.7 | 24 | 20 | 20 | • | 115 |
| 10 | 16 | 14 | 11 | 13.7 | 20 | 20 | 20 | 6.0 | 114 |
| 11 | 17 | 22 | 20 | 19.7 | 20 | 20 | 20 | • | 110 |
| 12 | 21 | 22 | 11 | 18.0 | 20 | 20 | 20 | • | 110 |
| 13 | 19 | 15 | 14 | 16.0 | 20 | 22 | 16 | • | 110 |
| 14 | 19 | 16 | 16 | 17.0 | 16 | 16 | 18 | • | 107 |
| 15 | 6 | 10 | 14 | 10.0 | 16 | 16 | 16 | • | 106 |
| 16 | 15 | 18 | 27 | 20.0 | 18 | 18 | 20 | 0.0 | 101 |
| 17 | 20 | 18 | 14 | 17.3 | 22 | 22 | 20 | • | 94 |
| 18 | 10 | 15 | 15 | 13.3 | 18 | 18 | 18 | • | 85 |
| 19 | 6 | 8 | 15 | 9.7 | 16 | 24 | 26 | 4.3 | 82 |
| 20 | 15 | 17 | 18 | 16.7 | 22 | 22 | 20 | • | 83 |
| 21 | 12 | 8 | 8 | 9.3 | 22 | 22 | 22 | 0.0 | 82 |
| 22 | 10 | 11 | 15 | 12.0 | 20 | 18 | 14 | 0.6 | 82 |
| 23 | 9 | 5 | 1 | 5.0 | 16 | 20 | 32 | 6.3 | 85 |
| 24 | 7 | 17 | 24 | 16.0 | 18 | 18 | 18 | 9.4 | 85 |
| 25 | 23 | 32 | 14 | 23.0 | 18 | 20 | 22 | 9.8 | 84 |
| 26 | 12 | 10 | 10 | 10.7 | 24 | 22 | 22 | 6.1 | 88 |
| 27 | 12 | 9 | 27 | 16.0 | 22 | 24 | 18 | 24.4 | 93 |
| 28 | 12 | 17 | 23 | 17.3 | 26 | 26 | 28 | 23.9 | 103 |
| 29 | 12 | 11 | 9 | 10.7 | 28 | 28 | 28 | 18.7 | 116 |
| 30 | 12 | 12 | 9 | 11.0 | 28 | 28 | 26 | 14.6 | 129 |

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

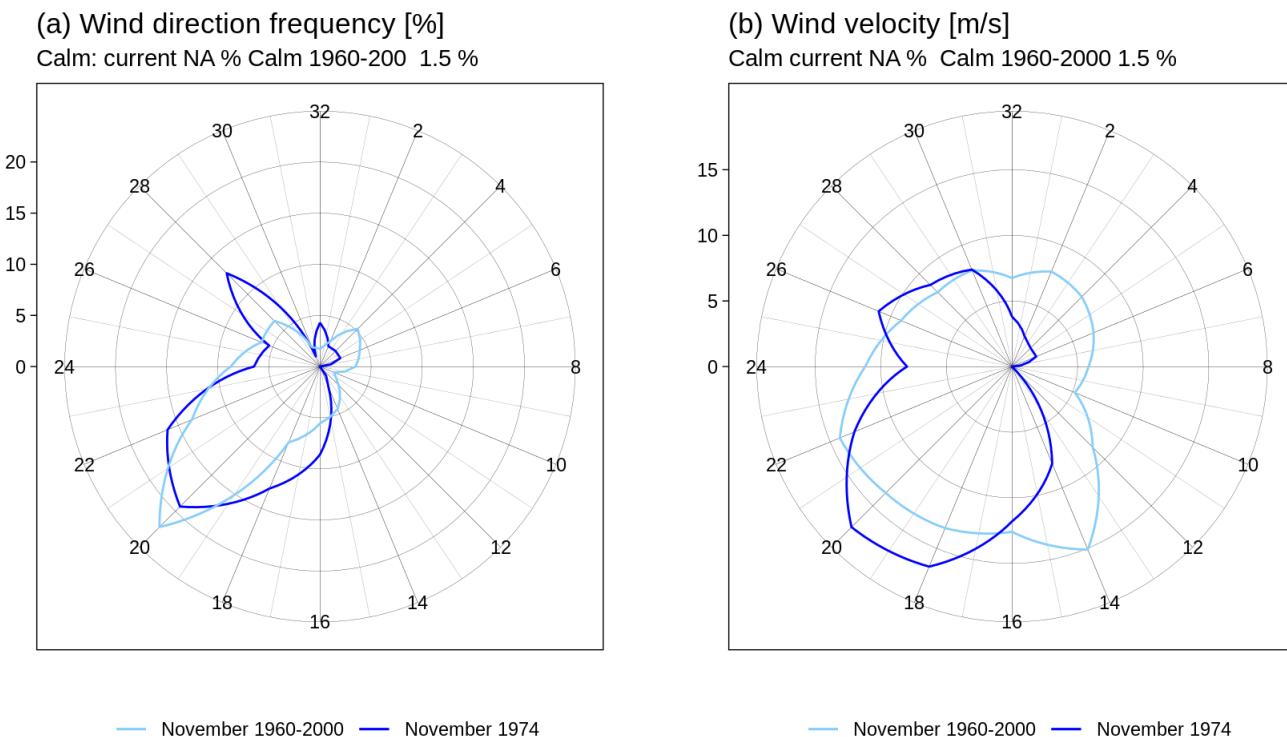
Table 3. Number of days with threshold value in current month and monthly average number of days with threshold value in the 1960- 2000 period

| Nazwa / Name | 1960-2000 | 1974-XI |
|--|-----------|---------|
| Przymrozkowe ($T_{min} < 0^{\circ}C$) | 25 | 26 |
| Mroźne ($T_{max} < 0^{\circ}C$) | 14 | 17 |
| Bardzo mroźne ($T_{min} < -10^{\circ}C$) | 2 | 0 |
| Ciepłe ($T_{max} > 20^{\circ}C$) | 0 | 0 |
| Gorące ($T_{max} > 25^{\circ}C$) | 0 | 0 |
| $R > 1 \text{ mm}$ | 16 | 12 |
| $R > 10 \text{ mm}$ | 4 | 4 |
| Liczba dni z pokrywą śnieżną | 20 | 30 |

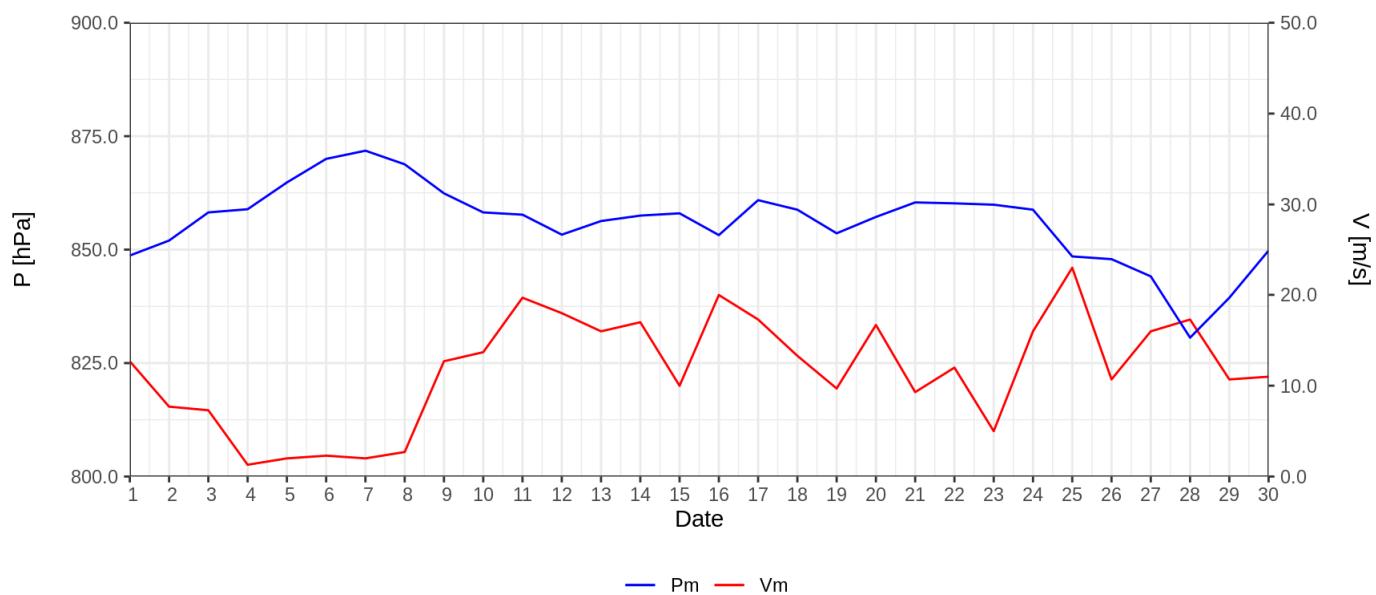
Tabela 4. Wartości średnie i ekstrema miesięczne na tle charakterystyk miesięcznych dla wielolecia 1960 - 2000

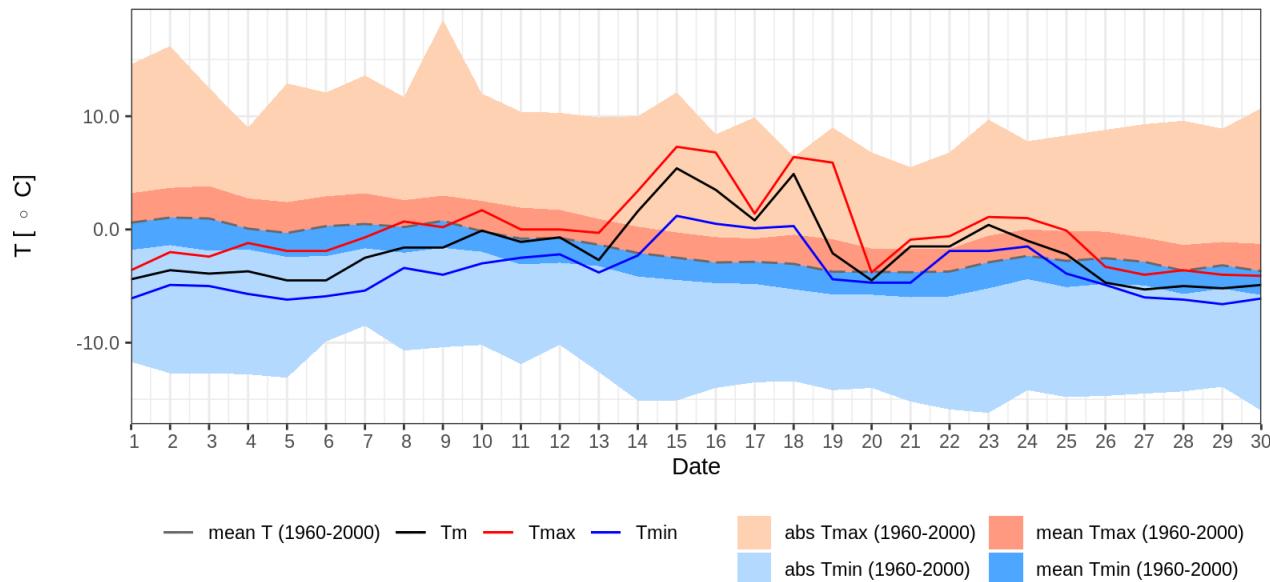
Table 4. Average and extreme monthly values vs. average monthly characteristics for the 1960- 2000 period

| | Opis | Description | 1960-2000 | 1974-XI |
|-------------------|---------------------------|-----------------------|--------------------|--------------------|
| T [$^{\circ}C$] | Średnia miesięczna | Monthly average | -1.7 | -1.9 |
| | Maksymalna średnia dobowa | Maximum daily average | 0.7 | -0.1 |
| | Minimalna średnia dobowa | Minimum daily average | -3.9 | -3.7 |
| | Średnie maksimum | Average maximum | 10.3 (1966-11-07) | 5.4 (1974-11-15) |
| | Absolutne maksimum | Absolute maximum | 18.5 (1966-11-09) | 7.3 (1974-11-15) |
| | Średnie minimum | Average minimum | -13.9 (1966-11-07) | -5.3 (1974-11-15) |
| P [hPa] | Absolutne minimum | Absolute minimum | -16.2 (1965-11-23) | -6.6 (1974-11-29) |
| | Średnia miesięczna | Monthly average | 857.7 | 856.0 |
| | Maksimum | Maximum | 877.8 (1986-11-28) | 871.8 (1974-11-07) |
| V [m/s] | Minimum | Minimum | 830.6 (1974-11-28) | 830.6 (1974-11-28) |
| | Średnia miesięczna | Monthly average | 11.1 | 11.8 |
| | Średnie maksimum | Average maximum | 14.3 | 15.2 |
| R [mm] | Absolutne maksimum | Absolute maximum | 42.0 (1975-11-16) | 32.0 (1974-11-25) |
| | Suma miesięczna | Monthly sum | 118.4 | 142.7 |
| | Maksymalna suma dobowa | Maximum daily sum | 53.5 (1990-11-17) | 24.4 (1974-11-27) |

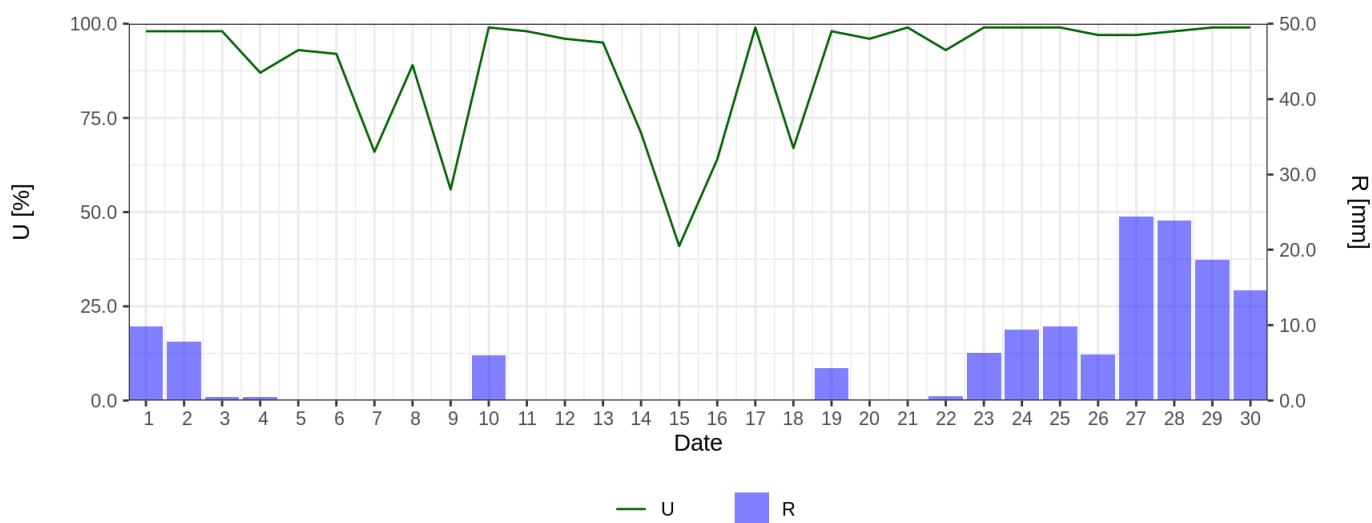
**Ryc. 1. Częstość (a) i prędkość wiatru (b) wg kierunków****Fig. 1. Wind direction frequency (a) and wind velocity for a given direction (b)**

*) 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].

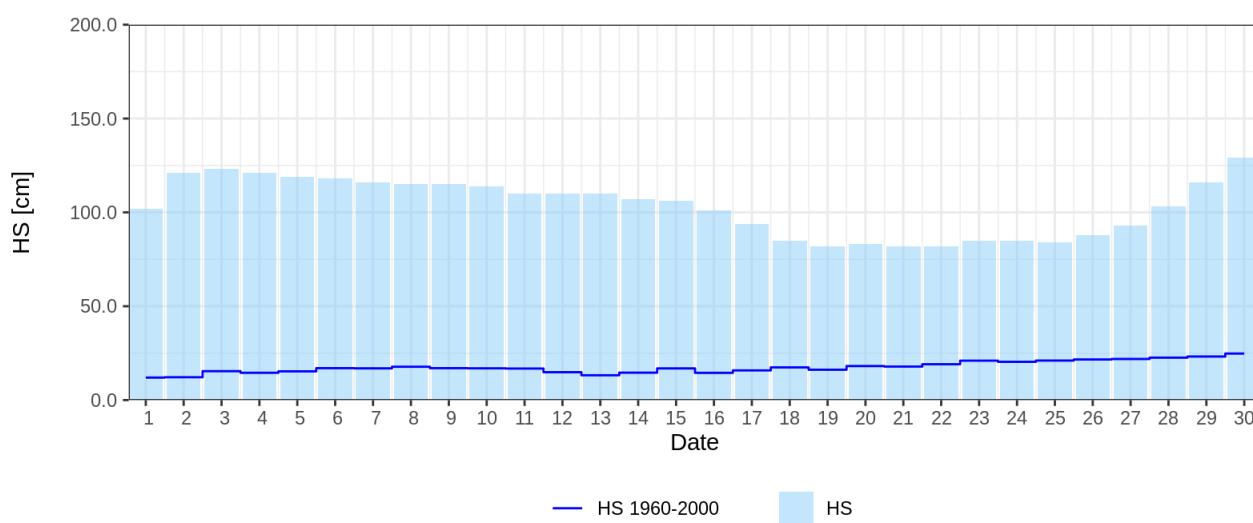
**Ryc. 2. Średnie dobowe ciśnienie atmosferyczne i prędkość wiatru****Fig. 2. Daily average air pressure and wind speed**



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