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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] |       |       |       |
|----|--------|------|------|------|------|------|-------|-------|-----|-----|-----|---------|-------|-------|-------|
|    | 07     | 12   | 18   | Tm   | Tmax | Tmin | Tmin5 | 06    | 12  | 18  | Um  | 06      | 12    | 18    | Pm    |
| 1  | 3.4    | 5.0  | 2.6  | 3.4  | 6.5  | 2.5  | 0.7   | 100   | 95  | 99  | 98  | 852.6   | 853.4 | 853.6 | 853.2 |
| 2  | 3.0    | 5.4  | 3.3  | 3.8  | 6.6  | 1.6  | -0.7  | 93    | 82  | 93  | 89  | 854.1   | 854.0 | 852.6 | 853.6 |
| 3  | 3.0    | 6.4  | 5.1  | 4.9  | 7.9  | 2.9  | 1.2   | 96    | 79  | 95  | 90  | 847.7   | 847.0 | 846.1 | 846.9 |
| 4  | 4.0    | 6.6  | 1.2  | 3.2  | 7.5  | 0.7  | 0.7   | 97    | 79  | 100 | 92  | 843.4   | 842.4 | 841.8 | 842.5 |
| 5  | -2.4   | -2.3 | -1.8 | -2.1 | 1.4  | -3.1 | -3.0  | 100   | 100 | 100 | 100 | 841.7   | 843.6 | 846.4 | 843.9 |
| 6  | -3.4   | -3.2 | -5.8 | -4.6 | -1.3 | -5.8 | -5.8  | 97    | 97  | 99  | 98  | 848.2   | 849.7 | 852.1 | 850.0 |
| 7  | -5.8   | -3.8 | -4.5 | -4.7 | -3.2 | -6.2 | -6.2  | 95    | 85  | 94  | 91  | 853.7   | 855.2 | 855.8 | 854.9 |
| 8  | -6.7   | -6.0 | -5.3 | -5.8 | -4.5 | -7.5 | -7.2  | 92    | 96  | 97  | 95  | 856.5   | 859.1 | 862.5 | 859.4 |
| 9  | -5.5   | -0.7 | 1.2  | -1.0 | 1.3  | -5.8 | -5.8  | 97    | 100 | 100 | 99  | 859.6   | 860.0 | 862.9 | 860.8 |
| 10 | 0.6    | 5.0  | 3.1  | 3.0  | 6.5  | -0.2 | 0.0   | 95    | 64  | 80  | 80  | 864.3   | 865.1 | 864.7 | 864.7 |
| 11 | 6.1    | 8.7  | 3.0  | 5.2  | 9.0  | 0.6  | 0.2   | 62    | 59  | 88  | 70  | 864.2   | 863.9 | 862.4 | 863.5 |
| 12 | 2.4    | 4.0  | 1.8  | 2.5  | 5.1  | 1.6  | 0.1   | 87    | 83  | 85  | 85  | 860.7   | 859.6 | 857.8 | 859.4 |
| 13 | 1.2    | 2.1  | 1.8  | 1.7  | 2.7  | 0.2  | -0.5  | 88    | 95  | 100 | 94  | 854.5   | 854.3 | 855.9 | 854.9 |
| 14 | 0.0    | 0.0  | -0.7 | -0.4 | 2.8  | -1.2 | -1.8  | 88    | 98  | 93  | 93  | 856.4   | 858.1 | 860.1 | 858.2 |
| 15 | -1.7   | 1.7  | 0.4  | 0.2  | 3.4  | -2.5 | -2.2  | 91    | 73  | 82  | 82  | 864.2   | 866.9 | 868.0 | 866.4 |
| 16 | 1.2    | 7.2  | 4.4  | 4.3  | 8.2  | -0.5 | -3.9  | 83    | 51  | 73  | 69  | 867.6   | 866.7 | 864.6 | 866.3 |
| 17 | 4.9    | 9.4  | 5.4  | 6.3  | 10.9 | 2.5  | 1.3   | 60    | 54  | 54  | 56  | 863.2   | 864.4 | 863.2 | 863.6 |
| 18 | 5.2    | 10.7 | 5.7  | 6.8  | 11.7 | 3.2  | 1.9   | 47    | 42  | 54  | 48  | 863.3   | 865.1 | 864.5 | 864.3 |
| 19 | 3.0    | 9.0  | 5.9  | 6.0  | 10.6 | 1.3  | 1.0   | 57    | 34  | 43  | 45  | 861.7   | 860.0 | 860.0 | 860.6 |
| 20 | 9.0    | 14.6 | 8.6  | 10.2 | 15.4 | 4.5  | 3.6   | 52    | 45  | 60  | 52  | 861.1   | 861.5 | 858.7 | 860.4 |
| 21 | 8.9    | 8.8  | 6.2  | 7.5  | 10.5 | 5.9  | 2.8   | 65    | 79  | 99  | 81  | 858.2   | 858.8 | 858.3 | 858.4 |
| 22 | 0.7    | 3.4  | 3.1  | 2.6  | 7.3  | -0.2 | -0.2  | 98    | 93  | 70  | 87  | 857.6   | 859.5 | 861.2 | 859.4 |
| 23 | 2.4    | 5.1  | 0.4  | 2.1  | 7.0  | 0.1  | -0.9  | 85    | 69  | 97  | 84  | 860.8   | 861.7 | 859.2 | 860.6 |
| 24 | 1.4    | 0.0  | 0.0  | 0.4  | 1.9  | -0.3 | 0.2   | 98    | 98  | 98  | 98  | 853.9   | 855.5 | 857.5 | 855.6 |
| 25 | -3.3   | -1.3 | -1.7 | -2.0 | 0.2  | -3.9 | -3.3  | 99    | 95  | 98  | 97  | 861.2   | 865.5 | 869.9 | 865.5 |
| 26 | -5.0   | -1.0 | 0.2  | -1.4 | 2.5  | -5.7 | -7.3  | 89    | 60  | 32  | 60  | 871.7   | 873.9 | 873.4 | 873.0 |
| 27 | 2.2    | 8.2  | 4.0  | 4.6  | 10.0 | -0.4 | -9.4  | 33    | 37  | 38  | 36  | 871.5   | 871.8 | 870.6 | 871.3 |
| 28 | 3.4    | 9.2  | 7.3  | 6.8  | 11.3 | 1.6  | -0.3  | 43    | 31  | 56  | 43  | 868.1   | 866.3 | 864.0 | 866.1 |
| 29 | 4.6    | 4.3  | 3.3  | 3.9  | 8.0  | 3.1  | 1.7   | 100   | 96  | 94  | 97  | 862.1   | 863.7 | 864.5 | 863.4 |
| 30 | 0.5    | 2.2  | 0.4  | 0.9  | 3.9  | -0.1 | -0.7  | 100   | 95  | 100 | 98  | 864.4   | 864.6 | 864.4 | 864.5 |

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

| D  | V [m/s] |    |    |      | $\alpha$ [1-32] |    |    | R[mm] | HS[cm] |
|----|---------|----|----|------|-----------------|----|----|-------|--------|
|    | 06      | 12 | 18 | Vm   | 06              | 12 | 18 |       |        |
| 1  | 5       | 1  | 7  | 4.3  | 18              | 16 | 18 | 0.7   | 35     |
| 2  | 1       | 5  | 10 | 5.3  | 20              | 16 | 14 | •     | 27     |
| 3  | 17      | 16 | 14 | 15.7 | 14              | 16 | 16 | 2.0   | 23     |
| 4  | 8       | 6  | 8  | 7.3  | 8               | 8  | 8  | 1.4   | 13     |
| 5  | 10      | 9  | 9  | 9.3  | 6               | 6  | 4  | 2.6   | 10     |
| 6  | 4       | 6  | 4  | 4.7  | 28              | 4  | 4  | 0.7   | 10     |
| 7  | 5       | 6  | 6  | 5.7  | 30              | 26 | 22 | 3.3   | 10     |
| 8  | 8       | 11 | 7  | 8.7  | 24              | 26 | 28 | 2.8   | 15     |
| 9  | 14      | 13 | 10 | 12.3 | 20              | 26 | 30 | 14.6  | 20     |
| 10 | 6       | 4  | 7  | 5.7  | 28              | 22 | 20 | •     | 17     |
| 11 | 3       | 9  | 4  | 5.3  | 20              | 20 | 20 | 12.5  | 8      |
| 12 | 2       | 5  | 9  | 5.3  | 32              | 24 | 20 | •     | -1     |
| 13 | 16      | 11 | 11 | 12.7 | 20              | 20 | 20 | 5.8   | -1     |
| 14 | 6       | 10 | 9  | 8.3  | 20              | 20 | 24 | 2.9   | -1     |
| 15 | 8       | 6  | 4  | 6.0  | 24              | 20 | 20 | 0.3   | 1      |
| 16 | 8       | 12 | 18 | 12.7 | 16              | 20 | 16 | •     | -1     |
| 17 | 20      | 16 | 23 | 19.7 | 16              | 20 | 18 | •     | -1     |
| 18 | 24      | 22 | 29 | 25.0 | 18              | 18 | 18 | •     | -1     |
| 19 | 35      | 34 | 31 | 33.3 | 16              | 18 | 18 | •     | -1     |
| 20 | 5       | 3  | 16 | 8.0  | 20              | 14 | 16 | •     | NA     |
| 21 | 2       | 1  | 6  | 3.0  | 20              | 14 | 8  | 4.5   | NA     |
| 22 | 5       | 11 | 11 | 9.0  | 20              | 26 | 24 | 15.0  | -1     |
| 23 | 9       | 7  | 11 | 9.0  | 24              | 20 | 20 | 12.4  | NA     |
| 24 | 12      | 7  | 7  | 8.7  | 20              | 24 | 32 | 14.5  | 1      |
| 25 | 12      | 8  | 8  | 9.3  | 6               | 8  | 6  | 0.0   | 4      |
| 26 | 7       | 7  | 4  | 6.0  | 8               | 8  | 8  | •     | 2      |
| 27 | 5       | 4  | 10 | 6.3  | 10              | 8  | 18 | •     | -1     |
| 28 | 12      | 20 | 20 | 17.3 | 20              | 20 | 18 | 3.7   | NA     |
| 29 | 16      | 14 | 11 | 13.7 | 22              | 24 | 22 | 3.0   | NA     |
| 30 | 12      | 8  | 10 | 10.0 | 24              | 22 | 26 | 1.0   | 1      |

**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 | 1964-IV |
|------------------------------|-----------|---------|
| Przymrozkowe (Tmin < 0°C)    | 20        | 15      |
| Mroźne (Tmax < 0°C)          | 8         | 3       |
| Bardzo mroźne (Tmin < -10°C) | 1         | 0       |
| Ciepłe (Tmax > 20°C)         | 0         | 0       |
| Gorące (Tmax > 25°C)         | 0         | 0       |
| R > 1 mm                     | 13        | 15      |
| R > 10 mm                    | 3         | 5       |
| Liczba dni z pokrywą śnieżną | 26        | 16      |

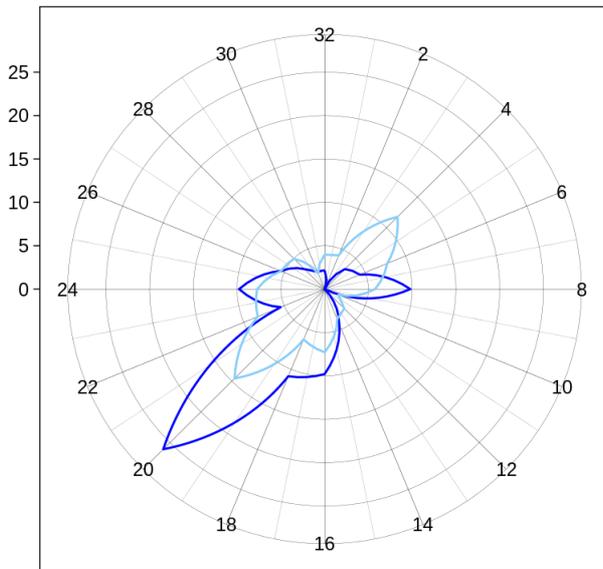
**Tabela 4. Wartości średnie i ekstrema miesięczne na tle charakterystyk miesięcznych dla wielolecia 1960 - 2000**

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

|         | Opis                      | Description           | 1960-2000          | 1964-IV            |
|---------|---------------------------|-----------------------|--------------------|--------------------|
| T [°C]  | Średnia miesięczna        | Monthly average       | 0.5                | 2.3                |
|         | Maksymalna średnia dobowa | Maximum daily average | 3.4                | 5.7                |
|         | Minimalna średnia dobowa  | Minimum daily average | -2.0               | -0.4               |
|         | Średnie maksimum          | Average maximum       | 14.4 (1968-04-23)  | 10.2 (1964-04-20)  |
|         | Absolutne maksimum        | Absolute maximum      | 19.1 (1968-04-23)  | 15.4 (1964-04-20)  |
|         | Średnie minimum           | Average minimum       | -10.5 (1968-04-23) | -5.8 (1964-04-20)  |
|         | Absolutne minimum         | Absolute minimum      | -13.0 (1986-04-13) | -7.5 (1964-04-08)  |
| P [hPa] | Średnia miesięczna        | Monthly average       | 857.0              | 859.5              |
|         | Maksimum                  | Maximum               | 876.2 (1966-04-30) | 873.0 (1964-04-26) |
|         | Minimum                   | Minimum               | 834.0 (1992-04-01) | 842.5 (1964-04-04) |
| V [m/s] | Średnia miesięczna        | Monthly average       | 9.0                | 10.3               |
|         | Średnie maksimum          | Average maximum       | 11.7               | 12.9               |
|         | Absolutne maksimum        | Absolute maximum      | 35.0 (1964-04-19)  | 35.0 (1964-04-19)  |
| R [mm]  | Suma miesięczna           | Monthly sum           | 92.2               | 103.7              |
|         | Maksymalna suma dobowa    | Maximum daily sum     | 36.8 (1961-04-16)  | 15.0 (1964-04-22)  |

(a) Wind direction frequency [%]

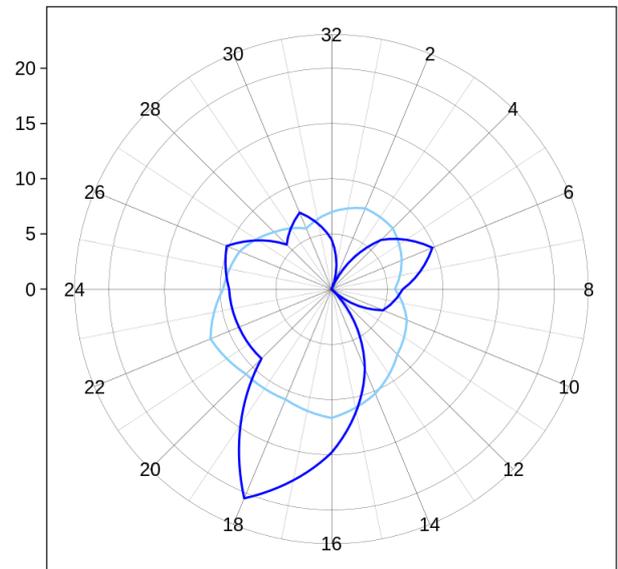
Calm: current NA % Calm 1960-200 1.5 %



— April 1960-2000 — April 1964

(b) Wind velocity [m/s]

Calm current NA % Calm 1960-2000 1.5 %

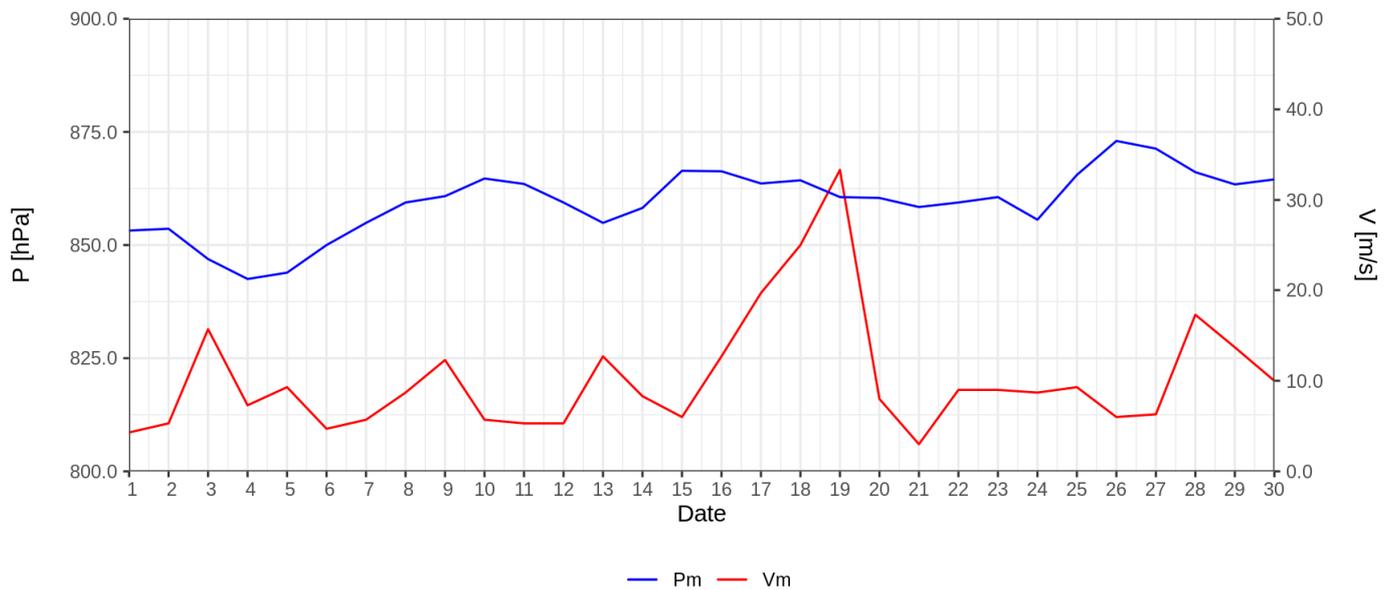


— April 1960-2000 — April 1964

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

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

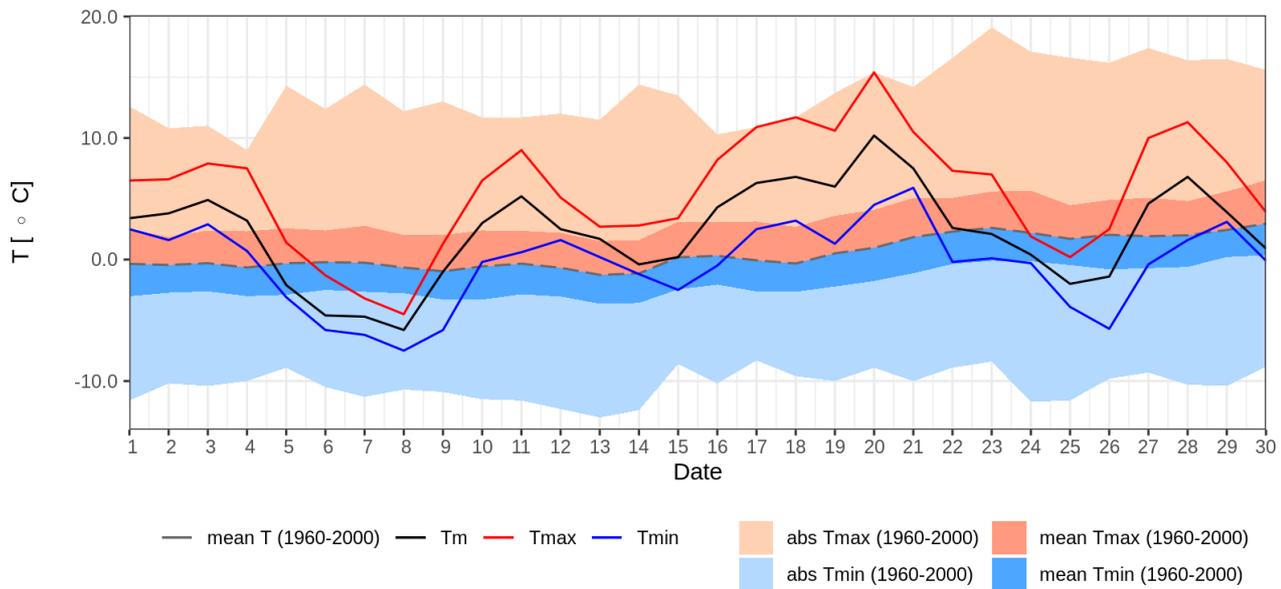
\*) W statystyce dotyczącej kierunku wiatru uwzględniono kierunki wiatru odpowiadające skali 16 stopniowej prezentowanej wartościami [2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32].



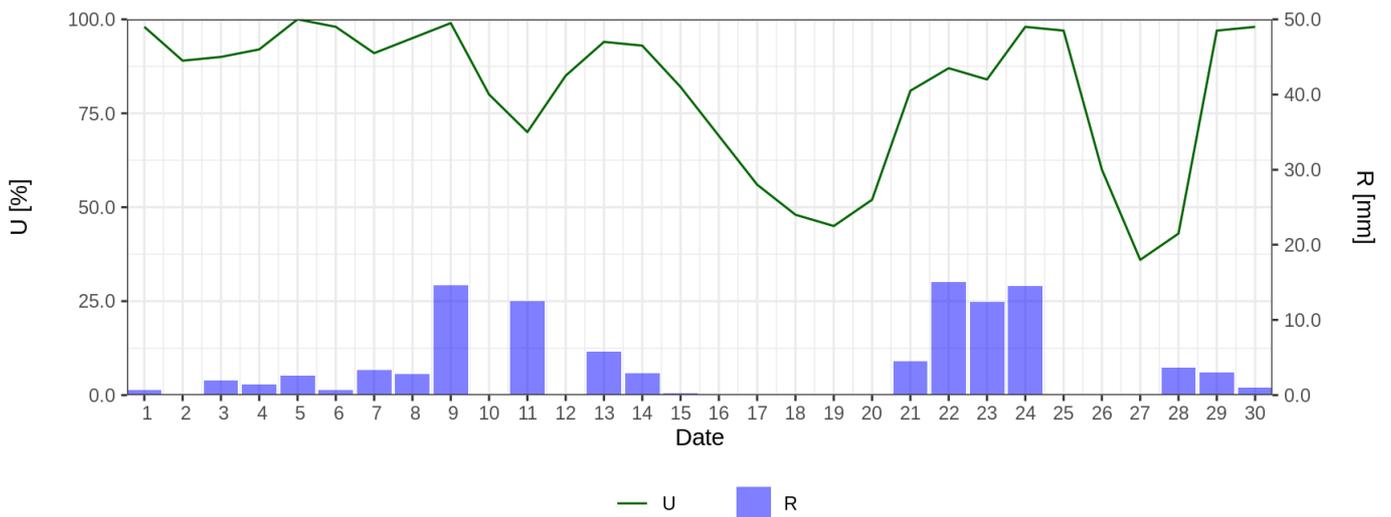
— Pm — Vm

Ryc. 2. Średnie dobowe ciśnienie atmosferyczne i prędkość wiatru

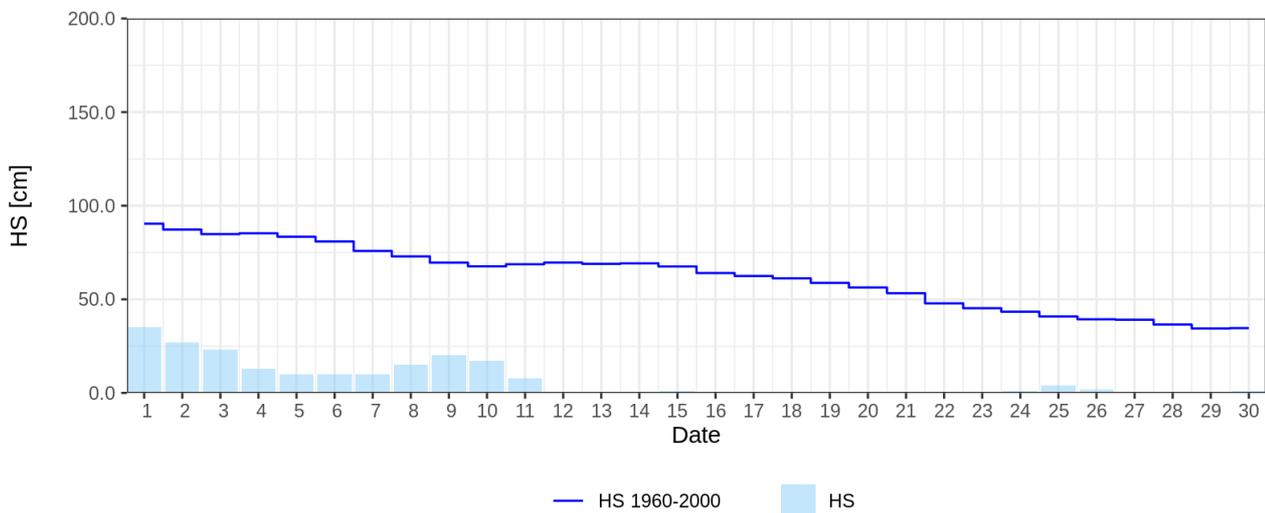
Fig. 2. Daily average air pressure and wind speed



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