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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 |
| PM2.5 | Stężenie pyłu zawieszonego PM2.5 | PM2.5 concentration |
| PM10 | Stężenie pyłu zawieszonego PM10 | PM10 concentration |
| O3 | Stężenie ozonu | O3 concentration |
| 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 | 06 | 12 | 18 | Tm | Tmax | Tmin | Tmin5 | 00 | 06 | 12 | 18 | Um | 00 | 06 | 12 | 18 | Pm |
| 1 | 7.2 | 4.0 | 17.7 | 12.3 | 10.3 | 18.9 | 2.3 | -2.3 | 63 | 85 | 29 | 45 | 56 | 1006.5 | 1007.1 | 1006.2 | 1004.8 | 1006.2 |
| 2 | 4.8 | 3.9 | 16.1 | 12.7 | 9.4 | 17.4 | 2.6 | -2.5 | 76 | 82 | 38 | 47 | 61 | 1004.9 | 1003.7 | 1004.4 | 1003.7 | 1004.2 |
| 3 | 4.9 | 5.3 | 17.5 | 12.0 | 9.9 | 18.9 | 0.9 | -3.4 | 79 | 72 | 26 | 43 | 55 | 1005.0 | 1007.2 | 1007.1 | 1005.5 | 1006.2 |
| 4 | 3.5 | 3.4 | 18.9 | 12.4 | 9.6 | 20.1 | 1.4 | -2.9 | 89 | 89 | 28 | 44 | 63 | 1006.4 | 1006.2 | 1005.9 | 1004.4 | 1005.7 |
| 5 | 5.7 | 6.0 | 16.7 | 11.9 | 10.1 | 18.4 | 5.1 | -0.6 | 81 | 83 | 33 | 55 | 63 | 1007.1 | 1010.3 | 1011.0 | 1010.1 | 1009.6 |
| 6 | 9.1 | 9.3 | 14.1 | 16.8 | 12.3 | 17.4 | 6.2 | 0.4 | 92 | 85 | 79 | 61 | 79 | 1010.2 | 1008.4 | 1006.5 | 1001.6 | 1006.7 |
| 7 | 13.1 | 11.6 | 16.0 | 12.6 | 13.3 | 17.4 | 11.3 | 8.5 | 87 | 82 | 49 | 58 | 69 | 998.2 | 997.2 | 995.6 | 995.2 | 996.6 |
| 8 | 9.5 | 8.6 | 11.9 | 10.3 | 10.1 | 13.6 | 8.3 | 6.0 | 82 | 84 | 57 | 68 | 73 | 996.5 | 998.5 | 1001.1 | 1003.9 | 1000.0 |
| 9 | 7.4 | 8.0 | 13.2 | 11.7 | 10.1 | 14.9 | 7.2 | 5.2 | 93 | 86 | 56 | 66 | 75 | 1007.0 | 1008.4 | 1008.6 | 1006.6 | 1007.7 |
| 10 | 7.7 | 8.1 | 16.3 | 13.4 | 11.4 | 17.4 | 4.3 | -0.5 | 81 | 77 | 47 | 71 | 69 | 1006.3 | 1004.2 | 1002.0 | 998.9 | 1002.9 |
| 11 | 9.3 | 11.5 | 13.8 | 9.5 | 11.0 | 14.6 | 8.4 | 5.2 | 94 | 73 | 75 | 84 | 82 | 997.3 | 995.4 | 995.0 | 994.9 | 995.7 |
| 12 | 8.1 | 7.7 | 11.8 | 9.4 | 9.3 | 13.1 | 7.0 | 4.6 | 70 | 70 | 42 | 58 | 60 | 995.7 | 994.0 | 989.9 | 985.5 | 991.3 |
| 13 | 7.5 | 6.7 | 11.2 | 11.5 | 9.2 | 13.0 | 4.9 | -0.4 | 81 | 91 | 73 | 73 | 80 | 984.5 | 983.1 | 983.0 | 982.5 | 983.3 |
| 14 | 7.6 | 6.5 | 9.8 | 9.1 | 8.3 | 12.2 | 3.0 | -1.2 | 91 | 80 | 34 | 42 | 62 | 985.1 | 985.4 | 987.1 | 987.8 | 986.4 |
| 15 | 7.8 | 8.0 | 17.9 | 10.4 | 11.0 | 19.7 | 4.6 | -1.0 | 65 | 74 | 36 | 52 | 57 | 985.0 | 986.4 | 988.8 | 991.1 | 987.8 |
| 16 | 4.9 | 4.8 | 6.5 | 6.4 | 5.7 | 11.2 | 3.9 | 2.1 | 90 | 85 | 88 | 94 | 89 | 994.6 | 994.9 | 994.4 | 990.5 | 993.6 |
| 17 | 6.6 | 5.4 | 4.5 | 4.0 | 5.1 | 6.8 | 2.5 | 2.6 | 98 | 100 | 93 | 89 | 95 | 987.1 | 983.7 | 983.9 | 986.4 | 985.3 |
| 18 | 3.9 | 4.0 | 9.3 | 7.9 | 6.3 | 11.3 | 3.6 | 1.9 | 81 | 78 | 51 | 47 | 64 | 988.9 | 990.6 | 992.6 | 996.5 | 992.2 |
| 19 | 3.8 | 2.7 | 10.9 | 8.5 | 6.5 | 12.1 | 1.4 | -2.8 | 68 | 78 | 36 | 39 | 55 | 998.4 | 1001.2 | 1000.9 | 1000.7 | 1000.3 |
| 20 | 4.9 | 4.6 | 11.7 | 9.7 | 7.7 | 12.5 | 3.3 | 0.0 | 64 | 68 | 33 | 29 | 49 | 1001.5 | 1001.9 | 1000.2 | 998.3 | 1000.5 |
| 21 | 6.5 | 3.9 | 15.9 | 11.6 | 9.5 | 16.4 | -0.1 | -4.3 | 40 | 60 | 25 | 63 | 47 | 997.4 | 997.4 | 995.6 | 995.0 | 996.4 |
| 22 | 9.8 | 10.3 | 18.1 | 13.5 | 12.9 | 19.0 | 9.3 | 8.3 | 97 | 98 | 57 | 77 | 82 | 994.7 | 996.2 | 997.9 | 999.7 | 997.1 |
| 23 | 9.2 | 8.9 | 17.5 | 13.9 | 12.4 | 19.9 | 5.9 | 1.9 | 100 | 100 | 39 | 63 | 76 | 1000.7 | 1001.4 | 1001.0 | 1000.3 | 1000.9 |
| 24 | 8.6 | 10.3 | 17.9 | 11.7 | 12.1 | 19.1 | 6.9 | 3.4 | 91 | 86 | 54 | 92 | 81 | 1000.2 | 999.9 | 1000.1 | 1000.3 | 1000.1 |
| 25 | 8.8 | 9.1 | 11.7 | 11.7 | 10.3 | 13.0 | 6.6 | 2.6 | 99 | 100 | 85 | 85 | 92 | 1001.1 | 1001.9 | 1002.5 | 1001.8 | 1001.8 |
| 26 | 10.4 | 10.7 | 14.3 | 13.6 | 12.3 | 15.1 | 9.9 | 8.8 | 89 | 89 | 76 | 90 | 86 | 1002.3 | 1001.6 | 1002.4 | 1001.8 | 1002.0 |
| 27 | 10.4 | 10.7 | 13.7 | 13.1 | 12.0 | 14.9 | 9.6 | 5.6 | 96 | 100 | 81 | 88 | 91 | 1001.3 | 1000.9 | 1001.2 | 1001.1 | 1001.1 |
| 28 | 12.0 | 11.5 | 13.0 | 11.9 | 12.1 | 14.5 | 11.3 | 11.2 | 92 | 94 | 84 | 82 | 88 | 1001.8 | 1002.7 | 1004.1 | 1003.3 | 1003.0 |
| 29 | 10.9 | 11.0 | 14.9 | 11.3 | 12.0 | 16.9 | 10.1 | 8.9 | 93 | 92 | 66 | 63 | 79 | 1001.8 | 1000.2 | 999.0 | 999.4 | 1000.1 |
| 30 | 3.7 | 6.5 | 15.6 | 14.3 | 10.0 | 18.5 | 2.1 | -1.5 | 97 | 93 | 41 | 61 | 73 | 1001.1 | 1001.1 | 999.9 | 997.8 | 1000.0 |

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] | | | | | | |
|----|---------|-----|-----|-----|-----|------|----|-----------------|----|----|----|--------|--------|---------|
| | 00 | 06 | 12 | 18 | Vm | Vmax | Vh | 00 | 06 | 12 | 18 | R [mm] | SD [h] | Ew [mm] |
| 1 | 1.4 | 0.0 | 4.2 | 1.2 | 1.7 | 7 | 11 | 4 | 0 | 6 | 3 | • | 11.5 | 2.2 |
| 2 | 1.3 | 0.0 | 1.8 | 1.8 | 1.2 | 6 | 13 | 5 | 0 | 5 | 1 | • | 4.9 | 1.3 |
| 3 | 0.6 | 1.5 | 1.1 | 1.1 | 1.1 | 4 | 12 | 31 | 23 | 5 | 32 | • | 11.6 | 2.0 |
| 4 | 0.0 | 0.6 | 1.2 | 0.0 | 0.5 | 5 | 15 | 0 | 13 | 16 | 0 | • | 11.5 | 1.9 |
| 5 | 1.5 | 2.4 | 3.8 | 0.0 | 1.9 | 8 | 14 | 28 | 31 | 29 | 0 | • | 12.0 | 1.8 |
| 6 | 1.3 | 2.4 | 2.4 | 2.0 | 2.0 | 7 | 9 | 22 | 18 | 21 | 20 | 1.9 | 0.5 | 1.5 |
| 7 | 3.0 | 3.2 | 3.2 | 3.9 | 3.3 | 9 | 0 | 24 | 24 | 25 | 28 | 0.0 | 3.1 | 1.8 |
| 8 | 3.7 | 3.3 | 3.2 | 2.3 | 3.1 | 7 | 14 | 26 | 25 | 26 | 27 | 0.0 | 1.6 | 0.8 |
| 9 | 1.7 | 1.1 | 3.5 | 2.7 | 2.3 | 6 | 11 | 27 | 26 | 25 | 25 | • | 2.1 | 1.2 |
| 10 | 0.9 | 0.0 | 5.1 | 0.0 | 1.5 | 7 | 12 | 21 | 0 | 26 | 0 | • | 0.9 | 1.2 |
| 11 | 0.0 | 2.8 | 3.1 | 2.2 | 2.0 | 9 | 16 | 0 | 28 | 25 | 26 | 2.0 | 0.0 | 0.8 |
| 12 | 2.9 | 1.9 | 4.7 | 1.5 | 2.8 | 7 | 13 | 24 | 21 | 20 | 17 | • | 1.3 | 1.4 |
| 13 | 1.6 | 1.1 | 2.2 | 0.0 | 1.2 | 6 | 17 | 18 | 16 | 19 | 0 | 1.2 | 1.0 | 1.1 |
| 14 | 2.5 | 3.0 | 5.2 | 2.5 | 3.3 | 6 | 13 | 23 | 15 | 19 | 16 | 0.0 | 5.2 | 2.2 |
| 15 | 1.7 | 1.0 | 3.2 | 2.8 | 2.2 | 7 | 21 | 11 | 12 | 14 | 28 | • | 4.2 | 1.8 |
| 16 | 2.0 | 1.7 | 1.4 | 1.0 | 1.5 | 4 | 11 | 28 | 1 | 6 | 30 | 15.4 | 0.1 | 0.1 |
| 17 | 1.7 | 3.8 | 4.3 | 4.0 | 3.5 | 9 | 16 | 22 | 25 | 24 | 23 | 13.6 | 0.0 | 0.3 |
| 18 | 5.0 | 2.0 | 5.2 | 3.0 | 3.8 | 9 | 10 | 22 | 17 | 24 | 23 | • | 6.2 | 1.5 |
| 19 | 2.5 | 3.0 | 3.0 | 1.0 | 2.4 | 7 | 9 | 23 | 26 | 27 | 29 | • | 7.6 | 1.6 |
| 20 | 1.7 | 2.8 | 6.7 | 2.8 | 3.5 | 10 | 16 | 26 | 26 | 25 | 28 | • | 11.1 | 2.5 |
| 21 | 1.7 | 1.4 | 4.7 | 1.6 | 2.4 | 9 | 17 | 22 | 14 | 16 | 15 | 3.6 | 7.7 | 2.3 |
| 22 | 2.2 | 1.8 | 2.6 | 3.0 | 2.4 | 6 | 17 | 14 | 15 | 16 | 15 | 1.0 | 3.7 | 1.2 |
| 23 | 0.0 | 0.0 | 1.2 | 0.0 | 0.3 | 6 | 13 | 0 | 0 | 17 | 0 | 0.0 | 4.8 | 1.2 |
| 24 | 0.0 | 0.9 | 3.3 | 1.0 | 1.3 | 14 | 12 | 0 | 6 | 2 | 32 | 1.0 | 1.2 | 0.8 |
| 25 | 1.1 | 0.0 | 2.9 | 1.2 | 1.3 | 5 | 12 | 32 | 0 | 5 | 6 | 2.6 | 0.2 | 0.4 |
| 26 | 0.7 | 1.4 | 2.7 | 1.2 | 1.5 | 5 | 11 | 2 | 3 | 6 | 29 | 1.5 | 1.7 | 0.7 |
| 27 | 0.7 | 0.6 | 1.8 | 1.3 | 1.1 | 4 | 11 | 26 | 30 | 2 | 24 | 1.3 | 0.1 | 0.5 |
| 28 | 1.2 | 2.0 | 2.7 | 3.3 | 2.3 | 6 | 12 | 24 | 27 | 24 | 25 | 3.3 | 0.0 | 0.5 |
| 29 | 3.0 | 2.9 | 2.8 | 1.3 | 2.5 | 8 | 15 | 25 | 24 | 28 | 31 | • | 6.4 | 1.3 |
| 30 | 0.0 | 1.5 | 2.3 | 1.4 | 1.3 | 6 | 12 | 0 | 9 | 19 | 17 | • | 13.2 | 2.1 |

Tabela 3. Liczba dni charakterystycznych w bieżącym miesiącu oraz średnia liczba dni charakterystycznych dla tego miesiąca w wieloleciu 1946-2011 oraz 1971-2000**Table 3. Number of days with threshold value in current month and monthly average number of days with threshold value in the 1946-2011 and 1971-2000 period**

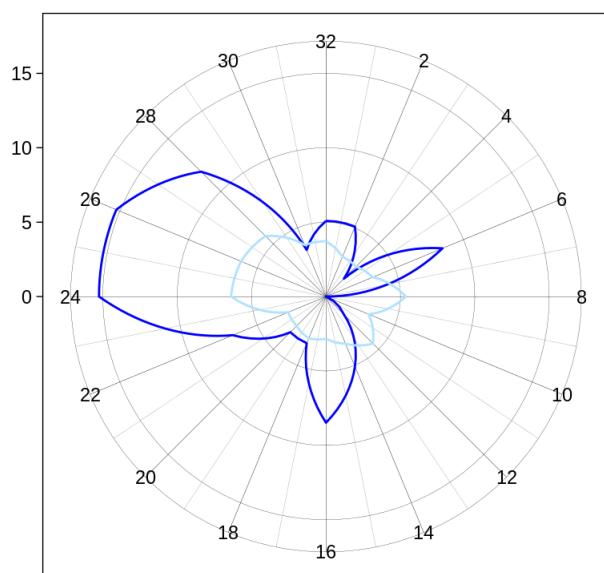
| Nazwa / Name | 1946-2011 | 1971-2000 | 1999-IV |
|---|-----------|-----------|---------|
| Przymrozkowe ($T_{min} < 0^{\circ}\text{C}$) | 5 | 5 | 1 |
| Mroźne ($T_{max} < 0^{\circ}\text{C}$) | 0 | 0 | 0 |
| Bardzo mroźne ($T_{min} < -10^{\circ}\text{C}$) | 0 | 0 | 0 |
| Ciepłe ($T_{max} > 20^{\circ}\text{C}$) | 5 | 4 | 1 |
| Gorące ($T_{max} > 25^{\circ}\text{C}$) | 1 | 1 | 0 |
| Upalne ($T_{max} > 30^{\circ}\text{C}$) | 0 | 0 | 0 |
| $R > 1 \text{ mm}$ | 7 | 7 | 10 |
| $R > 10 \text{ mm}$ | 1 | 1 | 2 |

Tabela 4. Wartości średnie i ekstrema miesięczne na tle charakterystyk miesięcznych dla wielolecia 1946-2011 i 1971-2000**Table 4. Average and extreme monthly values vs. average monthly characteristics for the 1946-2011 and 1971-2000 period**

| | Opis | Description | 1946-2011 | 1971-2000 | 1999-IV |
|------------|---------------------------|-----------------------------|---------------------|---------------------|---------------------|
| T [°C] | Średnia miesięczna | Monthly average | 8.7 | 8.4 | 10.1 |
| | Średnia maksymalna | Average maximum temperature | 14.6 | 14.1 | 15.6 |
| | Średnia minimalna | Average minimum temperature | 3.5 | 3.4 | 5.5 |
| | Maksymalna średnia dobowa | Maximum daily temperature | 19.7 (1993-04-25) | 19.7 (1993-04-25) | 13.3 (1999-04-07) |
| | Absolutne maksimum | Absolute maximum | 30.1 (1968-04-23) | 28.6 (2000-04-29) | 20.1 (1999-04-04) |
| | Minimalna średnia dobowa | Maximum daily temperature | -2.2 (1993-04-25) | -2.2 (1993-04-25) | 5.1 (1999-04-07) |
| P [hPa] | Absolutne minimum | Absolute minimum | -7.9 (1977-04-01) | -7.9 (1977-04-01) | -0.1 (1999-04-21) |
| | Średnia miesięczna | Monthly average | 999.7 | 998.7 | 998.8 |
| | Maksimum | Maximum | 1020.9 (1947-04-11) | 1019.1 (1997-04-08) | 1009.6 (1999-04-05) |
| V [m/s] | Minimum | Minimum | 973.6 (1962-04-05) | 977.8 (1992-04-01) | 983.3 (1999-04-13) |
| | Średnia miesięczna | Monthly average | 2.4 | 2.4 | 2.0 |
| | Średnie maksimum | Average maximum | 6.1 | 8.3 | 7.0 |
| R [mm] | Absolutne maksimum | Absolute maximum | 26.0 (1995-04-07) | 26.0 (1995-04-07) | 14.0 (1999-04-24) |
| | Suma miesięczna | Monthly sum | 23.2 | 23.2 | 34.8 |
| | Maksymalna suma dobowa | Maximum daily sum | 43.0 (2008-04-15) | 23.4 (1980-04-23) | 15.4 (1999-04-16) |

(a) Wind direction frequency [%]

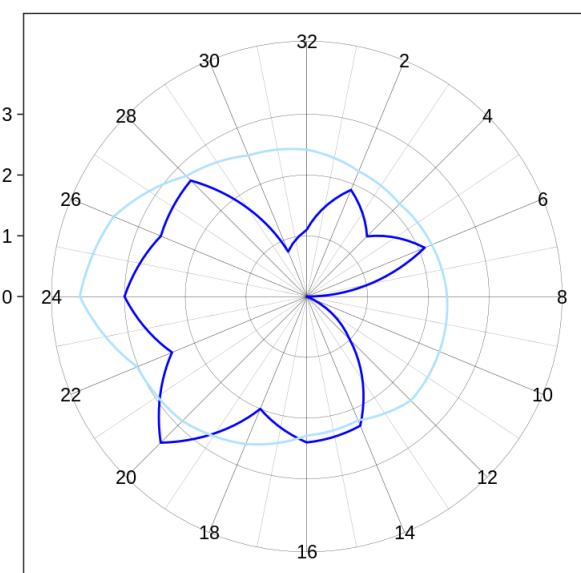
Calm: current NA % 1946-2011 9.6 %



— April 1946-2011 — April 1999

(b) Wind velocity [m/s]

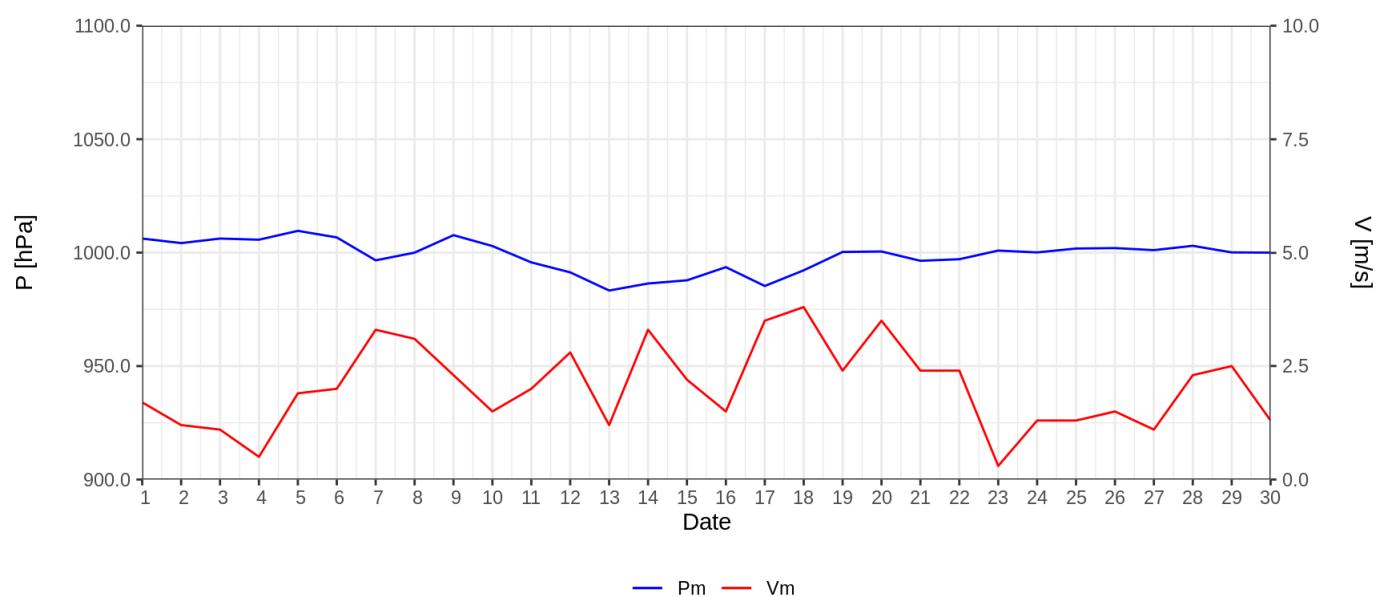
Calm: current NA % 1946-2011 9.6 %



— April 1946-2011 — April 1999

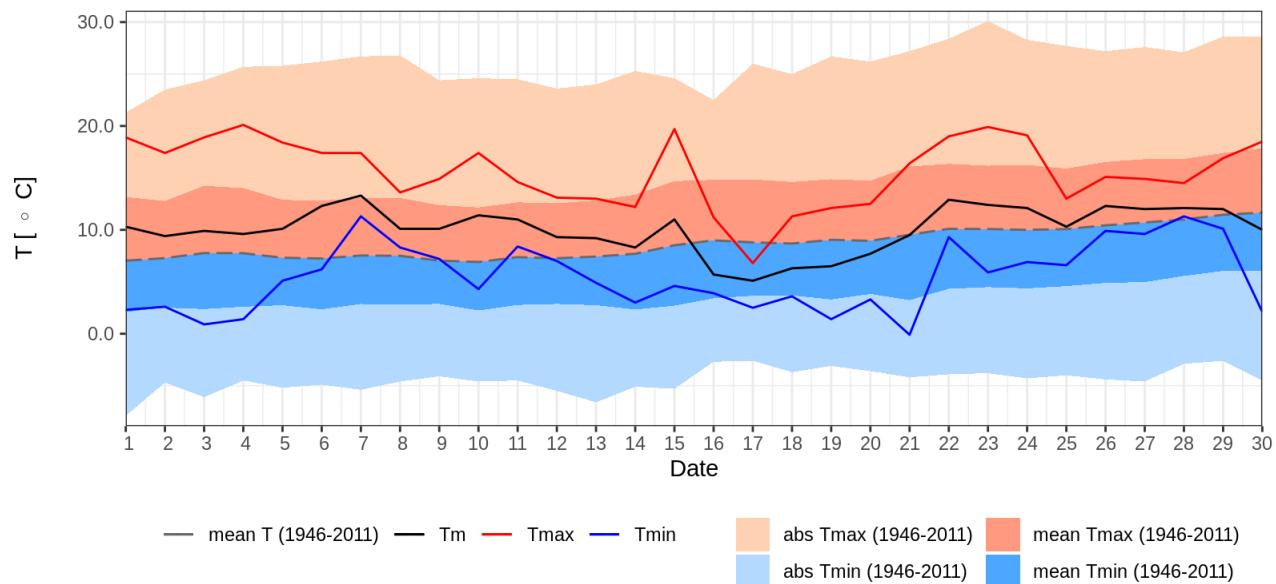
Ryc. 1. Częstość (a) i prędkość (b) wiatru w kierunkach

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

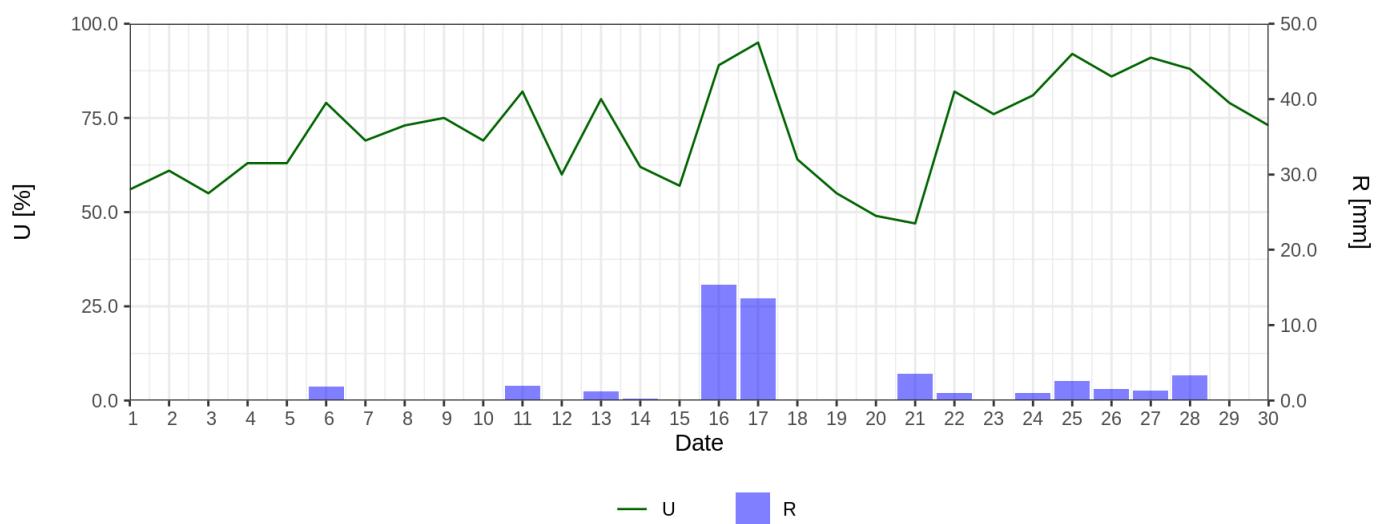


Ryc. 1. Średnie dobowe ciśnienie atmosferyczne

Fig. 1. Daily average air pressure



Ryc. 2. Średnia dobowa, minimalna i maksymalna temperatura powietrza dla miesiąca na tle danych z wielolecia 1946-2011
Fig. 2. Daily mean, maximum and minimum air temperature for given month and 1946-2011 period



Ryc. 3. Średnia dobowa wilgotność względna powietrza i dobowe sumy opadu atmosferycznego
Fig. 3. Mean daily relative humidity and daily sum of precipitation