

### III. ATMOSPHÄRISCHE ELEKTRIZITÄT

Die Ergebnisse der lufterlektrischen Registrierungen werden vom Jahre 1962 veröffentlicht.

Die Messung des lufterlektrischen Potentialgradienten wird folgenderweise durchgeführt: Die durch einen in 1 m Höhe über der Erdoberfläche angebrachten Kollektor vermittelten und auf die Anode einer Elektronenröhre gegebenen Spannungsänderungen steuern den Gitterstrom der Röhre. Diese Einrichtung ist mit einem Photoregistrierinstrument verbunden, in dem ein flüssigkeitsgedämpftes Galvanometer, mit entsprechender Empfindlichkeit den Änderungen folgt.

Die Messung des Spitzenstromes wird mit Hilfe einer, auf dem Dach der lufterlektrischen Station isoliert montierten Spitze und mit dieser verbundenem Registrierinstrument durchgeführt. (Ausführlich siehe in Bencze Pál—Márcz Ferenc: A csúcskisülési áramok vizsgálatáról. MTA. Műszaki Tudományok Osztályának Közleményei 32. Kötet 1—4 szám 137. oldal).

Tabelle I enthält die stündlichen Durchschnittswerte des lufterlektrischen Potentialgradienten. Die Werte sind in V/m angegeben. In den mit S gekennzeichneten Stunden hat der lufterlektrische Potentialgradient die Messgrenzen der Einrichtung dauernd oder mehrmals überschritten und es war deshalb nicht möglich den stündlichen Durchschnittswert zu bestimmen. Die Richtung des Ausschlages zeigen die Vorzeichen von S.

Tabelle II enthält die stündlichen Mittelwerte der durch den Spitzenstrom transportierten Ladungen in den einzelnen Monaten. Die Werte sind mit ihren Vorzeichen in  $10^{-6}$  Asec/Stunde angegeben.

Die Zeitangaben sind überall mitteleuropäische Zeiten.

Die Tabellen wurden von Ferenc Márcz zusammengestellt.

I. *Die stündlichen Durchschnittswerte  
des luftelektrischen Potentialgradienten*

|                    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Januar             |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1.                 | +S   | +S   | +S   | 240  | 220  | 200  | 180  | 210  | 230  | +S   | +S   | +S   | +S   |
| 2.                 | 220  | 220  | 210  | 130  | -10  | 70   | +S   | +S   | +S   | 200  | +S   | +S   | +S   |
| 3.                 | 150  | 150  | 160  | 160  | 160  | 160  | 180  | 160  | 20   | 90   | 80   | +S   | +S   |
| 4.                 | 90   | 110  | 90   | +S   | 150  | 120  | 150  | 180  | +S   | +S   | +S   | +S   | +S   |
| 5.                 | 40   | 30   | 20   | 20   | 80   | 100  | 120  | 140  | 160  | —    | 210  | 250  | 230  |
| 6.                 | -90  | -20  | -80  | -30  | 40   | 80   | 90   | 110  | 120  | —    | 130  | 120  | 90   |
| 7.                 | 20   | -10  | 0    | -20  | -70  | -30  | 30   | 120  | 160  | 170  | 210  | 240  | 270  |
| 8.                 | 70   | 80   | 80   | 20   | -10  | -110 | 50   | 30   | ±S   | ±S   | +S   | 250  | -60  |
| 9.                 | +S   | +S   | +S   | +S   | +S   | +S   | 120  | +S   | +S   | +S   | +S   | +S   | +S   |
| 10.                | 100  | 80   | 60   | 70   | 50   | -60  | -10  | 70   | 80   | 150  | 160  | 40   | 90   |
| 11.                | 100  | 100  | 120  | 80   | 70   | 60   | 90   | 120  | 120  | —    | —    | 10   | 30   |
| 12.                | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| 13.                | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | -130 | -110 | -140 |
| 14.                | -130 | -70  | -80  | -80  | -80  | -100 | -80  | -130 | -70  | -100 | —    | -130 | -90  |
| 15.                | 170  | 170  | 200  | 190  | 180  | 180  | 220  | 210  | 130  | +S   | +S   | 230  | 190  |
| 16.                | -160 | -200 | -110 | ±S   | ±S   | ±S   | -S   | 150  | 130  | 180  | 180  | 170  | +S   |
| 17.                | -40  | -30  | -120 | -90  | -10  | -150 | -180 | -190 | -210 | -230 | -160 | -190 | -120 |
| 18.                | —    | —    | —    | —    | —    | —    | —    | —    | 100  | —    | 80   | 90   | 110  |
| 19.                | 80   | 40   | -20  | -190 | -130 | -40  | -80  | -110 | -70  | -30  | 20   | 60   | 100  |
| 20.                | 80   | 70   | 50   | 40   | 40   | 50   | 40   | 50   | 60   | 80   | 80   | 80   | 100  |
| 21.                | 70   | 70   | 50   | 50   | 60   | 20   | 40   | -10  | 0    | 90   | 160  | 180  | 130  |
| 22.                | 70   | 70   | 60   | 50   | 50   | 50   | 70   | 80   | 90   | 110  | 130  | 50   | 80   |
| 23.                | 160  | 130  | 190  | 210  | 210  | +S   | +S   | 210  | 220  | 190  | 160  | 160  | 160  |
| 24.                | 110  | 110  | 110  | 120  | 130  | 130  | 130  | 140  | 150  | 170  | 170  | 180  | 200  |
| 25.                | 150  | 140  | 140  | 140  | 120  | 110  | 140  | 160  | 140  | 150  | 170  | —    | 180  |
| 26.                | 120  | 80   | 90   | 140  | 150  | 150  | 150  | 160  | —    | 70   | -70  | -180 | -20  |
| 27.                | -80  | -80  | -10  | -30  | -10  | -20  | -40  | -20  | -90  | ±S   | +S   | ±S   | -10  |
| 28.                | -180 | -200 | -210 | -200 | -110 | 20   | -40  | -110 | -140 | -220 | -220 | -220 | -250 |
| 29.                | -110 | -170 | -180 | -150 | -190 | -290 | -300 | -180 | -120 | -140 | -30  | -30  | -20  |
| 30.                | -60  | -80  | -40  | -70  | 10   | 160  | 230  | 200  | +S   | 180  | 150  | 200  | +S   |
| 31.                | +S   | +S   | 250  | 210  | +S   | +S   | +S   | +S   | +S   | 180  | 230  | +S   | +S   |
| Mittel             | 38   | 31   | 40   | 40   | 44   | 36   | 54   | 70   | 55   | 68   | 81   | 66   | 57   |
| Anzahl<br>der Tage | 25   | 25   | 26   | 25   | 25   | 24   | 24   | 25   | 22   | 19   | 21   | 22   | 22   |

| 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | Mittel | Anzahl der<br>Stunden |
|------|------|------|------|------|------|------|------|------|------|------|--------|-----------------------|
| +S   | 220  | 190  | +S   | +S   | +S   | +S   | +S   | +S   | +S   | 220  | 212    | 9                     |
| +S   | 150  | +S   | -180 | +S   | +S   | +S   | +S   | +S   | +S   | +S   | 112    | 9                     |
| +S   | +S   | 210  | 200  | 70   | +S   | +S   | +S   | +S   | +S   | +S   | 138    | 14                    |
| +S   | 180  | +S   | +S   | 150  | 60   | 130  | 80   | 60   | 40   | 50   | 109    | 15                    |
| 170  | +S   | +S   | 190  | 140  | 210  | 240  | 150  | 80   | 50   | -180 | 117    | 21                    |
| 130  | 110  | 130  | 160  | 180  | 180  | 160  | 120  | 60   | 110  | 50   | 85     | 23                    |
| 200  | 120  | 100  | 20   | 50   | 40   | 60   | 30   | 40   | -10  | 30   | 76     | 24                    |
| 150  | 230  | 190  | +S   | +S   | +S   | +S   | +S   | +S   | +S   | +S   | 75     | 13                    |
| -S   | -S   | +S   | 200  | 90   | 90   | 70   | 90   | 90   | 80   | 90   | 102    | 9                     |
| —    | —    | 70   | 60   | 20   | 20   | 40   | 50   | 100  | 110  | 100  | 66     | 22                    |
| -30  | 60   | 50   | 30   | -60  | -30  | 20   | 70   | 50   | 40   | —    | 52     | 21                    |
| —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —      | —                     |
| -70  | -30  | +S   | +S   | +S   | -30  | -30  | -20  | -10  | -30  | +S   | -60    | 10                    |
| -30  | -60  | -80  | 40   | +S   | +S   | +S   | +S   | +S   | 170  | 180  | -51    | 18                    |
| 220  | 180  | 170  | 180  | 90   | -30  | 0    | -200 | -110 | -120 | -160 | 104    | 22                    |
| +S   | 180  | +S   | +S   | +S   | +S   | 210  | +S   | 110  | 60   | 10   | 70     | 13                    |
| -140 | -140 | -90  | -120 | -150 | -260 | -160 | -190 | -180 | -160 | —    | -144   | 23                    |
| 120  | 100  | 120  | 170  | 120  | 110  | 100  | 110  | 120  | 80   | 90   | 108    | 15                    |
| 150  | 140  | 100  | 120  | 60   | 160  | 210  | 130  | 170  | 30   | -10  | 39     | 24                    |
| 110  | 130  | 130  | 110  | 120  | 140  | 140  | 100  | 150  | 70   | 40   | 86     | 24                    |
| 130  | 130  | 120  | 110  | 130  | 160  | 110  | 160  | 210  | 200  | 80   | 102    | 24                    |
| 110  | 130  | 80   | 50   | 0    | 70   | 50   | 140  | 140  | 140  | 150  | 84     | 24                    |
| 160  | 210  | 220  | 220  | 190  | 150  | 160  | 160  | 140  | 140  | 130  | 176    | 22                    |
| 190  | 190  | 190  | 190  | 190  | 180  | 180  | 180  | 200  | 190  | 170  | 163    | 24                    |
| 170  | 150  | 100  | 120  | 120  | 150  | 150  | 170  | 160  | 90   | 80   | 138    | 23                    |
| -60  | -40  | -20  | 10   | 10   | -40  | -140 | -140 | -140 | -70  | -90  | 5      | 23                    |
| -110 | -100 | -110 | -110 | -140 | -150 | -100 | -90  | -130 | -190 | -150 | -84    | 21                    |
| -280 | -190 | -160 | -210 | -260 | -90  | -100 | -210 | -220 | -190 | -140 | -172   | 24                    |
| 0    | -40  | -100 | -10  | 60   | 70   | 80   | 120  | 70   | -20  | -100 | -74    | 24                    |
| 170  | 210  | 200  | 190  | 170  | 210  | +S   | +S   | +S   | +S   | +S   | 119    | 17                    |
| +S   | +S   | 150  | 140  | 180  | +S   | +S   | +S   | +S   | +S   | +S   | 191    | 7                     |
| 71   | 88   | 82   | 75   | 64   | 60   | 69   | 46   | 50   | 34   | 29   | 56     |                       |
| 22   | 25   | 24   | 25   | 24   | 23   | 23   | 22   | 23   | 24   | 22   |        |                       |

|                    | 0   | 1   | 2    | 3   | 4    | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
|--------------------|-----|-----|------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|
| Februar            |     |     |      |     |      |     |     |     |     |     |     |     |     |
| 1.                 | +S  | +S  | 110  | 80  | 80   | 80  | 80  | 70  | 60  | 100 | —   | —   | 150 |
| 2.                 | 130 | 50  | —110 | 120 | 170  | 200 | 200 | 190 | 140 | 140 | 130 | 160 | +S  |
| 3.                 | —   | —   | —    | —   | —    | —   | —   | —   | —   | —   | —   | —   | —   |
| 4.                 | —   | —   | —    | —   | —    | —   | —   | —   | —   | —   | —   | —   | —   |
| 5.                 | 90  | 110 | 100  | 90  | 80   | 70  | 80  | 80  | 120 | 130 | —   | +S  | +S  |
| 6.                 | 230 | +S  | +S   | 200 | 170  | 200 | 180 | 200 | 210 | 200 | 210 | 220 | 250 |
| 7.                 | 150 | +S  | +S   | 100 | +S   | 160 | 100 | 80  | —   | 170 | 90  | 80  | 160 |
| 8.                 | 10  | 40  | —10  | 0   | +S   | +S  | +S  | +S  | +S  | —   | 170 | 150 | 150 |
| 9.                 | 90  | 120 | 130  | 100 | 130  | 100 | 120 | 150 | 210 | 190 | 200 | 220 | +S  |
| 10.                | 180 | 200 | 160  | 140 | 130  | 140 | 120 | 120 | 170 | 200 | 210 | 200 | 190 |
| 11.                | 60  | 40  | 30   | 30  | 20   | 50  | 80  | 40  | 20  | 90  | 130 | 140 | 150 |
| 12.                | 110 | 90  | 80   | 70  | 70   | 80  | 90  | 90  | —   | —   | —   | —   | —   |
| 13.                | 80  | 70  | 70   | 60  | 70   | 80  | 70  | 80  | 120 | 140 | 170 | 180 | 130 |
| 14.                | 120 | 140 | 140  | 150 | 130  | 110 | 100 | 120 | +S  | 180 | 180 | 150 | 160 |
| 15.                | 60  | 50  | 40   | 40  | 30   | 40  | 20  | 50  | —   | —   | —   | —   | —   |
| 16.                | 110 | 90  | 100  | 110 | 120  | 150 | 200 | 140 | 130 | 120 | 110 | 70  | 80  |
| 17.                | 40  | 80  | 90   | 120 | 140  | 140 | 140 | 160 | —   | —   | —   | —   | —   |
| 18.                | 70  | 30  | 0    | 10  | —110 | —S  | 140 | 160 | +S  | +S  | +S  | +S  | +S  |
| 19.                | +S  | +S  | 110  | +S  | 210  | +S  | +S  | +S  | +S  | +S  | +S  | +S  | +S  |
| 20.                | 130 | +S  | +S   | 190 | 220  | +S  | 220 | 140 | 220 | 160 | 150 | 150 | 150 |
| 21.                | 100 | 100 | 70   | +S  | +S   | 170 | 100 | 110 | 130 | 110 | 80  | 110 | 140 |
| 22.                | 50  | 80  | 70   | 100 | 80   | 80  | 110 | 130 | 70  | —   | 130 | 190 | 180 |
| 23.                | 110 | 60  | 50   | 60  | 40   | 40  | 40  | 50  | 60  | 90  | 110 | 120 | 120 |
| 24.                | 90  | 100 | 100  | 70  | 60   | 80  | 30  | —20 | 30  | 60  | 90  | 90  | 120 |
| 25.                | 30  | 80  | 40   | 130 | 130  | 70  | 70  | 90  | 80  | 90  | 120 | 140 | 140 |
| 26.                | 100 | 140 | 140  | 160 | 120  | 120 | 90  | 10  | 90  | 190 | 200 | 180 | 190 |
| 27.                | 70  | 50  | 40   | 40  | 40   | 20  | 30  | 50  | 90  | 140 | 120 | 140 | 210 |
| 28.                | 100 | 110 | 120  | 90  | 80   | 80  | 100 | 90  | 160 | 200 | 200 | 200 | 150 |
| Mittel             | 96  | 87  | 73   | 92  | 96   | 103 | 105 | 99  | 117 | 142 | 147 | 152 | 158 |
| Anzahl<br>der Tage | 24  | 21  | 23   | 24  | 23   | 22  | 24  | 24  | 18  | 19  | 19  | 19  | 18  |



| 13   | 14   | 15   | 16      | 17      | 18      | 19      | 20    | 21     | 22      | 23    | Mittel | Anzahl der<br>Stunden |
|------|------|------|---------|---------|---------|---------|-------|--------|---------|-------|--------|-----------------------|
| 140  | 160  | 170  | 140     | 140     | 140     | 110     | 70    | 110    | 100     | 170   | 113    | 20                    |
| 100  | 180  | 190  | 170     | 80      | $\pm S$ | $\pm S$ | $-S$  | —      | —       | —     | 132    | 17                    |
| —    | —    | —    | —       | —       | —       | —       | —     | —      | —       | —     | —      | —                     |
| —    | 170  | 150  | 160     | 120     | 170     | 190     | 210   | 150    | 110     | 130   | 156    | 10                    |
| 130  | $+S$ | 80   | 70      | 60      | 20      | 20      | 80    | $+S$   | $+S$    | $+S$  | 83     | 17                    |
| $+S$ | $+S$ | 220  | 190     | 150     | 170     | 220     | $+S$  | 210    | $+S$    | 190   | 201    | 18                    |
| 190  | 110  | 120  | 140     | 80      | 30      | 80      | 150   | 110    | $-40$   | $-20$ | 103    | 20                    |
| 180  | 170  | 170  | 170     | 160     | 180     | 170     | 150   | 140    | 120     | 40    | 120    | 18                    |
| 200  | 170  | 210  | 220     | 210     | 210     | 170     | 220   | 210    | 170     | 150   | 170    | 23                    |
| 200  | 220  | 170  | 180     | 200     | 200     | 200     | 150   | 80     | 90      | 10    | 162    | 24                    |
| 200  | 170  | 170  | 150     | 160     | 180     | 200     | 210   | 180    | 170     | 160   | 118    | 24                    |
| —    | 170  | 180  | 160     | 140     | 130     | 140     | $+S$  | $+S$   | 190     | 110   | 119    | 16                    |
| 150  | 140  | 130  | 150     | 180     | 190     | 210     | 180   | 150    | 120     | 110   | 125    | 24                    |
| 140  | 100  | 90   | 90      | 80      | 60      | 50      | 0     | $-40$  | 90      | 70    | 105    | 23                    |
| —    | —    | 120  | 140     | 90      | 110     | 150     | 180   | 180    | 170     | 140   | 95     | 17                    |
| 120  | 160  | 100  | 130     | 110     | 70      | 160     | 160   | 130    | 120     | 60    | 116    | 24                    |
| 40   | 140  | 60   | 50      | 70      | 140     | $-30$   | 20    | 150    | 120     | 120   | 94     | 19                    |
| 100  | 70   | 10   | 160     | 80      | 30      | 100     | $+S$  | $+S$   | $+S$    | $+S$  | 61     | 14                    |
| $+S$ | 240  | $+S$ | 210     | 60      | 30      | 60      | $-40$ | $-110$ | $-10$   | 110   | 79     | 11                    |
| 160  | 130  | 150  | 170     | 180     | 170     | 190     | 240   | 190    | 190     | 140   | 173    | 21                    |
| 150  | 200  | 240  | 200     | 160     | 130     | 160     | 140   | 140    | 100     | 80    | 133    | 22                    |
| 190  | 150  | 30   | 160     | 190     | 130     | 60      | 60    | 110    | 120     | 120   | 113    | 23                    |
| 150  | 140  | 160  | 160     | 180     | 140     | 160     | 210   | 200    | 130     | 100   | 111    | 24                    |
| 140  | 140  | 150  | 150     | 160     | 180     | 180     | 190   | 100    | 20      | $-30$ | 95     | 24                    |
| 100  | 140  | 230  | 240     | 250     | 240     | 230     | 170   | $-S$   | $\pm S$ | 110   | 133    | 22                    |
| 180  | 240  | 220  | 180     | 140     | 140     | 130     | 100   | 90     | 90      | 90    | 136    | 24                    |
| $+S$ | 130  | $+S$ | $\pm S$ | $\pm S$ | 10      | 50      | $-60$ | $-10$  | 60      | 70    | 65     | 20                    |
| 160  | 160  | 160  | 160     | 140     | 60      | 40      | 80    | 100    | 130     | 130   | 125    | 24                    |
| 147  | 156  | 147  | 158     | 137     | 125     | 131     | 125   | 117    | 107     | 98    | 121    |                       |
| 21   | 24   | 25   | 26      | 26      | 26      | 26      | 23    | 22     | 22      | 24    |        |                       |

|                    | 0   | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12  |
|--------------------|-----|------|------|------|------|------|------|------|------|------|------|------|-----|
| März               |     |      |      |      |      |      |      |      |      |      |      |      |     |
| 1.                 | 120 | 100  | 120  | 100  | 70   | 100  | 100  | 120  | —    | —    | —    | —    | 180 |
| 2.                 | —80 | —80  | —170 | —210 | —230 | —250 | —210 | —220 | —180 | —110 | —150 | —120 | —   |
| 3.                 | —70 | —S   | —170 | ±S   | —70  | ±S   | ±S   | ±S   | ±S   | —    | —    | —    | 30  |
| 4.                 | 60  | 70   | 50   | 50   | 40   | 40   | 30   | 30   | 30   | 40   | 60   | —    | 10  |
| 5.                 | 90  | 90   | 40   | 70   | 90   | 100  | 110  | 190  | 220  | +S   | +S   | 230  | 190 |
| 6.                 | +S  | —20  | —30  | ±S   | —60  | 40   | 40   | 80   | 90   | 60   | 90   | 140  | 170 |
| 7.                 | 150 | 110  | 100  | 90   | 60   | 100  | 110  | 130  | 120  | 140  | 170  | 160  | 150 |
| 8.                 | 60  | 60   | 60   | 60   | 50   | 40   | 40   | 60   | —    | —    | —    | —    | —   |
| 9.                 | 90  | 100  | 90   | 110  | 100  | 100  | 140  | 170  | 160  | 180  | 160  | 140  | 150 |
| 10.                | 40  | 50   | 70   | 60   | 50   | 60   | 100  | 90   | 100  | 150  | 160  | 160  | 140 |
| 11.                | 100 | 80   | 60   | 80   | 80   | 60   | 30   | —20  | 40   | 90   | 120  | 120  | 130 |
| 12.                | 0   | —30  | —20  | —50  | —20  | 40   | 50   | 0    | 10   | 60   | 110  | 120  | 140 |
| 13.                | 90  | 70   | 80   | 70   | 80   | 110  | 110  | 90   | 100  | 120  | 100  | 130  | 130 |
| 14.                | 130 | 130  | 140  | 140  | 110  | 120  | 100  | 80   | 50   | 90   | 80   | 140  | 170 |
| 15.                | 100 | 120  | 140  | 170  | 190  | 90   | 70   | 20   | 40   | —    | 90   | 150  | 160 |
| 16.                | 140 | 110  | 10   | +S   | +S   | +S   | +S   | +S   | +S   | 170  | 150  | 140  | 140 |
| 17.                | 40  | 60   | 60   | 60   | 70   | 80   | 100  | 110  | 130  | 130  | 140  | 160  | 170 |
| 18.                | 70  | 60   | 60   | 60   | 70   | 60   | 80   | 100  | 120  | 140  | 150  | 150  | 150 |
| 19.                | 60  | 80   | 50   | 90   | 120  | 90   | 110  | 170  | +S   | +S   | 220  | 180  | 190 |
| 20.                | 130 | 120  | 110  | 100  | 110  | 130  | 110  | 110  | 110  | 110  | 110  | 140  | 150 |
| 21.                | 50  | 40   | 20   | 40   | 10   | 10   | 40   | 70   | 90   | 90   | 100  | 130  | 130 |
| 22.                | 140 | 110  | 90   | 100  | 80   | 90   | 90   | 130  | —20  | —80  | —    | +S   | 120 |
| 23.                | 120 | 100  | 80   | 90   | 60   | 40   | 80   | 130  | 80   | 110  | —    | 110  | 120 |
| 24.                | —90 | —200 | —S   | —200 | —110 | —50  | 10   | 0    | —30  | 20   | 40   | 90   | 120 |
| 25.                | 60  | 50   | 50   | 60   | 60   | 50   | 60   | 70   | 80   | 80   | 80   | 80   | 80  |
| 26.                | 70  | 60   | 70   | 50   | 40   | 50   | 50   | —    | 100  | 100  | 60   | 70   | 50  |
| 27.                | 30  | 50   | 50   | 50   | 40   | 40   | —70  | —50  | 0    | 60   | —    | 170  | 140 |
| 28.                | 80  | 50   | 50   | 50   | 50   | 70   | 60   | 90   | 140  | 150  | 130  | 110  | 120 |
| 29.                | 30  | 0    | —20  | —10  | 10   | 10   | —30  | 20   | 50   | —    | 80   | 120  | 100 |
| 30.                | —   | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —   |
| 31.                | —   | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —   |
| Mittel             | 64  | 55   | 44   | 49   | 42   | 53   | 56   | 68   | 68   | 86   | 102  | 126  | 131 |
| Anzahl<br>der Tage | 28  | 28   | 28   | 26   | 28   | 27   | 27   | 26   | 24   | 22   | 22   | 24   | 27  |

| 13  | 14      | 15      | 16      | 17      | 18      | 19   | 20      | 21   | 22   | 23      | Mittel | Anzahl der<br>Stunden |
|-----|---------|---------|---------|---------|---------|------|---------|------|------|---------|--------|-----------------------|
| 180 | —       | 20      | —20     | —20     | —110    | —210 | —170    | —100 | —190 | —90     | 16     | 19                    |
| —   | 40      | —70     | —180    | —280    | —280    | —230 | —130    | —230 | —80  | —10     | —157   | 22                    |
| 50  | 10      | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | 90   | 80      | 50   | 80   | 70      | 14     | 11                    |
| 0   | 10      | 10      | 0       | —30     | 20      | 60   | 20      | 20   | —30  | 90      | 30     | 23                    |
| 210 | 190     | 150     | 40      | 20      | $\pm S$ | 50   | —30     | —60  | —100 | —60     | 87     | 21                    |
| 200 | 200     | 180     | 190     | 190     | 180     | 220  | 220     | 200  | 170  | 160     | 123    | 22                    |
| 150 | 170     | 130     | 100     | 70      | 60      | 30   | 30      | 40   | 50   | 60      | 104    | 24                    |
| 130 | 140     | 160     | 160     | 150     | 140     | 130  | 120     | 120  | 120  | 110     | 101    | 19                    |
| 150 | 140     | 130     | 110     | 90      | 60      | 60   | 70      | 60   | 50   | 40      | 110    | 24                    |
| 180 | 180     | 220     | 230     | 230     | 230     | 170  | 170     | 190  | 140  | 120     | 137    | 24                    |
| 150 | —       | 140     | 130     | 100     | 50      | 70   | 60      | 40   | 50   | 40      | 78     | 23                    |
| 140 | 140     | 140     | 120     | 140     | 90      | 140  | 130     | 100  | 100  | 100     | 73     | 24                    |
| 120 | 100     | 110     | 120     | 110     | 110     | 90   | 120     | 150  | 190  | 130     | 110    | 24                    |
| 180 | 210     | 190     | 190     | 170     | 160     | 150  | 100     | 120  | 80   | 80      | 130    | 24                    |
| 180 | 170     | 160     | 150     | 130     | 130     | 120  | 150     | 100  | 100  | 100     | 124    | 23                    |
| 150 | 150     | 150     | 150     | 120     | 120     | 90   | 120     | 100  | 80   | 40      | 118    | 18                    |
| 180 | 190     | 140     | 80      | 50      | 70      | 120  | 70      | 60   | 80   | 80      | 101    | 24                    |
| 160 | 150     | 120     | 110     | 90      | 80      | 100  | 100     | 90   | 110  | 70      | 102    | 24                    |
| 190 | 160     | 160     | 150     | 130     | 130     | 130  | 130     | 110  | 110  | 120     | 131    | 22                    |
| 130 | 150     | 170     | 180     | 160     | 130     | 120  | 110     | 80   | 70   | 50      | 120    | 24                    |
| 100 | 90      | 80      | 70      | 90      | 70      | —20  | $\pm S$ | 80   | 170  | 150     | 73     | 23                    |
| 70  | 80      | 140     | 150     | 160     | 150     | 130  | 160     | 150  | 160  | 170     | 108    | 22                    |
| 140 | 80      | 70      | 80      | 50      | —10     | 40   | —20     | —20  | —40  | —50     | 63     | 23                    |
| 140 | 140     | 130     | $\pm S$ | 190     | 140     | 180  | 160     | 140  | 160  | 110     | 50     | 22                    |
| 100 | 80      | 50      | 50      | 70      | $\pm S$ | 10   | 80      | 70   | 70   | 70      | 66     | 23                    |
| —80 | 50      | 50      | 60      | 60      | 90      | 80   | 60      | 80   | 30   | $\pm S$ | 57     | 22                    |
| 70  | $\pm S$ | 90      | $\pm S$ | $\pm S$ | 100     | 90   | 80      | 60   | 60   | 80      | 57     | 20                    |
| 110 | 90      | 100     | 60      | 80      | 70      | 50   | 70      | 20   | 40   | 40      | 78     | 24                    |
| 80  | 100     | 130     | 130     | 90      | —       | —    | —       | —    | —    | —       | 52     | 17                    |
| —   | —       | —       | —       | —       | —       | —    | —       | —    | —    | —       | —      | —                     |
| —   | —       | —       | —       | —       | —       | —    | —       | —    | —    | —       | —      | —                     |
| 127 | 123     | 116     | 100     | 89      | 79      | 74   | 76      | 65   | 65   | 69      | 80     |                       |
| 28  | 26      | 28      | 26      | 27      | 25      | 28   | 27      | 28   | 28   | 27      |        |                       |



|                    | 0    | 1    | 2    | 3    | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
|--------------------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| April              |      |      |      |      |     |     |     |     |     |     |     |     |     |
| 1.                 | —    | —    | —    | —    | —   | 10  | 40  | 70  | 60  | 40  | 20  | 0   | 0   |
| 2.                 | 70   | 80   | 90   | 90   | 100 | 70  | 80  | 100 | 110 | 100 | 120 | 130 | 140 |
| 3.                 | 60   | 70   | 60   | 60   | 50  | 70  | 60  | 80  | 110 | 140 | 130 | 130 | 120 |
| 4.                 | 50   | 50   | 50   | 50   | 50  | 40  | 30  | 50  | 80  | 100 | 70  | 80  | 60  |
| 5.                 | 10   | 20   | 10   | 30   | 30  | 30  | 50  | 60  | 60  | —   | —   | 130 | 140 |
| 6.                 | 60   | 70   | 50   | 50   | 40  | 40  | 70  | 70  | 50  | 50  | 60  | 60  | 70  |
| 7.                 | 40   | 40   | 50   | 40   | 40  | 50  | 60  | 80  | 110 | 100 | 90  | 80  | 80  |
| 8.                 | 60   | 50   | 50   | 40   | 50  | 90  | 90  | 90  | 120 | 160 | 170 | 160 | 130 |
| 9.                 | 90   | 60   | 40   | 30   | 30  | 30  | 10  | —30 | —30 | —60 | —10 | 10  | 0   |
| 10.                | —10  | —20  | —40  | —30  | —20 | 0   | —10 | 0   | 0   | —10 | 0   | 0   | 0   |
| 11.                | 70   | 60   | 50   | 50   | 50  | 70  | 60  | 70  | 90  | 90  | 80  | 100 | 100 |
| 12.                | 60   | 50   | 40   | 50   | 50  | 70  | 50  | 110 | 100 | 50  | +S  | 130 | —20 |
| 13.                | 20   | 50   | 50   | 50   | 50  | 50  | 60  | 110 | 190 | 170 | 140 | 140 | 130 |
| 14.                | 40   | 70   | 60   | 70   | 60  | 80  | 80  | 120 | 140 | 90  | 80  | 100 | 90  |
| 15.                | 40   | 50   | 60   | 70   | 60  | 80  | 80  | 120 | 150 | 150 | 130 | 140 | 140 |
| 16.                | 60   | 60   | 60   | 60   | 60  | 40  | —20 | —10 | 0   | 20  | 20  | 50  | 40  |
| 17.                | —60  | —70  | —70  | —50  | +S  | —10 | 80  | 140 | 160 | 140 | 140 | 90  | 80  |
| 18.                | —    | —    | —    | —    | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 19.                | —230 | —250 | —170 | —140 | 0   | —30 | —10 | 30  | 70  | 90  | 100 | 90  | 30  |
| 20.                | —    | —    | —    | —    | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 21.                | —    | —    | —    | —    | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 22.                | —    | —    | —    | —    | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 23.                | —    | —    | —    | —    | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 24.                | —    | —    | —    | —    | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 25.                | —    | —    | —    | —    | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 26.                | —    | —    | —    | —    | —   | —   | —   | —   | —   | —   | —   | —   | 190 |
| 27.                | 60   | 60   | 80   | 70   | 60  | 50  | 90  | 70  | +S  | 90  | 90  | 90  | 90  |
| 28.                | +S   | +S   | 120  | 60   | —S  | S+  | S+  | S+  | +S  | 50  | 100 | 60  | 100 |
| 29.                | 50   | 10   | —10  | +S   | —60 | —S  | +S  | +S  | +S  | 80  | 50  | 100 | 130 |
| 30.                | 70   | 60   | 60   | 60   | 60  | 70  | 80  | 90  | 80  | 60  | 60  | 50  | 50  |
| Mittel             | 31   | 29   | 33   | 36   | 40  | 45  | 52  | 71  | 87  | 81  | 82  | 87  | 82  |
| Anzahl<br>der Tage | 20   | 20   | 21   | 20   | 19  | 20  | 20  | 20  | 19  | 21  | 20  | 22  | 23  |

| 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  | 22  | 23   | Mittel | Anzahl der<br>Stunden |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------|-----------------------|
| 10  | 90  | 100 | 110 | 130 | 130 | 130 | 230 | 160 | 90  | 80   | 79     | 19                    |
| 140 | 130 | 100 | 90  | 120 | 110 | 90  | 60  | 60  | 50  | 50   | 95     | 24                    |
| 140 | 130 | 110 | 100 | 70  | 80  | 70  | 60  | 70  | 80  | 60   | 88     | 24                    |
| 60  | 80  | 80  | 90  | 70  | 80  | 60  | 60  | 70  | 90  | 20   | 56     | 24                    |
| 130 | 140 | 140 | 140 | 120 | 100 | 80  | 80  | 90  | 90  | 70   | 80     | 22                    |
| 60  | 70  | 50  | 50  | 40  | 40  | 50  | 60  | 50  | 30  | —10  | 51     | 24                    |
| 50  | —   | +S  | 70  | 50  | 90  | 80  | 70  | 80  | 60  | 60   | 67     | 22                    |
| 120 | 110 | 110 | 80  | 110 | 110 | 100 | 110 | 90  | 40  | 30   | 97     | 24                    |
| —40 | —30 | —20 | —20 | 0   | 0   | —10 | —20 | —10 | —10 | —10  | 0      | 24                    |
| 0   | 10  | 20  | 20  | 10  | 10  | 10  | 30  | 40  | 50  | 100  | 7      | 24                    |
| 80  | 110 | 100 | 70  | 50  | 50  | 50  | 60  | 60  | 70  | 70   | 71     | 24                    |
| +S  | +S  | 90  | +S  | 140 | 70  | 80  | 110 | 70  | 40  | 10   | 68     | 20                    |
| 140 | —   | 130 | 130 | 10  | +S  | +S  | 50  | 70  | 50  | 20   | 86     | 21                    |
| 100 | 120 | 120 | 100 | 100 | 90  | 70  | 50  | 50  | 50  | 80   | 84     | 24                    |
| 140 | 140 | 140 | 140 | 140 | 170 | 140 | 120 | 120 | 130 | 110  | 115    | 24                    |
| 50  | 70  | 50  | 20  | —30 | 0   | —80 | —70 | —40 | 20  | 40   | 20     | 24                    |
| 90  | 100 | 100 | —   | —   | —   | —   | —   | —   | —   | —    | 57     | 15                    |
| —   | +S  | +S  | 10  | 0   | —80 | —70 | —40 | 20  | —60 | —270 | —61    | 8                     |
| —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | —    | —32    | 13                    |
| —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | —    | —      | —                     |
| —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | —    | —      | —                     |
| —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | —    | —      | —                     |
| —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | —    | —      | —                     |
| —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | —    | —      | —                     |
| 180 | 180 | 150 | 110 | 100 | 80  | 90  | 90  | 90  | 80  | 60   | 117    | 12                    |
| 110 | +S  | +S  | +S  | +S  | +S  | +S  | 20  | +S  | +S  | +S   | 74     | 14                    |
| 140 | 140 | +S  | +S  | +S  | +S  | 100 | 100 | 110 | 100 | 90   | 98     | 13                    |
| 130 | +S  | +S  | +S  | 70  | +S  | 120 | 120 | 90  | 70  | 70   | 68     | 15                    |
| 70  | 50  | 50  | 50  | 60  | 70  | 60  | 50  | 30  | 20  | 30   | 58     | 24                    |
| 90  | 96  | 90  | 76  | 68  | 67  | 61  | 64  | 65  | 46  | 39   | 63     |                       |
| 21  | 17  | 18  | 18  | 20  | 18  | 20  | 22  | 21  | 21  | 21   |        |                       |

|                    | 0       | 1       | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10   | 11      | 12      |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|---------|---------|
|                    |         |         |         |         |         |         |         |         |         |         |      |         | Mai     |
| 1.                 | 30      | 30      | 40      | 10      | 30      | 20      | 30      | 50      | 60      | 70      | 80   | 90      | 90      |
| 2.                 | 40      | 50      | 40      | 50      | 50      | 50      | 80      | 100     | 140     | 150     | 160  | 140     | 120     |
| 3.                 | 100     | 90      | 100     | 100     | 100     | 110     | 130     | 120     | 120     | —       | 160  | 160     | 170     |
| 4.                 | 80      | 80      | 30      | 100     | 110     | 80      | 60      | 50      | 40      | 50      | 70   | 80      | 70      |
| 5.                 | —40     | 30      | 40      | —10     | $\pm S$ | $\pm S$ | $\pm S$ | —210    | —180    | —20     | —270 | —60     | —180    |
| 6.                 | 40      | 40      | 20      | 20      | 20      | 20      | 30      | 40      | 40      | 20      | 20   | 30      | 30      |
| 7.                 | 30      | 30      | 30      | 40      | 30      | 50      | 70      | 80      | 60      | 60      | 70   | 80      | 80      |
| 8.                 | 80      | 80      | 30      | —60     | —70     | 60      | 60      | 70      | —140    | —S      | —S   | —S      | —90     |
| 9.                 | 50      | 40      | 70      | 60      | 70      | 70      | 60      | 130     | 140     | 30      | 70   | 30      | 40      |
| 10.                | 80      | 110     | 110     | 80      | 60      | 70      | 60      | 70      | 50      | 60      | 20   | 50      | $\pm S$ |
| 11.                | 60      | 50      | 50      | 70      | 50      | 40      | 110     | $\pm S$ | $\pm S$ | 50      | 30   | 70      | $\pm S$ |
| 12.                | 20      | 30      | 30      | 30      | 40      | 40      | $\pm S$ | $\pm S$ | 30      | 120     | 30   | 50      | 70      |
| 13.                | 80      | 80      | 70      | 70      | 70      | 80      | 90      | 100     | 110     | 120     | 120  | 110     | 90      |
| 14.                | 40      | 50      | 70      | 70      | 90      | 80      | 50      | 30      | 30      | 50      | 60   | 70      | 100     |
| 15.                | 0       | 0       | 0       | 0       | 10      | 20      | 80      | 150     | 160     | 80      | 70   | 100     | 100     |
| 16.                | 10      | 70      | 50      | 20      | 30      | 40      | 40      | 60      | 60      | 80      | 80   | 70      | 70      |
| 17.                | 80      | 70      | 50      | 40      | 60      | 70      | 70      | 110     | —       | 80      | 80   | 70      | 50      |
| 18.                | 60      | 60      | 60      | 50      | 40      | 60      | 100     | 100     | 90      | 80      | 90   | 70      | 40      |
| 19.                | 60      | 70      | 70      | 70      | 70      | 60      | 60      | 70      | 80      | 50      | —10  | —20     | —10     |
| 20.                | $\pm S$ | —S      | 70      | 80      | 60      | 50      | 100     | 100     | 90      | 70      | 50   | 30      | 50      |
| 21.                | 90      | 80      | 60      | 70      | 70      | 70      | 130     | 130     | 140     | 120     | 110  | 120     | 120     |
| 22.                | 70      | 70      | 70      | 60      | —20     | $\pm S$ | —20     | —S      | 140     | 130     | 110  | $\pm S$ | $\pm S$ |
| 23.                | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | 80      | $\pm S$ | 220     | $\pm S$ | 230  | $\pm S$ | 30      |
| 24.                | 100     | 80      | 90      | 100     | 60      | 80      | 90      | 120     | 100     | 100     | —    | $\pm S$ | 100     |
| 25.                | 70      | 70      | 60      | 70      | 60      | 50      | 70      | 60      | 70      | —       | 70   | 70      | 90      |
| 26.                | 70      | 60      | 50      | 60      | 60      | 60      | 60      | 80      | 90      | 100     | 90   | 60      | 40      |
| 27.                | 50      | 40      | 40      | 40      | 40      | 50      | 70      | 70      | 60      | 60      | 60   | 70      | 90      |
| 28.                | 80      | 60      | 50      | 60      | $\pm S$ | —90     | $\pm S$ | —70     | 100     | 10      | —    | $\pm S$ | 120     |
| 29.                | 30      | 130     | 90      | 70      | 20      | 20      | 70      | 100     | 100     | 70      | 60   | 60      | —       |
| 30.                | 10      | 60      | 40      | 60      | —10     | 0       | 60      | 70      | 50      | 70      | 50   | 70      | 50      |
| 31.                | 40      | 50      | 50      | 40      | 10      | 20      | 40      | 50      | 30      | —       | 50   | —10     | 0       |
| Mittel             | 52      | 61      | 56      | 51      | 43      | 48      | 69      | 68      | 72      | 72      | 66   | 64      | 57      |
| Anzahl<br>der Tage | 29      | 29      | 30      | 30      | 28      | 28      | 28      | 27      | 29      | 26      | 28   | 26      | 27      |

| 13   | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21   | 22  | 23  | Mittel | Anzahl der<br>Stunden |
|------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|--------|-----------------------|
| 80   | 80  | 90  | 90  | 90  | 100 | 100 | 60  | 50   | 40  | 30  | 60     | 24                    |
| 120  | 120 | 130 | 130 | 110 | 130 | 130 | 120 | 120  | 110 | 90  | 103    | 24                    |
| 130  | 130 | 130 | 130 | 120 | 110 | 100 | 170 | 100  | 70  | 70  | 118    | 23                    |
| 80   | 60  | 50  | 50  | 40  | 40  | 60  | 50  | 50   | -30 | +S  | 61     | 23                    |
| -30  | 30  | -10 | -30 | 20  | 50  | 50  | -30 | -150 | 10  | 10  | -47    | 21                    |
| +S   | +S  | 30  | +S  | 30  | 50  | 30  | 30  | 30   | 40  | 30  | 30     | 21                    |
| 80   | 70  | 120 | 130 | 160 | 190 | 130 | 100 | 100  | 100 | 100 | 83     | 24                    |
| 80   | +S  | 80  | +S  | +S  | +S  | +S  | 80  | +S   | 40  | 40  | 23     | 15                    |
| 80   | 80  | 80  | +S  | 10  | +S  | +S  | +S  | 10   | 70  | 70  | 63     | 20                    |
| -S   | +S  | +S  | +S  | -S  | +S  | +S  | 40  | -S   | 70  | 80  | 67     | 15                    |
| -60  | -10 | 0   | 40  | +S  | 0   | -10 | 10  | 10   | 0   | 20  | 29     | 20                    |
| 70   | 80  | 100 | 90  | 80  | 80  | 100 | 100 | 100  | 110 | 100 | 70     | 22                    |
| 90   | 100 | 90  | 110 | 160 | 110 | 120 | 90  | 70   | 60  | 60  | 91     | 24                    |
| 110  | +S  | +S  | 90  | +S  | +S  | 10  | +S  | -10  | +S  | 100 | 61     | 18                    |
| 90   | 70  | 50  | 50  | 50  | 60  | 20  | 10  | 50   | 80  | 70  | 57     | 24                    |
| 70   | 70  | +S  | -S  | 40  | 80  | 90  | 190 | 70   | 80  | 80  | 62     | 22                    |
| 50   | 50  | 60  | 60  | 60  | -S  | +S  | +S  | 80   | 60  | 70  | 66     | 20                    |
| 40   | 40  | 50  | 60  | 60  | 60  | 70  | 80  | 80   | 50  | 30  | 63     | 24                    |
| -30  | 30  | 70  | 100 | 90  | 130 | +S  | +S  | +S   | +S  | +S  | 53     | 19                    |
| 70   | 100 | 100 | 120 | 140 | 160 | 210 | 180 | 170  | 130 | 100 | 101    | 22                    |
| 120  | 130 | 110 | 130 | 100 | 100 | 100 | 140 | 90   | 90  | 90  | 105    | 24                    |
| +S   | +S  | +S  | +S  | +S  | 110 | 80  | +S  | +S   | +S  | +S  | 73     | 11                    |
| 40   | 90  | 90  | 70  | 70  | 70  | 70  | 70  | 90   | 70  | 70  | 91     | 15                    |
| 60   | 80  | 110 | 90  | 80  | 40  | 80  | 160 | 110  | 110 | 90  | 90     | 22                    |
| 90   | 90  | 130 | 140 | 130 | 90  | 80  | 80  | 60   | 60  | 70  | 80     | 23                    |
| 100  | 100 | 110 | 70  | 50  | 70  | 80  | 80  | 90   | 70  | 60  | 73     | 24                    |
| 90   | 60  | 50  | 30  | -10 | 10  | 40  | 70  | 80   | 80  | 60  | 54     | 24                    |
| +S   | -20 | —   | —   | —   | —   | 80  | 90  | 80   | 80  | 30  | 44     | 15                    |
| +S   | +S  | +S  | +S  | +S  | -70 | 50  | 70  | 60   | 30  | 20  | 54     | 18                    |
| 60   | 60  | 70  | 80  | 80  | 60  | 70  | 70  | 70   | 60  | 50  | 55     | 24                    |
| -1°C | +S  | +S  | +S  | +S  | +S  | +S  | +S  | 60   | 60  | 10  | 23     | 16                    |
| 60   | 70  | 79  | 83  | 74  | 76  | 78  | 78  | 64   | 64  | 61  | 65     |                       |
| 26   | 24  | 24  | 22  | 23  | 24  | 25  | 25  | 27   | 28  | 28  |        |                       |

|                    | 0   | 1  | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12   |
|--------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Juni               |     |    |     |     |     |     |     |     |     |     |     |     |      |
| 1.                 | 10  | 10 | 10  | 30  | 40  | 80  | 80  | 80  | 80  | 60  | 40  | 50  | 40   |
| 2.                 | 60  | 60 | 70  | 80  | 80  | 80  | 80  | 120 | 120 | 80  | 70  | +S  | +S   |
| 3.                 | 40  | 40 | 30  | 20  | 20  | 30  | 30  | 40  | 50  | 60  | 60  | 50  | 40   |
| 4.                 | 30  | 50 | 30  | 60  | 60  | —20 | 50  | 70  | 80  | —   | —   | —   | —    |
| 5.                 | 70  | 70 | 80  | 70  | 80  | 80  | 100 | 90  | +S  | +S  | +S  | +S  | +S   |
| 6.                 | 20  | 40 | 50  | 40  | 30  | +S  | +S  | —70 | 30  | —30 | —10 | 40  | 10   |
| 7.                 | 50  | 20 | 10  | 10  | 10  | 30  | 10  | 10  | 40  | 60  | 60  | 60  | 50   |
| 8.                 | 40  | 40 | 30  | 20  | 20  | 20  | 20  | 10  | 10  | 10  | 10  | 20  | 20   |
| 9.                 | 20  | 30 | 40  | 30  | 30  | —20 | —70 | —90 | —10 | 10  | —80 | —80 | —150 |
| 10.                | 0   | 30 | 0   | 0   | —20 | 10  | 10  | —30 | —70 | 20  | 20  | +S  | +S   |
| 11.                | 50  | 40 | 30  | —20 | 0   | 30  | 50  | 30  | +S  | 50  | 90  | 80  | 80   |
| 12.                | 40  | 30 | 50  | 20  | 20  | 30  | 20  | 10  | —10 | —20 | 30  | 80  | 80   |
| 13.                | 100 | 80 | 70  | 50  | 60  | 30  | 60  | 70  | 70  | 80  | 70  | 50  | 30   |
| 14.                | 20  | 30 | 40  | 40  | 50  | +S  | +S  | +S  | 80  | +S  | —   | —   | 120  |
| 15.                | 80  | 60 | 50  | 60  | 50  | 50  | 50  | 60  | 80  | 120 | 130 | 110 | 100  |
| 16.                | 80  | 70 | 50  | 50  | 50  | 50  | 80  | 70  | 70  | 70  | 60  | 60  | 60   |
| 17.                | 10  | 10 | 10  | 0   | —10 | 10  | 10  | +S  | +S  | +S  | +S  | +S  | —S   |
| 18.                | 40  | 40 | 40  | 40  | 50  | 50  | 60  | 70  | 70  | 80  | 70  | 70  | 60   |
| 19.                | 60  | 50 | 50  | 50  | 60  | 60  | 50  | 60  | 70  | 70  | 70  | 60  | 60   |
| 20.                | 80  | 80 | 120 | 100 | 90  | 90  | 110 | 130 | 110 | 110 | 90  | 60  | 50   |
| 21.                | 80  | 60 | 50  | 50  | 40  | 30  | 40  | 50  | 70  | —   | 60  | 50  | 70   |
| 22.                | +S  | +S | 50  | 50  | 10  | —10 | 50  | 110 | 110 | 160 | 130 | 130 | 110  |
| 23.                | 60  | +S | +S  | +S  | 40  | 20  | 20  | 80  | 120 | 160 | 120 | 70  | 50   |
| 24.                | 50  | 40 | 50  | 50  | 60  | 60  | 80  | 90  | 90  | 100 | 100 | +S  | +S   |
| 25.                | 70  | 60 | 50  | 50  | 50  | 70  | 70  | 80  | 80  | 100 | 100 | 80  | 70   |
| 26.                | 60  | 60 | 60  | 70  | 60  | 80  | 110 | 120 | 140 | 130 | 130 | 120 | 120  |
| 27.                | 60  | 50 | 50  | 50  | 50  | 50  | 80  | 80  | 80  | 80  | 90  | 100 | 120  |
| 28.                | 60  | +S | +S  | 110 | 70  | 100 | 60  | 50  | +S  | +S  | —   | 40  | 80   |
| 29.                | 60  | 50 | 70  | 60  | 60  | 90  | 110 | 180 | 170 | 200 | 230 | 200 | 200  |
| 30.                | 70  | 50 | 50  | 60  | 60  | 70  | 90  | 130 | 130 | 150 | 130 | 110 | 100  |
| Mittel             | 51  | 46 | 46  | 45  | 42  | 45  | 54  | 61  | 72  | 80  | 75  | 70  | 65   |
| Anzahl<br>der Tage | 29  | 27 | 28  | 29  | 30  | 28  | 28  | 28  | 26  | 24  | 25  | 23  | 24   |



| 13      | 14      | 15      | 16      | 17      | 18      | 19      | 20      | 21      | 22  | 23      | Mittel | Anzahl der<br>Stunden |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----|---------|--------|-----------------------|
| 60      | 70      | —       | $\pm S$ | —110    | 140     | $+S$    | 60      | 10      | 60  | 90      | 47     | 21                    |
| —S      | 60      | 50      | 30      | 40      | 50      | 50      | 60      | 60      | 40  | 40      | 66     | 21                    |
| —70     | —100    | —140    | —       | —       | —       | —10     | —60     | —20     | 30  | 40      | 9      | 21                    |
| —       | $\pm S$ | 50      | 20      | $+S$    | —S      | $\pm S$ | $\pm S$ | $\pm S$ | —S  | 30      | 43     | 12                    |
| 20      | 60      | 50      | 50      | 60      | 60      | —       | 10      | 60      | 60  | 50      | 62     | 18                    |
| 60      | 30      | 50      | 40      | 40      | 20      | 50      | 30      | 10      | 20  | 40      | 25     | 22                    |
| 60      | 50      | 20      | 40      | 40      | 40      | 40      | 40      | 60      | 70  | 70      | 40     | 24                    |
| —S      | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $+S$    | 60      | 60      | 30      | 10  | 10      | 24     | 18                    |
| —120    | 50      | 80      | —100    | —110    | 20      | —30     | 20      | 30      | —70 | —120    | —29    | 24                    |
| 60      | —       | 60      | 50      | 60      | 50      | 50      | 50      | 50      | 40  | 40      | 23     | 21                    |
| $\pm S$ | $\pm S$ | 70      | 50      | 20      | $+S$    | 0       | 10      | 60      | 40  | 50      | 41     | 20                    |
| 70      | 70      | 90      | 110     | 110     | 110     | 110     | 110     | 100     | 100 | 90      | 60     | 24                    |
| 20      | 20      | $\pm S$ | —10     | $+S$    | 40      | —10     | 70      | 80      | 60  | 60      | 52     | 22                    |
| 120     | 120     | —       | 130     | 140     | 150     | —       | 100     | 100     | 100 | 90      | 89     | 16                    |
| 100     | 100     | 110     | $+S$    | $+S$    | —S      | 40      | 70      | 70      | 90  | 90      | 80     | 21                    |
| 60      | 60      | 50      | 60      | 60      | 60      | 40      | 40      | 30      | 40  | 20      | 56     | 24                    |
| 40      | 40      | 30      | 20      | 40      | 40      | 30      | 20      | 30      | 40  | 40      | 23     | 18                    |
| 70      | —       | 120     | 120     | 110     | 120     | 120     | 120     | 90      | 70  | 70      | 76     | 23                    |
| $+S$    | 40      | 80      | 50      | 60      | 50      | 50      | 70      | 80      | 80  | 80      | 61     | 23                    |
| 40      | 40      | 50      | 50      | 50      | 40      | 50      | 70      | 70      | 70  | 70      | 76     | 24                    |
| 40      | 50      | 50      | 40      | $\pm S$ | 90      | 60      | 40      | 30      | 50  | $\pm S$ | 52     | 21                    |
| 90      | 60      | 70      | 60      | 50      | 60      | 50      | 50      | 60      | 50  | 60      | 71     | 22                    |
| 50      | 50      | 50      | 50      | 50      | 60      | 70      | 60      | 50      | 40  | 50      | 63     | 21                    |
| $+S$    | $\pm S$ | —30     | 50      | 50      | 50      | 60      | 50      | 50      | 60  | 70      | 59     | 20                    |
| 60      | 60      | 60      | 60      | 60      | 60      | 60      | 70      | 80      | 70  | 70      | 68     | 24                    |
| 130     | $+S$    | $\pm S$ | —S      | 80      | $+S$    | $+S$    | —S      | 110     | 90  | 70      | 97     | 18                    |
| 70      | $+S$    | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | 70      | 60      | 60  | 80      | 71     | 18                    |
| 130     | 110     | 130     | $\pm S$ | 60      | 140     | 130     | 90      | 80      | 40  | 50      | 85     | 18                    |
| 200     | 210     | 210     | 230     | 220     | 250     | 180     | 160     | 140     | 100 | 70      | 152    | 24                    |
| 90      | 90      | 90      | 60      | 70      | 70      | 70      | 10      | 0       | 10  | 20      | 74     | 24                    |
| 60      | 61      | 61      | 55      | 54      | 77      | 55      | 55      | 57      | 52  | 51      | 58     |                       |
| 24      | 22      | 24      | 23      | 23      | 23      | 24      | 28      | 29      | 29  | 29      |        |                       |

|                    | 0   | 1    | 2    | 3   | 4    | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12   |
|--------------------|-----|------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|------|
|                    |     |      |      |     |      |     |     |     |     |     |     |     | Juli |
| 1.                 | 10  | 0    | —20  | —40 | —30  | 20  | 50  | 60  | 70  | 50  | 50  | 40  | —    |
| 2.                 | 30  | ±S   | ±S   | 20  | 90   | 20  | 10  | 90  | 120 | 80  | 60  | 50  | —    |
| 3.                 | 10  | 0    | 30   | 40  | 40   | 30  | 40  | 40  | 50  | 50  | +S  | ±S  | ±S   |
| 4.                 | 70  | 60   | ±S   | 50  | +S   | 40  | 10  | 50  | 70  | 30  | 50  | 60  | ±S   |
| 5.                 | 180 | +S   | ±S   | ±S  | +S   | +S  | 70  | 130 | —20 | —20 | 20  | +S  | 90   |
| 6.                 | 80  | 70   | 80   | 70  | 90   | 90  | 100 | 120 | 110 | 90  | 90  | 90  | 70   |
| 7.                 | 60  | 80   | 80   | 40  | 60   | 90  | 130 | 130 | 130 | 110 | 130 | 110 | 120  |
| 8.                 | 80  | 70   | 80   | 80  | 70   | 90  | 80  | 100 | 70  | 60  | 20  | 0   | —10  |
| 9.                 | 40  | 30   | 60   | 40  | 70   | 90  | 90  | 110 | 110 | 80  | 90  | 100 | 120  |
| 10.                | 60  | 40   | 40   | 40  | 40   | 60  | 70  | 80  | 90  | 30  | +S  | +S  | 120  |
| 11.                | 90  | 80   | 80   | 60  | 40   | 60  | 90  | 110 | 110 | 90  | 90  | 110 | 100  |
| 12.                | 60  | 70   | 80   | 80  | 110  | 140 | 180 | 140 | 140 | 160 | —   | 130 | 130  |
| 13.                | 80  | 60   | 60   | 60  | 60   | 80  | 100 | 110 | 90  | 130 | 150 | 130 | 100  |
| 14.                | 60  | 70   | 70   | 70  | 70   | 80  | 100 | 100 | 90  | 30  | 90  | 80  | 80   |
| 15.                | 80  | 80   | 60   | 60  | 60   | 60  | 110 | 130 | 130 | 120 | —   | 120 | 130  |
| 16.                | 50  | 40   | 40   | 40  | 40   | 50  | 70  | 80  | 70  | 70  | 70  | 50  | —S   |
| 17.                | 110 | 70   | 60   | 60  | 50   | 60  | ±S  | +S  | 110 | +S  | 100 | —   | ±S   |
| 18.                | —10 | —160 | —210 | 90  | —200 | —   | 30  | 70  | 50  | 70  | 80  | 60  | 140  |
| 19.                | 110 | 90   | 80   | 90  | 110  | 110 | 120 | —   | —   | —   | —   | —   | —    |
| 20.                | ±S  | +S   | 30   | —30 | 20   | 0   | —70 | 140 | 190 | —   | —   | 80  | —S   |
| 21.                | 0   | —140 | —70  | 10  | —10  | 30  | 90  | 80  | 90  | 100 | 100 | 120 | —S   |
| 22.                | 40  | 80   | 50   | 40  | 30   | 50  | 70  | 120 | 110 | 100 | 90  | 90  | 80   |
| 23.                | 100 | 80   | 70   | 40  | 100  | 80  | 110 | 100 | 110 | 90  | 80  | 90  | 100  |
| 24.                | 60  | 60   | 100  | 100 | 120  | 110 | 140 | 160 | 140 | 180 | 140 | 130 | 110  |
| 25.                | 150 | 90   | 90   | 80  | 70   | 70  | +S  | 60  | 70  | 70  | 40  | ±S  | ±S   |
| 26.                | +S  | ±S   | +S   | ±S  | +S   | 50  | 50  | 50  | 60  | 50  | 20  | —   | —20  |
| 27.                | 10  | —100 | 10   | 0   | 50   | 90  | 120 | 160 | 150 | 100 | 100 | 80  | 70   |
| 28.                | 70  | 80   | 90   | 70  | 60   | 80  | 110 | 140 | 140 | 110 | 80  | 60  | 60   |
| 29.                | 120 | 90   | 90   | 100 | 90   | 80  | 80  | 110 | 130 | 170 | 140 | 100 | 90   |
| 30.                | 80  | 90   | 100  | 80  | 80   | 80  | 80  | 60  | 30  | 40  | 0   | 80  | 50   |
| 31.                | 30  | —40  | —10  | 10  | 10   | 20  | 50  | 20  | 70  | +S  | 120 | 110 | ±S   |
| Mittel             | 66  | 39   | 45   | 50  | 50   | 66  | 79  | 98  | 96  | 87  | 80  | 86  | 87   |
| Anzahl<br>der Tage | 29  | 27   | 27   | 29  | 28   | 29  | 29  | 29  | 30  | 27  | 25  | 24  | 20   |

| 13      | 14      | 15      | 16      | 17      | 18      | 19      | 20      | 21      | 22      | 23      | Mittel | Anzahl der<br>Stunden |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|-----------------------|
| —       | 80      | 60      | 70      | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | +S      | 50      | 33     | 16                    |
| 130     | 150     | 120     | 130     | 160     | 160     | 200     | 170     | 130     | 90      | 60      | 99     | 21                    |
| $\pm S$ | +S      | 120     | 70      | 110     | 90      | +S      | 40      | 130     | 120     | 110     | 62     | 18                    |
| -20     | $\pm S$ | $\pm S$ | +S      | 70      | 100     | 90      | +S      | +S      | 130     | 160     | 64     | 16                    |
| 110     | —       | 90      | 80      | 80      | 60      | 80      | 100     | 90      | 90      | 70      | 76     | 17                    |
| 70      | 90      | 80      | 90      | 110     | 140     | 110     | 110     | 120     | 90      | 70      | 93     | 24                    |
| 120     | 160     | 160     | 100     | 100     | 110     | 100     | 160     | 80      | 90      | 90      | 98     | 24                    |
| 60      | 40      | 40      | 40      | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | +S      | $\pm S$ | 40      | 56     | 18                    |
| 100     | 120     | 110     | $\pm S$ | $\pm S$ | 160     | 100     | 110     | 90      | 120     | 90      | 90     | 22                    |
| 120     | 110     | 140     | 140     | 100     | 90      | 110     | 110     | 110     | 90      | 80      | 87     | 22                    |
| +S      | -S      | -S      | -S      | 100     | 90      | 90      | 110     | 110     | 100     | 90      | 90     | 20                    |
| 110     | 90      | 100     | 110     | 100     | 100     | 80      | 80      | 80      | 80      | 80      | 106    | 23                    |
| 100     | 90      | 90      | —       | 90      | 90      | 80      | 90      | 80      | 80      | 80      | 90     | 23                    |
| 80      | 80      | 80      | 70      | 70      | 80      | 80      | 100     | 100     | 100     | 100     | 83     | 24                    |
| 130     | 110     | 120     | 70      | 80      | 30      | 90      | 100     | 100     | 90      | 80      | 95     | 23                    |
| -S      | $\pm S$ | 100     | 80      | 90      | 140     | +S      | 130     | 120     | 100     | 120     | 78     | 20                    |
| $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | 40      | 10      | 30      | 30      | 30      | 0       | 70      | 55     | 15                    |
| 110     | 80      | 90      | 80      | 70      | 50      | 110     | 110     | 110     | 90      | 90      | 45     | 23                    |
| —       | —       | —       | 100     | 90      | 80      | 70      | 100     | 100     | +S      | $\pm S$ | 96     | 13                    |
| 50      | 60      | 70      | 80      | 30      | 70      | 80      | 130     | 140     | 160     | 190     | 77     | 19                    |
| $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | +S      | -30     | +S      | 40      | 29     | 14                    |
| 90      | 80      | 70      | 70      | 70      | 50      | 60      | +S      | +S      | 70      | 100     | 73     | 22                    |
| 100     | 30      | 50      | 80      | 70      | 70      | 90      | 90      | 80      | 90      | 80      | 83     | 24                    |
| 90      | 70      | 80      | 70      | 60      | 50      | $\pm S$ | $\pm S$ | 120     | 90      | 100     | 104    | 22                    |
| 50      | 60      | -S      | 70      | 100     | 100     | 110     | 120     | 100     | 100     | 110     | 86     | 20                    |
| -10     | -20     | -S      | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | 40      | 27     | 10                    |
| 60      | 50      | 70      | 40      | 30      | 40      | 50      | 60      | 60      | 70      | 80      | 60     | 24                    |
| 80      | 70      | 80      | 80      | 80      | 80      | 70      | 70      | 60      | 60      | 100     | 83     | 24                    |
| 80      | 70      | 100     | 110     | $\pm S$ | $\pm S$ | +S      | 30      | 30      | $\pm S$ | 40      | 93     | 20                    |
| 70      | 60      | +S      | 170     | 80      | 40      | 40      | +S      | 100     | $\pm S$ | $\pm S$ | 71     | 20                    |
| +S      | $\pm S$ | -30     | 70      | 80      | +S      | -50     | $\pm S$ | $\pm S$ | -S      | $\pm S$ | 31     | 15                    |
| 82      | 76      | 84      | 86      | 84      | 84      | 81      | 95      | 90      | 91      | 86      | 78     |                       |
| 23      | 22      | 23      | 24      | 25      | 25      | 23      | 22      | 25      | 23      | 28      |        |                       |

|                    | 0   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| August             |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 1.                 | ±S  | ±S  | ±S  | —S  | ±S  | —50 | ±S  | 50  | 50  | 30  | 60  | 100 | 110 |
| 2.                 | ±S  | ±S  | ±S  | 0   | 40  | 0   | 40  | 90  | 140 | —   | 170 | 130 | ±S  |
| 3.                 | 70  | 60  | 40  | 40  | 50  | 70  | 110 | 100 | 80  | ±S  | 20  | 120 | 130 |
| 4.                 | 30  | 30  | 30  | 30  | 50  | 70  | 90  | 100 | 130 | 140 | 150 | 120 | 130 |
| 5.                 | 130 | 80  | 90  | 90  | 80  | 80  | 110 | 110 | 120 | 140 | 120 | 90  | 70  |
| 6.                 | 130 | 110 | 100 | 110 | 120 | 130 | 150 | 160 | 180 | 150 | —   | 110 | 90  |
| 7.                 | 80  | 70  | 80  | 80  | 90  | 110 | 110 | 120 | 130 | 140 | 110 | 80  | 60  |
| 8.                 | 110 | 110 | 90  | 90  | 110 | 110 | 130 | 140 | 150 | 150 | 140 | 130 | 100 |
| 9.                 | 60  | 70  | 60  | 40  | 30  | 30  | 40  | 80  | 110 | 190 | 200 | 170 | 150 |
| 10.                | —   | ±S  | —20 | 100 | 100 | 100 | 90  | 100 | 120 | ±S  | ±S  | 50  | 90  |
| 11.                | 100 | 80  | 30  | 60  | 80  | 90  | 100 | 120 | 120 | 120 | 120 | 140 | 90  |
| 12.                | 120 | 130 | 150 | 130 | 120 | 140 | 170 | 170 | 200 | 210 | 160 | 150 | 130 |
| 13.                | 30  | 40  | 30  | 30  | 30  | 30  | 50  | 100 | 120 | 110 | 150 | 140 | 180 |
| 14.                | 50  | 60  | 50  | 100 | 120 | 80  | 70  | 80  | 80  | 110 | 120 | 130 | 110 |
| 15.                | —60 | 0   | 10  | —40 | —20 | —10 | 40  | 170 | 190 | 200 | 210 | 200 | 170 |
| 16.                | 80  | 70  | 60  | 60  | 80  | 60  | 80  | 160 | 190 | 180 | 190 | 190 | 150 |
| 17.                | 50  | 30  | 30  | 40  | 60  | 150 | 130 | 120 | 120 | 120 | 120 | 120 | 80  |
| 18.                | 70  | 50  | 50  | 50  | 90  | ±S  | ±S  | ±S  | 170 | 140 | 120 | 110 | 100 |
| 19.                | 70  | 60  | 70  | 40  | 50  | 60  | 60  | 140 | 110 | —   | 160 | 170 | 190 |
| 20.                | 60  | 50  | 50  | 50  | 60  | 60  | 50  | 100 | 110 | 120 | 120 | 80  | 90  |
| 21.                | 60  | 60  | 60  | 50  | 60  | 60  | 70  | 90  | 110 | 100 | 80  | 80  | 70  |
| 22.                | 60  | 60  | 50  | 60  | 60  | 70  | 70  | 70  | 70  | —   | 60  | 30  | 0   |
| 23.                | 70  | 70  | 70  | 60  | 50  | 60  | 60  | 70  | 70  | 70  | 60  | 40  | 50  |
| 24.                | 50  | 20  | 20  | 30  | 50  | 60  | 40  | —S  | ±S  | ±S  | 100 | 60  | 70  |
| 25.                | ±S  | ±S  | ±S  | 30  | 40  | 20  | 30  | 90  | 160 | —   | 60  | 20  | 50  |
| 26.                | 80  | 80  | 80  | 70  | 80  | 90  | 90  | 100 | 140 | 150 | 120 | 90  | 80  |
| 27.                | 30  | 40  | 40  | 30  | 20  | 50  | 50  | 80  | 100 | 140 | 170 | 100 | 90  |
| 28.                | 40  | 40  | 30  | 40  | 50  | 40  | 50  | 80  | 80  | ±S  | ±S  | ±S  | ±S  |
| 29.                | 40  | 40  | 40  | 40  | 40  | 70  | 80  | 110 | 140 | 150 | 140 | 140 | 120 |
| 30.                | 30  | 0   | 0   | 0   | 10  | 0   | 20  | 70  | 80  | —   | —   | 30  | 0   |
| 31.                | 10  | 10  | 20  | 20  | 20  | 20  | 50  | 100 | 100 | 90  | 70  | 70  | 60  |
| Mittel             | 61  | 56  | 50  | 51  | 61  | 62  | 77  | 106 | 122 | 134 | 122 | 106 | 97  |
| Anzahl<br>der Tage | 27  | 27  | 28  | 30  | 30  | 30  | 29  | 29  | 30  | 22  | 27  | 30  | 29  |

| 13      | 14      | 15      | 16      | 17  | 18      | 19      | 20      | 21      | 22      | 23      | Mittel | Anzahl der<br>Stunden |
|---------|---------|---------|---------|-----|---------|---------|---------|---------|---------|---------|--------|-----------------------|
| 150     | -20     | +S      | $\pm S$ | +S  | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | $\pm S$ | 53     | 9                     |
| $\pm S$ | 90      | 50      | 70      | 90  | 80      | 120     | 100     | 80      | 60      | 70      | 79     | 18                    |
| 90      | -S      | $\pm S$ | -S      | 130 | 120     | 110     | 100     | 70      | 60      | 50      | 81     | 20                    |
| 140     | 130     | 100     | 90      | 100 | 90      | 110     | 180     | 110     | 90      | 100     | 98     | 24                    |
| 60      | 60      | 60      | 60      | 60  | 80      | 100     | 110     | 120     | 120     | 110     | 94     | 24                    |
| 90      | 80      | 90      | 80      | 90  | 90      | 100     | 90      | 90      | 80      | 70      | 108    | 23                    |
| 50      | 80      | 70      | 90      | 110 | 120     | 140     | 140     | 150     | 140     | 120     | 103    | 24                    |
| 90      | 100     | 90      | 80      | 140 | 130     | 90      | 80      | 70      | 80      | 70      | 108    | 24                    |
| 190     | 150     | 130     | 90      | 100 | 110     | 120     | 110     | 130     | 130     | 140     | 110    | 24                    |
| 70      | 90      | 80      | 70      | +S  | +S      | $\pm S$ | 100     | 90      | 100     | 110     | 85     | 17                    |
| 110     | 100     | 80      | 70      | 70  | 80      | 90      | 90      | 110     | 90      | 120     | 94     | 24                    |
| 170     | 170     | 140     | 130     | 150 | 100     | 80      | 70      | 80      | 60      | 50      | 133    | 24                    |
| 170     | 150     | 140     | 120     | 100 | 80      | 90      | 110     | 100     | 80      | 70      | 94     | 24                    |
| 90      | 90      | 80      | 70      | 70  | 80      | 70      | 50      | 20      | 10      | 0       | 75     | 24                    |
| 170     | 140     | 140     | 90      | 60  | 150     | 130     | 120     | 120     | 110     | 70      | 98     | 24                    |
| 110     | —       | 70      | 60      | 60  | 70      | 80      | 80      | 60      | 60      | 60      | 98     | 23                    |
| 80      | 80      | 40      | +S      | +S  | 30      | 80      | 100     | 120     | 80      | 90      | 85     | 22                    |
| 70      | 60      | 60      | 90      | 90  | 60      | 80      | 70      | 80      | 70      | 80      | 84     | 21                    |
| 200     | 140     | 130     | 140     | 160 | 110     | 100     | 100     | 110     | 80      | 70      | 110    | 23                    |
| 90      | 80      | 70      | 60      | 70  | 70      | 70      | 70      | 60      | 70      | 70      | 74     | 24                    |
| 70      | 70      | 70      | 70      | 80  | 90      | 90      | 90      | 80      | 80      | 80      | 76     | 24                    |
| 10      | 10      | 10      | 10      | 20  | 50      | 60      | 70      | 70      | 70      | 70      | 49     | 23                    |
| 50      | 60      | 70      | 90      | 100 | 120     | 140     | 140     | 120     | 100     | 80      | 78     | 24                    |
| 160     | 40      | 50      | 90      | 150 | 110     | 140     | 190     | 70      | 0       | +S      | 74     | 20                    |
| 100     | 90      | 70      | 110     | +S  | $\pm S$ | 0       | 30      | 60      | 70      | 70      | 61     | 18                    |
| 90      | 90      | 70      | 60      | 60  | 70      | 60      | 60      | 60      | 50      | 30      | 81     | 24                    |
| 70      | 70      | 80      | 90      | 60  | 110     | 110     | 80      | $\pm S$ | $\pm S$ | 40      | 75     | 22                    |
| $\pm S$ | $\pm S$ | -S      | 40      | 50  | 50      | 50      | 30      | 30      | 30      | 40      | 45     | 17                    |
| 90      | 60      | 50      | 70      | 70  | 50      | 50      | 30      | 50      | 70      | 40      | 74     | 24                    |
| 50      | 60      | 80      | 120     | 60  | 30      | 50      | 50      | 30      | 30      | 10      | 37     | 22                    |
| 50      | 50      | 60      | 70      | 60  | 50      | 40      | 60      | 20      | 0       | 0       | 46     | 24                    |
| 101     | 85      | 80      | 81      | 87  | 85      | 88      | 90      | 81      | 71      | 68      | 84     |                       |
| 29      | 28      | 28      | 28      | 27  | 28      | 29      | 30      | 29      | 29      | 29      |        |                       |



|                    | 0   | 1    | 2    | 3   | 4   | 5   | 6    | 7   | 8   | 9   | 10  | 11  | 12  |
|--------------------|-----|------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|
| September          |     |      |      |     |     |     |      |     |     |     |     |     |     |
| 1.                 | 0   | 10   | —    | —   | —   | —   | —    | —   | —   | 60  | 80  | 80  | 70  |
| 2.                 | 30  | 70   | 70   | 70  | 60  | 70  | 100  | 90  | 90  | 80  | 90  | 90  | 90  |
| 3.                 | 80  | 80   | 80   | 70  | 60  | 60  | 70   | 90  | 90  | 90  | 80  | 80  | 60  |
| 4.                 | 60  | 50   | 10   | 80  | 40  | 40  | 50   | 50  | 50  | —   | —   | 70  | 80  |
| 5.                 | 30  | 40   | 40   | 150 | 160 | 140 | 170  | 140 | 170 | 50  | 80  | 100 | 90  |
| 6.                 | 100 | 90   | 70   | 70  | 60  | 100 | 110  | 90  | 80  | 80  | 90  | 100 | 100 |
| 7.                 | 70  | 60   | 50   | 40  | 30  | 40  | 60   | 110 | —   | 150 | 140 | 120 | 90  |
| 8.                 | 20  | 30   | 50   | 50  | 60  | 90  | 100  | 120 | 190 | 130 | 140 | 140 | 120 |
| 9.                 | 50  | 30   | 20   | 10  | 10  | 20  | 100  | 200 | 180 | 170 | 180 | 150 | 140 |
| 10.                | 30  | 40   | 40   | 40  | 50  | 50  | 50   | 70  | 60  | 80  | —   | —   | —   |
| 11.                | 50  | —30  | 20   | 30  | 80  | 40  | 50   | 20  | 60  | 90  | 80  | 80  | 50  |
| 12.                | 30  | 10   | 10   | 0   | 0   | 10  | 30   | 60  | 100 | 140 | 120 | 90  | 70  |
| 13.                | +S  | +S   | +S   | —10 | 60  | 30  | —170 | —40 | 60  | —   | —   | 100 | 90  |
| 14.                | 80  | 80   | 80   | 80  | 80  | 90  | 60   | 140 | 130 | 160 | 140 | —20 | +S  |
| 15.                | 70  | 60   | 50   | 40  | 50  | 50  | 60   | 70  | 80  | 80  | 100 | 90  | 80  |
| 16.                | 50  | 60   | 60   | 50  | 80  | +S  | 140  | 110 | 90  | —   | 70  | 80  | 60  |
| 17.                | 60  | 50   | 60   | 50  | 50  | 60  | 60   | 60  | 80  | 80  | 80  | 90  | 100 |
| 18.                | 50  | 70   | 80   | 60  | 80  | 90  | 90   | 30  | 60  | 90  | 80  | 80  | 70  |
| 19.                | 70  | 60   | 100  | +S  | +S  | +S  | 60   | 120 | 70  | 70  | 60  | 10  | —30 |
| 20.                | 90  | 70   | 80   | 100 | 100 | 120 | 130  | 140 | 150 | —   | 150 | 130 | 160 |
| 21.                | 130 | 140  | 130  | 110 | 110 | 90  | 80   | 90  | 120 | 130 | 170 | 140 | 160 |
| 22.                | 50  | 50   | 20   | 20  | 40  | 40  | 50   | 80  | 30  | —   | —   | —   | 110 |
| 23.                | 70  | 60   | 60   | 70  | 30  | 20  | 70   | 70  | —   | 80  | 80  | 70  | 70  |
| 24.                | 100 | 70   | 40   | 100 | 90  | 60  | 30   | 0   | 0   | —   | —   | 90  | 80  |
| 25.                | 110 | 100  | 100  | 100 | 100 | 30  | 30   | 10  | —10 | 10  | 30  | 40  | 30  |
| 26.                | 10  | —10  | —10  | 0   | —20 | —30 | —40  | —10 | 20  | 10  | 0   | 20  | 40  |
| 27.                | 70  | —190 | —40  | 40  | 30  | 30  | 60   | 100 | 140 | —   | 120 | 90  | 100 |
| 28.                | 80  | 70   | 70   | 70  | 40  | 50  | 50   | 80  | 80  | +S  | +S  | 30  | 70  |
| 29.                | +S  | 0    | —170 | 60  | 30  | 10  | +S   | +S  | +S  | —   | 100 | 90  | 90  |
| 30.                | 40  | 20   | 60   | 90  | 50  | 50  | 100  | 120 | 110 | 50  | 70  | 60  | 80  |
| Mittel             | 60  | 43   | 44   | 59  | 58  | 54  | 63   | 81  | 88  | 90  | 97  | 82  | 83  |
| Anzahl<br>der Tage | 28  | 29   | 28   | 28  | 28  | 27  | 28   | 28  | 26  | 21  | 21  | 28  | 23  |

| 13  | 14  | 15  | 16   | 17   | 18  | 19  | 20  | 21  | 22  | 23  | Mittel | Anzahl der<br>Stunden |
|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|--------|-----------------------|
| 70  | 50  | 30  | 60   | 30   | 10  | 30  | 30  | 0   | 10  | 10  | 37     | 17                    |
| 100 | 100 | 100 | 90   | 80   | 80  | 100 | 120 | 100 | 100 | 90  | 86     | 24                    |
| 60  | 60  | 60  | 60   | 60   | 60  | 60  | 60  | 70  | 80  | 70  | 70     | 24                    |
| 100 | 90  | 110 | 90   | 70   | 30  | 30  | 40  | 50  | 30  | 30  | 57     | 22                    |
| 80  | 70  | 80  | 70   | 70   | 60  | 70  | 110 | 100 | 100 | 110 | 95     | 24                    |
| —   | 130 | 120 | 80   | 40   | 80  | 30  | 70  | 90  | 80  | 60  | 83     | 23                    |
| 90  | 80  | 100 | +S   | +S   | 10  | 0   | 20  | 40  | 0   | 10  | 62     | 21                    |
| 110 | 100 | 100 | 100  | 80   | 50  | 60  | 60  | 60  | 50  | 40  | 85     | 24                    |
| 100 | 90  | 70  | 70   | 60   | 50  | 60  | 50  | 30  | 10  | 20  | 78     | 24                    |
| 60  | 50  | 60  | 60   | 70   | 60  | 60  | 50  | 70  | 60  | 60  | 56     | 21                    |
| 60  | 60  | 10  | +S   | +S   | 40  | 10  | 0   | 10  | 10  | 20  | 38     | 22                    |
| 70  | 60  | 60  | 60   | 50   | 50  | 40  | 40  | 30  | 40  | +S  | 51     | 23                    |
| 90  | 120 | 140 | 140  | 110  | 100 | 90  | 60  | 70  | 80  | 70  | 63     | 19                    |
| —   | +S  | 50  | 70   | 70   | 100 | 120 | 120 | 110 | 90  | 90  | 91     | 21                    |
| 80  | 80  | 100 | 110  | 130  | 130 | 120 | 90  | 80  | 50  | 50  | 79     | 24                    |
| 100 | 110 | 90  | 80   | 70   | 80  | 70  | 70  | 50  | 80  | 80  | 79     | 22                    |
| 100 | 100 | 130 | 110  | 120  | 100 | 80  | 80  | 60  | 80  | 80  | 80     | 24                    |
| 70  | 70  | 70  | 80   | 80   | 70  | 80  | 100 | 100 | 90  | 70  | 78     | 24                    |
| 10  | 30  | 60  | —110 | —230 | 10  | 40  | 70  | 70  | 80  | 100 | 34     | 21                    |
| 150 | 170 | 180 | 160  | 110  | 100 | 110 | 130 | 130 | 140 | 140 | 128    | 23                    |
| 150 | 140 | 190 | 170  | 110  | 130 | 90  | 120 | 110 | 130 | 110 | 127    | 24                    |
| —   | —   | 110 | 100  | 100  | 110 | 80  | 80  | 100 | 80  | 90  | 71     | 19                    |
| 80  | 90  | 90  | 110  | 100  | 100 | 110 | 120 | 120 | 100 | 120 | 82     | 23                    |
| 90  | 80  | 90  | 100  | 90   | 110 | 100 | 120 | 120 | 110 | 130 | 82     | 22                    |
| 60  | 70  | 70  | 70   | 60   | 70  | 40  | —10 | 20  | 10  | 20  | 48     | 24                    |
| 40  | 60  | 70  | 60   | 70   | 90  | 110 | 90  | 120 | 110 | 60  | 36     | 24                    |
| 70  | 60  | 90  | 90   | 90   | 90  | 100 | 100 | 100 | 90  | 100 | 67     | 23                    |
| 60  | 70  | 80  | 80   | 80   | 90  | 110 | +S  | —S  | 60  | 50  | 69     | 20                    |
| 70  | 100 | 100 | 80   | 90   | 90  | 80  | 60  | 70  | 40  | 40  | 54     | 19                    |
| 50  | 50  | 60  | 30   | 20   | 20  | 30  | 60  | 70  | 60  | 50  | 58     | 24                    |
| 80  | 80  | 89  | 81   | 67   | 72  | 70  | 73  | 74  | 68  | 68  | 72     |                       |
| 27  | 28  | 30  | 28   | 28   | 30  | 30  | 29  | 29  | 30  | 29  |        |                       |

|                    | 0   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Oktober            |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 1.                 | 50  | 50  | 50  | 90  | 120 | +S  | +S  | +S  | 180 | 180 | 140 | 140 | 130 |
| 2.                 | 190 | 150 | 110 | 50  | 100 | +S  | +S  | +S  | +S  | +S  | +S  | —   | 220 |
| 3.                 | 80  | 80  | 80  | 80  | 80  | 80  | 80  | +S  | +S  | 150 | 150 | 150 | 170 |
| 4.                 | 70  | 50  | 30  | 30  | 60  | 40  | 50  | 110 | +S  | —   | 170 | 180 | 160 |
| 5.                 | 30  | 70  | 60  | 50  | 70  | 70  | 40  | 70  | 120 | 110 | 130 | 140 | 130 |
| 6.                 | 50  | 70  | 50  | 80  | 100 | 90  | 100 | 60  | —   | —   | —   | 100 | 90  |
| 7.                 | 90  | 80  | 60  | 50  | 60  | 50  | 40  | 30  | 20  | 20  | 40  | 80  | 90  |
| 8.                 | 40  | 50  | 50  | 40  | 160 | +S  | 220 | 200 | 180 | 140 | 120 | 120 | 110 |
| 9.                 | 50  | 50  | 50  | 10  | 0   | 20  | 20  | 10  | 10  | 20  | 30  | 60  | 60  |
| 10.                | 140 | 150 | 170 | 160 | 120 | 100 | 90  | 110 | 110 | 130 | 140 | 180 | 190 |
| 11.                | 100 | 90  | 90  | 100 | 90  | 60  | 120 | 110 | —   | —   | 140 | 140 | 130 |
| 12.                | 80  | 70  | 60  | 70  | 70  | 60  | 90  | 140 | 160 | 210 | 180 | 150 | 120 |
| 13.                | 80  | 50  | 80  | 60  | 50  | 40  | 60  | 80  | 90  | 10  | 90  | 100 | 110 |
| 14.                | 70  | 40  | 40  | 50  | 60  | 60  | 90  | 100 | 140 | 130 | 110 | 110 | 100 |
| 15.                | 90  | 80  | 70  | 60  | 80  | 90  | 120 | +S  | 210 | 230 | —   | 120 | 120 |
| 16.                | 150 | 160 | 150 | 130 | 120 | 110 | 90  | 140 | +S  | 240 | 230 | 230 | 200 |
| 17.                | 120 | 90  | 80  | 90  | 70  | 90  | 100 | 130 | 220 | 220 | 200 | 180 | 150 |
| 18.                | 110 | 90  | 80  | 50  | 50  | 60  | 90  | 110 | 150 | —   | 100 | 80  | 120 |
| 19.                | 80  | 0   | 0   | 30  | 60  | 60  | 60  | 170 | —   | 140 | 130 | 120 | 100 |
| 20.                | 90  | 60  | 40  | —10 | 90  | 70  | 80  | 80  | 80  | 110 | 130 | 140 | 150 |
| 21.                | 110 | 60  | 90  | 90  | 90  | 100 | 130 | 90  | 70  | 60  | 70  | 100 | 80  |
| 22.                | 80  | 80  | 90  | 100 | 100 | 100 | 80  | 90  | 120 | 110 | 90  | 80  | 120 |
| 23.                | 80  | 50  | 60  | 80  | —   | —   | +S  | 170 | 250 | +S  | 180 | 110 | 90  |
| 24.                | 150 | 150 | 170 | 160 | 140 | 100 | 90  | 110 | 120 | 120 | 130 | 130 | 140 |
| 25.                | 50  | 60  | 60  | 70  | 80  | 110 | 120 | 100 | —   | —   | +S  | 170 | 140 |
| 26.                | 100 | 110 | 110 | 170 | +S  | +S  | +S  | +S  | +S  | 180 | 120 | 60  | 110 |
| 27.                | 90  | 200 | 150 | 190 | 210 | 100 | 140 | 180 | +S  | +S  | +S  | 140 | 110 |
| 28.                | 120 | 180 | 210 | 220 | 150 | 40  | 70  | 100 | 190 | —   | +S  | 130 | 90  |
| 29.                | 40  | 20  | 20  | 20  | 90  | 190 | +S  | 200 | +S  | +S  | +S  | +S  | 100 |
| 30.                | 60  | 40  | 20  | 60  | 70  | 90  | 100 | 110 | 110 | 170 | 200 | 170 | 150 |
| 31.                | 110 | 120 | 110 | 100 | 110 | 110 | 100 | 100 | 90  | —   | 60  | 80  | 100 |
| Mittel             | 89  | 84  | 80  | 82  | 91  | 80  | 91  | 112 | 125 | 134 | 128 | 127 | 125 |
| Anzahl<br>der Tage | 31  | 31  | 31  | 31  | 29  | 26  | 26  | 26  | 21  | 20  | 24  | 29  | 31  |

| 13  | 14   | 15  | 16  | 17  | 18  | 19  | 20  | 21  | 22  | 23  | Mittel | Anzahl der<br>Stunden |
|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----------------------|
| 130 | 110  | 100 | 90  | 90  | 100 | 100 | 90  | 100 | 130 | 170 | 111    | 21                    |
| 250 | 250  | 230 | 200 | 180 | 150 | 130 | 130 | 120 | 80  | 70  | 154    | 17                    |
| 180 | 180  | 170 | 160 | 130 | 110 | 120 | 130 | 80  | 50  | 60  | 116    | 22                    |
| 130 | 140  | 160 | 130 | 70  | 30  | 20  | 20  | 20  | 10  | 20  | 77     | 22                    |
| 120 | 110  | 110 | 100 | 90  | 80  | 120 | 40  | 90  | 70  | 70  | 87     | 24                    |
| 80  | 80   | 120 | 140 | 90  | 100 | 100 | 110 | 110 | 120 | 100 | 92     | 21                    |
| 90  | 90   | 90  | 80  | 90  | 110 | 80  | 70  | 80  | 70  | 40  | 67     | 24                    |
| 100 | 120  | 140 | 150 | 140 | 100 | 70  | 100 | 90  | 70  | 70  | 112    | 23                    |
| 60  | 90   | 110 | 90  | 160 | 180 | 190 | 210 | 200 | 180 | 140 | 83     | 24                    |
| 150 | 160  | 170 | 140 | 140 | 180 | 150 | 150 | 140 | 100 | 100 | 140    | 24                    |
| 120 | 110  | 120 | 80  | 90  | 130 | 120 | 150 | 90  | 110 | 120 | 110    | 22                    |
| 110 | 120  | 150 | 180 | 180 | 170 | 140 | 140 | 100 | 110 | 80  | 123    | 24                    |
| 100 | 90   | 80  | 80  | 100 | 100 | 100 | 80  | 90  | 90  | 80  | 79     | 24                    |
| 100 | 110  | 130 | 110 | 130 | 150 | 100 | 80  | 80  | 90  | 90  | 95     | 24                    |
| 110 | 110  | 100 | 110 | 150 | 160 | 160 | 180 | 170 | 120 | 120 | 125    | 22                    |
| 170 | —    | 150 | 160 | 180 | 170 | 170 | 180 | 200 | 140 | 110 | 163    | 22                    |
| —   | 210  | 240 | 230 | 200 | 140 | 130 | 140 | 100 | 120 | 100 | 146    | 23                    |
| 120 | 140  | 130 | 80  | 130 | 150 | 140 | 130 | 150 | 130 | 90  | 108    | 23                    |
| 100 | 140  | 170 | 180 | 160 | 150 | 130 | 140 | 130 | 100 | 90  | 106    | 23                    |
| 190 | 160  | 140 | 140 | 140 | 110 | 80  | 110 | 140 | 120 | 120 | 107    | 24                    |
| 80  | 80   | 90  | 80  | 90  | 80  | 170 | 130 | 110 | 80  | 100 | 93     | 24                    |
| 110 | 90   | 70  | 120 | 110 | 110 | 100 | 100 | 90  | 100 | 80  | 97     | 24                    |
| 80  | 80   | 80  | 90  | 140 | 180 | 200 | 180 | 150 | 180 | 180 | 131    | 20                    |
| 140 | 150  | 160 | 150 | 120 | 120 | 100 | 100 | 90  | 80  | 70  | 125    | 24                    |
| 110 | 140  | 130 | 170 | 200 | 170 | 130 | 130 | 150 | 80  | 90  | 117    | 21                    |
| 130 | 150  | 150 | 120 | 110 | 170 | 260 | 270 | 180 | 130 | 120 | 145    | 19                    |
| 130 | 140  | 140 | 110 | 90  | 110 | 100 | 100 | 100 | 90  | 70  | 128    | 21                    |
| 170 | 170  | 170 | +S  | +S  | 70  | 70  | 40  | 20  | 60  | 60  | 117    | 20                    |
| —   | 130  | 110 | +S  | 0   | 10  | 20  | 20  | 60  | 70  | 80  | 69     | 17                    |
| 100 | 60   | 60  | 40  | 20  | 10  | 10  | 60  | 30  | 20  | 30  | 75     | 24                    |
| 80  | —190 | 100 | 140 | 140 | 120 | 90  | 60  | 40  | 60  | 60  | 82     | 23                    |
| 122 | 117  | 131 | 126 | 122 | 120 | 116 | 115 | 106 | 95  | 90  | 109    |                       |
| 29  | 30   | 31  | 29  | 30  | 31  | 31  | 31  | 31  | 31  | 31  |        |                       |



|                    | 0    | 1    | 2    | 3   | 4   | 5   | 6   | 7   | 8   | 9    | 10   | 11   | 12   |
|--------------------|------|------|------|-----|-----|-----|-----|-----|-----|------|------|------|------|
| November           |      |      |      |     |     |     |     |     |     |      |      |      |      |
| 1.                 | 50   | 50   | 50   | 30  | 30  | 30  | 60  | 30  | -70 | —    | -110 | 40   | 120  |
| 2.                 | 80   | 80   | 70   | 50  | 50  | 10  | ±S  | 100 | 90  | —    | —    | 70   | 60   |
| 3.                 | 60   | 60   | 30   | 20  | -10 | -10 | -20 | 10  | +S  | 10   | -10  | -10  | -20  |
| 4.                 | 0    | 10   | 90   | 70  | 120 | 110 | 90  | 140 | 160 | 160  | 180  | 150  | 100  |
| 5.                 | -100 | -30  | -10  | 20  | 30  | 20  | 60  | 90  | 100 | 100  | 100  | 90   | 100  |
| 6.                 | 110  | 140  | 100  | 140 | 120 | 80  | 60  | 90  | 80  | 150  | 180  | 150  | 140  |
| 7.                 | 10   | 0    | 0    | 0   | -10 | -10 | 10  | 40  | 50  | 30   | -20  | 70   | 100  |
| 8.                 | 110  | 140  | 70   | 70  | 70  | 90  | —   | —   | —   | —    | —    | —    | —    |
| 9.                 | 70   | 20   | 40   | 80  | 10  | 30  | 20  | 40  | 20  | 80   | 30   | 20   | 40   |
| 10.                | 30   | 60   | 110  | 140 | 130 | 40  | -10 | 20  | 100 | 70   | -40  | 110  | 110  |
| 11.                | 20   | -50  | 60   | 30  | 100 | 90  | 70  | 30  | 0   | 10   | -20  | -120 | 0    |
| 12.                | 90   | 100  | 90   | 130 | 80  | ±S  | ±S  | 70  | 130 | 180  | 200  | 180  | 150  |
| 13.                | 100  | 90   | 100  | 110 | 30  | 30  | 30  | 40  | 90  | 100  | 100  | 130  | 150  |
| 14.                | 80   | 50   | 20   | 40  | -10 | -10 | -30 | -90 | +S  | 40   | 90   | 60   | 110  |
| 15.                | 60   | 70   | 80   | 70  | 90  | 100 | 60  | 80  | —   | —    | 120  | 110  | 110  |
| 16.                | 80   | 60   | 60   | 50  | 50  | 80  | 70  | 90  | 130 | 100  | 110  | 130  | 140  |
| 17.                | 90   | 70   | 50   | -10 | -10 | -40 | -50 | 10  | -10 | -20  | -70  | -110 | -110 |
| 18.                | ±S   | -120 | -80  | -80 | -20 | -10 | -40 | -40 | 40  | 20   | 40   | 40   | -60  |
| 19.                | -60  | -80  | 0    | -10 | -60 | 20  | -50 | -40 | 10  | -50  | -100 | -130 | -70  |
| 20.                | 60   | 10   | -150 | -S  | -S  | -S  | -10 | 10  | 70  | 140  | 160  | 160  | 200  |
| 21.                | -80  | -40  | -20  | 60  | 20  | -60 | 50  | 80  | 50  | 40   | 40   | -60  | ±S   |
| 22.                | 40   | 40   | 40   | 60  | 50  | 70  | 90  | 100 | 140 | 130  | —    | 200  | 230  |
| 23.                | ±S   | +S   | —    | —   | —   | —   | —   | —   | —   | —    | —    | 190  | 200  |
| 24.                | 180  | 200  | 200  | 220 | 240 | 220 | 200 | 200 | —   | 250  | +S   | 230  | 240  |
| 25.                | 170  | 160  | 60   | 160 | 130 | 180 | 170 | 200 | —   | +S   | +S   | +S   | +S   |
| 26.                | 130  | 70   | 100  | -20 | -30 | -10 | -20 | -30 | 10  | 0    | -40  | -70  | -30  |
| 27.                | +S   | +S   | +S   | +S  | +S  | 110 | 160 | 170 | 40  | -240 | -270 | -150 | -40  |
| 28.                | -S   | -30  | 30   | 80  | 70  | 80  | 100 | 120 | 130 | 130  | 140  | 130  | 140  |
| 29.                | 60   | 60   | 60   | 60  | 70  | 70  | 80  | 80  | 140 | —    | 160  | 150  | 190  |
| 30.                | 40   | 70   | 60   | 60  | 80  | 80  | 90  | 100 | 130 | 130  | +S   | ±S   | ±S   |
| Mittel             | 57   | 45   | 47   | 60  | 53  | 51  | 48  | 62  | 71  | 68   | 42   | 65   | 88   |
| Anzahl<br>der Tage | 26   | 28   | 28   | 27  | 27  | 27  | 26  | 28  | 23  | 23   | 23   | 27   | 26   |



| 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | Mittel | Anzahl der<br>Stunden |
|------|------|------|------|------|------|------|------|------|------|------|--------|-----------------------|
| 140  | 110  | 100  | 100  | 90   | 80   | 60   | 70   | 70   | 60   | 70   | 55     | 23                    |
| 60   | 100  | 70   | +S   | +S   | +S   | -S   | +S   | 10   | 70   | 50   | 64     | 16                    |
| -10  | 20   | 30   | 20   | 90   | 50   | 60   | 90   | 170  | 150  | 90   | 38     | 23                    |
| 60   | 50   | -70  | -60  | -110 | -110 | -220 | -280 | -330 | -180 | -220 | -4     | 24                    |
| 130  | 150  | 150  | 110  | 100  | 110  | 120  | 130  | 130  | 140  | 140  | 83     | 24                    |
| 130  | —    | 80   | 90   | 100  | 90   | 80   | 50   | 30   | 30   | 30   | 98     | 23                    |
| 100  | 150  | 140  | 110  | 100  | 50   | 130  | 140  | 180  | 160  | 110  | 68     | 24                    |
| —    | —    | -90  | -20  | 0    | 80   | 80   | 140  | 130  | 70   | 0    | 63     | 15                    |
| 10   | -40  | +S   | 120  | 60   | 110  | 180  | 110  | 110  | 80   | 100  | 58     | 23                    |
| 150  | 70   | 40   | 20   | -60  | 10   | -20  | -60  | -10  | -50  | 10   | 40     | 24                    |
| 60   | 160  | 160  | 110  | 110  | 100  | 150  | 100  | 60   | 10   | 10   | 52     | 24                    |
| —    | 120  | 150  | 150  | 150  | 130  | 150  | 130  | 120  | 90   | 50   | 126    | 21                    |
| 150  | 140  | 100  | 120  | 140  | 140  | 140  | 150  | 120  | 120  | 120  | 106    | 24                    |
| 110  | 70   | 90   | 150  | 110  | 120  | 100  | 60   | 50   | 60   | 60   | 58     | 23                    |
| 90   | 110  | 150  | 160  | 140  | 190  | 170  | 140  | 170  | 200  | 140  | 119    | 22                    |
| 150  | 140  | 170  | 170  | 160  | 100  | 50   | 140  | 140  | 140  | 100  | 109    | 24                    |
| -130 | -130 | -130 | -120 | -120 | -90  | -130 | -120 | -140 | -130 | -130 | -66    | 24                    |
| 30   | 20   | 110  | 200  | 100  | -20  | 110  | 90   | -20  | -20  | -210 | 3      | 23                    |
| -50  | -20  | -130 | -170 | 110  | -120 | -200 | -70  | -10  | 40   | 90   | -48    | 24                    |
| 170  | 100  | 120  | 120  | 60   | 20   | -70  | -210 | -80  | -60  | -160 | 31     | 21                    |
| +S   | +S   | +S   | 40   | +S   | 40   | 60   | 50   | 70   | 60   | 50   | 24     | 19                    |
| -10  | 20   | 130  | 100  | -10  | +S   | +S   | +S   | +S   | +S   | +S   | 84     | 17                    |
| 220  | 220  | 210  | 220  | 250  | 290  | 290  | +S   | 220  | 200  | 200  | 226    | 12                    |
| 280  | +S   | +S   | 250  | 250  | 240  | 220  | 230  | 180  | 220  | +S   | 224    | 19                    |
| +S   | 210  | +S   | +S   | +S   | +S   | +S   | +S   | +S   | +S   | 160  | 160    | 10                    |
| 100  | +S   | +S   | +S   | +S   | +S   | +S   | +S   | +S   | +S   | +S   | 11     | 14                    |
| 60   | -60  | -90  | -60  | -60  | 10   | -10  | -S   | +S   | +S   | +S   | -29    | 15                    |
| 160  | 140  | 110  | 180  | 170  | +S   | 150  | 170  | 170  | 80   | 60   | 111    | 22                    |
| 200  | 110  | 20   | 70   | 10   | 0    | 10   | 10   | 10   | 40   | 40   | 74     | 23                    |
| +S   | +S   | +S   | +S   | +S   | +S   | +S   | 40   | 60   | 70   | 70   | 77     | 14                    |
| 92   | 82   | 68   | 84   | 78   | 68   | 66   | 54   | 62   | 63   | 40   | 63     |                       |
| 25   | 24   | 24   | 26   | 25   | 24   | 25   | 24   | 26   | 26   | 26   |        |                       |

|                    | 0   | 1   | 2   | 3   | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12       |
|--------------------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|----------|
|                    |     |     |     |     |      |      |      |      |      |      |      |      | Dezember |
| 1.                 | 70  | 70  | 80  | 80  | 80   | 90   | 100  | 110  | 120  | 130  | 160  | 180  | 150      |
| 2.                 | 190 | 180 | 100 | 120 | 110  | 140  | 90   | 160  | 150  | +S   | 190  | 150  | 170      |
| 3.                 | −60 | −40 | −10 | −20 | −20  | −10  | −20  | −40  | 10   | 60   | −40  | 80   | 30       |
| 4.                 | +S  | +S  | +S  | +S  | +S   | +S   | +S   | +S   | +S   | +S   | +S   | +S   | +S       |
| 5.                 | 0   | 0   | −10 | 10  | 10   | 40   | 60   | 0    | −100 | −110 | −100 | −160 | −80      |
| 6.                 | 90  | 90  | 140 | 130 | 130  | 150  | 140  | 150  | +S   | —    | 180  | 60   | −120     |
| 7.                 | +S  | 0   | −10 | 10  | 0    | −10  | 20   | 0    | 0    | −10  | −10  | −20  | −10      |
| 8.                 | 30  | 50  | 80  | 50  | −140 | −300 | −380 | −200 | —    | —    | −190 | −140 | −200     |
| 9.                 | 40  | 20  | 10  | 10  | 10   | 10   | 20   | 50   | 90   | 100  | 120  | 140  | 190      |
| 10.                | 10  | 10  | 10  | 40  | 50   | 50   | 80   | 70   | 70   | −60  | +S   | −80  | −130     |
| 11.                | 50  | 80  | 120 | 90  | 80   | 90   | 90   | 130  | 120  | 120  | 130  | 110  | 110      |
| 12.                | 100 | 90  | 90  | 100 | 100  | 120  | 120  | 130  | 140  | 150  | 150  | 120  | 110      |
| 13.                | 40  | 30  | 40  | 30  | 30   | 60   | 70   | 90   | 150  | —    | 100  | 80   | 100      |
| 14.                | 20  | 50  | 80  | +S  | +S   | +S   | 10   | 20   | 60   | 120  | 130  | 150  | 180      |
| 15.                | 140 | 150 | 130 | 120 | 110  | 30   | 40   | 70   | 70   | 90   | 110  | 120  | +S       |
| 16.                | 120 | 100 | 100 | 100 | 70   | 80   | 80   | 70   | 110  | 170  | +S   | 180  | +S       |
| 17.                | 10  | −80 | −20 | −60 | −130 | −110 | −100 | −130 | −140 | −20  | −10  | −80  | −20      |
| 18.                | +S  | +S  | 110 | 120 | −S   | −S   | −10  | 150  | 70   | 0    | −180 | −130 | 170      |
| 19.                | 30  | 40  | 20  | 170 | 80   | 60   | 90   | 10   | 10   | 50   | +S   | 100  | 110      |
| 20.                | +S  | +S  | +S  | +S  | 210  | +S   | +S   | —    | 200  | —    | —    | +S   | 230      |
| 21.                | 140 | 60  | 110 | 150 | 140  | 140  | 160  | 90   | 100  | 70   | 140  | 160  | 90       |
| 22.                | +S  | 40  | 30  | 30  | 30   | 40   | 40   | 50   | 60   | 80   | 90   | 120  | 150      |
| 23.                | 70  | 90  | 100 | 110 | 100  | 100  | 120  | 140  | 150  | —    | 220  | 180  | +S       |
| 24.                | −10 | +S  | +S  | +S  | 20   | 10   | 70   | 70   | 60   | −40  | −10  | 170  | —        |
| 25.                | −10 | −10 | 0   | 0   | 0    | 0    | 0    | 10   | 30   | 30   | 10   | 60   | 20       |
| 26.                | +S  | +S  | 150 | 20  | 150  | 190  | +S   | +S   | 130  | +S   | +S   | 180  | 150      |
| 27.                | 40  | 70  | 60  | 30  | 40   | 40   | 30   | 30   | −20  | 10   | 20   | 70   | 100      |
| 28.                | 40  | 50  | +S  | +S  | 70   | 20   | 70   | 80   | 0    | —    | —    | —    | —        |
| 29.                | +S  | +S  | 150 | 190 | 180  | 120  | 130  | 110  | 80   | 130  | 140  | 140  | 190      |
| 30.                | 80  | 80  | 10  | 10  | −20  | —    | —    | —    | —    | —    | —    | —    | —        |
| 31.                | —   | —   | —   | —   | —    | —    | —    | —    | —    | —    | —    | —    | —        |
| Mittel             | 53  | 51  | 64  | 66  | 55   | 46   | 43   | 55   | 67   | 54   | 61   | 75   | 73       |
| Anzahl<br>der Tage | 23  | 24  | 26  | 25  | 27   | 25   | 26   | 26   | 26   | 20   | 22   | 26   | 23       |

| 13   | 14   | 15   | 16  | 17  | 18  | 19   | 20   | 21   | 22   | 23  | Mittel | Anzahl der<br>Stunden |
|------|------|------|-----|-----|-----|------|------|------|------|-----|--------|-----------------------|
| 150  | 130  | 150  | 170 | 160 | 170 | 200  | 210  | +S   | 180  | 210 | 137    | 23                    |
| 180  | 190  | 120  | 180 | 170 | 90  | 40   | 40   | -20  | -10  | -10 | 118    | 23                    |
| 120  | 190  | 240  | +S  | +S  | +S  | +S   | +S   | +S   | +S   | +S  | 29     | 16                    |
| +S   | +S   | 210  | 220 | 140 | 110 | 60   | 100  | -20  | 80   | 70  | 108    | 9                     |
| -10  | 60   | 0    | 20  | 10  | 20  | -50  | -100 | -50  | 100  | 70  | -15    | 24                    |
| 30   | 50   | 80   | 100 | 90  | 40  | 40   | 20   | 30   | 30   | +S  | 79     | 21                    |
| 0    | 0    | 10   | 10  | 0   | 10  | 20   | -30  | -180 | -100 | 20  | -12    | 23                    |
| -140 | 60   | 40   | 70  | 60  | 190 | 110  | 100  | 100  | 90   | 80  | -30    | 22                    |
| 170  | 150  | 170  | 150 | 110 | 110 | 30   | 10   | 20   | 10   | 10  | 73     | 24                    |
| 0    | -200 | -190 | 60  | 70  | 100 | +S   | +S   | +S   | 110  | +S  | 4      | 19                    |
| 100  | 110  | 110  | 100 | 120 | 150 | 180  | 190  | 150  | 140  | 130 | 117    | 24                    |
| 120  | 120  | 110  | 140 | 130 | 100 | 50   | 80   | 60   | 60   | 60  | 106    | 24                    |
| 110  | 110  | 10   | 110 | 60  | 30  | 10   | 80   | 130  | 80   | +S  | 70     | 22                    |
| 170  | 170  | 150  | 170 | 210 | +S  | 250  | 240  | +S   | 240  | 170 | 137    | 19                    |
| +S   | 230  | 210  | 200 | 150 | 130 | 190  | +S   | 120  | 240  | 170 | 137    | 21                    |
| +S   | +S   | +S   | +S  | 200 | +S  | +S   | +S   | +S   | 180  | 50  | 115    | 14                    |
| -20  | -40  | 30   | -10 | 10  | 10  | -50  | -50  | -110 | -10  | +S  | -49    | 23                    |
| —    | 180  | +S   | 140 | +S  | 150 | 140  | +S   | +S   | 120  | 100 | 76     | 15                    |
| 150  | 170  | 200  | 170 | 120 | 90  | 10   | 60   | 130  | 180  | 110 | 94     | 23                    |
| 190  | 180  | 170  | 200 | 150 | +S  | +S   | 200  | 160  | +S   | 210 | 191    | 11                    |
| 70   | 130  | 110  | 180 | 100 | +S  | +S   | +S   | +S   | +S   | 100 | 118    | 19                    |
| 120  | 100  | 100  | 140 | 160 | 220 | 230  | 220  | 180  | 100  | 90  | 105    | 23                    |
| 140  | 60   | 70   | 0   | 0   | 30  | 80   | 10   | 0    | -10  | -20 | 79     | 22                    |
| +S   | 230  | +S   | +S  | +S  | -50 | -110 | -60  | -120 | -40  | -40 | 9      | 16                    |
| 30   | 40   | 180  | 170 | 70  | 80  | 70   | 60   | 210  | 100  | +S  | 50     | 23                    |
| 60   | 140  | +S   | 150 | 120 | 110 | 120  | 90   | 80   | 70   | 60  | 116    | 17                    |
| —    | 140  | 60   | 80  | 80  | 10  | -10  | 40   | 50   | -110 | -10 | 37     | 23                    |
| 210  | 110  | 230  | 150 | 130 | 170 | 110  | 100  | 110  | 190  | 200 | 113    | 18                    |
| 180  | 210  | 260  | +S  | 220 | 230 | +S   | 150  | 190  | 110  | 130 | 162    | 20                    |
| —    | —    | —    | —   | —   | —   | —    | —    | —    | —    | —   | 32     | 5                     |
| —    | —    | —    | —   | —   | —   | —    | —    | —    | —    | —   | —      | —                     |
| 93   | 112  | 113  | 123 | 105 | 94  | 75   | 77   | 55   | 82   | 85  | 74     |                       |
| 23   | 27   | 25   | 25  | 27  | 24  | 23   | 23   | 22   | 26   | 23  |        |                       |



II. *Die stündlichen Mittelwerte der durch den Spitzenstrom transportierten Ladungen in den Monaten des Jahres 1965*



|       |   | 0   | 1   | 2   | 3  | 4  | 5  | 6   | 7  | 8  | 9  | 10 | 11 |
|-------|---|-----|-----|-----|----|----|----|-----|----|----|----|----|----|
| Jan.  | + | 0   | 0   | 0   | 0  | 17 | 0  | 0   | 0  | 11 | 0  | 0  | 0  |
|       | — | 0   | 0   | 0   | 0  | 12 | 7  | 0   | 0  | 6  | 1  | 0  | 0  |
| Febr. | + | 0   | 0   | 0   | 0  | 0  | 0  | 18  | 22 | 30 | 0  | 11 | 3  |
|       | — | 0   | 0   | 0   | 0  | 0  | 0  | 80  | 74 | 5  | 0  | 0  | 0  |
| März. | + | 1   | 0   | 0   | 20 | 0  | 3  | 36  | 28 | 4  | 0  | 0  | 0  |
|       | — | 1   | 0   | 1   | 13 | 3  | 20 | 21  | 29 | 1  | 0  | 0  | 0  |
| Apr.  | + | 4   | 33  | 153 | 25 | 50 | 48 | 32  | 47 | 0  | 0  | 0  | 0  |
|       | — | 0   | 86  | 68  | 91 | 54 | 38 | 167 | 64 | 2  | 0  | 0  | 0  |
| Mai   | + | 116 | 8   | 8   | 2  | 0  | 6  | 43  | 15 | 0  | 0  | 0  | 0  |
|       | — | 161 | 13  | 57  | 13 | 2  | 10 | 15  | 38 | 0  | 1  | 0  | 0  |
| Juni  | + | 4   | 5   | 3   | 0  | 0  | 2  | 4   | 4  | 21 | 60 | 46 | 58 |
|       | — | 26  | 2   | 42  | 0  | 0  | 26 | 2   | 5  | 67 | 5  | 33 | 79 |
| Juli  | + | 44  | 70  | 31  | 3  | 0  | 0  | 15  | 1  | 0  | 1  | 0  | 42 |
|       | — | 0   | 45  | 59  | 7  | 0  | 0  | 4   | 19 | 0  | 0  | 0  | 27 |
| Aug.  | + | 55  | 52  | 72  | 0  | 0  | 0  | 1   | 0  | 1  | 2  | 4  | 0  |
|       | — | 156 | 202 | 62  | 19 | 0  | 0  | 4   | 3  | 2  | 0  | 0  | 13 |
| Sept. | + | 89  | 100 | 16  | 0  | 0  | 0  | 2   | 36 | 0  | 5  | 2  | 0  |
|       | — | 79  | 39  | 14  | 0  | 0  | 0  | 60  | 99 | 86 | 2  | 10 | 0  |
| Okt.  | + | 0   | 0   | 0   | 0  | 0  | 0  | 1   | 5  | 0  | 0  | 0  | 0  |
|       | — | 0   | 0   | 0   | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  |
| Nov.  | + | 6   | 7   | 0   | 0  | 0  | 60 | 17  | 0  | 3  | 0  | 2  | 5  |
|       | — | 9   | 0   | 0   | 2  | 17 | 40 | 14  | 0  | 0  | 0  | 0  | 1  |
| Dez.  | + | 0   | 0   | 1   | 1  | 27 | 23 | 1   | 0  | 1  | 21 | 5  | 0  |
|       | — | 0   | 0   | 0   | 3  | 13 | 0  | 1   | 2  | 3  | 10 | 2  | 0  |

| 12  | 13 | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  | 22  | 23  | Mittel |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| 0   | 0  | 0   | 0   | 0   | 0   | 0   | 5   | 2   | 1   | 0   | 0   | 1,5    |
| 0   | 0  | 0   | 0   | 0   | 0   | 0   | 1   | 22  | 0   | 0   | 0   | 2,0    |
| 2   | 0  | 0   | 1   | 8   | 42  | 5   | 16  | 0   | 0   | 13  | 7   | 7,4    |
| 17  | 0  | 0   | 0   | 5   | 7   | 0   | 21  | 0   | 1   | 3   | 0   | 8,9    |
| 0   | 0  | 3   | 0   | 13  | 0   | 16  | 18  | 40  | 113 | 6   | 2   | 12,6   |
| 0   | 0  | 0   | 0   | 25  | 4   | 0   | 85  | 59  | 27  | 19  | 16  | 13,5   |
| 0   | 0  | 2   | 13  | 14  | 49  | 40  | 5   | 0   | 1   | 0   | 1   | 21,5   |
| 0   | 1  | 0   | 1   | 36  | 12  | 69  | 13  | 0   | 0   | 0   | 11  | 29,7   |
| 0   | 26 | 87  | 78  | 86  | 53  | 163 | 101 | 76  | 92  | 60  | 75  | 45,6   |
| 0   | 48 | 149 | 187 | 95  | 83  | 201 | 121 | 78  | 46  | 100 | 81  | 62,4   |
| 16  | 63 | 114 | 90  | 52  | 56  | 30  | 63  | 15  | 16  | 0   | 0   | 30,1   |
| 3   | 21 | 18  | 170 | 246 | 160 | 61  | 44  | 34  | 12  | 0   | 1   | 44,0   |
| 52  | 80 | 64  | 49  | 58  | 94  | 105 | 293 | 202 | 212 | 145 | 77  | 68,2   |
| 26  | 96 | 166 | 60  | 120 | 192 | 109 | 158 | 305 | 76  | 62  | 108 | 68,3   |
| 9   | 16 | 39  | 4   | 12  | 2   | 6   | 71  | 7   | 9   | 159 | 65  | 24,4   |
| 22  | 33 | 45  | 82  | 10  | 0   | 4   | 51  | 36  | 67  | 19  | 115 | 39,4   |
| 0   | 0  | 0   | 0   | 6   | 14  | 0   | 0   | 7   | 0   | 0   | 0   | 11,5   |
| 0   | 0  | 0   | 0   | 57  | 17  | 0   | 0   | 8   | 0   | 0   | 0   | 19,6   |
| 0   | 1  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0,3    |
| 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0,0    |
| 35  | 34 | 68  | 24  | 65  | 9   | 51  | 6   | 35  | 26  | 23  | 7   | 20,1   |
| 100 | 81 | 106 | 23  | 62  | 11  | 8   | 16  | 29  | 32  | 6   | 3   | 23,3   |
| 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 10  | 3,8    |
| 0   | 0  | 24  | 4   | 0   | 0   | 0   | 3   | 1   | 0   | 0   | 16  | 3,4    |