

SUNSPOT - BULLETIN

1982 , No. 6

Provisional Sunspot - Numbers for JUNE 1982

Dependent on observations at Locarno Specola Solare ,  
 complemented by an international network and  
 determined at the Observatoire Royal de Belgique.  
 Twenty eight cooperating stations on July 1th, 11h UT

| Day | R <sub>i</sub> | Day | R <sub>i</sub> |
|-----|----------------|-----|----------------|
| 1   | 70             | 16  | 128            |
| 2   | 83             | 17  | 136            |
| 3   | 94             | 18  | 134            |
| 4   | 104            | 19  | 134            |
| 5   | 111            | 20  | 139            |
| 6   | 108            | 21  | 143            |
| 7   | 115            | 22  | 146            |
| 8   | 127            | 23  | 116            |
| 9   | 142            | 24  | 112            |
| 10  | 147            | 25  | 92             |
| 11  | 138            | 26  | 94             |
| 12  | 144            | 27  | 49             |
| 13  | 139            | 28  | 36             |
| 14  | 137            | 29  | 32             |
| 15  | 125            | 30  | 38             |

Mean = 110 .4

Predictions of the smoothed  
 monthly Sunspot - Numbers

| Classical method |      |     |      | SIDC Adjusted Values . |      |      |     |      |     |
|------------------|------|-----|------|------------------------|------|------|-----|------|-----|
| 1982             | Jul. | 123 | Oct. | 114                    | 1982 | Jul. | 137 | Oct. | 128 |
|                  | Aug. | 119 | Nov. | 111                    |      | Aug. | 133 | Nov. | 125 |
|                  | Sep. | 117 | Dec. | 108                    |      | Sep. | 131 | Dec. | 122 |

Brussels , July 1 th , 1982

A . Koeckelenbergh .

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## OBSERVATOIRE ROYAL DE BELGIQUE

## DEPARTEMENT 4 RADIOASTRONOMIE ET PHYSIQUE SOLAIRE

## NOMBRES RELATIFS DE WOLF JOURNALIERS

## SUNSPOT RELATIVE NUMBERS

STATION UCCLE BELGIUM

JUIN 1982

| DATE | TU   | NOMBRE<br>DE<br>GROUPES | NOMBRE<br>DE<br>TACHES | NOMBRE<br>DE<br>WOLF | PPSI<br>10-6<br>WM-2 | QUALITE | OBSER |
|------|------|-------------------------|------------------------|----------------------|----------------------|---------|-------|
| 2    | 0920 | 7                       | 41                     | 111                  | 690.                 | 3       | AK    |
| 3    | 0748 | 7                       | 35                     | 105                  | 657.                 | 2       | GE    |
| 4    | 0655 | 7                       | 40                     | 110                  | 933.                 | 2       | GE    |
| 5    | 1315 | 6                       | 83                     | 143                  | 1395.                | 3       | AK    |
| 6    | 1007 | 7                       | 55                     | 125                  | 1326.                | 3       | PC    |
| 7    | 0655 | 7                       | 69                     | 139                  | 1492.                | 2       | GE    |
| 8    | 0701 | 8                       | 38                     | 118                  | 1388.                | 1       | GE    |
| 9    | 0855 | 9                       | 84                     | 174                  | 1637.                | 2       | AK    |
| 10   | 1304 | 10                      | 60                     | 160                  | 1641.                | 2       | GE    |
| 11   | 1425 | 8                       | 87                     | 167                  | 2029.                | 1       | AK    |
| 12   | 0900 | 10                      | 103                    | 203                  | 1919.                | 2       | AK    |
| 14   | 0708 | 9                       | 52                     | 142                  | 1772.                | 2       | GE    |
| 15   | 0739 | 8                       | 51                     | 131                  | 2015.                | 2       | GE    |
| 16   | 0840 | 9                       | 65                     | 155                  | 1791.                | 2       | GE    |
| 17   | 0826 | 9                       | 60                     | 150                  | 1832.                | 2       | GE    |
| 18   | 1139 | 7                       | 57                     | 127                  | 1889.                | 1       | GE    |
| 20   | 1020 | 7                       | 87                     | 157                  | 2271.                | 1       | PC    |
| 22   | 0719 | 6                       | 49                     | 109                  | 2068.                | 1       | GE    |
| 23   | 1103 | 6                       | 56                     | 116                  | 1563.                | 1       | GE    |
| 25   | 0705 | 6                       | 28                     | 88                   | 651.                 | 1       | GE    |
| 26   | 0915 | 7                       | 47                     | 117                  | 573.                 | 3       | CG    |
| 29   | 0857 | 3                       | 8                      | 38                   | 256.                 | 1       | GE    |
| 30   | 1120 | 5                       | 20                     | 70                   | 70.                  | 3       | AK    |

LE SOLEIL A ETE OBSERVE 23 JOURS SUR 30 POSSIBLES  
 LE NOMBRE RELATIF DE WOLF MOYEN EST DE 128.5  
 EDITEUR RESPONSABLE  
 A. KOECKELEBERGH  
 OBSERVATOIRE ROYAL DE BELGIQUE  
 UCCLE BELGIUM

NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

| WEEKS FOR 1982             |     |    |     | JUNE |     |    |     |    |     |
|----------------------------|-----|----|-----|------|-----|----|-----|----|-----|
| K <sub>12</sub> = 1896 (*) |     |    |     |      |     |    |     |    |     |
| 1                          | *** | 7  | 124 | 13   | *** | 19 | *** | 25 | 78  |
| 2                          | 99  | 8  | 105 | 14   | 127 | 20 | 140 | 26 | 104 |
| 3                          | 94  | 9  | 155 | 15   | 117 | 21 | *** | 27 | *** |
| 4                          | 98  | 10 | 143 | 16   | 138 | 22 | 97  | 28 | *** |
| 5                          | 126 | 11 | 149 | 17   | 134 | 23 | 103 | 29 | 34  |
| 6                          | 111 | 12 | 181 | 18   | 113 | 24 | *** | 30 | 62  |
|                            |     |    |     |      |     |    |     | 31 | *** |

THE SUN WAS OBSERVED 23 DAYS ON 30 POSSIBLE  
 THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 114

\* WOLF NUMBER MEAN OF THE OBSERVATIONS FOR THE LAST FIVE YEARS

UCCLE OBSERVATIONAL RECORD FOR JUNE 1982

| WAVELENGTH | DATE    | TIME  | WAVELENGTH | DATE    | TIME  |
|------------|---------|-------|------------|---------|-------|
| 5000 Å     | 6/12/82 | 18:39 | 5000 Å     | 6/12/82 | 18:39 |
| 5000 Å     | 6/13/82 | 18:39 | 5000 Å     | 6/13/82 | 18:39 |
| 5000 Å     | 6/14/82 | 18:39 | 5000 Å     | 6/14/82 | 18:39 |
| 5000 Å     | 6/15/82 | 18:39 | 5000 Å     | 6/15/82 | 18:39 |

PROGRAMME RETURN OF DATA FOR JUNE 1982

| WAVELENGTH | DATE    | TIME  | WAVELENGTH | DATE    | TIME  |
|------------|---------|-------|------------|---------|-------|
| 5000 Å     | 6/12/82 | 18:39 | 5000 Å     | 6/12/82 | 18:39 |
| 5000 Å     | 6/13/82 | 18:39 | 5000 Å     | 6/13/82 | 18:39 |
| 5000 Å     | 6/14/82 | 18:39 | 5000 Å     | 6/14/82 | 18:39 |

S.I.D.C. SUMMARY OF URSIGRAMS

1982 JUNE  $R_{im}^I = 110.4$

|         | 1   | 2   | 3   | 4   | 5    | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  |
|---------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| $R_I^I$ | 70  | 83  | 94  | 104 | 111  | 106 | 115 | 127 | 142 | 147 | 138 | 144 | 139 | 137 | 125 |
| PPSI    | 36  | 43  | 50  | 87  | 127  | 138 | 148 | 165 | 167 | 166 | 193 | 180 | 178 | 203 | 239 |
| 10,7cm  | 130 | 131 | 138 | 152 | 152  | 152 | 151 | 162 | 172 | 188 | 218 | 256 | 233 | 233 | 220 |
| XFI     | 9   | 29  | 155 | 402 | 169  | 148 | 42  | 48  | 17  | 60  | 52  | 222 | 180 | 209 | 369 |
| XI      | 0/0 | 1/0 | 3/1 | 8/3 | 15/1 | 3/1 | 3/0 | 3/0 | 3/0 | 4/0 | 5/0 | 9/1 | 4/1 | 8/1 | 5/3 |
| $A_K$   | 19  | 20  | 11  | 10  | 7    | 19  | 13  | 14  | 19  | 37  | 32  | 55  | 44  | 23  | 28  |
|         |     |     | 2b  | 2b  |      | 3b  |     |     | P   | 2b  | sid | sid | 2b  | 2b  | 3b  |
|         |     |     |     |     |      | sid |     |     | esc |     | sid | sid | sid |     | sid |

|         | 16  | 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30  |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| $R_I^I$ | 128 | 136 | 134 | 134 | 139 | 143 | 146 | 116 | 112 | 92  | 94  | 49  | 36  | 32  | 38  |
| PPSI    | 259 | 273 | 270 | 319 | 283 | 307 | 226 | 203 | 165 | 86  | 48  | 8   | 10  | 17  | 8   |
| 10,7cm  | 209 | 202 | 201 | 201 | 201 | 204 | 206 | 181 | 163 | 156 | 138 | 123 | 119 | 108 | 105 |
| XFI     | 141 | 43  | 37  | 36  | 116 | 197 | 56  | 90  | 40  | 41  | 229 | 11  | 1   | 1   | 3   |
| XI      | 1/1 | 3/0 | 1/0 | 1/0 | 9/0 | 7/1 | 4/0 | 7/0 | 2/0 | 3/0 | 2/2 | 2/0 | 0/0 | 0/0 | 0/0 |
| $A_K$   |     | 8   | 8   | 24  | 18  | 12  | 22  | 18  | 17  | 13  | 14  | 25  | 28  | 20  | 25  |
|         |     | 2b  | 2b  | 2b  | 2b  | 2b  | esc |     |     | 2b  | 2b  |     |     |     |     |
|         |     | sid | sid | sid | sid | sid |     |     |     | sid | sid |     |     |     |     |

- $R_{Im}^I$  : provisional International monthly Sunspot-Number from the S.I.D.C.
- $R_I^I$  : provisional International daily Sunspot-Number from the S.I.D.C.
- PPSI : Prompt Photometric Sunspot Index from the S.I.D.C. in  $10^{-9} W.m^{-2}$ . Quantity to subtract at the mean solar constant, due to the presence of sunspots.
- 10,7 cm : 2800 MHz solar flux from the ursigrams, in  $10^{-22} W.m^{-2} Hz^{-1}$
- XFI : X-flare index from the S.I.D.C. on the base of the ursigrams. XFI = number of C class flares  $\times 1 +$  nb of M  $\times 10 +$  nb of X  $\times 100$ . (C not assoc. with signif. X rays; M assoc. with signif. X rays; X assoc. with import. X flux).
- XI : X-flare index from ursigrams (nb. of M-flares / nb. of X)
- $A_K$  : Geometric Index of light from ursigrams.