

SUNSPOT - BULLETIN

1982 , No. 4

Provisional Sunspot - Numbers for April 1982

Dependent on observations at Locarno Specola Solare ,
 complemented by an international network and
 determined at the Observatoire Royal de Belgique.
 Twenty two cooperating stations on 1982 , May 1st at 0900 UT

Day	R _I	Day	R _I
1	145	16	122
2	115	17	108
3	151	18	91
4	137	19	87
5	112	20	93
6	117	21	91
7	130	22	109
8	131	23	138
9	132	24	145
10	138	25	149
11	152	26	150
12	142	27	126
13	148	28	90
14	136	29	85
15	127	30	79

Mean = 122 . 5

Predictions of the smoothed
 monthly Sunspot - Numbers

Classical method		SIDC Adjusted Values	
1982 May	126	1982 May	139
Aug. 119		Aug. 132	
Jun. 124	Sep. 116	Jun. 137	Sep. 129
Jul. 122	Oct. 113	Jul. 135	Oct. 126

Brussels , May 1st , 1982

A . Koeckelenbergh .

Reproduction permitted if the source is mentioned .

Ed.Resp . Dr. André Koeckelenbergh, 3, avenue Circulaire, B 1180 BRUXELLES, BELGIUM.
 TELEX : 21565 obsbel - Tél. : (02) 375 24 84 EXT 611

S.I.D.C. SUMMARY OF URSIGRAMS

1982 April $R_{Im} = 122.5$

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
R_I	145	115	151	137	112	117	130	131	132	138	152	142	148	136	127
PPSI	122	86	98	80	75	91	107	84	94	136	239	321	190	185	183
10,7cm	174	174	170	159	160	165	163	165	170	176	186	178	170	157	151
XFI	29	16	21	10	5	2	4	4	14	16	27	26	9	35	13
XI	2/0	1/0	1/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0	1/0	1/0	0/0	2/0	0/0
A_K	19	32	33	23	21	16	4	14	8	37	35	12	13	6	8

sec sid

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
R_I	122	108	91	87	93	91	109	136	145	149	150	126	90	85	79
PPSI	150	104	97	94	82	93	111	178	294	248	215	189	112	74	87
10,7cm	147	147	146	144	143	144	153	173	179	183	176	165	163	153	
XFI	2	3	14	15	2	1	18	20	16	12	6	8	16	22	
XI	1/0	0/0	0/0	1/0	0/0	0/0	1/0	1/0	0/0	0/0	0/0	0/0	0/0	1/0	
A_K	12	14	12	9	14	28	13	10	16	40	8	28	21	28	

sid 2b sec sec
 // sid

- R_{Im} : provisional International monthly Sunspot-Number from the S.I.D.C.
- R_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^{-5}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 $10^{-22} \text{w.m}^{-2} \text{Hz}^{-1}$
- XFI : X-flare Index from the S.I.D.C. on the base of the ursigrams. XFI = number of C class flares $\times 10 + \text{nb of X} \times 100$. (C: not assoc. with signif. X rays ; H: assoc with signif. X rays ; X assoc with impert. X flux).
- XI : X-flare index from ursigrams (nb. of H-flares / nb. of X)
- A_K : Geomagnetic Index of Kingst from ursigrams.

OBSERVATOIRE ROYAL DE BELGIQUE

DEPARTEMENT 4 RADIOASTRONOMIE ET PHYSIQUE SOLAIRE

NOMBRES RELATIFS DE WOLF JOURNALIERS

SUNSPOT RELATIVE NUMBERS

STATION UCCLE BELGIUM

AVRIL 1982

DATE	TU	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	PROB 18-6 MM-2	QUALITE	OBSER
1	0912	17	75	245	1206.	9	ST
3	0826	13	41	171	977.	2	GE
4	0835	12	80	200	819.	4	AK
5	1108	9	58	186	752.	3	ST
6	0734	9	36	126	1006.	2	GE
7	0954	12	34	154	1227.	1	GE
8	1541	12	25	145	1556.	2	GE
9	0715	13	28	178	1726.	2	ST
10	1420	11	68	178	1409.	2	AK
13	0717	12	68	188	2100.	2	ST
14	0734	12	77	197	2118.	4	ST
16	0725	16	76	256	1812.	4	ST
16	0751	9	51	141	1799.	2	ST
17	0430	10	58	138	1047.	2	AK
18	1016	6	21	80	841.	2	AK
19	0741	8	23	103	921.	3	ST
20	0954	8	26	106	961.	2	ST
21	1054	7	27	97	966.	2	ST
22	0724	9	72	162	1303.	3	ST
23	0826	8	77	157	1131.	2	GE
24	0915	9	83	173	1876.	2	GG
25	0835	9	114	204	2444.	3	AK
26	1615	9	114	204	1904.	2	AK
28	0707	6	54	114	1055.	2	ST
30	0729	7	30	100	672.	2	ST

LE SOLEIL A ETE OBSERVE 25 JOURS SUR 30 POSSIBLES
 LE NOMBRE RELATIF DE WOLF MOYEN EST DE 157,0
 EDITEUR RESPONSABLE
 A. KOECKELEBERGH
 OBSERVATOIRE ROYAL DE BELGIQUE
 UCCLE BELGIUM

NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

U = K * U FOR 1982 APRIL

K* = 1.052 (*)

1	257	7	162	13	197	19	108	25	214
2	***	8	152	14	207	20	111	26	214
3	179	9	166	15	248	21	102	27	***
4	210	10	187	16	148	22	170	28	119
5	155	11	***	17	145	23	165	29	***
6	132	12	***	18	84	24	181	30	105
								31	***

THE SUN WAS OBSERVED 25 DAYS ON 30 POSSIBLE
THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 164

* K* IS THE MEAN OF THE MONTHLY K'S FOR THE LAST FIVE YEARS

UCCLE OBSERVATIONAL MAJOR SUNSPOTS FOR 1982 APRIL
E AND F BRUNNER'S TYPE GROUPS

UCCLE NO	EAST LIMB DATE	DATE	AND TYPE	WEST LIMB DATE
		IST OBS	OMP	LAST OBS
2-1720	3 22.2	23 G	3 28.9	4 H 4 4.7
32-1720	4 5.7	6 H	4 12.4	18 H 4 19.2
3-1721	4 18.6	19 H	4 25.4	30 G 5 2.1
4-1721	4 18.0	20 C	4 24.7	30 H 5 1.5

PROBABLE RETURN OF MAJOR GROUPS FOR 1982 MAY

NO	NEW EAST LIMB	NEW OMP	NEW WEST LIMB
2	4 18.6	4 25.4	5 2.1
32	5 3.2	5 9.9	5 16.7
3	5 15.7	5 22.4	5 29.2
4	5 15.0	5 21.8	5 28.5