

SUNSPOT - BULLETIN

1982 , No. 11

Provisional Sunspot - Numbers for November 1982

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

Day	R _I	Day	R _I
1	80	16	100
2	88	17	108
3	75	18	117
4	100	19	122
5	100	20	118
6	76	21	131
7	106	22	141
8	82	23	120
9	124	24	96
10	109	25	75
11	112	26	73
12	83	27	71
13	98	28	74
14	116	29	71
15	116	30	72

MEAN = 98.5

Predictions of the smoothed
 monthly Sunspot - Numbers

Classical Method		SIDC Adjusted Values	
1982 Dec. 103	1983 Mar. 96	1982 Dec. 100	1983 Mar. 93
1983 Jan. 101	Apr. 94	1983 Jan. 98	Apr. 91
Feb. 99	May 92	Feb. 96	May 89

Brussels , December 1st , 1982

A . Koeckelenbergh .

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S. I. D. C. SUMMARY OF URSIGRAMS

1982 November $R_{Im}^I = 98.5$

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
R_I^I	80	88	75	100	100	76	106	82	124	109	112	83	98	116	116
PPSI	42	59	-	31	25	46	48	59	-	59	86	105	151	176	177
10,7cm	162	157	150	143	139	145	145	148	152	156	157	168	165	163	161
XFI	18	16	12	12	1	18	3	6	3	18	15	162	58	25	27
XI	1/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	2/0	1/0	0/0	4/1	4/0	1/0	2/0
A_K	29	31	14	9	12	9	3	11	6	16	20	17	19	16	16

SSC 2b 1b
SID SID

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
R_I^I	100	108	117	122	118	131	141	120	96	75	73	71	74	71	72
PPSI	118	95	78	140	190	238	207	170	118	77	58	56	48	64	72
10,7cm	167	162	176	187	193	206	222	201	178	169	173	163	171	166	170
XFI	31	23	21	31	44	42	50	15	27	5	4	7	22	11	12
XI	2/0	2/0	1/0	1/0	3/0	5/0	6/0	6/0	1/0	3/0	3/1	0/0	0/0	0/0	0/0
A_K	10	7	16	12	8	25	20	38	66	42	26	19	29	31	9

1b 1b P SSC SSC P 2bP SSC SSC
SSC PCA PCA

- 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 $10^{-5}W.m^{-2}$. 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 $10^{-22}W.m^{-2}Hz^{-1}$
- XFI : X-flare Index from the S.I.D.C. on the base of the ursigrams. $XFI = \text{number of C class flares} \times 10 + \text{nb of M} \times 10 + \text{nb of X} \times 100$. (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 : 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

NOVEMBRE 1982

DATE	TU	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	PPSI 10-6 WM-2	QUALITE	OBSER
1	1405	4	32	72	396.	2	CG
6	1050	5	23	73	825.	2	CG
8	1000	4	13	53	585.	2	AK
11	0915	5	34	84	912.	2	PC
12	0850	3	47	77	1076.	3	AK
14	0910	6	76	136	1320.	4	AK
19	0935	6	90	150	1682.	4	AK
20	1050	6	93	153	1906.	3	CG
21	1005	10	94	194	1774.	3	AK
22	1350	11	91	201	1951.	2	AK
23	1100	8	83	163	1275.	3	AK
24	1355	8	48	128	899.	3	AK
26	1340	5	24	74	573.	2	AK
29	1318	4	32	72	457.	2	HB
30	1329	3	22	52	410.	2	PC

LE SOLEIL A ETE OBSERVE 15 JOURS SUR 30 POSSIBLES

LE NOMBRE RELATIF DE WOLF MOYEN EST DE 112.1

EDITEUR RESPONSABLE

A. KOECKELNBERGH

OBSERVATOIRE ROYAL DE BELGIQUE

UCCLE BELGIUM

NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

U* = K*U FOR 1982 NOVEMBER

K* = .95D (*)

1	68	7	***	13	***	19	142	25	***
2	***	8	50	14	129	20	145	26	70
3	***	9	***	15	***	21	184	27	***
4	***	10	***	16	***	22	190	28	***
5	***	11	79	17	***	23	154	29	68
6	69	12	73	18	***	24	121	30	49
								31	***

THE SUN WAS OBSERVED 15 DAYS ON 30 POSSIBLE
THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 106

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

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

UCCLE NO	EAST LIMB DATE	IST OBS	DATE AND TYPE	WEST LIMB DATE
			CHP LAST OBS	
10-1728	11 8.4	11 E	11 15.2 21 J	11 21.9
15-1728	11 13.1	19 E	11 19.8 24 G	11 26.6

PROBABLE RETURN OF MAJOR GROUPS FOR 1982 JANUARY

UCCLE NO	NEW EAST LIMB	NEW CMP	NEW WEST LIMB
10	12 5.9	12 12.6	12 19.4
15	12 10.1	12 16.9	12 23.6