

SUNSPOT - BULLETIN


1981 , No. 11

Provisional Sunspot - Numbers for November 1981

Dependent on observations at Locarno Specola Solare ,
 complemented by an international network and
 determined at the Observatoire Royal de Belgique.
 Twenty four cooperating stations on Nov. 1st , 10 h UT .

Day	R _I	Day	R _I
1	165	16	126
2	222	17	103
3	218	18	102
4	231	19	90
5	207	20	82
6	199	21	78
7	192	22	79
8	166	23	65
9	134	24	59
10	147	25	60
11	146	26	74
12	150	27	87
13	158	28	110
14	178	29	134
15	148	30	155

Mean = 135 ,6

For private subscribers and, if it is possible , for the
 others , the subscription for 1982 is 15 US Dollars .
 PAIEMENT AU COMPTE 310-0290476-47  Banque Bruxelles Lambert

Predictions of the smoothed
 monthly Sunspot - Numbers

1981 December	127 (+1)	1982 March	121 (+1)
1982 January	125 (+1)	April	119 (+1)
February	123 (+1)	May	117

Because the week-end of 1 to 3 january, the S-8 will be
 exceptionnally send on january 4th or 5th , 1982 .

Brussels , December 1st , 1981

A . Koeckelenbergh .

Reproduction permitted if the source is mentioned .

Ed.Resp. Dr. André Koeckelenbergh, 3, avenue Circulaire, B 1180 BRUXELLES. BELGIUM.
 TELEX : 21555 obsbel - Tél. : (02) 375 24 84 EXT 611

S.I.D.C. SUMMARY OF URSIGRAMS

1981 NOVEMBER

$r'_{im} = 135, 6$

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
R'_I	165	222	218	231	207	199	192	166	134	147	146	150	158	178	148
PPSI	162	230	268	253	229	187	170	181	146	257	205	194	173	163	116
10,7cm	232	247	262	270	259	249	246	245	237	226	221	228	221	212	196
XFI	27	17	24	44	25	25	26	27	48	24	19	142	130	36	29
XI	1/0	0/0	2/0	2/0	2/0	0/0	1/0	2/0	2/0	1/0	1/0	3/1	9/0	3/0	1/0
Ak	8	6	10	8	9	10	16	20	4	13	24	29	6	24	16

SSC SSC SSC SID

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
R'_I	126	103	102	90	82	78	79	65	59	60	74	87	110	134	155
PPSI	70	56	85	57	64	58	33	21	14	10	25	54	87	119	114
10,7cm	185	177	167	161	156	157	157	156	154		182	196	214	226	238
XFI	10	24	30	9	18	12	52	8	6		32	4	12	11	28
XI	0/0	0/0	1/0	0/0	1/0	0/0	3/0	0/0	0/0		2/0	0/0	0/0	1/0	0/0
Ak	16	24	28	15	16	19	10	20	10		10	2	7	5	1

SSC

SSC

R'_{Im} : provisional International monthly Sunspot-Number from S.I.D.C.

R'_I : provisional International daily Sunspot-Number from S.I.D.C.

PPSI : Prompt Photometric Sunspot Index from S.I.D.C. in 10^{-5} W.m^{-2} .

10,7 cm : 2800 MHz solar radio flux from Ursigrams in $10^{-22} \text{ W.m}^{-2}.\text{Hz}^{-1}$.

XFI : X'-flare Index from S.I.D.C. on the base of Ursigrams.

XI : X-flare Index on the basis of group five of the Ursigrams.

A'_K : geomagnetic Index from Ursigrams.

OBSERVATOIRE ROYAL DE BELGIQUE

DEPARTEMENT 4 RADIOASTRONOMIE ET PHYSIQUE SOLAIRE

NOMBRES RELATIFS DE WOLF JOURNALIERS

PROVISOIRES

PROVISIONAL

SUNSPOT RELATIVE NUMBERS

STATION UCCLE BELGIUM

NOVEMBRE 1981

DATE	TU	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	PPSI 10-6 WM-2	QUALITE	OBSER
5	0928	17	93	263	1955.	2	ST
6	0836	16	106	266	2062.	2	ST
7	0957	9	19	109	1669.	1	HB
8	0907	14	54	194	1689.	2	GE
13	0944	10	84	184	1538.	2	ST
14	0920	11	101	211	1309.	3	ST
15	1005	9	66	156	1347.	2	CG
16	1253	9	41	131	706.	2	ST
16	1130	4	24	64	555.	1	ST
19	1109	6	56	116	632.	3	ST
20	1119	6	34	94	725.	2	ST
23	1103	5	11	61	283.	2	ST
24	1050	7	13	83	199.	3	ST
26	1320	2	15	35	191.	1	ST

LE SOLEIL A ETE OBSERVE 14 JOURS SUR 30 POSSIBLES

LE NOMBRE RELATIF DE WOLF MOYEN EST DE 140.5

EDITEUR RESPONSABLE

A. KOECKELENBERGH

OBSERVATOIRE ROYAL DE BELGIQUE

UCCLE BELGIUM

NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

U* = K*U FOR 1981 NOVEMBER

K* = .954 (*)

1	***	7	103	13	175	19	110	25	***
2	***	8	185	14	201	20	89	26	33
3	***	9	***	15	148	21	***	27	***
4	***	10	***	16	124	22	***	28	***
5	250	11	***	17	***	23	58	29	***
6	253	12	***	18	61	24	79	30	***
								31	***

THE SUN WAS OBSERVED 14 DAYS ON 30 POSSIBLE
THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 133

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

UCCLE OBSERVATIONAL MAJOR SUNSPOTS FOR 1981 NOVEMBER
E AND F BRUNNER'S TYPE GROUPS

UCCLE NO	EAST LIMB DATE	DATE AND TYPE	WEST LIMB DATE
		IST OBS CMP LAST OBS	
31-1714	10 28.9	29 H 11 4.6	8 D 11 11.4
3-1715	11 4.8	5 H 11 11.6	16 D 11 18.3

PROBABLE RETURN OF MAJOR GROUPS FOR 1981 JANUARY

NO	NEW EAST LIMB	NEW CMP	NEW WEST LIMB
31	11 24.8	12 1.5	12 8.3
3	12 2.1	12 8.8	12 15.6