



SUNSPOT - BULLETIN

1981 , No. 4

Provisional Sunspot - Numbers for April 1981

Dependent on observations at Locarno Specola Solare ,
 complemented by an international network and
 determined at the Observatoire Royal de Belgique.

Day	R _I	Day	R _I
1	132	15	197
2	170	17	213
3	148	18	214
4	151	19	203
5	157	20	199
6	132	21	170
7	152	22	122
8	195	23	108
9	199	24	92
10	199	25	119
11	200	26	90
12	193	27	73
13	197	28	72
14	180	29	106
15	212	30	92

Mean = 156,2

Predictions of the smoothed
 monthly Sunspot - Numbers

May	134	(+6)	August	127	(+2)
June	132	(+3)	September	125	(+2)
July	129	(+2)	October	123	

() Comparison with the weakest value of the preceeding predictions

Brussels , May 2 , 1981

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S.I.D.C. SUMMARY OF URSIGRAMS

1981 APRIL

$R_{im}^1 = 156,2$

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
R_I^1	132	170	148	151	157	132	152	195	199	199	200	193	197	180	212
PPSI	79	53	92	90	-	193	193	122	130	167	131	149	150	180	227
10,7cm	228	213	221	220	226	235	242	269	273	276	271	251	257	258	257
XFI	105	121	64	48	21	8	32	73	58	260	81	96	32	25	39
A_K	18	10	14	12	4	8	8	14	8	8	34	70	72	20	10
	p/sid		sid ssc pca	sid ssc			sid ssc			p/sid	ssc	ssc	p		ssc

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
R_I^1	197	213	214	203	199	170	122	108	92	119	90	73	72	106	92	X
PPSI	208	185	176	255	109	135	146	119	95	88	-	51	38	55	57	X
10,7cm	248	241	227	215	199	194	189	203	222	210	196	196	172	174	173	X
XFI	67	124	162	77	117	11	23	5	233	32	158	3	7	7	X	
A_K	14	17	14	31	35	30	24	24	18	18	51	45	14	17	8	X
		ssc	ssc							p//	sid ssc pca	p pca	p			

R_{Im}^1 : provisional International monthly Sunspot-Number from S.I.D.C.

R_I^1 : 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 $10^{-22} \text{ W.m}^{-2} \cdot \text{Hz}^{-1}$.

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

AVRIL 1981

DATE	TU	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	PSPI 10-6 WM-2	QUALITE	OBSER
8	1256	11	86	196	1222.	1	ST
9	1148	12	121	241	1298.	3	ST
10	0759	11	142	252	1670.	3	ST
11	0920	14	90	230	1308.	2	PC
12	0940	11	64	174	1486.	1	GE
14	0900	11	109	219	1795.	3	ST
15	1410	14	196	336	2271.	4	AK
16	1120	12	97	217	2081.	2	ST
17	0735	15	147	297	1846.	4	ST
18	0825	15	182	332	1761.	4	AK
20	0840	14	80	220	1092.	2	GE
22	0848	11	76	186	1462.	3	ST
23	0800	10	52	152	1194.	3	ST
24	0807	7	49	119	950.	3	ST
25	0930	9	65	155	883.	3	ST

LE SOLEIL A ETE OBSERVE 15 JOURS SUR 30 POSSIBLES
LE NOMBRE RELATIF DE WOLF MOYEN EST DE 221.7

NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

UCCLE FOR 1981 APRIL

K* = .972 (#)

1	***	7	***	13	***	19	***	25	150
2	***	8	190	14	212	20	213	26	***
3	***	9	234	15	310	21	***	27	***
4	***	10	244	16	110	22	180	28	***
5	***	11	223	17	258	23	147	29	***
6	***	12	169	18	322	24	115	30	***
								31	***

THE SUN WAS OBSERVED 15 DAYS ON 30 POSSIBLE
THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 214

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

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

UCCLE NO	EAST LIMB		DATE AND TYPE			WEST LIMB	
	DATE	IST OBS	DATE	TYPE	LAST OBS	DATE	
10-1707	4 7.7	8 D	4 14.4		20 G	4 21.2	
11-1707	4 8.6	9 C	4 19.4		20 A	4 22.1	
21-1707	4 13.6	14 H	4 20.5		25 F	4 27.3	

PROBABLE RETURN OF MAJOR GROUPS FOR 1981 MAY

UCCLE NO	NEW EAST LIMB	NEW CMP	NEW WEST LIMB
10	5 5.0	5 11.8	5 18.5
11	5 5.8	5 12.5	5 19.3
21	5 11.7	5 18.5	5 25.2