

SUNSPOT - BULLETIN

1981 , No. 7

Provisional Sunspot - Numbers for JULY 1981

Dependent on observations at Locarno Specola Solare ,  
 complemented by an international network and  
 determined at the Observatoire Royal de Belgique.  
 Twenty six cooperating stations on August 1 at 0900G

Day	R <sub>I</sub>	Day	R <sub>I</sub>
1	149	16	161
2	140	17	171
3	140	18	161
4	112	19	151
5	112	20	145
6	85	21	129
7	75	22	138
8	62	23	162
9	65	24	196
10	96	25	213
11	130	26	206
12	139	27	218
13	153	28	208
14	145	29	159
15	150	30	173
		31	126

Mean = 144.2

Predictions of the smoothed  
 monthly Sunspot - Numbers

• August	124	(o)	• November	116	(o)
• September	122	(o)	• December	116	(o)
• October	120	(o)	• January (82)	114	

( ) Comparison with the predictions of S-B n°6

Brussels , August 2 , 1981

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S.I.D.C. SUMMARY OF URSIGRAMS

1981 JULY  $R'_{Im} = 144.2$

	1	2	3	4	5	6	7	8	9	10	11	12	13
$R'_I$	149	140	140	112	112	85	75	62	65	96	130	139	155
PPSI	114	114	146	106	73	41	20	16	25	36	46	107	
10,7cm	170	163	157	160	148	144	145	147	148	149	161	164	171
XFI	2	26	43	4	4	0	1	2	14	19	15	53	16
$A_K$	18	21	10	10	16	18	16	10	6	5	12	22	12

	16	17	18	19	20	21	22	23	24	25	26	27	28	29
$R'_I$	161	171	161	151	145	129	138	162	196	213	206	218	208	159
PPSI	138	171	152	122	192	192	284	248	363	333	296	265	261	118
10,7cm	195	200	204	214	218	219	229	229	250	252	255	254	217	171
XFI	71	146	99	160	37	49	39	66	48	43	271	182	31	38
$A_K$	8	24	11	10	12	7	26	34	17	125	61	20	9	6

$ssc$                        $sid$   $p$   
 $SSC$                        $ssc$                        $sid$   $sid$   
 $AUR$                        $AUR$

- $R'_{Im}$  : 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  $10^{-22} W.m^{-2}$ .
- 10,7 cm: 2800 MHz solar radio flux from Ursigrams in  $10^{-22} W.m^{-2}$ .
- 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

JUILLET 1981

DATE	TU	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	PPSI 10-6 WM-2	QUALITE	OBSER
1	0805	7	52	122	1135.	1	ST
3	1410	11	81	191	1481.	3	ST
4	0755	9	50	140	1055.	2	ST
5	0745	11	51	161	730.	3	AK
6	0935	10	17	117	408.	2	ST
7	0740	11	24	134	195.	4	ST
8	0640	8	31	111	162.	4	ST
9	0707	5	18	68	246.	2	GE
11	1345	10	83	183	457.	3	AK
13	0922	11	71	181	686.	1	GE
14	1255	8	92	172	999.	2	ST
16	1150	11	86	196	1379.	1	ST
17	0750	13	117	247	1706.	3	ST
18	0550	7	69	139	1517.	2	HB
19	0800	11	64	174	1215.	3	PC
23	0740	8	123	203	2481.	3	ST
26	0910	10	128	228	2963.	2	HE
27	0708	13	190	320	2646.	2	ST
28	0715	15	179	329	2642.	4	ST
29	0720	14	153	293	2184.	3	ST
30	0825	10	116	216	2004.	3	ST
31	1250	5	85	135	1326.	2	ST

LE SOLEIL A ETE OBSERVE 22 JOURS SUR 31 POSSIBLES

LE NOMBRE RELATIF DE WOLF MOYEN EST DE 144.5

EDITEUR RESPONSABLE

A. KOECKELENBERGH

OBSERVATOIRE ROYAL DE BELGIQUE

UCCLE BELGIUM

NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

U'=K'U FOR 1981 JULY

K' = .888 (\*)

1	108	7	118	13	160	19	154	25	***
2	***	8	98	14	152	20	***	26	202
3	169	9	60	15	***	21	***	27	184
4	124	10	***	16	174	22	***	28	292
5	142	11	162	17	219	23	162	29	260
6	103	12	***	18	123	24	***	30	191
								31	110

THE SUN WAS OBSERVED 22 DAYS ON 31 POSSIBLE  
 THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 167

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

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

UCCLE NG	EAST LIMB		DATE AND TYPE			WEST LIMB	
	DATE	IST OBS	DATE	TYPE	LAST OBS	DATE	
10-1710	6 24.5	30 E	7 1.3		7 H	7 8.0	
42-1710	7 15.3	17 A	7 22.1		28 J	7 28.8	
1-1711	7 17.1	18 H	7 23.9		30 H	7 30.6	
5-1711	7 21.1	23 F	7 27.8		31 G	8 3.6	

PROBABLE RETURN OF MAJOR GROUPS FOR 1981 AUGUST S

NO	NEW EAST LIMB	NEW CMP	NEW WEST LIMB
10	7 21.9	7 28.7	8 4.4
42	8 11.5	8 18.2	8 25.0
1	8 13.7	8 20.4	8 27.2
5	8 17.2	8 23.9	8 30.7