

SUNSPOT - BULLETIN

1983 , No. 10

Provisional Sunspot - Numbers for OCTOBER 1983

Dependent on observations at Locarno Specola Solare ,  
 complemented by an international network and  
 determined at the Observatoire Royal de Belgique.  
 Thirty cooperating stations on Nov. 1st ,0930 UT

Day	R <sub>I</sub>	Day	R <sub>I</sub>
1	32	16	61
2	51	17	60
3	63	18	63
4	74	19	46
5	65	20	26
6	75	21	18
7	87	22	22
8	99	23	22
9	106	24	20
10	108	25	18
11	130	26	22
12	122	27	12
13	100	28	11
14	75	29	16
15	72	30	15
		31	19

MEAN = 55.2

Predictions of the smoothed  
 monthly Sunspot - Numbers

Classical Method		SIDC Adjusted Values	
1983 Nov. 68	1984 Feb. 62	1983 Nov. 68	1984 Feb 62
- Dec. 66	Mar. 61	Dec. 66	Mar 61
1984 Jan. 64	Apr. 59	1984 Jan. 64	Apr 59

Brussels , November 1st, 1983

A . Koeckelenbergh .

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S.I.D.C. SUMMARY OF URSIGRAMS

1983 OCTOBER  $R_{im} = 55.2$

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
$R_i$	32	51	63	74	65	75	87	99	106	108	130	122	100	75	72
PFSI	82	60	40	50	72	104	123	139	128	137	106	83	84	87	113
10,7cm	117	120	123	125	127	133	134	134	131	137	139	134	140	133	128
COS	82	81	76	80	80	77	75	86	86	90	86	85	81	85	89
XFI	3	14	4	2	13	9	17	12	12	17	22	11	11	30	17
XI	0/0	1/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	1/0	0/0
$A_k$	16	24	18	28	9	25	12	21	6	11	6	6	33	28	24

sid lb ssc mgst  
2n

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
$R_i$	61	60	63	46	26	18	22	22	20	18	22	12	11	16	15	19
PFSI	119	75	46	21	7	7	5	4	4	5	3	3	3	3	1	28
10,7cm	112	114	102	106	100	90	88	89	90	90	90	90	92	91	94	94
COS	82	81	85	85	79	77	76	76	71	84	80	84		83	80	
XFI	27	17	5	24	0	0	0	0	0	0	0	0	0	0	0	0
XI	1/0	0/0	0/0	2/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
$A_k$	14	42	49	8	8	17	20	28	23	7	3	2	9	31	27	11

mgst X ssc-----)

$R_i$ : provisional International Sunspot-Numbers .  
 PFSI : Prompt Photometric Sunspot Index in  $0.00001 \text{ W/m}^2$  .  
 10.7 cm: 2800 MHz solar flux from the ursigrams .  
 COS : Thousands of cosmic rays counts from the ursigrams .

XFI: X-flare Index from the SIDC .  
 XI : X-flare Index from the ursigrams .  
 $A_k$  : Geomagnetic Index from the Meudon ursigrams .

## OBSERVATOIRE ROYAL DE BELGIQUE

## DEPARTEMENT 4 RADIOASTRONOMIE ET PHYSIQUE SOLAIRE

## NOMBRES RELATIFS DE WOLF JOURNALIERS

PROVISOIRES

PROVISIONAL

## SUNSPOT RELATIVE NUMBERS

STATION UCCLE BELGIUM

OCTOBRE 1983

DATE	UT	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	NOMB REL ZONE CENTRALE	PPSI 10-6 WM-2	QUAL	OBS
2	1025	4	31	71	17	278.	2	AK
3	0844	4	33	73	17	403.	2	HB
4	0945	5	49	99	16	450.	3	AK
5	0730	3	29	59	0	562.	2	HB
6	1007	5	37	87	62	845.	2	HB
7	1023	5	60	110	84	780.	4	HB
8	1000	7	96	166	135	975.	3	AK
11	1019	10	89	189	80	1091.	3	HB
12	0951	9	54	144	66	957.	2	HB
13	1130	8	37	117	27	816.	3	AK
14	1133	5	39	89	34	962.	5	HB
15	1035	5	48	98	32	1249.	2	CG
16	0907	3	29	59	29	1173.	2	HB
17	1018	4	38	78	30	944.	2	HB
18	1245	4	21	61	43	549.	2	AK
19	1500	4	14	54	29	318.	2	AK
21	1144	2	3	23	0	155.	4	HB
22	1155	2	5	25	0	8.	3	CG
23	0845	3	10	40	0	8.	3	AK
24	1105	2	3	23	0	6.	1	HB
25	1222	3	4	34	22	9.	2	HB
26	1130	2	5	25	13	6.	4	AK
27	1315	2	7	27	15	7.	3	AK
29	1125	0	0	0	0	0.	3	CG
30	1100	0	0	0	0	0.	3	CG
31	1050	1	7	17	0	56.	2	AK

LE SOLEIL A ETE OBSERVE 26 JOURS SUR 31 POSSIBLES  
LE NOMBRE RELATIF DE WOLF MOYEN EST DE 68.0

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NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

U'=K\*U FOR 1983      OCTOBER

K\* = 1.007 (\*)

1	***	7	110	13	117	19	54	25	34
2	71	8	167	14	89	20	***	26	25
3	73	9	***	15	98	21	23	27	27
4	99	10	***	16	59	22	25	28	***
5	59	11	190	17	78	23	40	29	0
6	87	12	144	18	61	24	23	30	0
								31	17

THE SUN WAS OBSERVED 26 DAYS ON 31 POSSIBLE  
THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 68

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

UCCLE OBSERVATIONAL MAJOR SUNSPOTS FOR 1983      OCTOBER  
E AND F BRUNNER'S TYPE GROUPS

UCCLE NO	EAST LIMB		DATE AND TYPE			WEST LIMB		
	DATE	IST	OBS	CMP	LAST OBS	DATE		
3-1740	9	21.3	22	H	9	28.1	4	G
16-1740	10	6.3	8	A	10	13.0	19	D
							10	4.8
							10	19.8

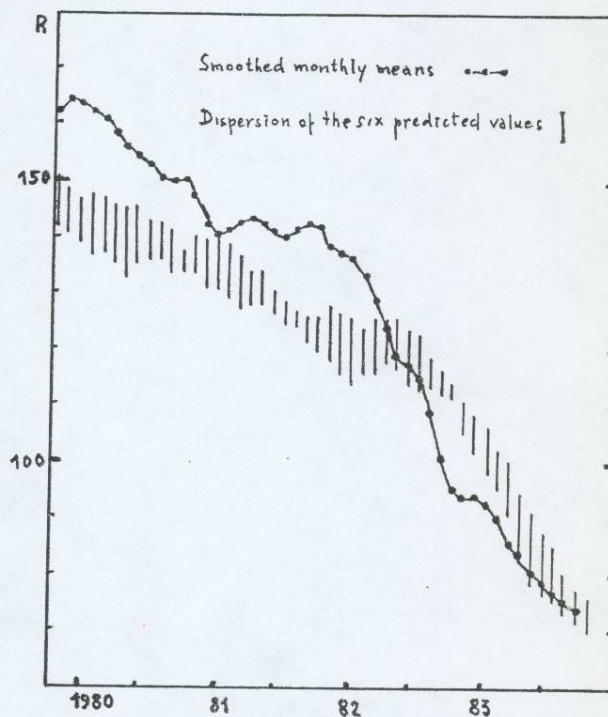
PROBABLE RETURN OF MAJOR GROUPS FOR 1983      NOVEMBER  
NO      NEW EAST LIMB      NEW CMP      NEW WEST LIMB

16	11	2.9	11	9.6	11	16.4
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SUNSPOT INDEX DATA CENTER - BRUSSELS

Smoothed monthly means of the International Sunspot - Number

1981	JAN	140.3
	FEB	141.6
	MAR	143.0
	APR	143.4
	MAY	142.9
	JUN	141.5
	JUL	140.3
	AUG	141.1
	SEP	142.8
	OCT	142.2
	NOV	138.8
	DEC	137.8
1982	JAN	137.0
	FEB	133.3
	MAR	129.2
	APR	124.3
	MAY	119.9
	JUN	117.3
	JUL	115.2
	AUG	109.4
	SEP	101.0
	OCT	95.7
	NOV	94.7
	DEC	94.6



PROVISIONAL smoothed monthly means

1983	January	(92.8)
	February	(90.3)
	March	(86.0)

PROBABLE VALUES ( $\pm 5\%$ )

1983	April	(84 -)
	May	(81 -)
	June	(79 -)
	July	(77 -)
	August	(76 -)
	September	(74 -)

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