



## Provisional Sunspot - Numbers for JUNE 1984

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

Day	R <sub>I</sub>	Day	R <sub>I</sub>
1	48	16	83
2	44	17	73
3	45	18	62
4	34	19	55
5	28	20	53
6	23	21	46
7	34	22	48
8	31	23	54
9	26	24	58
10	31	25	41
11	37	26	49
12	39	27	40
13	41	28	41
14	50	29	50
15	80	30	42

MEAN - 46.2

Predictions of the smoothed  
monthly Sunspot - Numbers

Classical Method		S.I.D.C. Adjusted Values	
1984 Jul. 52	1984 Oct. 47	1984 Jul. 45	1984 Oct. 46
Aug. 50	Nov. 45	Aug. 43	Nov. 38
Sep. 48	Dec. 43	Sep. 41	Dec. 36

Precision on the sixth predicted value :  $\pm 8$ Classical estimated smoothed value for 1985 March :  $39 \pm 10$ Forecasted values are evaluated on the basis of the latest  
monthly smoothed value (1983 December) :  $63.8 \pm 5$ 

Brussels, July 1st, 1984

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S.I.D.C. SUMMARY OF URSIGRAMS

1984 JUNE

$R_{im}^1 = 46.2$

Date	$R_1$	PPSI	2800	COS	XFI	XI	$A_k$	
1	48	71	113	95	11	0/0	11	(on May 31 :-P-flare )
2	44	52	108	101	3	0/0	14	
3	45	42	107	109	4	0/0	29	
4	34	37	104	104	1	0/0	26	
5	28	43	102	102	2	0/0	20	
6	23	30	96	109	0	0/0	12	
7	34	29	95	110	1	0/0	10	
8	31	20	92	108	2	0/0	14	
9	26	25	91	108	0	0/0	21	
10	31	22	90	103	2	0/0	21	
11	37	18	20	-	-	-	14	
12	39	9	90	106	1	0/0	8	
13	41	17	96	99	0	0/0	7	
14	50	21	106	96	10	0/0	6	
15	80	51	114	94	8	0/0	27	
16	83	81	107	106	1	0/0	35	
17	73	93	109	105	6	0/0	12	
18	62	78	105	-	0	0/0	25	
19	55	82	104	-	4	0/0	29	
20	53	97	103	108	5	0/0	14	
21	46	55	98	110	7	0/0	4	ssc
22	48	51	101	98	7	0/0	7	
23	54	68	102	93	15	0/0	9	
24	58	81	100	92	2	0/0	20	
25	41	76	101	87	6	0/0	11	
26	49	63	97	84	1	0/0	11	
27	40	56	98	79	0	0/0	12	
28	41	43	96	84	3	0/0	22	
29	50	48	97	-	2	0/0	14	
30	42	51	-	-	-	-	-	

Tentative prediction for the mean monthly sunspot number : decrease to aug-sept at level 10 (+ 5) , growing up to 50 (+10) on dec. -jan 85 .

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

$R_1^1$  : provisional International daily Sunspot-Numbers 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 the sunspots .

2800 : 2800 Mhz solar flux from the Ursigrams (origin:Herzberg Institute Ottawa)

COS : thousands of cosmic rays counts from the Ursigrams

XFI : X-flare Index from the S.I.D.C.on the base of the Ursigrams .The sum of number of class C-flares +10 x class M-flares of significant X-ray flux + 100 x X-flares with important X-ray flux .

XI : X-flare Index from the Ursigrams (number of M-flares/number of X-flares)

$A_k$  : geomagnetic Index of Wingst station from the Ursigrams .

sid : Sudden ionospheric disturbance ; ssc : sudden storm commencement

sfe : solar flare effect ; // : two ribbons flare ; P : proton flare

mst : magnetic storm ; II radio- outburst ; pca : polar cap absorption

aur : aurorae ; 1b ,2b ... : flare of class 1 or 2 (bright) .

## OBSERVATOIRE ROYAL DE BELGIQUE

## DEPARTEMENT 4 RADIOASTRONOMIE ET PHYSIQUE SOLAIRE

## NOMBRES RELATIFS DE WOLF JOURNALIERS

PROVISOIRES

PROVISIONAL

## SUNSPOT RELATIVE NUMBERS

STATION UCCLE BELGIUM

JUIN 1984

DATE	UT	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	NOMB REL ZONE CENTRALE	PPSI 10-6 WM-2	QUAL	OBS
1	0800	2	24	44	44	416.	1	AK
2	0955	3	37	67	56	623.	3	CG
5	0648	2	17	37	0	348.	1	VI
6	0641	2	8	28	0	337.	3	VI
9	1000	5	22	72	58	437.	2	CG
10	0730	5	19	69	32	316.	3	HB
11	0950	4	23	63	19	271.	3	AK
12	0854	4	19	59	21	29.	2	VI
13	0634	2	14	34	18	230.	2	HB
15	0524	5	40	90	56	340.	2	HB
16	0747	7	36	106	55	662.	2	HB
17	0845	6	41	101	59	1081.	2	CG
18	0806	10	38	138	90	599.	3	VI
19	0732	7	46	116	75	635.	3	VI
20	0718	5	41	91	68	631.	3	VI
21	0649	2	27	47	14	570.	2	VI
22	0630	5	25	75	43	562.	3	VI
23	0935	4	24	64	30	660.	4	HB
24	1100	6	46	106	55	615.	2	CG
26	0455	4	23	63	0	570.	3	HB
27	0716	3	25	55	12	552.	3	VI
28	0644	3	15	45	12	588.	2	VI
29	0630	5	18	68	11	580.	3	VI
30	0930	5	23	73	29	677.	2	CG

LE SOLEIL A ETE OBSERVE 24 JOURS SUR 30 POSSIBLES  
LE NOMBRE RELATIF DE WOLF MOYEN EST DE 71,3

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NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

U* = K*U FOR 1984				JUNE					
K* = .880 (*)									
1	38	7	***	13	29	19	102	25	***
2	58	8	***	14	***	20	80	26	55
3	***	9	63	15	79	21	41	27	48
4	***	10	60	16	93	22	65	28	39
5	32	11	55	17	88	23	56	29	59
6	24	12	51	18	121	24	93	30	64
								31	***

THE SUN WAS OBSERVED 24 DAYS ON 30 POSSIBLE  
 THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 62

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

UCCLE OBSERVATIONAL MAJOR SUNSPOTS FOR 1984 JUNE  
 E AND F BRUNNER'S TYPE GROUPS

UCCLE EAST LIMB	DATE AND TYPE			WEST LIMB	
NO	DATE	IST OBS	CMP	LAST OBS	DATE
NONE					

PROBABLE RETURN OF MAJOR GROUPS FOR 1984 JULY

NO	NEW EAST LIMB	NEW CMP	NEW WEST LIMB
NONE			