



SUNSPOT BULLETIN
Supported by UNESCO and ICSU through the FAGS.

1985 , No. 9

Provisional Sunspot - Numbers for SEPTEMBER 1985

Dependent on observations at Locarno Specola Solare,
complemented by an international network and
determined at the Observatoire Royal de Belgique.
Thirty nine coop. stations on 1985 October 1st, 1000UT

Day	R _I	Day	R _I
1	7	16	9
2	0	17	8
3	0	18	10
4	0	19	10
5	0	20	9
6	0	21	8
7	0	22	7
8	0	23	0
9	0	24	0
10	0	25	0
11	7	26	0
12	0	27	0
13	9	28	0
14	9	29	7
15	9	30	7

MEAN = 3.9

Predictions of the smoothed
monthly Sunspot - Numbers

Classical Method		S.I.D.C. Adjusted Values	
1985 Oct. 10	1986 Jan. 7	1985 Oct. 3	1986 Jan. 0 (1 to -5)
Nov. 9	Feb. 5	Nov. 1	Feb. 0 (0 to -6)
Dec. 8	Mar. 4	Dec. 0 (2 to -4)	Mar. 0

Precision on the sixth predicted value : ± 3

Classical estimated smoothed value for 1986 June = 1 ± 4
Forecasted values are evaluated on the basis of the latest
monthly smoothed value (1985 March) : $18.5 \pm 5\%$

Brussels, October 1 st, 1985

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S.I.D.C. SUMMARY OF URSIGRAMS
1985 SEPTEMBER $R'_{im} = 3.9$

Date	R'_i	PPSI	2800	COS	XFI	XI	A_k	
1	7	0	72	1028	0	0/0	8	
2	0	0	72	25	0	0/0	4	
3	0	0	72	18	0	0/0	4	
4	0	0	72	16	0	0/0	4	
5	0	0	71	15	0	0/0	2	
6	0	0	71	16	0	0/0	13	
7	0	0	70	20	0	0/0	10	
8	0	0	69	19	0	0/0	13	
9	0	0	70	22	0	0/0	14	
10	0	0	69	15	0	0/0	15	
11	7	0	68	11	0	0/0	13	
12	0	0	68	9	0	0/0	8	
13	9	0	70	17	2	0/0	5	
14	9	5	70	13	0	0/0	31	SSC - mgst
15	9	10	70	9	2	0/0	19	mgst
16	9	13	70	15	0	0/0	34	
17	8	14	69	13	0	0/0	14	
18	10	14	70	17	3	0/0	6	
19	10	16	70	21	1	0/0	32	
20	9	2	69	24	0	0/0	25	
21	8	2	69	26	0	0/0	23	
22	7	0	69	17	0	0/0	12	
23	0	0	69	11	0	0/0	8	
24	0	0	69	16	0	0/0	19	
25	0	0	68	21	0	0/0	21	
26	0	0	68	15	0	0/0	25	
27	0	0	67	12	0	0/0	18	
28	0	0	68	13	0	0/0	8	
29	7	0	68	13	0	0/0	6	
30	7	0	68	1014	0	0/0	6	

The trend for the beginning of minimum period after november seems confirmed. But a slight increase would be possible during november-february period. D.R.Whitehouse predicts the minimum for 1988.2 and the next max. for 1991.8 (Astr. and astroph. april (II) 1985).

- R'_{im} : provisional International monthly Sunspot-Number from the S.I.D.C.
 R'_i : 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 ribbon 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

PROVISIORS

PROVISIONAL

SUNSPOT RELATIVE NUMBERS

STATION UCCLE BELGIUM

SEPTEMBRE 1985

DATE	UT	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	NOMB REL ZONE CENTRALE	PPSI 10-6 WM-2	QUAL	OBS
1	0820	0	0	0	0	0.	2	AK
2	1329	0	0	0	0	0.	1	VI
3	0910	0	0	0	0	0.	3	AK
4	0630	0	0	0	0	0.	1	VI
5	0950	0	0	0	0	0.	2	CG
6	0905	0	0	0	0	0.	2	CG
7	0830	0	0	0	0	0.	2	CG
8	0950	0	0	0	0	0.	2	CG
9	1255	0	0	0	0	0.	3	CG
10	0900	0	0	0	0	0.	3	CG
11	1000	0	0	0	0	0.	4	PC
12	0810	0	0	0	0	0.	3	PC
14	0659	1	2	12	0	103.	2	VI
15	0910	1	2	12	0	177.	3	CG
16	0910	1	1	11	0	257.	2	PC
19	1130	1	4	14	14	24.	4	AK
20	1015	1	2	12	12	22.	2	AK
21	1055	1	1	11	0	17.	3	CG
23	0936	0	0	0	0	0.	1	VI
25	0921	0	0	0	0	0.	2	VI
26	1003	0	0	0	0	0.	3	VI
27	0908	0	0	0	0	0.	4	VI
28	1240	0	0	0	0	0.	4	CG
29	0936	0	0	0	0	0.	4	AK
30	1130	0	0	0	0	0.	4	AK

LE SOLEIL A ETE OBSERVE 25 JOURS SUR 30 POSSIBLES
LE NOMBRE RELATIF DE WOLF MOYEN EST DE 2.9

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NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

U'=K*U FOR 1985 SEPTEMBER

				K* = .884 (*)					
1	0	7	0	13	***	19	12	25	0
2	0	8	0	14	10	20	10	26	0
3	0	9	0	15	10	21	9	27	0
4	0	10	0	16	9	22	***	28	0
5	0	11	0	17	***	23	0	29	0
6	0	12	0	18	***	24	***	30	0
								31	***

THE SUN WAS OBSERVED 25 DAYS ON 30 POSSIBLE
 THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 2

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

UCCLE OBSERVATIONAL MAJOR SUNSPOTS FOR 1985 SEPTEMBER
 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 1985 OCTOBER

NO	NEW EAST LIMB	NEW CMP	NEW WEST LIMB
NONE			