



SUNSPOT BULLETIN

Supported by UNESCO and ICSU through the FAGS

1986 , No. 8

Provisional Sunspot - Numbers for AUGUST 1986

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	12	16	9
2	11	17	7
3	11	18	0
4	11	19	0
5	11	20	11
6	10	21	12
7	8	22	12
8	9	23	14
9	8	24	9
10	0	25	9
11	0	26	9
12	0	27	9
13	0	28	9
14	0	29	9
15	0	30	9
		31	9

MEAN = 7.4

 Predictions of the smoothed
 monthly Sunspot - Numbers

Classical Method		S.I.D.C. Adjusted Values	
1986 Sep. 7	1986 Dec. 4	1986 Sep. 4	1986 Dec. 2
Oct. 6	1987 Jan. 3	Oct. 4	1987 Jan. 1
Nov. 5	Feb. 2	Nov. 3	Feb. 0

Precision on the sixth predicted value : ± 3 Classical estimated smoothed value for 1987 May. 0 ± 4 Forecasted values are evaluated on the basis of the latest provisional monthly smoothed value (1986 February) : $13.2 \pm 5 \%$

Brussels, september 1 , 1986

P. Cugnon

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S.I.D.C. SUMMARY OF URSIGRAMS

1986 August

 $R'_{im} = 7.4$

Date	R'_1	PPSI	2800	CDS	XFI	XI	A_k	
1	12	34	71	1008	3	0/0	8	
2	11	33	70	1006	2	0/0	7	
3	11	31	71	1000	2	0/0	23	
4	11	31	70	1000	2	0/0	20	
5	11	23	70	1003	0	0/0	12	
6	10	20	70	1006	0	0/0	8	
7	8	10	70	1006	0	0/0	6	
8	9	5	69	1009	0	0/0	12	
9	8	0	69	1009	0	0/0	12	
10	0	0	69	1012	0	0/0	8	
11	0	0	67	1017	0	0/0	8	
12	0	0	67	1009	0	0/0	10	
13	0	0	66	1011	0	0/0	13	
14	0	0	67	1018	0	0/0	12	ssc
15	0	0	68	1015	0	0/0	10	
16	9	2	68	1014	0	0/0	8	
17	7	0	67	1015	0	0/0	6	
18	0	0	67	1011	0	0/0	4	
19	0	0	68	1018	0	0/0	6	
20	11	1	69	1022	0	0/0	17	
21	12	3	69	1010	0	0/0	25	
22	12	4	69	1009	0	0/0	25	
23	14	5	68	1001	0	0/0	26	
24	9	8	68	1009	0	0/0	26	
25	9	13	69	1015	0	0/0	17	
26	9	19	69	1011	0	0/0	14	
27	9	22	68	1008	0	0/0	14	
28	9	24	68	1008	0	0/0	18	
29	9	29	68	1008	0	0/0	26	
30	9	21	68	1010	0	0/0	23	
31	9	26	68	1009	0	0/0	21	

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

R'_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)

CDS : 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 (Ampli.fluct.in $2nT$).

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 SCLAIRE

NOMBRES RELATIFS DE WOLF JOURNALIERS

PROVISOIRES

PROVISIONAL

SUNSPOT RELATIVE NUMBERS

STATION UCCLE BELGIUM

AOUT 1986

DATE	UT	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	NOMRE REL ZONE CENTRALE	PPSI 10-6 WM-2	QUAL	OBS
1	0608	1	5	15	15	302.	4	ST
2	1418	1	2	12	12	330.	2	HB
3	1046	1	6	16	16	321.	3	ST
4	1145	1	6	16	16	286.	2	ST
5	0538	1	6	16	0	251.	2	HB
6	0538	1	3	13	0	193.	2	HB
7	0614	1	1	11	0	102.	2	HB
8	0731	1	1	11	0	44.	2	HB
9	0719	0	0	0	0	0.	1	ST
10	1400	0	0	0	0	0.	3	HB
11	0633	0	0	0	0	0.	2	VI
12	0702	0	0	0	0	0.	2	VI
13	1144	0	0	0	0	0.	1	VI
14	0614	0	0	0	0	0.	2	VI
15	1240	0	0	0	0	0.	1	HB
16	0845	1	4	14	14	4.	2	ST
17	1114	0	0	0	0	0.	2	HB
20	0903	2	5	25	14	7.	2	ST
21	0615	1	8	18	18	14.	3	HB
22	0744	1	6	16	16	16.	1	ST
23	0928	2	6	26	15	42.	2	ST
24	1217	2	4	24	13	101.	1	ST
25	0652	1	1	11	0	140.	2	VI
26	0823	1	1	11	0	206.	1	ST
27	0820	1	1	11	11	266.	2	HB
28	0639	1	3	13	13	306.	1	VI
29	0617	1	1	11	11	329.	1	HB
31	0824	1	2	12	12	289.	3	PC

LE SOLEIL A ETE OBSERVE 28 JOURS SUR 31 POSSIBLES
 LE NOMBRE RELATIF DE WOLF MOYEN EST DE 10.8.

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NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

U* \bar{K} *U FOR 1986					AUGUST				
K* = .950 (*)									
1	14	7	10	13	0	19	***	25	10
2	11	8	10	14	0	20	23	26	10
3	15	9	0	15	0	21	17	27	10
4	15	10	0	16	13	22	15	28	12
5	15	11	0	17	0	23	24	29	10
6	12	12	0	18	***	24	22	30	***
								31	11

THE SUN WAS OBSERVED 28 DAYS ON 31 POSSIBLE
 THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 9

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

UCCLE OBSERVATIONAL MAJOR SUNSPOTS FOR 1986 AUGUST
 E AND F BRUNNER'S TYPE GROUPS

UCCLE EAST LIMB	DATE AND TYPE			WEST LIMB	
NO	DATE	IST OBS	COMP	LAST OBS	DATE

NONE

PROBABLE RETURN OF MAJOR GROUPS FOR 1986 SEPTEMBER
 NO NEW EAST LIMB NEW CMP NEW WEST LIMB

NONE