



1986 , No. 3

Provisional Sunspot - Numbers for March 1986

Dependent on observations at Locarno Specola Solare,
 complemented by an international network and
 determined at the Observatoire Royal de Belgique.

Thirty-six coop. stations on April 1st, 900 UT.

Day	R _I	Day	R _I
1	16	16	0
2	33	17	0
3	34	18	0
4	32	19	0
5	37	20	12
6	33	21	13
7	38	22	10
8	32	23	19
9	23	24	18
10	20	25	10
11	18	26	10
12	13	27	11
13	8	28	13
14	0	29	11
15	10	30	12
		31	0

MEAN = 15.7

Predictions of the smoothed
 monthly Sunspot - Numbers

Classical Method		S.I.D.C. Adjusted Values	
1986 Apr. 10	1986 Jul. 7	1986 Apr. 0	1986 Jul. 0
May 9	Aug. 6	May 0	Aug. 0
June 8	Sep. 5	June 0	Sep. 0

Precision on the sixth predicted value : ± 3

Classical estimated smoothed value for 1986 December : $3 (\pm 4)$

Forecasted values are evaluated on the basis of the latest
 monthly smoothed value (1986 September) : $17.3 \pm 5 \%$

Brussels, April 1st, 1986

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S.I.D.C. SUMMARY OF URSIGRAMS

1986 March

 $R'_{im} = 15.7$

Date	R'_1	PPSI	2800	COS	XFI	XI	A_k	
1	16	6	86	1021	11	0/0	20	
2	33	24	89	18	5	0/0	12	
3	34	24	92	26	5	1/0	13	
4	32	33	93	27	4	0/0	14	
5	37	38	92	18	13	1/3	12	1b - SID
6	33	39	92	18	4	0/0	39	P - SSC - SID
7	38	41	89	21	6	0/0	36	
8	32	39	86	26	0	0/0	26	
9	23	27	86	-	1	0/0	4	
10	20	26	83	43	1	0/0	2	
11	18	2	80	-	0	0/0	3	
12	13	1	78	37	1	0/0	7	
13	8	0	75	28	0	0/0	20	
14	0	0	74	21	0	0/0	10	
15	10	0	71	23	0	0/0	14	
16	0	0	70	20	0	0/0	6	
17	0	0	70	21	0	0/0	7	
18	0	0	70	23	0	0/0	9	
19	0	0	69	21	0	0/0	10	
20	12	0	69	19	0	0/0	4	
21	13	0	69	15	0	0/0	17	
22	10	-	70	15	0	0/0	22	
23	19	0	70	16	0	0/0	13	
24	18	1	70	18	0	0/0	26	
25	10	1	70	18	0	0/0	32	
26	10	0	71	11	0	0/0	15	
27	11	0	70	11	0	0/0	16	
28	13	0	71	12	0	0/0	18	
29	11	1	71	06	1	0/0	9	
30	12	0	72	07	0	0/0	7	
31	0	0	71	00	0	0/0	7	

- 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)
 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 (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 SOLAIRE

NOMBRES RELATIFS DE WOLF JOURNALIERS

PROVISOIRES

PROVISIONAL

SUNSPOT RELATIVE NUMBERS

STATION UCCLE BELGIUM

MARS 1986

DATE	UT	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	NOMB REL ZONE CENTRALE	PPSI 10-6 WM-2	QUAL	OES
1	1040	1	10	20	0	61.	2	AK
2	0920	2	17	37	16	156.	2	CG
3	1029	2	16	36	14	228.	2	VI
6	1244	2	14	34	34	409.	1	VI
7	1420	1	14	24	24	410.	1	VI
8	0930	1	24	34	34	392.	2	CG
9	1038	1	9	19	0	329.	2	HB
10	1113	1	5	15	0	259.	3	VI
11	0832	1	4	14	0	11.	2	VI
12	1208	0	0	0	0	0.	2	HB
14	1154	0	0	0	0	0.	2	HB
15	0920	0	0	0	0	0.	3	CG
16	0800	0	0	0	0	0.	3	PC
17	1100	0	0	0	0	0.	1	HB
18	1010	0	0	0	0	0.	1	VI
19	0931	0	0	0	0	0.	2	HB
20	0852	0	0	0	0	0.	1	HB
21	0718	0	0	0	0	0.	2	HB
24	1316	0	0	0	0	0.	1	VI
25	1355	0	0	0	0	0.	2	VI
26	1005	0	0	0	0	0.	2	HB
28	0718	1	5	15	15	4.	2	HB
30	0710	0	0	0	0	0.	2	HB
31	0804	0	0	0	0	0.	1	PC

LE SOLEIL A ETE OBSERVE 24 JOURS SUR 31 POSSIBLES
LE NOMBRE RELATIF DE WOLF MOYEN EST DE 10.3

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NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

U' = K * U FOR 1986						MARCH			
K' = .889 (*)									
1	17	7	21	13	***	19	0	25	0
2	32	8	30	14	0	20	0	26	0
3	31	9	16	15	0	21	0	27	***
4	***	10	13	16	0	22	***	28	13
5	***	11	12	17	0	23	***	29	***
6	30	12	0	18	0	24	0	30	0
								31	0

THE SUN WAS OBSERVED 24 DAYS ON 31 POSSIBLE
 THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 8

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

UCCLE OBSERVATIONAL MAJOR SUNSPOTS FOR 1986 MARCH
 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 1986 APRIL

NO	NEW EAST LIMB	NEW CMP	NEW WEST LIMB
NONE			

NONE