

Sunsport Index



Data Center

SUNSPOT

BULLETIN

*pas calculée
complètement par
ordinateur
(en main)*

1986

No. 2

Provisional Sunspot - Numbers for FEBRUARY 1986

Dependent on observations at Locarno Specola Solare,
complemented by an international network and
determined at the Observatoire Royal de Belgique.
Thirty five coop. stations on March 1st, 0900 UT.

Day	R _I '	Day	R _I '
1	18	16	0
2	31	17	0
3	57	18	0
4	58	19	0
5	53	20	10
6	47	21	10
7	52	22	10
8	54	23	11
9	47	24	8
10	37	25	11
11	37	26	11
12	25	27	15
13	22	28	10
14	16		
15	11		

MEAN = 23.6

Predictions of the smoothed
monthly Sunspot - Numbers

Classical Method		S.I.D.C. Adjusted Values	
1986 Mar. 9	1986 Jun. 7	1986 Mar. 0 (-1)	1986 Jun. 0
Apr. 8	Jul. 6	Apr. 0	Jul. 0
May 7	Aug. 5	May 0	Aug. 0 (-9)

Precision on the sixth predicted value : ± 3

Classical estimated smoothed value for 1986 November = $2 (\pm 4)$
Forecasted values are evaluated on the basis of the latest
monthly smoothed value (1986 August) : $17.1 \pm 5\%$

Brussels, March 1st, 1986

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S.I.D.C. SUMMARY OF URSIGRAMS

1986 FEBRUARY

$R_{im}^1 = 23.6$

Date	R_1	PPSI	2800	COS	XFI	XI	A_k	
1	18	16	84	1007	2	0/0	5	
2	31	49	90	6	2	0/0	7	
3	57	85	99	8	21	1/0	8	1b - IV
4	58	107	101	9	116	1/1	3	3b - IV - SID - 1b - SID
5	53	120	103	3	22	1/0	8	2b - IV - SID
6	47	85	102	11	113	0/1	15	3b - P - II - SID - P - PCA - SSC
7	52	73	99	35	21	1/0	83	3b - // - P - PCA - Forpush
8	54	65	98	68	12	0/0	196	End of P and PCA
9	47	81	95	94	1	0/0	106	SSC -
10	37	64	99	59	9	0/0	8	Ten cm flare
11	37	53	98	62	28	2/0	22	
12	25	47	91	58	12	0/0	20	
13	22	15	89	50	20	1/0	23	Ten cm flare
14	16	5	90	50	17	1/0	19	1b - P - II - IV - PCA - SSC
15	11	0	82	57	0	2/0	6	P - PCA
16	0	0	73	56	0	0/0	6	
17	0	0	70	73	0	0/0	10	
18	0	0	70	63	0	0/0	14	
19	0	0	70	60	0	0/0	11	
20	10	0	70	56	0	0/0	24	
21	10	0	67	48	0	0/0	30	
22	10	0	69	44	0	0/0	33	
23	11	2	69	30	0	0/0	42	
24	8	1	70	26	0	0/0	22	
25	11	1	72	18	0	0/0	20	
26	11	0	74	21	0	0/0	29	
27	15	0	77	..	0	0/0	20	SSC
28	10	0						

Short but intense recurrence of solar activity . No change in the general trend . The minimum phase of the cycle is now predicted dating from 1986 July . The active region responsible of this activity is coming back on March 1 , probable perturbations to March 14 .

- 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 (Ampli.fluct.in $2\pi T$).
 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

FEVRIER 1986

DATE	UT	NOMBRE DE GROUPES	NOMBRE DE TACHES	NOMBRE DE WOLF	NOMB REL ZONE CENTRALE	PSI 10-6 WM-2	QUAL	OBS
4	1150	3	30	60	29	1072.	1	HB
5	1258	3	33	63	34	1198.	3	VI
7	1023	2	28	48	48	592.	1	HB
8	0915	2	74	94	46	556.	2	CG
9	1000	2	46	66	45	960.	1	CG
10	1413	2	29	49	49	658.	1	VI
11	1150	1	20	30	0	533.	2	HB
12	0849	1	18	28	0	563.	2	VI
13	0844	1	10	20	0	128.	2	VI
14	0921	1	7	17	0	51.	1	HB
15	0910	0	0	0	0	0.	3	CG
16	0945	0	0	0	0	0.	3	AK
17	0659	0	0	0	0	0.	1	VI
18	0828	0	0	0	0	0.	2	VI
19	1323	0	0	0	0	0.	1	VI
20	0912	0	0	0	0	0.	1	VI
21	0820	1	1	11	0	8.	3	AK
22	0910	1	1	11	0	14.	2	CG
23	0930	1	1	11	0	19.	2	AK
24	0825	0	0	0	0	0.	3	VI
25	0931	0	0	0	0	0.	2	VI
26	0903	0	0	0	0	0.	3	VI
27	0927	1	3	13	13	4.	3	VI

LE SOLEIL A ETE OBSERVE 23 JOURS SUR 28 POSSIBLES
LE NOMBRE RELATIF DE WOLF MOYEN EST DE 22.7

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NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS

U'=K*U FOR 1986 FEBRUARY

K* = .929 (*)

	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1 ***							44					18						0		25			0		
2 ***							87					15						0		26			0		
3 ***							61					0						10		27			12		
4 55							45					C						10		28			***		
5 58							27					C						10		29			***		
6 ***							26					0						0		30			***		
																				31			***		

THE SUN WAS OBSERVED 23 DAYS ON 28 POSSIBLE
 THE NORMALISED RELATIVE MONTHLY MEAN WOLF NUMBER IS 20

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

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

UCCLE NO	EAST LIMB DATE	DATE	AND TYPE	WEST LIMB DATE
		IST OBS	CHP LAST OBS	
1-1771	1 30.4	31 H	2 6.1 9 G	2 12.9
3-1771	2 2.4	4 D	2 9.2 14 G	2 15.9

PROBABLE RETURN OF MAJOR GROUPS FOR 1986 MARCH

NO	NEW EAST LIMB	NEW CHP	NEW WEST LIMB
3	2 28.9	3 7.6	3 14.4