

# Sunspot Index Data Center

## SUNSPOT BULLETIN

Data Analysis Service supported by the FAGS

1994 n° 2  
Provisional Sunspot numbers for February 1994

From observations at the *Locarno Specola Solare*,  
completed with data from an international network and  
computed at the *Observatoire Royal de Belgique*.  
37 cooperating stations on March 1, 10 UT

Day	R' <sub>1</sub>	Day	R' <sub>1</sub>
1	29	16	43
2	31	17	43
3	38	18	42
4	44	19	28
5	35	20	20
6	40	21	19
7	46	22	35
8	41	23	33
9	40	24	34
10	32	25	29
11	29	26	36
12	36	27	38
13	46	28	46
14	39		
15	34		

Mean = 35.9

Predictions of the smoothed monthly Sunspot Numbers :

Classical Method		SIDC Adjusted values			
1994 Mar.	38(± 8)	1994 Sep.	25(± 7)	1994 Mar.	23(± 4)
Apr.	36	Oct.	23	Apr.	21
May	34	Nov.	21	May	18
Jun.	32	Dec.	19	Jun.	16
Jul.	30	1995 Jan.	17	Jul.	14
Aug.	28	Feb.	15	Aug.	12

forecasted on the basis of the most recent provisional monthly smoothed  
Sunspot Number calculated for 1993 August : 52.3 (± 5%)

Provisional smoothed values :					
1993 Sep.	50(± 7)	1993 Nov.	46	1994 Jan.	42
Oct.	48	Dec.	44	Feb.	40

Brussels, 1994 March 01

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S.I.D.C. SUMMARY OF THE URSIGRAMS

1994 FEBRUARY  $R'_{IM} = 35.9$

Date	R' <sub>i</sub>	PPSI	600	2800	COS	SFI	XI	Ak	SEA	MAG
31	26	19	29	098	973	0	0/0	12		
1	29	15	30	094	971	0	0/0	6		
2	31	18	28	096	975	0	0/0	12		
3	38	21	28	098	974	5	0/0	-		
4	44	32	26	095	978	1	0/0	23		
5	35	29	26	093	-	0	0/0	34		
6	40	34	26	095	945	3	0/0	55		0954 mgst
7	46	35	26	096	944	2	0/0	58		
8	41	35	26	095	949	15	0/0	57		
9	40	50	26	101	947	5	0/0	40		
10	32	55	26	094	954	0	0/0	44		
11	29	53	26	093	962	1	0/0	47		
12	36	40	26	098	967	1	0/0	36		
13	46	23	27	098	971	0	0/0	48		
14	39	24	26	101	971	0	0/0	37		mag.min.storm
15	34	37	26	104	972	3	0/0	30		
16	43	51	27	105	971	2	0/0	26		
17	43	60	29	106	974	1	0/0	14		
18	42	64	29	106	973	2	0/0	8		
19	28	62	30	108	980	0	0/0	28		
20	20	58	30	108	980	101	1/0	21		P/36(0104);p(0300)
21	19	28	28	-	959	-	-	106		0858 ssc;F;pca
22	35	42	29	107	907	0	0/0	38		
23	33	36	29	107	954	0	0/0	14		
24	34	17	29	105	955	0	0/0	6		
25	29	12	29	097	955	0	0/0	11		
26	36	14	29	094	959	1	0/0	8		
27	38	14	28	095	963	1	1/0	8		X(0825)SEA(0900;1351)
28	46	24	27	093	964	1	0/0	13		

R'<sub>i</sub>, R'<sub>w</sub> : provisional international sunspot numbers from the S.I.D.C.  
 PPSI : prompt photometric sunspot index from the S.I.D.C. in 10<sup>-5</sup> w/m<sup>2</sup>: the quantity to subtract from the mean solar constant.  
 600 : 600 Mhz solar flux from Humain station (Belgium).  
 2800 : 2800 Mhz solar flux from Ottawa (origin : Ursigrams - UGEOR group 2). "The 10.7cm Flux data are provided as a service of the National Research Council of Canada."  
 COS : thousands of the cosmic ray counts (origin : Ursigrams - UCOSE Kerguelen).  
 SFI : From October 1992, Solar Flare Index from the S.I.D.C. (origin : Ursigrams - UGEOR group 3).  
 XI : X-flares index from the Ursigrams (M-flares/X-flares) (origin : Ursigrams - UGEOR group 2; UGEOR group 5).  
 Ak : planetary geomagnetic index from Wingst, Germany (origin : Ursigrams).  
 SEA : sudden enhancements of atmospherics from Uccle & Humain (Royal Observatory, Belgium).  
 MAG : magnetic events from Dourbes station (Royal Meteorological Institute, Belgium).  
 Remarks : sid (sudden ionospheric disturbance); ssc (sudden storm commencement); mgst (magnetic storm); sfe (solar flare effect); s-1-2-3-4 (class of flares); II-IV radio-burst; T (ten cm radio-burst); P (proton flare); p (proton event); gle (ground level event : neutron event); si (sudden impulse); F (Forbush); SFI Evaluation (1 x S<sub>n</sub>+10 x "1"+100 x ">1").

DEPARTEMENT 4 RADIOASTRONOMIE ET PHYSIQUE SOLAIRE

DAILY PROVISIONAL

RELATIVE SUNSPOT NUMBERS

STATION UCCLE BELGIUM

FEBRUARY 1994

DATE	UT	NUMBER		RELATIVE SUNSPOT NUMBERS				PPSI 10-3 WM-2	QUAL	OBS
		OF GROUPS	OF SPOTS	TOTAL	NORTH	SOUTH	CENTRAL			
2	1050	4	14	54	41	13	13	26.2	4	DC
8	1350	4	12	52	38	14	13	46.2	1	DC
10	959	3	13	43	30	13	0	34.0	2	VI
14	850	4	12	52	52	0	18	39.4	3	DC
16	1017	5	17	67	67	0	14	23.7	5	DC
17	842	5	13	63	63	0	26	30.0	4	DC
18	1441	3	12	42	42	0	19	27.4	4	DC
19	1005	3	18	48	35	13	23	29.3	2	FC
21	840	1	3	13	13	0	13	26.6	2	DC
28	823	4	13	53	11	42	37	20.2	1	DC

The Sun has been observed 10 days on 28 possible.  
The relative mean sunspot number is 48.7.

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FEBRUARY 1994

PROVISIONAL INTERNATIONAL NORMALIZED HEMISPHERIC SUNSPOT NUMBERS

Date	Ri	Rn	Rs
1	29	8	21
2	31	22	9
3	38	30	8
4	44	33	11
5	35	23	12
6	40	25	15
7	46	22	24
8	41	29	12
9	40	27	13
10	32	23	9
11	29	29	0
12	36	36	0
13	46	46	0
14	39	39	0
15	34	34	0
16	43	43	0
17	43	43	0
18	42	42	0
19	28	28	0
20	20	20	0
21	19	19	0
22	35	26	9
23	33	23	10
24	34	14	20
25	29	11	18
26	36	14	22
27	38	11	27
28	46	9	37

MONTHLY MEAN :            35.9                    26.0                    9.9

COOPERATING STATIONS :   37                            23                            23

PILOT STATION : Specola Solare Ticinese, Locarno

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