Sunspot Index Data Center

SUNSPOT BULLETIN

Data Analysis Service supported by the FAGS

1992 n° 1

Provisional Sunspot numbers for January 1992

From observations at the Locarno Specola Solare
completed with data from an international network,
computed at the Observatoire Royal de Belgique
40 cooperating stations on February 1st, 10 UT

Day	R!	Day	R!
1	141	16	87
2	144	17	76
3	171	18	71
4	197	19	92
5	183	20	115
6	185	21	142
7	190	22	127
8	204	23	117
9	182	24	112
10	198	25	114
11	155	26	155
12	132	27	178
13	142	28	187
14	108	29	196
15	96	30	219
		31	211

Mean = 149.3

Predictions of the smoothed monthly Sunspot Numbers

	Classical Method			SIDC Adjusted values
1992 Feb.	129(± 31)	1992 Aug.	115(± 37)	1992 Feb. 137(± 33)
Mar.	126	Sep.	113	Mar. 135
Apr.	123	Oct.	111	Apr. 133
May	121	Nov.	108	May 132
Jun.	119	Dec.	106	Jun. 131
Jul.	117	1993 Jan.	104	Jul. 130

forecasted on the basis of the most recent provisional monthly smoothed Sunspot Number calculated for 1991 July : 145.8 (± 5%)

Provisional smoothed values :

1991 Aug.	144(± 21)	1991 Oct.	138	1991 Dec. 134
Sep.	141	Nov.	136	1992 Jan. 132

Brussels, 1992 February 01 A. KOECKELENBERGH and P. CUGNON

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

1992 JANUARY R'IM = 149.3

Date	R'I	PPSI	600	2800	COS	XFI	XI	Ak	SEA	MAG	
31	151	165	47	243	873	21	4/0	12		1426	
1	141	150	45	249	871	82	6/0	12		1644	1n(2032)+T
2	144	151	47	260	857	44	2/0	20			T(0651)
3	171	166	49	280	868	62	5/0	9			T(1733)
4	197	217	52	275	867	38	4/0	18			1n(1827)+T
5	183	236	52	267	867	50	5/0	16			
6	185	262	52	254	867	4	0/0	16			
7	190	272	52	262	861	41	2/0	10		0240	sf(2021)+T
8	204	275	52	263	863	26	1/0	16			
9	182	216	51	257	862	17	1/0	7		2152	1n(1238)+T
10	198	222	52	233	869	5	0/0	15			
11	155	116	50	209	876	2	0/0	32			
12	132	73	52	189	875	1	0/0	24			
13	142	63	51	183	866	0	2/0	29			
14	108	54	44	179	859	3	1/0	21			
15	96	57	44	173	875	3	1/0	20			
16	87	52	43	161	875	2	0/0	33		2010	bp
17	76	51	43	156	877	2	0/0	11			
18	71	40	42	152	876	2	0/0	8			
19	92	50	44	160	886	4	0/0	7			
20	115	61	46	168	880	2	0/0	14			
21	142	82	46	174	896	15	1/0	11			X(1938)
22	127	69	45	173	906	9	0/0	8			1b(1031)
23	117	82	46	173	901	6	0/0	4			
24	112	78	47	178	915	6	0/0	4			
25	114	82	49	202	917	19	1/0	6			X(2341)
26	155	103	47	209	914	113	0/1	10	1527	1458	3b(1521)+T
27	178	159	53	221	908	2	0/0	28			
28	187	190	50	238	889	11	0/0	18			
29	196	221	82	266	883	--	-/-	15	1440		
30	219	269	56	280	882	87	5/0	22	1356		2b(0934)+T
31	211	297	78	---	---	--	-/-	--	0800		

R'I,R'IM: provisional international 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: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).
COS :thousands of the cosmic ray counts (origin:Ursigrams).
XFI :X-flares index from the S.I.D.C. (origin:Ursigrams).
XI :X-flares index from the Ursigrams (M-flares/X-flares).
Ak :planetary geomagnetic index from Wingst (Germany from Ursigrams).
SEA :sudden enhancements of atmospherics from Uccle & Humain (Belgium).
MAG :magnetic events from Dourbes station(Royal Météo. 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)

OBSERVATOIRE ROYAL DE BELGIQUE

DEPARTEMENT 4 RADIOASTRONOMIE ET PHYSIQUE SOLAIRE

DAILY PROVISIONAL

RELATIVE SUNSPOT NUMBERS

STATION UCCLE BELGIUM JANUARY 1992

DATE	UT	NUMBER OF GROUPS	NUMBER OF SPOTS	RELATIVE SUNSPOT NUMBER	REL NUMB CENTRAL ZONE	PPSI 10-5 WM-2	QUAL	OBS
1	1040	7	68	138	40	193.5	2	AK
8	1231	11	87	197	138	274.6	1	VI
21	921	11	37	147	51	139.0	3	VI
22	940	12	51	171	60	115.9	3	VI
23	922	10	37	137	79	123.1	4	ST
24	945	8	35	115	71	98.8	2	ST
25	1125	9	41	131	75	83.6	4	CG
26	1050	12	69	189	96	102.4	4	ST
27	944	12	64	184	60	147.4	4	ST
29	915	13	79	209	102	167.2	2	VI

The Sun has been observed 10 days on 31 possible.
The relative mean sunspot number is 161.8.

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NORMALISED UCCLE OBSERVATIONAL SUNSPOT NUMBERS U'=K'U FOR

1992 JANUARY

K'= 0.938 (*)

1	129	7	***	13	***	19	***	25	122
2	***	8	184	14	***	20	***	26	177
3	***	9	***	15	***	21	137	27	172
4	***	10	***	16	***	22	160	28	***
5	***	11	***	17	***	23	128	29	196
6	***	12	***	18	***	24	107	30	***
								31	***

The Sun has been observed 10 days on 31 possible.
The normalized relative monthly mean Wolf number is 151.

* K' is the mean of the monthly K's for the last five years.

UCCLE OBSERVATIONAL MAJOR SUNSPOT GROUPS FOR 1992 JANUARY
E AND F BRUNNER'S TYPE GROUPS

Uccle N°	East Limb Date	Date and type 1st obs	CMP	Last Obs	West Limb Date
31-1850	12 22.0	24 F	12 28.8	1 C	1 4.5
32-1850	12 23.3	24 E	12 30.0	1 H	1 5.8
34-1850	12 25.0	27 H	12 31.7	1 E	1 7.5
2-1851	12 30.9	1 E	1 6.6	8 F	1 13.4
35-1850	12 28.6	1 E	1 4.3	8 J	1 11.1
12-1851	1 14.3	21 E	1 21.1	25 J	1 27.8
26-1851	1 23.5	24 G	1 30.2	29 E	2 6.0

PROBABLE RETURN OF MAJOR GROUPS FOR 1992 FEBRUARY

N°	New East Limb	New CMP	New West Limb
34	1 21.1	1 27.8	2 3.6
2	1 27.0	2 2.8	2 9.5
12	2 10.1	2 16.8	2 23.6