Sunspot Index Data Center

SUNSPOT BULLETIN

Data Analysis Service supported by the FAGS

1992 n° 8

Provisional Sunspot numbers for August 1992

From observations at the Locarno Specola Solare
completed with data from an international network,
computed at the Observatoire Royal de Belgique
37 cooperating stations on September 1st, 9 UT

Day	Rt	Day	Rt
1	65	16	100
2	90	17	90
3	103	18	71
4	103	19	69
5	94	20	59
6	89	21	44
7	86	22	39
8	98	23	36
9	98	24	38
10	74	25	20
11	60	26	30
12	50	27	34
13	57	28	33
14	82	29	44
15	76	30	27
		31	36

Mean = 64.4

Predictions of the smoothed monthly Sunspot Numbers

	Classical Method			SIDC Adjusted values
1992 Sep.	99(± 24)	1993 Mar.	87(± 27)	1992 Sep. 124(± 29)
Oct.	97	Apr.	85	Oct. 121
Nov.	95	May	83	Nov. 117
Dec.	93	Jun.	81	Dec. 113
1993 Jan.	92	Jul.	79	1993 Jan. 108
Feb.	89	Aug.	77	Feb. 103

forecasted on the basis of the most recent provisional monthly smoothed Sunspot Number calculated for 1992 February : 115.5 (± 5%)

Provisional smoothed values :

1992 Mar.	113(± 16)	1992 May	108	1992 Jul. 103
Apr.	111	Jun.	106	Aug. 102

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

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

1992 AUGUST R'_{IM} = 64.4

Date	R'_I	PPSI	600	2800	COS	XFI	XI	Ak	SEA	MAG	
31	48	67	31	103	961	3	0/0	14			
1	65	55	34	110	962	1	0/0	12			
2	90	69	33	125	961	12	1/0	6	1456		sf(2246)
3	103	94	34	131	954	36	2/0	6			1n(0625)(1007)
4	103	97	34	131	953	28	0/0	20		1409	ssc
5	94	86	37	131	943	20	0/0	28		0020	ssc
6	89	97	39	138	930	29	0/0	18		0428	ssc+p(1210)
7	86	113	40	141	929	14	0/0	22			
8	98	110	43	144	924	30	0/0	16			
9	98	94	42	137	925	13	0/0	17			
10	74	69	39	133	926	10	0/0	12	1234		
11	60	58	39	130	929	25	1/0	18	0653		
12	50	55	38	128	936	40	1/0	7			
13	57	71	37	129	941	14	0/0	15		1513	ssc
14	82	83	37	129	938	13	0/0	15			
15	76	95	37	131	943	10	0/0	12			
16	100	115	38	137	948	19	0/0	12			
17	90	146	35	134	944	27	0/0	5		1251	ssc
18	71	150	35	130	937	12	0/0	11			
19	69	154	36	135	945	19	0/0	12			
20	59	160	43	156	939	54	4/0	23			1b(1425)(1654)(2030)
21	44	112	33	125	930	--	-/-	29	1101	0935	mgst
22	39	65	32	122	921	19	0/0	37			F ↓
23	36	41	32	111	902	--	-/-	63			↓
24	38	21	30	102	933	14	0/0	16			
25	20	6	31	98	950	0	0/0	8			
26	30	7	31	93	---	2	0/0	13			
27	34	9	31	94	954	3	0/0	19			
28	33	13	32	96	955	3	0/0	7			
29	44	11	31	95	962	0	0/0	17			
30	27	12	30	95	967	5	0/0	6			
31	36	14	--	97	---	5	0/0	4			

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 from Kerguelen:Is(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);//(two ribbon 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 AUGUST 1992

DATE	UT	NUMBER OF GROUPS	NUMBER OF SPOTS	RELATIVE SUNSPOT NUMBER	REL NUMB CENTRAL ZONE	PPSI 10-5 WM-2	QUAL	OBS
1	730	6	23	83	32	67.2	3	AK
2	1423	8	51	131	45	94.9	2	ST
3	739	8	58	138	47	130.7	3	ST
4	824	7	67	137	41	120.9	2	ST
5	734	7	68	138	16	147.1	4	ST
6	743	7	62	132	88	125.1	3	ST
7	707	6	54	114	90	156.4	3	ST
8	713	8	53	133	66	110.4	3	PC
9	655	9	77	167	82	117.3	3	FC
11	810	6	28	88	11	68.6	2	PC
12	855	4	37	77	14	65.3	2	FC
14	709	5	56	106	48	59.3	3	PC
15	926	7	63	133	51	64.7	3	PC
17	840	6	80	140	61	59.2	3	AK
18	820	3	57	87	54	47.8	2	AK
19	910	4	69	109	81	49.7	3	AK
20	1350	2	84	104	0	44.7	2	PC
21	725	2	47	67	0	44.6	3	AK
22	905	2	35	55	0	42.6	2	AK
23	830	2	25	45	0	38.7	4	AK
24	815	3	15	45	12	32.9	3	AK
25	658	1	2	12	12	2.5	4	ST
26	726	3	10	40	28	8.3	2	ST
27	718	2	13	33	19	6.1	4	ST
28	938	4	22	62	42	28.5	1	ST
29	1110	5	23	73	36	28.0	3	AK
30	1551	3	24	54	35	31.6	4	ST
31	754	4	15	55	11	32.3	2	ST

The Sun has been observed 28 days on 31 possible.
The relative mean sunspot number is 91.4.

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

1992 AUGUST

K'= 0.950 (*)

1	78	7	108	13	***	19	103	25	11
2	124	8	126	14	100	20	98	26	37
3	131	9	158	15	126	21	63	27	31
4	130	10	***	16	***	22	52	28	58
5	131	11	83	17	132	23	42	29	69
6	125	12	73	18	82	24	42	30	51
								31	52

The Sun has been observed 28 days on 31 possible.
The normalized relative monthly mean Wolf number is 86.

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

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

Uccle N°	East Limb Date	Date and type 1st obs	CMP	Last Obs	West Limb Date
22-1858	7 25.6	1 C	8 1.3	7 J	8 8.1
23-1858	7 30.1	1 A	8 5.8	11 J	8 12.6
27-1858	8 1.4	2 D	8 8.2	12 H	8 14.9

PROBABLE RETURN OF MAJOR GROUPS FOR 1992 SEPTEMBER

N°	New East Limb	New CMP	New West Limb
22	8 21.9	8 28.7	9 4.4
23	8 25.8	9 1.6	9 8.3