Sunspot Index Data Center
SUNSPOT BULLETIN

Data Analysis Service supported by the FAGS

1992 n° 10

Provisional Sunspot numbers for October 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 November 1st, 9 UT

Day	Ri	Day	Ri
1	85	16	54
2	98	17	55
3	84	18	73
4	105	19	92
5	122	20	75
6	119	21	98
7	103	22	104
8	88	23	95
9	91	24	114
10	73	25	113
11	57	26	125
12	41	27	130
13	36	28	131
14	43	29	111
15	40	30	100
		31	82

Mean = 88.3

Predictions of the smoothed monthly Sunspot Numbers

Classical Method				SIDC Adjusted values	
1992 Nov.	88(± 21)	1993 May	76(± 24)	1992 Nov.	108(± 24)
Dec.	86	Jun.	74	Dec.	104
1993 Jan.	84	Jul.	72	1993 Jan.	99
Feb.	82	Aug.	70	Feb.	94
Mar.	80	Sep.	68	Mar.	90
Apr.	78	Oct.	66	Apr.	87

forecasted on the basis of the most recent provisional monthly smoothed Sunspot Number calculated for 1992 April : 103.1 (± 5%)

Provisional smoothed values :

1992 May	100(± 14)	1992 Jul.	96	1992 Sep.	92
Jun.	98	Aug.	94	Oct.	90

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

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

1992 OCTOBER R'_{IM} = 88.3

Date	R'_I	PPSI	600	2800	COS	SFI	XI	Ak	SEA	MAG	
30	76	146	34	116	936	13	0/0	28			
1	85	114	33	118	948	3	0/0	25			
2	98	111	34	119	960	15	1/0	12			
3	84	99	35	120	962	5	0/0	7			
4	105	95	34	126	962	13	1/0	7			
5	122	108	35	130	962	6	2/0	6			Sn(1509)+T
6	119	115	34	137	949	6	0/0	10			
7	103	123	37	136	942	88	4/0	8	1501		1B(0501)+T
8	88	114	35	126	933	27	0/0	7		1839 ssc	
9	91	81	32	121	921	8	0/0	27		0911 ssc	
10	73	64	32	113	928	15	1/0	12	1227		
11	57	35	31	111	935	4	0/0	30			mag storm minor
12	41	19	31	107	932	4	0/0	28	1300		
13	36	12	31	109	933	5	0/0	24			
14	43	11	30	106	930	1	0/0	25			
15	40	14	30	98	930	1	0/0	30			
16	54	21	30	101	937	0	0/0	22			
17	55	24	30	107	940	2	0/0	16			
18	73	38	30	112	942	11	0/0	14			
19	92	91	31	125	942	57	1/0	17	1314		
20	75	174	32	133	951	19	0/0	12			1B(0909)+T
21	98	220	34	141	957	13	0/0	10			
22	104	230	34	151	954	8	0/0	11			
23	95	245	32	142	960	131	1/0	6			2B(0054)+T
24	114	241	34	147	963	14	0/0	4			
25	113	278	34	161	964	11	0/0	9			
26	125	310	33	170	972	112	1/0	18			2B(1754)+T
27	130	315	36	171	963	142	6/0	36			2N(0652)+T
28	131	344	37	175	964	23	0/0	20			1F(1005)+II
29	111	279	36	164	966	36	2/0	30			
30	100	219	36	158	963	129	2/1	18			2B(1659)+T;p(192
31	82	135	36	150	964	5	2/0	9			

Growing of flare activity during the third decade.

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:UGEOI group2).
COS :thousands of the cosmic ray counts (origin:Ursigrams:UCOSE Kerguelen).
SFI :Now (October 1992)Solar Flare Index from the S.I.D.C. (origin:Ursigrams:UGEOR group3).
XI :X-flares index from the Ursigrams (M-flares/X-flares)(origin:Ursigrams:UGEOR group2;UGEOI group5).
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);SFI Evaluation(1 x Sn+10 x "1"+100 x ")1").

OBSERVATOIRE ROYAL DE BELGIQUE

DEPARTEMENT 4 RADIOASTRONOMIE ET PHYSIQUE SOLAIRE

DAILY PROVISIONAL

RELATIVE SUNSPOT NUMBERS

STATION UCCLE BELGIUM OCTOBER 1992

DATE	UT	NUMBER OF GROUPS	NUMBER OF SPOTS	RELATIVE SUNSPOT NUMBERS TOTAL	NORTH	SOUTH	CENTRAL	PPSI 10-5 WM-2	QUAL	OBS
1	833	7	19	89	52	37	37	124.3	2	ST
2	824	8	34	114	69	45	45	126.4	2	ST
3	1040	9	40	130	87	43	57	134.2	3	PC
4	1429	10	42	142	96	46	62	195.4	2	ST
8	814	5	55	105	44	61	49	168.6	2	ST
9	954	4	32	72	27	45	33	98.4	2	ST
10	935	5	45	95	27	68	35	132.0	3	PC
12	1001	3	10	40	11	29	0	36.0	1	ST
13	806	2	5	25	0	25	11	17.7	3	ST
14	824	4	10	50	24	26	0	6.1	3	ST
15	823	4	14	54	27	27	0	10.2	3	ST
16	824	4	21	61	32	29	21	9.3	3	VI
17	1050	6	31	91	53	38	53	35.8	4	AK
18	827	6	31	91	41	50	38	57.2	2	PC
19	1100	9	86	176	93	83	124	97.3	4	FC
20	820	5	44	94	52	42	39	151.4	2	VI
22	844	6	92	152	76	76	106	170.4	2	VI
23	1310	6	118	178	93	85	166	234.6	2	AK
24	840	10	127	227	98	129	113	230.2	3	FC
26	1248	9	70	160	52	108	59	216.0	3	ST
27	907	9	48	138	35	103	19	215.2	1	ST
29	1103	7	51	121	12	109	43	194.8	1	ST
30	845	7	56	126	24	102	70	154.7	3	ST
31	1143	6	33	93	12	81	55	120.1	2	ST

The Sun has been observed 24 days on 31 possible.
The relative mean sunspot number is 109.3.

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

1992 OCTOBER

K'= 0.921 (*)

1	81	7	***	13	23	19	162	25	***
2	104	8	96	14	46	20	86	26	147
3	119	9	66	15	49	21	***	27	127
4	130	10	87	16	56	22	139	28	***
5	***	11	***	17	83	23	163	29	111
6	***	12	36	18	83	24	209	30	116
								31	85

The Sun has been observed 24 days on 31 possible.
The normalized relative monthly mean Wolf number is 100.

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

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

Uccle N°	East Limb Date	Date and type 1st obs	CMP	Last Obs	West Limb Date
19-1860	9 22.3	23 C	9 29.0	4 J	10 5.8
3-1861	9 29.1	2 C	10 5.9	12 G	10 12.6
5-1861	10 1.2	2 D	10 7.9	12 J	10 14.7
8-1861	10 2.9	8 D	10 9.7	15 J	10 16.4
15-1861	10 14.6	17 C	10 21.4	26 G	10 28.1
18-1861	10 16.9	18 C	10 23.7	29 H	10 30.4
28-1861	10 19.1	26 F	10 25.8	31 F	11 1.6

PROBABLE RETURN OF MAJOR GROUPS FOR 1992 NOVEMBER

N°	New East Limb	New CMP	New West Limb
3	10 27.0	11 2.8	11 9.5
8	10 30.0	11 5.7	11 12.5
15	11 10.6	11 17.4	11 24.1
18	11 13.0	11 19.7	11 26.5
28	11 15.2	11 21.9	11 28.7