

  
 Sunspot Index Data Center  
**SUNSPOT BULLETIN**

Data Analysis Service supported by the FAGS

1992 n° 5  
 Provisional Sunspot numbers for May 1992

From observations at the Locarno Specola Solare  
 completed with data from an international network,  
 computed at the Observatoire Royal de Belgique  
 33 cooperating stations on June 1st, 14 UT

Day	Ri	Day	Ri
1	88	16	45
2	86	17	45
3	90	18	59
4	98	19	54
5	96	20	62
6	96	21	110
7	72	22	106
8	82	23	118
9	79	24	93
10	67	25	66
11	63	26	57
12	80	27	80
13	87	28	63
14	78	29	33
15	65	30	30
		31	31

Mean = 73.5

Predictions of the smoothed monthly Sunspot Numbers

Classical Method		SIDC Adjusted values
1992 Jun. 121(± 29)	1992 Dec. 109(± 35)	1992 Jun. 139(± 34)
Jul. 119	1993 Jan. 107	Jul. 137
Aug. 117	Feb. 104	Aug. 135
Sep. 115	Mar. 103	Sep. 134
Oct. 113	Apr. 101	Oct. 131
Nov. 111	May 99	Nov. 129

forecasted on the basis of the most recent provisional monthly smoothed Sunspot Number calculated for 1991 November : 138.2 (± 5%)

Provisional smoothed values :

1991 Dec. 136(± 19)	1992 Feb. 131	1992 Apr. 126
1992 Jan. 133	Mar. 128	May 123

Brussels, 1992 June 02

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

1992 MAY R<sub>IM</sub> = 73.5

Date	R <sub>i</sub>	PPSI	600	2800	COS	XFI	XI	Ak	SEA	MAG
30	80	36	41	128	999	3	0/0	5		
1	88	78	33	131	1000	18	0/0	13		
2	86	50	33	136	---	7	0/0	7	0600	
3	90	56	32	126	---	14	1/0	9		
4	98	57	34	135	---	32	2/0	4	1434	1n(2008)
5	96	70	35	133	999	46	1/0	3		
6	96	85	35	131	---	4	0/0	5		
7	72	71	35	129	997	5	0/0	14		1245 ssc
8	82	68	58	143	---	4	1/0	15	1517	4b(1512)//+T
9	79	74	35	127	---	3	0/0	31	0632	1557 p(1005);pca(1405)
10	67	68	36	124	---	1	0/0	81	1656	0446 ssc
11	63	66	36	126	994	5	0/0	19		1200 p(0615);mgst(1200)
12	80	50	38	125	996	8	0/0	8		
13	87	38	37	126	999	3	0/0	9		
14	78	29	37	127	---	5	0/0	2		
15	65	22	38	122	1020	1	0/0	3		
16	45	11	38	116	1020	1	0/0	2		
17	45	8	38	113	1030	0	0/0	2		
18	59	11	38	117	---	17	0/0	14		2020 ssc
19	54	34	40	131	---	18	0/0	7	1132	
20	62	85	40	137	---	1	0/0	6		
21	110	144	39	142	1000	9	0/0	9		
22	106	173	39	145	998	5	0/0	22		0412 ssc
23	118	143	37	142	999	1	0/0	15		
24	93	138	35	134	999	3	0/0	5	1500	?(+1700?)
25	66	95	35	123	---	-	-/-	6		
26	57	71	34	119	1000	0	0/0	7		
27	80	50	33	115	1000	14	0/0	5		
28	63	26	33	111	999	1	0/0	10		
29	33	8	32	105	999	0	0/0	14		very small solar activity
30	30	3	--	99	999	2	0/0	13		
31	31	9	--	99	1000	14	0/0	8		

R<sub>i</sub>,R<sub>IM</sub>: 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);//(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

MAY 1992

DATE	UT	NUMBER OF GROUPS	NUMBER OF SPOTS	RELATIVE SUNSPOT NUMBER	REL NUMB CENTRAL ZONE	PPSI 10-5 WM-2	QUAL	OBS
1	930	7	49	119	59	56.0	2	AK
2	853	7	43	113	28	72.2	2	ST
3	640	7	43	113	48	59.1	2	PC
4	1334	6	45	105	56	67.3	4	ST
5	747	7	62	132	58	90.3	2	ST
6	836	7	46	116	26	104.8	2	ST
7	948	3	34	64	53	110.1	1	ST
8	922	5	32	82	60	62.0	2	ST
10	727	6	45	105	69	89.3	2	PC
11	1217	6	33	93	26	82.7	2	ST
12	742	4	16	56	30	67.0	1	ST
13	728	9	31	121	36	67.0	4	ST
14	815	9	25	115	57	59.6	4	ST
15	731	6	26	86	51	30.8	4	ST
16	830	3	11	41	19	5.5	2	AK
17	1015	3	6	36	11	4.9	3	AK
18	733	6	18	78	29	9.4	4	ST
19	713	4	29	69	44	19.9	4	ST
20	725	4	40	80	39	54.4	4	ST
21	740	8	65	145	41	137.6	5	ST
22	730	7	58	128	50	155.8	4	ST
23	605	7	50	120	43	50.5	2	VI
24	852	7	57	127	66	52.1	4	ST
25	733	5	44	94	26	47.7	4	ST
26	710	4	31	71	25	31.4	3	ST
27	750	7	44	114	50	24.9	3	AK
28	1035	4	11	51	12	13.2	2	ST
30	1000	3	5	35	12	3.1	2	AK
31	750	2	9	29	17	8.8	2	PC

The Sun has been observed 29 days on 31 possible.  
The relative mean sunspot number is 91.0.

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

1992 MAY

$K' = 0.886$  (\*)

1	105	7	56	13	107	19	61	25	83
2	100	8	72	14	101	20	70	26	62
3	100	9	***	15	76	21	128	27	100
4	93	10	93	16	36	22	113	28	45
5	116	11	82	17	31	23	106	29	***
6	102	12	49	18	69	24	112	30	31
								31	25

The Sun has been observed 29 days on 31 possible.  
The normalized relative monthly mean Wolf number is 80.

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

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

Uccle N°	East Limb Date	Date and type			West Limb Date
		1st obs	CMP	Last Obs	
11-1855	4 23.4	28 C	4 30.2	6 E	5 6.9
18-1855	5 1.8	2 G	5 8.5	15 H	5 15.3
1-1856	5 16.1	18 B	5 22.9	28 G	5 29.6

PROBABLE RETURN OF MAJOR GROUPS FOR 1992 JUNE

N°	New East Limb	New CMP	New West Limb
11	5 21.1	5 27.9	6 3.6