

Newsletter Belgian Solar Observers

Results and news for solar observers

Volume 13

Number 152

October 2008

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Content Newsletter

Graphics and relative number for this month

Daily Wolfnumbers by the members

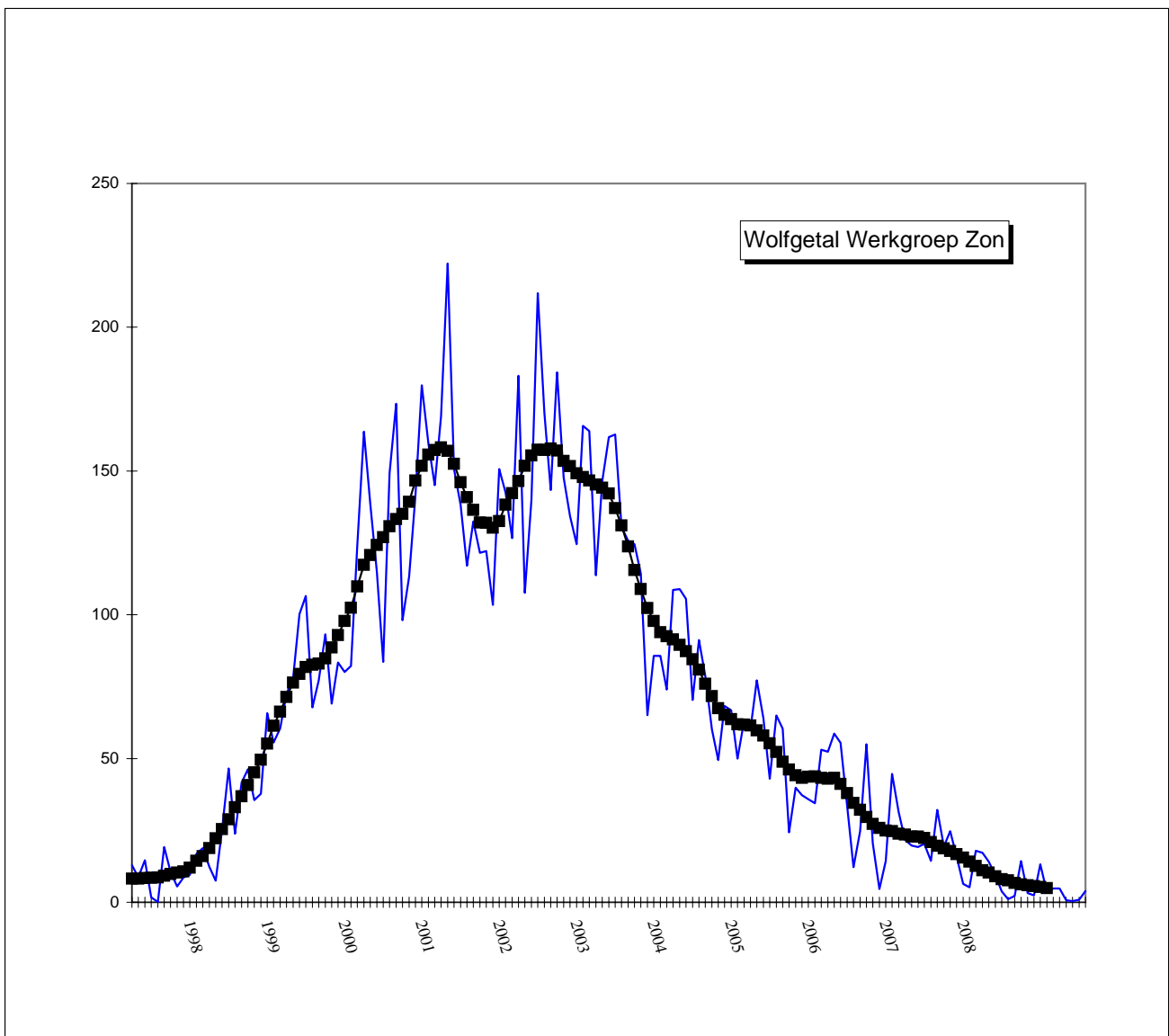
Monthly sunspot report

Polar faculae and CV numbers

Prominence numbers by the members

Monthly prominence report

Photo album and drawings



Mean of October observations

Groups :	N	0,26	Wolfnumb	N	3,4	Beck :	12,8
	S	0,13		S	0,5	CV	1,6
	N+S	0,39		N+S	3,9		
456 observations	30 observers						

Sunspotnumbers VVS Belgium

Month: **October 2008**

Day	GROUPS			WOLFNUMBER			RE'	CV	OBS
	N	S	N+S	N	S	N+S			
1	0	0	0	0	0	0	0	0	15
2	0	0	0	0	0	0	0	0	17
3	0	0	0	0	0	0	0	0	10
4	0	1	1	0	5,4	5,4	3	2	21
5	0	0	0	0	0	0	0	0	3
6	0	0	0	0	0	0	0	0	10
7	0	0	0	0	0	0	0	0	8
8	0	0	0	0	0	0	0	0	12
9	0	1	1	0	1,9	1,9	1	1	17
10	0	1	1	0	3,1	3,1	2	1	19
11	1	0	1	14,4	0	14,4	58	12	23
12	1	0	1	18	0	18,3	79	10	25
13	1	0	1	13	0	13,1	46	8	21
14	1	0	1	14	0	14,2	60	8	21
15	1	0	1	15	0	15,0	24		2
16	1	1	2	7	6,4	13,0	18	2	19
17	1	0	1	6	0	6,2	14	1	21
18	0	0	0	0	0	0	0	0	19
19	0	0	0	0	0	0	0	0	21
20	0	0	0	0	0	0	0	0	22
21	0	0	0	0	0	0	0	0	9
22	0	0	0	0	0	0	0	0	18
23	0	0	0	0	0	0	0	0	19
24	0	0	0	0	0	0	0	0	2
25	0	0	0	0	0	0	0	0	16
26	0	0	0	0	0	0	0	0	2
27	0	0	0	0	0	0	0	0	20
28	0	0	0	0	0	0	0	0	21
29	0	0	0	0	0	0	0	0	16
30	0	0	0	0	0	0	0	0	4
31	1	0	1	17	0	17	93	3	3
	0,26	0,13	0,39	3,4	0,5	3,9	12,8	1,6	456

Monthly mean: **3,9** Covering: **31/31** Spotless days: **20**
 Observations: **456** Number of observers: **30**

V.V.S. BELGIUM SOLAR SECTION FRANKY DUBOIS

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 Belgium
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Observers:

Devriese ; De Ceuninck ; Janssens ; Publ obs Mira ; Bourgeois ; Macharis
 De Backer ; Dubois ; Gysel ; Kleber ; Deman ; Taillieu ; Carels ; Dewaele
 Meeus ; Steen ; KSB ; Gabriel ; Claeys ; Devriese ; Thooris ; Vanleenhove
 Claes ; Verboven ; Van Loo ; Son ; Coeckelberghs ; Gadyne ; Dekelver ; Feys

Prominence number Rp

Belgian solar observers

Month: **October 2008**

Day	Q	Wedel		H	e	Rp	el. Obs	Stdev	OBS
1	3	2		4,0	5,5	45,5	1	0,7	3
2	3,3	2		3,0	4,8	34,8	1	12,5	6
3	3,3	2		3	4,5	34,5	2	16,3	4
4	2,9	2,4		3,6	4,8	40,8	2	11,4	7
5									
6	3	2		4	5	45	2		3
7	3,3	2		2	2,5	22,5	1	0,7	3
8	3,2	1,8		4	5,7	45,7	1	11,5	4
9	3	2,2		4	6,2	46,2	2	2,4	7
10	3	2,1		2	2,8	22,8	2	9	6
11	3,6	2,6		3,5	4,7	39,7	1	9,6	7
12	3	2		2,6	4	30	3	10,2	10
13	2,8	2		1,8	2	20	1	10,6	5
14	3	2,1		0,8	0,8	8,8	1	10,5	5
15	3	2		3	4	34			1
16	2,8	2		3,2	5,3	37,3		9,8	6
17	3	1,8		2,6	4	30		6,4	5
18	3	2,1		3,8	5,3	43,3	1	10,8	5
19	3,2	2		3,9	7,3	46,3		7,1	7
20	2,5	1,8		4,8	7,9	55,9		8,8	9
21	3	2,3		3,5	7	42		8,5	2
22	2,9	2		3,3	4,5	37,5	1	11,2	5
23	3	1,8		3,9	7,4	46,4	1	11	8
24						0			
25	3	2,1		3,7	5	42		11,5	7
26									
27	3	1,9		2,1	2,9	23,9		10	7
28	3,6	1,8		2,2	2,5	24,5	2	4,8	8
29	3,2	2		3,1	5,4	36,4	1	10,9	9
30	3	2,5		4	4	44			1
31	3	2,5		3	3	33			1
	3,06	2,06		3,2	4,6	34,9	26	9,0	151

Monthly mean: **34,9** Covering: **29/31**
 Observations: **151** Number of observers: **12**

V.V.S. BELGIUM SOLAR SECTION FRANKY DUBOIS

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Observers:

**Steen ; Dubois ; Meeus ; De Ceuninck ; Coeckelberghs ; Janssens
 Hamsch ; Claes ; Gabriel ; Blondeel ; Deman ; G.Gubbels ; T.Spaninks**

Q : Seeing scale SIDC

W : transparency scale of Wedel , see <http://members.chello.be/j.janssens/>

H : number of prominence groups at the limb

e : total of individual prominences at the limb

Rp : $H \cdot 10 + e$

More info at : <http://members.chello.be/j.janssens/>

Different Relative Sunspotnumbers

Month : October 2008

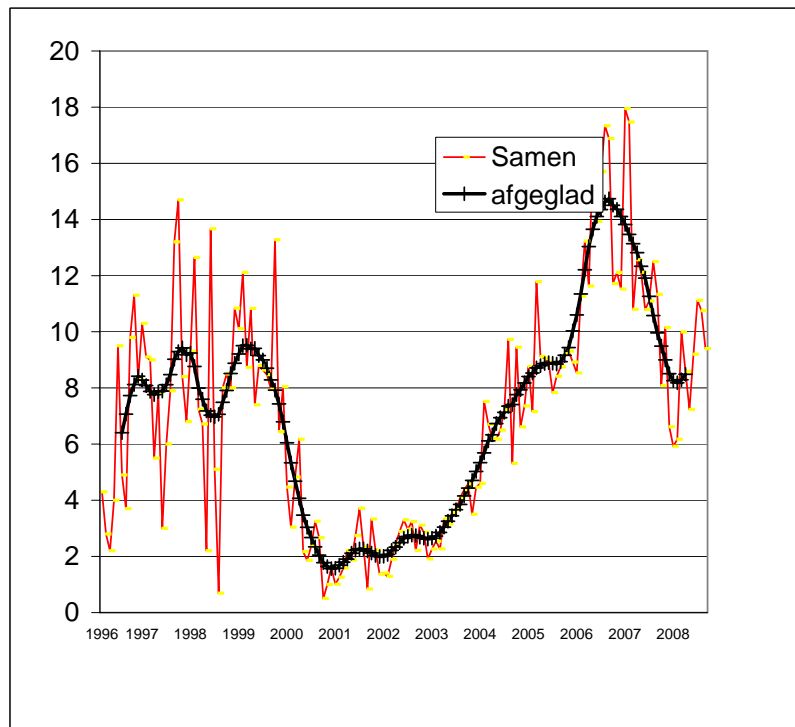
CV										Pettisindex SN				Intersol IS			Becknumber																			
Date	F.Dubois	O.Steen	L.Meeus	J.Carels	J.Janssens	G.Gubbels	H.De Backer	S.Dufoer	Mean	G.Gubbels	F.Dubois	O.Steen	J.Carels	F.Dubois	J.Carels	G.Gubbels	F.Dubois	O.Steen	L.Meeus	P.J. Dekelver	J.Carels	G.Gubbels	S.Dufoer	D.Van Hessche	A.T.Son	J.Bourgeois	H.Coeckelberghs	De Backer	Pbl Obs Mira	J.Claes	F.Feys	Mean	Date			
1	0	0	0	0		0			0,0		0	0	0	3	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
2	0	0	0	0		0	0		0,0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
3	0	0	0	0			0		0,0		0	0	0	3			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
4	2	2		2	1	2	0	2	1,6	2	2	2	2	3	3	3																				
5									#DEEL/0!																											
6	0	0		0		0	0		0,0		0	0	0	2	0																					
7	0	0		0					0,0		0	0	0	3	0																					
8	0	0	0	0			0		0,0		0	0	0	2	0																					
9	0	1	0	0			0	1	0,3		0	1	0	3	0																					
10	1	1	1	0		1	0		0,7	1	1	1	0	2	0	1																				
11	14	6	11	5	6	2	5	46	11,9	4	23	14	13	3	5	5																				
12	19	8	11	5	8	5	8	19	10,4	17	23	17	16	2	8	9																				
13	8	4	8	5		11	8	11	7,9	15	12	12	13	1	5	7																				
14	9	4	8			11	8		8,0	13	16	14		2		6																				
15									#DEEL/0!																											
16	5	1		3		3	0	2	2,3	5	6	4	3	2	4	6																				
17	2	1	2	1			0		1,2		2	2	1	4	1																					
18	0	0	0		0		0	0	0,0		0	0		3																						
19	0	0		0		0	0	0	0,0	0	0	0	0	1	0	0																				
20	0	0	0			0	0	0	0,0	0	0	0		4		0																				
21	0	0					0		0,0		0	0		3																						
22	0	0	0	0			0		0,0		0	0	0	1	0																					
23	0	0		0			0		0,0		0	0	0	3	0																					
24									#DEEL/0!																											
25	0	0		0			0	0	0,0		0	0	0	3	0																					
26									#DEEL/0!																											
27	0	0	0	0		0	0		0,0	0	0	0	0	3	0	0																				
28	0	0		0	0	0	0	0	0,0	0	0	0	0	2	0	0																				
29	0	0	0	0	0	0	0		0,0	0	0	0	0	1	0	0																				
30	0	0							0,0		0	0		2																						
31		3										6																								
##	2,3	1,1	2,6	1,1	2,5	2,7	1,2	6,8	#DEEL/0!	4,4	3,3	2,7	2,4	2,4	1,3	2,8	12,5	17,5	12,3	28,1	7,2	15,4	29	6	7	####	0,0	3,2	####	7,7	14,9	9,7				

Belgian Solar Observers

Polar Faculae

Month: October 2008

Date	Dubois 125mm F20			Steen 102mm F15			Deman 150mm F15			Gabriel 250 mm F20			Carels 150mm F8			Janssen 200mm F10			T.Spaninks 127mm F15			G.Gubbels		
	North	South	Q	North	South	Q	North	South	Q	North	South	Q	North	South	Q	North	South	Q	North	South	Q	North	South	Q
	1																							
2	9	5	3	9	3	3,5				17	9	3	3	2	3									
3	11	5	3	10	3	3,5				23	10	4	3	1	4									
4	9	4	3	8	2	3,5				22	11	3				6	2	3,0						
5																								
6																				1	1	4		
7																								
8	9	1	3	5	2	3,5				18	12	3												
9	9	3	3	5	3	3,0				18	15	4							0	2	4			
10				5	3	3,5																		
11				7	4	3,5	20	8	4	19	14	4				7	4	3,5						
12				5	4	3,5	13	9	3							4	2	3,0						
13	10	6	4	7	2	3,5				19	13	4												
14				5	2	3,0																		
15																								
16																								
17	5	2	2	3	2	3,0	17	6	3															
18	17	6	3													3	1	3						
19	10	7	4	8	3	3,5																		
20	8	2	2																0	1	4			
21																								
22	12	4	4	4	1	3,0																		
23	9	3	3	5	2	3,0																		
24																								
25	9	2	3	9	1	3,5	12	6	3										0	1	4			
26																								
27				7	2	4																		
28	13	6	3	4	2	4	21	12	4							6	1	3,5						
29																7	1	3,0						
30																			0	0	4			
31				4	2	3,0																		
	10,00	4,00		6,11	2,39		16,6	8,2		19,4	12,0		3,00	1,50		5,50	1,83		0,20	1,00		8,69	4,00	



SOLAR ACTIVITY

Solar activity was again very low this week. Still, two small active regions (NOAA11005 & 11006) were seen on the disc from Oct. 13 to 18, as well as several small plages without sunspots. Most of those features belonged to the new solar cycle, thus heralding the onset of the rising phase of cycle 24. Only AR11006 produced minor A subflares on Oct. 17 and 18. A semi-halo CME was also seen in LASCO images on Oct.17, but it was a backside event directed away from the Earth. It may indicate the presence of an active source that could rotate onto the Earth-facing hemisphere over the coming week.

GEOMAGNETIC ACTIVITY

On the wake of a fast solar wind stream, the week started with a moderately high solar wind speed of 530km/s. This speed decreased slowly and steadily over the entire week, settling down at about 300km/s over the last 3 days of the week. As a consequence, the Earth magnetosphere was quiet to unsettled from Oct. 13 to 15, then becoming quiet for the rest of the week. At the very end of the week, on Oct.19 22:00UT, a weak stream of fast solar wind triggered unsettled to active geomagnetic conditions for a few hours.

SOLAR ACTIVITY

The solar activity was quiet during the week. Only one sunspot group (Catania number 89, no NOAA number) was reported (on October 21). It was small and did not produce any flaring activity.

A low-latitude coronal hole in the southern hemisphere was passing through the solar central meridian on October 25-26.

GEOMAGNETIC ACTIVITY

The Earth was situated inside the slow solar wind flow during the whole week. As the solar wind speed stayed below 500 km/s and the interplanetary magnetic field magnitude did not surpass 10 nT, the geomagnetic conditions were quiet, with K index below 4. Two interaction regions between the solar wind streams with slightly different speeds arrived on October 22 and 26. They did not produce any significant geomagnetic disturbance. The K index reached 4 only during two intervals on October 22, according to the measurements by Dourbes and IZMIRAN.

SOLAR ACTIVITY

Solar activity was very low during the whole week. NOAA AR 1007 emerged on October 30th about 25 degrees east of central meridian, and displayed on October 31st sunspots (when it was given a NOAA number). Minor soft X-ray flaring activity above A level started on November 1st and increased on November 2nd with several B class flares (maximum being a B7.2 flare at 15:05UT).

GEOMAGNETIC ACTIVITY

Geomagnetic activity was mostly quiet during the week, with isolated unsettled conditions ($K_p=4$) observed at planetary levels on October 29th and 30th, and at local level (Dourbes, $K=4$) on October 29th due to a recurrent coronal hole.

SOLAR ACTIVITY

The solar activity during the week was dominated by the Catania sunspot group 90, NOAA AR 1007. It has produced four B-class flares and a C1.6 flare peaking at 11:19 UT on November 3. An X-ray burst of an irregular shape on November 2-3 was accompanied by coronal dimmings, post-eruption arcade and a partial halo CME (angular width around 130 degrees). The partial halo CME was weak and slow (around 140 km/s), so it did not produce any geomagnetic disturbance. The CMEs associated with other flares were weak and/or narrow. They did not produce any geomagnetic disturbance either. On November 5 the Catania sunspot group 90 started to decay and on November 7 it went behind the west limb. A weak and fragmented low-latitude coronal hole has reached the solar central meridian on November 4. The fast solar wind stream from this coronal hole has arrived to the Earth on November 8 (see below).

GEOMAGNETIC ACTIVITY

In the beginning of the week the Earth was inside the slow solar wind flow, so the geomagnetic conditions were quiet. On November 7 the Earth has entered the interaction region between slow and fast solar wind flows. The fast stream itself (originating in a weak low-latitude coronal hole) has arrived on November 8. K index values up to 3 (Dourbes) and 4 (NOAA, IZMIRAN) were reported on November 7-9. The solar wind speed has decreased on November 9, and quiet geomagnetic conditions followed.

SIDC DEFINITIVE INTERNATIONAL AND HEMISPHERIC SUNSPOT NUMBERS FOR 2008

APRIL Date	MAY			JUNE			Ri	Rn	Rs
	Ri	Rn	Rs	Ri	Rn	Rs			
1	16	0	16	7	7	0	0	0	0
2	9	0	9	0	0	0	0	0	0
3	9	0	9	0	0	0	0	0	0
4	7	0	7	7	0	7	0	0	0
5	0	0	0	8	0	8	9	0	9
6	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	9	0	9
11	0	0	0	0	0	0	8	0	8
12	0	0	0	0	0	0	7	0	7
13	7	7	0	8	8	0	8	0	8
14	7	7	0	0	0	0	0	0	0
15	0	0	0	9	5	4	7	0	7
16	0	0	0	14	7	7	7	0	7
17	0	0	0	12	12	0	7	0	7
18	0	0	0	15	0	15	8	0	8
19	8	0	8	11	0	11	7	0	7
20	0	0	0	7	0	7	8	0	8
21	0	0	0	0	0	0	8	0	8
22	8	8	0	0	0	0	8	0	8
23	8	8	0	0	0	0	0	0	0
24	7	7	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0
31			0	0	0				
MEAN :	2.9	1.2	1.7	3.2	1.3	1.9	3.4	0.0	3.4