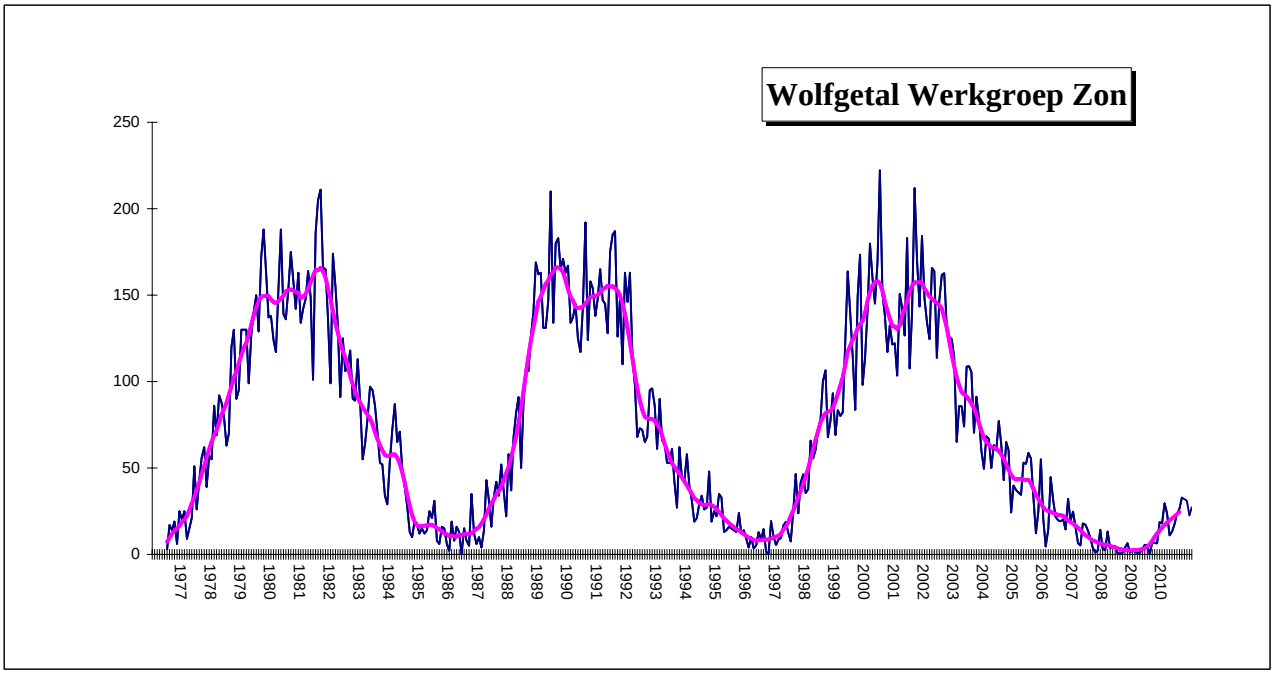
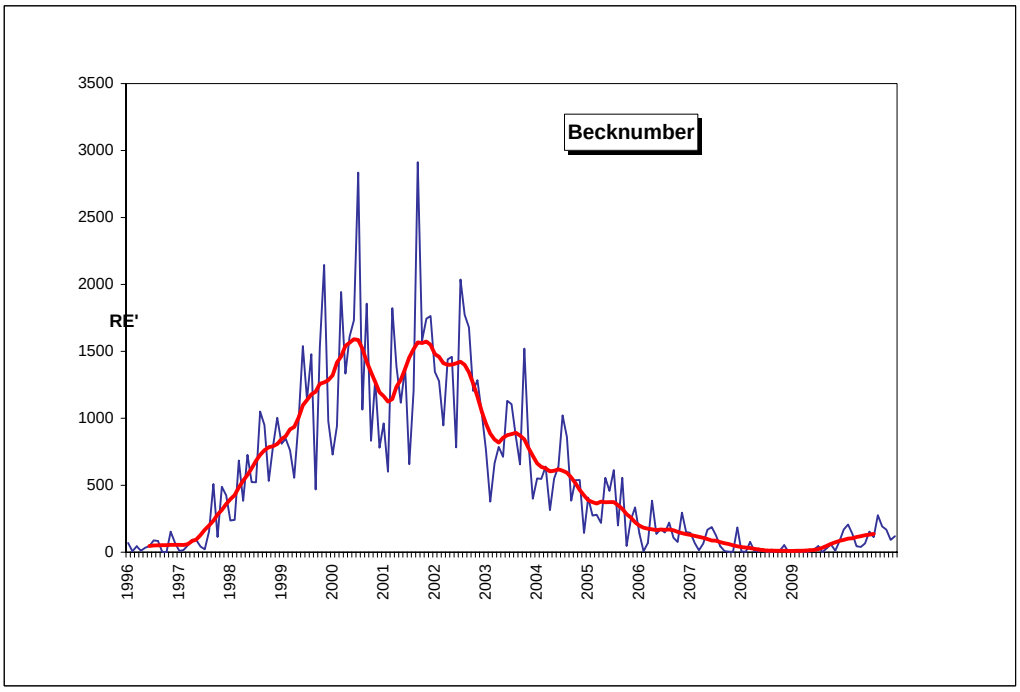
NIEUWSBRIEF V.V.S. WERKGROEP ZON

Waarnemingsresultaten en nieuws voor zonnewaarnemers	Jaargang : 16	Nummer: 179	January 2011

Franky Dubois Poelkapellestraat 57 Langemark 8920

Web site: http://www.bso.vvs.be/ e-mail astrosun@skynet.be





Gemiddelden werkgroep zon January 2011

Groepen :	N	**1,57**	Wolfgetal :	N	**19,9**	RE'	**119,6**
	S	**0,54**		S	**7,4**	CV	**20,9**
	N+S	**2,11**		N+S	**27,3**		

239 waarnemingen 28 waarnemers

Wolfnumbers Belgian Solar Observers

Month: **January 2011**

	SIDC	L. Meeus			H.Coeckelberghs			Publ Obs Mira			O. Steen			F. Dubois			L. Claeys			J. Bourgeois			A.T.Son			H. De Backer			B. Thooris			J. Carels			Dag
Dag	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	
1	37																																		1
2	33	4	15	55							3	15	45				4	12	52	3	15	45	3	18	48	3	13	43	3	12	42	3	19	49	2
3	32																																		3
4	33										3	17	47							2	20	40							2	8	28	3	16	46	4
5	25							2	11	31	3	8	38	3	9	39	2	5	25				2	11	31	2	11	31	2	5	25	2	12	32	5
6	19																																		6
7	24	2	8	28																															7
8	17										2	4	24	2	3	23																4	12	52	8
9	22	3	6	36							2	2	22	3	5	35							3	6	36	1	1	11	1	1	11	3	9	39	9
10	18	3	4	34	1	1	11	3	4	34	3	4	34	3	3	33							3	6	36	3	4	34	1	1	11	2	2	22	10
11	17																																		11
12	15																																		12
13	9																																		13
14	0																																		14
15	8										1	1	11				0	0	0							1	1	11							15
16	14	1	4	14	1	1	11				1	3	13	2	5	25	1	4	14	1	4	14	1	7	17	1	1	11	1	1	11	2	7	27	16
17	19																1	2	12																17
18	22													2	15	35																			18
19	18	2	8	28							2	9	29	2	8	28	1	6	16							2	5	25	1	2	12				19
20	20	2	9	29	1	9	19	2	10	30	2	11	31	2	13	33	1	8	18				1	12	22	2	10	30				2	8	28	20
21	23							1	17	27	2	17	37	2	16	36										2	13	33	1	14	24				21
22	22										2	6	26													2	9	29							22
23	23																																		23
24	20										2	9	29	2	9	29																			24
25	21																																		25
26	17	2	5	25										2	5	25	2	4	24							2	3	23							26
27	14										2	2	22	2	2	22	1	1	11				1	1	11	2	2	22				3	4	34	27
28	9	1	3	13	0	0	0				1	3	13	2	5	25	1	5	15				1	4	14	1	2	12				1	4	14	28
29	10	1	4	14							1	6	16	2	6	26	1	4	14	1	3	13	1	5	15	0	0	0				1	4	14	29
30	13										1	9	19	1	6	16	1	9	19	1	7	17	1	14	24	1	8	18							30
31	14																																		31
#	**19,0**			**27,6**			**10,3**			**30,5**			**26,8**			**28,7**			**18,3**			**25,8**			**25,4**			**22,2**			**20,5**			**32,5**	

Observations of the SIDC are not included in the Belgian monthly Wolfnumber.
Publ Obs Mira : observers : Francis Meeus , Guido Mattheus and Marc Rayen

	SIDC	F.Feys			R.Verboven			KSB			D.V.Hessche			G.Gubbels			J. Claes			E. De Ceuninck			R. Dezeure			B. Taillieu			K.Dewaele			F. van Loo			Dag
Dag	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	
1	37	3	12	42																															1
2	33							4	13	53				4	15	55	3	9	39				3	12	42										2
3	32																						3	10	40										3
4	33	2	13	33				2	11	31										3	13	43	2	15	35	2	13	33							4
5	25							2	7	27				3	15	45				3	13	43	2	11	31							1	2	12	5
6	19																																		6
7	24	2	4	24																															7
8	17	2	7	27																3	6	36	1	1	11										8
9	22	3	11	41	1	4	14	3	5	35	3	4	34	3	4	34				3	9	39	2	4	24	3	7	37				2	3	23	9
10	18	2	5	25				3	4	34	3	6	36	4	9	49	3	4	34							3	6	36							10
11	17																																		11
12	15	2	12	32																															12
13	9	1	11	21																															13
14	0	3	21	51																															14
15	8	0	0	0																						1	1	11							15
16	14	1	6	16				1	1	11	1	3	13							1	4	14	1	1	11	1	3	13							16
17	19	1	10	20																															17
18	22	2	17	37																															18
19	18	2	20	40																2	7	27	2	6	26										19
20	20	2	18	38				1	6	16	2	12	32	2	14	34	2	13	33	2	13	33	2	12	32	2	9	29							20
21	23	2	34	54				2	11	31										1	2	12	1	17	27	1	8	18							21
22	22	3	46	76																						2	13	33							22
23	23																																		23
24	20	4	24	64																1	7	17	1	7	17										24
25	21	2	19	39																															25
26	17	2	8	28				2	5	25																									26
27	14	2	5	25				1	3	13										1	2	12	1	1	11										27
28	9							1	2	12	1	4	14	2	9	29	1	2	12	1	4	14	1	3	13							1	1	11	28
29	10	1	4	14	1	3	13	1	3	13	1	5	15	1	4	14				1	5	15	1	3	13	1	5	15							29
30	13							1	7	17	1	8	18	1	10	20	1	4	14	1	7	17	1	5	15	1	7	17							30
31	14	1	11	21				1	4	14																									31
#	**19,0**			**33,4**			**13,5**			**23,7**			**23,1**			**35,0**			**26,4**			**24,8**			**23,2**			**24,2**			#####			**15,3**	

	SIDC	J.Bonse			B.De Wit			J.Bavais			G.Vandenbulcke			W.De Meester			E.Neven									R.De Laet								Dag
Dag	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R				
1	37																																		1
2	33	3	11	41													3	7	37							3	14	44							2
3	32																																		3
4	33																									3	15	45							4
5	25	2	8	28							2	7	27													2	7	27							5
6	19																																		6
7	24																																		7
8	17																																		8
9	22										1	1	11													2	5	25							9
10	18																2	3	23																10
11	17																																		11
12	15																																		12
13	9																																		13
14	0																																		14
15	8																																		15
16	14				1	1	11				1	3	13																						16
17	19	1	1	11																															17
18	22																																		18
19	18																																		19
20	20	1	9	19													2	9	29							2	9	29							20
21	23	1	21	31																															21
22	22																																		22
23	23																																		23
24	20																																		24
25	21																																		25
26	17																																		26
27	14																																		27
28	9																1	2	12							1	5	15							28
29	10	0	0	0	0	0	0	1	7	17	0	0	0																						29
30	13				1	5	15										1	3	13							2	8	28							30
31	14																																		31
#	**19,0**			**22**			**8,7**			**17,0**			**12,8**			#####			**22,8**			#####			#####			**30,4**			#####			#####	

Sunspotnumbers VVS Belgium

Month: 'January 2011

	GROUPS			WOLFNUMBER					
Day	N	S	N+S	N	S	N+S	RE'	CV	OBS
1	2	1	3	29	13	**42**	193		1
2	2	1	3	27,6	18,4	**46**	225	51,6	15
3	2	1	3	19	11	**30**			1
4	2	1	3	18,7	19,4	**38,1**	200	24	10
5	2	1	3	15,4	15,4	**30,8**	148	29,5	17
6									
7	1	1	2	12	14	**26**	102	21	2
8	2	1	3	13,3	15,6	**28,9**	99	13	6
9	2	1	3	19,3	8,8	**28,1**	85	13,3	18
10	3	0	3	30,4	0,0	**30,4**	59	12,4	16
11									
12	2	0	2	32	0	**32**	180		1
13	1	0	1	11	0	**11**	44		1
14	3	0	3	51	0	**51**	84		1
15	1	0	1	6,6	0,0	**6,6**	25	10	5
16	2	0	2	14,4	0,0	**14,4**	60	18,5	18
17	1	0	1	14,3	0,0	**14,3**	80		3
18	1	1	2	22,5	13,5	**36,0**	216	32	2
19	1	1	2	15,2	10,4	**25,6**	94	11,8	9
20	1	1	2	18,9	9,3	**28,2**	98	15	20
21	2	0	2	30	0	**30**	199	20	11
22	2	0	2	41	0	**41**	222	33,5	4
23									
24	2	0	2	31,2	0	**31,2**	192	38,5	5
25	2	0	2	39	0	**39**	152		1
26	2	0	2	25	0	**25**	76	41	6
27	2	0	2	18,3	0	**18,3**	91	20,5	10
28	1	1	2	3	11,0	**14,0**	17	2	17
29	0	1	1	0	12,1	**12,1**	18	1,9	21
30	0	1	1	0	17,9	**17,9**	72	7,6	16
31	0	1	1	0	17,5	**17,5**	198		2
	1,57	**0,54**	**2,11**	**19,9**	**7,4**	**27,3**	**119,6**	**20,9**	**239**

Monthly mean:	**27,3**	Covering:	**28/31**	Spotless days:	**0**
Observations:	**239**	Number of observers:	**28**		

V.V.S. BELGIUM SOLAR SECTION FRANKY DUBOIS

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Observers:

E.De Ceuninck ; J.Janssens ; Publ obs Mira ; J.Bourgeois ; R.Dezeure ; F.Feys H. De Backer; F.Dubois ; B.Taillieu ; J.Carels ; K. Dewaele L.Meeus ; O.Steen ; KSB ; L.Claeys ; B.Thooris ; J.Bonse J.Claes ; R.Verboven ;F. Van Loo ; A.T.Son ; H.Coeckelberghs G.Gubbels ; J Bavais ; D.Van Hessche; E.Neven ; R.De Laet

VVS Belgian Solar Observers Prominence number Rp

Month : january 2011

Day	J. Janssens time	Q	W	H	e	Rp	F. Dubois time	Q	W	H	e	Rp	Lille 20/20	E. De Ceunick time	Q	W	H	e	Rp	PST	F.Feys time	Q	W	H	e	Rp	Lunt 60	J. Hambsch time	Q	W	H	e	Rp	asm 60	G. Gubbels time	Q	W	H	e	Rp	Lunt 60
1																					8,35	3,5	1,5	6	12	72														
2																																		10.05	4	1	8	21	101
3							11,39	4	1	6	15	75																												
4																																							
5	9:05	2,5	3	2	3	23								11.00	3,5	3,5	1	2	12									13u25	2,5	2,5	4	4	44							
6																																							
7																					8,32	2,5	1	6	13	73													
8							8,45	4	1	5	9	59									8,35	2,5	1	9	13	103													
9														11.30	3,5	3,5	8	11	91		8,25	4	1	8	17	97								9.50	3.5	1.5	8	23	103
10																					7,50	3,5	1	8	15	95		13u20	2,5	2,5	4	6	46						
11																																							
12																					13,07	4	1	6	16	76													
13																					7,45	4	1	7	22	92													
14																					8,27	4,5	1	8	14	94													
15																																							
16														10.45	3,5	3	4	7	47									13u20	3,5	2,5	5	8	58						
17							11,10	3	1	6	11	71																												
18																					8,53	3	1	7	20	90													
19														10.30	4,0	3,5	5	10	60		12,37	4,5	1	10	21	121													
20														13.30	4,0	3,5	4	8	48		7,15	5	1	8	15	95													
21																					9,32	5	1	7	13	83													
22							11,31	4	1	5	6	56		12.00							7,47	5	1,5	8	16	96													
23																																							
24														12.30	3,5	3,5	7	11	81		13,18	4	1,5	6	11	71													
25																					7,10	4	1	7	12	82													
26																					9,22	4	2	7	8	78													
27														13.00	3,0	3,5	9	13	103		6,45	3,5	1	8	10	90													
28														12.20	2,5	4	4	10	50																			
29	9:50	3	2	8	16	96								13.00	3,5	3,5	5	9	59		8,25	3	1	9	19	109								9.07	3.5	1.5	8	18	98
30														10.30	3,0	3,5	6	8	68														12.36	3.5	1	6	17	77
31																					12,04	3	1	6	8	68													
	2	2,8	2,5	5,0	9,5	59,5	4	3,8	1,0	5,5	10,3	65,3	11	3,4	3,5	5,3	8,9	61,9	19	3,8	1,1	7,42	14,5	88,7	3	2,8	2,5	4,3	6,0	49,3	4	4,0	1,0	7,5	19,8	94,8			

Day	O. Steen time	Q	W	H	e	Rp	H. Coekelberghs time	Q	W	H	e	Rp	PST	J. Claes time	Q	W	H	e	Rp	PST	T.Spaninks time	Q	W	H	e	Prom Viewer Rp	R.De Laet time	Q	W	H	e	Rp	PST	L.Meeus time	Q	W	H	e	Rp	Lunt
1																																							
2	11,40	3	2	7	9	79								1030	3	2	4	7	47		11.08	3	2	11	15	125	10:00	3	2	9	12	102								
3																																								
4	9,40	3	2,5	5	6	56																					13:30	2,5	3	5	5	55								
5	10,00	3	2	5	5	55															11.27	3	2	11	12	122	12:15	2,5	3,5	11	13	123								
6																																								
7																																								
8	12,03	3	2	5	5	55																																		
9	9,50	3	2,5	5	6	56																					10:30	3	3	9	17	107								
10	9,05	3,5	2	6	8	68	12:10	3	3	7	13	83		1000	3	2	5	12	62																						
11																																								
12																																								
13																																								
14																																								
15	13,50	3	2,5	4	6	46																																		
16	12,40	3	2	7	10	80	12:30	3	4	8	19	99									13.30	3	2	8	12	92													
17																																								
18																																								
19	9,05	3,5	2	8	12	92																																		
20	9,00	3	2	7	12	82	0,56	5	4	5	13	63		1300	4	1	4	7	47		9.41	3	2	11	19	129	11:30	3	3	8	18	98								
21	12,50	3	2	7	8	78																																		
22																																								
23																																								
24																																								
25																																								
26																																								
27	12,45	3	2	6	6	66																																		
28	9,25	3	2	5	7	57	11:36	4	3	4	12	52		1400	4	1	4	12	52								11:30	2,5	3	10	18	118								
29	9,10	3,5	2	8	12	92															11.12	3	2	10	15	115													
30	8,45	3	2	6	9	69								1030	4	1	7	14	84								11:30	3	3	9	13	103								
31																																								
	15	3,1	2,1	6,07	8,1	68,7	4	3,8	3,5	6	14,3	74,3	5	3,6	1,4	4,8	10,4	58,4	5	3,0	2,0	10,2	15	116,6	7	2,8	2,9	8,7	13,7	100,9		###	###	####	#####	######					

Day	R.Blondeel time	Q	W	H	e	asm 60 Rp	R.Verboven time	Q	W	H	e	PST Rp
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
	###	###	####	###	#####		###	###	####	####	#####	

Time : Beginning of observation
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*10+e
More info at : http://members.chello.be/j.janssens/

Prominence number Rp

Belgian solar observers

Month: **January 2011**

Day	Q	Wedel		H	e	Rp	el. Obs	Stdev	OBS
1	3,5	1,5		6	12	**72**			1
2	3,3	1,7		9,3	16	**109**	2	13,6	5
3	4	1		6	15	**75**			1
4	2,8	2,8		5	5,5	**55,5**		0,7	2
5	2,8	2,8		5,7	6,5	**63,5**			6
6									
7	2,5	1		6	13	**73**			1
8	3,5	1,5		5	7	**57**	1	2,8	3
9	3,4	2,5		7,6	14,8	**90,8**			5
10	3,1	2,1		6	10,8	**70,8**			5
11									
12	4	1		6	16	**76**			1
13	4	1		7	22	**92**			1
14	4,5	1		8	14	**94**			1
15	3	2,5		4	6	**46**			1
16	3,2	2,7		6,4	11,2	**75,2**			5
17	3	1		6	11	**71**			1
18	3	1		7	20	**90**			1
19	4	2,2		7,7	14,3	**91,3**			3
20	4	2,4		6	12,2	**72,2**	1		7
21	4	1,5		7	10,5	**80,5**		3,5	2
22	4,5	1,3		6,5	11	**76**			2
23									
24	3,8	2,5		6,5	11	**76**		7,1	2
25	4	1		7	12	**82**			1
26	4	2		7	8	**78**			1
27	3,2	2,2		7,7	9,7	**86,7**			3
28	3,4	2,5		4,3	10,3	**53,3**	1	3	5
29	3,2	2,1		8	14,8	**94,8**			6
30	3,3	2,1		6,8	12,2	**80,2**		14,3	5
31	3	1		6	8	**68**			1
	3,50	**1,78**		**6,5**	**12,0**	**76,8**	**5**	**6,4**	**78**

Monthly mean: **76,8** Covering: **28/31**

Observations: **78** Number of observers: **9**

V.V.S. BELGIUM SOLAR SECTION FRANKY DUBOIS

Poekapellestraat 39

B8920 Langemark

Belgium

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Observers:

Steen ; Dubois ; De Ceuninck ; Coeckelberghs ; Janssens ; Feys

Hambsch ; Claes ; G.Gubbels ; T.Spaninks ; R.Blondeel;R.Verboven

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*10+e

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

Different Relative Sunspotnumbers — Month : January 2011

CV

Date	F.Dubois	O.Steen	L.Meeus	J.Carels	J.Janssens	R.verboven	G.Gubbels	H.De Backer	D.Van Hessche			Mean
1												
2		67	38	46			61	46				**51,6**
3												
4		22		26								**24,0**
5	50	13		16	16		60	22				**29,5**
6												
7			21									**21,0**
8	12	12		15								**13,0**
9	13	11	16	13		10	21	10	12			**13,3**
10	12	12	13	11			14	13	12			**12,4**
11												
12												
13												
14												
15		10						10				**10,0**
16	12	25	20	6				10	38			**18,5**
17												
18	32											**32,0**
19	10	13	12					12				**11,8**
20	14	14	12	13			14	13	25			**15,0**
21	19	18						23				**20,0**
22		41						26				**33,5**
23												
24	38	39										**38,5**
25												
26	21		82					20				**41,0**
27	20	20		22				20				**20,5**
28	3	1	2	2			3	1	2			**2,0**
29	3	3	2	2	2	1	2	0	2			**1,9**
30	6	6					2	16	8			**7,6**
31												
##	**18**	**19,2**	**22**	**15,6**	**9**	**5,5**	**22**	**16**	**14**			**20,9**

Pettisindex SN

	G.Gubbels	F.Dubois	R.Verboven	O.Steen	J.Carels		Mean
1							
2	76	27		46	64		**53,3**
3							
4				35	43		**39,0**
5	74	12		17	39		**35,5**
6		14					**14,0**
7		12					**12,0**
8				13	21		**17,0**
9	22			11	18		**17,0**
10	18			13	11		**14,0**
11							
12							
13		14					**14,0**
14							
15		31		10			**20,5**
16		17		21	15		**17,7**
17		22					**22,0**
18		31					**31,0**
19				18			**18,0**
20	23			20	17		**20,0**
21		36		25			**30,5**
22				40			**40,0**
23		21					**21,0**
24		20		36			**28,0**
25		4					**4,0**
26		6					**6,0**
27		14		20	22		**18,7**
28	9			3	4		**5,3**
29	4			6	4		**4,7**
30	10			17			**13,5**
31							
##	**30**	**19**	#####	**21**	**23**		**20,7**

Intersol IS

	F.Dubois	J.Carels	G.Gubbels		Mean
1					
2	11	14	17		**14,0**
3					
4		18			**18,0**
5	4	10	18		**10,7**
6	6				**6,0**
7	3				**3,0**
8		14			**14,0**
9		6	5		**5,5**
10		2	11		**6,5**
11					
12					
13	6				**6,0**
14					
15	17				**17,0**
16	9	8			**8,5**
17	15				**15,0**
18	18				**18,0**
19					
20		10	16		**13,0**
21	10				**10,0**
22					
23	6				**6,0**
24	2				**2,0**
25	6				**6,0**
26	8				**8,0**
27	7	5			**6,0**
28		5	11		**8,0**
29		5	5		**5,0**
30			11		**11,0**
31					
##	**8,5**	**8,8**	**12**		**9,44**

Becknumber

Date	F.Dubois	O.Steen	L.Meeus	De Backer	J.Carels	G.Gubbels	E.De Ceuninck	D.Van Hessche	R.Verboven	F.Feys	A.T.Son	J.Bourgeois	H.Coeckelberghs	Pbl Obs Mira								Mean	Date
1										193												**193**	**1**
2		226	238	220	291	282					157	158										**225**	**2**
3																							**3**
4		149			251		262			118		218										**200**	**4**
5	130	131		160	96	348	48				110			160								**148**	**5**
6																							**6**
7			122							82												**102**	**7**
8	45	49			81		113			205												**99**	**8**
9	53	41	73	44	69	122	113	49	176	110	90											**85**	**9**
10	45	49	49	56	41	76		57		86	90		44	56								**59**	**10**
11																							**11**
12										180												**180**	**12**
13										44												**44**	**13**
14										84												**84**	**14**
15		37		37						0												**25**	**15**
16	36	54	100	37	52		176	24		48	56	32	44									**60**	**16**
17										80												**80**	**17**
18	312									120												**216**	**18**
19	60	64	56	36			208			140												**94**	**19**
20	92	80	64	72	56	92	88	180		124	96		162	72								**98**	**20**
21	170	136		104			196			164				425								**199**	**21**
22		127		188						352												**222**	**22**
23																							**23**
24	181	237					175			176												**192**	**24**
25										152												**152**	**25**
26	69		40	132						64												**76**	**26**
27	74	74		88	82		100			185	37											**91**	**27**
28	20	12	12	8	16	36	32	16			16		0									**17**	**28**
29	24	24	16	0	16	16	40	20	12	16	20	12										**18**	**29**
30	48	72		144		40	126	64			56	28										**72**	**30**
31										198												**198**	**31**
	90,6	**92**	**77**	**88**	**96**	**127**	**129**	**59**	**94**	**127**	**73**	**90**	**63**	**178**								**120**	

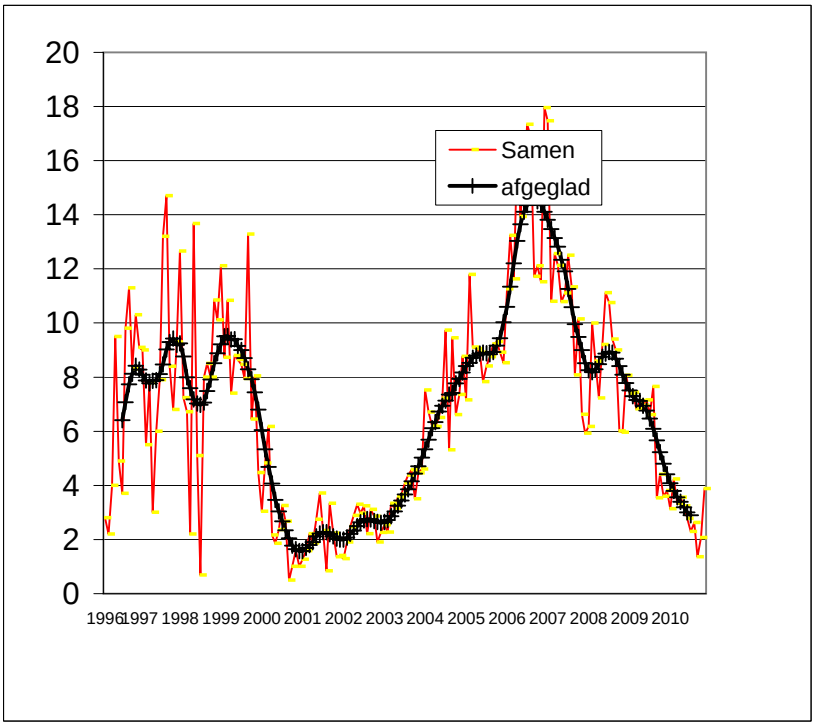
Belgian Solar Observers

Polar Faculae

Month: January 2011

Date	Dubois 125mm F20			Steen 102mm F15			T.Spaninks 127mm F15			G.Gubbels 114mm F7,8			J.Carels			Janssen 200mmF10			M. Szulc 60mm F15		
	North	South	Q	North	South	Q	North	South	Q	North	South	Q	North	South	Q	North	South	Q	North	South	Q
1																					
2							1	0	4	3	2	4									
3	1	3	3																3	8	
4																					
5							0	0	3	3	2	2.5				0	0	3	2	9	
6																					
7																			2	10	
8																					
9							0	0	4	2	2	3.5	3	0	4				1	12	
10				0	0	3,5				2	1	3.5							1	8	
11																					
12																			3	4	
13																					
14																					
15																					
16							0	0	4										1	5	
17																			2	4	
18																					
19				3	4	3,5															
20				2	3	3,5	0	0	4												
21																					
22																					
23																			2	7	
24																			4	7	
25																					
26																					
27									4												
28										3	4	2,5							1	6	
29				0	1	3,5	0	0	4	1	2	3.0				0	0	3,0			
30										1	3	3.5							3	5	
31																			3	8	
	1,00	3,00		1,25	2,00		0,2	0,0		2,1	2,3		3,00	0,00		0,00	0,00		2,15	7,15	##

Obs of M.Szulc are not included in the monthly average !



Werkgroep zon

Jaarverslag 2010

Relatieve daggetallen

Het Wolfgetal

Heel wat minder waarnemingen in 2010 , 4324 waarnemingen van het Wolfgetal bereikten de werkgroepleider , dat is 1001 waarnemingen minder dan het jaar ervoor en dit door 33 waarnemers. Van de 341 dagen dat de zon zichtbaar was waren er 37 vlekkenloos. Momenteel neemt de activiteit van de zon nog steeds toe.
Reden voor deze vermindering zijn de stopzetting van waarnemen door drie waarnemers en het de heel sombere maanden mei , augustus , november en december !

Andere daggetallen

Naast het Wolfgetal worden een aantal andere relatieve daggetallen bepaald door de leden. Dit zijn het Beckgetal , CV, Intersolindex en Pettisindex .

Protuberansengetal

Ook minder protuberansen waarnemingen , in totaal 1353 door 13 waarnemers. Zelfde oorzaak als hierboven !

Nieuwsbrief

Ook dit jaar verschenen 12 nieuwsbrieven die ook in PDF vorm op de website van de werkgroep beschikbaar zijn. Maandelijks worden 36 nieuwsbrieven verstuurd met de post.

Bijeenkomst

Op 18 september waren we te gast in het Europlanetarium in Genk , we waren uitgenodigd door de werkgroep zonnewaarnemingen van de sterrenwacht. Slechts een 15 tal amateurs kwamen opdagen voor tal van leerrijke voordrachten .

2011

De werkgroep zal minstens eenmaal samenkomen in de loop van 2011.



Vergelijkend jaaroverzicht 2010 Werkgroep Zon

1. De werkgroep	2010	2009	2008	2007	2006	2005
Aantal waarnemingen	4324	5325	5102	4744	4401	3836
Aantal waarnemers	33	34	35	34	30	25
Aantal waarnemingsdagen	341	340	359	346	348	352
k- factor	0,713	0,681	0,721	0,691	0,688	0,722
Correlatie (%)	99,9	95,6	94,3	97,1	97,5	98,4
2. Het Wolfgetal						
Gem. Wolfgetal	23,5	4,7	3,8	11,1	21,9	41
Hoogste Wolfgetal	69	48,6	63	52,9	79	159
Laagste Wolfgetal	0	0	0	0	0	0
Gem. Wolfgetal NOORD	15,2	3,2	1,3	1,8	3,5	15,4
Gem. Wolfgetal ZUID	8,3	1,5	2,5	9,3	18,4	25,6
Aantal vlekkenloze dagen	37	230	255	141	56	15
3. Het groepengetal						
Gem. groepengetal	1,88	0,39	0,36	0,87	1,64	2,86
Gem. groepengetal NOORD	1,22	0,26	0,12	0,16	0,28	1,18
Gem. groepengetal ZUID	0,67	0,13	0,24	0,71	1,36	1,68
Totaal aantal groepen	101	30	30	45	89	127
Aantal groepen NOORD	64	18	10	13	20	44
Aantal groepen ZUID	37	12	20	32	69	83
4. Het Beckgetal						
Gem. Beckgetal	138,1	22,2	15,2	84,6	159	373,6
Hoogste waarde	1050	421	502	993	1030	1891
Laagste waarde	0	0	0	0	0	0
Aantal waarnemingen	2648	3021	2431	2026	1974	1713
Aantal waarnemingsdagen	345	340	352	346	340	344
5. Classification Value						
Gem. CV	21,3	2,65	2,25	11,97	21,3	43,4
Hoogste waarde	78	53	85	90	102	171
Laagste waarde	0	0	0	0	0	0
Aantal waarnemingen	1746	2165	1754	1323	939	844
Aantal waarnemingsdagen	325	339	351	336	335	336
6. Protuberansengetal Rp						
Gem. Rp	66,8	40,06	42,7	53,9	67,6	
Hoogste waarde	123,5	96	101,5	106,5	115,7	
Laagste waarde	21	7,7	8,8	11	29	
Aantal waarnemingen	1353	1687	1899	1905	1788	
Aantal waarnemingsdagen	324	324	334	328	324	

Observers Wolfnumber R

	Waarnemers 2010	jan	febr	mrt	april	mei	june	july	aug	sept	okt	nov	dec	totaal
1	Bavais J.	2	1					1	3	7				14
2	Bonse J	2	2	4	4		4	7	5	4		1	3	36
3	Bourgeois J.	4	4	10	14	18	17	21	24	14	19	2	4	151
4	Carels J.	8	9	13	27	20	20	20	18	22	18	8	7	190
5	Claes J.	5	4	14	19	14	15	19	12	13	12	1	4	132
6	Claeys L.	12	7	26	28	21	20	31	28	20	25	6	6	230
7	Coeckelberghs H.	2	2	3	5	2	10	3	4	6	7	3	2	49
8	De Backer H.	14	15	27	22	24	21	31	25	17	21	12	13	242
9	De Ceuninck E.	11	11	27	30	25	22	24	25	22	18	11	14	240
10	De Laet R.							23	18	15	15	1	2	74
11	Deman G.	5	3	10	24									42
12	De Meester W					4	12	9						25
13	Dewaele K.	1	1			3	4		3		1			13
14	De Wit B.					4	17	16	13	3	4			57
15	Dezeure R.	11	14	21	27	22	25	29	24	21	20	11	15	240
16	Dubois F.	14	19	29	30	27	18	26	24	23	23	20	17	270
17	Feys F.	18	13	26	27	28	29	31	30	26		12	9	249
18	Gabriel A.	16	18	29	30									93
19	Gubbels G.	9	8	24	27	20	21	30	23	22	21	7	5	217
20	Janssens J.	1	1	5	7	7	6	6	11	4	4		1	53
21	K S B	11	15	26	29	21	26	29	26	22	26	5	11	247
22	Meeus L.	9	5	12	14	2	16	24	14	14	17	7	5	139
23	Neven E.									13	12	1	4	30
24	PJ. Dekelver	6	5	14	16	13	18	16	4					92
25	Publ obs Mira	1		6	2	2	5	10	6	9			1	42
26	Son A.T.	7	4	17	20	10	20	28	15	11	11	5	4	152
27	Steen O.	16	21	30	30	28	29	30	28	25	27	19	16	299
28	Taillieu B.	7	14	12	21	17	18	25	23	12	14	4	5	172
29	Thooris B.	12	9	23	26	19	10	5	20	14	7		9	154
30	Vandenbulcke G		6	11	4	5	1	17	8	6	4	2	2	66
31	Van Loo F.	1	4	20	16	11	23	26	19	6	3	1		130
32	Van Hessche D.	4	3	10	10	7	11	14	10	8	11	4	4	96
33	Verboven R.	4	3	5	14	13	14	12	10	4	3	3	3	88
	# Waarnemingen	213	221	454	523	387	452	563	473	383	343	146	166	4324
	# Waarnemingsdagen	24	25	31	30	31	30	31	30	30	31	24	24	341
	# Waarnemers	28	28	27	27	27	28	29	29	28	25	23	25	

Prominence number Rp

	Waarnemers 2010	jan	febr	mrt	april	mei	june	july	aug	sept	okt	nov	dec	totaal
1	Janssens J.	1	1	5	7	7	5	6	11	4	4		1	52
2	Dubois F.	4	9	20	29	22	15	23	19	19	18	5	7	190
3	De Ceuninck E.	6	7	15	25	16	20	20	22	21	16	7	9	184
4	Meeus L.							6	4	3	4	2		19
5	Hamsch J.	2	2	7			12	13	8	8	8			60
6	Deman G.	5	3	10	24									42
7	Steen O.	15	17	27	29	25	27	29	26	23	22	13	12	265
8	Coeckelberghs H.		2	4	3	1	6		3	4	1	1	1	26
9	Claes J.	4	4	14	19	14	14	19	10	13	12	1	4	128
10	Gabriel A.	16	17	29	30									92
11	Blondeel R.								13	11	16			40
12	Gubbels G.	1	1	7	21	21	21	29	20	17	14	5	5	162
13	Spaninks T.	5	2	7	14	7	7	16	9	7	6		1	81
14	Feys F		12	26	26	27	29	31	30	26	21	17	8	253
15	De Laet R.						22	24	18	16	16	1	2	99
16	Verboven R.												3	3
	# Waarnemingen	59	77	171	227	140	178	216	193	172	158	52	53	1696
	# Waarnemingsdagen	16	25	31	30	30	30	31	31	29	28	24	19	324
	# Waarnemers	10	12	12	11	9	11	11	13	13	13	9	11	

Observers Becknumber Re

	Waarnemers 2010	jan	febr	mrt	april	mei	june	july	aug	sept	okt	nov	dec	totaal
1	Bourgeois J.	4	4	10	14	18	17	21	24	14	19	2	4	151
2	Carels J.	8	9	13	27	20	20	20	18	22	18	8	7	190
3	Claes J.	5	4	14	19	14	15	19	12	13	12	1	4	132
4	Coeckelberghs H.	2	2	3	5	2	10	3	4	6	7	3	2	49
5	De Backer H.	14	15	27	22	24	21	31	25	17	21	12	13	242
6	De Ceuninck E.	11	11	27	30	25	22	24	25	22	18	11	14	240
7	Dekelver P.J.	6	5	14	16	13	18	16	4					92
8	Dubois F.	14	19	29	30	27	18	26	24	23	23	20	17	270
9	Feys F.	18	13	26	27	28	29	31	30	26		12	9	249
10	Gubbels G.	9	8	24	27	20	21	30	23	22	21	7	5	217
11	Meeus L.	9	5	12	14	2	16	24	14	14	17	7	5	139
12	Publ obs Mira	1		6	2	2	5	10	6	9			1	42
13	Son A.T.	7	4	17	20	10	20	28	15	11	11	5	4	152
14	Steen O.	16	21	30	30	28	29	30	28	25	27	19	16	299
15	Van Hessche D.	4	3	10	10	7	11	14	10	8	11	4	4	96
16	Verboven R.	4	3	5	14	13	14	12	10	4	3	3	3	88
	# Waarnemingen	132	126	267	307	253	286	339	272	236	208	114	108	2648
	# Waarnemingsdagen	27	26	31	30	30	30	31	31	30	31	24	24	345
	# Waarnemers	16	15	16	16	16	16	16	16	15	13	14	15	

Observers CV

	Waarnemers 2010	jan	febr	mrt	april	mei	june	july	aug	sept	okt	nov	dec	totaal
1	Dubois F.	14	19	29	30	27	18	26	24	23	23	20	17	270
2	De Ceuninck E.	11	11	27	30	25	22	24	25	22	18	11	14	240
3	Van Hessche D.	4	3	10	10	7	11	14	10	8	11	4	4	96
4	De Backer H.	14	15	27	22	24	21	31	25	17	21	12	13	242
5	Carels J.	8	9	13	27	20	20	20	18	22	18	8	7	190
6	Steen O.	16	21	30	30	28	29	30	28	25	27	19	16	299
7	Gubbels G.	9	8	24	27	20	21	30	23	22	21	7	5	217
8	Janssens J.	1	1	5	7	7	6	6	11	4	4		1	53
9	Meeus L.	9	5	12	14	2	16	24	14	14	17	7	5	139
	# Waarnemingen	86	92	177	197	160	164	205	178	157	160	88	82	1746
	# Waarnemingsdagen	22	24	31	30	30	29	31	29	28	29	22	20	325
	# Waarnemers	9	9	9	9	9	9	9	9	9	9	8	9	

SIDC Weekly bulletin on Solar and Geomagnetic Activity WEEK 525 from 2011 Jan 17

SOLAR ACTIVITY
The most noticeable sunspot group/active region of this week was Cat 98/NOAA AR 1147. On Jan 17, the group was located on the east of the solar disk. From Jan 21, when the group was located near the central meridian, an extra bi polar sunspot group Cat 01/NOAA AR 1149 grew. The rising phase of this area introducing an additional magnetic complexity, involved several C-flares on Jan 21, 22 and 24.
On Jan 24, NOAA AR 1149 has a beta-gamma configuration, while NOAA AR 1147 has an alpha configuration.
The fact that both regions lie in each others vicinity, increases the chances for magnetic interaction leading to instability and energy releases.

GEOMAGNETIC ACTIVITY
The geomagnetic conditions were quiet this week. Kp did not exceed the value t-2.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 526 from 2011 Jan 24

SOLAR ACTIVITY
NOAA AR 1149 was the most active region during the week, it produced several C-class flares: a C1.4 at 06:25 UT on 24 Jan, a C1.2 at
12:05 UT on 27 Jan, a C1.5 at 04:25 UT on 28 Jan and another C1.5 at 10:22 UT on 28 Jan. A stronger, M1.3, flare was also associated with NOAA AR 1149. It occurred at 01:03 UT on 28 Jan. This flare was associated with a Type II radio burst, a CME and a proton flux increase.
There were CMEs occurring every day of the week, none of them were believed to be directed towards the Earth.

GEOMAGNETIC ACTIVITY
The geomagnetic conditions were quiet to unsettled the whole week.

SIDC Weekly bulletin on Solar and Geomagnetic WEEK 527 from 2011 Jan 31

SOLAR ACTIVITY
There was a very low solar activity over the entire week. The X-ray background stayed at A level, with only a few B sub-flares, mainly on Feb.4 when several small active regions emerged simultaneously.
A large recurrent coronal hole started to influence the Earth magnetosphere late on Jan.31. It reached its maximum speed on Feb.1 at 530km/s, and then declined. There was only one large halo CME on Feb.1 at 23:48UT. LASCO and STEREO coronagraphs indicate that this was a backside event.
Barring the emergence of a new large active region, solar activity is expected to remain low over the comings days.

GEOMAGNETIC ACTIVITY
The week started with quiet to unsettled geomagnetic conditions on Jan.31 and
Feb.1 due to the coronal hole influence. Then, conditions were mostly quiet on Feb. 2 and 3.
On Feb.4 at 1:30 UT, a weak CME shock was recorded in the solar wind by the ACE spacecraft. There was only a small speed increase to 400km/s, without any significant geomagnetic effect. Then around 19:00, the wind speed rose again steeply to 650km/s, marking the arrival of the associated magnetic cloud. This triggered a major geomagnetic storm (Kp=6) that lasted for a few hours, until Feb.5, 1:00UT. The origin of this very effective CME is unclear: the only possible association is a filament eruption and streamer blowout that occured on Jan.30, but had however a very low initial speed of 230 km/s and was not detected in LASCO coronagraph images.
The solar wind speed reached a maximum of about 650km/s on Feb.5 around 3:OOUT. It then slowly declined down to 500km/s by the end of Feb.6. The Earth magnetosphere remained unsettled over the last two days of the week, due to the high wind speed, with a last brief active episode on Feb.6.
Quieter geomagnetic conditions are expected for the first days of the new week.

SIDC Weekly bulletin on Solar and Geomagnetic WEEK 528 from 2011 Feb 07

SOLAR CONDITIONS
Solar activity was dominated in the beginning of the period by NOAA AR 11153 which strengthened into a beta-gamma group while rotating out of field over the solar west limb. The region triggered a handful of C-flares, and on Feb 12 an M1.9 flare.
More firework originated in NOAA AR 11159, from Feb 12 in the C-class and on Feb 13, 17:38 a M6.6 flare.

GEOMAGNETIC CONDITIONS
The period was characterized by a moderate solar wind speed between 350 km/s and 500 km/s.
Geomagnetic activity was therefore very low with Kp at most reach values Kp=3 in the beginning of the period and at most Kp=2 after mid Feb 8.