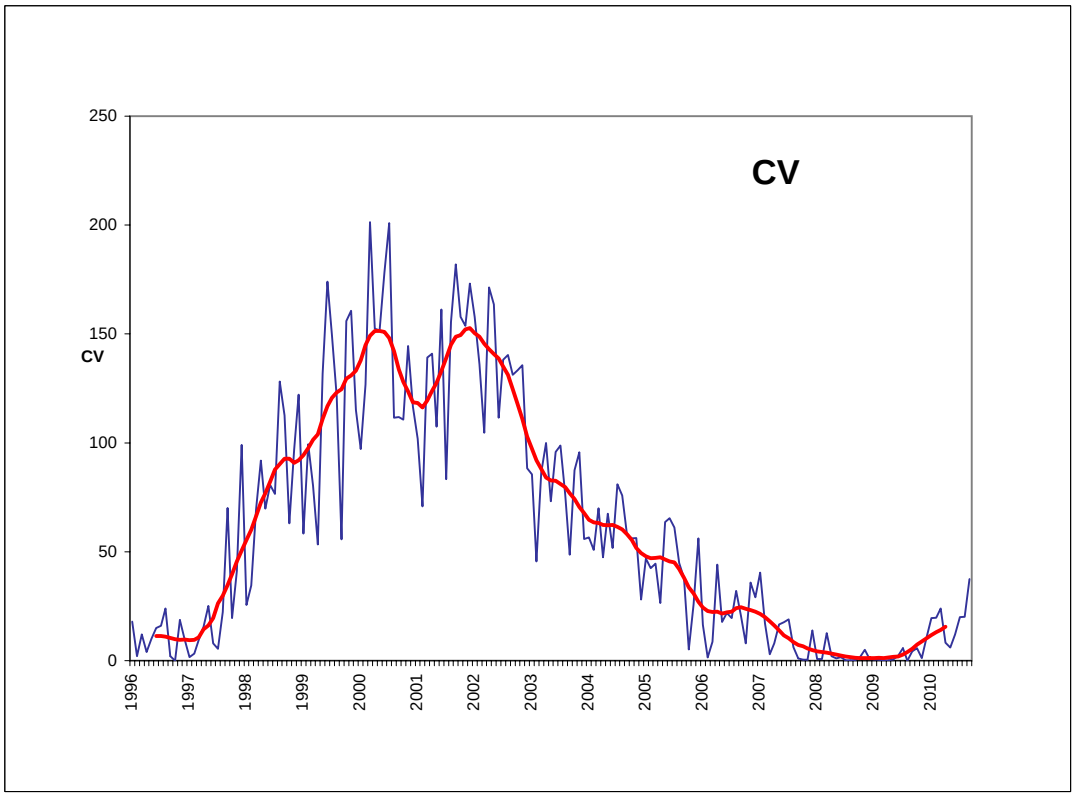
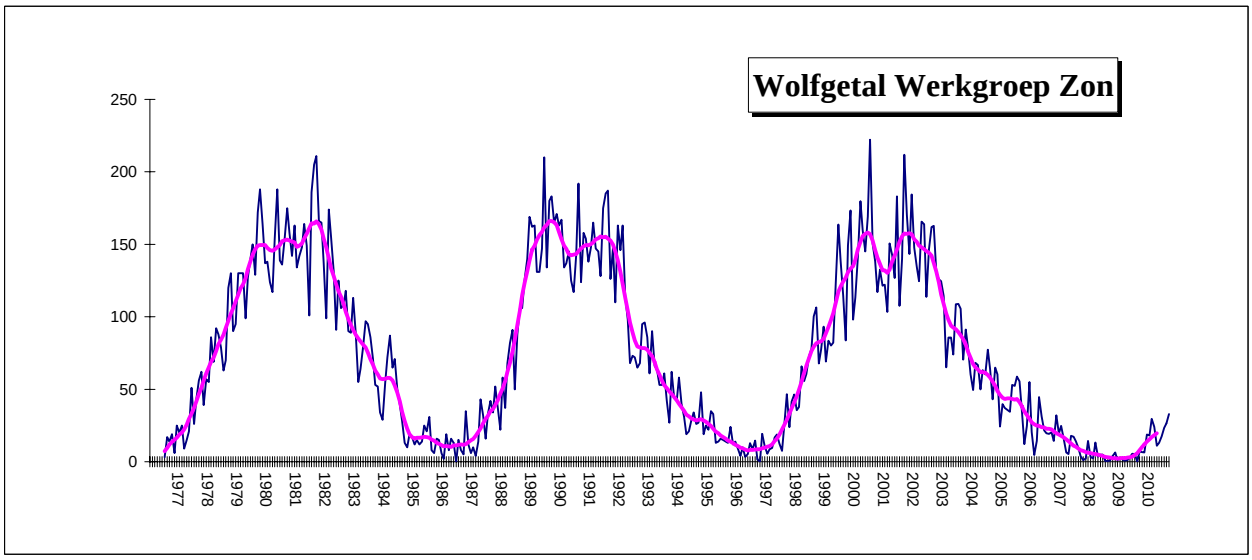
NIEUWSBRIEF V.V.S. WERKGROEP ZON

Waarnemingsresultaten en nieuws voor zonnewaarnemers	Jaargang : 15	Nummer: 175	September 2010

Franky Dubois Poelkapellestraat 57 Langemark 8920

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





Gemiddelden werkgroep zon september 2010

Groepen :	N	**1,37**	Wolfgetal :	N	**19,2**	RE'	**275,7**
	S	**1,13**		S	**13,7**	CV	**37,5**
	N+S	**2,50**		N+S	**32,9**		

383 waarnemingen 28 waarnemers

Wolfnumbers Belgian Solar Observers

Month: **September 2010**

Dag	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
	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	21	2	11	31							4	16	56	2	7	27	2	8	28	2	15	35							2	9	29	2	12	32	1
2	40							4	10	50	5	12	62	4	9	49	4	12	52	3	9	39							4	6	46	5	17	67	2
3	34										3	12	42	3	12	42	3	14	44	3	23	53													3
4	40	4	26	66	2	19	39				4	20	60	3	23	53				3	25	53										4	25	65	4
5	30	3	26	56	2	17	37				2	24	44	2	20	40	2	14	34	2	27	47	2	26	46							2	29	49	5
6	20							2	9	29	2	12	32	1	11	21				1	15	25	1	15	25							1	11	21	6
7	10	1	3	13							1	4	14	1	4	14															1	5	15	7
8	0	0	0	0													0	0	0															8
9	0	0	0	0							0	0	0	1	1	11	0	0	0				1	1	11				0	0	0	1	1	11	9
10	11													0	0	0															1	1	11	10
11	8	1	1	11							1	1	11	1	1	11	1	1	11	1	2	12	1	1	11							1	1	11	11
12	9	1	2	12							2	4	24	2	5	25	1	4	14							1	3	13				2	7	27	12
13	18	2	7	27				1	7	17	2	9	29	1	8	18	2	7	27	2	8	28	1	10	20	2	7	27	2	5	25	2	9	29	13
14	19																																		14
15	19							2	13	33	2	7	27	1	6	16	2	9	29				1	6	16	2	6	26	2	4	24	2	11	31	15
16	30	2	24	44				2	20	40	3	17	47	2	23	43	3	17	47				1	18	28	3	16	46	3	14	44	3	17	47	16
17	37	2	25	45	4	14	54	3	22	52	4	17	57	2	29	49	3	21	51	4	34	74	2	29	49	4	17	57	3	8	38				17
18	35										4	16	56				4	15	55	4	19	59	2	16	36	4	19	59	3	13	43	3	16	46	18
19	34										4	9	49	2	10	30	4	9	49	4	22	62	2	11	31	4	14	54							19
20	27	3	15	45				2	8	28	3	7	37	2	14	34	3	10	40	3	21	51	2	11	31	3	12	42	2	5	25	2	8	28	20
21	26	3	9	39	2	3	23	3	6	36	3	5	35	3	6	36	2	6	26							3	7	37	3	8	38	3	9	39	21
22	25	3	7	37				3	13	43	2	8	28	3	11	41	3	6	36							2	8	28	2	7	27	2	8	28	22
23	27										2	16	36				3	16	46							2	10	30							23
24	27										2	15	35	3	15	45										2	12	32	2	14	34	2	14	34	24
25	27										2	14	34	2	14	34	2	11	31	2	23	43				2	20	40				2	19	39	25
26	34				2	18	38				2	19	39	3	15	45										2	21	41	2	13	33	2	24	44	26
27	39																			3	25	55				3	24	54				3	25	55	27
28	38																																		28
29	38										3	18	48				3	24	54							3	18	48							29
30	33				2	9	29				3	14	44	4	18	58										3	18	48	3	12	42	1	19	29	30
#	**25,2**			**30,4**			**36,7**			**36,4**			**37,8**			**32,3**			**33,7**			**45,4**			**27,6**			**40,1**			**32,0**			**34,5**	

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

Dag	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
	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	21	2	23	43				4	10	50				2	15	35				2	9	29	2	7	27	4	18	58							1
2	40	3	11	41				4	10	50				4	35	75				4	11	51	3	7	37	4	8	48							2
3	34	4	15	55				3	13	43				4	34	74				3	11	41													3
4	40	4	35	75	2	20	40	4	24	64	3	22	52	4	28	68				2	19	39	2	9	29	3	11	41							4
5	30	3	45	75	2	20	40	2	20	40	2	22	42	4	31	71				2	21	41	2	16	36	2	16	36							5
6	20	1	28	38				1	7	17				1	20	30	1	13	23	1	9	19	1	10	20	1	14	24							6
7	10	1	11	21																1	4	14	1	3	13										7
8	0	0	0	0				0	0	0				0	0	0	0	0	0																8
9	0	0	0	0				0	0	0							0	0	0	0	0	0	0	0	0	0	0	0							9
10	11	0	0	0																															10
11	8	1	2	12	1	2	12	1	1	11	1	1	11	1	3	13	1	1	11	1	1	11	1	1	11										11
12	9	2	9	29							1	4	14	2	11	31				2	6	26	1	1	11										12
13	18	1	8	18				1	7	17				1	9	19	1	7	17	2	6	26	1	1	11										13
14	19	1	10	20																															14
15	19	1	11	21				1	7	17				1	13	23	1	11	21	1	6	16	1	7	17										15
16	30	2	21	41				2	15	35				2	18	38	1	12	22	2	15	35													16
17	37	2	35	55				2	26	46	2	17	37	2	24	44	2	21	41	2	16	36	3	16	46	2	22	42							17
18	35	2	23	43				2	12	32													3	8	38	2	11	31				4	12	52	18
19	34	2	15	35							2	20	40	2	19	39				2	10	30	3	8	38										19
20	27	2	15	35				2	13	33				2	30	50	2	11	31	2	7	27	2	5	25	2	2	22				3	14	44	20
21	26	2	10	30				2	9	29				3	21	51	3	10	40	4	6	46	2	4	24	3	6	36				4	10	50	21
22	25	2	12	32				2	11	31				3	13	43	2	10	30	2	6	26	2	6	26							2	8	28	22
23	27	2	16	36				2	25	45				2	10	30	2	10	30													2	15	35	23
24	27	2	24	44				2	19	39				2	11	31				2	16	36	2	15	35	2	12	32							24
25	27				2	16	36	2	20	40	2	16	36	2	20	40	2	14	34	2	15	35	2	10	30										25
26	34										2	18	38	3	25	55				2	17	37	2	14	34	3	21	51							26
27	39	3	26	56				2	14	34																									27
28	38	3	22	52																															28
29	38													3	37	67																3	21	51	29
30	33							3	20	50										3	17	47	1	7	17										30
#	**25,2**			**34,9**			**32,0**			**32,9**			**33,8**			**42,1**			**23,1**			**30,4**			**25,0**			**35,1**			**#####**			**43,3**	

Dag	SIDC	J.Bonse			B.De Wit			J.Bavais			G.Vandenbulcke			W.De Meester			E.Neven									R.De Laet									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	21																									2	8	28							1
2	40										4	17	57													4	9	49							2
3	34										3	10	40													3	10	40							3
4	40	2	24	44	2	15	35	4	23	63																3	20	50							4
5	30	2	23	43				2	20	40																2	14	34							5
6	20							2	12	32	1	10	20				1	1	11							1	10	20							6
7	10										1	1	11													1	3	13							7
8	0																0	0	0																8
9	0																0	0	0							0	0	0							9
10	11																																		10
11	8				1	1	11	1	1	11	1	1	11				1	1	11							1	2	12							11
12	9																																		12
13	18							3	6	36							1	3	13							2	5	25							13
14	19																																		14
15	19							2	6	26									0							2	5	25							15
16	30																1	4	14																16
17	37	4	13	53				3	16	46							2	3	23																17
18	35																									3	14	44							18
19	34	4	14	54																															19
20	27																2	3	23																20
21	26																2	4	24							2	7	27							21
22	25				2	4	24										2	8	28							2	8	28							22
23	27																2	14	34																23
24	27																																		24
25	27																3	9	39							2	13	33							25
26	34										2	2	17																						26
27	39																																		27
28	38																																		28
29	38																																		29
30	33																																		30
#	**25,2**			**49**			**23,3**			**36,3**			**26,0**			**#####**			**16,9**			**#####**			**#####**			**28,5**			**#####**			**#####**	

Observations R.DE Laet are made with a PST detuned !

Sunspotnumbers VVS Belgium

Month: 'September 2010

	GROUPS			WOLFNUMBER					
Day	**N**	**S**	**N+S**	**N**	**S**	**N+S**	**RE'**	**CV**	**OBS**
1	3	0	3	36,3	0	**36,3**	162	19	14
2	4	0	4	51,5	0	**51,5**	197	22	15
3	4	0	4	47,4	0	**47,4**	252	19	10
4	4	0	4	52,0	0	**52,0**	437	32	18
5	3	0	3	44,8	0	**44,8**	467	28	20
6	2	0	2	23,9	0	**23,9**	156	14	17
7	1	0	1	14,2	0	**14,2**	47	7	9
8	0	0	0	0	0	**0**	0	0	7
9	1	0	1	2,2	0	**2,2**	2	1	15
10	0	0	0	0	0	**0**	0	0	3
11	0	1	1	0	11,3	**11,3**	57	10	21
12	1	1	2	6,2	14,3	**20,5**	61	11	11
13	0	2	2	0	22,6	**22,6**	80	13	19
14	0	1	1	0	20	**20,0**	180		1
15	0	2	2	0	22,4	**22,4**	204	12	17
16	0	3	3	0	38,1	**38,1**	436	46	15
17	0	4	4	0	47,4	**47,4**	606	67	21
18	0	4	4	0	45,7	**45,7**	478	71	13
19	0	4	4	0	42,6	**42,6**	408	61	12
20	0	3	3	0	34,3	**34,3**	352	55	19
21	1	2	3	8,9	26,1	**35,0**	216	49	19
22	2	1	3	16,6	14,7	**31,3**	251	60	18
23	1	1	2	21,8	13,9	**35,7**	350	65	10
24	1	1	2	23,7	12,4	**36,1**	404	69	11
25	1	1	2	25,6	10,7	**36,3**	488	78	16
26	2	1	3	26,0	13,3	**39,3**	533	68	12
27	2	1	3	40,3	10,5	**50,8**	569	64	5
28	2	1	3	41,0	11	**52,0**	394		1
29	3	0	3	53,6	0	**53,6**	273	58	5
30	3	0	3	40,4	0	**40,4**	211	50	9
	1,37	**1,13**	**2,50**	**19,2**	**13,7**	**32,9**	**275,7**	**37,5**	**383**

Monthly mean: **32,9** Covering: **30/30** Spotless days: **2**
Observations: **383** Number of observers: **28**

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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 : september 2010

Day	J. Janssens time	Q	W	H	e	PST Rp	F. Dubois time	Q	W	H	e	Lille 20/20 Rp	E. De Ceunick time	Q	W	H	e	PST Rp	F.Feys time	Q	W	H	e	Lunt 60 Rp	J. Hambsch time	Q	W	H	e	asm 60 Rp	G. Gubbels time	Q	W	H	e	Lunt 60 Rp
1							6,32	3	1,5	5	10	60	07.40	4,5	3	6	6	66	6,10	4	1	8	17	97							15.42	4	2	4	10	50
2							11,43	2	2	5	6	56	09.30	3,0	3,5	6	7	67	6,00	4	1	9	18	108							6.10	4	1.5	8	20	100
3							6,55	4	1	6	11	71	10.00	4,0	3	7	10	80	8,10	4	1	5	9	59							8.55	3.5	1.5	8	24	104
4							14,38	4	1	5	7	57	11.15	4,0	4	4	6	46	6,34	5	1	4	5	45	16u10	4	2,5	6	7	67	9.23	4	1	9	25	115
5	6:55	3	2,5	6	10	70	6,48	4	1	5	9	59	09.00	4,0	3,5	8	13	93	7,15	5	1	9	15	105	13u50	4	2	7	11	81	6.10	3	1	7	20	90
6							7,26	3	1	9	13	103	08.30	3,0	3,5	6	7	67	6,10	5	1	9	15	105	11u30	4	2	8	11	91						
7							8,25	3	2	4	7	47	08.30	3,5	3,5	3	4	34	9,35	3,5	1	3	7	37												
8																			6,24	3,5	1	7	9	79							15.44	3.5	1	7	23	93
9							7,37	3	2	7	10	80	08.30	4,0	3,5	7	11	81	6,40	5	1	9	14	104												
10																			14,02	4	1	8	14	94												
11	7:15	3,5	2	7	10	80	7,17	4	1,5	7	13	83	08.30	4,0	3,5	8	8	88	9,40	4	1	8	20	100	11u30	4	2	8	8	88						
12													10.15	4,0	3	6	8	68	6,47	5	1	7	14	84							16.16	4	1	8	23	103
13							7,27	3	1	5	11	61	09.00	4,0	3	10	18	118	7,30	3,5	1,5	7	14	84							7.55	3	1.5	7	28	98
14																			8,38	3,5	1	5	14	64												
15							8,45	4	1	6	9	69	09.00	4,0	3	5	7	57	6,36	4	1	6	19	79	11u35	4	2	7	8	78	6.45	3	1.5	6	21	81
16							7,40	4	1	7	13	83	08.00	3,5	3	8	13	93	6,42	5	1	8	28	108							6.45	4	1	9	28	118
17							7,53	4	1	8	14	94	08.15	3,5	3,5	6	6	66	7,22	4,5	1,5	7	21	91							7.02	3	1	7	22	92
18																			8,50	4	1	7	18	88												
19							11,31	3	2	6	12	72							7,43	3,5	1	9	13	103							13.58	3.5	2	6	15	75
20							8,22	4	1	7	12	82	08.45	3,5	3,5	6	7	67	7,15	4	1,5	7	13	83												
21							12,17	4	1	6	10	70	11.35	3,5	3,5	4	5	45	9,31	4	1	5	13	63	11u35	4	2	7	10	80	15.40	3.5	1.5	5	22	72
22							7,32	3	1,5	6	11	71	09.00	3,5	3,5	5	8	58	8,10	3	1,5	6	9	69	10u88	4	2	7	8	78	15.43	4	1.5	8	23	103
23	7:35	3	3	5	11	61													7,25	4,5	1	9	29	119							7.43	3	1.5	10	28	128
24													11.00	4,0	3,5	7	11	81	8,06			8	19	99												
25	7:50	3,5	2	6	10	70	8,08	4	1	6	11	71	09.30	3,5	3,5	7	9	79							13u40	4	2	7	7	77	7.15	4	1	9	26	116
26													11.00	4,0	3,5	5	7	57													16.50	3	1.5	9	22	112
27																			6,57	3,5	1,5	8	13	93												
28																			7,28	4	1	8	15	95												
29																																				
30							9,16	3	1	8	13	93	09.00	4,0	3	6	6	66																		
31																																				
	4	3,3	2,4	6,0	10	70,3	19	3,5	1,3	6,2	10,6	72,7	21	3,76	3,4	6,2	8,4	70,3	26	4,1	1,1	7,15	15,2	86,7	8	4,0	2,1	7,1	8,8	80,0	17	3,5	1,2	7,47	22,4	97,1

Day	O. Steen time	Q	W	H	e	PST Rp	H. Coekelberghs time	Q	W	H	e	PST Rp	J. Claes time	Q	W	H	e	PST Rp	T.Spaninks time	Q	W	H	e	Prom Viewer Rp	R.De Laet time	Q	W	H	e	PST Rp	L.Meeus time	Q	W	H	e	Lunt Rp
1	8,05	3,5	2	7	7	77													6,26	3	2	9	16	106	10:50	3	2	7	14	84	15.55	3	2	6	8	68
2	7,40	3	2	6	8	68																			17:15	3	2	7	16	86						
3	11,30	4	2	6	7	67																			10:30	2,5	2	7	17	87						
4	10,00	3,5	2	7	8	78	12:10	4	3	7	11	81													10:15	3	2	11	18	128						
5	7,20	3	2	6	7	67	11:35	3	3	6	19	79							14,16	3	3	4	7	47	9:10	3	1,5	9	23	113	16.20	3	4	5	8	58
6	6,30	3	2	8	9	89							1130	4	1	5	9	59							10:10	3	2	11	29	139						
7	9,00	3	2	3	4	34																			15:50	2,5	2	6	9	69						
8													1700	4	1	8	16	96	15.40	3	2	7	11	81							15.10	3	1,5	7	10	80
9	8,25	4	2	6	8	68							1400	4	1	8	17	97							17:10	3	2	8	15	95						
10																																				
11	7,10	3,5	2	8	11	91	13:15	4	4	7	15	85	1400	4	1	8	14	94							10:10	3	2	8	20	100						
12	11,25	3,5	2	5	5	55																														
13	7,40	3,5	2	6	11	71							1700	3	2	5	15	65	6.26	3	2	7	10	80	10:10	3	2	9	20	110						
14																																				
15	7,05	3,5	2	4	5	45							1400	4	1	6	13	73	6.49	3	3	7	11	81	10:15	3	1	8	10	90						
16	7,20	3,5	2	6	7	67							1000	4	1	7	15	85																		
17	7,10	3,5	2	7	8	78	14:10	3	3	8	15	95	1000	4	1	4	9	49							10:15	3	1,5	8	10	90						
18	8,10	3,5	2	6	7	67													7.20	3	2	8	9	89	10:30	3	2	11	23	133						
19																																				
20	15,10	3	2	6	7	67							1030	4	1	6	10	70																		
21	11,40	4	2	6	10	70							1530	4	1	4	9	49							11:40	4	1,5	9	21	111						
22	7,30	3,5	2	5	5	55							1300	3	2	5	11	61							10:10	3,5	1,5	8	16	96						
23	13,30	3,5	2	10	14	114							1200	3	2	7	14	84																		
24	7,50	3	2	9	12	102																														
25	9,50	3,5	2	5	5	55							1000	4	1	3	4	34	7.29	2	3	7	8	78	16:00	3	1,5	11	21	131						
26	8,15	3,5	2	7	9	79																														
27																																				
28																																				
29																																				
30	11,00	3	2	8	9	89																														
	23	3,4	2	6,39	8	71,9	4	3,5	3,3	7	15	85,0	13	3,77	1,2	5,8	12,0	70,5	7	2,9	2,4	7	10	80,3	16	3,0	1,8	8,6	17,6	103,9	3	3,0	2,5	6	8,7	68,7

Day	R.Blondeel time	Q	W	H	e	asm 60 Rp
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11	09h00	3	1	7	7	77
12						
13	09h45	3	1	7	7	77
14						
15	10h00	2	2	4	4	44
16	08h30	2	2	3	3	33
17	08h15	2	2	3	4	34
18						
19	13h50	2	2	6	8	68
20	08h30	2	2	5	6	56
21	11h15	2	2	4	4	44
22	09h10	2	2	4	5	45
23						
24	11h00	1	4	3	3	33
25	09h45	2	2	2	2	22
26						
27						
28						
29						
30						
	11	2,1	2	4,36	4,8	48,5

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: September 2010

Day	Q	Wedel		H	e	Rp	el. Obs	Stdev	OBS
1	3,6	1,9		6,1	10,3	**71,3**	1	15,7	8
2	2,8	2,4		6,0	9,3	**69,3**	2	12,4	6
3	3,7	1,8		6,2	10,8	**72,8**	1	11	6
4	4,1	2,4		5,5	7,3	**62,3**	2	15,6	8
5	3,3	2,4		6	11,6	**71,6**	2	15,5	11
6	3,6	1,9		8	11	**91**	2	15,2	7
7	3,1	2,1		3,8	6,2	**44,2**		14,9	5
8	3,4	1,3		7,2	13,8	**85,8**		8	5
9	3,8	1,9		7,5	12,5	**87,5**		13,4	6
10	4	1		8	14	**94**			1
11	3,7	2		7,6	12,6	**88,6**		7,8	10
12	4,2	2		6	9	**69**	1	14,5	4
13	3,1	1,6		6,3	13,7	**76,7**	2	12,5	9
14	4	1		5	14	**64**			1
15	3,5	1,8		5,9	10,7	**69,7**		15,9	10
16	4,1	1,4		7,8	19,4	**97,4**	2	15,1	7
17	3,6	1,8		6,9	13,1	**82,1**	1	16,6	9
18	3,5	1,7		7	11,3	**81,3**	1	12,4	4
19	2,5	2		6	11,7	**71,7**	1	3,5	4
20	3,4	1,8		6,2	9,2	**71,2**		10,2	6
21	3,6	1,8		5,1	10,4	**61,4**	1	13,8	9
22	3,4	2		6	9,7	**69,7**	2	14,1	9
23	3,7	1,5		9,7	23,7	**120,7**	2	7,1	5
24	3,5	2		8	14	**94**	1	11,4	4
25	3,5	2,1		5,9	7,7	**66,7**	3	16,4	10
26	3,8	2,6		6	8	**68**	2	15,6	4
27	3,5	1,5		8	13	**93**			1
28	4	1		8	15	**95**			
29									
30	3,3	2		7,3	9,3	**82,3**		14,6	3
	3,56	**1,82**		**6,7**	**11,8**	**78,4**	**29**	**12,9**	**172**

Monthly mean: **78,4** Covering: **29/30**
Observations: **172** Number of observers: **11**

V.V.S. BELGIUM SOLAR SECTION FRANKY DUBOIS
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Belgium
e-mail : astrosun@skynet.be

Observers:
Steen ; Dubois ; De Ceuninck ; Coeckelberghs ; Janssens ; Feys
Hambsch ; Claes ; G.Gubbels ; T.Spaninks ; R.Blondeel
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/

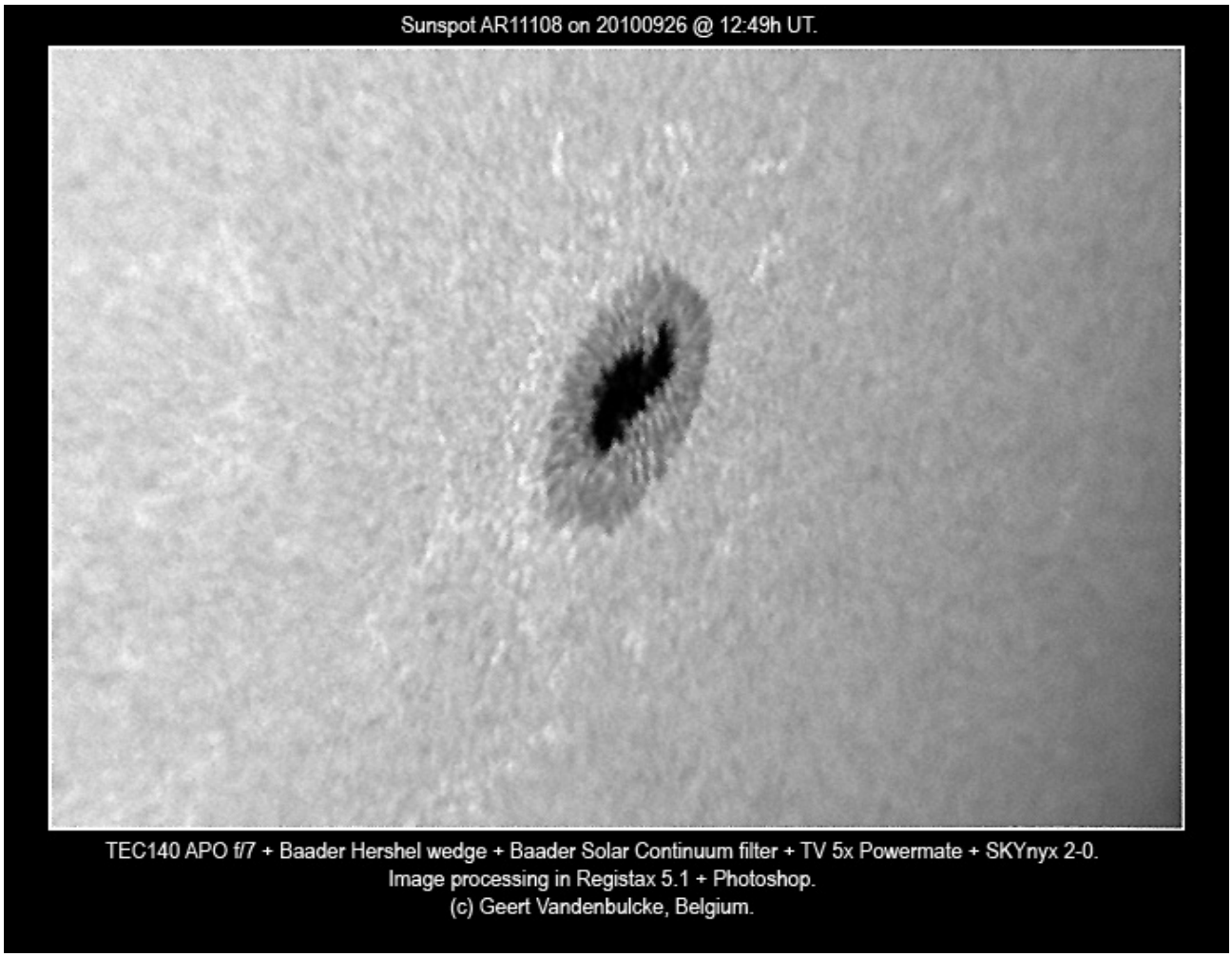
Different Relative Sunspotnumbers — Month : September 2010

	CV												Pettisindex SN							Intersol IS				
Date	F.Dubois	O.Steen	L.Meeus	J.Carels	J.Janssens	R.verboven	G.Gubbels	H.De Backer	D.Van Hesscheе			Mean	G.Gubbels	F.Dubois		O.Steen	J.Carels	R.Verboven	Mean	F.Dubois	J.Carels	G.Gubbels		Mean
1	18	24	18	17			18					**19,0**	47	23		30	27		**31,8**	9	14	17		**13,3**
2	21	23		20			22					**21,5**	63	27		30	35		**38,8**	13	20	39		**24,0**
3	17	17					23					**19,0**	67	30		30			**42,3**	15		38		**26,5**
4	34	35	29	29		32	29		34			**31,7**	54	49		46	51	76	**55,2**	25	27	32		**28,0**
5	26	32	24	26	26	32	28		26			**27,5**	67	46		60	65	80	**63,6**	21	30	34		**28,3**
6	9	10		16			22					**14,3**	60	19		21	37		**34,3**	12	12	21		**15,0**
7	8	8	8	5								**7,3**		12		12	14		**12,7**	5	6			**5,5**
8			0				0					**0,0**	0						**0,0**			0		**0,0**
9	1	0	0	1								**0,5**		1		0	1		**0,7**	1	1			**1,0**
10	0			10								**5,0**		0			10		**5,0**	0	1			**0,5**
11	10	10	10	10	10	10	10		10			**10,0**	10	10		10	10	10	**10,0**	1	1	4		**2,0**
12	12	12	11	10			12	10	11			**11,1**	19	14		13	25		**17,8**	6	8	13		**9,0**
13	12	14	13	13			11	12				**12,5**	17	16		18	26		**19,3**	9	11	10		**10,0**
14																								
15	9	9		9			21	13				**12,2**	30	15		16	29		**22,5**	7	12	14		**11,0**
16	55	50	65	12			37	55				**45,7**	53	49		34	44		**45,0**	24	19	19		**20,7**
17	67	71	67				52	74	68			**66,5**	72	73		44			**63,0**	31		26		**28,5**
18		75		60				77				**70,7**				49	51		**50,0**		18			**18,0**
19	52	47					53	74	78			**60,8**	60	35		36			**43,7**	12		21		**16,5**
20	43	40	69	50			57	71				**55,0**	69	30		15	35		**37,3**	16	10	32		**19,3**
21	43	39	49	43			57	60				**48,5**	40	23		13	26		**25,5**	7	10	24		**13,7**
22	47	63	58	63			71	56				**59,7**	44	25		33	42		**36,0**	13	10	15		**12,7**
23		84			57		62	56				**64,8**	42			38			**40,0**			12		**12,0**
24	85	84		60			59	56				**68,8**	45	39		37	37		**39,5**	17	15	13		**15,0**
25	75	84		69	69	54	87	90	93			**77,6**	64	59		49	52	36	**52,0**	16	20	22		**19,3**
26	76	57		93			88	63	33			**68,3**	60	62		55	58		**58,8**	19	25	27		**23,7**
27				64				64				**64,0**					50		**50,0**		14			**14,0**
28																								
29		48					51	76				**58,3**	66			35			**50,5**			40		**40,0**
30	51	49		31				68				**49,8**		35		29	37		**33,7**	21	13			**17,0**
##	**34**	**39,4**	**30,1**	**32,3**	**41**	**32,0**	**40**	**57**	**44,1**			**37,5**	**48**	**30**		**30,1**	**35**	**51**	**34,9**	**13,0**	**13,5**	**22**		**15,88**

Becknumber

Date	F.Dubois	O.Steen	L.Meeus	De Backer	J.Carels	G.Gubbels	E.De Ceuninck	D.Van Hesscheе	R.Verboven	F.Feys	A.T.Son	J.Bourgeois	H.Coeckelberghs	Pbl Obs Mira								Mean	Date
1	114	113	175		96	192	130			358		120										**162**	**1**
2	168	126			195	340	126			275		267		80								**197**	**2**
3	146	175				404	256			271		257										**252**	**3**
4	405	356	436		418	472	361	406	386	589		479	494									**437**	**4**
5	414	451	473		541	554	397	415	386	839	170	524	444									**467**	**5**
6	88	92			198	360	162			224	120	120		36								**156**	**6**
7	32	32	24		40		64			88												**47**	**7**
8			0			0				0												**0**	**8**
9	4	0	0		4		0			0	4											**2**	**9**
10	0				37					0												**12**	**10**
11	37	37	37		37	132	37	37	88	74	37	74										**57**	**11**
12	36	28	16	111	52	80	44	32		148												**61**	**12**
13	64	56	44	127	72	72	108			144	80	56		56								**80**	**13**
14										180												**180**	**14**
15	48	160		48	233	468	300			198	48			332								**204**	**15**
16	164	419	780	180	162	656	700			1038	144			120								**436**	**16**
17	978	148	828	345		738	550	472		1494	636	420	458	204								**606**	**17**
18		234		322	351					1150	402	406										**478**	**18**
19	175	132		281		552	500	720		750	293	272										**408**	**19**
20	102	108	320	273	316	912	258			750	341	266		224								**352**	**20**
21	73	100	122	131	391	588	181			362			92	120								**216**	**21**
22	47	257	186	274	304	346	186			372				286								**251**	**22**
23		438		284		258				418												**350**	**23**
24	436	413		294	388	250	486			562												**404**	**24**
25	388	388		576	532	538	399	438	495			635										**488**	**25**
26	402	487		582	619	602	437	469					662									**533**	**26**
27				596	574					466		640										**569**	**27**
28										394												**394**	**28**
29		140		394		284																**273**	**29**
30	212	168		423	244		112						104									**211**	**30**
	197,1	**202**	**246**	**308**	**264**	**400**	**263**	**374**	**339**	**429**	**207**	**324**	**376**	**162**								**276**	

N.O.A.A.	ZICHTBAAR		N.O.A.A.		MAX	MAX	classificatie							
Regio	van	tot	breedte	lengte	AREA	LENGTE	Macintosh							
11093	04-08-10	15-08-10	N11	352	0250	09	CAO	CSO	HSX	CSO	HSX			
11094	05-08-10	07-08-10	N26	104	0050	10	CSO	BXO						
11095	05-08-10	11-08-10	S19	360	0010	01	BXO	HAX	AXX					
11096	08-08-10	12-08-10	N22	12	0060	07	AXX	BXO	CRI	BXO	AXX			
11097	10-08-10	12-08-10	N33	272	0010	01	AXX							
11098	11-08-10	18-08-10	N15	301	0040	06	DRO	BXO						
11099	13-08-10	16-08-10	N18	347	0090	07	BXO	CRO	CRI	BXO				
11100	16-08-10	18-08-10	S27	204	0010	01	AXX							
11101	24-08-10	05-09-10	N12	85	0150	05	HRX	CSO	HSX					
11102	29-08-10	03-09-10	N26	104	0100	07	CRO	DRO	CAO	CRO	AXX			
11103	01-09-10	05-09-10	N25	83	0020	07	BXO	CRO	AXX					
11104	01-09-10	01-09-10	N24	75	0010	02	BXO							
11105	02-09-10	08-09-10	N19	49	0150	10	BXO	DRI	CAI	HAX	AXX			
11106	10-09-10	21-09-10	S18	208	0110	18	HRX	CSO	FAO	FSO	FSI	FSO	BXO	
11107	12-09-10	12-09-10	N33	204	0010	01	AXX							
11108	16-09-10	28-09-10	S30	142	0420	18	CKO	EHO	ESO	HHX	HSX			
11109	21-09-10	04-10-10	N22	65	0420	14	HRX	DKO	DSO	EHO	EHI	ESI	DHI	CKO
11110	26-09-10	02-10-10	N21	85	0050	06	AXX	DSO	BXO	AXX				
11111	29-09-10	05-10-10	N24	341	0030	06	AXX	BXO	CRO	DRO	AXX			



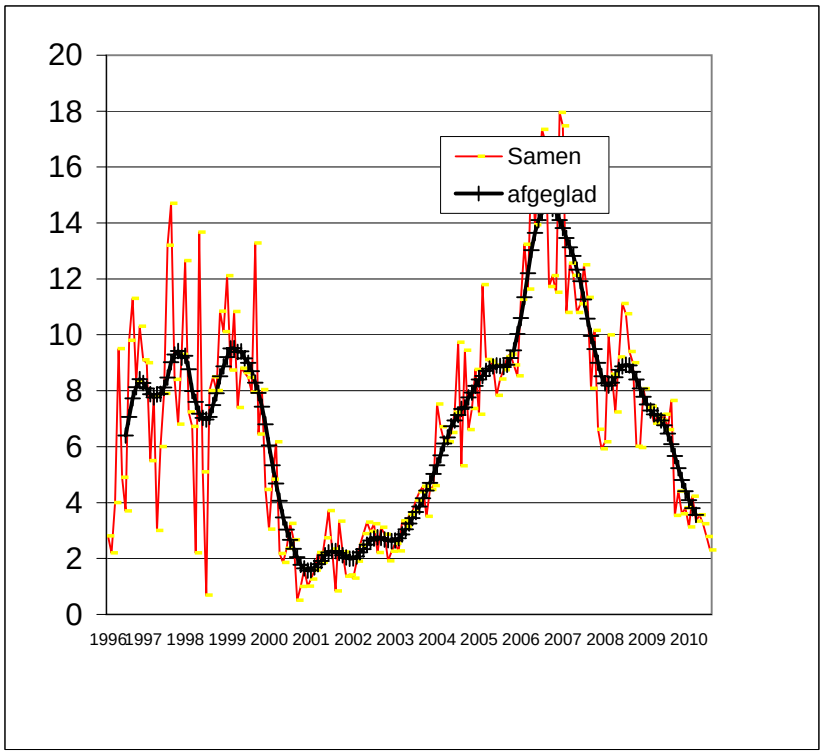
Belgian Solar Observers

Polar Faculae

Month: September 2010

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	4	1	4	2	0	3,5	0	0	4	6	2	3.5	0	0	3				4	5	
2										5	2	2.5	0	0	2						
3	2	0	3	3	0	4,0				4	2	4							4	5	
4				3	0	3,5	0	0	3	5	2	3.5	1	1	3						
5				4	1	3,0	1	0	3	4	1	4	0	0	3	2	0	3			
6										4	1	2.5	0	0	2						
7													2	0	3						
8							0	0	4	4	2	2.5							7	3	
9	7	2	4	4	2	4,0	0	0	4												
10													0	0	3						
11	7	1	3	1	2	3,5	0	0	3	3	1	4	0	0	3	3	0	4			
12										4	2	3.5							8	5	
13				3	0	3,5	0	0	4	4	1	3	0	0	3						
14																					
15	4	1	3	5	2	3,5	0	0	4	3	0	3	4	2	4						
16	5	3	4	0	1	3,5				5	2	4	0	0	3						
17	6	3	4	1	2	3,5				4	2	3							13	5	
18				1	1	3,5	0	0	4				0	0	3						
19										0	4	3.5							9	7	
20	2	0	3							1	3	3.5	0	0	3						
21	3	1	4	3	0	4,0				0	2	3.5	1	0	3						
22	3	1	3	1	0	3,5	0	0	4	0	2	3	0	0	3						
23																0	0	3			
24																					
25				2	1	3,5	0	2	4	2	0	4				0	0	4			
26				1	1	3,5				3	0	3.5	0	0	4						
27													0	0	4						
28																					
29										5	0	3							6	5	
30													0	0	4						
	4,30	1,30		2,27	0,87		0,1	0,2		3,3	1,6		0,44	0,17		1,25	0,00		7,29	5,00	##

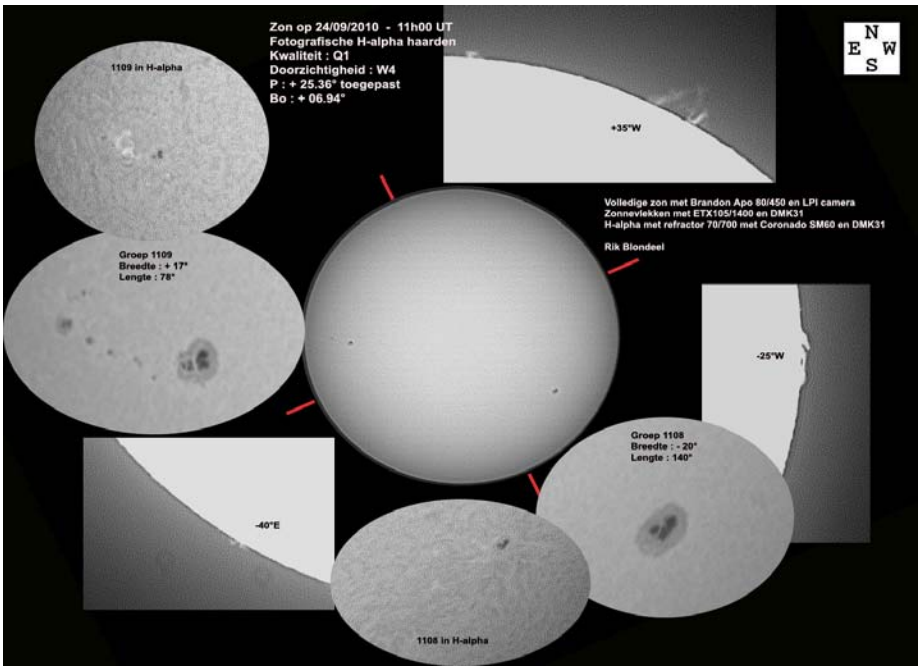
Obs of M.Szulc are not included in the monthly average !



Sunspot activity from organisations all over de world

Month : August 2010

Organisation	Wolf Total	Wolf North	Wolf South	Groups	Faculae number	CV	Beck	Pettis index	Intersol	Area	prom MDF	prom Rp	Filam & plages	Radio flux	Naked eye
NOAA SWO	**35,6**													**81,1**	
SIDC	**25,2**														
Kanzelhöhe	**21,3**														
G.F.O.E.S France	**17**														**0,05**
BSO Belgium	**26,4**	**22,2**	**4,2**	**2,27**		**20,2**	**112**					**79,1**			
S.O.G.S.A.S. Switserland	**24**			**1,9**											
BAA	**23,4**			**1,81**							**3,66**		**2,45**		
GsRSI Italy	**31,6**											**80,2**			
CV Helios Network						**20,2**									
AAVSO (Raw mean)	**25,4**														
Sonne Germany Preliminary															
O.A.A. Japan	**24,4**	**20,5**	**3,9**												
Solar Observer Society TOS Poland	**27,7**				**3,1**	**21**				**305**					
Astronomical League of the Philippines															





SISIDC Weekly bulletin on Solar and Geomagnetic
WEEK 509 from 2010 Sep 27

SOLAR ACTIVITY
There were four active regions present on the solar disk of which three were situated in the northern hemisphere (NOAA 1109, 1110 and 1111) and one in the south (1108). Solar flaring activity was restricted to two C-flares on Sept 28: a C1.7 flare erupted from NOAA AR 1109 peaking at 09:48 UT and a C2.0 flare from NOAA AR 1110 peaking around 22:11 UT. During this week two filament eruptions occurred, both in the northern hemisphere: one erupted on Sept 28 around 8 UT from the North-East and it was clearly observable in SDO/AIA 193 and 304 movies.
A faint CME was observed in the eastward direction in STEREO COR2-A and in LASCO, lifting of on Sept 28 around
17 UT with a speed of about 500 km/s.

GEOMAGNETIC ACTIVITY
Geomagnetic conditions were quiet during the whole week with a period of unsettled conditions on Sep 28. This was caused because the Earth was encountering some fast wind from the northern coronal hole.

SIDC Weekly bulletin on Solar and Geomagnetic
WEEK 510 from 2010 Oct 04
SOLAR ACTIVITY
Flaring activity was low during the past week. There were quite a lot of B-flares, but the only flare of C-level this week occurred on Monday Oct. 4 around 16h35. It was a C2.3 flare originating form NOAA AR 1109, which was already turning over the west limb at that time. A first filament eruption was observed on Oct. 6 around 2h08. Linked to this event, there was a long duration B-flare and a slow CME (seen in STEREO/A COR2 around 6h54 UT). Another filament eruption occurred on the morning of Oct. 7 and was observed heading north in STEREO and LASCO data. On Oct. 8 there was a back-sided CME observed in STEREO/A images.

GEOMAGNETIC ACTIVITY
Geomagnetic conditions were quiet during the past week. Kp reached a maximum level of 3.

SIDC Weekly bulletin on Solar and Geomagnetic
WEEK 511 from 2010 Oct 11
SOLAR ACTIVITY
A filament located in the south east of the solar disk erupted late on Oct 10. In SOHO/LASCO images, the CME was seen as a partial CME. In STEREO Ahead/Behind COR2 it is seen from aside. The speed calculated from STEREO Ahead images by the CACTus software, is 297 km/s; from STEREO Behind images, 337 km/s.
Oct 16, AR 1112 was responsible for an M2.9 flare peaking at 19:12UT. The event lasted only for 8 minutes.
In SWAP images, a small coronal dimming is visible. Although the large filament in the vicinity of this active region did not erupt. SOHO/LASCO and STEREO/SECCHI didn't show any evidence of an associated, strong CME.
The first part of a small, horizontal oriented coronal hole (CH) reached the central meridian on Oct 16.
Comparing with previous rotation, the CH shrunk in size.

GEOMAGNETIC ACTIVITY
Oct 06, a filament erupted. The shock and the CME arrived on Oct 11. The total interplanetary magnetic field (IMF) rose to values between 10 and 15 nT. ACE passed the shock heading the actual CME.
We suspect that ACE passed along a leg of the plasma cloud measuring a negative Bz for a long period.
The Bz was shifting slowly to zero. This negative Bz of the IMF is optical for reconnection and lead to a short minor geomagnetic storm on Oct 11.
ACE data showed a rather sudden enhancement of the magnetic field carried in the solar wind on Oct 15.
The speed jumped at 03UT from 280 km/s to 290 km/s. The density increased slightly. This was possibly the passage through the shock in front of the CME associated with the filament eruption of late Oct 10.
The IMF stayed turbulent until Oct 17. Probably, ACE passed side away along the shock. This glancing blow lead to one period with active conditions on Oct 17.

SIDC DEFINITIVE INTERNATIONAL AND HEMISPHERIC SUNSPOT NUMBERS FOR 2010

	APRIL			MAY			JUNE		
Date	Ri	Rn	Rs	Ri	Rn	Rs	Ri	Rn	Rs
1	17	9	8	8	8	0	11	0	11
2	17	9	8	13	13	0	13	0	13
3	18	9	9	25	16	9	15	0	15
4	25	17	8	32	16	16	20	0	20
5	26	18	8	29	29	0	19	8	11
6	19	19	0	12	12	0	9	0	9
7	16	16	0	10	10	0	13	7	6
8	22	22	0	10	10	0	10	0	10
9	7	7	0	0	0	0	21	0	21
10	8	8	0	0	0	0	28	0	28
11	8	0	8	0	0	0	33	14	19
12	8	0	8	0	0	0	33	15	18
13	7	0	7	0	0	0	18	18	0
14	0	0	0	0	0	0	10	10	0
15	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	9	9	0
18	0	0	0	0	0	0	9	9	0
19	0	0	0	0	0	0	19	19	0
20	0	0	0	0	0	0	13	13	0
21	7	7	0	9	0	9	10	10	0
22	7	7	0	13	0	13	11	11	0
23	0	0	0	14	0	14	10	10	0
24	0	0	0	12	0	12	9	9	0
25	12	12	0	15	0	15	12	6	6
26	0	0	0	10	0	10	13	0	13
27	0	0	0	8	0	8	8	0	8
28	8	8	0	8	0	8	8	0	8
29	0	0	0	12	6	6	16	0	16
30	7	7	0	18	10	8	8	0	8
31				11	6	5			
MEAN :	8.0	5.8	2.2	8.7	4.4	4.3	13.6	5.6	

ACE	Advanced Composition Explorer	http://www.swpc.noaa.gov/ace/MAG_SWEPAM_3d.html
Ap	Equivalent amplitude geomagnetic activity index (0-400)	http://www.swpc.noaa.gov/info/glossary.html#a
AR	Active region	http://www.raben.com/maps/
B	Latitude	
B0	Heliographic latitude of the center of the solar disc	http://www.petermeadows.com/html/sunfromearth.html
BSO	Belgian Solar Observers	http://www.bso.vvs.be/index_en.php
Bz	Measure of the north/south orientation of the IMF perpendicular to the ecliptic plane	http://www.solarcycle24.com/solarwind.htm
C-flare	Small X-ray solar flare	http://spaceweather.com/glossary/flareclasses.html
CH	Coronal Hole	http://solarscience.msfc.nasa.gov/feature3.shtml
CME	Coronal Mass Ejection	http://solarscience.msfc.nasa.gov/CMEs.shtml
CV	Classification Value	http://www.cv-helios.net/
e	Individual prominence structures (“einzel”)	http://users.telenet.be/j.janssens/Halpha/Halfaeng.html#Haarden
E	East	
el.	eliminated	
EUV	Extreme Ultra-Violet	http://en.wikipedia.org/wiki/Electromagnetic_spectrum
f	Number of sunspots (“fleck”)	http://solarscience.msfc.nasa.gov/feature1.shtml#Sunspots
F	Focal ratio	http://en.wikipedia.org/wiki/F-number
g	Number of sunspot groups	http://www.nmm.ac.uk/explore/astronomy-and-time/astronomy-facts/solar-system/sunspots
G	Geomagnetic Storm (level 1-5)	http://www.swpc.noaa.gov/NOAAscales/#GeomagneticStorms
H	Prominence Hearths	http://users.telenet.be/j.janssens/Halpha/Halfaeng.html#Haarden
IMF	Interplanetary Magnetic Field	http://pluto.space.swri.edu/image/glossary/IMF.html
IS	Paderborn Intersol index	http://www.digilife.be/club/Franky.Dubois/sol.htm
ISN	International smoothed Sunspot Number	http://sidc.oma.be/news/106/sunspotnumberclarified.pdf
k-factor	Personal reduction coefficient	http://sidc.oma.be/news/106/sunspotnumberclarified.pdf
keV	Kilo electronvolt	http://nl.wikipedia.org/wiki/Elektronvolt
Km/s	Kilometers/second	
Kp	Geomagnetic activity index (0-9)	http://sidc.oma.be/educational/classification.php#geol http://www.spaceweather.com/glossary/kp.html
L	Longitude	
L0	Heliographic longitude of the apparent center of the sun	http://www.petermeadows.com/html/sunfromearth.html
L1	First Lagrangian Point	http://en.wikipedia.org/wiki/Lagrangian_point
M-flare	Moderate X-ray solar flare	http://spaceweather.com/glossary/flareclasses.html
MDF	Mean Daily Frequency	http://www.britastro.org/~solar/index.php?style=new
MeV	Mega electronVolt	http://nl.wikipedia.org/wiki/Elektronvolt
mm	millimeter	
N	North	
NOAA	National Oceanic and Atmospheric Administration	http://www.noaa.gov/
nT	nanoTesla	http://en.wikipedia.org/wiki/Tesla_(unit)
Obs	Number of Observations	
P	Position angle between the solar axis and the north-south direction in the sky	http://www.petermeadows.com/html/sunfromearth.html
PF	Polar Faculae	http://bso.vvs.be/joinus_en.php
pfu	Particle Flux Unit	http://www.swpc.noaa.gov/info/glossary.html#particleflux
PST	Personal Solar Telescope	
Q	Seeing (SIDC, Mount Wilson)	http://astro.ucla.edu/~obs/150_draw.html
R	Wolfnumber (=10.g + f)	http://en.wikipedia.org/wiki/Wolf_number
R	Radio Blackout (level 1-5)	http://www.swpc.noaa.gov/NOAAscales/#RadioBlackouts
RE’	Becknumber	http://www.digilife.be/club/Franky.Dubois/sol.htm
Rp	Prominence number (=10.H + e)	http://users.telenet.be/j.janssens/Halpha/Halfaeng.html#Getal
S	South	
S	Solar Radiation Storm (level 1-5)	http://www.swpc.noaa.gov/NOAAscales/#SolarRadiationStorms
SC	Solar Cycle	http://solarscience.msfc.nasa.gov/SunspotCycle.shtml
SDO	Solar Dynamics Observatory	http://sdo.gsfc.nasa.gov/data/
SN	Pettisindex	http://www.digilife.be/club/Franky.Dubois/sol.htm
SIDC	Solar Influences Data analysis Center	http://sidc.oma.be/
SOHO	SOlar and Heliospheric Observatory	http://sohowww.nascom.nasa.gov/data/realtime-images.html
StDev	Standard Deviation	http://en.wikipedia.org/wiki/Standard_deviation
STEREO	Solar TERrestrial RElations Observatory	http://stereo.gsfc.nasa.gov/
SWPC	Space Weather Prediction Center	http://www.swpc.noaa.gov/Data/index.html
UT	Universal Time	http://www.timeanddate.com/library/abbreviations/timezones/
VVS	Vereniging Voor Sterrenkunde	http://www.vvs.be/
W	West	
W	Wedel transparency scale	http://users.telenet.be/j.janssens/Halpha/Halfaeng.html#Beeld
X-flare	Strong X-ray solar flare	http://spaceweather.com/glossary/flareclasses.html