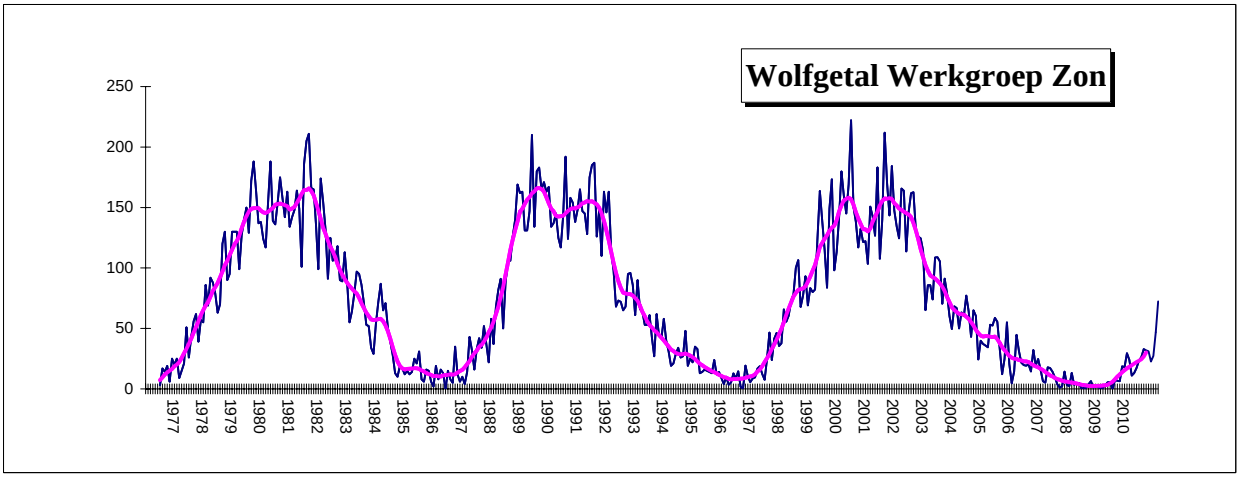
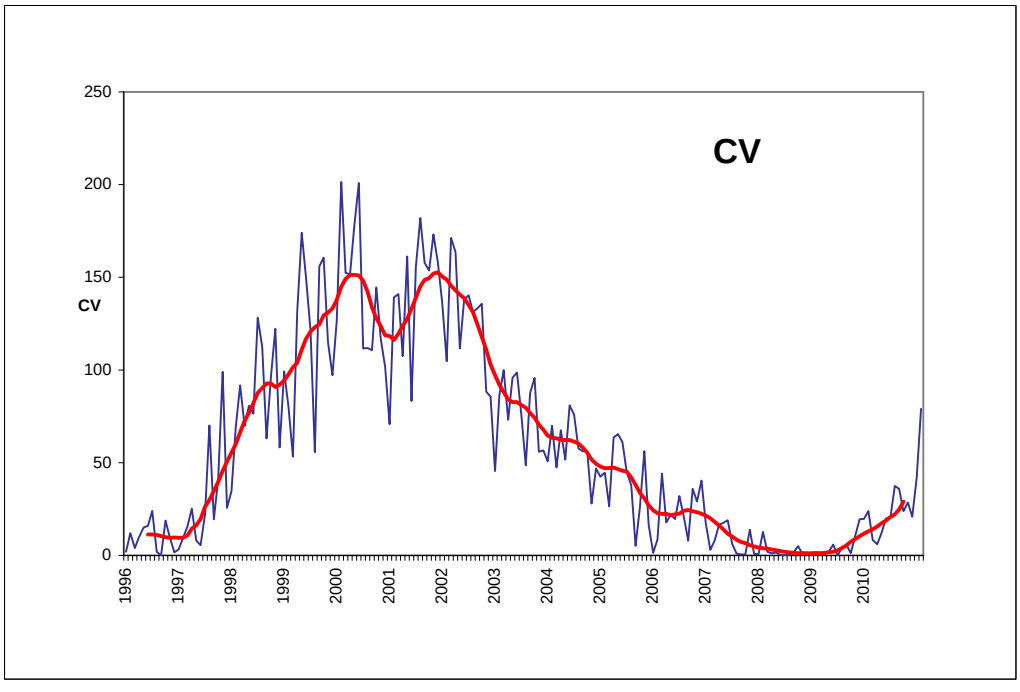
NIEUWSBRIEF V.V.S. WERKGROEP ZON

Waarnemingsresultaten en nieuws voor zonnewaarnemers	Jaargang : 16	Nummer: 181	Maart 2011

Franky Dubois Poelkapellestraat 57 Langemark 8920

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





Gemiddelden werkgroep zon Maart 2011

Groepen :		Wolfgetal :			
N	**2,93**	N	**51,4**	RE'	**725,5**
S	**1,36**	S	**21**	CV	**79,1**
N+S	**4,29**	N+S	**72,4**		

453 waarnemingen 26 waarnemers

Wolfnumbers Belgian Solar Observers

Month: **March 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	47	2	32	52							2	25	45	3	41	71	3	24	54	2	45	65	1	39	59	2	30	50	2	16	36				1
2	37	2	28	48				2	23	43	3	23	53	3	30	60	3	31	61				2	33	53	2	25	45	2	11	31	2	28	48	2
3	52	5	37	87				2	24	44	4	35	75	5	36	86	3	22	52				4	25	65	4	29	69	3	9	39	4	34	74	3
4	70	5	53	103				5	59	109	5	52	102	5	48	98	4	32	72	3	48	78	4	54	94	5	43	93	4	18	58	5	53	103	4
5	76										8	64	144																		4	37	77	5
6	92										6	73	133	6	78	138	4	49	89	4	78	118	5	73	123	7	55	125	4	37	77	7	84	154	6
7	98	7	68	138				5	63	113	6	85	145	7	98	168	4	63	103	5	104	154	6	105	165	7	77	147	5	35	85	7	90	160	7
8	100	6	88	148				6	67	127	5	69	119	8	59	139	5	60	110				5	64	114	6	86	146	4	25	65	6	54	114	8
9	80										4	54	94	4	54	94																		9
10	67																																		10
11	59										3	60	90	3	49	79	2	41	61							2	51	71	2	20	40	3	62	92	11
12	59										3	45	75	3	47	77	2	33	53							3	45	75				3	44	74	12
13	66										3	32	62																						13
14	43										3	18	48	3	13	43	4	36	76							3	25	55							14
15	34	4	20	60							3	14	44	3	20	50	3	18	48	3	31	61	3	17	47	3	10	40	3	6	36				15
16	27							2	15	35	2	12	32	2	8	28	2	8	28				2	10	30	2	8	28				2	8	28	16
17	27																																		17
18	20																																		18
19	29	3	16	46							3	16	46	3	20	50	1	14	24				1	14	24	1	9	19	1	8	18	1	16	26	19
20	21							1	5	15	2	19	39	2	14	34	1	7	17	2	21	41	2	17	37	2	9	29	1	6	16	3	20	50	20
21	17	1	15	25				1	9	19	3	15	45	1	11	21	1	14	24	1	18	28	1	16	26	1	13	23	1	11	21	1	15	25	21
22	32	4	19	59				2	13	33	4	19	59	4	19	59	2	12	32	2	21	41	2	15	35	3	17	47				2	14	34	22
23	30	3	14	44				2	12	32	3	14	44	10	17	117	2	9	29				2	11	31	2	13	33	2	7	27	4	18	58	23
24	39	4	22	62							4	25	65	4	19	59	2	12	32				2	11	31	4	18	58	1	9	19	4	19	59	24
25	69	6	50	110				4	37	77	6	53	113	6	50	110	6	37	97	3	40	70	5	45	95	6	42	102	5	16	66	6	49	109	25
26	72										6	41	101	6	41	101	5	28	78	5	60	110										6	46	106	26
27	84	7	51	121							8	42	122	8	47	127	7	37	107	7	49	119	6	43	103				6	11	71	8	43	123	27
28	88	7	47	117				7	45	115	7	42	112	7	55	125	6	42	102	3	36	96	6	46	106				6	17	77	7	59	129	28
29	74							5	38	88	6	55	115	7	56	126	5	34	84	5	49	99	5	37	87							6	44	104	29
30	68										5	32	82	5	39	89	5	33	83				4	42	82										30
31	66										3	16	46	4	22	62																			31
#	**56,2**			**81,3**			#####			**65,4**			**80,4**			**85,0**			**63,2**			**83,1**			**70,9**			**66,1**			**46,0**			**83,2**	

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	47	2	72	92				2	29	49				3	42	72	3	34	64													2	32	52	1
2	37							2	18	38				3	36	66	2	23	43	3	25	55	2	20	40							2	14	34	2
3	52	3	70	100	4	17	57	2	21	41	2	17	37	4	38	78	2	22	42	4	25	65	3	8	38	4	25	65				2	16	36	3
4	70	4	55	95	5	49	99	5	46	96				5	65	115	5	54	104	5	48	98	5	40	90	5	31	81				5	44	94	4
5	76	5	99	149										4	64	104	6	77	137																5
6	92	5	135	185	7	66	136	3	60	90				6	58	118	5	56	106	5	68	118	5	39	89	5	41	91	4	63	103	5	59	109	6
7	98	5	103	153	5	47	97	5	49	99	5	62	112	5	71	121	5	57	107	6	70	130	4	46	86	5	37	87				5	38	88	7
8	100	5	72	122	5	50	100	6	54	114	5	53	103	6	49	109	7	57	127	5	63	113	5	45	95	6	38	98				5	52	102	8
9	80							4	46	86				4	56	96				4	42	82	4	40	80	3	21	51							9
10	67																																		10
11	59	3	53	83				2	47	67										3	56	86	2	15	35	3	21	51				3	31	61	11
12	59	3	30	60				2	36	56	2	50	70	3	46	76	3	43	73				3	17	47	3	27	57							12
13	66	4	98	138							3	49	79										4	33	73	3	26	56							13
14	43	3	55	85				2	10	30													2	14	34										14
15	34	3	34	64	2	10	30	3	13	43				3	25	55				3	13	43	3	11	41	3	4	34				2	7	27	15
16	27	2	22	42				2	13	33	2	8	28	2	12	32				2	8	28	2	6	26	3	12	42				2	9	29	16
17	27																																		17
18	20																																		18
19	29	2	24	44	1	8	18	2	16	36				2	14	34	1	15	25	1	8	18	2	22	42	2	12	32				1	9	19	19
20	21	2	31	51	1	9	19	2	13	33	1	10	20	4	16	56				2	11	31				2	15	35				1	4	14	20
21	17							1	13	23	1	12	22	1	10	20	1	15	25	1	15	25	1	15	25	2	11	31				1	5	15	21
22	32	2	14	34	3	18	48	3	13	43	2	14	34	3	20	50	3	20	50	3	16	46	2	12	32	4	17	57				3	12	42	22
23	30	2	15	35	3	11	41	2	8	28	2	9	29	4	19	59	3	15	45	3	15	45	2	8	28	3	12	42				2	8	28	23
24	39	3	20	50	4	19	59	3	16	46				4	18	58	4	21	61	5	8	58	3	14	44	4	37	77				4	15	55	24
25	69	5	45	95				5	38	88	6	34	94	6	60	120				6	51	111	6	48	108	6	52	112							25
26	72	6	73	133	5	51	101	5	31	81	5	39	89	5	38	88	7	37	107							5	38	88							26
27	84	7	41	111	6	40	100	7	42	112	7	33	103	8	53	133	6	53	113	6	25	85	7	35	105	7	49	119							27
28	88	7	84	154	7	44	114	7	29	99				8	73	153	5	36	86	7	50	120	7	35	105	7	34	104				7	34	104	28
29	74	6	56	116				5	38	88	5	30	80	6	84	144	5	36	86	7	50	120	5	47	97	6	35	95				5	28	78	29
30	68	4	45	85				5	41	91																						4	21	61	30
31	66																																		31
#	**56,2**			**94,8**			**72,8**			**64,4**			**64,3**			**85,1**			**77,8**			**73,9**			**61,8**			**68,4**			**103**			**55,2**	

	SIDC	J.Bonse			B.De Wit			J.Bavais			G.Vandenbulcke			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	47													3	32	62										2	35	55							1
2	37													2	23	43																			2
3	52													2	22	42																			3
4	70	3	33	63										5	54	104										4	30	70							4
5	76													6	74	134																			5
6	92	4	48	88										5	53	103										5	64	114							6
7	98							4	64	104				6	52	112										5	72	122							7
8	100										3	58	88	7	51	121										5	58	108							8
9	80																																		9
10	67																																		10
11	59													3	41	71										2	42	62							11
12	59							3	33	63																3	32	62							12
13	66																																		13
14	43																																		14
15	34																									3	17	47							15
16	27																									2	13	33							16
17	27																																		17
18	20																																		18
19	29													1	11	21										1	11	21							19
20	21													1	13	23										2	6	26							20
21	17	1	12	22																						1	13	23							21
22	32													3	20	50										3	17	47							22
23	30													3	15	45										3	17	47							23
24	39													4	21	61										4	21	61							24
25	69							4	35	75																6	34	94							25
26	72							4	29	69				7	37	107										5	37	87							26
27	84							5	34	84				6	50	110										8	42	122							27
28	88							6	36	96				5	30	80										8	52	132							28
29	74	5	33	83							5	33	83	5	36	86										5	36	86							
30	68																																		
31	66																																		

Sunspotnumbers VVS Belgium

Month: 'March 2011

	GROUPS			WOLFNUMBER					
Day	N	S	N+S	N	S	N+S	RE'	CV	OBS
1	2	1	3	42,1	16,5	**58,6**	722	63,6	15
2	2	1	3	32,1	15,4	**47,5**	609	68,8	16
3	3	1	4	51,9	8	**59,6**	598	83,6	20
4	4	1	5	72,2	19,6	**91,8**	972	106,1	22
5	5	1	6	98,3	25,8	**124,1**	1038	112	6
6	5	1	6	85,4	29,2	**114,6**	1525	134,7	22
7	5	2	7	94,8	27	**121,6**	1696	147,4	24
8	4	2	6	91,1	21,7	**112,8**	1492	150	23
9	3	1	4	70,1	13,2	**83,3**	1284	138	7
10									
11	3	0	3	67,8	0	**67,8**	15,6	93,8	14
12	3	0	3	65,6	0	**65,6**	952	94,3	15
13	3	0	3	81,6	0	**81,6**	580	97	5
14	3	0	3	53,0	0	**53,0**	482	67	7
15	3	0	3	45,3	0	**45,3**	257	40,3	17
16	1	1	2	16,6	14,8	**31,4**	170	34,7	16
17									
18									
19	2	1	3	24,5	5,1	**29,6**	136	13,4	19
20	2	0	2	30,8	0	**30,8**	124	12,4	19
21	1	0	1	24,4	0	**24,4**	219	27,9	20
22	3	1	4	30,5	14	**44,4**	292	70,1	21
23	3	1	4	23,0	16	**39,4**	260	53,4	21
24	2	2	4	25,3	28	**53,4**	291	42	19
25	3	3	6	36,7	61	**97,2**	861	72,1	19
26	3	3	6	39,1	57	**96,4**	943	71	16
27	4	4	8	53,4	56	**109,5**	963	97,7	20
28	3	4	7	52,3	58,4	**110,7**	1148	98,2	21
29	3	3	6	48,0	49,2	**97,2**	1191	93	20
30	2	3	5	45,7	36,1	**81,8**	935	71	7
31	2	1	3	38,5	15,5	**54,0**	559	60,5	2
	2,93	**1,36**	**4,29**	**51,4**	**21,0**	**72,4**	**725,5**	**79,1**	**453**

Monthly mean: **72,4** Covering: **28/31** Spotless days: **0**

Observations: **453** Number of observers: **26**

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 : March 2011

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																			11,40	4	1,5	6	12	72												
2							15,25	3	2	4	8	48	12.30	3,5	3,5	4	4	44							12u20	2,5	2,5	5	6	56						
3							13,55	3	2	9	11	101	11.30	3,5	3,5	6	7	67	7,43	4	1	7	10	80	11u50	2,5	2,5	7	8	78	16.45	3.5	1.5	8	17	97
4							9,45	4	1	6	8	68	12.00	3,5	3,5	4	4	44	7,07	3	1	9	10	100							14.55	4	1	9	16	106
5																			8,50	4	2	3	6	36	12u15	2,5	2,5	7	7	77	14.40	3	2	6	14	74
6	8:50	4	2	5	8	58							12.30	3,5	3,5	6	7	67	6,51	3,5	1,5	9	12	102	11u45	3	2,5	6	7	67	8.06	3.5	1	8	18	98
7	9:20	3	2,5	7	9	79	10,24	4	1	6	7	67	13.30	3,5	3,5	6	7	77	7,30	4	1,5	10	14	114	12u15	3	2,5	7	7	77	7.40	3	1	9	13	103
8	8:25	3	2,5	6	10	70	8,55	3	1,5	5	7	57	10.15	3,5	3,5	5	7	57	6,55	3,5	1,5	5	7	57	12u15	4	2	7	7	77	7.45	3.5	1.5	7	15	85
9																															8.13	2	2	8	19	99
10																																				
11													12.00	4,0	3,5	5	6	56	12,10	3,5	1,5	8	11	91												
12	8:40	3	3	6	9	69													8,30	3	1	8	12	92	14u15	4	2	10	11	111	9.52	3	2	9	25	115
13																			7,30	4	1,5	10	19	119												
14																			7,12	4	1,5	8	17	97												
15																			7,22	4	1,5	7	15	85							16.43	1.5	2	8	23	103
16													12.00	3,5	3,5	6	7	67	6,52	4	1,5	8	17	97												
17																																				
18																																				
19							9,15	4	1	7	15	85	11.30	3,5	3,5	8	8	88	7,20	4,5	1	9	13	103							10.05	4	1	9	31	121
20																			6,47	4,5	1	10	12	112							8.00	3	1.5	7	24	94
21													13.00	4,0	3	8	10	90													7.15	4	1	7	28	98
22							9,50	4	1,5	6	7	67	11.00	4,0	4	5	6	56	9,39	3	1,5	8	10	90	12u30	4	2	8	8	88	7.03	3.5	1	6	25	85
23													12.15	4,0	2,5	8	9	89	8,51	3	1	10	18	118	12u30	4	2	10	11	111	7.02	2.5	1	9	23	113
24													10.30	4,0	3,5	5	8	58	10,48	3,5	1	8	10	90	12u00	4	2	7	7	77	6.59	2.5	1.5	8	19	99
25													11.30	4,0	4	3	4	34	8,35	3,5	1	7	11	81	12u20	2,5	3	5	5	55						
26	8:00	4	2	3	3	33													7,52	4,5	1	6	11	71							7.23	2.5	2.5	6	15	75
27													10.00	3,5	2,5	7	9	79	7,41	4	2	7	14	84	15u10	4	2	6	8	68	8.55	3	1.5	9	24	114
28													10.00	3,5	3,5	6	9	69	9,42	4,5	1	7	17	87	11h00	4	2	6	7	67	15.54	4	1.5	8	23	103
29													09.50	4,5	2	6	9	69	12,07	4,5	1	6	8	68	11h15	4	2	6	8	68	6.32	4	1.5	8	25	105
30																																				
31																																				
	5	3,4	2,4	5,4	7,8	61,8	7	3,6	1,4	6,1	9,0	70,4	18	3,74	3,3	5,8	7,1	65,4	23	3,8	1,3	7,65	12,4	89,0	14	3,4	2,3	6,9	7,6	76,9	19	3,4	1,4	7,84	20,9	99,3

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	8,50	3	2	5	5	55							1100	3	2	5	9	59							12:00	3	2	9	16	106						
2	13,20	3	2	6	8	68							1000	4	1	7	13	83	8.36	2	3	7	15	85												
3	8,50	3	2	7	12	82							1130	4	1	9	13	103																		
4	8,10	3	2	6	9	69							1400	4	1	6	10	70	8.16	3	2	7	11	81	11:20	3	2	10	12	112						
5													1000	4	1	6	13	73																		
6	9,30	3,5	2	6	7	67							1000	4	1	8	12	92	8.41	3	1	6	13	73	10:50	2	1,5	12	18	138						
7	12,40	3,5	2	6	7	67							1000	4	1	4	11	51	10.20	3	3	10	15	115	11:40	3	1,5	9	13	103						
8	9,10	3,5	2	6	10	70							1000	4	1	4	11	51	10.05	3	2	8	12	92	12:30	3	1,5	9	13	103						
9	14,45	3,5	2	9	9	99																														
10																																				
11	8,10	4	2	8	9	89																			11:15	3	2	13	17	147						
12	14,40	3,5	2	12	13	133							1400	4	1	6	13	73							11:15	3	3	7	9	79						
13	8,50	3,5	2	6	7	67																														
14																																				
15	13,10	3,5	2	9	12	102													10.47	2	3	8	12	92	11:15	4	2,5	10	15	115						
16	9,50	3	2	6	7	67																			10:10	3,5	2	9	16	106						
17																																				
18																																				
19	8,15	3,5	2	7	10	80							1400	4	1	3	10	40	10.03	3	2	9	15	105	11:00	4	1,5	10	13	113	11.35	3	1,5	5	9	59
20	8,30	4	2	6	8	68																			11:45	4	2,5	12	22	142						
21	7,50	4	2	8	12	92							1000	4	1	7	14	84	7.39	3	2	8	21	101	11:15	4	1	13	22	152	10.00	4	1,5	6	10	70
22	7,50	4	2	8	9	89							1600	3	2	5	10	60							11:15	4	1	10	15	115	11.25	4	1	5	6	56
23	7,40	3,5	2	10	12	112							1300	4	1	8	11	91							10:45	4	1	13	19	149	12.10	3	2	9	11	101
24	8,20	3,5	2	8	9	89							1600	3	2	6	9	69							11:15	3	1	14	17	157	14.30	3	3	3	5	35
25	8,10	4	2	5	6	56																			11:20	3	2	13	17	147						
26	7,35	3,5	2	5	7	57							1300	4	1	5	9	59							7:20	3,5	3	8	14	94						
27	14,05	3,5	2	9	10	100							1200	4	1	5	10	60	11.09	3	2	11	14	124	11:30	4	2	13	15	145	13.25	4	2	8	11	91
28	8,35	4	2	10	14	114							1500	3	2	7	12	82	6.50	3	1	8	12	92	10:30	4	1,5	18	22	202						
29	7,25	3,5	2	6	11	71							1500	3	2	7	12	82	6.51	4	1	9	15	105	9:10	3,5	1,5	6	14	74						
30																																				
31																																				
	24	3,5	2	7,25	9,3	81,8		###	###	####	####	#####	18	3,72	1,3	6	11,2	71,2	11	2,9	2,0	8,27	14	96,8	20	3,4	1,8	11	16,0	125,0	6	3,5	1,8	6	8,7	68,7

Day	R.Blondeel time	Q	W	H	e	asm 60 Rp	R.Verboven time	Q	W	H	e	PST Rp
1												
2												
3							16.47			9	11	101
4							15.40			4	10	50
5												
6							08.54			8	11	91
7							16.45			3	8	38
8							16.33			7	13	83
9												
10												
11												
12												
13												
14												
15							16.30			8	24	104
16												
17												
18												
19							12.54			4	12	52
20							9.54			7	22	92
21												
22							16.44			5	21	71
23							16.36			8	13	93
24							8.19			7	14	84
25												
26							10.09			6	16	76
27							09.55			7	15	85
28							15.39			7	13	83
29												
30												
31												
		###	###	####	###	#####	14	###	###	6,43	14,5	78,8

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: **March 2011**

Day	Q	Wedel		H	e	Rp	el. Obs	Stdev	OBS
1	3,3	1,8		5	8,7	**58,7**	1	8,9	4
2	3	2,5		4,8	6,5	**54,5**	2	10,6	6
3	3,3	2		7,8	11,1	**89,1**		13,5	8
4	3,4	1,4		7,6	10,9	**86,9**	2	19	9
5	3,2	1,8		6,3	11,3	**74,3**	1	2,1	4
6	3,5	1,9		6,6	10,4	**76,4**	2	14,8	10
7	3,3	2,1		7,8	10,2	**88,2**	2	19,5	11
8	3,4	2		6	9,9	**69,9**	1	14,1	11
9	2,8	2		8,5	14	**99**		0	2
10									
11	3,8	1,8		8	10	**90**	1	1,4	3
12	3,3	2		7,7	13,2	**90,2**	2	19,6	8
13	3,8	1,8		8	13	**93**			2
14	4	1,5		8	17	**97**			1
15	3,4	2,2		8,3	16,8	**99,8**		10,4	6
16	3,5	2,3		6,7	10,3	**77,3**	1	17,3	4
17									
18									
19	3,8	1,8		8,3	12,3	**95,3**	4	13,1	10
20	3,8	1,5		7,5	16,5	**91,5**	1	18,1	5
21	3,8	1,8		7,3	15,8	**88,8**	1	11,1	7
22	3,7	1,9		6,2	11,3	**73,3**	1	14,6	10
23	3,6	1,6		9	13,5	**103,5**	1	11,4	9
24	3,6	2,1		7	10,9	**80,9**	2	13,9	9
25	3,3	2		5,7	7,3	**64,3**	2	14,7	5
26	4	1,5		5,2	10,2	**62,2**	1	16,3	7
27	2,7	1,9		7,3	12,6	**85,6**	2	17,1	10
28	3,7	1,9		7,4	13,4	**87,4**	1	15,9	9
29	3,9	1,6		6,8	12,8	**80,8**		15,9	8
30									
31									
	3,50	**1,87**		**7,1**	**11,9**	**83,0**	**31**	**13,1**	**178**

Monthly mean: **83,0** Covering: **26/31**

Observations: **178** Number of observers: **10**

V.V.S. BELGIUM SOLAR SECTION FRANKY DUBOIS

Poekapellestraat 39

B8920 Langemark

Belgium

e-mail : astrosun@skynet.be

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 : March 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	39	59	66				79	75			63,6
2	95	68	55	59			65	71			68,8
3	80	107	77	85		50	86	85	99		83,6
4	108	110	94	86		174	85	86			106,1
5		122		122			92				112,0
6	121	151		154	105	135	133	144			134,7
7	177	181	175	152	123	93	148	160	118		147,4
8	193	154	152	129	142	99	145	206	130		150,0
9	137	122					155				138,0
10											######
11	80	105		105				85			93,8
12	97	98		97	97		102	104	65		94,3
13		97							97		97,0
14	58	70						73			67,0
15	24	48	59			18	69	24			40,3
16	24	49		30			54	27	24		34,7
17											######
18											######
19	12	24	15	6		5	27	5			13,4
20	14	13		15		12	16	6	11		12,4
21	22	42	22	28			25	28	28		27,9
22	74	80	77	83		53	75	54	65		70,1
23	61	59	45	62		25	71	53	51		53,4
24	50	51	24	59		26	51	33			42,0
25	74	78	67	75			80	85	46		72,1
26	86	66		83	59	70	87		46		71,0
27	114	72	113	106		76	117		86		97,7
28	102	65	119	98		81	124				98,2
29	71	77		94			137		86		93,0
30	67	75									71,0
31	67	54									60,5
##	79	82,0	77	82,3	105	65,5	88	74	68		######

Pettisindex SN

G.Gubbels	F.Dubois	R. Verboven	O.Steen	J.Carels		Mean
143	65		54			87,3
93	71		63			75,7
97	85	78	73			83,3
131	100	194	109			133,5
118			110			114,0
162	146	132	140			145,0
161	217	178	148			176,0
178	199	259	189			206,3
166	142		143			150,3
						######
	98		102			100,0
101	87		95			94,3
			80			80,0
	41		64			52,5
100	27	37	29			48,3
37	35		39			37,0
						######
						######
40	28	50	33			37,8
25	22	18	28			23,3
35	24		39			32,7
54	53	79	54			60,0
60	59	35	37			47,8
43	45	61	41			47,5
115	111		95			107,0
108	102	141	84			108,8
137	134	183	122			144,0
203	131	169	93			149,0
198	132		115			148,3
	102		77			89,5
	93		67			80,0
109	90	115	83	#####		######

Intersol IS

F.Dubois	J.Carels	G.Gubbels		Mean
30		45		37,5
32		38		35,0
41		42		41,5
52		70		61,0
		67		67,0
84		63		73,5
105		76		90,5
65		55		60,0
58		60		59,0
				#DEEL/0!
51				51,0
50		49		49,5
				#DEEL/0!
15				15,0
23		27		25,0
10		14		12,0
				#DEEL/0!
				#DEEL/0!
22		16		19,0
16		19		17,5
12		11		11,5
22		23		22,5
20		22		21,0
22		21		21,5
54		65		59,5
45		43		44,0
53		58		55,5
60		79		69,5
61		90		75,5
42				42,0
25				25,0
41,2	#####	46		#DEEL/0!

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	De Wit B.						Mean	Date
1	652	520	758	708		889				1485	807	630									806	1
2	643	503	581	540	595	760	532				853			470							609	2
3	648	770	715	662	738	845	541	404	355	1477	418			481							671	3
4	843	964	1010	760	1276	1163	940		887	1118	831	756		1041							966	4
5		1117			837	1159				1887											1250	5
6	1491	1531		1172	1624	1532	1814		1596	2997	1440	1012									1621	6
7	2177	1641	1647	1634	1931	1593	1887	1709	965	2456	2149			1326							1760	7
8	1359	1609	1894	1971	1418	1130	1856	1265	1103	1611	1312			1500							1502	8
9	1237	1210				1673	1016														1284	9
10																					######	10
11	1204	1725		1275	1508		1819			1150											1447	11
12	826	752		971	803	1537		825		983											957	12
13		384						775		3411											1523	13
14	418	504		527						2133											896	14
15	304	196	172	185		436	270		229	754	264	474									328	15
16	104	156		114	104	176	108	94		336	124			546							186	16
17																					######	17
18																					######	18
19	132	246	112	72	128	210	146		64	188	112										141	19
20	100	144		68	144	108	168	80	72	240	132	160		220							136	20
21	198	261	270	234	270	180	270	216			128	144		162							212	21
22	272	328	272	292	252	318	274	348	254	252	366	252		234							286	22
23	250	257	196	234	238	356	291	358	233	230	254			188							257	23
24	303	436	284	226	230	294	266		328	276	254										290	24
25	948	975	988	780	925	1028	940	610		628	656	16		755							771	25
26	874	820			984	972		873	1133	1226		86									871	26
27	866	771	1419		1096	1453	557	880	866	915	762	170									887	27
28	1141	789	1046		1556	1449	941		1502	1743	808	280		1104							1124	28
29	1205	1376			1204	2158	1060	777		1817	811	549		940							1190	29
30	936	861								1636	1008										1110	30
31	580	537																			559	31
	758,1	764	758	654	851	931	785	658	685	1290	674	377	#####	690	#####						######	

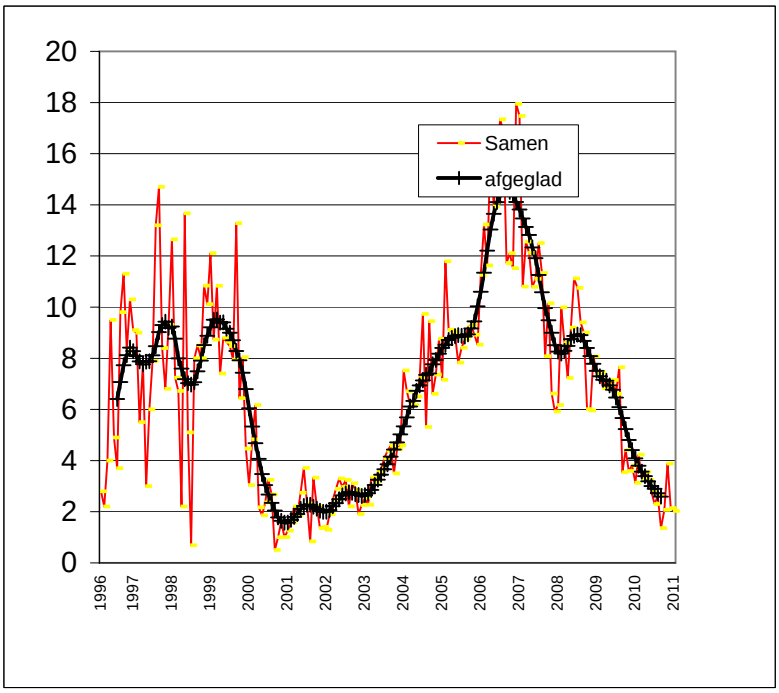
Belgian Solar Observers

Polar Faculae

Month: **March 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										1	2	3.5									
2	0	3	3							0	2	3									
3	1	3	3							0	2	3	1	3	3						
4	4	3	3	0	0	,,5	1	0	4	0	3	4									
5										0	1	4									
6				0	1	3,5	1	0	4	0	2	4				0	0	4			
7	0	3	4	0	1	3,5	0	0	4	1	3	3				0	0	3			
8				0	0	3,5	0	0	4	0	2	3.5				0	0	3			
9	0	2	3							0	2	2.5									
10																					
11				0	3	4,0	0	0	4												
12										0	3	3				0	0	3			
13																					
14																					
15				0	0	3,5	0	0	3	1	3	3									
16										0	2	3									
17																					
18																					
19	0	3	3	0	2	3,5	0	0	4	1	3	4									
20				1	2	4,0	0	0	4	2	2	3	1	0	4						
21	0	2	4	2	4	4,0	0	0	4	1	3	4	0	0	4						
22	0	4	4	0	3	4,0	0	0	4	0	3	3.5	0	0	4						
23	1	2	3	0	2	4,0	0	0	4	0	2	3.5	0	3	4						
24	1	0	3	0	2	4,0				1	2	3	0	1	3						
25	0	3	0	0	4	4,0				0	3	3.5									
26	0	4	4							1	2	2				0	0	4			
27							0	0	4	0	2	3									
28	0	6	4	0	2	4,0	0	0	4	0	3	4	0	3	4						
29	1	3	4	0	3	4,0	0	0	5	1	4	4.5									
30																					
31																					
	0,57	2,93		0,20	1,93		0,1	0,0		0,4	2,4		0,29	1,43		0,00	0,00		#####	#####	##

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



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 activity 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 activity 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.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 529 from 2011 Feb 14

SOLAR CONDITIONS
Solar activity ranged from moderate to high during the whole week and it was dominated by NOAA AR 1158. It produced an X2.2 flare peaking at 01:56 UT on February 15. This has been the strongest flare in more than four years. This AR also produced the following M-class flares: M6.6 at 17:38 UT on February 13,
M2.2 at 17:26 UT on February 14, M1.0 at 01:39 UT on February 16, M1.6 at 14:25 UT on February 16, M6.6 at 10:11 UT on February 18, M1.4 at 13:03 on February 18. NOAA AR 1161 produced an M1.0 flare at 07:44 UT on February 16. NOAA AR 1162 was active on February 18 with an M1.0 at flare 10:26, an M1.0 flare at 14:08 UT and an M1.3 at 21:04 UT. The M6.6 flare on February 13, the M2.2 on February 14 and the X2.2 on February 15 were associated with Earth directed CMEs and radio bursts

GEOMAGNETIC CONDITIONS
On February 14, a shock arrived to ACE and it was followed by strong magnetic fields which created active conditions. This disturbance is believed to have originated on February 9-10 on the Sun. On February 18, the combination of the three Earth directed CMEs described in thesolar section arrived to the Earth and produced a minor geomagnetic storm. A more lasting and powerful geomagnetic effect was not seen due to the absence of a strong long lasting negative Bz. The Earth seems to have gone through a sheath region right after the shock that arrived at 00:40 UT on February 18, until 19:40 UT on the same day. After that the solar wind signatures could be related to a passage through a leg/flank of a magnetic cloud.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 530 from 2011 Feb 21

SOLAR CONDITIONS
At the beginning of the week, AR NOAA 1158 that had produced the first X flares in four years, turned behind the limb. Solar activity was mostly quiet or at C-class flaring level during this week. Returning active region NOAA 1163 produced a M3.5 flare on

Feb 24 before it turned onto the disk. A westward directed fast CME was associated with it. A filament from the northern hemisphere erupted on Feb 25.

GEOMAGNETIC CONDITIONS
Geomagnetic conditions were quiet during the whole week. The week ended with a large returning coronal holeat central meridian.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 531 from 2011 Feb 28

SOLAR CONDITIONS
Solar activity remained at eruptive levels most of the week with several C flares and one M flare. The main source of this activity was NOAA AR 1164. Several active regions appeared during the week and helped maintaining this activity level, with C flares from AR 1165, 1166 and 1169. A CME with no clear on disk signatures was observed by the SOHO/LASCO and STEREOA/COR2 coronagraphs on March 3rd, heading to the Earth direction, to the south.

GEOMAGNETIC CONDITIONS
Geomagnetic activity was dominated by a geomagnetic storm from March 1st 1200 UT to March 2nd 0600UT. At maximum of intensity, it reached major storm level (Kp=6) at planetary levels. Only active conditions were observed at Dourbes station in Belgium. Geomagnetic activity remained very calm the rest of the week.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 532 from 2011 Mar 07

SOLAR ACTIVITY
The Sun was very active this week: we observed 16 M flares and 1 X flare. In the first half of the week, mainly NOAA AR 11164 (Catania 18) and NOAA AR 1165 (Catania 19) were responsible for all this activity. When these regions turned over the solar limb, NOAA AR 11166 (Catania 22) took over. It is this last region that produced the X1.5 on wednesday March 9 at 23h23. All three active regions had a beta-gamma-delta configuration of their photospheric magnetic field.
Several clear CMEs were observed by the SOHO/LASCO and STEREO/COR2 instruments. On monday March 7 there was a CME linked to M1.9 flare at 14h30 and one associated to an M3.7 flare at 20h12. Tuesday March 8, we observed two more CMEs: these were associated to a M1.5 flare at 3h58 and a M1.4 flare at 20h16. None of these CMEs were headed directly towards earth, but we did receive a glancing blow from them on March 10 and 11.
The long duration event on monday March 7 at 20h12 (M3.7 flare) was associated with an EIT wave (observed by SWAP) and a >10MeV proton event that lasted until March 10, seen in the GOES measurements.

GEOMAGNETIC ACTIVITY

Geomagnetic conditions were mostly quiet in the beginning of the week. Kp reached level 4 during one period (around 21h) on March 7 due to to the arrival of a CME observed on the 3rd of March.

Late on March 10, we observed geomagnetic storm conditions that lasted until early morning on March 12th. The maximum Kp value that was reached, was 6. This storm was the result of the CMEs that were observed on March 7 and 8.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 533 from 2011 Mar 14

SOLAR ACTIVITY
The solar activity was high in the beginning of the week, mainly due to Catania sunspot groups 22 and 26 (NOAA ARs 1166 and 1169). These sunspot groups produced numerous C-class flares on March 14-16. Catania sunspot group 26 (NOAA AR 1169) produced two M-class flares (M4.2 and M1.0 on March 14 and 15 respectively). The CMEs associated with these flares were not directed to the Earth. Further on, the flaring activity of the Sun decreased. The solar X-ray background flux decreased, and no flaring activity above the C-level was detected during March 17-20. On March 20, the solar X-ray background flux started to grow due to a returning active region at the south-east limb (NOAA AR 1165 during the previous rotation).
A partial halo CME was first detected in the LASCO C2 field of view at 12:48 UT on March 17. According to STEREO/SECCHI data, it was originating on the far side of the Sun, therefore, it had no geomagnetic consequences.

GEOMAGNETIC ACTIVITY
After the period of elevated solar wind speed on March 14 and early on March 15, the Earth entered the slow solar wind flow, where it stayed until the end of the week. The geomagnetic conditions were quiet throughout the whole week.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 534 from 2011 Mar 21

SOLAR ACTIVITY
The proton flux was elevated on Mar 21 and 22. The curve passed slightly and for a very short time the proton event threshold. The initial increase was probably linked with a back sided CME of Mar 21, 02:54UT. The Earth is magnetically connected with the source site behind the Sun. The Parker spiral has bended magnetic field lines that guide the electrically charged protons. The Earth is near such field lines along which these protons travel. This is a rare but non unprecedented event. That same day, a long duration C-flare took place. The source region was Cat 35/AR 1176. A long duration event is an indication of an associated CME. Since the group was at that moment located near the very east of the solar disk, the CME was not Earth directed.
This active region, 1176 had a rather complex magnetic structure: beta-gamma and was responsible for almost all flaring activity further this week. This group exerted three moderate M-flares on Mar 23-24-25, one a day. None of the CME's was Earth directed, except for a very slow plasma structure that left the Sun on Mar 25. Since it was very slow, it is probably overtaken by the ambient solar wind.

GEOMAGNETIC ACTIVITY

Mar 22-23, we had unsettled conditions probably induced by a small North-South oriented coronal hole.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 535 from 2011 Mar 28

SOLAR ACTIVITY
Solar activity was low during the whole week despite the simultaneous presence of up to 7 sunspot groups on the solar disc. There were only a few occasional C flares. The main active regions were NOAA1176 (Catania #35), which experienced a continuous decline, and NOAA1183 (Catania #41), which was stable with just a slight growth on April 1st followed by a final decline.
Late on March 29, a weak shock and solar wind disturbance, possibly associated with a CME ejected on March 24, reached the Earth. On April 1st, the Earth crossed a sector boundary in the solar wind, which was followed on April 2 by a fast solar wind stream. The solar wind reached a maximum speed of 600 km/s on April 2 and slowly declined over the following days. The origin of this stream remains uncertain as no significant low-latitude coronal hole crossed the solar disk during this week.

GEOMAGNETIC ACTIVITY
The week started with quiet geomagnetic conditions resulting from a slow solar wind. The weak disturbance of March 29 only caused temporary unsettled conditions in the first few UT hours of March 30. After a new quiet spell from March 30 to April 1st, the geomagnetic field became unsettled to active on April 2 and 3, in response to the aforementioned fast solar wind stream. Minor storm levels (Kp=5) were briefly reached at a few ground stations. This activity started to decline by the end of April 3.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 536 from 2011 Apr 04

SOLAR ACTIVITY
Solar activity was rather moderate during the week, with only a handset of C-class flares. The strongest one was a C1.9 flare in NOAA AR 1185, occurring on April 6th, 1807 UT (peak time).

GEOMAGNETIC ACTIVITY
Geomagnetic activity remained low during most of the week with the exception of April 6th, when isolated minor storm conditions (kp=6 and 5 between 1200 and 1800 UT) were observed at planetary levels in response to a sudden jump in the interplanetary magnetic field B_t and B_z values. The origin is probably a sudden and temporary sector boundary crossing.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 537 from 2011 Apr 11

SOLAR ACTIVITY
Six ARs were active in producing mostly C-class flares during the week (NOAA ARs 1185, 1186, 1189, 1190, 1191 and 1193). There was an M1.3 flare from AR 1190, at 17:12 UT on April 15. CMEs occurred every day with only one directed partially towards the Earth, consequence of a filament eruption in the southeast of the Sun on April 14 around 23:00 UT.

GEOMAGNETIC ACTIVITY

A fast solar wind stream arrived to the Earth on April 12 and produced a minor geomagnetic storm with two three-hour periods of Kp=5.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 538 from 2011 Apr 18

SOLAR ACTIVITY
During the past week, 7 different NOAA active regions were visible on the solar disk. In the beginning of the week NOAA AR 1193 (Catania 55) with a beta-gamma configuration was responsible for most of the solar activity, producing several C-flares. However, when NOAA AR 1195 (Catania 58) turned over the east limb on april 19th, it took over this role. Cat 58 was the source of a large number of C-flare throughout the week, in addition to 2 M-flares on April 22. (an M1.8 flare preaching at 04h45 and an M1.2 flare around 15h53). Afterwards solar activity returned to quiet levels with the X-ray background flux at B-level.

The STEREO/COR2 and LASCO chronograph images did not show any clear CME linked to any of these flares. However, Cactus detected a CME at 04h12 UT on the morning of April 18, originating from AR 1190. As this region was located on the west limb during the eruption, this CME was not directed towards the earth. SDO/AIA 304 and STEREO-B/COR2 images showed a filament eruption that took place on April 19. Cactus detected the associated CME in LASCO at 22h24 in the NE with a speed of 500 km/s. The CME was directed mostly northwards, and did not reach the Earth. Finally, LASCO also observed a CME at 05h24 on april 21 morning in the NE quadrant, most probably originating from the AR just behind the limb there.

GEOMAGNETIC ACTIVITY

A discontinuity was observed in the solar wind around 06h00 UT on April 18. It was most probably linked to the arrival of the CME that was observed late on april 15th and caused one period of unsettled conditions (Kp=4). Geomagnetic conditions became active in the morning of April 20, due to the arrival of a fast coronal wind stream (starting the day before around 20h). The solar wind speed increased up to 550 km/s. The local K index in Dourbes reached a maximum of K=4 (and Kp=5 for one period).

Beste werkgroepleden zon

Enkele maanden geleden liet ik Christian Steyaert weten dat ik op het einde van 2011 na 16 jaar werkgroepleider te zijn geweest , definitief een einde te willen maken aan mijn leiderschap.

Het vele werk begint een beetje door te wegen en ook interesses in andere zaken waaronder radiometeoren liggen aan de basis van die beslissing.

Na nog wat denkwerk en met de gedachte dat ik bijna zeker geen opvolger ga vinden ,en ik zeker niet wil dat de groep opgedoekt word dacht ik aan het volgende!

Ik ben er bijna zeker van dat de vele uren werk een nieuwe kandidaat afschrikt , want zelf denk ik een vele uren per maand bezig te zijn met de werkgroep !

Ik ga in de loop van de volgende maanden de meeste rubrieken afschaffen om tegen het einde van het jaar enkel de eerste twee bladzijden plus de omslag over te houden.

Dit wil zeggen dat enkel het Wolfgetal , Beckgetal , Cv en poolfakkels zullen overblijven , alle rest zal wegvallen.

De nieuwsbrief zal blijven verschijnen , zowel op papier als elektronisch.

In deze ingekrompen vorm zal het misschien mogelijk zijn een volwaardige opvolger te vinden voor onze heel actieve werkgroep.

Alvast bedankt voor jullie begrip !!

Franky Dubois