Newsletter Belgian Solar Observers

Results and news for solar observers	Volume 15	Number 174	August 2010

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Content Newsletter

Graphics and relative number for this month

Daily Wolfnumbers by the members

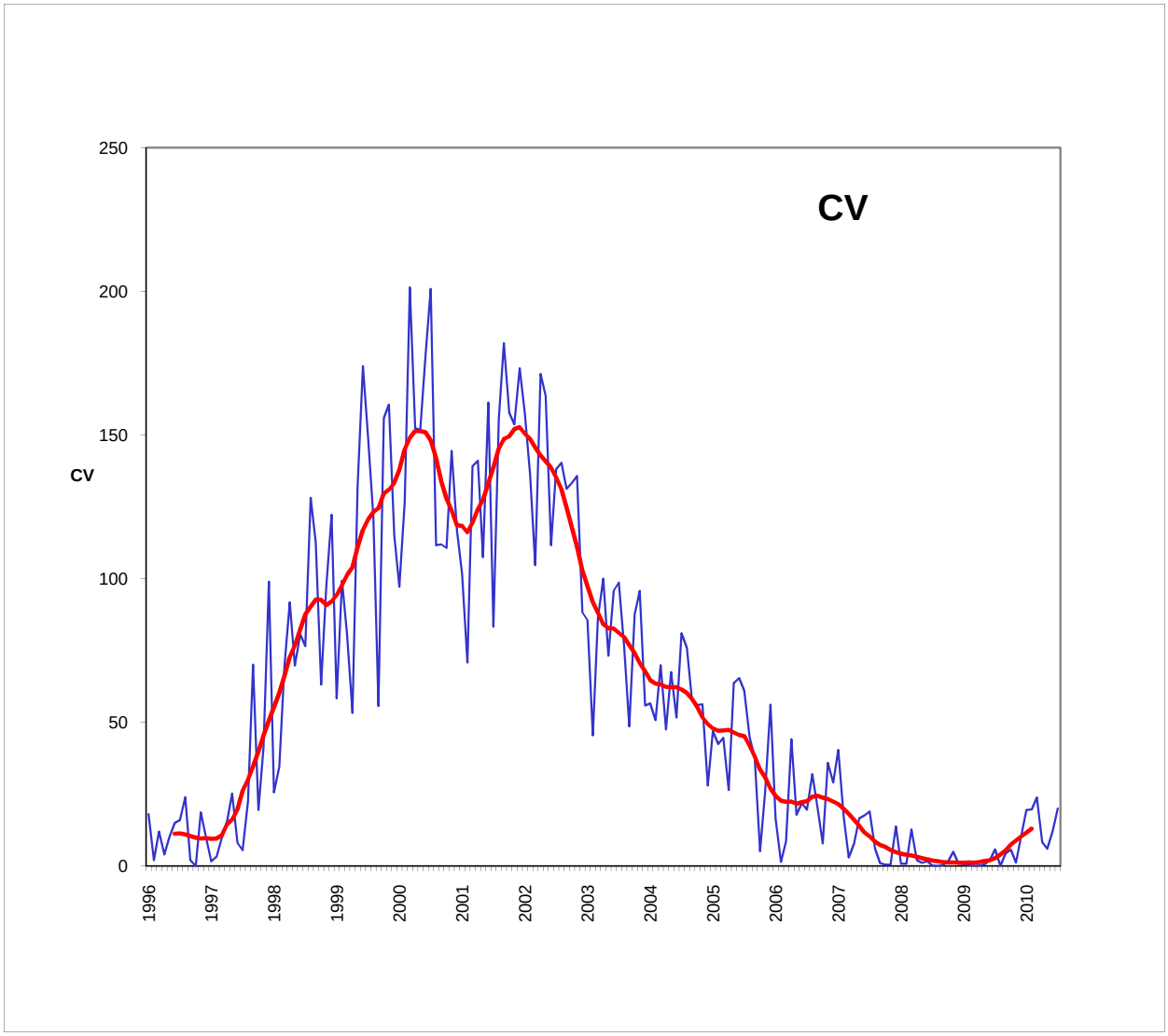
Monthly sunspot report

Polar faculae and CV numbers

Prominence numbers by the members

Monthly prominence report

Photo album and drawings



Mean of August observations

Groups :	N	**1,77**	Wolfnumb	N	**22,2**	Beck :	**111,8**
	S	**0,50**		S	**4,2**	CV	**20,2**
	N+S	**2,27**		N+S	**26,4**		

454 observations 28 observers

Wolfnumbers Belgian Solar Observers

Month: **August 2010**

	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	16										2	6	26	1	7	17	2	5	25	1	6	16	2	8	28	1	7	17	1	3	13	1	6	16	1
2	16	3	11	41							2	6	26	1	6	16	1	3	13	1	5	15				1	9	19	1	3	13				2
3	9	1	6	16				1	5	15	1	3	13	1	3	13	1	3	13	1	5	15	1	2	12	1	4	14				1	4	14	3
4	21										3	8	38	2	6	26	2	5	25							3	8	38	2	7	27				4
5	34							4	16	56	4	15	55	4	13	53	4	15	55	2	6	26				4	13	53				4	16	56	5
6	34	4	13	53							4	15	55	4	15	55	6	12	72	3	10	40	4	13	53	4	13	53	4	7	47	4	16	56	6
7	32										4	5	45	4	5	45	3	6	36	3	8	38													7
8	25										3	6	36	3	4	34	4	8	48	3	9	39	3	4	34	3	7	37	3	5	35	3	7	37	8
9	36	4	14	54				3	11	41	4	15	55	4	12	52	4	16	56	4	13	53	4	16	56	4	14	54	4	17	57	3	5	35	9
10	38										4	17	57	4	12	52	5	18	68	3	18	48	4	20	60	4	23	63							10
11	44	5	16	66							5	19	69	5	15	65	4	11	51	2	8	28	5	21	71	5	18	68	5	14	64	5	18	68	11
12	33	4	14	54							4	12	52	6	12	72	2	8	28	2	12	32	4	16	56	4	10	50				4	14	54	12
13	27	3	10	40				1	2	12	3	16	46	3	14	44	3	12	42	3	15	45	3	18	48	3	10	40	3	10	40				13
14	22	3	15	45	3	11	41				2	16	36	3	18	48	2	11	31	2	15	35				3	14	44	2	10	30	2	14	34	14
15	25																																		15
16	34																																		16
17	17	2	6	26																2	6	26				2	5	25							17
18	15										2	3	23	2	3	23	2	2	22	2	2	22				1	1	11	0	0	0	2	3	23	18
19	10										1	1	11	1	1	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	11	19
20	8										0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	1	1	11	0	0	0	20
21	0				0	0	0				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
22	0										0	0	0				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				22
23	0	0	0	0							0	0	0				0	0	0							0	0	0	0	0	0				23
24	8	1	1	11	1	1	11				1	1	11				1	1	11	1	2	12	1	1	11	1	1	11	1	1	11	1	1	11	24
25	15										1	1	11				2	4	24				1	1	11	1	2	12				1	1	11	25
26	15										1	1	11	2	4	24	2	2	22							1	2	12							26
27	8										1	1	11	1	1	11	1	1	11	1	3	13				1	2	12							27
28	8	1	1	11	1	1	11				1	1	11	1	1	11	1	1	11	1	3	13				1	1	11	1	2	12	1	1	11	28
29	18										2	7	27	2	5	25	2	8	28	2	10	30							2	5	25				29
30	19	2	12	32				2	11	31	2	9	29	2	7	27	2	7	27	2	10	30							2	7	27	2	10	30	30
31		2	11	31				2	11	31	2	9	29	2	11	31	2	13	33	2	12	32							2	7	27	2	13	33	31
#	**19,6**			**34,3**			**15,8**			**31,0**			**28,0**			**31,5**			**26,9**			**25,3**			**29,4**			**25,8**			**22,0**			**27,8**	

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

	SIDC	P.J.Dekelver			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	16				1	5	15	1	7	17				1	8	18				1	3	13	1	7	17	1	3	13				2	6	26	1
2	16							1	11	21				2	15	35				1	3	13	1	3	13	2	8	28				1	5	15	2
3	9							1	3	13	1	2	12	1	11	21	4	4	44	1	3	13	1	4	14	1	2	12				1	3	13	3
4	21	3	9	39				2	7	27				3	23	53				3	9	39	2	6	26	3	6	36				2	5	25	4
5	34							3	13	43	3	12	42	4	20	60				4	17	57	3	15	45	4	13	53	4	12	52	3	10	40	5
6	34	4	8	48	3	10	40	4	9	49	4	12	54	4	15	55	4	9	49	4	10	50	4	10	50	4	10	50	4	12	52	4	12	52	6
7	32							3	4	34										4	5	45										4	7	47	7
8	25							3	8	38				3	7	37	3	5	35	3	4	34				4	7	47				3	7	37	8
9	36							4	12	52	4	14	54	4	18	58	4	11	51	4	12	52	4	10	50	4	17	57				4	13	53	9
10	38	5	19	69				4	15	55	5	23	73	4	25	65										4	14	54				4	13	53	10
11	44							5	14	64				5	20	70	4	14	54	5	13	63	5	12	62	5	15	65	4	14	54	5	13	63	11
12	33							3	7	37	3	10	40	4	13	53	2	9	29				3	9	39	3	6	36				4	12	52	12
13	27				3	8	38	2	11	31	3	13	43	3	9	39	3	18	48	3	9	39	2	11	31	2	14	34				2	10	30	13
14	22				1	10	20	1	8	18	2	16	36				2	8	28	2	13	33	1	12	22	2	12	32				1	12	22	14
15	25																																		15
16	34																																		16
17	17							2	6	26																									17
18	15							2	2	22										2	13	23	2	2	22										18
19	10				0	0	0	2	2	22				1	1	11				2	2	22	0	0	0	3	5	35				0	0	0	19
20	8				0	0	0	1	1	11				0	0	0	0	0	0	1	1	11	0	0	0	0	0	0				0	0	0	20
21	0				0	0	0	1	1	11				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							21
22	0				0	0	0	0	0	0				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							22
23	0				0	0	0	0	0	0				0	0	0				0	0	0	1	1	11	0	0	0							23
24	8	1	2	12				1	1	11	1	1	11	1	1	11				1	1	11	1	1	11	1	1	11							24
25	15							1	1	11				2	5	25				2	3	23	1	1	11							1	1	11	25
26	15																																		26
27	8																1	1	11	1	1	11	1	1	11	1	1	11							27
28	8							1	1	11	1	2	12	1	1	11				1	1	11	1	1	11	2	2	22							28
29	18													2	8	28				2	7	27	2	7	27	2	7	27							29
30	19							2	5	25				2	9	29				2	8	28	2	7	27							2	6	26	30
31	20				2	11	31	2	11	31				2	12	32				2	9	29	2	5	25	2	7	27				2	8	28	31
#	**19,6**			**42,0**			**14,4**			**26,2**			**37,7**			**30,9**			**29,1**			**25,9**			**21,9**			**28,3**			**52,7**			**31,2**	

	SIDC	J.Bonse			B.De Wit			J.Bavais			G.Vandenbulcke			F.Feys			W.De Meester									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	16							1	8	18				1	9	19										2	7	27							1
2	16				1	2	12				2	7	27	1	8	18																		2
3	9				1	4	14				1	3	13	1	5	15										1	3	13						3
4	21													2	10	30																		4
5	34	3	12	42							3	14	44	3	18	48																		5
6	34				2	2	22							4	18	58										3	7	37						6
7	32							3	3	33				4	12	52																		7
8	25				3	3	33	3	3	33				3	11	41										3	5	35						8
9	36				3	4	34							4	20	60										3	6	36						9
10	38				4	13	53							4	20	60										4	15	55						10
11	44										5	18	58	5	31	81																		11
12	33													5	28	78										4	11	51						12
13	27				1	2	12							2	11	31										1	4	14						13
14	22													2	10	30										2	14	34						14
15	25													2	6	26																		15
16	34													4	13	53																		16
17	17						0							2	9	29										2	4	24						17
18	15										2	2	22	4	13	53																		18
19	10													3	5	35										0	0	0						19
20	8						0				0	0	0	1	1	11										0	0	0						20
21	0						0							0	0	0										0	0	0						21
22	0						0							1	1	11																		22
23	0													0	0	0																		23
24	8													1	1	11										1	1	11						24
25	15													1	1	11										2	6	26						25
26	15													1	1	11																		26
27	8													1	1	11																		27
28	8	1	1	11	1	1	11				1	1	11	1	2	12										1	2	12						28
29	18	2	10	30										2	9	29																		29
30	19	2	9	29	2	7	27							2	21	41										2	7	27						30
31		2	6	26							2	5	25	2	16	36										2	7	27						31
#	**19,6**			**28**			**16,8**			**28,0**			**25,0**			**32,3**			***#####			***#####			***#####			**23,8**			***#####			***#####	

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

Sunspotnumbers VVS Belgium

Month: 'August 2010

	GROUPS			WOLFNUMBER					
Day	N	S	N+S	N	S	N+S	RE'	CV	OBS
1	2	0	2	19	0	**19**	96	32	17
2	2	0	2	20	0	**20,3**	169	38	17
3	1	0	1	16	0	**15,5**	178	37	21
4	2	1	3	28	5,5	**33**	278	58	13
5	3	1	4	42	7,3	**48,8**	167	38	19
6	3	1	4	39	11,8	**50,6**	160	43	23
7	3	1	4	30	11,4	**41,7**	131	40	9
8	2	1	3	24	13,7	**37,4**	144	36	17
9	3	1	4	39	13	**51,7**	210	37	21
10	3	2	5	47	12,6	**59,3**	227	24	14
11	4	1	5	53	11	**64,1**	202	28	19
12	4	0	4	48	0	**47,6**	178	21	16
13	3	0	3	37	0	**36,7**	132	17	20
14	3	0	3	33	0	**32,5**	246	19	19
15	2	0	2	26	0	**26**	146		1
16									
17	1	1	2	13	9,3	**22**	50	8	6
18	1	1	2	9	12,8	**22,2**	23	3	13
19	0	1	1	0	9,9	**9,9**	5	1	17
20	0	1	1	0	2,4	**2,4**	1	1	19
21	0	0	0	0	0	**0**	0	0	17
22	0	0	0	0	0	**0**	0	0	15
23	0	0	0	0	0	**0**	0	0	12
24	1	0	1	11	0	**11,1**	35	9	17
25	1	1	2	13	2	**14,6**	47	10	11
26	1	1	2	13	3,3	**16**	43	10	5
27	1	0	1	11	0	**11,3**	44	10	10
28	1	0	1	12	0	**11,8**	46	10	20
29	2	0	2	28	0	**27,5**	86	14	12
30	2	0	2	29	0	**29,1**	164	23	16
31	2	0	2	29,8	0	**29,8**	145	20	18
	1,77	**0,50**	**2,27**	**22,2**	**4,2**	**26,4**	**111,8**	**20,24**	**454**

Monthly mean: **26,4** Covering: **30/31** Spotless days: **3**
Observations: **545** Number of observers: **28**

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Observers:
De Ceuninck ; Janssens ; Publ obs Mira ; Bourgeois ; R.Dezeure ; F.Feys
De Backer; Dubois ; Taillieu ; Carels ; Dewaele
Meeus ; Steen ; KSB ; Claeys ; Thooris ; J.Bonse
Claes ; Verboven ; Van Loo ; Son ; Coeckelberghs ; Dekelver
G.Gubbels ; J Bavais ; Van Hessche

VVS Belgian Solar Observers Prominence number Rp

Month : August 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	08.30	3,5	4	5	9	59	7,37	4	1	9	16	106							7.23	3.5	1	7	31	101
2	7:00	4	2	6	13	73	11,43	2	2	5	6	56	11.30	3,5	3,5	5	5	55	5,22	2,5	1,5	7	15	85							15.40	3.5	1.5	8	29	109
3	6:35	3,5	2,5	6	12	72	6,55	4	1	6	11	71	08.00	3,5	3,5	4	4	44	7,42	4	1,5	6	11	71	16u00	4	2	5	8	58						
4							14,38	4	1	5	7	57	11.00	3,5	3,5	4	4	44	15,25	4	1	8	15	95												
5	5:55	4	1,5	5	17	67	6,48	4	1	5	9	59	08.30	4,0	3,5	5	8	58	14,45	4	1	5	12	62	16u45	4	2	6	9	69	5.40	3	1.5	5	17	67
6	7:40	3	1,5	6	14	74	7,26	3	1	9	13	103	08.30	4,5	3	8	9	89	6,25	4,5	1	9	25	115	17u45	4	2	9	11	101	6.47	4	1	8	31	111
7							8,25	3	2	4	7	47							6,17	4	1	8	13	93												
8													09.00	4,0	3,5	7	9	79	7,03	4,5	1	13	23	153							6.47	4	1	9	24	114
9	6:20	3	1,5	5	14	64	7,37	3	2	7	10	80	09.30	4,0	2,5	9	11	101	6,45	4,5	1	7	19	89	17u00	3	3	8	11	91	7.05	4	1	8	34	114
10																			6,27	3	1	9	17	107							6.52	4	1	9	32	122
11							7,17	4	1,5	7	13	83	09.15	3,5	4	5	6	56	6,05	4,5	1	9	13	103							6.08	4.5	1	8	27	107
12																			6,29	4,5	1	5	9	59							9.39	4	1.5	9	30	120
13							7,27	3	1	5	11	61	08.00	4,0	4	3	4	34	6,14	4	1	10	15	115							7.44	4	1	7	19	89
14	5:50	5	1,5	6	9	69							07.30	4,5	3	7	7	77	6,05	3	1	11	13	123												
15							8,45	4	1	6	9	69							15,20	2	1	1	1	11												
16							7,40	4	1	7	13	83							7,55	3	1	6	9	69												
17							7,53	4	1	8	14	94							6,35	3	1	5	12	62												
18	8:45	4	2	5	12	62							08.00	4,0	3	6	9	69	6,47	5	1	7	15	85												
19	8:30	3	2	6	13	73	11,31	3	2	6	12	72	08.15	4,0	3,5	5	5	55	6,37	3,5	1	7	20	90							7.23	3.5	1.5	7	22	92
20	6:55	4	1,5	10	22	122	8,22	4	1	7	12	82	08.00	4,0	3	8	11	91	6,32	4	1	9	10	100	15u15	4	2	7	11	81	8.30	4	1	7	22	92
21							12,17	4	1	6	10	70	09.30	4,0	3	8	8	88							12u45	4	2	5	7	57	7.58	3.5	1.5	5	20	70
22							7,32	3	1,5	6	11	71							6,00	2,5	1	6	7	67	10u30	3	3	5	6	56	10.20	3	2.5	4	12	52
23													11.00	4,0	3	8	8	88	6,32	3	1	8	12	92	17u20	4	2	5	17	67	17.10	3.5	1	6	20	80
24													08.00	4,5	2,5	7	10	80	6,00	3,5	1	6	11	71							6.10	3	1.5	7	22	92
25							8,08	4	1	6	11	71	10.30	3,5	3,5	5	5	55	6,45	4	1	8	16	96												
26																			6,10	3	1,5	5	11	61												
27																			6,42	4	1	8	13	93												
28	6:15	4	2	5	6	56							08.00	4,0	2,5	5	6	56	6,10	5	1	8	20	100							6.35	3.5	1	9	20	110
29	7:45	3	3	5	9	59							09.15	4,0	3,5	7	9	79	6,10	4,5	1	9	14	104							8.03	3	2.5	0	0	0
30							9,16	3	1	8	13	93	08.30	3,5	3,5	5	7	57	6,53	5	1	9	15	105							15.40	3.5	1.5	7	21	91
31													08.30	4	3,5	5	8	58	6,40	4,5	1	6	14	74							6.08	4	1	9	30	120
	11	3,7	1,9	5,9	13	71,9	19	3,5	1,3	6,2	10,6	72,7	22	3,9	3,3	6,0	7,4	66,9	30	3,8	1,1	7,47	13,9	88,5	8	3,8	2,3	6,3	10,0	72,5	20	3,7	1,0	6,95	23,2	92,7

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	2	8	16	96																			10:30	3	2	10	23	123						
2	16,25	3	2	6	9	69																														
3	6,40	4	2	7	9	79							1700	4	1	6	11	71							9:40	2,5	2	11	22	132						
4	14,44	3,5	2	8	11	91																														
5	15,50,	3,5	2	7	8	78																														
6	6,30	4	2	8	12	92							1500	4	1	7	14	84							6:15	3	2	11	22	132						
7	11,00	3	2,5	5	6	56																														
8	6,40	4	2	6	8	68													15,02	3	3	8	12	92	13:00	3	2	7	14	84						
9	7,10	3,5	2	6	10	70							1100	3	2	6	18	78							6:15	3	2	10	16	116						
10	6,05	3,5	2,5	4	6	46													5,46	4	2	8	13	93	7:45	4	2,5	11	23	133						
11	7,50	4	2	5	5	55																														
12	8,20	4	2	4	4	44							1300	3	2	5	7	57	6,04	3	3	5	6	56	6:15	4	2	9	13	103						
13	6,35	3,5	2	7	8	78							1400	4	1	6	13	73	6,15	3	2	7	7	77	10:45	3	2	10	12	112						
14	7,15	4	2	7	8	78	10:20	5	4	11	21	131	1400	3	2	7	11	81							6:30	3	2	10	17	117	09.30	4	1	7	9	79
15																																				
16																																				
17																									8:10	3	2	7	12	82						
18	7,45	3,5	2	6	8	68													11,12	3	3	8	16	96												
19	6,10	3,5	2	6	9	69																			6:15	3	3	7	12	82						
20	7,20	3,5	2	9	11	101							1700	4	1	6	13	73							6:15	3	2	10	22	122						
21	9,50	3	2	7	9	79	0,45	4	4	18	26	206	1000	4	1	7	12	82	12,15	2	3	3	7	37	16:50	3	2	11	15	125						
22	7,50	3,5	2	6	8	68							1000	4	1	5	9	59																		
23	11,45	3,5	2	6	8	68																														
24	6,30	3,5	2	6	6	66													7,31	3	2	9	16	106	7:15	3	2	9	17	107						
25																									6:15	3	2	7	12	82						
26	13,05	3	2	7	10	80																														
27													1730	4	1	6	16	76																		
28	8,00	4	2	7	8	78	16:32	4	4	9	17	107							12,36	3	2	8	13	93	7:10	3	2	10	19	119	15.00	3	1,5	7	11	81
29	7,05	3,5	2	7	9	79																														
30	8,30	4	2	6	8	68																			11:30	3	1,5	8	22	102	15.10	4	1	8	16	96
31	8,20	3,5	2	8	9	89													6,59	3	2	9	15	105	6:15	3	1,5	8	16	96	13.35	3	15	6	7	67
	26	3,6	2	6,5	8,6	73,6	3	4,3	4,0	13	21	148,0	10	3,7	1,3	6,1	12,4	73,4	9	3,0	2,4	7,22	12	83,9	18	3,1	2,0	9,2	17,2	109,4	4	3,5	4,6	7	10,8	80,8

Day	R.Blondeel time	Q	W	H	e	asm 60 Rp
1	10h00	2	2	6	6	66
2						
3	10h30	2	2	2	2	22
4						
5	08h10	2	2	3	3	33
6	08h30	3	1	5	7	57
7						
8						
9						
10						
11						
12	09h10	2	2	1	1	11
13	08h00	3	1	4	4	44
14	11h00	2	2	5	5	55
15						
16						
17						
18						
19	09h00	2	2	5	8	58
20	08h20	3	1	7	10	80
21	09h20	2	2	4	6	46
22	09h10	2	2	3	4	34
23	13h50	2	2	5	6	56
24	10h00	2	2	6	8	68
25						
26						
27						
28						
29						
30						
31						
	13	2,2	1,8	4,31	5,4	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: **August 2010**

Day	Q	Wedel		H	e	Rp	el. Obs	Stdev	OBS
1	3,3	1,5		8,5	21,5	**106,5**	3	11,7	7
2	3	2,2		5,8	9,6	**67,6**	1	12,5	6
3	3,9	1,9		5,7	9,4	**66,4**	2	11,7	9
4	3,8	1,5		8	13	**93**	2	2,8	4
5	3,6	1,9		5,1	10,4	**61,4**		13,2	8
6	3,8	1,6		7,9	14,9	**93,9**	3	12,6	10
7	3	2,3		4,5	6,5	**51,5**	1	6,4	3
8	3,5	2,6		7	10,8	**80,8**	2	10	6
9	3,4	2		6,9	13,3	**82,3**	2	12,8	9
10	3,7	1,3		8,7	20,7	**107,7**	2	14,5	5
11	4,3	1,2		8	17,7	**97,7**	2	12,9	5
12	3,6	2		4,8	6,5	**54,5**	3	6,8	7
13	3,4	1,3		6	10,3	**70,3**	3	15,7	9
14	3,8	1,9		6,5	8,2	**73,2**	3	9,8	9
15	3	1		6	9	**69**	1		2
16	3,5	1		6,5	11	**76**		9,9	2
17	3,5	1,5		7,5	13	**88**	1	8,5	3
18	3,9	2,2		6,4	12	**76**		14,1	5
19	3,1	2,2		6,1	12,6	**73,6**		13,6	8
20	3,8	1,6		8	14,4	**94,4**		17	10
21	3,8	1,8		6,3	11	**74**	4	11	10
22	3	1,8		5	8,1	**58,1**		12,7	7
23	3,3	1,8		6,3	11,8	**74,8**		13,8	6
24	3,3	1,9		6,4	11,4	**75,4**	2	10,7	7
25	3,7	1,3		7	13	**83**	1	12,5	4
26	3	1,8		6	10,5	**70,5**		13,4	2
27	4	1		7	14,5	**84,5**		12	2
28	3,7	1,9		8,3	15,4	**98,4**	2	15,2	9
29	3,5	2,8		6,3	9	**72**	2	11,5	5
30	3,8	1,3		7,7	15,8	**92,8**	1	13,1	7
31	3,4	1,3		7,4	12,2	**86,2**	2	15,6	7
	3,53	**1,72**		**6,7**	**12,2**	**79,1**	**45**	**11,9**	**193**

Monthly mean: **79,1** Covering: **31/31**
Observations: **193** Number of observers: **11**

V.V.S. BELGIUM SOLAR SECTION FRANKY DUBOIS
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B8920 Langemark
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 : August 2010

CV

Date	F.Dubois	O.Steen	L.Meeus	J.Carels	J.Janssens	P.J. Dekelver	G.Gubbels	H.De Backer	D.Van Hessche	R.Verboven		Mean
1	42	41		38			49	11		12		**32,2**
2	41	41	44		41		51	11				**38,2**
3	40	40	41	37	40		50	10	37			**36,9**
4	48	49				75	98	18				**57,6**
5	65	55		21	24		54	27	23			**38,4**
6	49	56	39	54	30	54	65	31	27	21		**42,6**
7	56	23										**39,5**
8	54	22		22			56	28				**36,4**
9	54	24	56	21	27		54	36	23			**36,9**
10	12	18				49	17	27	23			**24,3**
11	20	22	22	20			16	67				**27,8**
12	11	45	18	11			12	40	11			**21,1**
13	40	16	14				10	17	13	10		**17,1**
14	35	13	14	9	12			28	12	28		**18,9**
15												
16												
17			6					9				**7,5**
18	2	3		3	5			4				**3,4**
19	1	1		1	1		1	0		0		**0,7**
20	0	0		0	0		0	0		0		**0,0**
21	0	0		0			0	0		0		**0,0**
22		0					0	0		0		**0,0**
23		0	0				0	0		0		**0,0**
24		10	10	10		9	10	4	10			**9,0**
25		10		10			12	7				**9,8**
26	13	10						7				**10,0**
27	10	10						10				**10,0**
28	10	10	10	10	10		10	10	10			**10,0**
29	12	13			16		15					**14,0**
30	19	19	15	26			35					**22,8**
31	19	22	21	16			21			21		**20,0**
##	**27**	**20,5**	**22,1**	**17,2**	**18,7**	**46,8**	**28**	**16,1**	**18,9**	**9,2**		**20,2**

Pettisindex SN

G.Gubbels	F.Dubois	P.J. Dekelver	O.Steen	J.Carels	R.Verboven		Mean
25	15		14	14			**17,0**
12	15		13				**13,3**
20	11		11	12			**13,5**
55	23	25	34				**34,3**
49	46		41	34			**42,5**
49	42	26	33	42	25		**36,2**
	32		23				**27,5**
34	31		24	25			**28,5**
35	30		32	22			**29,8**
40	29	45	33				**36,8**
36	32		34	46			**37,0**
21	18		28	50			**29,3**
17	21		33				**23,7**
	44		34	40	28		**36,5**
	3		3	3			**3,0**
1	1		1	1	0		**0,8**
0	0		0	0	0		**0,0**
0	0		0	0	0		**0,0**
0			0		0		**0,0**
0			0		0		**0,0**
	13		10				**11,5**
	10		10				**10,0**
10	10		10	10			**10,0**
14			10	10			**11,3**
	13		10				**11,5**
	10		10				**10,0**
26	14		16				**18,7**
35	25		27	27			**28,5**
29	29		26	29			**28,3**
23	**21**	**27**	**18,2**	**21**	**7,6**		**19,2**

Intersol IS

F.Dubois	J.Carels	G.Gubbels	P.J. Dekelver		Mean
8	7	9			**8,0**
7		17			**12,0**
3	4	12			**6,3**
8		26	12		**15,3**
16	18	24			**19,3**
18	18	19	12		**16,8**
6					**6,0**
5	8	9			**7,3**
14	5	21			**13,3**
14		29	24		**22,3**
18	20	24			**20,7**
13	15	16			**14,7**
17		12			**14,5**
21	15				**18,0**
4	4				**4,0**
1	1	1			**1,0**
0	0	0			**0,0**
0	0	0			**0,0**
		0			**0,0**
		0			**0,0**
	1	1	3		**1,7**
	1	6			**3,5**
6					**6,0**
1					**1,0**
1	1	1			**1,0**
6		9			**7,5**
8	11	10			**9,7**
13	14	14			**13,7**
8,7	**7,9**	**11**	**13**		**8,70**

Becknumber

Date	F.Dubois	O.Steen	L.Meeus	P.J. Dekelver	J.Carels	G.Gubbels	E.De Ceuninck	D.Van Hessche	R.Verboven	F.Feys	A.T.Son	J.Bourgeois	H.Coeckelberghs	De Backer	Pbl Obs Mira	J.Claes					Mean	Date
1	56	144			48	144	132		144	72	68			56							**96**	**1**
2	48	184	72			612	132			64				72							**169**	**2**
3	132	132	48		176	550	132	88		220	88			176	220						**178**	**3**
4	148	168		148		768	236			188				291							**278**	**4**
5	182	148			113	216	210	125		252				136	124						**167**	**5**
6	144	128	163	84	188	230	112	183	68	162	332			128							**160**	**6**
7	126	86					97			213											**131**	**7**
8	155	69			77	92	162			275	169			150							**144**	**8**
9	121	159	221		119	192	154	155		212	210			242	528						**210**	**9**
10	146	186		300		252		164		268	193			310							**227**	**10**
11	158	182	178		207	192	132			312	122			334							**202**	**11**
12	152	148	150		188	132		106		310	224			190							**178**	**12**
13	176	126	106			116	102	118	112	176	192			140	88						**132**	**13**
14	168	229	159		228		544	273	180	237			142	302							**246**	**14**
15										146											**146**	**15**
16										225											**225**	**16**
17			44							36				69							**50**	**17**
18	12	12			12		12			52				37							**23**	**18**
19	4	4			4	4	8		0	20	0			0							**5**	**19**
20	0	0			0	0	4		0	4	0			0							**1**	**20**
21	0	0			0	0	0		0	0	0		0	0							**0**	**21**
22		0				0	0		0	4	0			0							**1**	**22**
23		0	0			0	0		0	0				0							**0**	**23**
24		37	37	16	37	37	37	37		37	37		37	37							**35**	**24**
25		37			37	60	45			37	37			74							**47**	**25**
26	24	37								37				74							**43**	**26**
27	37	37					37			37				74							**44**	**27**
28	37	37	37		37	44	37	74		74				37							**46**	**28**
29	53	61				100	85			130											**86**	**29**
30	85	101	154		199	188	163			197					224						**164**	**30**
31	138	101	175		125	124	200		160	157					124						**145**	**31**
	95,92	**91,2**	**110**	**137**	**100**	**176**	**111**	**132**	**66**	**134**	**111**		**60**	**117**	**218**						**115,4**	

Belgian Solar Observers

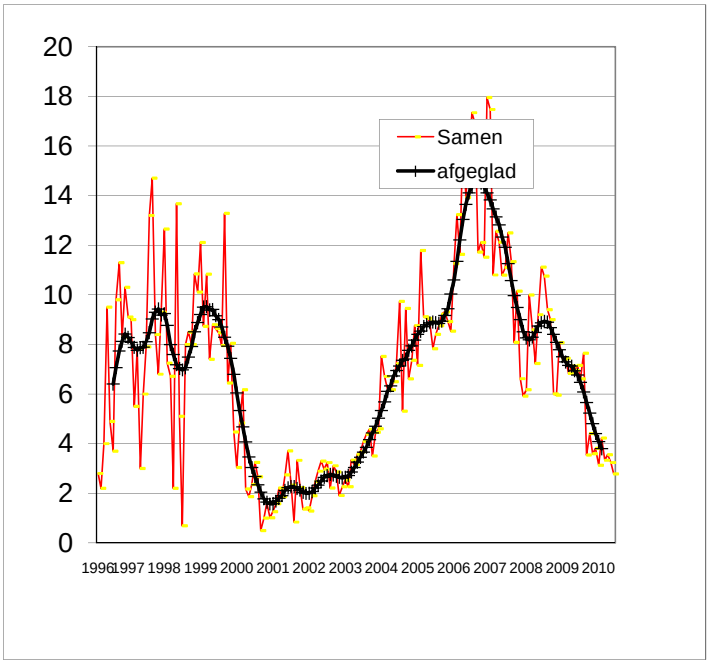
Polar Faculae

Month: August 2010

Date	Dubois 125mm F20			Steen 102mm F15			T.Spaninks 127mm F15			G.Gubbels 114mm F7,8			Dekelver 150mm F8			Janssen 200mmF10			J.Carels			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	North	South	Q
1	2	0	3							3	2	3.5												
2										4	2	3				4	0	4						
3	3	0	4	4	1	4,0	0	0	4	8	3	3.5				3	0	4	3	0	4			
4				2	1	3,5				4	3	3	0	0	3									
5	2	0	4	3	0	3,5				4	2	3.5				0	0	4	2	0	4			
6	2	0	4	3	0	4,0				4	2	4	0	0	4	2	0	3	0	0	4			
7																								
8	2	2	3	3	2	4,0	0	0	4	4	2	4							4	0	4			
9	3	1	4							4	2	4				0	0	3						
10				0	0	3,5	0	0	4	4	0	4	0	0	3,5									
11				0	1	3,5	0	0	4	3	1	3.5							0	0	3			
12				3	1	4,0	0	0	4	4	2	3												
13	5	2	4	3	1	4,0	0	0	4	3	2	4												
14	4	4	4	3	0	3,5										0	0	5	3	2	3			
15																								
16																								
17																								
18	2	0	3	0	1	3,5	0	0	4							0	0	4						
19										4	1	3.5				2	0	3						
20	2	2	3	2	2	3,5	1	0	4	3	2	4				0	0	4						
21							0	0	4	5	1	3.5												
22				1	0	3,5				4	2	2.5												
23				0	0	3,5	2	1	3	4	1	3												
24				2	2	3,5	0	1	4	4	1	2.5	0	0	4				0	0	3			
25							0	0	4	3	2	3.5							0	0	2			
26																								
27	2	3	4																					
28	3	1	4	2	1	4,0	0	0	4	3	2	3.5				0	0	4,0	0	0	4			
29				1	0	3,5				5	2	3				1	1	3,0						
30				2	0	4,0	1	0	4	5	2	3.5							1	0	3			
31	3	1	4	1	0	3,5	0	0	4	6,0	3,0	4							0	0	3			
	2,69	1,23		1,84	0,68		0,3	0,1		4,1	1,8		0,00	0,00		1,09	0,09		2,60	0,18	##	#####	#####	

3

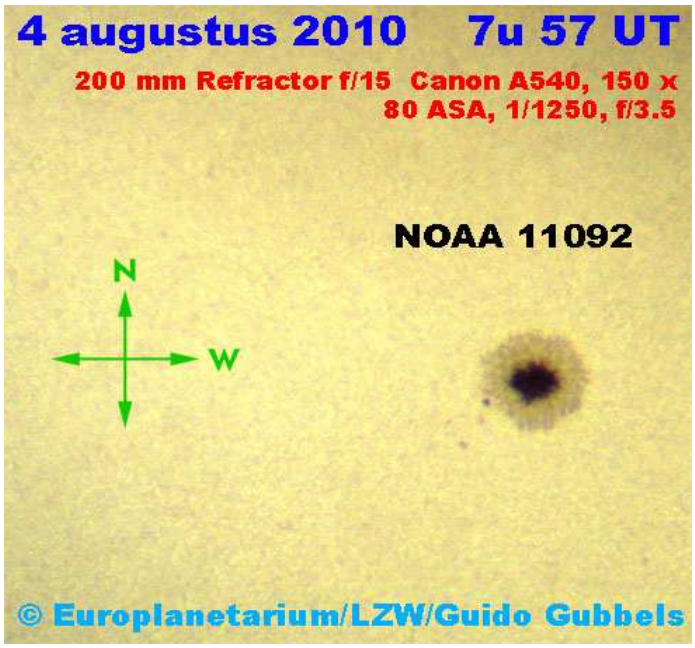
Obs of M.Szulc are not included in the monthly average !



Sunspot activity from organisations all over de world

Month : July 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	**28,2**													**79,9**	
SIDC	**19,6**	**16**	**3,6**												
Kanzelhöhe	**21,6**														
G.F.O.E.S France	**13,6**														**0,05**
BSO Belgium	**26,4**	**22,2**	**4,2**	**2,27**		**20,20**	**111,8**					**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						**20,24**									
AAVSO (Raw mean)	**25,4**														
Sonne Germany Preliminary															
O.A.A. Japan	**19,7**	**9,5**	**10,3**												
Solar Observer Society TOS Poland	**27,74**					**21**									
Astronomical League of the Philippines															



SIDC Weekly bulletin on Solar and Geomagnetic
WEEK 503 from 2010 Aug 16

SOLAR ACTIVITY

NOAA AR 1098 was the dominant active region during the period. On Aug 18 it was positioned on the North West limb and triggered the biggest flare of the period: a C4.5 long duration flare at 05:48. The event was associated with a coronal mass ejection and an increase in solar proton fluxes, that however did not pass the event threshold levels (10 fpu at 10 MeV).

Following this event, the active region rotated behind the North West limb, an SIDC ALL QUIET ALERT was issued and indeed, no more flaring activity was observed.

GEOMAGNETIC ACTIVITY

Geomagnetic activity was very low during the period and never went higher than the Kp=3 level.

SIDC Weekly bulletin on Solar and Geomagnetic
WEEK 504 from 2010 Aug 23

SOLAR ACTIVITY

Solar activity was very low during the week, with no significant flaring activity.

GEOMAGNETIC ACTIVITY

The week was dominated by the influence of a coronal hole that triggered active to minor storm conditions at planetary levels from Aug. 23rd, 21UT until Aug. 25th 06UT. Minor storm conditions were only observed during 6 hours on Aug. 25th.

SIDC Weekly bulletin on Solar and Geomagnetic activity
WEEK 505 from 2010 Aug 30

SOLAR ACTIVITY

There was no activity worth mentioning.

GEOMAGNETIC ACTIVITY

The geomagnetic activity was very low this week.

There was a southern coronal hole at the central meridian on Sep 01. The co-rotating interaction region arrived on Sep 05. The geomagnetic response was limited: Kp became 3 at most.

SIDC Weekly bulletin on Solar and Geomagnetic activity
WEEK 506 from 2010 Sep 06

SOLAR ACTIVITY

Solar activity was very low over the whole week.

Only two small active regions were observed. The Sun was spotless on Sept.8 and 9. There was only one significant flare (C3.3 on Sept.8) but the largest event of the week was a large filament eruption in the North-East quadrant of the Sun early on Sept. 11. This event produced a semi-halo CME.

Two moderately fast solar wind streams pushed the solar wind speed to maxima of 450-500km/s on Sept.8 and 10, before declining by Sept. 11 until the end of the week.

GEOMAGNETIC ACTIVITY

The Earth magnetosphere was quiet to unsettled from Sept.6 to Sept.9 due to the aforementioned solar wind streams. The Bz component of the interplanetary magnetic field stayed for a few hours at -5nT on Sept.8, causing locally active geomagnetic conditions. After Sept.9, the geomagnetic field became very quiet (Kp=0-1).

A possible geomagnetic disturbance is expected on Sept.13 in association with the CME of Sept.11.

SIDC Weekly bulletin on Solar and Geomagnetic activity
WEEK 507 from 2010 Sep 13

SOLAR ACTIVITY

Solar activity was very low during the week. A new active region, NOAA AR 1108 began its transit on the East limb of the Sun on September 16th and produced a C1.3 flare on Sept. 17th at 01:22 UT (peak time). No further significant flaring activity was observed until the end of the week.

GEOMAGNETIC ACTIVITY

Geomagnetic activity remained at quiet levels during the whole week. There was a brief period of active conditions at planetary levels (Kp=4) on September 15th (0-3 UT) which might be due to the crossing of a sector boundary.

SIDC Weekly bulletin on Solar and Geomagnetic
WEEK 508 from 2010 Sep 20

SOLAR ACTIVITY

According to the Catania observatory, four sunspot groups were observed on the Sun during the week. Catania sunspot groups 38 and 41 (NOAA ARs 1106 and 1108 respectively) were observed since the beginning of the week. They produced only a weak flaring activity (below the C-level). Catania sunspot group 38 disappeared behind the west solar limb on September 22.

On September 22, Catania sunspot groups 42 and 43 (attributed a single NOAA AR number 1109) appeared from behind the east limb. This active region (returning NOAA AR 1105) produced a significant flaring activity (four C-class flares) on September 20-21, while still behind the limb. The strongest flare (C2.1) peaked on September 20 at 19:45 UT. Further on, the flaring activity of this group decreased, with only B-class flares detected by GOES.

A low-latitude coronal hole in the northern hemisphere (elongated in the east-west direction) passed through the solar central meridian on September 20-22. Another low-latitude coronal hole in the northern hemisphere passed the central meridian on September 24-25.

GEOMAGNETIC ACTIVITY

In the beginning of the week, the Earth was situated inside the slow solar wind flow, and the geomagnetic conditions were quiet. A faster flow (probably originating from the elongated low-latitude coronal hole in the northern hemisphere) arrived on September 21. The solar wind speed reached only 450 km/s, and the interplanetary magnetic field (IMF) magnitude did not reach values above 10 nT, so the geomagnetic conditions remained quiet. Another slow wind interval without significant geomagnetic consequences followed on September 22.

On September 23 the solar wind speed started to grow indicating the arrival of the interaction region between the slow and fast solar wind streams. The IMF magnitude in the interaction region reached 13 nT, but the speed was still relatively low for a geomagnetic disturbance to occur. The fast flow (probably originating from the second low-latitude coronal hole in the northern hemisphere) arrived on September 24, and the solar wind speed reached its peak values (around 650 km/s) on September 25. Due to weak to average values of the IMF magnitude (3-4 nT) in the fast stream, the geomagnetic conditions remained quiet (peak values of K = 3). On September 26 the solar wind speed decreased to 450 km/s, still with the quiet level of the geomagnetic conditions.

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