NIEUWSBRIEF V.V.S. WERKGROEP ZON

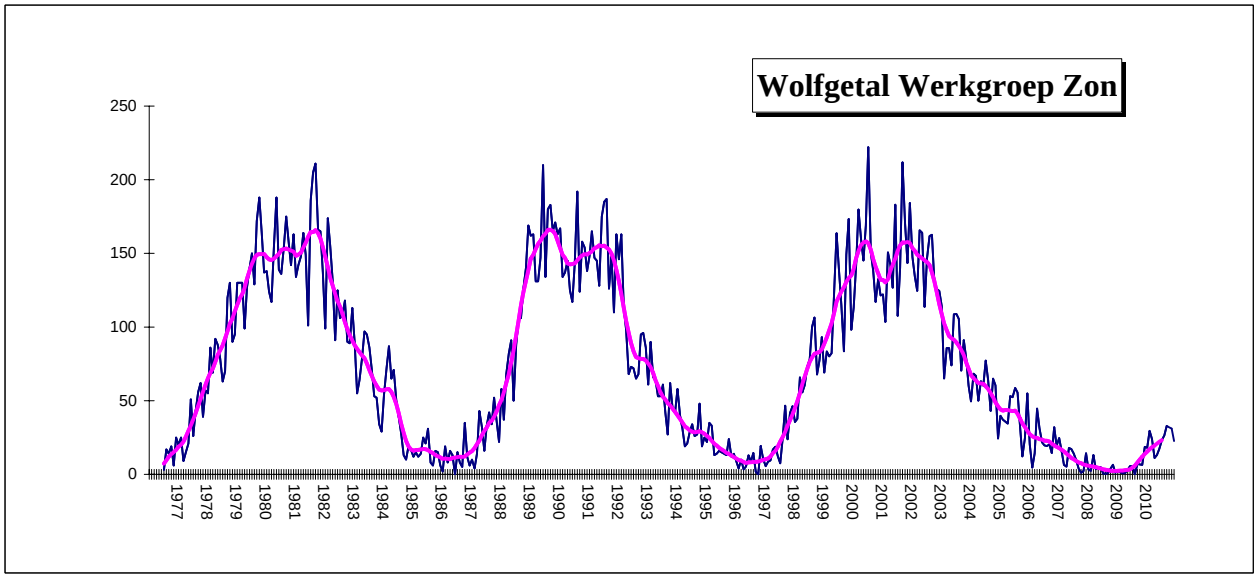
Waarnemingsresultaten en nieuws voor zonnewaarnemers	Jaargang : 15	Nummer: 178	December 2010

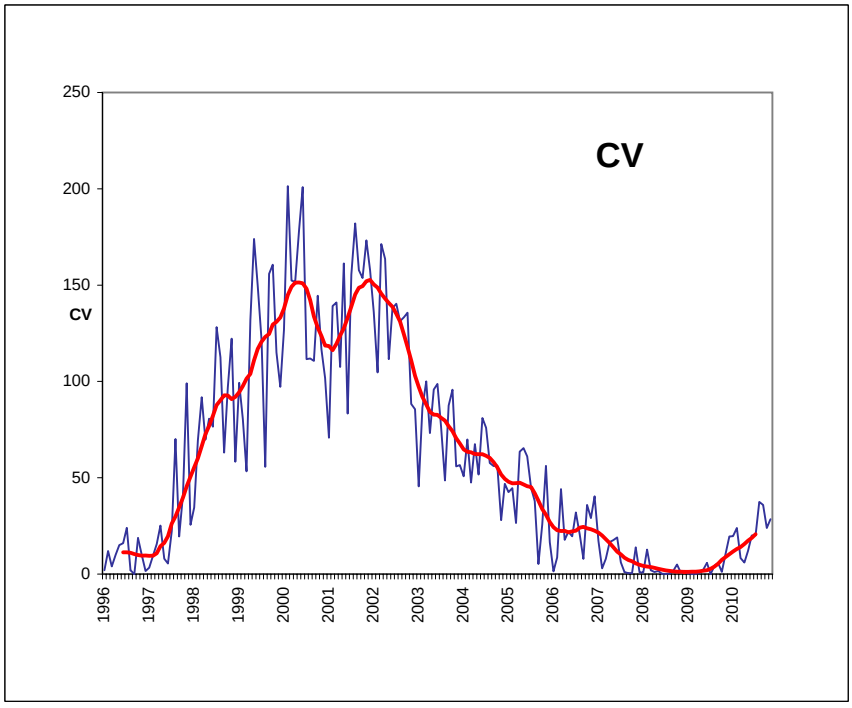
Franky Dubois Poelkapellestraat 57 Langemark 8920

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

Ook een vrij sombere December maand !

De maanden mei, augustus , november en december waren de slechtste maanden van het jaar , de twee laatste horen bij de somberste in vele jaren . Voeg daarbij nog het verlies van 3 waarnemers en we komen uit op een minder goed jaar voor onze werkgroep. En dan zwijgen we nog van de activiteit op de zon die maar niet van de grond komt.
Meer details volgen in het jaarverslag !





Gemiddelden werkgroep zon December 2010

Groepen :	N	**1,92**	Wolfgetal :	N	**21,2**	RE'	**91,9**
	S	**0,21**		S	**1,4**	CV	**28,5**
	N+S	**2,13**		N+S	**22,6**		

166 waarnemingen 23 waarnemers

Wolfnumbers Belgian Solar Observers

Month: **December 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	19										1	7	17	2	16	36																		1
2	21													2	5	25																			2
3	24										3	7	37	3	5	35	2	3	23	2	13	33	3	8	38	3	4	34	2	2	22				3
4	31																1	2	12																4
5	26																																		5
6	17										2	3	23	3	5	35							2	3	23	2	3	23							6
7	18										2	5	25	2	6	26																			7
8	18										2	2	22	2	3	23																			8
9	17										2	3	23	2	3	23							2	3	23	2	2	22	2	2	22				9
10	21													3	3	33															3	9	39	10
11	16										2	3	23																						11
12	16	2	4	24							2	2	22	2	2	22	2	2	22							2	2	22	2	2	22				12
13	28	3	6	36	2	2	22				4	7	47	4	8	48				3	8	38				3	5	35	3	4	34	2	4	24	13
14	16										3	3	33	2	2	22										2	2	22	2	2	22	4	7	47	14
15	8													1	1	11										1	1	11				2	2	22	15
16	14																																		16
17	7				0	0	0	1	2	12	1	1	11	1	1	11				0	0	0				1	1	11	0	0	0				17
18	0	0	0	0							0	0	0	0	0	0	0	0	0							0	0	0				1	1	11	18
19	0																																		19
20	0	0	0	0							0	0	0	0	0	0	0	0	0							0	0	0	0	0	0				20
21	0																																		21
22	10																																		22
23	10																																		23
24	8																																		24
25	15										1	6	16	2	7	27										0	0	0	0	0	0				25
26	20										2	6	26	2	7	27										2	3	23	1	1	11	1	3	13	26
27	10																1	5	15													4	14	54	27
28	13																																		28
29	11																			2	6	26													29
30	8	2	4	24							1	3	13										1	3	13	1	2	12							30
31	27																																		31
#	**14,5**			**16,8**			**11,0**			**12,0**			**21,1**			**23,8**			**12,0**			**24,3**			**24,3**			**16,5**			**14,8**			**30,0**	

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	19	2	11	31				1	7	17										2	15	35	1	4	14										1
2	21	2	27	47																2	7	27													2
3	24							3	4	34										3	5	35	3	4	34										3
4	31	3	8	38																															4
5	26	3	9	39																															5
6	17	3	10	40				2	2	22										3	7	37	2	3	23										6
7	18	2	5	25																			2	2	22										7
8	18	2	13	33																															8
9	17	2	5	25				2	2	22							2	4	24	2	2	22	2	2	22										9
10	21	2	4	24																			2	2	22										10
11	16																																		11
12	16				2	4	24	2	2	22	2	3	23	2	5	25				3	4	34	2	2	22	2	2	22							12
13	28							3	7	37	3	5	35							4	7	47	2	3	23										13
14	16							2	2	22										2	2	22	2	2	22										14
15	8																			1	1	11													15
16	14																2	2	22																16
17	7							1	1	11										1	1	11	0	0	0										17
18	0				0	0	0	1	1	11	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0							18
19	0																																		19
20	0							0	0	0	0	0	0	0	0	0				0	0	0	0	0	0										20
21	0																																		21
22	10																																		22
23	10																																		23
24	8																																		24
25	15	2	7	27	1	1	11							2	7	27				1	4	14	1	2	12	2	6	26							25
26	20																			3	11	41	2	8	28	2	9	29							26
27	10																																		27
28	13																																		28
29	11																						1	4	14										29
30	8													2	5	25	1	3	13	1	3	13				2	4	24							30
31	27																																		31
#	**14,5**			**33,6**			**17,0**			**19,0**			**14,5**			**15,4**			**14,8**			**24,9**			**17,2**			**20,2**			**#####**			**#####**	

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

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

Sunspotnumbers VVS Belgium

Month: 'December 2010

	GROUPS			WOLFNUMBER					
Day	N	S	N+S	N	S	N+S	RE'	CV	OBS
1	2	0	2	25	0	**25**	259	32	6
2	2	0	2	33	0	**33**	114	45	3
3	3	0	3	32,5	0	**32,5**	147	42,3	10
4	3	0	3	25	0	**25**			2
5	3	0	3	39	0	**39**			1
6	3	0	3	28,3	0	**28,3**	134	39,7	8
7	2	0	2	24,5	0	**24,5**	188	50	4
8	2	0	2	26	0	**26**	100	50	3
9	2	0	2	22,9	0	**22,9**	99	40	11
10	3	0	3	29,5	0	**29,5**	194	51,5	4
11	2	0	2	23	0	**23**	125	50	1
12	2	0	2	23,4	0	**23,4**	114	35	14
13	3	0	3	35,3	0	**35,3**	121	47,6	13
14	3	0	3	26	0	**26**	94	42,8	9
15	2	0	2	13,8	0	**13,8**	50	23,3	4
16	2	0	2	22,5	0	**22,5**			2
17	1	0	1	6,1	0	**6,1**	3	1	11
18	1	0	1	1,6	0	**1,6**	1	0,1	15
19									
20	0	0	0	0	0	**0**	0	0	12
21									
22									
23									
24									
25	1	1	2	10,8	4,9	**15,7**	26	3,6	11
26	1	1	2	15	9,7	**24,7**	38	4	8
27	1	1	2	20,5	6,5	**27**	60	7	3
28									
29	1	1	2	10	10	**20**	24		2
30	1	1	2	15	1,5	**16,5**	39	4,7	9
31									
	1,92	**0,21**	**2,13**	**21,2**	**1,4**	**22,6**	**91,9**	**28,5**	**166**

Monthly mean: **22,6** Covering: **24/30** Spotless days: **1**
Observations: **166** Number of observers: **25**

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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 : December 2010

	J. Janssens					PST	F. Dubois					Lille 20/20	E. De Ceunick					PST	F.Feys					Lunt 60	J. Hambsch					asm 60	G. Gubbels					Lunt 60
Day	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp
1							12,05	3	2,5	5	7	57							8,32	4,5	1	10	24	124												
2							12,35	3	2	2	5	25							9,50	4	1	8	20	100												
3							11,38	4	1	7	11	81	12.00	2,5	3,5	8	9	89																		
4																																				
5																			9,58	3	1	7	15	85												
6							12,40	4	1	5	7	57	11.45	4,0	3,5	6	6	66	8,57	3,5	1	5	19	69												
7																			6,45	4	1	6	15	75												
8																			8,40	4,5	1	7	13	83												
9							11,32	3	2	5	6	56	11.20	4,0	3,5	7	8	78	7,35	4	1	9	15	105												
10																			6,53	4	1,5	6	12	72												
11																																				
12													11.00	4,0	3,5	6	7	67													12.50	4	1	11	32	142
13							9,32	4	1	8	17	97	11.30	4,0	3	7	14	84																		
14													11.00	2,0	3,5	8	10	90																		
15																																				
16																																				
17													11.00	4,0	3,5	7	11	81																		
18	9:10	3	3	3	3	33																									10.40	4	1.5	7	18	88
19																																				
20							11,36	3	2	3	3	33	11.00	3,5	3,5	2	2	22													11.40	3.5	1.5	7	17	87
21																																				
22																																				
23																																				
24																																				
25													12.30	3,5	3,5	5	8	58													12.12	2.5	2	6	16	76
26																																				
27																																				
28																																				
29																																				
30																															10.03	3.5	1	9	18	108
	1	3	3	3,0	3	33,0	7	3,4	1,6	5,0	8,0	58,0	9	3,5	3,4	6,2	8,3	70,6	8	3,9	1,1	7,25	16,6	89,1		###	###	###	####	######	5	4,0	1,3	8	20,2	100,2

	O. Steen					PST	H. Coekelberghs					PST	J. Claes					PST	T.Spaninks					Prom Viewer	R.De Laet					PST	L.Meeus					Lunt
Day	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp
1	12,25	3	3	6	7	67																														
2																																				
3	12,20	3,5	2,5	7	7	77																														
4																																				
5																																				
6	12,30	3	2,5	4	5	45																														
7																																				
8																																				
9													1130	3	2	6	16	76																		
10																																				
11	12,10	3	2	5	5	55																														
12	8,40	3	2	5	6	56																														
13	8,50	3	2	8	10	90																														
14	9,00	3,5	5	6	11	71																			9:45	4	1,5	10	16	116						
15																																				
16													1100	3	2	5	11	61																		
17	9,30	3	2	8	9	89	12:47	3	4	6	10	70																								
18	10,05	3	2	4	4	44							1200	4	1	5	6	56																		
19																																				
20	12,30	3	2	4	4	44																														
21																																				
22																																				
23																																				
24																																				
25	9,50	3,5	5	6	9	69																														
26																																				
27																									9:15	2,5	2	11	15	125						
28																																				
29																																				
30	13,30	3	2,5	5	6	56							0900	3	2	5	8	58	11.07	2	3	6	8	68												
	12	3,1	2,7	5,67	6,9	63,6	1	3,0	4,0	6	10	70,0	4	3,25	1,8	5,3	10,3	62,8	1	2,0	3,0	6	8	68,0	2	3,3	1,8	11	15,5	120,5		###	###	####	#####	######

	R.Blondeel					asm 60	R.Verboven					PST
Day	time	Q	W	H	e	Rp	time	Q	W	H	e	Rp
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12							12.05	3	2	8	28	108
13												
14												
15												
16												
17												
18							11.30	3	4	5	14	64
19												
20												
21												
22												
23												
24												
25							12.30	3	3	5	12	62
26												
27												
28												
29												
30												
		###	###	####	###	#####	3	3	3	6	18	78,0

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: **December 2010**

Day	Q	Wedel		H	e	Rp	el. Obs	Stdev	OBS
1	3	2,8		5,5	7	**62**	1	7,1	3
2									2
3	3,3	2,3		7,3	9	**82**		6,1	3
4									
5	3	1		7	15	**85**			1
6	3,6	2		5	9,3	**59,3**			4
7	4	1		6	15	**75**			1
8	4,5	1		7	13	**83**			1
9	3,3	2,5		6	10	**70**		12,2	4
10	4,1	1,5		6	12	**72**			1
11	3	2		5	5	**55**			1
12	3,5	2,8		5,5	6,5	**61,5**	2	7,8	4
13	3,7	2		7,7	13,7	**90,7**		6,5	3
14	2,8	3,4		7	10,5	**80,5**	1	13,4	3
15									
16	3	2		5	11	**61**			1
17	3,3	3,2		7	10	**80**		9,5	3
18	3,3	2,5		4,3	6,8	**49,8**	1	13,6	5
19									
20	3,2	2,5		3	3	**33**	1	11	4
21									
22									
23									
24									
25	3,3	3,4		5,5	11,3	**66,3**		7,9	4
26									
27	2,5	2		11	15	**125**			1
28									
29									
30	2,7	2,5		5,3	7,3	**60,3**	1	6,4	4
31									
	3,32	**2,23**		**6,1**	**10,0**	**71,1**	**7**	**9,2**	**53**

Monthly mean: **71,1** Covering: **19/31**
Observations: **53** Number of observers: **8**

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Observers:
Steen ; Dubois ; De Ceuninck ; Coeckelberghs ; Janssens ; Feys
Hambsch ; Claes ; G.Gubbels ; T.Spaninks ; R.Blondeel;R.Verboven
Q : Seeing scale SIDC
W : transparency scale of Wedel , see http://members.chello.be/j.janssens/
H : number of prominence groups at the limb
e : total of individual prominences at the limb
Rp : H*10+e
More info at : http://members.chello.be/j.janssens/

Different Relative Sunspotnumbers — Month : December 2010

CV

Date	F.Dubois	O.Steen	L.Meeus	J.Carels	J.Janssens	R.verboven	G.Gubbels	H.De Backer	D.Van Hesscke			Mean
1	29	35										**32,0**
2	45											**45,0**
3	55	50						22				**42,3**
4												
5												
6	52	47						20				**39,7**
7	50	50										**50,0**
8	50	50										**50,0**
9	50	50						20				**40,0**
10	51			52								**51,5**
11		50										**50,0**
12	50	50	51			20	20	20	50			**37,3**
13	56	54	59	51				22	55			**49,5**
14	47	51		53				20				**42,8**
15	10			50				10				**23,3**
16												
17	1	1						1				**1,0**
18	0	0	0	1	0	0	0	0	0			**0,1**
19												
20	0	0	0				0	0	0			**0,0**
21												
22												
23												
24												
25	7	3				4	4	0				**3,6**
26	7	4		2				3				**4,0**
27				7								**7,0**
28												
29												
30		1	15				12	1				**7,3**
31												
##	**33**	**31,0**	**25**	**30,9**	**0**	**8,0**	**7**	**11**	**26**			**28,8**

Pettisindex SN

Date	G.Gubbels	F.Dubois	R.Verboven	O.Steen	J.Carels			Mean
1		49		33				**41,0**
2		23						**23,0**
3		32		26				**29,0**
4								
5								
6		23		20				**21,5**
7		23		23				**23,0**
8		21		20				**20,5**
9		20		21				**20,5**
10		21			27			**24,0**
11				21				**21,0**
12	23	20		20				**21,0**
13		35		25	22			**27,3**
14		20		21	25			**22,0**
15		10			20			**15,0**
16								
17		1		1				**1,0**
18	0	0		0	1			**0,3**
19								
20	0	0		0				**0,0**
21								
22								
23								
24								
25	7	16		6				**9,7**
26		25		6	3			**11,3**
27					14			**14,0**
28								
29								
30	14			3				**8,5**
31								
##	**9**	**20**	#####	**15**	**16**			**17,7**

Intersol IS

Date	F.Dubois	J.Carels	G.Gubbels			Mean
1	17					**17,0**
2	6					**6,0**
3	6					**6,0**
4						
5						
6	7					**7,0**
7	6					**6,0**
8	4					**4,0**
9	2					**2,0**
10	3	7				**5,0**
11						
12	2		7			**4,5**
13	10	4				**7,0**
14	2	6				**4,0**
15	1	2				**1,5**
16						
17	1					**1,0**
18	0	1	0			**0,3**
19						
20	0		0			**0,0**
21						
22						
23						
24						
25	9		9			**9,0**
26	9	4				**6,5**
27		16				**16,0**
28						
29						
30			7			**7,0**
31						
##	**5,0**	**5,7**	**5**			**5,78**

Becknumber

Date	F.Dubois	O.Steen	L.Meeus	De Backer	J.Carels	G.Gubbels	E.De Ceuninck	D.Van Hesscke	R.Verboven	F.Feys	A.T.Son	J.Bourgeois	H.Coeckelberghs	Pbl Obs Mira								Mean	Date
1	307	175					296			224												**251**	**1**
2	76						152			324												**184**	**2**
3	105	167		85			136				197	191										**147**	**3**
4										317												**317**	**4**
5										182												**182**	**5**
6	126	118		118			188			259	118											**155**	**6**
7	169	206								199												**191**	**7**
8	118	81								516												**238**	**8**
9	81	125		88			88			199	111											**115**	**9**
10	85				302					155												**181**	**10**
11		125																				**125**	**11**
12	81	81	90	88		199	96	118	162													**114**	**12**
13	154	134	106	81	90		124	105				197	100									**121**	**13**
14	81	85		81	134		88															**94**	**14**
15	37			37	81		44															**50**	**15**
16																							**16**
17	4	4		4			4					0	0	8								**3**	**17**
18	0	0	0	0	4	0		0	0													**1**	**18**
19																							**19**
20	0	0	0	0		0	0	0														**0**	**20**
21																							**21**
22																							**22**
23																							**23**
24																							**24**
25	44	24		0		28	32		28													**26**	**25**
26	56	24		12	12		88															**38**	**26**
27					60																	**60**	**27**
28																							**28**
29												24										**24**	**29**
30		12	61	8		119	24				12											**39**	**30**
31																							**31**
	89,65	**85**	**51**	**46**	**98**	**69**	**97**	**56**	**63**	**264**	**110**	**103**	**50**	**8**								**115**	

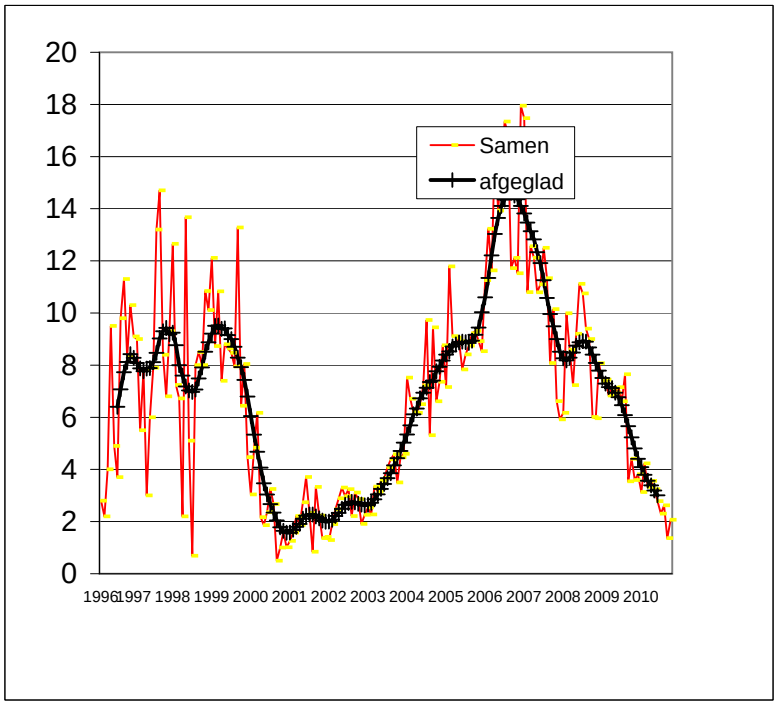
Belgian Solar Observers

Polar Faculae

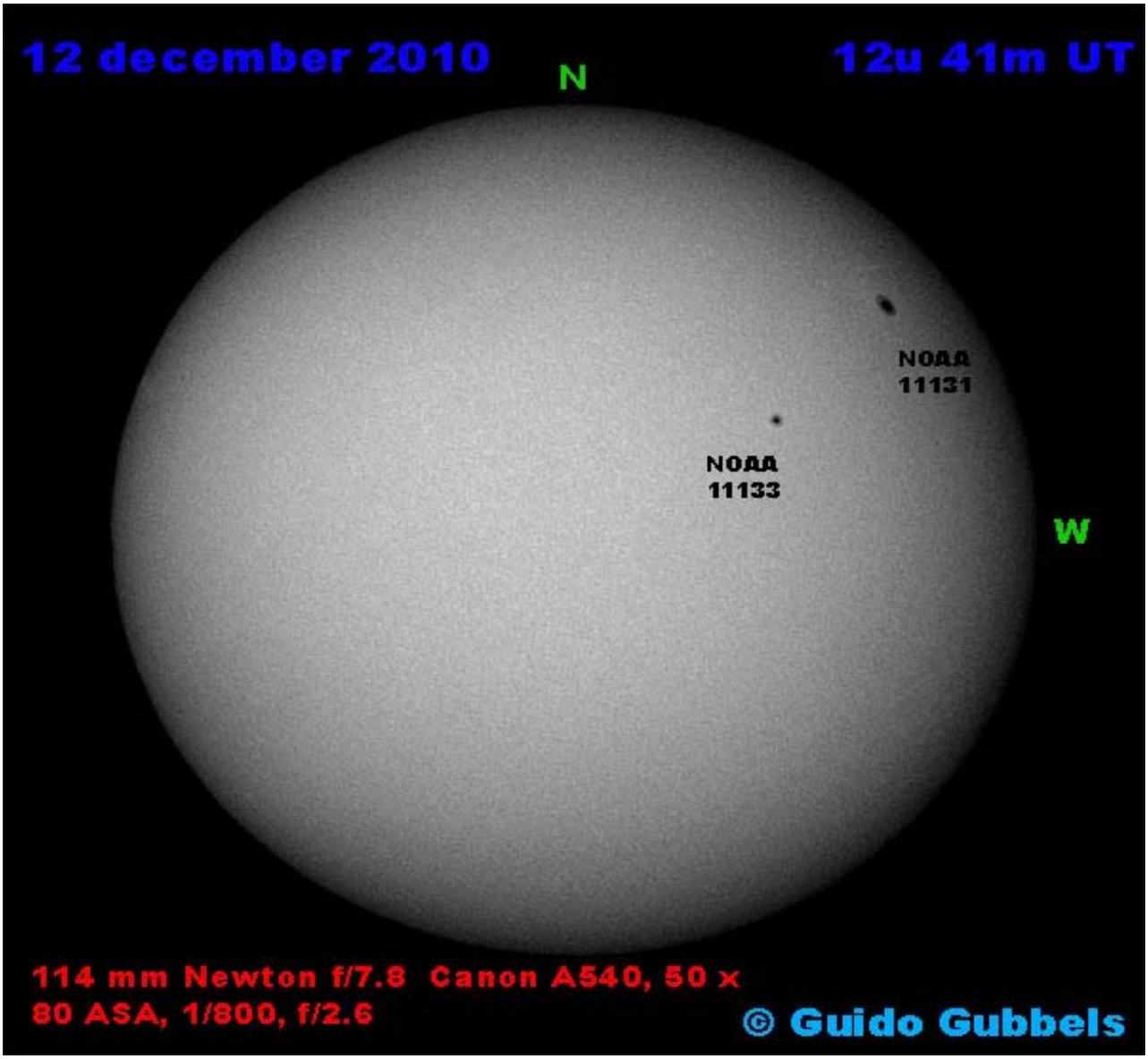
Month: December 2010

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																			6	9	
2																					
3																			2	3	
4																			3	7	
5																					
6																			3	4	
7																					
8																					
9																					
10																			3	4	
11																					
12										2	2	3.5									
13	2	1	3	0	0	3,0													4	6	
14				0	0	3,5															
15																					
16																					
17																					
18										2	1	3.5				0	0	3			
19																			5	7	
20										2	2	3							4	4	
21																					
22																					
23																					
24																					
25				1	2	3,5				3	2	2.5									
26																			3	5	
27																					
28																			3	5	
29																					
30							0	2	4	3	2	3.5									
31																					
	2,00	1,00		0,33	0,67		0,0	2,0		2,4	1,8		#####	#####		0,00	0,00		3,60	5,40	##

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



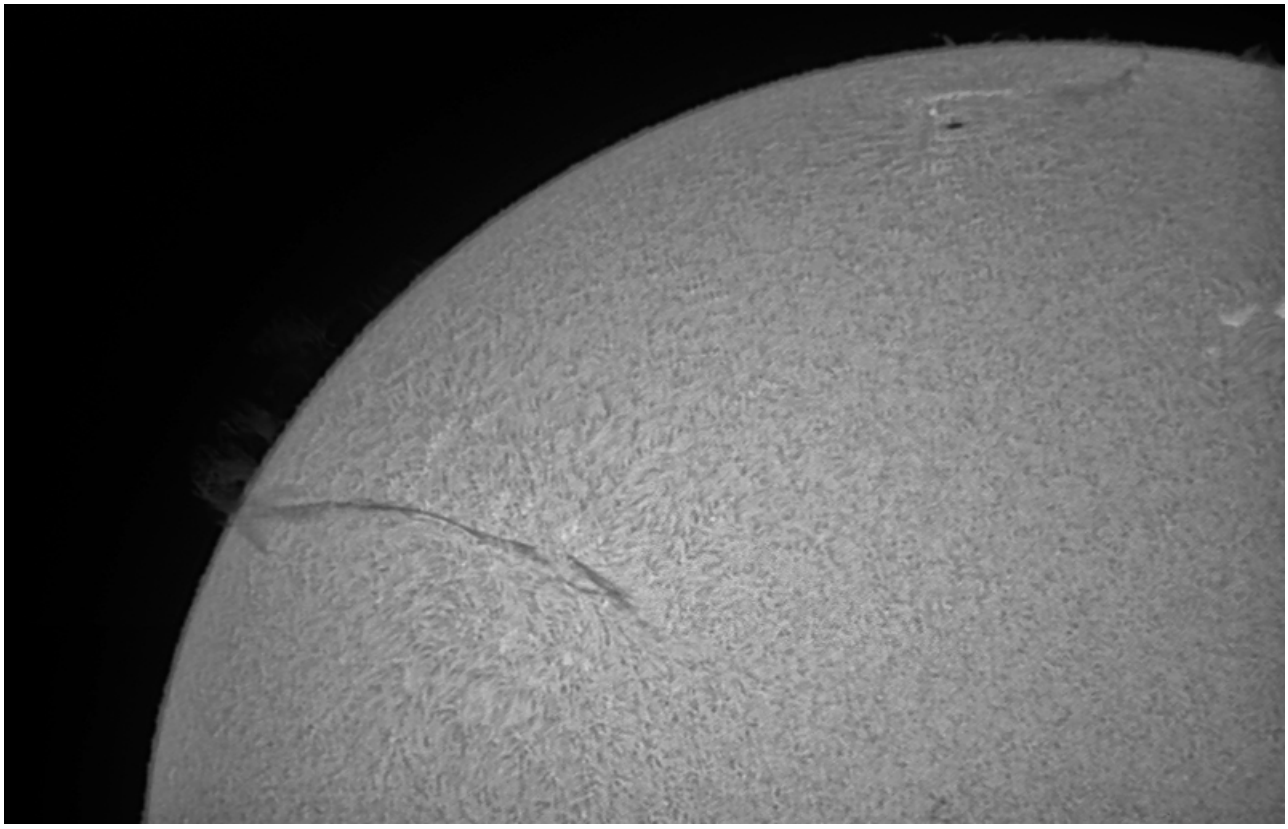
N.O.A.A.	ZICHTBAAR		N.O.A.A.		MAX	MAX	classificatie				
Regio	van	tot	breedte	lengte	AREA	LENGTE	Macintosh				
11136	25-12-10	26-12-10	S22	30	0010	04	BXO				
11137	25-12-10	29-12-10	N18	308	0020	05	CRO	BXO	AXX		
11138	27-12-10	08-01-11	N12	320	0060	DAO	DAI	DRO	HRX	BXO	AXX
11139	29-12-10	02-01-11	S28	239	0010	02	BXO	AXX			
11140	31-12-10	12-01-11	N32	188	0210	06	HSX	CSO	HSX	CSO	HSX
11141	01-01-11	05-01-11	N35	267	0100	10	DSO	EAO	BXO		
11142	01-01-11	09-01-11	S14	208	0120	10	DSO	DSI	CAO	A XX	BXO
11143	07-01-11	08-01-11	S22	146	0020	06	DSO	BXO			
11144	09-01-11	09-01-11	S16	173	0000	02	AXX				
11145	09-01-11	14-01-11	N16	98	0010	05	BXO	AXX			
11146	10-01-11	13-01-11	N24	76	0010	03	AXX	BXO			
11147	15-01-11	23-01-11	N25	345	0170	13	HRX	DSO	CSO	HSX	
11148	17-01-11	20-01-11	S28	65	0030	05	BXO	CRO	AXX	BXO	



Sunspot activity from organisations all over de world

Month : November 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	**36,1**													**82,5**	
SIDC	**21,6**	**13,4**	**8,2**												
Kanzelhöhe	**27,9**														
G.F.O.E.S France	**21,9**														**0,03**
BSO Belgium	**31,1**	**18,2**	**12,9**	**2,33**		**23,9**	**168**	**27,1**	**10,74**			**83,8**			
S.O.G.S.A.S. Switserland	**27,6**			**2,0**											
BAA	**274,4**			**1,89**							**4,03**		**2,16**		
GsRSI Italy	**41,2**											**56,8**			
CV Helios Network						**22,4**									
AAVSO (Raw mean)	**29,9**														
Sonne Germany Preliminary															
O.A.A. Japan	**28**	**17,2**	**10,8**												
Solar Observer Society TOS Poland	**30,3**				**3,04**	**22,8**				**210,5**					



5 december 2010 Emiel Veldhuis

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 520 from 2010 Dec 13

SOLAR ACTIVITY

The strongest solar event in this period was a C5.3 flare from active region NOAA 11135 on Dec 15.

Other noteworthy activity was a long duration C2.3 flare on Dec 14 from NOAA 11134.From Dec 15-16 onwards, the complex of NOAA active regions 11131, 11133 and 11134 in the Northern solar hemisphere rotated behind the solar limb, resulting in a downward trend in all solar indices (F10.7, GOES X-ray curves and the LYRA and SWAP curves). An SIDC all quiet alert was issued from Saterday Dec 18 onwards.

GEOMAGNETIC ACTIVITY

Geomagnetic activity was low this week and characterized by the passage of a high speed solar wind stream. The solar wind started the period at about 400 km/s and went up over 600 km/s on Dec 14. After that, a gradual decrease was observed down to again 400 km/s by the end of the period.

Geomagnetic activity was strongest on Dec 14 and early Dec 15 with up to 1 episode of K=4. For the rest of the period geomagnetic activity was typically at K=2 levels.

SIDC Weekly bulletin on Solar and Geomagnetic WEEK 521 from 2010 Dec 20

SOLAR ACTIVITY

On Dec 15 however, a plasma structure high in the corona left the Sun.

It was clearly seen in STEREO COR2 images. LASCO on board SOHO could also capture it but it looked very faint. The CME was not recognized as a halo in LASCO.

Further, the Sun took a small Christmas holiday: no flares were measured.

GEOMAGNETIC ACTIVITY

A shock leading the plasma cloud reached ACE on Dec 19. The cloud itself passed on Dec 20. It was possibly the plasma structure that left the Sun on Dec 15. The cloud can be recognized by the slowly varying magnetic field components. Only unsettled conditions were measured on Dec 20.

Further this week, we had also a geomagnetic silence.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 522 from 2010 Dec 27

SOLAR ACTIVITY

Solar activity was fairly low during the last week. On December 31 the X-ray flux background level increased from A level to B level.

The GOES spacecraft observed a C1.3 flare on this day around 4:20 UT, occurring in NOAA AR 11138. In the following days, several B-flares were observed originating from NOAA AR 11140. The strongest of these were a B9.2 flare at 19:34 UT on December 31 and a a B8.3 flare reaching its maximum at 21:59 UT on January 1. In the beginning of the week, there were two active regions on the disk: NOAA 11136 and 11137. This number of active regions increased up to six active regions on January 2.

Several CME's were observed by SOHO/LASCO and STEREO/COR1-2, e.g. on December 28 and 29. None of these were directed towards the Earth. A small filament in the north-east quadrant erupted yesterday around 15:19 UT as observed in the SWAP images.

GEOMAGNETIC ACTIVITY

In the morning of December 28, a shock was observed in all solar wind parameters by the ACE spacecraft. This was due to the arrival of the CME observed on December 23 and caused minor storm conditions in the early afternoon. Kp reached a maximum value of 5 for one 3h period. Afterwards, geomagnetic conditions returned to a quiet level for the rest of the week.

The SIDC all quiet alert was valid during the whole week, except for the brief storm period on December 28.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 523 from 2011 Jan 03

Solar conditions

Solar conditions were quiet during this week with only a few small C-flares. A filament erupted late on Jan 1st in the south, but was not geoeffective. During this week, a partial solar eclipse occurred on Jan 4th.

Geomagnetic conditions

Geomagnetic conditions were mostly quiet with two active-to-storm intervals during the UT-night of Jan 6-7 due to the arrival of a high speed wind stream from a northern coronal hole.

SIDC Weekly bulletin on Solar and Geomagnetic activity WEEK 524 from 2011 Jan 10

SOLAR ACTIVITY

Four sunspot groups were reported by Catania during the week: 91, 96, 97 and 98 (NOAA ARs 1140, 1145, 1146, and 1147, respectively). The first three groups did not generate flaring activity above the B5 level.

On January 14-16 the flaring activity was dominated by the Catania sunspot group 98 (NOAA AR 1147). On January 14, while still behind the north-east solar limb (returning NOAA AR 1138), it produced C1.6 and C1.0 flares peaking at 03:30 and 13:07 UT respectively. After its appearance from behind the east solar limb, Catania sunspot group 98 produced a C1.1 flare peaking at 14:19 UT on January 15. On January 16 the flaring activity of Catania sunspot group 98 decreased to the B-level.

A low-latitude coronal hole in the northern hemisphere reached the solar central meridian on January 10. A fast solar wind flow from this coronal hole arrived at the Earth on January 13 (see below). Another low-latitude coronal hole, this time in the southern hemisphere, reached the solar central meridian on January 14.

GEOMAGNETIC ACTIVITY

In the beginning of the week, the Earth was situated inside the trailing part of a fast solar wind stream. The interplanetary magnetic field (IMF) magnitude was at the average level, so the geomagnetic conditions were quiet. Late on January 13, the fast solar wind flow from a low-latitude coronal hole in the northern hemisphere (see above) arrived at the Earth. The IMF magnitude did not reach particularly high values either in the stream interaction region or in the fast flow itself, so the geomagnetic situation remained quiet. On January 16 the solar wind speed decreased and an interplanetary sector boundary was crossed in the end of the day, possibly giving an early warning of the approaching fast solar wind stream from a low-latitude coronal hole in the southern hemisphere. As the IMF magnitude remained at the average level, the geomagnetic conditions stayed quiet.