

# Newsletter Belgian Solar Observers

Results and news for solar observers

Volume 11

Number 127

September 2006

Franky Dubois Poelkappellestraat 39 langemark 8920

Web site: <http://www.bso.vvs.be> e-mail [astrosun@skynet.be](mailto:astrosun@skynet.be)

## Content Newsletter

Graphics and relative number for this month

Daily Wolfnumbers by the members

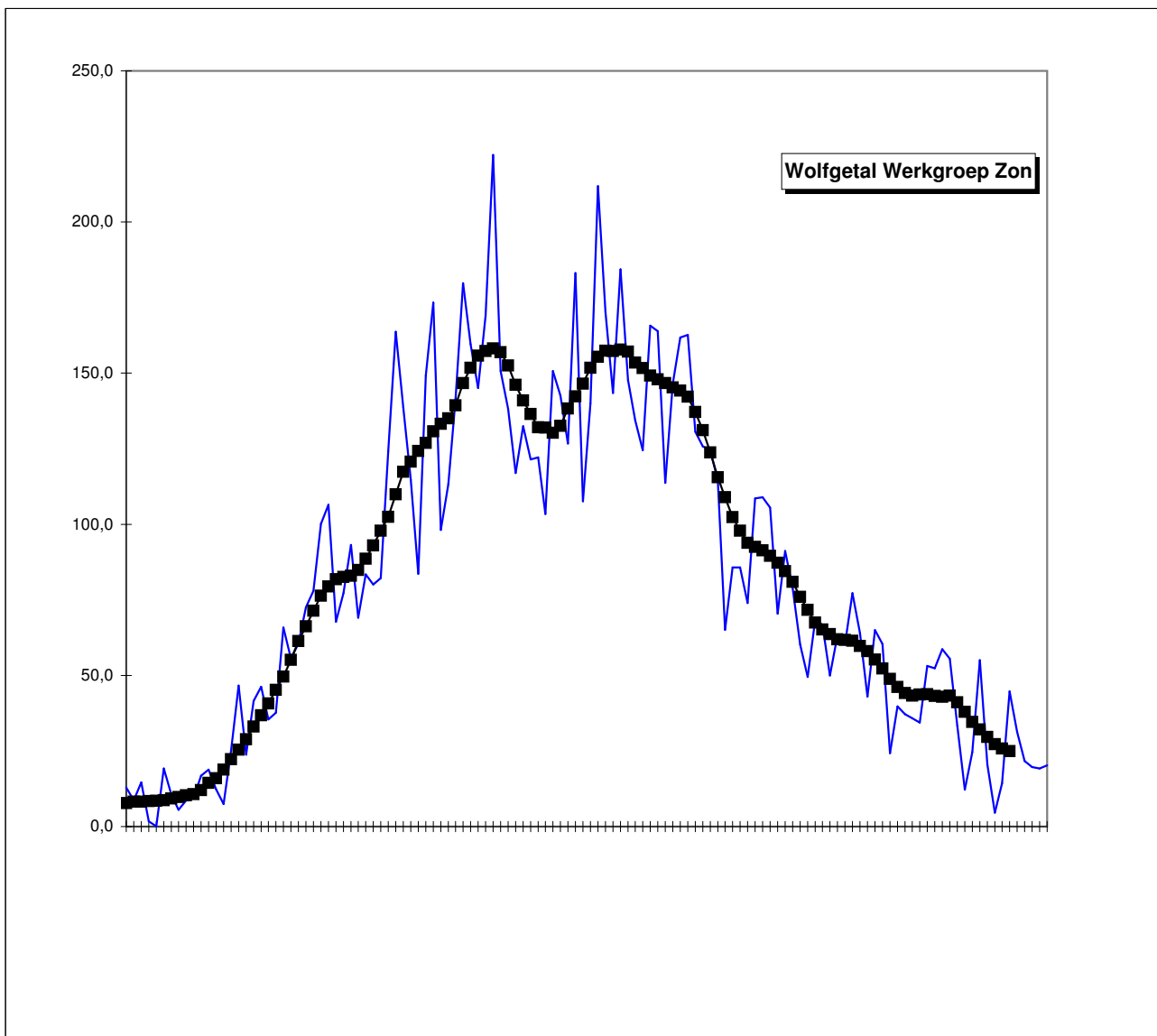
Monthly sunspot report

Polar faculae and CV numbers

Prominence numbers by the members

Monthly prominence report

Photo album and drawings



### Mean of September observations

Groups :	N	0,13	Wolfnumb	N	1,2	Beck :	108
	S	1,70		S	19,1	CV	20,6
	N+S	1,83		N+S	20,3		
457 observations	27 observers						

# Wolfnumbers Belgian Solar Observers

Month: **September 2006**

SIDC	L. Meeus			H.Coeckelberghs			Publ Obs Mira			O. Steen			F. Dubois			L. Claeys			G. Deman			A.T.Son			H. De Backer			Macharis			A Gabriel			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							2	4	24	2	12	32	2	14	34	2	11	31				2	9	29				2	9	29	1				
2							2	8	28	2	8	28	2	9	29														1	6	16	2			
3							0	0	0	0	0	0	0	0	0													0	0	0	3				
4							0	0	0	1	1	11	1	2	12													1	1	11	4				
5		2	5	25			2	5	25	2	4	24	2	3	23	1	2	12	2	10	30						2	5	25	5					
6		3	12	42			2	3	23	3	16	46	3	6	36	3	11	41									2	8	28	6					
7		3	20	50	3	9	39			3	16	46	3	19	49	3	18	48									2	14	34	7					
8		3	30	60	3	16	46	2	14	34	3	19	49	3	29	59	2	12	32	2	14	34	3	22	52	2	20	40	8						
9		3	21	51	3	10	40			3	13	43	3	19	49	3	19	49	2	15	35	2	18	38		2	18	38	9						
10		3	29	59	3	8	38	2	15	35	3	14	44	3	26	56	2	10	30	2	15	35	2	10	30	2	17	37	10						
11		3	17	47	3	4	34	3	9	39	3	9	39	3	9	39	3	9	39	2	17	37	2	13	33		2	14	34	11					
12		3	13	43	2	3	23	2	5	25	2	6	26	3	13	43	2	5	25	2	10	30	2	6	26		2	9	29	12					
13		2	8	28	2	3	23	2	8	28	2	6	26	2	7	27	2	4	24				2	6	26		2	7	27	13					
14							1	3	13	1	3	13	1	3	13												1	4	14	14					
15							1	3	13	1	2	12	1	3	13	1	2	12	1	2	12	1	3	13	1	3	13	1	4	14	15				
16							1	2	12	1	2	12	1	2	12	1	3	13	2	4	24	1	3	13	1	4	14	2	5	25	16				
17		2	2	22			2	2	22	2	2	22	2	2	22												1	2	12	2	3	23	17		
18		1	1	11			1	1	11	1	1	11	1	1	11	1	2	12	1	3	13					1	1	11	1	1	11	18			
19		2	4	24			1	1	11	1	1	11	1	1	11	1	1	11	1	1	11	1	2	12	1	1	11	1	2	12	19				
20		1	2	12			1	1	11	1	2	12	1	1	11	1	1	11	1	3	13	1	1	11	1	1	11	1	1	11	20				
21		1	3	13			1	1	11	1	1	11	1	5	15	1	2	12	1	2	12	1	1	11	1	1	11	1	1	11	21				
22		1	8	18			1	6	16	1	8	18	1	5	15	1	11	21							1	7	17	1	5	15	22				
23		1	3	13			1	2	12	1	2	12	1	6	16	1	2	12	1	6	16	1	2	12	1	2	12	1	2	12	23				
24							1	5	15	1	7	17	1	3	13	1	6	16							1	3	13	1	6	16	24				
25													1	1	11	1	1	11							1	1	11	1	1	11	25				
26		1	1	11						1	1	11	1	1	11	1	1	11	1	1	11	1	1	11	0	0	0	0	0	0	26				
27		1	1	11			0	0	0	1	1	11	1	1	11	1	1	11	0	0	0	1	1	11	1	1	11	1	4	14	27				
28					1	1	11	2	3	23	3	4	34	3	3	33	0	0	0	3	5	15	1	2	12	1	2	12	3	7	37	28			
29		4	7	47			3	8	38	4	7	47	3	6	36	3	4	34	4	8	48			2	3	23	3	6	36	29					
30		3	9	39	3	5	35			3	9	39	3	9	39								3	11	41	2	3	23	3	11	41	30			
#	#####	31,3			32,2			20			24			25,4			21,0			21,0			24,5			13,9			22			21,8			

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

SIDC	J. Devriese			J. Bourgeois			KSB			Carels			L. Gysel			R. Gadyne			E. De Ceuninck			S. Kleber			B. Tailieu			Dewaele			F. van Loo			Dag
	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	R	g	f	
1		2	16	36						2	12	32							2	15	35	1	7	17	2	10	30				2	9	29	1
2			1	6	16					1	7	17							1	5	15				1	4	14						2	
3										0	0	0	1	1	11				0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
4										2	6	26							0	0	0				0	1	11						4	
5										3	5	35	3	16	46				3	8	38	2	2	22	2	11	31						5	
6										3	19	49	3	19	49				2	24	44	2	12	32									6	
7										2	19	39	3	12	42				3	28	58	2	10	30	2	21	41						7	
8		2	21	41						3	17	47	2	10	30				3	18	48	2	10	30	3	19	49						8	
9		2	18	38						3	17	47	3	12	42				3	28	58	2	10	30	2	22	42						9	
10										3	11	41	2	12	32				2	18	38	3	7	37	2	7	27						10	
11		4	14	54						2	7	27	3	12	42				2	14	34	2	6	26	2	8	28						11	
12										2	9	29	2	5	25				2	8	28	2	4	24	2	4	24						12	
13										1	3	13	1	1	11				1	3	13	1	1	11	1	1	11						13	
14						1	5	15		1	3	13	1	3	13				1	4	14	1	2	12	1	3	13						14	
15		1	6	16						1	3	13	1	3	13				1	3	13	1	3	13	1	3	13							15
16		1	5	15	1	6	16	1	3	13	2	3	23						1	3	13	1	3	13				1	3	13			16	
17										2	2	22							2	2	22				2	2	22							17
18										1	1	11	1	1	11				1	4	14				1	1	11							18
19						1	1	11		1	1	11	1	1	11				1	3	13	1	1	11	1	1	11							19
20		1	3	13	1	3	13	1	3	13	1	3	13	1	3	13				1	3	13	1	1	11	1	3	13						20
21		1	2	12	1	2	12	1	3	13	1	2	12	1	2	12				1	2	12	1	1	11	1	3	13						21
22		1	9	19						1	11	21	1	7	17				1	9	19	1	5	15	1	9	19							22
23						1	4	14		1	1	11	1	1	11				1	1	11	1	1	11	1	2	12							23
24										1	1	11	1	1	11				1	5	15				1	2	12							24
25										1	1	11	1	1	11				0	0	0	0	0	0	0	0	0							25
26						1	1	11	3	5	35	1	1	11				1	2	12				0	0	0								26
27		0	0	0	0	0	0	0	1	1	11	1	1	11				1	1	11	0	0	0	0	0	0								27
28		1	4	14	3	10	40	3	8	38								1	1	11	1	1	11											28
29		2	7	27						4	11	51	3	6	36				4	7	47	3	7	37	3	3	33							29
30		3	12	42																														

# Sunspotnumbers VVS Belgium

Month: **September 2006**

Day	GROUPS			WOLFNUMBER			RE'	CV	OBS
	N	S	N+S	N	S	N+S			
1	0	2	2	0	28,2	28,2	219	32	14
2	0	2	2	0	17,5	17,5	104	20	10
3	0	0	0	0	0	0	0	0	6
4	0	1	1	0	5,6	5,6	4	1	12
5	0	2	2	0	21,2	21,2	80	23	13
6	0	3	3	0	33	33	145	45	14
7	0	3	3	0	42,4	42,4	299	55	14
8	0	3	3	0	42	42	329	54	20
9	0	3	3	0	38	38	234	47	19
10	0	3	3	0	40,1	40,1	199	51	21
11	0	3	3	0	35,9	35,9	145	37	19
12	0	3	3	0	29,7	29,7	163	32	19
13	0	2	2	0	24,6	24,6	186	25	18
14	0	1	1	0	12,7	12,7	99	18	13
15	0	1	1	0	12,9	12,9	118	19	17
16	0	1	1	0	14,3	14,3	125	23	20
17	0	2	2	0	17,1	17,1	63	16	11
18	0	1	1	0	10,6	10,6	37	10	13
19	0	1	1	0	11,5	11,5	37	10	19
20	0	1	1	0	1,5	1,5	42	7	22
21	0	1	1	0	11,4	11,4	27	13	20
22	0	1	1	0	16,6	16,6	113	7	17
23	0	1	1	0	11,4	11,4	71	5	11
24	0	1	1	0	12,8	12,8	23	3	10
25	0	1	1	0	6,4	6,4	4	1	7
26	1	0	1	9,4	0	9,4	3	1	12
27	1	0	1	6,6	0	6,6	3	1	17
28	1	2	3	8,1	14,3	22,4	82	11	16
29	1	3	4	11,7	24,3	36	120	21	16
30	0	3	3	0	37,6	37,6	166	29	17
	<b>0,13</b>	<b>1,70</b>	<b>1,83</b>	<b>1,2</b>	<b>19,1</b>	<b>20,3</b>	<b>108,0</b>	<b>20,6</b>	<b>457</b>

Monthly mean: **20,3** Covering: **30/30** Spotless days: **1**  
 Observations: **457** Number of observers: **27**

**V.V.S. BELGIUM SOLAR SECTION FRANKY DUBOIS**

Poekapellestraat 39  
 B8920 Langemark  
 Belgium  
 e-mail : astrosun@skynet.be

Observers:

Devriese ; De Ceuninck ; Janssens ; Publ obs Mira ; Bourgeois ; Macharis  
 De Backer ; Dubois ; Gysel ; Kleber ; Deman ; Taillieu ; Carels ; Dewaele  
 Meeus ; Steen ; KSB ; Gabriel ; Claeys ; Devriese ; Thooris ; Vanleenhove  
 Claes ; Verboven ; Van Loo ; Son ; Coeckelberghs ; Gadyene ; K. Gérard  
 S.Dufoer



# Prominence number Rp

## Belgian solar observers

Month: September 2006

Day	Q	Wedel		H	e	Rp raw	Rp outl	Stdev	OBS
1	2,5	2,7		7	9,7	76,7	76,3	11,9	3
2	2,9	2,2		5,4	9,4	63,4	63,4	12,7	5
3	2,3	2,3		7	11,7	81,7	81,7	1,5	3
4	2,9	2,4		8,5	12,3	97,3	97,3	22,1	4
5	2,8	2,1		9,3	15,7	108,7	103,3	15,1	6
6	3,4	1,9		9	12,1	102,1	106,7	8,9	8
7	3,2	2,6		6,7	10,5	77,5	77,5	10,4	6
8	3,3	2,1		7	8,2	78,2	77,8	1,0	9
9	2,8	2		2,9	4,6	33,6	39,4	11,0	11
10	3,2	2		4,3	7,2	50,2	52,5	4,6	9
11	3,4	2,1		5,6	8,7	64,7	69,3	9,0	10
12	3,4	1,9		7,6	10,8	86,8	82,1	13,6	8
13	3	1,8		5,6	7,4	63,4	57,3	10,3	5
14	2,7	2,5		6,2	7,6	69,6	76,0	10,3	5
15	3,3	2,1		7,7	11	88	90,8	1,3	7
16	3,5	2,2		7,8	11,8	89,8	96,2	14,0	6
17	2,9	2,8		5,3	8,8	61,8	61,3	31,2	4
18	3,1	2,5		7,4	10,1	84,1	86,4	11,8	7
19	3	2,1		6,9	10,4	79,4	75,3	9,1	7
20	2,9	2,3		5,9	9,6	68,6	68,1	8,5	7
21	2,7	2,1		6,3	9,4	72,4	71,2	14,4	7
22	2,9	2,2		4,6	7	53	53,0	14,8	5
23	3,1	2,2		6,4	11,2	75,2	75,2	7,2	5
24	1,9	2,3		6,3	10	73	72,5	4,4	4
25	3	2		6	14	74	74,0		1
26	2,8	2,4		8	9	89	89,0	17,6	4
27	2,9	2,6		4,8	5,5	53,5	64,0	18,6	6
28	2,8	2,1		8,3	12	95	94,5	20,6	4
29	3,2	2,5		7,8	12,8	90,8	86,6	13,6	6
30	3	2,3		9	14,9	104,9	96,7	6,8	7
	<b>2,96</b>	<b>2,24</b>		<b>6,7</b>	<b>10,1</b>	<b>76,9</b>	<b>77,2</b>		<b>179</b>

Monthly mean: **77,2**    Covering: **30/30**  
 Observations: **179**    Number of observers: **11**

el.Obs : eliminated observations

**V.V.S. BELGIUM SOLAR SECTION    FRANKY DUBOIS**

Poekapellestraat 39  
 B8920 Langemark  
 Belgium  
 e-mail : astrosun@skynet.be

### Observers:

Steen ; Dubois ; Meeus ; De Ceuninck ; Coeckelberghs ; Janssens

Hamsch ; Claes ; Gabriel ; Blondeel ; Deman

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 :  $H \times 10 + e$

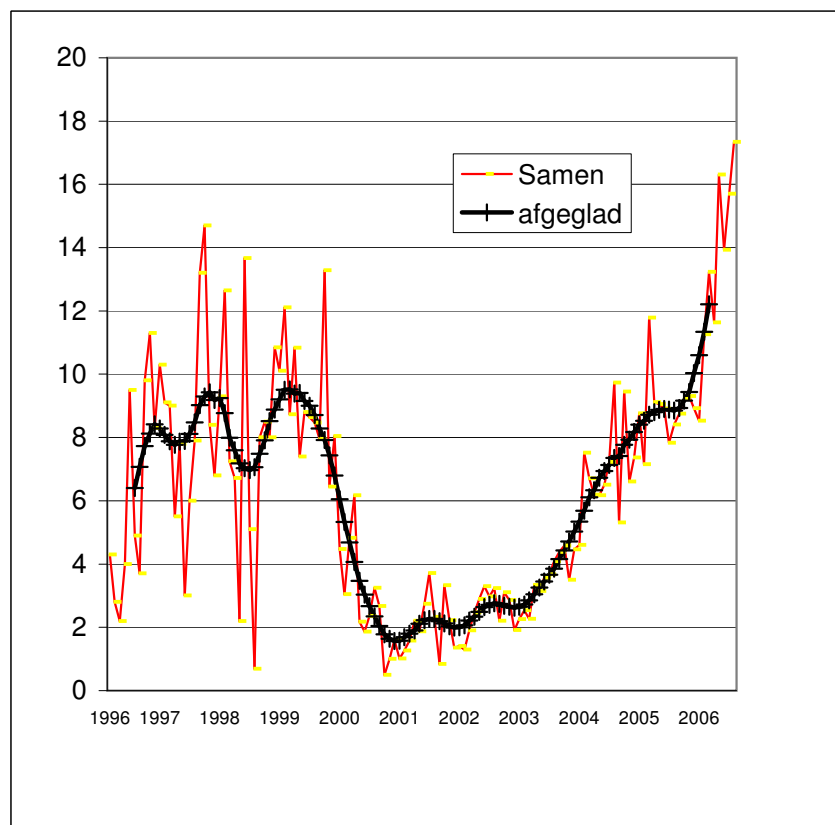
More info at : <http://members.chello.be/j.janssens/>

# Belgian Solar Observers

## Polar Faculae

Month: September 2006

Date	Dubois 125mm F20			Steen 102mm F15			Deman 150mmF15			Gabriel 250 mm F20			Carels 150mm F8			Janssen 200mmF10			
	North	South	Q	North	South	Q	North	South	Q	North	South	Q	North	South	Q	North	South	Q	
1				4	1	3,5													
2	14	6	4	7	1	4													
3																			
4	18	8	4	6	3	3,5													
5				7	2	3,5	21	8											
6	15	2	3	14	6	4,0				44	19	5							
7	17	3	3																
8	19	6	4	10	5	4,0	24	6		47	33	5							
9	15	2	3	9	3	4	37	17		37	17	3					8	1	3
10	21	5	4	14	5	4	33	11		33	11	3					5	1	4
11	21	5	4	15	5	4	47	14		59	14	4							
12	22	3	3	11	3	4,0	53	18		52	8	3	1	0	4				
13				11	6	4,0				58	17	4	1	0	2				
14	11	5	3	9	2	4													
15	17	5	4	7	2	4,0	20	3		48	11	3							
16	20	5	4	6	2	4,0	24	6		88	15	5	7	0	3	7	2	3	
17													11	0	3				
18				5	2	4	52	14											
19																			
20	12	9	4	3	1	3,0				53	23	3							
21	24	7	4	6	3	3,0				63	14	3	3	1	4				
22				4	4	4,0	43	12											
23	11	5	3				42	12		42	12	3	3	0	3				
24																			
25										49	15	3							
26				5	4	4	41	17					1	1	3				
27	15	4	4	6	3	4							1	0	3				
28				5	1	3,5				39	18	3							
29	17	3	3	8	3	3,5	39	18		44	16	3							
30				6	2	3,5													
31																			
	17,00	4,88		7,74	3,00		36,62	12,00		50,40	16,20		3,50	0,25		8,50	1,50		



# Cv numbers for September 2006

Mean

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
O. Steen	38	23	0	1	42	62	65	49	40	47	40	14	20	10	10	10	17	10	7	4	4	4	4	3		1	1	13	23	36	20,6
L. Meeus					12	23	34	62	45	45	48	47	16				20	10	11	7	5	5	8						18	22	22,0
J. Carels				1		51	61	57	62	63	39	46	17	7	7	17	8		10	8	5	12	4	1					19	23	22,6
F. Dubois	26	17	0	1	14	43	59	48	48	46	19	13	47	37	40	40	20	10	10	7	8	6	4	6		1	1	9	22		21,5
J. Janssen																														36	36,3
Sj Dufoer												42										43									42,2

**CV New ( J. Janssens )**

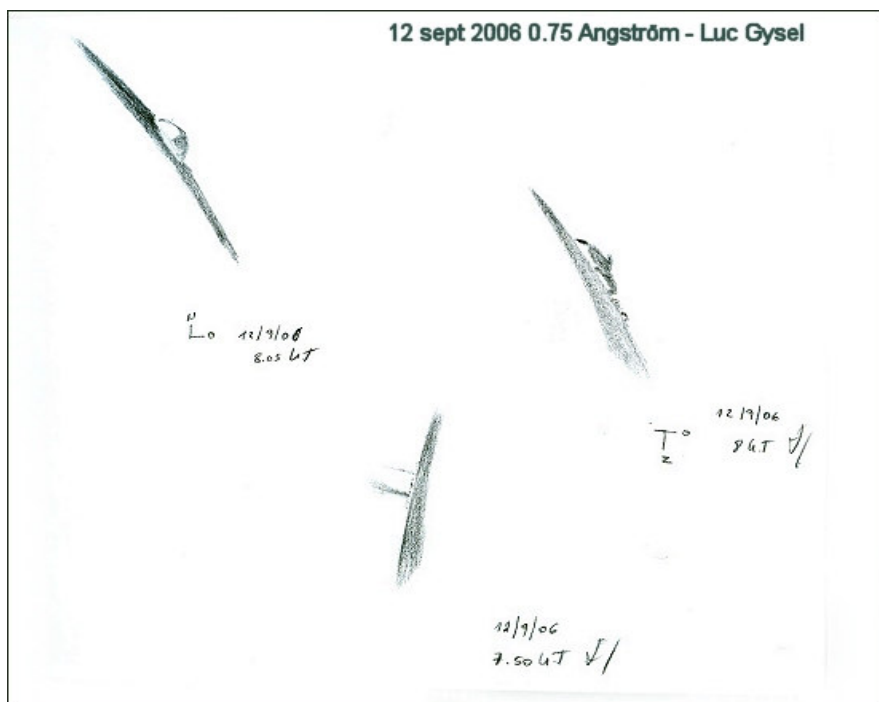
Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
O. Steen	57	36	0	1	58	90	94	69	55	66	55	22	33	17	17	16	27	16	11	6	5	7	6	4		1	1	20	36	58	30,5

**CV New**

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
O. Steen	57	36	0	1	58	90	94	69	55	66	55	22	33	17	17	16	27	16	11	6	5	7	6	4		1	1	20	36	58	30,5

**Special events and observations in september 2006**

No



**fvl genk**

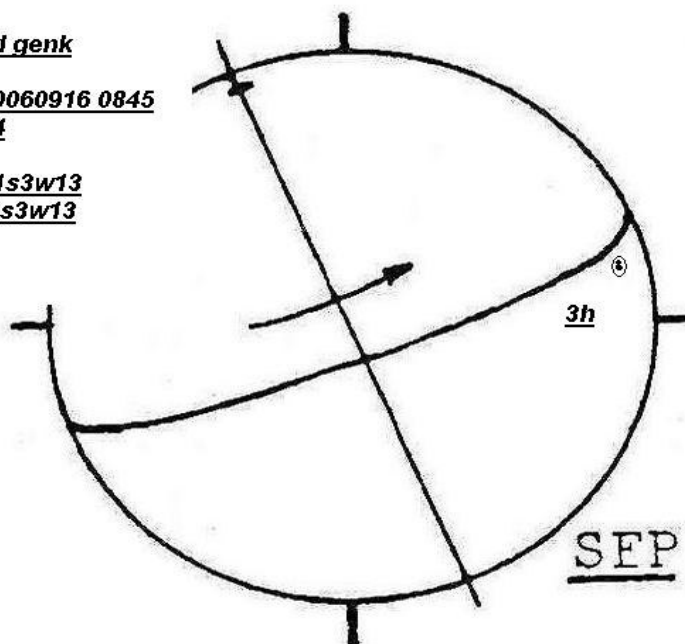
**20060916 0845**

**s4**

**n**

**s1s3w13**

**t1s3w13**



## **Activity report of the NASA/NOAA Solar Cycle 24 Prediction Panel**

As we are heading towards solar minimum at the end of cycle 23, interest in and speculation about the expected height of the next solar cycle is mounting. Evidently, the various Regional Warning Centers in ISES are among those with the biggest interest in estimations of the next cycle of solar activity.

As for the previous cycle, NASA in collaboration with SEC/NOAA has set up a special panel of scientists to evaluate the diverse forecast techniques that have been published or proposed, with the aim to determine a consensus forecast of the amplitude and timing for the next solar cycle. In this Solar Cycle 24 Prediction Panel ISES is strongly present since 3 out of the 12 members of the panel are also members of the ISES board (Joe Kunches, Hendrik Lundstedt and Ronald Van der Linden). Although it is important to stress that these three persons have been selected as individuals and not as representatives of ISES, an interesting aspect of our presence is perhaps that the user-oriented focus of the forecasts is much stronger present than it would otherwise have been.

The Panel met for the first time from Oct 02 to Oct 06 at UCAR in Boulder with the difficult task of weighing the credibility and forecasting quality of some 30 different methods yielding forecasts ranging from a very low to a reasonably high solar cycle 24. Most of the different types of forecast techniques could be roughly classified into categories such as climatological or precursor models. Even within each category, widely different forecasts were obtained for the cycle 24 forecast.

At the start of the workshop, the Chair of the Solar Cycle 23 Panel (J.-A. Jocelyn) reviewed the activities of this previous Panel, with a particular emphasis on how they reached their consensus forecast and what could in hindsight be learned from the exercise. Here it is relevant to note that the Panel forecast was such that for sunspot number they had the timing right but the amplitude was strongly overestimated, while for the 10.7 cm flux they estimated well the amplitude but at a different time. The observation of the difference in cycle behaviour between sunspot number and 10.7 cm flux sparked a discussion about the relative merits of the two measures of solar activity.

A conclusion from the previous exercise was that the methods based on geomagnetic precursors were believed to be more credible. Also amongst the methods currently considered, a number of such forecasts are present. Quite new this time is the proposal of two new types of forecasts: one based on a strongly simplified representation (simulation) of the solar dynamo, the other based on the use of solar polar magnetic fields near the minimum of the solar cycle as precursors of the next cycle. Both seem credible, but the resulting forecast is widely different: high cycle for the former, low cycle for the latter.

As could be expected, the Panel found it a very difficult task to come out with a consensus forecast based on these widely varying method results. It was therefore decided to request some further work to be done in order to get a better view on the credibility of the methods. Also, the Panel found that since the current cycle 23 is not yet ended, and many methods cannot therefore give a definitive forecast, it was appropriate to not force something like a majority decision. Instead, the Panel fixed a timeline for further work to be done and agreed to meet again (probably in March) closer to the start of Cycle 24, when a clearer view is expected to emerge.