

Newsletter Belgian Solar Observers

Results and news for solar observers

Volume 16

Number 190

December 2011

Franky Dubois Poelkappellestraat 57 langemark 8920

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Content Newsletter

Graphics and relative number for this month

Daily Wolfnumbers by the members

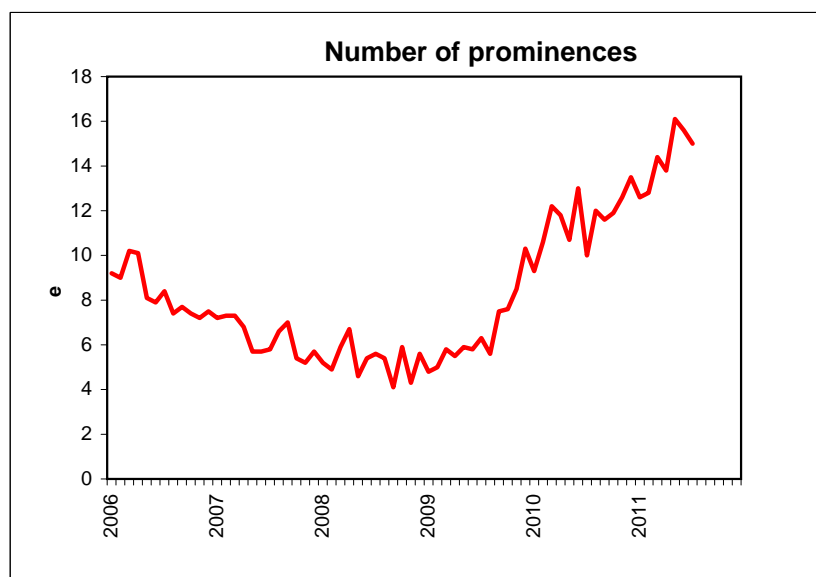
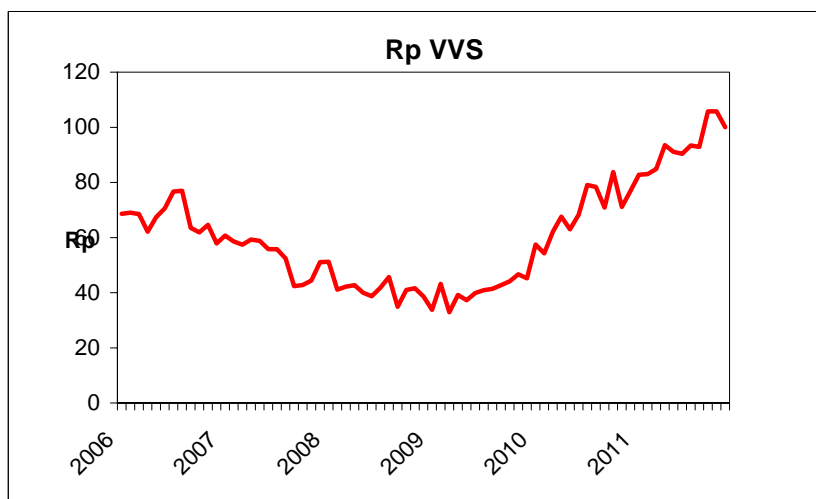
Monthly sunspot report

Polar faculae and CV numbers

Prominence numbers by the members

Monthly prominence report

Photo album and drawings



Mean of December observations

| | | | | | | |
|------------------|--------------|------|------------|-------|--------|-------|
| Groups : | N | 4,04 | Wolfnumb N | 57,4 | Beck : | 507,2 |
| | S | 2,96 | S | 43,9 | CV | 89,3 |
| | N+S | 7,00 | N+S | 101,3 | SN | 92,1 |
| 218 observations | 26 observers | | | | IS | 39,9 |

Wolfnumbers Belgian Solar Observers

Month: **December 2011**

| Dag | L. Meeus | | | H.Coeckelberghs | | | Publ Obs Mira | | | O. Steen | | | F. Dubois | | | L. Claeys | | | J. Bourgeois | | | A.T.Son | | | H. De Backer | | | B. Thooris | | | J. Carels | | | Dag | |
|-----|----------|----|----|-----------------|---|----|---------------|-------|---|----------|----|-----|-----------|------|-----|-----------|-------|-----|--------------|------|-----|---------|------|-----|--------------|------|-----|------------|-------|-----|-----------|-----|-----|-----|----|
| | R | g | f | R | g | f | R | g | f | R | g | f | R | g | f | R | g | f | R | g | f | R | g | f | R | g | f | R | g | f | R | | | | |
| 1 | 86 | | | | | | | | | | | | | | 6 | 27 | 87 | | | | | | | | | | | | | | | 1 | | | |
| 2 | 85 | 7 | 55 | 125 | | | | | | 8 | 57 | 137 | 7 | 24 | 94 | | | | | | 6 | 61 | 121 | 7 | 36 | 106 | 6 | 19 | 79 | 9 | 72 | 162 | 2 | | |
| 3 | 103 | | | | | | | | | 9 | 60 | 150 | 8 | 54 | 134 | | | | | | | | | | | | | | | | | 3 | | | |
| 4 | 108 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| 5 | 101 | 9 | 55 | 145 | 9 | 34 | 124 | | | 10 | 62 | 162 | 9 | 52 | 142 | 6 | 42 | 102 | 10 | 72 | 173 | | | 8 | 42 | 122 | 9 | 32 | 122 | | | 5 | | | |
| 6 | 101 | 10 | 44 | 144 | 7 | 20 | 90 | | | 11 | 42 | 152 | 9 | 45 | 135 | 6 | 29 | 89 | | | | | | 10 | 44 | 144 | 9 | 27 | 117 | | | 6 | | | |
| 7 | 88 | 10 | 25 | 125 | | | | | | 12 | 32 | 152 | 8 | 26 | 106 | 7 | 30 | 100 | | | | | | 8 | 29 | 109 | 7 | 19 | 89 | 11 | 38 | 148 | 7 | | |
| 8 | 106 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 | | |
| 9 | 76 | 9 | 32 | 122 | 6 | 15 | 75 | | | 10 | 32 | 132 | 9 | 34 | 124 | 6 | 24 | 84 | 6 | 24 | 84 | 7 | 21 | 91 | 7 | 24 | 94 | 6 | 15 | 75 | 8 | 28 | 108 | 9 | |
| 10 | 68 | | | | | | | | | 7 | 25 | 95 | | | | 7 | 34 | 104 | 6 | 33 | 93 | 8 | 35 | 115 | 7 | 26 | 96 | 7 | 18 | 88 | 7 | 34 | 104 | 10 | |
| 11 | 62 | | | | | | | | | 6 | 18 | 78 | | | | 5 | 13 | 63 | | | | | | | | | | | | | | | | 11 | |
| 12 | 51 | | | | 3 | 7 | 37 | | | 7 | 23 | 93 | 6 | 21 | 81 | 3 | 13 | 43 | 6 | 25 | 85 | 5 | 16 | 66 | 3 | 11 | 41 | 3 | 11 | 41 | | | 12 | | |
| 13 | 54 | | | | | | | | | 5 | 11 | 61 | 5 | 13 | 63 | | | | | | | | | | 4 | 13 | 53 | 4 | 9 | 49 | | | 13 | | |
| 14 | 52 | | | | | | | | | 5 | 19 | 69 | | | | | | | | | | | | 5 | 17 | 67 | | | | | | | 14 | | |
| 15 | 38 | | | | | | | | | 4 | 14 | 54 | 5 | 15 | 65 | 4 | 8 | 48 | | | | | | 4 | 18 | 58 | 3 | 6 | 36 | 4 | 15 | 55 | | 15 | |
| 16 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 | |
| 17 | 60 | | | | | | | | | 6 | 21 | 81 | 7 | 34 | 104 | | | | | | | 7 | 24 | 94 | 6 | 25 | 85 | 7 | 12 | 82 | 7 | 21 | 91 | 17 | |
| 18 | 67 | | | | | | | | | 7 | 21 | 91 | 7 | 35 | 105 | | | | | | | 6 | 27 | 87 | 6 | 25 | 85 | 7 | 19 | 89 | 7 | 31 | 101 | 18 | |
| 19 | 77 | | | | | | | | | 8 | 29 | 109 | 7 | 29 | 99 | | | | | | | | | | 7 | 33 | 103 | 8 | 20 | 100 | | | | 19 | |
| 20 | 72 | | | | | | | | | 7 | 43 | 113 | | | | | | | | | | | | | 7 | 40 | 110 | 5 | 21 | 71 | | | | 20 | |
| 21 | 73 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 21 | |
| 22 | 69 | | | | | | | | | 5 | 48 | 98 | 4 | 32 | 72 | | | | | | | | | | 5 | 32 | 82 | | | | | | | 22 | |
| 23 | 69 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 23 | |
| 24 | 56 | | | | | | | | | 4 | 27 | 67 | 5 | 37 | 87 | 4 | 34 | 74 | | | | | | 4 | 30 | 70 | 4 | 24 | 64 | 4 | 24 | 64 | | 24 | |
| 25 | 65 | | | | | | | | | 5 | 24 | 74 | 5 | 25 | 75 | | | | | | | | | | | | | | | | | | | 25 | |
| 26 | 78 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 26 |
| 27 | 76 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 27 |
| 28 | 73 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 28 |
| 29 | 75 | | | | | | | | | 8 | 32 | 112 | | | | | | | | | | | | 7 | 32 | 102 | 8 | 28 | 108 | 4 | 14 | 54 | | 29 | |
| 30 | 62 | | | | | | | | | 6 | 31 | 91 | | | | | | | | | | | | 6 | 25 | 85 | 5 | 17 | 67 | 6 | 35 | 95 | | 30 | |
| 31 | 62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 31 |
| # | 73,0 | | | 132,2 | | | 81,5 | ##### | | 103,4 | | 99 | | 79,4 | | | 108,8 | | | 93,3 | | | 89,6 | | | 77,9 | | | 112,0 | | | | | | |

Observations of the SIDC are not included in the Belgian monthly Wolfnumber.

Publ Obs Mira : observers : Francis Meeus , Guido Mattheus and Marc Rayen

| Dag | F.Feys | | | R.Verboven | | | KSB | | | D.V.Hessche | | | G.Gubbels | | | J. Claes | | | E. De Ceuninck | | | R. Dezeure | | | B. Taillieu | | | E.Neven | | | 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 | | | | | |
| 1 | 86 | 8 | 64 | 144 | | | | 6 | 22 | 82 | | | | 7 | 56 | 126 | | | | 8 | 50 | 130 | 6 | 40 | 100 | | | | | | | | 1 | | | |
| 2 | 85 | | | | | | | | | | | | | | | | | | | | 9 | 54 | 144 | 7 | 40 | 110 | 7 | 60 | 130 | | | | 2 | | | |
| 3 | 103 | 9 | 109 | 199 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| 4 | 108 | 10 | 117 | 217 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| 5 | 101 | 9 | 97 | 187 | | | | 9 | 63 | 153 | | | | 8 | 102 | 182 | 8 | 50 | 130 | 9 | 46 | 136 | 7 | 56 | 126 | | | 8 | 40 | 120 | | | 5 | | | |
| 6 | 101 | 9 | 84 | 174 | | | | 10 | 54 | 154 | | | | | | | | | | | 11 | 47 | 157 | 8 | 45 | 125 | | | | | | | 6 | | | |
| 7 | 88 | | | | | | | 10 | 37 | 137 | | | | | | | | | | | 9 | 21 | 111 | 8 | 31 | 111 | | | | | | | 7 | | | |
| 8 | 106 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 | | |
| 9 | 76 | | | | | | | 8 | 28 | 108 | | | | 10 | 76 | 176 | 7 | 24 | 94 | 10 | 24 | 124 | 6 | 31 | 91 | | | 7 | 20 | 90 | | | 9 | | | |
| 10 | 68 | 6 | 42 | 102 | 7 | 28 | 98 | | | | 7 | 25 | 95 | 7 | 30 | 100 | | | | 7 | 32 | 102 | 7 | 30 | 100 | 8 | 40 | 120 | | | | | 10 | | | |
| 11 | 62 | | | | | | | 7 | 20 | 90 | | | | | | | | | | | | | | | | | | | | | | | | 11 | | |
| 12 | 51 | | | | | | | 6 | 24 | 84 | | | | 6 | 19 | 79 | | | | | | | | 6 | 23 | 83 | 5 | 22 | 72 | | | | 12 | | | |
| 13 | 54 | | | | | | | 5 | 16 | 66 | | | | | | | | | | | 4 | 10 | 50 | 6 | 12 | 72 | | | | | | | 13 | | | |
| 14 | 52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 14 | | |
| 15 | 38 | 3 | 18 | 48 | | | | 4 | 14 | 54 | | | | | | | | | | | 5 | 13 | 63 | 4 | 20 | 60 | | | | | | | 15 | | | |
| 16 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 | |
| 17 | 60 | | | | | | | 6 | 25 | 85 | 6 | 19 | 79 | 6 | 21 | 81 | | | | 8 | 25 | 105 | 4 | 20 | 60 | 7 | 25 | 95 | | | | | 17 | | | |
| 18 | 67 | | | | | | | 7 | 40 | 110 | 7 | 37 | 107 | | | | | | | 7 | 29 | 99 | 7 | 26 | 96 | 7 | 40 | 110 | | | | | 18 | | | |
| 19 | 77 | | | | | | | 7 | 26 | 96 | | | | | | | | | | | | | | | | | | | | | | | | | 19 | |
| 20 | 72 | | | | | | | 5 | 26 | 76 | 6 | 45 | 105 | | | | | | | 6 | 21 | 81 | | | | | | | | | | | | 20 | | |
| 21 | 73 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 21 | |
| 22 | 69 | 4 | 95 | 135 | | | | | | | | | | | | | | | | | 5 | 36 | 86 | 4 | 46 | 86 | | | | | | | | 22 | | |
| 23 | 69 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 23 | |
| 24 | 56 | | | | 5 | 26 | 76 | 5 | 35 | 85 | 6 | 26 | 86 | 7 | 45 | 115 | | | | 5 | 29 | 79 | 4 | 28 | 68 | 6 | 47 | 107 | 6 | 47 | 107 | | 24 | | | |
| 25 | 65 | | | | | | | | | | | | | | | | | | | | | | | 5 | 20 | 70 | | | | | | | | 25 | | |
| 26 | 78 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 26 | |
| 27 | 76 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 27 | |
| 28 | 73 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 28 | |
| 29 | 75 | 8 | 47 | 127 | | | | 8 | 34 | 114 | 5 | 21 | 71 | 7 | 29 | 99 | 8 | 17 | 97 | | | | | | | | | 8 | 13 | 93 | 5 | 15 | 65 | | 29 | |
| 30 | 62 | | | | | | | 6 | 27 | 87 | 5 | 24 | 74 | | | | | | | | | | | | | | | | | | | | | | 30 | |
| 31 | 62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 31 |
| # | 73,0 | | | 148,1 | | | 87,0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Sunspotnumbers VVS Belgium

Month: **December 2011**

| Day | GROUPS | | | WOLFNUMBER | | | | | | | | |
|-----|-------------|-------------|-------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|------------|----|
| | N | S | N+S | N | S | N+S | RE' | CV | SN | IS | OBS | |
| 1 | 6 | 2 | 8 | 83,4 | 32 | 115,5 | | | | | | 2 |
| 2 | 6 | 2 | 8 | 78,7 | 33 | 111,7 | 848,1 | 99,571 | 142,67 | 45,5 | | 12 |
| 3 | 7 | 2 | 9 | 96,7 | 42 | 139,1 | 1111,3 | 141,33 | 184 | 61 | | 8 |
| 4 | 5 | 3 | 8 | 142,0 | 75 | 217,0 | | | | | | 1 |
| 5 | 5 | 4 | 9 | 77,2 | 64 | 140,9 | 1001,8 | 148,67 | 200,67 | 83,5 | | 16 |
| 6 | 5 | 5 | 10 | 65,7 | 68,8 | 134,5 | 700,3 | 131 | 116 | 52 | | 12 |
| 7 | 6 | 4 | 10 | 71,6 | 47,2 | 118,8 | 437,1 | 106,17 | 85,5 | 31 | | 10 |
| 8 | | | | | | | | | | | | |
| 9 | 6 | 4 | 10 | 66,4 | 37,0 | 103,4 | 485,1 | 104,86 | 107,33 | 63 | | 18 |
| 10 | 4 | 3 | 7 | 60,1 | 40,1 | 100,2 | 516,5 | 85,125 | 92,333 | 36 | | 18 |
| 11 | 4 | 3 | 7 | 40,8 | 36,2 | 77,0 | 223,0 | 67 | 61 | | | 3 |
| 12 | 4 | 2 | 6 | 43,0 | 23,0 | 66,0 | 293,8 | 52,8 | 57,667 | 25 | | 14 |
| 13 | 3 | 2 | 5 | 35,3 | 23,9 | 59,1 | 228,8 | 50 | 38 | 15 | | 7 |
| 14 | 4 | 1 | 5 | 53,5 | 14,5 | 68,0 | 311,5 | 52,5 | 52 | | | 2 |
| 15 | 3 | 1 | 4 | 35,6 | 18,5 | 54,1 | 236,8 | 101,2 | 43,5 | 21 | | 10 |
| 16 | | | | | | | | | | | | |
| 17 | 3 | 4 | 7 | 41,0 | 44,7 | 85,7 | 324,4 | 44,7 | 58,333 | 33,5 | | 14 |
| 18 | 3 | 4 | 7 | 45,9 | 54,8 | 100,7 | 309,4 | 52,333 | 56,5 | 40 | | 13 |
| 19 | 4 | 4 | 8 | 44,7 | 58,1 | 102,8 | 400,8 | 67,5 | 79,5 | 33 | | 6 |
| 20 | 4 | 3 | 7 | 40,8 | 46,9 | 87,7 | 624,4 | 74,5 | 97 | | | 7 |
| 21 | 3 | 1 | 4 | 82,0 | 53,0 | 135,0 | | | | | | 1 |
| 22 | 3 | 2 | 5 | 50,5 | 34,3 | 84,8 | 861,5 | 117,67 | 103 | 29 | | 5 |
| 23 | | | | | | | | | | | | |
| 24 | 2 | 3 | 5 | 38,5 | 41,6 | 80,1 | 442,8 | 92,25 | 98,5 | 47 | | 15 |
| 25 | 2 | 3 | 5 | 27,7 | 47 | 75,0 | 471,5 | 89,5 | 77 | 29 | | 4 |
| 26 | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | |
| 29 | 3 | 5 | 8 | 30,9 | 61,6 | 92,5 | 414,8 | 97,833 | 100 | 34 | | 13 |
| 30 | 2 | 4 | 6 | 25,7 | 55 | 81,1 | 407,0 | 99,4 | 84 | | | 7 |
| 31 | | | | | | | | | | | | |
| | 4,04 | 2,96 | 7,00 | 57,4 | 43,9 | 101,3 | 507,2 | 89,3 | 92,1 | 39,9 | 218 | |

Monthly mean: **101,3** Covering: **24/31** Spotless days: **0**
 Observations: **218** Number of observers: **26**

V.V.S. BELGIUM SOLAR SECTION FRANKY DUBOIS

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

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 : November 2011 | | | | | | | | | | | Lille | | | | | | | | | | | | Lunt | asm | Lunt | | | | | | | | | | |
|-----------------------|------|-----|-----|----|-------|-----------|------|-----|-------|-------|-------|---------------|-------|-----|-----|------|-------|---------|------|------|-----|-----|------|-----------|-------|-----|-------|-------|-----|------------|-----|------|------|-------|--|
| J. Janssens | | | | | | F. Dubois | | | | | | E. De Ceunick | | | | | | F. Feys | | | | | | J. Hamsch | | | | | | G. Gubbels | | | | | |
| 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 | | | | | |
| 1 | 8:15 | 3,5 | 2 | 7 | 20 | 90 | | | | | | | 09:00 | 3,0 | 2,5 | 10 | 16 | 116 | | | | | | | 8:48 | 3,5 | 1 | 14 | 56 | 196 | | | | | |
| 2 | 8:35 | 3,5 | 2,5 | 9 | 19 | 109 | | | | | | | 14:00 | 3,5 | 2,5 | 8 | 13 | 93 | | | | | | | 8:32 | 4 | 1 | 13 | 45 | 175 | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 8:55 | 3 | 2 | 8 | 24 | 104 | | | | | | | 12:30 | 4,0 | 2,5 | 11 | 17 | 127 | | | | | | | 13:25 | 3 | 2,5 | 11 | 26 | 136 | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | 8:00 | 4 | 1 | 11 | 17 | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | 8:45 | 4,5 | 1 | 11 | 17 | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | 09:00 | 3,5 | 2,5 | 7 | 15 | 85 | | | | | | | 9:10 | 3 | 1,5 | 11 | 38 | 148 | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 8:25 | 3 | 1,5 | 11 | 40 | 150 | | | | | |
| 12 | 9:00 | 3 | 2 | 8 | 14 | 94 | | | | | | | 13:00 | 3,5 | 2,5 | 8 | 15 | 95 | | | | | | | 9:05 | 3 | 1,5 | 11 | 44 | 154 | | | | | |
| 13 | | | | | | | | | | | | | 09:45 | 3,5 | 3,5 | 9 | 13 | 103 | | | | | | | | | | | | | | | | | |
| 14 | 8:45 | 3 | 2 | 9 | 14 | 104 | | | | | | | | | | | | | | | | | | | 10:35 | 4 | 1 | 15 | 43 | 193 | | | | | |
| 15 | 8:55 | 2,5 | 2 | 10 | 18 | 118 | | | | | | | | | | | | | | | | | | 9:00 | 3,5 | 1 | 13 | 49 | 179 | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | 10:49 | 3 | 1,5 | 13 | 44 | 174 | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | 12:30 | 4,0 | 2,5 | 10 | 15 | 115 | | | | | | | 9:08 | 3,5 | 2 | 10 | 35 | 135 | | | | | |
| 19 | 9:10 | 4 | 2 | 7 | 12 | 82 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | 11:00 | 4,5 | 1,5 | 9 | 16 | 106 | | | | | | | 11:05 | 3,5 | 1,5 | 13 | 38 | 168 | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | | | | | | 10:05 | 3,5 | 1,5 | 11 | 33 | 143 | | | | | |
| 22 | | | | | | | | | | | | | 11:45 | 4,5 | 1,5 | 10 | 16 | 116 | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | 13:45 | 3,5 | 2 | 12 | 15 | 135 | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | 11:00 | 3,5 | 2,5 | 5 | 12 | 62 | | | | | | | 9:20 | 2,5 | 1,5 | 13 | 38 | 168 | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | | 8:00 | 3 | 1,5 | 11 | 23 | 8:43 | 2,5 | 1,5 | 12 | 43 | 163 | | | | | |
| 30 | | | | | | | | | | | | | 12:30 | 3,5 | 1,5 | 9 | 15 | 105 | | | | | | | 11:50 | 3,5 | 2 | 14 | 33 | 173 | | | | | |
| | | | | | | | | | | | | | | | | | | | | 8:39 | 3 | 1,5 | 7 | 13 | | | | | | | | | | | |
| 7 | 3,2 | 2,1 | 8,3 | 17 | 100,1 | | ### | ### | ##### | ##### | | 12 | 3,71 | 2,3 | 9,0 | 14,8 | 104,8 | | 4 | 3,6 | 1,3 | 10 | 17,5 | ##### | ### | ### | ##### | ##### | 15 | 3,3 | 1,3 | 12,3 | 40,3 | 163,7 | |

| | | | | | | | | | | | Prom | | | | | | | | | | | | Lunt | | | | | | | | | | | | | |
|----------|-------|-----|------|----|------|------------------|-------|-----|-----|------|------|----------|-------|------|-----|-----|------|-------------|------|-----|-----|------|------|------------|-------|-----|-----|----|------|----------|---|-----|-----|------|-----|------|
| O. Steen | | | | | | H. Coeckelberghs | | | | | | J. Claes | | | | | | T. Spaninks | | | | | | R. De Laet | | | | | | L. Meeus | | | | | | |
| 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 | | | | | | |
| 1 | 07:35 | 3 | 2 | 8 | 10 | 90 | | | | | | | 13:30 | 3 | 2 | 6 | 15 | 75 | | | | | | | | | | | | | | | | | | |
| 2 | 12:20 | 3,5 | 2 | 10 | 12 | 112 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 9:05 | 3 | 2 | 8 | 13 | 93 | 10:53 | 3 | 3 | 4 | 7 | 47 | | | | | | | | | | | | 11:15 | 3 | 1 | 11 | 16 | 126 | | | | | | | |
| 5 | 10:50 | 3,5 | 2,5 | 8 | 12 | 92 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 9:35 | 4 | 2 | 9 | 12 | 102 | 12:27 | 5 | 5 | 5 | 13 | 63 | 11:30 | 4 | 1 | 7 | 18 | 88 | | | | | | 11:45 | 3 | 1,5 | 12 | 17 | 137 | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11:15 | 3,5 | 1 | 11 | 13 | 123 | | | | | | |
| 12 | 8:20 | 3 | 2 | 10 | 13 | 113 | | | | | | | 100 | 4 | 1 | 8 | 16 | 96 | | | | | | | | | | | | | | | | | | |
| 13 | 8:40 | 3,5 | 2 | 10 | 12 | 112 | | | | | | | | | | | | | | | | | | 10:30 | 3 | 1 | 12 | 21 | 141 | | | | | | | |
| 14 | | | | | | | 13:28 | 5 | 3 | 13 | 19 | 149 | 13:30 | 4 | 1 | 7 | 17 | 87 | | | | | | 11:20 | 3 | 1,5 | 19 | 33 | 223 | | | | | | | |
| 15 | | | | | | | 11:13 | 4 | 3 | 11 | 27 | 137 | 1000 | 4 | 1 | 9 | 20 | 110 | | | | | | 11:20 | 3 | 1,5 | 16 | 25 | 185 | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | 13:15 | 3 | 1,5 | 18 | 23 | 203 | | | | | | | |
| 17 | 8:05 | 3 | 2,5 | 9 | 14 | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | 13:45 | 3,5 | 2 | 8 | 12 | 92 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | 13:10 | 3,5 | 2 | 8 | 11 | 91 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 8:30 | 4 | 2 | 9 | 12 | 102 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | 13:05 | 4,5 | 2,5 | 8 | 13 | 93 | | | | | | | | | | | | | | | | | | 9:45 | 4 | 2 | 11 | 22 | 132 | | | | | | | |
| 22 | 9:30 | 4 | 2 | 8 | 9 | 89 | | | | | | | | | | | | | | | | | | 13:10 | 3,5 | 1,5 | 10 | 13 | 113 | | | | | | | |
| 23 | 7:40 | 4 | 2 | 9 | 12 | 102 | | | | | | | | | | | | | | | | | | 11:45 | 3,5 | 1,5 | 13 | 19 | 149 | | | | | | | |
| 24 | 9:10 | 3 | 3 | 6 | 9 | 69 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 14:10 | 3 | 2,5 | 11 | 14 | 124 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | 13:10 | 3,5 | 2,5 | 7 | 11 | 81 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | 14:30 | 3 | 3 | 7 | 9 | 79 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | 9:20 | 4 | 2 | 6 | 10 | 70 | | | | | | | 1000 | 4 | 1 | 4 | 11 | 51 | | | | | | 11:15 | 3,5 | 1,5 | 12 | 20 | 140 | | | | | | | |
| 29 | 9:35 | 4 | 2 | 8 | 11 | 91 | | | | | | | 1030 | 3 | 2 | 6 | 14 | 74 | | | | | | | | | | | | | | | | | | |
| 30 | 12:40 | 3,5 | 2 | 8 | 13 | 93 | | | | | | | | | | | | | | | | | | 11:06 | 3 | 3 | 12 | 25 | 145 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 9:20 | 3 | 2 | 13 | 20 | 150 | | | | | | |
| 21 | 3,5 | 2,2 | 8,33 | 12 | 95,0 | | 4 | 4,3 | 3,5 | 8,25 | 16,5 | 99,0 | 7 | 3,71 | 1,3 | 6,7 | 15,9 | 83,0 | 3 | 3,0 | 2,7 | 10,7 | 20 | 126,7 | 11 | 3,0 | 1,3 | 13 | 20,0 | 153,6 | 4 | 2,8 | 1,5 | 6,25 | 9,3 | 71,8 |

| | | | | | | | | | | | asm | | | | | | | | | | | | Lunt | |
|-------------|------|---|---|---|---|-------------|------|---|---|---|-----|----|--|--|--|--|--|--|--|--|--|--|------|--|
| R. Blondeel | | | | | | R. Verboven | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | | | | | |

Prominence number Rp

Belgian solar observers

Month: **November 2011**

| Day | Q | Wedel | H | e | Rp | el. Obs | Stdev | OBS |
|-----|-------------|-------------|------------|-------------|--------------|-----------|-------------|-----------|
| 1 | 3,2 | 2,2 | 8,3 | 15,3 | 98,3 | 1 | 15 | 4 |
| 2 | 3,4 | 2,3 | 8,3 | 14,8 | 97,8 | 1 | 17 | 5 |
| 3 | | | | | | | | |
| 4 | 3,3 | 1,9 | 9,5 | 17,5 | 112,5 | 1 | 16,8 | 5 |
| 5 | 3,5 | 1,5 | 11 | 21,5 | 131,5 | 1 | 6,4 | 3 |
| 6 | 4,5 | 1 | 11 | 17 | 127 | | | 1 |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | 3 | 1,5 | 11,5 | 27,5 | 142,5 | 1 | 7,8 | 3 |
| 10 | 3,8 | 1,8 | 9 | 13,3 | 103,3 | 1 | 19 | 4 |
| 11 | 3,5 | 1 | 9,5 | 28 | 123 | | | 2 |
| 12 | 3,2 | 2,2 | 8,7 | 14 | 101 | 2 | 10,7 | 5 |
| 13 | 3,5 | 2,8 | 9,5 | 12,5 | 107,5 | | 6,4 | 2 |
| 14 | 3,3 | 1,3 | 7,7 | 14,3 | 91,3 | 3 | 11,5 | 6 |
| 15 | 3,5 | 2 | 10 | 21,7 | 121,7 | 3 | 13,9 | 6 |
| 16 | 2 | 2,3 | 8,5 | 12 | 97 | 2 | 8,5 | 4 |
| 17 | 3 | 2,5 | 9 | 14 | 104 | | | 1 |
| 18 | 3,8 | 2,3 | 9 | 13,5 | 103,5 | 1 | 16,3 | 3 |
| 19 | 3,8 | 2 | 7,5 | 11,5 | 86,5 | | 6,4 | 2 |
| 20 | 4,2 | 1,8 | 9,8 | 15,8 | 113,8 | 1 | 13,3 | 5 |
| 21 | 3,5 | 1,5 | 12 | 16 | 136 | 1 | 4,2 | 3 |
| 22 | 4,3 | 1,8 | 9 | 12,5 | 102,5 | | 19,1 | 2 |
| 23 | 4,1 | 2 | 9 | 12 | 102 | | | 1 |
| 24 | 3 | 3 | 6 | 9 | 69 | | | 1 |
| 25 | 3,3 | 2,3 | 11,5 | 14,5 | 129,5 | | 7,8 | 2 |
| 26 | 3,5 | 2,5 | 7 | 11 | 81 | | | 1 |
| 27 | 3 | 3 | 7 | 9 | 79 | | | 1 |
| 28 | 3,6 | 1,9 | 4,5 | 9,5 | 54,5 | 2 | 15,2 | 6 |
| 29 | 3 | 2,3 | 11,7 | 30,3 | 147,3 | 2 | 15,1 | 5 |
| 30 | 3,3 | 1,7 | 8 | 13,7 | 93,7 | 2 | 11 | 5 |
| | 3,45 | 2,01 | 9,0 | 15,6 | 105,8 | 25 | 12,1 | 88 |

Monthly mean: **105,8** Covering: **27/30**

Observations: **88** Number of observers: **8**

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
Hambusch ; 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 : $H \cdot 10 + e$

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

Prominence number Rp

Belgian solar observers

Month: **December 2011**

| Day | Q | Wedel | H | e | Rp | el. Obs | Stdev | OBS |
|-----|-------------|-------------|------------|-------------|--------------|-----------|-------------|-----------|
| 1 | 3,5 | 1,5 | 8,0 | 19 | 99 | | | 1 |
| 2 | 3,8 | 1,8 | 8,0 | 9,5 | 89,5 | 1 | 0,7 | 3 |
| 3 | 3,5 | 1,7 | 9 | 19,7 | 109,7 | | 2,9 | 3 |
| 4 | 3,5 | 1,5 | 8 | 16 | 96 | | | 1 |
| 5 | 3,5 | 1,5 | 7,3 | 19,3 | 92,3 | 1 | 10,6 | 5 |
| 6 | 3,7 | 1,73 | 7 | 10,7 | 80,7 | 2 | 1,2 | 5 |
| 7 | 3 | 2 | 8,5 | 12 | 97 | | 26,9 | 2 |
| 8 | | | | | | | | |
| 9 | 4 | 2,2 | 8 | 13,8 | 93,8 | 2 | 19,6 | 7 |
| 10 | 3 | 1,9 | 7,8 | 12,5 | 90,5 | 1 | 20 | 7 |
| 11 | | | | | | | | |
| 12 | 3,6 | 1,2 | 10,6 | 18 | 124 | | 20,5 | 5 |
| 13 | | | | | | | | |
| 14 | 3 | 2 | 11 | 13 | 123 | | | 1 |
| 15 | 4 | 1,5 | 9 | 16,5 | 106,5 | | 2,1 | 2 |
| 16 | | | | | | | | |
| 17 | 4 | 2 | 9,5 | 13 | 108 | 3 | 5,7 | 5 |
| 18 | 3,7 | 2,3 | 7 | 9,3 | 79,3 | 1 | 13,5 | 4 |
| 19 | 2,8 | 1,8 | 7,5 | 10 | 85 | | 9,9 | 2 |
| 20 | | | | | | | | |
| 21 | 4 | 1,5 | 9 | 19 | 109 | | | 1 |
| 22 | 3,5 | 2 | 10,5 | 15 | 120 | | 7,1 | 2 |
| 23 | | | | | | | | |
| 24 | 3,3 | 1,9 | 8,2 | 18,5 | 100,5 | | 20,7 | 6 |
| 25 | 2,5 | 1 | 8 | 13 | 93 | | | 1 |
| 26 | | | | | | | | |
| 27 | | | | | | | | |
| 28 | 3 | 1 | 5 | 17 | 67 | | | 1 |
| 29 | 3 | 2 | 9 | 22,3 | 112,3 | 1 | 12,7 | 4 |
| 30 | 3,5 | 2 | 11 | 13 | 123 | | | 1 |
| 31 | | | | | | | | |
| | 3,43 | 1,73 | 8,5 | 15,0 | 100,0 | 12 | 11,6 | 69 |

Monthly mean: **100,0** Covering: **22/31**

Observations: **69** Number of observers: **8**

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
Hambusch ; 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 : $H \cdot 10 + e$

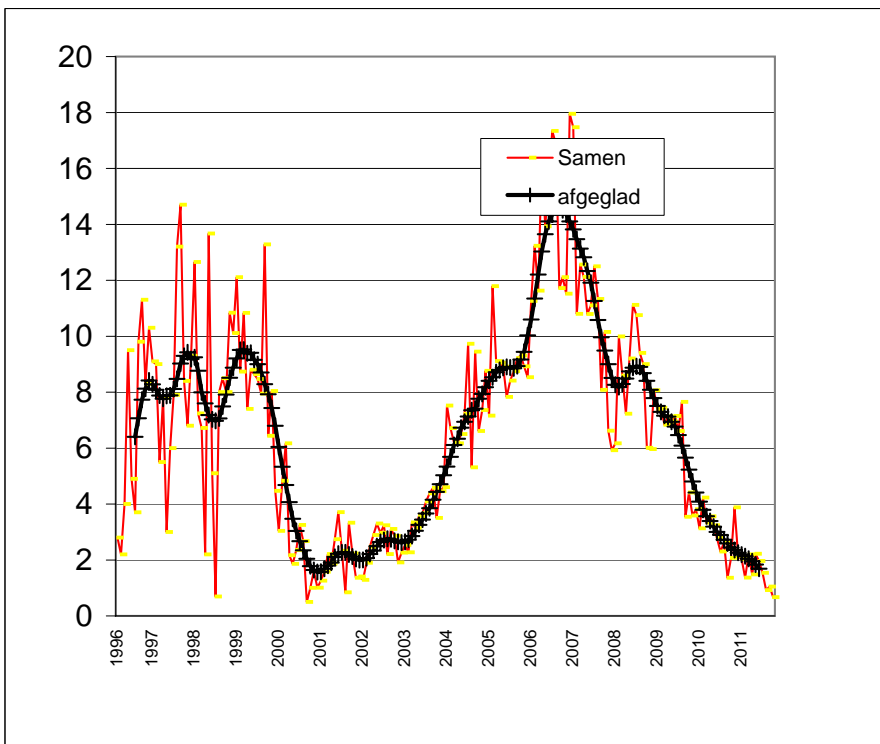
More info at : <http://members.chello.be/j.janssens/>

Belgian Solar Observers

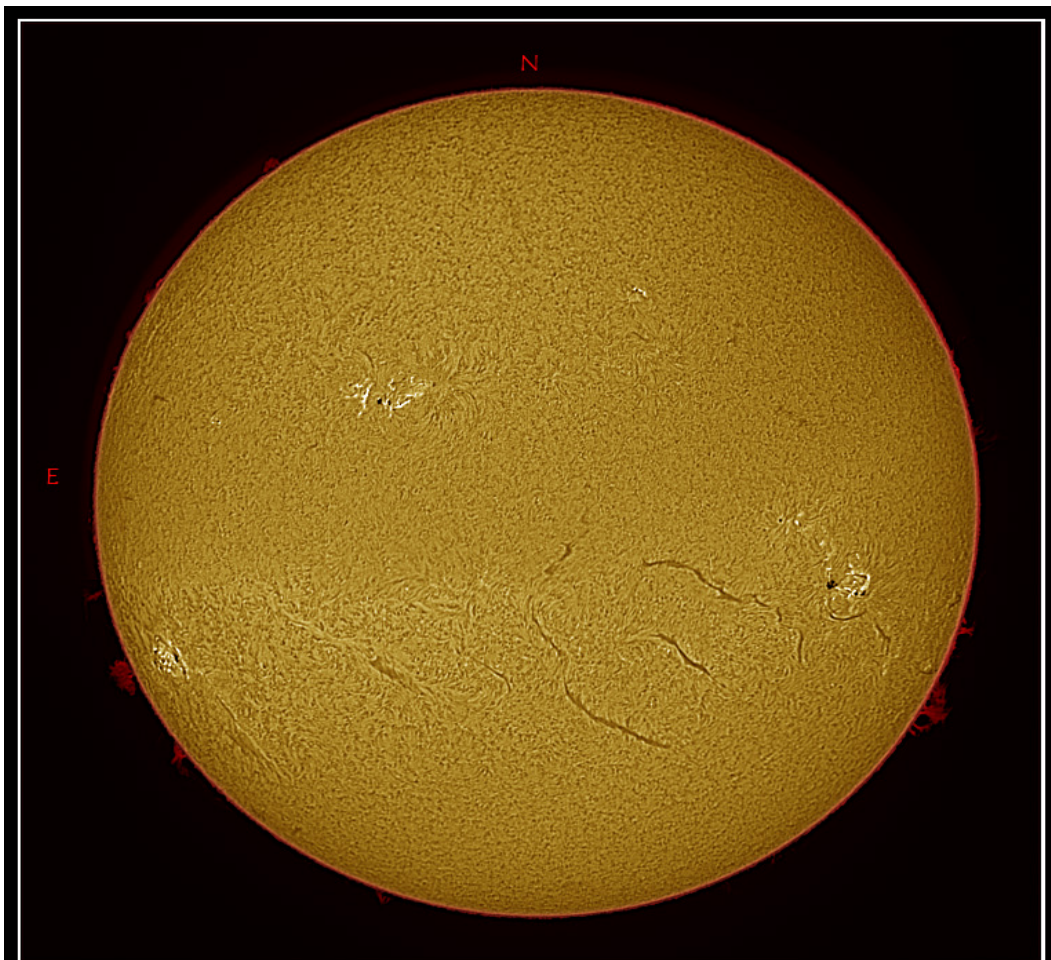
Polar Faculae

Month: December 2011

| Date | Dubois 125mm F20 | | | Steen 102mm F15 | | | T.Spaninks 127mm F15 | | | G.Gubbels 114mm F7,8 | | | Janssen | | |
|------|---------------------|-------|---|--------------------|-------|-----|-------------------------|-------|---|-------------------------|-------|-----|---------|-------|---|
| | North | South | Q | North | South | Q | North | South | Q | North | South | Q | North | South | Q |
| 1 | | | | | | | | | | | | | | | |
| 2 | | | | 1 | 1 | 4,5 | | | | 3 | 2 | 3,5 | | | |
| 3 | | | | 0 | 1 | 4 | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | |
| 5 | 1 | 0 | 3 | 0 | 0 | 4,0 | | | | 2 | 2 | 3,5 | | | |
| 6 | 0 | 1 | 3 | 0 | 0 | 3,5 | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | |
| 9 | 0 | 1 | 3 | 0 | 1 | 4,0 | | | | 3 | 2 | 3,5 | | | |
| 10 | | | | 1 | 2 | 3,5 | 0 | 0 | 4 | 2 | 2 | 3,5 | 0 | 0 | 3 |
| 11 | | | | | | | | | | | | | | | |
| 12 | | | | 0 | 0 | 4 | | | | 3 | 2 | 3 | | | |
| 13 | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | |
| 15 | | | | 0 | 1 | 4 | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | |
| 17 | 2 | 1 | 3 | 0 | 0 | 4 | 0 | 0 | 4 | 3 | 2 | 3 | | | |
| 18 | 0 | 1 | 3 | | | | 0 | 0 | 4 | | | | | | |
| 19 | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | |
| 22 | | | | 1 | 0 | 3,5 | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | |
| 24 | 1 | 1 | 3 | | | | 0 | 0 | 4 | 1 | 1 | 3 | 0 | 1 | 3 |
| 25 | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | |
| 29 | | | | 0 | 1 | 3,5 | | | | 2 | 1 | 3 | 0 | 0 | 3 |
| 30 | | | | 0 | 0 | 3,5 | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | |
| | 0,67 | 0,83 | | 0,25 | 0,58 | | 0,0 | 0,0 | | 2,4 | 1,8 | | 0,00 | 0,33 | |



| N.O.A.A. Regio | ZICHTBAAR | | N.O.A.A. | | MAX | MAX | classificatie | | | | | | | |
|-------------------|-----------|----------|----------|--------|------|--------|---------------|-----|-----|------|-----|-----|-----|-----|
| | van | tot | breedte | lengte | AREA | LENGTE | Macintosh | | | | | | | |
| 11373 | 08-12-11 | 09-12-11 | S31 | 99 | 0020 | 06 | DRO | BXO | | | | | | |
| 11374 | 08-12-11 | 20-12-11 | S18 | 353 | 0210 | 04 | CSO | HSX | DSO | CAO | HSX | | | |
| 11375 | 07-12-11 | 19-12-11 | N09 | 357 | 0140 | 07 | BXO | CSO | HSX | | | | | |
| 11376 | 13-12-11 | 23-12-11 | N20 | 306 | 0440 | 10 | BXO | DRO | CRO | DAI | DKO | | | |
| 11377 | 14-12-11 | 20-12-11 | N12 | 298 | 0070 | 08 | DRO | DSO | DAO | CRO | BXO | | | |
| 11378 | 16-12-11 | 17-12-11 | S17 | 324 | 0040 | 05 | DSO | BXO | | | | | | |
| 11379 | 17-12-11 | 19-12-11 | S17 | 324 | 0030 | 04 | CRO | AXX | CRO | | | | | |
| 11380 | 17-12-11 | 20-12-11 | S21 | 233 | 0030 | 03 | HRX | CAO | | | | | | |
| 11381 | 18-12-11 | 27-12-11 | S18 | 263 | 0180 | 09 | DAO | DAI | CSO | DAO | HSX | CSO | HSX | |
| 11382 | 18-12-11 | 24-12-11 | S18 | 256 | 0140 | 09 | DRO | DAI | DSC | DAI | CSO | | | |
| 11383 | 19-12-11 | 29-12-11 | N04 | 209 | 0040 | 02 | HSX | CSO | BXO | A XX | | | | |
| 11384 | 20-12-11 | 31-12-11 | N13 | 197 | 0500 | 11 | DAO | CAO | DKO | EHO | DHI | CKO | HHX | |
| 11385 | 23-12-11 | 27-12-11 | S32 | 224 | 0030 | 06 | DSO | BXO | | | | | | |
| 11386 | 23-12-11 | 04-01-12 | S18 | 149 | 0200 | 12 | HSX | DSO | ESI | DAI | ESO | DSO | HSX | |
| 11387 | 25-12-11 | 29-12-11 | S21 | 225 | 0290 | 10 | DAO | DAI | DKI | DAO | | | | |
| 11388 | 27-12-11 | 08-01-12 | S24 | 102 | 0100 | 04 | HSX | CAO | HSX | | | | | |
| 11389 | 28-12-11 | 09-01-12 | S22 | 81 | 0500 | 16 | DSO | EKI | EKC | FKO | FKC | ESO | CAO | HSX |
| 11390 | 28-12-11 | 06-01-12 | N08 | 117 | 0210 | 10 | BXO | CAO | BXO | DRO | CAI | DAO | | |
| 11391 | 02-01-12 | 14-01-12 | N13 | 10 | 0510 | 10 | HSX | CHO | DHO | DKI | DSC | DKI | EKC | DAO |
| 11392 | 03-01-12 | 09-01-12 | N19 | 69 | 0050 | 07 | BXO | DAO | CSO | A XX | | | | |
| 11393 | 05-01-12 | 11-01-12 | N16 | 54 | 0560 | 13 | DAO | CRO | DAO | DKI | EKI | EKO | | |
| 11394 | 06-01-12 | 08-01-12 | N18 | 358 | 0010 | 06 | AXX | BXO | | | | | | |



Sun in H- α , 22 Dec 2011, 12:47UT.
Lunt LS60TH α ,B1200, SKYnyx 2-O. (c) Geert Vandenbulcke, Belgium.