Georgi Dobrovolski Solar Observatory

NEW ZEALAND

E-MAIL: gdso@earthling.net

WEBSITE: www.freewebs.com/gdso

SUNSPOT RESULTS FOR AUGUST 2006

All observations carried out by HOWARD BARNES .
Telescope : 76 mm refractor (f . l . 910 mm) k considered as 1 .
Observed by PROJECTION . Full disc diameter = 145 mm approx .
WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value ;
QC = Quality Count ; QC² = Squared Quality Count .
Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .
S = Sharpness [ie. clarity] refer to Kiepenheuer scale .
T = Transparency where 1 = excellent , 5 = worthless .

Stated times (UT) approximate Co-ordinated Universal Time / Temps Universel Coordonné (UTC).

DATE	UT	g	f	WN	p	s	SN	BX	CV	QC	QC²	Q	S	T	Ref.
01															
02															
03															
04															
05															
06															
07															
08	2245	1	2	12	1	1	11	16	11	3	9	1.5	2.5	2.5	4704-6
09	2240	1	1	11	1	0	10	44	40	3	9	2.0	2.5	3.0	4705-6
10	2235	2	14	34	3	5	35	329	57	6	26	1.5	2.5	2.5	4706-6
11															
12	2305	1	11	21	2	3	23	396	48	6	36	1.5	2.5	2.5	4707-6
13															
14	2200	1	12	22	2	7	27	432	48	6	36	1.5	2.0	1.5	4708-6
15	2155	1	14	24	3	5	35	504	57	6	36	1.5	2.5	2.5	4709-6
16															
17	2155	1	13	23	4	4	44	468	57	6	36	2.0	2.5	2.5	4710-6
18															
19															
20															
21															
22	2135	1	5	15	2	3	23	125	29	5	25	2.5	2.5	2.5	4711-6
23	2155	1	7	17	2	2	22	175	29	5	25	1.0	2.0	2.0	4712-6
24															
25	2215	1	9	19	2	4	24	225	23	5	25	1.5	2.5	2.5	4713-7
26	2215	1	12	22	2	5	25	300	23	5	25	1.5	2.5	2.0	4714-7
27	2230	1	16	26	5	6	56	400	32	5	25	1.5	2.0	2.0	4715-7
28	2145	1	15	25	6	4	64	375	32	5	25	2.0	2.5	2.0	4716-7
29															
30															
31															
TOTALS	——	14	131	271	35	49	399	3789	486	66	338	21.5	31.0	30.0	——
NOBS	——	13	13	13	13	13	13	13	13	13	13	13	13	13	——
MNS	——	1.08	10.08	20.85	2.69	3.77	30.69	291.46	37.38	5.08	26.00	1.65	2.38	2.31	——

MEAN WEIGHT = 0.48036 MEAN CONDITION = 2.1154 TRUNCATED WOLF NUMBER = 20.00

Georgi Dobrovolski Solar Observatory

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR

AUGUST 2006

All observations carried out by HOWARD BARNES .
Telescope : 76 mm refractor (f . l . 910 mm) .
Observed by PROJECTION . Full disc diameter = 145 mm approx .
IS = Inter-Sol Index .
gr = number of multi-spot groups .
grfp = number of umbræ within penumbræ within the groups (gr) .
grf = number of non-penumbral spots within the groups (gr) .
efp = number of single penumbral spots .
ef = number of single non-penumbral spots .
Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .
S = Sharpness [ie. clarity] refer to Kiepenheuer scale .
T = Transparency where 1 = excellent , 5 = worthless .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01											
02											
03											
04											
05											
06											
07											
08	2245	3	1	1	1	0	0	1.5	2.5	2.5	4704-6
09	2240	1	0	0	0	1	0	2.0	2.5	3.0	4705-6
10	2235	15	1	9	4	0	1	1.5	2.5	2.5	4706-6
11											
12	2305	12	1	8	3	0	0	1.5	2.5	2.5	4707-6
13											
14	2200	13	1	5	7	0	0	1.5	2.0	1.5	4708-6
15	2155	15	1	9	5	0	0	1.5	2.5	2.5	4709-6
16											
17	2155	14	1	9	4	0	0	2.0	2.5	2.5	4710-6
18											
19											
20											
21											
22	2135	6	1	2	3	0	0	2.5	2.5	2.5	4711-6
23	2155	8	1	5	2	0	0	1.0	2.0	2.0	4712-6
24											
25	2215	10	1	5	4	0	0	1.5	2.5	2.5	4713-7
26	2215	13	1	7	5	0	0	1.5	2.5	2.0	4714-7
27	2230	17	1	10	6	0	0	1.5	2.0	2.0	4715-7
28	2145	16	1	11	4	0	0	2.0	2.5	2.0	4716-7
29											
30											
31											
TOTALS	——	143	12	81	48	1	1	21.5	31.0	30.0	——
NOBS	——	13	13	13	13	13	13	13	13	13	——
MNS	——	11.00	0.92	6.23	3.69	0.08	0.08	1.65	2.38	2.31	——

Georgi Dobrovolski Solar Observatory

SUNSPOT CENSUS BY CLASSIFICATION FOR

AUGUST 2006

All observations carried out by HOWARD BARNES .
Telescope : 76 mm refractor (f . l . 910 mm) .
Observed by PROJECTION . Full disc diameter = 145 mm approx .
IF 2 OR MORE REGIONS ARE OF THE SAME CLASSIFICATION , THEN SUNSPOT COUNTS ARE SEPARATED BY SOLIDI (/) .

DATE	UT	A		B		C		D		E		F		G		H		J	
		g	f	g	f	g	f	g	f	g	f	g	f	g	f	g	f	g	f
01																			
02																			
03																			
04																			
05																			
06																			
07																			
08	2245	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
09	2240	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
10	2235	1	1	0	0	0	0	0	0	1	13	0	0	0	0	0	0	0	0
11																			
12	2305	0	0	0	0	0	0	0	0	0	0	1	11	0	0	0	0	0	0
13																			
14	2200	0	0	0	0	0	0	0	0	0	0	1	12	0	0	0	0	0	0
15	2155	0	0	0	0	0	0	0	0	0	0	1	14	0	0	0	0	0	0
16																			
17	2155	0	0	0	0	0	0	0	0	0	0	1	13	0	0	0	0	0	0
18																			
19																			
20																			
21																			
22	2135	0	0	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0
23	2155	0	0	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0
24																			
25	2215	0	0	0	0	0	0	0	0	1	9	0	0	0	0	0	0	0	0
26	2215	0	0	0	0	0	0	0	0	1	12	0	0	0	0	0	0	0	0
27	2230	0	0	0	0	0	0	0	0	1	16	0	0	0	0	0	0	0	0
28	2145	0	0	0	0	0	0	0	0	1	15	0	0	0	0	0	0	0	0
29																			
30																			
31																			
TOTALS	——	1	1	0	0	1	2	0	0	7	11	4	50	0	0	1	1	0	0

REGIONAL PERCENTAGES

A	B	C	D	E	F	G	H	J	Σ g
7.1	0.0	7.1	0.0	50.0	28.6	0.0	7.1	0.0	14

NOBS = 13 $\overline{p / g}$ mean = 2.5769 $\overline{f / g}$ mean = 9.5385

$\overline{p} / \overline{g}$ mean = 2.5000 $\overline{f} / \overline{g}$ mean = 9.3571

GROUP COMPLEXITY INDEX (GCI) = 11.8571

Georgi Dobrovolski Solar Observatory

SMOOTHED RESULTS OF OBSERVED VALUES FOR THE LAST 12 MONTHS (OBTAINABLE) USING THE WALDMEIER & BARNES-13 METHODS.

DATA BELOW ARE PRELIMINARY. FINAL VALUES WILL BE PUBLISHED IN GDSO ANNUAL REPORTS.

WALDMEIER METHOD

MONTH	$g(S^W)$	$WN(S^W)$	$SN(S^W)$	$BX(S^W)$	$CV(S^W)$	$QC(S^W)$	$IS(S^W)$
2005 MARCH	2.79	45.29	58.30	376.6	61.02	9.13	19.49
APRIL	2.58	41.97	53.70	350.4	56.63	8.44	18.03
MAY	2.32	37.30	47.99	301.4	50.99	7.54	15.82
JUNE	2.33	36.69	47.03	279.9	49.91	7.44	15.11
JULY	2.37	36.83	47.22	274.0	49.81	7.48	14.78
AUGUST	2.22	34.42	44.96	256.9	46.61	7.03	13.74
SEPTEMBER	2.11	32.64	42.97	243.8	43.20	6.65	13.02
OCTOBER	2.08	32.20	42.68	242.2	42.17	6.52	12.81
NOVEMBER	2.06	31.17	40.20	221.1	40.18	6.31	11.88
DECEMBER	1.93	28.14	34.77	182.9	34.93	5.71	10.00
2006 JANUARY	1.75	25.12	30.36	161.9	30.74	5.06	8.69
FEBRUARY	1.58	22.75	27.18	153.1	28.70	4.62	7.88

BARNES-13 METHOD

MONTH	$g(S^{B13})$	$WN(S^{B13})$	$SN(S^{B13})$	$BX(S^{B13})$	$CV(S^{B13})$	$QC(S^{B13})$	$IS(S^{B13})$
2005 MARCH	2.64	42.71	53.98	349.1	58.26	8.62	18.23
APRIL	2.58	41.72	53.68	337.8	57.16	8.43	17.88
MAY	2.50	40.44	53.26	323.2	55.88	8.20	17.39
JUNE	2.48	39.88	53.22	312.6	55.11	8.12	17.01
JULY	2.44	38.85	52.00	298.9	53.16	7.92	16.25
AUGUST	2.32	36.39	48.69	276.3	49.17	7.42	14.92
SEPTEMBER	2.15	33.32	44.22	249.2	44.31	6.78	13.33
OCTOBER	2.01	30.56	40.00	223.5	40.02	6.22	11.80
NOVEMBER	1.93	28.43	36.02	197.0	36.23	5.78	10.37
DECEMBER	1.83	26.24	31.96	170.5	32.19	5.31	8.97
2006 JANUARY	1.70	24.02	28.49	151.3	28.81	4.83	7.91
FEBRUARY	1.59	22.37	26.11	140.4	26.87	4.51	7.29