Georgi Dobrovolski Solar Observatory

NEW ZEALAND

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SUNSPOT RESULTS FOR MARCH 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 .

DATE	UT*	g	f	WN	p	s	SN	BX	CV	QC	QC²	Q	S	T	Ref.
01															
02															
03	2020	0	0	0	0	0	0	0	0	0	0	1.5	2.5	3.0	4647-0
04	2020	1	2	12	0	2	2	8	2	2	4	1.5	2.5	3.0	4648-0
05	2040	0	0	0	0	0	0	0	0	0	0	2.0	2.5	2.5	4649-0
06															
07															
08															
09	2100	0	0	0	0	0	0	0	0	0	0	1.0	2.5	2.5	4650-0
10															
11															
12	2110	1	5	15	1	4	14	40	12	3	9	2.0	2.5	2.5	4651-0
13	2100	2	2	22	1	1	11	41	11	3	5	2.0	3.0	3.0	4652-0
14	2055	1	1	11	0	1	1	4	1	1	1	1.5	2.5	2.5	4653-1
15	2050	1	1	11	0	1	1	4	1	1	1	1.5	2.5	2.5	4654-1
16															
17															
18															
19															
20															
21	2050	1	16	26	5	7	57	400	32	5	25	2.0	2.5	2.0	4655-1
22															
23															
24															
25															
26															
27															
28	2050	2	6	26	3	1	31	127	32	6	20	2.0	2.5	2.0	4656-1
29	2230	2	10	30	5	3	53	199	41	6	20	1.5	3.0	3.5	4657-1
30															
31	2230	2	13	33	5	6	56	337	45	7	29	1.5	2.0	2.0	4658-1
TOTALS	——	13	56	186	20	26	226	1160	177	34	114	20.0	30.5	31.0	——
NOBS	——	12	12	12	12	12	12	12	12	12	12	12	12	12	——
MNS	——	1.08	4.67	15.50	1.67	2.17	18.83	96.67	14.75	2.83	9.50	1.67	2.54	2.58	——

MEAN WEIGHT = 0.4463 MEAN CONDITION = 2.2639 TRUNCATED WOLF NUMBER = 11.75

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

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SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR

MARCH 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	2020	0	0	0	0	0	0	1.5	2.5	3.0	4647-0
04	2020	3	1	0	2	0	0	1.5	2.5	3.0	4648-0
05	2040	0	0	0	0	0	0	2.0	2.5	2.5	4649-0
06											
07											
08											
09	2100	0	0	0	0	0	0	1.0	2.5	2.5	4650-0
10											
11											
12	2110	6	1	1	4	0	0	2.0	2.5	2.5	4651-0
13	2100	2	0	0	0	1	1	2.0	3.0	3.0	4652-0
14	2055	1	0	0	0	0	1	1.5	2.5	2.5	4653-1
15	2050	1	0	0	0	0	1	1.5	2.5	2.5	4654-1
16											
17											
18											
19											
20											
21	2050	17	1	9	7	0	0	2.0	2.5	2.0	4655-1
22											
23											
24											
25											
26											
27											
28	2050	7	1	4	1	1	0	2.0	2.5	2.0	4656-1
29	2230	11	1	6	3	1	0	1.5	3.0	3.5	4657-1
30											
31	2230	14	1	6	6	1	0	1.5	2.0	2.0	4658-1
TOTALS	——	62	6	26	23	4	3	20.0	30.5	31.0	——
NOBS	——	12	12	12	12	12	12	12	12	12	——
MNS	——	5.17	0.50	2.17	1.92	0.33	0.25	1.67	2.54	2.58	——

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SUNSPOT CENSUS BY CLASSIFICATION FOR

MARCH 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	2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04	2020	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05	2040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06																			
07																			
08																			
09	2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10																			
11																			
12	2110	0	0	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0
13	2100	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
14	2055	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	2050	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16																			
17																			
18																			
19																			
20																			
21	2050	0	0	0	0	0	0	0	0	1	16	0	0	0	0	0	0	0	0
22																			
23																			
24																			
25																			
26																			
27																			
28	2050	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	1	1
29	2230	0	0	0	0	0	0	1	9	0	0	0	0	0	0	0	0	1	1
30																			
31	2230	0	0	0	0	0	0	0	0	1	12	0	0	0	0	0	0	1	1
TOTALS	——	3	3	1	2	1	5	2	14	2	28	0	0	0	0	0	0	4	4

REGIONAL PERCENTAGES

A	B	C	D	E	F	G	H	J	?g
23.1	7.7	7.7	15.4	15.4	0.0	0.0	0.0	30.8	13

NOBS = 12 $\overline{p / g}$ mean = 1.4444 $\overline{f / g}$ mean = 4.5000

$\overline{p} / \overline{g}$ mean = 1.5385 $\overline{f} / \overline{g}$ mean = 4.3077

GROUP COMPLEXITY INDEX (GCI) = 5.8462

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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	$g(S^W)$	$WN(S^W)$	$SN(S^W)$	$BX(S^W)$	$CV(S^W)$	$QC(S^W)$	$IS(S^W)$
2004 OCTOBER	3.05	49.75	59.58	444.3	62.91	9.67	21.33
NOVEMBER	2.95	48.53	59.05	446.4	62.64	9.47	21.14
DECEMBER	2.87	48.18	60.36	456.1	63.75	9.40	21.60
2005 JANUARY	2.83	47.36	60.71	432.0	64.03	9.38	21.14
FEBRUARY	2.81	46.03	59.67	391.9	62.75	9.27	20.02
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

BARNES-13 METHOD

MONTH	$g(S^{B13})$	$WN(S^{B13})$	$SN(S^{B13})$	$BX(S^{B13})$	$CV(S^{B13})$	$QC(S^{B13})$	$IS(S^{B13})$
2004 OCTOBER	3.10	51.52	63.32	486.0	66.22	10.02	22.72
NOVEMBER	2.95	48.95	60.06	459.0	63.78	9.58	21.54
DECEMBER	2.80	46.43	57.15	426.5	61.36	9.13	20.38
2005 JANUARY	2.72	44.53	55.15	390.9	59.85	8.85	19.33
FEBRUARY	2.67	43.30	54.11	362.6	58.93	8.70	18.55
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