



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

MONTHLY SUNSPOT REPORTS

1996

CONTENTS:

JANUARY	2-4
FEBRUARY	5-7
MARCH	8-10
APRIL	11-13
MAY	14-16
JUNE	17-19
JULY	20-22
AUGUST	23-25
SEPTEMBER	26-28
OCTOBER	29-31
NOVEMBER	32-34
DECEMBER	35-37
1996 MEANS	38



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdsos@earthling.net

SUNSPOT RESULTS FOR JANUARY 1996

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 .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01	2050	0	0	0	0	0	0	0	0	1.5	2.0	2.5	2987
02	2120	1	1	11	0	1	1	4	1	2.0	2.5	2.5	2988
03													
04													
05	2020	3	26	56	4	17	57	334	41	2.0	2.5	2.5	2989
06													
07	2010	2	17	37	2	11	31	136	18	2.0	2.0	2.0	2990
08	2000	2	10	30	1	7	17	68	12	2.0	2.0	2.5	2991
09													
10													
11													
12													
13	1955	0	0	0	0	0	0	0	0	1.5	2.5	2.5	2992
14													
15	1955	0	0	0	0	0	0	0	0	1.5	2.5	3.0	2993
16	2100	0	0	0	0	0	0	0	0	2.0	2.5	3.0	2994
17	1940	0	0	0	0	0	0	0	0	1.5	2.5	3.0	2995
18	2020	0	0	0	0	0	0	0	0	1.5	2.5	3.0	2996
19													
20	1955	1	1	11	0	1	1	4	1	2.0	2.5	2.5	2997
21	2015	0	0	0	0	0	0	0	0	1.5	2.5	2.5	2998
22	2045	0	0	0	0	0	0	0	0	1.5	2.5	3.0	2999
23	1955	0	0	0	0	0	0	0	0	2.0	2.5	2.5	3000
24	2000	1	1	11	0	1	1	4	1	2.5	3.0	2.5	3001
25	1955	1	1	11	0	1	1	4	1	2.5	2.5	2.5	3002
26	1955	1	1	11	0	1	1	4	1	2.0	2.5	2.5	3003
27	2005	1	1	11	0	1	1	4	1	2.5	2.5	2.5	3004
28	2010	1	1	11	0	1	1	4	1	2.0	2.0	2.5	3005
29	2030	1	1	11	0	1	1	4	1	2.0	2.5	2.5	3006
30	2105	1	1	11	0	1	1	4	1	1.5	1.5	2.0	3007
31	2205	1	3	13	1	2	12	24	12	2.0	2.5	2.5	3008
Σ	—	17	65	235	8	46	126	598	92	41.5	52.5	56.5	—
NOBS	—	22	22	22	22	22	22	22	22	22	22	22	—
MNS	—	0.77	2.95	10.68	0.36	2.09	5.73	27.18	4.18	1.89	2.39	2.57	—

MEAN WEIGHT = 0.4425

MEAN CONDITION = 2.2803

QUALITY COUNT = 1.41



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR

JANUARY 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae within the groups (gr) .

grf = number of non-penumbra spots within the groups (gr) .

efp = number of single penumbral spots :

ef = number of single non-penumbra spots .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01	2050	0	0	0	0	0	0	1.5	2.0	2.5	2987
02	2120	1	0	0	0	0	1	2.0	2.5	2.5	2988
03											
04											
05	2020	28	2	9	16	0	1	2.0	2.5	2.5	2989
06											
07	2010	19	2	6	11	0	0	2.0	2.0	2.0	2990
08	2000	12	2	3	7	0	0	2.0	2.0	2.5	2991
09											
10											
11											
12											
13	1955	0	0	0	0	0	0	1.5	2.5	2.5	2992
14											
15	1955	0	0	0	0	0	0	1.5	2.5	3.0	2993
16	2100	0	0	0	0	0	0	2.0	2.5	3.0	2994
17	1940	0	0	0	0	0	0	1.5	2.5	3.0	2995
18	2020	0	0	0	0	0	0	1.5	2.5	3.0	2996
19											
20	1955	1	0	0	0	0	1	2.0	2.5	2.5	2997
21	2015	0	0	0	0	0	0	1.5	2.5	2.5	2998
22	2045	0	0	0	0	0	0	1.5	2.5	3.0	2999
23	1955	0	0	0	0	0	0	2.0	2.5	2.5	3000
24	2000	1	0	0	0	0	1	2.5	3.0	2.5	3001
25	1955	1	0	0	0	0	1	2.5	2.5	2.5	3002
26	1955	1	0	0	0	0	1	2.0	2.5	2.5	3003
27	2005	1	0	0	0	0	1	2.5	2.5	2.5	3004
28	2010	1	0	0	0	0	1	2.0	2.0	2.5	3005
29	2030	1	0	0	0	0	1	2.0	2.5	2.5	3006
30	2105	1	0	0	0	0	1	1.5	1.5	2.0	3007
31	2205	4	1	1	2	0	0	2.0	2.5	2.5	3008
Σ	—	72	7	19	36	0	10	41.5	52.5	56.5	—
NOBS	—	22	22	22	22	22	22	22	22	22	—
MNS	—	3.27	0.32	0.86	1.64	0.00	0.45	1.89	2.39	2.57	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR JANUARY 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01	2050	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
02	2120	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
03										
04										
05	2020	1 : 1	0 : 0	1 : 12	1 : 13	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
06										
07	2010	0 : 0	0 : 0	2 : 7/10	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
08	2000	0 : 0	1 : 3	1 : 7	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
09										
10										
11										
12										
13	1955	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
14										
15	1955	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
16	2100	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
17	1940	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
18	2020	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
19										
20	1955	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
21	2015	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
22	2045	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
23	1955	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
24	2000	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
25	1955	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
26	1955	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
27	2005	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
28	2010	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
29	2030	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
30	2105	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
31	2205	0 : 0	0 : 0	1 : 3	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
TOTALS	—	10 : 10	1 : 3	5 : 39	1 : 13	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0

REGIONAL PERCENTAGES

A	B	C	D	E	F	G	H	J	Σg
58.8	5.9	29.4	5.9	0.0	0.0	0.0	0.0	0.0	17

NOBS = 22

$\overline{p/g}$ mean = 0.2949

$\overline{f/g}$ mean = 2.6282

$\overline{p/\overline{g}}$ mean = 0.4706

$\overline{f/\overline{g}}$ mean = 3.8235

GROUP COMPLEXITY INDEX (GCI) = 4.2941



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdsos@earthling.net

SUNSPOT RESULTS FOR FEBRUARY 1996

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 .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01													
02													
03													
04	1955	0	0	0	0	0	0	0	0	1.5	2.5	2.5	3009
05													
06	2030	0	0	0	0	0	0	0	0	1.5	2.5	2.5	3010
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22	2030	0	0	0	0	0	0	0	0	1.5	2.5	3.0	3011
23	2010	2	5	25	0	5	5	20	4	1.5	3.0	3.0	3012
24													
25	1950	2	9	29	1	8	18	68	13	1.5	2.5	2.5	3013
26													
27	1945	0	0	0	0	0	0	0	0	1.5	1.5	2.0	3014
28	1950	1	3	13	0	3	3	12	3	1.5	2.0	2.5	3015
29	1950	1	1	11	0	1	1	4	1	1.5	3.0	3.0	3016
30													
31													
Σ	—	6	18	78	1	17	27	104	21	12.0	19.5	21.0	—
NOBS	—	8	8	8	8	8	8	8	8	8	8	8	—
MNS	—	0.75	2.25	9.75	0.12	2.12	3.38	13.00	2.62	1.50	2.44	2.62	—

MEAN WEIGHT = 0.4641

MEAN CONDITION = 2.1875

QUALITY COUNT = 1.25



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR FEBRUARY 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae 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 .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01											
02											
03											
04	1955	0	0	0	0	0	0	1.5	2.5	2.5	3009
05											
06	2030	0	0	0	0	0	0	1.5	2.5	2.5	3010
07											
08											
09											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22	2030	0	0	0	0	0	0	1.5	2.5	3.0	3011
23	2010	6	1	0	4	0	1	1.5	3.0	3.0	3012
24											
25	1950	10	1	1	7	0	1	1.5	2.5	2.5	3013
26											
27	1945	0	0	0	0	0	0	1.5	1.5	2.0	3014
28	1950	4	1	0	3	0	0	1.5	2.0	2.5	3015
29	1950	1	0	0	0	0	1	1.5	3.0	3.0	3016
30											
31											
Σ	—	21	3	1	14	0	3	12.0	19.5	21.0	—
NOBS	—	8	8	8	8	8	8	8	8	8	—
MNS	—	2.62	0.38	0.12	1.75	0.00	0.38	1.50	2.44	2.62	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR FEBRUARY 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01										
02										
03										
04	1955	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
05										
06	2030	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22	2030	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
23	2010	1 : 1	1 : 4	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
24										
25	1950	1 : 1	0 : 0	1 : 8	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
26										
27	1945	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
28	1950	0 : 0	1 : 3	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
29	1950	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
30										
31										
TOTALS	—	3 : 3	2 : 7	1 : 8	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
REGIONAL PERCENTAGES										
A	B	C	D	E	F	G	H	J	Σg	
50.0	33.3	16.7	0.0	0.0	0.0	0.0	0.0	0.0	6	
NOBS = 6		$\overline{p/g}$ mean = 0.1250			$\overline{f/g}$ mean = 2.7500					
		$\overline{p/g}$ mean = 0.1667			$\overline{f/g}$ mean = 3.0000					
GROUP COMPLEXITY INDEX (GCI) = 3.1667										



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdsos@earthling.net

SUNSPOT RESULTS FOR MARCH 1996

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 .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01													
02	2030	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3017
03													
04	2015	0	0	0	0	0	0	0	0	2.0	2.5	3.0	3018
05	2000	0	0	0	0	0	0	0	0	2.5	2.5	2.5	3019
06	1945	1	2	12	0	2	2	8	2	2.5	2.5	2.5	3020
07	2015	0	0	0	0	0	0	0	0	2.0	2.0	2.5	3021
08	2020	0	0	0	0	0	0	0	0	1.5	2.5	2.5	3022
09	1955	0	0	0	0	0	0	0	0	2.0	2.0	2.5	3023
10	1955	0	0	0	0	0	0	0	0	2.5	3.0	2.5	3024
11	2010	1	7	17	1	6	16	56	9	2.5	2.5	2.5	3025
12													
13	2035	2	13	33	2	9	29	220	23	1.5	2.0	2.0	3026
14	2010	1	8	18	1	6	16	64	9	1.5	2.0	2.5	3027
15	2015	1	4	14	1	3	13	32	12	2.0	2.5	2.5	3028
16													
17	2035	1	3	13	1	2	12	24	12	2.0	2.0	2.5	3029
18													
19													
20	2040	0	0	0	0	0	0	0	0	1.5	1.5	2.5	3030
21													
22	2045	1	7	17	2	4	24	126	22	1.5	2.0	2.5	3031
23	2040	1	4	14	1	3	13	32	9	2.0	2.5	2.5	3032
24													
25	2035	2	7	27	1	5	15	48	11	1.5	2.0	2.5	3033
26													
27	2125	2	6	26	1	4	14	36	11	2.0	3.0	3.0	3034
28													
29	2025	0	0	0	0	0	0	0	0	2.5	2.5	2.5	3035
30													
31													
Σ	—	13	61	191	11	44	154	646	120	37.0	43.5	47.5	—
NOBS	—	19	19	19	19	19	19	19	19	19	19	19	—
MNS	—	0.68	3.21	10.05	0.58	2.32	8.11	34.00	6.32	1.95	2.29	2.50	—

MEAN WEIGHT = 0.4521

MEAN CONDITION = 2.2456

QUALITY COUNT = 1.89



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR

MARCH 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae within the groups (gr) .

grf = number of non-penumbra spots within the groups (gr) .

efp = number of single penumbral spots :

ef = number of single non-penumbra spots .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01											
02	2030	0	0	0	0	0	0	1.5	2.0	2.0	3017
03											
04	2015	0	0	0	0	0	0	2.0	2.5	3.0	3018
05	2000	0	0	0	0	0	0	2.5	2.5	2.5	3019
06	1945	3	1	0	2	0	0	2.5	2.5	2.5	3020
07	2015	0	0	0	0	0	0	2.0	2.0	2.5	3021
08	2020	0	0	0	0	0	0	1.5	2.5	2.5	3022
09	1955	0	0	0	0	0	0	2.0	2.0	2.5	3023
10	1955	0	0	0	0	0	0	2.5	3.0	2.5	3024
11	2010	8	1	1	6	0	0	2.5	2.5	2.5	3025
12											
13	2035	14	1	4	8	0	1	1.5	2.0	2.0	3026
14	2010	9	1	2	6	0	0	1.5	2.0	2.5	3027
15	2015	5	1	1	3	0	0	2.0	2.5	2.5	3028
16											
17	2035	4	1	1	2	0	0	2.0	2.0	2.5	3029
18											
19											
20	2040	0	0	0	0	0	0	1.5	1.5	2.5	3030
21											
22	2045	8	1	3	4	0	0	1.5	2.0	2.5	3031
23	2040	5	1	1	3	0	0	2.0	2.5	2.5	3032
24											
25	2035	9	2	2	5	0	0	1.5	2.0	2.5	3033
26											
27	2125	8	2	2	4	0	0	2.0	3.0	3.0	3034
28											
29	2025	0	0	0	0	0	0	2.5	2.5	2.5	3035
30											
31											
Σ	—	73	12	17	43	0	1	37.0	43.5	47.5	—
NOBS	—	19	19	19	19	19	19	19	19	19	—
MNS	—	3.84	0.63	0.89	2.26	0.00	0.05	1.95	2.29	2.50	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR MARCH 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01										
02	2030	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
03										
04	2015	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
05	2000	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
06	1945	0 : 0	1 : 2	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
07	2015	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
08	2020	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
09	1955	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
10	1955	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
11	2010	0 : 0	0 : 0	1 : 7	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
12										
13	2035	1 : 1	0 : 0	0 : 0	1 : 12	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
14	2010	0 : 0	0 : 0	1 : 8	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
15	2015	0 : 0	0 : 0	1 : 4	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
16										
17	2035	0 : 0	0 : 0	1 : 3	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
18										
19										
20	2040	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
21										
22	2045	0 : 0	0 : 0	0 : 0	1 : 7	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
23	2040	0 : 0	0 : 0	1 : 4	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
24										
25	2035	0 : 0	1 : 2	1 : 5	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
26										
27	2125	0 : 0	1 : 3	1 : 3	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
28										
29	2025	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
30										
31										
TOTALS	—	1 : 1	3 : 7	7 : 34	12 : 19	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0

REGIONAL PERCENTAGES

A	B	C	D	E	F	G	H	J	Σg
7.7	23.1	53.8	15.4	0.0	0.0	0.0	0.0	0.0	13

NOBS = 19

$\overline{f/g}$ mean = 0.9000

$\overline{f/g}$ mean = 4.8000

$\overline{f/g}$ mean = 0.8462

$\overline{f/g}$ mean = 4.6923

GROUP COMPLEXITY INDEX (GCI) = 5.5385



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdsos@earthling.net

SUNSPOT RESULTS FOR APRIL 1996

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 .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01	2020	1	3	13	1	2	12	24	12	2.0	2.0	2.5	3036
02	2030	1	1	11	0	1	1	4	1	2.0	2.0	2.5	3037
03	2045	1	2	12	0	2	2	8	2	1.5	2.0	2.5	3038
04	2035	0	0	0	0	0	0	0	0	1.5	2.5	3.0	3039
05	2055	0	0	0	0	0	0	0	0	1.0	1.5	2.5	3040
06	2230	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3041
07	2050	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3042
08													
09													
10													
11													
12													
13	2135	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3043
14													
15	2115	0	0	0	0	0	0	0	0	2.0	3.5	3.5	3044
16	2130	0	0	0	0	0	0	0	0	1.0	2.0	2.5	3045
17													
18													
19													
20													
21	2030	1	7	17	2	5	25	126	28	2.0	2.5	2.0	3046
22	2110	1	3	13	2	1	21	54	28	2.0	2.0	2.5	3047
23	2120	1	1	11	0	1	1	4	1	1.5	1.5	2.5	3048
24	2050	0	0	0	0	0	0	0	0	1.5	2.5	2.5	3049
25	2055	0	0	0	0	0	0	0	0	1.0	1.5	2.0	3050
26													
27	2155	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3051
28													
29	2255	0	0	0	0	0	0	0	0	1.0	2.5	2.5	3052
30	2125	0	0	0	0	0	0	0	0	2.0	2.0	2.5	3053
31													
Σ	—	6	17	77	5	12	62	220	72	28.0	38.0	43.5	—
NOBS	—	18	18	18	18	18	18	18	18	18	18	18	—
MNS	—	0.33	0.94	4.28	0.28	0.67	3.44	12.22	4.00	1.56	2.11	2.42	—

MEAN WEIGHT = 0.5039

MEAN CONDITION = 2.0278

QUALITY COUNT = 0.83



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR

APRIL 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae 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 .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01	2020	4	1	1	2	0	0	2.0	2.0	2.5	3036
02	2030	1	0	0	0	0	1	2.0	2.0	2.5	3037
03	2045	3	1	0	2	0	0	1.5	2.0	2.5	3038
04	2035	0	0	0	0	0	0	1.5	2.5	3.0	3039
05	2055	0	0	0	0	0	0	1.0	1.5	2.5	3040
06	2230	0	0	0	0	0	0	1.5	2.0	2.0	3041
07	2050	0	0	0	0	0	0	1.5	2.0	2.0	3042
08											
09											
10											
11											
12											
13	2135	0	0	0	0	0	0	1.5	2.0	2.0	3043
14											
15	2115	0	0	0	0	0	0	2.0	3.5	3.5	3044
16	2130	0	0	0	0	0	0	1.0	2.0	2.5	3045
17											
18											
19											
20											
21	2030	8	1	2	5	0	0	2.0	2.5	2.0	3046
22	2110	4	1	2	1	0	0	2.0	2.0	2.5	3047
23	2120	1	0	0	0	0	1	1.5	1.5	2.5	3048
24	2050	0	0	0	0	0	0	1.5	2.5	2.5	3049
25	2055	0	0	0	0	0	0	1.0	1.5	2.0	3050
26											
27	2155	0	0	0	0	0	0	1.5	2.0	2.0	3051
28											
29	2255	0	0	0	0	0	0	1.0	2.5	2.5	3052
30	2125	0	0	0	0	0	0	2.0	2.0	2.5	3053
31											
Σ	—	21	4	5	10	0	2	28.0	38.0	43.5	—
NOBS	—	18	18	18	18	18	18	18	18	18	—
MNS	—	1.17	0.22	0.28	0.56	0.00	0.11	1.56	2.11	2.42	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR APRIL 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01	2020	0:0	0:0	1:3	0:0	0:0	0:0	0:0	0:0	0:0
02	2030	1:1	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
03	2045	0:0	1:2	0:0	0:0	0:0	0:0	0:0	0:0	0:0
04	2035	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
05	2055	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
06	2230	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
07	2050	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
08										
09										
10										
11										
12										
13	2135	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
14										
15	2115	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
16	2130	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
17										
18										
19										
20										
21	2030	0:0	0:0	0:0	1:7	0:0	0:0	0:0	0:0	0:0
22	2110	0:0	0:0	0:0	1:3	0:0	0:0	0:0	0:0	0:0
23	2120	1:1	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
24	2050	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
25	2055	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
26										
27	2155	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
28										
29	2255	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
30	2125	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
31										
TOTALS	—	2:2	1:2	1:3	2:10	0:0	0:0	0:0	0:0	0:0
REGIONAL PERCENTAGES										
A	B	C	D	E	F	G	H	J	Σg	
33.3	16.7	16.7	33.3	0.0	0.0	0.0	0.0	0.0	6	
		NOBS = 18	$\overline{p/g}$ mean = 0.8333			$\overline{f/g}$ mean = 2.8333				
			$\overline{p/\overline{g}}$ mean = 0.8333			$\overline{f/\overline{g}}$ mean = 2.8333				
GROUP COMPLEXITY INDEX (GCI) = 3.6667										



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdso@earthling.net

SUNSPOT RESULTS FOR MAY 1996

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 .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01	2105	0	0	0	0	0	0	0	0	3.0	3.0	2.5	3054
02	2140	0	0	0	0	0	0	0	0	2.5	2.5	2.5	3055
03	2055	0	0	0	0	0	0	0	0	2.5	2.5	2.5	3056
04													
05	2050	0	0	0	0	0	0	0	0	2.0	2.5	3.0	3057
06													
07	2120	1	5	15	2	3	23	90	28	1.5	2.0	2.5	3058
08													
09	2035	1	4	14	2	2	22	72	28	2.0	3.0	2.5	3059
10	2110	1	10	20	3	6	36	180	34	2.0	2.5	2.5	3060
11	2140	1	11	21	2	8	28	198	22	2.0	2.5	3.0	3061
12	2125	1	7	17	2	4	24	126	22	2.0	2.0	2.5	3062
13													
14	2115	1	6	16	1	5	15	48	12	1.5	2.0	2.5	3063
15													
16	2110	1	2	12	0	2	2	8	2	2.5	2.0	2.0	3064
17	2055	1	2	12	0	2	2	8	2	2.5	2.0	2.0	3065
18													
19													
20													
21													
22	2125	0	0	0	0	0	0	0	0	2.0	2.5	2.5	3066
23	2055	0	0	0	0	0	0	0	0	2.0	2.5	3.0	3067
24													
25	2135	0	0	0	0	0	0	0	0	2.0	2.0	2.5	3068
26													
27	2050	0	0	0	0	0	0	0	0	2.5	2.5	2.5	3069
28													
29													
30	2220	0	0	0	0	0	0	0	0	2.0	2.0	2.5	3070
31	2115	0	0	0	0	0	0	0	0	3.0	3.0	3.0	3071
Σ	—	8	47	127	12	32	152	730	150	39.5	43.0	46.0	—
NOBS	—	18	18	18	18	18	18	18	18	18	18	18	—
MNS	—	0.44	2.61	7.06	0.67	1.78	8.44	40.56	8.33	2.19	2.39	2.56	—

MEAN WEIGHT = 0.4251

MEAN CONDITION = 2.3796

QUALITY COUNT = 1.50



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR MAY 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae within the groups (gr) .

grf = number of non-penumbra spots within the groups (gr) .

efp = number of single penumbral spots :

ef = number of single non-penumbra spots .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01	2105	0	0	0	0	0	0	3.0	3.0	2.5	3054
02	2140	0	0	0	0	0	0	2.5	2.5	2.5	3055
03	2055	0	0	0	0	0	0	2.5	2.5	2.5	3056
04											
05	2050	0	0	0	0	0	0	2.0	2.5	3.0	3057
06											
07	2120	6	1	2	3	0	0	1.5	2.0	2.5	3058
08											
09	2035	5	1	2	2	0	0	2.0	3.0	2.5	3059
10	2110	11	1	4	6	0	0	2.0	2.5	2.5	3060
11	2140	12	1	3	8	0	0	2.0	2.5	3.0	3061
12	2125	8	1	3	4	0	0	2.0	2.0	2.5	3062
13											
14	2115	7	1	1	5	0	0	1.5	2.0	2.5	3063
15											
16	2110	3	1	0	2	0	0	2.5	2.0	2.0	3064
17	2055	3	1	0	2	0	0	2.5	2.0	2.0	3065
18											
19											
20											
21											
22	2125	0	0	0	0	0	0	2.0	2.5	2.5	3066
23	2055	0	0	0	0	0	0	2.0	2.5	3.0	3067
24											
25	2135	0	0	0	0	0	0	2.0	2.0	2.5	3068
26											
27	2050	0	0	0	0	0	0	2.5	2.5	2.5	3069
28											
29											
30	2220	0	0	0	0	0	0	2.0	2.0	2.5	3070
31	2115	0	0	0	0	0	0	3.0	3.0	3.0	3071
Σ	—	55	8	15	32	0	0	39.5	43.0	46.0	—
NOBS	—	18	18	18	18	18	18	18	18	18	—
MNS	—	3.06	0.44	0.83	1.78	0.00	0.00	2.19	2.39	2.56	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR MAY 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01	2105	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
02	2140	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
03	2055	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
04										
05	2050	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
06										
07	2120	0:0	0:0	0:0	1:5	0:0	0:0	0:0	0:0	0:0
08										
09	2035	0:0	0:0	0:0	1:4	0:0	0:0	0:0	0:0	0:0
10	2110	0:0	0:0	0:0	1:10	0:0	0:0	0:0	0:0	0:0
11	2140	0:0	0:0	0:0	1:11	0:0	0:0	0:0	0:0	0:0
12	2125	0:0	0:0	0:0	1:7	0:0	0:0	0:0	0:0	0:0
13										
14	2115	0:0	0:0	1:6	0:0	0:0	0:0	0:0	0:0	0:0
15										
16	2110	0:0	1:2	0:0	0:0	0:0	0:0	0:0	0:0	0:0
17	2055	0:0	1:2	0:0	0:0	0:0	0:0	0:0	0:0	0:0
18										
19										
20										
21										
22	2125	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
23	2055	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
24										
25	2135	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
26										
27	2050	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
28										
29										
30	2220	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
31	2115	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
TOTALS	—	0:0	2:4	1:6	5:37	0:0	0:0	0:0	0:0	0:0

REGIONAL PERCENTAGES

A	B	C	D	E	F	G	H	J	Σg
0.0	25.0	12.5	62.5	0.0	0.0	0.0	0.0	0.0	8

NOBS = 18

$\overline{p/g}$ mean = 1.5000

$\overline{f/g}$ mean = 5.8750

$\overline{p/\bar{g}}$ mean = 1.5000

$\overline{f/\bar{g}}$ mean = 5.8750

GROUP COMPLEXITY INDEX (GCI) = 7.3750



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdso@earthling.net

SUNSPOT RESULTS FOR JUNE 1996

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 .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01	2110	0	0	0	0	0	0	0	0	2.5	2.5	2.5	3072
02	2105	0	0	0	0	0	0	0	0	2.5	3.0	3.0	3073
03	2315	0	0	0	0	0	0	0	0	1.5	2.5	2.5	3074
04													
05													
06													
07	2105	1	14	24	2	10	30	252	22	2.0	2.5	2.5	3075
08													
09	2120	2	8	28	1	6	16	60	10	1.0	2.0	2.5	3076
10													
11													
12	2050	0	0	0	0	0	0	0	0	2.5	2.0	2.0	3077
13	2105	1	1	11	0	1	1	4	1	1.5	2.0	2.0	3078
14	2130	0	0	0	0	0	0	0	0	1.0	1.5	2.0	3079
15													
16													
17	2145	0	0	0	0	0	0	0	0	1.0	2.0	2.0	3080
18	2125	0	0	0	0	0	0	0	0	2.0	2.0	2.0	3081
19													
20	2130	1	1	11	1	0	10	37	10	2.0	2.5	2.5	3082
21													
22													
23	2140	3	4	34	1	3	13	49	13	2.0	2.5	2.5	3083
24													
25	2155	2	5	25	1	4	14	32	14	2.0	2.5	2.5	3084
26													
27													
28	2150	2	4	24	2	2	22	32	16	2.0	2.0	2.0	3085
29													
30													
31													
Σ	—	12	37	157	8	26	106	466	86	25.5	31.5	32.5	—
NOBS	—	14	14	14	14	14	14	14	14	14	14	14	—
MNS	—	0.86	2.64	11.21	0.57	1.86	7.57	33.29	6.14	1.82	2.25	2.32	—

MEAN WEIGHT = 0.4820

MEAN CONDITION = 2.1310

QUALITY COUNT = 1.93



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR JUNE 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae within the groups (gr) .

grf = number of non-penumbra spots within the groups (gr) .

efp = number of single penumbral spots :

ef = number of single non-penumbra spots .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01	2110	0	0	0	0	0	0	2.5	2.5	2.5	3072
02	2105	0	0	0	0	0	0	2.5	3.0	3.0	3073
03	2315	0	0	0	0	0	0	1.5	2.5	2.5	3074
04											
05											
06											
07	2105	15	1	4	10	0	0	2.0	2.5	2.5	3075
08											
09	2120	9	1	2	5	0	1	1.0	2.0	2.5	3076
10											
11											
12	2050	0	0	0	0	0	0	2.5	2.0	2.0	3077
13	2105	1	0	0	0	0	1	1.5	2.0	2.0	3078
14	2130	0	0	0	0	0	0	1.0	1.5	2.0	3079
15											
16											
17	2145	0	0	0	0	0	0	1.0	2.0	2.0	3080
18	2125	0	0	0	0	0	0	2.0	2.0	2.0	3081
19											
20	2130	1	0	0	0	1	0	2.0	2.5	2.5	3082
21											
22											
23	2140	5	1	0	3	1	0	2.0	2.5	2.5	3083
24											
25	2155	7	2	1	4	0	0	2.0	2.5	2.5	3084
26											
27											
28	2150	6	2	2	2	0	0	2.0	2.0	2.0	3085
29											
30											
31											
Σ	—	44	7	9	24	2	2	25.5	31.5	32.5	—
NOBS	—	14	14	14	14	14	14	14	14	14	—
MNS	—	3.14	0.50	0.64	1.71	0.14	0.14	1.82	2.25	2.32	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR JUNE 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01	2110	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
02	2105	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
03	2315	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
04										
05										
06										
07	2105	0:0	0:0	0:0	1:14	0:0	0:0	0:0	0:0	0:0
08										
09	2120	1:1	0:0	1:7	0:0	0:0	0:0	0:0	0:0	0:0
10										
11										
12	2050	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
13	2105	1:1	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
14	2130	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
15										
16										
17	2145	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
18	2125	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
19										
20	2130	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	1:1
21										
22										
23	2140	1:1	1:2	0:0	0:0	0:0	0:0	0:0	0:0	1:1
24										
25	2155	0:0	1:2	1:3	0:0	0:0	0:0	0:0	0:0	0:0
26										
27										
28	2150	0:0	0:0	2:2/2	0:0	0:0	0:0	0:0	0:0	0:0
29										
30										
31										
TOTALS	—	3:3	2:4	4:14	1:14	0:0	0:0	0:0	0:0	2:2
REGIONAL PERCENTAGES										
A	B	C	D	E	F	G	H	J	Σg	
25.0	16.7	33.3	8.3	0.0	0.0	0.0	0.0	16.7	12	
NOBS = 14		$\overline{p/g}$ mean = 0.7619				$\overline{f/g}$ mean = 3.6905				
		$\overline{p/\overline{g}}$ mean = 0.6667				$\overline{f/\overline{g}}$ mean = 3.0833				
GROUP COMPLEXITY INDEX (GCI) = 3.7500										



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdsos@earthling.net

SUNSPOT RESULTS FOR JULY 1996

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 .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01													
02	2120	1	2	12	0	2	2	8	2	2.0	1.5	1.5	3086
03													
04													
05													
06	2145	1	3	13	0	3	3	12	3	1.5	1.5	2.0	3087
07	2155	1	13	23	3	6	36	234	31	1.5	2.0	2.5	3088
08													
09													
10													
11	2050	1	9	19	2	5	25	162	52	2.0	2.0	2.0	3089
12	2115	2	5	25	2	3	23	76	23	1.5	2.0	2.0	3090
13													
14													
15	2150	1	1	11	0	1	1	4	1	2.5	2.5	2.5	3091
16													
17													
18													
19	2240	0	0	0	0	0	0	0	0	1.5	1.5	2.0	3092
20													
21	2125	1	1	11	0	1	1	4	1	1.5	2.0	2.5	3093
22													
23													
24													
25	2050	0	0	0	0	0	0	0	0	2.0	2.5	2.5	3094
26	2115	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3095
27	2130	1	3	13	1	2	12	24	12	2.5	2.5	2.5	3096
28													
29	2200	1	9	19	2	3	23	162	52	2.0	1.5	2.0	3097
30	2050	1	12	22	4	2	42	216	58	2.0	1.5	1.5	3098
31													
Σ	—	11	58	168	14	28	168	902	235	24.0	25.0	27.5	—
NOBS	—	13	13	13	13	13	13	13	13	13	13	13	—
MNS	—	0.85	4.46	12.92	1.08	2.15	12.92	69.38	18.08	1.85	1.92	2.12	—

MEAN WEIGHT = 0.5204

MEAN CONDITION = 1.9615

QUALITY COUNT = 2.31



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR

JULY 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae 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 .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01											
02	2120	3	1	0	2	0	0	2.0	1.5	1.5	3086
03											
04											
05											
06	2145	4	1	0	3	0	0	1.5	1.5	2.0	3087
07	2155	14	1	7	6	0	0	1.5	2.0	2.5	3088
08											
09											
10											
11	2050	10	1	4	5	0	0	2.0	2.0	2.0	3089
12	2115	6	1	2	2	0	1	1.5	2.0	2.0	3090
13											
14											
15	2150	1	0	0	0	0	1	2.5	2.5	2.5	3091
16											
17											
18											
19	2240	0	0	0	0	0	0	1.5	1.5	2.0	3092
20											
21	2125	1	0	0	0	0	1	1.5	2.0	2.5	3093
22											
23											
24											
25	2050	0	0	0	0	0	0	2.0	2.5	2.5	3094
26	2115	0	0	0	0	0	0	1.5	2.0	2.0	3095
27	2130	4	1	1	2	0	0	2.5	2.5	2.5	3096
28											
29	2200	10	1	6	3	0	0	2.0	1.5	2.0	3097
30	2050	13	1	10	2	0	0	2.0	1.5	1.5	3098
31											
Σ	—	66	8	30	25	0	3	24.0	25.0	27.5	—
NOBS	—	13	13	13	13	13	13	13	13	13	—
MNS	—	5.08	0.62	2.31	1.92	0.00	0.23	1.85	1.92	2.12	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR JULY 1996

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 g:f	B g:f	C g:f	D g:f	E g:f	F g:f	G g:f	H g:f	J g:f
01										
02	2120	0:0	1:2	0:0	0:0	0:0	0:0	0:0	0:0	0:0
03										
04										
05										
06	2145	0:0	1:3	0:0	0:0	0:0	0:0	0:0	0:0	0:0
07	2155	0:0	0:0	0:0	1:13	0:0	0:0	0:0	0:0	0:0
08										
09										
10										
11	2050	0:0	0:0	0:0	1:9	0:0	0:0	0:0	0:0	0:0
12	2115	1:1	0:0	0:0	1:4	0:0	0:0	0:0	0:0	0:0
13										
14										
15	2150	1:1	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
16										
17										
18										
19	2240	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
20										
21	2125	1:1	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
22										
23										
24										
25	2050	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
26	2115	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
27	2130	0:0	0:0	1:3	0:0	0:0	0:0	0:0	0:0	0:0
28										
29	2200	0:0	0:0	0:0	1:9	0:0	0:0	0:0	0:0	0:0
30	2050	0:0	0:0	0:0	1:12	0:0	0:0	0:0	0:0	0:0
31										
TOTALS	—	3:3	2:5	1:3	5:47	0:0	0:0	0:0	0:0	0:0

REGIONAL PERCENTAGES

A	B	C	D	E	F	G	H	J	Σg
27.3	18.2	9.1	45.5	0.0	0.0	0.0	0.0	0.0	11

NOBS = 13

$\overline{p/g}$ mean = 1.3000

$\overline{f/g}$ mean = 5.5500

$\overline{p/g}$ mean = 1.2727

$\overline{f/g}$ mean = 5.2727

GROUP COMPLEXITY INDEX (GCI) = 6.5455



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdso@earthling.net

SUNSPOT RESULTS FOR AUGUST 1996

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 .
 Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .
 S = Sharpness [ie. clarity] refer to Kiepenheuer scale .
 T = Transparency where 1 = excellent , 5 = worthless .
 WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01													
02	2140	2	15	35	4	8	48	256	55	2.0	2.0	2.5	3099
03	2115	1	14	24	2	11	31	252	52	1.5	1.5	2.5	3100
04	2110	1	10	20	1	9	19	80	42	2.5	2.5	2.5	3101
05													
06	2145	2	4	24	1	3	13	28	43	2.0	2.0	2.5	3102
07													
08	2110	2	3	23	0	3	3	12	3	2.5	2.0	2.5	3103
09	2040	2	8	28	0	8	8	32	4	2.0	2.0	2.5	3104
10	2110	1	10	20	2	5	25	180	22	1.5	2.0	2.5	3105
11	2100	2	15	35	2	6	26	256	23	1.5	2.0	2.5	3106
12													
13	2135	1	3	13	0	3	3	12	3	1.5	2.0	2.0	3107
14													
15													
16	2145	1	4	14	0	4	4	16	3	2.0	2.0	2.5	3108
17													
18													
19													
20	2050	2	3	23	0	3	3	12	3	2.0	2.5	2.5	3109
21	2120	1	1	11	0	1	1	4	1	2.0	2.0	2.0	3110
22													
23													
24													
25	2310	1	4	14	1	2	12	32	12	2.5	3.0	3.0	3111
26	2045	1	2	12	1	0	10	74	10	1.5	2.5	2.5	3112
27	2210	1	3	13	1	2	12	24	12	1.5	2.0	2.0	3113
28													
29	2135	2	5	25	1	4	14	32	14	1.5	2.0	2.5	3114
30	2300	1	2	12	1	1	11	16	11	2.0	2.5	2.5	3115
31													
Σ	—	24	106	346	17	73	243	1318	313	32.0	36.5	41.5	—
NOBS	—	17	17	17	17	17	17	17	17	17	17	17	—
MNS	—	1.41	6.24	20.35	1.00	4.29	14.29	77.53	18.41	1.88	2.15	2.44	—

MEAN WEIGHT = 0.4696

MEAN CONDITION = 2.1569

QUALITY COUNT = 3.24



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR AUGUST 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae 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 .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01											
02	2140	16	1	7	7	0	1	2.0	2.0	2.5	3099
03	2115	15	1	3	11	0	0	1.5	1.5	2.5	3100
04	2110	11	1	1	9	0	0	2.5	2.5	2.5	3101
05											
06	2145	5	1	1	2	0	1	2.0	2.0	2.5	3102
07											
08	2110	4	1	0	2	0	1	2.5	2.0	2.5	3103
09	2040	9	1	0	7	0	1	2.0	2.0	2.5	3104
10	2110	11	1	5	5	0	0	1.5	2.0	2.5	3105
11	2100	16	1	9	5	0	1	1.5	2.0	2.5	3106
12											
13	2135	4	1	0	3	0	0	1.5	2.0	2.0	3107
14											
15											
16	2145	5	1	0	4	0	0	2.0	2.0	2.5	3108
17											
18											
19											
20	2050	4	1	0	2	0	1	2.0	2.5	2.5	3109
21	2120	1	0	0	0	0	1	2.0	2.0	2.0	3110
22											
23											
24											
25	2310	5	1	2	2	0	0	2.5	3.0	3.0	3111
26	2045	3	1	2	0	0	0	1.5	2.5	2.5	3112
27	2210	4	1	1	2	0	0	1.5	2.0	2.0	3113
28											
29	2135	7	2	1	4	0	0	1.5	2.0	2.5	3114
30	2300	3	1	1	1	0	0	2.0	2.5	2.5	3115
31											
Σ	—	123	17	33	66	0	7	32.0	36.5	41.5	—
NOBS	—	17	17	17	17	17	17	17	17	17	—
MNS	—	7.24	1.00	1.94	3.88	0.00	0.41	1.88	2.15	2.44	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR AUGUST 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01										
02	2140	1 : 1	0 : 0	0 : 0	1 : 14	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
03	2115	0 : 0	0 : 0	0 : 0	1 : 14	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
04	2110	0 : 0	0 : 0	1 : 10	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
05										
06	2145	1 : 1	0 : 0	1 : 3	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
07										
08	2110	1 : 1	1 : 2	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
09	2040	1 : 1	1 : 7	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
10	2110	0 : 0	0 : 0	0 : 0	1 : 10	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
11	2100	1 : 1	0 : 0	0 : 0	1 : 14	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
12										
13	2135	0 : 0	1 : 3	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
14										
15										
16	2145	0 : 0	1 : 4	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
17										
18										
19										
20	2050	1 : 1	1 : 2	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
21	2120	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
22										
23										
24										
25	2310	0 : 0	0 : 0	1 : 4	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
26	2045	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	1 : 2
27	2210	0 : 0	0 : 0	1 : 3	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
28										
29	2135	0 : 0	1 : 2	1 : 3	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
30	2300	0 : 0	0 : 0	1 : 2	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
31										
TOTALS	—	7 : 7	6 : 20	6 : 25	4 : 52	0 : 0	0 : 0	0 : 0	0 : 0	1 : 2

REGIONAL PERCENTAGES

A	B	C	D	E	F	G	H	J	Σg
29.2	25.0	25.0	16.7	0.0	0.0	0.0	0.0	4.2	24

NOBS = 17

$\overline{p/g}$ mean = 0.7647

$\overline{f/g}$ mean = 4.6765

$\overline{p/\overline{g}}$ mean = 0.7083

$\overline{f/\overline{g}}$ mean = 4.4167

GROUP COMPLEXITY INDEX (GCI) = 5.1250



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdsos@earthling.net

SUNSPOT RESULTS FOR SEPTEMBER 1996

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 .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01													
02													
03													
04	2255	1	1	11	0	1	1	4	1	1.5	2.5	2.5	3116
05	2105	0	0	0	0	0	0	0	0	2.0	2.5	3.0	3117
06	2120	0	0	0	0	0	0	0	0	2.0	2.0	2.5	3118
07	2045	2	6	26	0	6	6	24	5	2.0	2.5	2.5	3119
08													
09													
10													
11													
12													
13													
14													
15	2115	0	0	0	0	0	0	0	0	1.5	2.0	2.5	3120A
16	2005	0	0	0	0	0	0	0	0	2.0	2.0	2.5	3121
17	2010	0	0	0	0	0	0	0	0	1.5	1.5	2.0	3122
18													
19	2155	0	0	0	0	0	0	0	0	2.0	2.0	2.5	3123
20	2220	0	0	0	0	0	0	0	0	2.0	2.0	2.0	3124
21	2205	0	0	0	0	0	0	0	0	2.0	2.0	2.0	3125
22													
23													
24													
25													
26													
27													
28	2025	0	0	0	0	0	0	0	0	3.0	3.0	3.0	3126
29	2020	0	0	0	0	0	0	0	0	1.5	2.5	2.5	3127
30	2025	0	0	0	0	0	0	0	0	2.0	2.5	2.5	3128
31													
Σ	—	3	7	37	0	7	7	28	6	25.0	29.0	32.0	—
NOBS	—	13	13	13	13	13	13	13	13	13	13	13	—
MNS	—	0.23	0.54	2.85	0.00	0.54	0.54	2.15	0.46	1.92	2.23	2.46	—

MEAN WEIGHT = 0.4614

MEAN CONDITION = 2.2051

QUALITY COUNT = 0.38



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR

SEPTEMBER 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae within the groups (gr) .

grf = number of non-penumbra spots within the groups (gr) .

efp = number of single penumbral spots :

ef = number of single non-penumbra spots .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01											
02											
03											
04	2255	1	0	0	0	0	1	1.5	2.5	2.5	3116
05	2105	0	0	0	0	0	0	2.0	2.5	3.0	3117
06	2120	0	0	0	0	0	0	2.0	2.0	2.5	3118
07	2045	8	2	0	6	0	0	2.0	2.5	2.5	3119
08											
09											
10											
11											
12											
13											
14											
15	2115	0	0	0	0	0	0	1.5	2.0	2.5	3120A
16	2005	0	0	0	0	0	0	2.0	2.0	2.5	3121
17	2010	0	0	0	0	0	0	1.5	1.5	2.0	3122
18											
19	2155	0	0	0	0	0	0	2.0	2.0	2.5	3123
20	2220	0	0	0	0	0	0	2.0	2.0	2.0	3124
21	2205							2.0	2.0	2.0	3125
22											
23											
24											
25											
26											
27											
28	2025	0	0	0	0	0	0	3.0	3.0	3.0	3126
29	2020	0	0	0	0	0	0	1.5	2.5	2.5	3127
30	2025	0	0	0	0	0	0	2.0	2.5	2.5	3128
31											
Σ	—	9	2	0	6	0	1	25.0	29.0	32.0	—
NOBS	—	13	13	13	13	13	13	13	13	13	—
MNS	—	0.69	0.15	0.00	0.46	0.00	0.08	1.92	2.23	2.46	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR SEPTEMBER 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01										
02										
03										
04	2255	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
05	2105	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
06	2120	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
07	2045	0 : 0	2 : 2/4	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
08										
09										
10										
11										
12										
13										
14										
15	2115	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
16	2005	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
17	2010	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
18										
19	2155	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
20	2220	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
21	2205	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
22										
23										
24										
25										
26										
27										
28	2025	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
29	2020	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
30	2025	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
31										
TOTALS	—	1 : 1	2 : 6	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0

REGIONAL PERCENTAGES

A	B	C	D	E	F	G	H	J	Σg
33.3	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3

NOBS = 13

$\overline{p/g}$ mean = 0.0000

$\overline{f/g}$ mean = 2.0000

$\overline{p/g}$ mean = 0.0000

$\overline{f/g}$ mean = 2.3333

GROUP COMPLEXITY INDEX (GCI) = 2.3333



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdsos@earthling.net

SUNSPOT RESULTS FOR OCTOBER 1996

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 .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01													
02	2255	0	0	0	0	0	0	0	0	2.5	3.0	3.0	3129
03	2210	0	0	0	0	0	0	0	0	2.0	2.0	2.0	3130
04	2205	0	0	0	0	0	0	0	0	2.0	2.5	2.5	3131
05	2050	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3132
06	1940	0	0	0	0	0	0	0	0	2.0	2.5	3.0	3133
07													
08													
09	2020	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3134
10													
11	1940	0	0	0	0	0	0	0	0	2.0	2.0	2.0	3135
12													
13	2045	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3136
14													
15	1955	0	0	0	0	0	0	0	0	2.0	3.0	3.0	3137
16	2025	0	0	0	0	0	0	0	0	1.5	1.5	2.0	3138
17	2010	0	0	0	0	0	0	0	0	2.0	3.0	3.0	3139
18	1935	0	0	0	0	0	0	0	0	2.0	2.5	3.0	3140
19	2005	0	0	0	0	0	0	0	0	1.5	1.5	1.5	3141
20													
21													
22	2125	0	0	0	0	0	0	0	0	2.0	2.5	2.5	3142
23	1935	0	0	0	0	0	0	0	0	2.0	2.0	2.0	3143
24	2240	0	0	0	0	0	0	0	0	1.5	2.5	2.5	3144
25													
26													
27													
28													
29	2155	0	0	0	0	0	0	0	0	2.0	2.0	2.0	3145
30	1940	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3146
31	1930	0	0	0	0	0	0	0	0	1.5	1.5	2.0	3147
Σ	—	0	0	0	0	0	0	0	0	34.5	42.0	44.0	—
NOBS	—	19	19	19	19	19	19	19	19	19	19	19	—
MNS	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.82	2.21	2.32	—

MEAN WEIGHT = 0.4879

MEAN CONDITION = 2.1140

QUALITY COUNT = 0.00



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR

OCTOBER 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbræ within penumbrae 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 .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01											
02	2255	0	0	0	0	0	0	2.5	3.0	3.0	3129
03	2210	0	0	0	0	0	0	2.0	2.0	2.0	3130
04	2205	0	0	0	0	0	0	2.0	2.5	2.5	3131
05	2050	0	0	0	0	0	0	1.5	2.0	2.0	3132
06	1940	0	0	0	0	0	0	2.0	2.5	3.0	3133
07											
08											
09	2020	0	0	0	0	0	0	1.5	2.0	2.0	3134
10											
11	1940	0	0	0	0	0	0	2.0	2.0	2.0	3135
12											
13	2045	0	0	0	0	0	0	1.5	2.0	2.0	3136
14											
15	1955	0	0	0	0	0	0	2.0	3.0	3.0	3137
16	2025	0	0	0	0	0	0	1.5	1.5	2.0	3138
17	2010	0	0	0	0	0	0	2.0	3.0	3.0	3139
18	1935	0	0	0	0	0	0	2.0	2.5	3.0	3140
19	2005	0	0	0	0	0	0	1.5	1.5	1.5	3141
20											
21											
22	2125	0	0	0	0	0	0	2.0	2.5	2.5	3142
23	1935	0	0	0	0	0	0	2.0	2.0	2.0	3143
24	2240	0	0	0	0	0	0	1.5	2.5	2.5	3144
25											
26											
27											
28											
29	2155	0	0	0	0	0	0	2.0	2.0	2.0	3145
30	1940	0	0	0	0	0	0	1.5	2.0	2.0	3146
31	1930	0	0	0	0	0	0	1.5	1.5	2.0	3147
Σ	—	0	0	0	0	0	0	34.5	42.0	44.0	—
NOBS	—	19	19	19	19	19	19	19	19	19	—
MNS	—	0.00	0.00	0.00	0.00	0.00	0.00	1.82	2.21	2.32	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR OCTOBER 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01										
02	2255	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
03	2210	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
04	2205	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
05	2050	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
06	1940	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
07										
08										
09	2020	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
10										
11	1940	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
12										
13	2045	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
14										
15	1955	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
16	2025	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
17	2010	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
18	1935	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
19	2005	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
20										
21										
22	2125	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
23	1935	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
24	2240	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
25										
26										
27										
28										
29	2155	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
30	1940	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
31	1930	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
TOTALS	—	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
REGIONAL PERCENTAGES										
A	B	C	D	E	F	G	H	J	Σg	
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	
NOBS = 19		$\overline{p/g}$ mean = —				$\overline{f/g}$ mean = —				
		$\overline{p/\bar{g}}$ mean = —				$\overline{f/\bar{g}}$ mean = —				
GROUP COMPLEXITY INDEX (GCI) = —										



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdsos@earthling.net

SUNSPOT RESULTS FOR NOVEMBER 1996

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 .
 Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .
 S = Sharpness [ie. clarity] refer to Kiepenheuer scale .
 T = Transparency where 1 = excellent , 5 = worthless .
 WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01													
02	1950	0	0	0	0	0	0	0	0	2.0	2.0	2.0	3148
03	2005	0	0	0	0	0	0	0	0	1.5	2.0	1.5	3149
04	1945	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3150
05	2000	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3151
06													
07	2125	0	0	0	0	0	0	0	0	2.0	2.0	2.5	3152
08	2225	0	0	0	0	0	0	0	0	2.0	2.5	2.5	3153
09													
10													
11													
12													
13	1930	1	2	12	0	2	2	8	2	2.0	2.0	2.5	3154
14													
15	2040	2	4	24	0	4	4	16	4	1.5	2.0	2.5	3155
16													
17													
18													
19	1945	1	1	11	0	1	1	4	1	1.0	2.0	2.5	3156
20	2005	1	1	11	0	1	1	4	1	2.0	2.5	2.5	3157
21													
22	2010	2	17	37	3	11	41	256	34	2.0	1.5	2.0	3158
23	2135	2	29	49	7	13	83	522	59	2.0	2.5	2.5	3159
24													
25													
26	2310	2	25	45	4	11	51	430	66	2.5	3.0	3.0	3160
27	1950	1	37	47	4	21	61	925	56	1.5	2.5	2.5	3161
28	2145	1	24	34	5	12	62	600	59	2.0	2.0	2.5	3162
29	2005	1	19	29	5	8	58	342	58	2.0	1.5	2.0	3163
30													
31													
Σ	—	14	159	299	28	84	364	3107	340	29.0	34.0	37.0	—
NOBS	—	16	16	16	16	16	16	16	16	16	16	16	—
MNS	—	0.88	9.94	18.69	1.75	5.25	22.75	194.19	21.25	1.81	2.12	2.31	—

MEAN WEIGHT = 0.4883

MEAN CONDITION = 2.0833

QUALITY COUNT = 2.75



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR

NOVEMBER 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae within the groups (gr) .

grf = number of non-penumbra spots within the groups (gr) .

efp = number of single penumbral spots :

ef = number of single non-penumbra spots .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01											
02	1950	0	0	0	0	0	0	2.0	2.0	2.0	3148
03	2005	0	0	0	0	0	0	1.5	2.0	1.5	3149
04	1945	0	0	0	0	0	0	1.5	2.0	2.0	3150
05	2000	0	0	0	0	0	0	1.5	2.0	2.0	3151
06											
07	2125	0	0	0	0	0	0	2.0	2.0	2.5	3152
08	2225	0	0	0	0	0	0	2.0	2.5	2.5	3153
09											
10											
11											
12											
13	1930	3	1	0	2	0	0	2.0	2.0	2.5	3154
14											
15	2040	6	2	0	4	0	0	1.5	2.0	2.5	3155
16											
17											
18											
19	1945	1	0	0	0	0	1	1.0	2.0	2.5	3156
20	2005	1	0	0	0	0	1	2.0	2.5	2.5	3157
21											
22	2010	19	2	6	11	0	0	2.0	1.5	2.0	3158
23	2135	31	2	16	13	0	0	2.0	2.5	2.5	3159
24											
25											
26	2310	27	2	14	11	0	0	2.5	3.0	3.0	3160
27	1950	38	1	16	21	0	0	1.5	2.5	2.5	3161
28	2145	25	1	12	12	0	0	2.0	2.0	2.5	3162
29	2005	20	1	11	8	0	0	2.0	1.5	2.0	3163
30											
31											
Σ	—	171	12	75	82	0	2	29.0	34.0	37.0	—
NOBS	—	16	16	16	16	16	16	16	16	16	—
MNS	—	10.69	0.75	4.69	5.12	0.00	0.12	1.81	2.12	2.31	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR NOVEMBER 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01										
02	1950	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
03	2005	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
04	1945	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
05	2000	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
06										
07	2125	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
08	2225	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
09										
10										
11										
12										
13	1930	0 : 0	1 : 2	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
14										
15	2040	0 : 0	2 : 2/2	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
16										
17										
18										
19	1945	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
20	2005	1 : 1	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
21										
22	2010	0 : 0	0 : 0	1 : 5	1 : 12	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
23	2135	0 : 0	0 : 0	0 : 0	2 : 13/16	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
24										
25										
26	2310	0 : 0	0 : 0	1 : 2	1 : 23	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
27	1950	0 : 0	0 : 0	0 : 0	0 : 0	1 : 37	0 : 0	0 : 0	0 : 0	0 : 0
28	2145	0 : 0	0 : 0	0 : 0	0 : 0	1 : 24	0 : 0	0 : 0	0 : 0	0 : 0
29	2005	0 : 0	0 : 0	0 : 0	1 : 19	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
30										
31										
TOTALS	—	2 : 2	3 : 6	2 : 7	5 : 83	2 : 61	0 : 0	0 : 0	0 : 0	0 : 0
REGIONAL PERCENTAGES										
A	B	C	D	E	F	G	H	J	Σg	
14.3	21.4	14.3	35.7	14.3	0.0	0.0	0.0	0.0	14	
NOBS = 16		$\overline{p/g}$ mean = 2.1000				$\overline{f/g}$ mean = 12.1500				
		$\overline{p/\overline{g}}$ mean = 2.0000				$\overline{f/\overline{g}}$ mean = 11.3571				
GROUP COMPLEXITY INDEX (GCI) = 13.3571										



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

NEW ZEALAND

E-MAIL: gdsos@earthling.net

SUNSPOT RESULTS FOR **DECEMBER 1996**

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 .
 Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .
 S = Sharpness [ie. clarity] refer to Kiepenheuer scale .
 T = Transparency where 1 = excellent , 5 = worthless .
 WN = Wolf Number ; SN = Pettisindex ; BX = Beckindex ; CV = Classification Value .

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	Ref.
01	1955	1	5	15	3	1	31	90	58	2.5	2.5	2.5	3164
02													
03													
04	2045	0	0	0	0	0	0	0	0	1.5	1.5	2.0	3165
05	2040	0	0	0	0	0	0	0	0	2.5	3.0	3.0	3166
06	2015	0	0	0	0	0	0	0	0	2.0	2.0	2.0	3167
07	2020	0	0	0	0	0	0	0	0	2.0	2.5	2.5	3168
08	2010	1	3	13	1	2	12	24	6	2.5	2.5	2.5	3169
09	1950	1	8	18	1	6	16	64	9	2.0	2.0	2.0	3170
10													
11	1955	2	6	26	2	4	24	77	22	2.0	3.0	3.5	3171
12													
13													
14	2145	2	4	24	3	1	31	91	32	1.0	2.0	2.0	3172
15	2005	2	5	25	2	3	23	69	22	1.5	2.0	2.5	3173
16													
17	1950	2	6	26	1	5	15	36	15	1.5	1.5	2.0	3174
18													
19													
20	2005	1	2	12	1	1	11	16	11	1.5	2.0	2.0	3175
21	2000	2	4	24	1	3	13	49	13	1.5	1.5	2.0	3176
22													
23													
24	2015	0	0	0	0	0	0	0	0	2.0	2.0	2.0	3177
25	2025	0	0	0	0	0	0	0	0	1.5	2.0	2.0	3178
26	2005	0	0	0	0	0	0	0	0	1.0	1.5	2.0	3179
27													
28													
29													
30													
31	2035	0	0	0	0	0	0	0	0	1.5	1.5	2.0	3180
Σ	—	14	43	183	15	26	176	516	188	30.0	35.0	38.5	—
NOBS	—	17	17	17	17	17	17	17	17	17	17	17	—
MNS	—	0.82	2.53	10.76	0.88	1.53	10.35	30.35	11.06	1.76	2.06	2.26	—

MEAN WEIGHT = 0.5113

MEAN CONDITION = 2.0294

QUALITY COUNT = 2.24



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT DISTRIBUTION & INTER-SOL INDICES FOR

DECEMBER 1996

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor (f . l . 910 mm) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .

S = Sharpness [ie. clarity] refer to Kiepenheuer scale .

T = Transparency where 1 = excellent , 5 = worthless .

IS = Inter-Sol Index .

gr = number of multi-spot groups .

grfp = number of umbrae within penumbrae within the groups (gr) .

grf = number of non-penumbra spots within the groups (gr) .

efp = number of single penumbral spots :

ef = number of single non-penumbra spots .

DATE	UT	IS	gr	grfp	grf	efp	ef	Q	S	T	Ref.
01	1955	6	1	4	1	0	0	2.5	2.5	2.5	3164
02											
03											
04	2045	0	0	0	0	0	0	1.5	1.5	2.0	3165
05	2040	0	0	0	0	0	0	2.5	3.0	3.0	3166
06	2015	0	0	0	0	0	0	2.0	2.0	2.0	3167
07	2020	0	0	0	0	0	0	2.0	2.5	2.5	3168
08	2010	4	1	1	2	0	0	2.5	2.5	2.5	3169
09	1950	9	1	2	6	0	0	2.0	2.0	2.0	3170
10											
11	1955	7	1	1	4	1	0	2.0	3.0	3.5	3171
12											
13											
14	2145	5	1	2	1	1	0	1.0	2.0	2.0	3172
15	2005	6	1	1	3	1	0	1.5	2.0	2.5	3173
16											
17	1950	8	2	1	5	0	0	1.5	1.5	2.0	3174
18											
19											
20	2005	3	1	1	1	0	0	1.5	2.0	2.0	3175
21	2000	5	1	0	3	1	0	1.5	1.5	2.0	3176
22											
23											
24	2015	0	0	0	0	0	0	2.0	2.0	2.0	3177
25	2025	0	0	0	0	0	0	1.5	2.0	2.0	3178
26	2005	0	0	0	0	0	0	1.0	1.5	2.0	3179
27											
28											
29											
30											
31	2035	0	0	0	0	0	0	1.5	1.5	2.0	3180
Σ	—	53	10	13	26	4	0	30.0	35.0	38.5	—
NOBS	—	17	17	17	17	17	17	17	17	17	—
MNS	—	3.12	0.59	0.76	1.53	0.24	0.00	1.76	2.06	2.26	—



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

SUNSPOT CENSUS BY CLASSIFICATION FOR DECEMBER 1996

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 g : f	B g : f	C g : f	D g : f	E g : f	F g : f	G g : f	H g : f	J g : f
01	1955	0:0	0:0	0:0	1:5	0:0	0:0	0:0	0:0	0:0
02										
03										
04	2045	0:0	0:0	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	2015	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
07	2020	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
08	2010	0:0	0:0	1:3	0:0	0:0	0:0	0:0	0:0	0:0
09	1950	0:0	0:0	1:8	0:0	0:0	0:0	0:0	0:0	0:0
10										
11	1955	0:0	0:0	1:5	0:0	0:0	0:0	0:0	0:0	1:1
12										
13										
14	2145	0:0	0:0	0:0	1:3	0:0	0:0	0:0	0:0	1:1
15	2005	0:0	0:0	1:4	0:0	0:0	0:0	0:0	0:0	1:1
16										
17	1950	0:0	1:3	1:3	0:0	0:0	0:0	0:0	0:0	0:0
18										
19										
20	2005	0:0	0:0	1:2	0:0	0:0	0:0	0:0	0:0	0:0
21	2000	0:0	1:3	0:0	0:0	0:0	0:0	0:0	0:0	1:1
22										
23										
24	2015	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
25	2025	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
26	2005	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
27										
28										
29										
30										
31	2035	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
TOTALS	—	0:0	2:6	6:25	2:8	0:0	0:0	0:0	0:0	4:4

REGIONAL PERCENTAGES

A	B	C	D	E	F	G	H	J	Σg
0.0	14.3	42.9	14.3	0.0	0.0	0.0	0.0	28.6	14

NOBS = 17

$\overline{p/g}$ mean = 1.1667

$\overline{f/g}$ mean = 3.3889

$\overline{p/\bar{g}}$ mean = 1.0714

$\overline{f/\bar{g}}$ mean = 3.0714

GROUP COMPLEXITY INDEX (GCI) = 4.1429



GEORGI DOBROVOLSKI SOLAR OBSERVATORY

OBSERVED ANNUAL MEANS OF SUNSPOT DATA FOR 1996

All observations carried out by HOWARD BARNES .
Telescope : 76 mm refractor (f.l. 910 mm) .
Observed by PROJECTION . Full disc diameter = 145 mm approx .
Q = Quietness [ie. steadiness] refer to Kiepenheuer scale .
S = Sharpness [ie. clarity] refer to Kiepenheuer scale .
T = Transparency where 1 = excellent , 5 = worthless .

g	=	0.66
f	=	3.19
Wolf Number	=	9.78
Truncated Wolf Number	=	6.27
p	=	0.61
s	=	2.03
Pettisindex	=	8.16
Beckindex	=	44.51
Classification Value	=	8.37
Quality Count	=	1.64
Inter-Sol Index	=	3.65
Mean Weight	=	0.4744
Q	=	1.85
S	=	2.21
T	=	2.41
Mean Condition	=	2.1564
Total Number of Observations	=	194