



GDSO

GEORGI DOBROVOLSKI SOLAR OBSERVATORY

ANNUAL REPORT

**FOR
1995**

COMPILED BY HOWARD BARNES

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THE DECIMAL POINT.

In this publication, the comma (,) is used as the decimal point, following the European, Asian and Latin American tradition.

PREFACE.

During 1995, the Sun was observed 206 times. These observations showed that sunspot activity declined all the more throughout the year. Spotless discs increased to 57 in the year or 27,7% of all 1995's observations. The spotless percentage for 1994 was 10,4%, 1993's was 2,7%. Spotless observations, during 1995, occurred in all months except February.

The greatest activity for the year occurred in two periods, February/March and October. The corrected Wolf Number reached a high, for the year, of 35,55 in February, and a low of 6,80 in September.

Group complexity rose to a maximum of 1,63 penumbrae/group and 9,63 spots/group (combined 11,26) in April, the highest since January 1994. It has since slumped to 2,46, in December 1995, the lowest combination on GDSO record. The mean number of spots per group has also dropped, to 1,85 in December 1995, the lowest since December 1986. However, the Group Complexity Index (GCI) for 1995 rose to 6,13 from 1994's 5,78. Although activity is down, when it did occur it was more concentrated (more spots per region in ratio to 1994). The Active Area (g) mean in 1995 dropped 43,5%, while the spot mean (f) dropped only 37,9%, hence the rise in the GCI. The number of penumbrae per group also dropped from 1,12 (in 1994) to 1,01 in 1995, a drop of only 9%. This value means that the 'average' region in 1995 was C class.

X-ray flare activity has also slumped to a mean daily output of 1,8 microwatts per square metre, only half of 1994's output. There was no x-ray flares for December 1995, though there were no data for 2 days in that month.

At this time (April 1996), we believe that sunspot minimum will be in May or June 1996. We believe the little surge of activity in October 1995 was a tell-tale sign of this. Over the last few minima, a small surge of activity has come some 6-10 months before minimum, there is no real reason to believe this would not be so, this minimum. If minimum is May or June, then Cycle No 22 will, like Cycle No 21, be shorter than the 11-year average length. Minimum should be declarable next Report.

Being introduced in this issue is the Truncated Wolf Number. This is merely the Wolf Number of sunspot groups that are greater than B-class. It should only be used in the 'terrestrial effects' category, and not in the solar-physical side of things.

Also being introduced, or more correctly, re-introduced in this issue are co-ordinates of sunspot regions. These appear in Section B, and come about due to a better computer programme. However, I would like to point out that this might not be a permanent feature of the GDSO Annual Report.

The Inter-Sol Index, introduced last issue, is brought up to 1993 in this issue, and will be brought up-to-date in the Annual Report for 1996.

The Annual Report for 1996 will be published in April 1997.

HOWARD BARNES.

THE GEORGI DOBROVOLSKI
SOLAR OBSERVATORY.

100 % Amateur.

100 % Privately Owned & Funded.

Observatory's Telescopes;

76 mm f12 refractor

150 mm f18,4 Cassegrain reflector (in mothballs)

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ERRATA

(in addition to any other errata)

1992's Report;

page D25 (second column) line reading

	04/09	0058	0059	0103	
should read	04/09	0058	0059	0103	2,0

1993's Report;

pages F45-46 $\bar{f}/\bar{g}(S^w)$ column June 1977 onwards;

3,1900	should read	3,1897	1978 Jan 4,	3,410	should read	4,3402
3,2854	" "	3,2846		4,4093	" "	4,4086
3,3566	" "	3,3559		4,4792	" "	4,4785
3,4254	" "	3,4246		4,5818	" "	4,5810
3,6080	" "	3,6073		4,5892	" "	4,5885
3,9532	" "	3,9525		4,5815	" "	4,5811
4,2130	" "	4,2123				

page F46 $\bar{f}/\bar{g}(S^w)$ column January 1979 onwards;

4,5726	should read	4,6247	5, 1167	should read	5,2208
4,5679	" "	4,6721	5,0508	" "	5,1549
4,6073	" "	4,7114	5,2106	" "	5,3147
4,6514	" "	4,7556	5,6259	" "	5,7300
4,8174	" "	4,9216	5,8639	" "	5,9681
4,9953	" "	4,0995	Jan 1980 6, 0223	" "	6,0744
5,1248	" "	5,2290			

1994's Report ;

page F67 $\bar{f}/\bar{g}(S^w)$ column;

value for September 1994 4,4112 should read 4,4193.

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Table numbers in square brackets.

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PLEASE NOTE:

Graphs are not available in this PDF edition of this report.

LIST OF DEFINITIONS IN THIS PUBLICATION.

WN (Wolf Number):

$$R_{GD} = k(10g + f)$$

where f = number of sunspots,
 g = number of sunspot regions
 & k = up- or downgrading figure
 to bring observatories to a
 world standard.

WN = observed Wolf Number,
 same as above, but $k = 1$.

BX (Beckindex):

$$BX_{GD} = k \left(\sum_{i=1}^g G_i f_i \right)$$

where g = number of regions,
 f = number of sunspots,
 G = region constant,
 & k = up- or downgrading figure
 to bring observatories to a
 world standard.

BX = observed Beckindex, same as
 above, but $k = 1$.

QC (Quality Count):

$$QC = \sum_{i=1}^g Z_i$$

where g = number of regions,
 Z = region constant based on
 Zurich classes.

Micro-hemisphere (μh):

This unit of area, equal to 1 000 000th of the visible hemisphere of the Sun, is used in Section C of the report. It is approximately equal to 3 000 000 square kilometres. A small spot's area would be in the vicinity of 5 or 10 μh , while a large region's area would be greater than 1000 μh . A very large region would have an area greater than 2000 μh .

SN (Pettisindex):

$$PX_{GD} = k(10p + s)$$

where s = number of penumbral-free
 sunspots,
 p = number of penumbrae,
 & k = up- or downgrading figure
 to bring observatories to a
 world standard.

SN = observed Pettisindex, same as
 above, but $k = 1$.

CV (Classification Value):

$$CV_{GD} = k \left(\sum_{i=1}^g M_i \right)$$

where g = number of regions,
 M = region constant based on
 McIntosh classes,
 k = up- or downgrading figure
 to bring observatories to a
 world standard.

CV = observed Classification Value,
 same as above, but $k = 1$.

IS = Inter-Sol Index:

$$IS_{GD} = k(gr + f)$$

where gr = number of multi-spot regions,
 f = number of sunspots,
 & k = up- or downgrading figure
 to bring observatories to a
 world standard.

IS = observed Inter-Sol Index, same as
 above, but $k = 1$.

FORMULÆ.

The following are three formulæ used in the analysis of sunspot data etc.

σ (sample standard deviation) is computed as:

$$\sqrt{(\sum x^2 - (\sum x)^2/n) / (n - 1)}$$

The annual σ result is computed from total pool of k values.

σ 'SIDC' (annual standard deviation based on the SIDC's formula) is computed as:

$$(\sum (\sigma \times \text{NOBS})) / \sum \text{NOBS}$$

$E\sigma$ (estimate of standard deviation) is computed as:

$$\sqrt{\sum (\sigma^2 \times \text{NOBS}) / \sum \text{NOBS}}$$

SMOOTHING FORMULÆ.

The following are the three formulæ used in the smoothing of GDSO sunspot data. All are based on monthly means (\bar{x}).

Data suffixed (S^{HBm}) are computed as:

$$\left((\bar{x}_{+3} + \bar{x}_{-3}) + 2(\bar{x}_{+2} + \bar{x}_{-2}) + 3(\bar{x}_{+1} + \bar{x}_{-1}) + 4\bar{x}_0 \right) / 16$$

Data suffixed (S^{W}) are computed as:

$$\left(\sum_{-5}^{+5} \bar{x} + (\bar{x}_{+6} + \bar{x}_{-6})/2 \right) / 12$$

Data suffixed (S^{B13}) are computed as:

$$\left(0.75(\bar{x}_{+6} + \bar{x}_{-6}) + 2(\bar{x}_{+5} + \bar{x}_{-5}) + 3(\bar{x}_{+4} + \bar{x}_{-4}) + 4(\bar{x}_{+3} + \bar{x}_{-3}) + 5(\bar{x}_{+2} + \bar{x}_{-2}) + 6(\bar{x}_{+1} + \bar{x}_{-1}) + 6.5\bar{x}_0 \right) / 48$$

TIMES USED IN THIS PUBLICATION.

The term 'Greenwich Mean Time' (GMT) is *not* used in this publication since it is ambiguous and is used, both mistakenly and *wrongly*, in the sense of the Greenwich civil atomic scale Co-ordinated Universal Time (UTC). Between 1675 to 1925, Greenwich Mean Time (GMT) was measured by the Royal Observatory, from GREENWICH MEAN MID-DAY, 12 hours BEHIND Universal Time (UT).

For the purposes of lengthy solar observations, the GDSO considers all seven Universal Times (UT0, UT1, UT2, UT0R, UT1R, UT2R & UTC) as being the same. Times in this loose sense are labelled UT . If a stated time in this publication is not labelled at all, then it is to be considered as UT . In Sections A & B, UT is given to the nearest fifth minute. In Section D, it is given to the nearest minute.

For 'central meridian' purposes, the GDSO also considers Terrestrial [Dynamical] Time (TT) as being the same as UT.

As this publication has an international distribution, both New Zealand Standard Time (NZST) and New Zealand Daylight Time (NZDT) are ignored.

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SECTION A.

SOLAR OBSERVATIONAL DATA for **1995** obtained using the 76 mm refractor.

ALL TIMES IN UNIVERSAL TIME (UT).

g = Active Area or group count for WHOLE Solar disc.

f = Sunspot count for WHOLE Solar disc.

WN = Wolf Number (k in formula neglected; see definitions, page ix).

p = Penumbra count for WHOLE Solar disc.

s = Penumbra-free spot count for WHOLE Solar disc.

SN = Pettisindex (see definitions, page ix).

BX = Beckindex (see definitions, page ix).

CV = Classification Value.

Q = Quality [steadiness] of image (on the Kiepenheuer scale),

1 = steady, 5 = heavy boiling.

S = Sharpness [clarity] of image (on the Kiepenheuer scale),

1 = fine features visible, 5 = umbrae & penumbrae indistinguishable from each other.

T = Transparency of atmosphere, 1 = excellent, 2 = good, 3 = fair,

4 = poor, 5 = opaque

If any of Q, S or T is greater than 4, the observation will be abandoned.

CR = Carrington Rotation Number, with fraction of rotation stated.

Rotation 1 commenced at 1853/11/09;1144 UT (approx.).

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	CR
JANUARY 1995													
01	2000	0	0	0	0	0	0	0	0	2,0	2,5	2,5	1891,0610
03	1950	0	0	0	0	0	0	0	0	2,5	2,5	2,5	,1339
04	1955	1	2	12	0	2	2	8	2	1,0	2,5	2,5	,1706
05	2230	0	0	0	0	0	0	0	0	2,5	3,0	2,5	,2111
06	1950	0	0	0	0	0	0	0	0	1,5	2,5	2,5	,2436
07	1945	0	0	0	0	0	0	0	0	1,0	2,5	2,5	,2801
10	1925	0	0	0	0	0	0	0	0	1,5	2,5	2,5	,3893
11	2025	1	1	11	0	1	1	4	1	2,0	3,0	3,5	,4274
12	2035	0	0	0	0	0	0	0	0	2,0	2,0	2,5	,4642
13	1940	1	2	12	0	2	2	8	2	1,5	2,0	2,5	,4994
14	1935	1	4	14	2	1	21	32	9	1,5	2,0	2,5	,5359
15	1950	1	5	15	2	1	21	40	9	1,5	2,0	2,5	,5728
22	1930	4	30	70	5	20	70	436	53	1,5	1,5	2,5	,8283
25	2300	2	15	35	3	9	39	240	34	2,5	4,0	4,0	,9434
27	2010	1	4	14	1	2	12	32	12	2,0	2,5	2,5	1892,0122
28	2115	1	3	13	1	2	12	24	12	2,5	3,0	3,5	,0504
29	1950	2	6	26	1	5	15	57	13	2,0	2,0	2,5	,0849
30	2120	3	6	36	2	4	24	40	18	2,0	2,5	2,5	,1237

A2

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	CR
FEBRUARY 1995													
02	1945	3	12	42	1	11	21	80	16	2,0	2,5	3,0	1892,2310
03	2135	3	14	44	1	13	23	92	16	1,5	2,5	2,5	,2704
05	2010	3	10	40	1	9	19	68	15	2,5	3,0	3,0	,3414
06	2130	2	11	31	1	10	20	84	13	2,0	2,5	2,5	,3800
07	2000	1	6	16	2	4	24	108	28	2,0	2,0	2,5	,4143
18	1935	3	10	40	4	4	44	169	40	1,5	2,5	3,0	,8160
19	2125	3	27	57	6	18	78	602	54	2,0	2,0	2,5	,8554
23	2250	3	12	42	3	8	38	165	41	1,5	2,0	2,5	1893,0039
24	1930	3	8	38	2	6	26	118	20	1,5	2,0	2,0	,0354
25	1940	2	6	26	2	4	24	36	15	1,0	2,0	2,5	,0722
27	2030	3	15	45	4	7	47	226	38	1,5	2,0	2,0	,1466
28	2025	4	19	59	3	10	40	266	37	2,0	2,0	2,5	,1831

MARCH 1995

01	2020	4	20	60	4	11	51	289	46	2,0	3,0	3,5	1893,2196
04	1940	5	28	78	4	20	60	342	49	2,0	2,0	2,0	,3283
05	1945	3	15	45	3	8	38	261	34	1,5	2,0	2,5	,3651
06	2005	2	10	30	3	4	34	199	32	2,0	2,5	2,5	,4021
07	2005	3	11	41	1	9	19	72	13	1,5	2,0	2,5	,4388
08	1940	1	2	12	1	1	11	16	8	2,0	2,5	2,5	,4747
09	2110	0	0	0	0	0	0	0	0	1,5	2,5	2,5	,5136
12	2130	0	0	0	0	0	0	0	0	2,0	4,0	4,0	,6239
13	1950	0	0	0	0	0	0	0	0	2,0	2,5	2,5	,6580
14	2000	1	1	11	1	0	10	37	10	2,0	2,5	2,5	,6949
15	2000	1	5	15	2	2	22	90	22	2,5	3,0	3,0	,7315
16	1955	1	7	17	3	3	33	126	31	2,0	3,0	2,5	,7680
17	2040	1	9	19	3	4	34	162	31	1,5	2,0	2,5	,8057
18	2145	3	17	47	3	12	42	242	35	1,5	2,5	2,5	,8440
19	2000	3	12	42	2	7	27	160	26	2,0	3,5	3,5	,8779
20	1950	3	21	51	5	12	62	310	42	1,5	2,5	2,5	,9143
21	2220	3	24	54	2	20	40	188	22	2,0	2,5	2,5	,9547
22	2000	2	25	45	5	13	63	450	56	1,5	2,0	2,5	,9878
23	2200	3	30	60	6	17	77	526	63	2,0	3,0	3,0	1894,0275
24	2200	4	19	59	5	12	62	308	59	1,5	2,5	2,5	,0641
25	1955	3	16	46	4	11	51	178	49	2,0	3,0	3,5	,0976
26	2000	3	15	45	3	4	34	120	31	1,0	2,5	2,5	,1343
27	2040	2	17	37	1	6	16	132	10	1,5	2,5	3,0	,1720
29	2255	2	10	30	1	3	13	76	10	1,0	2,5	2,5	,2487
30	2340	2	13	33	2	5	25	104	20	1,5	2,5	2,5	,2865
31	2155	2	9	29	1	4	14	64	11	2,0	2,5	2,5	,3204

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	CR
APRIL 1995													
01	1955	2	7	27	1	4	14	48	11	1,5	2,0	2,5	1894,3541
02	2000	2	8	28	2	5	25	64	21	1,5	2,0	2,5	,3908
03	2045	3	3	33	0	3	3	12	3	1,5	2,0	2,5	,4286
04	2000	0	0	0	0	0	0	0	0	1,5	2,0	3,0	,4641
05	2005	0	0	0	0	0	0	0	0	1,5	2,5	3,0	,5009
09	2025	0	0	0	0	0	0	0	0	1,5	2,0	2,5	,6481
11	2110	1	6	16	1	5	15	48	12	2,0	3,0	3,5	,7225
12	2015	1	17	27	1	12	22	136	9	1,5	2,0	3,0	,7578
13	2110	2	23	43	3	16	46	344	34	2,0	2,5	3,0	,7959
15	2005	2	37	57	7	18	88	848	63	1,5	2,5	2,5	,8676
16	2035	2	43	63	8	22	102	970	63	1,5	2,5	2,5	,9050
18	2115	2	28	48	7	18	88	630	63	2,5	2,5	2,5	,9794
20	2200	2	11	31	1	5	15	80	44	1,5	3,0	3,0	1895,0539
26	2000	0	0	0	0	0	0	0	0	1,5	2,0	2,5	,2710
27	2035	0	0	0	0	0	0	0	0	2,0	2,5	2,5	,3086
28	2020	0	0	0	0	0	0	0	0	2,5	2,5	2,5	,3449
29	2115	0	0	0	0	0	0	0	0	2,5	3,0	2,5	,3831
MAY 1995													
01	2045	0	0	0	0	0	0	0	0	2,5	2,5	2,5	1895,4557
02	2100	0	0	0	0	0	0	0	0	2,0	2,0	2,5	,4928
06	2145	1	1	11	1	0	10	44	40	2,0	2,5	2,5	,6408
07	2045	1	1	11	1	0	10	44	40	2,5	2,0	2,0	,6760
09	2055	1	4	14	1	1	11	32	38	2,5	3,0	2,5	,7497
10	2035	1	5	15	1	1	11	40	38	2,5	2,5	3,0	,7860
12	2040	2	17	37	4	9	49	306	50	1,5	2,0	2,0	,8595
14	2110	3	17	47	3	12	42	264	34	1,5	2,0	2,0	,9338
16	2120	2	31	51	4	17	57	558	98	1,5	2,5	2,5	1896,0075
17	2040	2	36	56	8	17	97	648	113	2,0	3,0	3,0	,0432
18	2055	2	33	53	5	19	69	504	97	1,5	2,0	2,5	,0804
22	2045	0	0	0	0	0	0	0	0	2,0	3,0	3,0	,2271
24	2055	0	0	0	0	0	0	0	0	1,0	2,0	2,5	,3009
25	2045	0	0	0	0	0	0	0	0	2,5	3,0	3,5	,3374
28	2215	1	1	11	1	0	10	37	4	2,0	2,5	2,5	,4499
29	2040	1	3	13	0	3	3	12	3	1,5	2,0	2,5	,4842
30	2200	1	2	12	0	2	2	8	2	2,0	2,5	2,5	,5231
31	2045	1	1	11	0	1	1	4	1	2,0	2,5	3,0	,5579

A4

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	CR
JUNE 1995													
02	2045	1	2	12	0	2	2	8	2	2,0	2,5	2,5	1896,6314
03	2055	1	2	12	0	2	2	8	2	2,5	2,5	2,5	,6684
04	2100	1	8	18	1	6	16	64	9	2,0	2,5	2,5	,7053
05	2205	2	15	35	2	8	28	256	23	1,5	2,0	2,5	,7437
06	2110	2	13	33	2	11	31	150	31	2,0	3,0	3,0	,7791
09	2145	1	31	41	3	22	52	558	31	1,5	2,0	2,5	,8903
11	2255	1	16	26	3	11	41	400	32	1,5	2,5	2,5	,9656
12	2110	2	13	33	2	8	28	304	24	2,0	3,0	3,0	,9997
13	2135	1	3	13	1	2	12	24	12	1,0	2,0	2,5	1897,0371
15	2100	1	2	12	0	2	2	8	2	2,0	2,5	2,5	,1098
19	2230	1	4	14	1	3	13	32	12	2,5	2,5	2,5	,2591
20	2110	1	3	13	1	2	12	24	12	2,5	3,0	3,0	,2939
21	2125	1	11	21	1	10	20	88	12	2,0	2,5	2,5	,3310
22	2105	1	10	20	1	9	19	80	12	2,5	3,0	2,5	,3673
23	2100	1	6	16	1	5	15	48	9	1,0	2,5	2,5	,4039
24	2145	1	8	18	1	6	16	64	9	1,5	2,0	2,5	,4418
25	2245	1	6	16	1	5	15	48	9	1,5	2,0	2,5	,4801
27	2135	1	1	11	0	1	1	4	1	2,0	2,5	3,0	,5519
29	2110	0	0	0	0	0	0	0	0	2,5	2,5	2,5	,6248
30	2115	3	6	36	2	3	23	73	17	2,0	2,0	2,5	,6616
JULY 1995													
02	2145	2	6	26	1	4	14	44	40	1,5	2,5	2,5	1897,7359
03	2110	1	5	15	1	3	13	40	9	2,0	2,0	2,5	,7718
05	2130	2	6	26	2	3	23	77	52	2,0	2,5	3,0	,8459
07	2140	2	10	30	2	8	28	80	54	2,5	2,5	2,5	,9196
08	2140	2	13	33	2	11	31	104	54	2,0	2,5	2,5	,9564
09	2055	2	6	26	2	4	24	77	52	2,5	3,0	3,0	,9920
10	2110	2	4	24	1	3	13	49	43	2,0	2,5	2,0	1898,0292
13	2130	1	3	13	0	3	3	12	3	2,0	3,5	4,0	,1400
14	2125	1	7	17	2	3	23	126	22	2,0	2,5	2,5	,1766
16	2115	1	9	19	2	5	25	162	22	2,0	2,5	2,5	,2499
17	2100	1	6	16	2	3	23	108	22	2,5	2,5	2,5	,2863
20	2100	1	3	13	0	3	3	12	3	2,0	2,0	2,5	,3965
21	2240	0	0	0	0	0	0	0	0	2,5	2,5	2,5	,4358
22	2125	0	0	0	0	0	0	0	0	2,5	2,5	2,5	,4707
24	2050	0	0	0	0	0	0	0	0	2,5	2,5	2,5	,5433
25	2040	1	1	11	0	1	1	4	1	2,0	2,0	2,5	,5797
26	2105	1	2	12	0	2	2	8	2	2,5	2,5	2,0	,6171
28	2110	0	0	0	0	0	0	0	0	2,0	2,5	2,0	,6908

A5

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	CR
AUGUST 1995													
02	2135	1	7	17	1	4	14	56	9	2,0	2,0	2,5	1898,8751
05	2130	2	10	30	2	4	24	166	23	1,5	2,0	2,0	,9851
09	2115	0	0	0	0	0	0	0	0	2,5	2,0	2,0	1899,1317
10	2040	0	0	0	0	0	0	0	0	2,0	2,0	2,0	,1675
11	2050	0	0	0	0	0	0	0	0	1,0	2,5	3,0	,2045
12	2035	0	0	0	0	0	0	0	0	1,5	2,5	2,0	,2408
13	2120	0	0	0	0	0	0	0	0	2,0	2,5	2,5	,2787
14	2045	0	0	0	0	0	0	0	0	1,5	2,0	2,0	,3145
16	2230	0	0	0	0	0	0	0	0	2,0	3,0	3,0	,3906
18	2155	0	0	0	0	0	0	0	0	2,0	2,0	2,5	,4632
19	2050	0	0	0	0	0	0	0	0	1,5	2,5	2,5	,4982
22	2025	1	1	11	0	1	1	4	1	2,0	2,5	2,5	,6077
24	2045	2	17	37	3	8	38	226	31	2,0	2,5	2,5	,6816
25	2105	4	18	58	4	12	52	255	46	1,5	2,0	2,0	,7188
26	2045	3	10	40	4	6	46	169	50	2,0	3,0	2,5	,7551
28	2040	2	8	28	1	7	17	56	14	1,5	2,0	2,5	,8283
29	2120	1	6	16	1	5	15	48	12	1,5	2,0	2,5	,8660
SEPTEMBER 1995													
02	2055	1	1	11	1	0	10	37	10	1,5	2,5	3,0	1900,0122
06	2025	1	1	11	1	0	10	37	10	2,0	2,5	2,5	,1582
07	2040	0	0	0	0	0	0	0	0	2,0	2,5	2,5	,1952
08	2035	0	0	0	0	0	0	0	0	2,0	2,5	2,0	,2318
09	2030	0	0	0	0	0	0	0	0	1,5	2,0	2,0	,2683
10	2215	0	0	0	0	0	0	0	0	1,5	2,5	2,5	,3077
11	2045	0	0	0	0	0	0	0	0	1,0	2,0	2,0	,3421
12	2105	0	0	0	0	0	0	0	0	1,5	2,5	1,5	,3793
13	2250	0	0	0	0	0	0	0	0	3,0	3,0	2,5	,4186
15	2100	1	1	11	0	1	1	4	1	2,0	2,0	2,0	,4892
16	2055	1	2	12	0	2	2	8	2	1,5	2,0	2,0	,5257
21	2150	2	6	26	2	3	23	77	19	1,5	2,5	2,5	,7104
22	2115	3	7	37	2	5	25	81	23	2,0	2,5	2,5	,7462
25	2215	2	5	25	1	4	14	28	14	2,0	3,0	4,0	,8578
28	2105	0	0	0	0	0	0	0	0	2,0	2,0	2,5	,9659
30	2045	0	0	0	0	0	0	0	0	1,5	2,0	2,5	1901,0387

A6

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	CR
OCTOBER 1995													
03	2035	0	0	0	0	0	0	0	0	2,5	2,5	2,5	1901,1484
06	2105	0	0	0	0	0	0	0	0	2,5	4,0	4,0	,2592
09	1955	2	7	27	3	3	33	56	53	2,0	2,5	2,5	,3673
11	1950	4	25	65	7	9	79	396	117	2,0	2,0	2,0	,4405
12	2225	4	22	62	5	11	61	284	115	2,0	3,0	3,0	,4811
15	2010	2	9	29	2	6	26	108	82	2,0	2,5	2,5	,5876
17	2005	4	12	52	2	9	29	113	55	2,0	2,5	2,5	,6607
19	1930	3	7	37	1	6	16	48	44	1,5	2,0	2,5	,7331
20	2145	3	5	35	2	3	23	65	53	2,5	2,5	2,5	,7732
25	2040	2	8	28	1	6	16	60	10	1,5	2,0	2,0	,9547
26	1950	2	7	27	1	6	16	52	13	1,5	2,5	3,0	,9901
29	1940	0	0	0	0	0	0	0	0	1,5	2,0	2,0	1902,0997
30	1920	0	0	0	0	0	0	0	0	1,5	2,5	2,5	,1358

NOVEMBER 1995

01	1940	2	2	22	0	2	2	8	2	1,5	2,0	2,0	1902,2096
02	1935	1	2	12	0	2	2	8	2	1,5	2,0	2,0	,2461
04	2000	0	0	0	0	0	0	0	0	2,0	2,5	2,5	,3200
06	1940	1	1	11	1	0	10	37	7	1,5	2,0	2,0	,3927
07	1930	3	3	33	1	2	12	45	12	1,5	2,0	2,5	,4291
11	2005	1	3	13	1	2	12	24	42	2,5	3,0	3,0	,5765
12	2000	1	1	11	1	0	10	44	40	3,0	3,5	3,0	,6130
14	1940	1	2	12	1	1	11	16	41	2,0	2,5	2,5	,6857
15	2010	2	6	26	2	4	24	84	52	1,5	2,0	2,5	,7231
17	2040	3	4	34	2	2	22	57	22	1,0	2,0	2,0	,7971
18	2130	1	4	14	1	2	12	32	9	1,5	2,5	2,5	,8350
22	1950	1	3	13	0	3	3	12	3	1,5	2,5	3,0	,9789
24	2105	0	0	0	0	0	0	0	0	2,0	3,0	3,5	1903,0540
25	2020	0	0	0	0	0	0	0	0	2,0	2,5	3,0	,0895
26	2015	0	0	0	0	0	0	0	0	2,0	2,5	2,5	,1259
28	2000	1	4	14	1	3	13	32	9	2,0	2,0	2,5	,1988
29	1945	1	5	15	1	4	14	40	9	2,0	2,0	2,0	,2350
30	1955	1	6	16	1	5	15	48	9	2,0	3,5	3,5	,2719

A7

DATE	UT	g	f	WN	p	s	SN	BX	CV	Q	S	T	CR
DECEMBER 1995													
02	2150	1	2	12	1	1	11	16	11	2,5	2,5	2,0	1903,3480
04	0325	1	1	11	1	0	10	37	10	2,0	3,0	2,5	,3932
06	0240	1	2	12	1	1	11	16	11	2,0	3,0	3,0	,4652
07	2240	1	2	12	1	1	11	16	11	1,5	3,0	2,5	,5323
10	1940	2	2	22	1	1	11	41	11	1,5	2,0	2,5	,6376
11	1955	1	5	15	2	3	23	90	28	1,5	3,0	3,0	,6745
17	2025	0	0	0	0	0	0	0	0	1,5	2,5	2,5	,8949
18	2220	0	0	0	0	0	0	0	0	1,0	3,0	3,0	,9344
25	2025	1	2	12	0	2	2	8	2	1,5	2,0	1,5	1904,1876
27	2000	3	5	35	1	4	14	32	14	1,5	2,0	2,5	,2602
28	2020	2	3	23	0	3	3	12	3	1,5	2,0	2,0	,2972
30	2010	0	0	0	0	0	0	0	0	2,0	2,5	2,5	,3702
31	2015	0	0	0	0	0	0	0	0	2,0	2,5	3,0	,4069

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SECTION B.

SUNSPOT REGIONAL BREAKDOWNS.

This section states all regions observed by the GDSO in the format of ;

- * NOAA / SEC region number (if known);
- * co-ordinates of regions in degrees of heliographic latitude (B)
[+ if NORTH , - if SOUTH] , and in degrees of heliographic
longitude (CMD) in respect to the central meridian [+ if WEST ,
- if EAST] . CMD increases with time .
- * f (spots) , p (penumbrae) , s (outlying spots) and five columns which
state the distribution of umbræ within penumbrae (see page B2) ;
- * GDSO's determination of the McIntosh classifications of each
observed region .

The central meridian value (CM) is based on the Carrington system of heliographic longitude.

All regions observed are listed in increasing longitudinal order. East is to the LEFT of North when it comes to co-ordinates on the Sun.

Observations during 1995 are numbered 2781 to 2986 inclusive.

ALL TIMES IN UNIVERSAL TIME (UT).

OBS = Number of GDSO observation.

CM values are stated in degrees.

REG. No are NOAA/SEC region numbers.

B = HELIOGRAPHIC LATITUDE OF REGION (+ IF NORTH, - IF SOUTH).

CMD = HELIOGRAPHIC DEGREES AWAY FROM THE CENTRAL MERIDIAN (- IF EAST, + IF WEST). EAST IS TO THE LEFT OF NORTH.

f = NUMBER OF SUNSPOTS IN REGION.

p = NUMBER OF PENUMBRAE IN REGION.

s = NUMBER OF PENUMBRAL-FREE SUNSPOTS IN REGION.

gr = NUMBER OF MULTI-SPOT GROUPS (in individual lines, single spot regions = 0, multi-spot regions = 1).

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.

LETTERS IN 'CLASS' COLUMN ARE McINTOSH CLASSIFICATIONS DETERMINED BY THE GDSO.

BRUNNER (SINGLE LETTER 'ZURICH') CLASSIFICATIONS ARE THE SAME AS THE INITIAL McINTOSH CLASS LETTER, EXCEPT THE FOLLOWING:

E?O, F?O = G; and HAX, HRX & HSX = J.

gr + efp + ef = g.

grfp + grf + efp + ef = f.

grf + ef = s.

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
2781	1995 / 01 / 01	2000	338,05	—	—	—	0	0	0	0	0	0	0	0	—	—
2782	1995 / 01 / 03	1950	311,81	—	—	—	0	0	0	0	0	0	0	0	—	—
2783	1995 / 01 / 04	1955	298,59	7825	+02	-52	2	0	2	1	0	2	0	0	BXO	—
2784	1995 / 01 / 05	2230	284,00	—	—	—	0	0	0	0	0	0	0	0	—	—
2785	1995 / 01 / 06	1950	272,30	—	—	—	0	0	0	0	0	0	0	0	—	—
2786	1995 / 01 / 07	1945	259,17	—	—	—	0	0	0	0	0	0	0	0	—	—
2787	1995 / 01 / 10	1925	219,86	—	—	—	0	0	0	0	0	0	0	0	—	—
2788	1995 / 01 / 11	2025	206,14	7823	-08	+28	1	0	1	0	0	0	0	1	AXX	—
2789	1995 / 01 / 12	2035	192,87	—	—	—	0	0	0	0	0	0	0	0	—	—
2790	1995 / 01 / 13	1940	180,21	7827	-07	-66	2	0	2	1	0	2	0	0	BXO	—
2791	1995 / 01 / 14	1935	167,09	7827	-07	-54	4	2	1	1	3	1	0	0	CAI	—
2792	1995 / 01 / 15	1950	153,79	7827	-07	-41	5	2	1	1	4	1	0	0	CAI	—
2793	1995 / 01 / 22	1930	61,80	7832	-17	-54	1	0	1	0	0	0	0	1	AXX	—
				7830	+12	-22	20	3	13	1	7	13	0	0	DAC	—
				7829	-13	-21	6	1	4	1	2	4	0	0	CAI	—
				7827	-08	+48	3	1	2	1	1	2	0	0	CSI	—
2794	1995 / 01 / 25	2300	20,38	7829	-11	+20	3	1	2	1	1	2	0	0	CSI	—
				7830	+15	+24	12	2	7	1	5	7	0	0	DAI	—
2795	1995 / 01 / 27	2010	355,59	7830	+11	+46	4	1	2	1	2	2	0	0	CSI	—

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
2796	1995 / 01 / 28	2115	341,84	7830	+12	+61	3	1	2	1	1	2	0	0	CSI	—
2797	1995 / 01 / 29	1950	329,45	7833	-19	-60	5	0	5	1	0	5	0	0	BXI	—
				7830	+12	+75	1	1	0	0	0	0	1	0	HSX	—
2798	1995 / 01 / 30	2120	315,46	7834	-12	-73	2	1	1	1	1	1	0	0	CSO	—
				7833	-19	-46	2	0	2	1	0	2	0	0	BXO	—
				7832	-20	+55	2	1	1	1	1	1	0	0	CRO	—
2799	1995 / 02 / 02	1945	276,83	7835	-09	-60	1	0	1	0	0	0	0	1	AXX	—
				7834	-14	-34	8	1	7	1	1	7	0	0	CSI	—
				7836	-09	-14	3	0	3	1	0	3	0	0	BXI	—
2800	1995 / 02 / 03	2135	262,66	7835	-08	-46	1	0	1	0	0	0	0	1	AXX	—
				7834	-13	-19	9	1	8	1	1	8	0	0	CSI	—
				7836	-09	00	4	0	4	1	0	4	0	0	BXI	—
2801	1995 / 02 / 05	2010	237,10	7837	+02	00	2	0	2	1	0	2	0	0	BXO	—
				7834	-15	+06	7	1	6	1	1	6	0	0	CSI	—
				7836	-07	+29	1	0	1	0	0	0	0	1	AXX	small
2802	1995 / 02 / 06	2130	223,20	7837	+02	+17	1	0	1	0	0	0	0	1	AXX	—
				7834	-14	+22	10	1	9	1	1	9	0	0	CSI	—
2803	1995 / 02 / 07	2000	210,86	7834	-14	+35	6	2	4	1	2	4	0	0	DSI	small
2804	1995 / 02 / 18	1935	66,24	7843	-15	-38	6	2	3	1	3	3	0	0	DAI	—
				7842	-14	-24	3	1	1	1	2	1	0	0	CAO	—
				7838	+09	+49	1	1	0	0	0	0	1	0	HSX	—
2805	1995 / 02 / 19	2125	52,07	7844	+12	-34	5	1	4	1	1	4	0	0	CSI	—
				7842/3	-14	-15	21	4	14	1	7	14	0	0	EAC	—
				7838	+09	+63	1	1	0	0	0	0	1	0	HSX	—
2806	1995 / 02 / 23	2250	358,61	7845	-14	-61	1	1	0	0	0	0	1	0	HSX	—
				7844	+11	+24	6	2	3	1	3	3	0	0	DSI	—
				7843	-15	+37	5	0	5	1	0	5	0	0	BXI	—
2807	1995 / 02 / 24	1930	347,27	7845	-14	-48	2	1	1	1	1	1	0	0	HAX	—
				7844	+12	+35	5	1	4	1	1	4	0	0	CSI	—
				7843	-13	+49	1	0	1	0	0	0	0	1	AXX	very small
2808	1995 / 02 / 25	1940	334,01	7845	-13	-35	3	2	1	1	2	1	0	0	CSI	—
				7844	+11	+48	3	0	3	1	0	3	0	0	BXI	—
2809	1995 / 02 / 27	2030	307,21	7847	-12	-62	1	0	1	0	0	0	0	1	AXX	—
				7846	-16	-46	11	3	4	1	7	4	0	0	DAC	—
				7845	-13	-08	3	1	2	1	1	2	0	0	CRI	—

B4

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
2810	1995 / 02 / 28	2025	294,09	7847	-12	-49	1	0	1	0	0	0	0	1	AXX	—
				7846	-15	-34	13	2	5	1	8	5	0	0	DAI	—
				7848	-13	-17	3	0	3	1	0	3	0	0	BXI	small
				7845	-14	+05	2	1	1	1	1	1	0	0	CSO	—
2811	1995 / 03 / 01	2020	280,95	7847	-12	-36	2	1	1	1	1	1	0	0	CSO	—
				7846	-15	-21	12	2	5	1	7	5	0	0	DAI	—
				7848	-13	-04	5	0	5	1	0	5	0	0	BXI	—
				7845	-14	+18	1	1	0	0	0	0	1	0	HSX	—
2812	1995 / 03 / 04	1940	241,80	7850	-22	-32	2	0	2	1	0	2	0	0	BXO	—
				7847	-11	+04	1	0	1	0	0	0	0	1	AXX	—
				7846	-16	+18	13	2	7	1	6	7	0	0	DAI	—
				7849	-07	+22	8	1	7	1	1	7	0	0	CSI	—
				7848	-13	+35	4	1	3	1	1	3	0	0	CSI	—
2813	1995 / 03 / 05	1945	228,58	7846	-16	+18	12	2	6	1	6	6	0	0	DAI	—
				7849	-07	+23	2	0	2	1	0	2	0	0	BXO	—
				7848	-13	+35	1	1	0	0	0	0	1	0	HSX	—
2814	1995 / 03 / 06	2005	215,23	7846	-16	+45	9	2	4	1	5	4	0	0	DAI	—
				7848	-13	+63	1	1	0	0	0	0	1	0	HSX	—
2815	1995 / 03 / 07	2005	202,05	7846	-16	+58	7	1	5	1	2	5	0	0	CAI	—
				7849	-07	+63	3	0	3	1	0	3	0	0	BXI	—
				7848	-13	+76	1	0	1	0	0	0	0	1	AXX	large
2816	1995 / 03 / 08	1940	189,10	7846	-16	+70	2	1	1	1	1	1	0	0	CAO	—
2817	1995 / 03 / 09	2110	175,10	—	—	—	0	0	0	0	0	0	0	0	—	—
2818	1995 / 03 / 12	2130	135,38	—	—	—	0	0	0	0	0	0	0	0	—	—
2819	1995 / 03 / 13	1950	123,12	—	—	—	0	0	0	0	0	0	0	0	—	—
2820	1995 / 03 / 14	2000	109,85	7854	-15	-80	1	1	0	0	0	0	1	0	HSX	—
2821	1995 / 03 / 15	2000	96,67	7854	-15	-68	5	2	2	1	3	2	0	0	DAI	—
2822	1995 / 03 / 16	1955	83,53	7854	-16	-55	7	3	3	1	4	3	0	0	DAC	—
2823	1995 / 03 / 17	2040	69,94	7854	-16	-41	9	3	4	1	5	4	0	0	DAC	—
2824	1995 / 03 / 18	2145	56,17	7857	+15	-65	1	0	1	0	0	0	0	1	AXX	—
				7856	+12	-37	5	1	4	1	1	4	0	0	CSI	—
				7854	-16	-27	11	2	7	1	4	7	0	0	DAI	—
2825	1995 / 03 / 19	2000	43,94	7857	+15	-54	1	0	1	0	0	0	0	1	AXX	—
				7856	+12	-26	3	0	3	1	0	3	0	0	BXI	—
				7854	-16	-15	8	2	3	1	5	3	0	0	DAI	—

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
2826	1995 / 03 / 20	1950	30,85	7857	+15	-41	4	1	2	1	2	2	0	0	CAI	—
				7856	+12	-12	2	0	2	1	0	2	0	0	BXO	—
				7854	-16	-01	15	4	8	1	7	8	0	0	DAC	—
2827	1995 / 03 / 21	2220	16,30	7857	+15	-26	10	1	7	1	3	7	0	0	CAI	—
				7856	+12	+03	1	0	1	0	0	0	0	1	AXX	—
				7854	-16	+14	13	1	12	1	1	12	0	0	CSI	—
2828	1995 / 03 / 22	2000	4,39	7857	+16	-14	12	2	7	1	5	7	0	0	DAI	—
				7854	-16	+26	13	3	6	1	7	6	0	0	DSC	—
2829	1995 / 03 / 23	2200	350,10	7858	-16	-74	1	0	1	0	0	0	0	1	AXX	—
				7857	+16	00	11	3	5	1	6	5	0	0	DAC	—
				7854	-15	+40	18	3	11	1	7	11	0	0	DAC	—
2830	1995 / 03 / 24	2200	336,92	7858	-16	-61	2	1	1	1	1	1	0	0	CAO	—
				?	+16	-02	1	0	1	0	0	0	0	1	AXX	—
				7857	+16	+13	7	2	4	1	3	4	0	0	DAI	—
				7854	-15	+53	9	2	6	1	3	6	0	0	DSI	—
2831	1995 / 03 / 25	1955	324,87	7858	-16	-49	4	1	2	1	2	2	0	0	CAI	—
				7857	+16	+25	7	1	6	1	1	6	0	0	CSI	—
				7854	-16	+65	5	2	3	1	2	3	0	0	DSI	—
2832	1995 / 03 / 26	2000	311,64	7858	-16	-36	11	1	2	1	9	2	0	0	CAI	V shaped umbra
				7857	+16	+38	2	1	1	1	1	1	0	0	CSO	small
				7854	-16	+78	2	1	1	1	1	1	0	0	CSO	—
2833	1995 / 03 / 27	2040	298,08	7858	-16	-22	16	1	5	1	11	5	0	0	CAI	—
				7859	-07	+02	1	0	1	0	0	0	0	1	AXX	very small
2834	1995 / 03 / 29	2255	270,48	7860	-03	-06	1	0	1	0	0	0	0	1	AXX	—
				7858	-15	+08	9	1	2	1	7	2	0	0	CAI	—
2835	1995 / 03 / 30	2340	256,87	7860	-03	+07	5	1	4	1	1	4	0	0	CSI	—
				7858	-15	+21	8	1	1	1	7	1	0	0	CAO	—
2836	1995 / 03 / 31	2155	244,64	7860	-02	+19	2	0	2	1	0	2	0	0	BXO	—
				7858	-15	+33	7	1	2	1	5	2	0	0	CAI	—
2837	1995 / 04 / 01	1955	232,54	7860	-02	+31	2	0	2	1	0	2	0	0	BXO	very small
				7858	-15	+44	5	1	2	1	3	2	0	0	CAI	—
2838	1995 / 04 / 02	2000	219,31	7860	-02	+45	5	1	3	1	2	3	0	0	CAI	small
				7858	-15	+59	3	1	2	1	1	2	0	0	CSI	small
2839	1995 / 04 / 03	2045	205,70	?	-03	-14	1	0	1	0	0	0	0	1	AXX	very small
				7860	-01	+59	1	0	1	0	0	0	0	1	AXX	—
				7858	-15	+72	1	0	1	0	0	0	0	1	AXX	—

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
2840	1995 / 04 / 04	2000	192,92	—	—	—	0	0	0	0	0	0	0	0	—	—
2841	1995 / 04 / 05	2005	179,67	—	—	—	0	0	0	0	0	0	0	0	—	—
2842	1995 / 04 / 09	2025	126,70	—	—	—	0	0	0	0	0	0	0	0	—	—
2843	1995 / 04 / 11	2110	99,89	7863	-05	-60	6	1	5	1	1	5	0	0	CSI	—
2844	1995 / 04 / 12	2015	87,19	7863	-05	-47	17	1	12	1	5	12	0	0	CAI	—
2845	1995 / 04 / 13	2110	73,49	7864	+10	-33	5	0	5	1	0	5	0	0	BXI	—
				7863	-05	-33	18	3	11	1	7	11	0	0	DAC	—
2846	1995 / 04 / 15	2005	47,68	7864	+10	-09	11	3	4	1	7	4	0	0	DAC	—
				7863	-03	-08	26	4	14	1	12	14	0	0	EAC	—
2847	1995 / 04 / 16	2035	34,20	7864	+10	+04	15	4	7	1	8	7	0	0	DAC	—
				7863	-03	+07	28	4	15	1	13	15	0	0	EAC	—
2848	1995 / 04 / 18	2115	7,41	7864	+10	+32	10	3	6	1	4	6	0	0	DAC	—
				7863	-04	+35	18	4	12	1	6	12	0	0	EAC	—
2849	1995 / 04 / 20	2200	340,59	7864	+10	+58	2	0	2	1	0	2	0	0	BXO	—
				7863	-04	+61	9	1	3	1	6	3	0	0	CHI	—
2850	1995 / 04 / 26	2000	262,43	—	—	—	0	0	0	0	0	0	0	0	—	—
2851	1995 / 04 / 27	2035	248,89	—	—	—	0	0	0	0	0	0	0	0	—	—
2852	1995 / 04 / 28	2020	235,82	—	—	—	0	0	0	0	0	0	0	0	—	—
2853	1995 / 04 / 29	2115	222,09	—	—	—	0	0	0	0	0	0	0	0	—	—
2854	1995 / 05 / 01	2045	195,94	—	—	—	0	0	0	0	0	0	0	0	—	—
2855	1995 / 05 / 02	2100	182,59	—	—	—	0	0	0	0	0	0	0	0	—	—
2856	1995 / 05 / 06	2145	129,30	7869	-03	-79	1	1	0	0	0	0	1	0	HHX	—
2857	1995 / 05 / 07	2045	116,63	7869	-03	-67	1	1	0	0	0	0	1	0	HHX	—
2858	1995 / 05 / 09	2055	90,10	7869	-03	-40	4	1	1	1	3	1	0	0	CKO	—
2859	1995 / 05 / 10	2035	77,05	7869	-03	-27	5	1	1	1	4	1	0	0	CKO	—
2860	1995 / 05 / 12	2040	50,57	7870	+10	-19	7	2	4	1	3	4	0	0	DAI	small
				7869	-03	-01	10	2	5	1	5	5	0	0	DSI	small
2861	1995 / 05 / 14	2110	23,84	7871	-16	-24	2	0	2	1	0	2	0	0	BXO	—
				7870	+10	+09	14	3	9	1	5	9	0	0	DAC	—
				7869	-03	+26	1	0	1	0	0	0	0	1	AXX	—
2862	1995 / 05 / 16	2120	357,29	7871	-15	+05	14	2	7	1	7	7	0	0	DKI	—
				7870	+10	+36	17	2	10	1	7	10	0	0	DHI	—
2863	1995 / 05 / 17	2040	344,44	7871	-15	+18	22	5	10	1	12	10	0	0	DHC	—
				7870	+10	+49	14	3	7	1	7	7	0	0	DKC	—

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
2864	1995 / 05 / 18	2055	331,07	7871	-15	+31	24	4	14	1	10	14	0	0	DHC	—
				7870	+10	+62	9	1	5	1	4	5	0	0	CKI	—
2865	1995 / 05 / 22	2045	278,24	—	—	—	0	0	0	0	0	0	0	0	—	—
2866	1995 / 05 / 24	2055	251,69	—	—	—	0	0	0	0	0	0	0	0	—	—
2867	1995 / 05 / 25	2045	238,55	—	—	—	0	0	0	0	0	0	0	0	—	—
2868	1995 / 05 / 28	2215	198,03	7873	+09	-38	1	1	0	0	0	0	1	0	HRX	small
2869	1995 / 05 / 29	2040	185,68	7873	+09	-26	3	0	3	1	0	3	0	0	BXI	—
2870	1995 / 05 / 30	2200	171,70	7873	+09	-11	2	0	2	1	0	2	0	0	BXO	—
2871	1995 / 05 / 31	2045	159,16	7873	+09	+02	1	0	1	0	0	0	0	1	AXX	very small
2872	1995 / 06 / 02	2045	132,69	7874	+01	00	2	0	2	1	0	2	0	0	BXO	—
2873	1995 / 06 / 03	2055	119,37	7874	+01	+12	2	0	2	1	0	2	0	0	BXO	—
2874	1995 / 06 / 04	2100	106,08	7874	+01	+25	8	1	6	1	2	6	0	0	CAI	—
2875	1995 / 06 / 05	2205	92,26	7877	+09	-40	1	0	1	0	0	0	0	1	AXX	—
				7874	+01	+40	14	2	7	1	7	7	0	0	DAI	—
2876	1995 / 06 / 06	2110	79,53	7877	+09	-29	6	0	6	1	0	6	0	0	BXI	—
				7874	00	+53	7	2	5	1	2	5	0	0	DSI	—
2877	1995 / 06 / 09	2145	39,50	7877	+09	+13	31	3	22	1	9	22	0	0	DAC	—
2878	1995 / 06 / 11	2255	12,39	7877	+08	+41	16	3	11	1	5	11	0	0	EAC	—
2879	1995 / 06 / 12	2110	0,11	?	+16	+23	1	0	1	0	0	0	0	1	AXX	—
				7877	+09	+53	12	2	7	1	5	7	0	0	EAI	—
2880	1995 / 06 / 13	2135	346,64	7877	+09	+69	3	1	2	1	1	2	0	0	CSI	—
2881	1955 / 06 / 15	2100	320,49	?	+11	-08	2	0	2	1	0	2	0	0	BXO	very small
2882	1995 / 06 / 19	2230	266,72	7882	+05	-59	4	1	3	1	1	3	0	0	CSI	—
2883	1995 / 06 / 20	2110	254,21	7882	+06	-47	3	1	2	1	1	2	0	0	CSI	—
2884	1995 / 06 / 21	2135	240,84	7882	+04	-35	11	1	10	1	1	10	0	0	CSI	—
2885	1995 / 06 / 22	2105	227,79	7882	+05	-22	10	1	9	1	1	9	0	0	CSI	—
2886	1995 / 06 / 23	2100	214,59	7882	+04	-09	6	1	5	1	1	5	0	0	CAI	—
2887	1995 / 06 / 24	2145	200,95	7882	+05	+05	8	1	6	1	1	6	0	0	CAI	—
2888	1995 / 06 / 25	2245	187,16	7882	+05	+19	6	1	5	1	1	5	0	0	CAI	—
2889	1995 / 06 / 27	2135	161,33	7882	+04	+49	1	0	1	0	0	0	0	1	AXX	—
2890	1995 / 06 / 29	2110	135,08	—	—	—	0	0	0	0	0	0	0	0	—	—
2891	1995 / 06 / 30	2115	121,81	7887	+10	-76	1	1	0	0	0	0	1	0	HSX	—
				7885	+08	-55	1	0	1	0	0	0	0	1	AXX	—
				7886	+11	-15	4	1	2	1	2	2	0	0	CRI	—
2892	1995 / 07 / 02	2145	95,06	7887	+10	-53	5	1	3	1	2	3	0	0	CKI	—
				7885	+08	-30	1	0	1	0	0	0	0	1	AXX	very small

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OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
2893	1995/07/03	2110	82,14	7887	+10	-40	5	1	3	1	2	3	0	0	CAI	—
2894	1995/07/05	2130	55,49	7888	-11	-75	1	1	0	0	0	0	1	0	HSX	—
				7887	+11	-14	5	1	3	1	2	3	0	0	CHI	—
2895	1995/07/07	2140	28,93	7888	-12	-47	5	1	4	1	1	4	0	0	CSI	—
				7887	+10	+11	5	1	4	1	1	4	0	0	CHI	—
2896	1995/07/08	2140	15,69	7888	-10	-38	6	1	5	1	1	5	0	0	CSI	—
				7887	+10	+27	7	1	6	1	1	6	0	0	CHI	—
2897	1995/07/09	2055	2,87	7888	-11	-26	5	1	4	1	1	4	0	0	CSI	—
				7887	+10	+39	1	1	0	0	0	0	1	0	HHX	—
2898	1995/07/10	2110	349,49	7888	-11	-09	3	0	3	1	0	3	0	0	BXI	very small
				7887	+09	+53	1	1	0	0	0	0	1	0	HHX	—
2899	1995/07/13	2130	309,61	7890	+04	-30	3	0	3	1	0	3	0	0	BXI	—
2900	1995/07/14	2125	296,42	7890	+04	-16	7	2	3	1	4	3	0	0	DAI	—
2901	1995/07/16	2115	270,05	7890	+04	+10	9	2	5	1	4	5	0	0	DAI	—
2902	1995/07/17	2100	256,95	7890	+05	+23	6	2	3	1	3	3	0	0	DAI	—
2903	1995/07/20	2100	217,25	7891	+09	-05	3	0	3	1	0	3	0	0	BXI	—
2904	1995/07/21	2240	203,10	—	—	—	0	0	0	0	0	0	0	0	—	—
2905	1995/07/22	2125	190,56	—	—	—	0	0	0	0	0	0	0	0	—	—
2906	1995/07/24	2050	164,43	—	—	—	0	0	0	0	0	0	0	0	—	—
2907	1995/07/25	2040	151,30	7893	-17	-27	1	0	1	0	0	0	0	1	AXX	very small
2908	1995/07/26	2105	137,84	7893	-18	-14	2	0	2	1	0	2	0	0	BXO	small
2909	1995/07/28	2110	111,33	—	—	—	0	0	0	0	0	0	0	0	—	—
2910	1995/08/02	2135	44,97	7894	+12	-03	7	1	4	1	3	4	0	0	CAI	—
2911	1995/08/05	2130	5,35	7896	+03	+04	9	2	3	1	6	3	0	0	DAI	—
				7894	+12	+38	1	0	1	0	0	0	0	1	AXX	—
2912	1995/08/09	2115	312,59	—	—	—	0	0	0	0	0	0	0	0	—	—
2913	1995/08/10	2040	299,70	—	—	—	0	0	0	0	0	0	0	0	—	—
2914	1995/08/11	2050	286,38	—	—	—	0	0	0	0	0	0	0	0	—	—
2915	1995/08/12	2035	273,30	—	—	—	0	0	0	0	0	0	0	0	—	—
2916	1995/08/13	2120	259,67	—	—	—	0	0	0	0	0	0	0	0	—	—
2917	1995/08/14	2045	246,77	—	—	—	0	0	0	0	0	0	0	0	—	—
2918	1995/08/16	2230	219,37	—	—	—	0	0	0	0	0	0	0	0	—	—
2919	1995/08/18	2155	193,26	—	—	—	0	0	0	0	0	0	0	0	—	—
2920	1995/08/19	2050	180,63	—	—	—	0	0	0	0	0	0	0	0	—	—
2921	1995/08/22	2025	141,22	7902	-07	-08	1	0	1	0	0	0	0	1	AXX	—

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OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
2922	1995 / 08 / 24	2045	114,61	7902	-10	+19	8	1	5	1	3	5	0	0	CAI	—
				7901	+05	+25	9	2	3	1	6	3	0	0	DAI	—
2923	1995 / 08 / 25	2105	101,22	7903	+05	-79	1	1	0	0	0	0	1	0	HSX	—
				7904	+10	-53	2	0	2	1	0	2	0	0	BXO	—
				7902	-10	+32	6	1	5	1	1	5	0	0	CSI	—
				7901	+05	+39	9	2	5	1	4	5	0	0	DAI	—
2924	1995 / 08 / 26	2045	88,18	7903	+05	-66	1	1	0	0	0	0	1	0	HSX	—
				7902	-10	+45	3	1	2	1	1	2	0	0	CSI	—
				7901	+04	+52	6	2	4	1	2	4	0	0	DSI	—
2925	1995 / 08 / 28	2040	61,80	7903	+04	-42	6	1	5	1	1	5	0	0	CSI	—
				7901	+03	+79	2	0	2	1	0	2	0	0	BXO	—
2926	1995 / 08 / 29	2120	48,23	7903	+03	-27	6	1	5	1	1	5	0	0	CSI	—
2927	1995 / 09 / 02	2055	355,62	7903	+03	+25	1	1	0	0	0	0	1	0	HSX	—
2928	1995 / 09 / 06	2025	303,06	7903	+03	+81	1	1	0	0	0	0	1	0	HSX	—
2929	1995 / 09 / 07	2040	289,71	—	—	—	0	0	0	0	0	0	0	0	—	—
2930	1995 / 09 / 08	2035	276,56	—	—	—	0	0	0	0	0	0	0	0	—	—
2931	1995 / 09 / 09	2030	263,40	—	—	—	0	0	0	0	0	0	0	0	—	—
2932	1995 / 09 / 10	2215	249,23	—	—	—	0	0	0	0	0	0	0	0	—	—
2933	1995 / 09 / 11	2045	236,85	—	—	—	0	0	0	0	0	0	0	0	—	—
2934	1995 / 09 / 12	2105	223,46	—	—	—	0	0	0	0	0	0	0	0	—	—
2935	1995 / 09 / 13	2250	209,29	—	—	—	0	0	0	0	0	0	0	0	—	—
2936	1995 / 09 / 15	2100	183,90	7906	-18	+72	1	0	1	0	0	0	0	1	AXX	—
2937	1995 / 09 / 16	2055	170,75	?	+08	-30	2	0	2	1	0	2	0	0	BXO	very small
2938	1995 / 09 / 21	2150	104,24	7908	+04	-54	1	1	0	0	0	0	1	0	HSX	small
				7907	+10	-44	5	1	3	1	2	3	0	0	CAI	—
2939	1995 / 09 / 22	2115	91,36	7909	-02	-59	1	0	1	0	0	0	0	1	AXX	—
				7908	+05	-41	1	1	0	0	0	0	1	0	HSX	small
				7907	+10	-31	5	1	4	1	1	4	0	0	CSI	—
2940	1995 / 09 / 25	2215	51,21	7908	+05	-03	3	0	3	1	0	3	0	0	BXI	—
				7907	+08	+11	2	1	1	1	1	1	0	0	CSO	—
2941	1995 / 09 / 28	2105	12,26	—	—	—	0	0	0	0	0	0	0	0	—	—
2942	1995 / 09 / 30	2045	346,06	—	—	—	0	0	0	0	0	0	0	0	—	—
2943	1995 / 10 / 03	2035	306,56	—	—	—	0	0	0	0	0	0	0	0	—	—
2944	1995 / 10 / 06	2105	266,70	—	—	—	0	0	0	0	0	0	0	0	—	—
2945	1995 / 10 / 09	1955	227,76	7910	-10	-50	3	2	0	1	3	0	0	0	CHO	—
				7911	+06	+05	4	1	3	1	1	3	0	0	CSI	—

B10

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
2946	1995 / 10 / 11	1950	201,42	7912	-09	-57	12	3	4	1	8	4	0	0	DHI	—
				7913	-17	-44	1	0	1	0	0	0	0	1	AXX	—
				7910	-10	-23	4	2	2	1	2	2	0	0	CHI	—
				7911	+07	+33	8	2	2	1	6	2	0	0	DAI	—
2947	1995 / 10 / 12	2225	186,81	7912	-10	-44	12	3	3	1	9	3	0	0	DHC	—
				7913	-17	-31	3	0	3	1	0	3	0	0	BXI	—
				7910	-11	-09	3	1	2	1	1	2	0	0	CHI	—
				7911	+07	+46	4	1	3	1	1	3	0	0	CSI	—
2948	1995 / 10 / 15	2010	148,48	7912	-09	-05	8	1	6	1	2	6	0	0	CHI	—
				7910	-09	+32	1	1	0	0	0	0	1	0	HHX	—
2949	1995 / 10 / 17	2005	122,14	7916	-02	+10	2	0	2	1	0	2	0	0	BXO	—
				7912	-10	+22	8	1	6	1	2	6	0	0	CHI	—
				7910	-10	+58	1	1	0	0	0	0	1	0	HSX	—
				7914	+08	+77	1	0	1	0	0	0	0	1	AXX	—
2950	1995 / 10 / 19	1930	96,08	?	-18	-04	1	0	1	0	0	0	0	1	AXX	—
				7912	-10	+48	5	1	4	1	1	4	0	0	CHI	—
				7910	-08	+82	1	0	1	0	0	0	0	1	AXX	—
2951	1995 / 10 / 20	2145	81,66	7918	+09	-77	1	1	0	0	0	0	1	0	HSX	—
				7917	-09	-67	1	0	1	0	0	0	0	1	AXX	—
				7912	-10	+64	3	1	2	1	1	2	0	0	CHI	—
2952	1995 / 10 / 25	2040	16,31	7918	+08	-11	7	1	5	1	2	5	0	0	CAI	—
				7917	-10	-01	1	0	1	0	0	0	0	1	AXX	—
2953	1995 / 10 / 26	1950	3,58	7918	+08	+01	6	1	5	1	1	5	0	0	CSI	—
				7917	-10	+11	1	0	1	0	0	0	0	1	AXX	—
2954	1995 / 10 / 29	1940	324,11	—	—	—	0	0	0	0	0	0	0	0	—	—
2955	1995 / 10 / 30	1920	311,10	—	—	—	0	0	0	0	0	0	0	0	—	—
2956	1995 / 11 / 01	1940	284,55	7920	-13	-20	1	0	1	0	0	0	0	1	AXX	—
				7919	-07	+14	1	0	1	0	0	0	0	1	AXX	—
2957	1995 / 11 / 02	1935	271,41	7920	-14	-07	2	0	2	1	0	2	0	0	BXO	—
2958	1995 / 11 / 04	2000	244,81	—	—	—	0	0	0	0	0	0	0	0	—	—
2959	1995 / 11 / 06	1940	218,62	7921	-12	-69	1	1	0	0	0	0	1	0	HAX	—
2960	1995 / 11 / 07	1930	205,53	7921	-12	-56	1	1	0	0	0	0	1	0	HSX	—
				?	+26	+08	1	0	1	0	0	0	0	1	AXX	—
				?	-27	+15	1	0	1	0	0	0	0	1	AXX	—
2961	1995 / 11 / 11	2005	152,47	7921	-10	-04	3	1	2	1	1	2	0	0	CHI	—

SECTION C.

DAILY SUNSPOT AREA TOTALS - 1995

All data obtained from United States observatories through US NOAA.

Data in this section might have accumulated errors of up to 50 units or micro-hemispheres.

All dates are UT dates.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	0	270	440	100	10	0	240	40	100	0	0	60	01
02	10	230	410	70	0	10	220	30	80	0	0	40	02
03	30	170	500	40	0	10	210	40	70	0	0	90	03
04	30	140	410	10	10	40	180	30	100	0	0	60	04
05	30	150	370	0	10	180	180	10	80	0	0	80	05
06	20	130	240	0	100	170	260	90	70	0	70	80	06
07	0	100	250	0	120	250	290	40	0	120	120	100	07
08	0	70	160	0	150	300	240	10	0	190	140	70	08
09	0	100	50	0	140	210	250	0	0	190	120	100	09
10	10	120	0	10	110	240	150	30	0	240	130	100	10
11	0	110	0	110	80	220	180	20	0	460	120	100	11
12	10	120	10	110	90	170	130	10	0	690	120	120	12
13	10	120	20	210	170	120	70	0	0	560	110	100	13
14	70	150	130	300	160	70	70	0	0	450	140	70	14
15	90	150	220	370	180	0	170	30	20	360	150	50	15
16	110	140	220	280	350	0	150	40	0	370	200	0	16
17	210	180	220	330	560	0	90	20	0	390	180	0	17
18	340	200	260	240	690	90	70	0	0	350	170	0	18
19	380	250	280	300	540	120	70	0	100	240	40	0	19
20	410	320	260	200	320	110	30	0	120	260	30	0	20
21	300	240	270	280	250	130	10	0	90	300	10	0	21
22	250	170	270	100	110	60	10	0	110	320	10	10	22
23	270	230	270	—	0	60	0	30	80	160	0	0	23
24	270	90	290	0	0	80	0	90	60	110	0	0	24
25	180	110	230	0	0	60	0	260	30	100	0	10	25
26	180	140	310	0	0	40	10	250	30	50	0	50	26
27	120	220	220	0	0	10	0	250	30	30	0	100	27
28	140	290	200	0	10	10	0	160	0	20	10	40	28
29	190	—	180	0	30	10	0	130	0	10	20	10	29
30	190	—	150	0	10	160	0	100	0	0	40	0	30
31	270	—	140	—	0	—	10	110	—	0	—	0	31
MEAN	132,90	168,21	225,16	105,52	135,48	97,67	106,13	58,71	39,00	192,58	64,33	46,45	MEAN

Quarterly Means: First: 175,67 Second: 113,22 Third: 68,26 Fourth: 101,52

Yearly Mean : 114,34

April's mean is based on 29 days' data.

SMOOTHED NOAA AREA MONTHLY VALUES.

Data based upon NOAA monthly mean values.

Unit used in observed values is 1 000 000th of the visible solar hemisphere.

Smoothing methods used are the Waldmeier and the 'Barnes 13' methods.

MONTH	Observed	s _W	s _{B13}	MONTH	Observed	s _W	s _{B13}	MONTH	Observed	s _W	s _{B13}
1989 Jan	2079.35	1564.13	1620.16	1992 Jan	1686.13	1317.28	1414.31	1995 Jan	132.90	179.43	182.37
Feb	1782.86	1582.70	1668.39	Feb	1982.59	1234.93	1305.57	Feb	168.21	171.06	170.53
Mar	2137.42	1679.76	1719.01	Mar	835.48	1166.64	1182.91	Mar	225.16	157.06	155.58
Apr	1342.00	1737.96	1747.03	Apr	936.67	1104.07	1060.09	Apr	105.52	139.51	139.57
May	1274.84	1761.96	1764.04	May	498.39	1067.26	959.54	May	135.48	131.25	128.24
Jun	2594.67	1784.67	1773.20	Jun	515.67	1006.95	878.13	Jun	97.67	122.45	117.81
Jul	997.10	1756.19	1761.72	Jul	858.06	893.08	809.54	Jul	106.13	—	—
Aug	2131.94	1700.94	1743.11	Aug	811.29	804.63	768.76	Aug	58.71	—	—
Sep	2254.33	1634.98	1709.44	Sep	524.17	763.15	759.76	Sep	39.00	—	—
Oct	1384.84	1587.66	1659.76	Oct	1008.06	739.60	765.05	Oct	192.58	—	—
Nov	1726.33	1579.00	1605.93	Nov	993.33	717.29	761.52	Nov	64.33	—	—
Dec	1679.68	1511.03	1527.38	Dec	690.97	709.78	745.08	Dec	46.45	—	—
1990 Jan	1457.10	1459.84	1447.69	1993 Jan	438.39	684.60	715.70	1996 Jan	—	—	—
Feb	1079.29	1486.09	1395.16	Feb	1107.50	641.55	677.16	Feb	—	—	—
Mar	1257.74	1446.84	1352.14	Mar	715.16	607.36	627.39	Mar	—	—	—
Apr	1086.00	1397.79	1330.49	Apr	491.67	576.55	568.65	Apr	—	—	—
May	1323.23	1399.05	1336.24	May	408.06	536.41	513.58	May	—	—	—
Jun	915.00	1397.33	1360.66	Jun	425.67	506.04	472.47	Jun	—	—	—
Jul	1448.06	1423.16	1415.21	Jul	343.87	509.95	449.23	Jul	—	—	—
Aug	2310.97	1501.82	1491.35	Aug	292.26	489.23	430.96	Aug	—	—	—
Sep	1133.33	1579.25	1562.42	Sep	222.67	431.42	416.70	Sep	—	—	—
Oct	1328.71	1606.24	1621.17	Oct	570.00	389.84	412.00	Oct	—	—	—
Nov	1812.67	1619.14	1672.53	Nov	468.00	363.45	405.48	Nov	—	—	—
Dec	1551.94	1677.50	1724.80	Dec	487.42	342.04	391.53	Dec	—	—	—
1991 Jan	2294.84	1733.70	1764.60	1994 Jan	735.81	324.62	367.72	1997 Jan	—	—	—
Feb	2219.29	1728.98	1774.15	Feb	312.86	313.35	332.85	Feb	—	—	—
Mar	1976.13	1709.40	1762.20	Mar	122.26	309.96	294.64	Mar	—	—	—
Apr	1015.33	1733.23	1748.30	Apr	86.67	304.13	261.59	Apr	—	—	—
May	1703.55	1722.53	1726.30	May	179.68	279.85	234.28	May	—	—	—
Jun	1935.33	1712.83	1703.53	Jun	140.33	253.46	214.76	Jun	—	—	—
Jul	1776.45	1717.23	1681.24	Jul	210.97	218.07	200.97	Jul	—	—	—
Aug	1869.35	1685.73	1655.18	Aug	154.84	186.92	196.12	Aug	—	—	—
Sep	1105.00	1628.36	1632.35	Sep	278.67	185.18	201.64	Sep	—	—	—
Oct	1929.03	1577.56	1609.92	Oct	374.19	190.25	204.67	Oct	—	—	—
Nov	955.67	1524.07	1571.61	Nov	81.00	189.20	200.08	Nov	—	—	—
Dec	2176.13	1414.70	1502.53	Dec	240.97	185.58	192.28	Dec	—	—	—

SECTION D.

MAJOR SOLAR FLARE TIMINGS.

In this section, data on flares are given in the format of beginning, maximum and ending times, along with the flares' X-ray strengths (in microwatts per square metre). This report deals with 1995's 5 flares.

Flares with a strength of less than 1 microwatt per square metre are not stated.

Analysis of data dated 1991 - 1995 appears on pages D5-6 of this report.

MAJOR SOLAR FLARES for **1995**.

ALL TIMES IN UNIVERSAL TIME (UT).

Times are as at the Earth, the flares actually occurred 8 minutes earlier than the stated times. Data were collected through the US NOAA from a 24-hour satellite watch over the year concerned.

Strength of the flares are stated in microWatts per square metre ($\mu\text{W}/\text{m}^2$).

If any flares are not $\geq 1 \mu\text{W}/\text{m}^2$ in strength, then they are not listed. If the strength of a flare is not known (by the GDSO), or if the strength is questionable, it is also not listed.

If no major flares ($\geq 1 \mu\text{W}/\text{m}^2$) are observed on any particular day, then the date is left out of the list.

- ◆ A in time columns means the flare continued *after* the end of the observation.
- ◆ B in time columns means the flare started *before* the observation began.
- ◆ OA after maximum time column means the maximum was that time *or after*. This occurs only when the ending time is suffixed with an A and that that time is the same as the maximum time.
- ◆ OB after the maximum time column means the maximum was that time *or before*. This occurs only when the beginning time is suffixed with a B and that that time is the same as the maximum time.
- ◆ U in time columns means 'uncertain'.

If times go beyond 24 hours UT, then 0015 is stated as 2415, etc.

UNIVERSAL TIME					UNIVERSAL TIME				
DATE	BEG.	MAX.	END.	STR	DATE	BEG.	MAX.	END	STR
1995/01/01	NO DATA				1995 /01 /27	1909	1915	1944	1,7
01/03	0400	0400	0404	2,9		2002	2008	2030	2,4
01/04	0635	0638	0641	1,1	01/29	1742	1751	1755	3,2
NO DATA OBTAINED FOR 1995/01/05 TO					01/30	0112	0113	0116	2,6
1995/01/08 INCLUSIVE.					01/31	0210	0228	0241	2,9
1995/01/18	1732	1736	1806	1,2		0550	0615	0619	1,1
01/19	1900	1908	1912	1,2		0955	1005	1011	9,3
	1919	1931	1938	1,6		1056	1101	1104	1,0
01/20	0301	0302	0309	1,2		1107	1114	1120	2,4
	0729	0729	0733	1,1		1548	1553	1609	2,7
01/21	0756	0801	0811	4,5		2059	2100	2112	1,3
	1713	1716	1725	1,3		2237	2245	2254	1,7
	1927	1942	1956A	2,3					
01/23	1253	1314	1357	1,4	1995/02/01	0056	0059	0103	4,4
01/24	1048B	1052U	1103A	7,2		0558	0604	0614	1,0
01/25	0000	0006	0011	1,5		0818	0826	0837	7,7
	0124	0129	0138	1,1		0854	0907	0925	10
01/26	0158	0219	0231	2,7		0929	0934	0945	11
	0723	0750	0816	2,2		1152	1154	1159	1,3
	1848B	1851U	1919A	1,1		1424	1425	1437	1,6

UNIVERSAL TIME					UNIVERSAL TIME				
DATE	BEG.	MAX.	END.	STR	DATE	BEG.	MAX.	END.	STR
1995/02/02	1255	1306	1328	7,4	1995/03/20	1734	1737	1827	1,0
02/03	0138	0151	0214	43	03/21	2151	2211	2234	1,1
	1219	1228	1327	1,0	03/22	1113	1132	1151	1,3
	1650	1652	1713	1,3		1405	1410	1440A	4,3
02/04	0542	0544	0603	2,1		1620	1641	1654	24
	1542	1543	1639	26	03/26	1541	1542	1557	1,0
02/05	1349	1351	1531	5,1		1607	1608	1617	1,3
	1551	1556	1616	1,1	03/28	0132B	0132U	0142A	2,2
02/06	0652	0653	0705	3,6	03/29	0127B	0127U	0137	1,1
	1403	1405U	1431A	2,0		0648	0649	0651	1,6
02/18	1155	1201	1210	1,0		1851	1852	1905	1,9
	1159	1222	1308	3,3	03/30	0009	0010	0015	1,4
02/19	0946	0947	0952	1,1	NO MAJOR FLARES OBSERVED FROM 1995/03/31 TO 1995/04/11 INCLUSIVE.				
	1111	1115	1117	1,3	1995/04/12	1018	1020U	1054	5,7
	1335	1404	1420	1,6		1124	1144	1218	1,0
	1634	1653	1705	1,4		1140	1144	1151	2,1
	1843	1846	1850	1,2		1423	1427	1439	1,1
	2131	2138	2203	1,7	04/13	0134	0137	0140	1,4
	2343	2344	2353	3,4	04/19	0337	0343	0347	1,4
02/20	0057	0111	0126	3,9		1136	1139	1222	2,4
	0155	0157	0206	2,5	04/21	1334	1341	1345	5,1
	0313	0320	0341	11	04/22	0357	0432	0444	5,5
	0846	0902	0932	1,1		1042	1051	1057	1,8
02/21	0250	0252	0256	1,3		1045	1150	1208	71
	0720	0727	0801	3,2		1625	1629	1632	1,1
NO MAJOR FLARES OBSERVED FROM 1995/02/22 TO 1995/03/02 INCLUSIVE.						1706	1712	1726	3,8
1995/03/03	1948	1951	1959	1,3		1729	1742	1754	12
03/04	1556	1600	1602	1,0	04/23	0136	0216	0232	9,6
03/06	0822	0831	0936	3,5		1607	1706	1738	1,1
03/08	0407	0427	0436	1,4	NO MAJOR FLARES OBSERVED FROM 1995/04/24 TO 1995/05/12 INCLUSIVE.				
	1711	1714	1726	1,4	1995/05/13	0725	0728	0740	2,6
03/10	1205	1218	1237	1,1		1249	1252	1308	1,3
	1749	1806	1821	3,8	05/14	0130	0131	0134	2,4
NO DATA OBTAINED FOR 1995/03/12					05/15	1935	1948	1956	1,1
1995/03/14	0510	0546	0622	1,1		2059	2110	2121	1,1
03/15	0339	0355	0359	1,0					
03/16	1413	1417	1526	4,8					

UNIVERSAL TIME					UNIVERSAL TIME				
DATE	BEG.	MAX.	END.	STR	DATE	BEG.	MAX.	END.	STR
1995/05/16	0607	0608	0616	1,2	1995/10/12	0300	0306	0314	1,7
	0811	0814	0829	2,6		0601	0603	0626	15
	0956	100	1015	3,3		0727	0743	0754	1,4
	1124	1126	1135	4,9		0955	1004	1012	1,0
	1257	1304	1312	1,6		1405	1413	1418	1,8
	1724	1725	1731	1,2		1720	1722	1730	2,8
	1900	1914	1931	1,9		1826	1829	1834	1,1
	2334	2336	2450A	2,2		2101	2106	2112	1,3
05/17	0531	0538	0543	1,2	10/13	0054	0102	0109	7,7
	2218B	2218U	2243A	1,0		0501	0503	0516	48
05/18	1503	1510	1514	1,3		1518	1521	1530	5,0
NO MAJOR FLARES OBSERVED FROM 1995/05/19 TO 1995/06/04 INCLUSIVE.					10/14	0142	0149	0155	1,3
1995/06/05	2146	2149	2204	1,7		0222	0228	0231	1,4
06/06	1435	1445	1454	1,0		0655	0700	0706	5,2
NO MAJOR FLARES OBSERVED FROM 1995/06/07 TO 1995/06/30 INCLUSIVE.						0923	0924U	0930A	1,6
1995/07/01	2358	2401	2415	9,7		0949	0952	1007	1,6
NO MAJOR FLARES OBSERVED FROM 1995/07/02 TO 1995/08/17 INCLUSIVE.						1404	1407	1426	2,3
1995/08/18	1720B	1722U	1801A	1,9		1923	1927	1937	1,9
08/24	1311	1318	1323	1,4	10/20	0554	0558	0751	15
NO MAJOR FLARES OBSERVED FROM 1995/08/25 TO 1995/09/04 INCLUSIVE.					10/21	1521	1522	1537	3,0
1995/09/05	0041	0058	0114	1,0	NO MAJOR FLARES OBSERVED FROM 1995/10/22 TO 1995/11/09 INCLUSIVE.				
NO MAJOR FLARES OBSERVED FROM 1995/09/06 TO 1995/09/19 INCLUSIVE.					1995/11/10	0343	0346	0420	2,1
1995/09/20	1056B	1056U	1131	3,2	11/16	2146	2154	2202	8,7
NO MAJOR FLARES OBSERVED FROM 1995/09/21 TO 1995/10/09 INCLUSIVE.					NO MAJOR FLARES OBSERVED FROM 1995/11/17 TO 1995/12/15 INCLUSIVE.				
1995/10/10	0541	0558	0606	1,3	NO DATA OBTAINED FOR 1995/12/16 AND 1995/12/17				
	1640	1641	1648	2,1	NO MAJOR FLARES OBSERVED FROM 1995/12/18 TO 1995/12/31 INCLUSIVE.				
10/11	0354	0401	0409	1,0	-oOo-				
	0605	0615	0622	5,0					
	0835	0843	0849	1,9					
	1327	1335	1343	1,2					
	1935	1942	1956	5,6					

X-RAY FLARE ANALYSIS, 1991-1995.

The following is an analysis of solar x-ray flares showing monthly values of 'mean daily output' (MDO), 'mean x-ray strength' (MXS), and 'mean daily mean' (MDM), all expressed in microwatts/square metre.

All data are based on US. NOAA satellite data.

MDO = mean daily output.

MXS = mean x-ray strength.

MDM = mean of the daily means.

d = number of days of data.

n = number of events.

	MDO	MXS	MDM	d	n
1991 Jan	68,0935	7,6482	7,9440	31	276
Feb	76,2179	8,4020	7,5937	28	254
Mar	311,9323	26,2057	25,1870	31	369
Apr	57,7133	8,1286	6,8631	30	213
May	66,6355	8,3632	8,9599	31	247
Jun	314,3200	30,6156	32,7632	30	308
Jul	78,4839	9,1811	13,2745	31	265
Aug	58,6742	8,4995	8,4880	31	214
Sep	60,8567	6,7619	6,1241	30	270
Oct	116,6613	11,6286	10,1003	31	311
Nov	55,4533	7,3611	6,7550	30	226
Dec	130,3129	11,8466	13,4659	31	341
1991 Means	116,5452	12,9141	12,3227	365	3294
1992 Jan	54,6903	7,3713	6,8546	31	230
Feb	89,1345	8,9134	10,8375	29	290
Mar	17,6419	3,3348	3,1303	31	164
Apr	20,7900	3,8030	3,1740	30	164
May	8,6903	4,0818	2,7563	31	66
Jun	29,5033	9,2198	4,9186	30	96
Jul	32,8677	4,8289	3,8945	31	211
Aug	22,4097	3,4735	2,5798	31	200
Sep	46,5033	8,5067	3,7303	30	164
Oct	36,5387	4,8823	4,0377	31	232
Nov	48,0033	8,6234	17,7847	30	167
Dec	13,1419	2,7714	2,2460	31	147
1992 Means	34,6839	5,9570	5,4453	366	2131

D6

X-RAY FLARE ANALYSIS, 1991-1995 continued.

	MDO	MXS	MDM	d	n
1993 Jan	4,9903	2,9750	1,5704	31	52
Feb	35,1929	4,1932	1,5704	28	235
Mar	29,7258	4,7015	3,8165	31	196
Apr	11,5833	3,7772	2,6193	30	92
May	11,0258	2,9722	2,6877	31	115
Jun	22,5900	5,0575	3,0965	30	134
Jul	4,1323	4,7444	1,6372	31	27
Aug	2,1548	3,0364	1,0054	31	22
Sep	5,0633	2,6190	0,8212	30	58
Oct	6,9581	3,2682	2,0715	31	66
Nov	6,1400	3,2316	1,3565	30	57
Dec	16,8774	3,2700	1,8820	31	160
1993 Means	12,8726	3,8703	2,1803	365	1214
1994 Jan	20,0742	3,7945	3,0385	31	164
Feb	3,4821	4,2391	3,1054	28	23
Mar	2,3968	2,1853	0,6832	31	34
Apr	0,4333	2,1667	0,3333	30	6
May	0,0516	1,6000	0,0516	31	1
Jun	1,2467	4,6750	0,6044	30	8
Jul	1,0323	3,2000	0,9290	31	10
Aug	7,6323	4,4642	1,9421	31	53
Sep	1,6600	2,9294	0,8268	30	17
Oct	2,3194	4,2294	2,0683	31	17
Nov	0,4500	1,5000	0,1956	30	9
Dec	2,1677	3,3600	1,5224	31	20
1994 Means	3,6085	3,6384	1,2686	365	362
1995 Jan	3,2074	2,3405	1,2042	27	37
Feb	6,0214	5,2688	2,0869	28	32
Mar	2,0867	2,8455	1,1600	30	22
Apr	4,2033	7,8812	1,0697	30	16
May	0,9968	1,9312	0,3294	31	16
Jun	0,0900	1,3500	0,0900	30	2
Jul	0,3129	9,7000	0,3129	31	1
Aug	0,1065	1,6500	0,1065	31	2
Sep	0,1400	2,1000	0,1400	30	2
Oct	4,4581	5,1185	1,5588	31	27
Nov	0,4000	5,4000	0,4000	27	2
Dec	0,0000	—	0,0000	29	0
1995 Means	1,8132	4,0484	0,6960	355	159

SMOOTHED NOAA X-RAY FLARE MONTHLY VALUES.

Data based upon NOAA monthly mean values of MEAN DAILY OUTPUT.

Unit used in observed values is 1 microWatt per square metre.

Smoothing methods used are the Waldmeier and the 'Barnes 13' methods.

MONTH	Observed	ζ^W	ζ^{B13}	MONTH	Observed	ζ^W	ζ^{B13}	MONTH	Observed	ζ^W	ζ^{B13}
1989 Jan	135.6936	79.28	89.60	1992 Jan	54.6903	58.17	63.67	1995 Jan	3.2074	2.63	2.77
Feb	79.2464	85.54	97.21	Feb	89.1345	54.76	56.50	Feb	6.0214	2.28	2.62
Mar	243.1742	96.00	103.18	Mar	17.6419	52.65	49.04	Mar	2.0867	1.91	2.36
Apr	32.0867	103.41	105.54	Apr	20.7900	48.72	41.95	Apr	4.2033	1.93	2.16
May	73.3710	109.71	107.23	May	8.6903	45.07	36.91	May	0.9968	2.02	1.93
Jun	134.3300	112.36	108.38	Jun	29.5033	39.88	33.41	Jun	0.0900	1.93	1.65
Jul	30.4839	107.57	107.22	Jul	32.8677	32.92	30.76	Jul	0.3129	—	—
Aug	161.2613	101.08	105.03	Aug	22.4097	28.60	29.57	Aug	0.1065	—	—
Sep	126.6900	90.73	100.38	Sep	46.5033	26.86	29.57	Sep	0.1400	—	—
Oct	124.2936	83.59	94.95	Oct	36.5387	26.98	29.77	Oct	4.4581	—	—
Nov	132.0633	86.83	90.31	Nov	48.0033	26.69	28.81	Nov	0.4000	—	—
Dec	68.2710	84.92	83.05	Dec	13.1419	26.50	27.00	Dec	0.0000	—	—
1990 Jan	35.4710	80.44	75.07	1993 Jan	4.9903	25.02	24.87	1996 Jan	—	—	—
Feb	23.5786	75.46	67.80	Feb	35.1929	22.98	22.79	Feb	—	—	—
Mar	50.5194	66.48	61.39	Mar	29.7258	20.41	20.19	Mar	—	—	—
Apr	53.3733	58.31	56.79	Apr	11.5833	17.45	17.29	Apr	—	—	—
May	129.9839	50.96	52.76	May	11.0258	14.47	14.72	May	—	—	—
Jun	31.7767	48.24	49.79	Jun	22.5900	12.88	12.85	Jun	—	—	—
Jul	25.4194	50.28	48.81	Jul	4.1323	13.66	11.68	Jul	—	—	—
Aug	46.9516	53.84	49.26	Aug	2.1548	12.97	10.41	Aug	—	—	—
Sep	25.3100	66.92	54.04	Sep	5.0633	10.51	9.26	Sep	—	—	—
Oct	29.6032	78.00	61.88	Oct	6.9581	8.91	8.72	Oct	—	—	—
Nov	50.3567	75.54	68.99	Nov	6.1400	7.99	8.44	Nov	—	—	—
Dec	84.7516	84.67	81.19	Dec	16.8774	6.64	7.98	Dec	—	—	—
1991 Jan	68.0935	98.65	96.78	1994 Jan	20.0742	5.62	7.31	1997 Jan	—	—	—
Feb	76.2179	101.35	109.88	Feb	3.4821	5.72	6.52	Feb	—	—	—
Mar	311.9323	103.22	119.35	Mar	2.3968	5.81	5.58	Mar	—	—	—
Apr	57.7133	108.43	123.92	Apr	0.4333	5.47	4.62	Apr	—	—	—
May	66.6355	112.27	125.54	May	0.0516	5.04	3.76	May	—	—	—
Jun	314.3200	114.38	124.46	Jun	1.2467	4.19	3.00	Jun	—	—	—
Jul	78.4839	115.72	118.55	Jul	1.0323	2.88	2.43	Jul	—	—	—
Aug	58.6742	115.70	110.04	Aug	7.6323	2.28	2.33	Aug	—	—	—
Sep	60.8567	103.98	100.04	Sep	1.6600	2.37	2.45	Sep	—	—	—
Oct	116.6613	90.18	91.07	Oct	2.3194	2.52	2.57	Oct	—	—	—
Nov	55.4533	86.22	83.88	Nov	0.4500	2.71	2.71	Nov	—	—	—
Dec	130.3129	71.94	73.36	Dec	2.1677	2.70	2.78	Dec	—	—	—

SECTION E.

2800 MHz (107 mm) SOLAR FLUX.

Daily readings on the wavelength of 107 mm are obtained at Ottawa, Canada, at 1700 UT (local noon) [until June 1991], and Penticton, BC at 2000 UT (local noon) [after June 1991].

These figures are on an approximate scale of 60 to 500; the actual lowest observed value is 63,0 on 1954/06/27, adjusted to 65,1. The highest observed value being 457,0 on 1947/04/07, adjusted to 457,9.

The lowest adjusted value is 61,8 on 1953/03/24 observed as 63,1. The highest adjusted value is the 1947/04/07 value of 457,9.

The most recent maximum observed value is 324,3 in June 1989 (adjusted to 334,7) , and the most recent minimum observed value is 66,1, in June 1986 (adjusted to 68,3).

The values for the year 1995 are on pages E2 & E3 of this report. The first of these two tables contains the observed values, some of which are corrected for the occasional burst. The second table contains values adjusted to the distance of 1 AU (149 597 870 km).

$$\begin{aligned} 1 \text{ Flux Unit} &= 0,0001 \text{ attoWatt/square metre/Hertz} \\ &= 1 \times 10^{-22} \text{ Watts/square metre/Hertz} \end{aligned}$$

All flux data, courtesy of the Herzberg Institute of Astrophysics, National Research Council, Canada.

DAILY 2800 MHz SOLAR RADIO FLUX OBSERVED INDICES 1995.

All data obtained by the Dominion Radio Astrophysical Observatory, Penticton, British Columbia, Canada.

All observations carried out at local apparent mid-day, approximately 2000 UT.

Unit used is $1 \times 10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	75,4	87,1	90,0	75,4	68,6	70,5	78,8	72,6	73,7	72,6	74,5	72,7	01
02	77,3	86,0	90,3	76,3	68,8	73,3	77,7	73,5	73,3	72,5	73,3	73,3	02
03	76,8	82,7	91,0	75,2	69,0	74,7	78,1	73,3	73,6	71,0	72,6	73,3	03
04	76,9	86,0	89,1	73,1	70,6	79,1	80,8	73,0	74,4	70,8	73,2	72,8	04
05	76,3	81,1	84,2	72,1	72,9	81,7	80,2	75,1	74,6	69,8	75,1	73,6	05
06	74,4	84,3	83,5	71,8	76,4	79,4	80,9	75,1	71,8	71,0	74,8	74,0	06
07	74,7	83,8	84,0	70,6	77,6	82,5	80,6	73,7	70,2	72,9	—	74,1	07
08	73,7	85,8	80,8	71,8	78,0	84,2	81,5	73,6	69,1	74,3	76,3	74,1	08
09	73,8	83,7	76,9	72,6	77,8	86,4	80,2	73,4	68,7	76,1	77,2	73,9	09
10	73,3	81,5	79,1	74,5	77,8	84,4	77,3	73,0	68,0	82,3	78,1	73,5	10
11	75,3	81,1	76,1	77,7	76,8	82,5	76,1	72,9	68,0	89,5	77,4	73,4	11
12	76,2	81,1	76,2	81,9	80,8	80,7	74,3	71,9	68,6	92,2	76,2	72,3	12
13	74,9	85,7	77,5	82,8	80,5	76,8	72,5	70,8	69,2	87,9	73,1	72,6	13
14	77,3	82,4	79,0	88,3	79,9	75,7	74,4	70,1	69,5	87,2	75,0	69,8	14
15	80,6	84,9	81,1	91,4	85,9	73,3	74,4	71,4	70,1	83,0	76,6	70,2	15
16	82,8	85,6	84,2	89,0	93,8	70,8	73,5	70,5	69,6	85,6	75,9	69,9	16
17	83,5	89,0	83,4	88,9	95,2	69,9	72,3	69,8	69,8	84,6	75,1	69,3	17
18	86,6	88,8	91,8	89,9	91,3	69,5	72,0	71,9	71,6	81,5	75,1	68,6	18
19	90,2	94,6	84,2	91,8	86,3	71,3	70,5	71,6	73,6	80,5	74,0	69,2	19
20	92,5	90,8	89,1	86,4	80,8	71,9	69,7	71,3	75,5	82,5	73,2	69,6	20
21	96,5	89,0	90,0	84,7	75,1	72,3	68,5	71,0	73,9	81,0	72,8	70,0	21
22	95,5	85,2	93,5	83,9	70,8	73,1	68,8	70,3	74,5	80,5	72,8	71,2	22
23	96,0	84,6	94,2	76,7	68,7	71,9	68,5	74,3	75,0	76,7	72,7	72,3	23
24	97,1	83,4	95,0	72,5	67,1	71,1	69,3	77,1	73,7	74,3	72,2	72,2	24
25	89,6	83,3	92,3	70,4	67,1	70,8	69,7	77,1	74,0	74,0	71,8	72,5	25
26	85,7	86,2	90,3	69,3	66,3	70,9	69,4	77,3	73,5	73,9	72,7	74,1	26
27	88,5	87,6	89,0	68,2	65,8	72,3	70,4	79,9	72,3	74,0	70,8	74,0	27
28	82,7	90,7	83,7	67,7	66,6	74,5	70,4	81,6	72,7	73,8	73,5	76,0	28
29	84,6	—	80,9	68,0	66,8	77,5	69,8	78,1	73,7	73,8	72,3	76,4	29
30	86,5	—	79,7	67,2	67,5	78,1	69,7	77,4	72,8	73,3	74,3	75,3	30
31	86,7	—	76,8	—	68,9	—	70,8	75,6	—	73,3	—	75,1	31
MEAN	82,7	85,6	85,1	77,7	75,5	75,7	73,9	73,8	72,0	77,9	74,2	72,6	MEAN

1995 Yearly Mean : 77,2

DAILY 2800 MHz SOLAR RADIO FLUX INDICES - 1995 — ADJUSTED TO 1 AU.

All data obtained by the Dominion Radio Astrophysical Observatory, Penticton, British Columbia, Canada.

All observations carried out at local apparent mid-day, approximately 2000 UT.

Unit used is $1 \times 10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	72,9	84,6	88,3	75,3	69,7	72,5	81,5	74,8	75,0	72,8	73,3	70,7	01
02	74,8	83,5	88,7	76,2	69,9	75,4	80,3	75,7	74,6	72,7	72,1	71,2	02
03	74,3	80,4	89,4	75,2	70,2	76,8	80,7	75,5	74,9	71,1	71,4	71,2	03
04	74,4	83,6	87,6	73,1	71,8	81,4	83,5	75,1	75,6	70,8	72,0	70,7	04
05	73,8	78,8	82,9	72,2	74,2	84,2	82,9	77,2	75,9	69,8	73,9	71,4	05
06	72,0	82,0	82,2	71,9	77,8	81,8	83,6	77,3	73,0	70,9	73,5	71,8	06
07	72,2	81,5	82,7	70,7	79,0	85,0	83,3	75,8	71,2	72,8	—	71,9	07
08	71,3	83,2	79,6	72,0	79,4	86,8	84,2	75,6	70,1	74,1	74,8	71,8	08
09	71,4	81,5	75,8	72,9	79,2	89,0	82,9	75,5	69,7	76,0	75,7	71,6	09
10	70,9	79,3	78,1	74,8	79,3	87,0	79,9	75,0	68,9	82,1	76,5	71,3	10
11	72,8	79,0	75,1	78,0	78,4	85,1	78,6	74,9	68,9	89,1	75,9	71,1	11
12	73,7	79,1	75,3	82,3	82,4	83,3	76,7	73,8	69,5	91,8	74,6	70,0	12
13	72,5	83,5	76,6	83,3	82,2	79,2	74,9	72,7	70,1	87,5	71,5	70,4	13
14	74,7	80,4	78,1	88,9	81,6	78,1	76,8	71,9	70,3	86,7	73,4	67,6	14
15	78,0	82,9	80,2	92,0	87,8	75,6	76,8	73,2	70,9	82,5	75,0	68,0	15
16	80,1	83,5	83,3	89,7	95,9	73,1	75,9	72,3	70,4	85,0	74,2	67,7	16
17	80,8	86,9	82,5	89,6	97,3	72,1	74,7	71,5	70,5	84,1	73,4	67,1	17
18	83,9	86,7	90,9	90,7	93,4	71,8	74,4	73,6	72,3	80,9	73,4	66,4	18
19	87,3	92,4	83,4	92,6	88,3	73,7	72,8	73,4	74,3	79,8	72,2	67,0	19
20	89,6	88,8	88,3	87,2	82,8	74,2	72,0	73,0	76,2	81,8	71,5	67,3	20
21	93,4	87,1	89,3	85,5	77,0	74,7	70,8	72,7	74,5	80,3	71,1	67,8	21
22	92,5	83,4	92,9	84,8	72,6	75,5	71,1	71,9	75,1	79,7	71,0	68,9	22
23	93,0	82,9	93,6	77,6	70,4	74,3	70,7	75,9	75,5	75,9	70,9	69,9	23
24	94,1	81,7	94,4	73,4	68,8	73,4	71,5	78,8	74,2	73,5	70,4	69,9	24
25	86,8	81,6	91,8	71,3	68,9	73,2	72,0	78,8	74,5	73,1	69,9	70,1	25
26	83,1	84,5	89,9	70,2	68,1	73,2	71,6	78,9	73,9	73,0	70,8	71,7	26
27	85,8	85,9	88,6	69,1	67,5	74,7	72,7	81,6	72,6	73,1	68,9	71,5	27
28	80,2	89,1	83,4	68,6	68,4	77,0	72,6	83,2	73,0	72,9	71,5	73,4	28
29	82,1	—	80,7	69,0	68,7	80,1	72,0	79,7	74,0	72,8	70,4	73,9	29
30	83,9	—	79,5	68,2	69,4	80,8	71,9	78,9	73,0	72,3	72,3	72,8	30
31	84,2	—	76,7	—	70,9	—	72,9	77,0	—	72,2	—	72,7	31

MEAN	80,0	83,5	84,2	78,2	77,1	78,1	76,3	75,7	72,8	77,5	72,6	70,3	MEAN
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1995 Yearly Mean: 77,2

SMOOTHED NRCC 2800MHz SOLAR FLUX MONTHLY VALUES.

Data based upon NRCC monthly mean values ADJUSTED TO THE DISTANCE OF 1 AU.

Unit used in observed values is 1×10^{-22} Watt m^{-2} Hz $^{-1}$.

Smoothing methods used are the Waldmeier and the 'Barnes 13' methods.

MONTH	Adjusted	s^W	s^{B13}	MONTH	Adjusted	s^W	s^{B13}	MONTH	Adjusted	s^W	s^{B13}
1989 Jan	227,8	190,0	193,3	1992 Jan	210,6	181,3	188,1	1995 Jan	80,0	80,5	81,1
Feb	217,0	194,0	198,4	Feb	226,5	174,1	180,8	Feb	83,5	80,2	80,7
Mar	203,0	199,7	202,7	Mar	169,6	167,7	171,9	Mar	84,2	79,8	80,2
Apr	190,9	204,4	206,3	Apr	159,7	162,1	162,4	Apr	78,2	79,1	79,3
May	194,4	209,3	209,6	May	128,2	158,1	153,4	May	77,1	78,4	78,5
Jun	247,2	213,0	212,1	Jun	120,4	153,5	145,5	Jun	78,1	77,7	77,7
Jul	187,8	212,5	212,8	Jul	136,5	146,2	138,6	Jul	76,3	—	—
Aug	222,5	209,7	212,7	Aug	125,1	138,7	133,4	Aug	75,7	—	—
Sep	228,4	207,3	212,1	Sep	118,0	133,6	130,7	Sep	72,8	—	—
Oct	207,4	206,4	210,8	Oct	129,9	130,4	129,8	Oct	77,5	—	—
Nov	230,0	206,2	208,5	Nov	142,0	128,0	129,5	Nov	72,6	—	—
Dec	206,3	203,3	204,6	Dec	134,7	127,1	129,0	Dec	70,3	—	—
1990 Jan	203,4	200,3	200,4	1993 Jan	117,2	125,4	127,7	1996 Jan	—	—	—
Feb	174,1	200,4	197,0	Feb	139,1	122,7	125,7	Feb	—	—	—
Mar	187,0	198,6	194,2	Mar	135,0	120,3	122,9	Mar	—	—	—
Apr	186,6	195,5	192,2	Apr	116,7	117,8	119,1	Apr	—	—	—
May	194,0	192,3	190,5	May	114,9	114,5	114,8	May	—	—	—
Jun	176,3	189,9	189,7	Jun	112,8	111,1	110,5	Jun	—	—	—
Jul	186,6	190,4	190,5	Jul	102,2	109,5	107,0	Jul	—	—	—
Aug	228,1	193,8	192,6	Aug	96,0	107,5	103,9	Aug	—	—	—
Sep	179,3	198,1	195,0	Sep	87,9	103,9	101,2	Sep	—	—	—
Oct	180,9	200,4	197,4	Oct	99,7	100,4	99,3	Oct	—	—	—
Nov	180,3	200,9	200,1	Nov	93,8	97,5	97,8	Nov	—	—	—
Dec	198,5	202,5	203,4	Dec	101,5	94,7	96,3	Dec	—	—	—
1991 Jan	222,1	205,4	206,9	1994 Jan	111,3	92,6	94,8	1997 Jan	—	—	—
Feb	237,2	206,2	209,2	Feb	97,2	91,0	92,8	Feb	—	—	—
Mar	227,6	205,8	210,3	Mar	89,5	89,9	90,5	Mar	—	—	—
Apr	200,1	206,7	210,5	Apr	79,7	89,1	88,2	Apr	—	—	—
May	194,5	207,0	209,6	May	81,7	87,9	86,1	May	—	—	—
Jun	213,3	207,3	208,1	Jun	79,7	86,5	84,3	Jun	—	—	—
Jul	218,9	207,6	206,3	Jul	83,2	84,4	82,7	Jul	—	—	—
Aug	215,5	206,7	204,2	Aug	78,0	82,5	81,7	Aug	—	—	—
Sep	182,5	203,8	202,1	Sep	79,9	81,7	81,4	Sep	—	—	—
Oct	200,0	199,7	200,1	Oct	87,1	81,4	81,5	Oct	—	—	—
Nov	168,3	195,3	197,6	Nov	79,1	81,2	81,4	Nov	—	—	—
Dec	217,0	188,6	193,6	Dec	81,5	80,9	81,3	Dec	—	—	—

SECTION F.

ANALYSES AND GRAPHS.

NOTE CONCERNING CORRECTED CLASSIFICATION VALUES.

Corrected Classification Values, up to (and including) those in the GDSO Annual Report for 1994, were computed using data from the US NOAA as 'international' CV results. This practice has now ceased. The GDSO now considers results computed by Kjell Inge Malde, Hundvåg, Norway, as being 'international'.

Norway's results are considered better than results derived from NOAA data, because they [Norway's results], as at 1994, deal with data from 17 observatories. All new CV_{GD} results from 1991 to date, are printed in Tables C3 & C4. PLEASE IGNORE PREVIOUSLY PRINTED DATA IN TABLES C3 & C4, pages F41-42 (1992), F30-31 (1993) and F44-45 (1994).

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TABLE W1:

MONTHLY **WOLF NUMBER** MEANS OF GDSO DATA for **1995**.

g = mean of Active Areas or groups on the solar disc.

f = mean of sunspots on the solar disc.

WN = mean Wolf Number (k neglected; see list of definitions).

TWN = mean Truncated Wolf Number (Wolf Number without A and B class regions).

n = total number of observations.

w = mean weight.

Q = mean quietness [steadiness] of image (on the Kiepenheuer scale).

S = mean sharpness [clarity] of image (on the Kiepenheuer scale).

T = mean transparency of the atmosphere (1 = excellent, 5 = opaque).

C = mean condition $[(Q+S+T)/3]$.

MONTH	g	f	WN	TWN	n	w	Q	S	T	C
Jan	1,00	4,33	14,33	<i>10,28</i>	18	0,4402	1,83	2,47	2,69	2,3333
Feb	2,75	12,50	40,00	<i>26,92</i>	12	0,4661	1,75	2,25	2,54	2,1806
Mar	2,19	12,92	34,85	<i>27,62</i>	26	0,4336	1,75	2,60	2,71	2,3526
Apr	1,12	10,76	21,94	<i>17,71</i>	17	0,4430	1,76	2,38	2,71	2,2843
May	1,06	8,44	19,00	<i>15,72</i>	18	0,4411	1,94	2,42	2,58	2,3148
Jun	1,20	8,00	20,00	<i>15,15</i>	20	0,4380	1,90	2,45	2,60	2,3167
Jul	1,11	4,50	15,61	<i>12,28</i>	18	0,4196	2,17	2,50	2,56	2,4074
Aug	0,94	4,53	13,94	<i>11,24</i>	17	0,4709	1,76	2,29	2,38	2,1471
Sep	0,69	1,44	8,31	<i>5,38</i>	16	0,4677	1,78	2,38	2,41	2,1875
Oct	2,00	7,85	27,85	<i>20,92</i>	13	0,4406	1,92	2,50	2,58	2,3333
Nov	1,11	2,56	13,67	<i>9,22</i>	18	0,4516	1,83	2,44	2,58	2,2870
Dec	1,00	1,85	11,85	<i>6,62</i>	13	0,4536	1,69	2,54	2,50	2,2436
Year	1,34	6,85	20,25	<i>15,22</i>	—	0,4457	1,84	2,44	2,58	2,2896

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TABLE W2:

ROTATIONAL **WOLF NUMBER** MEANS OF GDSO DATA.

Abbreviations as above.

ROT.	start date, UT	g	f	WN	TWN	n	w	Q	S	T	C
1891	1994/12/31,17	0,73	3,93	11,27	<i>8,20</i>	15	0,4489	1,73	2,47	2,67	2,2889
1892	1995/01/27,51	2,27	9,91	32,64	<i>22,64</i>	11	0,4224	2,00	2,45	2,73	2,3939
1893	1995/02/23,85	2,22	11,61	33,78	<i>24,83</i>	23	0,4506	1,76	2,46	2,61	2,2754
1894	1995/03/23,17	1,90	15,05	34,05	<i>28,25</i>	20	0,4468	1,62	2,42	2,75	2,2667
1895	1995/04/19,45	0,85	4,31	12,77	<i>10,08</i>	13	0,4382	2,08	2,42	2,46	2,3205
1896	1995/05/16,69	1,17	11,50	23,17	<i>17,72</i>	18	0,4342	1,83	2,50	2,69	2,3426
1897	1995/06/12,89	1,33	5,89	19,22	<i>16,67</i>	18	0,4331	1,97	2,44	2,61	2,3426
1898	1995/07/10,09	0,86	3,71	12,29	<i>8,00</i>	14	0,4325	2,14	2,43	2,46	2,3452
1899	1995/08/06,30	0,87	4,00	12,67	<i>10,33</i>	15	0,4665	1,77	2,33	2,40	2,1667
1900	1995/09/02,54	0,73	1,53	8,87	<i>5,73</i>	15	0,4655	1,80	2,40	2,40	2,2000
1901	1995/09/29,81	2,17	8,50	30,17	<i>22,67</i>	12	0,4350	1,96	2,50	2,62	2,3611
1902	1995/10/27,10	1,21	2,21	14,36	<i>8,64</i>	14	0,4757	1,71	2,36	2,43	2,1667
1903	1995/11/23,40	0,71	2,07	9,21	<i>8,43</i>	14	0,4213	1,82	2,68	2,71	2,4048

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TABLE W3:
CORRECTED **WOLF NUMBERS** for **1994 - 1995**.

As the GDSO is in suburban Auckland, it can suffer terrible atmospheric conditions, hence the 'observed' Wolf Numbers have to be upgraded to give reflections of international results. International [Wolf Number] results are computed by the Sunspot Index Data Centre, at the Observatoire Royal de Belgique, Bruxelles, Belgium.

Below are the 'observed' Wolf Numbers along with the monthly k co-efficients and the corrected values (R_{GD}) for 1994 - 1995. The SIDC's final values (R_I) are also stated.

$I/GDSO$ = SIDC's mean (of days observed by the GDSO) divided by the GDSO's monthly mean.
n = number of GDSO observations.

s = sample standard deviation of k values.

s 'SIDC' = annual s computed on the SIDC formula.

ES = annual estimate of standard deviation.

	WN	k	R_{GD}	s	$I/GDSO$	n	R_I
1994 Jan	63,29	0,9175	58,07	0,1379	0,9210	17	57,8
Feb	51,36	0,6386	32,80	0,1595	0,6372	11	35,5
Mar	44,88	0,7161	32,13	0,2115	0,7038	24	31,7
Apr	24,18	0,7999	19,34	0,3066	0,6934	17	16,1
May	25,15	0,6728	16,92	0,1430	0,6660	20	17,8
Jun	20,76	0,9590	19,91	0,2963	0,9915	17	28,0
Jul	38,71	1,0192	39,45	0,3427	0,9574	17	35,1
Aug	28,95	0,8003	23,17	0,2549	0,7598	22	22,5
Sep	26,79	0,8739	23,41	0,3086	0,8527	19	25,7
Oct	56,53	0,7839	44,32	0,0751	0,7818	15	44,0
Nov	21,86	0,8339	18,23	0,2047	0,9272	22	18,0
Dec	27,50	0,9665	26,58	0,2366	0,9673	20	26,2
1994 Means	34,70	0,8335	28,92	—	0,8174	—	29,9
	$s = 0,2545$	s 'SIDC' = 0,2237					$ES = 0,0169$
1995 Jan	14,33	1,0467	15,00	0,4280	1,2597	18	24,2
Feb	40,00	0,8888	35,55	0,1383	0,8625	12	29,9
Mar	34,85	0,9136	31,84	0,2354	0,9128	26	31,1
Apr	21,94	0,6805	14,93	0,1118	0,7507	17	14,0
May	19,00	0,7669	14,57	0,0835	0,7982	18	14,5
Jun	20,00	0,8593	17,19	0,2050	0,8150	20	15,6
Jul	15,61	0,9443	14,75	0,2778	0,9822	18	14,5
Aug	13,94	0,7819	10,90	0,1779	1,0084	17	14,3
Sep	8,31	0,8182	6,80	0,1277	1,1579	16	11,8
Oct	27,85	0,7706	21,46	0,1683	0,7928	13	21,1
Nov	13,67	0,7634	10,43	0,3075	0,6748	18	9,0
Dec	11,85	0,9275	10,99	0,2762	0,9091	13	10,0
1995 Means	20,25	0,8555	17,33	—	0,8885	—	17,5
	$s = 0,2445$	s 'SIDC' = 0,2165					$ES = 0,0194$

TABLE W4:

CORRECTED **WOLF NUMBERS** for Rotations 1870 - 1903.

As a k value is attributed to each spotted observation, the k value for any specific rotation is the mean of all the k values for the rotation concerned.

The corrected values are labelled R_{GD} .

$$R_{GD} = WN \times k.$$

s = sample standard deviation of k values.

I/GDSO = International mean (of days observed by the GDSO) divided by the GDSO's rotation mean.

n = number of GDSO observations.

ROTA- TION	START DATE, UT	WN	k	R_{GD}	s	I/GDSO	n
1870	1993/06/06,48	47,67	0,9796	46,69	0,1623	1,0042	15
1871	1993/07/03,67	50,80	1,0523	53,46	0,1275	1,0394	10
1872	1993/07/30,88	46,39	0,9047	41,97	0,1539	0,8946	18
1873	1993/08/27,12	19,80	0,9367	18,55	0,3981	0,9529	15
1874	1993/09/23,38	54,17	0,9962	53,96	0,3817	0,9785	12
1875	1993/10/20,66	32,75	1,2285	40,23	0,4842	1,1336	16
1876	1993/11/16,97	57,82	0,9159	52,96	0,2133	0,8911	17
1877	1993/12/14,28	74,62	0,9774	72,93	0,2374	0,9608	13
1878	1994/01/10,61	48,40	0,8566	41,46	0,1408	0,8444	15
1879	1994/02/06,96	59,67	0,6612	39,45	0,1695	0,6732	12
1880	1994/03/06,29	39,55	0,7026	27,79	0,2272	0,6776	20
1881	1994/04/02,60	24,33	0,8623	20,98	0,2900	0,7233	15
1882	1994/04/29,86	31,65	0,6440	20,38	0,1547	0,6617	17
1883	1994/05/27,08	16,35	0,9173	15,00	0,3331	0,8597	17
1884	1994/06/23,28	40,50	0,9970	40,38	0,2990	0,9769	16
1885	1994/07/20,48	22,41	0,8644	19,37	0,3136	0,8346	17
1886	1994/08/16,71	36,06	0,8833	31,85	0,2934	0,8243	18
1887	1994/09/12,96	24,38	0,8066	19,66	0,2690	0,8051	16
1888	1994/10/10,24	54,44	0,8270	45,02	0,1278	0,8129	16
1889	1994/11/06,53	16,47	0,7994	13,17	0,2104	0,9286	17
1890	1994/12/03,84	28,95	0,9665	27,98	0,2366	0,9509	19
1891	1994/12/31,17	11,27	0,9135	10,29	0,2660	1,4024	15
1892	1995/01/27,51	32,64	1,0466	34,16	0,3857	0,9415	11
1893	1995/02/23,85	33,78	0,9502	32,10	0,2463	0,9434	23
1894	1995/03/23,17	34,05	0,7225	24,60	0,1120	0,7548	20
1895	1995/04/19,45	12,77	0,7252	9,26	0,0803	0,8012	13
1896	1995/05/16,69	23,17	0,7951	18,42	0,1103	0,7914	18
1897	1995/06/12,89	19,22	0,9239	17,76	0,1887	0,9017	18
1898	1995/07/10,09	12,29	0,9054	11,12	0,3575	0,9535	14
1899	1995/08/06,30	12,67	0,8066	10,22	0,1708	1,0947	15
1900	1995/09/02,54	8,87	0,8182	7,25	0,1277	1,0977	15
1901	1995/09/29,81	30,17	0,7706	23,25	0,1683	0,7901	12
1902	1995/10/27,10	14,36	0,7798	11,20	0,3522	0,7114	14
1903	1995/11/23,40	9,21	0,9133	8,42	0,2616	0,8915	14

TABLE W4A:

CORRECTED *WEIGHTED WOLF NUMBERS* for Rotations 1857-1890.

Observed Wolf Numbers are weighted, and stated in previous reports, in order to take into account the values of Q, S and T. These weighted values are corrected by a weighted co-efficient, computed in a similar way as k, by weighting each k the same amount applied to the 'observed' Wolf Number.

Below are the 'weighted' Wolf Numbers along with the monthly k_w co-efficients and the corrected weighted values (R_{GDw}) for Rotations 1857-1890.

n = number of GDSO observations.

s_w = sample standard deviation of k_w values.

s' 'SIDC' $_w$ = annual s computed on the SIDC formula.

ROTA-TION	START DATE UT	WN $_w$	k_w	R_{GDw}	s_w	n	w
1857	1992/06/16,87	78,56	0,8244	64,76	0,1467	11	0,4004
1858	1992/07/14,07	89,76	0,9935	89,18	0,1562	12	0,4463
1859	1992/08/10,28	47,16	1,0548	49,74	0,3081	12	0,4382
1860	1992/09/06,53	72,64	0,9323	67,72	0,1555	15	0,4470
1861	1992/10/03,80	111,32	0,8775	97,68	0,1727	14	0,4555
1862	1992/10/31,09	101,40	0,9385	95,16	0,1164	9	0,4155
1863	1992/11/27,40	99,08	0,8773	86,93	0,2220	10	0,4201
1864	1992/12/24,72	78,28	0,9369	73,33	0,1519	12	0,4257
1865	1993/01/21,06	73,20	0,9395	68,78	0,2109	12	0,3748
1866	1993/02/17,40	97,76	0,8948	87,48	0,1116	12	0,4056
1867	1993/03/16,73	79,24	0,8570	67,91	0,1093	15	0,4193
1868	1993/04/13,02	59,68	0,9971	59,50	0,2137	16	0,4120
1869	1993/05/10,27	43,86	1,0287	45,12	0,4254	10	0,3824
1870	1993/06/06,48	48,14	0,9777	47,07	0,1683	15	0,4353
1871	1993/07/03,67	51,29	1,0562	54,17	0,1438	10	0,3942
1872	1993/07/30,88	46,62	0,8999	41,95	0,1522	18	0,4256
1873	1993/08/27,12	20,11	0,9158	18,42	0,4226	15	0,4297
1874	1993/09/23,38	55,83	0,9635	53,79	0,3713	12	0,4411
1875	1993/10/20,66	33,80	1,2196	41,22	0,5078	16	0,4142
1876	1993/11/16,97	59,69	0,9066	54,11	0,2182	17	0,4465
1877	1993/12/14,28	75,23	0,9684	72,85	0,2501	13	0,4450
1878	1994/01/10,61	48,30	0,8555	41,32	0,1470	15	0,4377
1879	1994/02/06,96	59,08	0,6473	38,24	0,1891	12	0,4652
1880	1994/03/06,29	40,34	0,7011	28,28	0,2233	20	0,4343
1881	1994/04/02,60	24,15	0,8566	20,69	0,3136	15	0,4226
1882	1994/04/29,86	32,11	0,6477	20,80	0,1593	17	0,4462
1883	1994/05/27,08	16,94	0,9171	15,54	0,3552	17	0,4189
1884	1994/06/23,28	40,64	1,0002	40,65	0,3239	16	0,4432
1885	1994/07/20,48	22,98	0,8537	19,62	0,3214	17	0,4630
1886	1994/08/16,71	36,01	0,8659	31,18	0,2974	18	0,4339
1887	1994/09/12,96	23,45	0,8148	19,11	0,3007	16	0,4529
1888	1994/10/10,24	54,10	0,8257	44,67	0,1330	16	0,4451
1889	1994/11/06,53	15,96	0,7980	12,74	0,2262	17	0,4252
1890	1994/12/03,84	28,98	0,9615	27,86	0,2426	19	0,4211

TABLE W5:
SMOOTHED WOLF NUMBERS for 1994 - 1995.

The following are smoothed Wolf Numbers in three different systems. See page xi for all smoothing formulæ.

YEAR	MONTH	WN	WN(S ^{HBm})	WN(S ^W)	WN(S ^{B13})	R _{GD}	R _{GD} (S ^W)	R _{GD} (S ^{B13})
1994	Jan	63,29	51,99	41,27	44,82	58,07	37,46	39,92
	Feb	51,36	47,75	40,03	42,92	32,80	36,10	37,17
	Mar	44,88	41,44	39,42	40,49	32,13	35,42	34,35
	Apr	24,18	34,56	39,83	38,07	19,34	34,67	31,68
	May	25,15	30,18	39,32	35,88	16,92	32,92	29,51
	Jun	20,76	28,28	37,16	33,95	19,91	30,76	28,09
	Jul	38,71	30,54	33,79	32,26	39,45	27,73	27,00
	Aug	28,95	32,12	31,28	31,20	23,17	26,05	26,52
	Sep	26,79	33,31	30,39	31,03	23,41	26,16	26,77
	Oct	56,53	33,63	29,87	31,06	44,32	25,96	26,96
	Nov	21,86	30,67	29,53	30,56	18,23	25,68	26,63
	Dec	27,50	29,58	29,24	29,66	26,58	25,47	25,89
1995	Jan	14,33	28,23	28,24	28,58	15,00	24,32	24,85
	Feb	40,00	27,96	26,66	27,34	35,55	22,78	23,69
	Mar	34,85	27,46	25,26	25,72	31,84	21,58	22,18
	Apr	21,94	24,95	23,29	23,61	14,93	19,94	20,21
	May	19,00	22,29	21,76	21,84	14,57	18,66	18,52
	Jun	20,00	18,67	20,76	20,39	17,19	17,68	17,11
	Jul	15,61	16,79	19,96	18,93	14,75	—	—
	Aug	13,94	15,99	18,55	17,37	10,90	—	—
	Sep	8,31	15,56	16,25	15,93	6,80	—	—
	Oct	27,85	15,95	—	—	21,46	—	—
	Nov	13,67	14,71	—	—	10,43	—	—
	Dec	11,85	13,37	—	—	10,99	—	—

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TABLE W6:
 QUARTERLY AND YEARLY **WOLF NUMBER** MEANS for 1991 - 1995.

YEAR/ QUARTER	WN	WN(S ^{HBm})	WN(S ^W)	WN(S ^{B13})	R _{GD}	g	f
1991 / 1	179,84	168,48	166,35	166,29	159,84	9,68	83,04
2	166,41	175,99	167,12	171,97	151,79	10,05	65,95
3	182,85	172,02	166,30	167,79	166,86	11,44	68,46
4	143,45	151,65	151,52	153,01	136,70	7,35	69,95
1991	168,85	167,03	162,82	164,76	154,48	9,65	72,34
1992 / 1	154,22	137,56	123,86	128,86	149,11	8,22	72,00
2	84,95	91,12	107,19	100,93	85,33	5,50	29,95
3	70,25	78,31	89,72	84,72	69,12	4,68	23,50
4	99,79	88,03	79,80	83,08	91,36	6,53	34,53
1992	97,68	98,75	100,15	99,28	94,60	6,05	37,20
1993 / 1	81,90	80,42	73,28	76,53	73,63	5,12	30,71
2	54,60	59,48	62,35	61,10	54,18	3,24	22,16
3	39,76	44,49	54,29	50,08	36,88	2,90	10,78
4	49,88	48,08	45,41	46,65	53,42	2,88	21,12
1993	55,65	58,12	58,83	58,59	54,23	3,48	20,81
1994 / 1	52,27	47,06	40,24	42,74	40,01	3,35	18,81
2	23,46	31,01	38,77	35,96	18,75	1,72	6,24
3	31,10	31,99	31,82	31,50	27,59	2,22	8,86
4	32,96	31,29	29,55	30,43	28,61	2,23	10,68
1994	34,70	35,34	35,09	35,16	28,92	2,37	11,03
1995 / 1	29,36	27,88	26,72	27,21	27,57	1,93	10,07
2	20,27	21,97	21,94	21,95	15,94	1,13	9,00
3	12,76	16,12	18,25	17,41	11,06	0,92	3,55
4	17,32	14,68	—	—	14,08	1,34	3,91
1995	20,25	20,16	—	—	17,33	1,34	6,85

NB: WN(S^{HBm}), WN(S^W) & WN(S^{B13}) quarterly values are means of 3 monthly values.
 WN(S^{HBm}), WN(S^W) & WN(S^{B13}) yearly values are means of 12 monthly values.
 R_{GD} quarterly values are computed as quarterly WN means multiplied by quarterly k means.
 Annual values of R_{GD} are annual Wolf Number means multiplied by annual k means.

TABLE G3:
CORRECTED ACTIVE AREA (g) VALUES for 1994 - 1995.

As the GDSO is in suburban Auckland, it can suffer terrible atmospheric conditions, hence the 'observed' Active Area means have to be upgraded to give reflections of international results. International [Active Area] results are computed by the Solar Section of the British Astronomical Association. Below are the 'observed' Active Area (g) means along with the monthly k co-efficients and the corrected values (g_{GD}) for 1994 - 1995. The BAA's final values (g_B) are also stated.

$I/GDSO$ = BAA's mean (of days observed by the GDSO) divided by the GDSO's monthly mean.
n = number of GDSO observations.

s = sample standard deviation of k values.

s 'SIDC' = annual s computed on the SIDC formula.

Es = annual estimate of standard deviation.

	g	k	g_{GD}	s	$I/GDSO$	n	g_B
1994 Jan	3,29	1,0520	3,47	0,3091	1,0000	17	3,19
Feb	3,82	0,7439	2,84	0,2638	0,7381	11	2,89
Mar	3,17	0,9014	2,85	0,2939	0,8947	24	2,80
Apr	1,94	0,9244	1,79	0,3829	0,7879	17	1,46
May	1,80	0,8859	1,59	0,2760	0,8611	20	1,48
Jun	1,41	1,1000	1,55	0,4243	1,0833	17	2,16
Jul	2,71	1,2122	3,28	0,5189	1,0435	17	2,70
Aug	2,05	0,9394	1,92	0,3012	0,8889	22	1,83
Sep	2,00	1,0521	2,10	0,4302	1,0000	19	2,13
Oct	3,60	0,9556	3,44	0,1806	0,9444	15	3,38
Nov	1,68	0,9722	1,64	0,1179	1,0541	22	1,63
Dec	1,80	1,0965	1,97	0,4094	1,0278	20	1,70
1994 Means	2,37	0,9881	2,34	—	0,9388	—	2,27
	$s = 0,3467$	s 'SIDC' = 0,3214			$Es = 0,0243$		
1995 Jan	1,00	1,4333	1,43	0,6858	1,4444	18	1,64
Feb	2,75	1,0903	3,00	0,2693	1,0606	12	2,60
Mar	2,19	1,0471	2,30	0,2259	1,0702	26	2,29
Apr	1,12	0,9167	1,02	0,1800	1,0000	17	0,86
May	1,06	0,9722	1,03	0,0962	0,9474	18	0,96
Jun	1,20	0,9510	1,14	0,1415	0,8750	20	1,00
Jul	1,11	1,0833	1,20	0,2887	1,0500	18	1,16
Aug	0,94	0,9375	0,88	0,1768	1,1875	17	1,09
Sep	0,69	1,0714	0,74	0,1890	1,6364	16	1,33
Oct	2,00	0,8148	1,63	0,1899	0,8077	13	1,61
Nov	1,11	1,1389	1,27	0,6270	0,9000	18	0,93
Dec	1,00	1,2083	1,21	0,5020	1,0769	13	0,96
1995 Means	1,34	1,0512	1,41	—	1,0543	—	1,37
	$s = 0,3539$	s 'SIDC' = 0,2864			$Es = 0,0286$		

TABLE G4:

CORRECTED ACTIVE AREA (g) VALUES for Rotations 1870 - 1903.

As a k value is attributed to each spotted observation, the k value for any specific rotation is the mean of all the k values for the rotation concerned.

The corrected values are labelled g_{GD} .

$$g_{GD} = g \times k.$$

s = sample standard deviation of k values.

I/GDSO = International mean (of days observed by the GDSO) divided by the GDSO's rotation mean.

n = number of GDSO observations.

ROTA- TION	START DATE, UT	g	k	g_{GD}	s	I/GDSO	n
1870	1993/06/06,48	2,93	0,9298	2,73	0,2474	0,9545	15
1871	1993/07/03,67	4,00	1,0783	4,31	0,1606	1,0750	10
1872	1993/07/30,88	3,44	1,0370	3,57	0,2984	1,0161	18
1873	1993/08/27,12	1,60	1,0833	1,73	0,4564	0,9167	15
1874	1993/09/23,38	3,08	1,0042	3,10	0,3125	0,9730	12
1875	1993/10/20,66	2,25	1,2604	2,84	0,3989	1,1944	16
1876	1993/11/16,97	3,29	0,9906	3,26	0,3308	0,9286	17
1877	1993/12/14,28	3,23	0,9679	3,13	0,3561	0,9048	13
1878	1994/01/10,61	3,07	1,0589	3,25	0,3298	1,0000	15
1879	1994/02/06,96	4,17	0,7653	3,19	0,2621	0,7800	12
1880	1994/03/06,29	2,90	0,8817	2,56	0,3196	0,8621	20
1881	1994/04/02,60	1,93	1,0015	1,94	0,3652	0,8276	15
1882	1994/04/29,86	2,29	0,8344	1,91	0,2894	0,8462	17
1883	1994/05/27,08	1,18	0,9429	1,11	0,3259	0,8500	17
1884	1994/06/23,28	2,69	1,1789	3,17	0,4792	1,0930	16
1885	1994/07/20,48	1,59	1,0444	1,66	0,4294	0,9630	17
1886	1994/08/16,71	2,61	1,0556	2,76	0,3792	0,9787	18
1887	1994/09/12,96	1,88	0,9872	1,85	0,3755	0,9667	16
1888	1994/10/10,24	3,56	0,9583	3,41	0,1748	0,8474	16
1889	1994/11/06,53	1,24	0,9615	1,19	0,1388	1,0952	17
1890	1994/12/03,84	1,89	1,0965	2,08	0,4094	1,0278	19
1891	1994/12/31,17	0,73	1,1667	0,86	0,4082	1,3636	15
1892	1995/01/27,51	2,27	1,4091	3,20	0,6118	1,2800	11
1893	1995/02/23,85	22,22	1,0625	2,36	0,2769	1,0784	23
1894	1995/03/23,17	1,90	0,9657	1,83	0,0980	1,0000	20
1895	1995/04/19,45	0,85	0,8611	0,73	0,2215	0,7273	13
1896	1995/05/16,69	1,17	0,9643	1,12	0,1336	0,9524	18
1897	1995/06/12,89	1,33	0,9792	1,31	0,0833	0,9583	18
1898	1995/07/10,09	0,86	1,1250	0,96	0,3536	1,0833	14
1899	1995/08/06,30	0,87	0,9167	0,79	0,2041	1,2308	15
1900	1995/09/02,54	0,73	1,0714	0,79	0,1890	1,5455	15
1901	1995/09/29,81	2,17	0,8148	1,77	0,1899	0,8462	12
1902	1995/10/27,10	1,21	1,1852	1,44	0,7286	0,8824	14
1903	1995/11/23,40	0,71	1,2222	0,87	0,4410	1,2000	14

TABLE G5:
SMOOTHED **ACTIVE AREA (g)** MEANS for **1993 - 1995**.

The following are smoothed Active Area (g) values in three different systems.
See page xi for all smoothing formulæ.

YEAR	MONTH	g	$g(S^{HBm})$	$g(S^W)$	$g(S^{B13})$	g_{GD}	$g_{GD}(S^W)$	$g_{GD}(S^{B13})$
1993	Jan	4,69	5,5686	4,8400	5,1457	4,31	4,5447	4,7981
	Feb	6,00	5,1474	4,7538	4,9258	5,69	4,5068	4,5749
	Mar	4,82	4,5802	4,6079	4,6244	4,01	4,3642	4,2777
	Apr	3,67	4,0545	4,3345	4,2446	3,16	4,1085	3,9335
	May	3,00	3,6934	4,0266	3,8793	2,58	3,8388	3,6381
	Jun	3,07	3,3498	3,7156	3,5733	2,90	3,5665	3,4205
	Jul	3,91	3,1978	3,5125	3,3460	4,19	3,4111	3,2815
	Aug	3,43	3,0095	3,3634	3,1674	3,61	3,2573	3,1589
	Sep	1,59	2,8131	3,2034	3,0429	1,53	3,0908	3,0635
	Oct	3,20	2,8116	3,0625	2,9846	3,62	2,9861	3,0181
	Nov	2,41	2,8404	2,9406	2,9478	2,85	2,8881	2,9625
	Dec	3,06	3,0099	2,8216	2,8987	2,93	2,7910	2,8719
1994	Jan	3,29	3,1323	2,7025	2,8325	3,47	2,6972	2,7624
	Feb	3,82	3,0546	2,5948	2,7495	2,84	2,5893	2,6468
	Mar	3,17	2,7880	2,5543	2,6467	2,85	2,5431	2,5371
	Apr	1,94	2,4453	2,5881	2,5378	1,79	2,5596	2,4387
	May	1,80	2,7192	2,5744	2,4357	1,59	2,5015	2,3537
	Jun	1,41	2,0190	2,4914	2,3472	1,55	2,4111	2,3015
	Jul	2,71	2,1460	2,3432	2,2604	3,28	2,2867	2,2577
	Aug	2,05	2,2378	2,2031	2,1875	1,92	2,2086	2,2279
	Sep	2,00	2,3077	2,1180	2,1554	2,10	2,1919	2,2304
	Oct	3,60	2,3026	2,0431	2,1314	3,44	2,1366	2,2224
	Nov	1,68	2,1077	1,9777	2,0710	1,64	2,0808	2,1734
	Dec	1,80	2,0086	1,9379	1,9850	1,97	2,0400	2,0938
1995	Jan	1,00	1,8822	1,8626	1,8867	1,43	1,9363	1,9904
	Feb	2,75	1,8218	1,7501	1,7798	3,00	1,8065	1,8742
	Mar	2,19	1,7177	1,6494	1,6502	2,30	1,7062	1,7314
	Apr	1,12	1,5141	1,5281	1,5023	1,02	1,5738	1,5614
	May	1,06	1,3421	1,4376	1,3918	1,03	1,4829	1,4287
	Jun	1,20	1,1436	1,3805	1,3164	1,14	1,4357	1,3360
	Jul	1,11	1,0920	1,3377	1,2499	1,20	1,3780	1,2537
	Aug	0,94	1,1080	1,2449	1,1767	0,88	1,2508	1,1664
	Sep	0,69	1,1386	1,0988	1,1126	0,74	—	—
	Oct	2,00	1,1976	—	—	1,63	—	—
	Nov	1,11	1,1285	—	—	1,27	—	—
	Dec	1,00	1,0327	—	—	1,21	—	—

TABLE G6:
 QUARTERLY & YEARLY **ACTIVE AREA (g)** MEANS for 1991 - 1995.

YEAR/ QUARTER	g	$g(S^{HBm})$	$g(S^W)$	$g(S^{B13})$	g_{GD}
1991 / 1	9,68	9,31	9,79	9,54	9,60
2	10,05	10,45	9,66	10,07	9,39
3	11,44	10,41	9,51	9,83	10,48
4	7,35	8,22	8,64	8,55	7,31
1991	9,65	9,60	9,40	9,50	9,27
1992 / 1	8,22	7,27	7,01	7,04	8,46
2	5,50	5,51	6,20	5,92	5,36
3	4,68	5,15	5,63	5,43	4,54
4	6,53	5,81	5,15	5,41	6,24
1992	6,05	5,93	6,00	5,95	5,92
1993 / 1	5,12	5,10	4,73	4,90	4,56
2	3,24	3,70	4,03	3,90	2,88
3	2,90	3,01	3,36	3,19	3,00
4	2,88	2,89	2,94	2,94	3,14
1993	3,48	3,67	3,77	3,73	3,41
1994 / 1	3,35	2,99	2,62	2,74	3,07
2	1,72	2,21	2,55	2,44	1,66
3	2,22	2,23	2,22	2,20	2,34
4	2,23	2,14	1,99	2,06	2,26
1994	2,37	2,39	2,34	2,36	2,34
1995 / 1	1,93	1,81	1,75	1,77	2,21
2	1,13	1,33	1,45	1,40	1,07
3	0,92	1,11	1,23	1,18	0,96
4	1,34	1,12	—	—	1,42
1995	1,34	1,34	—	—	1,41

NB: $g(S^{HBm})$, $g(S^W)$ & $g(S^{B13})$ quarterly values are means of 3 monthly values.
 $g(S^{HBm})$, $g(S^W)$ & $g(S^{B13})$ yearly values are means of 12 monthly values.
 g_{GD} quarterly values are computed as quarterly g means multiplied by quarterly k means.
 Annual values of g_{GD} are annual Active Area means multiplied by annual k means.

TABLE P1:

MONTHLY **PETTISINDEX** MEANS OF GDSO DATA for **1995**.

p = mean of penumbrae on the solar disc.

s = mean of penumbral-free sunspots on the solar disc.

SN = mean Pettisindex (k neglected; see list of definitions).

n = total number of observations.

w = mean weight.

Q = mean quietness [steadiness] of image (on the Kiepenheuer scale).

S = mean sharpness [clarity] of image (on the Kiepenheuer scale).

T = mean transparency of the atmosphere (1 = excellent, 5 = opaque).

C = mean condition $[(Q+S+T)/3]$.

MONTH	p	s	SN	n	w	Q	S	T	C
Jan	0,94	2,72	12,17	18	0,4402	1,83	2,47	2,69	2,3333
Feb	2,50	8,67	33,67	12	0,4661	1,75	2,25	2,54	2,1806
Mar	2,50	7,23	32,23	26	0,4336	1,75	2,60	2,71	2,3526
Apr	1,82	6,35	24,59	17	0,4430	1,76	2,38	2,71	2,2843
May	1,61	4,56	20,67	18	0,4411	1,94	2,42	2,58	2,3148
Jun	1,15	5,90	17,40	20	0,4380	1,90	2,45	2,60	2,3167
Jul	0,94	3,11	12,56	18	0,4196	2,17	2,50	2,56	2,4074
Aug	0,94	2,76	12,18	17	0,4709	1,76	2,29	2,38	2,1471
Sep	0,44	0,94	5,31	16	0,4677	1,78	2,38	2,41	2,1875
Oct	1,85	4,54	23,00	13	0,4406	1,92	2,50	2,58	2,3333
Nov	0,72	1,78	9,00	18	0,4516	1,83	2,44	2,58	2,2870
Dec	0,62	1,85	7,38	13	0,4536	1,69	2,54	2,50	2,2436
Year	1,36	4,24	17,83	—	0,4457	1,84	2,44	2,58	2,2896

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TABLE P2:

ROTATIONAL **PETTISINDEX** MEANS OF GDSO DATA.

Abbreviations as above.

ROT.	start date, UT	p	s	SN	n	w	Q	S	T	C
1891	1994/12/31,17	0,80	2,40	10,40	15	0,4489	1,73	2,47	2,67	2,2889
1892	1995/01/27,51	1,91	7,45	26,55	11	0,4224	2,00	2,45	2,73	2,3939
1893	1995/02/23,85	2,43	7,00	31,35	23	0,4506	1,76	2,46	2,61	2,2754
1894	1995/03/23,17	2,65	8,25	34,75	20	0,4468	1,62	2,42	2,75	2,2667
1895	1995/04/19,45	0,92	2,15	11,38	13	0,4382	2,08	2,42	2,46	2,3205
1896	1995/05/16,69	1,72	7,17	24,39	18	0,4342	1,83	2,50	2,69	2,3426
1897	1995/06/12,89	1,11	4,50	15,61	18	0,4331	1,97	2,44	2,61	2,3426
1898	1995/07/10,09	0,71	2,21	9,36	14	0,4325	2,14	2,43	2,46	2,3452
1899	1995/08/06,30	0,87	2,60	11,27	15	0,4665	1,77	2,33	2,40	2,1667
1900	1995/09/02,54	0,47	1,00	5,67	15	0,4655	1,80	2,40	2,40	2,2000
1901	1995/09/29,81	2,00	4,92	24,92	12	0,4350	1,96	2,50	2,62	2,3611
1902	1995/10/27,10	0,71	1,43	8,57	14	0,4757	1,71	2,36	2,43	2,1667
1903	1995/11/23,40	0,71	1,36	8,50	14	0,4213	1,82	2,68	2,71	2,4048

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TABLE P3:
CORRECTED **PETTISINDICES** for 1994 - 1995.

As the GDSO is in suburban Auckland, it can suffer terrible atmospheric conditions, hence the 'observed' Pettisindices have to be upgraded to give reflections of international results. International Pettisindex results are computed by Sonne, Germany.

Below are the 'observed' Pettisindices along with the monthly k co-efficients and the corrected values (PX_{GD}) for 1994 - 1995. Sonne's final values (PX_I) are also stated.

$I/GDSO$ = Sonne's mean (of days observed by the GDSO) divided by the GDSO's monthly mean.
n = number of GDSO observations.

s = sample standard deviation of k values.

s 'SIDC' = annual s computed on the SIDC formula.

Es = annual estimate of standard deviation.

	SN	k	PX_{GD}	s	$I/GDSO$	n	PX_I
1994 Jan	81,53	1,2597	102,71	0,2984	1,1457	17	91,9
Feb	45,18	0,9099	41,11	0,2139	0,9135	11	41,4
Mar	39,88	0,9465	37,74	0,2827	0,8903	24	36,3
Apr	17,88	1,3112	23,45	0,8277	1,0132	17	16,8
May	18,50	1,2323	22,80	0,6319	1,0459	20	20,9
Jun	18,29	1,6160	29,56	1,5231	1,1093	17	27,9
Jul	30,82	2,0505	63,20	2,4151	1,3492	17	39,2
Aug	25,86	1,3572	35,10	0,4973	1,2109	22	32,6
Sep	25,00	1,2099	30,25	0,4850	1,1305	19	34,0
Oct	57,27	1,1181	64,03	0,1711	1,1222	15	61,5
Nov	17,05	1,3582	23,15	0,7622	1,2853	22	19,1
Dec	26,55	1,7717	47,04	1,4729	1,2335	20	32,3
1994 Means	32,39	1,3420	43,47	—	1,1132	—	37,8
	$s = 1,0256$	s 'SIDC' = 0,7771			$Es = 0,0717$		
1995 Jan	12.17					18	
Feb	33.67		DATA			12	N
Mar	32.23					26	
Apr	24.59		UNOBTAINABLE			17	O
May	20.67					18	
Jun	17.40		AT			20	D
Jul	12.56					18	
Aug	12.18		TIME			17	A
Sep	5.31		OF			16	
Oct	23.00					13	T
Nov	9.00		PRINT			18	
Dec	7.38					13	A
1996 Means	17.83					—	
	$s =$	s 'SIDC' =				$Es =$	

TABLE P4:

CORRECTED **PETTISINDICES** for Rotations 1868 - 1903.

As a k value is attributed to each spotted observation, the k value for any specific rotation is the mean of all the k values for the rotation concerned.

The corrected values are labelled PX_{GD} .

$$PX_{GD} = SN \times k.$$

s = sample standard deviation of k values.

I/GDSO = International mean (of days observed by the GDSO) divided by the GDSO's rotation mean.

n = number of GDSO observations.

ROTA- TION	START DATE, UT	SN	k	PX_{GD}	s	I/GDSO	n
1868	1993/04/13,02	69,31	1,3650	94,61	0,6847	1,1560	16
1869	1993/05/10,27	48,80	2,0562	100,34	2,1690	1,1742	10
1870	1993/06/06,48	55,67	1,2224	68,04	0,2157	1,2551	15
1871	1993/07/03,67	44,30	1,3564	60,09	0,4553	1,1761	10
1872	1993/07/30,88	45,22	1,2138	54,89	0,2377	1,1499	18
1873	1993/08/27,12	12,07	2,2593	27,26	2,6888	1,2707	15
1874	1993/09/23,38	66,83	1,1250	75,19	0,2914	1,1359	12
1875	1993/10/20,66	31,94	2,4157	77,15	3,0287	1,3151	16
1876	1993/11/16,97	72,41	1,1081	80,24	0,3825	1,0032	17
1877	1993/12/14,28	117,15	1,1896	139,37	0,3396	1,1149	13
1878	1994/01/10,61	46,80	1,2412	58,09	0,3064	1,2023	15
1879	1994/02/06,96	56,08	0,9432	52,90	0,2523	0,9302	12
1880	1994/03/06,29	32,60	0,9343	30,46	0,2836	0,8620	20
1881	1994/04/02,60	19,27	1,3847	26,68	0,8665	1,0277	15
1882	1994/04/29,86	22,59	1,1946	26,98	0,6261	1,0286	17
1883	1994/05/27,08	14,12	1,5093	21,31	1,7263	1,0625	17
1884	1994/06/23,28	34,56	1,5339	53,02	0,5697	1,3056	16
1885	1994/07/20,48	16,47	2,0594	33,92	2,4257	1,4607	17
1886	1994/08/16,71	35,39	1,3020	46,08	0,4768	1,1444	18
1887	1994/09/12,96	21,62	1,0441	22,58	0,3366	1,0173	16
1888	1994/10/10,24	53,44	1,2670	67,71	0,2917	1,2035	16
1889	1994/11/06,53	11,94	1,2787	15,27	0,8862	1,1379	17
1890	1994/12/03,84	27,95	1,7717	49,52	1,4729	1,2316	19
1891	1994/12/31,17	10,40					15
1892	1995/01/27,51	26,55			DATA		11
1893	1995/02/23,85	31,35					23
1894	1995/03/23,17	34,75			UNOBTAINABLE		20
1895	1995/04/19,45	11,38					13
1896	1995/05/16,69	24,39			AT		18
1897	1995/06/12,89	15,61					18
1898	1995/07/10,09	9,36			TIME		14
1899	1995/08/06,30	11,27					15
1900	1995/09/02,54	5,67					15
1901	1995/09/29,81	24,92			PRINT		12
1902	1995/10/27,10	8,57					14
1903	1995/11/23,40	8,50					14

TABLE P3A:
CORRECTED *WEIGHTED PETTISINDICES* for 1993 - 1994.

Observed Pettisindex values are weighted, and stated in previous reports, in order to take into account the values of Q, S and T. These weighted values are corrected by a weighted co-efficient, computed in a similar way as k, by weighting each k the same amount applied to the 'observed' Pettisindex.

Below are the 'weighted' Pettisindices along with the monthly k_w co-efficients and the corrected weighted values (PX_{GDw}) for 1993-1994.

n = number of GDSO observations.

s_w = sample standard deviation of k_w values.

s 'SIDC' $_w$ = annual s computed on the SIDC formula.

Es_w = annual estimate of standard deviation.

	SN_w	k_w	PX_{GDw}	s_w	n	w
1993 Jan	75,59	1,0525	79,56	0,2747	13	0,3829
Feb	113,43	1,0932	124,00	0,1988	12	0,3912
Mar	93,70	1,1198	104,93	0,2442	17	0,4224
Apr	95,58	1,3562	129,62	0,7508	15	0,4011
May	48,63	1,7972	87,40	1,9417	15	0,4044
Jun	59,35	1,2341	73,24	0,2209	15	0,4255
Jul	49,07	1,3102	64,29	0,4608	11	0,4038
Aug	44,57	1,2029	53,61	0,2447	21	0,4271
Sep	22,93	1,9425	44,55	2,5429	17	0,4383
Oct	57,70	2,3210	133,93	3,2450	15	0,4290
Nov	48,20	1,2921	62,28	0,4381	17	0,4277
Dec	85,31	1,1039	94,17	0,3327	16	0,4372
1993 Means	64,22	1,4044	90,19	—	—	0,4178
	$s_w = 1,3153$	s 'SIDC' $_w = 0,8967$				$Es_w = 0,1007$
1994 Jan	82,85	1,2561	104,07	0,3182	17	0,4462
Feb	44,67	0,9140	40,83	0,2270	11	0,4582
Mar	40,72	0,9575	38,99	0,2861	24	0,4371
Apr	17,77	1,3215	23,49	0,8790	17	0,4177
May	19,68	1,2315	24,24	0,6669	20	0,4388
Jun	18,84	1,5442	29,10	1,5485	17	0,4340
Jul	30,49	2,0327	61,98	2,4795	17	0,4514
Aug	26,47	1,3488	35,71	0,5117	22	0,4536
Sep	24,18	1,1963	28,93	0,4713	19	0,4569
Oct	57,93	1,1130	64,48	0,1851	15	0,4300
Nov	16,65	1,3771	22,93	0,8218	22	0,4262
Dec	25,83	1,7003	43,91	1,4572	20	0,4231
1994 Means	32,74	1,3322	43,61	—	—	0,4389
	$s_w = 0,9983$	s 'SIDC' $_w = 0,7981$				$Es_w = 0,0733$

TABLE P4A:

CORRECTED *WEIGHTED PETTISINDICES* for Rotations 1856-1890.

Observed Pettisindices are weighted, and stated in previous reports, in order to take into account the values of Q, S and T. These weighted values are corrected by a weighted co-efficient, computed in a similar way as k, by weighting each k the same amount applied to the 'observed' Pettisindex.

Below are the 'weighted' Pettisindices along with the monthly k_w co-efficients and the corrected weighted values (PX_{GDw}) for Rotations 1857-1890.

n = number of GDSO observations.

s_w = sample standard deviation of k_w values.

s' 'SIDC' $_w$ = annual s computed on the SIDC formula.

ROTA-TION	START DATE UT	SN_w	k_w	PX_{GDw}	s_w	n	w
1856	1992/05/20,67	61,91	1,3354	82,68	0,5684	11	0,3866
1857	1992/06/16,87	82,78	1,0110	83,69	0,2501	11	0,4004
1858	1992/07/14,07	91,96	1,1487	105,63	0,1998	12	0,4463
1859	1992/08/10,28	51,06	1,3567	69,28	0,6538	12	0,4382
1860	1992/09/06,53	71,25	1,2301	87,65	0,1750	15	0,4470
1861	1992/10/03,80	119,47	1,0231	122,22	0,1856	14	0,4555
1862	1992/10/31,09	126,79	1,0451	132,51	0,1599	9	0,4155
1863	1992/11/27,40	104,40	1,0964	114,46	0,5056	10	0,4201
1864	1992/12/24,72	90,40	1,0264	92,79	0,2331	12	0,4257
1865	1993/01/21,06	81,93	1,1119	91,10	0,2646	12	0,3748
1866	1993/02/17,40	108,17	1,1611	125,60	0,1841	12	0,4056
1867	1993/03/16,73	104,02	1,0715	111,46	0,2248	15	0,4193
1868	1993/04/13,02	72,49	1,3682	99,19	0,7185	16	0,4120
1869	1993/05/10,27	44,28	2,1409	94,79	2,5056	10	0,3824
1870	1993/06/06,48	56,23	1,2211	68,67	0,2254	15	0,4353
1871	1993/07/03,67	44,89	1,3449	60,37	0,4839	10	0,3942
1872	1993/07/30,88	45,60	1,2066	55,02	0,2489	18	0,4256
1873	1993/08/27,12	12,00	2,2021	26,42	2,7474	15	0,4297
1874	1993/09/23,38	69,62	1,1042	76,87	0,2974	12	0,4411
1875	1993/10/20,66	33,14	2,3836	79,00	3,1650	16	0,4142
1876	1993/11/16,97	74,52	1,0888	81,13	0,3914	17	0,4465
1877	1993/12/14,28	118,70	1,1696	138,83	0,3531	13	0,4450
1878	1994/01/10,61	46,47	1,2507	58,12	0,3301	15	0,4377
1879	1994/02/06,96	54,51	0,9490	51,73	0,2694	12	0,4652
1880	1994/03/06,29	33,76	0,9439	31,87	0,2854	20	0,4343
1881	1994/04/02,60	19,08	1,3854	26,43	0,9250	15	0,4226
1882	1994/04/29,86	23,42	1,2027	28,16	0,6592	17	0,4462
1883	1994/05,27,08	14,67	1,4649	21,49	1,8297	17	0,4189
1884	1994/06/23,28	35,23	1,5173	53,46	0,5898	16	0,4432
1885	1994/07/20,48	17,11	2,0172	34,52	2,4552	17	0,4630
1886	1994/08/16,71	35,23	1,2754	44,93	0,4752	18	0,4339
1887	1994/09/12,96	20,35	1,0573	21,51	0,3558	16	0,4529
1888	1994/10/10,24	53,46	1,2618	67,46	0,3096	16	0,4451
1889	1994/11/06,53	11,76	1,2988	15,27	0,9826	17	0,4252
1890	1994/12/03,84	27,32	1,7332	47,34	1,4272	19	0,4211

TABLE P5:
SMOOTHED **PETTISINDICES** for **1993 - 1995**.

See page xi for all smoothing formulæ.

YEAR	MONTH	SN	SN(S ^{HBm})	SN(S ^W)	SN(S ^{B13})	PX _{GD}	PX _{GD} (S ^W)	PX _{GD} (S ^{B13})
1993	Jan	74,23	98,13	84,89	90,85	78,75	99,90	103,96
	Feb	113,08	94,49	82,20	87,91	123,98	96,78	102,18
	Mar	94,35	87,52	79,62	83,20	105,33	94,08	98,98
	Apr	92,47	79,41	75,23	76,30	124,57	93,06	94,72
	May	49,73	68,64	69,61	68,75	88,51	90,78	89,76
	Jun	60,13	57,69	65,81	62,62	74,13	87,38	84,92
	Jul	47,73	49,70	65,52	58,67	63,35	87,84	81,96
	Aug	44,33	44,51	63,00	55,48	53,38	85,39	79,41
	Sep	22,18	44,80	57,90	53,16	44,88	79,12	77,09
	Oct	54,60	50,52	52,52	52,07	130,29	72,09	74,84
	Nov	45,88	55,99	48,11	51,58	60,83	65,14	71,67
	Dec	83,88	61,21	45,06	50,72	94,18	60,55	67,95
1994	Jan	81,53	59,83	42,62	48,52	102,71	58,68	63,56
	Feb	45,18	50,80	41,14	45,12	41,11	57,92	58,22
	Mar	39,88	40,68	40,49	41,10	37,74	56,54	52,38
	Apr	17,88	30,37	40,72	37,25	23,45	53,17	46,84
	May	18,50	24,69	39,63	33,83	22,80	48,84	42,79
	Jun	18,29	23,34	36,04	30,84	29,56	45,31	40,54
	Jul	30,82	26,12	30,76	28,50	63,20	—	—
	Aug	25,86	28,60	27,39	27,49	35,10	—	—
	Sep	25,00	30,62	26,59	27,69	30,25	—	—
	Oct	57,27	31,44	26,55	28,08	64,03	—	—
	Nov	17,05	28,34	26,92	27,96	23,15	—	—
	Dec	26,55	27,06	26,98	27,34	47,04	—	—
1995	Jan	12,17	25,61	26,18	26,46	—	—	—
	Feb	33,67	25,49	24,85	25,40	—	—	—
	Mar	32,23	25,83	23,46	23,95	—	—	—
	Apr	24,59	23,99	21,21	21,93	—	—	—
	May	20,67	21,50	19,44	20,10	—	—	—
	Jun	17,40	17,52	18,31	18,42	—	—	—
	Jul	12,56	14,91	17,24	16,64	—	—	—
	Aug	12,18	13,30	15,71	14,72	—	—	—
	Sep	5,31	12,17	13,45	12,87	—	—	—
	Oct	23,00	12,02	—	—	—	—	—
	Nov	9,00	10,30	—	—	—	—	—
	Dec	7,38	8,74	—	—	—	—	—

TABLE P6:
QUARTERLY AND YEARLY **PETTISINDEX** MEANS for 1991 - 1995.

YEAR/ QUARTER	SN	SN(S ^{HBm})	SN(S ^W)	SN(S ^{B13})	PX _{GD}	p	s
1991 / 1	179,00	169,73	166,78	167,18	213,89	14,72	31,80
2	165,59	174,44	171,47	173,60	186,13	13,61	29,45
3	186,76	178,30	178,42	177,48	204,64	15,51	31,63
4	168,00	177,61	169,54	174,61	176,21	14,43	23,75
1991	174,93	175,02	171,55	173,22	195,66	14,56	29,33
1992 / 1	192,04	168,54	142,92	152,19	203,97	16,56	26,48
2	90,42	101,87	124,05	115,64	101,74	7,65	13,92
3	73,88	82,87	100,58	92,67	91,18	6,40	9,88
4	110,34	97,82	88,72	92,35	116,78	9,50	15,34
1992	110,00	112,77	114,07	113,21	123,86	9,45	15,52
1993 / 1	93,48	93,38	82,24	87,32	102,21	8,00	13,48
2	67,44	68,58	70,22	69,22	98,35	5,76	9,89
3	37,41	46,33	62,14	55,77	55,47	3,18	5,57
4	61,27	55,91	48,56	51,46	98,00	5,25	8,77
1993	63,78	66,05	65,79	65,94	90,31	5,45	9,27
1994 / 1	54,62	50,44	41,42	44,92	56,86	4,58	8,85
2	18,24	26,13	38,80	33,98	24,94	1,44	3,80
3	27,03	28,45	28,25	27,89	41,06	2,19	5,14
4	30,96	28,95	26,82	27,79	44,64	2,47	6,23
1994	32,39	33,49	33,82	33,64	43,47	2,64	5,96
1995 / 1	26,09	25,64	24,83	25,27	—	2,00	6,09
2	20,69	21,01	19,65	20,15	—	1,51	5,60
3	10,16	13,46	15,47	14,74	—	0,78	2,31
4	12,66	10,35	—	—	—	1,02	2,43
1995	17,83	17,62	—	—	—	1,36	4,24

NB: SN(S^{HBm}), SN(S^W) & SN(S^{B13}) quarterly values are means of 3 monthly values.

SN(S^{HBm}), SN(S^W) & SN(S^{B13}) yearly values are means of 12 monthly values.

PX_{GD} quarterly values are computed as quarterly SN means multiplied by quarterly k means.

Annual values of PX_{GD} are annual Pettisindex means multiplied by annual k means.

TABLE B1:

MONTHLY **BECKINDEX** MEANS OF GDSO DATA for **1995**.

BX = mean Beckindex (k neglected; see list of definitions).

n = total number of observations.

w = mean weight.

Q = mean quietness [steadiness] of image (on the Kiepenheuer scale).

S = mean sharpness [clarity] of image (on the Kiepenheuer scale).

T = mean transparency of the atmosphere (1 = excellent, 5 = opaque).

C = mean condition $[(Q+S+T)/3]$.

MONTH	BX	n	w	Q	S	T	C
Jan	51,17	18	0,4402	1,83	2,47	2,69	2,3333
Feb	167,83	12	0,4661	1,75	2,25	2,54	2,1806
Mar	171,23	26	0,4336	1,75	2,60	2,71	2,3526
Apr	187,06	17	0,4430	1,76	2,38	2,71	2,2843
May	138,94	18	0,4411	1,94	2,42	2,58	2,3148
Jun	112,05	20	0,4380	1,90	2,45	2,60	2,3167
Jul	50,17	18	0,4196	2,17	2,50	2,56	2,4074
Aug	57,65	17	0,4709	1,76	2,29	2,38	2,1471
Sep	17,00	16	0,4677	1,78	2,38	2,41	2,1875
Oct	90,92	13	0,4406	1,92	2,50	2,58	2,3333
Nov	27,06	18	0,4516	1,83	2,44	2,58	2,2870
Dec	20,62	13	0,4536	1,69	2,54	2,50	2,2436
Year	94,18	—	0,4457	1,84	2,44	2,58	2,2896

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TABLE B2:

ROTATIONAL **BECKINDEX** MEANS OF GDSO DATA.

Abbreviations as above.

ROT.	start date, UT	BX	n	w	Q	S	T	C
1891	1994/12/31,17	51,20	15	0,4489	1,73	2,47	2,67	2,2889
1892	1995/01/27,51	123,27	11	0,4224	2,00	2,45	2,73	2,3939
1893	1995/02/23,85	163,26	23	0,4506	1,76	2,46	2,61	2,2754
1894	1995/03/23,17	230,40	20	0,4468	1,62	2,42	2,75	2,2667
1895	1995/04/19,45	62,31	13	0,4382	2,08	2,42	2,46	2,3205
1896	1995/05/16,69	195,50	18	0,4342	1,83	2,50	2,69	2,3426
1897	1995/06/12,89	50,83	18	0,4331	1,97	2,44	2,61	2,3426
1898	1995/07/10,09	50,21	14	0,4325	2,14	2,43	2,46	2,3452
1899	1995/08/06,30	50,53	15	0,4665	1,77	2,33	2,40	2,1667
1900	1995/09/02,54	18,13	15	0,4655	1,80	2,40	2,40	2,2000
1901	1995/09/29,81	98,50	12	0,4350	1,96	2,50	2,62	2,3611
1902	1995/10/27,10	26,50	14	0,4757	1,71	2,36	2,43	2,1667
1903	1995/11/23,40	24,00	14	0,4213	1,82	2,68	2,71	2,4048

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TABLE B3:
CORRECTED **BECKINDICES** for **1994 - 1995**.

As the GDSO is in suburban Auckland, it can suffer terrible atmospheric conditions, hence the 'observed' Beckindices (BX) have to be upgraded to give reflections of international results. International results are computed by Sonne, Germany.

Below are the 'observed' Beckindices along with the monthly k co-efficients and the corrected values (BX_{GD}) for 1994 - 1995. Sonne's final values (BX_I) are also stated.

$$BX_{GD} = BX \times k.$$

I/GDSO = International mean (of days observed by the GDSO) divided by the GDSO's monthly mean.

n = number of GDSO observations.

s = sample standard deviation of k values.

s'SIDC' = annual s computed on the SIDC formula.

Es = annual estimate of standard deviation.

		BX	k	BX _{GD}	s	I/GDSO	n	BX _I	
1994	Jan	833,94	1,4950	1246,76	0,6278	1,2558	17	1047	
	Feb	199,73	1,5051	300,61	0,3618	1,4606	11	321	
	Mar	177,12	1,6331	289,25	0,8327	1,2458	24	228	
	Apr	68,00	2,1840	148,51	1,9479	1,3798	17	88	
	May	82,00	1,7987	147,49	0,6780	1,7567	20	151	
	Jun	75,76	2,0687	156,73	1,3371	1,7135	17	170	
	Jul	143,59	3,1964	458,97	3,1568	1,8218	17	273	
	Aug	132,73	1,8399	244,21	1,0010	1,4856	22	208	
	Sep	126,11	1,9374	244,31	1,3946	1,8097	19	297	
	Oct	353,13	2,0026	707,19	1,0065	1,6421	15	539	
	Nov	90,05	2,6845	241,72	2,8621	1,7254	22	133	
	Dec	191,25	2,2143	423,48	1,4939	1,4392	20	289	
1994	Means	197,14	2,0423	402,62	—	1,4628	—	313	
		s = 1,6446		s 'SIDC' = 1,3970				Es = 0,1162	
1995	Jan	51,17	2,5300	129,45	1,4300	1,9739	18	177	
	Feb	167,83	2,5218	423,24	1,5533	1,8689	12	276	
	Mar	171,23	2,8642	490,44	2,1501	2,1438	26	364	
	Apr	187,06	2,3742	444,11	1,6533	1,2453	17	207	
	May	138,94	2,0490	284,69	1,6515	1,4026	18	194	
	Jun	112,05	2,8384	318,05	3,0237	1,6725	20	184	
	Jul	50,17	2,9126	146,12	1,7775	2,7398	18	134	
	Aug	57,65	1,8991	109,48	1,1498	1,6673	17	95	
	Sep	17,00	2,1162	35,98	0,8117	2,4963	16	60	
	Oct	90,92	DATA UNOBTAINABLE					13	—
	Nov	27,06	AT					18	—
	Dec	20,62	TIME OF PRINT.					13	—
1995	Means	94,18			—		—	—	
		s =	s 'SIDC' =					Es =	

TABLE B4:
CORRECTED **BECKINDICES** for Rotations 1873 - 1903.

As a k value is attributed to each spotted observation, the k value for any specific rotation is the mean of all the k values for the rotation concerned.

The corrected values are labelled BX_{GD} .

$BX_{GD} = BX \times k$.

s = sample standard deviation of k values.

I/GDSO = International mean (of days observed by the GDSO) divided by the GDSO's rotation mean.

n = number of GDSO observations.

ROTA- TION	START DATE, UT	BX	k	BX_{GD}	s	I/GDSO	n
1873	1993/08/27,12	33,33	2,4893	82,98	2,4870	2,2340	15
1874	1993/09/23,38	581,08	1,6587	963,85	0,6718	1,4502	12
1875	1993/10/20,66	179,75	2,3281	418,48	1,4190	1,7045	16
1876	1993/11/16,97	456,76	1,2261	560,03	0,4042	1,1481	17
1877	1993/12/14,28	1252,54	1,5031	1882,66	1,4469	1,1088	13
1878	1994/01/10,61	422,80	1,6097	680,59	0,6193	1,3655	15
1879	1994/02/06,96	271,58	1,3581	368,84	0,3722	1,2924	12
1880	1994/03/06,29	132,65	1,7314	229,67	0,8797	1,3159	20
1881	1994/04/02,60	73,27	2,3243	170,30	2,0745	1,3940	15
1882	1994/04/29,86	99,59	1,7377	173,06	0,6661	1,7389	17
1883	1994/05/27,08	59,53	1,6575	98,67	1,5605	1,3715	17
1884	1994/06/23,28	161,31	2,7082	436,87	1,4741	1,8900	16
1885	1994/07/20,48	83,18	2,7647	229,95	3,0028	1,7808	17
1886	1994/08/16,71	182,67	2,0251	369,91	1,4343	1,7412	18
1887	1994/09/12,96	91,25	1,5357	140,13	0,7291	1,4103	16
1888	1994/10/10,24	336,06	2,6263	882,60	2,0321	1,7670	16
1889	1994/11/06,53	70,29	2,1795	153,20	2,7570	1,1506	17
1890	1994/12/03,84	201,32	2,2143	445,77	1,4939	1,4390	19
1891	1994/12/31,17	51,20	2,0376	104,33	0,7453	1,7305	15
1892	1995/01/27,51	123,27	2,7398	337,75	1,3602	1,9786	11
1893	1995/02/23,85	163,26	2,6555	433,53	2,3186	1,9939	23
1894	1995/03/23,17	230,40	2,7397	631,23	1,7264	1,5838	20
1895	1995/04/19,45	62,31	2,6292	163,82	1,9950	1,7000	13
1896	1995/05/16,69	195,50	1,6164	316,01	0,9674	1,3592	18
1897	1995/06/12,89	50,83	3,8369	195,04	2,9808	3,2284	18
1898	1995/07/10,09	50,21	1,7835	89,56	1,7080	1,4794	14
1899	1995/08/06,30	50,53	2,2201	112,19	1,0846	1,9789	15
1900	1995/09/02,54	18,13	2,1162	38,37	0,8117	2,4926	15
1901	1995/09/29,81	98,50		DATA UNOBTAINABLE			12
1902	1995/10/27,10	26,21		AT			14
1903	1995/11/23,40	24,00		TIME OF PRINT.			14

TABLE B5:
SMOOTHED **BECKINDICES** for **1994 - 1995**.

The following are smoothed Beckindices in three different systems. See page xi for all smoothing formulæ.

YEAR	MONTH	BX	BX(S ^{HBm})	BX(S ^W)	BX(S ^{B13})	BX _{GD}	BX _{GD} (S ^W)	BX _{GD} (S ^{B13})
1993	Jan	320,2	693,7	638,7	672,4	569,5	1010,5	1007,5
	Feb	960,2	706,5	602,2	652,9	1178,3	941,3	972,3
	Mar	855,1	692,8	578,8	619,8	1063,5	896,1	932,6
	Apr	759,5	636,3	536,9	563,9	1051,5	844,0	877,9
	May	415,9	533,3	488,1	501,6	1106,9	788,9	818,2
	Jun	436,4	409,6	473,2	452,8	733,7	772,4	766,8
	Jul	216,3	314,4	499,8	424,3	465,5	807,0	734,7
	Aug	178,5	266,1	489,6	400,7	382,8	798,6	707,2
	Sep	180,0	288,1	429,6	380,3	366,8	729,8	379,9
	Oct	369,9	365,7	372,6	372,2	812,9	659,9	660,2
	Nov	326,5	436,9	329,8	371,3	579,1	582,3	637,9
	Dec	722,8	491,8	300,9	367,9	1034,6	518,3	611,7
1994	Jan	833,9	471,8	282,8	349,8	1246,8	494,0	575,4
	Feb	199,7	363,9	277,9	316,0	300,6	487,9	521,3
	Mar	177,1	258,9	273,8	274,5	289,3	477,1	458,3
	Apr	68,0	161,1	270,8	235,4	148,5	467,5	402,5
	May	82,0	108,3	260,3	201,5	147,5	449,1	360,1
	Jun	75,8	105,3	228,3	172,0	156,7	409,6	330,2
	Jul	143,6	127,3	173,5	149,1	459,0	337,5	309,3
	Aug	132,7	148,1	139,6	142,2	244,2	296,1	307,9
	Sep	126,1	168,5	138,0	148,0	244,3	309,6	326,7
	Oct	353,1	181,5	142,7	154,6	707,2	330,3	347,2
	Nov	90,0	165,5	150,0	157,8	241,7	348,3	359,7
	Dec	191,2	158,0	153,9	157,3	423,5	360,8	364,2
1995	Jan	51,2	146,5	151,5	153,8	129,5	354,5	361,5
	Feb	167,8	145,3	144,5	148,4	423,2	335,8	354,9
	Mar	171,2	152,1	136,8	140,7	490,4	321,5	342,4
	Apr	187,1	146,2	121,4	128,7	444,1	—	—
	May	138,9	132,6	107,8	115,9	284,7	—	—
	Jun	112,0	105,8	98,1	102,7	318,0	—	—
	Jul	50,2	81,2	90,0	88,9	146,1	—	—
	Aug	57,6	62,8	82,5	75,3	109,5	—	—
	Sep	17,0	50,1	70,4	61,9	36,0	—	—
	Oct	90,9	45,6	—	—	—	—	—
	Nov	27,1	37,6	—	—	—	—	—
	Dec	20,6	31,5	—	—	—	—	—

TABLE B6:
 QUARTERLY AND YEARLY **BECKINDEX** MEANS for 1991 - 1995.

YEAR/ QUARTER	BX	BX(S ^{HBm})	BX(S ^W)	BX(S ^{B13})	BX _{GD}	n
1991 / 1	2212,66	1922,34	1632,52	1746,54	2927,91	50
2	1447,66	1635,58	1722,04	1694,59	2113,27	44
3	1515,41	1582,97	1786,82	1687,66	2131,42	41
4	1964,48	1895,50	1660,59	1781,53	2666,66	40
1991	1800,23	1759,10	1700,49	1727,58	2493,14	175
1992 / 1	2015,85	1804,60	1428,12	1582,52	2818,26	27
2	653,12	900,99	1196,81	1080,37	1273,57	40
3	569,18	645,05	823,41	729,08	1100,40	40
4	835,08	703,06	673,37	688,11	1222,13	38
1992	931,40	1013,42	1030,43	1020,02	1597,46	145
1993 / 1	719,52	697,68	606,54	651,69	1010,68	42
2	537,29	526,39	499,38	504,95	1028,45	45
3	187,51	289,56	473,01	397,96	396,38	49
4	472,15	431,47	334,44	372,20	849,77	48
1993	468,74	486,28	478,34	481,70	851,20	184
1994 / 1	396,63	364,85	278,17	313,45	619,09	52
2	75,63	124,91	253,11	202,96	152,68	54
3	133,74	147,99	150,35	146,41	303,69	58
4	194,79	168,33	148,88	156,57	449,72	57
1994	197,14	201,52	207,63	204,85	402,62	221
1995 / 1	131,91	147,96	144,30	147,66	355,50	56
2	144,04	128,22	109,09	115,76	357,72	55
3	42,25	64,68	80,95	75,34	102,42	51
4	44,02	38,24	—	—	—	44
1995	94,18	94,77	—	—	—	206

NB: BX(S^{HBm}), BX(S^W) & BX(S^{B13}) quarterly values are means of 3 monthly values.
 BX(S^{HBm}), BX(S^W) & BX(S^{B13}) yearly values are means of 12 monthly values.
 BX_{GD} quarterly values are computed as quarterly BX means multiplied by quarterly k means.
 Annual values of BX_{GD} are annual Beckindex means multiplied by annual k means.

TABLE C1:

MONTHLY CLASSIFICATION VALUE MEANS OF GDSO DATA for 1995.

CV = mean Classification Value (k neglected; see list of definitions).

n = total number of observations.

w = mean weight.

Q = mean quietness [steadiness] of image (on the Kiepenheuer scale).

S = mean sharpness [clarity] of image (on the Kiepenheuer scale).

T = mean transparency of the atmosphere (1 = excellent, 5 = opaque).

C = mean condition $[(Q+S+T)/3]$.

MONTH	CV	n	w	Q	S	T	C
Jan	9,17	18	0,4402	1,83	2,47	2,69	2,3333
Feb	27,75	12	0,4661	1,75	2,25	2,54	2,1806
Mar	27,31	26	0,4336	1,75	2,60	2,71	2,3526
Apr	19,00	17	0,4430	1,76	2,38	2,71	2,2843
May	31,00	18	0,4411	1,94	2,42	2,58	2,3148
Jun	13,05	20	0,4380	1,90	2,45	2,60	2,3167
Jul	21,06	18	0,4196	2,17	2,50	2,56	2,4074
Aug	10,94	17	0,4709	1,76	2,29	2,38	2,1471
Sep	4,94	16	0,4677	1,78	2,38	2,41	2,1875
Oct	41,69	13	0,4406	1,92	2,50	2,58	2,3333
Nov	14,39	18	0,4516	1,83	2,44	2,58	2,2870
Dec	7,77	13	0,4536	1,69	2,54	2,50	2,2436
Year	18,91	—	0,4457	1,84	2,44	2,58	2,2896

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TABLE C2:

ROTATIONAL CLASSIFICATION VALUE MEANS OF GDSO DATA.

Abbreviations as above.

ROT.	start date, UT	BX	n	w	Q	S	T	C
1891	1994/12/31,17	7,33	15	0,4489	1,73	2,47	2,67	2,2889
1892	1995/01/27,51	21,55	11	0,4224	2,00	2,45	2,73	2,3939
1893	1995/02/23,85	26,43	23	0,4506	1,76	2,46	2,61	2,2754
1894	1995/03/23,17	26,60	20	0,4468	1,62	2,42	2,75	2,2667
1895	1995/04/19,45	21,85	13	0,4382	2,08	2,42	2,46	2,3205
1896	1995/05/16,69	26,22	18	0,4342	1,83	2,50	2,69	2,3426
1897	1995/06/12,89	20,44	18	0,4331	1,97	2,44	2,61	2,3426
1898	1995/07/10,09	10,71	14	0,4325	2,14	2,43	2,46	2,3452
1899	1995/08/06,30	10,27	15	0,4665	1,77	2,33	2,40	2,1667
1900	1995/09/02,54	5,27	15	0,4655	1,80	2,40	2,40	2,2000
1901	1995/09/29,81	45,17	12	0,4350	1,96	2,50	2,62	2,3611
1902	1995/10/27,10	16,57	14	0,4757	1,71	2,36	2,43	2,1667
1903	1995/11/23,40	7,79	14	0,4213	1,82	2,68	2,71	2,4048

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TABLE C3:
CORRECTED CLASSIFICATION VALUES for 1991 - 1995.

As the GDSO is in suburban Auckland, it can suffer terrible atmospheric conditions, hence the 'observed' Classification Values have to be upgraded to give reflections of international results. International results are computed by Kjell Inge Malde of Hunvåg, Norway.

IGNORE ALL PREVIOUSLY CORRECTED CLASSIFICATION VALUES (TABLES C3 & C4)

Below are the 'observed' Classification Values along with the monthly k coefficients and the corrected values (CV_{GD}) for 1991 - 1995. Norway's final values (CV_I) are also stated.

$I/GDSO$ = Norway's mean (of days observed by the GDSO) divided by the GDSO's monthly mean.

n = number of GDSO observations.

s = sample standard deviation of k values.

s 'SIDC' = annual s computed on the SIDC formula.

ES = annual estimate of standard deviation.

	CV	k	CV_{GD}	s	$I/GDSO$	n	CV_I
1991 Jan	180,00	1,0541	189,73	0,2058	1,0127	14	168,80
Feb	231,89	0,9114	211,36	0,1526	0,9025	19	194,55
Mar	187,12	0,9288	173,80	0,1054	0,9144	17	165,40
Apr	185,17	0,8463	156,71	0,1383	0,8387	12	131,84
May	192,12	0,8400	161,39	0,1104	0,8322	16	152,80
Jun	212,88	0,8847	188,34	0,1423	0,8746	16	178,17
Jul	263,64	0,7938	209,29	0,0855	0,7858	14	198,20
Aug	251,92	0,8403	211,68	0,1653	0,8460	13	212,71
Sep	186,93	0,8834	165,14	0,2411	0,8719	14	150,34
Oct	174,59	0,9817	171,40	0,4608	0,8983	17	152,98
Nov	151,69	0,8883	134,75	0,1444	0,8913	13	140,10
Dec	261,40	0,8414	219,95	0,0985	0,8378	10	203,66
1991 Means	205,41	0,8953	183,89	—	0,8737	—	170,83
	$s = 0,2084$	s 'SIDC' = 0,1754					$ES = 0,0154$
1992 Jan	239,80	0,8873	212,77	0,1262	0,8812	15	187,38
Feb	194,83	1,1858	231,02	0,3342	1,1429	6	241,98
Mar	129,50	1,0850	140,51	0,2184	1,0523	6	152,31
Apr	169,27	0,9780	165,55	0,1525	0,9772	15	146,39
May	53,10	1,4498	76,98	0,9616	1,0601	10	70,47
Jun	99,67	0,7849	78,23	0,1541	0,7647	15	75,86
Jul	104,18	0,9402	97,95	0,2491	0,9414	11	100,30
Aug	72,85	1,1963	87,14	0,9835	0,9568	13	81,52
Sep	101,00	0,8352	84,35	0,2264	0,8199	16	82,58
Oct	146,40	0,7770	113,75	0,2023	0,8285	15	110,79
Nov	170,80	1,0625	181,47	0,1329	1,0785	10	171,29
Dec	131,00	0,9450	123,79	0,0788	0,9427	13	111,02
1992 Means	113,96	0,9772	130,91	—	0,9312	—	123,56
	$s = 0,4464$	s 'SIDC' = 0,3032					$ES = 0,0352$

TABLE C3 continued:

CORRECTED CLASSIFICATION VALUES for 1991 - 1995.

	CV	k	CV _{GD}	s	I/GDSO	n	CV _I
1993 Jan	105,15	0,9345	98,26	0,2382	0,8628	13	80,21
Feb	150,08	0,7593	113,96	0,1184	0,7449	12	103,26
Mar	97,82	0,9518	93,11	0,2168	0,9354	17	89,14
Apr	77,93	1,8834	146,78	3,3611	1,0128	15	83,37
May	55,80	2,1734	121,27	2,3965	1,1174	15	73,56
Jun	77,47	0,8404	65,10	0,1530	0,8449	15	62,35
Jul	71,55	1,0429	74,61	0,1825	1,0126	11	71,83
Aug	70,10	0,9736	68,24	0,2723	0,9330	21	63,64
Sep	24,06	1,3665	32,88	0,9682	0,9949	17	25,36
Oct	61,80	1,1398	70,44	0,6874	0,9099	15	62,92
Nov	53,41	1,0482	55,99	0,3761	0,9240	17	47,88
Dec	76,31	1,2089	92,26	0,4648	1,0243	16	75,03
1993 Means	74,58	1,1964	89,23	—	0,9246	—	69,79
	s = 1,2892		s 'SIDC' = 0,7914				Es = 0,0944
1994 Jan	82,29	1,0877	89,51	0,1948	1,0336	17	83,60
Feb	43,64	0,9965	43,48	0,4144	0,9733	11	50,97
Mar	34,92	0,8407	29,35	0,2876	0,7786	24	28,11
Apr	36,06	0,8428	30,39	0,3886	0,6635	17	21,58
May	25,30	1,1665	29,51	0,7102	0,9245	20	24,13
Jun	15,71	2,2350	35,10	2,4430	1,2712	17	27,41
Jul	38,12	1,5903	60,62	3,1155	0,8298	17	29,70
Aug	29,59	0,7459	22,07	0,4085	0,5939	22	17,70
Sep	41,63	0,9631	40,09	0,5151	0,8719	19	40,88
Oct	62,27	1,1592	72,18	0,3976	1,0590	15	60,31
Nov	20,73	1,0966	22,73	0,8950	0,9776	22	17,65
Dec	28,70	1,3399	38,45	0,6783	0,9502	20	26,54
1994 Means	36,91	1,1264	41,58	—	0,9040	—	35,69
	s = 1,1807		s 'SIDC' = 0,8053				Es = 0,0827
1995 Jan	9,17					18	
Feb	27,75		DATA			12	
Mar	27,31					26	
Apr	19,00		UNOBTAINABLE			17	
May	31,00					18	
Jun	13,05		AT			20	
Jul	21,06					18	
Aug	10,94		TIME			17	
Sep	4,94		OF			16	
Oct	41,69					13	
Nov	14,39		PRINT.			18	
Dec	7,77					13	
1995 Means	18,91					—	
	s =		s 'SIDC' =				Es =

TABLE C4:

CORRECTED CLASSIFICATION VALUES for Rotations 1838 - 1890.

As a k value is attributed to each spotted observation, the k value for any specific rotation is the mean of all the k values for the rotation concerned.

The corrected values are labelled CV_{GD} .

IGNORE ALL PREVIOUSLY CORRECTED CLASSIFICATION VALUES (TABLES C3 & C4)

$$CV_{GD} = CV \times k.$$

s = sample standard deviation of k values.

I/GDSO = International mean (of days observed by the GDSO) divided by the GDSO's rotation mean.

n = number of GDSO observations.

ROTA-TION	START DATE, UT	CV	k	CV_{GD}	s	I/GDSO	n
1838	1991/01/15,62	228,14	0,9699	221,28	0,1987	0,9455	14
1839	1991/02/11,96	206,32	0,9578	197,62	0,1326	0,1326	19
1840	1991/03/11,29	213,73	0,8809	188,27	0,0771	0,8800	11
1841	1991/04/07,59	181,83	0,8474	154,09	0,1396	0,8368	12
1842	1991/05/04,84	196,00	0,8294	162,55	0,1054	0,8246	15
1843	1991/06/01,06	214,57	0,8706	186,81	0,1457	0,8605	14
1844	1991/06/28,26	249,82	0,8421	210,36	0,1006	0,8270	11
1845	1991/07/25,46	231,20	0,7942	183,62	0,1480	0,7802	15
1846	1991/08/21,69	247,75	0,9394	232,73	0,2455	0,9228	12
1847	1991/09/17,95	189,64	0,8405	159,39	0,1498	0,8420	14
1848	1991/10/15,23	154,73	1,0586	163,80	0,5491	0,9448	11
1849	1991/11/11,53	158,83	0,8783	139,51	0,1528	0,8783	12
1850	1991/12/08,84	267,08	0,8190	218,75	0,0924	0,8123	12
1851	1992/01/05,17	225,36	0,9185	207,01	0,1221	0,9227	11
1852	1992/02/01,51	194,83	1,1858	231,02	0,3342	1,1429	6
1853	1992/02/28,85	*119,00	*1,2066	*143,58	*0,1310	*1,1709	3
1854	1992/03/27,16	164,80	0,9438	155,53	0,1539	0,9458	15
1855	1992/04/23,43	106,50	1,0668	113,61	0,2749	1,0425	8
1856	1992/05/20,67	70,91	1,3272	94,11	0,9453	0,9401	11
1857	1992/06/16,87	97,45	0,7661	74,66	0,1312	0,7530	11
1858	1992/07/14,07	117,33	0,9104	106,82	0,2770	0,8935	12
1859	1992/08/10,28	50,33	1,2625	63,54	1,0138	1,0927	12
1860	1992/09/06,53	107,27	0,8163	87,56	0,1665	0,8139	15
1861	1992/10/03,80	149,50	0,7648	114,35	0,2042	0,8227	14
1862	1992/10/31,09	178,56	1,0694	190,95	0,1390	1,0834	9
1863	1992/11/27,40	129,20	0,9739	125,82	0,0500	0,9717	10
1864	1992/12/24,72	132,42	0,8352	110,59	0,1336	0,8267	12
1865	1993/01/21,06	104,33	0,9100	94,94	0,2510	0,8241	12
1866	1993/02/17,40	134,83	0,8493	114,51	0,1442	0,8213	12
1867	1993/03/16,73	94,60	1,0063	95,20	0,2458	0,9795	15
1868	1993/04/13,02	69,88	1,9009	132,83	3,2402	1,0793	16
1869	1993/05/10,27	47,20	2,6169	123,52	2,8697	1,0413	10

TABLE C4 continued:

CORRECTED CLASSIFICATION VALUES for Rotations 1838 - 1890.

ROTA- TION	START DATE, UT	CV	k	CV _{GD}	s	I/GDSO	n
1870	1993/06/06,48	74,67	0,8372	62,51	0,1505	0,8371	15
1871	1993/07/03,67	71,00	1,0543	74,86	0,1882	1,0217	10
1872	1993/07/30,88	75,56	0,9415	71,14	0,2684	0,9149	18
1873	1993/08/27,12	11,27	1,5121	17,04	0,9892	1,2053	15
1874	1993/09/23,38	78,17	0,8902	69,59	0,2156	0,9155	12
1875	1993/10/20,66	40,19	1,2966	52,11	0,6872	1,0058	16
1876	1993/11/16,97	67,29	0,9171	61,72	0,2345	0,8914	17
1877	1993/12/14,28	108,15	1,2496	135,14	0,4582	1,0113	13
1878	1994/01/10,61	52,73	1,0848	57,20	0,2859	1,0910	15
1879	1994/02/06,96	51,25	0,9704	49,73	0,3429	0,9184	12
1880	1994/03/06,29	29,40	0,8448	24,84	0,3057	0,7760	20
1881	1994/04/02,60	39,87	0,8462	33,74	0,3844	0,6657	15
1882	1994/04/29,86	30,59	1,0982	33,59	0,7048	0,9075	17
1883	1994/05/27,08	14,06	1,9545	27,48	2,8664	1,0795	17
1884	1994/06/23,28	34,19	1,3698	46,83	0,8982	0,9746	16
1885	1994/07/20,48	20,18	1,5852	31,98	3,1219	0,7286	17
1886	1994/08/16,71	57,72	0,7171	41,39	0,3384	0,7047	18
1887	1994/09/12,96	23,50	1,0968	25,78	0,6256	1,0963	16
1888	1994/10/10,24	64,62	1,1100	71,73	0,4833	0,9967	16
1889	1994/11/06,53	10,00	1,0770	10,77	0,9741	1,0400	17
1890	1994/12/03,84	30,21	1,3399	40,48	0,6783	0,9483	19
1891	1994/12/31,17	7,33					15
1892	1995/01/27,51	21,55			DATA		11
1893	1995/02/23,85	26,43					23
1894	1995/03/23,17	26,60			UNOBTAINABLE		20
1895	1995/04/19,45	21,85					13
1896	1995/05/16,69	26,22			AT		18
1897	1995/06/12,89	20,44			TIME		18
1898	1995/07/10,09	10,71					14
1899	1995/08/06,30	10,27			OF		15
1900	1995/09/02,54	5,27					15
1901	1995/09/29,81	45,17			PRINT.		12
1902	1995/10/27,10	16,57					14
1903	1995/11/23,40	7,79					14

Any values marked with an asterisk (*), to be taken lightly.

TABLE C5:
SMOOTHED CLASSIFICATION VALUES for 1991 - 1995.

See page xi for all smoothing formulæ.

CVGD, CVGD(SW) & CVGD(SB13) HAVE BEEN RE-EVALUATED & STATED BELOW.

YEAR	MONTH	CV	CV(S ^{HBm})	CV(S ^W)	CV(S ^{B13})	CV _{GD}	CV _{GD} (S ^W)	CV _{GD} (S ^{B13})
1991	Jan	180,00	—	—	—	189,73	—	—
	Feb	231,89	—	—	—	211,36	—	—
	Mar	187,12	—	—	—	173,80	—	—
	Apr	185,17	200,72	—	—	156,71	—	—
	May	192,12	209,25	—	—	161,39	—	—
	Jun	212,88	216,69	—	—	188,34	—	—
	Jul	263,64	222,93	209,10	211,55	209,29	184,59	183,66
	Aug	251,92	217,38	210,05	211,81	211,68	185,95	184,34
	Sep	186,93	208,26	206,11	209,19	165,14	184,97	184,56
	Oct	174,59	202,77	203,04	205,82	171,40	183,95	184,65
	Nov	151,69	200,93	196,59	201,05	134,75	180,80	183,76
	Dec	261,40	204,71	186,08	193,59	219,95	172,69	180,29
1992	Jan	239,80	202,13	174,72	182,85	212,77	163,47	173,95
	Feb	194,83	184,58	160,61	168,82	231,02	153,64	164,48
	Mar	129,50	159,82	149,57	154,45	140,51	145,08	152,84
	Apr	169,27	134,87	144,82	141,52	165,55	139,32	140,49
	May	53,10	109,64	144,44	130,79	76,98	138,86	129,67
	Jun	99,67	99,08	139,80	122,15	78,23	136,80	120,87
	Jul	104,18	97,38	128,76	115,76	97,95	128,02	113,78
	Aug	72,85	101,44	121,28	113,74	87,14	118,37	109,55
	Sep	101,00	115,15	118,10	115,70	84,35	111,52	108,73
	Oct	146,40	126,13	122,97	118,24	113,75	108,76	110,93
	Nov	170,80	134,41	109,28	119,58	181,47	109,83	114,46
	Dec	131,00	133,98	108,47	118,54	123,79	111,13	116,23
1993	Jan	105,15	126,59	106,18	114,18	98,26	109,61	115,23
	Feb	150,08	115,86	104,71	109,76	113,96	107,85	113,00
	Mar	97,82	100,36	101,39	102,01	93,11	104,91	109,23
	Apr	77,93	87,78	94,66	92,13	146,78	100,97	103,55
	May	55,80	78,02	86,24	82,58	121,27	93,93	95,56
	Jun	77,47	69,37	79,07	75,07	65,10	87,39	87,53
	Jul	71,55	64,27	75,84	69,91	74,61	85,72	81,78
	Aug	70,10	59,68	70,45	65,22	68,24	82,43	76,59
	Sep	24,06	55,98	63,39	61,35	32,88	76,84	71,54
	Oct	61,80	57,89	59,03	59,25	70,44	69,26	66,87
	Nov	53,41	59,65	56,01	57,70	55,99	60,54	62,77
	Dec	76,31	61,39	52,17	55,32	92,26	55,51	59,76

TABLE C5 continued:

SMOOTHED CLASSIFICATION VALUES for 1991 - 1995.

YEAR	MONTH	CV	CV(S ^{HBm})	CV(S ^W)	CV(S ^{B13})	CV _{GD}	CV _{GD} (S ^W)	CV _{GD} (S ^{B13})
1994	Jan	82,29	60,22	48,20	51,87	89,69	53,79	56,68
	Feb	43,64	51,85	45,12	47,82	43,58	51,39	52,58
	Mar	34,92	42,87	44,17	44,12	29,42	49,76	48,56
	Apr	36,06	35,25	44,92	41,14	28,40	50,12	45,65
	May	25,30	29,74	43,58	38,28	30,54	48,80	43,37
	Jun	15,71	28,81	40,23	35,82	35,16	45,16	41,46
	Jul	38,12	32,53	35,20	33,91	63,21	—	—
	Aug	29,59	34,97	31,49	32,93	22,08	—	—
	Sep	41,63	37,76	30,51	32,74	39,76	—	—
	Oct	62,27	37,50	29,48	32,01	72,25	—	—
	Nov	20,73	32,17	29,01	30,66	22,42	—	—
	Dec	28,70	28,34	29,14	29,11	38,48	—	—
1995	Jan	9,17	23,96	28,31	27,31	—	—	—
	Feb	27,75	22,97	26,83	25,55	—	—	—
	Mar	27,31	23,22	24,52	23,59	—	—	—
	Apr	19,00	22,67	22,13	21,80	—	—	—
	May	31,00	22,22	21,01	20,83	—	—	—
	Jun	13,05	18,78	19,88	19,97	—	—	—
	Jul	21,06	18,05	18,80	18,95	—	—	—
	Aug	10,94	17,29	17,54	17,68	—	—	—
	Sep	4,94	16,83	15,62	16,30	—	—	—
	Oct	41,69	17,96	—	—	—	—	—
	Nov	14,39	14,86	—	—	—	—	—
	Dec	7,77	11,67	—	—	—	—	—

TABLE C6:

QUARTERLY & YEARLY **CLASSIFICATION VALUE** MEANS for 1991 - 1995.

YEAR/ QUARTER	CV	CV(S ^{HBm})	CV(S ^W)	CV(S ^{B13})	CV _{GD}
1991 / 1	202,14	—	—	—	193,51
2	197,77	208,89	—	—	169,69
3	233,73	216,19	208,42	210,85	196,14
4	188,85	202,80	195,24	200,15	173,04
1991	205,41	—	—	—	183,89
1992 / 1	205,30	182,18	161,63	168,70	204,80
2	114,12	114,53	143,02	131,49	116,81
3	92,72	104,66	122,71	115,07	91,00
4	147,55	131,51	110,24	118,79	134,21
1992	133,96	133,22	134,40	133,51	130,91
1993 / 1	115,02	114,27	104,09	108,88	102,54
2	70,40	78,39	86,65	83,26	116,19
3	54,45	59,98	69,89	65,49	60,42
4	63,67	59,64	55,74	57,43	71,86
1993	74,58	78,07	79,09	78,76	89,23
1994 / 1	52,25	51,65	45,83	47,94	49,87
2	25,67	31,26	42,91	38,42	34,37
3	36,03	35,09	32,40	33,19	38,21
4	34,46	32,67	29,21	30,59	46,17
1994	36,91	37,67	37,59	37,53	41,58
1995 / 1	21,57	23,38	26,55	25,49	—
2	20,76	21,23	21,01	20,87	—
3	12,63	17,39	17,32	17,64	—
4	20,50	14,83	—	—	—
1995	18,91	19,21	—	—	—

NB: CV(S^{HBm}), CV(S^W) & CV(S^{B13}) quarterly values are means of 3 monthly values.

CV(S^{HBm}), CV(S^W) & CV(S^{B13}) yearly values are means of 12 monthly values.

CV_{GD} quarterly values are computed as quarterly CV means multiplied by quarterly k means.

Annual values of CV_{GD} are annual Classification Value means multiplied by annual k means.

TABLE Q1:
MONTHLY **QUALITY COUNT** MEANS OF GDSO DATA for **1995**.

QC = mean Quality Count (see list of definitions).

Σg = total number of regions.

n = total number of observations.

w = mean weight.

Q = mean quietness [steadiness] of image (on the Kiepenheuer scale).

S = mean sharpness [clarity] of image (on the Kiepenheuer scale).

T = mean transparency of the atmosphere (1 = excellent, 5 = opaque).

C = mean condition $[(Q+S+T)/3]$.

MONTH	QC	Σg	n	w	Q	S	T	C
Jan	2,61	18	18	0,4402	1,83	2,47	2,69	2,3333
Feb	6,83	33	12	0,4661	1,75	2,25	2,54	2,1806
Mar	6,12	57	26	0,4336	1,75	2,60	2,71	2,3526
Apr	3,41	19	17	0,4430	1,76	2,38	2,71	2,2843
May	3,17	19	18	0,4411	1,94	2,42	2,58	2,3148
Jun	3,30	24	20	0,4380	1,90	2,45	2,60	2,3167
Jul	3,00	20	18	0,4196	2,17	2,50	2,56	2,4074
Aug	2,59	16	17	0,4709	1,76	2,29	2,38	2,1471
Sep	1,44	11	16	0,4677	1,78	2,38	2,41	2,1875
Oct	4,85	26	13	0,4406	1,92	2,50	2,58	2,3333
Nov	2,50	20	18	0,4516	1,83	2,44	2,58	2,2870
Dec	2,15	13	13	0,4536	1,69	2,54	2,50	2,2436
Year	3,52	276	—	0,4457	1,84	2,44	2,58	2,2896

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TABLE Q2:
ROTATIONAL **QUALITY COUNT** MEANS OF GDSO DATA.

Abbreviations as above.

ROT.	start date, UT	QC	Σg	n	w	Q	S	T	C
1891	1994/12/31,17	1,93	11	15	0,4489	1,73	2,47	2,67	2,2889
1892	1995/01/27,51	5,73	25	11	0,4224	2,00	2,45	2,73	2,3939
1893	1995/02/23,85	5,96	51	23	0,4506	1,76	2,46	2,61	2,2754
1894	1995/03/23,17	5,60	38	20	0,4468	1,62	2,42	2,75	2,2667
1895	1995/04/19,45	2,46	11	13	0,4382	2,08	2,42	2,46	2,3205
1896	1995/05/16,69	3,50	21	18	0,4342	1,83	2,50	2,69	2,3426
1897	1995/06/12,89	3,50	24	18	0,4331	1,97	2,44	2,61	2,3426
1898	1995/07/10,09	2,29	12	14	0,4325	2,14	2,43	2,46	2,3452
1899	1995/08/06,30	2,40	13	15	0,4665	1,77	2,33	2,40	2,1667
1900	1995/09/02,54	1,53	11	15	0,4655	1,80	2,40	2,40	2,2000
1901	1995/09/29,81	5,25	26	12	0,4350	1,96	2,50	2,62	2,3611
1902	1995/10/27,10	2,57	17	14	0,4757	1,71	2,36	2,43	2,1667
1903	1995/11/23,40	1,93	10	14	0,4213	1,82	2,68	2,71	2,4048

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TABLE Q3:
 COMPARED **QUALITY COUNTS** for **1994 - 1995**.

Data unobtainable.

TABLE Q5:
 SMOOTHED **QUALITY COUNTS** for **1994 - 1995**.

See page xi for all smoothing formulæ.

YEAR	MONTH	QC	QC(S ^{HBm})	QC(S ^W)	QC(S ^{B13})
1994	Jan	12,53	9,7758	7,7632	7,8718
	Feb	9,45	8,9600	7,4416	7,5398
	Mar	8,46	7,7856	7,3328	7,4231
	Apr	4,82	6,4547	7,4170	7,4840
	May	4,35	5,5255	7,3015	7,3372
	Jun	3,71	5,1645	6,9122	6,9192
	Jul	6,71	5,5813	6,2640	5,9550
	Aug	5,64	5,9384	5,7415	5,7418
	Sep	5,26	6,1925	5,5347	5,6898
	Oct	10,40	6,2237	5,3782	5,6532
	Nov	4,00	5,6136	5,2701	5,5164
	Dec	4,80	5,3049	5,2039	5,3061
1995	Jan	2,61	4,9617	5,0326	5,0633
	Feb	6,83	4,8189	4,7511	4,7978
	Mar	6,12	4,6783	4,4647	4,4690
	Apr	3,41	4,2107	4,0739	4,0720
	May	3,17	3,7784	3,7800	3,7590
	Jun	3,30	3,2033	3,6073	3,5237
	Jul	3,00	2,9457	3,4469	3,2858
	Aug	2,59	2,8515	3,1642	3,0136
	Sep	1,44	2,7817	2,7557	2,7567
	Oct	4,85	2,8181	—	—
	Nov	2,50	2,5332	—	—
	Dec	2,15	2,2417	—	—

TABLE Q6:
 QUARTERLY AND YEARLY **QUALITY COUNT** MEANS for 1993 - 1997.

YEAR/ QUARTER	QC	QC(S ^{HBm})	QC(S ^W)	QC(S ^{B13})
1991 / 1	31,14	29,52	30,23	29,77
2	30,89	32,23	30,57	31,46
3	35,20	32,73	31,10	31,62
4	26,88	29,07	28,90	29,25
1991	31,05	30,89	30,20	30,53
<hr/>				
1992 / 1	29,81	26,31	23,76	24,60
2	17,08	17,51	20,84	19,52
3	13,88	15,56	17,91	16,90
4	20,53	18,34	16,16	17,04
1992	19,47	19,43	19,67	19,52
<hr/>				
1993 / 1	16,83	16,59	14,91	15,66
2	10,47	11,67	12,55	12,19
3	7,86	8,63	10,49	9,66
4	9,17	9,00	8,63	8,82
1993	10,89	11,47	11,65	11,59
<hr/>				
1994 / 1	10,00	8,84	7,51	7,99
2	4,30	5,71	7,21	6,67
3	5,83	5,90	5,85	5,80
4	5,96	5,71	5,28	5,49
1994	6,47	6,54	6,46	6,49
<hr/>				
1995 / 1	5,14	4,82	4,75	4,78
2	3,29	3,73	3,82	3,78
3	2,37	2,86	3,12	3,02
4	3,09	2,53	—	—
1995	3,52	3,49	—	—

NB: QC(S^{HBm}), QC(S^W) & QC(S^{B13}) quarterly values are means of 3 monthly values.
 QC(S^{HBm}), QC(S^W) & QC(S^{B13}) yearly values are means of 12 monthly values.

TABLE IIE:
DAILY **INTER-SOL INDICES** for **1980**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

If readings show 2 numbers separated by a solidus (/), then there were 2 observations on the same UT date.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	*	*	*	*	*	*	*	*	*	*	*	*	01
02	25	60	*	*	55	*	*	12	*	*	61	*	02
03	30	*	*	21	62	*	*	*	*	*	58	45	03
04	43	*	13	*	*	*	33	*	*	*	*	41	04
05	55	59	*	38	*	*	*	*	*	*	*	*	05
06	*	*	*	92	*	*	*	*	53	*	*	26	06
07	57	*	*	*	*	48/47	*	*	*	*	*	21	07
08	*	*	18	*	*	*	*	31	*	*	77	*	08
09	*	39	13	72	37	*	*	*	*	*	*	22	09
10	74	*	*	*	50	*	*	*	*	79	87	*	10
11	*	36	*	86	*	*	22	*	*	92	*	42	11
12	*	*	*	86	*	*	44	*	*	*	*	*	12
13	48	*	*	*	*	47	*	*	30	*	*	43	13
14	*	*	*	*	*	32	*	*	*	*	38	77	14
15	*	*	*	*	*	*	*	*	*	*	*	*	15
16	*	*	*	47	*	*	56	*	*	*	*	*	16
17	*	*	*	*	*	*	*	*	*	*	*	*	17
18	*	*	*	21	*	*	*	*	*	*	*	*	18
19	*	*	*	34	*	*	*	*	43	*	*	*	19
20	*	*	*	*	*	*	*	*	36	*	*	61	20
21	*	*	15	*	*	*	*	*	*	*	37	58	21
22	*	*	*	*	*	*	*	*	*	*	*	*	22
23	*	15	*	*	*	*	*	*	*	53	40	*	23
24	*	*	*	31	79	*	*	*	*	42	28	53	24
25	23	*	*	*	77	*	35	*	*	33	*	*	25
26	22	*	*	*	*	*	28	*	*	*	*	*	26
27	*	*	*	*	*	48	*	*	27	35	*	*	27
28	*	*	*	*	*	39	*	*	*	*	*	48/68	28
29	*	*	24	*	75	*	*	*	*	*	*	80	29
30	*	—	46	*	*	*	*	*	*	59	*	*	30
31	42	—	*	—	*	—	*	*	—	68	—	54	31
MEAN	41,90	41,80	21,50	52,80	62,14	43,50	36,33	21,50	37,80	57,62	53,25	49,27	MEAN

Quarterly Means:

First: 36,05

Second: 53,22

Third: 34,62

Fourth: 52,45

Yearly Mean : 46,10

TABLE IIF:
DAILY **INTER-SOL INDICES** for **1981**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

If readings show 2 numbers separated by a solidus (/), then there were 2 observations on the same UT date.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	*	*	*	*	45	*	*	31	*	*	*	*	01
02	*	*	*	*	48	*	*	*	*	*	*	*	02
03	*	*	*	31	*	*	37	*	*	56	*	*	03
04	18	*	*	*	*	*	49	*	*	*	*	*	04
05	18	34	*	42	*	*	*	84	*	*	*	*	05
06	*	*	*	*	*	14	*	*	*	*	*	*	06
07	*	*	*	*	*	*	*	*	*	*	*	*	07
08	32/48	*	45	*	*	*	*	57	*	*	*	*	08
09	39	*	*	*	48	*	*	*	*	54	*	*	09
10	*	*	*	102	*	*	34	*	*	*	*	83	10
11	*	*	50	*	*	*	102	*	*	*	*	*	11
12	*	*	*	*	*	28	*	*	*	*	*	*	12
13	*	*	*	*	*	*	*	*	55	*	*	*	13
14	*	*	*	*	*	*	*	47	*	*	*	44	14
15	25	*	*	*	81	*	*	42	*	*	*	*	15
16	*	45	*	76	*	*	*	*	*	*	*	*	16
17	*	*	*	105	*	*	79	*	*	*	*	*	17
18	*	*	*	71	*	*	*	*	*	*	*	*	18
19	*	*	*	64	*	17	*	*	*	*	*	*	19
20	*	41	*	*	*	25	*	*	*	*	*	*	20
21	32	37	*	*	*	*	44	*	*	76	20	*	21
22	*	*	*	*	23	*	*	*	*	*	*	*	22
23	27	*	*	*	31	*	*	*	*	*	*	*	23
24	21	*	*	40	*	47	*	*	*	*	*	11	24
25	*	*	*	*	*	*	118	*	29	*	*	22	25
26	38	*	*	42	*	88	*	*	*	22	20	*	26
27	34	*	50	*	*	*	*	*	*	*	*	45	27
28	46	*	49	*	*	*	*	71	*	26	*	*	28
29	*	—	*	*	*	*	*	58	*	*	*	37	29
30	46	—	*	20	*	*	*	*	*	*	*	*	30
31	*	—	40	—	*	—	*	*	—	*	—	*	31
MEAN	32,62	39,25	46,80	59,30	46,00	36,50	66,14	55,71	42,00	46,80	20,00	40,33	MEAN

Quarterly Means: First: 37,05 Second: 49,45 Third: 58,56 Fourth: 39,69

Yearly Mean : 45,97

TABLE IIG:
DAILY **INTER-SOL INDICES** for **1982**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

If readings show 2 numbers separated by a solidus (/), then there were 2 observations on the same UT date.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	29	*	*	*	*	*	*	*	*	50	*	35	01
02	27	*	*	*	18	*	*	*	*	55	*	*	02
03	33	102	*	33	*	*	*	30	*	*	*	56	03
04	41	*	*	*	*	*	*	*	*	*	*	*	04
05	23	*	*	*	*	*	*	*	*	*	10	*	05
06	24	96	*	*	*	*	9	*	*	*	16	*	06
07	36	99	64	*	*	*	*	103	*	*	*	79	07
08	26	95	*	*	28	*	*	*	*	*	*	*	08
09	26	98	*	*	*	*	56	*	*	*	*	*	09
10	9	*	26	45	*	*	80	*	*	*	*	*	10
11	12	*	*	45	*	*	*	*	28	*	*	*	11
12	*	63	46	*	*	*	*	*	*	*	*	75	12
13	27	*	*	*	*	*	*	*	*	*	45	*	13
14	*	57	*	*	*	*	*	*	*	*	*	62	14
15	30	45	*	*	*	*	*	*	*	20	*	*	15
16	40	*	*	26	*	*	129	*	*	9	*	*	16
17	*	29	*	19	*	*	*	40	55	*	51	55	17
18	*	*	*	*	*	*	182	*	56	*	*	35	18
19	46	*	72	*	*	*	*	*	*	*	50	*	19
20	48	*	52	*	*	*	*	24	*	*	*	*	20
21	*	*	*	*	*	*	*	*	*	*	*	*	21
22	*	*	*	*	*	*	*	*	*	39	*	28	22
23	*	*	43	*	*	*	1	*	*	41	*	38	23
24	13	*	*	55	*	*	6	*	*	49	*	*	24
25	*	*	*	*	*	*	*	*	*	*	27	*	25
26	*	*	53	*	*	*	*	*	*	*	*	40	26
27	*	*	55	*	*	*	*	69	*	*	15	48	27
28	*	61	*	*	*	*	*	*	*	*	*	29	28
29	122	—	*	*	*	*	*	77	*	25	33	25	29
30	*	—	*	*	*	*	16	*	*	24	27	*	30
31	135	—	*	—	*	—	*	*	—	*	—	18	31
MEAN	39,32	74,50	51,38	37,17	23,00	40,01†	59,88	57,17	46,33	34,67	30,44	44,50	MEAN

Quarterly Means: First: 51,43 Second: 33,62 Third: 56,47 Fourth: 37,78

Yearly Mean : 46,19

† = interpolated

TABLE I1H:
DAILY **INTER-SOL INDICES** for **1983**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

If readings show 2 numbers separated by a solidus (/), then there were 2 observations on the same UT date.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	13	*	*	*	*	*	*	*	*	*	3	5	01
02	8	37	*	20	*	*	19	*	*	17	*	5	02
03	8	*	*	*	*	28	*	*	12	*	*	*	03
04	*	*	*	11	*	*	*	*	*	*	16	*	04
05	24	43	35	*	*	*	*	19	*	*	*	*	05
06	30	35	*	*	*	*	35	*	*	*	*	*	06
07	40	*	26	*	38	*	*	*	*	*	*	*	07
08	34	*	*	*	*	*	*	*	*	31	*	*	08
09	25	*	*	38	*	*	*	*	*	*	*	28	09
10	28	*	*	37	*	*	*	*	*	*	*	35	10
11	*	*	*	*	*	*	*	*	*	*	5	*	11
12	*	3	1	*	*	37	*	*	*	*	4	*	12
13	*	*	*	*	61	*	31	36	*	*	*	*	13
14	19	*	*	*	*	27	*	*	*	25	*	15	14
15	25	*	12	*	*	*	27	*	*	24	11	*	15
16	*	*	*	*	*	*	28	*	18	*	18	*	16
17	*	*	28	*	*	*	23	*	*	*	7	13	17
18	*	*	*	*	*	31	25	*	21	*	10	10	18
19	*	6	*	*	*	*	21	*	*	*	0	*	19
20	30	*	*	*	42	*	39	*	*	*	*	*	20
21	*	2	*	*	40	*	*	*	*	*	0	*	21
22	*	*	*	21	*	*	37	*	*	*	0	4	22
23	*	5	*	29	*	*	36	*	15	*	0	1	23
24	*	12	*	*	*	41	*	*	*	*	0	8	24
25	*	*	*	*	*	*	*	*	*	*	0	1	25
26	20	19	15	*	*	*	*	7	*	*	0	*	26
27	*	*	*	*	*	*	*	9	*	*	*	*	27
28	34	23	*	*	30	*	*	*	*	*	3	0	28
29	*	—	*	33	*	*	*	*	*	0	3	5	29
30	40	—	*	34	*	*	32	*	*	0	3	4	30
31	*	—	9	—	*	—	*	*	—	8	—	*	31
MEAN	25,20	18,50	18,00	27,88	42,20	32,80	29,42	17,75	16,50	15,00	4,61	9,57	MEAN

Quarterly Means: First: 21,53 Second: 33,22 Third: 24,50 Fourth: 8,26

Yearly Mean : 19,26

TABLE III:
DAILY **INTER-SOL INDICES** for **1984**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

If readings show 2 numbers separated by a solidus (/), then there were 2 observations on the same UT date.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	*	*	*	*	*	*	*	*	17	*	*	4	01
02	5	*	*	*	*	*	*	*	*	*	*	*	02
03	7	24	*	*	*	14	*	3	*	*	0	*	03
04	*	16	*	*	*	*	*	2	*	*	*	*	04
05	5	19	*	*	2	*	*	*	*	*	0	*	05
06	3	*	*	13	*	*	*	*	*	*	*	1	06
07	6	*	*	*	*	*	13	*	0	*	*	*	07
08	12	35	*	*	*	*	13	*	0	*	*	0	08
09	*	*	*	*	36	8	*	*	*	*	5	*	09
10	10	*	12	*	*	9	*	*	*	*	*	*	10
11	*	*	*	*	50	*	*	7	*	*	*	6	11
12	*	*	*	*	*	9	*	*	*	0	*	9	12
13	*	*	*	10	*	*	*	*	*	*	*	*	13
14	14	*	*	*	46	*	*	*	0	0	*	9	14
15	12	*	*	28	44	*	*	*	0	*	*	*	15
16	18	11	27	*	*	*	4	*	*	*	1	*	16
17	14	*	*	*	*	26	3	*	*	*	*	*	17
18	*	*	*	*	*	*	1	*	*	*	4	4	18
19	*	14	*	19	17	*	3	*	*	*	*	1	19
20	23	21	*	21	*	*	*	*	*	6	6	*	20
21	21	26	*	11	*	*	3	*	1	4	*	0	21
22	*	*	*	15	*	17	*	*	*	*	6	0	22
23	*	36	*	26	*	22	*	*	0	*	*	0	23
24	*	*	27	41	*	*	*	9	*	*	*	4	24
25	51	*	*	*	*	*	*	17	*	*	*	8	25
26	49	40	*	*	29	*	*	*	*	0	*	4	26
27	*	*	*	75	*	*	1	*	*	0	*	*	27
28	46	*	*	*	*	*	1	*	0	*	17	0	28
29	*	*	*	68	*	*	*	*	*	0	*	*	29
30	*	—	*	*	*	*	*	*	*	*	4	0	30
31	29	—	47	—	*	—	*	25	—	*	—	*	31
MEAN	19,12	24,20	28,25	29,73	32,00	15,00	4,67	10,50	2,25	1,43	4,78	3,12	MEAN

Quarterly Means:

First: 21,94

Second: 26,24

Third: 5,35

Fourth: 3,22

Yearly Mean : 14,07

TABLE I1J:
DAILY **INTER-SOL INDICES** for **1985**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

If readings show 2 numbers separated by a solidus (/), then there were 2 observations on the same UT date.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	0	*	*	*	*	*	*	*	*	*	0	*	01
02	*	8	1	*	*	0	*	4	*	*	0	*	02
03	0	*	*	*	2	*	*	5	*	*	*	*	03
04	0	*	*	8	1	*	*	*	*	0	*	0	04
05	0	2	*	*	*	*	*	*	*	*	*	*	05
06	0	*	0	1	*	*	22	*	0	0	5	*	06
07	0	*	*	*	*	10	32	*	0	*	7	*	07
08	0	0	0	*	25	7	*	*	*	*	4	0	08
09	*	*	*	*	*	*	*	*	*	*	6	*	09
10	*	*	0	*	*	*	*	*	*	*	*	1	10
11	*	*	*	*	13	*	*	1	*	0	5	*	11
12	0	1	*	*	*	*	12	0	*	*	7	3	12
13	5	*	*	*	*	*	*	*	3	*	*	5	13
14	12	4	*	0	*	2	1	*	1	*	11	*	14
15	13	*	*	*	*	*	*	*	*	*	9	*	15
16	17	*	0	*	*	6	*	0	*	*	*	23	16
17	13	0	*	*	5	*	*	1	*	*	*	*	17
18	8	*	*	*	8	*	*	*	*	7	*	*	18
19	*	*	*	*	*	*	*	*	*	7	*	*	19
20	26	*	*	3	*	*	*	*	1	*	*	1	20
21	*	*	*	*	*	*	*	*	0	21	*	0	21
22	*	8	3	*	*	*	1	*	*	26	*	*	22
23	*	6	*	*	*	*	*	*	*	22	0	0	23
24	*	*	11	*	*	*	*	0	*	*	*	*	24
25	0	*	*	*	1	*	0	*	0	*	*	0	25
26	0	*	*	21	*	0	*	*	*	7	*	0	26
27	*	*	*	*	*	*	3	*	0	3	0	*	27
28	*	*	*	*	*	1	*	*	0	*	*	*	28
29	*	—	6	*	*	*	*	*	*	0	0	0	29
30	0	—	*	*	0	*	*	3	*	0	*	0	30
31	*	—	4	—	0	—	*	*	—	*	—	*	31
MEAN	5,22	3,62	2,78	6,60	6,11	3,71	10,14	1,75	0,56	7,75	4,15	2,54	MEAN

Quarterly Means:

First: 4,23

Second: 5,43

Third: 3,75

Fourth: 4,74

Yearly Mean : 4,51

TABLE I1K:
DAILY **INTER-SOL INDICES** for **1986**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

If readings show 2 numbers separated by a solidus (/), then there were 2 observations on the same UT date.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	*	*	*	*	*	0	*	4	*	*	14	0	01
02	*	*	*	1	4	*	*	3	*	*	*	0	02
03	*	*	14	*	0	*	*	6	*	6	*	*	03
04	*	30	*	0	*	0	4	3	*	*	*	*	04
05	0	*	*	0	*	*	*	3	0	*	12	*	05
06	0	*	19	*	*	0	*	*	*	*	9	0	06
07	*	26	13	*	*	*	*	*	*	12	*	*	07
08	*	31	6	*	*	*	*	*	*	*	*	0	08
09	0	23	*	*	0	*	*	0	*	*	0	0	09
10	0	*	*	*	0	*	*	*	*	*	*	*	10
11	*	20	*	3	*	*	8	*	*	*	*	*	11
12	*	17	1	*	*	*	12	*	0	*	0	1	12
13	0	*	*	*	*	0	*	*	*	*	*	1	13
14	7	*	0	*	*	0	*	*	0	0	3	*	14
15	6	*	0	*	1	*	*	0	*	*	3	*	15
16	*	*	*	4	*	*	*	1	*	*	*	0	16
17	0	0	*	*	7	*	*	*	*	8	*	0	17
18	*	*	*	3	*	*	*	*	*	10	*	*	18
19	*	*	*	3	*	*	*	*	*	*	3	*	19
20	*	*	*	*	*	*	4	*	0	*	3	*	20
21	*	*	0	*	*	0	*	*	*	*	0	*	21
22	*	1	0	*	*	*	4	0	*	*	*	*	22
23	*	*	*	*	0	*	0	*	*	*	*	*	23
24	*	*	*	21	*	*	*	*	*	*	*	0	24
25	*	*	*	*	*	*	*	*	*	11	*	0	25
26	0	*	*	24	*	*	0	*	0	11	*	0	26
27	*	*	*	*	*	*	*	*	0	*	*	0	27
28	*	*	4	*	3	0	*	*	*	*	0	0	28
29	0	*	1	*	*	*	*	1	*	*	0	0	29
30	*	—	0	*	1	*	*	1	*	14	*	0	30
31	*	—	*	—	1	—	*	*	—	14	—	3	31
MEAN	1,30	18,50	4,83	6,56	1,70	0,00	4,57	2,00	0,00	9,56	3,92	0,29	MEAN

Quarterly Means: First: 7,30 Second: 2,92 Third: 2,25 Fourth: 3,63

Yearly Mean : 4,13

TABLE IIL:
DAILY **INTER-SOL INDICES** for **1987**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

If readings show 2 numbers separated by a solidus (/), then there were 2 observations on the same UT date.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	8	*	*	*	11	3	*	18	*	*	*	6	01
02	6	0	*	*	9	*	*	23	*	*	*	*	02
03	5	0	*	1	*	0	0	*	*	*	*	*	03
04	1	*	*	*	*	0	*	*	11	*	*	3	04
05	1	0	*	*	*	0	*	*	19	*	*	10	05
06	1	*	9	14	*	0	*	*	*	*	*	*	06
07	*	0	*	*	*	0	*	33	*	*	5	*	07
08	*	0	8	*	7	*	*	28	*	*	*	*	08
09	0	*	*	*	8	*	*	*	*	4	14	*	09
10	0	0	*	*	*	*	*	*	*	*	*	7	10
11	0	*	*	*	*	*	0	*	10	29	*	3	11
12	*	*	*	*	*	0	*	*	9	*	*	*	12
13	*	*	0	*	*	*	*	24	9	*	*	*	13
14	*	6	*	*	*	*	*	25	*	*	*	*	14
15	*	*	1	*	14	*	*	21	5	*	14	*	15
16	0	*	*	13	*	*	*	*	3	34	*	*	16
17	*	*	5	12	27	*	4	*	6	30	*	*	17
18	*	*	*	*	*	*	3	*	5	*	21	5	18
19	*	*	*	*	*	4	*	*	11	*	34	4	19
20	*	0	*	*	*	3	*	*	*	*	*	*	20
21	*	*	0	*	*	*	*	*	*	*	*	*	21
22	*	*	7	*	38	*	*	*	*	*	*	1	22
23	5	*	*	*	36	*	*	*	*	*	*	*	23
24	1	*	*	6	*	*	*	*	*	0	*	*	24
25	1	0	*	*	*	*	*	*	*	11	*	*	25
26	*	*	*	*	*	*	*	*	4	*	*	13	26
27	3	*	3	*	*	6	*	*	*	*	3	17	27
28	*	*	3	*	*	*	*	1	*	*	*	13	28
29	*	—	*	*	*	*	19	1	*	*	0	22	29
30	0	—	*	*	*	*	*	*	*	*	*	*	30
31	*	—	*	—	6	—	*	*	—	17	—	*	31
MEAN	2,13	0,67	4,00	9,20	17,33	1,60	5,20	19,33	8,36	17,86	13,00	8,67	MEAN

Quarterly Means:

First: 2,24

Second: 9,08

Third: 11,68

Fourth: 12,31

Yearly Mean : 8,37

TABLE IIM:

DAILY **INTER-SOL INDICES** for **1988**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
 where gr is the number of multi-spot groups
 and f is the number of sunspots.

All dates are UT dates.

* = no observation.

If readings show 2 numbers separated by a solidus (/), then there were 2 observations on the same UT date.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	11	*	*	*	*	*	119	*	*	*	*	57	01
02	*	*	28	*	*	*	*	*	88	*	*	65	02
03	*	*	26	43	*	*	*	*	*	66	*	50	03
04	8	*	*	*	*	61	*	*	*	52	53	*	04
05	*	*	*	*	*	56	*	*	*	*	*	*	05
06	9	*	*	*	*	*	*	97	*	*	*	*	06
07	29	13	*	*	*	*	*	*	*	61	57	*	07
08	*	*	*	*	*	*	34	*	*	56	*	*	08
09	28	*	*	*	*	*	37	*	25	*	*	*	09
10	29	*	*	*	*	52	*	*	*	*	*	49	10
11	*	*	*	36	*	*	*	*	26	*	58	*	11
12	*	*	*	*	*	*	*	75	*	*	65	*	12
13	*	*	*	50	17	*	*	80	*	*	*	*	13
14	*	*	*	*	14	*	*	*	*	33	*	*	14
15	47	9	40	72	*	*	*	*	*	*	*	*	15
16	*	*	*	81	*	*	*	*	*	43	72	136	16
17	*	*	33	*	*	*	*	*	*	*	*	*	17
18	35	16	56	*	*	*	*	*	49	*	*	159	18
19	*	14	53	*	*	*	*	11	*	*	*	*	19
20	*	17	31	*	*	*	60	9	*	*	46	*	20
21	30	*	*	*	*	*	*	*	*	67	*	*	21
22	25	*	*	*	*	*	33	*	*	80	*	148	22
23	14	*	46	7	*	51	*	*	71	*	*	104	23
24	*	5	39	6	*	*	*	*	56	93	*	112	24
25	*	*	51	*	*	33	*	*	61	*	*	*	25
26	*	3	52	*	*	*	*	46	*	*	*	95	26
27	*	5	*	*	*	*	*	54	60	*	*	*	27
28	*	*	*	*	*	*	*	*	*	*	*	*	28
29	12	*	*	15	37	*	93	*	*	*	*	*	29
30	14	—	*	26	*	*	89	*	41	33	55	*	30
31	19	—	*	—	*	—	*	*	—	*	—	*	31
MEAN	22,14	10,25	41,36	37,33	22,67	50,60	66,43	53,14	53,00	58,40	58,00	97,50	MEAN

Quarterly Means:

First: 25,67

Second: 38,65

Third: 57,13

Fourth: 72,78

Yearly Mean : 47,83

TABLE IIN:
DAILY **INTER-SOL INDICES** for **1989**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	*	*	54	49	*	*	55	*	94	*	*	*	01
02	*	*	*	*	*	*	60	*	*	*	*	95	02
03	*	48	39	*	*	73	*	*	*	74	88	*	03
04	*	*	30	*	*	98	*	*	*	*	131	*	04
05	*	49	*	*	*	80	*	*	*	*	*	91	05
06	*	*	*	*	86	*	74	129	*	*	191	86	06
07	*	*	49	*	*	*	76	*	*	*	135	*	07
08	*	*	71	*	*	*	63	*	234	92	*	*	08
09	*	103	*	*	*	*	42	*	205	62	138	51	09
10	84	112	*	*	*	*	*	107	*	*	131	42	10
11	103	107	*	*	66	*	*	*	153	61	*	*	11
12	*	*	*	*	*	*	*	*	131	70	*	29	12
13	100	*	*	*	75	*	*	*	*	70	*	*	13
14	85	157	*	*	*	*	45	112	*	*	*	*	14
15	*	*	*	*	*	197	49	89	*	*	57	*	15
16	*	*	99	*	*	200	49	88	101	*	*	38	16
17	*	111	*	*	84	182	*	104	*	88	58	*	17
18	*	78	89	*	93	*	72	129	*	103	*	55	18
19	*	*	*	*	124	*	73	94	70	*	*	*	19
20	*	*	*	*	116	79	98	83	*	*	*	*	20
21	*	*	75	*	*	93	122	*	*	*	85	*	21
22	49	*	*	63	*	*	115	*	50	92	*	70	22
23	85	*	*	*	*	*	*	31	*	105	*	*	23
24	*	*	*	*	*	*	*	*	*	*	*	*	24
25	*	78	65	*	104	173	*	15	*	60	*	*	25
26	*	*	51	*	85	*	*	18	49	*	*	109	26
27	100	*	*	*	71	149	19	*	*	45	*	136	27
28	152	*	*	*	43	108	29	18	*	*	104	*	28
29	116	—	*	*	42	98	57	*	62	*	*	*	29
30	*	—	*	*	62	74	60	*	*	*	*	*	30
31	*	—	61	—	78	—	89	*	—	93	—	97	31

MEAN	97,11	93,67	62,09	56,00	80,64	123,38	65,63	78,23	114,90	78,08	111,80	74,92	MEAN
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Quarterly Means: First: 82,76 Second: 98,10 Third: 81,26 Fourth: 86,63

Yearly Mean : 86,59

TABLE I10:
DAILY **INTER-SOL INDICES** for **1990**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	*	*	*	*	*	*	*	*	54	63	32	*	01
02	*	54	*	52	14	32	*	54	*	66	*	*	02
03	62	52	*	53	11	*	*	*	*	*	63	*	03
04	*	*	86	72	35	32	*	*	*	*	*	74	04
05	55	51	*	69	*	*	*	*	*	80	*	86	05
06	45	*	82	62	*	55	*	*	28	*	88	*	06
07	*	26	*	*	82	35	101	44	16	52	*	*	07
08	68	*	*	*	107	44	34	*	*	57	*	*	08
09	53	22	*	*	74	52	*	*	21	79	71	*	09
10	72	24	*	27	87	*	24	*	19	*	*	76	10
11	*	30	33	*	*	*	*	*	27	84	*	*	11
12	*	*	*	34	*	60	59	83	23	82	*	64	12
13	*	*	*	*	76	57	*	103	*	*	50	74	13
14	*	*	*	*	116	64	36	94	44	*	*	55	14
15	*	*	*	123	106	44	27	*	*	*	*	85	15
16	*	20	63	*	127	*	29	*	*	87	53	81	16
17	*	*	46	146	126	*	*	*	39	*	71	*	17
18	*	21	*	*	*	48	*	*	43	*	*	*	18
19	*	29	*	156	*	*	29	*	46	78	*	*	19
20	*	77	141	142	131	*	*	150	*	*	*	*	20
21	*	102	124	117	147	*	60	*	*	*	83	*	21
22	*	136	*	*	*	*	67	*	48	*	78	*	22
23	*	156	124	*	*	25	94	159	29	*	*	*	23
24	96	168	*	*	*	*	94	*	*	*	65	*	24
25	112	*	113	*	*	40	*	128	34	47	*	*	25
26	114	*	106	71	*	*	*	136	*	*	*	*	26
27	*	148	77	*	*	84	*	92	35	51	58	*	27
28	*	*	*	43	*	*	*	90	*	48	*	*	28
29	*	—	*	28	54	128	28	86	*	*	52	*	29
30	*	—	60	*	*	146	36	79	*	*	*	*	30
31	*	—	40	—	*	—	46	*	—	*	—	44	31
MEAN	75,22	69,75	84,23	79,67	86,20	59,12	50,93	99,85	33,73	67,23	63,67	71,00	MEAN

Quarterly Means: First: 76,00 Second: 74,65 Third: 59,72 Fourth: 66,97

Yearly Mean : 69,36

TABLE I1P:
DAILY **INTER-SOL INDICES** for **1991**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	*	*	47	*	*	*	105	*	71	101	*	*	01
02	24	112	26	*	38	73	*	77	61	98	*	*	02
03	*	84	*	*	*	85	130	*	65	110	*	*	03
04	*	70	*	*	47	*	*	66	*	96	34	*	04
05	43	71	*	91	*	*	*	*	66	96	*	*	05
06	36	*	40	*	56	54	90	43	*	61	*	112	06
07	*	57	56	*	*	74	104	*	46	*	*	109	07
08	*	66	53	47	79	91	*	*	67	*	*	*	08
09	63	*	75	*	84	106	88	*	*	*	76	120	09
10	71	71	97	*	79	125	*	29	47	36	82	*	10
11	73	*	118	*	58	*	*	24	*	36	85	*	11
12	*	*	*	95	*	110	66	33	*	61	*	111	12
13	*	108	*	109	*	*	69	41	*	*	*	159	13
14	72	98	*	124	*	*	67	*	51	*	65	*	14
15	*	77	103	135	*	76	*	71	41	*	54	73	15
16	*	*	114	*	42	71	*	*	*	*	43	*	16
17	*	*	*	*	*	*	*	132	*	*	*	70	17
18	63	119	*	113	34	63	*	*	*	58	*	46	18
19	*	119	*	91	59	*	*	149	*	32	33	*	19
20	45	121	139	*	*	50	*	*	38	*	*	*	20
21	61	151	116	*	*	*	*	*	47	15	*	*	21
22	*	133	122	*	*	*	*	146	63	13	*	*	22
23	*	*	*	*	43	42	104	123	*	*	28	*	23
24	*	115	101	*	58	44	*	*	*	115	*	*	24
25	*	105	*	25	*	*	95	*	*	134	*	*	25
26	*	109	*	18	89	*	101	53	*	139	51	*	26
27	158	*	151	*	*	*	*	*	*	*	*	117	27
28	*	75	*	59	76	106	91	*	*	*	51	101	28
29	164	—	78	*	*	110	110	*	81	*	48	*	29
30	194	—	70	34	87	*	94	*	82	*	30	*	30
31	137	—	*	—	77	—	*	*	—	128	—	*	31

MEAN	86,00	97,95	84,76	78,42	62,88	80,00	93,85	75,92	59,00	78,18	52,31	101,80	MEAN
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Quarterly Means: First: 90,12 Second: 73,34 Third: 76,27 Fourth: 75,68

Yearly Mean : 79,35

TABLE I1Q:
DAILY **INTER-SOL INDICES** for **1992**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	86	*	*	*	*	*	*	14	25	*	*	*	01
02	91	123	*	44	*	*	*	37	*	31	34	*	02
03	123	*	*	37	39	*	52	*	31	39	*	18	03
04	122	*	*	*	56	*	*	45	*	49	*	13	04
05	88	82	*	23	*	*	56	*	*	63	*	*	05
06	*	*	*	27	*	*	*	*	35	*	*	5	06
07	*	*	*	*	*	33	*	*	24	*	*	*	07
08	116	*	*	*	*	34	*	*	*	*	*	28	08
09	100	*	*	*	*	44	*	*	*	*	36	*	09
10	*	113	*	*	*	*	*	24	18	*	*	*	10
11	*	76	*	*	*	*	*	*	25	*	38	*	11
12	*	*	*	26	28	*	*	*	34	*	*	*	12
13	*	*	*	27	*	18	*	*	*	7	21	63	13
14	*	*	*	32	*	17	*	29	20	*	*	*	14
15	*	62	*	37	*	15	92	*	25	15	*	48	15
16	*	*	*	55	*	20	76	*	*	17	26	*	16
17	*	59	*	*	12	27	40	*	*	25	*	*	17
18	19	*	*	*	*	*	*	*	20	26	48	*	18
19	38	*	*	77	41	21	*	*	18	*	66	38	19
20	44	*	*	96	*	*	*	25	*	*	*	33	20
21	*	*	*	95	*	37	*	*	25	*	*	42	21
22	47	*	21	*	*	*	18	18	*	*	*	*	22
23	*	*	*	*	*	30	*	18	*	64	56	*	23
24	42	*	*	*	*	*	9	2	23	*	57	*	24
25	*	*	68	60	*	34	*	*	*	*	*	*	25
26	*	*	77	55	32	12	14	*	*	84	*	*	26
27	*	*	57	*	*	*	18	*	24	77	*	*	27
28	90	*	70	*	4	7	7	8	21	72	*	35	28
29	*	*	*	34	1	*	*	9	31	57	38	30	29
30	109	—	*	*	5	42	*	11	*	46	*	22	30
31	116	—	78	—	12	—	17	19	—	*	—	11	31

MEAN	82,07	85,83	61,83	48,33	23,00	26,07	36,27	19,92	24,94	44,80	42,00	29,69	MEAN
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Quarterly Means: First: 78,41 Second: 33,65 Third: 26,42 Fourth: 38,89

Yearly Mean : 41,37

TABLE IIR:
DAILY **INTER-SOL INDICES** for **1993**.

The Inter-Sol Index (IS) is calculated as $IS = f + gr$
where gr is the number of multi-spot groups
and f is the number of sunspots.

All dates are UT dates.

* = no observation.

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DATE
01	*	*	*	*	8	63	32	*	*	*	*	*	01
02	*	18	*	*	8	*	*	*	*	*	9	*	02
03	19	40	*	*	16	*	*	8	*	57	11	26	03
04	*	61	64	*	*	*	*	9	5	44	*	26	04
05	31	*	*	*	*	*	*	*	6	*	*	*	05
06	*	62	65	60	40	43	13	13	0	*	9	43	06
07	*	*	60	*	51	26	7	*	4	*	11	48	07
08	26	*	40	55	60	22	14	*	8	*	7	33	08
09	40	*	55	57	*	*	5	27	3	20	*	26	09
10	33	*	*	44	*	15	5	30	*	*	*	12	10
11	32	67	*	24	*	*	*	*	*	23	*	*	11
12	*	*	*	*	*	*	*	32	0	*	4	*	12
13	*	*	30	2	*	1	*	20	0	10	14	*	13
14	*	*	*	4	*	*	*	*	4	*	16	0	14
15	*	28	24	*	*	1	*	9	7	*	*	*	15
16	20	35	34	7	7	*	*	7	*	*	*	*	16
17	28	*	*	*	10	*	*	3	*	10	22	10	17
18	*	*	38	19	*	0	*	10	*	*	*	*	18
19	*	*	36	*	6	*	*	6	*	13	28	4	19
20	*	*	45	*	6	9	*	5	1	*	*	*	20
21	*	43	34	57	*	7	26	13	*	26	*	*	21
22	5	54	32	50	1	*	*	*	1	24	40	28	22
23	*	*	*	54	2	*	19	16	16	25	32	35	23
24	7	*	*	*	6	18	23	14	21	15	*	*	24
25	*	*	13	*	*	24	12	14	*	3	24	*	25
26	*	37	*	*	*	32	7	13	*	5	21	*	26
27	11	39	*	19	25	*	*	*	27	*	*	43	27
28	*	38	21	15	*	*	*	*	27	1	22	*	28
29	*	—	28	*	*	39	*	17	*	*	24	50	29
30	9	—	*	9	*	32	*	11	37	8	39	48	30
31	4	—	43	—	47	—	*	6	—	*	—	62	31
MEAN	20,38	43,50	38,94	31,73	19,53	22,13	14,82	13,48	9,82	18,93	19,59	30,88	MEAN

Quarterly Means:

First: 34,50

Second: 24,47

Third: 12,51

Fourth: 23,15

Yearly Mean : 23,23

TABLE I 2:
GDSO **INTER-SOL** INDEX MEANS FOR ROTATIONS 1690 - 1876.

ROTA- TION	START DATE UT	IS	n	ROTA- TION	START DATE UT	IS	n
1690	1979/12/27,84	46,00	8	1738	1983/07/29,00	29,00	3
1691	1980/01/24,18	40,14	7	1739	1983/08/25,24	13,40	5
1692	1980/02/20,52	14,75	4	1740	1983/09/21,50	22,40	5
1693	1980/03/18,84	53,33	9	1741	1983/10/18,78	5,14	7
1694	1980/04/15,13	42,12	8	1742	1983/11/15,08	7,11	18
1695	1980/05/12,37	65,20	5	1743	1983/12/12,40	5,44	16
1696	1980/06/08,58	39,80	5	1744	1984/01/08,73	24,21	14
1697	1980/07/05,78	37,00	5	1745	1984/02/05,07	25,25	8
1698	1980/08/01,99	21,50	2	1746	1984/03/03,40	22,00	3
1699	1980/08/29,22	40,50	4	1747	1984/03/30,71	23,10	10
1700	1980/09/25,49	66,00	3	1748	1984/04/26,98	42,25	8
1701	1980/10/22,77	55,55	11	1749	1984/05/24,21	15,83	6
1702	1980/11/19,08	38,36	11	1750	1984/06/20,41	12,00	6
1703	1980/12/16,40	48,08	12	1751	1984/07/17,61	2,62	8
1704	1981/01/12,73	33,67	9	1752	1984/08/13,83	11,33	6
1705	1981/02/09,07	42,00	4	1753	1984/09/10,08	0,20	5
1706	1981/03/08,40	44,00	5	1754	1984/10/07,35	1,25	8
1707	1981/04/04,71	60,70	10	1755	1984/11/03,65	5,38	8
1708	1981/05/01,97	46,20	5	1756	1984/11/30,96	3,33	15
1709	1981/05/29,18	26,20	5	1757	1984/12/28,28	5,88	16
1710	1981/06/25,38	61,86	7	1758	1985/01/24,62	1,67	9
1711	1981/07/22,59	63,17	6	1759	1985/02/20,96	2,14	7
1712	1981/08/18,81	61,33	3	1760	1985/03/20,28	4,71	7
1713	1981/09/15,07	46,33	3	1761	1985/04/16,57	10,83	6
1714	1981/10/12,35	41,33	3	1762	1985/05/13,81	3,88	8
1715	1981/11/08,64	20,00	2	1763	1985/06/10,02	10,50	6
1716	1981/12/05,96	38,71	7	1764	1985/07/07,21	3,50	6
1717	1982/01/02,28	28,81	16	1765	1985/08/03,42	1,17	6
1718	1982/01/29,62	85,55	11	1766	1985/08/30,66	1,00	8
1719	1982/02/25,96	52,00	7	1767	1985/09/26,93	8,30	10
1720	1982/03/25,28	39,43	7	1768	1985/10/24,22	4,57	14
1721	1982/04/21,56	33,67	3	1769	1985/11/20,52	3,56	9
1722	1982/05/18,79	—	0	1770	1985/12/17,84	0,08	12
1723	1982/06/14,99	48,33	3	1771	1986/01/14,17	13,67	9
1724	1982/07/12,19	66,71	7	1772	1986/02/10,51	11,25	8
1725	1982/08/08,41	52,50	4	1773	1986/03/09,85	0,64	11
1726	1982/09/04,65	47,25	4	1774	1986/04/06,15	8,86	7
1727	1982/10/01,92	35,50	6	1775	1986/05/03,40	1,57	7
1728	1982/10/29,21	31,00	8	1776	1986/05/30,62	0,25	8
1729	1982/11/25,52	45,45	11	1777	1986/06/26,82	4,57	7
1730	1982/12/22,84	26,59	17	1778	1986/07/24,02	2,22	9
1731	1983/01/19,17	30,25	8	1779	1986/08/20,25	0,33	6
1732	1983/02/15,52	14,33	9	1780	1986/09/16,51	3,60	5
1733	1983/03/14,84	21,25	8	1781	1986/10/13,79	9,36	11
1734	1983/04/11,14	31,00	5	1782	1986/11/10,08	1,09	11
1735	1983/05/08,39	40,20	5	1783	1986/12/07,40	1,19	16
1736	1983/06/04,60	34,00	4	1784	1987/01/03,73	1,38	13
1737	1983/07/01,80	29,18	11	1785	1987/01/31,07	0,67	9

TABLE I 2 continued:

GDSO **INTER-SOL** INDEX MEANS FOR ROTATIONS 1690 - 1876.

ROTA-TION	START DATE UT	IS	n	ROTA-TION	START DATE UT	IS	n
1786	1987/02/27,40	4,29	7	1832	1990/08/04,86	103,67	12
1787	1987/03/26,72	7,67	6	1833	1990/09/01,10	33,73	15
1788	1987/04/23,00	11,71	7	1834	1990/09/28,37	72,80	10
1789	1987/05/20,23	8,30	10	1835	1990/10/25,66	59,73	11
1790	1987/06/16,43	2,60	5	1836	1990/11/21,96	70,67	12
1791	1987/07/13,63	18,29	7	1837	1990/12/19,28	53,25	8
1792	1987/08/09,85	14,57	7	1838	1991/01/15,62	96,64	14
1793	1987/09/06,09	6,89	9	1839	1991/02/11,96	90,74	19
1794	1987/10/03,36	18,00	6	1840	1991/03/11,29	103,45	11
1795	1987/10/30,65	17,50	6	1841	1991/04/07,59	74,00	12
1796	1987/11/26,96	4,20	10	1842	1991/05/04,84	64,53	15
1797	1987/12/24,28	21,75	12	1843	1991/06/01,06	76,00	14
1798	1988/01/20,62	17,00	8	1844	1991/06/28,26	94,45	11
1799	1988/02/16,96	17,11	9	1845	1991/07/25,46	77,07	15
1800	1988/03/15,29	44,00	10	1846	1991/08/21,69	69,75	12
1801	1988/04/11,58	36,71	7	1847	1991/09/17,95	71,86	14
1802	1988/05/08,83	32,25	4	1848	1991/10/15,23	75,09	11
1803	1988/06/05,04	62,20	5	1849	1991/11/11,53	59,08	12
1804	1988/07/02,24	41,00	4	1850	1991/12/08,84	101,58	12
1805	1988/07/29,44	64,86	7	1851	1992/01/05,17	73,55	11
1806	1988/08/25,68	48,00	6	1852	1992/02/01,51	85,83	6
1807	1988/09/21,94	54,55	11	1853	1992/02/28,85	55,33	3
1808	1988/10/19,22	63,25	8	1854	1992/03/27,16	52,07	15
1809	1988/11/15,52	56,29	7	1855	1992/04/23,43	40,62	8
1810	1988/12/12,84	125,67	6	1856	1992/05/20,67	19,55	11
1811	1989/01/09,17	92,20	10	1857	1992/06/16,87	30,73	11
1812	1989/02/05,51	88,80	10	1858	1992/07/14,07	32,25	12
1813	1989/03/04,85	65,56	9	1859	1992/08/10,28	18,25	12
1814	1989/04/01,16	56,00	2	1860	1992/09/06,53	24,93	15
1815	1989/04/28,42	92,00	7	1861	1992/10/03,80	45,79	14
1816	1989/05/25,64	99,57	14	1862	1992/10/31,09	42,44	9
1817	1989/06/21,85	80,00	16	1863	1992/11/27,40	32,60	10
1818	1989/07/19,05	84,17	12	1864	1992/12/24,72	27,25	12
1819	1989/08/15,27	92,46	13	1865	1993/01/21,06	28,92	12
1820	1989/09/11,52	86,25	8	1866	1993/02/17,40	45,75	12
1821	1898/10/08,79	82,86	14	1867	1993/03/16,73	37,60	15
1822	1989/11/05,09	112,38	8	1868	1993/04/13,02	26,19	16
1823	1989/12/02,40	72,91	11	1869	1993/05/10,27	17,30	10
1824	1989/12/29,73	73,33	9	1870	1993/06/06,48	20,07	15
1825	1990/01/26,06	47,85	13	1871	1993/07/03,67	13,10	10
1826	1990/02/22,40	105,90	10	1872	1993/07/30,88	13,83	18
1827	1990/03/21,72	80,12	16	1873	1993/08/27,12	4,87	15
1828	1990/04/18,01	77,27	15	1874	1993/09/23,38	25,42	12
1829	1990/05/15,25	78,42	12	1875	1993/10/20,66	11,75	16
1830	1990/06/11,45	72,45	11	1876	1993/11/16,97	27,41	17
1831	1990/07/08,65	47,80	15				

TABLE I3:
CORRECTED **INTER-SOL** VALUES for **1993**.

As the GDSO is in suburban Auckland, it can suffer terrible atmospheric conditions, hence the 'observed' Inter-Sol Indices have to be upgraded to give reflections of international results. International results are computed by Paderborn Public Observatory, Germany.

Below are the 'observed' Inter-Sol Indices along with the monthly k co-efficients and the corrected values (IS_{GD}) for 1993. Paderborn's final values (IS_I) are also stated.

I/GDSO = International mean (of days observed by the GDSO) divided by the GDSO's monthly mean.

n = number of GDSO observations.

s = sample standard deviation of k values.

s'SIDC' = annual s computed on the SIDC formula.

Es = annual estimate of standard deviation.

	IS	k	IS_{GD}	s	I/GDSO	n	IS_I
1993 Jan	20,38	1,3238	26,98	0,7470	1,1188	13	20,06
Feb	43,50	0,9590	41,72	0,2710	0,9325	12	44,68
Mar	38,94	1,0686	41,61	0,3236	0,9859	17	37,67
Apr	31,73	1,1206	35,56	0,4681	1,1835	15	37,43
May	19,53	1,2163	23,76	0,2746	1,3011	15	32,64
Jun	22,13	1,3401	29,66	0,3677	1,2275	15	26,77
Jul	14,82	1,3647	20,22	0,5101	1,2167	11	22,77
Aug	13,48	1,1470	15,46	0,3460	1,0565	21	14,92
Sep	9,82	1,0921	10,73	0,8227	0,9534	17	9,26
Oct	18,93	1,2308	23,30	0,3584	1,0779	15	22,43
Nov	19,59	0,9230	18,08	0,2342	0,9119	17	17,04
Dec	30,88	0,9880	30,50	0,2566	0,9251	16	25,15
1993 Means	23,23	1,1400	26,48	—	1,0555	—	25,90
	s = 0,4490		s 'SIDC' = 0,4042				Es = 0,0330

TABLE I4:

CORRECTED INTER-SOL INDEX VALUES for Rotations 1865 - 1876.

As a k value is attributed to each spotted observation, the k value for any specific rotation is the mean of all the k values for the rotation concerned.

The corrected values are labelled IS_{GD} .

$$IS_{GD} = IS \times k.$$

s = sample standard deviation of k values.

I/GDSO = International mean (of days observed by the GDSO) divided by the GDSO's rotation mean.

n = number of GDSO observations.

ROTA-TION	START DATE, UT	IS	k	IS_{GD}	s	I/GDSO	n
1865	1993/01/21,06	28,92	1,2105	35,00	0,8302	0,8927	12
1866	1993/02/17,40	45,75	1,0593	48,46	0,3530	0,9975	12
1867	1993/03/16,73	37,60	1,1332	42,61	0,2838	1,1077	15
1868	1993/04/13,02	26,19	1,1144	29,18	0,4191	1,1983	16
1869	1993/05/10,27	17,30	1,2376	21,41	0,3283	1,3779	10
1870	1993/06/06,48	20,07	1,3073	26,23	0,3806	1,1592	15
1871	1993/07/03,67	13,10	1,4054	18,41	0,5185	1,2802	10
1872	1993/07/30,88	13,83	1,1607	16,06	0,3727	1,0549	18
1873	1993/08/27,12	4,87	1,1513	5,60	0,8815	1,0514	15
1874	1993/09/23,38	25,42	1,0700	27,20	0,2885	1,0034	12
1875	1993/10/20,66	11,75	1,0719	12,60	0,3854	0,9869	16
1876	1993/11/16,97	27,41	0,9523	26,11	0,2179	0,9099	17

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TABLE I5:
SMOOTHED INTER-SOL INDICES for 1980 - 1993.

See page xi for all smoothing formulæ.

* = interpolated mean.

** = values based on interpolated mean.

YEAR	MONTH	IS	IS(S ^{HBm})	IS(S ^W)	IS(S ^{B13})
1980	Jan	41,90	39,7129	41,5281	41,2910
	Feb	41,80	40,6248	41,2659	41,4759
	Mar	21,50	41,4446	40,4024	41,3401
	Apr	52,80	44,4351	40,8774	41,7658
	May	62,14	44,7774	42,1628	42,3518
	Jun	43,50	42,3330	42,9707	42,4818
	Jul	36,33	40,6653	42,8980	42,2886
	Aug	21,50	39,1277	42,4049	42,2284
	Sep	37,80	41,2818	43,3528	42,8965
	Oct	57,62	44,6333	44,6778	43,7646
	Nov	53,25	45,9535	44,2760	44,1387
	Dec	49,27	45,8133	43,3117	44,2764
1981	Jan	32,62	44,5648	44,2621	44,9022
	Feb	39,25	44,4768	46,2421	46,2421
	Mar	46,80	45,3655	48,5303	47,4240
	Apr	59,30	47,8661	48,2543	47,9124
	May	46,00	49,5156	46,4178	47,6935
	Jun	36,50	50,0786	44,6602	47,3117
	Jul	66,14	51,4571	44,5672	47,1069
	Aug	55,71	48,7429	46,3151	46,8322
	Sep	42,00	45,2914	47,9745	46,3190
	Oct	46,80	41,9221	47,2429	45,3828
	Nov	20,00	39,6404	45,3623	44,4140
	Dec	40,33	42,2035	**44,5500	**44,0077
1982	Jan	39,32	45,5300	**44,4349	**44,1301
	Feb	74,50	48,0045	**44,2343	**44,5150
	Mar	51,38	**46,5919	**44,4754	**44,8058
	Apr	37,17	**43,7496	**44,1504	**44,6539
	May	23,00	**42,3551	**44,0800	**44,5881
	Jun	*40,01	**43,4388	**44,6888	**44,8006
	Jul	59,88	**46,3447	**44,2742	**44,5430
	Aug	57,17	**46,8800	**41,3527	**42,9973
	Sep	46,33	**45,3736	**37,6288	**40,6198
	Oct	34,67	41,0880	**35,8510	**38,3527
	Nov	30,44	36,1257	**36,2639	**36,4897
	Dec	44,50	32,2250	**36,7636	**34,5867

TABLE I5 continued:
SMOOTHED INTER-SOL INDICES for 1980 - 1993.

YEAR	MONTH	IS	IS(S ^{HBm})	IS(S ^W)	IS(S ^{B13})
1983	Jan	25,20	28,0769	35,1943	32,2227
	Feb	18,50	26,3122	32,2829	30,0415
	Mar	18,00	26,4516	29,3975	28,6040
	Apr	27,88	28,0823	27,3350	27,8176
	May	42,20	30,1193	25,4391	26,8922
	Jun	32,80	29,4875	22,9074	25,2021
	Jul	29,42	26,8495	21,1986	23,2651
	Aug	17,75	21,9476	21,1827	21,5775
	Sep	16,50	17,1673	21,8472	20,1284
	Oct	15,00	14,1569	22,3515	18,9586
	Nov	4,61	12,8340	22,0037	18,2707
	Dec	9,57	14,5389	20,8370	18,3480
1984	Jan	19,12	18,0146	19,0641	18,8890
	Feb	24,20	22,1320	17,7308	19,5409
	Mar	28,25	25,0993	16,8349	19,8741
	Apr	29,73	25,1152	15,6757	19,4192
	May	32,00	22,6697	15,1172	18,1852
	Jun	15,00	17,5597	14,8555	16,1424
	Jul	4,67	12,1764	14,0079	13,5666
	Aug	10,50	8,2741	12,5717	10,9453
	Sep	2,25	5,1125	10,6530	8,4908
	Oct	1,43	3,9960	8,6281	6,4960
	Nov	4,78	3,8651	6,5857	5,1324
	Dec	3,12	3,6022	5,0368	4,4288
1985	Jan	5,22	4,0174	4,7947	4,3532
	Feb	3,62	4,3024	4,6583	4,4405
	Mar	2,78	4,4558	4,2231	4,5136
	Apr	6,60	5,1944	4,4159	4,7201
	May	6,11	5,4127	4,6533	4,8644
	Jun	3,71	5,2283	4,6029	4,8724
	Jul	10,14	5,2905	4,4150	4,7388
	Aug	1,75	4,5180	4,8714	4,7107
	Sep	0,56	4,0980	5,5768	4,9010
	Oct	7,75	4,0717	5,6606	5,0884
	Nov	4,15	4,4651	5,4750	5,2153
	Dec	2,54	5,2753	5,1364	5,2795

TABLE I5 continued:
SMOOTHED INTER-SOL INDICES for 1980 - 1993.

YEAR MONTH	IS	IS(S ^{HBm})	IS(S ^W)	IS(S ^{B13})
1986 Jan	1,30	6,2872	4,7495	5,3779
Feb	18,50	7,2776	4,5278	5,4636
Mar	4,83	6,4399	4,5150	5,2708
Apr	6,56	5,5434	4,5671	4,8479
May	1,70	4,1110	4,6325	4,4489
Jun	0,00	2,5474	4,5291	4,0930
Jul	4,57	2,7373	4,4703	3,7723
Aug	2,00	2,9026	3,7619	3,3235
Sep	0,00	3,2461	2,9842	3,0317
Oct	9,56	3,8291	3,0596	3,1066
Nov	3,92	3,2593	3,8212	3,4225
Dec	0,29	2,7357	4,5393	3,8319
1987 Jan	2,13	2,8753	4,6321	4,1826
Feb	0,67	3,8316	5,3805	4,8640
Mar	4,00	5,4017	6,4512	5,8648
Apr	9,20	7,0417	7,1456	6,9264
May	17,33	8,7583	7,8700	7,9989
Jun	1,60	8,9644	8,5973	8,9642
Jul	5,20	10,1282	9,7799	10,0831
Aug	19,33	11,7045	11,0129	11,2446
Sep	8,36	11,9808	12,9691	12,5193
Oct	17,86	13,6789	15,6981	14,1973
Nov	13,00	13,8855	17,0926	15,8764
Dec	8,67	15,3773	19,3564	18,1566
1988 Jan	22,14	19,3274	23,9493	21,5977
Feb	10,25	22,4491	27,9092	25,6176
Mar	41,36	28,5681	31,1778	30,0372
Apr	37,33	34,4810	34,7269	34,5835
May	22,67	39,5902	38,2912	39,1725
Jun	50,60	46,5626	43,8676	44,5660
Jul	66,43	51,5006	50,6927	50,3863
Aug	53,14	54,3452	57,2920	56,0220
Sep	53,00	58,9741	61,6314	60,9838
Oct	58,40	64,4641	63,2728	65,1102
Nov	58,00	71,6707	66,4662	69,3007
Dec	97,50	79,6598	71,9146	73,6911

TABLE I5 continued:
SMOOTHED INTER-SOL INDICES for 1980 - 1993.

YEAR MONTH	IS	IS(S ^{HBm})	IS(S ^W)	IS(S ^{B13})
1989 Jan	97,11	82,2829	74,9141	76,8605
Feb	93,67	81,1197	75,9262	78,4847
Mar	62,09	79,6098	79,5507	80,0829
Apr	56,00	78,0654	82,9497	81,9162
May	80,64	80,5042	86,0113	84,1922
Jun	123,38	86,1134	87,3120	85,8569
Jul	65,63	87,0334	85,4590	86,2169
Aug	78,23	90,6177	83,5504	86,6397
Sep	114,90	92,6055	83,4764	87,3728
Oct	78,08	89,9723	85,3850	87,6615
Nov	111,80	89,6504	86,6026	86,8337
Dec	74,92	84,7199	84,1567	84,5622
1990 Jan	75,22	80,2934	80,8668	81,9481
Feb	69,75	79,0329	81,1550	80,2467
Mar	84,23	77,6287	78,6737	77,9750
Apr	79,67	75,8665	74,8398	75,2865
May	86,20	75,0687	72,3824	72,7087
Jun	59,12	70,3056	70,2136	70,3061
Jul	50,93	66,7132	70,4995	69,1304
Aug	99,85	65,9977	72,1234	68,8850
Sep	33,73	62,2181	73,3206	69,0376
Oct	67,23	64,9843	73,2907	69,8974
Nov	63,67	69,1637	72,2668	71,3967
Dec	71,00	73,8659	72,1647	73,4611
1991 Jan	86,00	80,8345	74,8230	76,1571
Feb	97,95	83,0912	75,6147	77,9833
Mar	84,76	82,3063	75,6707	78,8741
Apr	78,42	80,7711	77,1795	79,1640
May	62,88	78,6165	77,1623	78,5023
Jun	80,00	77,6650	77,9723	77,9529
Jul	93,85	77,7213	79,0918	77,4608
Aug	75,92	74,6125	78,4231	76,5501
Sep	59,00	73,2768	76,9629	75,8207
Oct	78,18	73,6249	74,7540	75,2142
Nov	52,31	74,5656	71,8390	74,1742
Dec	101,80	78,6985	67,9304	72,0284

TABLE I5 continued:
SMOOTHED INTER-SOL INDICES for 1980 - 1993.

YEAR MONTH	IS	IS(S ^{HBm})	IS(S ^W)	IS(S ^{B13})
1992 Jan	82,07	77,8724	63,2838	68,4074
Feb	85,83	71,9130	58,5511	63,5078
Mar	61,83	61,7396	54,7985	57,6794
Apr	48,33	49,3733	51,9885	51,4149
May	23,00	38,5730	50,1684	45,7167
Jun	26,07	31,5855	46,7344	40,6685
Jul	36,27	29,5043	41,1598	36,3192
Aug	19,92	29,3785	36,8259	33,4710
Sep	24,94	31,6390	34,1081	32,3799
Oct	44,80	33,4938	32,4626	32,5034
Nov	42,00	34,0965	31,6265	32,7791
Dec	29,69	34,1501	31,3182	32,6470
1993 Jan	20,38	33,7207	30,2603	32,0487
Feb	43,17	33,5226	29,0978	31,1943
Mar	38,94	32,0704	28,1994	29,6768
Apr	31,73	29,3016	26,4919	27,2301
May	19,53	25,2643	24,4803	24,6028
Jun	22,13	20,6732	23,5957	22,5782
Jul	14,82	17,2176	24,1731	21,3301
Aug	13,48	15,5678	23,5289	20,2758
Sep	9,82	16,1465	21,3850	19,4848
Oct	18,93	18,7843	19,3364	19,2463
Nov	19,59	21,3989	17,7974	19,2561
Dec	30,88	23,4677	16,7345	19,1008

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TABLE I6:
 QUARTERLY AND YEARLY **INTER-SOL INDEX** MEANS for 1980 - 1993.

YEAR/ QUARTER	IS	IS(S ^{HBm})	IS(S ^W)	IS(S ^{B13})
1980 / 1	36,05	40,59	41,07	41,37
2	53,22	43,85	42,00	42,20
3	34,62	40,36	42,89	42,47
4	52,45	45,47	44,09	44,06
1980	46,10	42,57	42,51	42,52
1981 / 1	37,05	44,80	46,57	46,19
2	49,45	49,15	46,11	47,64
3	58,56	48,50	46,29	46,75
4	39,69	41,26	45,72	44,60
1981	45,97	45,93	46,26	46,30
1982 / 1	51,43	46,71	44,38	44,48
2	33,62	43,18	44,31	44,68
3	56,47	46,20	41,09	42,72
4	37,78	36,48	36,29	36,48
1982	46,19	43,14	41,52	42,09
1983 / 1	21,53	26,95	32,29	30,29
2	33,22	29,23	25,23	26,64
3	24,50	21,99	21,41	21,66
4	8,26	13,84	21,73	18,53
1983	19,26	23,00	25,16	24,28
1984 / 1	21,94	21,75	17,88	19,43
2	26,24	21,78	15,22	17,92
3	5,35	8,52	12,41	11,00
4	3,22	3,82	6,75	5,35
1984	14,07	13,97	13,06	13,43
1985 / 1	4,23	4,26	4,56	4,44
2	5,43	5,28	4,56	4,82
3	3,75	4,64	4,95	4,78
4	4,74	4,60	5,42	5,19
1985	4,51	4,69	4,87	4,81

TABLE I6 continued:

QUARTERLY AND YEARLY **INTER-SOL INDEX** MEANS for 1980 - 1993.

YEAR/ QUARTER	IS	IS(S ^{HBm})	IS(S ^W)	IS(S ^{B13})
1986 / 1	7,30	6,67	4,60	5,37
2	2,92	4,07	4,58	4,46
3	2,25	2,96	3,74	3,38
4	3,63	3,27	3,81	3,45
1986	4,13	4,24	4,18	4,17
1987 / 1	2,24	4,04	5,49	4,97
2	9,08	8,25	7,87	7,96
3	11,68	11,27	11,25	11,28
4	12,31	14,31	17,38	16,08
1987	8,37	9,47	10,50	10,07
1988 / 1	25,67	23,45	27,68	25,75
2	38,65	40,21	38,96	39,44
3	57,13	54,94	56,54	55,80
4	72,78	71,93	67,22	69,37
1988	47,83	47,63	47,60	47,59
1989 / 1	82,76	81,00	76,80	78,48
2	98,10	81,56	85,42	83,99
3	81,26	90,09	84,16	86,74
4	86,63	88,11	85,38	86,35
1989	86,59	85,19	82,94	83,89
1990 / 1	76,00	78,98	80,23	80,06
2	74,65	73,75	72,48	72,77
3	59,72	64,98	71,98	69,02
4	66,97	69,34	72,57	71,59
1990	69,36	71,76	74,32	73,36
1991 / 1	90,12	82,08	75,37	77,67
2	73,34	79,02	77,44	78,54
3	76,27	75,20	78,16	76,61
4	75,68	75,63	71,51	73,81
1991	79,35	77,98	75,62	76,66

TABLE I6 continued:

QUARTERLY AND YEARLY **INTER-SOL INDEX** MEANS for 1980 - 1993.

YEAR/ QUARTER	IS	IS(S ^{HBm})	IS(S ^W)	IS(S ^{B13})
1992 / 1	78,41	70,51	58,88	63,20
2	33,65	39,84	49,63	45,93
3	26,42	30,17	37,36	34,06
4	38,89	33,91	31,80	32,64
1992	41,37	43,61	44,42	43,96
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1993 / 1	34,50	33,10	29,19	30,97
2	24,47	25,08	24,86	24,80
3	12,51	16,31	23,03	20,36
4	23,15	21,22	17,96	19,20
1993	23,23	23,93	23,76	23,84

NB: IS(S^{HBm}), IS(S^W) & IS(S^{B13}) quarterly values are means of 3 monthly values.
 IS(S^{HBm}), IS(S^W) & IS(S^{B13}) yearly values are means of 12 monthly values.

MISCELLANEOUS DATA.

TABLE M7:
 REGION CLASSIFICATION **PERCENTAGES** 1993 - 1995.

1993	A	B	C	D	E	F	G	H	J	Σg
Jan	1,6	6,6	26,2	24,6	6,6	0,0	0,0	14,8	19,7	61
Feb	6,9	9,7	23,6	13,9	13,9	11,1	1,4	6,9	12,5	72
Mar	7,3	8,5	26,8	20,7	8,5	11,0	0,0	3,7	13,4	82
Apr	9,1	9,1	16,4	23,6	14,5	12,7	5,5	1,8	7,3	55
May	26,7	8,9	17,8	15,6	6,7	8,9	0,0	6,7	8,9	45
Jun	17,4	2,2	23,9	19,6	15,2	2,2	0,0	13,0	6,5	46
Jul	11,6	9,3	27,9	14,0	2,3	0,0	0,0	23,3	11,6	43
Aug	9,7	6,9	33,3	12,5	4,2	0,0	0,0	11,1	22,2	72
Sep	22,2	25,9	22,2	7,4	11,1	3,7	0,0	0,0	7,4	27
Oct	12,5	8,3	20,8	27,1	2,1	6,2	0,0	2,1	20,8	48
Nov	19,5	2,4	22,0	36,6	14,6	0,0	0,0	0,0	4,9	41
Dec	18,4	2,0	12,2	38,8	6,1	12,2	0,0	2,0	8,2	49
1993	12,2	7,8	23,4	21,1	8,7	6,1	0,6	7,3	12,8	641
1994	A	B	C	D	E	F	G	H	J	Σg
Jan	12,5	7,1	14,3	28,6	7,1	25,0	0,0	0,0	5,4	56
Feb	26,2	4,8	26,2	23,8	0,0	0,0	0,0	0,0	19,0	42
Mar	14,5	17,1	35,5	21,1	1,3	0,0	0,0	0,0	10,5	76
Apr	15,2	18,2	30,3	9,1	0,0	0,0	0,0	15,2	12,1	33
May	27,8	25,0	25,0	22,2	0,0	0,0	0,0	0,0	0,0	36
Jun	16,7	12,5	41,7	16,7	0,0	0,0	0,0	4,2	8,3	24
Jul	21,7	17,4	34,8	15,2	0,0	0,0	0,0	4,3	6,5	46
Aug	15,6	11,1	31,1	13,3	8,9	0,0	0,0	6,7	13,3	45
Sep	13,2	5,3	26,3	10,5	5,3	0,0	0,0	13,2	26,3	38
Oct	9,3	7,4	38,9	9,3	11,1	0,0	0,0	7,4	16,7	54
Nov	29,7	2,7	27,0	8,1	5,4	0,0	0,0	8,1	18,9	37
Dec	25,0	13,9	27,8	8,3	2,8	8,3	0,0	5,6	8,3	36
1994	18,2	11,9	29,8	16,3	3,8	3,3	0,0	4,8	12,0	523
1995	A	B	C	D	E	F	G	H	J	Σg
Jan	11,1	22,2	50,0	11,1	0,0	0,0	0,0	0,0	5,6	18
Feb	21,2	18,2	30,3	15,2	3,0	0,0	0,0	0,0	12,1	33
Mar	15,8	12,3	35,1	29,8	0,0	0,0	0,0	0,0	7,0	57
Apr	15,8	15,8	31,6	21,1	15,8	0,0	0,0	0,0	0,0	19
May	10,5	15,8	15,8	42,1	0,0	0,0	0,0	10,5	5,3	19
Jun	16,7	16,7	41,7	12,5	8,3	0,0	0,0	0,0	4,2	24
Jul	10,0	20,0	40,0	15,0	0,0	0,0	0,0	10,0	5,0	20
Aug	12,5	12,5	37,5	25,0	0,0	0,0	0,0	0,0	12,5	16
Sep	18,2	18,2	27,3	0,0	0,0	0,0	0,0	0,0	36,4	11
Oct	26,9	7,7	42,3	11,5	0,0	0,0	0,0	3,8	7,7	26
Nov	25,0	10,0	40,0	0,0	0,0	0,0	0,0	10,0	15,0	20
Dec	30,8	15,4	30,8	7,7	0,0	0,0	0,0	0,0	15,4	13
1995	17,8	14,9	35,5	18,1	2,2	0,0	0,0	2,5	9,1	276

MISCELLANEOUS DATA continued.

TABLE M8:
REGION CLASSIFICATION **MEANS** 1993 - 1995.

1993	A	B	C	D	E	F	G	H	J	Σ g	NOBS
Jan	0,08	0,31	1,23	1,15	0,31	0,00	0,00	0,69	0,92	61	13
Feb	0,42	0,58	1,42	0,83	0,83	0,67	0,08	0,42	0,75	72	12
Mar	0,35	0,41	1,29	1,00	0,41	0,53	0,00	0,18	0,65	82	17
Apr	0,33	0,33	0,60	0,87	0,53	0,47	0,20	0,07	0,27	55	15
May	0,80	0,27	0,53	0,47	0,20	0,27	0,00	0,20	0,27	45	15
Jun	0,53	0,07	0,73	0,60	0,47	0,07	0,00	0,40	0,20	46	15
Jul	0,45	0,36	1,09	0,55	0,09	0,00	0,00	0,91	0,45	43	11
Aug	0,33	0,24	1,14	0,43	0,14	0,00	0,00	0,38	0,76	72	21
Sep	0,35	0,41	0,35	0,12	0,18	0,06	0,00	0,00	0,12	27	17
Oct	0,40	0,27	0,67	0,87	0,07	0,20	0,00	0,07	0,67	48	15
Nov	0,47	0,06	0,53	0,88	0,35	0,00	0,00	0,00	0,12	41	17
Dec	0,56	0,06	0,38	1,19	0,19	0,38	0,00	0,06	0,25	49	16
1993	0,42	0,27	0,82	0,73	0,30	0,21	0,02	0,26	0,45	641	184
1994	A	B	C	D	E	F	G	H	J	Σ g	NOBS
Jan	0,41	0,24	0,47	0,94	0,24	0,82	0,00	0,00	0,18	56	17
Feb	1,00	0,18	1,00	0,91	0,00	0,00	0,00	0,00	0,73	42	11
Mar	0,46	0,54	1,12	0,67	0,04	0,00	0,00	0,00	0,33	76	24
Apr	0,29	0,35	0,59	0,18	0,00	0,00	0,00	0,29	0,24	33	17
May	0,50	0,45	0,45	0,40	0,00	0,00	0,00	0,00	0,00	36	20
Jun	0,24	0,18	0,59	0,24	0,00	0,00	0,00	0,06	0,12	24	17
Jul	0,59	0,47	0,94	0,41	0,00	0,00	0,00	0,12	0,18	46	17
Aug	0,32	0,23	0,64	0,27	0,18	0,00	0,00	0,14	0,27	45	22
Sep	0,26	0,11	0,53	0,21	0,11	0,00	0,00	0,26	0,53	38	19
Oct	0,33	0,27	1,40	0,33	0,40	0,00	0,00	0,27	0,60	54	15
Nov	0,50	0,05	0,45	0,14	0,09	0,00	0,00	0,14	0,32	37	22
Dec	0,45	0,25	0,50	0,15	0,05	0,15	0,00	0,10	0,15	36	20
1994	0,43	0,28	0,71	0,38	0,09	0,08	0,00	0,11	0,29	523	221
1995	A	B	C	D	E	F	G	H	J	Σ g	NOBS
Jan	0,11	0,22	0,50	0,11	0,00	0,00	0,00	0,00	0,06	18	18
Feb	0,58	0,50	0,83	0,42	0,08	0,00	0,00	0,00	0,33	33	12
Mar	0,35	0,27	0,77	0,65	0,00	0,00	0,00	0,00	0,15	57	26
Apr	0,18	0,18	0,35	0,24	0,18	0,00	0,00	0,00	0,00	19	17
May	0,11	0,17	0,17	0,44	0,00	0,00	0,00	0,11	0,06	19	18
Jun	0,20	0,20	0,50	0,15	0,10	0,00	0,00	0,00	0,05	24	20
Jul	0,11	0,22	0,44	0,17	0,00	0,00	0,00	0,11	0,06	20	18
Aug	0,12	0,12	0,35	0,24	0,00	0,00	0,00	0,00	0,12	16	17
Sep	0,12	0,12	0,19	0,00	0,00	0,00	0,00	0,00	0,25	11	16
Oct	0,54	0,15	0,85	0,23	0,00	0,00	0,00	0,08	0,15	26	13
Nov	0,28	0,11	0,44	0,00	0,00	0,00	0,00	0,11	0,17	20	18
Dec	0,31	0,15	0,31	0,08	0,00	0,00	0,00	0,00	0,15	13	13
1995	0,24	0,20	0,48	0,24	0,03	0,00	0,00	0,03	0,12	276	206

MISCELLANEOUS DATA continued.

TABLE M9A:
PENUMBRA/GROUP MEANS 1998 - 1995.

The following p/g data are obtained by averaging each p/g value (i.e. (p/g) bar) from every observation within the period concerned, i.e. the number of penumbrae per group per observation.

The \bar{p}/\bar{g} data are obtained by dividing the total number of penumbrae by the total number of groups within the period concerned, i.e. the number of penumbrae per group, the true arithmetical mean.

s values are sample standard deviations.

n = number of observations.

OWS = number of observations *with* sunspots.

	p/g	s	p/g(S ^W)	p/g(S ^{B13})	\bar{p}/\bar{g}	$\bar{p}/\bar{g}(S^W)$	$\bar{p}/\bar{g}(S^{B13})$	n	OWS
1988 Jan	—	—	—	—	—	—	—	—	—
Feb	—	—	—	—	—	—	—	—	—
Mar	—	—	—	—	—	—	—	—	—
Apr	—	—	—	—	—	—	—	—	—
May	—	—	—	—	—	—	—	—	—
Jun	—	—	—	—	—	—	—	—	—
Jul	—	—	—	—	—	—	—	—	—
Aug	—	—	—	—	—	—	—	—	—
Sep	—	—	—	—	—	—	—	—	—
Oct	—	—	—	—	—	—	—	—	—
Nov	1,5639	0,4502	—	—	1,4800	—	—	7	7
Dec	2,0194	0,3904	—	—	2,0723	—	—	10	10
1988	1,8319	0,4638	—	—	1,8496	—	—	17	17
1989 Jan	1,8404	0,8013	—	—	1,6962	—	—	9	9
Feb	1,7692	0,4996	—	—	1,7500	—	—	9	9
Mar	1,4081	0,3009	—	—	1,3803	—	—	11	11
Apr	1,2714	0,1818	—	—	1,2941	—	—	2	2
May	1,5137	0,3200	1,5676	1,5246	1,4724	1,5549	1,5136	14	14
Jun	1,6318	0,3896	1,5452	1,5024	1,6081	1,5329	1,4961	13	13
Jul	1,3724	0,3238	1,4962	1,4780	1,3947	1,4871	1,4771	19	19
Aug	1,0816	0,3694	1,4519	1,4641	1,1186	1,4519	1,4683	13	13
Sep	2,0589	0,9262	1,4434	1,4650	2,1220	1,4481	1,4710	10	10
Oct	1,2305	0,4162	1,4699	1,4709	1,1852	1,4766	1,4772	13	13
Nov	1,6625	0,3225	1,4878	1,4728	1,6505	1,4969	1,4800	10	10
Dec	1,3841	0,3038	1,4753	1,4676	1,3739	1,4899	1,4776	12	12
1989	1,5028	0,5161	—	—	1,4856	—	—	135	135

MISCELLANEOUS DATA continued.

TABLE M9A continued:

PENUMBRA/GROUP MEANS 1998 - 1995.

	p/g	s	p/g(S ^W)	p/g(S ^{B13})	\bar{p}/\bar{g}	$\bar{p}/\bar{g}(S^W)$	$\bar{p}/\bar{g}(S^{B13})$	n	OWS
1990 Jan	1,2996	0,2237	1,4473	1,4579	1,2955	1,4638	1,4704	9	9
Feb	1,2461	0,4920	1,4530	1,4561	1,3053	1,4669	1,4701	16	16
Mar	1,7272	0,3854	1,4277	1,4450	1,7333	1,4371	1,4595	13	13
Apr	1,5893	0,4357	1,3922	1,4252	1,6260	1,3995	1,4400	15	15
May	1,6260	0,5346	1,3991	1,4087	1,6261	1,4041	1,4221	15	15
Jun	1,2196	0,3708	1,4105	1,3944	1,2868	1,4087	1,4022	16	16
Jul	1,1127	0,2298	1,4373	1,3945	1,0909	1,4326	1,3949	15	15
Aug	1,4785	0,3000	1,4611	1,4034	1,4965	1,4528	1,3953	13	13
Sep	1,0530	0,2293	1,4626	1,4139	1,0288	1,4505	1,3978	15	15
Oct	1,3845	0,3116	1,4493	1,4331	1,3760	1,4373	1,4110	13	13
Nov	1,6757	0,5177	1,4263	1,4560	1,5698	1,4140	1,4301	12	12
Dec	1,6439	0,3854	1,4176	1,4753	1,5658	1,4011	1,4483	9	9
1990	1,4064	0,4377	—	—	1,3974	—	—	161	161
1991 Jan	1,6836	0,4728	1,4380	1,4880	1,6757	1,4153	1,4620	14	14
Feb	1,4315	0,2888	1,4357	1,4814	1,4115	1,4116	1,4584	19	19
Mar	1,5782	0,4597	1,4493	1,4698	1,5714	1,4255	1,4505	17	17
Apr	1,4199	0,5072	1,5013	1,4652	1,4706	1,4768	1,4487	12	12
May	1,2438	0,3267	1,5296	1,4629	1,2214	1,5066	1,4476	16	16
Jun	1,3914	0,2623	1,5657	1,4820	1,3825	1,5397	1,4635	16	16
Jul	1,4324	0,4485	1,6046	1,5234	1,3352	1,5755	1,4996	14	14
Aug	1,1035	0,3405	1,6492	1,5881	1,1648	1,6218	1,5602	13	13
Sep	1,7525	0,5362	1,7125	1,6785	1,6937	1,6833	1,6454	14	14
Oct	1,9342	0,7418	1,7494	1,7693	1,9435	1,7152	1,7300	17	17
Nov	1,8060	0,4901	1,7558	1,8395	1,7160	1,7199	1,7962	13	13
Dec	2,3787	1,0141	1,7450	1,8774	2,2135	1,7083	1,8335	10	10
1991	1,5752	0,5787	—	—	1,5086	—	—	175	175
1992 Jan	1,8822	0,8188	1,7412	1,8842	1,8881	1,7066	1,8433	15	15
Feb	2,3042	0,4358	1,7569	1,8652	2,3111	1,7219	1,8271	6	6
Mar	2,2242	0,9745	1,7542	1,8086	2,1471	1,7124	1,7709	6	6
Apr	1,6604	0,3234	1,7177	1,7192	1,6600	1,6741	1,6832	15	15
May	1,1571	0,5225	1,6879	1,6307	1,1463	1,6506	1,5986	10	10
Jun	1,2176	0,5355	1,6337	1,5540	1,1772	1,6101	1,5273	15	15
Jul	1,5148	0,9266	1,5658	1,4935	1,5000	1,5528	1,4712	11	11
Aug	1,3971	0,5825	1,5157	1,4518	1,3673	1,5037	1,4325	13	13
Sep	1,3964	0,5424	1,4621	1,4277	1,2632	1,4532	1,4140	16	16
Oct	1,4133	0,4853	1,4502	1,4351	1,4545	1,4536	1,4322	15	15
Nov	1,6120	0,4256	1,4678	1,4596	1,6406	1,4859	1,4709	10	10
Dec	1,2717	0,4748	1,4864	1,4814	1,3176	1,5162	1,5074	13	13
1992	1,5237	0,6506	—	—	1,5621	—	—	145	145

MISCELLANEOUS DATA continued.

TABLE M9A continued:

PENUMBRA/GROUP MEANS 1998 - 1995.

	p/g	s	p/g(S ^W)	p/g(S ^{B13})	\bar{p}/\bar{g}	$\bar{p}/\bar{g}(S^W)$	$\bar{p}/\bar{g}(S^{B13})$	n	OWS
1993 Jan	1,3598	0,2871	1,4808	1,4945	1,4098	1,5181	1,5336	13	13
Feb	1,6224	0,3816	1,4483	1,4964	1,6111	1,4895	1,5467	12	12
Mar	1,6206	0,4975	1,4154	1,4847	1,6341	1,4725	1,5490	17	17
Apr	1,9789	1,1521	1,3944	1,4563	2,1818	1,4663	1,5332	15	15
May	1,2611	1,1864	1,3970	1,4210	1,4000	1,4652	1,5013	15	15
Jun	1,5595	0,5650	1,4584	1,4069	1,6522	1,5076	1,4795	15	14
Jul	1,0379	0,5867	1,5440	1,4182	1,0698	1,5804	1,4787	11	11
Aug	1,0944	0,3384	1,5460	1,4287	1,1111	1,5840	1,4789	21	21
Sep	0,9107	0,9906	1,4951	1,4417	1,1111	1,5332	1,4791	17	14
Oct	1,3944	0,9669	1,4159	1,4577	1,4583	1,4498	1,4779	15	15
Nov	1,6931	0,6753	1,3380	1,4694	1,6098	1,3658	1,4741	17	17
Dec	2,6644	1,8441	1,2850	1,4566	2,3673	1,3127	1,4565	16	15
1993	1,5193	0,9832	—	—	1,5647	—	—	184	179
1994 Jan	2,0216	1,1966	1,2490	1,3992	2,1071	1,2763	1,4040	17	17
Feb	1,0091	0,3172	1,2402	1,3118	1,0000	1,2643	1,3237	11	11
Mar	1,0125	0,4320	1,2444	1,2176	1,0263	1,2601	1,2357	24	24
Apr	0,6844	0,5232	1,2457	1,1295	0,7879	1,2505	1,1545	17	15
May	0,6857	0,6167	1,2091	1,0518	0,7778	1,2100	1,0829	20	14
Jun	0,8636	0,6742	1,1219	0,9930	1,0000	1,1279	1,0240	17	11
Jul	0,8708	0,7677	1,0197	0,9669	0,8478	1,0294	0,9888	17	16
Aug	1,0492	0,4829	0,9713	0,9777	1,0444	0,9772	0,9863	22	22
Sep	1,0573	0,4079	0,9802	1,0085	1,0789	0,9781	1,0024	19	16
Oct	1,2789	0,3257	1,0311	1,0498	1,2593	1,0180	1,0268	15	15
Nov	0,9306	0,6469	1,0957	1,0936	0,8378	1,0844	1,0602	22	18
Dec	1,3333	1,5664	1,1250	1,1240	1,1667	1,1138	1,0884	20	19
1994	1,0825	0,8240	—	—	1,1166	—	—	221	198
1995 Jan	0,9015	0,7461	1,1293	1,1398	0,9444	1,1122	1,1071	18	11
Feb	0,9653	0,6004	1,1232	1,1481	0,9091	1,1104	1,1231	12	12
Mar	1,2703	0,7656	1,0985	1,1471	1,1404	1,0901	1,1329	26	23
Apr	1,6500	1,4539	1,0630	1,1284	1,6316	1,0577	1,1293	17	10
May	1,2692	1,1294	1,0377	1,0912	1,5263	1,0358	1,1060	18	13
Jun	0,9825	0,8201	1,0048	1,0376	0,9583	1,0051	1,0578	20	19
Jul	0,8571	0,7449	0,9556	0,9738	0,8500	0,9623	0,9956	18	14
Aug	0,9167	0,4714	0,8953	0,8987	1,0000	0,9117	0,9229	17	8
Sep	0,5952	0,4499	0,8449	0,8208	0,6364	0,8685	0,8447	16	7
Oct	0,8889	0,5086	—	—	0,9231	—	—	13	9
Nov	0,7143	0,4308	—	—	0,6500	—	—	18	14
Dec	0,7593	0,6298	—	—	0,6154	—	—	13	9
1995	1,0115	0,8084	—	—	1,0145	—	—	206	149

MISCELLANEOUS DATA continued.

TABLE M9B:
SPOT/GROUP MEANS 1976 - 1995.

The following p/g data are obtained by averaging each f/g value (i.e. (f/g) bar) from every observation within the period concerned, i.e. the number of sunspots per group per observation.

The \bar{f}/\bar{g} data are obtained by dividing the total number of sunspots by the total number of groups within the period concerned, i.e. the number of sunspots per group, the true arithmetical mean.

s values are sample standard deviations.

n = number of observations.

OWS = number of observations *with* sunspots.

	f/g	s	f/g(S ^W)	f/g(S ^{B13})	\bar{f}/\bar{g}	$\bar{f}/\bar{g}(S^W)$	$\bar{f}/\bar{g}(S^{B13})$	Σg	n	OWS
1976 Jan	5,3333	3,0551	—	—	5,3333	—	—	3	11	3
Feb	2,3333	1,1547	—	—	2,3333	—	—	3	9	3
Mar	3,4000	3,0496	—	—	3,6667	—	—	6	9	5
Apr	2,9074	3,9992	—	—	2,1875	—	—	16	9	9
May	1,2500	0,5000	—	—	1,2500	—	—	4	7	4
Jun	5,0000	5,0200	—	—	5,0000	—	—	6	10	6
Jul	2,0000	—	3,0134	2,9310	2,0000	2,8316	2,7526	1	10	1
Aug	2,7143	2,3604	3,0091	2,9403	2,7143	2,8351	2,7382	7	9	7
Sep	2,9000	2,9665	3,0237	2,9875	2,2500	2,8525	2,7715	8	10	5
Oct	3,3571	2,4275	2,9310	3,0000	2,8000	2,7787	2,7940	10	9	7
Nov	2,1667	0,9832	2,9557	3,0196	2,1667	2,8334	2,8388	6	13	6
Dec	4,0595	2,8820	2,9112	3,0054	3,6111	2,8000	2,8532	18	17	14
1976	3,3000	2,9437	—	—	3,7571	—	—	88	123	70
1977 Jan	2,8125	2,3895	2,8192	2,9639	2,6667	2,7165	2,8529	9	12	8
Feb	4,7500	4,3095	2,9142	2,9412	5,0833	2,7809	2,8630	12	12	8
Mar	1,3333	0,8165	3,0947	2,9397	1,3333	2,9606	2,8858	6	13	6
Apr	2,7500	2,8723	3,1704	2,9618	2,7500	3,0861	2,9281	4	12	4
May	2,0000	0,7071	3,1993	3,0160	2,0000	3,1434	2,9886	7	8	5
Jun	3,1818	2,4827	3,2166	3,0920	3,4500	3,1897	3,0648	20	11	11
Jul	1,6111	0,8580	3,2670	3,2172	1,5455	3,2846	3,1877	11	11	9
Aug	5,3833	4,7830	3,3510	3,3953	4,7143	3,3559	3,3544	14	10	10
Sep	4,5625	2,6918	3,4590	3,5690	4,5625	3,4246	3,5236	16	8	8
Oct	3,5104	0,7539	3,6685	3,7260	3,5000	3,6073	3,6815	20	8	8
Nov	2,7083	2,1686	4,0622	3,9476	2,8421	3,9525	3,8879	19	13	12
Dec	3,9315	3,4767	4,3403	4,1938	4,0455	4,2123	4,1171	44	18	18
1977	3,3709	2,9622	—	—	3,5440	—	—	182	136	107

MISCELLANEOUS DATA continued.

TABLE M9B continued:

SPOT/GROUP MEANS 1976 - 1995.

	f/g	s	f/g(S ^W)	f/g(S ^{B13})	\bar{f}/\bar{g}	$\bar{f}/\bar{g}(S^W)$	$\bar{f}/\bar{g}(S^{B13})$	Σg	n	OWS
1978 Jan	4,1510	2,0559	4,4538	4,3983	4,5111	4,3402	4,3097	45	20	17
Feb	5,4278	2,1565	4,5571	4,5662	4,9492	4,4086	4,4415	59	12	12
Mar	3,2466	1,1439	4,6683	4,7492	3,1176	4,4785	4,5703	34	7	7
Apr	5,8661	3,2187	4,7743	4,9605	5,3488	4,5810	4,7372	43	8	8
May	8,3315	3,6472	4,7856	5,0688	7,6857	4,5885	4,8201	35	9	9
Jun	3,5250	1,4962	4,7782	5,0355	4,0000	4,5811	4,7796	32	6	6
Jul	3,9926	3,9829	4,8129	4,9676	4,0667	4,5968	4,7011	30	9	9
Aug	5,4810	6,6302	4,9697	4,9612	3,8333	4,7585	4,7026	18	7	7
Sep	7,1333	3,7416	5,1255	4,9536	7,1212	4,9393	4,7379	33	7	7
Oct	3,4827	1,1850	5,1547	4,8809	3,4026	4,9840	4,7158	77	12	12
Nov	3,0083	1,8790	4,9192	4,7808	3,1176	4,7825	4,6589	51	11	11
Dec	3,4545	2,0547	4,7646	4,7886	3,5942	4,6273	4,6888	69	13	13
1978	4,6230	3,1703	—	—	4,4163	—	—	526	121	118
1979 Jan	5,4589	1,3677	4,7866	4,8657	5,3391	4,6247	4,7798	115	16	16
Feb	7,8833	2,8234	4,7457	4,8698	8,0000	4,6721	4,8233	31	6	6
Mar	4,5314	2,1409	4,6887	4,8194	4,4074	4,7114	4,8038	27	5	5
Apr	5,2815	2,8418	4,7379	4,8050	5,1304	4,7556	4,7911	46	9	9
May	3,2653	1,8096	4,9094	4,8358	3,0682	4,9216	4,8278	44	6	6
Jun	4,8808	2,0817	5,0987	4,8772	4,8939	5,0995	4,8801	66	9	9
Jul	3,1636	0,8770	5,2302	4,9357	3,1094	5,2290	4,9553	64	8	8
Aug	5,3284	2,8845	5,2221	5,0343	5,9286	5,2208	5,0658	42	8	8
Sep	5,9175	1,6672	5,1685	5,1766	5,9706	5,1549	5,2027	34	5	5
Oct	5,8792	2,0563	5,3463	5,3837	5,6122	5,3147	5,3917	49	8	8
Nov	4,7296	1,7488	5,7782	5,6884	4,8919	5,7300	5,6712	74	10	10
Dec	6,2745	2,1623	6,0170	5,9775	6,0896	5,9681	5,9326	67	11	11
1979	5,2398	2,2468	—	—	5,1153	—	—	659	101	101
1980 Jan	5,7950	1,5167	6,1429	6,2122	5,9516	6,0744	6,1306	62	10	10
Feb	7,3529	4,0924	6,1619	6,3478	7,1923	6,0553	6,2233	26	5	5
Mar	3,7750	2,7011	6,0772	6,4021	3,6333	5,9372	6,2425	30	6	6
Apr	10,3050	6,4093	6,1682	6,4785	9,7400	6,0216	6,3006	50	10	10
May	8,6080	2,7461	6,3977	6,5193	8,4255	6,2420	6,3324	47	7	7
Jun	5,2702	0,6805	6,5224	6,4617	5,2500	6,3519	6,2700	44	6	6
Jul	5,7963	2,4991	6,4788	6,3528	5,3056	6,2940	6,1595	36	6	6
Aug	3,1500	1,9092	6,3999	6,2739	3,2727	6,1819	6,0773	11	2	2
Sep	6,0629	2,2673	6,4219	6,2768	5,7931	6,1872	6,0770	29	5	5
Oct	7,9177	1,9419	6,3765	6,2809	7,8148	6,1626	6,0827	54	8	8
Nov	8,2009	3,0087	6,1245	6,2263	7,9796	5,9261	6,0250	49	8	8
Dec	5,7943	1,6507	6,0835	6,2158	5,6379	5,8926	6,0096	116	15	15
1980	6,7806	3,4481	—	—	6,5722	—	—	554	88	88

MISCELLANEOUS DATA continued.

TABLE M9B continued:
SPOT/GROUP MEANS 1976 - 1995.

	f/g	s	f/g(S ^W)	f/g(S ^{B13})	\bar{f}/\bar{g}	$\bar{f}/\bar{g}(S^W)$	$\bar{f}/\bar{g}(S^{B13})$	Σg	n	OWS
1981 Jan	5,2291	2,3262	6,3010	6,2912	5,0139	6,1566	6,0970	72	13	13
Feb	6,0253	2,9513	6,5949	6,4260	5,4400	6,4678	6,2476	25	4	4
Mar	5,6310	1,2856	6,7860	6,5463	5,5135	6,6173	6,3761	37	5	5
Apr	7,3587	3,6664	6,7360	6,6087	7,2703	6,5248	6,4402	74	10	10
May	5,5065	3,6048	6,6232	5,2174	5,2174	6,3892	6,5080	46	6	6
Jun	7,3889	3,7039	6,5375	6,7773	7,6538	6,3160	6,6075	26	6	6
Jul	8,8980	3,0131	6,5156	6,8344	9,2391	6,3411	6,6684	46	7	7
Aug	7,1005	2,4694	6,6037	6,8230	6,8077	6,4894	6,6584	52	7	7
Sep	6,7000	5,2326	6,6442	6,7441	5,8462	6,5621	6,5813	13	2	2
Oct	6,0790	4,7326	6,4874	6,5811	5,5405	6,4029	6,4321	37	5	5
Nov	7,3333	2,3570	6,4284	6,4121	7,0000	6,3359	6,2918	5	2	2
Dec	4,6056	2,4442	*6,5336	*6,2941	4,8605	*6,5123	*6,2359	43	6	6
1981	6,4285	3,1307	—	—	6,2647	—	—	476	73	73
1982 Jan	5,8913	2,6664	*6,5323	*6,2329	6,3942	*6,7219	*6,3059	104	19	19
Feb	7,4785	1,7337	*6,6042	*6,2864	7,6180	*6,9353	*6,5096	89	10	10
Mar	5,1498	1,7348	*6,7214	*6,4145	5,0822	*7,0992	*6,7688	73	8	8
Apr	4,0755	2,2387	*6,7527	*6,5889	3,8800	*7,2243	*7,0792	50	6	6
May	7,3750	1,5910	*6,8617	*6,8578	7,0000	*7,3372	*7,4589	6	2	2
Jun	†8,0436	—	*7,1036	*7,1879	†10,1058	*7,5204	*7,8558	0	0	0
Jul	8,2125	6,6769	*7,1997	*7,4275	11,8158	*7,5847	*8,0882	38	8	8
Aug	9,5130	5,3792	*7,0585	*7,4979	9,3529	*7,4012	*8,0581	34	6	6
Sep	7,1000	1,9936	*6,9975	*7,4741	7,2353	*7,3125	*7,9025	17	3	3
Oct	6,4296	2,6883	*7,1760	*7,4395	7,1538	*7,4700	*7,7201	39	9	9
Nov	9,5981	7,9318	*7,3602	*7,3592	8,0968	*7,6126	*7,4695	31	9	9
Dec	8,1466	2,3708	*7,4007	*7,1992	8,1594	*7,5293	*7,1331	69	14	14
1982	7,1376	4,0591	—	—	7,1509	—	—	550	94	94
1983 Jan	4,6579	1,9367	7,3221	7,0163	4,6389	7,1791	6,7797	72	15	15
Feb	5,3214	5,5440	7,0990	6,8763	4,9697	6,8083	6,5464	33	10	10
Mar	5,8429	3,8952	6,9997	6,8643	5,6000	6,6236	6,4733	20	7	7
Apr	7,6667	2,9987	7,0550	6,9425	7,1429	6,5281	6,4674	28	8	8
May	8,2043	2,6504	6,8171	6,9263	7,1600	6,3291	6,4258	25	5	5
Jun	8,1867	2,0674	6,3870	6,7944	7,9474	6,0094	6,3110	19	5	5
Jul	6,1833	3,5021	6,3629	6,7050	5,5690	6,0144	6,2425	58	12	12
Aug	6,1875	3,1317	6,6299	6,6775	6,7000	6,2258	6,2175	10	4	4
Sep	8,0417	6,3514	6,7328	6,5984	5,4545	6,2883	6,1453	11	4	4
Oct	6,8167	0,7914	6,8185	6,4925	6,6429	6,3947	6,0954	14	7	5
Nov	3,5000	2,3022	7,0333	6,5003	3,8333	6,6652	6,1803	18	18	11
Dec	3,9231	2,1566	6,9856	6,6147	4,7500	6,6748	6,3427	24	14	13
1983	5,7068	3,4242	—	—	5,6205	—	—	332	109	99

† = interpolated mean. * = values based on interpolated mean.

MISCELLANEOUS DATA continued.

TABLE M9B continued:
SPOT/GROUP MEANS 1976 - 1995.

	f/g	s	f/g(S ^W)	f/g(S ^{B13})	\bar{f}/\bar{g}	$\bar{f}/\bar{g}(S^W)$	$\bar{f}/\bar{g}(S^{B13})$	Σg	n	OWS
1984 Jan	8,3039	5,8021	6,6529	6,7260	8,1667	6,3992	6,4748	36	18	17
Feb	8,0833	3,8592	6,4353	6,7777	6,5152	6,2129	6,5526	33	10	10
Mar	5,5500	1,9485	6,4049	6,8097	5,5556	6,2765	6,6532	18	4	4
Apr	10,0152	7,2305	6,3066	6,8074	9,7419	6,2933	6,7198	31	11	11
May	11,0119	6,9152	6,1803	6,6511	11,0526	6,1693	6,5969	19	7	7
Jun	4,2357	1,1961	6,1246	6,2967	4,2857	6,0765	6,2769	21	7	7
Jul	2,1481	1,0816	6,1723	5,9464	2,6154	6,1053	5,9716	13	9	9
Aug	5,0000	3,8987	6,0966	5,7189	5,1818	6,0903	5,7914	11	6	6
Sep	8,5000	10,6066	5,8119	5,4918	8,5000	5,8552	5,5799	2	8	2
Oct	4,0000	1,4142	5,5561	5,2376	4,0000	5,5869	5,3094	2	7	2
Nov	3,2857	2,0788	5,1127	5,0242	3,5000	5,1192	5,0648	10	9	7
Dec	2,8000	1,2953	4,7189	4,9571	2,8571	4,7164	4,9597	14	16	10
1984	6,4069	5,4666	—	—	6,6762	—	—	210	112	92
1985 Jan	10,5714	3,9097	4,7425	4,9707	10,7500	4,7872	4,9551	8	18	7
Feb	4,0000	2,7568	4,7120	4,8198	3,5714	4,7986	4,8082	7	8	6
Mar	2,8000	1,4832	4,2676	4,4986	2,8571	4,3496	4,4990	7	9	5
Apr	6,6250	8,9757	4,1326	4,2841	6,0000	4,1949	4,3015	5	5	4
May	3,7619	4,3577	4,3287	4,1598	3,5714	4,3493	4,1975	14	9	7
Jun	2,0333	1,2605	4,3986	4,0078	2,1000	4,4420	4,0946	10	7	5
Jul	4,9167	4,3865	4,2248	3,8519	6,5000	4,3056	3,9883	10	7	6
Aug	1,5000	0,5000	4,2783	3,8896	1,5714	4,3772	4,0431	7	8	5
Sep	1,3333	0,5774	4,7033	4,2062	1,3333	4,8245	4,3585	3	9	3
Oct	7,9286	6,9248	4,7630	4,5352	7,4545	4,9481	4,7018	11	12	7
Nov	4,0625	1,5454	4,5683	4,7686	3,7500	4,8337	4,9704	12	13	8
Dec	3,7000	3,9937	*4,3893	*4,9221	4,8333	*4,6651	*5,1428	6	13	5
1985	4,7426	4,6553	—	—	4,6800	—	—	100	118	68
1986 Jan	5,5000	0,7071	*4,2164	*4,9891	5,5000	*4,4225	*5,1969	2	10	2
Feb	10,3571	4,8624	*4,1543	*4,9327	10,5385	*4,2905	*5,1307	13	8	7
Mar	6,6429	6,2896	*4,1248	*4,6271	6,6250	*4,2580	*4,8374	8	12	7
Apr	4,2143	4,3480	*3,9222	*4,0850	5,2000	*4,0397	*4,2861	10	9	7
May	1,5000	0,6325	*3,7458	*3,5509	1,6250	*3,8833	*3,7174	8	10	6
Jun	— †	—	*3,6178	*3,1214	— †	*3,7437	*3,2340	0	7	0
Jul	2,8000	1,4405	*3,4025	*2,7591	2,7778	*3,4812	*2,8208	9	7	5
Aug	2,1250	1,3562	*3,0626	*2,4768	2,1250	*3,1338	*2,5049	8	11	8
Sep	— †	—	*2,7293	*2,3808	— †	*2,7832	*2,3735	0	6	0
Oct	4,4000	2,4773	*2,6227	*2,5087	3,5500	*2,5949	*2,4582	20	9	8
Nov	3,3571	1,7962	*3,0399	*2,8524	3,9000	*2,7701	*2,7118	10	12	7
Dec	1,3333	0,5774	*3,5472	*3,2797	1,3333	*3,1054	*3,0252	3	17	3
1986	4,3700	4,1293	—	—	4,6374	—	—	91	118	60

† = value considered as 0 for smoothing purposes. * = values based on zero value(s).

MISCELLANEOUS DATA continued.

TABLE M9B continued:
SPOT/GROUP MEANS 1976 - 1995.

	f/g	s	f/g(S ^W)	f/g(S ^{B13})	\bar{f}/\bar{g}	$\bar{f}/\bar{g}(S^W)$	$\bar{f}/\bar{g}(S^{B13})$	Σg	n	OWS
1987 Jan	2,7000	2,1628	*3,6458	*3,6344	2,7000	*3,2203	*3,2891	10	15	10
Feb	5,0000	—	*3,9549	*4,0509	5,0000	*3,4684	*3,5894	1	9	1
Mar	4,0000	2,8868	*4,4112	*4,4995	3,7500	*3,8441	*3,9015	8	9	7
Apr	4,3000	2,4135	4,6543	4,8699	3,5556	4,1166	4,1607	9	5	5
May	11,4259	14,0389	4,9295	5,1895	7,4737	4,3864	4,4105	19	9	9
Jun	2,2500	0,5000	5,3024	5,4379	2,2000	4,6919	4,6577	5	10	4
Jul	2,9167	0,8780	5,6315	6,6577	3,3333	4,9905	4,9168	6	5	3
Aug	9,4259	9,4631	5,7260	5,8116	7,5238	5,0808	5,1239	21	9	9
Sep	3,6515	2,0783	5,9338	5,9408	3,6190	5,2787	5,3361	21	11	11
Oct	6,5833	2,8048	6,2649	6,1056	6,4706	5,6571	5,6115	17	7	6
Nov	7,7778	6,0577	6,4865	6,3062	7,4545	5,8443	5,8507	11	7	6
Dec	5,8611	5,2140	6,9589	6,6708	5,1111	6,2096	6,1432	18	12	12
1987	5,7460	6,6485	—	—	5,3767	—	—	146	108	83
1988 Jan	6,0714	2,5555	7,7430	7,2003	6,0889	6,9487	6,5780	45	14	14
Feb	3,8958	1,7112	8,1615	7,7430	3,7778	7,4383	7,0554	18	8	8
Mar	10,0924	3,3691	8,2723	8,2902	9,7209	7,6275	7,5282	43	11	11
Apr	6,1549	2,6546	8,6149	8,8799	6,6667	7,8511	7,9711	45	9	9
May	14,8889	18,2949	8,8072	9,3666	8,8571	7,9389	8,3368	7	3	3
Jun	10,1233	3,6193	9,0019	9,7142	9,5833	8,1740	8,7018	24	5	5
Jul	13,8626	7,1569	9,4064	9,9452	13,6875	8,5879	9,0056	32	7	7
Aug	8,5236	5,8712	9,9232	10,0645	8,9211	9,0559	9,1748	38	7	7
Sep	7,2133	4,0327	10,1876	10,0707	6,7619	9,3122	9,2261	63	9	9
Oct	11,2446	9,5486	10,1402	9,9849	8,6935	9,2468	9,2078	62	10	10
Nov	7,7315	1,5302	9,8701	9,8022	7,3400	9,1872	9,1797	50	7	7
Dec	10,5800	2,7677	9,6075	9,6462	10,8675	9,1762	9,1520	83	10	10
1988	8,7185	5,8121	—	—	8,5549	—	—	510	100	100
1989 Jan	11,0615	5,1224	9,3382	9,5162	10,2658	8,9369	9,0607	79	9	9
Feb	11,3083	5,5939	9,0256	9,3272	10,8333	8,6361	8,9245	72	9	9
Mar	9,0242	3,7478	9,2338	9,2077	8,8169	8,8648	8,8861	71	11	11
Apr	6,0857	0,6869	9,3076	9,0768	6,0000	9,0533	8,8550	17	2	2
May	8,4752	2,7621	9,1912	8,9740	8,0945	9,0883	8,8405	127	14	14
Jun	10,2364	4,0076	9,0925	8,8905	10,0811	9,0451	8,8258	148	13	13
Jul	7,2859	1,9802	8,7678	8,7363	7,4474	8,7521	8,7445	152	19	19
Aug	7,5978	4,0803	8,4224	8,6141	7,9407	8,4952	8,7006	118	13	13
Sep	13,1356	6,9271	8,2755	8,5537	13,2317	8,4091	8,7001	82	10	10
Oct	7,0938	2,5233	8,3825	8,4943	6,7481	8,5469	8,6925	135	13	13
Nov	9,0897	4,8738	8,5384	8,4098	10,1262	8,7474	8,6600	103	10	10
Dec	6,8525	2,1467	8,4531	8,2858	7,0435	8,7035	8,5676	115	12	12
1989	8,9410	4,1089	—	—	8,8244	—	—	1219	135	135

* = values based on zero value(s).

MISCELLANEOUS DATA continued.

TABLE M9B continued:
SPOT/GROUP MEANS 1976 - 1995.

	f/g	s	f/g(S ^W)	f/g(S ^{B13})	\bar{f}/\bar{g}	$\bar{f}/\bar{g}(S^W)$	$\bar{f}/\bar{g}(S^{B13})$	Σg	n	OWS
1990 Jan	6,9966	2,3170	8,1827	8,1381	7,0568	8,4490	8,4314	88	9	9
Feb	7,0823	3,9736	8,1022	8,0407	7,8779	8,3558	8,3325	131	16	16
Mar	9,7237	3,8481	7,7207	7,8596	9,7048	7,9539	8,1366	105	13	13
Apr	7,9542	3,6155	7,2868	7,6309	8,4398	7,5173	7,8940	131	15	15
May	10,3483	5,4943	7,2673	7,4537	10,4870	7,4177	4,6468	115	15	15
Jun	6,3180	1,7919	7,3446	7,2783	6,6357	7,3622	7,3805	129	16	16
Jul	4,7139	2,0383	7,5435	7,1896	4,7832	7,5154	7,2070	143	15	15
Aug	8,2386	2,2925	7,6892	7,1718	8,3688	7,6257	7,1022	141	13	13
Sep	3,3375	1,5826	7,6778	7,1977	3,1583	7,5848	7,0500	139	15	15
Oct	6,4791	1,4920	7,6114	7,3365	6,3440	7,5104	7,1279	125	13	13
Nov	9,2357	4,1301	7,4119	7,5176	8,1395	7,2910	7,2687	86	12	12
Dec	8,5623	3,7903	7,2446	7,6761	7,6974	7,1050	7,4266	76	9	9
1990	7,3187	3,7511	—	—	7,2520	—	—	1409	161	161
1991 Jan	10,0608	4,5531	7,3256	7,7950	10,0811	7,1589	7,5751	111	14	14
Feb	7,5134	1,2851	7,2704	7,7559	7,5000	7,0883	7,5781	226	19	19
Mar	9,0203	3,0694	7,2890	7,6309	9,1020	7,0983	7,4946	147	17	17
Apr	7,0646	3,8448	7,5916	7,5000	7,2353	7,4007	7,3992	119	12	12
May	6,4491	1,7765	7,6866	7,3246	6,4071	7,5296	7,2519	140	16	16
Jun	6,2030	1,4794	7,7472	7,2366	6,2514	7,6285	7,1674	183	16	16
Jul	6,7728	1,3132	7,7580	7,2575	6,4615	7,6562	7,1669	182	14	14
Aug	4,8537	2,1169	7,7870	7,4087	4,9943	7,6941	7,2937	176	13	13
Sep	7,1680	3,0595	7,9777	7,7367	6,7748	7,8696	7,5957	111	14	14
Oct	9,9123	5,6741	8,0079	9,9839	9,9839	7,8821	7,9263	124	17	17
Nov	8,0810	3,6154	7,9015	8,3403	7,5926	7,7945	8,1772	81	13	13
Dec	11,1715	4,5133	7,7591	8,4363	10,6180	7,6578	8,2890	89	10	10
1991	7,7953	3,5926	—	—	7,4950	—	—	1689	175	175
1992 Jan	7,7109	3,2240	7,6469	7,6469	7,8252	7,5484	8,2593	143	15	15
Feb	10,5602	2,3684	7,5980	8,1840	10,6667	7,5057	8,0943	45	6	6
Mar	10,5500	4,9792	7,5217	7,8039	10,1471	7,4041	7,7291	34	6	6
Apr	6,2591	1,3845	7,2814	7,2514	6,4900	7,1554	7,1903	100	15	15
May	4,7024	3,7200	7,0074	6,7023	5,0488	6,9168	6,6573	41	10	10
Jun	4,5322	2,5197	6,5944	6,2101	4,3291	6,5625	6,1761	79	15	15
Jul	5,7492	4,8844	6,1034	5,7794	5,7581	6,1139	5,7501	62	11	11
Aug	4,7042	2,2355	5,7533	5,4499	4,6735	5,7667	5,4210	49	13	13
Sep	5,4879	3,4849	5,4470	5,2443	4,6579	5,4735	5,2288	76	16	16
Oct	5,8242	2,6349	5,3396	5,2078	6,1313	5,4104	5,2302	99	15	15
Nov	5,5938	1,2089	5,3904	5,2563	5,7188	5,4999	5,3307	64	10	10
Dec	3,7451	1,3627	5,4678	5,3216	3,9882	5,6280	5,4614	85	13	13
1992	5,8994	3,3204	—	—	6,1505	—	—	877	145	145

MISCELLANEOUS DATA continued.

TABLE M9B continued:
SPOT/GROUP MEANS 1976 - 1995.

	f/g	s	f/g(S ^W)	f/g(S ^{B13})	\bar{f}/\bar{g}	$\bar{f}/\bar{g}(S^W)$	$\bar{f}/\bar{g}(S^{B13})$	Σg	n	OWS
1993 Jan	3,3533	1,3469	5,4213	5,3919	3,6885	5,6159	5,5932	61	13	13
Feb	6,5162	2,2822	5,2581	5,4459	6,4722	5,4550	5,6941	72	12	12
Mar	7,2431	2,1772	5,1794	5,4599	7,3049	5,4347	5,7641	82	17	17
Apr	6,9878	4,4973	5,1210	5,3941	7,8182	5,4331	5,7445	55	15	15
May	5,1944	5,0526	5,2205	5,3347	5,8667	5,4659	5,6731	45	15	15
Jun	5,8976	3,6147	5,6627	5,4024	6,5870	5,7587	5,6598	46	15	14
Jul	3,2667	2,4844	6,2161	5,5826	3,2093	6,2130	5,7295	43	11	11
Aug	3,2690	1,5208	6,3436	5,7546	3,3611	6,3174	5,7969	72	21	21
Sep	5,0357	4,4784	6,0802	5,9034	5,4815	6,0610	5,8439	27	17	14
Oct	4,8733	3,5975	5,7387	6,0590	5,2708	5,7070	5,8871	48	15	15
Nov	8,9343	6,4599	5,4871	6,1910	7,3659	5,4046	5,9176	41	17	17
Dec	11,0167	9,7444	5,4113	6,2167	9,3673	5,2473	5,8933	49	16	15
1993	6,0086	5,0011	—	—	5,9735	—	—	641	184	179
1994 Jan	9,3627	5,0683	5,4461	6,0559	9,2143	5,2147	5,7403	56	17	17
Feb	3,5667	1,5814	5,5587	5,7496	3,4524	5,2934	5,4659	42	11	11
Mar	3,8708	1,8026	5,5293	5,3606	4,1711	5,2396	5,1106	76	24	24
Apr	2,1644	1,1416	5,4781	5,0054	2,4545	5,1707	4,7919	33	17	15
May	3,9810	2,0964	5,3070	4,7127	3,9722	5,0068	4,5281	36	20	14
Jun	5,2909	3,9728	4,9121	4,4843	4,7083	4,6545	4,3012	24	17	11
Jul	4,7083	5,4553	4,4844	4,3643	4,3043	4,2807	4,1617	46	17	16
Aug	4,5303	2,1571	4,2928	4,3724	4,1556	4,1229	4,1533	45	22	22
Sep	3,0677	1,9144	4,4193	4,4887	3,3947	4,2402	4,2532	38	19	16
Oct	5,6133	2,3369	4,8395	4,7176	5,7037	4,6111	4,4525	54	15	15
Nov	4,0880	5,1101	5,2739	4,9922	3,0000	5,0780	4,7310	37	22	18
Dec	6,3860	6,4356	5,4481	5,2282	5,2778	5,3274	5,0252	36	20	19
1994	4,7394	4,0563	—	—	4,6616	—	—	523	221	198
1995 Jan	3,7273	2,1836	5,5027	5,4496	4,3333	5,3984	5,3128	18	18	11
Feb	4,6042	1,7200	5,4968	5,6696	4,5455	5,4152	5,5872	33	12	12
Mar	5,8703	2,5256	5,4614	5,8568	5,8947	5,3882	5,8150	57	26	23
Apr	10,2500	7,2005	5,3347	5,8935	9,6316	5,2597	5,9008	19	17	10
May	6,3205	6,3214	5,2001	5,7465	8,0000	5,1563	5,8041	19	18	13
Jun	7,1316	6,9259	4,9589	5,4233	6,6667	4,9842	5,4961	24	20	19
Jul	4,1786	2,2838	4,7311	5,0014	4,0500	4,8200	5,0700	20	18	14
Aug	4,9167	2,3060	4,6081	4,5413	4,8125	4,7343	4,6209	16	17	8
Sep	1,8333	0,8333	4,4862	4,0818	2,0909	4,6198	4,1767	11	16	7
Oct	3,8056	1,4554	—	—	3,9231	—	—	26	13	9
Nov	2,6667	1,6225	—	—	2,3000	—	—	20	18	14
Dec	2,0185	1,1915	—	—	1,8462	—	—	13	13	9
1995	5,0460	4,4052	—	—	5,1159	—	—	276	206	149

MISCELLANEOUS DATA continued.

TABLE M9C:
GROUP COMPLEXITY INDICES 1989 - 1995.

The Group Complexity Index (GCI) is an index showing how complex groups can get throughout the solar cycle. It is not an activity index like the Wolf Number etc.

The GCI is computed as $(\bar{p}+\bar{f})/\bar{g}$ as long as there is the same number of observations for each component, as well as the same observations for each component, whatever period is concerned. If the three components are not common to all observations, then incomplete observations are ignored.

The minimum value is 1 (spotless observations do not count), and the approximate maximum value is about 20.

Σg = number of regions observed.

n = number of observations.

OWS = number of observations *with* sunspots.

	\bar{p}/\bar{g}	\bar{f}/\bar{g}	GCI	GCI(S ^W)	GCI(S ^{B13})	Σg	n	OWS
1989 Jan	1,6962	10,2658	11,9620	—	—	79	9	9
Feb	1,7500	10,8333	12,5833	—	—	72	9	9
Mar	1,3803	8,8169	10,1972	—	—	71	11	11
Apr	1,2941	6,0000	7,2941	—	—	17	2	2
May	1,4724	8,0945	9,5669	—	—	127	14	14
Jun	1,6081	10,0811	11,6892	—	—	148	13	13
Jul	1,3947	7,4474	8,8421	10,2392	10,2216	152	19	19
Aug	1,1186	7,9407	9,0593	9,9471	10,1689	118	13	13
Sep	2,1220	13,2317	15,3537	9,8572	10,1711	82	10	10
Oct	1,1852	6,7481	7,9333	10,0235	10,1696	135	13	13
Nov	1,6505	10,1262	11,7767	10,2443	10,1401	103	10	10
Dec	1,3739	7,0435	8,4174	10,1934	10,0452	115	12	12
1989	1,4856	8,8244	10,3101	—	—	1219	135	135
1990 Jan	1,2955	7,0568	8,3523	9,9128	9,9018	88	9	9
Feb	1,3053	7,8779	9,1832	9,8227	9,8026	131	16	16
Mar	1,7333	9,7048	11,4381	9,3910	9,5961	105	13	13
Apr	1,6260	8,4398	10,0458	8,9168	9,3240	131	15	15
May	1,6261	10,4870	12,1130	8,8218	9,0689	115	15	15
Jun	1,2868	6,6357	7,9225	8,7709	8,7827	129	16	16
Jul	1,0909	4,7832	5,8741	8,9480	8,6018	143	15	15
Aug	1,4965	8,3688	9,8652	9,0785	8,4975	141	13	13
Sep	1,0288	3,1583	4,1871	9,0354	8,4478	139	15	15
Oct	1,3760	6,3440	7,7200	8,9477	8,5388	125	13	13
Nov	1,5698	8,1395	9,7093	8,7050	8,6988	86	12	12
Dec	1,5658	7,6974	9,2632	8,5061	8,8749	76	9	9
1990	1,3974	7,2520	8,6494	—	—	1409	161	161

MISCELLANEOUS DATA continued.

TABLE M9C continued:

GROUP COMPLEXITY INDICES 1989 - 1995.

	p/g	f/g	GCI	GCI(S ^W)	GCI(S ^{B13})	Σg	n	OWS
1991 Jan	1,6757	10,0811	11,7568	8,5742	9,0372	111	14	14
Feb	1,4115	7,5000	8,9115	8,4999	9,0365	226	19	19
Mar	1,5714	9,1020	10,6735	8,5239	8,9451	147	17	17
Apr	1,4706	7,2353	8,7059	8,8776	8,8479	119	12	12
May	1,2214	6,4071	7,6286	9,0362	8,6996	140	16	16
Jun	1,3825	6,2514	7,6339	9,1682	8,6309	183	16	16
Jul	1,3352	6,4615	7,7967	9,2317	8,6665	182	14	14
Aug	1,1648	4,9943	6,1591	9,3160	8,8538	176	13	13
Sep	1,6937	6,7748	8,4685	9,5529	9,2411	111	14	14
Oct	1,9435	9,9839	11,9274	9,5973	9,6564	124	17	17
Nov	1,7160	7,5926	9,3086	9,5144	9,9734	81	13	13
Dec	2,2135	10,6180	12,8315	9,3660	10,1225	89	10	10
1991	1,5086	7,4950	9,0036	—	—	1689	175	175
1992 Jan	1,8881	7,8252	9,7133	9,2549	10,1027	143	15	15
Feb	2,3111	10,6667	12,9778	9,2276	9,9214	45	6	6
Mar	2,1471	10,1471	12,2941	9,1165	9,5000	34	6	6
Apr	1,6600	6,4900	8,1500	8,8294	8,8735	100	15	15
May	1,1463	5,0488	6,1951	8,5673	8,2558	41	10	10
Jun	1,1772	4,3291	5,5063	8,1726	7,7034	79	15	15
Jul	1,5000	5,7581	7,2581	7,6667	7,2213	62	11	11
Aug	1,3673	4,6735	6,0408	7,2705	6,8535	49	13	13
Sep	1,2632	4,6579	5,9211	6,9267	6,6428	76	16	16
Oct	1,4545	6,1313	7,5859	6,8640	6,6625	99	15	15
Nov	1,6406	5,7188	7,3594	6,9858	6,8017	64	10	10
Dec	1,3176	3,9882	5,3059	7,1443	6,9688	85	13	13
1992	1,5621	6,1505	7,7127	—	—	877	145	145
1993 Jan	1,4098	3,6885	5,0984	7,1340	7,1268	61	13	13
Feb	1,6111	6,4722	8,0833	6,9445	7,2408	72	12	12
Mar	1,6341	7,3049	8,9390	6,9072	7,3130	82	17	17
Apr	2,1818	7,8182	10,0000	6,8994	7,2777	55	15	15
May	1,4000	5,8667	7,2667	6,9311	7,1745	45	15	15
Jun	1,6522	6,5870	8,2391	7,2663	7,1392	46	15	14
Jul	1,0698	3,2093	4,2791	7,7934	7,2081	43	11	11
Aug	1,1111	3,3611	4,4722	7,9015	7,2758	72	21	21
Sep	1,1111	5,4815	6,5926	7,5943	7,3229	27	17	14
Oct	1,4583	5,2708	6,7292	7,1568	7,3650	48	15	15
Nov	1,6098	7,3659	8,9756	6,7704	7,3916	41	17	17
Dec	2,3673	9,3673	11,7347	6,5601	7,3498	49	16	15
1993	1,5647	5,9735	7,5382	—	—	641	184	179

MISCELLANEOUS DATA continued.

TABLE M9C continued:

GROUP COMPLEXITY INDICES 1989 - 1995.

	$\bar{\bar{p/g}}$	$\bar{\bar{f/g}}$	GCI	GCI(S ^W)	GCI(S ^{B13})	Σg	n	OWS
1994 Jan	2,1071	9,2143	11,3214	6,4910	7,1443	56	17	17
Feb	1,0000	3,4524	4,4524	6,5577	6,7895	42	11	11
Mar	1,0263	4,1711	5,1974	6,4997	6,3463	76	24	24
Apr	0,7879	2,4545	3,2424	6,4212	5,9465	33	17	15
May	0,7778	3,9722	4,7500	6,2168	5,6110	36	20	14
Jun	1,0000	4,7083	5,7083	5,7823	5,3253	24	17	11
Jul	0,8478	4,3043	5,1522	5,3101	5,1506	46	17	16
Aug	1,0444	4,1556	5,2000	5,1000	5,1397	45	22	22
Sep	1,0789	3,3947	4,4737	5,2184	5,2556	38	19	16
Oct	1,2593	5,7037	6,9630	5,6291	5,4793	54	15	15
Nov	0,8378	3,0000	3,8378	6,1623	5,7912	37	22	18
Dec	1,1667	5,2778	6,4444	6,4412	6,1136	36	20	19
1994	1,1166	4,6616	5,7782	—	—	523	221	198
1995 Jan	0,9444	4,3333	5,2778	6,5106	6,4199	18	18	11
Feb	0,9091	4,5455	5,4545	6,5256	6,7104	33	12	12
Mar	1,1404	5,8947	7,0351	6,4783	6,9479	57	26	23
Apr	1,6316	9,6316	11,2632	6,3174	7,0301	19	17	10
May	1,5263	8,0000	9,5263	6,1922	6,9100	19	18	13
Jun	0,9583	6,6667	7,6250	5,9892	6,5539	24	20	19
Jul	0,8500	4,0500	4,9000	5,7823	6,0656	20	18	14
Aug	1,0000	4,8125	5,8125	5,6460	5,5438	16	17	8
Sep	0,6364	2,0909	2,7273	5,4883	5,0214	11	16	7
Oct	0,9231	3,9231	4,8462	—	—	26	13	9
Nov	0,6500	2,3000	2,9500	—	—	20	18	14
Dec	0,6154	1,8462	2,4615	—	—	13	13	9
1995	1,0145	5,1159	6,1304	—	—	276	206	149

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