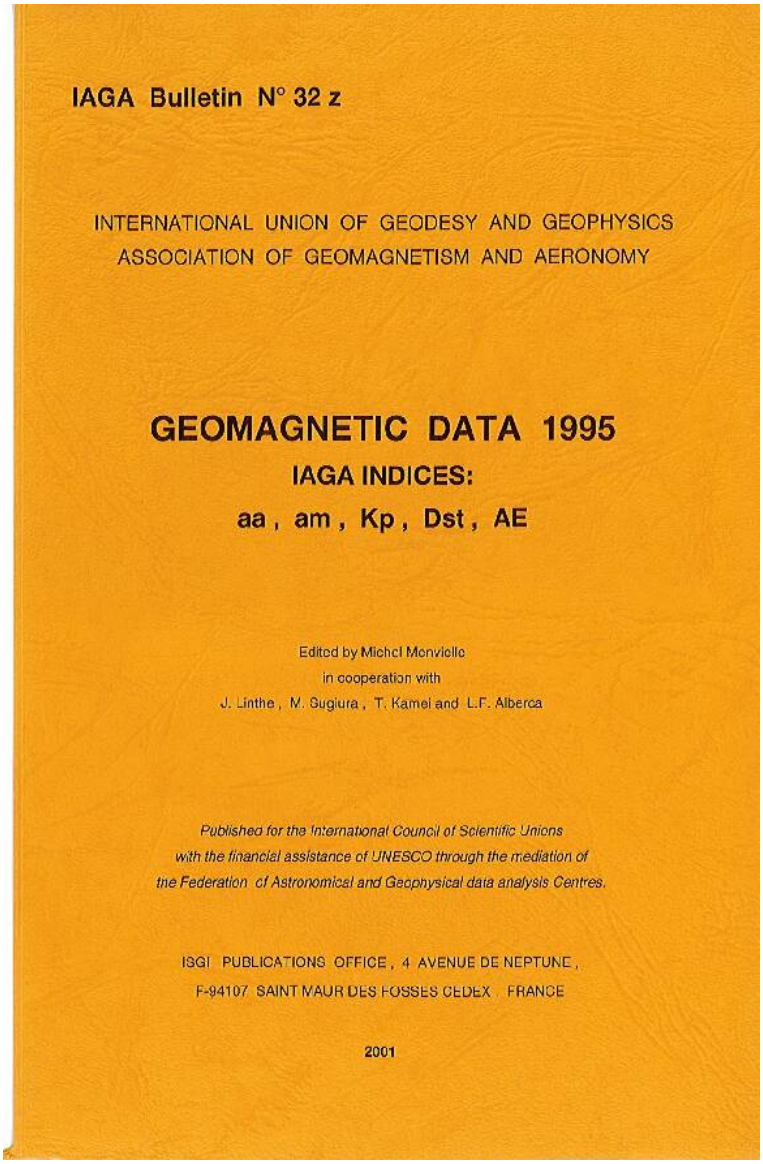


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IAGA Bulletin N° 32 z

INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS
ASSOCIATION OF GEOMAGNETISM AND AERONOMY

GEOMAGNETIC DATA 1995

IAGA INDICES:

aa , am , Kp , Dst , AE

Edited by Michel Menvielle
in cooperation with
J. Linthe , M. Sugiura , T. Kamei and L.F. Alberca

Published for the International Council of Scientific Unions
with the financial assistance of UNESCO through the mediation of
the Federation of Astronomical and Geophysical data analysis Centres.

ISGI PUBLICATIONS OFFICE , 4 AVENUE DE NEPTUNE ,
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FOREWORD

While keeping the Bulletin series as homogeneous as possible, the general information is updated in each issue, and we try to improve contents and presentation as well.

The Bulletin 32 series aims at providing a reference publication with all definitive values of indices and rapid variation data for the year. It however may happen that difficulties in the derivation of some indices could cause significant delays so that it is desirable to issue the Bulletin 32 for the year before their definitive values become available. It has already been the case in the past, and it is unfortunately the case for the AE indices this year. Because of the long delays in delivering the necessary records on the part of some of the observatories the derivation of the definitive AE indices has been significantly delayed for 1995. Therefore, we regretfully present provisional AE indices for 1995 in this issue.

A floppy with the same content as the Bulletin (except for the rapid variations) is included, with a software for visualising the tables. The floppies corresponding to the years 1981-1994 have been prepared, and are available on request at the ISGI Publication Office (c/o CETP, 4 Avenue de Neptune, F-94107 SAINT MAUR DES FOSSES CEDEX, FRANCE)

Michel Menvielle

ACKNOWLEDGEMENTS

We wish to acknowledge L.F. ALBERCA and J.J. CURTO SUBIRATS, M. SIEBERT, H.-J. LINTHE, T. KAMEI and M. SUGIURA for their collaboration in preparing the data published in this Bulletin. Thanks are also due to all the organisations, which support efficiently the preparation and distribution of these geomagnetic data (as listed in Table 1, pages 9-10).

Let us add that M. SUGIURA and T. KAMEI wish specially to acknowledge the valuable assistance of T. ARAKI (Data Analysis Centre for Geomagnetism and Space Magnetism, Kyoto University) in the preparation of the Dst indices.

As for me, I am pleased to express our thanks to all those who helped in its elaboration, and in particular to D. HOVNANIAN for her valuable assistance in preparing the manuscript.

Michel Menvielle

Saint Maur, December 2002

CONTENTS

Section 1 :	Presentation of the Bulletin	5
Section 2 :	List of Observatories	27
Section 3 :	IAGA Indices	39
3.1	**aa** indices	41
3.2	**am** indices	51
3.3	**Kp** indices	73
3.4	**Dst** indices	85
3.5	**AE** indices	105
Section 4 :	Classification of Days	133
Section 5 :	Rapid Variations	139

SECTION 1

PRESENTATION OF THE BULLETIN

1.1 Introduction 7

1.2 List of Observatories 11

1.3 IAGA Indices 13

1.4 Classification of Days 22

1.5 Rapid Variations 23

1.1. INTRODUCTION

1.1.1. The IAGA Bulletin 32 series

The IAGA Bulletin N°32 series is a yearly compilation of geomagnetic indices and other geomagnetic data, based on the report of a great number of magnetic observatories. The series is the continuation of the former IAGA Bulletin N°12 and is prepared for publication by the Publications Office of the International Service of Geomagnetic Indices (ISGI). The ISGI, formerly called Permanent Service or "C and K center", operates under the supervision of IAGA Division V : Observatories, Instruments, Indices and Data. Since 1956, it belongs to the Federation of Astronomical and Geophysical Data Analysis Services. Its present address is :

ISGI, CETP - CNRS/IPSL/UVSQ, 4 Avenue de Neptune,
F - 94107 Saint-Maur des Fossés CEDEX, FRANCE.

As for 1995, the elaborated data were provided by the following Institutes, under the responsability of the adjoining collaborators :

- Institut für Geophysik, Göttingen (M. SIEBERT),
  moved in 1996 to GeoForschungZentrum, Potsdam (J. LINTHE):
  Kp, ap, Ap, Cp, Q-days and D-days.
- CETP - CNRS/IPSL/UVSQ, Saint Maur (M. MENVIELLE):
  aa, C-days and K-days, an, Kn, An, as, Ks, As, and am, Km, Am.
- Data Analysis Center for Geomagnetism and Spacemagnetism, Kyoto (M. SUGIURA and T. KAMEI)
  Dst, AL, AU, AE.
- Observatori de l'Ebre, Roquetes (L.F. ALBERCA):
  Rapid Variations.

The collection and the publication of the daily character figure C and of the international character figure Ci, together with the lists of selected quiet and disturbed days began in 1906.

The three-hourly K indices (scale 0-9) were introduced by Bartels in 1938, and, a few years later, planetary indices Kp were designed. They are computed from the K indices of 12 observatories which were routinely providing data at the time. The K indices of the selected stations for these early years were published in IAGA Bulletins N°12g and 12l. In addition to Kp, the corresponding range values ap and related daily indices Ap and Cp have been regularly published in the IAGA Bulletin N°12.

In accordance with the recommendations of the IAGA Assemblies in Madrid (1969) and in Moscow (1971), the publication of C and K indices of individual observatories in the IAGA Bulletins ended with the 1969 data, while other indices (Dst, an, Kn, as, Ks, am, Km) and a survey of magnetic storms were included since 1970.

This change marked the end of the IAGA Bulletin N°12 series and the beginning of the new IAGA Bulletin N°32 series. The publication of the Ci, Kp, ap, Ap indices, and of the international quiet and disturbed days, Q and D days, continued in the new series. Since 1976, the new index aa is published instead of Ci and the C figures are no longer compiled, according to a recommendation of the IAGA Assembly in Grenoble (1975).

A short recall of the definition of the published indices is given in the section 1.3 below. For more details, including the definition of the K indices, one can refer to the following reports:

- M. Siebert, in '*Handbuch der Physik*', vol.49/3, 206-275, Springer Verlag, 1971;
- P. N. Mayaud, *Derivation, Meaning and Use of Geomagnetic Indices*, Geophysical Monograph 22, Am. Geophys. Union, Washington D.C., 1980, gives a complete review of the present IAGA indices;
- G.K. Rangarajan, *Indices of geomagnetic activity*, in '*Geomagnetism*', edited by J.A. Jacobs, Academic, San Diego, 1989;
- M. Menvielle and A. Berthelier, *The K-derived planetary indices: description and availability*, Rev. Geophys., **29**, 3, 415-432, 1991;
- A. Berthelier, *The geomagnetic indices : derivation, meaning and uses in solar - terrestrial physics*, in '*STPW Proceedings*', ed. by J. HRUSKA et al, vol 3, 3-20, US Gov. Publications Office, 1994.

1.1.2. Data Availability

The whole series of geomagnetic indices are available at the World Data Centers (list and addresses in Table 1-a), and the IAGA Bulletins where they are published are available at the ISGI Publications Office (Table 1-c). More detailed information on the length of each series, and on the publication and availability of each index, and of the rapid variations are given below.

- The *K indices* of individual observatories are available for the years 1969-1974, at the World Data Center A (WDC-A, Table 1-a). Besides, the tables of local K indices can be found in the bulletins or yearbooks of many observatories. An extensive study on the K index by P. N. Mayaud and the practical rules for its determination are given in the "Atlas des indices K", IAGA Bulletin N°21, 1967.

- The *aa indices* constitute a series of indices beginning in the year 1868. Its description can be found in the IAGA Bulletin N°33, which contains tables and graphs of aa for the years 1868-1967. The values for the years 1968-1975 are published in the IAGA Bulletin N°39. These indices are regularly published in the IAGA Bulletins N°32 since 1976. Provisional values are regularly published in the ISGI Monthly Bulletins, in the monthly tables edited by H. Coffey in the Journal of Geophysical Research, and in the Solar Geophysical Data Publications (Table 1-c). aa indices are available at the ISGI WWW homepage (ISGI Publications Office, Table 1-c).

- The meaning of *C, Ci, K* and *Kp* is explained in textbooks (e.g. Landolt-Börnstein, Zahlenwerte und Funktionen, Band 3, 731-744, Springer Verlag, 1952), in Terrestrial Magnetism and Atmospheric Electricity (*44*, 411, 1939; *45*, 309, 1941) and in the IAGA Bulletin N°12i. Tables and diagrams of these indices for the whole period 1932-1961 are printed in the IAGA Bulletin N°18. Kp, Ap, Cp are published in the IAGA Bulletin N°32. Provisional values are regularly published in the ISGI Monthly Bulletins, in the monthly tables edited by H. Coffey in the Journal of Geophysical Research, and in the Solar Geophysical Data Publications (Table 1-c). They can be sent on request before the end of the next month by the GeoForschungZentrum, Potsdam (Table 1-b). Kp indices are available at the WWW homepage of this Institute.

- The *three-hourly indices an, Kn,* and *as, Ks,* for the Northern and Southern hemispheres and the *planetary indices am, Km,* are described by P. N. Mayaud in "Indices Kn, Ks and Km, 1964-1967" (Editions du CNRS, Paris 1968). The indices for the years 1959-1963 are published in the IAGA Bulletin N°39, and for 1964-1967 in the above quoted publication. They are published in the IAGA Bulletins N°32 from 1968 onwards. Provisional values are regularly published in the ISGI Monthly Bulletin, in the monthly tables edited by H. Coffey in the Journal of Geophysical Research, and in the Solar Geophysical Data Publications (Table 1-c). an, as, and am indices are available at the ISGI www homepage (ISGI Publications Office, Table 1-c).

- The *equatorial Dst index* is published in the IAGA Bulletin N°32 since 1970. The hourly values of Dst for the years 1957-1970, based on the data of three stations, have been published by M. Sugiura and D. J. Poros in the report X-645-71-278 of the Goddard Space Flight Center. The hourly Dst values for the IGY, based on the data of eight stations, are given in the Annals of the IGY, vol. 35. The same volume contains the three-hourly values of Dst for the IGY as determined by Kertz in a somewhat different way. Recently, M. Sugiura and T. Kamei recomputed an homogeneous series of Dst values, using the data of four stations. These Dst indices values for 1957-1986 are now published in the IAGA Bulletin N° 40 where is inserted a floppy disk containing the hourly Dst values for these 30 years. This report supersedes earlier Dst publications by Sugiura and co-workers. Provisional Dst indices are regularly published in the ISGI Monthly Bulletin, and in the Solar Geophysical Data Publications (Table 1-c). Dst indices are available at the WDC-C www homepage (see Tabla 1-b).

- The *auroral electrojet index AE* was originally introduced by Davis and Sugiura in 1966 (J. Geophys. Res., *71*, 785). It was first derived at the Geophysical Institute of the University of Alaska, and the hourly values were published for the years 1957-1964 in the University of Alaska Reports prepared by T. N. Davis, Y. S. Wang and C. Echols, and published in 1967 and 1968. The data for 1965 were prepared by NASA ; from 1966 to 1976, they were prepared by WDC-A. Values from 1978 onwards are computed by the Data Analysis Center for Geomagnetism and Spacemagnetism of Kyoto University and published in the data books of this Institute. The hourly mean values are published in the IAGA Bulletins N°32 since 1981. AE indices are available at the WDC-C www homepage (see Tabla 1-b)

- Data on *rapid variations* are collected and prepared for publication at the Observatorio del Ebro (Table 1-b), according to the decisions made at the IAGA Assemblies in Madrid (1969) and in Grenoble (1975). They are thus given less extensively than in the former IAGA Bulletins. Provisional lists are published in the ISGI Monthly Bulletin (Table 1-c).

Tables 1-a, 1-b, and 1-c give present addresses of the ISGI, of the World Data Centers, and of the National Institutes and Data Centers related to this bulletin.

TABLE 1

a - Bulletins and publications

• Solar Geophysical Data monthly publications :

NOAA National Geophysical Data Center
325, Broadway E/GC4, Dept. 961
BOULDER, Colorado 80303-3328 U.S.A.

• IAGA Bulletins and ISGI Monthly Bulletins :

ISGI Publications Office
CETP - 4, avenue de Neptune
94107 SAINT MAUR DES FOSSES CEDEX, France
E-mail automatic service : ISGI.DATA@cetp.ipsl.fr
http://www.cetp.ipsl.fr/~isgi/homepag1.htm

TABLE 1 (continued)

b - ISGI and World Data Centers

ISGI	International Service of Geomagnetic Indices Service International des Indices Géomagnétiques CETP -CNRS/UVSQ, 4, Avenue de Neptune F-94107 SAINT MAUR DES FOSSES CEDEX, France Telephone 33 1 45 11 42 30 Telefax 33 1 48 89 44 33 **http://www.cetp.ipsl.fr/~isgi/homepag1.htm**
WDC-A	World Data Center-A for Solar-Terrestrial Physics NOAA code E/GC2, 325 Broadway BOULDER, Colorado 80303-3328 U.S.A. Telephone 1 303 497 6324 Telefax 1 303 497 6513
WDC-B	World Data Center-B Soviet Geophysical Committee, Academy of Sciences of the U.S.S.R. Molodezhnaya 3 MOSCOW 117296, U.S.S.R. Telephone 7 095 130 05 46 7 095 228 67 88
WDC-C	World Data Center-C2 for Geomagnetism Data Analysis Center for Geomagnetism and Space Magnetism Faculty of Science, Kyoto University KYOTO 606-01, Japan Telephone 81 75 753 3929 Telefax 81 75 722 7884 **http://swdcwww.kugi.kyoto-u.ac.jp/index.html**

c - ISGI Collaborating Institutes

M. MENVIELLE	Centre d'études des Environnements Terrestre et Planétaires 4, Avenue de Neptune F-94107 SAINT MAUR DES FOSSES CEDEX, FRANCE
J. LINTHE	GeoForschungZentrum, Potsdam Adolf-Schmidt-Observatorium für Geomagnetismus Lindenstr. 7 D-14823 NIEMEGK, GERMANY **http://www.gfz-potsdam.de/pb2/pb23/GeoMag/niemegk/kp_index/**
L.F. ALBERCA	Observatori del'Ebre c/ Horta Alta, 38, E-43520 ROQUETES, SPAIN
M. SUGIURA	Working Group on World Data Centers National Committee on Solar-Terrestrial Physics Science Council of Japan Research Institute of Science and Technology Tokai University, 2 -28 Tomigaya, Shibuya-ku TOKYO 151.0063, Japan

1.2. LIST OF OBSERVATORIES

A list of the magnetic observatories where continuous recordings have been made during at least five consecutive years is given pages 29-35. In this table, the observatories are listed according to the alphabetic order and one has indicated for each station, from left to right :

- its name and three-letter IAGA international code ;
- the geographic and geomagnetic coordinates, and altitude ;
- the K=9 lower limit, given only for the stations which belong to the networks used in Kp, am or aa calculation. (see section 1.3 for the description of these networks in 1995);
- the opening and closing years.

Note that temporary stations do not appear in this table, as for instance those operating during the International Polar and Geophysical years, but they can be found in the more extensive list published in the former IAGA-Bulletin n° 20 (1965).

The values of the parameters given in the table has been obtained from the following publications :

- C.R. Bock and R.W. Schumann : Katalog der Jahres mittel der Magnetischen Elemente der Observatorien und der Stationen an deinen eine Zeitlang erdmagnetische Beobachtungen Stattfanden, Geophysikalisches Institut Postdam Abhandlungen n° 8, Postdam, 1948;
- Annual mean values of Geomagnetic elements, Geomagnetic Bulletin n°10, Institut of Geological Sciences, Edinburgh, 1981 ;
- Yearbooks of individual observatories.

A list of the stations having provided continuous recordings over at least fifty years is given on pages 36-37. When one observatory has moved, the names of the different consecutive sites are indicated. The stations are listed following the alphabetic order of the oldest observatory. One has only indicated in this table the opening and closing years, as the other parameters can be found in the preceeding list.

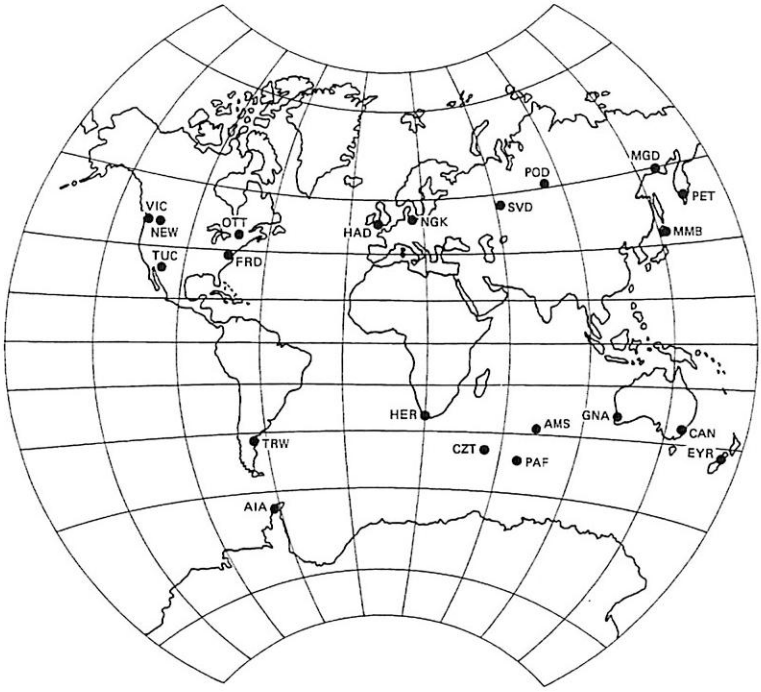


Figure 1: Distribution of am observatories



Figure 2: Distribution of Kp observatories

1.3. IAGA INDICES

1.3.1. *aa* indices

The aa indices are derived using data from two nearly antipodal observatories, where magnetograms were available since 1868. For each three hour interval, K indices are measured at the two stations and converted back into amplitude; an individual aa index is the average of the northern and southern values, weighted to account for the small difference in latitude of the two stations, or for the slight changes in the very place of the observatory. The observatories used to derive aa are given in Table 2-a (next page), with weighting coefficients given in brackets.

The aa index is in nanotesla (nT) and it represents the activity level at an invariant magnetic latitude of about 50°. The half-daily and daily mean values of aa are very close to the corresponding values of the am indices. The values for 1995 are given pages 44-46 as follows :

N = daily values for the Northern observatory (Greenwich day)

S = same for the Southern observatory

am, pm = half-daily values of aa indices for the half Greenwich day before noon and after noon.

Aa = daily value of aa

For each month, the average values of daily N, S and aa, are given at the bottom of the tables.

The letters C and K indicate the quiet 24-hour and 48-hour intervals as obtained from aa :
C = really quiet, K = quiet but with one or a few slightly disturbed three-hourly intervals (see section 4). The letter on the left column refers to the 24-hour Greenwich day, that on the right one refers to a period of 48 hours centered on the Greenwich noon. The asterisks mark the five international quietest days of the month (as deduced from Kp, see section 4).

A musical diagram of aa indices (logarithmic scale) is drawn page 43 for the whole year. The monthly and yearly mean values of aa for the years from 1868 onwards are listed pages 47-49. A graph of 12-month running mean values of aa is drawn page 50, covering the full period over which aa has been calculated so far, i.e. 1868-1995. In this graph, the point plotted at the abscissa of a given year corresponds to the average of aa from January to December of that year (unit : nT).

1.3.2. *am* indices

am, an and as indices are derived from K indices scaled at observatories located in the subauroral zones of the Northern and Southern hemispheres (Figure 1). The stations are arranged in groups (G1 to G9), each group representing a longitude sector in one of the hemisphere (see Table 2-b, next page). The corrected geomagnetic latitude indicated in this Table has been calculated by Mayaud for taking into account the actual topography of the main field.

TABLE 2

a - List of aa observatories

Northern Hemisphere				Southern Hemisphere			
Observatory			Corr. Geom. Lat	Observatory			Corr. Geom. Lat.
1868-1925	Greenwich	*(1.007)*		1868-1919	Melbourne	*(0.967)*	
1926-1956	Abinger	*(0.934)*		1920-1979	Toolangui	*(1.033)*	
1957- ...	Hartland	*(1.059)*	50.0°	1980- ...	Canberra	*(1.084)*	45.2°

b - List of am observatories

Northern Hemisphere				Southern Hemisphere			
	Observatory		Corr. Geom. Lat.		Observatory		Corr. Geom. Lat.
G1	MGD	Magadan	53.8°	G6	EYR	Eyrewell	50.2°
	PET	Petropavlosk[(1)]	46.4°		CAN	Canberra	45.2°
	MMB	Memambetsu	37.4°				
G2	POD	Podkammenkaya[(2)]	57.2°	G7	GNA	Gnangara	44.1°
	SVD	Sverdlovsk[(3)]	52.2°		AMS	Amsterdam	48.3°
G3	HAD	Hartland	50.0°	G8	PAF	Kerguelen	58.8°
	NGK	Niemegk	48.8°		CZT	Crozet	52.4°
					HER	Hermanus	41.1°
G4	OTT	Ottawa	58.9°	G9	AIA	Argentine Isl.[(4)]	49.7°
	FRD	Frederiksburg	51.8°		TRW	Trelew	27.8°
G5	NEW	Newport	55.2°				
	VIC	Victoria	53.9°				
	TUC	Tucson	39.7°				

[(1)] *Missing data: March, April, June, and July*
[(2)] *Missing data: November and December*
[(3)] *Present name: Ekaterinburg*
[(4)] *Missing data: January, and July – November*

c - List of Kp observatories

Northern Hemisphere			Southern Hemisphere			
	Observatory	Corr. Geom. Lat.		Observatory		Corr. Geom. Lat.
MEA	Meanook	62.5°	EYR	Eyrewell	50.2°	
SIT	Sitka	60.0°	CAN	Canberra	45.2°	
LER	Lerwick	58.9°				
OTT	Ottawa	58.9°				
LOV	Lovö	56.5°				
ESK	Eskdalemuir	54.3°				
BJE	Brorfelde	52.7°				
FRD	Fredericksburg	51.8°				
WNG	Wingst	50.9°				
HAD	Hartland	50.0°				
NGK	Niemegk[(4)]	48.8°				

[(3)] *Niemegk has replaced Witteveen in the Kp network since April 1st, 1988.*

For a given time interval, the K values measured at the observatories of one group are averaged and converted back to amplitude. These amplitudes are weighted for balancing the differences in longitude width of the sectors, and the hemispheric averages of these weighted amplitudes give rise to the three-hour an and as indices respectively; am is equal to (an + as) / 2. Am, An and As are the daily mean values of am, an and as. They are all expressed in nanoteslas.

For the sake of tradition and convenience, Km, Kn, Ks equivalent values are also made available by means of a conversion table (see below); they are as usually expressed by values from 0o to 9o, corresponding to the given interval of am (or an, or as).

am	0.0	1.4	3.4	5.4	7.4	10.4	13.4	16.4	20.4	26.4
Km	0o	0+	1-	1o	1+	2-	2o	2+	3-	
am	26.4	33.4	40.4	50.4	60.4	70.4	86.4	103.4	120.4	146.4
Km	3o	3+	4-	4o	4+	5-	5o	5+	6-	
am	146.4	173.4	200.4	243.4	286.4	330.4	386.4	443.4	500.4	611.4
Km	6o	6+	7-	7o	7+	8-	8o	8+	9-	9o

Monthly tables of an, and as are given pages 54-65, each line corresponding to a Greenwich UT day. Following values are displayed from left to right:

- Kn (Ks) values for the 8 three-hour intervals;
- an (as) values for the 8 three-hour intervals represent, by a code using one digit from 0 to 9, the variance of the sector values of K in the Northern (Southern) hemisphere calculated for each given three-hour interval;
- an (as) values for the 8 three-hour intervals;
- An (As) daily mean value.

At the end of each table, one can find the monthly mean value. Monthly tables of am (pages 66-71) are displayed in a similar way

- Km values for the 8 three-hour intervals ;
- daily sum ΣKm ;
- am values for the 8 three-hour intervals ;
- Am, daily mean value ;
- Am2, mean value of am over a 48-hour period centered at the middle of the Greenwich day.

Km values are displayed as "musical diagram" according to Bartels solar rotations (page 53).

A compilation of the musical diagrams from 1959 onwards is available on request at ISGI Publication Office (Table 1-a). The monthly and yearly mean values of Am from 1959 onwards are given page 72.

1.3.3. *Kp* Indices

The planetary three-hour-range index Kp is the mean standardized K-index from 13 observatories between 44° and 60° northern or southern geomagnetic latitude (Figure 2, and Table 2-c). The scale is 0o to 9o, expressed in thirds of a unit, e.g. 5- is 4 2/3, 5o is 5, 5+ is 5 1/3. This planetary index has been designed to measure solar particle radiation by its

magnetic effects. The other indices derived from Kp are the three-hour index ap (the equivalent range), the daily indices Ap, the Cp and C9 characters that are related to the daily sum of ap.

The three-hour equivalent amplitude ap is deduced from Kp as follows :

Kp	0o	0+	1-	1o	1+	2-	2o	2+	3-	3o	3+	4-	4o	4+
ap	0	2	3	4	5	6	7	9	12	15	18	22	27	32
Kp	5-	5o	5+	6-	6o	6+	7-	7o	7+	8-	8o	8+	9-	9o
ap	39	48	56	67	80	94	111	132	154	179	207	236	300	400

In order to use ap as an equivalent amplitude, it is considered in relation to the conditions at a standard station, which is a station having the lower limit of 500 nT for K = 9. At such a station the average range in nT of the most disturbed of the two horizontal components in a three-hour interval can be taken as 2 ap (for instance, for Kp = 3+, ap=18, ie 36 nT). In other words ap is an equivalent amplitude in the unit 2 nT. The column headed Ap gives the daily average for the eight values ap per day. Therefore, Ap may be called the "equivalent daily amplitude Ap", expressed in the unit 2 nT for a standard station. It is recommended to use Ap in preference to the sum of the indices Kp.

The last column gives the daily planetary character figure Cp, as defined in Bulletin 12e, page 111. It should be noted that Cp, introduced for a standardization of the international character figures Ci, has not been approved by the Association. Instead, Ap was preferred. For a rough conversion of Ci figures (prior to 1932) into Ap, the following table (derived from Bulletin 12e, page 111, their Table 2) may be used :

10.Ci	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ap	2	4	5	6	8	9	11	12	14	16	19	22	26	31	37	44	52	63	80	110	160

Monthly tables of Kp and derived indices are given pages 76-81. Kp values are displayed as "musical diagrams" according to Bartels solar rotation page 75. These diagrams are also available on request at GeoForschungZentrum, Potsdam (Table 1-b). The frequencies of Kp indices is given by month page 82. Monthly and yearly mean values of Ap from 1932 onwards are given pages 83-84.

***Note** - Observatories wishing to compute local equivalent amplitudes ak from their local K indices, may use the conversion table given below, which consists in the amplitudes (in nT) of the middle of each K class, as firstly proposed by Bartels (IATME Bull. 12e, 1951), and following a IAGA WG 5.5 recommandation (Buenos Aires, 1993).*

K	0	1	2	3	4	5	6	7	8	9
ak	2.5	7.5	15	30	55	95	160	265	415	666

These values are given here for a K = 9 lower limit L9 = 500 nT; at stations having a different value of L9, they should be multiplied by L9/500, in order to have ak in nT (see IAGA News 32, page 23).

1.3.4. *Dst* index

The Dst index for 1995 are derived using the data from the four magnetic observatories given in Table 3.

These observatories were chosen on the basis of the quality of observation and for the reason that their locations are sufficiently distant from the auroral and equatorial electrojets and that they are distributed in longitude as evenly as possible. A map of the network is given in Figure 3.

The baseline

The baseline for H is defined for each observatory in a manner that takes into account the secular variation. For each observatory, the annual mean values of H, calculated from the "five quietest day" for each month, form the data base for the baseline.

It should be remembered that the final Dst values are determined after each calendar year and that therefore in this determination the annual mean values are available only up to and including the year (referred to below as the current year) for which the Dst is to be deduced.

The baseline is expressed by a power series in time and the coefficients for terms up to the quadratic are determined by the method of least squares, using the annual means for the current year and the four preceding years. Thus, the baseline, H_{base} is expressed as

$$H_{base}(\tau) = A + B\tau + C\tau^2 \qquad (1)$$

where τ is time years measured from a reference epoch.

It is noted here that if the polynomial expansion of the annual means is made in a straighforward manner as described above, an artificial discontinuity, although seldom large enough to be recognized by a casual inspection, can be introduced between the baseline value for the last hour of one year and that for the first hour of the following year, because these two baseline values are calculated from two different polynomials. To minimize such a discontinuity the polynomial determination is actually made in two steps.

From the polynomial expansion determined in the first step, the baseline value at the end of current year is calculated. In the second step, this value is included as an additional data point in the polynomial fitting. This procedure has been found to be satisfactory.

The baseline value $H_{base}(T)$ calculated from (1) for each UT hour of the current year is subtracted from the observed H value, $H_{obs}(T)$:

$$\Delta H(T) = H_{obs}(T) - H_{base}(T) \qquad (2)$$

The deviations, $\Delta H(T)$, form the data base in the following derivation for each of the observatories.

TABLE 3

List of Dst observatories

Observatory	*Acronym*	*Dipole Lat.*	*Dipole Long.*
Honolulu	HON	21.0° N	266.4°
San Juan	SJG	29.9° N	3.2°
Hermanus	HER	33.3° S	80.3°
Kakioka	KAK	26.0° N	206.0°

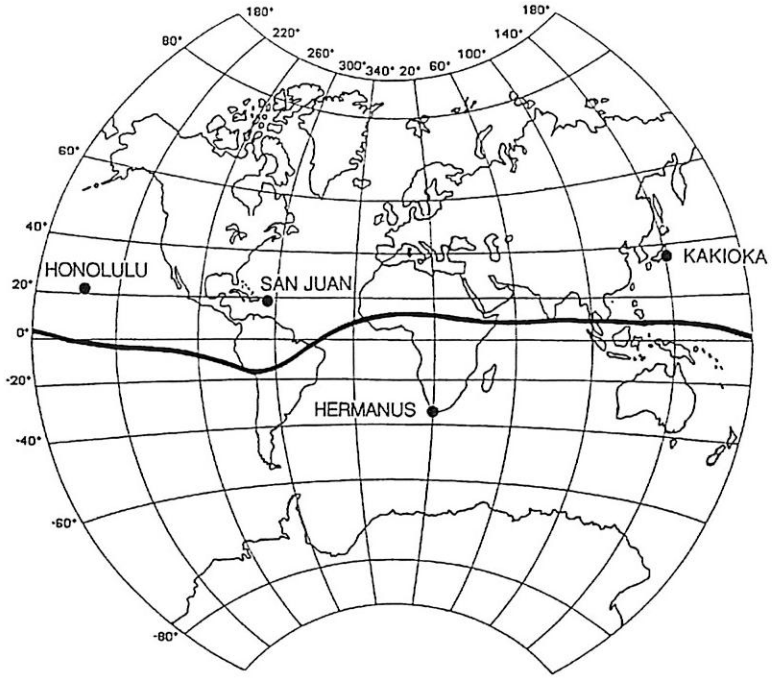


Figure 3: Distribution of the Dst observatories;
the solid line marks the dip equator.

The Sq elimination

The solar quiet daily variation, Sq, is derived for each observatory as follows. The average Sq variation for each month is determined from the values of H(T) for the internationally selected five quietest days of the month.

These quietest days are determined in UT. In order to define an average Sq variation for the local day of each observatory, we form the averages for the local hours using five quietest days. Also, using hourly values immediately before and immediately after the local days selected, we evaluate the linear change and subtract it from the Sq variation. In this manner we remove from Sq the noncyclic change, which is part of Dst variation, and also evaluate Sq from the midnight level.

The 12 sets of the monthly average Sq so determined for the year are expanded in a double Fourier series with local time, t, and month number, s, as two variables:

$$Sq(t,s) = \sum_n \sum_m A_{mn} \cos(mt + \alpha_m) \cos(ns + \beta_n)$$

This representation allows us to calculate Sq(T) at any UT hour, T, of the year. This procedure is applied to each observatory.

The Hourly Equatorial Dst Index.

For each observatory the disturbance variation, D(T), is defined by :

$$D(T) = \Delta H(T) - Sq(T) \qquad (4)$$

Then D(T) is averaged over the four observatories and normalized to the dipole equator by :

$$Dst(T) = D(T) / \cos \phi \qquad (5)$$

where the denominator is the average of the cosines of the dipole latitudes, ϕ_i (i=1,4), of the observatories contributing to the average. This normalization procedure has been found to minimize undesired effects from missing hourly values.

Monthly tables of hourly Dst-values are given pages 90-101, followed by a table of mean values (page 102). The graph of hourly values for the whole year is given pages 87-89; the table of monthly and yearly mean values from 1959 onwards is given page 103.

TABLE 4

List of AE (12) observatories

Observatory	*Acronym*	*Geographic*		*Geomagnetic*	
		Lat. (°N)	*Long. (°E)*	*Lat. (°N)*	*Long. (°E)*
Abisko	ABK	68.36	18.82	66.04	115.08
Dixon Island	DIK	73.55	80.57	63.02	161.57
Cape Chelyuskin	CCS	77.72	104.28	66.26	176.46
Tixie Bay	TIK	71.58	129.00	60.44	191.41
Cape Wellen	CWE	66.17	190.17	61.79	237.10
Barrow	BRW	71.30	203.25	68.54	241.15
College	CMO	64.87	212.17	64.63	256.52
Yellowknife	YKC	62.40	245.60	69.00	292.80
Fort Churchill	FCC	58.80	265.90	68.70	322.77
Poste de la Baleine	PBQ	55.27	282.22	66.58	347.36
Narssarssuaq	NAQ	61.20	314.16	71.21	36.79
Leirvogur	LRV	64.18	338.30	70.22	71.04

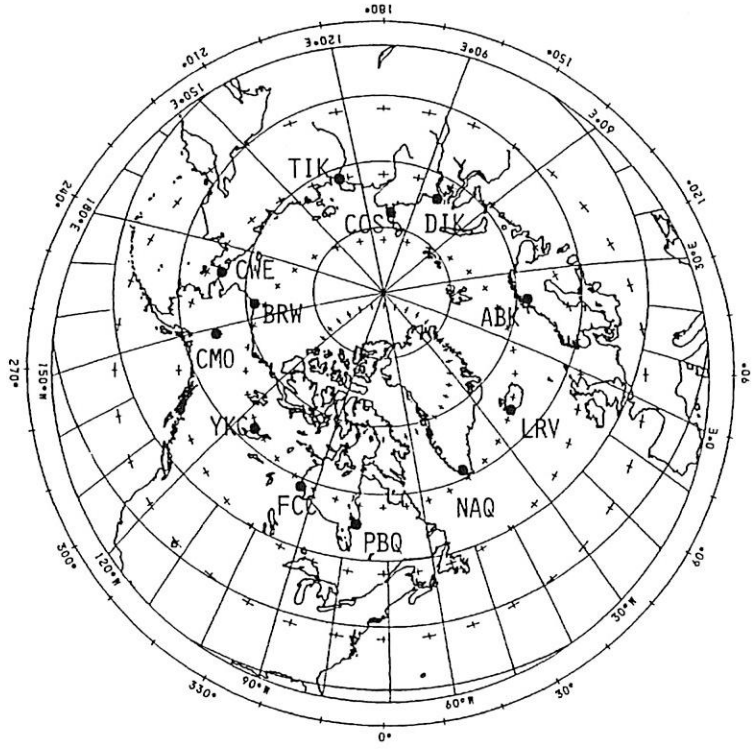


Figure 3: Distribution of AE (12) observatories.

1.3.5. *AE* index

The AE indices are derived from geomagnetic variations in the horizontal component observed at selected observatories along the auroral zone in the northern hemisphere (Figure 4, Table 4). These variations are measured from a base line determined for each of the observatories. For each given time (UT), at one minute intervals the AU and AL indices are respectively defined as the maximum and minimum values among the one minute values of the variations from all the AE observatories at this UT. The AE index is defined by AU-AL, A0 is (AU+AL)/2.

For the sake of simplicity the term "AE (Auroral Electrojet) indices" is generally used to mean all the AE associated indices, i.e. AU, AL, AE and A0. In a superposed plot of one minute values of H from all the AE observatories with a common time axis the AU and AL indices represent the upper and lower envelopes of the plotted points, respectively, and the AE value gives the separation of these envelopes.

The AU and AL indices are intended to represent a measure of the maximum current density of the eastward and westward auroral electrojets, respectively. The AE index represents a measure of global auroral electrojet activity.

One minute values of the AE indices (AU, AL, AE and A0) are calculated at the Data Analysis Center for Geomagnetism and Spacemagnetism, (same address as WDC-C, Table 1-a) and detailed plots and tables are given in the Data Book series of the World Data Center C2 for Geomagnetism. One minute values of these indices are available on magnetic tape at the World Data Center-A for Solar Terrestrial Physics in Boulder, Colorado and at the World Data Center-C2 for Geomagnetism in Kyoto (See Table 1-a).

Because of the long delays in delivering the necessary records on the part of some of the observatories the derivation of the definitive AE indices has been significantly delayed for 1995. Regrettably, therefore, provisional AE indices for 1995 are given in this Bulletin.

Tables of hourly average of AU, AL and AE are given pages 108-131; graph is given page 107. The hourly averages of AU, AL and AE are computed from the one minute values of the respective indices, therefore they may not necessarily satisfy the relationship AU - AL =AE exactly. Similarly the daily mean indices are averages of the one minute values for the whole day and are not the daily means of the hourly averages. The monthly and yearly mean values from 1957 until 1995 are given page 132.

1.4. CLASSIFICATION OF DAYS

The list of the international five quietest days and the selection of the 24-hour and 48-hour intervals which are really quiet (C) or very quiet (K) are given month by month pages 136-137. They are presented on an annual diagram for 1995 page 135. The list of the international quietest and of the more disturbed days, and a list of magnetic storms are also given page 138. These classifications are made according to the following.

1.4.1. Classification deduced from *Kp* indices

The selection of the quietest and most disturbed days of each month is made on the basis of three criteria :

(a) = the sum of the eight values of Kp;

(b) = the sum of the squares of these values;

(c) = the greatest of the eight values of Kp.

According to each of these criteria, a relative "order number" is assigned to each day of a month, the three order numbers are averaged and the days with the lowest and the highest mean order numbers are selected as the five quietest, the ten quietest and the five most disturbed days (Table page 138, with a list of magnetic storms).

It should be noted that these selection criteria give only a relative indication of the character of the selected days with respect to the other days of the same month. As the general disturbance level may be quite different for different years and also for different months of the same year, the selected quietest days of a month may sometimes be rather disturbed or vice versa.

In order to indicate such a situation, selected days which do not satisfy certain absolute criteria are marked as follows.

- A selected "quiet day" is considered "not really quiet" and is marked by the letter A if for that day : Ap > 6, or marked by the letter K if Ap < 6, with one Kp value greater than 3 or two Kp values greater than 2+.
- A selected "disturbed day" is considered "not really disturbed" and marked by an asterisk if Ap is lower than 20 (see P.N. Mayaud, Ann. Géophys., *26*, 901, 1969).

1.4.2. Classification deduced from *aa* indices

The selection of the quiet 24-hour intervals is made firstly on the basis of the mean value of aa which must be lower than the fixed value : 13 nT. Then, each individual aa value of the day is represented by a weight p, namely :

p	0	1	2	4	6
aa	< 17	17 < aa < 21	21 < aa < 28	28 < aa < 32	> 32

A day with a mean value of aa < 13nT and for which Σp is higher than, or equal to 4 is a quiet K-day ; if Σp is lower than 4, the day is a really quiet C-day.

The same rules are applied to select the 48-hour quiet or really quiet intervals, with the same limit for the aa mean value (13 nT) and a limit for Σp equal to 6. One must note that in these intervals every local day (0 h to 24 h in local time) is really quiet, at any longitude. For further details, see P. N. Mayaud, *Derivation, Meaning and Use of Geomagnetic Indices*, Geophys. Monograph 22, Am. Geophys. Union, Washington 1980

1.5. RAPID VARIATIONS

1.5.1. Storm sudden commencements (*ssc*)

The old definition, that said that "an ssc is a sudden commencement of a magnetic storm", is now changed into "sudden commencements followed by a magnetic storm *or* by an increase in activity lasting at least one hour".

The change was introduced by P. N. Mayaud (IAGA Bulletin 33 : "*A Hundred Years Series of Geomagnetic Data, 1868-1967. Indices aa and storm sudden commencements*"; see also IAGA Bulletin 39 : "*Supplementary Geomagnetic Data 1957-1975*", including a new list of ssc's 1968-1975). In this new definition more importance is given to the change of rhythm in the magnetic activity, than to the amplitude of the magnetic storm, and therefore some ssc's included in the list are not followed by a real magnetic storm.

The routine procedure of the Service in establishing the final list consists essentially of several steps, following as much as possible the instructions given by Mayaud in order to get a continuous series of homogeneous data.

Step 1. From the monthly reports of Rapid Variations prepared by 45 magnetic observatories (see list page 146), a combined list of all events is compiled.

Step 2. This list is checked against the magnetograms of two low latitude observatories (HON and EBR), and cases reported by only a very few observatories and that are clearly not an ssc in the magnetograms of HON and EBR, are eliminated.

Step 3. All other cases are then included in a new list, and copies of the magnetograms for all of them are requested from the five collaborating low latitude observatories, that are regularly spaced in longitude (Table 5a), or from their supplementary observatories (Table 5b).

Step 4. From the copies of the magnetograms sent by the five observatories as a reply to Step 3, every ssc is evaluated independently for each observatory and a number (0 to 3) is assigned to each event, in the following scale:

0. the event could have escaped the attention of the observers or does not deserve to be called an ssc,

1. the event is possibly an ssc, but is not clear enough in itself to be identified as a true ssc without inspection of other records at different longitudes,

2. the event can be unmistakably identified as an ssc from the single record on consideration,

3. is assigned, instead of 2, when the event presents a very sharp change of rhythm in the agitation, has a large amplitude and its general morphology is remarkable.

If an event gets three codes 0 out of the five observatories, it is rejected from the list.

Step 5. Finally the duration in minutes, and the amplitude in nT are measured on the copies from the five observatories and their mean values are calculated.

TABLE 5

a - Collaborating Observatories for Rapid Variations (*ssc*)

Observatory	Symbol	Geographic		Geomagnetic	
		Lat. (°N)	Long. (°E)	Lat. (°N)	Long. (°E)
MBOUR	MBO	14.40	343.02	20.68	56.80
FUQUENE	FUQ	5.47	286.27	16.47	357.07
HONOLULU	HON	21.32	202.00	21.46	268.57
PORT MORESBY	PMG	-9.40	147.15	-17.99	219.75
ALIBAG	ABG	18.63	72.87	9.64	145.39

b - Supplementary Observatories

Observatory	Symbol	Geographic		Geomagnetic	
		Lat. (°N)	Long. (°E)	Lat. (°N)	Long. (°E)
TENERIFE	SZT	28.48	343.72	34.60	60.30
SAN JUAN	SJG	18.38	293.88	29.36	5.21
APIA	API	-13.80	188.22	-15.61	261.99
KANOYA	KNY	31.42	130.88	21.12	199.85
HYDERABAD	HYB	17.42	78.55	7.86	150.69

In the list of storm sudden commencements (section 5.1, pages 143-145) the following indications are given for each event:

a) day, hour and minute (mean value taken from the monthly reports); first and last minutes thus reported are given in brackets at the end of the line,

b) the five number codes (one for each collaborating observatory) ; if some figures are underlined, it means that the replacement observatory was used,

c) the mean average duration, in minutes, of the event and its average amplitude, in nT,

d) the following figures indicate the number of observatories that in the monthly reports have characterized the ssc by each of the three letters A, B, or C, their meaning being:

A = very remarkable

B = fair, ordinary but unmistakable

C = very poor, doubtful.

Please note that the 0 to 3 qualification is given by the Service on Rapid Variations, independently from these A, B, C, qualifications which are given by the observatories, although some sort of correlation must exist among them.

The last group indicates the number of observatories that have classified the event other than an ssc, namely:

si = sudden impulse, but not an ssc,

sfe = solar flare effect

b = bay-like disturbance.

1.5.2 Solar flare effects (*sfe*).

The aim of the Service is to provide a reliable list of times when a magnetic solar flare effect did occur. Unfortunately, the reports on solar flare effects are not provided by all the observatories sending regularly the monthly reports on Rapid Magnetic Variations to the Service. As the sfe is a phenomenon dependent of longitude, it is not an easy task to provide a complete round the world coverage.

Step 1. The list of all times given in the monthly reports from observatories as possible occurrences of sfe's are checked with data taken mainly from Solar Geophysical Data, on the occurrence of alpha-flares, radio bursts or SID's, as, by definition, the crochet-like disturbance in the magnetograms must be an effect from solar activity and more precisely of a light emission from the Sun.

Times that are not correlated with any of these solar or ionospheric phenomena are eliminated from the list except in the cases when they were reported by more than one observatory or when a single observatory gave the time with the indication that it was confirmed. These exceptions try to take into account the fact that the correlation between solar events and magnetic crochets is not hundred percent.

Step 2. The list prepared in such a way is sent to all magnetic observatories, as a *checking list*, and they are asked to inspect their magnetograms and provide their judgement in two steps:

First : Do the magnetic records show a movement at the time given ? The answer is given by the following letters:

A = very clear movement

B = fair, ordinary movement

C = very poor movement

D = movement not observed, although records are satisfactory

E = movement cannot be observed due to heavy disturbance

X = record missing

Note : Please note that this letter index refers only to the existence of a movement in the curves and not to the opinion of this movement being or not being a sfe.

Second : The opinion of this movement being or not a sfe is given after letters A, B, and possibly C, by a number index:

3 = certainly a sfe

2 = probably a sfe

1 = probably not a sfe

0 = certainly not a sfe

The answers from observatories are plotted into world maps for each event ; in these maps are also drawn times showing the sunlit hemisphere and the twilight zones.

Step 3. From these maps a judgement is made about the event being or not a sfe. A simultaneous judgment is done about the existence or not of a solar, ionospheric and radio-sun event that could be the cause of the magnetic disturbance. And finally each event is classified as a sfe, a doubtful sfe or a rejected sfe.

Tables for solar flare effects and for doubtful solar flare effects are given in Section 5.2. of the present Bulletin for the year 1995 (pages 149-171). The format is the following:

a) A summary list gives for each month, the day and time of the beginning of sfe; if the sfe is confirmed the letter C follows the time of the event. Then are indicated the number of observatories having reported a movement (letters A, B, C, see explanation in Step 2 above), and the number of observatories having not reported any movement (letters D, E, X, see Step 2 above).

b) It is followed by detailed tables giving for each event the list of observatories reporting it with the number-index, arranged according to the classifying letter and to longitude.

Stations in the twilight zone, reporting a movement (A, B, C and also E and X) are indicated by normal brackets; those in the night-side of the earth by square brackets. Station in these two zones reporting D have been omitted from the lists.

The separation into such two tables of sfe and "doubtful" sfe may be rather subjective, due to the fact that we do not really know the mechanism linking the radiation emission from a flare and its effect on the magnetic records.

For instance, if we accept that the link is an ionising radiation from a solar flare producing an electric current in some region of the sunlit ionosphere, can this current extend its effect into the night hemisphere of the earth? And can all flares, observed in the alpha-light, produce such ionisation ? We are aware, from observations of solar flux, that not all frequencies produce similar magnetic effects. Satellite observations of X-ray flares may help in solving these and similar questions, but until now we have a fairly good coverage of alpha-flares and a rather limited of X-flares. Moreover it must be taken into account that not all flares have the same emission of energy and that their effects on the earth therefore may be limited to a smaller, or to a larger region of the earth.

Following the same kind of reasoning, we may find different effects due to the geometric relative position of the angle of emission in the Sun and the angle of reception at the earth.

For all these reasons, the tables of solar-flare-effects do not appear to be directly usable for detailed statistical studies, but they may be a good indication for researchers, where to look in the magnetic records when they study some particular event.

***Note**: For technical reasons, the 1995 Rapid Variations Data were not available at the date of publication of the present Bulletin. They will be published in further regular issues of the IAGA Bulletin N°32:*

- list of *ssc*, with 1996 data, in IAGA Bulletin N°32aa
- list of *sfe*, with 1996 data, in IAGA Bulletin N°32aa.

SECTION 2

LIST OF OBSERVATORIES

LIST OF OBSERVATORIES

IAGA Code	Name	Geographic		Geomagnetic		Alt (m)	K=9 lower limit	Open -Closed
		Lat	Long	Lat	Long			
ABN	ABINGER	51.18	359.61	53.58	84.55	244	520	1925-1957
ABK	ABISKO	68.36	18.82	65.88	115.50	380		1945
AAE	ADDIS ABABA	9.03	38.77	5.19	110.97	2442		1958
ADE	ADELAIDE	-34.60	138.40	-43.99	214.06			1973
AGN	AGINCOURT	43.78	280.73	54.65	349.54	175	700	1881-1969
AHM	AHMEDABAD	23.02	72.60	14.03	145.65			1973
ALE	ALERT	82.50	297.50	86.24	163.08	2260		1961
ABG	ALIBAG	18.63	72.87	9.64	145.39	10		1904
AAA	ALMA ATA	43.25	76.92	33.69	152.21	1300		1963
ALM	ALMERIA	36.85	357.53	40.16	76.83	65		1955
ALU	ALOUSHTA	44.68	34.42	40.86	114.94			1957
AML	AMBERLEY	-43.15	172.72	-47.16	254.00	40	530	1929-1977
AWS	ANDREWS AFB	38.20	282.63	49.13	352.23			1972
ANN	ANNAMALAINAGAR	11.40	79.68	1.77	151.20	0		1957
TAN	ANTANANARIVO	-18.92	47.55	-23.85	114.58	1375		1902
ANO	ANTIPOLO	14.60	121.17	3.50	191.60	220		1910-1938
APA	APATITY	67.55	33.33	62.78	125.99			1973
API	APIA	-13.80	188.22	-15.61	261.99	2		1905
ART	ARCTOWSKI	-62.16	301.52	-51.33	9.25	16		1978
ARE	AREQUIPA	-16.47	288.52	-5.45	359.45			1958
AIA	ARGENTINE ISLAND	-65.20	295.70	-54.23	4.73	10	490	1957
SV3	ARTI	56.43	58.43	48.50	139.90			1973
ASH	ASHKHABAD	37.95	58.10	30.58	134.62		300	1958
ASO	ASO	32.88	131.02	22.58	199.85	570		1940
PEG	ATHENS	37.97	23.72	32.60	121.60	110		1900-1908
AUT	AU-TAU	22.45	114.05	11.20	184.60	60		1928-1939
AVE	AVERROES	37.99	14.02	38.13	93.59	230		1970
BKC	BACK	57.69	265.77	67.43	326.54			1978
BAG	BAGUIO	16.42	120.60	5.61	191.08	440		1967
BAL	BALDWIN	38.78	264.83	48.90	330.60	340		1901-1909
BLC	BAKER LAKE	64.33	263.97	73.67	319.15	30		1951
BNG	BANGUI	4.43	18.57	4.45	90.33	390		1952
BAP	BARRACKPORE	22.78	88.36	12.20	160.30	10		1904-1914
BRW	BARROW	71.30	203.25	69.10	243.67	7		1949
BTH	BARTH	54.37	12.75	55.00	99.90	20		1898-1903
BTV	BATAVIA	-6.18	106.83	-17.19	177.64	10		1884-1944
BJI	BEI-JING	40.06	116.18	29.12	186.20	43		1957
KGD	BEREZNIAKI	49.82	73.08	40.30	150.00			1965
BEL	BELSK	51.83	20.80	50.19	105.24	180		1960
BIN	BINZA	-4.38	15.26	-3.57	85.40	300		1953
BJN	BJORNOYA	74.50	19.20	71.06	124.67	80		1951
BOC	BOCHUM	51.49	7.23	52.42	92.24	120		1893-1912
BGA	BORGA	-72.97	356.20	-66.46	42.49			1975
BOX	BOROK	58.03	38.97	52.97	324.23			1977
BOU	BOULDER	40.13	254.77	48.88	319.04	1675		1964
BZR	BOUZAREAH	36.80	3.02	39.20	82.40	340		1912-1920
BJE	BRORFELDE	55.63	11.67	55.80	97.60	80		1978
BVZ	BUDAKESZI	47.52	18.90	46.40	101.80	410		1949-1955
BDV	BUDKOV	49.07	14.02	48.82	97.64	496		1967
BY1	BYRD STATION 1	-79.98	240.00	-70.60	336.60	1515		1957-1961
BY2	BYRD STATION 2	-80.01	240.51	-70.60	336.90	1515		1962-1965
CBB	CAMBRIDGE BAY	69.10	255.00	76.77	299.13	17		1972
CAN	CANBERRA	-35.30	149.00	-43.38	226.09	850	420	1980

LIST OF OBSERVATORIES (continued)

IAGA Code	Name	Geographic		Geomagnetic		Alt (m)	K=9 lower limit	Open -Closed
		Lat	Long	Lat	Long			
CCS	CAPE CHELYUSKIN	77.72	104.28	66.72	177.41	10		1935
CGH	CAPE OF GOOD HOPE	-33.93	18.48	-33.10	81.80			1842-1846
CTO	CAPE TOWN	-33.95	18.47	-33.12	82.06	20		1932-1940
CWE	CAPE WELLEN	66.17	190.17	62.36	239.37	10		1933
CY.	CAPO DI MONTE	40.86	14.26	40.90	94.80	160		1883-1911
CPI	CAPRI	40.55	14.22	40.58	94.60			1957
CAO	CASTELLACCIO	44.43	8.93	45.34	90.82	1175	350	1933
CRC	CASTLE ROCK	37.23	237.87	43.56	301.06		460	1970
HVN	CENTRO GEOFISICO	22.97	277.86	34.00	347.40			1965
CPA	CHA-PA	22.35	103.83	11.38	175.03	1550		1957
CLF	CHAMBON LA FORET	48.02	2.27	50.06	85.71			1936
CLH	CHELTENHAM	38.70	283.20	49.65	352.89	72	530	1901-1956
CBI	CHICHIJIMA	27.15	142.30	17.80	210.78	154		1973
CHR	CHRISTCHURCH	43.54	172.62	47.60	254.3	10		1902-1928
COI	COIMBRA	40.22	351.58	44.53	71.78	140		1866
BOM	COLABA	18.90	72.82	9.70	145.30	10		1846-1905
CMO	COLLEGE 2	64.87	212.17	65.10	259.23	200		1948
CLL	COLLMBERG	51.32	13.00	51.16	97.70			1935
CSS	COLORADO SPRINGS	38.50	255.51	47.36	320.27			1973
COP	COPENHAGEN	55.69	12.58	55.39	99.64			1892-1900
CZT	CROZET	-46.43	51.87	-51.49	111.46	500		1974
DAL	DALLAS	32.98	263.25	42.73	330.14	210		1964-1974
DRS	DAR ES SALAAM	-6.51	39.18	-10.17	108.56			1896-1900
DAV	DAVAO	7.08	125.58	-3.49	196.39			1968
DVS	DAVIS	-68.60	78.00	-76.81	124.34			1973
DBN	DE BILT	52.10	5.18	53.40	90.56			1899-1938
DDI	DEHRA DUN	30.32	78.06	20.50	151.60	680		1903-1943
DIK	DIXON	73.55	80.57	63.36	162.45	20		1933
DOB	DOMBAS	62.07	9.12	61.97	100.94	660		1916
DOU	DOURBES	50.10	4.60	51.60	88.99	208		1955
DL	DUBLIN	53.35	353.73	56.90	80.00			1841-1850
DRV	DUMONT DURVILLE	-66.66	140.01	-75.06	232.15	40		1957
TFS	DUSHETI	42.08	44.70	36.50	23.50	982		1938
KIV	DYMER	50.72	30.30	47.30	113.60	100		1964
EAA	EAST ANGLIA	52.63	1.30	54.64	87.01			1973
EIC	EASTER ISLAND	-27.17	250.58	-18.37	324.28			1959-1963
EP.	EASTPORT	44.90	293.02	56.20	4.80			1860-1867
EBR	EBRO	40.82	0.50	43.45	81.13	50		1910
ENB	EIELSON AFB	64.67	212.92	65.06	260.11			1966
ELI	ELIZABETHVILLE	-11.63	27.42	-13.00	95.93	1230		1932-1957
ESK	ESKDALEMUIR	55.32	356.80	58.04	84.07	245	660	1908
EKP	ESKIMO POINT	61.10	265.93	70.78	324.73			1973
EYR	EYREWELL	-43.41	172.35	-47.48	253.71	390	540	1979
FAL	FALMOUTH	50.15	354.92	53.60	79.40	50		1892-1912
FCC	FORT CHURCHILL 1	58.80	265.90	68.53	325.60	15		1964
FCC	FORT CHURCHILL 2	58.77	265.73	68.70	325.20	15		1964
FMM	FORT MCMURRAY	56.70	248.60	64.18	305.05			1973
FSV	FORT SEVERN	55.98	272.35	66.34	336.32			1977
FSM	FORT SMITH	58.00	246.00	65.01	301.02			1973
FYU	FORT YUKON	66.57	214.70	67.08	259.59			1957
FRD	FREDERICKSBURG	38.20	282.63	49.13	352.23	69	520	1956
FTN	FREETOWN	8.46	346.79	14.21	59.59			1961-1967
FUQ	FUQUENE	5.47	286.27	16.47	357.07	2543		1954

LIST OF OBSERVATORIES (continued)

IAGA Code	Name	Geographic		Geomagnetic		Alt (m)	K=9 lower limit	Open -Closed
		Lat	Long	Lat	Long			
FUR	FURSTENFELDBRUCK	48.17	11.28	48.48	94.62	572		1939
GEN	GENOVA MC	44.55	8.96	45.50	91.00	700		1958-1962
GEN	GENOVA C	44.43	8.93	45.50	91.00	350		1933-1969
GIT	GILGIT	35.93	74.30	26.67	148.86	1494		1967
GIM	GILLAM	56.40	265.30	66.11	326.54			1975
GIR	GIRARDVILLE	49.00	287.40	60.01	357.77			1973
GNA	GNANGARA	-31.78	115.95	-42.71	187.94	60	440	1959
GDH	GODHAVN	69.23	306.48	79.25	34.62	8		1926
GOT	GOTTINGEN	51.55	9.97	51.97	95.00	270		1957
GVD	GONZALES VIDELA	-64.82	297.15	-53.88	5.80	60		1961
VLA	GORNOTAYEZHNAYA	43.68	132.17	30.10	199.60	200		1958
GRM	GRAHAMSTOWN	-33.28	26.48	-34.01	90.04	650		1974
GWC	GREAT WHALE RIVER	55.30	282.25	66.21	350.32	25		1965
GRW	GREENWICH	51.48	0.00	53.79	85.10	50		1846-1925
GCK	GROCKA	44.63	20.77	43.28	102.27	231		1958
GUA	GUAM	13.58	144.87	4.57	214.76	150		1957
HLL	HALLET	-72.32	170.22	-74.42	278.16			1957-1963
HBA	HALLEY BAY	-75.50	333.40	-66.36	25.85	30		1957
HBK	HARTEBEESTHOEK	-25.88	27.71	-27.01	93.14			1980
HAD	HARTLAND	50.98	355.52	54.17	80.29	95	530	1957
HTY	HATIZYO	33.07	139.83	23.45	207.83			1978
HVN	HAVANA	22.97	277.85	33.75	347.53			1964
HII	HEARD ISLAND	-53.03	73.37	-61.50	132.30	10		1950-1954
HIS	HEISS ISLAND	80.62	58.05	71.60	156.33	20		1959
HLP	HEL	54.60	18.82	53.19	104.80	4		1957
HLW	HELWAN	29.87	31.33	26.98	108.01	120		1903-1959
HCR	HERCHMER	57.40	265.90	67.16	326.86			1973
HER	HERMANUS	-34.42	19.23	-33.73	82.67	26	300	1941
HNA	HOLLANDIA	-2.57	140.52	-11.94	212.17	98		1957-1962
HKC	HONG KONG 1	22.30	114.18	11.00	184.70	30		1884-1928
HKC	HONG KONG 2	22.20	114.20	11.22	184.82	555		1972
HON	HONOLULU 1-2-3	21.32	202.00	21.46	268.57	4		1902
HUA	HUANCAYO	-12.05	284.67	-1.06	355.67	3313		1922
HRB	HURBANOVO	47.87	18.18	46.89	101.07	120		1938
HYB	HYDERABAD	17.42	78.55	7.86	150.69	500		1965
IBD	IBADAN	7.43	3.90	10.17	76.46	300		1956
IRT	IRKUTSK	52.17	104.45	41.18	176.22	470		1887-1914
ISL	ISLAND LAKE	53.90	265.30	63.65	327.61			1976
ISK	ISTANBUL KANDILLY	41.07	29.07	38.31	108.87	130		1947
JSS	JASSY	47.18	27.53	44.40	109.60			1935-1957
KAK	KAKIOKA	36.23	140.18	26.62	207.77	28		1913
KNG	KALININGRAD	54.60	20.20	52.94	106.06			1964
KNY	KANOYA	31.42	130.88	21.12	199.85	105		1957
KNZ	KANOZAN	35.25	139.97	25.63	207.70	342		1961
KGD	KARAGANDA	49.82	73.08	40.56	150.04			1966
TFS	KARSANI	41.83	42.70	36.20	123.50	1100		1905-1934
KZN	KAZAN	55.83	48.85	49.36	131.52	80		1909
KEL	KELES	41.42	69.20	32.40	145.20	450		1936-1963
KEM	KEM	65.00	34.40	60.26	124.74			1973
KEW	KEW	51.47	359.68	54.10	85.10	10		1857-1924
KHB	KHABAROVSK	48.48	135.07	38.39	201.74			1972
KIV	KIEV	50.72	30.30	47.42	113.40	100		1963
KIR	KIRUNA	67.83	20.42	65.14	116.19	390		1950

LIST OF OBSERVATORIES (continued)

IAGA Code	Name	Geographic		Geomagnetic		Alt (m)	K=9 lower limit	Open -Closed
		Lat	Long	Lat	Long			
KLY	KLYUCHI	55.03	82.90	44.70	159.00			1967
KOD	KODAIKANAL	10.23	77.47	0.81	148.93	2323		1902
KTS	KORETS	50.60	61.07	42.64	140.10			1968
KOR	KOROR	7.33	134.50	-2.64	205.21	10		1957-1966
MOS	KRASNAYA	55.47	37.32	50.70	121.70	190		1930
KSA	KSARA	33.82	35.88	30.03	113.26	920		1937-1968
KUY	KUYPER	-6.03	106.73	-17.04	177.54	1		1950-1962
KWJ	KWAJALEIN	9.05	167.20	3.13	237.11			1973
AQU	L'AQUILA	42.38	13.32	42.52	94.35	682		1960
LQA	LA QUIACA	-22.10	294.40	-11.13	5.01	3464		1920
LAS	LAS ACACIAS	-35.00	302.32	-24.24	11.86	20		1964
LDR	LAUDER	-43.03	169.41	-37.70	232.10	370		1977
LRV	LEIRVOGUR	64.18	338.30	69.71	71.98	30		1957
LNN	LENINGRAD	59.95	30.70	56.14	118.32	70		1869-1877
LER	LERWICK	60.13	358.82	62.15	89.55	105	920	1923
LIS	LISBON	38.72	350.85	43.30	70.60			1890-1900
LGR	LOGRONO	42.45	357.50	45.59	78.66	445		1957
MMK	LOPARSKAYA	68.25	33.08	63.30	126.70	200		1961
LOB	LORING AFB	46.95	292.12	57.95	3.89			1966
LA.	LOS ANGELES	34.05	241.74	41.20	305.70			1882-1889
LMM	LOURENCO MARQUES	-25.92	32.58	-27.98	97.96	40		1957
LOV	LOVO	59.35	17.83	57.84	106.75	25	720	1928
LOZ	LOVOZERO	67.97	35.02	62.90	127.64			1957
LUA	LUANDA	-8.92	13.17	-7.63	82.48	53		1956
LB	LUBECK	53.86	10.69	54.00	97.00			1885-1893
LUK	LUKIAPANG	31.32	121.03	20.20	190.80	100		1908-1933
LNP	LUNPING	25.00	121.17	14.21	191.28		100	1965
LVV	LVOV	49.90	23.75	47.80	107.10	400		1952
LWI	LWIRO	-2.25	28.80	-4.06	99.10	1680		1958-1970
MBO	MBOUR	14.40	343.02	20.68	56.80	10		1952
MCQ	MACQUARIE ISLAND	-54.50	158.95	-60.54	244.48	4		1951
MGD	MAGADAN	60.12	151.02	51.28	212.15		610	1966
MSC	MAISACH	48.20	11.26	48.50	94.90	480		1927-1932
MQ	MAKERSTOUN	55.58	357.48	52.20	85.30			1841-1849
MAB	MANHAY	50.30	5.68	51.60	90.15	440		1936-1971
MAN	MANILA	14.58	120.98	3.50	191.40			1891-1904
MRN	MARION ISLAND	-46.85	37.87	-49.30	96.75	45		1972
AMS	MARTIN DE VIVIES	-37.83	77.57	-46.94	142.78			1981
MSR	MATOCHKIN SHAR	73.26	56.40	64.80	147.40	250		1937-1944
MRI	MAURITIUS	-20.09	57.55	-26.80	124.40	50		1892-1965
MAW	MAWSON	-67.60	62.88	-73.32	106.62	6		1955
MEA	MEANOOK	54.62	246.67	61.88	304.02	686	1360	1916
MEL	MELBOURNE	-37.83	144.98	46.60	222.30	30		1865-1921
MEV	MELVILLE AFB	53.28	299.47	64.05	14.25			1966
MMB	MEMAMBETSU	43.90	144.20	34.61	210.23	39	340	1950
MNK	MINSK	54.10	26.52	51.32	111.51			1961
MIR	MIRNY	-66.55	93.02	-76.80	151.15		20	1956
MLT	MISALLAT	29.52	30.90	26.72	107.52	120		1960
MIU	MIYAZU	35.32	135.11	25.30	203.32			1973
MIZ	MIZUSAWA	39.01	141.08	29.47	208.21			1969
MFP	MOCA	3.35	8.67	5.27	80.39	1949		1958-1971
MOL	MOLODEZHNAYA	67.67	45.85	70.10	87.50	854		1965
MOS	MOSCOW	55.48	37.32	50.79	121.62	190		1880-1888

LIST OF OBSERVATORIES (continued)

IAGA Code	Name	Geographic		Geomagnetic		Alt (m)	K=9 lower limit	Open -Closed
		Lat	Long	Lat	Long			
MBC	MOULD BAY	76.30	240.60	79.62	259.89	150		1962
MWC	MT WILSON	34.14	241.97	41.19	306.30			1926-1958
MNH	MUNCHEN	48.15	11.61	48.40	95.20	530		1842-1926
MUT	MUNTINLUPA	14.37	121.02	3.58	191.57	62		1951
MMK	MURMANSK	68.25	33.08	63.45	126.43	210		1958-1960
NCK	NAGYCENK	47.63	16.72	46.93	99.59	160		1961
NAI	NAIROBI	-1.28	36.83	-4.60	107.19	1673		1964
NTS	NANTES	47.25	358.44	50.10	81.70	35		1923-1958
NAQ	NARSSARSSUAQ	61.20	314.6O	70.60	38.66	4		1973
NL	NEW ALESUND	78.92	11.93	75.43	130.70	12		1966
NEW	NEWPORT	48.27	242.88	55.14	302.78	780	700	1966
NYI	NEW YEAR ISLAND	54.65	295.85	43.30	5.20			1902-1916
NCE	NICE	43.72	7.30	45.00	89.00			1889-1901
NGK	NIEMEGK	52.07	12.68	51.94	97.77	78	500	1932
NSM	NITSANIM	31.73	34.60	28.21	111.55	150		1963-1967
NOK	NORILSK	69.20	88.00	58.68	165.77			1969
NKK	NOVOKAZALINSK	45.77	62.12	37.76	139.83			1974
NVL	NOVOLAZAREVSKAYA	-70.77	11.82	-66.76	55.88	460		1961
NVS	NOVOSIBIRSK	55.03	82.90	44.92	159.07		480	1967
NUR	NURMIJARVI	60.52	24.65	57.71	113.51	105		1953
ODE	ODESSA	46.78	30.88	43.52	112.42	50		1896-1925
OGY	O'GYALIA	47.88	18.19	46.80	101.30	110		1906-1912
OKN	OKINAWA	24.75	125.33	14.14	195.18			1977
ORC	ORCADAS DEL SUR	-60.74	315.22	-50.30	20.00	4		1931-1962
OSL	OSLO	59.98	10.72	59.60	101.10			1843-1930
OTT	OTTAWA	45.40	284.45	56.37	354.11	75	790	1968
PAG	PANAGYURISHTE	42.52	24.18	40.61	104.75	556		1948
PPT	PAPEETE	-17.55	210.38	-15.09	284.44			1958
PAB	PARAMARIBO	5.82	304.78	16.41	16.28	2		1957
PET	PARATUNKA	53.10	158.63	44.80	220.00	110		1973
IRK	PATRONY	52.17	104.45	40.90	176.10	500		1959
PEB	PELLY BAY	68.50	270.20	78.39	323.86			1977
PEK	PEKING 1	39.95	116.47	28.70	186.30			1870-1883
PEK	PEKING 2	40.04	116.18	28.80	186.10			1957-1964
PEG	PENDELI	38.03	23.52	36.38	102.73	495		1958
PRF	PERPIGNAN	42.70	2.88	44.90	84.30	30		1890-1900
PIL	PILAR	-31.67	296.12	-20.73	6.39	336		1905
PLS	PLAISANCE	-20.43	57.67	-27.02	124.68	123		1966
PZ	PLESHCHENITZI	54.50	27.88	51.40	113.10	200		1961
POD	PODKAMENAYA TUNG	61.40	90.00	50.84	165.64		670	1968
POL	POLA	44.86	13.26	44.80	95.90	30		1883-1922
PAF	PORT AUX FRANCAIS	-49.35	70.22	-57.31	130.79	50	750	1957
PMG	PORT MORESBY	-9.40	147.15	-17.99	219.75	80		1957
PBQ	POSTE DE LA BALEINE	55.30	287.25	66.31	357.38			1984
POT	POSTDAM	52.38	13.06	52.16	98.28	80		1890-1907
PRU	PRUHONICE	49.98	14.55	49.59	98.55	329		1946
QUE	QUETTA	30.18	66.95	21.77	141.35	1737		1953
RIT	RANKIN INLET	62.80	267.90	72.64	326.36			1975
REG	REGENSBERG	47.48	8.44	48.40	91.70	605		1957-1969
RES	RESOLUTE BAY	74.70	265.10	83.14	295.98	25		1954
RDJ	RIO DE JANEIRO	-22.91	316.83	-12.80	26.00	60		1899-1906
ROB	ROBURENT	44.30	7.88	45.41	89.74	815		1964
RSV	RUDE SKOV	55.85	12.45	55.56	99.61	48	600	1907-1978

LIST OF OBSERVATORIES (continued)

IAGA Code	Name	Geographic		Geomagnetic		Alt (m)	K=9 lower limit	Open -Closed
		Lat	Long	Lat	Long			
SAB	SABHAWALA	30.33	77.80	20.78	151.34	498		1964
SFS	SAN FERNANDO	36.47	353.80	40.47	72.90	28		1891
SJG	SAN JUAN 1-2-3	18.38	293.88	29.36	5.21	100		1903
SNA	SANAE	-70.30	357.65	-64.23	46.20	52		1962
STJ	SAINT JOHNS	47.59	307.32	58.20	23.30			1968
PSM	SAINT MAUR	48.81	2.49	50.80	86.60			1883-1900
SMG	SAN MIGUEL	37.77	334.35	45.04	52.61	175		1911
SBA	SCOTT BASE	-77.85	166.78	-78.84	293.24	15		1957
SED	SEDDEN	52.28	13.01	52.10	98.50	40		1908-1931
STF	SDR STROMFJORD	67.02	309.28	76.83	36.25			1972
SSH	SHE-SHAN	31.10	121.19	20.30	191.03	100		1934
SHB	SHEPERD BAY	68.75	266.25	78.14	316.78			1966
SHL	SHILLONG	25.55	91.88	14.99	163.95			1975
SSO	SIMOSATO	33.57	135.93	23.62	204.24	59		1954-1978
SIT	SITKA	57.07	224.67	60.31	278.12	22	1020	1902
SOD	SODANKYLA	67.37	26.63	63.68	120.64	178		1914
SLU	SLUTSK	59.68	30.48	55.80	118.30			1878-1941
SGG	SOUTH GEORGIA	-54.28	323.52	-44.82	27.73		350	1974-1982
SPA	SOUTH POLE	-90.00	0.00	-78.98	0.00	2820		1959
SRE	SREDNIKAN	62.43	152.32	53.67	212.35	61		1936-1966
MGD	STEKOLNI	60.12	151.02	51.00	211.80			1966
ODE	STEPANOVKA	46.78	30.88	43.40	112.50	140		1948
STO	STONYHURST	53.85	357.53	56.52	83.91	116		1865-1967
SUA	SURLARI	44.68	26.25	42.32	107.42	84		1949
SVD	SVERDLOVSK	56.73	61.07	48.64	141.89	290	530	1887-1931
SWI	SWIDER	52.12	21.25	50.38	105.79	100		1921
SYO	SYOWA BASE	-69.03	39.60	-70.10	79.70	15		1958-1970
TAM	TAMANRASSET	22.80	5.53	24.94	81.23	1395		1932
TNG	TANGERANG	-6.17	106.63	-17.18	177.43	14		1964
TKT	TASHKENT	41.33	69.62	32.51	145.52	500		1883
TTB	TATUOCA	-1.20	311.48	8.98	220.50	10		1957-1971
TEH	TEHERAN	35.73	51.38	29.36	128.05	1367		1960-1973
SZT	TENERIFE	28.48	343.72	34.60	60.30	310		1959
TEO	TEOLOYUCAN	19.75	260.82	29.35	329.24	2280		1923
TAA	TERRE ADELIE	-66.67	140.02	-75.07	232.18	40		1957
TMP	THOMPSON	55.72	262.12	65.09	322.65			1969
THU	THULE/CAMP TUTO	76.55	291.17	87.53	11.26	480		1932-1952
THL	THULE/QANAQ	77.48	290.83	88.46	14.10	57		1956
TFS	TIFLIS	42.08	44.70	36.62	123.49	982		1879-1905
THY	TIHANY	46.90	17.90	46.01	100.41	187		1949
TKH	TIKHAYA BAY	80.30	52.80	71.74	153.42	10		1932-1958
TIP	TIRUCHIRAPALLI	10.80	78.70	1.26	150.19			1975
TIK	TIXIE BAY	71.58	129.00	60.99	192.81	40		1944
KAK	TOKYO	35.75	139.72	26.10	207.41	20		1897-1912
TOL	TOLEDO	39.88	355.95	43.39	76.18	501		1947
TMK	TOMSK	56.47	84.93	46.21	160.93	200	510	1958-1969
TOO	TOOLANGI	-37.53	145.47	-46.05	222.66	457	510	1922-1980
AGN	TORONTO	43.67	280.50	54.80	349.10			1872-1898
TLE	TOULOUSE	43.61	1.46	46.00	83.20	190		1894-1905
TGO	TOUNGOO	18.93	96.45	7.90	167.80	300		1905-1923
TOH	TOYOHARANEW	46.95	142.75	37.20	208.30	70		1932-1941
TRW	TRELEW	-43.25	294.68	-32.28	4.81		290	1957-1970
TRD	TRIVANDRUM	8.48	76.95	-0.88	148.24	300		1957

LIST OF OBSERVATORIES (continued)

IAGA Code	Name	Geographic		Geomagnetic		Alt (m)	K=9 lower limit	Open -Closed
		Lat	Long	Lat	Long			
TRO	TROMSO	69.67	18.95	67.00	117.16	105		1930
TSN	TSINGTAO	36.07	120.32	25.00	189.90	80		1924-1936
TSU	TSUMEB	-19.22	17.70	-18.59	84.83	1300		1964
TUC	TUCSON	32.25	249.17	40.37	314.57	770	380	1910
TUL	TULSA	35.92	264.22	45.75	330.78	257		1961
UCC	UCCLE	50.80	4.36	52.30	89.40	100		1896-1919
UBA	ULAN BATOR	47.85	106.75	36.84	178.03			1966
WIT	UTRECHT	52.00	5.12	53.40	90.80			1891-1896
VLJ	VAL JOYEUX	48.82	2.02	50.87	85.83			1901-1936
VAL	VALENTIA	51.93	349.75	56.15	74.79	14		1899
VSS	VASSOURAS	-22.40	316.35	-12.53	25.70	457		1915
VIC	VICTORIA	48.52	236.58	54.33	295.66	185	660	1956
VQS	VIEQUES	18.15	294.55	29.11	5.93			1903-1924
VLA	VLADIVOSTOK	43.12	131.90	32.84	199.68			1932
LNN	VOEIKOVO	59.95	30.70	56.00	118.50	70		1947
VOR	VOROSHILOV	43.78	132.03	33.20	199.60	30		1952-1957
VOS	VOSTOK	-78.45	106.87	-89.31	139.62	3500		1958
SVD	VYSOKAYA	56.73	61.07	48.40	141.90	290		1932
WAT	WATHEROO	-30.30	115.90	-41.23	187.82	240		1919-1958
WES	WESTON	42.38	288.68	53.40	359.49			1960
WHS	WHITE SHELL	49.80	264.80	59.56	328.39			1975
WIK	WIEN	48.25	16.36	47.60	69.70			1892-1898
WIA	WIEN-AUHOF	48.20	16.24	47.50	69.60	2050		1929-1950
WIK	WIEN-KOBENZL	48.27	16.32	47.62	69.48	400		1954
WLH	WILHELMSHAVEN	53.53	8.15	54.20	94.50	10		1884-1911
WIL	WILKES	-66.25	110.58	-77.26	182.71			1957-1966
WNG	WINGST	53.75	9.07	54.22	95.21	50	550	1939
WNP	WINNIPEG	49.63	262.87	59.19	326.02			1969-1975
WIT	WITTEVEEN	52.82	6.67	53.79	92.39	17	540	1938-1988
YAK	YAKUTSK	62.02	129.72	51.53	195.40	100		1931
TKT	YANGI BAZAR	41.33	69.62	32.30	145.60	500		1964
YAU	YAUCA	-15.53	285.33	-4.54	356.36			1957-1960
YKC	YELLOWKNIFE	62.47	245.53	69.14	296.56	198		1958
YSS	YUZHNO SAKHALINSK	46.95	142.72	37.49	208.45			1948
KNK2	ZAIMISHCHE	55.83	48.85	49.20	131.60	80		1914-1972
ZAR	ZARIA	11.15	7.65	13.12	80.89			1964
ZKW	ZI KA WEI	31.22	121.43	20.20	191.20	10		1875-1907
ZIN	ZINZEN	37.48	126.63	26.60	195.30	50		1921-1941
ZSC	ZO SE	31.10	121.19	20.00	190.80	100		1933-1974
ZUY	ZUY	52.47	104.03	41.20	17.80	430		1915-1958

LIST OF OBSERVATORIES (continued)

Sites of observatories having provided records over 50 years or more

First observatory Name	Open -Closed	Further Observatories, if any Name	Open -Closed
AGINCOURT	1881 - 1969	OTTAWA	1968 - …
ALIBAG	1904 - …		
AMBERLEY	1929 - 1977	LAUDER	1977 - …
ANTANANARIVO	1890 - ... (1894 - 1901 and 1923 - 1928 missing)		
APIA	1905 - …		
ASO	1940 - ...		
BATAVIA	1884 - 1944 (1899 - 1902 missing)	KUYPER TANGERANG	1950 – 1962 1964 - …
CAPE CHELYUSKIN	1935 -... (1946-1950 and 1952-1953 missing)		
CAPE TOWN	1932 - 1940	HERMANUS	1941 - …
CAPE WELLEN	1933 - … (1944 - 1949 missing)		
CHELTENHAM	1901 - 1956	FREDERICKSBURG	1956 - …
COIMBRA	1866 - …		
COLABA	1846 - 1905	ALIBAG	1904 - …
DIXON	1933 - … (1945 and 1947 missing)		
DOMBAS	1916 - …		
EBRO	1910 - … (1938 - 1942 missing)		
ESKDALEMUIR	1908 - …		
FURSTENFELDBRUCK		1939 - ...	
GODHAVN	1926 - …		
GREENWICH	1846 - 1925	ABINGER HARTLAND	1925 – 1957 1957 - …
HELWAN	1903 - 1959 (1952 - 1955 missing)	MISSALAT	1960 - …
HURBANOVO	1938 -...		
HONG KONG	1884 - 1928	AU TAU HONG KONG	1928 – 1939 1972 - …
HONOLULU	1902 - …		
HUANCAYO	1922 - …		
KAZAN	1909 - …		
KELES	1936 - 1963	YANGI BAZAR	1964 - …
KEW	1858 - 1924		
KODAIKANAL	1902 - …		
KRASNAYA	1930 - … (1934 - 1937 and 1939 - 1945 missing)		
LA QUIACA	1920 - …		
LENINGRAD	1869 - 1877 (1871 missing)	SLUTSK VOEIKOVO	1878 – 1941 1947 - …
LERWICK	1923 - …		
LOVÖ	1928 - …		
MANILA	1891 - 1904	ANTIPOLO MUNTINLUPA	1910 – 1938 1951 - …

LIST OF OBSERVATORIES (continued)

Sites of observatories having provided records over 50 years or more

First observatory Name	Open -Closed	Further Observatories, if any Name	Open -Closed
MAURITIUS	1892 - 1965		
MEANOOK	1916 - ...		
MELBOURNE	1865 - 1921	TOOLANGUI	1922 – 1980
		CANBERRA	1980 - ...
OSLO	1843 - 1930		
PILAR	1905 - ...		
POTSDAM	1890 - 1907	SEDDEN	1908 – 1931
		NIEMEGK	1932 - ...
RUDE SKOV	1907 - 1978	BJORFELDE	1978 - ...
SAINT MAUR	1883 - 1900	VAL JOYEUX	1901 – 1936
		CHAMBON LA FORÊT	1936 - ...
SAN FERNANDO	1891 - ...		
SAN JUAN (PUERTO RICO)	(1925 missing)	1903 – 1924	
SAN MIGUEL	1911 - ...		
SITKA	1902 - ...		
SODANKYLA	1914 - ... (1945 missing)		
STONYHURST	1865 – 1967 (1944 - 1960 missing)		
SVERDLOVSK	1887 - 1978	VYSOKAYA - DUBRAVA	1932 - ...
SWIDER	1921 - ...		
TEOLOYUCAN	1923 - ...		
TIFLIS	1879 - 1905	KARSANI	1905 – 1934
		DUSHETI	1938 - ...
TIKHAYA BAY	1932 - 1958 (1947 - 1950 missing)	HEISS ISLAND	1959 - ...
TOKYO	1897 - 1912	KAKIOKA	1913 - ...
TROMSÖ	1930 - ...		
TUCSON	1910 - ...		
UCCLE	1896 - 1919 (1943 - 1945 missing)	MANHAY	1936 – 1971
		DOURBES	1955 - ...
UTRECHT	1891 - 1896	DE BILT	1899 – 1938
		WITTEVEEN	1938 - 1988
VALENTIA	1899 - ...		
VASSOURAS	1915 - ...		
WATHEROO	1919 - 1958	GNANGARA	1959 - ...
WILHELMSHAFEN	1884 - 1911	WINGST	1939 - ...
YAKUTSK	1931 - ...		
ZAIMISHCHE	1914 - 1972		
ZI - KA - WEI	1875 - 1907	LUKIAPANG	1908 – 1933
		ZO - SE	1933 - 1974

SECTION 3

I A G A INDICES

3.1.**aa** indices 41

3.2.**an, as, am** indices 51

3.3.**Kp** indices 73

3.4.**Dst** indices 85

3.5.**AU, AL, AE** indices 105

SECTION 3

3.1 aa INDICES

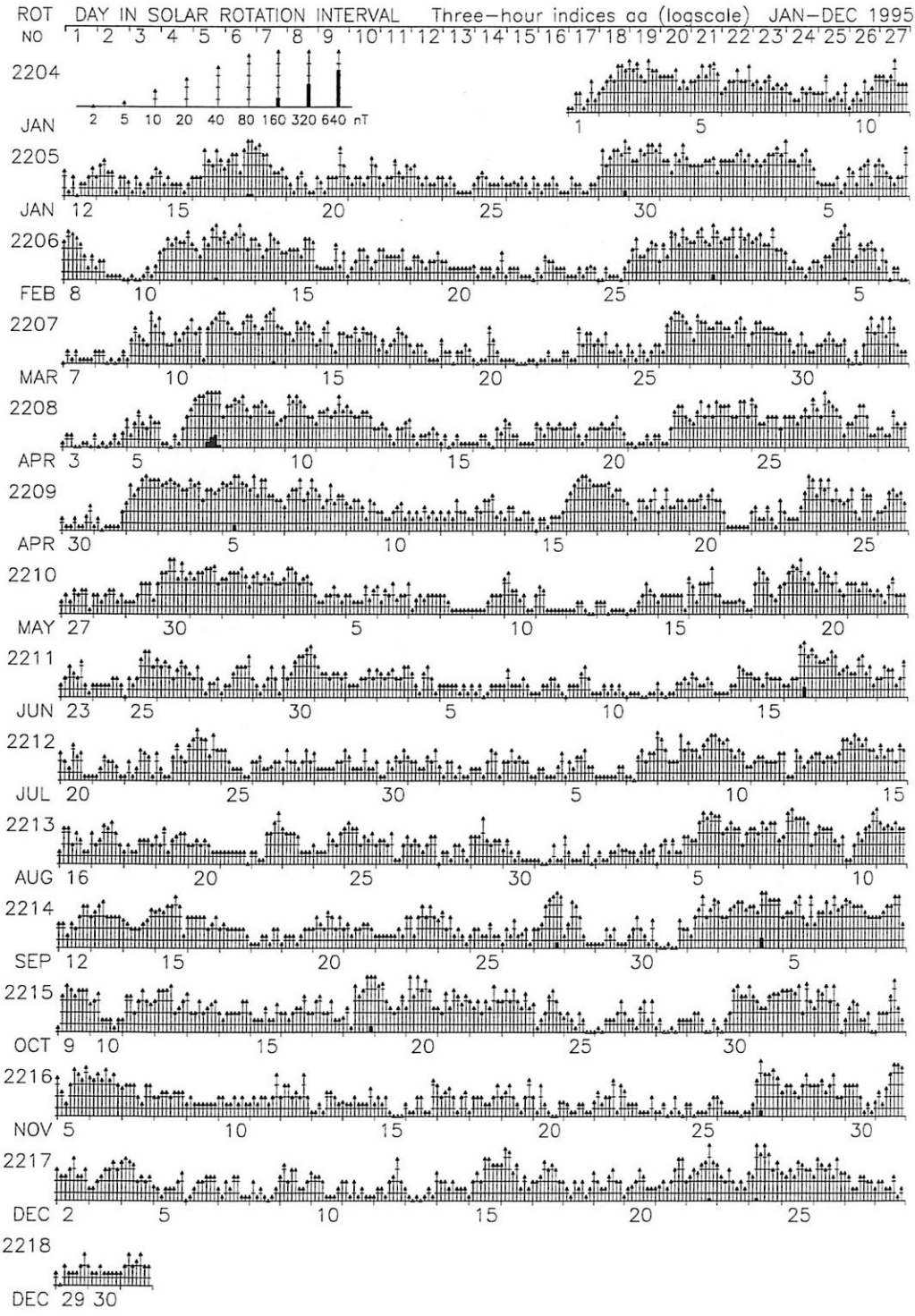
Musical diagram of **aa** 1995 (graph) 43

Half-daily and daily values 44

Monthly and yearly averages of **aa**
1868 - 1995 47

Twelve-month running mean values of **aa**
1868 - 1995 (graph) 50

MUSICAL DIAGRAM OF **aa** 1995



aa INDICES 1995

JAN. 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	7	12	9	11	10	C K
2	33	35	21	47	34	
3	54	51	56	49	52	
4	28	30	32	26	29	
5	48	35	35	49	42	
6	34	23	19	38	29	
7	22	20	21	21	21	
8	15	11	12	14	13	C
9	17	11	16	12	14	C
10	14	15	8	21	15	
11	33	32	30	35	33	
12	14	7	9	12	11	C
13	16	17	21	11	16	K
14	13	7	9	11	10	C C
15	9	9	11	7	9	C K *
16	38	23	24	37	30	
17	68	44	36	76	56	
18	48	30	60	19	39	
19	8	9	9	9	9	C C
20	14	15	10	19	15	
21	19	12	11	20	16	
22	17	15	11	21	16	
23	15	11	16	10	13	C
24	7	8	10	5	8	C C *
25	10	11	12	9	11	C C
26	6	11	8	9	9	C C *
27	7	7	7	8	7	C C *
28	7	8	8	7	7	C *
29	56	52	33	75	54	
30	69	44	48	66	57	
31	50	39	40	49	44	
Mean values	25.7	21.2			23.4	

FEB. 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	31	22	24	29	27	
2	38	39	32	46	39	
3	42	37	28	51	40	
4	42	45	48	39	43	
5	9	7	8	8	8	C
6	19	19	16	22	19	
7	32	14	21	25	23	
8	45	25	52	18	35	
9	8	6	9	4	7	C C *
10	5	5	3	7	5	C K *
11	50	27	30	47	39	
12	62	36	30	68	49	
13	62	47	52	58	55	
14	43	27	29	40	35	
15	34	25	23	36	29	
16	16	10	8	17	13	K
17	13	14	12	15	14	
18	19	17	20	16	18	
19	16	10	13	13	13	C C
20	10	8	10	8	9	C C
21	12	6	8	10	9	C C
22	7	5	7	4	6	C C *
23	8	11	10	9	10	C C
24	8	5	6	8	7	C C *
25	5	5	4	5	5	C C *
26	30	21	24	27	26	
27	40	46	32	54	43	
28	66	58	56	68	62	
Mean values	27.6	21.3			24.4	

MAR. 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	52	51	53	50	51	
2	47	37	44	40	42	
3	12	8	12	8	10	C
4	53	25	13	65	39	
5	38	21	30	29	29	
6	9	8	12	5	8	C K
7	7	4	6	5	5	C C *
8	6	5	7	5	6	C C *
9	32	23	18	36	27	
10	36	15	27	24	25	
11	58	25	29	54	41	
12	60	36	45	51	48	
13	62	44	40	67	53	
14	36	26	28	35	31	
15	23	21	27	17	22	
16	30	17	22	25	24	
17	20	14	11	23	17	
18	9	8	11	6	8	C K
19	10	8	9	9	9	C C *
20	8	12	4	16	10	C C
21	6	2	4	4	4	C C *
22	7	4	5	6	5	C C *
23	17	13	13	18	15	K
24	11	12	15	8	12	C K
25	9	8	9	8	9	C
26	43	54	29	68	49	
27	33	46	40	39	40	
28	33	36	32	37	35	
29	35	30	37	28	32	
30	14	14	15	13	14	
31	17	13	16	14	15	C
Mean values	26.8	20.7			23.7	

APR. 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	20	16	4	32	18	
2	39	20	44	15	29	
3	4	5	6	4	5	C C *
4	7	4	4	7	6	C C *
5	23	13	19	17	18	K
6	14	6	7	12	10	C
7	133	87	67	154	110	
8	45	51	46	50	48	
9	40	34	49	25	37	
10	48	51	61	38	50	
11	38	34	30	42	36	
12	29	27	31	25	28	
13	15	9	12	12	12	C
14	14	6	10	10	10	C C
15	7	4	5	6	5	C C *
16	9	5	7	7	7	C C *
17	12	6	13	5	9	C C
18	14	12	13	13	13	C C
19	12	9	12	9	11	C C
20	15	13	13	15	14	C
21	7	4	4	7	5	C C *
22	27	17	8	37	22	
23	36	34	32	38	35	
24	41	41	40	42	41	
25	35	22	36	21	29	
26	38	22	22	38	30	
27	51	34	56	29	42	
28	20	27	26	22	24	
29	16	13	10	19	15	
30	12	4	7	9	8	C C
Mean values	27.3	21.0			24.1	

aa INDICES 1995 (continued)

MAY 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	8	4	5	7	6	C *
2	59	66	39	86	63	
3	57	69	72	54	63	
4	46	55	58	43	51	
5	68	83	83	68	75	
6	47	55	74	28	51	
7	40	51	35	56	45	
8	34	31	29	36	33	
9	21	17	21	17	19	
10	13	11	10	14	12	C C *
11	12	9	10	11	11	C C
12	14	10	10	14	12	C C
13	18	17	15	19	17	
14	12	10	12	10	11	C K
15	10	5	6	10	8	C *
16	71	65	50	86	68	
17	54	44	61	37	49	
18	26	17	16	27	22	
19	20	23	23	20	21	
20	31	24	26	29	28	
21	9	8	12	5	8	C *
22	13	11	11	13	12	C C
23	39	28	9	59	34	
24	40	48	60	28	44	
25	24	28	23	30	26	
26	30	23	20	34	27	
27	12	11	11	12	12	C *
28	13	11	11	13	12	C C
29	18	11	9	20	15	
30	61	55	54	62	58	
31	50	44	42	52	47	
Mean values	31.2	30.5			30.9	

JUNE 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	38	41	39	41	40	
2	38	30	36	31	34	
3	42	37	49	29	39	
4	14	9	10	13	12	C
5	15	8	10	13	12	C C
6	18	10	14	14	14	K
7	14	10	13	11	12	C C
8	8	7	9	5	7	C C *
9	11	5	5	11	8	C C *
10	21	14	27	8	18	
11	13	6	13	5	9	C C
12	6	4	6	4	5	C C *
13	7	5	7	5	6	C C *
14	11	10	5	16	11	C C
15	12	9	11	10	11	C
16	31	20	21	30	26	
17	10	7	9	8	8	C
18	26	26	34	18	26	
19	47	53	49	51	50	
20	30	34	40	24	32	
21	20	21	22	19	21	
22	16	15	14	17	16	
23	15	14	15	14	15	
24	10	8	8	10	9	C C *
25	30	23	9	45	27	
26	31	20	29	22	26	
27	14	11	16	9	12	C
28	24	14	9	29	19	
29	13	9	8	13	11	K
30	52	29	21	59	40	
Mean values	21.2	16.9			19.0	

JULY 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	21	18	25	14	20	
2	15	9	10	14	12	C C
3	21	12	16	17	17	
4	16	11	13	14	14	K
5	8	7	8	7	7	C C *
6	6	7	6	7	7	C C *
7	12	7	11	8	10	C C
8	10	6	7	9	8	C C
9	12	9	7	14	10	C C
10	6	6	6	7	6	C C *
11	6	2	4	4	4	C C *
12	11	3	5	9	7	C C *
13	13	7	11	9	10	C C
14	15	8	6	17	11	C C
15	14	11	12	13	13	C C
16	52	49	10	91	51	
17	38	34	37	35	36	
18	21	26	24	24	24	
19	15	20	17	18	18	
20	19	11	18	12	15	
21	11	7	9	10	9	C C
22	14	10	8	16	12	C C
23	17	12	10	19	14	
24	45	42	51	36	44	
25	14	10	17	7	12	C
26	14	8	12	10	11	C C
27	17	11	14	14	14	C
28	13	8	11	10	11	C C
29	13	13	14	12	13	K C
30	14	10	9	15	12	C C
31	15	12	12	15	14	C C
Mean values	16.6	13.1			14.9	

AUG. 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	10	6	10	6	8	C C *
2	15	8	7	15	11	C C
3	16	10	15	11	13	C C
4	12	5	7	10	8	C C
5	16	9	10	15	12	C C
6	10	2	5	7	6	C C *
7	18	8	7	19	13	K
8	46	17	37	27	32	
9	50	24	25	48	37	
10	36	20	38	17	28	
11	17	10	13	14	14	
12	16	11	14	13	13	C
13	26	14	17	23	20	
14	42	37	47	32	39	
15	24	21	22	23	23	
16	16	19	21	14	18	
17	24	27	23	29	26	
18	12	12	9	15	12	C
19	24	15	18	21	20	
20	12	12	13	11	12	C C
21	7	7	8	7	7	C C *
22	32	18	7	43	25	
23	18	19	26	11	19	
24	15	13	9	19	14	
25	31	22	35	18	27	
26	13	13	14	12	13	C
27	20	10	15	15	15	C
28	9	6	6	10	8	C
29	19	26	30	15	22	
30	10	6	10	6	8	C C *
31	6	4	4	7	5	C C *
Mean values	19.9	14.0			16.9	

aa INDICES 1995 (continued)

SEP. 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	11	5	10	7	8	C C *
2	9	6	6	9	8	C C *
3	10	7	8	9	8	C C
4	12	10	10	13	11	C
5	52	44	25	72	48	
6	36	31	42	25	34	
7	34	34	34	35	34	
8	60	49	65	44	55	
9	31	20	31	20	26	
10	31	22	12	41	26	
11	45	45	54	35	45	
12	27	18	14	32	23	
13	33	31	40	24	32	
14	22	14	15	21	18	
15	47	34	37	45	41	
16	24	19	24	19	22	
17	13	11	13	11	12	C C
18	8	7	6	9	8	C C *
19	10	7	7	9	8	C C
20	19	20	16	23	20	
21	14	12	12	14	13	C
22	9	8	8	9	9	C K *
23	28	27	20	35	27	
24	16	14	22	8	15	
25	9	11	10	10	10	C C
26	10	10	11	9	10	C K
27	55	58	22	91	56	
28	19	24	32	11	21	
29	9	5	7	8	7	C C *
30	12	12	12	11	12	C C
Mean values	23.8	20.5			22.2	

OCT. 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	9	4	4	9	6	C K *
2	38	34	21	52	36	
3	41	45	36	50	43	
4	87	62	74	76	75	
5	45	42	37	50	44	
6	48	35	35	49	42	
7	44	42	55	32	43	
8	47	40	32	56	44	
9	42	36	36	42	39	
10	19	10	22	7	15	
11	28	21	21	28	25	
12	37	31	40	28	34	
13	23	16	21	18	20	
14	18	11	11	18	15	
15	13	9	9	13	11	C C
16	15	15	11	19	15	
17	16	17	20	13	17	
18	49	53	22	79	51	
19	43	39	63	19	41	
20	57	53	63	47	55	
21	27	26	21	33	27	
22	29	20	19	31	25	
23	32	26	35	23	29	
24	24	15	11	28	20	
25	8	7	9	6	7	C K *
26	9	9	4	13	9	C C *
27	16	10	8	18	13	K K
28	6	5	4	6	5	C C *
29	6	9	10	5	8	C C *
30	22	27	7	42	25	
31	41	22	33	31	32	
Mean values	30.3	25.5			27.9	

NOV. 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	45	39	44	41	42	
2	39	26	39	26	33	
3	10	14	17	8	12	C
4	18	25	10	34	22	
5	45	27	21	51	36	
6	42	35	37	40	38	
7	20	20	23	17	20	
8	15	14	14	15	15	
9	8	9	9	8	9	C C *
10	11	9	10	10	10	C C
11	15	14	10	19	15	
12	19	20	18	21	20	
13	11	8	6	13	9	C C
14	12	8	9	11	10	C C
15	5	8	10	3	6	C C *
16	9	12	8	14	11	K K
17	13	17	18	11	15	K
18	11	12	10	13	12	C C
19	18	12	16	15	15	
20	9	8	12	5	8	C C
21	8	5	7	7	7	C C *
22	16	14	11	18	15	K
23	12	5	10	7	9	C K
24	6	6	5	6	6	C C *
25	8	5	6	8	7	C C *
26	8	4	8	4	6	C
27	41	51	46	47	46	
28	24	22	20	26	23	
29	26	21	24	23	24	
30	21	11	24	8	16	
Mean values	18.1	16.1			17.1	

DEC. 1995	Day N	Day S	Half Day am	Half Day pm	Daily aa	Quiet Days
1	42	39	13	69	41	
2	22	24	20	26	23	
3	20	18	11	27	19	
4	24	28	38	14	26	
5	12	7	8	12	10	C C
6	9	12	7	15	11	C C
7	10	9	8	11	9	C C
8	7	6	8	5	6	C K *
9	15	19	21	13	17	
10	12	10	16	6	11	C C
11	9	7	10	6	8	C C
12	15	12	7	21	14	C
13	6	4	5	5	5	C C *
14	12	10	13	9	11	C C
15	23	28	12	39	26	
16	24	42	50	16	33	
17	18	25	20	23	21	
18	9	8	9	8	9	C K *
19	15	13	12	16	14	C
20	8	14	9	14	11	C C
21	23	18	9	32	20	
22	47	27	18	55	37	
23	15	16	21	10	16	
24	52	57	53	56	54	
25	24	25	19	30	24	
26	32	25	29	28	29	
27	16	11	13	14	14	C
28	9	10	10	9	10	C C
29	11	9	8	13	10	C C *
30	9	9	10	8	9	C C *
31	14	16	14	16	15	K
Mean values	18.2	18.0			18.1	

MONTHLY and YEARLY **aa** 1868 – 1995

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual mean
1868	10.6	16.0	19.7	21.0	16.4	17.9	21.5	19.4	24.0	25.9	13.3	13.7	18.3
1869	19.2	23.6	22.3	29.5	23.1	19.2	17.4	19.9	29.8	17.9	14.7	14.6	20.9
1870	21.6	23.2	21.2	25.8	20.9	16.4	14.1	21.4	35.2	26.2	21.9	19.9	22.3
1871	19.3	24.8	21.4	31.2	17.2	17.1	21.5	23.5	17.7	20.0	28.1	15.7	21.4
1872	17.0	28.0	23.0	23.4	20.4	17.7	25.3	25.2	20.7	38.6	25.0	20.5	23.7
1873	29.4	20.6	24.1	20.8	20.8	25.8	20.6	18.8	19.3	16.6	14.6	12.1	20.3
1874	17.8	16.1	12.7	19.1	14.0	12.8	13.1	13.0	15.7	17.8	14.3	10.1	14.7
1875	10.0	13.5	12.7	12.7	13.0	10.1	11.8	8.7	13.1	11.9	9.8	8.5	11.3
1876	9.8	12.6	11.0	6.5	7.6	7.7	9.1	10.2	10.1	10.5	10.2	10.1	9.6
1877	9.3	9.6	10.4	8.9	13.0	8.9	7.8	7.6	7.4	6.9	11.6	6.8	9.0
1878	7.4	7.5	6.2	8.5	7.3	8.6	4.8	6.4	7.9	6.8	7.1	9.3	7.3
1879	6.2	5.8	8.6	5.6	6.2	5.9	5.8	8.0	8.9	7.0	7.1	9.3	7.1
1880	7.3	4.7	9.8	8.9	13.1	7.3	9.9	23.1	11.4	14.4	14.5	14.6	11.6
1881	15.1	12.8	13.2	11.4	8.5	10.7	12.2	7.8	17.9	14.0	20.2	20.3	13.7
1882	15.7	19.5	16.5	35.9	20.6	19.0	14.5	19.7	15.0	25.0	55.0	20.1	23.0
1883	15.4	26.7	23.3	17.8	13.9	18.5	21.5	12.4	19.5	13.7	17.6	12.0	17.6
1884	9.1	14.3	17.5	15.6	12.8	13.1	15.5	13.0	13.5	16.0	16.9	13.2	14.2
1885	13.2	15.5	13.3	14.0	21.2	14.2	13.0	17.7	22.1	15.9	13.7	12.1	15.5
1886	17.7	17.1	27.6	21.6	22.6	21.6	19.3	18.1	19.0	21.7	20.7	20.6	20.7
1887	16.9	22.9	15.2	20.6	17.3	12.6	12.5	17.2	18.9	14.1	14.6	15.2	16.4
1888	18.2	15.9	15.2	16.4	19.3	14.5	12.9	13.7	15.1	15.0	15.3	14.0	15.5
1889	9.8	11.0	13.9	11.6	10.2	9.9	13.5	12.6	14.6	13.6	18.5	11.8	12.6
1890	11.7	11.8	10.0	8.4	8.4	7.3	10.0	10.3	13.8	15.6	13.3	8.3	10.7
1891	10.4	14.2	20.6	22.5	23.7	11.7	11.2	15.0	22.3	20.7	16.5	16.2	17.1
1892	19.5	35.1	36.3	20.4	25.1	17.7	33.7	22.1	20.1	23.1	15.7	22.1	24.3
1893	18.2	19.1	18.4	14.0	12.0	17.1	14.5	18.5	19.5	20.9	18.5	13.9	17.0
1894	19.2	33.9	20.0	17.4	19.0	20.0	26.3	21.0	22.5	17.0	21.9	12.0	20.7
1895	15.4	20.8	23.0	20.7	16.6	17.6	17.9	10.5	15.9	22.7	22.5	14.5	18.1
1896	25.4	23.6	21.8	17.2	20.6	11.7	15.6	18.1	17.8	17.5	13.1	13.8	18.0
1897	12.0	14.0	14.2	22.2	14.6	12.0	9.3	10.7	11.0	13.8	12.6	17.2	13.6
1898	13.5	15.1	20.5	13.4	15.1	14.3	13.5	14.6	21.5	14.1	13.6	13.0	15.2
1899	14.3	17.8	15.6	14.2	15.9	13.5	11.6	11.4	13.6	9.4	8.7	12.1	13.1
1900	13.5	8.9	12.5	7.2	9.6	4.7	5.2	6.0	5.2	7.1	5.4	5.4	7.6
1901	7.3	7.0	6.5	5.2	6.2	6.0	5.6	6.1	6.0	5.4	5.6	6.4	6.1
1902	6.1	7.6	5.9	7.9	5.6	5.4	6.3	6.2	7.0	7.2	7.6	6.1	6.6
1903	6.5	5.9	6.7	10.3	7.8	11.3	10.8	14.1	14.0	26.3	16.3	13.5	12.0
1904	15.1	12.6	8.7	13.1	13.0	10.5	10.8	10.2	11.2	13.0	11.6	10.6	11.7
1905	16.0	20.3	16.6	16.6	10.6	13.8	11.8	16.8	16.3	11.2	20.1	10.7	15.0
1906	7.6	17.5	14.0	11.6	11.4	11.3	12.4	12.0	14.2	12.7	9.6	16.4	12.5
1907	16.5	25.3	14.3	12.1	16.8	14.9	16.9	15.5	16.8	18.5	14.6	11.5	16.1
1908	13.6	17.0	23.2	15.6	18.9	12.6	10.4	18.2	31.6	15.8	17.4	11.4	17.1
1909	24.8	17.0	19.8	12.1	18.3	11.5	12.6	17.6	27.6	19.4	11.6	13.8	17.2
1910	12.8	14.6	20.9	19.8	17.2	13.7	10.8	20.2	19.2	24.4	17.9	19.5	17.6
1911	21.3	23.7	21.5	21.1	16.6	13.6	15.3	11.9	12.2	12.5	10.6	11.0	15.9
1912	7.6	8.0	7.7	9.4	9.6	8.4	7.8	10.5	9.8	9.5	9.4	9.4	8.9

MONTHLY and YEARLY **aa** 1868 – 1995 (continued)

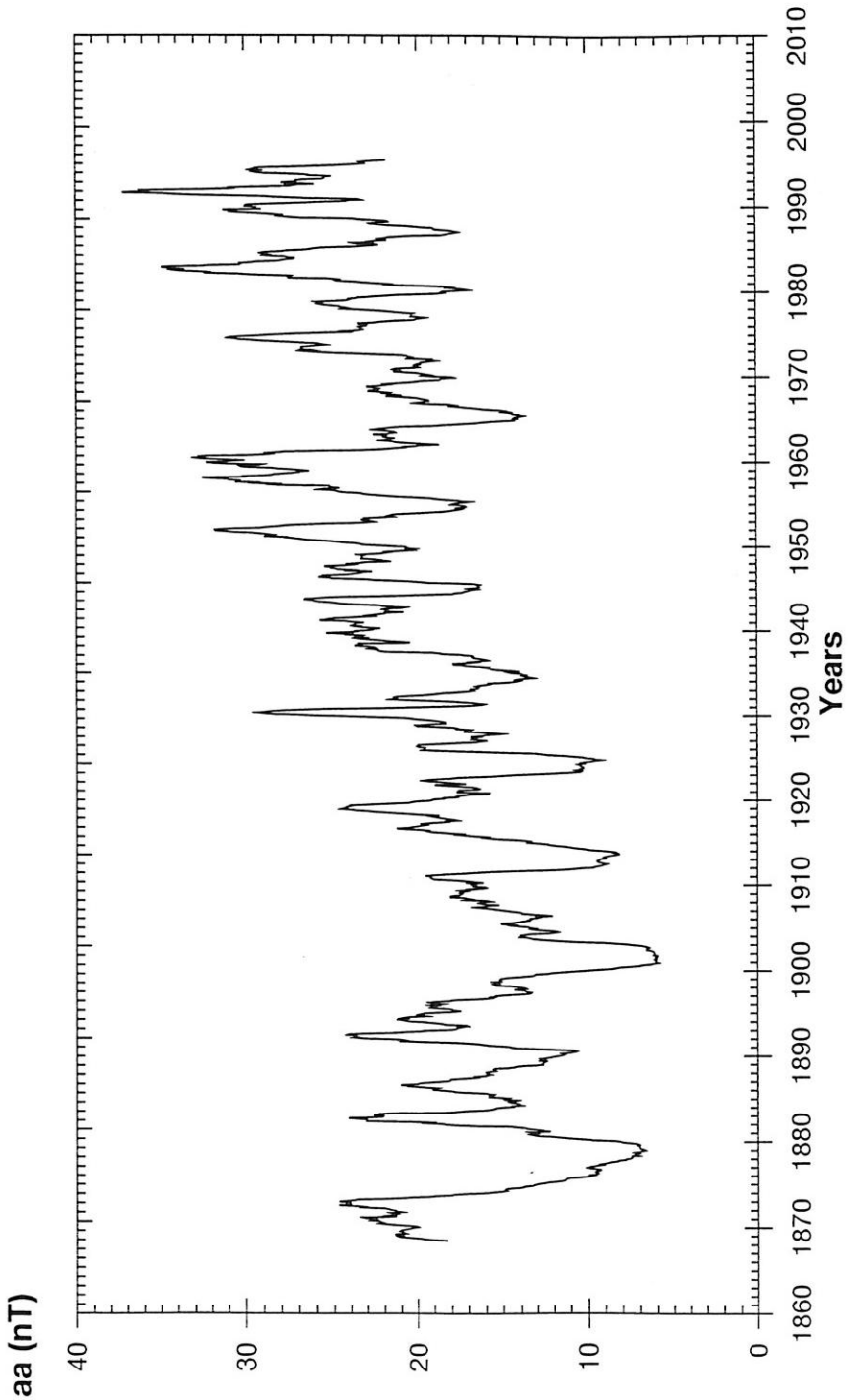
Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual mean
1913	10.3	9.5	9.9	9.8	9.0	7.0	7.0	6.7	10.0	10.7	7.6	6.6	8.7
1914	7.1	7.3	10.1	13.5	8.1	10.3	12.9	14.9	11.8	13.3	13.4	9.3	11.0
1915	10.9	13.5	15.0	15.3	13.9	17.9	11.2	14.7	17.0	21.3	24.9	12.4	15.7
1916	16.0	11.6	25.0	19.2	20.2	15.7	19.7	21.4	22.4	24.5	24.0	18.9	19.9
1917	25.1	19.1	16.2	16.7	15.9	12.7	14.6	28.1	16.1	20.2	14.8	19.8	18.3
1918	17.8	21.3	19.7	20.5	18.8	15.6	17.4	22.2	28.4	26.4	23.1	28.1	21.6
1919	27.8	26.5	30.7	21.3	27.5	13.9	14.9	22.7	25.3	26.9	14.3	18.4	22.5
1920	16.7	14.1	28.5	17.8	17.7	12.4	14.0	14.8	25.7	17.3	15.1	17.0	17.6
1921	11.7	10.6	15.6	17.2	40.5	12.4	13.3	14.6	12.4	16.2	16.2	17.8	16.6
1922	18.0	18.6	24.1	23.5	18.3	18.6	20.0	20.7	19.7	20.1	13.1	10.4	18.8
1923	10.2	13.7	12.1	10.0	10.1	11.1	8.4	7.3	10.7	12.6	7.8	9.6	10.3
1924	13.6	10.9	12.9	7.3	10.2	12.3	9.7	6.9	12.6	8.7	9.3	7.9	10.2
1925	9.4	8.6	8.6	10.8	11.0	17.7	11.8	13.6	18.0	21.7	13.2	12.9	13.1
1926	27.1	26.2	27.6	27.1	19.6	16.2	11.4	13.2	22.7	23.3	11.9	13.3	19.9
1927	15.5	15.2	20.7	15.6	16.8	11.2	16.5	18.5	20.9	24.7	8.0	15.8	16.7
1928	10.1	13.5	11.3	12.8	23.6	20.2	27.8	15.9	19.6	23.4	18.2	15.6	17.7
1929	13.0	24.0	26.2	13.9	16.3	14.7	18.6	15.9	21.5	25.5	22.7	21.0	19.4
1930	20.9	27.9	30.9	38.2	36.4	33.3	28.3	33.3	28.8	29.3	18.8	17.2	28.6
1931	13.0	15.4	12.9	9.9	12.0	14.7	13.1	17.7	21.2	27.3	23.7	21.1	16.8
1932	20.2	21.4	27.9	28.2	22.2	11.8	12.4	19.1	19.1	17.2	13.8	15.3	19.0
1933	15.9	18.4	19.2	21.1	17.5	13.6	12.3	14.2	18.4	16.8	16.0	13.0	16.3
1934	11.5	14.9	20.0	11.3	11.4	10.0	10.3	17.4	17.6	11.6	9.5	15.5	13.4
1935	15.6	16.5	17.8	13.6	11.6	16.4	12.5	9.9	20.8	20.2	15.6	17.7	15.7
1936	17.4	19.8	15.5	22.1	17.5	19.8	18.0	10.2	9.8	15.4	18.0	12.0	16.3
1937	12.2	22.2	18.6	26.3	18.6	18.9	18.8	14.7	14.7	27.8	19.4	16.5	19.0
1938	46.6	26.0	20.4	26.1	23.7	14.8	19.7	19.9	24.7	24.0	17.8	19.5	23.6
1939	13.5	21.7	27.0	36.1	27.8	22.8	26.1	23.0	19.2	28.4	14.6	18.6	23.2
1940	24.8	20.1	43.9	22.4	20.0	23.6	18.4	18.4	20.1	21.9	25.1	23.7	23.6
1941	21.9	27.6	42.9	21.6	19.1	17.4	27.9	22.3	38.2	17.5	23.6	19.3	24.9
1942	14.6	18.8	32.4	24.4	14.2	14.6	23.0	21.9	25.8	30.3	22.8	18.4	21.8
1943	18.1	17.1	21.0	21.9	24.5	21.2	24.4	41.0	35.3	32.8	29.6	23.3	25.9
1944	21.2	17.9	26.6	21.6	16.1	14.9	11.1	16.5	17.5	17.2	11.2	21.8	17.8
1945	16.1	16.4	25.0	19.1	15.4	11.1	15.3	12.1	15.6	17.9	12.0	20.2	16.4
1946	19.2	30.2	43.5	25.0	24.1	22.3	28.6	16.7	41.7	19.6	19.3	14.3	25.3
1947	20.6	17.1	37.9	23.3	19.1	21.1	21.4	32.9	39.1	31.3	20.7	17.9	25.3
1948	20.8	21.0	24.2	17.8	23.7	15.0	16.2	28.3	22.0	36.1	23.1	23.0	22.6
1949	29.8	20.4	24.7	17.6	22.4	17.9	11.8	19.2	17.8	32.8	24.6	15.1	21.2
1950	19.5	23.2	20.6	23.8	21.7	19.0	19.5	30.2	29.3	34.5	28.0	24.0	24.4
1951	23.1	29.2	28.5	32.1	25.5	23.2	25.2	29.7	44.4	30.3	25.7	28.2	28.7
1952	28.5	34.3	40.1	38.0	33.1	23.8	20.8	19.0	28.5	26.4	18.9	23.4	27.9
1953	22.3	21.2	27.4	22.7	21.4	18.4	22.5	26.1	29.0	22.4	20.2	12.6	22.2
1954	13.9	24.5	25.5	20.6	12.0	9.7	13.1	16.5	25.4	21.1	14.5	10.9	17.2
1955	19.3	18.2	23.6	21.1	16.7	15.1	12.3	14.3	19.1	17.8	19.9	14.1	17.6
1956	28.7	23.3	27.6	31.7	29.3	23.5	19.8	20.7	22.4	19.3	32.3	18.2	24.7
1957	28.7	26.8	36.7	28.8	18.1	29.1	21.7	20.7	57.0	24.0	29.5	31.7	29.3

MONTHLY and YEARLY **aa** 1868 – 1995 (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual mean
1958	25.5	43.2	36.1	27.6	25.2	29.7	36.0	25.1	26.5	24.7	15.0	27.2	28.4
1959	24.3	35.9	29.9	24.2	25.7	21.6	42.5	31.2	36.1	28.2	32.1	30.8	30.2
1960	25.2	23.5	27.6	51.5	31.6	27.6	28.1	27.2	26.4	45.6	45.9	34.5	32.9
1961	20.6	25.1	22.0	21.8	22.3	20.1	36.0	18.5	20.7	23.3	17.3	21.1	22.4
1962	13.2	19.2	15.5	22.6	13.4	18.1	21.0	26.2	29.8	33.3	22.5	23.5	21.5
1963	19.3	15.3	14.9	18.2	20.4	20.5	20.8	22.5	40.2	23.5	20.7	18.9	21.3
1964	20.1	20.1	21.0	21.7	17.5	15.1	16.9	14.8	18.2	16.9	13.8	10.3	17.2
1965	11.8	16.3	14.3	12.6	10.5	15.7	14.8	16.8	17.5	13.1	11.7	13.8	14.0
1966	14.2	14.8	18.6	12.0	14.8	12.5	17.1	20.0	29.4	17.5	16.8	20.5	17.4
1967	18.9	19.8	13.8	15.5	33.1	18.6	14.4	17.5	24.7	17.8	18.9	24.5	19.8
1968	21.1	26.5	23.3	22.2	21.4	24.9	18.0	20.1	22.0	24.8	26.2	20.3	22.5
1969	17.8	25.8	27.3	23.6	25.2	16.7	15.0	15.3	23.9	17.2	18.7	13.8	20.0
1970	14.4	12.7	26.4	23.1	16.6	18.3	28.4	21.0	19.7	20.6	21.6	16.5	20.0
1971	23.5	21.2	21.1	23.9	21.1	17.0	15.2	17.1	21.4	22.2	18.8	18.6	20.1
1972	21.9	18.3	21.5	18.1	16.6	21.5	14.0	34.2	20.4	20.4	21.8	18.9	20.6
1973	26.1	32.7	36.9	39.6	26.1	27.3	20.9	20.6	22.8	28.2	20.7	19.9	26.8
1974	25.8	26.4	33.7	32.9	29.2	29.2	32.0	30.2	33.7	37.3	26.8	27.5	30.4
1975	27.6	31.1	32.0	24.3	22.7	20.7	21.7	18.1	16.9	20.2	29.3	21.1	23.8
1976	23.3	28.5	33.4	25.4	23.7	17.5	18.4	17.7	23.7	20.4	16.9	18.6	22.3
1977	18.7	21.0	19.9	24.9	20.1	14.2	22.9	23.2	23.0	20.9	17.3	17.0	20.3
1978	24.6	26.2	25.9	31.3	31.2	28.3	19.9	25.6	27.0	20.8	24.6	22.0	25.6
1979	27.3	23.7	26.9	33.5	21.0	18.3	17.9	26.0	22.0	19.3	17.1	16.8	22.5
1980	19.3	17.6	12.8	18.7	15.7	20.3	17.1	16.0	14.4	22.3	23.7	22.1	18.3
1981	16.8	22.9	27.1	33.4	27.3	18.1	27.6	24.3	20.8	34.4	24.5	19.7	24.8
1982	23.5	49.3	27.6	32.2	26.2	31.5	42.4	32.0	45.9	28.9	33.7	34.5	33.8
1983	26.6	40.8	34.2	36.3	32.1	25.1	21.4	25.2	24.0	28.8	34.1	26.4	29.5
1984	23.8	26.5	31.3	33.1	27.5	24.0	26.7	26.2	33.2	33.7	31.5	29.4	28.9
1985	26.1	24.4	19.2	30.0	15.7	20.1	23.7	22.3	21.4	22.5	24.0	21.5	22.5
1986	22.7	40.5	21.3	14.4	18.9	16.0	16.5	22.6	25.0	18.8	21.5	15.4	21.0
1987	14.8	16.8	17.8	13.0	14.8	13.3	19.2	24.3	30.3	25.7	22.3	15.9	19.0
1988	22.4	23.3	24.8	25.2	20.5	19.9	20.1	20.5	22.5	23.1	23.2	25.5	22.6
1989	33.9	27.4	60.0	32.7	25.7	24.9	14.3	28.3	26.6	31.3	34.6	31.3	31.0
1990	27.4	37.7	33.8	37.4	25.1	24.5	21.5	28.1	25.0	25.1	17.4	15.1	26.4
1991	17.1	20.0	37.3	24.3	27.3	56.2	35.1	40.8	30.6	44.0	49.6	27.9	34.2
1992	25.9	47.7	24.4	19.7	29.7	24.7	17.8	24.1	35.7	26.9	25.1	26.0	27.3
1993	31.1	27.1	37.8	29.1	22.1	21.7	18.2	19.1	23.8	24.6	25.4	25.2	25.4
1994	26.5	43.1	37.9	40.3	40.2	27.1	20.6	15.9	20.1	33.3	23.6	24.1	29.4
1995	23.4	24.4	23.7	24.1	30.9	19.0	14.9	16.9	22.2	27.9	17.1	18.1	21.9

Unit : nT

TWELVE - MONTH RUNNING MEAN VALUES OF **aa** 1868 - 1995



SECTION 3

3.2 an, as, am INDICES

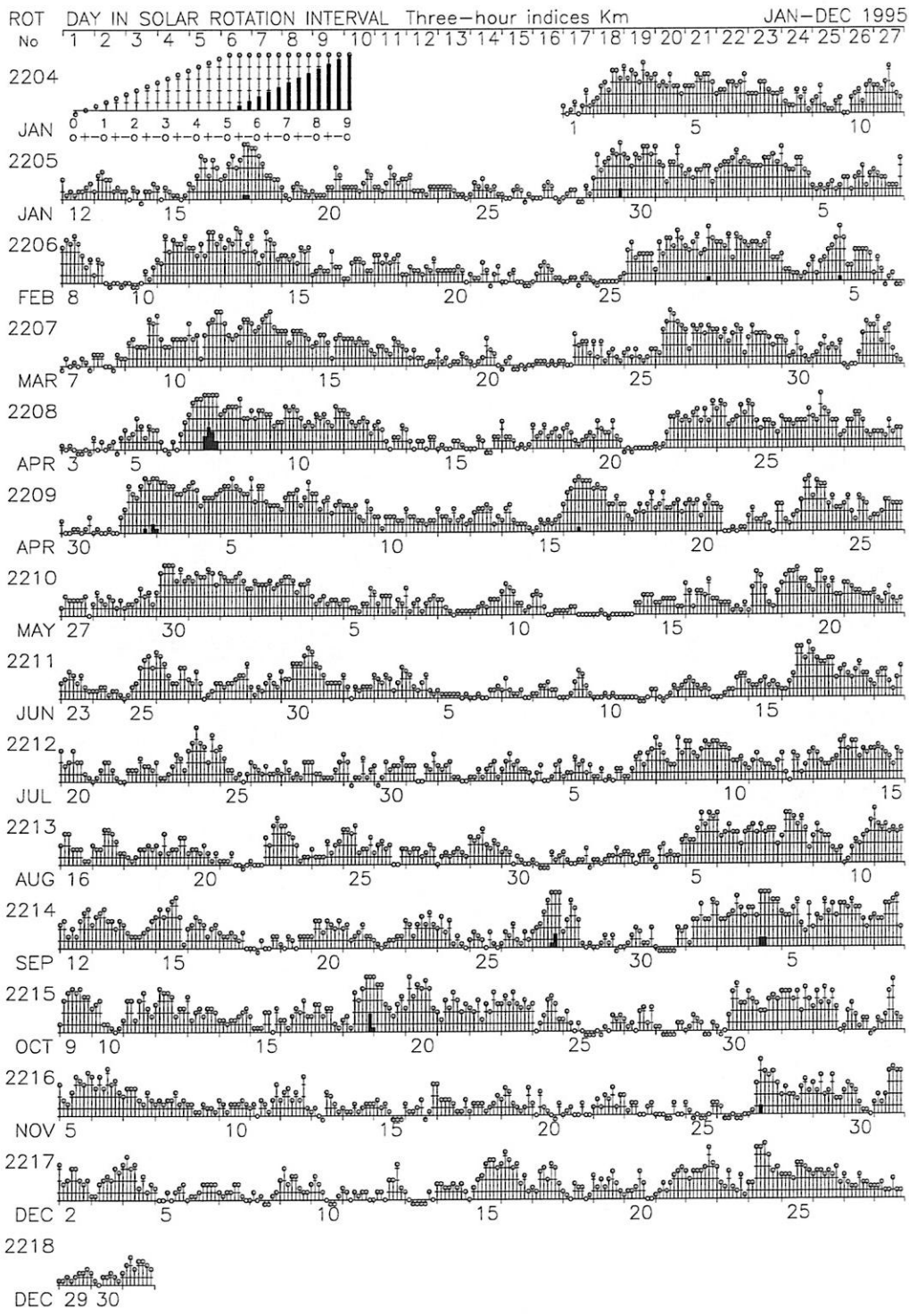
Musical diagram of **Km** 1995 53

Monthly tables of three-hour indices :
an, **as**, **Kn**, **Ks** and daily **An**, **As** values 54

Monthly tables of three-hour indices :
am, **Km** and daily **Am** values 66

Monthly and yearly mean values of **Am**
1959 - 1995 72

MUSICAL DIAGRAM OF **Km** 1995



an, as INDICES 1995

January 1995																				
	Kn								σn		an									An
1	1-	0o	0+	1+	1-	1-	2+	1-	2113	3422	5	1	2	8	5	5	18	5		6
2	1+	1+	2o	3-	2+	4o	5-	3o	3222	3533	8	9	15	23	17	59	71	33		29
3	4+	3o	4-	3+	3o	4+	3+	3+	2243	2533	67	27	44	35	31	67	35	39		43
4	4-	3-	3o	3o	4-	3-	3-	2o	3210	4322	42	23	31	30	44	24	25	16		29
5	3-	2+	3-	4o	4-	4o	4-	3o	2224	2443	23	18	26	53	42	53	42	31		36
6	2-	2+	2+	3o	4-	2+	3-	4-	2422	3434	13	17	18	29	41	20	26	44		26
7	2o	2o	2o	3-	3o	2+	2o	2o	4223	1341	15	15	15	25	28	19	16	16		19
8	2+	2-	1o	1o	3-	2-	2+	1-	4211	5342	19	11	6	7	21	13	18	4		12
9	1o	1+	3-	1o	0+	1-	1o	2-	3331	3314	7	10	23	6	3	5	6	11		9
10	0+	0+	2-	2+	3-	1+	2o	3o	2233	4102	3	3	12	17	23	9	15	29		14
11	3-	3-	3-	3-	5-	3-	2o	2-	3224	3344	21	25	21	26	77	24	16	13		28
12	2+	0+	1-	0+	1o	1+	1+	2o	5323	4436	17	3	4	3	7	9	8	15		8
13	1-	2+	3o	2+	3-	1o	1o	1+	3424	3143	5	19	27	19	21	6	7	8		14
14	1o	0+	1+	0+	0+	1o	1+	2o	3222	1157	7	2	10	3	2	6	8	15		7
15	1o	0+	1+	1-	1-	0o	0+	0+	4223	2122	7	2	10	4	4	1	3	3		4
16	1+	1+	2+	4+	4o	2+	4-	3o	3352	3577	10	9	18	65	52	20	47	32		32
17	2+	2+	3o	4o	3o	4o	5-	5+	4433	4663	17	17	32	54	32	53	85	109		50
18	5-	5-	4o	3+	2+	2+	2o	2o	5442	3445	77	78	60	35	20	17	14	15		40
19	1o	0+	0+	1+	2-	1o	1o	0o	3322	2241	7	3	2	8	13	7	7	1		6
20	1-	0o	0o	0+	1+	1+	3o	2+	2112	3263	5	0	1	3	8	9	33	17		10
21	1+	1+	1+	1o	1o	2o	3o	2+	3121	2154	10	10	9	6	7	14	29	20		13
22	1+	1o	0+	1+	3o	2o	2-	2+	4333	3035	9	6	3	9	31	15	12	17		13
23	2o	2+	1o	1-	1-	1-	1+	1+	4412	1333	15	19	6	5	5	4	9	10		9
24	1o	1o	1o	1+	1+	0+	1-	0+	2112	3132	7	7	6	10	9	3	5	2		6
25	0+	2-	2-	2-	1+	1o	1o	0+	2332	2122	2	13	11	12	9	6	7	3		8
26	0+	0o	0o	1+	2-	1-	0o	0+	3113	4203	3	1	1	8	11	5	0	3		4
27	0o	0o	0+	2-	2-	2-	1-	0o	2113	3421	1	0	2	11	11	11	4	0		5
28	0o	0+	1o	1-	0o	0o	1o	1-	1332	1123	1	3	6	5	1	1	6	4		3
29	1+	4-	2+	3+	4-	4+	4o	5+	3323	4304	9	46	17	39	48	65	54	112		49
30	4o	4o	3+	4o	4-	4+	5-	4-	3424	3514	56	60	34	58	46	62	82	49		56
31	5-	4-	3+	2-	4-	3o	4+	3o	2332	4463	78	41	34	13	42	32	66	28		42
											Monthly mean value of An									20.3

January 1995																				
	Ks								σs		as									As
1	1+	1-	1+	1+	0+	1o	3-	1+	3312	2123	10	4	8	10	2	6	22	9		9
2	1+	2o	3o	3+	3-	4-	4-	4-	4113	4325	10	14	27	38	22	48	49	46		32
3	5-	3+	4+	4-	3o	5-	4o	3+	3423	1354	71	40	68	48	29	82	53	35		53
4	3+	3-	3o	3-	4-	3-	3-	2o	4323	3332	40	24	28	22	41	23	21	14		27
5	3-	3-	3-	4-	3o	3+	4-	3o	3322	1235	25	24	22	47	27	38	45	33		33
6	2o	2+	2+	3o	3-	3-	3+	4-	1331	3455	14	20	19	27	25	22	36	45		26
7	2-	2+	2o	3o	3-	2o	2-	2-	2320	3033	13	17	16	31	26	15	12	12		18
8	2o	1+	1o	1o	2o	2-	2o	1o	1120	4423	14	8	7	7	16	13	16	7		11
9	2-	2-	2+	1o	1-	1-	1+	2-	2461	3132	11	13	20	7	4	5	10	12		10
10	0+	1-	2-	2-	2+	1+	3o	3+	1222	1313	2	4	12	11	17	10	27	38		15
11	3-	3-	2o	3+	4-	2+	2o	1+	3331	3533	26	25	14	37	47	18	15	10		24
12	2-	1o	1+	1-	1o	1o	2-	2-	4133	1132	11	6	9	5	6	6	11	12		8
13	1+	2+	2+	2o	2-	1o	1+	1o	3333	2440	9	19	19	14	11	7	9	7		12
14	1o	1-	1+	1+	0o	1o	1o	2-	2223	0122	6	4	10	9	0	6	7	12		7
15	1+	1-	1+	1+	1o	1o	0+	1o	3334	2521	9	5	9	8	6	6	3	6		7
16	2o	1+	2o	3+	4-	2+	4-	3-	1422	3355	14	9	16	38	41	20	44	23		26
17	2o	3-	3+	4o	3-	4-	6o	6-	1322	2278	14	24	40	57	22	46	156	131		61
18	4+	5-	4-	3o	2o	2+	2o	2o	6413	0312	70	79	50	33	15	18	14	14		37
19	1+	1+	1-	1+	2-	2-	1o	1o	1121	3241	8	8	4	10	12	11	7	6		8
20	1+	1+	1o	1o	1+	1+	3-	2+	2312	3333	8	9	6	7	9	9	25	20		12
21	1+	1+	2-	2-	1-	2-	3-	2o	3132	3321	10	9	11	12	5	12	23	15		12
22	1+	1+	2-	2o	3o	2+	1+	2-	3231	3332	9	9	11	16	27	20	9	13		14
23	2+	2o	1+	1o	1+	1-	1+	1o	3230	1330	17	16	8	7	8	5	10	7		10
24	2-	2-	2-	1+	1-	1-	1-	0+	3122	3322	11	12	12	10	4	5	5	3		8
25	1o	1+	1+	2o	1o	1+	1+	1+	1330	0331	6	10	9	15	7	9	9	8		9
26	1-	1-	1-	1-	1+	1o	0+	1o	2332	3022	5	4	5	4	9	7	2	6		5
27	1o	1-	1-	1+	2-	1o	0o	0+	3331	2201	6	5	5	10	12	6	0	2		6
28	1-	1o	1-	1o	0+	0o	1+	1o	3231	2130	4	7	5	6	2	1	10	7		5
29	2+	4o	3o	3+	4-	5-	4+	6-	2512	2243	19	59	29	39	46	74	65	133		58
30	4o	4-	3-	4-	3+	5-	5-	4+	2342	3446	55	41	26	43	37	83	71	62		52
31	4+	3+	3o	2-	3+	3+	5-	3+	4332	1233	65	39	30	13	35	37	82	35		42
											Monthly mean value of As									21.2

an, as INDICES 1995 (continued)

February 1995																			
	Kn								σn		an								An
1	2+	3-	2+	3-	3-	3-	3o	2-	3311	2342	17	21	17	26	24	25	30	12	22
2	2+	3+	3+	4-	4o	4+	3o	3+	4335	2343	19	34	40	44	51	62	33	36	40
3	3+	3o	3o	3o	4-	3+	4o	3+	4343	3355	37	30	33	28	43	36	54	34	37
4	5-	3o	3-	3-	4-	4-	3-	2+	1343	5435	77	32	22	22	43	43	24	18	35
5	1+	1o	1+	1-	1+	2-	1o	1o	2121	3240	10	6	8	5	9	12	7	7	8
6	2+	2+	1o	2o	3-	3-	1+	2+	5324	3324	17	17	7	14	21	26	8	17	16
7	3o	2+	2o	2o	1+	2-	1+	4o	4223	3334	27	17	16	14	9	11	8	56	20
8	3+	4+	4o	5-	4o	3o	2-	2o	2226	2332	40	64	54	77	58	27	12	16	44
9	1o	2+	2-	0o	0+	0+	0o	0o	2421	2210	6	18	11	1	2	3	1	0	5
10	0+	0+	0o	0o	0+	1+	1-	1+	2310	2324	2	3	1	0	2	9	5	10	4
11	2+	2o	4o	3o	4o	4-	3+	4o	3543	5344	18	15	60	27	60	46	38	59	40
12	3+	3+	3-	3+	3o	5-	5-	4-	5543	3663	40	37	24	38	27	77	84	42	46
13	4+	3+	4o	4-	5+	5-	3-	4-	2352	2443	61	35	55	49	113	86	25	43	58
14	4+	3o	2+	3-	5-	4o	4-	2o	4232	3444	70	32	17	24	85	58	42	16	43
15	2+	3-	2+	3-	2-	3+	3+	4-	2323	2664	20	25	17	25	13	34	37	41	27
16	1o	1+	2-	1+	2-	3o	2-	2-	4213	2445	7	8	12	9	12	28	13	11	13
17	0+	0+	2-	2+	2+	2o	1o	1o	2312	4311	2	3	13	19	20	14	6	7	11
18	2+	3-	2-	3-	2o	3-	3-	1o	3333	3441	20	22	12	25	14	21	26	6	18
19	1-	2-	1+	1+	1o	2-	2-	2+	2425	3224	5	13	9	9	6	12	11	17	10
20	1o	1+	1+	1o	1+	2-	1+	0+	3331	3222	7	8	10	7	10	12	8	3	8
21	1o	0+	1o	2o	1+	0o	1-	2-	4124	3125	6	2	6	15	8	1	4	12	7
22	0o	0+	1o	1+	0+	0+	0o	0o	1224	1111	1	2	6	8	3	2	1	0	3
23	0+	1-	2-	2o	2-	1+	1-	1-	3424	3432	2	4	12	16	13	9	5	4	8
24	0+	0+	1-	1-	0o	1-	1o	1-	2111	1253	2	2	5	5	1	5	6	4	4
25	0o	0o	0o	0+	0+	0+	0o	0+	0012	3211	0	0	1	3	2	3	1	2	2
26	1o	3-	3+	2+	3-	3o	3o	3-	4323	4252	7	25	35	18	24	27	29	24	24
27	2-	3+	3-	4-	4o	3o	4+	3+	3242	1432	11	40	25	44	51	31	64	39	38
28	3+	3o	4o	5-	2o	3o	5o	4-	3443	2565	35	27	52	73	16	29	93	50	47
											Monthly mean value of An								22.8

February 1995																			
	Ks								σs		as								As
1	2+	3-	2o	3-	3-	3o	3o	2o	2212	2331	18	23	15	26	26	31	29	14	23
2	3o	3o	3o	3o	4-	4+	3+	4-	1343	2223	30	31	27	31	49	67	38	48	40
3	3+	3o	3-	3-	4o	4-	4+	3+	3332	3252	40	28	25	26	51	45	67	35	40
4	4+	3-	3-	3-	4-	4-	3-	2+	3422	2214	67	26	22	21	41	44	24	18	33
5	1+	1+	1+	1o	1+	2-	1o	1+	2133	1322	8	8	9	7	8	13	7	10	9
6	2o	2o	1o	2o	2o	3o	1+	2o	2314	5122	15	15	6	16	15	30	9	16	15
7	3-	2+	2o	2-	1o	1+	1o	3+	3312	3325	21	20	15	13	6	9	7	40	16
8	3+	4-	4-	4o	3+	3-	2o	3-	4441	1322	37	46	45	56	34	23	15	21	35
9	1+	2+	2o	1-	0o	0+	0+	0o	2421	0221	8	17	16	4	0	3	3	1	7
10	0o	0+	0o	0+	1-	2-	1-	2-	1211	2444	1	3	1	2	4	11	5	11	5
11	2+	2o	4+	3o	4o	4-	4-	4+	3242	4554	20	16	63	33	60	49	47	66	44
12	3+	3o	2+	4-	3-	5-	5-	4o	4512	2243	35	31	17	44	26	77	83	58	46
13	4+	3+	4-	4-	5-	4+	3o	4-	3233	2122	68	36	49	49	86	64	28	43	53
14	4+	3o	2o	3-	5-	4-	4-	2+	5113	3264	66	30	14	23	73	47	49	18	40
15	3-	3-	2+	3-	2o	3+	3o	3+	3242	4114	24	26	17	21	16	35	29	34	25
16	1+	1+	1+	1+	1o	3+	2-	2-	3212	2552	8	9	10	9	7	34	12	13	13
17	1o	1o	2o	2+	2+	2o	2-	1+	2213	4122	6	7	15	18	20	15	11	10	13
18	3-	3-	2o	2+	2o	2+	2+	1+	2332	1331	23	25	16	19	15	19	20	8	18
19	1+	2-	1+	2-	1o	1+	1+	2o	2212	1424	10	13	10	11	6	10	8	16	11
20	1+	2-	1+	1+	1+	1+	1+	0+	2221	2221	9	12	8	10	9	10	10	3	9
21	1o	1-	1-	2-	1+	0+	1+	2-	4333	2313	6	5	5	12	8	2	8	12	7
22	0+	1-	1o	1+	0+	0+	0o	0+	2312	2312	2	5	6	9	3	2	1	2	4
23	1-	1+	1+	2-	1+	1+	1o	1o	2224	2111	4	10	10	12	10	9	6	6	8
24	0+	1-	0+	0+	0o	1-	1o	1-	2322	1341	2	5	3	3	1	5	7	5	4
25	0+	0o	0+	0+	0+	0+	0+	1-	2011	3121	3	0	3	2	3	2	3	5	3
26	1+	3o	4-	3-	2+	3-	3-	3-	1342	1122	8	29	50	22	18	22	21	24	24
27	1+	4-	3-	4o	4o	4-	5-	4+	1445	3133	9	50	25	57	55	41	84	69	49
28	4-	3o	4-	4+	3o	3o	6-	4o	5345	6246	46	32	46	66	30	28	130	58	55
											Monthly mean value of As								23.2

an, as INDICES 1995 (continued)

March 1995																		
	Kn								σn		an								An
1	3+	4-	3+	5-	2+	4o	4-	4-	4232	2545	38	46	37	71	20	57	45	47	45
2	3+	4o	4o	3+	4-	4+	2+	2+	2433	5433	35	54	54	39	41	65	18	19	41
3	3-	1+	1+	1-	1o	1-	1-	1+	3222	1346	24	8	8	4	7	5	5	10	9
4	2o	1o	2o	3-	3+	4-	4o	6-	1302	3454	14	6	15	21	34	42	54	127	39
5	4o	2-	2-	3o	3o	3o	3o	3-	4323	5544	53	11	12	32	31	28	31	23	28
6	1-	2+	1-	0o	1-	1o	0o	0o	2322	2100	4	18	5	1	4	7	0	0	5
7	0o	1o	0+	0o	0+	1+	1o	0+	1111	3102	0	6	2	1	3	8	7	2	4
8	1o	1o	1+	0+	0+	0o	1+	1-	1012	2112	6	7	8	2	2	1	8	5	5
9	1-	2o	3-	2o	2o	2o	4+	4-	1434	0143	5	15	22	16	15	16	66	45	25
10	4+	3-	2o	2o	3-	3-	3-	3-	5211	3324	69	25	16	14	22	21	22	24	27
11	4+	3o	3+	1o	3o	4o	4+	5o	4023	4431	63	30	34	6	29	51	67	98	47
12	5o	4+	3o	3-	3o	4-	4+	4+	4201	3345	103	62	30	26	27	46	66	67	53
13	4-	3+	4-	4+	5-	5+	4-	3+	4454	5223	49	35	48	68	76	106	48	37	58
14	3+	3+	2+	3+	3+	3+	3o	3-	1342	4544	35	34	18	34	37	37	33	23	31
15	2o	2+	3o	3+	3-	1o	3-	3o	4334	4034	15	20	30	35	21	7	23	28	22
16	3-	3-	3-	3-	3-	2+	2+	2-	3332	2453	22	21	25	21	25	19	18	13	21
17	1+	2-	2+	2-	2-	3-	3-	2+	2253	3441	8	12	17	13	11	25	23	17	16
18	2-	1o	2-	1o	1o	1-	1-	1-	2332	3242	11	7	11	6	7	5	5	5	7
19	2-	1-	1-	0+	1o	1-	1+	1o	3232	2343	11	4	5	2	6	5	9	7	6
20	1-	0o	1-	1o	2+	2o	1o	0+	2224	4421	4	1	4	7	20	16	7	2	8
21	0o	1-	1-	0o	0o	0+	0o	0o	1240	1311	1	4	5	0	1	2	1	1	2
22	0o	1-	1-	0+	1-	1-	0o	1-	1222	2212	1	4	5	3	4	4	1	5	3
23	0+	0o	0o	3-	2+	3-	2+	1+	1213	1343	3	1	1	26	17	25	20	9	13
24	2o	1o	2+	1o	1+	2-	1-	1-	0232	3324	15	6	17	6	9	12	4	4	9
25	1o	2-	1-	2o	1o	1-	1o	1+	4323	2212	7	11	4	14	6	4	6	9	8
26	1+	1+	4-	4o	5o	5-	4-	3+	2263	4432	9	9	44	59	101	74	46	38	48
27	3-	1+	3+	3+	4-	3o	4-	3o	2323	3355	25	10	39	38	46	28	43	29	32
28	3o	3-	3+	2+	3o	4-	3+	2-	2344	3561	30	25	37	17	27	45	35	11	28
29	2+	4o	3o	3o	3+	3-	2+	2+	2522	3462	20	53	30	28	36	22	18	20	28
30	2+	2+	1o	1+	3+	2-	1o	1-	4202	5302	20	18	7	9	35	12	7	4	14
31	1o	1+	2-	3-	2-	2o	2o	2o	3222	2321	6	9	13	24	13	16	14	16	14
											Monthly mean value of An								22.5

March 1995																			
	Ks								σs		as								As
1	4-	4o	3+	4+	2+	5-	4o	4o	5134	1245	48	52	39	64	18	71	58	52	50
2	3o	4-	3+	3+	4-	4o	2+	2+	4252	3533	33	41	35	35	41	58	17	20	35
3	3o	2-	2-	1+	1-	1-	1o	2-	5443	3324	27	12	12	9	5	4	7	12	11
4	2+	1o	2-	2+	3o	3o	4o	5+	3331	2155	20	7	12	19	31	33	51	112	36
5	4-	2o	2o	3o	3-	3o	3o	3-	6313	3334	48	14	14	30	23	27	33	21	26
6	1+	2o	2-	0+	1-	1+	0o	0o	2221	2211	8	16	11	2	4	8	1	1	6
7	0o	1+	1-	1o	0+	1o	0+	0o	1211	2521	1	9	4	6	3	6	3	1	4
8	1+	2-	2-	0+	0o	0o	1+	1o	2232	1143	10	12	11	3	1	1	8	6	7
9	1+	3-	3-	2+	2-	2o	5-	4o	1323	2336	8	21	26	17	13	16	74	60	29
10	5-	3-	2o	2o	3-	3-	3-	3-	7222	2225	79	23	16	15	23	21	23	23	28
11	4o	3-	3o	1o	3-	4-	4+	5o	6213	2364	51	22	30	6	25	50	62	96	43
12	5-	4o	3o	3-	3o	4-	5-	4+	3332	1254	81	58	28	26	30	45	71	66	51
13	4+	3o	3+	4+	5o	5o	4-	3+	8434	3456	62	32	34	65	90	93	50	35	58
14	3o	3o	3-	4-	3o	4-	3o	2+	2435	2333	32	33	21	41	32	41	27	19	31
15	2o	2o	3o	3o	2-	1o	3o	3+	2335	2136	15	15	29	28	13	7	27	35	21
16	3-	3-	3-	2o	2+	2+	3-	2o	2432	3323	21	23	21	15	20	18	22	14	19
17	1o	2o	2o	2-	1+	2+	2o	2-	2551	3202	7	15	15	12	10	18	16	13	13
18	2-	1o	2-	1+	1-	0o	1o	0+	2323	2132	12	7	13	8	5	1	6	3	7
19	2-	1o	1o	0+	1-	1-	1+	1o	2121	3224	13	6	7	2	4	4	10	7	7
20	1o	0+	1-	1o	3-	2-	1+	0+	0112	4222	7	2	4	7	23	11	9	3	8
21	0o	1-	1o	0+	0o	0o	0+	0+	1331	1122	1	5	6	2	1	1	2	3	3
22	1-	1o	1o	1o	0+	1-	0+	1-	3221	2420	5	6	6	6	2	4	3	4	5
23	1o	1-	1-	3o	2o	2o	2+	1+	3221	3231	6	5	4	29	15	15	18	10	13
24	2+	1+	3-	1-	1o	1+	1o	1o	2320	3324	19	8	23	4	7	9	7	6	10
25	1+	2o	1+	2-	1-	0+	1-	2-	1523	2212	9	15	8	13	5	3	5	12	9
26	2-	1+	3+	4-	5+	5-	5-	4+	2243	2214	13	9	36	49	105	77	73	62	53
27	4o	2o	4-	3+	4o	3o	4-	4-	4441	2233	53	15	45	34	54	31	49	41	40
28	4-	3-	3+	2+	3o	4o	3+	1+	2264	4222	41	22	36	19	29	53	37	10	31
29	3-	4-	3+	3+	3o	3-	2o	3-	2552	3212	25	43	36	35	27	23	14	21	28
30	3-	2+	1+	1+	3o	2-	1o	1-	6323	1321	26	18	8	9	27	12	7	5	14
31	1o	2-	2o	3-	2-	2-	2-	2+	1212	2343	6	12	15	22	11	12	11	19	14
											Monthly mean value of As								22.9

an, as INDICES 1995 (continued)

April 1995

	Kn								σn		an								An
1	0+	0o	0o	0o	1+	3+	4o	4-	1111	3343	3	1	1	1	8	35	51	41	18
2	4-	4+	2+	3+	4-	2o	1o	1-	5242	4402	42	70	17	40	47	15	7	4	30
3	0+	0o	1-	0+	0+	0+	0o	0o	2122	1111	3	1	5	3	2	2	1	0	2
4	1+	0o	1-	1-	1-	1o	0o	1o	1143	3215	8	1	5	4	5	7	1	7	5
5	2o	1+	2-	3+	2+	2-	3-	2+	4233	2324	16	10	11	37	18	11	22	17	18
6	2o	1o	0+	0o	1+	0+	2o	3-	7221	3243	16	7	2	1	8	3	15	22	9
7	3o	4+	5-	5-	6o	6+	6+	5+	4453	5466	32	66	79	79	164	195	181	106	113
8	3o	4o	4o	4+	4o	5-	3o	3-	4644	4254	33	54	54	61	54	84	27	26	49
9	4o	3o	4-	4-	3o	3o	2+	3-	3433	1413	51	32	41	42	31	29	17	21	33
10	3-	4-	4-	4o	4-	3o	2+	3-	3222	3524	24	46	41	57	46	29	20	23	36
11	2+	3+	3+	3+	3-	3-	4-	4-	1435	4342	17	40	35	34	24	21	49	41	33
12	4-	3o	3-	2+	3-	3-	3o	2-	2432	4533	46	29	21	17	24	25	28	13	25
13	2+	3-	2o	1+	1-	1+	1+	2+	4323	2444	19	21	14	8	4	9	9	17	13
14	2o	1o	0+	1-	1o	0+	1o	1+	7422	2343	15	6	2	5	7	3	6	10	7
15	1-	1-	0o	0o	1o	1+	1-	0+	2111	1122	4	5	1	1	7	8	5	2	4
16	0+	0o	1+	1o	0o	0o	1+	1+	2131	1132	3	1	10	7	1	0	10	9	5
17	3-	1+	1+	1+	1-	1o	0+	1o	3313	2321	21	9	8	9	4	6	2	7	8
18	2o	1+	1+	3-	2-	2o	2o	1+	1334	2343	15	8	10	23	13	14	14	8	13
19	2o	2+	2o	1+	1-	1o	1+	2o	5325	4240	15	18	14	8	5	7	9	15	11
20	1+	3o	2+	2o	2-	3-	1+	1+	3631	2522	9	27	18	14	13	22	9	8	15
21	0+	0+	0o	0+	0+	0+	1-	0+	1112	1322	2	2	1	2	2	3	5	3	3
22	0+	0+	0+	2-	3+	3+	4-	3-	2214	4332	3	2	2	13	36	35	44	23	20
23	3o	3-	3+	4-	3-	4-	2+	4-	3243	3324	27	23	36	42	24	43	20	50	33
24	3+	5-	4o	2+	3-	3o	4o	3o	2752	3341	34	71	60	20	22	33	51	28	40
25	4-	4-	2+	2o	3-	2+	2+	2-	4424	3331	42	42	18	15	22	19	17	13	24
26	3o	3-	3-	3-	3-	3o	3o	4o	6332	2422	28	24	26	23	23	30	27	54	29
27	3+	3-	5+	4-	4-	3o	3-	1o	4232	3341	36	26	105	44	41	27	23	7	39
28	2-	3-	3-	3+	4-	2+	2-	2-	2423	3412	11	26	25	40	42	20	13	11	24
29	2-	2-	2-	2-	2+	1+	2-	2-	3242	2334	12	11	12	12	20	9	13	12	13
30	1+	1-	0+	1o	1+	0+	1o	2-	2223	2244	8	4	3	6	8	3	6	12	6
											Monthly mean value of An								22.6

April 1995

	Ks								σs		as								As
1	0+	0+	0+	0+	1o	3o	4+	4-	1212	2316	2	2	3	3	7	29	61	47	19
2	4-	4o	2+	3+	3+	2-	1o	1-	7624	4232	46	55	17	37	40	11	6	5	27
3	1o	0+	1o	0o	0o	0o	0+	0o	2111	1121	6	3	6	1	1	1	2	1	3
4	1+	0+	1o	0+	0+	1o	0o	1+	1221	2314	10	2	6	2	3	6	1	8	5
5	2o	1+	1+	3-	2o	1+	2o	2-	5212	0224	15	10	10	23	16	8	16	11	14
6	2-	1-	0+	0+	1-	0+	2-	2+	5322	2223	13	5	3	2	5	2	11	20	8
7	4-	4+	5-	5-	6+	7-	7-	6o	6664	4677	42	66	82	78	182	224	205	153	129
8	4-	4-	4-	4o	4-	5-	3+	3+	4554	4044	45	43	50	60	49	78	39	36	50
9	3+	3+	4-	4-	3+	3+	2+	2+	3534	2115	40	34	42	44	36	39	17	20	34
10	3-	4o	4-	4o	4-	3o	2+	3o	4654	2223	25	57	48	58	43	31	18	27	38
11	3-	3+	3o	3+	2+	2+	4+	4-	3453	3227	22	38	30	37	20	18	68	43	35
12	4-	3+	3-	3-	2+	3o	3-	2-	5652	3223	47	40	26	21	20	31	24	13	28
13	2o	3-	2o	1o	0o	1o	1+	3-	5341	1227	15	21	14	6	1	7	10	23	12
14	2+	1o	0+	1o	1-	0+	1+	1o	4321	2233	17	7	2	6	5	3	9	6	7
15	0+	1-	0+	0+	1-	1o	1-	0+	2322	3121	3	5	2	2	5	6	4	2	4
16	0+	0+	1+	1-	0o	0o	1+	1o	3230	1123	2	3	9	4	1	1	8	7	4
17	3-	1+	1+	1-	0+	0+	0o	0+	4223	1212	24	9	9	5	2	3	1	3	7
18	2+	2-	2-	2o	1+	1+	2o	2-	4321	1232	20	11	13	14	8	10	15	12	13
19	2o	2o	2-	1o	0+	1o	1+	2-	5521	1132	14	16	13	6	2	6	10	12	10
20	1+	3-	2-	2-	1+	3-	1o	1-	2532	2412	9	21	13	11	10	23	6	4	12
21	0o	0+	0o	0+	0o	0+	0o	0+	1411	1311	1	3	1	2	1	3	1	3	2
22	1-	0+	1-	1+	3-	3o	3+	3-	2222	2224	4	3	5	9	26	28	35	25	17
23	3+	3-	4-	4-	2+	4-	3-	5-	7365	1227	35	25	41	46	19	49	23	83	40
24	4-	4o	4-	2+	3-	3o	4+	4-	4634	4346	49	54	47	20	25	28	65	42	41
25	5-	4+	3-	2o	3-	3-	2+	2-	6541	2411	86	61	24	14	22	23	19	12	33
26	3o	3o	3o	2o	3-	2+	2+	4-	6641	4214	27	28	27	15	21	18	19	45	25
27	3o	2+	5-	4-	3o	2o	3-	1+	5134	3033	29	17	79	41	29	16	26	9	31
28	2o	2+	2+	3+	3o	3-	2-	1o	3343	2320	16	19	20	39	33	21	11	7	21
29	2-	2-	1+	1+	3-	2o	2o	2+	2432	2333	12	11	10	9	25	14	15	20	15
30	1+	0+	0+	1-	0+	0o	0+	1+	1122	3114	8	2	2	4	2	1	2	10	4
											Monthly mean value of As								22.9

an, as INDICES 1995 (continued)

May 1995

	Kn								σn		an								An
1	0+	1o	0+	0+	1-	0+	1-	2o	3111	2111	3	6	2	2	5	2	5	14	5
2	2+	4+	4-	3+	4+	5o	5o	5+	2342	3224	17	69	49	36	67	99	87	111	67
3	5-	5o	5-	4+	4+	4-	3+	4-	4652	4243	86	92	74	62	63	42	39	48	63
4	4+	5-	4o	3-	3+	3o	3o	4-	1642	4333	62	83	53	23	38	32	33	41	46
5	4-	4+	4+	5-	4o	4-	4-	3+	2452	3533	46	65	62	77	57	47	43	40	55
6	5-	3o	5-	4+	3-	3-	3-	3-	2132	2433	77	32	73	68	26	24	23	22	43
7	2o	3o	4-	4-	4-	3-	3o	4o	1233	3241	16	30	41	42	45	22	30	51	35
8	4-	3+	2+	3-	3+	2+	2+	3-	2322	2222	44	39	18	26	38	18	20	25	29
9	3-	2+	2+	3-	2o	1+	3-	2+	3132	3244	22	19	19	25	14	10	26	20	19
10	2-	2-	1-	2-	2-	2-	2-	1+	2323	2232	13	13	5	13	11	12	11	9	11
11	2+	2-	2-	2-	2-	1o	2-	1+	3222	3222	18	12	13	11	11	7	12	9	12
12	2o	1+	1+	1+	3-	2-	1+	1o	3223	2322	15	10	9	10	25	11	10	7	12
13	2-	2+	2+	3-	3o	3-	2-	2o	2231	2313	11	17	19	22	29	22	11	15	18
14	1+	2+	3-	2-	1o	1+	1o	1o	3322	1222	9	20	23	12	6	8	7	7	12
15	0o	1-	1+	1o	2-	1+	1+	2o	2332	2222	1	5	10	6	12	8	10	15	8
16	3-	4-	4-	5-	5+	4+	4+	5-	1133	2334	22	45	48	84	113	65	65	80	65
17	4-	5-	4o	4o	3o	3o	3o	3-	5534	3453	49	75	58	54	27	33	30	21	43
18	2+	2-	2-	2+	3-	2o	3-	3o	2312	2144	17	11	11	17	25	16	22	29	19
19	2o	2o	3+	2+	2+	2+	3o	2o	2223	2442	15	16	40	20	17	19	27	15	21
20	3-	3o	3-	3o	2o	3-	3+	3-	2221	5342	22	27	23	31	16	26	37	24	26
21	2+	2+	0+	1-	1o	0o	1o	1o	2313	2111	19	18	2	5	7	1	7	7	8
22	2o	3-	1+	2-	2o	1-	1-	3-	3323	1323	14	22	10	13	16	5	5	21	13
23	2+	1+	1+	2+	2o	3o	4o	5o	4223	2343	17	10	8	17	16	33	56	87	31
24	3+	5-	4+	4+	3o	3+	2+	2+	2232	0423	36	80	61	62	30	38	18	19	43
25	3-	3+	2+	1+	3o	3o	3-	1+	2221	5332	25	37	17	9	27	27	22	9	22
26	2o	2-	2+	3o	3o	3-	3o	3-	3123	2456	14	12	17	27	30	23	28	22	22
27	1o	2+	2-	2o	1+	2o	2o	1-	2332	3221	6	17	12	15	10	15	14	4	12
28	1+	2+	2o	1+	2+	2-	1+	2-	3333	2321	9	18	14	10	17	13	8	12	13
29	1o	1+	1+	2o	3o	2+	2+	2-	1322	3332	7	10	10	15	27	17	19	11	15
30	2+	4-	5o	5o	5-	3+	4o	3+	2354	3032	20	44	94	89	80	40	60	40	58
31	4-	3+	4o	3+	4o	4o	4o	3o	4353	1341	48	37	57	39	51	59	53	28	47
																		Monthly mean value of An	28.8

May 1995

	Ks								σs		as								As
1	0o	1-	0+	0+	0+	0+	0+	1+	1211	2113	1	4	2	2	3	2	2	9	3
2	2+	4+	4-	4-	5-	5+	5-	6o	1442	3334	17	68	41	42	71	113	74	157	73
3	6-	4o	5-	4+	5-	4o	4-	4+	5444	4235	126	60	78	66	74	52	48	66	71
4	4+	4+	4+	3-	3+	3+	3+	4o	1443	1243	70	65	67	25	39	40	34	51	49
5	4+	4o	4+	5+	5-	4o	4o	4-	2353	5423	68	59	69	114	79	58	51	46	68
6	5o	3o	4+	4+	3o	3-	3-	3o	3344	3223	97	29	67	63	28	26	25	28	45
7	2+	3+	4-	4o	4+	3-	3+	5o	3353	4233	19	40	49	51	63	23	37	97	47
8	4o	4-	3-	3o	4-	2o	3-	3o	3423	2112	54	46	21	28	41	14	26	32	33
9	3-	3-	3-	3-	2-	1+	3o	2+	4224	3343	21	23	22	21	13	8	31	18	20
10	2-	2-	1-	1+	2-	2-	1+	1+	3322	2245	13	12	4	9	11	12	9	8	10
11	2o	1+	1+	1+	1+	1-	1+	1+	4321	2413	16	9	10	10	8	4	8	9	9
12	2+	2-	2o	1+	2o	1+	2-	1o	4343	1320	18	13	16	8	15	9	12	7	12
13	1+	2o	2o	2+	3-	2o	0+	1+	2322	3321	9	14	14	17	21	16	3	8	13
14	1+	2+	3-	1o	1o	1o	1-	0+	2551	2321	9	17	21	7	6	6	4	3	9
15	0+	1-	1+	1o	1-	1-	1-	2-	1213	1222	2	4	8	6	5	4	5	12	6
16	3-	4o	4+	4+	5o	5-	5-	4+	2562	1233	21	52	62	61	96	82	81	63	65
17	4+	4o	4-	4o	3-	2+	4-	2+	8556	3123	61	56	50	56	23	20	42	20	41
18	3o	2-	1+	2o	2+	2o	3-	4o	5435	2324	28	12	9	15	18	15	24	55	22
19	2+	3o	4o	2o	2o	3-	3o	2o	3642	2334	19	30	52	16	16	23	29	16	25
20	3-	3o	3o	3-	1+	2+	3+	3-	4651	2242	26	31	27	25	10	20	40	25	26
21	3o	2o	0+	0o	0+	0+	1-	0+	7211	2122	33	16	2	1	3	2	4	3	8
22	2-	2+	1+	1o	2-	1o	0o	3-	2522	2312	12	17	10	6	11	6	1	21	11
23	3-	1+	1o	1+	2-	3-	5o	5o	5131	2234	25	8	6	8	11	22	93	89	33
24	3+	5o	4o	4+	3-	3+	3-	2+	4334	2423	37	89	60	63	21	38	23	18	44
25	2+	3+	2-	1o	3+	3o	3o	1+	3432	2222	20	39	13	7	40	31	31	9	24
26	2-	2-	1+	3o	3o	3-	3-	3-	2326	4324	12	12	10	28	33	24	24	24	21
27	1+	2-	1+	1+	2-	2-	2o	0+	4422	3211	8	12	9	10	11	11	14	2	10
28	1+	2o	2-	1+	2-	2o	1o	2-	1533	3112	8	16	13	9	12	14	6	11	11
29	1o	1+	1o	1+	2+	2-	2+	1-	2312	3232	6	9	6	10	18	13	17	5	11
30	2+	4+	4+	5-	5-	3+	4+	3+	4743	2133	18	62	62	73	76	34	69	40	54
31	4-	3+	4o	4-	4-	5-	4o	3o	4443	3334	49	34	52	42	44	73	51	29	47
																		Monthly mean value of As	29.7

an, as INDICES 1995 (continued)

June 1995																			
	Kn								σn		an								An
1	4o	3+	3o	3+	4-	4o	3o	3-	5334	3452	58	38	32	38	41	54	30	23	39
2	3-	3+	3-	3o	3o	3+	2+	3-	6224	1534	26	38	25	31	28	36	19	24	28
3	3o	4-	4-	3+	3-	3o	3o	3-	4323	2232	29	44	44	38	22	27	27	26	32
4	2o	1+	2o	2+	2-	2o	2o	2-	3213	2311	14	9	14	18	13	16	14	13	14
5	2o	2-	1+	1o	1o	2o	2-	2+	3224	3232	14	12	9	7	6	14	12	19	12
6	2+	2-	2+	3-	3-	1o	2-	1+	4333	3422	18	13	17	21	21	7	12	10	15
7	2+	1-	1+	2-	1o	1+	2-	2+	3243	3223	20	4	9	11	7	10	13	20	12
8	2-	2o	1o	1-	0+	1-	1-	1o	4121	2320	11	14	7	5	3	5	5	7	7
9	1-	1-	1o	1+	1o	2o	2o	2o	2122	1012	5	5	7	10	6	15	14	16	10
10	2+	3+	3-	3-	2o	2-	1o	1+	4222	2222	17	35	25	22	14	12	6	10	18
11	2o	2+	2-	1+	1-	0+	1o	1o	3521	2302	14	18	12	8	4	3	7	6	9
12	1o	1o	1+	1+	1-	1-	0+	0+	3123	2322	6	6	9	9	4	4	2	2	5
13	0+	0+	1o	1-	0+	1-	0+	0+	2322	1323	3	3	6	4	2	4	3	3	4
14	1-	0+	1-	1o	2-	2o	2o	2+	3131	2112	4	2	4	7	12	16	14	17	10
15	1+	2-	2-	2-	2o	2o	1+	1+	1133	4343	8	12	13	13	16	15	8	10	12
16	3o	3-	1o	3-	3-	2o	3+	2o	3333	2442	32	22	7	21	25	14	34	14	21
17	2o	1+	2-	2-	1-	1o	1-	1+	3233	2423	14	10	11	13	5	7	5	10	9
18	1-	3-	4o	3+	3o	2-	1+	2+	3233	3222	5	25	59	38	28	12	9	18	24
19	3o	4o	4o	4o	4+	3+	4-	3-	1343	2323	28	51	57	52	65	38	43	23	45
20	2+	4o	4o	3+	3-	3+	2o	2+	1135	2313	17	53	52	34	26	39	16	19	32
21	3-	3o	3o	2+	2+	2o	2-	2+	2443	2323	25	31	28	19	17	16	11	17	21
22	3-	2-	1+	2-	3-	2-	1+	2-	3252	3231	21	12	9	13	22	12	9	12	14
23	2-	2o	3o	3-	2o	2+	1+	1+	2353	1431	12	14	29	21	16	20	8	8	16
24	1o	1o	1+	1+	1-	1+	1o	1o	2222	3241	7	7	9	9	5	8	7	6	7
25	0+	1-	1+	2o	3+	4o	4o	4-	2442	3013	2	5	9	15	39	55	53	42	28
26	4o	4-	3+	3-	2o	2+	3-	3-	3542	1223	54	48	37	21	16	17	26	22	30
27	2o	2-	3-	2-	0+	1o	1+	2-	2223	2333	15	13	25	12	2	6	8	13	12
28	2-	1+	2o	2o	2o	3-	2+	3o	4323	2425	13	10	14	16	16	21	19	29	17
29	1+	1o	2-	1+	2o	3-	2-	2o	3423	0423	9	6	11	10	15	21	13	16	13
30	3-	2-	2-	3+	3+	3+	4o	4+	3423	3353	21	13	12	36	35	34	54	64	34
											Monthly mean value of An								18.3

June 1995																			
	Ks								σs		as								As
1	4o	4-	3+	3o	4-	4o	4-	3o	5453	3256	56	45	36	31	44	59	41	28	43
2	3-	3+	3o	3+	3o	3+	3o	3o	3455	3436	24	37	30	36	28	38	29	32	32
3	4-	4-	4-	3+	2+	3o	3o	4-	6435	2336	42	45	47	36	18	27	27	45	36
4	2o	1o	2-	1+	1+	1+	1+	1+	4322	1221	16	6	11	10	8	10	10	8	10
5	2-	2-	1-	1o	0+	1o	1-	3-	4431	2242	12	11	5	6	2	7	5	22	9
6	2+	1+	2-	1+	1+	0+	2-	1o	5122	2330	19	8	13	10	9	3	13	7	10
7	3o	1-	2-	2-	0+	1o	2-	2-	4245	1322	27	4	11	11	2	6	13	11	11
8	1+	2-	1+	0+	0o	0+	0+	0+	2411	0112	10	12	8	2	0	2	2	2	5
9	0+	0+	1o	1o	1o	1+	1+	1+	1232	3321	2	2	7	7	6	10	8	8	6
10	2+	3-	2+	2o	1-	1-	0+	1-	4434	3321	18	24	19	16	4	5	3	4	12
11	2o	3-	2+	1o	0+	0o	1-	0+	2542	2121	16	22	18	6	2	1	4	2	9
12	0+	0+	1-	1-	0+	0+	0+	0+	2221	1221	2	2	4	5	2	3	3	2	3
13	0o	0o	0+	0+	0o	0o	0+	0+	2232	1111	1	1	3	2	1	1	2	2	2
14	0o	0+	0+	1+	1o	2o	2+	2o	1125	1312	1	2	2	8	7	14	17	15	8
15	1+	1+	2-	1+	1o	1+	1o	0+	1223	3312	8	8	11	9	6	8	6	2	7
16	3o	2+	1o	2+	2o	2o	4-	1+	6415	3122	32	18	6	18	14	15	46	10	20
17	2-	1+	1+	1+	1-	1-	1-	1-	4213	2323	11	8	8	8	4	4	4	5	7
18	1-	3-	4-	4-	3-	1+	0+	2o	3453	1424	4	24	50	45	25	9	3	16	22
19	3o	4-	4o	4o	4+	3+	3o	3-	3424	2212	28	45	58	51	61	37	29	21	41
20	2+	4o	4o	3+	2o	3+	2o	2-	3334	0223	18	58	57	35	16	34	16	13	31
21	3o	3o	3-	2o	2+	2o	2+	1+	5421	3332	29	27	23	15	20	14	18	10	20
22	2+	2-	1o	2o	3-	2-	1+	1+	3632	2222	18	13	6	15	23	11	8	10	13
23	1+	2+	3-	2+	1+	2+	1+	1-	5453	2221	10	17	22	18	9	20	9	4	14
24	1-	1o	1+	1o	1-	1-	1-	1-	1023	2212	5	7	8	7	4	4	5	4	6
25	0+	1-	1+	1+	2+	4-	4+	3-	1322	2422	2	5	10	10	18	41	64	23	22
26	5-	4o	3+	2+	1+	1+	3o	3o	6554	1324	82	54	36	18	10	8	28	32	34
27	2-	2-	3-	2-	0+	0+	0+	2-	2323	1223	13	13	26	11	2	3	3	11	10
28	1+	1+	2-	1+	2o	2o	2o	4-	5442	1103	10	9	12	10	14	14	16	42	16
29	1o	1-	1o	1-	2-	2o	1+	1-	3232	2322	7	4	6	4	11	15	10	4	8
30	3-	2o	2o	3+	3o	3+	4o	5-	3241	3144	21	15	16	34	33	34	57	84	37
											Monthly mean value of As								16.8

an, as INDICES 1995 (continued)

July 1995																			
	Kn								σn		an								An
1	4o	3-	3o	3-	2o	2-	2o	2-	4333	4322	59	22	27	21	16	12	14	12	23
2	2o	1+	1-	2-	1+	2-	2-	1+	2223	4232	15	9	5	13	8	12	12	9	10
3	2+	2+	2-	3-	3-	1+	2-	3+	2342	3123	20	17	12	23	21	8	13	39	19
4	3-	3-	2-	1+	2o	2+	1+	1o	2246	2324	26	23	13	10	15	19	9	7	15
5	1o	1-	1-	1o	1+	1o	0+	1o	4332	1321	7	5	5	7	8	6	3	6	6
6	0+	1-	1-	1o	1-	1o	1-	2-	2223	4333	3	4	4	6	4	6	5	11	5
7	1+	2+	1o	1o	1+	1+	1-	0+	1231	1131	8	18	7	6	8	8	4	2	8
8	1o	1-	2-	2-	2o	1+	1+	0+	2143	3213	7	5	13	13	14	9	8	3	9
9	1-	0+	1-	2o	3o	3-	2-	1o	2245	3231	4	2	5	15	27	23	11	6	12
10	0+	0+	1-	1o	1-	1-	1-	1-	2334	2322	2	3	4	6	4	5	5	4	4
11	0+	0+	0+	0+	0+	0+	0+	1o	2333	2131	2	3	3	3	2	2	3	6	3
12	1o	1-	0o	0+	1o	2-	1+	2o	3213	2220	6	4	1	3	6	11	9	15	7
13	2o	2+	2-	2-	1+	2-	1+	1-	1233	2341	15	17	13	12	10	11	8	4	11
14	1-	1-	1+	1+	1o	2+	3o	3-	2332	1332	5	4	8	10	7	17	27	21	12
15	2o	2-	1+	2-	2o	2-	2-	2-	0322	0222	15	11	10	13	15	12	13	12	13
16	1+	1+	2-	3-	4+	5-	4o	5o	2226	3322	8	8	12	25	69	80	51	88	43
17	4o	4-	4-	3+	4-	4o	2o	3o	5543	3513	56	49	41	38	49	52	16	28	41
18	3o	2+	2+	3-	4-	2+	3-	2o	1233	3533	31	18	17	22	43	20	21	14	23
19	1+	2o	3-	2+	2-	1o	2+	3o	2422	4323	10	16	21	19	13	6	17	27	16
20	3-	2-	2-	3+	2o	2o	1o	1-	3332	3423	26	13	13	36	16	14	7	5	16
21	1-	1o	1+	2o	2o	1+	1+	1-	3222	3322	4	7	8	15	16	8	8	5	9
22	1-	2-	1+	2-	2+	2o	2-	2-	3132	3223	4	13	10	11	17	14	12	11	12
23	2+	1-	1o	1+	2o	3-	2o	2-	2432	0423	19	5	6	10	15	23	16	12	13
24	3o	4-	5o	4-	4-	2+	4o	3o	2342	3521	27	44	91	47	46	18	55	32	45
25	4-	2+	1+	2-	1o	1+	0+	1+	3344	4223	42	20	10	11	6	8	3	10	14
26	2o	2-	1+	1+	2o	1o	1o	1+	1322	4243	15	13	9	8	15	7	7	10	11
27	1o	2o	2-	1o	1+	1o	2o	2o	4033	2243	7	15	11	6	9	7	15	14	11
28	2o	1+	1+	1o	1o	1o	2-	2o	4332	2122	15	9	8	7	7	7	11	16	10
29	3-	2o	0o	1o	1o	2+	1o	1+	3212	3323	22	15	1	7	6	19	7	8	11
30	1+	0+	1-	2+	2-	2-	2-	3-	2213	3342	10	2	5	17	11	12	12	22	11
31	2-	2o	2o	1-	1-	2-	2-	3-	1242	2322	13	15	15	4	4	13	12	23	12
											Monthly mean value of An								14.7

July 1995																			
	Ks								σs		as								As
1	5-	4o	3o	2o	1o	2o	2-	2-	4554	2232	73	54	30	14	7	14	13	11	27
2	2+	1o	0o	1o	1-	1o	1-	1o	4122	2221	19	7	1	6	5	6	5	7	7
3	3-	2-	1+	2-	1+	1-	2-	2+	4333	3224	21	13	10	13	10	5	11	18	13
4	3-	2-	1o	0+	1+	2o	1-	0+	3313	2321	21	13	7	3	10	15	4	2	9
5	1o	0+	1-	1-	0+	1-	0+	0+	1223	2222	6	3	4	4	3	4	3	3	4
6	0o	0+	1-	0o	0o	1o	1o	1-	2231	0113	1	3	4	1	0	6	7	5	3
7	1o	2o	1o	0+	0+	0+	0+	0o	1312	2221	7	14	7	3	2	3	3	1	5
8	0+	0+	1o	1-	1o	0+	1o	0o	2213	2231	3	3	7	4	7	2	6	1	4
9	0o	0+	1-	1+	3-	2o	1o	1-	1224	3213	1	2	4	8	21	14	6	5	8
10	0o	0o	0+	0+	0+	0+	0+	0+	2111	2322	1	1	2	2	2	2	2	3	2
11	0o	0o	0o	0o	0o	0o	0+	1-	1112	1133	1	1	1	1	1	1	3	5	2
12	1-	0+	0o	0o	0o	1-	1-	1-	3111	1222	5	2	1	1	1	5	4	5	3
13	1+	2o	2-	1o	0+	1+	1-	0o	4133	2431	10	15	12	6	2	9	4	1	7
14	0o	0o	0+	1-	1-	2-	2-	2o	1312	2231	1	1	2	5	5	13	12	15	7
15	1o	1o	1+	1+	2-	1+	1+	1-	3221	3422	7	6	10	9	13	8	9	5	8
16	1o	1-	2-	2o	5o	5o	3+	5-	1333	5437	7	4	12	14	91	91	38	86	43
17	5-	4-	3+	3+	4-	4-	2o	3-	8644	4424	76	48	35	36	48	41	15	23	40
18	3-	2o	2o	3o	3+	2o	2+	1o	3015	2420	23	16	15	29	36	14	20	7	20
19	1+	2+	2+	3-	2-	1o	2o	3o	2544	4232	8	18	20	24	11	6	14	31	17
20	3+	2-	2o	3-	2-	2o	1o	1-	6214	2323	34	11	15	24	12	14	7	4	15
21	0+	1-	1o	2o	2-	1o	0+	0o	1200	3321	2	4	7	16	11	7	2	1	6
22	0+	1o	1o	1-	2+	1+	2-	1o	2222	4322	2	6	6	5	18	10	13	7	8
23	2o	1-	0+	0+	1+	3-	3-	1+	2222	1451	14	4	2	2	9	23	21	8	10
24	3o	3+	5o	4-	3o	2-	5-	3o	6455	2333	32	38	88	42	29	11	77	29	43
25	3+	2+	1+	1o	0+	0+	0o	0+	5413	3212	35	18	8	6	2	3	1	2	9
26	2-	2-	1+	1o	1o	1-	1o	1+	2733	2311	12	13	10	6	7	4	6	9	8
27	1o	2-	1o	0+	0+	0+	2o	2-	1302	1213	7	13	7	3	2	3	15	13	8
28	2o	1-	1-	0+	0+	0+	1+	2o	5212	2214	14	5	5	3	3	3	8	16	7
29	3o	2-	0o	0+	0+	2o	0+	1+	3322	2321	27	13	1	3	3	16	3	8	9
30	2-	0o	0+	2o	1-	2-	1+	2+	3023	2543	12	0	3	14	5	11	10	19	9
31	2-	1+	2-	0+	0+	2-	1o	2+	2342	2322	13	10	12	2	2	11	7	18	9
											Monthly mean value of As								11.9

an, as INDICES 1995 (continued)

August 1995

	Kn								σn		an								An
1	2-	1+	2-	2o	1o	1-	1-	1-	3332	1232	13	9	11	14	6	5	4	4	8
2	1o	1o	1+	1o	1+	2o	2o	1o	2330	2431	6	6	9	7	10	16	14	6	9
3	1+	2+	3o	2-	3-	2-	1+	1+	2222	3342	10	18	28	12	21	11	9	9	15
4	1-	1+	2o	1o	1o	1o	2-	2o	2232	2324	5	9	14	6	6	6	13	16	9
5	1o	1+	1o	3-	2-	2+	1+	2-	1213	2322	6	8	7	21	13	19	9	13	12
6	1o	1o	1o	0+	1+	1-	2-	2-	0132	3132	7	7	7	3	9	5	11	12	8
7	1-	1o	1+	3-	3o	2o	3-	3o	1142	2243	5	7	9	23	30	15	25	33	18
8	4-	4-	3o	2+	2o	2-	4o	3-	2412	2252	49	44	28	20	15	13	51	26	31
9	4o	4-	3-	3-	3o	4-	3+	4-	5532	1464	52	46	26	21	31	42	35	42	37
10	4-	4-	3+	3o	2o	2+	2+	2-	3332	3541	41	41	37	33	15	17	20	13	27
11	1+	2o	3o	2o	2o	2-	1+	2+	4252	2136	9	15	28	15	15	13	10	17	15
12	3o	1+	0+	3-	3-	1o	2-	3-	5123	3132	30	8	3	21	22	7	11	21	15
13	3-	3o	2+	2o	2-	2-	3-	3+	4621	2432	25	29	19	16	13	13	21	39	22
14	4o	3o	4o	4o	2+	3o	3-	3o	4233	1542	58	32	52	53	18	31	26	30	38
15	3o	4-	3-	3-	2+	2o	3o	3-	3433	4243	33	45	24	23	18	14	31	21	26
16	2o	3o	3+	2-	2+	2o	1-	1-	5463	4532	15	31	38	13	17	15	4	4	17
17	2o	2-	2o	4-	3+	3+	2+	2-	2224	3323	14	12	15	44	36	35	20	11	23
18	1+	1o	1o	1+	2-	2-	2o	2-	3223	2342	9	6	6	8	13	12	14	12	10
19	2o	2-	3o	2-	2-	2o	3-	3o	4332	4430	16	11	32	13	13	15	21	30	19
20	1+	2-	2-	2-	2+	2-	1-	1+	3222	4343	10	12	13	12	17	12	5	10	11
21	0+	1-	1o	1+	1-	0+	0o	0+	2312	3212	3	4	6	9	4	2	1	3	4
22	1-	0+	0+	0+	3o	2+	3+	4+	3223	3263	4	3	3	3	29	17	38	63	20
23	3+	3+	3o	3-	1+	1-	1+	1+	2223	2331	39	34	30	24	10	5	8	8	20
24	1+	1+	1+	1+	2o	1+	2o	3-	3244	1222	10	9	8	8	16	9	14	22	12
25	3+	4-	3o	4-	1+	2o	2o	3o	2122	2212	34	44	31	44	10	16	14	27	28
26	2-	2o	3-	2-	2+	1-	1-	2o	2233	4221	11	15	21	12	20	4	4	15	13
27	2-	2-	1+	2-	1+	2-	2+	2-	5321	1335	13	13	9	13	8	11	17	11	12
28	0+	1-	1+	1+	1+	2-	2-	1o	2222	1322	3	5	8	9	9	11	11	7	8
29	3-	2o	3-	3+	2o	2o	2+	2o	3355	1141	21	15	24	38	16	16	18	15	20
30	1+	2-	1+	0+	1+	1o	1-	1-	4132	2132	9	13	9	3	8	6	5	4	7
31	1-	0+	0+	0o	0o	1+	1-	1o	4241	1321	5	3	3	1	1	8	5	7	4
											Monthly mean value of An								16.7

August 1995

	Ks								σs		as								As
1	2-	1o	2o	2-	0+	0+	0+	0o	3324	2211	13	7	14	13	3	2	2	1	7
2	1-	1-	1o	0+	1o	1+	2o	1-	2222	2212	4	5	7	3	6	10	14	4	7
3	1+	2-	3-	1+	1+	1+	1+	1-	3222	2323	9	11	23	10	10	10	9	4	11
4	0o	1-	2-	0o	0o	0+	1+	2-	0222	1243	0	5	11	1	1	3	9	13	5
5	0o	1-	1-	2o	1+	2-	1-	1+	1232	2323	1	4	5	14	10	13	5	10	8
6	0+	0+	1+	0o	0+	0o	1o	1o	3241	2155	3	2	8	1	2	1	7	7	4
7	0+	0+	1o	2o	3-	2-	3-	3-	2320	3333	2	3	6	16	22	11	23	22	13
8	4o	3o	3-	2-	1+	1+	4o	3-	5522	1352	60	33	23	12	8	10	55	24	28
9	4-	3+	3-	2o	3o	4-	3o	4o	7531	1335	45	37	25	15	31	44	33	52	35
10	4-	3o	3o	3o	2o	2o	2+	2-	4423	4234	42	32	33	29	14	14	19	11	24
11	1o	2o	2o	2o	2-	1+	1+	2o	0513	2133	7	14	14	14	12	8	10	14	12
12	2o	1-	0+	2+	2-	1-	2o	3-	3223	3333	16	4	3	20	13	5	14	22	12
13	3o	3-	2o	1+	1+	2+	2o	4-	5733	3432	28	24	14	10	10	18	14	43	20
14	4o	3-	3+	3+	2o	3+	2+	3o	3344	2433	51	22	38	36	16	36	20	29	31
15	3-	3o	3o	3-	2+	2-	3o	3-	3352	1313	21	27	30	21	17	13	29	23	23
16	2+	3+	3-	1+	1+	2-	1-	1-	4535	5533	17	35	25	9	10	11	4	4	14
17	2o	2-	2-	3o	3o	3o	2+	1+	3224	4313	14	11	12	31	31	29	18	10	20
18	1o	1o	1-	1-	1+	2-	2o	1+	1322	3322	6	7	4	4	10	11	14	10	8
19	2-	1+	3-	1o	1+	1+	3-	3-	3330	3332	13	10	25	7	10	10	22	21	15
20	1+	2-	2-	1+	2o	1+	1-	1o	2321	2121	10	11	11	9	14	8	4	6	9
21	1-	0+	0+	1o	0+	0o	0o	0+	2211	3221	5	3	2	7	2	1	1	2	3
22	1o	0o	0o	0o	3-	2o	4-	5-	1200	3244	6	1	0	0	21	14	50	77	21
23	4-	4o	3o	3-	2+	0+	1o	1-	3654	6232	46	51	32	23	17	3	7	4	23
24	2-	1o	1o	1-	2+	1+	2o	2+	3112	4241	11	6	6	4	18	10	15	17	11
25	3+	3+	3o	4-	1+	1+	2-	2+	1523	3322	35	36	33	41	8	10	11	18	24
26	1+	2o	2o	2-	2-	0o	0+	1+	3333	4133	10	14	15	12	11	1	3	10	10
27	2-	1o	2-	2-	1-	1+	2o	1+	3232	2442	11	7	12	13	5	9	16	10	10
28	0o	1o	1+	0+	1+	1+	1o	1o	1112	4322	1	7	8	3	8	10	6	6	6
29	3-	2+	2+	3+	2-	2-	2+	2o	3446	3211	23	18	17	37	11	11	17	15	19
30	1+	2-	1o	0o	1-	0+	0+	0+	4201	2313	8	11	7	1	5	3	2	2	5
31	0+	0+	0o	0o	0o	1+	1-	1-	2202	0232	2	3	0	1	0	10	4	5	3
											Monthly mean value of As								14.2

an, as INDICES 1995 (continued)

September 1995																				
	Kn								σn		an									An
1	1+	1-	1-	1-	1o	1o	2-	0o	3221	2132	10	5	4	5	6	6	12	1		6
2	1-	1-	1-	1-	1o	1o	2-	1o	2112	2324	4	4	4	5	6	6	13	6		6
3	1+	1+	1o	1-	1+	1+	2-	1o	3222	3314	10	9	7	5	8	8	11	7		8
4	0o	2o	2-	1+	2-	1+	1o	2+	1322	2325	1	14	13	8	13	8	6	19		10
5	2+	3-	2o	4-	5-	4o	5-	5-	4212	2222	20	25	16	41	76	53	81	79		49
6	5-	3-	3o	4o	3+	3-	2o	3o	6214	2214	75	25	31	53	35	26	14	28		36
7	4-	4-	3+	4-	3o	4-	3+	2o	5553	1551	41	44	35	48	33	45	36	14		37
8	3-	5-	5-	4+	4-	4+	3+	2-	5222	2553	26	79	81	65	50	64	35	12		52
9	3-	4o	3o	3-	3o	2o	1+	2o	3522	3334	24	52	31	26	28	15	9	16		25
10	1-	1-	2o	2+	2o	3-	3+	4o	1132	2634	5	5	14	20	15	26	37	55		22
11	5o	4o	3+	4o	3o	3+	3+	3+	2236	4531	90	58	37	52	33	37	34	35		47
12	2o	3-	1+	2o	2-	3-	4-	4-	3421	2242	16	23	10	16	11	25	41	46		24
13	2+	3o	3+	4o	3o	3o	2o	3-	3140	5442	19	32	35	54	30	30	16	24		30
14	3-	2o	1+	1+	2-	2-	2o	3o	2132	3467	21	14	9	10	11	12	16	29		15
15	3+	4-	3o	4-	5-	5-	3+	0+	4323	4863	34	47	33	42	74	79	34	3		43
16	2o	2+	3o	3o	2+	1+	2-	2+	2342	3243	15	17	33	27	19	8	13	17		19
17	2-	2-	1+	2-	2-	1+	2-	0+	3343	2221	13	11	10	11	12	8	12	3		10
18	0+	0+	0+	1o	0+	0+	1+	1+	2222	2312	2	2	2	7	2	3	8	10		5
19	1-	0o	1+	1+	0+	1+	1+	1+	2121	3333	5	1	8	8	3	9	9	10		7
20	1+	3-	3-	2-	3-	2+	2o	3-	4232	2542	9	21	24	12	24	20	14	23		18
21	2o	2+	1o	1+	2-	2+	1+	1+	1323	2443	14	18	6	9	12	17	10	10		12
22	1o	0+	0+	0+	1o	1o	1o	2-	2222	0213	6	3	3	3	7	7	7	12		6
23	3-	2+	1+	2+	3+	3-	3+	3-	1222	3353	22	18	9	18	36	21	34	22		23
24	2o	3o	2-	3o	1o	2-	1-	1-	4233	1412	15	27	13	27	6	11	5	4		14
25	1+	2-	2-	1o	1-	2-	1o	0+	1431	1632	8	13	11	7	4	13	6	3		8
26	0+	2-	2-	2+	1+	1o	2-	1o	1324	3232	3	12	11	20	8	7	11	7		10
27	2-	3-	2+	3+	5-	5o	6-	5-	2334	6464	11	21	17	38	71	96	128	73		57
28	2-	3-	4o	4o	3-	1-	0+	1-	2344	4201	11	24	60	52	26	4	3	5		23
29	0+	1-	1-	1+	1-	1+	0+	0+	3243	2112	3	4	5	10	5	9	2	2		5
30	0+	1-	1+	2o	2-	1-	1-	2-	3221	2223	3	4	9	14	11	4	4	13		8
											Monthly mean value of An									21.2

September 1995																				
	Ks								σs		as									As
1	1+	1-	0o	0+	0+	1-	2-	0+	2311	3231	10	4	1	2	2	5	13	2		5
2	1-	1o	0o	1-	1o	1o	2-	1o	3112	3524	5	6	1	5	6	7	12	7		6
3	1+	1+	1o	0o	1-	1+	1o	1-	4111	2323	9	8	7	1	4	8	7	4		6
4	0o	2-	2o	1o	1+	1o	1-	2o	1221	2133	1	12	14	6	8	6	5	15		8
5	3-	2o	2+	3o	5-	4-	5-	4+	5042	2224	22	16	18	33	73	45	80	61		44
6	5-	3o	3-	3+	3o	3o	2o	3-	7333	1023	83	27	26	39	31	32	16	26		35
7	3o	3+	2+	3+	3-	3o	3+	2o	5433	2221	33	38	20	38	24	33	38	14		30
8	3-	5-	5-	4+	4-	4o	4-	2-	4334	3333	23	73	83	65	47	60	41	11		50
9	3-	3+	3-	2+	3-	2-	1+	1+	3424	2223	25	37	24	20	24	12	8	9		20
10	0o	0+	2-	2+	2o	3-	3o	4-	1344	1311	1	3	11	19	14	26	29	49		19
11	5o	4-	3o	3o	3-	3+	3-	3+	2315	5521	89	43	31	31	23	38	26	34		39
12	2+	2+	1o	2o	1-	2+	3+	4-	4503	3433	19	18	7	15	5	19	38	44		21
13	2+	3o	3o	4-	3-	3-	2+	3-	1242	3312	17	27	33	41	23	22	17	24		26
14	2o	2-	1o	1o	1o	2-	2o	3-	3454	4253	16	13	6	7	6	12	14	23		12
15	3-	3+	3+	4-	4o	5-	3o	1-	4452	2322	23	38	34	42	59	77	33	5		39
16	2o	3-	3o	3-	2+	1+	2o	2+	1453	1443	14	21	33	22	17	8	15	18		19
17	2o	1+	1+	2o	1+	1o	2o	0o	3332	1232	14	9	10	14	8	6	14	1		10
18	0+	0+	0o	1-	0o	0o	1+	1+	2203	2112	2	2	0	5	1	1	8	9		4
19	1o	0+	1+	1o	0o	1o	1+	1o	2121	1114	6	2	9	7	1	7	8	6		6
20	1o	3-	2+	2-	3-	3-	2o	3-	0232	2213	7	21	20	11	21	21	15	21		17
21	2o	2+	1o	1+	1+	2+	1+	1+	1202	3444	15	17	7	10	10	18	9	10		12
22	1o	1-	0+	1-	1o	1-	1+	1+	0222	1241	7	5	2	4	7	5	8	8		6
23	3o	2+	1+	2+	3o	2+	3+	2+	3514	4132	28	18	8	18	29	18	38	18		22
24	2+	3o	2-	2o	0+	1+	1-	0+	5335	2322	17	27	12	16	2	8	4	3		11
25	1o	1+	1+	1o	0+	1+	1-	0+	2333	3522	6	9	10	6	3	9	5	3		6
26	1-	2-	1+	2+	1o	1-	2-	1-	2314	3333	5	13	8	18	6	4	12	5		9
27	2o	2-	2+	3+	4+	5+	6o	5+	2225	4134	14	12	17	34	69	114	166	109		67
28	2o	2+	4+	4-	3-	1o	0o	0+	1345	4203	15	20	67	42	24	6	0	3		22
29	1-	0+	0+	1+	1-	1+	0o	0+	3222	2313	4	2	3	9	5	9	1	2		4
30	0+	0+	1+	2o	1+	1-	1o	2o	2224	5421	2	3	10	16	10	5	6	15		8
											Monthly mean value of As									19.4

an, as INDICES 1995 (continued)

October 1995																		
	Kn								σn		an							An
1	0+	0o	0o	0o	0+	0+	2-	2-	2111	2153	2	1	1	1	2	3	13	12	4
2	2o	1-	3-	2+	4-	3-	3-	4o	3222	3344	15	5	25	20	47	25	25	58	28
3	4o	3-	3-	3o	4-	5-	4-	3o	1234	5564	57	23	22	33	41	73	49	29	41
4	3+	3+	3o	6-	5+	5o	4+	5-	3213	2454	39	39	33	140	118	97	61	72	75
5	3+	3+	3+	4o	4+	2o	2-	4o	3420	2125	34	34	36	54	64	16	12	52	38
6	2o	3o	3o	4+	4-	4o	3o	4o	2403	4664	15	29	30	70	41	54	27	54	40
7	4o	4o	5-	4o	4o	3o	2+	3-	2351	5443	56	55	75	51	52	28	19	22	45
8	3o	3-	3o	4+	4+	4+	4+	2o	2423	5553	31	25	27	69	63	67	68	15	46
9	1-	3o	4-	4+	4o	4o	3+	3+	2325	5454	4	32	50	66	52	57	34	40	42
10	2+	3o	4-	1+	1o	1-	0o	1-	3453	2111	17	33	43	8	6	4	0	4	14
11	1+	3o	3+	2-	3o	4-	2o	2o	1133	4514	8	33	35	11	27	44	16	15	24
12	2+	4o	4o	4o	4-	1+	2+	3-	3443	2243	20	57	59	53	44	10	17	22	35
13	3+	1+	2o	2+	2o	2+	2o	2o	4223	3354	38	10	15	19	14	18	16	15	18
14	1+	1+	1+	1+	1+	2-	2o	2+	2323	3354	9	8	8	9	10	13	16	17	11
15	2-	1-	1-	1-	2o	2-	0+	2+	2322	2223	12	4	5	4	15	13	2	17	9
16	1+	1+	1-	2-	2o	2-	3-	2-	3425	3345	9	10	4	12	16	13	26	11	13
17	2-	2+	3o	2-	2+	2+	1o	1-	2223	4533	11	19	27	11	18	20	6	4	15
18	2-	1+	1-	4-	3o	4-	5-	6o	5313	1533	11	9	5	45	32	50	80	160	49
19	5+	5-	4-	3-	2+	2-	2+	3o	5742	3352	106	76	50	26	17	12	20	29	42
20	2+	5o	3+	4+	4+	5-	4-	2+	1333	5362	17	87	37	63	61	81	50	17	52
21	2-	1o	3o	2+	4o	3o	2+	3o	2442	5465	12	7	27	19	52	31	17	30	24
22	2+	2o	3o	1+	3-	2-	4-	3-	3442	4464	17	16	28	9	26	13	48	21	22
23	3-	4-	3o	4o	3-	3-	3+	2+	2544	2453	25	44	28	52	22	23	37	17	31
24	3-	0o	1+	2-	3o	4-	3-	1+	2123	2632	23	1	8	11	30	47	21	10	19
25	1+	2+	1+	1-	1o	0+	0o	0o	4532	5211	8	18	10	4	7	2	0	1	6
26	0o	0+	0o	1o	0+	2-	2-	2-	1212	0324	1	2	1	6	3	11	11	13	6
27	1+	1-	1-	0+	2+	3-	1o	2+	3332	6314	8	4	5	2	18	24	6	19	11
28	1-	0+	0o	0o	0+	0o	1-	1o	3200	1112	4	2	0	0	2	1	5	7	3
29	0+	0+	2-	1+	1+	0o	0+	1o	2253	1222	2	3	13	10	8	1	3	6	6
30	1-	0o	0+	1+	4o	4+	3-	3-	1110	5344	4	1	2	10	51	68	24	21	23
31	4+	3o	3o	2o	2o	3o	3+	3+	5333	1263	61	32	27	15	16	30	34	34	31
											Monthly mean value of An								26.5

October 1995																		
	Ks								σs		as							As
1	0+	0o	0o	0o	0o	0o	2o	2-	2020	0053	3	0	1	0	0	0	16	11	4
2	2+	1-	3-	3o	4o	3-	3-	5-	4344	3343	17	5	23	29	57	22	22	72	31
3	4o	3-	2+	3o	3o	5-	4-	3o	1235	2324	56	25	20	31	33	77	49	32	40
4	4o	4-	3o	6-	6-	5-	4+	4o	3313	4565	54	49	31	145	146	78	61	56	78
5	3+	3-	3o	4-	4+	3-	2o	4o	5332	2312	34	26	27	46	64	21	15	51	36
6	2o	3o	3-	4o	3o	4o	3-	4-	1523	2233	14	33	21	55	33	57	26	48	36
7	4-	4-	4o	3+	4-	3-	2-	3-	3333	3233	48	43	52	40	45	25	13	25	36
8	3o	2+	3-	4-	4-	5-	5-	2o	1434	4330	29	20	25	47	44	73	77	16	41
9	1o	3-	3+	3+	3o	4-	3+	3o	0333	2442	7	26	40	40	33	48	37	27	32
10	2+	2+	3-	1o	1o	1o	0+	1o	4433	0344	19	19	22	6	7	6	3	7	11
11	2-	3o	3-	1+	3-	3+	3-	2-	2223	3232	13	33	21	9	26	39	22	12	22
12	3-	4o	3+	4-	3+	2-	2+	2+	2523	4212	23	54	36	48	35	11	18	18	30
13	3o	1+	2-	3-	2-	2+	2+	2o	5321	2131	29	10	13	21	13	18	20	15	17
14	1o	1+	1-	1+	1+	2-	2-	2+	0131	3333	7	8	5	8	10	13	13	18	10
15	2-	1-	1o	1-	2-	2o	1-	3-	2232	2224	11	5	6	4	13	15	4	22	10
16	1o	2-	1-	1+	2+	2+	3o	2-	0335	2143	7	11	5	10	17	17	31	11	14
17	2-	3-	3-	2-	2+	3-	1o	1-	2233	2223	11	25	25	13	18	21	7	5	16
18	1+	2o	1-	4-	3+	4o	6-	7-	3343	1336	10	14	5	49	34	51	125	202	61
19	5+	4o	5-	3o	2+	2-	3-	4-	6362	1233	116	55	71	27	18	13	22	41	45
20	3-	5+	3+	4+	4-	5-	4+	2+	2534	3341	24	106	40	64	49	86	64	17	56
21	2+	1+	3o	2o	3+	3o	2-	2+	1133	4233	18	8	29	16	36	29	12	20	21
22	2o	2-	3o	1+	2+	2o	3+	3-	2463	5243	16	12	32	10	19	14	38	23	21
23	3-	3+	2+	3+	2+	2+	3-	3-	2544	4132	25	35	20	35	19	17	26	23	25
24	2+	0+	1-	2-	3-	3+	3-	1+	3233	2413	20	3	5	11	24	34	21	10	16
25	1o	2-	1-	0+	1-	0+	0o	0o	0242	4101	7	12	4	2	5	2	0	1	4
26	0o	1-	0o	1-	0o	2-	1+	1+	3222	2332	1	5	1	4	1	11	10	10	5
27	2-	1-	1o	0+	2-	2o	1o	2+	2302	4322	13	5	7	2	12	14	6	19	10
28	1o	1-	0o	0o	0o	0o	1o	1-	3311	0002	6	5	1	1	0	0	7	4	3
29	1-	1-	1+	1+	1-	0o	0o	1o	2332	3001	4	5	10	10	5	0	0	7	5
30	1o	0+	1-	2-	3+	4o	3-	3-	1232	2322	7	2	4	13	40	57	25	23	21
31	3+	3o	3-	2o	2o	3+	3+	3o	3222	2142	38	32	26	14	14	34	36	31	28
											Monthly mean value of As								25.3

an, as INDICES 1995 (continued)

November 1995																			
	Kn								σn		an								An
1	4o	4-	4-	3o	4o	2-	4+	3o	1364	4355	51	46	46	32	57	12	61	30	42
2	2o	4o	3o	4+	3-	4o	3-	0+	1235	3653	16	59	28	65	25	54	22	2	34
3	0+	2-	3-	2o	1o	1+	1+	0o	3364	3340	3	12	25	15	6	10	9	0	10
4	0o	2-	1+	2-	4-	5-	2o	1o	0343	5312	0	11	8	11	44	81	14	7	22
5	3o	2-	1o	2o	4-	4-	3-	4o	4224	2334	32	12	7	16	47	41	26	53	29
6	4-	3-	4o	3o	5-	3o	3+	2o	1454	3353	49	26	60	27	71	27	34	16	39
7	2o	3o	3o	3-	2o	1+	2+	2-	5443	3456	15	28	27	24	16	8	19	13	19
8	2-	2-	1+	2o	2-	2+	1+	2-	3333	2533	12	12	9	15	11	19	10	11	12
9	1+	1o	0+	1-	1+	1o	1-	1-	2132	2132	8	6	3	4	8	7	5	5	6
10	2-	2-	1-	1o	1+	1+	2-	1o	5442	2433	13	13	5	7	10	10	11	7	10
11	0+	1+	0o	2-	1+	1-	2-	3+	3413	2336	3	8	1	12	9	5	11	34	10
12	1+	2o	3-	2-	2+	2-	4o	1-	3233	1364	10	14	24	12	17	12	54	4	18
13	0+	1o	0+	0o	2o	2o	2-	0+	2321	2533	3	6	2	1	14	16	11	3	7
14	1+	1-	0+	1o	1-	1-	1-	1+	5233	2216	8	4	3	6	5	5	5	10	6
15	1+	1+	1-	1-	0o	0o	0o	0o	3323	1100	8	10	5	5	1	1	0	0	4
16	1o	0o	0+	1-	1+	0+	0+	3-	1123	3223	6	1	2	4	10	2	2	24	6
17	3-	2-	2-	1+	1+	1o	0+	1+	4232	2023	26	12	12	9	9	7	3	10	11
18	0+	1o	1+	1+	1-	1+	1+	2+	4451	2336	3	7	10	8	5	8	8	17	8
19	2-	3-	3-	1+	1o	1o	1+	3-	4333	0467	13	22	21	8	7	6	10	24	14
20	2-	0+	3-	1+	1-	0o	0o	1+	4232	3115	11	2	21	9	5	1	0	8	7
21	0+	1o	0+	0o	0o	1+	0+	0+	5231	1334	3	6	3	1	1	9	3	3	4
22	1o	1+	1-	1+	2-	3-	1o	2o	4332	2213	6	9	5	10	11	26	7	16	11
23	2o	1-	1+	1+	0o	0o	1o	1+	4424	1145	16	5	9	9	1	1	7	9	7
24	0+	0o	0o	0o	0+	1+	1-	0o	3010	2331	3	0	1	0	2	10	4	0	3
25	1o	0+	0o	0o	0+	0o	0+	1+	2311	2125	7	2	1	1	3	1	3	8	3
26	1+	1+	0o	0o	0o	0+	0o	0o	3411	1110	9	8	1	1	1	2	0	0	3
27	0+	1-	3o	6-	4o	4-	4+	3-	2322	5556	2	5	27	123	54	44	63	24	43
28	2-	2+	2o	2o	1+	3-	3o	3-	3220	2364	12	19	14	15	9	24	33	21	18
29	3o	2o	4o	2o	2+	4-	2-	2-	3442	5522	32	15	52	15	19	46	13	13	26
30	2o	3o	3-	3-	1+	1o	0+	1-	3542	4232	16	32	26	25	10	6	3	4	15
											Monthly mean value of An								14.9

November 1995																			
	Ks								σs		as								As
1	3+	3+	4-	3-	4-	2+	4o	3-	3444	2434	40	38	45	26	42	17	54	26	36
2	3-	3+	3-	4-	2+	4-	2+	0+	3333	1243	21	38	23	45	18	47	17	3	27
3	1-	2o	2+	1+	1-	1+	1+	0+	5143	3311	5	15	20	10	5	9	8	2	9
4	0+	1+	1-	2-	3+	5o	2-	2-	3442	4322	3	8	5	12	38	91	12	11	23
5	3-	2-	1+	2+	4o	3o	3o	4o	3212	3013	25	13	9	20	52	32	31	51	29
6	3+	2+	3+	2+	4o	3-	3+	2+	3331	2321	38	20	36	19	54	26	36	17	31
7	2o	3-	3-	2+	1+	1+	2+	1+	1422	3131	15	21	21	18	10	8	18	9	15
8	1o	2-	1+	2-	2-	2o	1+	2-	0313	2213	7	11	9	12	11	16	9	13	11
9	1+	2-	1-	1-	1o	1-	1o	1-	4333	2142	10	12	5	4	7	5	7	4	7
10	2-	1o	1-	1+	1+	1o	2o	1+	3132	2031	11	7	5	9	8	7	14	8	9
11	1+	2-	1-	2-	1+	1-	1+	3-	1332	5232	8	12	5	11	8	4	10	22	10
12	2o	3-	2+	2-	3-	2-	4-	1o	3332	3234	14	25	20	13	21	13	44	7	20
13	1-	1o	0+	0o	3-	2o	1+	1-	2021	3123	5	7	3	1	22	15	9	4	8
14	1o	1-	1o	1+	0+	1+	2-	1o	2213	2432	6	4	7	10	2	9	11	7	7
15	1+	2o	1o	2-	1o	0+	0o	0o	2332	2311	10	14	6	11	6	2	1	1	6
16	1+	1o	1+	1+	2-	0o	1-	3+	2112	3123	10	7	8	10	12	1	5	38	11
17	3o	2-	2o	2+	1+	0+	1+	2-	5321	2322	33	13	14	18	10	3	8	11	14
18	1-	1+	1+	2-	1-	1o	1+	2o	3222	3110	5	10	10	13	5	7	9	16	9
19	2-	3-	2+	1+	1-	1-	1-	2+	1344	2333	13	21	19	9	4	5	5	20	12
20	1+	0+	2+	1o	0+	0+	0o	1o	1343	2312	9	3	18	6	2	3	1	7	6
21	0+	1-	1+	0+	0+	1o	0+	0+	2213	2133	2	4	8	3	2	7	3	3	4
22	1-	2o	1o	2+	2-	2+	1o	2o	3403	2121	5	14	7	17	12	19	6	14	12
23	2-	1-	1+	1o	0+	0+	1o	1+	3320	2322	12	5	8	7	3	3	7	9	7
24	0+	1o	1-	0+	0o	1+	0+	0+	2331	0323	3	6	5	2	0	9	2	3	4
25	1+	1o	0+	1-	0o	0o	0+	1+	1222	0015	9	7	2	5	0	0	2	9	4
26	2-	1-	0o	0o	0+	0o	0o	1-	2311	3003	11	5	1	1	2	0	0	4	3
27	1-	1-	3o	6o	4+	4-	4o	3o	3301	1324	5	5	32	156	64	49	55	32	50
28	2+	3-	2+	2+	2-	2+	3+	2+	1441	2432	18	23	18	18	12	20	38	20	21
29	3o	3-	3o	2-	2o	4-	2-	2-	2432	5323	27	21	29	12	16	41	11	13	21
30	2+	3-	2o	2o	1o	0+	1-	0+	2333	4232	18	22	15	14	7	3	4	2	11
											Monthly mean value of As								14.6

an, as INDICES 1995 (continued)

December 1995																		
	Kn								σn		an								An
1	1+	2o	1+	2o	4o	4+	4-	4o	4432	5476	9	15	8	15	52	64	49	53	33
2	3+	1+	2o	3+	3+	2o	2-	2o	3235	5443	34	9	15	34	37	16	13	16	22
3	0+	0+	2o	2o	2+	2-	3+	3o	3240	5366	3	3	15	15	18	13	37	27	16
4	3+	4o	3-	3+	1+	2+	1o	2-	3625	2444	39	60	25	35	10	19	6	11	26
5	1+	0+	0+	1-	0o	1o	1+	2-	4333	1045	9	3	3	5	1	7	9	13	6
6	0o	0+	0+	1-	1+	2-	2-	2-	0222	3223	0	2	3	4	10	13	12	12	7
7	1-	1-	1-	1o	2-	2-	0+	0+	2321	2421	5	4	5	6	11	12	3	2	6
8	0o	1o	1-	0+	0+	0o	1o	1o	1322	3115	1	6	4	2	2	1	6	6	4
9	1+	3o	2-	2o	3-	1+	1-	1+	2534	4125	10	27	12	16	21	8	5	8	13
10	2o	2o	1+	1-	0+	0o	0o	0+	5343	2112	14	16	10	4	2	1	0	2	6
11	1+	1o	0o	1-	1-	1o	1o	1-	5323	2353	8	6	1	5	4	7	6	4	5
12	0+	1-	1-	0o	2o	2o	3+	1+	2321	6343	2	4	5	1	16	15	39	10	12
13	1o	0o	0o	0o	0o	0o	1-	1-	3201	1123	6	1	0	1	0	1	5	4	2
14	1+	2-	1o	1o	1+	1-	1+	1-	5243	2332	8	11	7	6	10	4	8	4	7
15	0+	1o	2-	2+	4-	4-	4-	3-	2135	4353	2	7	12	20	43	45	41	22	24
16	3+	4+	4-	3-	4-	2o	2o	1-	3633	3433	36	63	44	26	45	15	14	5	31
17	1+	1-	3-	3o	2o	3+	3o	2-	3245	2544	8	5	25	29	14	38	30	11	20
18	1o	0+	0+	2-	2-	1+	0+	0+	4323	5733	7	3	2	12	13	10	3	3	7
19	2+	1+	2+	1+	2o	2+	2-	1-	4152	3552	17	8	17	9	14	20	11	4	13
20	0+	1-	1-	1+	3-	2-	0+	0o	2212	3211	2	5	4	9	23	13	2	1	7
21	0o	0+	1o	1-	2-	3-	3o	3o	1423	5555	1	3	6	4	11	23	27	29	13
22	3-	2-	3-	3-	3-	3+	5o	3+	5654	2654	24	13	23	23	25	34	89	39	34
23	3o	1+	1o	2-	1o	1-	2o	0+	3253	1242	31	9	7	13	7	5	16	3	11
24	2-	1+	4+	4+	5+	4+	3-	3-	4423	5344	12	10	66	63	112	67	21	23	47
25	2+	3-	2o	2o	3o	3+	3o	3-	4302	4513	20	21	15	15	29	40	28	22	24
26	2o	3-	3o	2+	3o	2+	3+	2-	3342	4356	15	26	30	18	30	19	37	12	23
27	2+	2-	2-	1+	3-	2-	2-	2-	5334	3333	19	12	12	8	22	12	13	11	14
28	1o	1o	2-	1-	0+	2o	1-	1-	3243	2543	7	7	13	4	2	16	5	5	7
29	0o	0+	1-	0+	1-	1o	1o	2-	2333	2056	1	3	4	2	4	7	7	12	5
30	1o	0+	0o	1-	1-	1o	1-	0+	3112	3132	7	2	1	5	5	7	5	2	4
31	1o	1+	3o	2-	2o	2+	2o	1+	1243	1523	7	9	30	11	16	20	15	10	15
											Monthly mean value of An								15.0

December 1995																			
	Ks								σs		as								As
1	1+	2o	1o	2+	4o	4+	4o	4o	3434	3335	9	16	7	17	52	68	56	55	35
2	3+	2-	2o	3-	3o	2-	2-	2+	4323	4211	36	13	16	25	27	13	12	17	20
3	1o	1o	2-	2o	2o	2o	3-	3-	2221	2324	7	7	11	14	15	15	26	21	15
4	3+	4o	3o	3+	1+	2o	1o	2-	5433	1221	35	54	29	34	9	15	7	12	24
5	2-	0+	1-	1+	0+	1-	1+	2-	3223	1333	12	3	4	8	3	5	9	12	7
6	0+	1o	1o	1+	2-	1+	2-	1+	3232	2222	3	6	6	10	13	10	13	10	9
7	1+	1-	1+	1+	2o	2-	1-	0+	2133	1232	8	4	8	8	14	11	5	3	8
8	1-	1+	0+	1-	0o	0+	1-	1o	3223	0322	4	9	3	5	0	2	4	6	4
9	2+	3o	1+	2+	2+	1+	1o	1o	2323	3200	17	31	10	19	19	8	7	7	15
10	1+	2+	2-	1+	0+	0o	0+	1o	2433	2121	10	19	11	10	2	1	2	6	8
11	1o	1o	1o	1+	0+	1o	1o	0+	2213	0133	7	7	6	9	3	6	7	3	6
12	1-	1+	1+	1o	2-	2o	3o	1+	2431	2103	4	8	9	6	11	15	32	10	12
13	1+	0+	0+	0+	0o	0o	1o	0+	2222	1112	8	3	2	2	1	1	6	3	3
14	2o	2-	2-	1+	2-	2-	2o	1o	1121	3430	14	12	12	10	12	12	14	7	12
15	1-	2-	2+	2+	3+	4-	4-	3o	1221	3424	5	13	18	18	34	48	46	33	27
16	3+	4+	4o	3o	3+	1+	3-	1+	1432	2152	34	70	55	30	36	9	22	9	33
17	2-	1+	2+	3-	2o	3+	3-	2-	3143	2322	12	10	17	26	16	35	25	11	19
18	1+	1-	1-	2-	1o	1-	0+	1-	1222	2211	8	5	5	13	7	5	2	5	6
19	2+	1+	2-	1+	2o	3-	2-	1+	3321	3232	19	9	11	8	15	21	11	9	13
20	1o	1+	1o	1+	3o	2o	1-	1-	2332	1123	7	9	7	10	28	14	5	5	11
21	1o	1+	2o	1+	2-	2-	3-	3o	1211	2322	6	10	15	8	13	13	21	27	14
22	2+	2o	2+	3-	3-	3o	5-	3o	1244	2322	17	14	20	21	21	29	82	33	30
23	3o	2o	1+	3o	2-	1o	2+	1+	2321	3232	33	16	10	29	11	7	19	8	17
24	2-	2o	5o	5-	5o	4-	3-	3+	1032	3243	13	16	93	82	91	48	24	36	50
25	2+	2+	3-	2o	3+	3+	3o	3o	4120	2133	18	17	21	16	39	39	30	30	26
26	2+	3-	3-	2+	3-	2+	3o	2-	1322	2222	19	25	22	18	23	17	28	13	21
27	2o	2-	1+	1+	2-	2-	2-	1+	4322	2322	15	12	9	10	13	13	13	10	12
28	1+	2-	2-	1+	2-	2+	1+	1+	1222	4231	8	13	12	9	11	17	8	8	11
29	1o	1o	1+	1o	1o	1+	1+	2o	3212	2331	6	6	8	6	7	9	9	14	8
30	1+	1o	1o	1+	1+	1+	1o	1+	2111	2332	9	6	6	10	9	9	7	8	8
31	2-	3-	3-	2o	2+	3-	2+	2o	1123	2122	12	22	22	14	19	21	17	14	18
											Monthly mean value of As								16.2

am INDICES 1995

January 1995																				
	Km								Σ Km	am									Am	Am2
1	1o	0+	1-	1+	0+	1o	2+	1o	8.0	7	3	5	9	3	6	20	7		8	11
2	1+	2-	3-	3o	2+	4o	4o	3+	22.3	9	12	21	31	20	54	60	39		31	30
3	4+	3+	4o	4-	3o	5-	4-	3+	30.0	69	34	56	41	30	74	44	37		48	42
4	4-	3-	3o	3-	4-	3-	3-	2o	23.0	41	23	29	26	43	24	23	15		28	33
5	3-	3-	3-	4-	3+	4-	4-	3o	25.3	24	21	24	50	35	46	43	32		34	29
6	2o	2+	2+	3o	3o	3-	3o	4-	22.0	14	19	18	28	33	21	31	45		26	27
7	2o	2o	2o	3o	3o	2+	2o	2o	18.3	14	16	15	28	27	17	14	14		18	20
8	2+	1+	1o	1o	2+	2-	2+	1-	12.7	17	10	6	7	18	13	17	5		12	13
9	1+	2-	3-	1o	1-	1-	1+	2-	11.0	9	11	22	7	4	5	8	11		10	10
10	0+	0+	2-	2o	2+	1+	3-	3o	13.7	2	3	12	14	20	9	21	33		14	15
11	3-	3-	2+	3o	4+	3-	2o	2-	21.3	23	25	17	32	62	21	15	11		26	20
12	2o	1-	1o	1-	1o	1o	1+	2-	9.3	14	5	6	4	6	7	10	13		8	15
13	1o	2+	3-	2o	2o	1o	1+	1o	13.3	7	19	23	16	16	7	8	7		13	10
14	1o	0+	1+	1o	0o	1o	1o	2-	7.3	7	3	10	6	1	6	7	13		7	7
15	1+	0+	1+	1o	1-	1-	0+	1-	6.3	8	3	9	6	5	4	3	5		5	10
16	2-	1+	2+	4o	4-	2+	4-	3o	22.0	12	9	17	51	46	20	45	27		28	23
17	2o	2+	3+	4o	3o	4-	5+	5+	29.0	16	20	36	56	27	50	120	120		56	52
18	5-	5-	4o	3+	2+	2+	2o	2o	25.3	74	78	55	34	18	18	14	15		38	41
19	1+	1-	0+	1+	2-	1+	1o	1-	8.3	8	5	3	9	13	9	7	4		7	9
20	1o	1-	1-	1-	1+	1+	3o	2+	11.0	6	5	4	5	9	9	29	19		11	10
21	1+	1+	1+	1+	1o	2-	3-	2+	13.0	10	9	10	9	6	13	26	17		13	13
22	1+	1+	1o	2-	3o	2+	2-	2o	14.3	9	8	7	13	29	17	11	15		14	14
23	2o	2+	1o	1o	1o	1-	1+	1+	10.7	16	17	7	6	7	4	9	9		9	12
24	1+	1+	1+	1+	1o	1-	1-	0+	8.0	9	10	9	10	6	4	5	3		7	8
25	1-	2-	1+	2o	1+	1o	1+	1-	10.0	4	11	10	14	8	7	8	5		8	6
26	1-	0+	0+	1o	1+	1o	0o	1-	5.3	4	2	3	6	10	6	1	5		5	5
27	0+	0+	0+	1+	2-	1+	0+	0o	5.7	3	3	3	10	11	8	2	1		5	5
28	0+	1-	1o	1o	0o	0o	1+	1-	5.0	2	5	6	6	1	1	8	5		4	12
29	2o	4o	3-	3+	4-	4+	4o	6-	29.7	14	52	23	39	47	69	59	123		53	39
30	4o	4-	3o	4o	4-	5-	5-	4o	31.7	55	50	30	51	41	72	77	55		54	55
31	5-	3+	3o	2-	3+	3+	5-	3o	27.0	71	40	32	13	39	35	74	31		42	41
										Monthly mean value of Am									20.7	

February 1995																				
	Km								Σ Km	am									Am	Am2
1	2+	3-	2o	3-	3-	3o	3o	2-	20.0	18	22	16	26	25	28	29	13		22	30
2	3-	3o	3+	3+	4-	4+	3+	4-	27.3	25	33	34	37	50	65	36	42		40	34
3	3+	3o	3o	3o	4-	4-	4o	3+	27.0	38	29	29	27	47	41	60	35		38	40
4	5-	3o	3-	3-	4-	4-	3-	2+	25.3	72	29	22	21	42	44	24	18		34	30
5	1+	1o	1+	1o	1+	2-	1o	1+	10.0	9	7	8	6	8	13	7	8		8	16
6	2o	2o	1o	2o	2+	3o	1+	2+	16.0	16	16	7	15	18	28	9	17		16	15
7	3-	2+	2o	2o	1+	1+	1+	4-	16.7	24	18	15	14	8	10	8	48		18	27
8	3+	4o	4-	4+	4-	3-	2-	2+	25.7	38	55	49	66	46	25	13	18		39	27
9	1o	2+	2o	0+	0o	0+	0+	0o	6.3	7	17	14	2	1	3	2	1		6	10
10	0+	0+	0o	0o	0+	1+	1-	2-	4.7	2	3	1	1	3	10	5	11		5	11
11	2+	2o	4+	3o	4o	4-	4-	4+	27.3	19	16	62	30	60	48	43	62		43	31
12	3+	3+	3-	4-	3-	5-	5-	4-	28.7	38	34	21	41	26	77	83	50		46	49
13	4+	3+	4o	4-	5o	5-	3o	4-	31.7	64	35	52	49	99	75	27	43		56	51
14	4+	3o	2o	3-	5-	4o	4-	2+	26.7	68	31	15	23	79	53	45	17		41	41
15	3-	3-	2+	3-	2o	3+	3o	3+	22.0	22	26	17	23	15	34	33	38		26	27
16	1o	1+	2-	1+	1+	3o	2-	2-	13.0	7	9	11	9	9	31	12	12		13	16
17	1-	1-	2o	2+	2+	2o	1+	1+	12.7	4	5	14	19	20	14	8	9		12	15
18	3-	3-	2o	3-	2o	2+	3-	1o	18.0	22	23	14	22	14	20	23	7		18	15
19	1o	2-	1+	1+	1o	2-	1+	2+	11.7	7	13	9	10	6	11	10	17		10	11
20	1+	1+	1+	1+	1+	2-	1+	0+	10.0	8	10	9	9	9	11	9	3		9	9
21	1o	1-	1-	2o	1+	0o	1o	2-	8.3	6	4	5	14	8	1	6	12		7	7
22	0+	0+	1o	1+	0+	0+	0o	0o	3.7	2	3	6	8	3	2	1	1		3	6
23	0+	1o	2-	2o	2-	1+	1-	1-	9.3	3	7	11	14	12	9	5	5		8	5
24	0+	0+	1-	1-	0o	1-	1o	1-	4.3	2	3	4	4	1	5	7	4		4	4
25	0+	0o	0+	0+	0+	0+	0+	1-	2.7	2	0	2	2	3	3	2	4		2	8
26	1o	3o	4-	2+	3-	3-	3-	3-	20.7	7	27	42	20	21	25	25	24		24	21
27	1+	4-	3-	4o	4o	3+	5-	4o	27.7	10	45	25	51	53	36	74	54		44	39
28	3+	3o	4-	4+	3-	3o	5+	4o	29.3	40	29	49	69	23	29	112	54		51	51
										Monthly mean value of Am									23.0	

am INDICES 1995 (continued)

March 1995																				
	Km								Σ Km	am									Am	Am2
1	4-	4-	3+	4+	2+	4+	4o	4-	29.3	43	49	38	68	19	64	51	49		48	48
2	3+	4-	4-	3+	4-	4+	2+	2+	26.7	34	48	44	37	41	61	18	20		38	34
3	3-	1+	1+	1o	1o	1-	1o	2-	10.7	26	10	10	6	6	5	6	11		10	17
4	2+	1o	2o	2+	3o	3+	4o	5+	23.3	17	6	14	20	32	37	53	120		37	27
5	4o	2-	2-	3o	3o	3o	3o	3-	22.0	51	13	13	31	27	28	32	22		27	31
6	1o	2+	1+	0o	1-	1o	0o	0o	6.3	6	17	8	1	4	7	1	0		6	11
7	0o	1o	0+	1-	0+	1o	1-	0o	4.0	1	7	3	4	3	7	5	1		4	4
8	1+	1+	1+	0+	0+	0o	1+	1o	7.0	8	9	9	2	2	1	8	6		6	8
9	1o	2+	3-	2o	2o	2o	4+	4o	20.3	7	18	24	16	14	16	70	52		27	23
10	5-	3-	2o	2o	3-	3-	3-	3-	22.0	74	24	16	14	22	21	22	23		27	31
11	4o	3-	3o	1o	3o	4o	4+	5o	27.0	57	26	32	6	27	51	65	97		45	41
12	5o	4o	3o	3-	3o	4-	4+	4+	30.0	92	60	29	26	28	45	69	66		52	53
13	4o	3+	4-	4+	5-	5o	4-	3+	32.0	56	34	41	67	83	100	49	36		58	50
14	3+	3+	2+	3+	3+	3+	3o	3-	24.7	34	34	19	37	35	39	30	21		31	38
15	2o	2+	3o	3o	2+	1o	3-	3o	19.3	15	17	29	32	17	7	25	32		22	24
16	3-	3-	3-	2+	3-	2+	2+	2-	19.3	21	22	23	18	23	18	20	13		20	18
17	1+	2o	2o	2-	1+	3-	2+	2o	15.3	8	14	16	12	10	21	19	15		14	14
18	2-	1o	2-	1o	1o	0+	1-	1-	8.0	11	7	12	7	6	3	5	4		7	9
19	2-	1-	1o	0+	1-	1-	1+	1o	7.3	12	5	6	2	5	4	10	7		6	5
20	1-	0+	1-	1o	3-	2-	1+	0+	8.7	5	2	4	7	22	13	8	3		8	6
21	0o	1-	1o	0o	0o	0+	0o	0+	2.3	1	5	6	1	1	2	1	2		2	5
22	0+	1-	1-	1-	0+	1-	0+	1-	4.3	3	5	5	5	3	4	2	4		4	5
23	1-	0+	0+	3o	2o	2+	2+	1+	12.3	5	3	2	27	16	20	19	9		13	10
24	2+	1o	2+	1-	1+	2-	1o	1-	11.0	17	7	20	5	8	11	6	5		10	11
25	1+	2-	1o	2-	1o	1-	1o	2-	10.0	8	13	6	13	6	4	6	11		8	13
26	2-	1+	3+	4o	5o	5-	4o	4-	27.7	11	9	40	54	103	75	59	50		50	35
27	3+	2-	4-	3+	4-	3o	4-	3+	25.7	39	13	42	36	50	29	46	35		36	43
28	3+	3-	3+	2+	3o	4-	3+	1+	23.0	35	23	36	18	28	49	36	10		29	33
29	3-	4-	3o	3o	3o	3-	2o	3-	22.7	23	48	33	32	31	22	16	21		28	25
30	3-	2+	1o	1+	3o	2-	1o	1-	13.7	23	18	7	9	31	12	7	4		14	16
31	1o	1+	2o	3-	2-	2o	2-	2+	14.7	6	10	14	23	12	14	13	18		14	11
										Monthly mean value of Am									22.6	

April 1995																				
	Km								Σ Km	am									Am	Am2
1	0+	0o	0+	0+	1+	3o	4o	4-	13.0	2	1	2	2	8	32	56	44		18	23
2	4-	4+	2+	3+	4-	2-	1o	1-	20.7	44	63	17	39	43	13	6	5		29	24
3	1-	0+	1-	0+	0o	0o	0+	0o	2.3	4	2	5	2	1	1	2	1		2	7
4	1+	0+	1o	0+	1-	1o	0o	1+	6.0	9	2	6	3	4	6	1	8		5	7
5	2o	1+	2-	3o	2+	1+	2+	2o	16.0	16	10	11	30	17	9	19	14		16	11
6	2o	1o	0+	0o	1o	0+	2-	3-	9.0	14	6	2	1	7	2	13	21		8	24
7	3+	4+	5-	5-	6o	7-	6+	6-	41.7	37	66	80	78	173	210	193	129		121	76
8	3+	4-	4o	4o	4o	5-	3o	3o	29.7	39	48	52	60	51	81	33	31		49	79
9	4-	3o	4-	4-	3+	3+	2+	3-	25.7	46	33	41	43	34	34	17	21		34	40
10	3-	4o	4-	4o	4-	3o	2+	3-	26.0	25	51	45	58	45	30	19	25		37	33
11	2+	3+	3o	3+	3-	2+	4o	4-	24.7	19	39	33	36	22	20	59	42		34	32
12	4-	3+	3-	2+	3-	3o	3-	2-	22.0	46	35	23	19	22	28	26	13		27	26
13	2+	3-	2o	1o	0+	1+	1+	2+	13.3	17	21	14	7	2	8	10	20		12	14
14	2o	1o	0+	1o	1o	0+	1+	1+	8.3	16	6	2	6	6	3	8	8		7	7
15	0+	1-	0+	0+	1o	1o	1-	0+	4.7	3	5	2	2	6	7	4	2		4	5
16	0+	0+	1+	1o	0o	0o	1+	1+	5.7	2	2	10	6	1	1	9	8		5	7
17	3-	1+	1+	1o	0+	1-	0+	1-	8.3	22	9	8	7	3	4	2	5		8	9
18	2+	1+	2-	2+	1+	2-	2o	1+	14.0	17	10	12	18	10	12	15	10		13	11
19	2o	2+	2-	1o	1-	1o	1+	2-	11.7	14	17	13	7	4	6	10	13		11	12
20	1+	3-	2o	2-	2-	3-	1+	1o	14.3	9	24	16	12	11	22	8	6		14	9
21	0o	0+	0o	0+	0+	0+	0+	0+	2.0	1	2	1	2	2	3	3	3		2	5
22	1-	0+	1-	2-	3o	3o	3+	3-	15.3	4	3	4	11	31	31	40	24		19	19
23	3o	3-	3+	4-	3-	4-	3-	4+	26.0	31	24	39	44	22	46	21	66		37	37
24	4-	4+	4o	2+	3-	3o	4o	3+	27.3	42	63	53	20	24	31	58	35		41	40
25	4+	4o	3-	2o	3-	3-	2+	2-	22.3	64	52	21	14	22	21	18	12		28	29
26	3o	3-	3-	2+	3-	3-	3-	4-	22.3	28	26	26	19	22	24	23	50		27	30
27	3o	3-	5o	4-	3+	3-	3-	1+	24.3	33	22	92	42	35	21	24	8		35	31
28	2-	3-	3-	3+	3+	3-	2-	1+	19.3	13	22	22	40	38	21	12	9		22	19
29	2-	2-	2-	1+	3-	2-	2o	2o	14.7	12	11	11	10	22	11	14	16		13	13
30	1+	0+	0+	1-	1-	0+	1-	2-	6.0	8	3	3	5	5	2	4	11		5	7
										Monthly mean value of Am									22.8	

am INDICES 1995 (continued)

May 1995																		
	Km								Σ Km	am							Am	Am2
1	0+	1-	0+	0+	1-	0+	0+	2-	4.7	2	5	2	2	4	2	3	12	4	14
2	2+	4+	4-	3+	4+	5+	5-	6-	33.7	17	68	45	39	69	106	80	134	70	56
3	5+	5-	5-	4+	4+	4-	4-	4o	34.7	106	76	76	64	69	47	44	57	67	72
4	4+	5-	4o	3-	3+	3+	3+	4-	29.3	66	74	60	24	38	36	34	46	47	55
5	4o	4+	4+	5o	4+	4o	4-	4-	33.3	57	62	66	96	68	52	47	43	61	56
6	5o	3o	4+	4+	3o	3-	3-	3-	27.7	87	30	70	65	27	25	24	25	44	44
7	2+	3+	4-	4-	4o	3-	3+	5-	27.7	18	35	45	46	54	22	34	74	41	35
8	4-	4-	2+	3o	3+	2o	3-	3o	23.7	49	42	20	27	40	16	23	29	31	32
9	3-	3-	2+	3-	2-	1+	3o	2+	18.7	21	21	20	23	13	9	28	19	19	19
10	2-	2-	1-	2-	2-	2-	1+	1+	11.7	13	13	5	11	11	12	10	9	11	13
11	2+	2-	2-	1+	1+	1o	1+	1+	12.0	17	11	12	10	9	6	10	9	11	11
12	2+	2-	2-	1+	2+	1+	2-	1o	13.3	17	11	12	9	20	10	11	7	12	12
13	1+	2o	2+	2+	3-	2+	1o	2-	15.7	10	15	17	19	25	19	7	11	15	14
14	1+	2+	3-	1+	1o	1o	1o	1-	11.3	9	19	22	9	6	7	6	5	10	10
15	0+	1-	1+	1o	1+	1o	1+	2-	8.7	2	5	9	6	8	6	8	13	7	17
16	3-	4-	4o	5-	5+	5-	5-	5-	34.3	21	48	55	73	104	73	73	71	65	49
17	4o	4+	4o	4o	3-	3-	3+	3-	27.7	55	66	54	55	25	26	36	21	42	45
18	3-	2-	1+	2o	3-	2o	3-	4-	18.7	22	11	10	16	21	16	23	42	20	23
19	2+	3-	4-	2+	2+	3-	3o	2o	21.0	17	23	46	18	17	21	28	15	23	25
20	3-	3o	3-	3o	2-	3-	3+	3-	21.7	24	29	25	28	13	23	39	24	26	21
21	3-	2+	0+	0+	1-	0+	1-	1-	8.0	26	17	2	3	5	2	5	5	8	13
22	2-	2+	1+	1+	2-	1o	0+	3-	12.3	13	19	10	9	13	6	3	21	12	10
23	3-	1+	1o	2-	2o	3o	5-	5o	21.3	21	9	7	12	14	27	75	88	32	34
24	3+	5-	4+	4+	3-	3+	2+	2+	27.3	36	85	61	62	25	38	20	19	43	40
25	3-	3+	2o	1+	3+	3o	3-	1+	19.7	22	38	15	8	34	29	26	9	23	22
26	2-	2-	2o	3o	3o	3-	3-	3-	19.3	13	12	14	28	31	23	26	23	21	20
27	1o	2o	2-	2-	2-	2-	2o	0+	12.0	7	14	11	13	11	13	14	3	11	15
28	1+	2+	2-	1+	2o	2-	1o	2-	13.0	8	17	13	10	14	13	7	11	12	11
29	1o	1+	1+	2-	3-	2o	2+	1+	13.7	7	10	8	13	23	15	18	8	13	24
30	2+	4o	5-	5-	5-	3+	4+	3+	31.3	19	53	78	81	78	37	64	40	56	43
31	4-	3+	4o	4-	4-	4+	4o	3o	29.7	49	36	55	41	48	66	52	28	47	48
										Monthly mean value of Am								29.2	

June 1995																		
	Km								Σ Km	am							Am	Am2
1	4o	4-	3+	3+	4-	4o	3+	3-	28.0	57	41	34	35	43	56	36	25	41	40
2	3-	3+	3o	3o	3o	3+	3-	3o	24.0	25	38	28	33	28	37	24	28	30	35
3	3+	4-	4-	3+	2+	3o	3o	3+	25.7	35	44	46	37	20	27	27	35	34	27
4	2o	1+	2-	2o	1+	2-	2-	1+	13.0	15	8	12	14	10	13	12	10	12	15
5	2-	2-	1o	1o	1-	1+	1+	3-	11.3	13	12	7	7	4	10	8	21	10	12
6	2+	1+	2o	2o	2o	1-	2-	1+	13.3	19	10	15	15	15	5	12	8	12	12
7	3-	1-	1+	2-	1-	1+	2-	2o	12.0	23	4	10	11	5	8	13	15	11	10
8	2-	2-	1o	1-	0+	1-	1-	1-	7.3	11	13	7	4	2	4	4	4	6	7
9	1-	1-	1o	1+	1o	2-	2-	2-	9.7	4	4	7	9	6	12	11	12	8	10
10	2+	3o	3-	2+	1+	1+	1-	1o	14.7	17	29	22	19	9	9	5	7	15	13
11	2o	2+	2o	1o	0+	0+	1-	1-	9.3	15	20	15	7	3	2	5	4	9	8
12	1-	1-	1o	1o	0+	0+	0+	0+	4.7	4	4	7	7	3	3	2	2	4	4
13	0+	0+	1-	0+	0o	0+	0+	0+	2.7	2	2	4	3	1	2	2	3	2	3
14	0+	0+	0+	1+	1+	2o	2o	2o	9.7	2	2	3	8	9	15	15	16	9	7
15	1+	1+	2-	2-	2-	2-	1o	1o	11.3	8	10	12	11	11	12	7	6	10	13
16	3o	2+	1o	2+	2+	2o	3+	2-	18.0	32	20	7	20	20	14	40	12	21	15
17	2-	1+	1+	1+	1-	1o	1-	1+	9.3	12	9	9	10	4	6	4	8	8	17
18	1-	3-	4o	4-	3-	1+	1o	2+	18.3	5	24	55	42	26	10	6	17	23	25
19	3o	4-	4o	4o	4+	3+	3+	3-	28.3	28	48	57	52	63	37	36	22	43	35
20	2+	4o	4o	3+	3-	3+	2o	2o	23.7	18	55	54	34	21	37	16	16	31	32
21	3o	3o	3-	2+	2+	2o	2o	2o	19.3	27	29	25	17	19	15	14	14	20	19
22	2+	2-	1+	2o	3-	2-	1+	2-	14.7	19	13	8	14	22	12	8	11	13	15
23	2-	2o	3-	2+	2-	2+	1+	1o	15.0	11	15	25	20	12	20	8	6	15	13
24	1o	1o	1+	1+	1-	1o	1o	1-	8.0	6	7	9	8	5	6	6	5	7	8
25	0+	1-	1+	2-	3o	4-	4o	3o	17.7	2	5	10	13	29	48	58	32	25	25
26	4+	4o	3+	2+	2-	2-	3o	3o	23.3	68	51	36	19	13	12	27	27	32	30
27	2o	2-	3-	2-	0+	1-	1o	2-	11.7	14	13	25	11	2	4	6	12	11	13
28	2-	1+	2-	2-	2o	2+	2+	3+	16.3	12	10	13	13	15	17	18	36	17	12
29	1+	1-	1+	1o	2-	2+	2-	1+	11.3	8	5	8	7	13	18	11	10	10	16
30	3-	2o	2o	3+	3+	3+	4o	5-	25.3	21	14	14	35	34	34	56	74	35	30
										Monthly mean value of Am								17.5	

am INDICES 1995 (continued)

July 1995																		
	Km								Σ Km	am							Am	Am2
1	4+	3+	3o	2+	2-	2-	2-	2-	19.7	66	38	29	18	12	13	13	12	25	27
2	2+	1+	0+	1+	1o	1+	1+	1+	10.3	17	8	3	9	6	9	8	8	9	11
3	2+	2o	2-	2+	2o	1o	2-	3o	16.0	20	15	11	18	15	7	12	28	16	13
4	3-	2+	1+	1o	2-	2+	1o	1-	13.0	24	18	10	6	13	17	7	4	12	11
5	1o	1-	1-	1-	1-	1-	0+	1-	5.3	6	4	4	5	5	5	3	5	5	6
6	0+	0+	1-	0+	0+	1o	1o	1+	5.3	2	3	4	3	2	6	6	8	4	5
7	1o	2o	1o	1-	1-	1o	0+	0+	7.0	7	16	7	5	5	6	3	2	6	6
8	1-	1-	1+	1+	2-	1o	1o	0+	8.0	5	4	10	8	11	6	7	2	7	6
9	0+	0+	1-	2-	3-	2+	1+	1-	10.0	2	2	4	11	24	19	9	5	10	7
10	0+	0+	0+	1-	0+	1-	0+	0+	3.3	2	2	3	4	3	4	3	3	3	6
11	0+	0+	0+	0+	0o	0o	0+	1o	2.7	2	2	2	2	1	1	3	6	2	3
12	1o	0+	0o	0+	1-	1+	1o	1+	6.0	6	3	1	2	4	8	6	10	5	6
13	2-	2o	2-	1+	1o	1+	1o	0+	10.3	13	16	12	9	6	10	6	3	9	8
14	0+	0+	1-	1o	1o	2o	2+	2+	10.0	3	2	5	7	6	15	20	18	10	9
15	2-	1+	1+	2-	2o	1+	2-	1+	12.3	11	9	10	11	14	10	11	9	11	12
16	1o	1o	2-	2+	5-	5-	4-	5o	24.0	7	6	12	20	80	85	45	87	43	36
17	4+	4-	3+	3+	4-	4-	2o	3-	26.7	66	49	38	37	49	46	15	26	41	44
18	3o	2+	2o	3-	3+	2+	2+	2-	19.7	27	17	16	25	39	17	20	11	22	24
19	1+	2+	3-	3-	2-	1o	2o	3o	16.7	9	17	21	22	12	6	15	29	16	19
20	3o	2-	2o	3o	2o	2o	1o	1-	15.3	30	12	14	30	14	14	7	5	16	14
21	0+	1-	1+	2o	2o	1+	1-	0+	8.7	3	5	8	15	14	8	5	3	8	8
22	0+	1+	1+	1+	2+	2-	2-	1+	11.3	3	9	8	8	18	12	12	9	10	9
23	2o	1-	1-	1o	2-	3-	2+	1+	12.3	16	4	4	6	12	23	18	10	12	22
24	3o	4-	5o	4-	3+	2o	4+	3o	28.0	30	41	89	44	37	14	66	30	44	31
25	3+	2+	1+	1+	1-	1o	0+	1o	11.3	38	19	9	9	4	6	2	6	12	18
26	2o	2-	1+	1o	2-	1o	1o	1+	11.0	14	13	9	7	11	6	7	10	10	8
27	1o	2o	1+	1-	1o	1-	2o	2o	10.7	7	14	9	5	6	5	15	14	9	9
28	2o	1o	1o	1-	1-	1-	1+	2o	9.3	15	7	7	5	5	5	10	16	9	10
29	3-	2o	0o	1-	1-	2+	1-	1+	10.3	24	14	1	5	5	18	5	8	10	9
30	2-	0o	1-	2o	1+	2-	2-	2+	11.3	11	1	4	16	8	11	11	20	10	10
31	2-	2-	2-	0+	0+	2-	1+	3-	11.3	13	12	13	3	3	12	10	21	11	12
										Monthly mean value of Am								13.5	

August 1995																		
	Km								Σ Km	am							Am	Am2
1	2-	1+	2-	2o	1-	1-	0+	0+	8.7	13	8	12	14	4	4	3	2	8	8
2	1-	1-	1+	1-	1+	2-	2o	1-	9.0	5	5	8	5	8	13	14	5	8	9
3	1+	2o	3-	2-	2o	1+	1+	1o	13.3	10	15	26	11	16	10	9	7	13	11
4	0+	1o	2-	0+	0+	1-	2-	2o	8.0	2	7	13	3	3	5	11	15	7	8
5	1-	1o	1o	2+	2-	2o	1o	2-	11.3	4	6	6	17	11	16	7	11	10	8
6	1-	1-	1+	0+	1-	0+	1+	1+	6.7	5	5	8	2	5	3	9	9	6	8
7	1-	1-	1+	2+	3-	2-	3-	3o	15.0	4	5	8	19	26	13	24	28	16	18
8	4o	3+	3-	2o	2-	2-	4o	3-	22.0	55	39	26	16	11	11	53	25	30	29
9	4-	4-	3-	2+	3o	4-	3+	4-	26.0	49	41	25	18	31	43	34	47	36	33
10	4-	3+	3+	3o	2o	2o	2+	2-	21.3	42	36	35	31	15	15	19	12	26	26
11	1+	2o	3-	2o	2-	2-	1+	2o	14.7	8	15	21	14	13	11	10	15	13	14
12	3-	1o	0+	3-	2+	1o	2-	3-	14.3	23	6	3	21	18	6	12	21	14	15
13	3o	3-	2o	2-	2-	2o	2+	4-	19.0	27	26	16	13	11	15	17	41	21	25
14	4o	3o	4-	4-	2+	3o	3-	3o	25.3	54	27	45	45	17	33	23	30	34	29
15	3o	3+	3o	3-	2+	2-	3o	3-	21.7	27	36	27	22	18	13	30	22	24	24
16	2o	3o	3o	2-	2-	2-	1-	1-	14.3	16	33	32	11	13	13	4	4	16	18
17	2o	2-	2-	3+	3+	3o	2+	1+	18.7	14	12	13	37	34	32	19	10	21	14
18	1+	1o	1-	1o	2-	2-	2o	2-	11.0	8	7	5	6	11	11	14	11	9	14
19	2o	1+	3o	1+	2-	2-	3-	3-	16.3	14	10	28	10	11	13	21	25	17	14
20	1+	2-	2-	1+	2o	1+	1-	1+	11.3	10	12	12	10	16	10	4	8	10	11
21	1-	1-	1-	1+	0+	0+	0o	0+	4.3	4	4	4	8	3	2	1	2	4	5
22	1-	0+	0+	0+	3-	2o	4-	4+	14.3	5	2	2	2	25	15	44	70	21	20
23	4-	4-	3o	3-	2o	1-	1o	1o	17.7	43	43	31	23	14	4	7	6	21	22
24	2-	1o	1o	1o	2+	1+	2o	2+	12.7	11	7	7	6	17	10	15	20	12	17
25	3+	3+	3o	4-	1+	2-	2-	3-	20.7	35	40	32	42	9	13	13	23	26	20
26	1+	2o	2+	2-	2o	0+	0+	2-	11.7	10	14	18	12	16	3	3	13	11	12
27	2-	1+	2-	2-	1o	1+	2o	2-	12.3	12	10	11	13	7	10	16	11	11	9
28	0+	1o	1+	1o	1+	2-	1+	1o	9.0	2	6	8	6	8	11	9	6	7	12
29	3-	2+	3-	3+	2o	2-	2+	2o	19.0	22	17	21	38	14	13	17	15	20	14
30	1+	2-	1+	0+	1o	1-	0+	0+	7.0	9	12	8	2	7	4	3	3	6	7
31	1-	0+	0o	0o	0o	1+	1-	1o	4.0	4	3	1	1	1	9	4	6	4	4
										Monthly mean value of Am								15.5	

am INDICES 1995 (continued)

September 1995																				
	Km								Σ Km	am									Am	Am2
1	1+	1-	0+	0+	1-	1-	2-	0o	5.7	10	4	3	3	4	5	12	1		5	5
2	1-	1-	0+	1-	1o	1o	2-	1o	7.0	5	5	2	5	6	7	12	7		6	6
3	1+	1+	1o	0+	1o	1+	1+	1-	8.3	10	9	7	3	6	8	9	5		7	8
4	0o	2-	2o	1o	1+	1o	1o	2+	10.3	1	13	14	7	10	7	6	17		9	12
5	3-	2+	2+	3+	5-	4-	5-	4+	28.0	21	20	17	37	74	49	81	70		46	37
6	5-	3-	3o	4-	3o	3o	2o	3o	25.0	79	26	28	46	33	29	15	27		35	44
7	3+	4-	3o	4-	3o	3+	3+	2o	25.3	37	41	27	43	28	39	37	14		33	39
8	3-	5-	5-	4+	4-	4+	3+	2-	29.3	25	76	82	65	49	62	38	12		51	40
9	3-	4-	3o	3-	3-	2-	1+	2-	19.3	24	44	28	23	26	13	8	12		22	24
10	0+	1-	2-	2+	2o	3-	3o	4o	16.7	3	4	12	19	15	26	33	52		21	27
11	5o	4-	3+	4-	3o	3+	3o	3+	28.3	89	50	34	42	28	38	30	34		43	33
12	2+	3-	1+	2o	1+	3-	3+	4-	19.3	17	21	8	15	8	22	40	45		22	27
13	2+	3o	3+	4-	3-	3-	2o	3-	22.3	18	29	34	48	26	26	16	24		28	24
14	2+	2-	1+	1+	1+	2-	2o	3-	14.3	19	13	8	8	8	12	15	26		14	22
15	3o	4-	3o	4-	4+	5-	3o	1-	26.0	28	42	33	42	67	78	33	4		41	30
16	2o	2+	3o	3-	2+	1+	2o	2+	18.0	15	19	33	25	18	8	14	18		19	24
17	2-	1+	1+	2-	1+	1o	2-	0+	10.3	13	10	10	12	10	7	13	2		10	9
18	0+	0+	0o	1o	0+	0+	1+	1+	5.0	2	2	1	6	2	2	8	9		4	5
19	1-	0+	1+	1o	0+	1+	1+	1+	7.7	5	2	8	7	2	8	9	8		6	8
20	1+	3-	3-	2-	3-	2+	2o	3-	18.0	8	21	22	11	23	20	14	22		18	14
21	2o	2+	1o	1+	2-	2+	1+	1+	13.3	14	17	7	10	11	17	9	10		12	12
22	1o	1-	0+	1-	1o	1o	1+	1+	7.3	7	4	3	4	7	6	8	10		6	10
23	3-	2+	1+	2+	3o	2+	3+	2+	19.7	25	18	9	18	32	20	36	20		22	18
24	2o	3o	2-	3-	1-	1+	1-	0+	12.3	16	27	12	21	4	9	5	3		12	15
25	1o	2-	1+	1o	0+	2-	1-	0+	8.0	7	11	10	7	3	11	5	3		7	8
26	1-	2-	1+	2+	1o	1-	2-	1o	10.3	4	12	10	19	7	5	11	6		9	11
27	2-	2o	2+	3+	4+	5+	6o	5o	30.0	12	16	17	36	70	105	147	91		62	42
28	2-	3-	4+	4-	3-	1-	0+	1-	16.7	13	22	64	47	25	5	2	4		23	38
29	0+	0+	1-	1+	1-	1+	0o	0+	5.0	3	3	4	10	5	9	1	2		5	7
30	0+	1-	1+	2o	2-	1-	1-	2o	9.3	2	4	10	15	11	5	5	14		8	5
										Monthly mean value of Am									20.2	

October 1995																				
	Km								Σ Km	am									Am	Am2
1	0+	0o	0o	0o	0o	0o	2o	2-	4.0	3	0	1	0	1	1	15	12		4	9
2	2o	1-	3-	3-	4o	3-	3-	4+	21.7	16	5	24	24	52	23	24	65		29	25
3	4o	3-	3-	3o	3+	5-	4-	3o	27.0	56	24	21	32	37	75	49	31		41	47
4	4-	4-	3o	6-	6-	5o	4+	4+	35.3	46	44	32	143	132	88	61	64		76	59
5	3+	3o	3o	4-	4+	2+	2-	4o	25.3	34	30	32	50	64	18	13	52		37	48
6	2o	3o	3-	4+	3+	4o	3o	4o	26.3	15	31	26	63	37	55	27	51		38	41
7	4o	4-	4+	4-	4-	3-	2o	3-	26.7	52	49	64	45	49	26	16	23		41	39
8	3o	3-	3-	4o	4o	4+	5-	2o	27.3	30	23	26	58	54	70	73	16		44	37
9	1o	3o	4-	4o	4-	4o	3+	3+	26.0	6	29	45	53	42	53	36	34		37	37
10	2+	3-	3o	1o	1o	1-	0+	1-	11.7	18	26	33	7	7	5	2	5		13	22
11	1+	3o	3o	1+	3o	4-	2+	2-	19.3	10	33	28	10	27	41	19	13		23	23
12	3-	4o	4-	4-	3+	2-	2+	2+	23.7	22	56	47	50	40	11	17	20		33	28
13	3+	1+	2o	2+	2-	2+	2+	2o	17.3	34	10	14	20	13	18	18	15		18	16
14	1+	1+	1o	1+	1+	2-	2o	2+	12.3	8	8	7	8	10	13	14	17		11	11
15	2-	1-	1-	1-	2o	2o	0+	2+	10.3	11	5	5	4	14	14	3	20		10	10
16	1+	1+	1-	2-	2+	2o	3o	2-	14.0	8	10	5	11	17	15	29	11		13	14
17	2-	3-	3-	2-	2+	2+	1o	1-	15.0	11	22	26	12	18	20	6	4		15	17
18	1+	2-	1-	4-	3o	4o	5o	6+	25.7	10	11	5	47	33	51	102	181		55	47
19	5+	4+	4+	3-	2+	2-	3-	3+	26.7	111	66	61	26	17	13	21	35		44	58
20	2+	5o	3+	4+	4o	5-	4o	2+	30.0	20	96	38	63	55	83	57	17		54	36
21	2o	1+	3o	2+	4-	3o	2o	3-	20.0	15	8	28	17	44	30	15	25		23	29
22	2+	2o	3o	1+	3-	2o	4-	3-	19.7	17	14	30	9	23	14	43	22		22	26
23	3-	3+	3-	4-	3-	2+	3o	2+	22.7	25	40	24	44	21	20	31	20		28	23
24	3-	0+	1o	2-	3o	3+	3-	1+	16.0	21	2	7	11	27	40	21	10		17	17
25	1+	2o	1o	0+	1o	0+	0o	0o	6.0	8	15	7	3	6	2	0	1		5	9
26	0o	0+	0o	1-	0+	2-	1+	2-	6.0	1	3	1	5	2	11	10	12		6	5
27	1+	1-	1o	0+	2o	2+	1o	2+	11.0	10	4	6	2	15	19	6	19		10	8
28	1-	1-	0o	0o	0o	0o	1o	1o	3.3	5	4	0	0	1	1	6	6		3	7
29	0+	1-	2-	1+	1o	0o	0o	1o	6.0	3	4	12	10	7	1	1	6		6	5
30	1-	0o	0+	2-	4-	4+	3-	3-	16.0	5	1	3	12	45	63	24	22		22	20
31	4-	3o	3-	2o	2o	3o	3+	3o	22.7	50	32	26	14	15	32	35	33		30	35
										Monthly mean value of Am									26.1	

am INDICES 1995 (continued)

November 1995																				
	Km								Σ Km	am									Am	Am2
1	4-	4-	4-	3o	4-	2o	4o	3o	26.7	45	42	46	29	49	15	58	28		39	36
2	2+	4-	3-	4o	3-	4-	2+	0+	21.7	19	48	26	55	21	50	20	2		30	28
3	1-	2o	3-	2-	1-	1+	1+	0o	10.3	4	14	22	12	5	9	9	1		10	12
4	0+	1+	1o	2-	4-	5-	2-	1+	15.7	2	9	7	11	41	86	13	9		22	17
5	3o	2-	1+	2+	4-	3+	3o	4o	22.3	28	12	8	18	49	37	28	52		29	32
6	4-	3-	4-	3-	4+	3o	3+	2+	25.7	44	23	48	23	62	27	35	17		35	33
7	2o	3-	3-	3-	2-	1+	2+	2-	17.0	15	24	24	21	13	8	18	11		17	20
8	1+	2-	1+	2-	2-	2+	1+	2-	13.0	9	11	9	13	11	18	9	12		12	11
9	1+	1+	1-	1-	1+	1o	1o	1-	8.0	9	9	4	4	8	6	6	5		6	9
10	2-	1+	1-	1+	1+	1+	2-	1+	10.7	12	10	5	8	9	8	12	8		9	8
11	1o	1+	0+	2-	1+	1-	2-	3o	11.0	6	10	3	11	8	5	11	28		10	12
12	2-	2+	3-	2-	2+	2-	4-	1o	17.0	12	20	22	13	19	12	49	6		19	14
13	1-	1o	0+	0o	2+	2o	1+	1-	8.3	4	6	2	1	18	16	10	4		8	11
14	1o	1-	1-	1+	1-	1o	1+	1+	8.0	7	4	5	8	4	7	8	9		7	8
15	1+	2-	1o	1+	1-	0o	0o	0o	6.0	9	12	6	8	4	1	0	0		5	6
16	1+	1-	1-	1o	2-	0o	1-	3o	9.0	8	4	5	7	11	1	4	31		9	9
17	3o	2-	2-	2-	1+	1-	1-	2-	12.3	29	13	13	13	9	5	5	11		12	11
18	1-	1+	1+	1+	1-	1o	1+	2o	9.7	4	9	10	10	5	7	9	16		9	10
19	2-	3-	2+	1+	1o	1-	1o	3-	13.3	13	21	20	8	6	5	7	22		13	11
20	1+	0+	2+	1o	1-	0+	0o	1+	7.3	10	3	19	7	4	2	1	8		7	7
21	0+	1-	1o	0+	0+	1+	0+	0+	4.7	3	5	6	2	2	8	3	3		4	5
22	1o	2-	1o	2o	2-	3-	1o	2o	13.0	6	11	6	14	11	23	7	15		12	9
23	2o	1-	1+	1+	0+	0+	1o	1+	8.3	14	5	8	8	2	2	7	9		7	8
24	0+	0+	0+	0o	0o	1+	0+	0+	3.0	3	3	3	1	1	10	3	2		3	4
25	1+	1-	0o	0+	0o	0o	0+	1+	4.0	8	5	1	3	1	1	3	8		4	4
26	1+	1o	0o	0o	0+	0o	0o	0+	3.0	10	7	1	1	2	1	0	2		3	13
27	0+	1-	3o	6-	4o	4-	4o	3o	24.3	3	5	30	139	59	46	59	28		46	28
28	2o	3-	2o	2o	2-	3-	3+	2+	18.7	15	21	16	16	11	22	36	20		20	28
29	3o	2+	4-	2o	2+	4-	2-	2-	20.3	30	18	41	14	18	44	12	13		24	23
30	2+	3o	3-	2+	1+	1-	1-	0+	13.3	17	27	21	20	9	5	4	3		13	15
										Monthly mean value of Am									14.8	

December 1995																				
	Km								Σ Km	am									Am	Am2
1	1+	2o	1+	2o	4o	4+	4o	4o	23.0	9	16	8	16	52	66	53	54		34	24
2	3+	2-	2o	3o	3o	2o	2-	2o	18.7	35	11	16	30	32	14	12	16		21	27
3	1-	1-	2-	2o	2+	2o	3o	3-	15.0	5	5	13	15	17	14	32	24		16	22
4	3+	4o	3o	3+	1+	2+	1o	2-	20.0	37	57	27	34	9	17	6	11		25	19
5	1+	0+	0+	1o	0+	1o	1+	2-	7.3	10	3	3	6	2	6	9	13		7	7
6	0+	1-	1-	1o	2-	2-	2-	2-	9.3	2	4	4	7	12	12	12	11		8	7
7	1o	1-	1o	1o	2-	2-	1-	0+	8.0	6	4	7	7	12	12	4	3		7	7
8	0+	1o	0+	1-	0o	0o	1-	1o	4.0	2	7	3	4	1	1	5	6		4	8
9	2o	3o	2-	2+	2+	1+	1o	1o	14.7	14	29	11	18	20	8	6	7		14	11
10	2-	2+	2-	1o	0+	0o	0o	1-	7.7	12	17	11	7	2	1	1	4		7	8
11	1+	1o	0+	1o	1-	1o	1o	0+	6.7	8	6	3	7	4	7	7	3		6	5
12	0+	1o	1o	0+	2o	2o	3+	1+	11.3	3	6	7	3	14	15	35	10		12	8
13	1o	0+	0o	0o	0o	0o	1o	0+	2.7	7	2	1	1	1	1	6	3		3	9
14	2-	2-	1+	1+	2-	1+	2-	1o	11.7	11	12	9	8	11	8	11	6		10	8
15	0+	1+	2o	2+	3+	4-	4-	3o	19.7	3	10	15	19	39	47	43	27		25	26
16	3+	4+	4-	3o	3+	2-	2+	1o	22.7	35	66	49	28	40	12	18	7		32	30
17	1+	1o	3-	3o	2o	3+	3o	2-	18.0	10	7	21	27	15	36	28	11		19	16
18	1o	1-	0+	2-	1+	1+	0+	1-	7.3	7	4	3	12	10	8	3	4		6	12
19	2+	1+	2o	1+	2o	3-	2-	1o	14.3	18	9	14	8	14	21	11	7		13	10
20	1-	1o	1o	1+	3-	2-	0+	0+	9.0	4	7	6	10	25	13	3	3		9	10
21	1-	1o	2-	1o	2-	2+	3-	3o	14.0	4	7	11	6	12	18	24	28		14	15
22	3-	2o	3-	3-	3-	3o	5-	3+	23.7	21	14	22	22	23	31	85	36		32	26
23	3o	2-	1+	3-	1+	1o	2+	1-	14.0	32	13	9	21	9	6	17	5		14	29
24	2-	2-	5-	5-	5o	4o	3-	3o	27.3	12	13	79	73	101	58	23	29		49	31
25	2+	2+	2+	2o	3+	3+	3o	3-	21.3	19	19	18	16	34	39	29	26		25	31
26	2+	3-	3-	2+	3-	2+	3o	2-	19.7	17	25	26	18	26	18	32	13		22	22
27	2+	2-	1+	1+	2+	2-	2-	1+	13.7	17	12	10	9	17	13	13	10		13	14
28	1+	1+	2-	1o	1o	2o	1o	1o	10.3	8	10	13	6	7	16	7	7		9	9
29	1-	1-	1o	1-	1o	1+	1+	2-	8.3	4	4	6	4	6	8	8	13		7	7
30	1+	1-	0+	1o	1o	1+	1o	1-	7.3	8	4	3	7	7	8	6	5		6	9
31	1+	2o	3-	2-	2+	2+	2o	2-	16.0	10	15	26	12	17	20	16	12		16	11
										Monthly mean value of Am									15.6	

MONTHLY and YEARLY **am** 1959 – 1995

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual mean
1959	25.5	35.8	30.2	24.2	25.6	22.8	42.2	31.6	37.0	28.3	33.0	31.7	30.6
1960	25.7	23.5	27.3	53.5	31.5	27.4	27.4	27.9	27.1	45.0	44.5	32.2	32.7
1961	19.5	24.1	21.3	20.7	21.1	20.3	34.4	17.8	19.4	22.0	15.7	19.6	21.3
1962	13.0	18.4	14.0	21.6	12.8	17.1	19.9	24.9	27.8	29.9	20.4	21.1	20.1
1963	17.3	13.9	13.2	15.4	17.9	17.9	19.5	21.2	38.0	22.2	19.0	16.9	19.4
1964	17.9	17.5	19.0	19.7	15.9	13.7	15.4	13.3	16.2	15.0	12.5	9.3	15.4
1965	10.9	14.7	13.2	11.5	9.8	14.9	13.6	14.8	16.2	11.8	10.9	12.3	12.9
1966	12.8	13.2	17.8	11.1	14.0	11.6	15.4	18.2	28.2	16.2	15.4	18.5	16.1
1967	17.7	18.4	12.0	14.0	32.8	17.8	12.8	15.3	24.0	16.8	17.4	23.2	18.5
1968	19.3	25.1	21.9	20.2	21.5	24.3	16.4	18.5	21.1	24.1	25.1	17.7	21.2
1969	15.3	23.5	26.1	22.4	23.6	15.7	12.4	13.5	21.7	14.5	16.9	11.9	18.1
1970	12.5	11.2	24.9	21.0	14.1	16.2	25.5	18.5	17.6	19.2	19.9	14.9	18.0
1971	21.0	19.0	18.4	23.2	20.3	15.8	13.8	15.9	20.1	19.4	17.0	18.2	18.5
1972	20.6	16.9	18.9	17.3	16.2	21.0	12.9	32.2	19.4	19.4	21.1	16.9	19.4
1973	25.0	29.8	34.9	39.5	25.9	26.5	20.4	20.1	21.9	27.4	20.1	19.2	25.8
1974	24.1	25.2	33.7	31.5	28.0	27.2	33.2	30.3	33.5	37.2	27.1	26.1	29.8
1975	25.9	29.5	30.8	24.7	23.3	19.8	21.4	17.9	15.9	18.4	28.8	20.3	23.0
1976	22.0	26.8	33.4	26.4	22.9	16.9	16.2	16.0	21.8	19.2	15.2	18.1	21.2
1977	18.5	20.0	18.7	25.0	18.9	13.9	22.9	22.6	23.9	20.7	16.9	16.8	19.9
1978	24.6	25.4	25.9	32.2	32.5	28.3	18.9	24.3	26.8	19.7	24.3	22.1	25.4
1979	26.5	24.2	27.6	35.3	21.6	17.4	17.9	25.9	21.1	18.6	16.9	16.2	22.4
1980	18.0	17.9	11.8	17.3	15.1	19.4	16.1	15.8	13.7	22.6	22.4	22.5	17.7
1981	16.4	23.3	28.4	35.9	28.3	17.7	28.7	24.2	19.8	34.5	24.9	18.6	25.1
1982	20.7	48.2	26.8	31.8	26.0	32.1	43.7	32.2	50.4	29.0	34.5	35.6	34.1
1983	25.7	39.3	34.3	35.2	32.0	24.1	21.8	25.8	23.0	27.3	32.0	24.1	28.6
1984	20.6	25.7	30.5	34.1	26.5	23.8	26.8	25.7	33.1	33.3	31.5	28.0	28.3
1985	25.0	23.3	17.8	30.3	14.8	19.4	24.4	22.3	20.8	23.0	23.5	21.4	22.1
1986	21.3	40.5	20.7	13.4	18.4	15.2	15.0	22.5	25.6	18.0	20.7	14.7	20.4
1987	13.5	16.6	16.9	11.8	13.5	12.8	17.3	23.5	29.7	24.7	21.3	14.9	18.0
1988	21.0	22.4	23.3	24.4	18.7	18.1	18.4	19.1	20.0	20.9	22.1	24.6	21.1
1989	32.6	25.9	61.8	33.7	25.6	24.9	13.2	30.4	25.9	32.6	33.3	29.2	30.8
1990	23.4	36.3	33.7	40.4	24.5	23.0	20.5	28.2	22.7	24.2	16.1	13.5	25.5
1991	14.9	18.9	39.6	25.7	27.4	58.0	37.5	44.0	30.7	47.6	48.9	26.3	35.0
1992	24.7	51.4	24.0	19.3	30.6	24.1	16.9	24.6	37.2	25.8	24.9	24.4	27.3
1993	28.6	25.9	37.7	28.8	21.1	20.0	17.4	19.3	24.0	24.0	23.6	24.6	24.5
1994	24.7	44.1	37.8	40.9	39.6	25.7	18.9	14.2	18.6	31.5	21.1	20.8	28.2
1995	20.7	23.0	22.6	22.8	29.2	17.5	13.5	15.5	20.2	26.1	14.8	15.6	20.1

Unit : nT

SECTION 3

3.3 Kp INDICES

Musical diagram of **Kp** 1995 75

Monthly tables of three-hour indices :

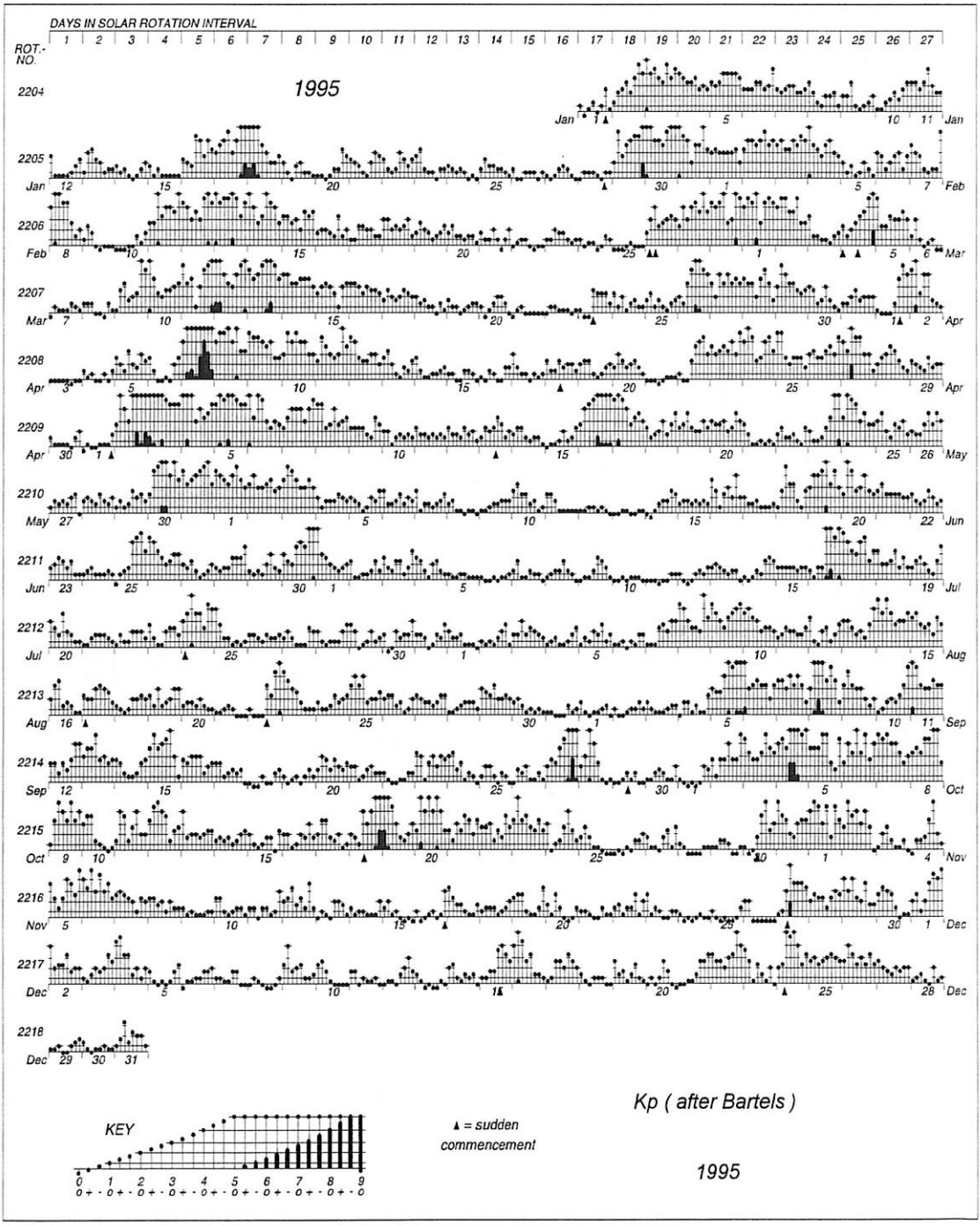
Kp, **ap** and daily **Ap** and **Cp** values 76

Frequencies of **Kp** indices 82

Monthly and yearly mean values of **Ap**

1932 - 1995 83

MUSICAL DIAGRAM OF **Kp** 1995



Kp INDICES 1995

	Kp								Sum	Jan. 1995				ap				Sum	Ap	Cp
1	1o	0o	1-	1+	0+	1o	3-	1-	8-	4	0	3	5	2	4	12	3	33	4	0.1
2	1+	2+	3-	3+	2+	4-	5-	4o	24+	5	9	12	18	9	22	39	27	141	18	1.0
3	5+	4o	4+	4-	3+	5-	4-	4+	33+	56	27	32	22	18	39	22	32	248	31	1.3
4	4o	4-	3+	3+	4-	3-	3o	3-	26+	27	22	18	18	22	12	15	12	146	18	1.0
5	3+	3o	3+	4o	4o	4o	4o	4-	29+	18	15	18	27	27	27	27	22	181	23	1.1
6	3-	3-	3-	3+	3+	3-	3o	4+	25-	12	12	12	18	18	12	15	32	131	16	0.9
7	3-	2+	3-	3o	3o	2+	2+	3-	21o	12	9	12	15	15	9	9	12	93	12	0.7
8	3+	2+	1+	1o	2o	2o	2+	1o	15+	18	9	5	4	7	7	9	4	63	8	0.4
9	2o	2o	3+	1o	1-	1o	1+	2o	13+	7	7	18	4	3	4	5	7	55	7	0.3
10	1-	1-	1+	2-	2+	2-	3-	3+	14+	3	3	5	6	9	6	12	18	62	8	0.4
11	3+	3+	3-	3+	4+	3o	2+	2+	25-	18	18	12	18	32	15	9	9	131	16	0.9
12	3-	1-	1-	1-	1-	1o	2-	2+	10+	12	3	3	3	3	4	6	9	43	5	0.2
13	1o	3o	3+	2+	2o	1o	1+	1+	15+	4	15	18	9	7	4	5	5	67	8	0.5
14	2-	1o	1+	1-	0+	1-	1+	2o	9o	6	4	5	3	2	3	5	7	35	4	0.2
15	2-	1-	1+	1-	1-	1-	1-	1-	7o	6	3	5	3	3	3	3	3	29	4	0.1
16	2+	2o	2-	4+	4o	3-	4o	3+	24+	9	7	6	32	27	12	27	18	138	17	0.9
17	3o	4-	4o	5-	3o	4o	5+	6+	34o	15	22	27	39	15	27	56	94	295	37	1.4
18	6o	6+	5+	4-	3o	2o	2o	3-	31o	80	94	56	22	15	7	7	12	293	37	1.4
19	2o	1o	0+	2-	2o	1o	1o	1-	10-	7	4	2	6	7	4	4	3	37	5	0.2
20	1-	1-	0+	1-	1+	1+	3+	3-	11o	3	3	2	3	5	5	18	12	51	6	0.3
21	2+	2o	2-	1o	1-	2o	3o	3-	15+	9	7	6	4	3	7	15	12	63	8	0.4
22	2+	1+	1o	1+	3o	2+	2-	2+	15+	9	5	4	5	15	9	6	9	62	8	0.4
23	3-	3+	1+	1o	1o	0+	1+	1+	12+	12	18	5	4	4	2	5	5	55	7	0.3
24	2-	1+	1o	1+	1o	0+	1-	0+	8-	6	5	4	5	4	2	3	2	31	4	0.1
25	1+	2+	2-	2-	1+	1+	1o	1-	11+	5	9	6	6	5	5	4	3	43	5	0.2
26	1+	0+	0+	1o	1o	1o	0+	1o	6+	5	2	2	4	4	4	2	4	27	3	0.1
27	1-	0+	1-	1+	2-	1+	1-	0+	7o	3	2	3	5	6	5	3	2	29	4	0.1
28	0+	1o	1o	1o	1-	0+	1o	1o	6+	2	4	4	4	3	2	4	4	27	3	0.1
29	2o	5-	3-	4-	4o	4+	4+	6+	32o	7	39	12	22	27	32	32	94	265	33	1.3
30	5+	5o	4o	4o	4-	5-	5o	5o	37-	56	48	27	27	22	39	48	48	315	39	1.4
31	5+	4+	4o	2o	4-	4-	5o	3+	31+	56	32	27	7	22	22	48	18	232	29	1.3

	Kp								Sum	Feb 1995				ap				Sum	Ap	Cp
1	3o	3+	3o	3o	3o	3o	3+	2o	24-	15	18	15	15	15	15	18	7	118	15	0.8
2	3+	4o	4o	4-	4o	5-	4-	4o	31+	18	27	27	22	27	39	22	27	209	26	1.2
3	4-	4o	3+	3+	4o	4-	4+	4o	30+	22	27	18	18	27	22	32	27	193	24	1.2
4	5+	4-	3+	3-	4-	4o	3o	3-	28+	56	22	18	12	22	27	15	12	184	23	1.1
5	2o	1o	2-	1-	1o	2o	1+	1-	10+	7	4	6	3	4	7	5	3	39	5	0.2
6	3o	3-	1+	2o	3-	3o	1+	3-	19-	15	12	5	7	12	15	5	12	83	10	0.6
7	4-	3o	3-	1+	1o	1+	1+	5-	19o	22	15	12	5	4	5	5	39	107	13	0.8
8	4o	5+	5o	4+	4+	3-	1+	2o	29o	27	56	48	32	32	12	5	7	219	27	1.2
9	1o	2+	2-	0+	0o	0+	0+	0+	6+	4	9	6	2	0	2	2	2	27	3	0.1
10	0o	0o	0o	0+	0+	1+	1-	2-	4+	0	0	0	2	2	5	3	6	18	2	0.0
11	3-	3-	5+	3+	4o	4o	4-	5o	31-	12	12	56	18	27	27	22	48	222	28	1.2
12	4+	4o	3o	4-	3o	5-	5+	4+	32+	32	27	15	22	15	39	56	32	238	30	1.3
13	5+	4+	5-	5-	6-	5-	3+	4+	37o	56	32	39	39	67	39	18	32	322	40	1.5
14	5o	4o	3-	3+	5o	4+	4o	3-	31o	48	27	12	18	48	32	27	12	224	28	1.2
15	3+	3+	3-	3o	2o	4-	3+	4-	25o	18	18	12	15	7	22	18	22	132	16	0.9
16	2-	2o	2o	2-	1+	3+	1+	2o	15+	6	7	7	6	5	18	5	7	61	8	0.4
17	1o	1o	2+	2+	2o	2o	1+	1+	13+	4	4	9	9	7	7	5	5	50	6	0.3
18	3o	3o	2o	2+	2o	2+	3o	1+	19o	15	15	7	9	7	9	15	5	82	10	0.6
19	2-	3-	2o	2-	1o	1+	2-	2+	14+	6	12	7	6	4	5	6	9	55	7	0.3
20	2-	2+	1+	1+	1o	1+	1+	1-	11o	6	9	5	5	4	5	5	3	42	5	0.2
21	2-	1o	1o	2o	1o	0o	1o	2o	10-	6	4	4	7	4	0	4	7	36	4	0.2
22	0+	1-	1o	1o	0+	0o	0+	0+	4o	2	3	4	4	2	0	2	2	19	2	0.0
23	1o	1o	2o	2-	2-	1o	1-	1o	10o	4	4	7	6	6	4	3	4	38	5	0.2
24	1o	0+	1-	1-	0o	0+	1+	1o	5+	4	2	3	3	0	2	5	4	23	3	0.1
25	0o	0o	0o	0+	1-	0+	0+	0+	2o	0	0	0	2	3	2	2	2	11	1	0.0
26	2-	3o	4o	2+	3-	3o	3+	3o	23o	6	15	27	9	12	15	18	15	117	15	0.8
27	2+	4o	3o	4o	4+	4-	5o	4-	30o	9	27	15	27	32	22	48	22	202	25	1.2
28	4+	4o	4+	5o	3-	3o	6-	5-	34-	32	27	32	48	12	15	67	39	272	34	1.3

Kp INDICES 1995 (continued)

	Kp								Sum	Mar 1995				ap				Sum	Ap	Cp
2	4o	5-	5-	4-	4-	5-	3-	3-	31-	27	39	39	22	22	39	12	12	212	26	1.2
3	3+	1+	1+	1o	1o	1-	1+	2-	12-	18	5	5	4	4	3	5	6	50	6	0.3
4	2+	1+	2o	3-	3+	4-	5-	6+	26+	9	5	7	12	18	22	39	94	206	26	1.2
5	5-	2+	2+	3+	3o	3o	4-	3o	25+	39	9	9	18	15	15	22	15	142	18	1.0
6	1+	3o	1o	0+	1-	1o	0o	0o	7+	5	15	4	2	3	4	0	0	33	4	0.1
7	0o	1o	1-	1-	1-	1+	1o	1-	6o	0	4	3	3	3	5	4	3	25	3	0.1
8	1+	1+	1+	0+	0+	0o	1+	1-	7-	5	5	5	2	2	0	5	3	27	3	0.1
9	1-	3-	3+	2-	2o	2+	5o	4+	22o	3	12	18	6	7	9	48	32	135	17	0.9
10	5+	4-	2+	2o	3-	3-	3o	3+	25o	56	22	9	7	12	12	15	18	151	19	1.0
11	5-	3+	4-	1o	3o	4+	5-	6-	30+	39	18	22	4	15	32	39	67	236	30	1.3
12	6o	6o	4o	3+	3o	4o	5-	5+	36+	80	80	27	18	15	27	39	56	342	43	1.5
13	4+	4-	4o	5-	5+	6o	5-	4-	36+	32	22	27	39	56	80	39	22	317	40	1.4
14	4o	4o	3+	3+	4-	4-	4-	3o	29-	27	27	18	18	22	22	22	15	171	21	1.1
15	2+	3o	3+	3o	2+	1o	3o	3+	21+	9	15	18	15	9	4	15	18	103	13	0.7
16	3+	3+	3o	2+	3o	3-	3-	2+	23-	18	18	15	9	15	12	12	9	108	14	0.8
17	2-	3-	2o	2-	2o	3-	2+	2o	17o	6	12	7	6	7	12	9	7	66	8	0.4
18	2o	1+	2-	1o	1o	0+	1+	1-	9+	7	5	6	4	4	2	5	3	36	4	0.2
19	2-	1o	1o	0+	1-	1o	1+	1+	8+	6	4	4	2	3	4	5	5	33	4	0.1
20	1o	0o	1-	1+	2o	2o	1+	0+	9-	4	0	3	5	7	7	5	2	33	4	0.1
21	0o	1-	1o	0+	0+	0+	0+	0+	3+	0	3	4	2	2	2	2	2	17	2	0.0
22	0+	1o	1o	1-	1-	1-	0+	1-	5+	2	4	4	3	3	3	2	3	24	3	0.1
23	1-	0o	0o	3-	2+	2+	2+	1+	12-	3	0	0	12	9	9	9	5	47	6	0.3
24	2+	1o	2o	1-	1+	2-	1o	1o	11o	9	4	7	3	5	6	4	4	42	5	0.2
25	2-	2+	1o	2-	1o	1-	1+	2-	11+	6	9	4	6	4	3	5	6	43	5	0.2
26	2o	1+	3+	4+	6-	5+	4+	4o	30+	7	5	18	32	67	56	32	27	244	30	1.3
27	3+	2o	4o	3+	4o	3+	4-	3+	27o	18	7	27	18	27	18	22	18	155	19	1.0
28	4-	3+	3+	2o	4-	4+	3+	2-	25+	22	18	18	7	22	32	18	6	143	18	1.0
29	3o	5-	4o	3+	3+	3-	2+	3-	26o	15	39	27	18	18	12	9	12	150	19	1.0
30	3o	3-	1+	2-	3o	2-	1o	1-	15o	15	12	5	6	15	6	4	3	66	8	0.4
31	1+	1+	2o	3-	2-	2o	2o	2o	15o	5	5	7	12	6	7	7	7	56	7	0.4

	Kp								Sum	Apr 1995				ap				Sum	Ap	Cp
1	1-	0+	0+	0+	1+	4-	5-	4o	15+	3	2	2	2	5	22	39	27	102	13	0.7
2	4+	6-	2+	4o	4o	2-	1+	1o	24+	32	67	9	27	27	6	5	4	177	22	1.1
3	0+	0+	0+	0+	0+	0o	0+	0+	2+	2	2	2	2	2	0	2	2	14	2	0.0
4	1+	1-	1o	0+	0+	1o	0+	1+	6+	5	3	4	2	2	4	2	5	27	3	0.1
5	3-	2o	1+	3+	2o	2-	3o	2+	18+	12	7	5	18	7	6	15	9	79	10	0.6
6	3-	1+	0+	0+	1-	0+	2o	3-	10+	12	5	2	2	3	2	7	12	45	6	0.3
7	4o	6-	6o	5+	7o	8o	7+	6o	49+	27	67	80	56	132	207	154	80	803	100	1.9
8	4o	5-	5-	5o	4o	5+	3+	3+	34+	27	39	39	48	27	56	18	18	272	34	1.3
9	5-	4+	4+	4o	4-	4o	3-	3-	30+	39	32	32	27	22	27	12	12	203	25	1.2
10	3o	5-	4o	5-	4o	4o	3o	3o	30+	15	39	27	39	27	27	15	15	204	26	1.2
11	2+	4+	4-	3o	3-	3o	5o	4-	28-	9	32	22	15	12	15	48	22	175	22	1.1
12	4+	4o	3-	2+	2+	3o	3o	2o	24-	32	27	12	9	9	15	15	7	126	16	0.9
13	3-	3+	2o	1o	1-	2-	1+	2+	15o	12	18	7	4	3	6	5	9	64	8	0.4
14	3-	1+	1-	1-	1o	1o	1+	2-	10+	12	5	3	3	4	4	5	6	42	5	0.2
15	1o	1o	0+	0+	1+	1+	1o	0+	7-	4	4	2	2	5	5	4	2	28	4	0.1
16	1-	0+	1+	1o	0+	0+	2-	2-	7+	3	2	5	4	2	2	6	6	30	4	0.1
17	3o	2-	1o	1o	0+	1o	1-	1o	10-	15	6	4	4	2	4	3	4	42	5	0.2
18	2+	1+	1+	2+	2-	2o	2o	1+	14+	9	5	5	9	6	7	7	5	53	7	0.3
19	2o	2+	2+	1o	1-	1o	2-	2o	13o	7	9	9	4	3	4	6	7	49	6	0.3
20	2-	3o	2+	2-	2o	2+	2-	1o	16-	6	15	9	6	7	9	6	4	62	8	0.4
21	0+	0+	0+	0o	0+	1-	1-	1-	3+	2	2	2	0	2	3	3	3	17	2	0.0
22	1o	0+	0+	2+	4-	4o	4+	3o	19o	4	2	2	9	22	27	32	15	113	14	0.8
23	4-	3o	3+	4-	3+	4o	3o	5-	29-	22	15	18	22	18	27	15	39	176	22	1.1
24	4o	5o	4+	2+	3-	4o	4+	3+	30o	27	48	32	9	12	27	32	18	205	26	1.2
25	5-	5-	3-	2o	3-	3-	3-	2-	24-	39	39	12	7	12	12	12	6	139	17	0.9
26	3o	3+	3-	3-	3+	4-	3o	4+	26o	15	18	12	12	18	22	15	32	144	18	1.0
27	4o	3+	6+	4+	4+	3o	3o	1+	30-	27	18	94	32	32	15	15	5	238	30	1.3
28	2o	3-	3o	4-	3+	2+	2-	1+	20o	7	12	15	22	18	9	6	5	94	12	0.7
29	2+	2o	2-	1+	3-	2-	2o	2o	16-	9	7	6	5	12	6	7	7	59	7	0.4
30	1+	1-	1-	1-	1-	0+	1+	2o	8-	5	3	3	3	3	2	5	7	31	4	0.1

Kp INDICES 1995 (continued)

	Kp								Sum	May 1995				ap				Sum	Ap	Cp
1	0o	1-	0+	0+	1-	1-	1-	2-	5o	0	3	2	2	3	3	3	6	22	3	0.0
2	3-	5o	4o	3o	5o	6+	5+	6+	38-	12	48	27	15	48	94	56	94	394	49	1.6
3	6o	5+	5o	6-	5-	4+	4+	4+	40-	80	56	48	67	39	32	32	32	386	48	1.6
4	5o	6-	5o	3o	4o	3+	4-	4+	34o	48	67	48	15	27	18	22	32	277	35	1.4
5	4+	5+	5-	6-	5o	5-	4+	4+	38+	32	56	39	67	48	39	32	32	345	43	1.5
6	5+	3+	5o	5-	3o	2+	3o	3-	29+	56	18	48	39	15	9	15	12	212	26	1.2
7	2+	3+	4o	4o	4o	3o	4o	5-	29+	9	18	27	27	27	15	27	39	189	24	1.1
8	4+	4+	2+	3-	4o	3-	3o	3+	27-	32	32	9	12	27	12	15	18	157	20	1.0
9	2+	2+	2+	2+	2-	1+	3+	3-	18+	9	9	9	9	6	5	18	12	77	10	0.5
10	2o	2o	1-	1+	2-	1+	2-	1+	12o	7	7	3	5	6	5	6	5	44	6	0.2
11	2+	2-	2-	1+	2-	1+	2-	1+	13o	9	6	6	5	6	5	6	5	48	6	0.3
12	2+	2-	2-	1+	2+	2-	2o	1o	14o	9	6	6	5	9	6	7	4	52	6	0.3
13	1+	2+	2o	2+	3+	3-	1+	2o	17+	5	9	7	9	18	12	5	7	72	9	0.5
14	2-	2+	2+	1+	1o	1+	1+	1-	12o	6	9	9	5	4	5	5	3	46	6	0.3
15	0+	1-	1-	1o	2o	1o	1+	2+	9+	2	3	3	4	7	4	5	9	37	5	0.2
16	3-	4o	4+	5-	6o	5+	5+	5+	38-	12	27	32	39	80	56	56	56	358	45	1.5
17	5-	6-	5-	4o	3-	3+	4-	3o	32-	39	67	39	27	12	18	22	15	239	30	1.3
18	2+	1+	2-	2o	3o	2-	3-	4-	18+	9	5	6	7	15	6	12	22	82	10	0.6
19	2+	3-	4-	2+	2o	2o	3o	2+	20+	9	12	22	9	7	7	15	9	90	11	0.6
20	3o	3-	3-	3o	2o	2+	4-	3o	22+	15	12	12	15	7	9	22	15	107	13	0.8
21	3-	2-	1-	1-	1o	1-	1o	1-	9o	12	6	3	3	4	3	4	3	38	5	0.2
22	2-	2+	1+	1+	2-	1o	1-	2+	12+	6	9	5	5	6	4	3	9	47	6	0.3
23	2o	1o	1o	1+	2+	3+	5o	6-	22-	7	4	4	5	9	18	48	67	162	20	1.0
24	3+	5+	5-	4+	3o	4-	3-	3-	30-	18	56	39	32	15	22	12	12	206	26	1.2
25	3o	4-	2o	1+	3-	2+	3o	2-	20-	15	22	7	5	12	9	15	6	91	11	0.7
26	2o	2-	2-	3-	4-	3-	4-	3o	21o	7	6	6	12	22	12	22	15	102	13	0.7
27	1o	2-	1+	2-	1+	2o	2+	0+	12-	4	6	5	6	5	7	9	2	44	6	0.2
28	2-	2o	2-	1+	2+	2-	1+	2o	14o	6	7	6	5	9	6	5	7	51	6	0.3
29	1o	2-	1o	1+	3-	2o	2+	2-	14-	4	6	4	5	12	7	9	6	53	7	0.3
30	2+	4+	5-	6-	6-	4o	5o	4-	35+	9	32	39	67	67	27	48	22	311	39	1.4
31	4+	3+	4-	4o	4+	5-	5o	3+	33-	32	18	22	27	32	39	48	18	236	30	1.3

	Kp								Sum	Jun 1995				ap				Sum	Ap	Cp
1	4+	4o	4-	3+	4o	5-	4-	3o	31-	32	27	22	18	27	39	22	15	202	25	1.2
2	3+	4o	3o	3o	3+	4-	3-	3o	26o	18	27	15	15	18	22	12	15	142	18	1.0
3	4-	5-	4+	4-	3o	3o	4-	3o	29o	22	39	32	22	15	15	22	15	182	23	1.1
4	2o	1o	2-	2-	2-	2+	2o	2-	14o	7	4	6	6	6	9	7	6	51	6	0.3
5	2o	2-	1+	1-	1o	2o	2-	3-	13o	7	6	5	3	4	7	6	12	50	6	0.3
6	3-	1+	1+	2-	2+	1+	2o	2-	14+	12	5	5	6	9	5	7	6	55	7	0.3
7	3-	1-	1+	1+	1o	1+	2-	2+	12+	12	3	5	5	4	5	6	9	49	6	0.3
8	1+	2-	1-	1-	0+	1-	1-	0+	6+	5	6	3	3	2	3	3	2	27	3	0.1
9	1-	1-	1o	1+	1+	2-	2-	2-	10o	3	3	4	5	5	6	6	6	38	5	0.2
10	3-	3+	2+	2+	1+	2-	1-	1o	15+	12	18	9	9	5	6	3	4	66	8	0.4
11	2+	2+	2-	1-	1-	1-	1-	1-	10-	9	9	6	3	3	3	3	3	39	5	0.2
12	1-	1-	1o	1o	1-	1o	1-	0+	6o	3	3	4	4	3	4	3	2	26	3	0.1
13	0+	0+	1-	1-	0+	0+	1-	1-	4o	2	2	3	3	2	2	3	3	20	2	0.0
14	0+	0o	1-	1+	2-	2-	3-	2+	11-	2	0	3	5	6	6	12	9	43	5	0.2
15	1+	2-	2-	1+	2-	1+	2-	1+	12o	5	6	6	5	6	5	6	5	44	6	0.2
16	4-	3-	1o	2+	3o	2o	4o	2o	21-	22	12	4	9	15	7	27	7	103	13	0.7
17	2o	1+	1+	2-	1o	1o	1o	1+	11-	7	5	5	6	4	4	4	5	40	5	0.2
18	1o	3-	5-	3+	3+	2-	1o	3-	20+	4	12	39	18	18	6	4	12	113	14	0.8
19	3o	4o	4o	4+	6-	3+	4+	3o	32-	15	27	27	32	67	18	32	15	233	29	1.3
20	2+	5o	4+	3-	3o	4o	3-	2+	26+	9	48	32	12	15	27	12	9	164	20	1.0
21	3-	3+	2+	2+	2+	2+	2o	2o	19+	12	18	9	9	9	9	7	7	80	10	0.6
22	2+	2-	1+	2-	3-	2o	1+	2-	15-	9	6	5	6	12	7	5	6	56	7	0.4
23	2-	2o	3-	2+	2-	2+	1o	1o	15-	6	7	12	9	6	9	4	4	57	7	0.4
24	1o	1+	2-	1o	1o	1o	1+	1o	9+	4	5	6	4	4	4	5	4	36	4	0.2
25	0o	1o	1+	2-	4o	4+	5-	3+	20+	0	4	5	6	27	32	39	18	131	16	0.9
26	4+	4o	3+	3-	2o	2+	3o	3o	25-	32	27	18	12	7	9	15	15	135	17	0.9
27	2o	2-	2+	1+	1-	1o	1+	2o	12+	7	6	9	5	3	4	5	7	46	6	0.3
28	2-	1+	2-	2-	3-	3-	3-	4-	18o	6	5	6	6	12	12	12	22	81	10	0.6
29	1+	1o	1+	1o	2o	3o	2-	1+	13-	5	4	5	4	7	15	6	5	51	6	0.3
30	3o	2+	2o	4-	4o	4-	5o	5+	29o	15	9	7	22	27	22	48	56	206	26	1.2

Kp INDICES 1995 (continued)

	Kp								Sum	Jul 1995				ap				Sum	Ap	Cp
1	5o	3o	3-	2o	2-	1+	2-	2o	19+	48	15	12	7	6	5	6	7	106	13	0.8
2	2+	1-	1-	1o	1o	1+	2+	1+	11-	9	3	3	4	4	5	9	5	42	5	0.2
3	3-	2-	1+	2+	2+	1o	2-	3+	16+	12	6	5	9	9	4	6	18	69	9	0.5
4	3-	2+	1+	1-	2o	2+	1+	1o	14-	12	9	5	3	7	9	5	4	54	7	0.3
5	1o	1-	1-	1o	1o	1-	1-	1-	6+	4	3	3	4	4	3	3	3	27	3	0.1
6	1-	0+	0+	1-	0+	1-	1-	1o	5-	3	2	2	3	2	3	3	4	22	3	0.0
7	1+	2+	1-	1-	1+	1o	1o	0+	9-	5	9	3	3	5	4	4	2	35	4	0.2
8	1-	1o	1+	1+	2+	1+	1o	0+	9+	3	4	5	5	9	5	4	2	37	5	0.2
9	0+	1-	1-	1+	3-	2+	2-	1-	10+	2	3	3	5	12	9	6	3	43	5	0.2
10	0+	0+	1-	0+	1-	1-	1-	0+	4o	2	2	3	2	3	3	3	2	20	2	0.0
11	0+	0+	0+	0o	0+	0+	1o	1o	4-	2	2	2	0	2	2	4	4	18	2	0.0
12	1o	0+	0o	0+	1o	1+	1o	2-	7-	4	2	0	2	4	5	4	6	27	3	0.1
13	2-	2o	2-	1+	1o	1+	1+	0+	11-	6	7	6	5	4	5	5	2	40	5	0.2
14	1-	0+	1-	1+	1o	2+	3-	2+	11+	3	2	3	5	4	9	12	9	47	6	0.3
15	2-	2-	2-	2-	2-	1+	2-	2-	13o	6	6	6	6	6	5	6	6	47	6	0.3
16	1+	1-	2-	2-	5+	6o	4+	5+	26+	5	3	6	6	56	80	32	56	244	30	1.3
17	5-	4o	3+	3o	4o	4+	2+	3+	29o	39	27	18	15	27	32	9	18	185	23	1.1
18	3+	2o	2o	2+	3+	2-	3-	2-	19o	18	7	7	9	18	6	12	6	83	10	0.6
19	2-	2+	3-	2o	1+	1o	2+	4-	17o	6	9	12	7	5	4	9	22	74	9	0.5
20	3o	2+	2-	4-	2o	2-	1o	1o	16+	15	9	6	22	7	6	4	4	73	9	0.5
21	1-	1-	1+	2-	2-	2-	1+	1o	10o	3	3	5	6	6	6	5	4	38	5	0.2
22	1-	2-	1o	1o	2o	2o	2o	1+	12-	3	6	4	4	7	7	7	5	43	5	0.2
23	3-	1+	1-	1-	2o	2+	2+	2-	14-	12	5	3	3	7	9	9	6	54	7	0.3
24	3o	4-	5+	4-	4-	2+	4+	4o	30o	15	22	56	22	22	9	32	27	205	26	1.2
25	4o	3-	1+	1+	1-	1o	1-	1o	13-	27	12	5	5	3	4	3	4	63	8	0.4
26	2-	2-	1+	1o	2-	1+	1+	2-	12-	6	6	5	4	6	5	5	6	43	5	0.2
27	1+	2o	1+	1-	1-	1-	2+	2o	11o	5	7	5	3	3	3	9	7	42	5	0.2
28	2o	1o	1-	1o	1o	1o	2o	3-	11+	7	4	3	4	4	4	7	12	45	6	0.3
29	3-	2o	0+	1-	1o	2o	1o	1+	11o	12	7	2	3	4	7	4	5	44	6	0.2
30	2-	0o	0+	2o	1+	2-	2-	3o	12-	6	0	2	7	5	6	6	15	47	6	0.3
31	2-	2-	1+	0+	1-	2-	1+	3-	11+	6	6	5	2	3	6	5	12	45	6	0.3

	Kp								Sum	Aug 1995				ap				Sum	Ap	Cp
1	2o	1+	1+	2-	1-	1-	1-	0+	9-	7	5	5	6	3	3	3	2	34	4	0.1
2	1o	1-	1o	1-	1+	2o	3-	1-	10o	4	3	4	3	5	7	12	3	41	5	0.2
3	2-	2-	3o	2-	2+	2o	2-	1+	15+	6	6	15	6	9	7	6	5	60	8	0.4
4	1-	1o	1+	1-	1-	1o	2-	2+	9+	3	4	5	3	3	4	6	9	37	5	0.2
5	1-	1+	1o	2o	2-	3-	1o	2-	12o	3	5	4	7	6	12	4	6	47	6	0.3
6	1-	1-	1o	0+	1o	1-	2-	2-	8-	3	3	4	2	4	3	6	6	31	4	0.1
7	1-	1-	1-	2+	3-	2o	3o	3o	15o	3	3	3	9	12	7	15	15	67	8	0.5
8	4+	4o	3o	2+	2+	2o	5o	3+	26+	32	27	15	9	9	7	48	18	165	21	1.1
9	4+	4-	3o	2+	3+	4-	4o	4+	29-	32	22	15	9	18	22	27	32	177	22	1.1
10	4-	4o	3+	3o	2o	2+	2+	2o	23-	22	27	18	15	7	9	9	7	114	14	0.8
11	1+	2-	2+	2o	2o	2-	2-	2+	15o	5	6	9	7	7	6	6	9	55	7	0.3
12	3+	1o	1-	2o	2+	1o	2-	3-	15-	18	4	3	7	9	4	6	12	63	8	0.4
13	3o	3o	2+	2-	2o	1+	3-	4o	20o	15	15	9	6	7	5	12	27	96	12	0.7
14	5-	4-	5-	4-	3-	3o	3o	4-	29o	39	22	39	22	12	15	15	22	186	23	1.1
15	3+	4-	3-	2+	3-	2-	3+	3-	22+	18	22	12	9	12	6	18	12	109	14	0.8
16	2o	3+	4-	1+	2-	1+	1-	1-	15-	7	18	22	5	6	5	3	3	69	9	0.5
17	2+	2o	2o	3o	3+	3o	3-	2-	20o	9	7	7	15	18	15	12	6	89	11	0.6
18	1+	1o	1-	1o	2o	2o	2+	2o	12+	5	4	3	4	7	7	9	7	46	6	0.3
19	2+	1+	3o	1+	2-	2o	3o	3o	18-	9	5	15	5	6	7	15	15	77	10	0.5
20	1+	2-	2-	1+	2o	1+	1o	1o	11+	5	6	6	5	7	5	4	4	42	5	0.2
21	1-	1-	1o	1+	1o	0+	0+	0+	6-	3	3	4	5	4	2	2	2	25	3	0.1
22	1o	0+	0+	0+	3+	2+	4+	5+	17+	4	2	2	2	18	9	32	56	125	16	0.9
23	4+	4-	3o	3-	2-	1o	1o	1o	18+	32	22	15	12	6	4	4	4	99	12	0.7
24	2-	1o	1o	1+	2+	2-	2o	2+	13+	6	4	4	5	9	6	7	9	50	6	0.3
25	3+	4o	3+	4o	2-	2o	2o	3-	23o	18	27	18	27	6	7	7	12	122	15	0.9
26	2o	2+	2+	1+	2-	1-	1o	2o	13+	7	9	9	5	6	3	4	7	50	6	0.3
27	2+	2o	2-	2-	1+	2-	2+	2+	15+	9	7	6	6	5	6	9	9	57	7	0.4
28	1-	1-	1o	1+	2-	2-	2-	1o	10-	3	3	4	5	6	6	6	4	37	5	0.2
29	3o	3-	2+	3+	2o	2o	2+	2o	20-	15	12	9	18	7	7	9	7	84	10	0.6
30	2-	2o	1+	1-	1o	1-	1o	1-	9o	6	7	5	3	4	3	4	3	35	4	0.2
31	1-	1-	0+	0+	0+	1+	1-	1o	5+	3	3	2	2	2	5	3	4	24	3	0.1

Kp INDICES 1995 (continued)

	Kp								Sum	Sep 1995				ap				Sum	Ap	Cp
1	2-	1-	0+	1-	1-	1o	1+	0+	7-	6	3	2	3	3	4	5	2	28	4	0.1
2	1o	0+	0+	1-	1o	1o	2-	1o	7o	4	2	2	3	4	4	6	4	29	4	0.1
3	2-	1o	1-	1-	1-	1o	1+	1+	8+	6	4	3	3	3	4	5	5	33	4	0.1
4	0+	2-	2-	1-	1+	1-	1-	2+	9+	2	6	6	3	5	3	3	9	37	5	0.2
5	3o	3-	3-	4o	5+	5-	5+	5+	33o	15	12	12	27	56	39	56	56	273	34	1.3
6	6-	3o	3+	4-	3+	3+	2o	3+	28-	67	15	18	22	18	18	7	18	183	23	1.1
7	4-	4-	3o	4o	3+	4o	3+	2-	27-	22	22	15	27	18	27	18	6	155	19	1.0
8	3o	5+	6+	5+	4-	5-	4-	2-	34-	15	56	94	56	22	39	22	6	310	39	1.4
9	3+	4+	3+	3o	3o	2o	1+	2o	22+	18	32	18	15	15	7	5	7	117	15	0.8
10	1-	1o	2-	2o	2-	2+	3+	5-	17+	3	4	6	7	6	9	18	39	92	12	0.7
11	6-	5-	3+	3o	3o	4-	3+	3+	30o	67	39	18	15	15	22	18	18	212	26	1.2
12	2+	2+	1+	2+	2-	3-	4o	4o	21-	9	9	5	9	6	12	27	27	104	13	0.7
13	3o	4-	4-	5-	3-	3o	2+	3-	26-	15	22	22	39	12	15	9	12	146	18	1.0
14	3-	2+	1+	1o	1o	1+	2+	3-	15-	12	9	5	4	4	5	9	12	60	8	0.4
15	4-	5-	4-	4o	4+	5o	3o	1o	29+	22	39	22	27	32	48	15	4	209	26	1.2
16	3-	2+	3o	3o	3o	1+	2o	2+	20-	12	9	15	15	15	5	7	9	87	11	0.6
17	2+	2+	1o	1+	2-	1+	2-	0+	12o	9	9	4	5	6	5	6	2	46	6	0.3
18	0+	0o	0o	1o	0+	0+	1+	2-	5o	2	0	0	4	2	2	5	6	21	3	0.0
19	1o	0+	1-	1o	0+	1o	2-	1o	7o	4	2	3	4	2	4	6	4	29	4	0.1
20	2-	3o	3-	2-	3-	2o	2-	2+	18-	6	15	12	6	12	7	6	9	73	9	0.5
21	2o	2o	1-	1o	2-	2o	1+	1+	12o	7	7	3	4	6	7	5	5	44	6	0.2
22	1+	1-	0+	0+	1-	1-	1+	1+	7-	5	3	2	2	3	3	5	5	28	4	0.1
23	3+	3o	1-	2+	3o	2o	3o	3-	20o	18	15	3	9	15	7	15	12	94	12	0.7
24	3o	3+	2-	2+	1-	1+	1o	0+	14-	15	18	6	9	3	5	4	2	62	8	0.4
25	1o	2o	2o	1o	0+	1+	1o	0+	9o	4	7	7	4	2	5	4	2	35	4	0.2
26	0+	2-	1+	2o	1-	1-	1+	1-	9-	2	6	5	7	3	3	5	3	34	4	0.1
27	2o	3-	2+	4-	4+	5+	7o	5+	33-	7	12	9	22	32	56	132	56	326	41	1.5
28	2o	3o	5+	4o	2+	1-	0+	1-	18+	7	15	56	27	9	3	2	3	122	15	0.9
29	0+	0+	1-	1+	1-	1+	0+	0+	5+	2	2	3	5	3	5	2	2	24	3	0.1
30	1-	1-	1+	2-	1+	1-	1-	2o	9o	3	3	5	6	5	3	3	7	35	4	0.2

	Kp								Sum	Oct 1995				ap				Sum	Ap	Cp
1	1-	0+	0o	0+	0o	0+	2o	2-	5+	3	2	0	2	0	2	7	6	22	3	0.0
2	3-	1o	3-	3-	4o	3-	3-	5-	23o	12	4	12	12	27	12	12	39	130	16	0.9
3	4+	3+	3-	3-	3+	5-	4-	3+	28o	32	18	12	12	18	39	22	18	171	21	1.1
4	4o	4+	4-	7-	7-	6-	5-	5o	41-	27	32	22	111	111	67	39	48	457	57	1.7
5	4-	4-	4-	5-	5-	2+	2-	4+	29-	22	22	22	39	39	9	6	32	191	24	1.2
6	2+	4o	3+	5o	3+	5-	3-	4o	29+	9	27	18	48	18	39	12	27	198	25	1.2
7	5-	4+	5-	4o	4o	3+	2+	3o	30+	39	32	39	27	27	18	9	15	206	26	1.2
8	3+	4-	3+	4+	4+	5o	5o	2+	31+	18	22	18	32	32	48	48	9	227	28	1.2
9	1o	3+	5-	4o	3+	5-	3+	4o	28+	4	18	39	27	18	39	18	27	190	24	1.1
10	3o	4-	4-	1+	1o	1-	0+	1-	14+	15	22	22	5	4	3	2	3	76	10	0.5
11	1+	4o	4-	1+	3-	4o	2o	2o	21o	5	27	22	5	12	27	7	7	112	14	0.8
12	3+	4+	5-	4o	4-	1+	2+	3-	26+	18	32	39	27	22	5	9	12	164	20	1.0
13	4o	2-	2o	2o	2-	2o	2+	2+	18o	27	6	7	7	6	7	9	9	78	10	0.5
14	1+	2-	1+	2-	1o	1+	2o	2+	13-	5	6	5	6	4	5	7	9	47	6	0.3
15	2o	1o	1-	1o	2-	2-	0+	2+	11-	7	4	3	4	6	6	2	9	41	5	0.2
16	2o	2o	1-	1o	2o	2-	3o	2-	14o	7	7	3	4	7	6	15	6	55	7	0.3
17	2o	3+	3+	2-	1+	2o	1-	1o	15+	7	18	18	6	5	7	3	4	68	8	0.5
18	2o	2-	1o	4o	3o	4o	5+	7-	28-	7	6	4	27	15	27	56	111	253	32	1.3
19	7-	5+	4+	3o	2-	1+	2o	3o	27+	111	56	32	15	6	5	7	15	247	31	1.3
20	2+	6-	4o	5o	4o	5+	4o	2+	33-	9	67	27	48	27	56	27	9	270	34	1.3
21	2+	1+	3o	2+	4-	3+	2o	3+	21+	9	5	15	9	22	18	7	18	103	13	0.7
22	3-	3-	3o	1+	2+	2-	4-	3-	20o	12	12	15	5	9	6	22	12	93	12	0.7
23	3+	5o	3+	4-	3-	2+	3+	2+	26o	18	48	18	22	12	9	18	9	154	19	1.0
24	3o	0+	1o	1+	3-	4o	2+	1+	16o	15	2	4	5	12	27	9	5	79	10	0.6
25	2-	3-	2-	1-	1-	0+	0o	0o	8-	6	12	6	3	3	2	0	0	32	4	0.1
26	0o	0+	0o	1-	0+	1+	1+	2o	6o	0	2	0	3	2	5	5	7	24	3	0.1
27	2-	1-	1-	0+	2-	2+	1-	3-	11-	6	3	3	2	6	9	3	12	44	6	0.2
28	1o	1-	0o	0o	0o	0o	1-	1-	3o	4	3	0	0	0	0	3	3	13	2	0.0
29	1-	1-	1+	1+	1o	0o	0o	1-	6-	3	3	5	5	4	0	0	3	23	3	0.1
30	1-	0o	0+	2-	4-	5-	2+	3o	16+	3	0	2	6	22	39	9	15	96	12	0.7
31	5-	4-	3+	2o	2-	3o	3+	3+	25o	39	22	18	7	6	15	18	18	143	18	1.0

Kp INDICES 1995 (continued)

	Kp								Sum	Nov 1995				ap				Sum	Ap	Cp
1	4o	5-	4+	3o	4+	2-	4+	3+	30-	27	39	32	15	32	6	32	18	201	25	1.2
2	3-	5-	4-	4o	3o	4o	3-	0+	25o	12	39	22	27	15	27	12	2	156	20	1.0
3	1-	2o	3-	1+	1-	1-	1+	0+	10-	3	7	12	5	3	3	5	2	40	5	0.2
4	0o	1+	1+	2-	3+	5-	2o	1o	15+	0	5	5	6	18	39	7	4	84	10	0.6
5	4-	2+	1+	2+	4o	4-	3-	5-	25-	22	9	5	9	27	22	12	39	145	18	1.0
6	4o	3+	5-	3o	4+	3o	4-	2+	28+	27	18	39	15	32	15	22	9	177	22	1.1
7	3-	3o	3-	2+	2o	1o	2+	2o	18o	12	15	12	9	7	4	9	7	75	9	0.5
8	2+	2+	2-	2o	1o	2o	1+	1+	14o	9	9	6	7	4	7	5	5	52	6	0.3
9	1+	1-	1o	1-	1-	1-	1o	1o	7o	5	3	4	3	3	3	4	4	29	4	0.1
10	2+	2+	1o	1-	1o	1+	1+	1-	11-	9	9	4	3	4	5	5	3	42	5	0.2
11	1+	1+	0+	1+	1+	1-	1o	3o	10+	5	5	2	5	5	3	4	15	44	6	0.2
12	2o	2+	3+	2-	2+	1+	4-	1+	18o	7	9	18	6	9	5	22	5	81	10	0.6
13	0+	1o	1-	0+	2o	2o	2-	1-	9-	2	4	3	2	7	7	6	3	34	4	0.1
14	1+	1-	1o	1o	1-	1-	1-	2o	8o	5	3	4	4	3	3	3	7	32	4	0.1
15	1+	2o	1-	1o	0+	0o	0+	0o	6-	5	7	3	4	2	0	2	0	23	3	0.1
16	1o	0o	0+	1-	1o	0+	1-	3o	7o	4	0	2	3	4	2	3	15	33	4	0.1
17	3+	2+	2-	2-	1o	1-	1-	2-	13o	18	9	6	6	4	3	3	6	55	7	0.3
18	1o	1+	1+	1+	1-	1o	1+	2o	10o	4	5	5	5	3	4	5	7	38	5	0.2
19	2+	3-	3-	1o	1-	1-	1+	3+	15-	9	12	12	4	3	3	5	18	66	8	0.4
20	2-	1-	3-	1+	0+	0o	0+	1+	8+	6	3	12	5	2	0	2	5	35	4	0.2
21	1o	1o	1-	0+	0+	1+	1-	1-	6o	4	4	3	2	2	5	3	3	26	3	0.1
22	1+	2-	1-	1+	1+	3-	1-	2o	12-	5	6	3	5	5	12	3	7	46	6	0.3
23	3-	1-	1+	1o	0+	0+	1o	1o	8+	12	3	5	4	2	2	4	4	36	4	0.2
24	1-	0o	0+	0o	0+	1-	0+	0+	3-	3	0	2	0	2	3	2	2	14	2	0.0
25	1o	0+	0o	0+	0o	0o	0+	1+	3+	4	2	0	2	0	0	2	5	15	2	0.0
26	2o	2o	0o	0o	0o	0o	0o	0o	4o	7	7	0	0	0	0	0	0	14	2	0.0
27	1-	1o	3o	6+	4-	4-	4-	3+	25+	3	4	15	94	22	22	22	18	200	25	1.2
28	2o	3-	2+	2+	1+	2+	3o	3-	19-	7	12	9	9	5	9	15	12	78	10	0.5
29	4o	3o	4o	2+	2o	4-	2-	2-	22+	27	15	27	9	7	22	6	6	119	15	0.8
30	3-	3+	3o	3-	1+	0+	1-	1-	15-	12	18	15	12	5	2	3	3	70	9	0.5

	Kp								Sum	Dec 1995				ap				Sum	Ap	Cp
1	2o	3-	1o	2o	4-	4+	4o	5-	24+	7	12	4	7	22	32	27	39	150	19	1.0
2	4o	2o	2+	2+	3+	2-	2o	2o	20-	27	7	9	9	18	6	7	7	90	11	0.6
3	1o	1-	1+	2o	2-	2o	3+	3-	15-	4	3	5	7	6	7	18	12	62	8	0.4
4	4+	5-	3+	3+	1+	2o	1o	2o	22o	32	39	18	18	5	7	4	7	130	16	0.9
5	2-	1-	0+	1-	0+	1-	2-	2+	8+	6	3	2	3	2	3	6	9	34	4	0.1
6	0o	1-	1-	1o	1o	2-	2-	2o	9-	0	3	3	4	4	6	6	7	33	4	0.1
7	1o	1o	1-	1-	2-	2-	0+	0+	7+	4	4	3	3	6	6	2	2	30	4	0.1
8	0+	1o	1-	0+	0o	0o	0+	1o	4-	2	4	3	2	0	0	2	4	17	2	0.0
9	2+	4o	2-	2o	2+	1o	1o	1+	16-	9	27	6	7	9	4	4	5	71	9	0.5
10	2+	3-	2-	1-	0+	0+	0+	0+	9-	9	12	6	3	2	2	2	2	38	5	0.2
11	2-	2-	0+	1o	1-	1-	1o	0+	7+	6	6	2	4	3	3	4	2	30	4	0.1
12	0+	1-	1-	0+	1+	2o	3o	2-	10o	2	3	3	2	5	7	15	6	43	5	0.2
13	1+	1-	0o	0+	0o	0o	1-	0+	3+	5	3	0	2	0	0	3	2	15	2	0.0
14	2o	2+	1o	1-	1+	1o	1+	0+	10o	7	9	4	3	5	4	5	2	39	5	0.2
15	1o	1o	2-	2-	4-	4o	3+	3-	19o	4	4	6	6	22	27	18	12	99	12	0.7
16	4o	5+	4+	3-	3+	1+	1+	1o	23+	27	56	32	12	18	5	5	4	159	20	1.0
17	1-	1o	3-	3-	2o	3+	3-	2o	17o	3	4	12	12	7	18	12	7	75	9	0.5
18	1+	1-	0+	1o	1o	1o	0+	0+	6o	5	3	2	4	4	4	2	2	26	3	0.1
19	3-	1+	2-	1-	1+	2+	1o	1-	12-	12	5	6	3	5	9	4	3	47	6	0.3
20	0+	1o	0+	1o	3-	2-	0+	0o	7+	2	4	2	4	12	6	2	0	32	4	0.1
21	0+	0+	1-	1-	1+	3-	3-	3+	12o	2	2	3	3	5	12	12	18	57	7	0.4
22	3+	3-	3-	2o	3o	3+	5o	4o	26o	18	12	12	7	15	18	48	27	157	20	1.0
23	4-	3-	1-	2+	1+	1-	2o	0+	14-	22	12	3	9	5	3	7	2	63	8	0.4
24	2o	2+	5o	5-	5o	4o	2+	3+	29-	7	9	48	39	48	27	9	18	205	26	1.2
25	3-	3o	2+	3-	3o	3+	3o	3-	23-	12	15	9	12	15	18	15	12	108	14	0.8
26	3-	4o	3+	2+	3o	2+	3+	2+	23+	12	27	18	9	15	9	18	9	117	15	0.8
27	3-	2o	2-	1+	2o	2-	2o	2o	15+	12	7	6	5	7	6	7	7	57	7	0.4
28	1-	1o	1+	1-	0+	2o	1-	1o	8-	3	4	5	3	2	7	3	4	31	4	0.1
29	1-	1-	1o	0+	0+	1o	1+	2-	7o	3	3	4	2	2	4	5	6	29	4	0.1
30	1+	1-	0+	1-	1-	1o	1-	1-	6o	5	3	2	3	3	4	3	3	26	3	0.1
31	1o	2-	3+	1+	2+	2o	2o	1o	15-	4	6	18	5	9	7	7	4	60	8	0.4

FREQUENCIES OF **Kp** INDICES 1995

FREQUENCIES OF KP INDICES, 1995

Kp	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0o	1	10	8	2	1	2	3	.	2	13	16	7
+	14	16	13	30	4	8	22	11	22	11	23	31
-	28	9	20	16	13	24	38	31	29	19	36	35
1o	29	20	23	18	12	25	34	28	22	12	26	32
+	25	19	23	20	24	30	35	23	25	17	33	19
-	13	13	14	16	27	35	37	33	21	20	12	21
2o	16	17	17	16	17	17	19	30	16	18	17	25
+	18	9	16	16	28	21	20	26	17	19	17	16
-	20	15	16	18	19	18	12	13	12	17	15	20
3o	12	20	16	18	16	15	5	17	20	11	11	6
+	19	14	23	11	11	10	5	12	14	22	8	15
-	12	13	14	9	11	10	5	9	11	15	9	3
4o	15	18	11	17	11	10	4	6	7	18	7	8
+	8	11	9	11	14	7	3	5	3	8	4	3
-	5	7	13	9	11	4	1	2	6	13	5	3
5o	4	6	1	3	10	2	1	1	1	6	.	3
+	5	5	4	2	8	1	3	1	8	3	.	1
-	.	2	3	2	7	1	.		2	2	.	
6o	1		3	2	2		1		.	.	.	
+	3		1	1	2				1	.	1	
-				.					.	4		
7o				1					1			
+				1								
-				.								
8o				1								
+												
-												
9o												
	248	224	248	240	248	240	248	248	240	248	240	248

MONTHLY AVERAGES OF Kp AND Cp 1995

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Ap	14	15	15	16	18	11	8	9	13	16	9	9	12.6
Cp	0.61	0.68	0.67	0.66	0.78	0.52	0.36	0.48	0.57	0.74	0.40	0.41	0.57

MONTHLY AND YEARLY **Ap** 1932 - 1995

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual mean
1932	11	12	18	17	15	7	7	12	12	10	8	9	11.5
1933	10	11	12	12	12	8	7	9	12	10	9	7	10.1
1934	6	8	11	6	7	5	6	9	10	6	5	8	7.2
1935	9	10	10	8	6	9	7	5	13	12	8	9	8.9
1936	9	11	9	15	10	12	11	5	5	9	10	5	9.1
1937	7	13	12	20	13	12	12	10	9	20	12	10	12.5
1938	28	16	13	18	18	9	13	12	17	16	10	11	15.3
1939	7	15	19	28	21	15	19	19	13	22	9	11	16.5
1940	15	12	36	18	13	16	12	11	14	14	16	15	16.1
1941	14	18	33	15	11	11	19	16	27	11	16	11	16.8
1942	9	12	22	17	8	8	13	13	17	22	15	11	13.8
1943	11	9	13	14	14	12	15	31	25	24	20	14	17.0
1944	13	12	17	15	9	8	6	9	10	11	6	14	10.8
1945	10	10	17	13	9	7	9	7	10	11	8	13	10.4
1946	12	22	33	20	18	16	22	11	34	13	12	9	18.6
1947	12	12	32	18	14	16	16	25	32	23	14	11	18.8
1948	12	13	17	13	19	10	10	20	15	27	16	13	15.4
1949	20	14	19	14	18	14	8	14	13	25	15	9	15.4
1950	12	18	14	18	16	14	14	25	22	28	20	16	18.1
1951	16	22	21	27	20	17	20	22	40	24	18	20	22.3
1952	19	26	33	34	27	18	15	13	23	20	12	15	21.2
1953	15	15	21	16	16	13	16	19	21	16	14	7	15.6
1954	9	16	16	14	7	6	8	10	17	15	9	6	11.0
1955	12	12	14	14	11	9	8	9	13	11	13	8	11.3
1956	18	15	20	27	26	17	13	15	18	14	24	10	18.0
1957	17	17	26	21	11	22	16	14	49	14	18	18	20.1
1958	15	27	26	20	17	24	25	18	20	16	8	15	19.2
1959	14	24	24	17	19	15	32	23	28	19	22	19	21.3
1960	15	14	18	42	24	20	20	20	20	36	32	21	23.6
1961	12	16	14	14	13	14	28	11	13	16	10	12	14.4
1962	7	11	8	14	7	9	12	15	19	20	13	13	12.3
1963	11	9	8	10	11	11	12	13	28	15	12	11	12.6
1964	12	12	13	13	10	9	9	8	11	10	7	5	9.9
1965	6	9	8	8	6	10	8	9	10	7	6	7	7.7
1966	7	8	13	7	9	6	9	11	21	11	9	11	10.2
1967	11	11	7	9	25	12	8	9	16	10	10	14	12.0
1968	11	16	13	13	13	17	10	12	14	16	17	10	13.5
1969	8	15	17	14	17	9	8	8	15	9	10	7	11.3
1970	7	7	17	16	9	10	19	13	11	12	12	9	11.9
1971	12	12	11	15	13	9	8	9	13	12	11	10	11.3
1972	13	10	12	11	10	14	8	24	13	12	14	10	12.6
1973	16	20	25	30	17	17	12	12	14	18	12	11	17.0
1974	15	16	23	21	18	17	24	19	23	26	18	15	19.6
1975	16	18	20	16	13	11	12	10	10	12	18	12	13.9
1976	13	17	23	17	14	10	9	9	13	12	9	10	12.9
1977	10	11	11	16	11	8	14	13	16	13	10	10	11.9

MONTHLY AND YEARLY **Ap** 1932 - 1995 (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul	Aug.	Sep.	Oct.	Nov.	Dec.	Annual mean
1978	15	16	16	23	25	20	13	17	18	12	15	13	16.9
1979	16	15	19	25	14	12	12	18	14	12	10	9	14.5
1980	10	11	8	11	10	13	11	10	8	14	13	13	11.1
1981	9	14	18	28	20	12	19	15	12	23	15	10	16.3
1982	12	33	18	22	17	22	30	21	36	18	21	21	22.4
1983	16	27	23	24	22	15	12	16	14	17	21	15	18.5
1984	13	17	21	25	17	15	16	16	24	23	21	18	18.8
1985	16	15	11	21	9	11	14	13	13	14	15	13	13.7
1986	14	27	13	8	12	8	8	12	17	11	13	8	12.5
1987	8	10	10	7	8	7	11	14	19	16	13	9	11.0
1988	13	15	14	16	12	11	10	10	12	13	12	13	12.7
1989	19	15	41	23	16	17	8	20	17	21	19	16	19.5
1990	14	23	23	27	16	16	14	19	14	15	9	7	16.3
1991	8	10	27	17	18	44	27	30	20	31	33	15	23.4
1992	14	31	14	11	21	15	10	15	25	15	14	13	16.5
1993	17	16	24	19	12	12	10	12	15	14	15	14	15.0
1994	15	30	24	29	26	14	11	8	12	22	14	13	18.1
1995	14	15	15	16	18	11	8	9	13	16	9	9	12.6

Unit: 2 nT

SECTION 3

3.4 Dst INDICES

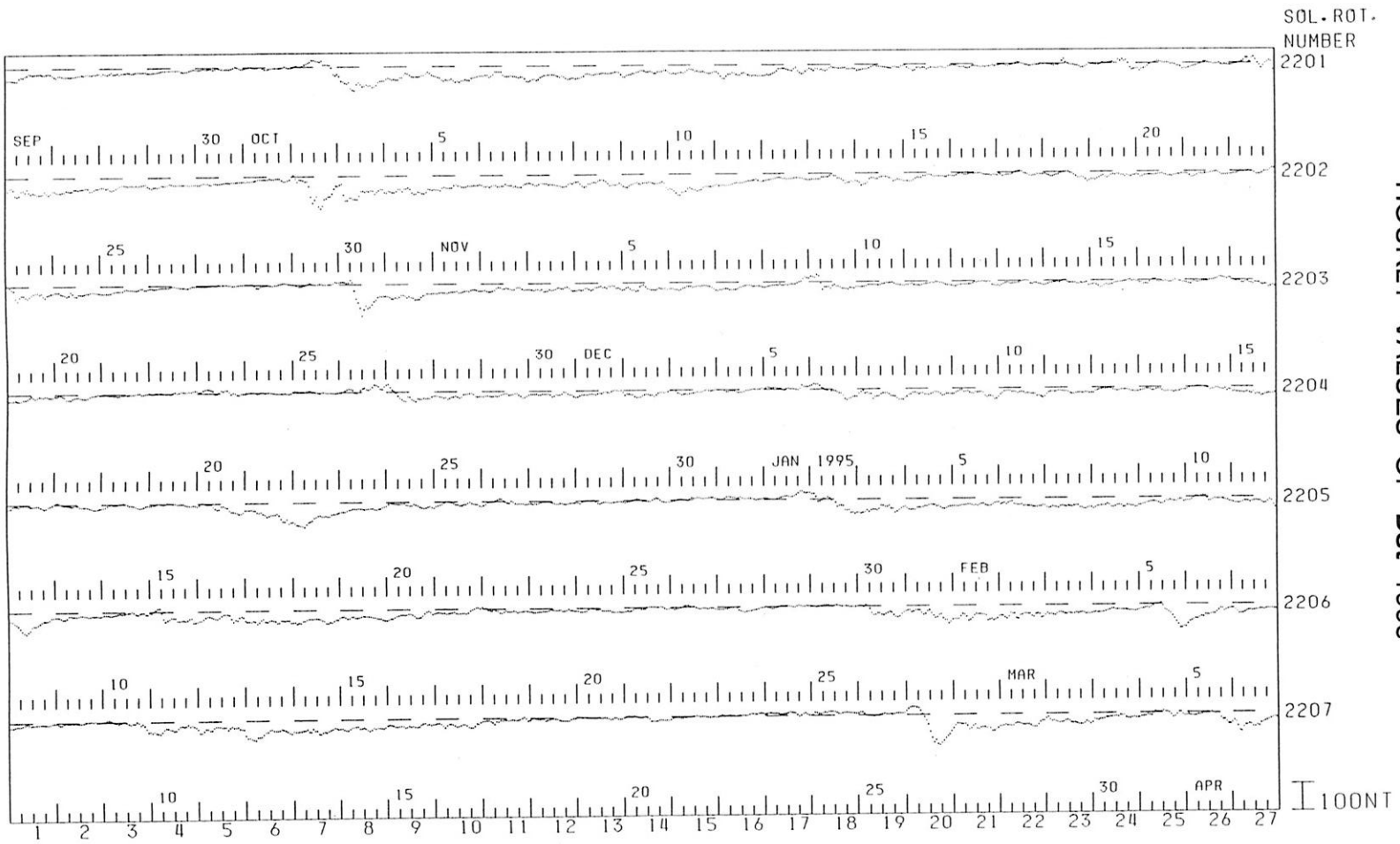
Hourly values of **Dst** 1995 (graph) 87

Monthly tables of **Dst** hourly values 90

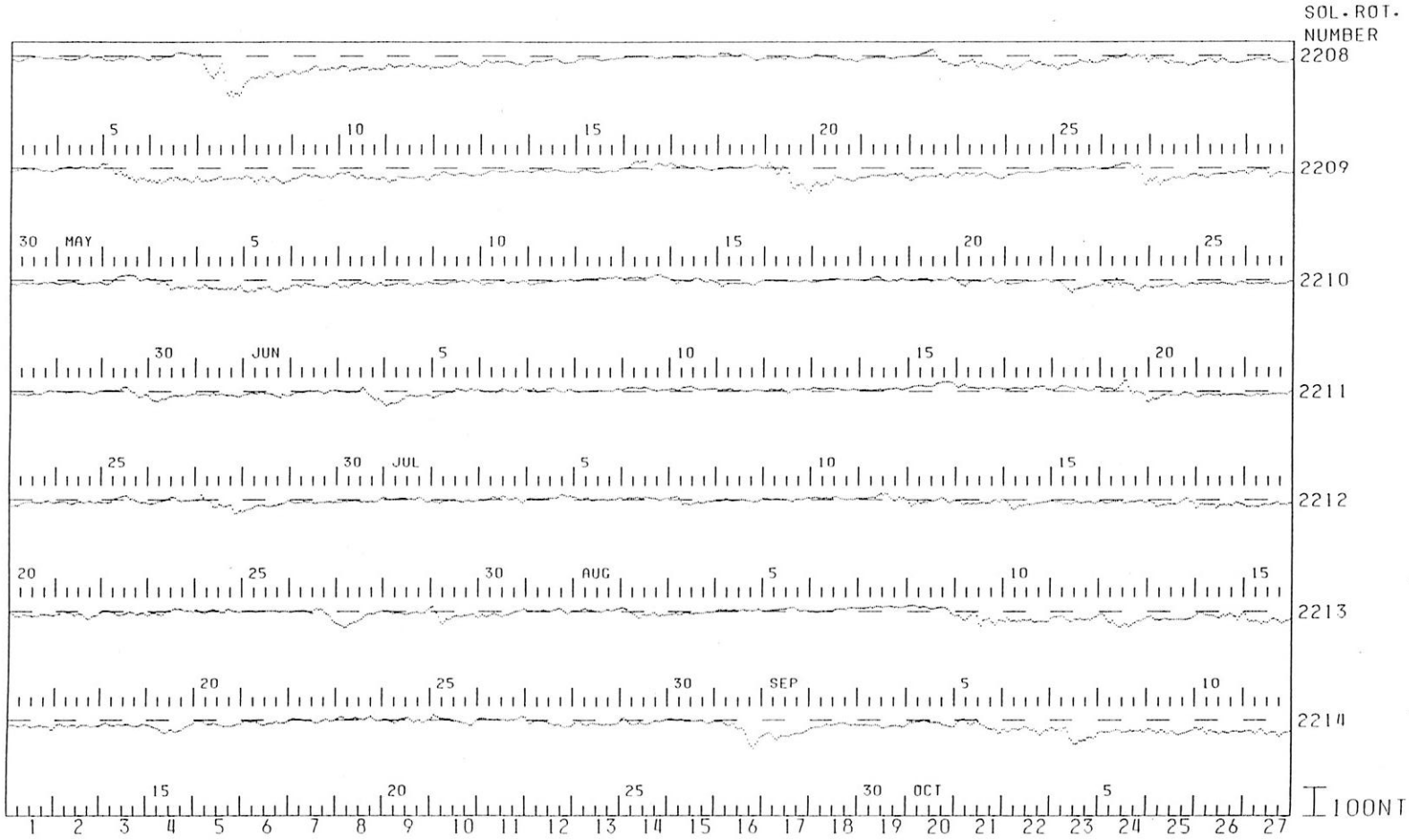
Tables of daily means of **Dst** 102

Monthly and yearly mean values
1957 - 1995 103

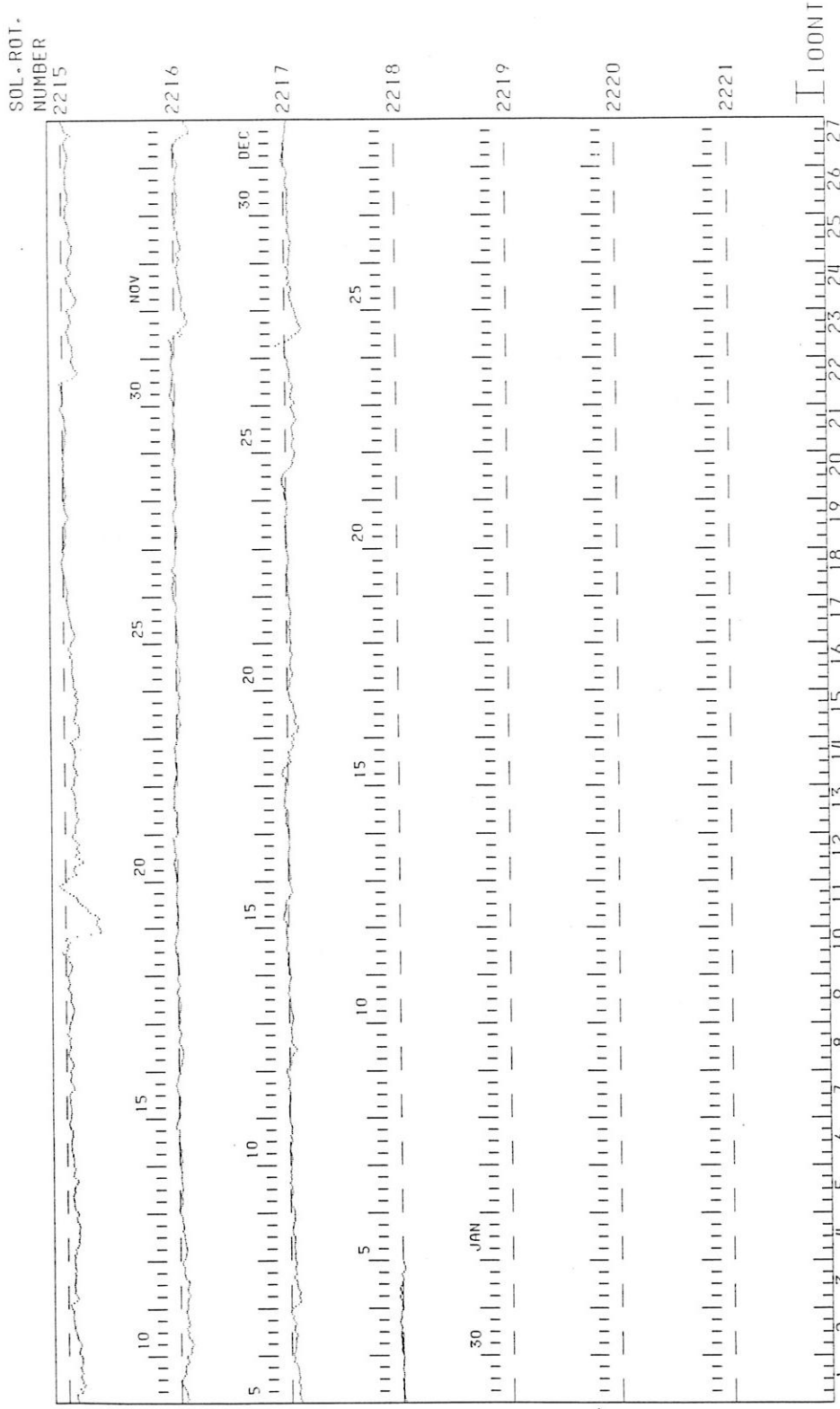
HOURLY VALUES OF Dst 1995



HOURLY VALUES OF Dst 1995 (continued)



HOURLY VALUES OF **Dst** 1995 (continued)



JANUARY 1995

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-2	3	6	5	3	4	5	3	1	1	-5	-5	1	1	-1	0	-1	-3	-4	1	13	8	7	7
2	10	13	18	17	17	11	3	1	-5	-7	-3	-9	-8	-9	-13	-17	-18	-27	-38	-42	-37	-36	-31	-30
3	-30	-20	-13	-9	-19	-17	-21	-21	-39	-32	-30	-29	-23	-19	-19	-18	-23	-29	-30	-31	-37	-43	-42	-42
4	-36	-32	-25	-24	-18	-17	-20	-24	-20	-20	-25	-25	-26	-23	-20	-15	-16	-18	-23	-29	-27	-23	-23	-24
5	-24	-23	-18	-14	-10	-10	-16	-15	-13	-19	-22	-23	-16	-18	-17	-16	-20	-31	-36	-32	-32	-34	-43	-41
6	-35	-27	-21	-15	-13	-12	-13	-17	-16	-18	-22	-19	-17	-19	-24	-22	-23	-25	-25	-25	-33	-32	-35	-38
7	-35	-26	-20	-17	-17	-17	-16	-13	-13	-15	-16	-16	-18	-23	-26	-26	-24	-22	-21	-22	-23	-20	-21	-23
8	-22	-23	-15	-13	-10	-9	-8	-8	-7	-5	-8	-11	-13	-15	-13	-11	-10	-11	-11	-13	-17	-17	-19	-18
9	-18	-15	-13	-12	-9	-10	-12	-15	-14	-11	-9	-10	-15	-20	-20	-18	-18	-19	-22	-20	-20	-17	-14	-13
10	-13	-10	-6	-4	-4	-3	-1	0	0	-2	-3	-5	-7	-13	-11	-10	-6	-7	-10	-12	-13	-9	-17	-13
11	-13	-21	-19	-22	-23	-24	-24	-25	-24	-21	-25	-28	-21	-32	-29	-31	-37	-35	-32	-30	-28	-29	-29	-25
12	-20	-19	-17	-10	-8	-9	-11	-7	-6	-4	-5	-8	-11	-11	-10	-8	-9	-13	-16	-19	-17	-12	-9	-6
13	-1	3	2	-2	-5	-7	-7	-8	-9	-11	-9	-6	-8	-13	-14	-14	-13	-15	-17	-20	-22	-22	-21	-19
14	-17	-16	-14	-10	-5	-3	-7	-7	-4	-2	-1	0	-2	-5	-8	-8	-10	-13	-16	-18	-17	-15	-11	-9
15	-10	-9	-8	-6	-3	-2	-4	-7	-4	0	-1	-1	-3	-3	-5	-5	-4	-4	-8	-10	-11	-12	-10	-10
16	-14	-9	-2	-1	-4	-7	-7	-6	-16	-22	-26	-24	-14	-13	-17	-20	-29	-35	-35	-37	-39	-43	-42	-37
17	-29	-29	-29	-28	-30	-31	-37	-40	-37	-44	-47	-54	-51	-47	-48	-46	-43	-49	-63	-73	-74	-65	-81	-77
18	-75	-80	-87	-88	-90	-91	-95	-85	-78	-74	-70	-60	-57	-53	-51	-54	-55	-53	-55	-55	-48	-46	-46	-43
19	-40	-38	-38	-38	-34	-31	-29	-27	-27	-28	-25	-27	-28	-29	-28	-27	-26	-26	-29	-30	-28	-27	-22	-20
20	-17	-11	-5	-8	-10	-10	-11	-11	-10	-9	-13	-15	-17	-16	-11	-14	-17	-22	-25	-27	-25	-22	-20	-24
21	-26	-20	-17	-15	-12	-7	-3	-2	-3	-6	-10	-13	-14	-17	-17	-13	-13	-8	-4	-9	-12	-13	-13	-19
22	-21	-18	-13	-6	-4	-5	-4	0	4	7	6	0	-5	-8	-9	-2	-5	-11	-13	-12	-12	-12	-14	-14
23	-12	-11	-14	-11	-13	-11	-8	-6	-6	-5	-6	-7	-8	-12	-14	-13	-11	-11	-14	-15	-13	-10	-10	-10
24	-9	-10	-12	-6	-4	-3	-2	-3	-3	-1	-6	-12	-14	-11	-8	-8	-9	-10	-11	-9	-8	-7	-7	-7
25	-8	-11	-8	-7	-5	-3	1	2	1	-2	-6	-6	-6	-7	-7	-2	2	5	3	-3	-8	-9	-11	-10
26	-10	-8	-6	-4	-1	0	0	-2	-3	-4	1	5	4	3	6	5	3	2	3	4	5	6	6	3
27	1	0	-1	0	4	8	9	8	6	5	3	4	7	3	1	1	2	2	1	-1	-4	-2	-1	0
28	2	3	2	-1	-2	-2	-1	1	4	5	8	10	11	9	8	8	11	15	21	27	28	23	21	22
29	22	18	18	8	-11	-10	-6	1	-1	6	2	-6	-3	-14	-30	-25	-25	-26	-42	-43	-42	-53	-51	-56
30	-52	-52	-55	-52	-50	-44	-49	-44	-41	-42	-45	-39	-27	-27	-32	-32	-27	-38	-39	-53	-49	-43	-37	-33
31	-32	-37	-42	-43	-42	-44	-36	-35	-36	-33	-30	-30	-26	-24	-25	-25	-31	-29	-35	-40	-41	-37	-34	-32

FEBRUARY 1995

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-31	-30	-31	-32	-29	-28	-27	-27	-24	-24	-27	-29	-27	-30	-26	-23	-22	-28	-30	-31	-29	-24	-20	-18
2	-18	-25	-22	-20	-25	-20	-16	-15	-24	-26	-28	-28	-26	-32	-30	-32	-32	-32	-35	-36	-36	-33	-33	-29
3	-30	-37	-40	-38	-34	-36	-37	-40	-33	-32	-33	-36	-32	-33	-35	-32	-30	-30	-38	-39	-44	-44	-40	-37
4	-38	-43	-39	-34	-33	-32	-32	-30	-26	-29	-37	-38	-35	-31	-29	-32	-38	-37	-31	-31	-34	-34	-38	-37
5	-31	-31	-28	-26	-23	-21	-19	-18	-18	-20	-23	-27	-27	-22	-16	-16	-14	-16	-17	-17	-13	-11	-11	-19
6	-17	-16	-16	-12	-6	0	-1	-1	1	4	3	-7	-17	-16	-12	-8	-9	-9	-9	-9	-11	-14	-14	-20
7	-20	-22	-25	-24	-26	-24	-22	-17	-18	-18	-22	-19	-17	-16	-17	-18	-23	-27	-26	-20	-13	-17	-32	-41
8	-37	-33	-36	-41	-45	-51	-60	-69	-75	-80	-73	-66	-55	-51	-52	-48	-43	-38	-35	-35	-34	-31	-24	-23
9	-21	-21	-22	-25	-30	-29	-25	-17	-16	-19	-19	-20	-17	-15	-15	-16	-17	-20	-20	-17	-17	-17	-18	-19
10	-17	-14	-14	-14	-16	-16	-15	-13	-11	-9	-11	-10	-8	-7	-5	-2	-5	-11	-13	-9	-7	-7	-12	-13
11	-6	-9	-3	3	9	9	-8	-29	-39	-35	-31	-25	-26	-27	-37	-37	-36	-35	-37	-35	-30	-28	-44	-43
12	-41	-38	-37	-32	-25	-22	-22	-24	-28	-31	-32	-26	-20	-15	-15	-15	-17	-31	-42	-35	-37	-27	-23	-27
13	-39	-43	-42	-44	-40	-42	-50	-45	-37	-33	-43	-44	-40	-38	-40	-41	-48	-47	-40	-40	-41	-39	-40	-48
14	-47	-46	-52	-48	-49	-42	-42	-37	-35	-34	-35	-33	-33	-34	-36	-40	-42	-50	-50	-46	-48	-43	-38	-38
15	-31	-28	-27	-30	-35	-33	-28	-27	-32	-32	-30	-28	-25	-26	-26	-27	-28	-30	-31	-33	-35	-35	-39	-41
16	-42	-39	-36	-36	-31	-27	-25	-22	-22	-23	-22	-20	-20	-22	-27	-33	-34	-32	-26	-18	-12	-10	-13	-21
17	-18	-16	-15	-16	-17	-17	-20	-19	-17	-16	-13	-18	-20	-19	-18	-18	-20	-17	-9	-5	-3	1	1	-2
18	3	-1	-1	-8	-10	-11	-6	-9	-11	-18	-19	-14	-10	-13	-14	-13	-11	-12	-17	-15	-13	-12	-11	-12
19	-14	-14	-17	-17	-16	-15	-15	-13	-13	-13	-11	-8	-8	-10	-10	-9	-8	-13	-12	-10	-6	-10	-11	-13
20	-12	-13	-16	-16	-15	-13	-8	-4	-4	-6	-9	-8	-7	-12	-12	-13	-12	-12	-16	-18	-18	-17	-17	-18
21	-18	-16	-14	-16	-14	-10	-6	-5	-6	-9	-9	-8	-3	-1	-1	-1	-1	-2	-2	0	-2	-6	-9	-8
22	-7	-7	-11	-8	-8	-5	-3	2	4	4	1	0	0	-4	-7	-8	-7	-6	-7	-8	-7	-6	-7	-10
23	-11	-11	-11	-11	-9	-9	-6	-4	-4	-3	-7	-14	-17	-20	-21	-19	-17	-16	-15	-13	-12	-9	-7	-6
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27	-21	-19	-18	-25	-23	-18	-18	-19	-28	-35	-32	-22	-19	-29	-38	-46	-44	-36	-33	-48	-54	-55	-67	-61
28	-53	-51	-52	-51	-41	-33	-35	-43	-58	-54	-48	-39	-33	-35	-35	-35	-36	-40	-57	-54	-52	-56	-54	-49

MARCH 1995

DAY	UNIT=NT 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-41	-40	-41	-47	-51	-44	-31	-34	-33	-49	-52	-39	-37	-34	-33	-35	-35	-42	-45	-36	-33	-36	-48	-45
2	-38	-32	-37	-36	-38	-40	-34	-30	-29	-31	-35	-36	-31	-33	-35	-34	-31	-33	-31	-29	-32	-36	-34	-35
3	-33	-31	-29	-31	-31	-31	-29	-27	-24	-22	-19	-18	-21	-21	-21	-22	-22	-21	-23	-25	-24	-26	-27	-24
4	-22	-19	-19	-16	-15	-17	-13	-8	-1	-3	-1	3	-9	-23	-26	-31	-36	-45	-54	-66	-77	-90	-89	-84
5	-86	-75	-66	-62	-58	-55	-56	-51	-48	-49	-41	-42	-43	-39	-38	-38	-32	-25	-19	-20	-29	-25	-22	-20
6	-19	-19	-24	-31	-38	-37	-37	-33	-29	-26	-26	-27	-27	-25	-24	-22	-22	-24	-21	-20	-20	-20	-21	-21
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8	-7	-10	-12	-12	-8	-6	-6	-7	-5	-6	-6	-6	-7	-7	-6	-3	-2	-2	0	-2	0	-3	-3	-3
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31	-18	-15	-14	-13	-10	-11	-12	-4	2	-1	-2	0	4	0	0	-3	-10	-18	-16	-9	-1	-1	-9	-13

APRIL 1995

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
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8	-102	-95	-90	-81	-79	-83	-82	-76	-78	-82	-78	-68	-60	-60	-64	-75	-78	-77	-74	-70	-65	-69	-68	-61
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MAY 1995

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
																	U.T.							
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JUNE 1995

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
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23	-9	-12	-14	-14	-13	-13	-16	-14	-16	-17	-15	-14	-11	-13	-13	-13	-13	-8	-5	-3	0	0	-3	-2
24	-2	-3	-4	-4	-5	-9	-7	-7	-6	-4	-4	-5	-4	-4	-4	-5	-8	-10	-11	-12	-10	-7	-4	-2
25	-1	-1	1	1	1	-1	0	2	1	0	5	12	13	12	5	-1	-7	-7	-17	-24	-23	-22	-15	-15
26	-19	-29	-35	-37	-39	-40	-34	-30	-32	-30	-25	-21	-21	-18	-17	-20	-18	-17	-19	-21	-17	-16	-13	-13
27	-11	-16	-15	-14	-13	-14	-15	-18	-12	-9	-15	-15	-13	-12	-14	-16	-17	-17	-16	-18	-20	-22	-23	-20
28	-16	-15	-13	-11	-9	-9	-11	-12	-8	-6	-6	-11	-10	-12	-13	-14	-18	-21	-24	-25	-14	-16	-20	-19
29	-17	-13	-10	-9	-7	-7	-8	-6	-3	-2	-1	-3	-3	-2	-1	-4	-6	-11	-9	-6	0	0	1	1
30	0	-1	-2	-4	-6	-7	-8	-5	-4	-7	-5	0	5	11	4	-8	-14	-21	-27	-33	-38	-30	-37	-41

JULY 1995

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-50	-56	-52	-48	-46	-48	-46	-44	-38	-32	-30	-20	-20	-17	-19	-19	-21	-21	-19	-18	-16	-15	-17	-19
2	-25	-25	-22	-20	-15	-13	-11	-8	-6	-5	-6	0	6	6	2	2	0	-3	0	5	6	0	1	4
3	1	0	-5	-5	-3	-7	-5	-4	-8	-5	1	5	6	3	-1	-3	-3	-5	-3	-1	8	11	5	4
4	3	3	3	7	2	-5	-4	-2	-1	0	6	9	8	10	7	1	-2	-3	-5	-4	2	5	4	0
5	-3	-4	-6	-4	-1	0	-2	-2	-1	0	-1	0	1	0	-1	-1	0	0	-1	-2	3	6	7	5
6	4	6	9	12	12	12	11	11	9	9	10	13	11	9	6	3	2	0	-1	1	3	3	3	3
7	5	7	6	4	1	3	9	12	12	14	15	16	11	8	7	4	3	4	4	6	5	6	6	7
8	7	2	1	4	4	4	5	6	4	0	0	0	1	0	-2	-3	-2	-2	0	3	3	2	1	0
9	0	-2	-1	4	5	4	4	3	3	5	2	-4	-10	-6	0	4	5	4	5	6	6	3	3	4
10	7	11	10	8	7	7	5	6	8	9	9	7	7	7	6	3	2	1	1	2	4	5	4	2
11	2	2	3	3	2	1	1	1	3	4	5	3	3	4	6	6	6	8	9	8	5	3	5	8
12	9	11	14	17	17	18	18	18	16	15	16	15	16	19	25	28	28	31	31	31	32	30	29	23
13	16	12	15	19	21	16	10	12	11	10	9	8	9	10	9	5	5	9	10	10	10	11	9	7
14	7	5	5	7	9	10	10	9	8	6	9	11	9	8	8	13	15	13	16	16	16	7	4	4
15	4	4	7	11	16	18	16	17	14	12	9	8	6	13	8	7	5	2	-1	1	1	5	13	13
16	13	10	5	9	9	9	7	2	5	9	19	26	36	37	13	-2	-12	-6	-3	-5	-7	-11	-16	-38
17	-41	-34	-27	-31	-30	-27	-20	-17	-15	-12	-11	-17	-16	-16	-16	-17	-14	-8	-6	-7	-10	-10	-14	-21
18	-24	-23	-19	-15	-16	-13	-12	-13	-16	-17	-15	-15	-19	-14	-13	-16	-15	-14	-13	-13	-14	-15	-14	-15
19	-17	-20	-20	-21	-19	-16	-12	-13	-19	-14	-13	-14	-14	-12	-11	-12	-11	-10	-11	-10	-11	-13	-6	-2
20	-11	-25	-24	-23	-25	-22	-17	-15	-12	-12	-11	-10	-11	-13	-14	-13	-14	-12	-9	-9	-7	-12	-14	-15
21	-13	-11	-11	-10	-10	-11	-14	-17	-19	-17	-15	-11	-11	-11	-14	-15	-12	-9	-9	-12	-15	-14	-11	-12
22	-13	-13	-12	-14	-13	-11	-2	2	3	5	8	10	11	12	6	-1	1	-3	-7	-10	-13	-13	-12	-13
23	-16	-18	-17	-16	-14	-11	-9	-9	-7	-4	0	4	7	6	4	-4	-6	-9	-6	-6	-6	-6	-4	-4
24	-5	-6	-3	15	5	-4	-4	-6	-12	-27	-29	-28	-20	-22	-27	-27	-25	-22	-22	-36	-52	-50	-44	-41
25	-46	-41	-38	-36	-35	-32	-27	-24	-22	-24	-21	-23	-25	-27	-27	-25	-23	-24	-21	-18	-17	-16	-12	-6
26	-8	-11	-14	-15	-13	-13	-13	-9	-10	-12	-11	-11	-14	-16	-14	-12	-12	-12	-12	-10	-10	-11	-13	-11
27	-12	-12	-12	-9	-8	-10	-7	-6	-7	-6	-9	-8	-10	-12	-8	-11	-11	-9	-9	-11	-10	-8	-3	2
28	5	4	-2	-3	-2	-2	-1	1	3	3	3	2	0	0	0	-2	-2	3	6	4	-2	-9	-11	-9
29	-7	-10	-11	-11	-15	-11	-9	-7	-6	-4	-6	-6	-6	-6	-8	-11	-11	-7	-6	-6	-9	-9	-8	-6
30	-6	-6	-6	-5	-3	0	4	8	5	1	3	8	11	8	1	-3	-1	-1	4	3	-3	-10	-13	-7
31	-1	1	3	2	1	0	1	1	1	2	2	4	4	4	4	4	7	15	17	14	10	9	12	8

AUGUST 1995

DAY	UNIT=NT 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	8	6	1	-3	-3	2	4	4	-2	-5	-4	-1	-2	-2	-2	-1	-2	-4	-2	-1	-2	-1	2	5
2	4	0	0	3	5	4	4	6	7	4	2	4	8	7	5	3	3	2	0	-4	-4	0	2	3
3	3	5	6	8	9	4	-10	-19	-16	-16	-20	-21	-17	-15	-13	-11	-14	-14	-13	-10	-7	-9	-8	-6
4	-7	-8	-8	-7	-4	1	0	-5	-6	-7	-6	-4	-4	-3	-3	-4	-6	-7	-9	-11	-9	-10	-6	-2
5	2	1	2	-1	-2	-2	0	1	0	-2	-1	-2	-2	-4	-8	-8	-2	-1	0	-2	-1	1	4	5
6	3	5	6	7	4	4	3	4	5	3	2	5	9	9	6	2	0	-1	-2	-1	0	-2	0	2
7	3	2	2	2	3	5	6	7	5	12	17	20	15	21	18	8	2	-4	-6	-1	7	1	5	0
8	-4	-14	-25	-20	-16	-9	-14	-15	-11	-11	-12	-7	-8	-7	-5	-2	1	6	3	-3	-11	-13	-10	-5
9	-6	-6	-6	-16	-20	-17	-15	-18	-18	-15	-17	-16	-14	-13	-12	-15	-14	-15	-9	-4	-3	-8	-11	-3
10	-1	-7	-11	-21	-32	-36	-33	-27	-22	-24	-21	-21	-18	-19	-19	-18	-15	-15	-13	-12	-11	-11	-9	-7
11	-7	-8	-11	-10	-9	-12	-18	-16	-16	-16	-18	-13	-10	-9	-12	-14	-12	-11	-9	-8	-10	-14	-15	-11
12	-9	-7	-11	-14	-14	-13	-10	-8	-9	-8	-2	-9	-15	-14	-12	-10	-9	-10	-8	-6	-5	-6	-11	-12
13	-8	-8	-12	-15	-25	-27	-23	-21	-20	-21	-16	-17	-17	-17	-18	-16	-11	-6	-1	3	3	-9	-8	-15
14	-31	-28	-18	-16	-19	-19	-19	-20	-19	-20	-32	-27	-21	-21	-20	-23	-19	-22	-23	-16	-12	-13	-17	-18
15	-22	-26	-27	-27	-24	-26	-26	-27	-24	-21	-19	-19	-21	-20	-17	-15	-11	-12	-18	-18	-17	-20	-15	-13
16	-9	-11	-14	-21	-20	-22	-22	-15	-15	-18	-17	-19	-22	-19	-21	-19	-14	-14	-14	-15	-15	-16	-18	-17
17	-14	-13	-12	-1	-2	-4	-9	-9	-10	-15	-19	-13	-11	-12	-14	-21	-27	-31	-29	-23	-19	-19	-16	-8
18	-5	-1	0	0	-1	-4	-5	-10	-15	-16	-16	-14	-12	-10	-6	-4	-7	-8	-14	-14	-11	-8	-8	-14
19	-18	-14	-9	-8	-8	-12	-13	-18	-13	-7	-2	0	0	4	7	5	6	5	2	-2	0	0	-1	-5
20	1	3	-2	-5	-8	-10	-7	-1	2	4	3	-1	0	-6	-6	-5	2	6	3	0	-3	-3	-5	-5
21	-3	-3	-1	0	0	-1	-3	-4	-2	-1	0	-1	-1	-1	-1	-1	-1	-1	-3	-4	-3	-2	-2	-3
22	-5	-5	-3	-2	-1	0	0	1	0	-2	-4	-8	-10	3	8	3	6	3	-6	-11	-15	-21	-34	-41
23	-46	-49	-53	-56	-61	-60	-53	-48	-46	-41	-43	-37	-33	-30	-23	-16	-12	-11	-11	-12	-9	-5	-4	-2
24	1	0	1	-2	-6	-11	-9	-8	-8	-9	-11	-12	-12	-11	-8	-6	-6	-4	-7	-9	-8	-7	1	7
25	12	15	-2	-9	-22	-41	-48	-39	-30	-32	-29	-23	-20	-18	-20	-21	-20	-17	-17	-16	-14	-12	-13	-21
26	-24	-20	-14	-19	-22	-19	-17	-12	-10	-13	-16	-20	-21	-17	-15	-15	-11	-8	-4	-3	-1	0	4	7
27	4	-1	-1	0	-2	-1	0	-1	1	2	1	-2	-2	0	3	3	7	8	5	0	-6	-11	-7	-3
28	0	0	0	0	4	6	8	4	3	3	-1	-1	-2	-3	-4	-2	1	4	3	0	2	3	7	8
29	10	12	9	5	-3	-7	-10	-13	-20	-26	-24	-14	-14	-16	-15	-14	-7	-7	-13	-18	-18	-14	-16	-15
30	-14	-12	-12	-11	-9	-13	-15	-12	-8	-7	-7	-9	-11	-11	-8	-8	-8	-9	-8	-6	-4	-5	-4	-4
31	-3	1	4	4	2	2	3	1	1	3	2	1	1	1	4	2	0	1	1	0	1	2	5	2

SEPTEMBER 1995

DAY	UNIT=NT 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-1	0	-1	1	2	2	3	4	4	6	6	6	7	9	11	12	12	8	3	-1	0	1	1	-1
2	-3	-2	-3	-5	-4	-3	-2	-1	-1	-1	0	0	2	5	6	6	6	6	3	9	11	10	10	9
3	9	9	9	9	11	11	14	11	13	16	15	14	12	14	15	16	16	14	12	14	12	12	13	14
4	16	18	19	20	19	16	13	13	15	14	13	9	7	7	8	10	11	12	12	11	6	1	-9	-14
5	-18	-17	-17	-24	-32	-34	-29	-21	-16	-7	-6	-19	-47	-54	-35	-32	-31	-28	-39	-43	-51	-44	-33	-34
6	-36	-39	-24	-31	-37	-36	-35	-39	-34	-37	-32	-33	-35	-33	-31	-38	-41	-39	-37	-38	-37	-39	-40	-37
7	-28	-24	-21	-22	-20	-20	-18	-23	-31	-33	-38	-38	-29	-30	-31	-28	-31	-32	-31	-29	-33	-28	-23	-21
8	-15	-11	-11	-17	-29	-40	-42	-35	-45	-52	-57	-58	-52	-46	-49	-57	-53	-45	-42	-36	-36	-36	-30	-28
9	-22	-21	-18	-26	-32	-31	-33	-32	-30	-28	-29	-32	-31	-31	-31	-30	-30	-30	-31	-31	-30	-28	-27	-22
10	-17	-11	-6	-6	-11	-14	-15	-17	-16	-17	-21	-24	-25	-19	-14	-20	-15	-10	-12	-19	-21	-33	-22	-12
11	-6	-12	-32	-38	-36	-39	-36	-37	-41	-47	-40	-41	-41	-35	-29	-27	-30	-33	-40	-44	-40	-35	-34	-30
12	-25	-21	-20	-21	-23	-25	-26	-24	-21	-18	-22	-27	-30	-27	-27	-24	-22	-23	-27	-26	-26	-28	-39	-38
13	-29	-20	-18	-16	-20	-24	-23	-27	-23	-20	-21	-22	-29	-25	-21	-21	-21	-21	-23	-27	-26	-25	-24	-25
14	-23	-19	-16	-12	-17	-20	-23	-23	-23	-19	-18	-21	-21	-19	-18	-19	-22	-24	-25	-25	-25	-21	-17	-17
15	-20	-21	-23	-27	-29	-32	-34	-40	-48	-50	-52	-48	-40	-39	-45	-48	-45	-41	-41	-34	-27	-24	-20	-18
16	-13	-6	-5	-6	-7	-11	-16	-18	-18	-17	-13	-16	-18	-21	-22	-25	-24	-24	-24	-25	-22	-20	-17	-16
17	-16	-10	-5	-6	-9	-10	-8	-7	-11	-14	-19	-21	-20	-17	-15	-14	-15	-11	-7	-12	-13	-12	-12	-9
18	-6	-3	2	3	0	0	0	-2	-4	-5	-5	-4	-7	-11	-12	-12	-9	-6	-3	1	-1	-6	-6	-4
19	-1	3	8	9	6	0	1	0	2	3	6	4	2	1	-2	0	4	7	10	4	-1	-4	-4	-4
20	-3	1	1	-3	-8	-10	-12	-12	-7	1	3	3	5	6	1	-5	-10	-6	-2	-3	-10	-9	-5	-2
21	0	6	16	11	9	4	3	3	1	2	1	-5	-7	-5	-7	-9	-11	-13	-12	-16	-21	-20	-15	-6
22	-1	3	4	4	2	-2	0	0	-1	0	1	-2	-2	-1	-3	-5	-3	0	-3	0	1	5	10	9
23	7	-4	-15	-14	-9	-5	-4	-4	-5	-5	-8	-10	-13	-15	-19	-20	-18	-17	-22	-27	-28	-25	-26	-24
24	-19	-12	-3	-4	-11	-17	-19	-22	-19	-14	-13	-15	-16	-16	-18	-19	-19	-17	-17	-19	-17	-16	-16	-12
25	-6	3	6	-1	-9	-14	-18	-18	-17	-14	-11	-13	-16	-17	-16	-13	-10	-7	-5	-6	-8	-5	-4	-1
26	2	2	3	1	-2	-3	0	0	-2	-6	-7	-7	-6	-5	-5	-5	-4	-3	-4	-9	-15	-13	-12	-9
27	-7	-8	-8	-8	-9	-13	-19	-22	-20	-14	-16	-29	-35	-34	-32	-39	-55	-76	-92	-100	-108	-94	-83	-69
28	-64	-61	-56	-52	-49	-55	-64	-72	-76	-68	-62	-62	-62	-62	-63	-58	-56	-54	-52	-53	-52	-49	-45	-42
29	-36	-31	-29	-28	-28	-28	-28	-24	-20	-17	-20	-20	-20	-17	-18	-13	-13	-12	-14	-17	-19	-20	-19	-19
30	-20	-20	-19	-20	-19	-20	-21	-22	-21	-19	-20	-24	-30	-30	-28	-26	-24	-23	-23	-22	-24	-23	-27	-25

OCTOBER 1995

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-22	-16	-11	-11	-11	-9	-8	-8	-5	-3	-4	-8	-11	-11	-11	-10	-11	-12	-18	-21	-21	-24	-25	-27
2	-25	-17	-8	-3	0	1	-4	-14	-20	-17	-12	-1	-9	-16	-21	-22	-29	-34	-35	-37	-33	-39	-52	-49
3	-37	-36	-44	-45	-42	-35	-34	-35	-38	-35	-32	-27	-27	-31	-38	-39	-34	-44	-53	-58	-52	-43	-38	-41
4	-32	-30	-33	-40	-37	-32	-42	-32	-29	-46	-70	-78	-91	-92	-90	-80	-81	-77	-78	-69	-66	-68	-71	-65
5	-51	-46	-44	-47	-46	-46	-48	-44	-41	-38	-38	-40	-48	-46	-46	-44	-40	-44	-42	-42	-43	-40	-45	-47
6	-39	-34	-36	-42	-44	-51	-48	-39	-38	-46	-53	-52	-43	-44	-50	-56	-57	-55	-51	-50	-48	-44	-41	-39
7	-31	-30	-37	-35	-30	-46	-54	-41	-39	-45	-46	-49	-54	-50	-45	-48	-50	-50	-45	-44	-44	-43	-46	-47
8	-45	-43	-42	-41	-41	-48	-54	-47	-38	-36	-42	-52	-56	-49	-46	-46	-47	-57	-63	-56	-49	-48	-47	-43
9	-37	-34	-32	-31	-32	-48	-51	-43	-56	-60	-52	-54	-49	-46	-47	-53	-49	-47	-45	-49	-51	-51	-51	-51
10	-48	-42	-40	-42	-45	-48	-47	-43	-38	-34	-34	-32	-30	-26	-25	-25	-24	-22	-22	-21	-20	-22	-21	-22
11	-17	-13	-12	-22	-33	-39	-36	-32	-26	-28	-28	-26	-25	-27	-28	-29	-29	-30	-27	-33	-30	-28	-29	-28
12	-26	-26	-29	-26	-33	-33	-30	-37	-41	-44	-42	-42	-44	-46	-43	-44	-44	-47	-45	-43	-38	-36	-35	-41
13	-42	-38	-31	-29	-27	-27	-27	-25	-24	-24	-26	-30	-28	-29	-31	-37	-42	-40	-31	-25	-26	-27	-30	-31
14	-26	-25	-27	-26	-26	-24	-24	-21	-19	-20	-18	-18	-19	-19	-21	-24	-23	-23	-23	-17	-14	-12	-12	-15
15	-18	-18	-18	-21	-19	-20	-19	-18	-16	-15	-17	-14	-13	-16	-21	-30	-30	-28	-24	-19	-17	-19	-21	-21
16	-17	-19	-24	-28	-28	-25	-21	-17	-12	-11	-12	-16	-19	-18	-15	-16	-15	-19	-12	-7	-13	-15	-15	-15
17	-17	-19	-24	-24	-25	-28	-31	-31	-30	-27	-25	-21	-20	-22	-21	-22	-18	-13	-11	-15	-17	-16	-13	-11
18	-11	-15	-19	-22	-24	-25	-22	-17	-10	-9	-13	5	9	-7	-13	-9	-12	-18	-4	-8	-43	-92	-125	-127
19	-124	-119	-112	-114	-113	-121	-116	-108	-91	-83	-82	-75	-63	-55	-48	-46	-42	-31	-19	-7	3	12	18	7
20	-7	-10	-14	-29	-42	-37	-33	-34	-38	-53	-65	-65	-52	-39	-42	-53	-49	-44	-46	-52	-46	-39	-31	-29
21	-31	-38	-39	-39	-39	-39	-44	-48	-51	-45	-44	-46	-39	-39	-41	-39	-41	-39	-38	-39	-37	-34	-31	-26
22	-28	-34	-36	-37	-36	-39	-47	-43	-44	-38	-34	-34	-34	-35	-39	-41	-39	-39	-39	-37	-33	-30	-25	-33
23	-42	-52	-57	-55	-56	-55	-55	-52	-42	-36	-39	-39	-44	-45	-47	-48	-46	-44	-50	-51	-51	-46	-41	-45
24	-48	-42	-36	-36	-36	-37	-37	-34	-33	-30	-31	-31	-34	-31	-32	-32	-32	-25	-25	-30	-26	-20	-20	-27
25	-28	-31	-37	-41	-43	-42	-40	-36	-32	-31	-30	-29	-27	-25	-23	-21	-22	-23	-21	-19	-18	-16	-15	-15
26	-15	-16	-19	-18	-16	-13	-11	-10	-10	-10	-8	-5	-3	-2	0	1	1	3	4	1	-1	-4	-5	-1
27	0	-6	-10	-11	-8	-9	-12	-12	-12	-12	-11	-10	-9	-11	-13	-20	-22	-18	-14	-11	-9	-8	-8	-9
28	-8	-9	-12	-13	-11	-11	-10	-9	-7	-7	-5	-5	-6	-6	-7	-6	-4	-4	-5	-5	-5	-3	-3	-6
29	-7	-9	-8	-9	-10	-12	-12	-11	-9	-12	-16	-13	-14	-12	-10	-9	-10	-10	-8	-6	-4	1	6	6
30	2	-2	-4	-3	-3	-3	-2	0	3	1	1	8	-1	-23	-40	-47	-55	-58	-51	-44	-43	-40	-37	-35
31	-37	-42	-40	-41	-39	-39	-40	-36	-29	-28	-27	-26	-24	-20	-20	-25	-28	-29	-36	-35	-33	-31	-32	-25

NOVEMBER 1995

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-22	-27	-41	-47	-52	-54	-55	-51	-45	-44	-38	-38	-35	-30	-24	-23	-20	-21	-31	-37	-37	-30	-26	-24
2	-27	-28	-29	-31	-34	-39	-42	-40	-39	-42	-36	-31	-29	-31	-34	-33	-32	-32	-28	-29	-25	-22	-19	-17
3	-18	-20	-19	-17	-17	-20	-26	-30	-25	-26	-26	-26	-23	-21	-19	-20	-18	-18	-18	-19	-20	-19	-17	-16
4	-19	-21	-22	-23	-25	-27	-26	-25	-23	-20	-17	-15	-14	-14	-20	-25	-38	-29	-18	-14	-13	-11	-5	-4
5	-12	-22	-28	-24	-23	-22	-21	-17	-13	-9	-4	-2	-5	-9	-14	-20	-17	-18	-18	-19	-25	-30	-29	-24
6	-25	-36	-40	-38	-40	-43	-49	-42	-40	-33	-30	-28	-31	-26	-24	-30	-35	-31	-33	-28	-28	-27	-24	-24
7	-28	-28	-28	-26	-28	-30	-36	-37	-31	-29	-29	-30	-33	-34	-31	-23	-20	-19	-16	-18	-18	-17	-12	-11
8	-13	-19	-21	-23	-24	-26	-26	-25	-22	-22	-20	-20	-18	-18	-15	-12	-16	-16	-15	-13	-11	-12	-11	-7
9	-3	-2	-1	-5	-10	-12	-12	-12	-10	-8	-10	-12	-13	-13	-12	-11	-10	-9	-9	-9	-10	-9	-8	-8
10	-9	-8	-12	-12	-11	-8	-8	-10	-9	-6	-4	-1	-1	-2	-1	-3	-3	-4	-2	8	9	6	5	1
11	-1	-5	-8	-5	-4	-4	-3	-6	-8	-9	-7	-7	-4	-1	3	4	4	8	5	1	1	0	-2	-8
12	-7	-7	-6	-12	-14	-13	-14	-20	-19	-19	-19	-17	-14	-11	-5	-4	-6	-8	-12	-12	-10	-6	-3	-3
13	-8	-9	-10	-8	-5	-6	-9	-11	-11	-12	-12	-10	-5	-6	-3	2	1	-3	-5	-9	-7	-3	0	0
14	-4	-8	-7	-6	-5	-4	-4	-2	-1	-2	0	3	5	7	5	6	9	7	5	4	3	0	-2	-4
15	-3	-2	2	2	-4	-4	-4	-3	-1	-2	-3	0	1	1	1	0	1	1	1	0	-1	-1	-1	1
16	1	0	1	1	2	4	5	6	8	10	10	7	5	3	3	7	8	7	8	10	10	11	14	2
17	-3	-5	-4	-2	2	1	0	1	1	-2	-2	0	5	9	9	9	8	8	9	7	7	8	8	9
18	7	5	4	3	1	1	-3	-4	-3	-1	1	1	2	2	2	2	1	4	3	5	4	-1	-1	-5
19	-6	-6	-7	-10	-10	-9	-13	-17	-16	-13	-9	-5	-7	-12	-13	-12	-12	-10	-10	-11	-14	-15	-11	-12
20	-9	-10	-10	-11	-13	-15	-18	-17	-15	-15	-13	-13	-10	-6	-4	-3	-6	-8	-7	-7	-7	-8	-11	-10
21	-11	-10	-10	-10	-10	-7	-6	-8	-8	-6	-5	-3	-2	-2	-1	-1	-2	-4	-6	-5	-3	-1	3	5
22	5	7	7	8	11	10	8	7	3	4	6	0	4	9	10	5	0	0	0	0	-2	-2	-4	-4
23	-6	-6	-3	-2	-3	-6	-9	-10	-9	-8	-7	-5	-3	0	3	3	4	4	4	1	-4	-6	-8	-8
24	-8	-7	-5	-4	-1	-1	-1	-1	-1	-3	-4	-3	-5	-4	-3	-3	-3	0	5	6	3	2	0	-1
25	-3	-2	-1	5	6	6	4	2	2	1	0	1	2	3	4	3	0	0	0	-1	1	4	4	3
26	1	2	3	7	11	14	13	10	9	8	6	7	6	5	5	4	2	3	7	8	9	9	8	8
27	6	5	3	3	6	6	7	6	10	15	0	-25	-32	-19	-27	-28	-40	-48	-51	-51	-43	-42	-45	-42
28	-33	-31	-28	-30	-29	-30	-31	-33	-30	-28	-26	-25	-24	-23	-19	-19	-22	-19	-17	-16	-15	-13	-12	-17
29	-18	-19	-24	-20	-13	-14	-23	-29	-28	-29	-25	-22	-20	-18	-18	-18	-18	-8	-9	-8	-8	-9	-11	-8
30	-9	-12	-15	-11	-13	-18	-18	-16	-13	-15	-18	-14	-11	-10	-9	-10	-12	-10	-8	-10	-10	-11	-13	-14

DECEMBER 1995

DAY	UNIT=NT 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-16	-19	-19	-15	-12	-7	-7	-8	-4	-1	-2	-5	-9	-14	-17	-30	-41	-59	-60	-62	-58	-53	-43	-43
2	-43	-39	-35	-35	-32	-30	-32	-36	-34	-33	-28	-28	-31	-33	-29	-29	-29	-28	-26	-23	-20	-11	-14	-14
3	-11	-11	-15	-17	-17	-17	-18	-20	-19	-20	-25	-23	-16	-14	-15	-16	-21	-17	-12	-8	-12	-4	-1	-3
4	-9	-17	-29	-37	-38	-35	-32	-36	-38	-33	-28	-26	-25	-26	-22	-15	-14	-22	-22	-20	-18	-20	-23	-23
5	-20	-18	-18	-18	-19	-18	-16	-15	-16	-17	-19	-18	-17	-12	-10	-9	-11	-11	-14	-14	-18	-17	-17	-17
6	-17	-17	-15	-11	-5	-4	-3	-4	-5	-9	-11	-12	-9	-8	-5	-1	-5	-6	-4	-6	-4	-4	-6	-7
7	-5	-7	-9	-11	-10	-8	-6	-1	-2	-3	-5	-7	-11	-10	-7	-4	-10	-9	-9	-11	-9	-6	-4	-3
8	-2	-1	-1	0	-1	-1	0	-3	-3	-5	-7	-6	-5	-5	-2	1	-1	-3	-4	-3	-3	2	4	7
9	8	6	-2	-9	-11	-11	-8	-10	-15	-20	-29	-30	-24	-17	-12	-10	-13	-13	-12	-10	-10	-11	-9	-13
10	-13	-16	-18	-17	-16	-13	-11	-10	-9	-10	-10	-8	-7	-5	-1	1	-3	-4	-3	-3	-5	-6	-9	-10
11	-8	-8	-8	-6	-4	1	1	0	1	-1	-4	0	4	6	6	2	2	3	2	2	5	5	5	6
12	4	3	4	8	16	16	14	13	11	8	7	8	7	8	4	-5	-6	-11	-18	-15	-14	-12	-8	-8
13	-6	-11	-12	-10	-8	-8	-7	-8	-8	-5	-2	-2	-3	-4	-3	-4	-5	-7	-7	-6	-4	-7	-6	-6
14	-7	-6	-7	-4	1	5	5	4	4	6	5	4	2	8	12	11	9	10	10	6	8	8	5	5
15	6	6	3	3	5	15	18	16	15	9	1	-9	-14	-10	-6	-11	-7	-6	-16	-21	-24	-20	-19	-26
16	-25	-20	-26	-40	-39	-44	-44	-34	-30	-29	-34	-35	-32	-29	-27	-25	-25	-25	-19	-13	-12	-12	-9	-8
17	-4	-7	-12	-13	-13	-12	-13	-21	-22	-24	-19	-16	-14	-14	-16	-15	-17	-20	-24	-21	-16	-15	-16	-17
18	-19	-17	-16	-15	-14	-15	-16	-14	-10	-11	-16	-15	-15	-16	-18	-18	-19	-18	-15	-13	-12	-13	-14	-14
19	-12	-10	-10	-7	-6	-7	-12	-13	-10	-8	-6	-3	-4	-5	-6	-7	-6	-11	-10	-11	-10	-9	-8	-6
20	-3	-5	-9	-5	-2	-3	-3	-3	-3	-2	-2	1	-2	-3	-2	-2	0	-7	-4	-4	-6	-8	-5	-6
21	-4	-1	1	2	3	0	2	6	10	10	11	11	8	5	0	-7	-16	-23	-27	-30	-27	-31	-35	-36
22	-38	-35	-29	-26	-26	-28	-29	-33	-29	-30	-29	-28	-26	-26	-29	-34	-41	-43	-37	-34	-34	-30	-26	-24
23	-28	-37	-34	-25	-22	-22	-24	-29	-27	-30	-30	-26	-19	-18	-20	-19	-19	-19	-18	-15	-12	-11	-13	-11
24	-7	-5	-4	-3	-4	-3	28	16	-6	-18	-31	-29	-45	-55	-61	-65	-60	-56	-50	-52	-48	-46	-42	-42
25	-39	-38	-32	-31	-30	-25	-22	-22	-20	-22	-28	-28	-25	-15	-19	-22	-14	-16	-19	-19	-18	-16	-10	-19
26	-20	-19	-19	-21	-23	-22	-25	-22	-22	-25	-30	-27	-23	-23	-22	-18	-16	-15	-20	-19	-17	-16	-15	-16
27	-16	-18	-18	-14	-14	-14	-16	-14	-15	-15	-17	-16	-16	-16	-12	-8	-10	-8	-9	-12	-15	-15	-13	-11
28	-8	-2	-1	4	4	1	1	-1	-4	-5	-5	-3	-3	-5	-7	-5	-6	-8	-10	-10	-10	-10	-11	-13
29	-12	-10	-8	-6	-4	-4	-4	-1	-2	-3	-2	-1	-1	-4	-4	-4	-2	0	-2	-3	-3	-3	-4	-5
30	-3	-1	3	3	1	2	3	3	2	4	5	4	4	3	1	4	7	8	5	3	3	4	3	-1
31	-3	1	0	0	4	8	8	1	3	6	8	4	-1	-1	-4	-4	-1	1	-5	-10	-11	-10	-7	-5

DAILY MEANS OF EQUATORIAL DST FOR 1995

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	2	-27	-40	-15	-1	-37	-30	0	4	-13	-36	-25
2	-10	-27	-34	-40	-26	-21	-5	3	2	-21	-31	-29
3	-27	-36	-25	-13	-47	-19	-1	-9	13	-39	-21	-15
4	-23	-34	-32	-11	-43	-16	2	-6	10	-60	-20	-25
5	-23	-20	-43	-12	-46	-11	0	-1	-30	-44	-18	-16
6	-23	-9	-26	-3	-35	-11	7	3	-36	-46	-33	-7
7	-20	-22	-13	-82	-34	-9	7	6	-28	-44	-26	-7
8	-13	-47	-5	-76	-42	3	2	-9	-38	-47	-18	-2
9	-15	-20	-8	-53	-27	8	2	-12	-29	-47	-9	-12
10	-7	-11	-29	-48	-17	-5	6	-18	-17	-32	-4	-9
11	-26	-24	-30	-40	-14	-15	4	-12	-34	-27	-2	1
12	-11	-28	-49	-38	-14	-6	21	-10	-25	-38	-11	1
13	-11	-42	-41	-28	10	-3	11	-14	-23	-30	-6	-6
14	-9	-42	-34	-22	-1	-1	9	-21	-20	-21	0	4
15	-6	-31	-26	-14	-1	-1	9	-20	-35	-20	-1	-4
16	-21	-26	-25	-6	-36	-9	5	-17	-17	-17	6	-27
17	-48	-14	-10	-6	-51	-9	-18	-15	-12	-21	3	-16
18	-66	-11	-9	-3	-32	-24	-16	-8	-4	-26	1	-15
19	-29	-12	-5	-10	-34	-20	-13	-4	2	-64	-11	-8
20	-15	-12	-8	-11	-30	-22	-15	-2	-4	-40	-10	-4
21	-12	-7	-5	-9	-21	-15	-13	-2	-4	-39	-5	-7
22	-7	-5	2	-9	-7	-14	-4	-6	1	-36	4	-31
23	-10	-11	5	-33	-5	-10	-6	-32	-14	-47	-4	-22
24	-8	-3	6	-35	-42	-6	-21	-6	-15	-32	-2	-29
25	-4	-1	1	-31	-26	-3	-25	-19	-9	-28	2	-23
26	1	-23	-39	-9	-20	-24	-12	-12	-5	-7	7	-21
27	2	-34	-46	-25	-15	-16	-9	0	-41	-11	-18	-14
28	10	-46	-39	-23	-14	-14	0	2	-58	-7	-24	-5
29	-15	0	-30	-20	2	-5	-8	-10	-21	-8	-17	-4
30	-42	0	-18	-11	-20	-12	0	-9	-23	-20	-13	3
31	-34	0	-7	0	-31	0	5	2	0	-32	0	-1
MEAN	-17	-22	-21	-25	-23	-12	-3	-8	-17	-31	-11	-12

ANNUAL MEAN -17

MONTHLY and YEARLY **Dst** 1957 - 1995

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual mean
1957	-19.8	-24.1	-41.3	-27.8	-5.2	-10.0	-11.7	-3.5	-64.0	-14.4	-20.7	-18.5	-21.6
1958	-18.3	-28.1	-32.3	-19.6	-10.8	-22.8	-27.5	-13.8	-24.9	-17.7	-1.1	-18.9	-19.6
1959	-10.5	-31.5	-25.1	-22.6	-14.3	-6.5	-35.6	-32.0	-39.2	-25.3	-35.1	-30.1	-25.6
1960	-17.7	-11.8	-11.5	-58.3	-28.6	-18.2	-20.7	-21.9	-30.8	-53.9	-54.5	-42.3	-30.9
1961	-17.2	-21.5	-13.6	-11.8	-7.0	-6.5	-28.3	-7.2	-8.8	-28.3	-17.5	-10.9	-14.9
1962	-3.1	-5.4	0.5	-7.6	2.1	0.2	1.1	-7.4	-19.6	-17.9	-11.6	-12.3	-6.7
1963	-6.1	-2.2	1.8	2.0	1.1	0.0	1.9	-4.2	-29.5	-23.3	-15.4	-7.9	-6.8
1964	-8.8	-9.2	-9.8	-10.1	-4.0	-0.2	1.9	2.3	-0.3	-6.2	-0.2	5.9	-3.2
1965	5.7	-1.0	0.8	-3.4	5.7	0.3	1.5	2.5	-2.2	5.3	4.6	2.4	1.9
1966	4.2	0.1	-8.2	-1.6	-3.4	0.2	-3.2	-2.1	-25.2	-10.7	-8.1	-13.9	-6.0
1967	-18.6	-19.3	-2.7	-6.1	-32.6	-25.7	-9.7	-5.0	-20.6	-14.1	-11.8	-18.1	-15.3
1968	-20.4	-26.8	-20.8	-13.9	-12.6	-13.0	-5.4	-6.2	-11.8	-16.6	-32.5	-13.7	-16.1
1969	-7.2	-21.6	-29.1	-19.8	-16.3	-2.5	3.6	-0.3	-8.3	-10.8	-4.1	2.3	-9.4
1970	-3.0	0.0	-28.5	-25.8	-10.2	-12.1	-20.4	-21.4	-13.2	-20.1	-21.5	-17.3	-16.2
1971	-15.0	-17.9	-15.0	-26.6	-17.2	-8.7	-3.5	-9.4	-16.8	-15.6	-14.9	-24.2	-15.4
1972	-19.8	-17.9	-16.9	-15.1	-8.2	-16.4	-10.1	-36.4	-22.7	-22.2	-24.2	-9.9	-18.3
1973	-12.8	-20.4	-23.9	-46.3	-17.0	-10.1	-1.2	-2.9	-10.8	-13.7	-7.3	-0.2	-13.8
1974	-4.2	-5.6	-16.3	-13.7	-8.4	-5.7	-26.6	-13.3	-20.8	-23.0	-17.1	-12.0	-13.9
1975	-10.4	-13.4	-18.2	-10.4	-6.3	0.5	-7.0	-9.0	-4.2	-9.9	-21.4	-9.5	-9.9
1976	-12.3	-11.3	-24.1	-24.6	-13.2	-4.4	-5.7	-7.5	-12.2	-16.2	-14.9	-16.1	-13.5
1977	-13.6	-14.6	-10.9	-23.3	-13.7	-3.6	-13.7	-19.3	-23.5	-25.4	-19.4	-22.4	-17.0
1978	-19.4	-26.1	-28.1	-30.8	-34.5	-14.9	-9.2	-12.1	-27.1	-22.7	-27.4	-13.9	-22.1
1979	-28.8	-26.2	-30.4	-33.4	-12.7	-4.3	1.8	-10.8	-19.3	-18.9	-11.6	-2.5	-16.3
1980	-13.1	-18.5	-3.1	-9.4	-6.6	-11.7	-6.6	-4.3	-4.8	-22.2	-18.1	-19.9	-11.5
1981	-8.5	-21.6	-35.0	-43.5	-29.9	-2.9	-21.6	-26.6	-19.9	-42.5	-27.5	-12.5	-24.4
1982	-4.0	-50.0	-18.8	-25.0	-2.7	-12.4	-31.2	-23.5	-47.8	-23.9	-26.0	-20.0	-23.5
1983	-21.2	-38.0	-35.6	-23.2	-18.5	-10.0	-1.8	-9.9	-4.8	-15.7	-17.5	-10.5	-17.1
1984	-7.5	-18.5	-26.0	-24.8	-17.6	-10.7	-9.5	-12.2	-22.6	-22.2	-20.6	-16.4	-17.4
1985	-18.5	-19.6	-9.6	-22.8	-7.7	-6.2	-11.1	-12.0	-14.2	-21.2	-18.5	-28.1	-15.8
1986	-15.5	-44.9	-26.0	-11.4	-12.4	-2.7	-1.7	-10.9	-23.1	-13.5	-18.7	-8.9	-15.6
1987	-4.5	-8.0	-9.0	-4.0	-2.0	-3.6	-5.3	-15.7	-22.3	-27.9	-22.8	-15.8	-11.8
1988	-24.0	-23.1	-19.9	-23.4	-17.7	-7.8	-10.8	-16.7	-19.0	-23.6	-23.4	-29.6	-19.9
1989	-31.7	-24.1	-64.9	-39.7	-23.5	-25.7	0.4	-25.5	-34.0	-29.0	-37.0	-22.0	-29.7
1990	-20.3	-40.6	-41.7	-51.7	-23.8	-13.2	-4.2	-26.3	-11.5	-14.2	-5.7	-0.1	-21.0
1991	-4.9	-11.8	-35.1	-20.6	-16.5	-45.5	-33.3	-42.7	-29.5	-45.7	-61.1	-20.5	-30.8
1992	-20.6	-54.1	-15.4	-8.8	-27.2	-11.9	-4.0	-12.0	-30.8	-22.0	-23.4	-14.8	-20.4
1993	-16.8	-23.7	-33.5	-20.1	-10.8	-8.2	-3.2	-11.5	-19.3	-21.4	-21.6	-22.5	-17.8
1994	-13.8	-39.5	-33.6	-33.5	-27.4	-16.0	-8.9	-3.9	-13.7	-29.4	-25.2	-12.3	-21.5
1995	-16.8	-22.2	-21.3	-24.5	-23.2	-11.5	-3.5	-8.3	-17.0	-31.1	-10.4	-12.0	-16.8

Unit : nT

SECTION 3

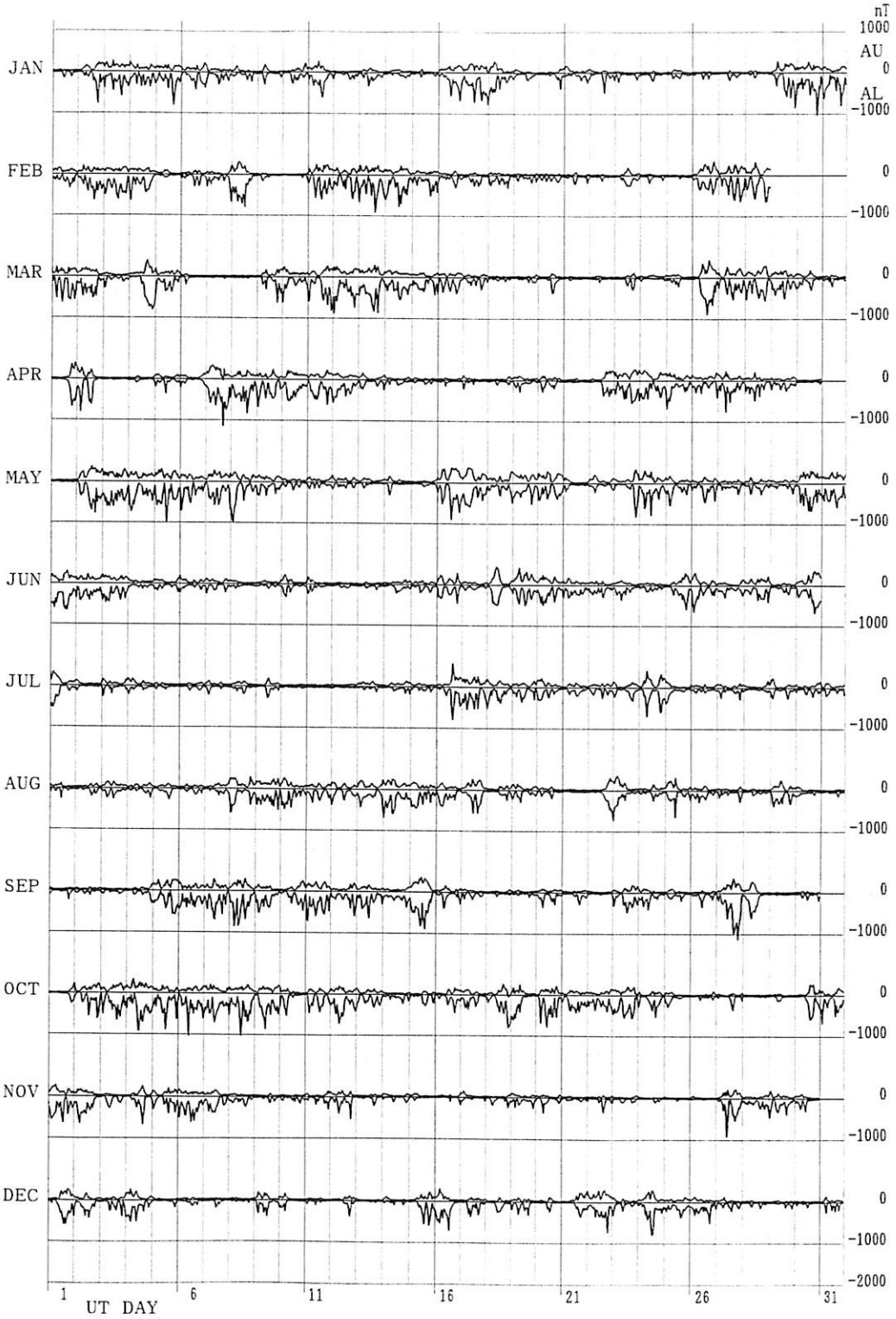
3.5 AU, AL, AE INDICES

Provisional Hourly Values of **AU** and **AL** for **1995** (graph) 107

Provisional Hourly values of **AU**, **AL** and **AE** indices
Jan - Dec 1995 108

Monthly and yearly mean values of **AE**
1957 - 1995 132

PROVISIONAL HOURLY VALUES OF **AU** AND **AL** 1995



Provisional Hourly Values (nT) of AU, AL and AE Indices JANUARY 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	25	26	20	24	19	23	33	22	18	10	15	32	19	27	20	15	13	8	10	16	31	27	24	26	21
	AL	-6	-11	-12	-11	-10	-9	-7	-12	-10	-93	-157	-119	-17	-8	-8	-17	-23	-116	-111	-22	-39	-25	-24	-15	-37
	AE	32	38	34	36	31	33	42	35	28	104	173	152	36	37	29	33	37	125	121	39	72	53	50	42	59
2		29	24	24	34	59	93	99	132	144	108	101	50	28	40	19	56	117	166	161	221	171	167	214	177	101
		-6	-15	-6	-20	-28	-97	-114	-21	-92	-132	-56	-24	-21	-50	-227	-152	-260	-538	-766	-342	-86	-280	-210	-136	-153
		37	41	32	56	88	191	214	154	237	241	158	75	50	90	247	208	377	704	927	563	258	448	425	314	256
3		115	188	218	150	92	103	85	141	272	111	134	168	156	129	88	106	158	143	149	88	143	130	150	128	139
		-383	-121	-115	-121	-99	-72	-60	-258	-454	-178	-187	-269	-254	-162	-95	-433	-586	-315	-122	-120	-284	-254	-365	-301	-234
		499	310	334	273	192	176	146	399	727	290	321	438	411	291	183	540	745	459	271	208	428	386	517	430	374
4		241	185	136	107	78	63	123	168	80	66	91	70	79	87	89	94	39	55	97	176	142	106	98	75	106
		-180	-153	-122	-69	-49	-88	-304	-122	-25	-141	-353	-112	-101	-334	-312	-179	-138	-172	-369	-257	-66	-42	-153	-285	-172
		422	339	260	178	128	152	428	291	106	208	444	183	180	423	402	274	178	228	467	433	208	149	252	362	279
5		125	108	135	81	121	111	91	102	156	96	78	169	85	56	25	36	74	139	130	131	132	155	109	141	108
		-225	-187	-63	-27	-145	-139	-245	-218	-70	-158	-168	-399	-214	-43	-75	-521	-806	-570	-332	-210	-148	-220	-258	-120	-232
		351	297	200	109	267	251	337	322	227	254	246	568	300	100	101	557	881	709	463	343	281	377	368	262	340
6		98	57	36	39	97	84	115	73	59	92	88	95	67	51	158	80	33	50	60	98	122	209	222	151	93
		-46	-7	-11	-15	-86	-56	-69	-97	-160	-216	-170	-172	-285	-428	-143	-12	-23	-195	-238	-253	-298	-275	-371	-169	-158
		144	65	48	55	184	142	186	171	219	308	258	267	352	480	301	93	57	246	300	351	421	485	594	320	252
7		74	29	27	51	88	63	72	93	64	73	56	85	39	37	25	63	58	40	51	36	36	70	43	27	54
		-133	-40	-20	-20	-47	-26	-36	-71	-53	-131	-76	-289	-263	-34	-106	-198	-70	-67	-18	-117	-205	-99	-51	-60	-93
		208	69	48	73	136	90	109	166	119	205	133	375	302	72	132	263	129	109	69	154	242	170	95	89	148
8		40	45	65	125	162	101	46	39	33	37	35	22	12	25	20	55	27	16	20	20	23	14	15	17	42
		-75	-101	-79	-63	-11	-2	-2	-17	-36	-59	-41	-41	-23	-90	-177	-91	-30	-91	-219	-75	-9	-15	-17	-33	-58
		116	147	145	190	174	104	50	57	69	96	77	63	37	115	198	146	58	109	241	97	34	31	34	51	102
9		19	20	21	25	31	78	183	175	101	64	50	30	20	12	12	14	9	8	5	14	12	28	16	28	41
		-19	-31	-15	-19	-28	-134	-290	-113	-60	-24	-15	-11	-10	-12	-20	-27	-32	-27	-33	-23	-20	-72	-124	-43	-50
		39	53	37	46	61	213	473	289	162	89	67	43	31	26	33	42	43	36	39	38	32	102	142	73	92
10		30	24	29	17	23	21	13	27	37	47	30	47	56	86	71	85	40	27	30	93	176	217	96	72	58
		-31	-8	-5	-6	-5	-15	-19	-46	-226	-280	-77	-121	-209	-130	-190	-70	-42	-61	-87	-136	-94	-61	-23	-41	-83
		63	33	36	25	29	37	34	74	264	328	107	169	266	217	261	155	83	88	118	230	270	279	120	114	142
11		119	88	91	57	98	104	147	143	104	154	266	171	82	144	149	62	67	39	55	33	27	26	13	27	95
		-175	-73	-96	-79	-221	-324	-163	-219	-228	-278	-320	-181	-362	-606	-554	-234	-221	-155	-161	-57	-33	-53	-44	-130	-207
		296	162	189	138	321	430	311	364	333	433	586	353	445	750	703	297	289	195	218	91	62	81	59	158	303
12		43	22	21	15	11	11	11	17	26	17	18	11	11	9	15	27	29	21	20	33	29	30	35	24	21
		-150	-21	-9	-9	-9	-11	-9	-14	-32	-59	-26	-14	-19	-21	-83	-155	-141	-73	-85	-160	-58	-40	-98	-12	-54
		194	45	31	25	22	23	21	32	58	76	46	26	32	31	98	183	171	95	106	193	88	72	135	37	77
13		23	35	40	51	89	60	35	43	72	104	124	62	70	51	55	57	33	17	10	14	18	12	20	22	47
		-8	-8	-20	-69	-124	-17	-16	-64	-324	-241	-118	-98	-200	-141	-147	-95	-56	-31	-57	-80	-125	-47	-25	-29	-89
		33	44	62	121	215	78	52	107	397	346	242	160	270	193	204	153	90	50	68	95	145	61	46	52	137
14		18	27	19	22	39	54	53	62	68	59	66	70	61	46	28	33	11	22	22	28	27	38	31	27	39
		-22	-40	-16	-8	-7	-9	-62	-14	-5	-4	-8	-37	-30	-73	-71	-55	-99	-116	-120	-67	-61	-97	-30	-24	-45
		41	68	36	31	48	64	115	77	74	64	75	107	91	120	100	89	111	139	143	95	88	136	62	53	84
15		23	24	15	14	17	17	26	36	90	23	16	15	11	10	11	10	8	7	8	6	6	6	14	20	18
		-28	-40	-20	-10	-10	-8	-17	-104	-77	-12	-31	-31	-20	-15	-17	-13	-12	-12	-6	-48	-86	-38	-21	-47	-30
		52	66	36	26	28	26	44	141	167	35	48	48	33	26	30	24	21	21	15	56	93	47	36	69	50

PROVISIONAL HOURLY VALUES OF AU, AL, AND AE INDICES
(continued)

JANUARY 1995

16	40	73	89	70	69	82	70	98	112	107	159	65	90	62	47	127	120	141	172	188	163	155	133	63	104
	-75	-75	-22	-26	-79	-107	-58	-94	-150	-126	-204	-560	-443	-162	-250	-215	-213	-304	-329	-435	-686	-437	-216	-144	-225
	117	150	112	98	149	190	130	193	263	233	365	626	533	225	297	343	334	446	502	624	850	593	351	208	330
17	50	98	64	93	105	169	221	219	223	187	62	159	193	149	85	101	180	183	157	124	122	167	34	29	132
	-73	-140	-239	-197	-286	-305	-274	-318	-230	-358	-721	-476	-182	-125	-113	-99	-523	-664	-449	-450	-550	-471	-571	-767	-358
	124	240	304	291	392	474	495	538	454	547	783	636	376	275	199	201	704	848	607	575	672	639	606	797	491
18	32	113	178	152	182	287	254	235	88	88	123	95	109	67	8	12	36	33	44	32	23	30	45	34	96
	-518	-427	-338	-487	-375	-447	-454	-172	-56	-67	-393	-170	-100	-109	-144	-86	-214	-213	-175	-101	-56	-67	-92	-159	-226
	551	542	518	641	558	735	710	408	145	156	517	265	210	176	151	98	251	247	220	134	81	98	139	194	323
19	68	88	86	69	60	57	36	23	25	13	16	28	38	35	33	21	22	1	12	12	5	10	14	14	33
	-95	-55	-33	-23	-21	-10	-11	-8	-12	-15	-10	-36	-152	-170	-123	-89	-124	-64	-55	-72	-15	-13	-11	-11	-51
	164	145	120	94	83	68	48	32	39	30	26	64	190	205	156	110	147	65	68	86	22	24	26	27	85
20	11	14	22	18	24	20	5	10	13	21	44	30	17	14	14	17	16	25	43	71	109	69	102	108	35
	-7	-5	-4	-15	-13	-12	-26	-6	-5	-10	-63	-31	-12	-15	-14	-36	-68	-151	-94	-175	-392	-100	-67	-81	-58
	19	20	27	35	39	33	32	16	19	32	107	62	31	30	29	54	85	177	138	246	502	169	170	190	94
21	129	169	160	140	79	55	60	36	32	20	34	37	33	18	20	22	48	38	27	23	67	45	83	95	61
	-88	-42	-59	-29	-34	-34	-63	-6	-3	-7	-52	-74	-57	-63	-97	-177	-122	-82	-82	-42	-179	-239	-130	-130	-79
	219	213	220	171	114	90	124	43	36	28	87	112	91	82	117	201	172	121	110	66	246	286	214	227	141
22	82	52	49	37	34	22	33	15	15	19	21	34	73	57	51	54	41	15	11	14	22	19	27	42	35
	-59	-22	-49	-17	-5	-3	-7	0	0	-1	-3	-84	-230	-490	-217	-30	-13	-30	-93	-124	-92	-49	-51	-165	-76
	142	75	99	56	40	27	42	16	15	21	25	119	304	548	269	85	56	46	105	139	114	69	80	208	113
23	35	39	51	37	30	38	28	37	20	18	15	16	17	17	17	12	11	4	11	17	26	20	23	20	23
	-58	-26	-91	-213	-122	-35	-12	-27	-2	-4	-13	-30	-27	-21	-40	-13	-22	-19	-16	-72	-160	-82	-47	-38	-50
	94	66	144	252	153	74	41	66	24	24	29	47	45	40	58	26	34	24	28	90	187	102	71	59	74
24	26	17	32	29	21	28	15	24	17	18	44	61	44	24	22	12	9	5	2	5	7	10	11	12	20
	-42	-21	-20	-27	-17	-16	-23	-42	-28	-83	-186	-182	-82	-25	-18	-19	-24	-21	-44	-10	-9	-1	-14	-12	-40
	70	39	53	57	39	45	39	67	45	101	230	244	126	51	42	33	34	28	46	17	17	11	27	26	62
25	23	22	15	14	27	53	83	85	66	52	70	44	70	56	31	17	15	14	19	11	6	6	7	10	34
	-28	-27	-14	-10	-11	-116	-113	-50	-35	-78	-86	-121	-117	-24	-15	-17	-19	-17	-18	-57	-36	-41	-24	-17	-45
	52	51	31	25	39	169	197	136	101	131	157	166	188	81	48	36	36	33	39	70	43	49	32	28	81
26	11	30	28	14	11	12	12	9	18	27	34	17	23	19	42	36	27	18	18	14	10	11	14	15	20
	-10	-51	-33	-1	-2	-2	-2	-7	-30	-141	-48	-13	-35	-29	-139	-76	-31	-15	-11	-5	-7	-7	-14	-8	-30
	22	83	63	15	14	15	15	18	48	168	83	31	59	49	182	113	59	34	31	21	18	20	29	25	51
27	15	17	17	16	18	19	22	17	12	38	70	44	20	22	27	14	24	30	21	21	16	15	14	16	23
	-8	-1	0	0	0	-2	-3	-5	-22	-161	-182	-71	-31	-35	-37	-77	-107	-42	-43	-7	-1	-1	-6	-5	-35
	25	20	16	16	20	22	26	23	35	200	253	116	52	58	65	93	132	74	66	30	18	18	22	23	59
28	17	18	23	33	64	46	22	29	57	59	27	23	26	21	18	17	15	13	19	17	18	19	16	17	26
	-3	-2	-6	-24	-41	-8	-1	-8	-106	-103	-27	0	-5	-3	-3	-3	-7	-5	0	2	-5	-11	-19	-14	-17
	22	21	30	59	106	56	25	37	163	162	54	25	32	26	23	21	23	19	19	16	24	31	36	32	44
29	25	48	63	64	100	280	117	81	86	41	97	98	233	158	208	149	168	243	214	205	165	74	90	149	132
	-20	-47	-36	-130	-320	-91	-53	-27	-13	-2	-72	-387	-436	-573	-361	-105	-232	-607	-468	-174	-258	-849	-626	-260	-256
	47	96	100	195	420	373	171	110	100	43	170	486	670	731	569	255	401	851	683	380	424	924	718	411	389
30	75	123	108	149	156	112	92	141	140	171	265	156	141	88	60	191	102	166	146	160	140	117	83	88	132
	-380	-228	-287	-124	-383	-236	-290	-167	-150	-171	-152	-535	-444	-207	-294	-442	-389	-453	-1022	-718	-314	-379	-83	-175	-334
	457	353	396	274	540	349	383	310	290	343	417	691	585	296	355	633	491	620	1168	878	455	497	167	264	467
31	135	123	164	125	82	100	83	75	55	42	39	48	38	60	87	44	91	78	131	146	159	143	143	95	95
	-567	-617	-398	-378	-343	-305	-277	-37	-151	-100	-73	-140	-102	-426	-95	-173	-294	-285	-790	-533	-455	-262	-108	-272	-299
	703	741	563	505	427	405	361	113	207	143	112	189	140	487	183	218	386	364	922	680	615	406	252	369	395

Provisional Hourly Values (nT) of AU, AL and AE Indices FEBRUARY 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	84	84	121	109	83	148	155	149	74	33	82	48	69	76	70	57	99	108	121	87	90	68	50	31	87
	AL	-109	-68	-137	-90	-28	-133	-136	-91	-29	-20	-152	-170	-199	-86	-129	-215	-336	-242	-242	-100	-196	-51	-18	-12	-125
	AE	194	152	259	201	113	281	292	240	104	54	235	219	268	164	199	273	436	351	365	188	287	120	69	43	213
2		42	80	60	68	77	230	128	91	89	186	107	59	65	37	116	163	98	80	154	90	93	95	117	112	102
		-38	-90	-72	-140	-172	-247	-35	-69	-235	-414	-124	-87	-342	-326	-298	-628	-414	-204	-413	-291	-182	-252	-377	-248	-237
		81	170	133	209	251	478	164	162	325	600	233	148	408	364	415	792	513	285	568	382	276	347	495	361	340
3		108	71	142	144	122	125	123	92	104	51	85	129	103	74	137	71	78	123	169	172	171	136	54	67	110
		-294	-489	-408	-186	-129	-140	-284	-349	-276	-119	-183	-259	-501	-609	-412	-269	-264	-443	-456	-418	-484	-278	-52	-118	-309
		403	561	550	331	252	265	409	442	381	171	269	389	605	684	549	341	343	566	626	590	656	415	107	186	421
4		127	105	142	105	104	129	100	69	142	119	106	74	65	75	90	124	123	158	50	57	67	77	73	52	97
		-491	-625	-201	-68	-150	-260	-85	-115	-179	-255	-239	-129	-80	-88	-394	-442	-378	-390	-273	-189	-154	-84	-47	-10	-222
		619	731	344	175	256	391	186	185	322	375	346	204	146	163	485	568	502	549	323	246	221	162	121	62	320
5		55	40	46	34	44	30	42	71	98	74	100	96	54	25	18	12	22	13	22	9	10	13	14	14	40
		-13	-4	-9	-18	-33	-21	-13	-49	-70	-53	-70	-57	-22	-15	-12	-19	-16	-19	-22	-4	-11	-9	-6	-19	-24
		69	45	57	53	79	52	56	122	170	128	170	154	77	41	31	32	40	33	45	14	21	23	20	34	65
6		26	31	25	29	45	43	56	47	26	23	30	60	72	102	45	29	97	75	22	16	14	14	31	39	42
		-94	-16	-76	-94	-11	-46	-31	0	-2	-2	-29	-95	-288	-174	-38	-69	-270	-226	-28	-16	-21	-29	-42	-84	-74
		121	48	102	125	58	90	89	48	28	26	60	156	362	276	84	99	368	302	51	33	36	44	73	123	117
7		64	48	29	47	69	63	37	35	30	19	22	51	29	21	11	8	11	4	8	10	32	60	96	212	42
		-285	-156	-72	-168	-245	-112	-123	-49	-69	-87	-69	-142	-83	-20	-14	-29	-152	-122	-39	-15	-42	-111	-424	-647	-136
		350	205	102	216	315	176	161	85	101	107	91	195	113	42	26	38	164	127	47	26	74	172	522	861	180
8		221	160	68	140	144	254	312	305	285	164	162	174	227	96	59	90	43	20	24	23	24	23	29	28	128
		-365	-295	-470	-296	-469	-656	-489	-532	-568	-703	-478	-517	-791	-229	-227	-251	-97	-150	-121	-36	-35	-14	-16	-21	-326
		587	456	539	438	614	911	803	838	855	868	641	691	1019	325	287	343	141	170	146	60	60	38	46	49	455
9		17	12	9	23	25	27	19	28	14	7	7	7	4	9	11	9	7	7	7	4	7	8	8	9	12
		-22	-11	-9	-21	-115	-156	-64	-58	-46	-22	-50	-55	-19	-11	-11	-8	-8	-4	-11	-9	-19	-7	-4	-1	-31
		40	24	19	45	142	184	85	87	60	29	59	63	24	21	24	19	17	13	19	14	27	17	14	11	44
10		10	11	17	8	7	6	8	7	9	8	10	8	8	7	10	14	11	11	16	14	14	17	18	52	13
		-2	0	0	-5	-5	-5	-5	-7	-4	-4	-4	-6	-6	-8	-7	-4	-7	-9	-63	-17	-1	-11	-31	-127	-14
		13	11	16	14	12	12	14	15	14	12	15	14	15	16	18	20	19	21	80	33	16	29	50	180	27
11		79	153	72	40	28	81	129	154	262	149	90	185	135	88	66	238	158	231	236	243	128	147	134	124	140
		-186	-137	-24	3	4	-22	-316	-552	-351	-134	-67	-49	-476	-591	-315	-311	-140	-418	-464	-282	-69	-274	-318	-363	-244
		266	291	96	37	24	103	446	708	615	284	158	235	613	680	382	549	299	649	700	526	197	422	453	488	384
12		112	106	106	188	122	45	24	42	66	84	132	95	96	50	35	47	34	141	140	181	141	80	38	156	94
		-262	-158	-193	-259	-61	-8	-14	-34	-144	-271	-109	-339	-110	-2	-26	-45	-72	-520	-578	-403	-393	-94	-36	-337	-186
		375	266	300	449	184	54	38	78	211	356	243	435	207	52	62	93	107	662	718	584	535	174	74	494	281
13		92	247	146	105	113	131	237	194	60	73	133	102	183	91	197	146	178	244	111	109	98	78	84	146	137
		-650	-312	-267	-260	-117	-111	-460	-203	-14	-64	-239	-500	-174	-274	-907	-754	-481	-375	-183	-82	-140	-290	-423	-538	-326
		743	560	414	366	231	243	698	398	74	138	373	603	358	366	1105	901	660	620	295	192	238	369	508	685	464
14		103	156	99	121	134	97	63	31	67	93	78	98	109	136	238	120	161	167	140	174	111	69	36	46	110
		-590	-507	-405	-106	-210	-143	-49	-31	-63	-288	-183	-190	-762	-486	-685	-347	-263	-429	-339	-480	-198	-65	-48	-113	-291
		694	664	505	229	345	242	114	63	132	382	262	290	871	623	924	468	424	597	480	655	310	134	85	160	402
15		53	42	49	74	118	117	78	65	62	62	92	69	37	47	79	35	105	57	65	108	108	81	113	96	75
		-177	-45	-36	-169	-233	-73	-27	-56	-138	-92	-147	-99	-63	-137	-63	-203	-504	-416	-227	-387	-192	-132	-410	-185	-175
		231	88	87	245	353	191	105	122	201	155	240	169	100	185	142	239	610	475	293	496	300	213	523	282	252

PROVISIONAL HOURLY VALUES OF **AU**, **AL**, AND **AE** INDICES
(continued)

FEBRUARY 1995

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Provisional Hourly Values (nT) of AU, AL and AE Indices MARCH 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	77	59	64	93	230	60	112	104	176	109	144	79	34	66	37	189	80	157	137	149	163	162	150	86	113
	AL	-137	-31	-45	-306	-532	-136	-44	-125	-375	-635	-407	-142	-63	-99	-64	-542	-558	-583	-415	-201	-334	-578	-429	-150	-289
	AE	215	91	109	399	764	197	157	231	552	746	552	222	98	166	102	731	639	741	553	352	498	741	580	236	403
2		62	85	114	95	184	149	157	150	199	126	172	159	99	116	134	121	91	154	94	48	23	38	38	28	110
		-153	-190	-175	-77	-379	-476	-212	-201	-434	-295	-299	-273	-414	-229	-525	-503	-269	-491	-171	-29	-50	-136	-106	-106	-258
		216	276	290	173	564	627	370	353	634	422	472	433	513	345	659	625	361	645	266	78	73	175	145	134	369
3		42	49	72	63	42	34	52	33	35	42	12	22	5	15	18	14	12	18	24	26	23	33	36	44	32
		-72	-281	-227	-26	-21	-19	-91	-97	-72	-56	-19	-30	-45	-70	-72	-48	-27	-40	-126	-143	-77	-56	-85	-93	-79
		115	331	299	89	64	54	144	131	108	98	31	53	52	86	90	63	39	59	151	170	102	90	121	137	112
4		33	62	52	35	64	53	69	79	61	60	88	74	52	47	144	305	383	306	200	215	216	68	77	131	120
		-28	-54	-21	-13	-27	-17	-31	-21	-9	-15	-36	-197	-141	-197	-504	-514	-624	-650	-753	-705	-693	-803	-779	-649	-312
		61	116	74	48	92	70	101	101	71	76	125	272	195	246	649	820	1008	957	954	920	910	871	858	782	432
5		188	70	26	28	54	71	66	56	66	107	68	96	106	50	96	124	63	36	40	76	143	94	92	41	77
		-353	-126	-80	-58	-120	-135	-168	-125	-81	-364	-337	-327	-240	-133	-321	-383	-255	-117	-19	-105	-107	-150	-11	-13	-172
		543	196	107	87	174	207	235	182	148	472	406	424	346	184	418	508	319	154	61	181	251	245	104	56	250
6		31	25	19	39	42	44	31	5	6	2	5	2	7	5	3	7	6	5	6	9	7	7	9	8	14
		-16	-12	-14	-39	-200	-116	-86	-41	-24	-34	-29	-18	-24	-21	-19	-16	-22	-12	-12	-13	-14	-23	-15	-11	-35
		48	38	34	78	243	161	117	46	31	37	34	21	33	28	23	24	29	18	19	24	22	31	24	20	49
7		8	10	8	7	6	10	7	9	8	15	7	6	8	6	7	15	14	8	12	11	12	12	11	10	9
		-12	-13	-15	-19	-14	-19	-37	-20	-14	-11	-10	-13	-15	-18	-18	-20	-21	-65	-44	-16	-15	-16	-15	-16	-20
		21	24	23	27	21	30	45	30	22	27	18	20	24	25	26	36	36	74	57	28	28	28	27	27	30
8		14	19	23	15	12	17	13	9	14	14	22	20	11	9	15	24	17	18	19	14	12	12	13	20	16
		-12	-14	-31	-24	-18	-20	-23	-13	-18	-18	-29	-24	-19	-14	-11	-37	-28	-6	-6	-6	-4	-8	-11	-9	-17
		27	34	55	40	30	38	37	23	32	32	52	46	32	24	27	62	46	25	26	22	17	21	25	31	33
9		18	14	14	14	32	75	80	99	168	87	30	28	21	54	52	37	48	42	100	179	75	161	173	177	74
		-6	-7	-10	-11	-11	-193	-134	-95	-300	-60	-11	-7	-17	-35	-93	-114	-99	-82	-261	-623	-168	-260	-404	-290	-137
		25	22	25	26	43	269	214	195	469	148	42	36	40	90	146	153	149	124	362	803	244	421	578	468	212
10		152	225	237	118	177	122	73	81	60	95	58	109	69	80	76	53	53	98	61	88	77	56	77	92	99
		-627	-364	-186	-280	-183	-73	-31	-54	-32	-39	-59	-166	-221	-183	-133	-79	-39	-131	-116	-116	-72	-19	-161	-215	-149
		780	590	424	398	361	195	106	137	93	136	118	277	291	264	210	133	94	230	177	204	149	76	239	307	249
11		52	44	84	94	124	130	127	98	55	24	27	24	27	77	93	142	166	157	242	259	124	176	197	162	113
		-603	-583	-193	-61	-110	-104	-172	-147	-21	-15	-27	-23	-37	-146	-503	-567	-412	-276	-444	-675	-257	-324	-811	-707	-301
		655	628	278	157	235	234	300	246	77	40	55	48	65	224	597	710	579	434	687	935	381	500	1009	870	414
12		148	235	156	250	169	202	156	107	83	110	147	107	71	69	64	63	121	109	76	170	192	221	182	173	141
		-479	-885	-470	-602	-393	-251	-80	-160	-147	-134	-274	-207	-50	-232	-359	-358	-238	-469	-383	-432	-731	-445	-407	-434	-359
		628	1122	627	854	564	454	237	269	231	245	422	316	123	302	423	422	360	579	460	603	924	667	589	608	501
13		190	108	119	166	99	102	130	113	184	214	144	101	170	204	289	113	190	250	146	70	54	34	56	121	140
		-446	-266	-226	-272	-181	-196	-403	-380	-388	-430	-415	-507	-700	-829	-614	-281	-419	-870	-353	-171	-55	-28	-83	-149	-361
		637	374	346	439	281	300	535	494	573	645	559	609	871	1034	903	395	610	1121	500	241	109	63	140	272	502
14		111	106	145	153	162	124	61	79	126	101	156	95	111	85	79	76	83	88	72	108	87	80	58	68	101
		-240	-175	-339	-161	-191	-120	-64	-90	-330	-283	-322	-111	-454	-538	-526	-304	-233	-237	-279	-294	-413	-261	-176	-172	-263
		353	283	484	315	354	244	126	170	457	385	480	207	565	623	606	381	317	325	352	403	501	342	235	240	365
15		73	65	67	62	56	52	79	100	69	90	119	72	33	30	34	33	17	14	15	45	72	66	93	118	61
		-194	-75	-172	-124	-147	-233	-299	-271	-315	-263	-340	-312	-81	-62	-150	-56	-16	-48	-86	-97	-414	-213	-151	-403	-188
		267	140	240	187	203	285	379	373	385	354	459	385	115	93	185	90	34	63	102	143	487	279	245	522	251

PROVISIONAL HOURLY VALUES OF AU, AL, AND AE INDICES

(continued)

MARCH 1995

16	67	55	78	69	98	83	84	37	26	31	67	106	63	51	65	52	47	88	90	117	94	107	104	59	72
	-133	-12	-43	-197	-356	-230	-167	-35	-15	-82	-268	-330	-249	-100	-36	-152	-204	-391	-359	-272	-157	-63	-64	-37	-165
	201	68	121	267	454	314	252	73	42	114	337	437	313	151	102	205	252	480	449	390	252	172	170	97	238
17	36	28	35	41	47	87	39	35	23	34	24	57	35	19	15	10	34	60	61	66	81	36	60	43	42
	-21	-14	-17	-30	-80	-120	-85	-193	-116	-61	-31	-56	-182	-60	-17	-22	-71	-299	-248	-133	-19	-7	-63	-114	-86
	59	42	53	72	127	208	125	229	140	97	56	113	218	80	33	34	107	359	310	200	101	44	124	158	129
18	22	25	19	21	27	26	21	38	31	18	21	12	10	8	31	15	4	9	12	18	18	19	15	16	19
	-29	-11	-10	-11	-42	-37	-16	-29	-50	-75	-57	-22	-26	-23	-20	-23	-105	-44	-12	-7	-60	-12	-7	-7	-31
	52	37	30	32	70	64	38	68	82	94	79	35	37	31	52	39	110	54	25	26	79	32	23	24	51
19	19	14	14	18	27	20	17	21	25	13	13	13	12	30	33	26	12	8	18	24	38	65	69	41	25
	-6	-5	-4	-8	-27	-41	-28	-27	-49	-15	-18	-17	-17	-42	-112	-44	-32	-28	-98	-96	-113	-98	-59	-21	-42
	26	20	19	26	55	61	46	48	74	29	31	30	31	73	147	72	46	37	117	121	153	164	129	63	67
20	30	21	22	14	14	14	15	21	26	17	27	29	93	89	79	66	35	20	35	37	22	18	10	16	32
	-17	-18	-17	-9	-7	-7	-11	-11	-18	-49	-39	-22	-235	-380	-357	-146	-130	-76	-66	-49	-9	-27	-18	-15	-72
	48	40	39	24	21	22	26	32	44	68	68	52	329	471	438	213	166	97	101	87	32	45	28	33	105
21	14	22	17	10	26	29	31	21	14	17	13	12	12	14	12	15	14	12	14	13	14	10	9	9	16
	-14	-10	-10	-10	-15	-55	-54	-39	-14	-17	-20	-19	-19	-18	-24	-26	-21	-12	-12	-8	-10	-9	-14	-17	-19
	28	34	28	21	41	84	85	61	29	34	34	32	32	33	37	43	37	26	26	22	24	20	24	28	36
22	10	10	17	24	28	29	34	41	31	41	31	25	17	15	14	11	10	11	11	10	19	18	14	13	20
	-16	-15	-19	-25	-19	-45	-31	-12	-15	-111	-59	-14	-31	-23	-14	-17	-23	-18	-10	-9	-11	-23	-17	-16	-25
	27	26	37	49	47	75	65	54	47	154	91	41	50	39	29	29	34	30	22	21	30	41	32	30	46
23	16	15	14	14	15	13	13	17	17	15	35	49	52	42	33	27	83	93	120	44	24	24	27	24	34
	-13	-11	-11	-13	-16	-14	-12	-12	-12	-20	-45	-140	-185	-88	-20	-40	-277	-286	-237	-25	-8	-15	-12	-23	-64
	31	27	26	27	31	28	25	30	30	37	81	191	238	132	55	68	360	380	358	70	32	40	40	49	99
24	50	41	33	23	19	22	37	43	52	53	62	63	61	49	40	32	29	31	34	32	30	23	49	52	40
	-51	-73	-25	-7	-8	-5	-6	-7	-7	-8	-11	-13	-17	-17	-13	-16	-17	-11	-6	-14	-20	-11	-59	-39	-19
	101	115	59	30	27	27	44	52	60	63	74	78	79	67	55	50	47	43	41	47	51	35	109	93	60
25	50	51	42	46	59	64	65	68	53	62	86	77	53	33	19	11	11	13	18	16	19	18	23	26	41
	-31	-69	-23	-24	-82	-119	-33	-67	-151	-75	-142	-206	-79	-16	-17	-19	-16	-15	-17	-18	-23	-21	-26	-19	-55
	82	121	66	70	142	184	100	136	205	139	229	285	133	49	37	32	28	29	36	35	43	39	50	46	96
26	27	29	30	23	21	25	59	104	172	332	242	101	189	123	247	416	349	265	215	203	195	186	106	102	157
	-27	-30	-11	-6	-5	-7	-21	-268	-410	-421	-504	-481	-590	-899	-651	-527	-589	-490	-665	-363	-180	-349	-104	-86	-320
	55	59	43	29	25	32	80	374	583	754	747	583	780	1023	900	944	939	756	881	568	375	537	211	188	478
27	126	81	27	14	10	22	68	166	259	186	95	105	74	119	92	51	124	177	186	240	161	78	52	57	107
	-249	-84	-15	-20	-26	-19	-81	-311	-388	-196	-33	-137	-376	-524	-269	-136	-297	-205	-134	-289	-360	-226	-53	-175	-192
	376	166	43	35	37	41	150	479	648	383	130	244	451	643	362	188	422	384	321	530	522	305	106	233	300
28	73	80	130	154	122	101	115	84	56	42	97	163	169	103	111	138	206	276	265	285	142	35	27	47	126
	-211	-524	-315	-113	-69	-161	-376	-98	-39	-24	-229	-370	-494	-436	-266	-318	-281	-485	-563	-429	-135	-26	-14	-64	-252
	285	605	446	268	192	262	493	183	96	68	327	533	664	540	378	456	488	762	829	715	278	63	42	112	378
29	54	107	96	153	129	95	100	107	170	94	77	161	150	177	63	29	40	78	91	55	37	40	81	96	95
	-125	-271	-258	-424	-333	-245	-272	-169	-291	-138	-77	-461	-499	-248	-75	-34	-127	-271	-242	-109	-66	-112	-202	-268	-222
	180	380	356	577	462	341	373	277	462	234	155	622	650	427	139	64	169	350	333	164	105	152	284	365	318
30	94	95	90	65	35	51	22	26	44	32	84	76	181	110	102	52	42	39	25	24	22	32	29	23	58
	-236	-218	-84	-154	-167	-23	-12	-32	-82	-44	-114	-105	-231	-298	-211	-43	-62	-32	-9	-23	-47	-29	-12	-14	-95
	331	314	175	220	203	75	35	58	126	77	199	182	412	408	313	96	106	72	35	48	69	62	42	37	154
31	29	33	37	35	44	32	14	25	34	81	58	47	49	55	33	26	15	13	14	19	23	23	44	24	34
	-33	-68	-60	-15	-24	-26	-36	-93	-8	-147	-214	-75	-31	-29	-22	-56	-31	-21	-11	-13	-13	-14	-62	-54	-48
	63	101	98	50	69	58	51	118	43	230	274	124	82	86	56	83	48	35	26	33	36	38	108	79	83

Provisional Hourly Values (nT) of AU, AL and AE Indices APRIL 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	13	11	9	6	6	11	7	4	4	5	10	6	7	22	28	35	31	59	202	356	229	231	390	356	85
	AL	-10	-12	-18	-19	-20	-12	-12	-19	-18	-29	-30	-24	-24	-40	-61	-47	-133	-222	-428	-667	-546	-496	-566	-386	-160
	AE	23	24	28	26	27	25	20	25	24	35	40	30	31	63	91	83	165	282	632	1024	776	728	957	743	246
2		257	192	138	168	264	216	84	47	26	37	151	109	121	220	187	48	49	27	27	15	15	13	19	15	102
		-205	-194	-307	-809	-562	-167	-35	-38	-33	-30	-278	-575	-514	-623	-522	-90	-51	-42	-35	-14	-7	-5	-9	-18	-215
		464	387	445	978	826	384	120	86	60	67	429	685	635	844	710	139	101	71	63	30	23	19	29	34	318
3		11	11	8	7	6	5	4	6	6	6	7	8	8	7	9	6	5	10	13	11	12	9	9	9	8
		-12	-13	-16	-19	-16	-11	-4	-6	-14	-20	-20	-18	-16	-15	-14	-17	-15	-12	-5	-2	-6	-13	-17	-20	-13
		24	25	25	26	23	16	9	13	21	27	29	27	25	23	24	24	22	23	18	14	18	23	27	30	22
4		20	8	9	9	13	9	27	50	42	50	16	7	8	8	8	9	12	10	9	9	9	8	15	55	17
		-23	-23	-22	-20	-13	-9	-63	-103	-57	-46	-26	-20	-20	-16	-14	-17	-14	-18	-7	-2	-14	-15	-20	-53	-26
		44	32	31	30	27	19	90	153	100	97	43	28	28	25	24	27	27	29	17	11	24	24	37	109	45
5		89	97	90	119	82	65	17	13	20	44	48	34	53	28	25	27	23	17	21	65	83	97	42	66	53
		-182	-148	-51	-62	-96	-91	-28	-21	-28	-179	-354	-73	-66	-89	-54	-11	-11	-11	-8	-44	-88	-78	-50	-99	-80
		273	246	142	183	178	156	47	35	49	223	402	108	120	118	81	39	35	30	30	110	172	176	93	167	134
6		89	77	69	73	81	42	32	16	18	18	8	11	16	21	16	15	18	26	44	56	81	87	136	109	48
		-198	-73	-80	-114	-112	-34	-15	-1	-3	-10	-18	-26	-8	-5	-6	-10	-8	-9	-18	-41	-55	-47	-128	-175	-50
		288	151	151	189	195	78	48	17	22	28	28	39	25	27	23	26	26	35	62	99	138	135	265	285	99
7		129	184	138	202	294	299	343	288	275	205	283	261	201	259	90	40	-38	237	80	76	118	89	68	55	174
		-164	-198	-244	-427	-586	-473	-371	-312	-437	-651	-461	-219	-300	-473	-560	-442	-1144	-569	-569	-759	-687	-475	-214	-459	-466
		295	383	384	630	880	773	714	601	713	856	745	481	501	732	650	483	1105	806	649	835	806	565	283	515	641
8		44	47	69	90	80	113	186	105	189	88	57	61	93	66	76	216	167	153	107	89	115	92	66	93	103
		-269	-141	-199	-426	-460	-388	-367	-366	-340	-544	-438	-181	-545	-360	-279	-832	-536	-291	-201	-136	-289	-177	-52	-201	-334
		314	189	269	516	541	502	554	472	530	632	496	243	638	427	356	1049	705	445	309	226	406	270	119	295	438
9		97	73	149	139	59	64	71	81	129	47	29	49	72	87	133	239	141	106	75	56	41	46	57	72	88
		-456	-672	-478	-278	-161	-38	-99	-289	-465	-300	-103	-111	-359	-336	-448	-474	-438	-419	-121	-67	-17	-43	-247	-222	-277
		554	746	628	418	220	102	171	371	595	348	133	161	431	424	582	715	581	526	196	124	58	90	305	295	366
10		50	51	45	48	131	218	146	191	198	165	123	156	92	165	91	116	98	126	122	94	119	102	109	85	118
		-201	-182	-79	-89	-323	-514	-500	-529	-414	-475	-302	-278	-435	-371	-229	-291	-162	-218	-206	-110	-145	-131	-169	-152	-271
		251	234	125	138	455	733	648	721	614	640	426	435	527	537	321	408	261	346	330	205	264	234	279	238	390
11		46	46	109	124	114	113	83	86	117	150	111	130	47	57	44	38	79	97	182	232	131	166	139	134	107
		-40	-33	-117	-299	-251	-324	-415	-476	-377	-483	-449	-285	-148	-42	-63	-200	-233	-170	-259	-606	-214	-181	-191	-285	-256
		86	81	227	423	365	438	499	564	495	634	560	415	196	100	108	238	313	268	442	839	346	347	331	420	364
12		105	123	119	118	154	147	100	91	68	52	33	63	72	72	44	91	112	108	95	78	79	99	80	61	90
		-559	-514	-398	-434	-253	-225	-241	-241	-149	-158	-82	-129	-399	-287	-222	-239	-358	-327	-195	-90	-102	-158	-124	-78	-248
		665	638	517	553	408	372	342	333	218	211	116	192	472	360	267	331	472	436	291	169	182	258	205	140	339
13		43	56	79	98	169	119	71	56	18	7	16	13	11	7	3	13	27	31	31	50	43	66	86	111	51
		-29	-36	-212	-167	-228	-160	-84	-4	-11	-46	-18	-33	-26	-20	-43	-39	-109	-161	-111	-56	-38	-36	-66	-242	-82
		73	93	292	266	398	280	156	61	30	54	34	47	38	28	47	53	138	194	144	107	81	104	153	354	134
14		97	65	40	36	47	48	25	18	20	10	17	20	25	17	8	5	9	21	34	41	49	70	32	26	32
		-164	-56	-25	-34	-113	-34	-7	-6	-15	-19	-18	-88	-132	-99	-85	-94	-61	-24	-26	-48	-38	-37	-24	-29	-53
		261	122	66	72	161	84	34	25	35	30	36	109	159	117	95	100	72	46	60	90	87	107	57	55	87
15		11	28	46	45	51	38	18	11	15	10	12	19	34	28	25	14	16	29	40	30	23	17	17	18	25
		-24	-26	-59	-44	-40	-8	-10	-13	-19	-26	-28	-38	-112	-74	-45	-22	-29	-87	-70	-19	-16	-18	-20	-20	-36
		36	56	106	90	92	47	30	24	35	37	40	58	147	103	72	37	46	117	111	50	40	36	38	40	62

PROVISIONAL HOURLY VALUES OF **AU**, **AL**, AND **AE** INDICES
(continued)

APRIL 1995

16	23	22	38	29	20	20	40	56	41	30	27	20	21	20	17	15	10	11	19	30	53	40	29	64	29
	-18	-20	-47	-25	-13	-2	-14	-148	-57	-53	-37	-31	-26	-17	-13	-15	-16	-12	-9	-11	-23	-15	-13	-17	-27
	43	43	87	55	34	24	54	205	99	84	66	52	48	38	31	31	28	24	29	42	78	56	43	82	57
17	98	123	55	42	34	31	54	31	24	26	33	30	24	29	18	15	13	20	21	22	21	22	24	20	34
	-121	-214	-35	-9	-7	-61	-28	-14	-19	-27	-104	-15	-12	-6	-8	-16	-18	-17	-17	-3	-2	-7	-11	-18	-33
	220	337	92	51	41	92	82	45	44	55	138	46	37	35	27	32	33	38	38	25	23	30	35	39	68
18	23	26	28	22	20	17	20	33	40	36	20	29	36	35	29	21	19	21	42	90	110	67	39	57	37
	-20	-20	-18	-15	-5	-1	0	-17	-82	-112	-32	-14	-16	-19	-16	-16	-20	-32	-56	-91	-81	-29	-11	-16	-31
	44	47	47	39	26	19	19	51	123	149	54	45	53	55	46	39	40	54	99	183	192	97	51	74	69
19	54	79	77	78	63	110	110	90	66	47	31	24	32	43	41	20	22	31	35	43	38	46	65	35	53
	-48	-94	-164	-155	-42	-97	-277	-94	-79	-76	-68	-38	-56	-62	-63	-61	-60	-27	-27	-5	-3	-15	-37	-20	-70
	103	173	241	234	106	207	388	185	146	124	100	62	89	105	83	83	83	59	62	49	42	62	103	56	124
20	21	23	47	73	118	75	117	52	19	30	43	45	40	37	35	66	78	35	36	55	54	26	10	16	48
	-23	-23	-18	-175	-281	-158	-161	-44	-14	-17	-46	-102	-128	-143	-95	-194	-119	-43	-1	-10	-12	-21	-16	-23	-78
	45	47	67	249	399	234	278	96	35	48	89	148	169	181	130	261	198	80	36	66	67	47	26	39	126
21	9	7	16	19	19	25	24	24	33	30	32	39	72	11	11	11	10	12	18	23	19	14	11	13	21
	-25	-28	-21	-15	-9	-11	-11	-18	-37	-27	-28	-29	-27	-21	-10	-8	-6	-9	-10	-15	-12	-18	-24	-25	-19
	36	36	39	35	29	37	35	42	70	58	61	69	99	33	22	20	17	21	29	39	32	33	36	40	40
22	25	27	43	43	24	20	19	27	26	25	25	36	55	69	77	146	236	169	223	242	186	244	236	224	102
	-22	-22	-24	-16	-1	3	0	-4	-9	-10	-10	-24	-125	-362	-294	-279	-273	-150	-288	-382	-196	-310	-212	-192	-133
	48	50	69	60	27	17	19	31	36	37	36	60	181	432	372	426	510	320	512	624	383	555	450	418	236
23	130	218	125	65	144	172	132	112	186	178	179	173	138	82	39	156	182	213	237	278	252	149	204	270	167
	-221	-323	-94	-11	-82	-221	-130	-95	-298	-446	-221	-433	-161	-104	-46	-261	-553	-512	-494	-475	-384	-220	-179	-487	-269
	352	541	219	77	226	394	263	208	485	626	401	607	299	187	86	417	737	726	733	754	637	370	383	758	437
24	212	179	167	252	240	220	206	152	141	108	111	39	28	48	36	65	46	144	200	190	149	169	171	176	144
	-340	-292	-428	-431	-314	-158	-292	-444	-107	-49	-185	-43	-13	-81	-190	-243	-111	-259	-391	-383	-177	-150	-126	-252	-227
	553	473	595	683	554	378	499	596	249	158	297	83	42	130	227	309	158	404	592	574	326	320	298	429	372
25	117	169	130	209	113	135	114	163	89	45	45	109	30	73	27	27	56	80	112	148	108	75	64	107	98
	-671	-530	-403	-494	-339	-128	-155	-151	-69	-54	-77	-137	-132	-116	-91	-74	-145	-260	-149	-227	-116	-26	-35	-84	-194
	788	699	534	704	453	263	270	315	158	100	122	247	163	190	120	102	203	342	262	375	224	101	100	192	293
26	147	109	80	72	67	54	82	96	70	38	52	69	56	44	65	106	113	108	93	71	55	81	199	184	88
	-134	-125	-141	-287	-159	-116	-97	-118	-303	-111	-6	-57	-23	-49	-145	-175	-103	-56	-57	-13	5	-4	-63	-402	-114
	282	235	221	359	226	170	179	215	374	150	59	126	80	94	210	282	217	165	152	84	49	85	263	588	203
27	146	148	122	69	40	95	121	229	109	171	74	55	32	56	31	82	60	55	108	136	65	53	44	47	89
	-201	-116	-240	-65	-33	-96	-276	-761	-132	-223	-293	-531	-248	-267	-184	-268	-142	-39	-139	-207	-82	-39	-30	-32	-193
	349	265	363	135	74	192	397	990	242	395	368	588	281	324	216	350	203	94	248	343	148	93	75	80	284
28	52	84	54	80	49	49	62	76	91	200	53	56	68	100	38	26	30	51	57	37	51	42	30	48	62
	-78	-243	-142	-139	-303	-142	-159	-201	-266	-492	-128	-82	-82	-374	-136	-57	-116	-207	-77	-34	-14	-8	-13	-32	-147
	131	328	197	220	352	191	222	278	358	693	182	138	151	476	175	84	147	259	135	72	66	51	44	81	210
29	83	40	38	46	43	37	56	49	37	40	24	13	24	43	47	62	60	33	43	86	96	81	69	31	49
	-212	-90	-21	-28	-101	-46	-71	-85	-210	-155	-92	-42	-43	-228	-233	-143	-169	-107	-48	-79	-98	-70	-123	-26	-105
	295	131	60	75	145	84	128	135	247	196	117	55	68	272	280	206	230	141	91	166	195	152	193	59	155
30	21	16	17	13	27	24	17	26	24	19	15	11	10	10	9	11	18	23	27	34	25	30	43	31	21
	-29	-27	-23	-18	-17	-12	-5	-41	-18	-19	-18	-17	-14	-9	-22	-18	-14	-7	-8	-27	-17	-21	-72	-25	-21
	51	45	41	33	45	38	23	67	42	39	34	29	25	21	32	31	34	31	36	62	44	52	115	57	43

Provisional Hourly Values (nT) of AU, AL and AE Indices MAY 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	13	10	11	12	12	13	23	22	26	27	21	20	19	18	21	22	20	19	16	17	21	21	27	25	19
	AL	-11	-10	-7	-3	0	-1	-2	-6	-14	-22	-25	-22	-15	-11	-12	-15	-19	-13	-12	-18	-20	-10	-10	-5	-12
	AE	26	21	19	15	12	14	26	30	41	50	47	44	35	30	35	38	40	32	28	36	41	32	37	31	32
2		41	23	81	155	195	222	251	85	80	97	187	240	287	297	363	278	306	316	213	265	208	210	200	295	204
		-16	-12	-69	-299	-348	-275	-302	-79	-31	-64	-201	-387	-509	-650	-692	-439	-475	-767	-176	-512	-369	-384	-444	-338	-326
		58	36	152	455	545	498	554	166	112	162	389	627	796	947	1055	718	781	1083	389	778	577	595	644	634	531
3		278	134	223	142	207	115	224	222	182	231	156	139	86	200	72	174	151	96	110	222	303	248	210	110	176
		-302	-314	-500	-405	-604	-496	-602	-516	-247	-536	-603	-428	-299	-497	-235	-280	-390	-220	-207	-440	-487	-374	-322	-150	-394
		581	449	724	549	812	613	827	739	430	768	759	567	386	697	307	454	542	316	318	663	791	623	533	261	571
4		91	147	232	162	166	146	225	224	113	53	102	77	85	200	140	172	110	121	176	131	164	197	147	126	146
		-108	-514	-734	-686	-474	-565	-363	-303	-174	-42	-74	-94	-122	-340	-260	-326	-176	-358	-268	-203	-243	-313	-467	-198	-309
		200	663	968	850	642	712	590	528	288	96	177	172	208	541	401	499	287	479	445	335	408	511	615	324	456
5		123	214	154	180	284	209	306	234	117	71	162	165	182	99	122	39	164	232	229	266	165	171	91	70	169
		-114	-410	-584	-469	-464	-540	-546	-342	-199	-32	-487	-994	-680	-193	-285	-67	-202	-434	-413	-465	-411	-359	-176	-157	-376
		238	625	740	651	749	751	853	577	318	103	650	1159	863	293	408	107	366	667	643	732	578	531	269	228	546
6		102	166	163	128	156	110	58	108	168	156	138	49	32	55	92	96	72	75	117	103	122	105	72	57	104
		-288	-700	-428	-166	-169	-140	-207	-131	-377	-525	-403	-89	-23	-119	-339	-240	-162	-130	-188	-177	-114	-241	-166	-37	-232
		392	868	593	296	326	252	265	241	546	682	542	138	56	175	431	336	235	205	306	280	237	348	239	96	337
7		33	56	122	172	127	185	107	182	283	213	166	163	197	241	88	96	111	131	133	195	144	122	90	199	148
		-20	-35	-150	-393	-377	-439	-280	-273	-577	-497	-184	-174	-570	-493	-254	-188	-98	-132	-166	-238	-149	-81	-170	-667	-275
		55	92	273	567	505	625	389	457	861	711	350	338	767	735	342	284	209	264	300	434	294	203	261	867	424
8		133	136	197	233	226	164	105	66	47	19	110	164	162	94	72	86	70	23	14	75	149	176	126	96	114
		-652	-911	-997	-579	-577	-229	-99	-82	-29	-24	-74	-125	-463	-271	-170	-100	-107	-29	-19	-126	-233	-229	-138	-88	-265
		786	1048	1196	813	804	395	204	149	76	44	185	289	626	366	243	187	178	53	33	201	382	406	265	186	380
9		115	124	168	138	94	83	111	50	87	153	97	89	94	65	46	27	28	39	98	124	132	137	98	85	95
		-201	-306	-343	-261	-64	-58	-84	-128	-133	-336	-176	-91	-115	-74	-56	-29	-51	-63	-288	-174	-144	-199	-128	-89	-150
		317	432	513	400	159	142	197	178	222	489	274	180	210	140	104	58	80	103	387	298	276	337	228	175	246
10		87	34	70	69	31	33	29	24	40	56	60	64	59	22	39	46	61	36	29	19	35	26	25	61	44
		-69	-18	-52	-119	-81	-16	-16	-21	-25	-46	-189	-183	-80	-20	-35	-97	-131	-70	-9	-10	-21	-23	-23	-37	-58
		158	53	124	190	113	51	46	47	66	103	249	248	140	43	75	144	193	107	39	30	57	50	49	99	103
11		86	91	127	109	51	35	80	58	65	34	35	69	58	26	21	23	16	39	42	50	46	73	102	126	61
		-68	-96	-166	-102	-17	-17	-38	-154	-48	-27	-23	-107	-142	-33	-25	-32	-18	-39	-71	-78	-54	-74	-66	-100	-67
		156	188	294	213	70	54	118	213	114	62	59	176	200	59	47	56	35	79	113	128	100	148	169	228	128
12		167	114	51	42	44	103	91	52	75	61	58	59	110	83	29	28	23	33	39	71	119	101	48	49	69
		-151	-148	-30	-10	-9	-93	-120	-52	-80	-98	-56	-72	-135	-132	-31	-18	-35	-10	-27	-119	-150	-95	-20	-18	-71
		320	263	82	53	55	198	212	105	155	159	115	132	245	216	60	47	59	44	67	190	269	197	69	68	141
13		41	20	37	40	61	98	99	73	63	94	70	68	30	29	18	28	33	40	35	36	39	51	64	66	51
		-18	-16	-13	-10	-32	-132	-115	-10	-54	-47	-28	-21	-47	-12	-9	-17	-8	-16	-17	-12	-11	-11	-18	-34	-29
		60	38	51	51	95	231	215	84	117	142	100	90	78	43	29	47	41	56	53	48	50	63	84	101	82
14		69	62	68	54	145	143	114	52	44	42	23	31	44	76	59	34	42	32	36	27	29	38	31	26	55
		-18	-13	-15	-64	-296	-296	-171	-29	-13	-25	-20	-25	-27	-29	-48	-14	-35	-28	-21	-17	-27	-26	-23	-21	-54
		88	76	84	119	442	441	287	81	58	68	44	58	72	106	108	49	77	60	57	45	56	65	56	49	110
15		24	27	21	13	15	24	23	22	31	28	30	49	39	22	26	26	19	15	20	33	32	45	76	91	31
		-20	-17	-16	-12	-13	-23	-24	-20	-21	-39	-44	-99	-80	-55	-51	-43	-29	-8	-17	-21	-17	-21	-52	-136	-37
		45	46	39	27	30	47	47	43	53	67	75	150	119	78	78	70	48	24	37	54	49	67	129	228	69

16	110	86	84	143	314	307	348	211	96	75	76	203	209	353	364	332	335	365	301	301	289	184	147	121	223
	-219	-126	-50	-183	-510	-412	-379	-91	-6	-35	-40	-111	-516	-902	-618	-367	-378	-396	-279	-330	-565	-712	-459	-369	-335
	331	213	136	327	825	721	728	304	103	111	117	315	726	1256	983	700	713	762	580	632	855	897	607	490	559
17	98	140	183	175	255	370	371	352	349	329	182	142	59	58	115	163	88	104	185	240	211	211	184	98	194
	-278	-271	-454	-536	-495	-524	-573	-588	-435	-359	-170	-125	-90	-77	-337	-301	-119	-111	-215	-429	-250	-274	-267	-95	-307
	377	412	638	713	752	896	946	941	785	689	353	267	149	136	452	464	207	216	401	670	461	486	452	194	502
18	96	117	125	119	77	118	126	94	46	38	59	156	164	54	50	52	82	61	103	63	45	147	283	283	107
	-72	-171	-164	-62	-36	-85	-74	-77	-32	-41	-65	-274	-298	-73	-78	-62	-132	-129	-169	-75	-27	-154	-216	-490	-127
	169	289	291	183	114	204	201	172	79	80	125	430	462	127	128	115	215	190	273	139	73	303	501	774	235
19	239	234	206	180	179	154	131	216	156	116	159	200	184	96	48	49	88	156	203	216	168	110	104	103	154
	-353	-312	-259	-205	-194	-230	-237	-338	-220	-197	-179	-185	-196	-113	-21	-19	-116	-180	-508	-299	-148	-52	-64	-91	-196
	593	548	467	387	374	385	370	555	378	314	338	385	381	210	70	70	205	337	711	515	316	163	169	196	352
20	161	240	196	173	153	210	130	129	148	296	261	230	52	35	46	68	127	134	236	235	230	218	207	167	170
	-179	-400	-413	-237	-92	-257	-169	-61	-186	-374	-261	-201	-37	-13	-21	-66	-218	-329	-383	-307	-247	-303	-244	-164	-215
	341	642	610	411	247	468	301	191	335	671	522	431	90	50	68	135	345	463	620	543	478	522	452	331	386
21	89	99	146	104	102	71	49	30	41	20	12	19	14	15	12	19	17	21	22	18	21	21	39	56	44
	-64	-44	-203	-136	-127	-45	-19	-12	-13	-18	-23	-21	-21	-29	-24	-20	-26	-16	-26	-33	-34	-25	-27	-23	-43
	155	145	351	242	230	118	69	42	55	39	36	41	37	45	37	40	45	38	49	51	56	46	67	81	88
22	98	100	109	107	191	214	175	135	71	48	33	47	65	69	54	47	41	24	22	24	43	57	94	142	84
	-69	-39	-61	-78	-107	-214	-151	-55	-21	-12	-11	-13	-23	-20	-46	-46	-50	-14	-8	-11	-21	-28	-115	-152	-57
	168	140	171	186	299	429	328	191	93	61	45	61	89	89	101	94	92	38	31	35	64	85	210	296	142
23	123	96	101	65	59	64	37	58	57	56	68	80	101	94	69	32	68	52	91	291	337	244	241	87	107
	-145	-23	-40	-10	-3	-12	-10	-15	-13	-12	-15	-30	-76	-96	-110	-133	-36	-4	-61	-422	-811	-627	-361	-43	-130
	269	120	142	77	63	77	48	75	71	70	85	111	178	190	179	165	105	56	152	714	1148	871	602	132	238
24	117	109	105	207	313	258	179	183	211	150	292	110	146	41	52	67	146	133	102	93	63	60	86	134	140
	-78	-87	-222	-232	-604	-560	-216	-224	-219	-147	-778	-299	-204	-223	-129	-125	-178	-376	-158	-79	-42	-39	-120	-221	-232
	197	197	328	440	918	819	396	407	432	298	1072	410	351	265	181	193	325	510	260	173	106	101	207	357	373
25	128	96	121	191	172	114	81	46	27	25	16	27	67	68	62	96	58	63	91	95	71	51	33	57	77
	-242	-159	-219	-520	-519	-333	-139	-46	-19	-11	-24	-68	-98	-87	-198	-186	-70	-129	-180	-272	-14	-15	-25	-43	-151
	372	256	342	712	693	449	222	93	47	37	41	96	166	156	261	283	128	192	271	368	85	68	59	102	229
26	100	62	57	56	47	27	29	63	60	37	112	168	131	119	70	72	79	62	52	33	113	136	123	86	79
	-157	-82	-47	-104	-33	-11	-13	-29	-96	-36	-299	-445	-446	-253	-119	-185	-176	-53	-87	-21	-123	-423	-237	-48	-147
	258	145	105	161	82	39	43	94	156	73	411	614	577	373	190	258	256	116	139	54	236	560	362	134	227
27	42	24	37	52	61	39	89	59	40	47	42	59	44	44	64	47	48	52	106	75	39	32	28	25	50
	-28	-28	-23	-24	-153	-72	-68	-120	-77	-74	-100	-94	-75	-41	-58	-106	-70	-78	-254	-182	-30	-14	-18	-22	-75
	72	54	61	78	215	112	158	179	118	122	142	153	120	86	122	153	118	131	360	258	70	47	47	49	126
28	37	62	67	38	85	157	132	38	43	44	25	29	35	50	79	121	81	63	57	54	55	80	103	71	67
	-29	-39	-65	-38	-47	-249	-234	-32	-9	-20	-86	-82	-116	-87	-141	-266	-173	-148	-61	-35	-25	-47	-92	-26	-89
	67	102	133	77	132	407	366	71	54	66	111	111	151	137	221	387	255	212	119	90	81	128	196	99	157
29	57	84	67	58	43	39	53	35	62	49	45	56	88	100	70	65	39	35	59	60	96	58	61	54	60
	-29	-46	-50	-66	-43	-118	-49	-18	-10	-19	-15	-53	-25	-19	-47	-111	-45	-5	-71	-93	-238	-68	-36	-39	-55
	88	132	119	125	87	158	102	54	74	69	61	110	114	120	119	177	85	41	131	153	334	127	98	95	115
30	42	70	101	225	201	173	290	221	139	236	244	148	160	323	247	307	262	196	164	274	146	148	177	170	194
	-37	-47	-48	-456	-278	-213	-520	-345	-93	-245	-489	-650	-313	-651	-658	-499	-313	-295	-140	-450	-196	-132	-283	-227	-316
	80	119	151	682	480	388	811	567	233	482	733	799	473	975	906	806	576	491	305	724	344	280	461	399	511
31	164	175	175	140	137	161	130	121	211	228	294	181	162	162	141	292	168	193	234	199	169	94	153	207	179
	-343	-272	-407	-103	-149	-318	-413	-409	-415	-162	-282	-169	-116	-321	-511	-583	-355	-364	-343	-293	-327	-41	-211	-335	-302
	508	449	583	244	287	481	544	531	628	391	577	351	278	484	652	875	524	557	578	492	498	136	366	544	482

Provisional Hourly Values (nT) of AU, AL and AE Indices JUNE 1995

DAY	UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	162	229	172	140	179	116	102	28	75	78	64	48	212	250	243	312	236	127	125	201	146	153	143	149	154
	AL	-467	-498	-463	-597	-375	-485	-234	-230	-224	-232	-223	-245	-562	-645	-555	-655	-508	-341	-261	-321	-246	-146	-170	-233	-371
	AE	630	727	635	738	554	602	337	259	300	310	289	294	775	896	798	968	746	470	386	523	394	300	314	383	526
2		152	91	94	156	170	160	96	98	115	78	216	225	112	89	111	168	103	90	93	107	106	108	103	169	125
		-338	-88	-110	-394	-404	-347	-323	-199	-196	-138	-314	-300	-394	-187	-222	-315	-169	-213	-221	-141	-178	-201	-106	-234	-239
		491	180	205	551	574	507	419	298	312	218	531	526	508	277	335	483	272	304	315	249	285	311	211	404	365
3		221	156	164	195	157	151	180	116	86	102	111	134	118	68	61	104	120	151	182	97	118	161	157	136	135
		-402	-268	-284	-454	-328	-406	-443	-197	-81	-254	-256	-226	-153	-68	-93	-189	-277	-399	-252	-110	-168	-365	-241	-188	-254
		625	425	449	650	486	558	625	313	168	357	368	361	272	136	154	294	397	551	435	208	287	527	399	326	391
4		99	103	50	64	41	28	68	62	49	22	18	15	37	48	54	28	37	37	42	40	36	52	32	69	47
		-97	-89	-44	-43	-36	-26	-41	-32	-51	-88	-69	-33	-57	-130	-73	-50	-77	-102	-73	-45	-37	-42	-37	-51	-59
		198	194	94	107	77	54	110	95	101	111	88	49	95	179	129	79	115	140	116	86	73	95	70	121	107
5		114	93	86	88	84	68	85	92	57	47	25	23	13	13	13	14	44	22	23	28	35	92	121	148	60
		-127	-112	-118	-161	-85	-37	-75	-128	-75	-27	-27	-26	-25	-25	-28	-28	-97	-53	-26	-44	-37	-107	-201	-121	-75
		242	207	205	249	170	106	161	220	132	74	54	50	38	39	42	44	143	77	49	73	74	201	323	270	135
6		197	120	82	111	81	112	51	37	19	24	17	23	34	85	66	27	15	22	44	96	87	68	44	74	64
		-217	-131	-82	-125	-69	-70	-45	-43	-20	-32	-32	-34	-34	-75	-75	-29	-22	-30	-55	-133	-142	-52	-51	-43	-68
		415	252	165	236	151	182	97	80	41	57	51	58	68	162	143	57	38	53	101	230	230	120	95	118	133
7		105	139	105	70	64	66	114	100	47	69	62	38	38	43	17	9	25	40	66	109	115	55	81	85	69
		-81	-239	-126	-39	-28	-39	-41	-102	-157	-143	-140	-29	-26	-24	-18	-21	-23	-34	-70	-203	-124	-39	-46	-63	-77
		187	379	232	110	93	105	156	203	206	214	203	69	65	68	37	32	49	75	136	312	240	95	128	149	148
8		78	77	70	70	79	64	40	46	45	32	25	22	14	18	22	16	23	11	20	23	23	20	18	20	36
		-54	-52	-49	-43	-101	-107	-17	-33	-85	-50	-37	-27	-29	-19	-14	-27	-19	-18	-21	-29	-31	-33	-34	-41	-40
		133	129	120	114	181	172	58	79	130	83	63	50	45	38	37	45	43	30	42	53	55	54	53	62	78
9		24	24	23	26	37	46	60	79	85	58	42	59	48	31	49	29	45	35	50	44	25	25	27	98	45
		-44	-44	-39	-30	-17	-8	-25	-45	-25	-35	-37	-97	-110	-52	-9	-15	-24	-51	-74	-31	-25	-30	-30	-51	-39
		68	68	63	56	55	55	87	124	111	94	80	157	159	83	58	45	70	87	124	75	50	56	58	150	85
10		96	99	182	231	172	93	33	99	96	118	45	43	29	42	37	21	44	35	25	26	26	24	33	56	71
		-45	-77	-219	-270	-313	-58	-35	-39	-206	-120	-60	-37	-31	-16	-5	-16	-48	-56	-17	-19	-25	-32	-40	-42	-76
		142	177	402	502	485	152	68	140	302	239	107	82	61	59	42	38	92	92	44	47	52	58	75	98	148
11		107	174	159	94	55	116	90	63	31	32	30	16	38	22	14	14	31	38	29	33	27	17	26	21	53
		-139	-228	-208	-50	-38	-180	-128	-38	-31	-88	-48	-21	-20	-59	-73	-34	-57	-54	-19	-21	-19	-22	-29	-33	-68
		247	403	369	145	94	297	219	102	63	121	79	38	59	82	89	50	89	93	49	54	47	40	55	55	122
12		17	25	14	23	34	37	26	53	33	23	28	20	25	23	22	14	24	32	33	28	21	19	25	24	26
		-37	-36	-27	-19	-8	-11	-17	-21	-64	-67	-40	-35	-48	-72	-81	-79	-54	-20	-11	-19	-24	-24	-24	-30	-36
		55	62	41	43	43	49	44	75	97	90	68	57	75	96	105	94	80	52	45	48	47	45	50	54	63
13		11	10	12	8	13	18	26	70	54	32	21	19	18	14	16	17	27	29	41	42	34	21	36	44	26
		-31	-30	-32	-29	-17	-11	-16	-63	-85	-42	-30	-35	-30	-20	-19	-22	-69	-128	-57	-30	-31	-31	-20	-26	-38
		42	41	45	37	31	30	43	134	140	75	53	56	49	35	36	40	97	157	99	73	66	54	57	70	65
14		56	45	45	37	31	33	32	47	65	52	50	60	61	61	51	45	46	66	109	130	55	51	91	94	59
		-32	-31	-28	-18	-8	0	-1	-19	-32	-23	-100	-201	-159	-162	-142	-131	-94	-58	-65	-80	-40	-36	-69	-100	-68
		89	77	73	55	40	34	35	67	97	75	151	263	222	224	195	176	141	126	176	211	96	88	161	195	128
15		26	23	57	63	87	57	37	77	62	77	112	65	34	37	30	21	31	52	80	73	56	48	19	42	53
		-22	-15	-13	-47	-45	-23	-9	-27	-186	-157	-129	-102	-38	-30	-32	-58	-121	-177	-152	-53	-28	-27	-26	-27	-64
		49	38	71	111	133	81	46	105	249	235	243	169	73	68	64	81	152	229	234	128	85	77	47	69	118

PROVISIONAL HOURLY VALUES OF **AU**, **AL**, AND **AE** INDICES
(continued)

JUNE 1995

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Provisional Hourly Values (nT) of AU, AL and AE Indices JULY 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	118	211	325	316	259	262	192	187	147	104	49	33	23	33	31	28	45	71	81	78	71	67	82	86	121
	AL	-516	-445	-541	-492	-388	-237	-286	-269	-175	-30	-22	-24	-28	-17	-22	-38	-70	-143	-156	-89	-56	-43	-80	-71	-177
	AE	635	658	868	809	647	500	480	457	323	135	72	58	53	50	54	67	117	215	239	167	128	111	163	158	299
2		113	116	98	48	43	30	17	15	11	15	18	20	30	30	35	23	16	19	22	34	27	23	26	30	36
		-62	-139	-80	-33	-19	-20	-21	-16	-23	-32	-35	-23	-23	-20	-19	-19	-23	-37	-23	-29	-44	-40	-19	-29	-34
		175	256	179	82	63	51	39	32	35	48	54	44	54	50	55	43	41	58	46	63	71	63	46	60	71
3		100	155	122	83	51	26	40	89	55	30	43	44	62	40	53	36	18	25	26	21	39	56	123	128	61
		-66	-259	-99	-26	-18	-21	-29	-103	-42	-196	-96	-32	-66	-36	-42	-43	-33	-18	-31	-27	-22	-28	-105	-94	-64
		167	416	222	110	70	48	69	192	98	226	140	78	128	78	97	81	52	44	57	49	61	84	229	223	126
4		173	149	78	89	162	148	101	57	40	26	24	28	20	65	107	60	47	39	60	45	39	27	33	22	68
		-148	-207	-60	-77	-52	-120	-73	-38	-33	-20	-25	-31	-29	-36	-125	-72	-76	-80	-38	-20	-52	-29	-32	-29	-63
		321	357	139	166	215	269	175	96	74	47	51	60	50	103	233	134	124	119	99	65	92	58	66	51	132
5		25	41	62	35	22	12	14	53	50	36	27	15	17	22	25	27	21	26	25	22	20	17	16	18	27
		-36	-36	-97	-54	-9	-13	-12	-19	-55	-61	-41	-103	-55	-41	-27	-24	-22	-23	-27	-24	-18	-20	-20	-24	-36
		61	78	160	90	32	25	28	73	106	98	70	119	73	65	53	53	44	51	53	46	38	38	36	42	64
6		21	27	20	30	24	25	27	29	61	40	44	23	23	20	18	24	39	38	56	60	67	52	27	24	34
		-28	-31	-28	-21	-11	-17	-16	-24	-64	-125	-73	-46	-26	-28	-27	-24	-37	-91	-114	-104	-90	-56	-21	-24	-47
		49	59	49	52	37	44	44	54	127	167	117	70	50	50	46	49	77	130	170	165	158	109	49	50	82
7		27	67	81	106	119	39	25	30	50	38	24	22	22	36	55	76	37	28	19	18	17	17	19	22	41
		-26	-36	-105	-206	-197	-71	-29	-29	-29	-20	-20	-22	-24	-27	-23	-93	-43	-31	-16	-14	-23	-30	-24	-25	-48
		55	104	187	312	317	111	56	60	79	59	46	46	47	63	79	170	82	60	37	33	40	48	44	47	91
8		23	33	50	46	45	64	79	69	105	66	29	55	95	110	85	66	31	27	35	35	30	21	14	17	51
		-29	-33	-53	-70	-29	-60	-144	-61	-53	-77	-43	-58	-191	-186	-161	-38	-20	-11	-49	-43	-24	-26	-22	-24	-63
		53	67	105	117	76	125	224	131	159	145	73	114	286	296	247	105	53	39	84	79	55	48	37	42	115
9		23	23	18	13	14	12	11	19	16	30	75	142	191	60	34	60	34	39	46	42	64	58	33	22	45
		-27	-21	-11	-5	-10	-9	-9	-14	-20	-29	-158	-292	-269	-93	-62	-73	-100	-51	-37	-36	-50	-112	-33	-30	-65
		52	45	30	19	25	23	21	34	37	61	234	436	461	154	96	134	135	91	83	79	114	171	66	53	111
10		18	11	7	7	7	9	14	20	26	21	20	17	11	11	20	14	21	33	32	30	24	21	17	21	18
		-33	-37	-28	-17	-9	-12	-19	-29	-18	-25	-30	-30	-33	-28	-38	-22	-15	-18	-20	-51	-46	-41	-29	-30	-27
		52	48	36	24	17	22	34	50	46	48	51	47	46	41	59	38	38	52	52	81	71	63	46	51	46
11		24	28	20	17	24	29	26	29	31	20	13	12	13	15	9	10	10	14	24	31	36	29	21	25	21
		-32	-17	-18	-21	-17	-21	-29	-27	-25	-27	-22	-22	-25	-27	-23	-18	-22	-26	-27	-20	-29	-32	-32	-36	-25
		57	46	39	39	41	52	56	57	58	48	36	36	40	43	33	30	33	42	52	51	67	61	53	62	47
12		42	35	15	15	15	20	22	22	22	24	23	22	23	28	30	31	29	34	38	42	36	35	35	31	28
		-43	-41	-34	-18	-1	-7	-12	-16	-20	-26	-29	-28	-27	-26	-22	-23	-26	-34	-25	-15	-24	-28	-25	-22	-24
		86	76	49	34	17	29	36	40	44	51	53	52	51	55	53	55	56	70	64	57	61	65	61	54	53
13		38	70	80	38	85	111	86	56	66	72	49	49	76	117	101	52	43	48	29	32	32	31	32	28	59
		-29	-33	-18	-6	-14	-40	-92	-25	-12	-17	-23	-48	-36	-27	-18	-34	-56	-143	-72	-13	-16	-26	-27	-25	-35
		67	104	99	45	99	151	178	83	79	91	73	98	114	145	121	87	100	192	102	46	49	58	59	53	96
14		27	29	12	15	25	43	63	89	71	50	43	54	67	75	52	40	51	49	68	91	127	118	85	103	60
		-24	-21	-22	-18	-8	-8	-27	-13	-20	-107	-88	-57	-66	-44	-51	-17	-24	-38	-18	-157	-109	-54	-47	-193	-51
		51	50	35	34	35	52	91	103	92	158	132	112	133	119	104	58	76	88	86	248	237	172	133	297	112
15		72	39	27	22	50	47	56	89	53	38	31	55	53	39	23	27	34	33	34	38	31	32	37	34	41
		-46	-71	-28	-10	0	-9	-21	-95	-57	-34	-37	-93	-92	-89	-36	-16	-26	-32	-122	-78	-24	-6	0	-4	-43
		119	110	56	32	51	57	77	184	110	74	69	150	146	129	60	45	62	67	157	117	55	39	37	39	85

16	31	53	63	45	31	36	42	84	51	59	56	58	71	96	192	573	312	165	240	233	164	189	244	209	137
	-13	-23	-54	-35	-10	-10	-14	-85	-147	-217	-93	-51	-36	-59	-594	-797	-393	-118	-103	-148	-134	-168	-462	-436	-175
	45	76	118	81	42	48	58	170	200	277	150	110	108	157	786	1371	705	284	344	382	300	358	707	646	313
17	188	139	202	102	181	189	107	69	96	104	143	219	252	115	117	265	139	66	79	57	106	85	142	155	138
	-375	-284	-381	-165	-257	-537	-315	-126	-147	-272	-256	-383	-532	-156	-179	-519	-235	-46	-20	-27	-70	-148	-267	-318	-251
	564	425	583	267	439	727	423	196	245	377	400	603	785	272	297	784	375	113	99	84	176	234	409	475	390
18	204	146	120	70	95	35	50	46	59	36	112	123	162	144	96	92	65	63	83	84	77	34	31	37	86
	-518	-412	-249	-87	-203	-64	-40	-27	-105	-68	-319	-244	-361	-381	-176	-217	-83	-165	-156	-63	-58	-25	-31	-43	-171
	724	558	371	158	299	101	91	73	165	105	432	368	524	526	273	309	149	228	239	149	136	60	63	81	258
19	44	89	60	86	107	48	57	61	87	94	76	107	97	40	40	25	23	24	42	75	117	153	87	64	71
	-61	-139	-121	-133	-221	-89	-41	-92	-261	-361	-248	-263	-203	-83	-9	-32	-41	-38	-72	-89	-92	-293	-33	-21	-126
	105	229	182	220	328	138	99	155	348	456	326	371	301	123	50	58	65	63	115	165	210	446	120	86	198
20	165	183	175	166	225	144	129	46	60	27	126	106	68	27	44	48	56	75	44	35	39	47	25	15	87
	-170	-286	-314	-302	-290	-176	-107	-65	-64	-46	-225	-247	-118	-48	-27	-69	-158	-90	-91	-74	-31	-37	-30	-24	-129
	337	471	491	469	516	321	237	111	125	74	353	354	186	76	72	118	214	166	136	110	71	84	56	39	216
21	15	8	21	10	33	73	94	78	43	62	36	40	117	90	62	52	32	28	31	41	27	33	19	19	44
	-25	-32	-30	-21	-22	-97	-157	-93	-76	-67	-76	-56	-145	-209	-187	-131	-100	-84	-89	-39	-61	-42	-17	-23	-78
	41	41	53	32	55	172	253	172	120	129	113	97	264	300	249	183	133	113	121	81	89	76	36	42	124
22	33	39	57	74	67	81	64	58	70	66	35	39	64	108	66	28	34	76	90	83	69	44	48	99	62
	-29	-38	-83	-140	-178	-142	-67	-15	-17	-24	-36	-40	-55	-262	-201	-33	-13	-71	-162	-154	-62	-65	-57	-107	-85
	63	78	141	215	246	224	132	74	89	92	72	81	120	371	268	62	48	149	253	237	132	109	106	206	149
23	138	130	93	37	11	16	14	10	10	13	26	23	45	31	76	50	81	113	123	98	92	88	58	39	59
	-151	-219	-180	-58	-13	-24	-35	-42	-44	-19	-24	-42	-82	-65	-106	-182	-243	-285	-326	-123	-93	-55	-64	-43	-105
	291	350	275	96	24	41	51	52	55	33	51	66	128	96	183	232	325	398	450	223	186	143	124	82	165
24	32	16	14	64	176	112	173	404	277	219	216	147	63	53	18	11	31	58	163	286	326	178	234	230	146
	-36	-26	-40	-47	-194	-177	-378	-704	-381	-284	-162	-112	-41	-45	-76	-41	-40	-77	-277	-595	-579	-304	-260	-261	-214
	68	43	55	111	370	290	552	1109	659	504	380	261	105	99	96	54	72	136	441	882	906	482	496	493	361
25	136	154	142	88	107	36	39	37	48	32	21	15	9	8	5	19	19	15	20	19	12	16	15	50	44
	-389	-375	-299	-170	-160	-101	-107	-50	-39	-37	-56	-52	-41	-50	-37	-72	-81	-87	-55	-31	-26	-23	-26	-38	-100
	526	530	441	258	267	138	147	87	88	70	78	68	52	59	44	92	101	103	76	51	39	40	42	89	145
26	80	27	38	61	66	54	48	40	44	20	14	32	96	40	17	17	21	21	15	19	14	22	54	67	39
	-57	-35	-36	-97	-131	-56	-33	-26	-46	-95	-34	-36	-117	-103	-60	-46	-57	-37	-43	-33	-26	-27	-38	-66	-56
	137	63	74	159	198	111	81	66	91	115	49	70	215	144	78	64	80	59	59	52	40	49	92	134	95
27	94	77	76	82	98	38	14	57	47	26	15	4	0	4	32	53	47	18	29	57	117	57	58	91	50
	-53	-52	-93	-168	-252	-70	-25	-106	-48	-34	-40	-33	-40	-38	-39	-96	-129	-112	-52	-93	-281	-47	-29	-88	-84
	148	130	170	251	350	109	41	163	97	61	56	38	41	43	73	151	177	132	82	151	399	104	87	180	135
28	51	57	47	35	28	28	25	24	33	22	25	18	13	24	25	12	9	22	40	49	48	106	165	82	41
	-78	-27	-43	-33	-19	-21	-25	-23	-21	-19	-27	-32	-33	-54	-35	-27	-25	-33	-59	-64	-48	-93	-108	-55	-42
	130	86	90	70	47	50	52	48	55	42	53	51	47	79	61	40	36	56	101	115	96	199	273	138	84
29	119	205	235	166	66	23	4	8	9	21	10	13	12	15	35	44	67	77	67	56	50	53	40	68	61
	-101	-205	-266	-134	-42	-24	-27	-37	-49	-48	-41	-33	-28	-26	-44	-162	-263	-211	-62	-53	-82	-45	-30	-45	-86
	220	412	502	300	109	48	33	47	60	70	53	47	41	43	81	207	331	289	130	110	132	98	70	113	148
30	95	57	25	27	26	15	10	28	64	47	35	22	21	34	49	53	51	34	68	86	119	108	121	154	56
	-102	-30	-25	-24	-20	-18	-22	-21	-35	-137	-144	-27	-26	-30	-63	-123	-210	-57	-33	-36	-48	-126	-84	-119	-65
	198	88	51	51	46	33	33	49	100	186	179	51	49	65	113	177	262	92	102	123	167	234	205	273	122
31	56	21	14	21	65	115	105	130	106	50	38	21	22	23	41	38	30	32	52	54	39	38	39	93	52
	-43	-46	-43	-33	-28	-184	-177	-144	-92	-32	-27	-26	-31	-24	-28	-82	-124	-43	-44	-36	-27	-23	-22	-180	-64
	100	67	58	55	94	299	282	275	200	84	66	49	54	48	70	121	155	76	97	91	66	61	62	273	117

Provisional Hourly Values (nT) of AU, AL and AE Indices AUGUST 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	69	43	38	20	48	55	44	74	71	61	115	38	28	25	17	15	23	33	28	27	26	26	22	25	40
	AL	-99	-15	-8	-8	-38	-88	-30	-13	-16	-56	-258	-100	-19	-18	-23	-31	-53	-81	-41	-23	-40	-20	-17	-26	-47
	AE	169	60	47	30	86	143	74	87	87	118	374	139	48	44	42	47	77	116	70	51	67	46	41	52	88
2		31	32	41	34	35	30	23	32	32	43	28	38	36	58	91	62	27	42	76	95	81	31	29	23	44
		-33	-31	-34	-14	-4	-10	-19	-64	-41	-15	-20	-15	-14	-47	-127	-198	-108	-34	-130	-139	-90	-15	-16	-20	-52
		65	64	77	49	40	41	43	97	73	58	49	53	51	106	219	262	136	77	207	234	171	46	46	44	96
3		41	61	50	74	125	150	148	123	58	40	81	147	141	73	68	55	57	64	79	72	52	71	56	47	80
		-29	-79	-68	-45	-106	-227	-180	-113	-42	-19	-81	-252	-196	-110	-98	-67	-93	-79	-82	-34	-22	-58	-48	-20	-89
		72	142	120	121	233	378	330	237	101	61	164	400	337	184	168	122	150	143	162	106	74	129	105	68	171
4		25	18	46	56	27	22	42	80	84	79	25	19	25	26	46	80	49	57	65	98	124	109	60	42	54
		-17	-23	-48	-62	-32	-14	-19	-43	-75	-50	-31	-15	-19	-20	-42	-83	-127	-120	-59	-79	-123	-230	-106	-14	-60
		43	42	96	120	60	36	61	124	160	130	57	36	45	47	89	165	177	179	125	178	248	340	166	57	116
5		34	21	25	13	35	51	55	44	69	45	36	56	65	103	90	73	35	43	51	43	42	30	27	22	46
		-3	-5	-3	-7	-21	-55	-60	-53	-45	-70	-104	-80	-99	-182	-266	-194	-128	-21	-21	-14	-15	-4	-16	-16	-62
		38	27	29	21	57	107	116	97	115	115	141	136	164	286	358	268	164	65	73	57	58	35	43	39	109
6		22	38	41	23	35	48	87	99	50	36	34	31	33	31	67	64	42	32	37	58	54	56	50	21	45
		-13	-20	-15	-3	-23	-48	-60	-90	-33	-25	-18	-18	-25	-46	-113	-146	-141	-86	-38	-41	-60	-128	-25	-21	-51
		36	60	58	27	58	97	148	189	84	62	53	50	59	78	182	212	185	119	76	100	115	184	76	42	98
7		9	20	38	28	31	57	41	39	29	43	92	75	100	119	57	62	65	70	76	65	54	98	93	174	64
		-14	-18	-16	-13	-16	-63	-17	-25	-17	-12	-44	-83	-48	-176	-78	-80	-106	-122	-133	-58	-21	-58	-96	-163	-62
		24	39	54	42	48	121	59	65	47	56	137	158	150	297	137	143	172	193	210	124	76	157	190	338	126
8		241	234	240	222	256	219	176	69	88	89	64	106	96	72	78	39	24	55	102	282	210	150	84	92	137
		-404	-582	-406	-401	-383	-219	-90	-22	-78	-62	-68	-128	-58	-59	-25	-36	-58	-54	-111	-391	-260	-203	-109	-112	-180
		645	818	647	623	640	440	267	92	168	152	133	235	156	133	103	76	82	110	215	673	470	354	194	206	318
9		127	179	159	155	175	102	117	106	129	124	129	92	137	92	111	164	185	232	145	102	168	247	101	52	139
		-195	-386	-229	-231	-320	-388	-158	-228	-320	-281	-204	-151	-213	-319	-190	-387	-265	-430	-228	-38	-182	-510	-171	-25	-252
		323	566	389	387	495	490	275	336	450	405	334	243	350	412	302	552	451	663	374	141	350	759	273	78	392
10		135	147	214	269	214	193	85	59	98	152	67	56	52	50	84	71	59	41	61	56	56	38	69	73	100
		-119	-403	-323	-493	-355	-316	-381	-63	-148	-453	-279	-113	-26	-39	-208	-152	-61	-55	-189	-53	-28	-30	-80	-142	-188
		254	551	537	762	570	510	468	122	247	607	348	170	79	91	293	224	122	97	251	110	85	68	150	216	289
11		73	69	79	61	102	96	112	64	54	62	41	54	128	118	86	41	31	26	25	53	85	118	90	70	72
		-93	-66	-86	-100	-152	-195	-332	-52	-32	-42	-53	-46	-210	-277	-215	-132	-76	-40	-4	-28	-74	-191	-212	-139	-119
		167	136	166	162	254	292	446	117	86	105	94	102	339	397	302	174	108	66	29	81	159	309	304	211	192
12		152	155	146	139	71	20	22	28	35	30	84	121	139	106	58	29	31	24	33	50	60	96	93	53	74
		-379	-331	-146	-124	-39	-9	-2	-5	-16	-23	-50	-249	-270	-128	-45	-44	-28	-24	-37	-96	-141	-153	-167	-133	-110
		532	487	293	265	111	30	25	35	52	54	134	372	410	235	104	74	59	48	71	147	201	250	261	187	185
13		59	147	158	210	206	197	91	47	59	55	76	63	123	147	101	70	73	31	40	41	68	111	94	233	104
		-82	-148	-234	-433	-347	-215	-184	-184	-170	-139	-124	-121	-120	-187	-194	-122	-162	-25	-16	-21	-52	-119	-132	-463	-166
		142	296	393	644	553	413	276	232	231	195	201	184	245	336	297	193	236	57	57	63	121	231	227	697	272
14		188	143	97	193	235	208	131	113	238	247	215	100	93	59	62	70	113	124	141	147	82	95	111	97	138
		-687	-440	-283	-449	-335	-302	-148	-149	-576	-584	-475	-148	-124	-47	-83	-131	-218	-196	-238	-237	-74	-152	-242	-191	-271
		876	583	381	644	572	512	281	262	815	832	691	249	218	108	146	202	332	321	380	385	156	248	354	289	410
15		119	145	167	173	153	152	109	51	45	36	91	103	40	63	100	38	38	72	121	86	66	99	43	47	90
		-241	-404	-393	-372	-434	-455	-407	-180	-59	-123	-207	-358	-92	-64	-234	-49	-12	-82	-305	-118	-56	-135	-134	-22	-206
		361	550	561	546	588	609	517	233	106	160	300	463	133	128	336	88	50	156	427	204	123	235	178	70	297

PROVISIONAL HOURLY VALUES OF AU, AL, AND AE INDICES
(continued)

AUGUST 1995

16	35	74	85	134	159	167	115	79	56	26	44	62	51	71	84	51	62	79	75	39	33	36	21	26	69
	-12	-102	-225	-365	-382	-404	-371	-214	-117	-88	-247	-225	-100	-152	-196	-156	-117	-240	-117	-23	-24	-18	-17	-22	-164
	47	177	312	500	542	573	487	293	173	114	292	288	152	224	281	209	180	321	192	62	57	55	39	50	234
17	47	51	45	69	66	127	177	123	97	90	250	248	145	99	146	205	218	259	226	144	73	51	48	54	127
	-51	-68	-55	-54	-39	-62	-135	-114	-177	-187	-325	-567	-168	-95	-326	-562	-420	-340	-333	-157	-39	-23	-10	-15	-180
	99	121	102	125	106	190	312	237	275	279	577	817	313	196	473	769	639	600	559	301	113	74	59	70	309
18	37	39	31	23	29	19	28	20	15	21	27	22	96	82	84	45	29	52	94	120	58	29	47	99	48
	-20	-23	-25	-23	-19	-11	-9	-12	-21	-23	-29	-23	-91	-102	-116	-110	-117	-79	-128	-248	-49	-17	-34	-153	-62
	57	62	57	47	48	31	38	33	37	44	57	47	188	185	202	157	148	131	223	369	108	47	83	253	110
19	132	155	103	56	61	157	100	120	68	65	45	25	26	26	44	36	26	37	39	28	88	101	96	106	73
	-213	-168	-62	-14	-31	-146	-150	-215	-298	-37	-23	-18	-13	-7	-13	-13	-49	-91	-102	-29	-73	-85	-119	-115	-87
	346	325	166	72	93	304	252	336	367	102	70	44	40	35	59	51	76	130	142	58	162	187	216	221	161
20	83	49	24	50	70	68	40	49	44	29	17	42	49	84	98	32	35	30	17	19	18	16	15	18	41
	-56	-19	-19	-32	-138	-117	-59	-12	-22	-16	-42	-58	-19	-138	-197	-89	-18	-19	-26	-29	-34	-28	-22	-26	-51
	140	69	44	83	210	187	99	63	67	46	60	101	69	224	296	123	54	49	44	48	52	44	38	44	94
21	20	14	17	18	18	26	27	32	28	22	31	27	18	12	10	9	13	14	14	18	18	17	15	15	19
	-25	-18	-7	-17	-10	-4	-10	-20	-22	-20	-29	-20	-23	-24	-30	-29	-28	-25	-26	-31	-35	-29	-20	-20	-22
	46	33	25	36	28	31	37	52	50	43	61	49	43	37	41	39	41	40	41	50	53	47	35	35	41
22	13	16	8	12	18	19	17	25	16	14	16	19	8	23	40	42	30	65	138	185	229	303	241	232	72
	-22	-20	-17	-14	-9	-9	-34	-32	-15	-18	-24	-24	-21	-45	-78	-107	-164	-227	-245	-227	-362	-464	-427	-549	-132
	36	37	26	27	27	29	52	58	32	32	40	44	31	69	120	151	195	294	384	413	591	769	669	782	205
23	219	181	298	334	346	301	132	166	112	107	175	187	99	33	39	37	26	33	31	33	39	43	38	49	127
	-724	-407	-381	-355	-360	-158	-162	-147	-74	-143	-94	-238	-70	-39	-66	-52	-42	-31	-38	-34	-60	-36	-15	-25	-156
	944	589	681	690	707	460	294	314	187	251	270	427	170	73	106	91	70	64	69	68	100	80	53	74	285
24	38	59	43	28	58	51	42	32	21	21	30	39	102	160	128	56	43	48	40	46	85	40	69	69	56
	-21	-67	-71	-20	-10	-45	-65	-15	-14	-12	-27	-49	-126	-241	-148	-68	-106	-125	-61	-52	-75	-42	-29	-25	-63
	61	127	115	49	70	97	107	48	36	34	59	89	229	401	278	126	150	174	102	99	161	83	98	94	120
25	66	129	207	192	224	237	170	100	109	312	145	82	43	34	25	41	45	59	41	42	37	34	89	110	107
	-13	-46	-147	-198	-205	-247	-192	-185	-175	-652	-180	-11	-17	-24	-24	-41	-108	-110	-136	-59	-49	-21	-116	-225	-133
	79	176	355	390	429	486	364	287	285	965	326	95	60	59	51	83	154	169	178	101	86	56	206	337	241
26	65	29	46	85	63	38	58	28	51	39	46	104	125	120	93	30	22	27	32	33	39	35	30	31	53
	-84	-61	-85	-177	-167	-54	-87	-283	-143	-118	-111	-135	-170	-212	-139	-47	-16	-33	-21	-65	-94	-59	-15	-12	-100
	150	92	132	264	231	92	146	313	195	158	158	240	296	333	233	79	40	60	53	99	134	94	45	45	153
27	47	50	56	41	30	41	46	29	53	44	34	34	27	31	40	31	27	30	34	37	110	99	40	44	44
	-17	-42	-167	-132	-8	-84	-45	-29	-19	-32	-96	-49	-23	-23	-29	-31	-26	-31	-25	-34	-275	-190	-48	-18	-61
	64	94	224	174	38	125	91	58	73	77	130	85	51	55	71	63	54	63	60	72	385	290	90	63	106
28	39	30	18	12	20	21	25	43	49	49	30	26	28	41	52	14	18	26	30	34	26	25	26	29	30
	-17	-16	-18	-17	-10	-4	-6	-17	-94	-100	-59	-30	-25	-20	-50	-59	-46	-21	-17	-24	-44	-36	-10	-10	-31
	57	47	36	29	31	25	31	60	144	150	90	58	54	62	104	74	66	48	48	59	70	62	37	40	62
29	40	46	87	121	107	122	103	99	129	244	253	168	120	35	18	10	27	43	107	128	57	83	88	62	96
	-19	-60	-320	-378	-259	-185	-182	-292	-301	-258	-154	-304	-115	-30	-11	-20	-24	-80	-305	-311	-90	-46	-108	-111	-165
	60	107	409	500	367	309	287	392	432	504	408	474	236	66	30	31	52	124	412	440	147	130	198	174	262
30	102	114	79	94	71	41	27	17	18	17	9	23	31	33	37	31	20	21	23	26	21	19	22	24	38
	-131	-115	-100	-98	-37	-76	-53	-28	-50	-40	-36	-32	-26	-34	-33	-23	-38	-100	-35	-12	-18	-19	-24	-26	-49
	234	230	180	194	109	118	82	46	68	58	46	55	58	69	71	56	59	122	58	38	40	38	47	51	89
31	16	19	19	22	17	15	14	15	15	10	13	9	8	10	18	29	31	37	32	32	31	20	27	30	20
	-27	-27	-21	-16	-12	-5	-5	-13	-36	-27	-24	-24	-22	-21	-14	-24	-72	-130	-74	-31	-26	-22	-17	-23	-30
	44	47	40	39	31	21	20	29	52	38	37	33	31	31	33	54	104	168	107	63	58	42	46	54	51

Provisional Hourly Values (nT) of AU, AL and AE Indices SEPTEMBER 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	46	39	22	16	11	15	19	15	19	16	16	16	18	18	28	27	28	19	40	37	39	31	24	28	24
	AL	-93	-72	-29	-11	-7	-9	-15	-12	-15	-28	-31	-35	-26	-27	-20	-22	-25	-35	-228	-113	-74	-22	-15	-17	-41
	AE	140	111	51	28	20	25	34	27	35	45	48	52	45	46	49	50	54	55	269	151	114	54	40	47	66
2		23	51	42	39	19	12	12	25	30	20	14	18	25	55	61	41	32	28	33	29	29	31	38	46	31
		-29	-58	-56	-52	-12	-9	-8	-10	-67	-94	-32	-48	-28	-56	-115	-38	-24	-27	-43	-7	-6	-10	-15	-24	-36
		53	109	99	91	32	21	21	36	99	115	47	67	54	111	177	80	57	56	77	38	37	42	55	71	68
3		37	36	31	37	26	30	23	15	27	23	16	17	16	21	25	25	31	25	23	26	17	23	24	24	25
		-57	-57	-98	-36	-13	-4	0	-3	-44	-36	-27	-22	-18	-20	-36	-19	-41	-90	-69	-75	-38	-14	-13	-13	-35
		95	93	130	74	40	36	22	19	72	60	44	40	35	41	62	46	73	116	93	102	56	38	38	38	61
4		22	17	13	14	14	31	39	53	34	27	15	17	35	63	54	58	32	33	24	23	33	44	77	148	38
		-12	-11	-9	-1	0	-14	-99	-97	-88	-28	-28	-21	-18	-19	-108	-100	-50	-58	-67	-23	-32	-76	-240	-305	-63
		35	29	23	16	14	45	139	151	123	56	45	39	54	82	163	159	82	92	93	47	67	122	318	454	102
5		158	143	134	146	147	258	132	39	37	64	126	94	182	244	110	132	66	169	258	235	267	246	228	251	161
		-256	-305	-231	-255	-229	-190	-70	-21	-123	-114	-144	-293	-420	-315	-74	-163	-18	-143	-562	-541	-566	-464	-360	-340	-258
		415	449	367	402	377	449	203	62	161	180	270	388	603	560	185	296	85	313	821	777	834	711	589	591	420
6		154	206	123	31	100	83	93	33	54	127	48	32	91	103	78	151	156	64	50	56	68	106	121	99	93
		-444	-408	-261	-85	-268	-252	-178	-397	-178	-302	-316	-48	-186	-358	-235	-396	-236	-163	-145	-143	-152	-262	-324	-233	-249
		598	616	384	117	370	336	272	432	233	430	365	80	278	462	314	548	393	228	196	200	221	369	446	333	343
7		73	69	137	147	76	69	64	52	128	277	252	178	111	138	60	55	111	116	65	114	128	47	49	28	106
		-146	-173	-363	-432	-130	-74	-217	-461	-420	-672	-684	-288	-328	-215	-101	-241	-326	-554	-106	-113	-339	-82	-21	-14	-271
		220	242	502	580	206	144	282	514	550	950	937	467	440	355	163	297	438	672	173	228	469	131	71	44	378
8		75	83	102	153	168	191	138	113	251	177	249	176	71	71	242	290	170	128	132	93	79	61	38	27	137
		-131	-275	-264	-293	-847	-667	-447	-198	-835	-774	-469	-352	-182	-84	-512	-683	-351	-264	-381	-286	-99	-119	-96	-16	-359
		206	359	367	447	1016	858	585	312	1087	952	720	529	254	157	754	974	522	393	514	380	180	181	135	44	497
9		75	79	103	160	115	85	59	66	95	70	55	109	77	90	120	69	15	20	37	27	42	36	31	36	70
		-84	-278	-214	-512	-514	-392	-221	-209	-379	-169	-108	-269	-351	-402	-340	-186	-93	-102	-131	-74	-68	-102	-34	-18	-219
		160	357	318	673	630	478	281	275	475	240	164	380	429	493	461	256	109	123	169	102	111	140	66	55	289
10		33	32	23	21	22	24	49	41	58	78	101	69	28	16	41	56	107	101	128	210	219	257	201	92	84
		-32	-61	-37	-24	-2	-9	-32	-91	-155	-122	-290	-129	-57	-27	-59	-169	-311	-313	-266	-180	-224	-467	-299	-96	-144
		66	94	61	46	25	34	83	133	214	201	392	199	86	44	102	226	420	415	395	391	444	724	501	190	229
11		88	128	170	195	131	155	94	133	130	175	232	195	113	76	67	53	152	174	216	222	84	110	127	82	138
		-69	-660	-717	-308	-139	-367	-369	-185	-284	-423	-590	-475	-254	-251	-131	-155	-416	-517	-551	-356	-90	-135	-468	-123	-335
		157	788	888	505	271	523	464	319	416	599	823	672	368	328	199	209	570	692	767	579	176	247	596	207	473
12		35	54	59	62	42	67	48	30	25	50	25	56	62	42	40	37	72	57	177	103	74	167	208	127	72
		-24	-138	-127	-154	-188	-91	-64	-78	-44	-87	-160	-188	-164	-70	-58	-75	-193	-158	-397	-234	-57	-262	-578	-360	-164
		60	193	187	218	232	159	114	110	69	138	186	244	227	113	100	114	267	216	575	338	133	430	787	488	237
13		64	49	53	62	89	108	94	119	101	57	141	154	110	77	77	55	74	89	44	46	58	38	59	83	79
		-109	-95	-159	-68	-145	-408	-363	-302	-296	-126	-492	-630	-203	-56	-174	-268	-214	-180	-53	-25	-82	-43	-70	-296	-202
		174	145	212	131	235	517	458	422	399	185	634	785	314	134	253	324	288	270	98	73	142	83	129	380	283
14		70	57	36	62	68	56	54	30	36	34	43	42	45	43	57	26	35	44	44	33	52	73	92	110	52
		-195	-110	-93	-85	-86	-131	-97	-85	-112	-140	-205	-162	-109	-115	-99	-119	-182	-200	-108	-81	-199	-361	-238	-174	-145
		266	168	130	148	155	188	152	116	149	176	250	206	155	159	157	145	219	245	153	116	253	436	332	286	198
15		123	113	164	223	219	239	218	198	311	311	356	228	226	327	294	272	232	161	143	72	41	42	36	35	191
		-150	-375	-485	-451	-495	-340	-378	-401	-580	-820	-745	-272	-680	-891	-440	-491	-494	-292	-177	-251	-18	-3	-9	-17	-386
		274	488	650	675	714	580	597	599	892	1132	1103	501	906	1219	735	764	728	454	320	324	60	47	47	53	578

PROVISIONAL HOURLY VALUES OF **AU**, **AL**, AND **AE** INDICES
(continued)

SEPTEMBER 1995

16	31	58	34	41	42	72	52	91	89	161	98	63	94	55	20	17	10	13	27	68	36	28	65	89	56
	-20	-52	-62	-56	-6	-27	-99	-379	-389	-183	-80	-76	-53	-27	-35	-14	-20	-27	-29	-65	-107	-10	-126	-278	-92
	52	111	96	98	50	100	153	470	459	345	179	140	148	84	56	32	30	41	57	134	145	38	192	368	149
17	82	56	63	78	74	57	33	37	52	53	38	45	41	23	16	16	11	25	32	35	14	20	19	15	39
	-133	-26	-41	-155	-69	-4	-1	-4	-18	-73	-110	-167	-109	-33	-15	-24	-21	-29	-80	-98	-66	0	0	-1	-53
	216	83	105	234	143	62	35	42	72	127	148	213	151	57	32	40	34	55	113	134	81	20	20	17	93
18	9	14	8	15	13	21	24	23	25	32	36	26	16	13	9	6	6	12	17	20	32	46	70	56	23
	-5	-3	-5	-2	-1	-8	-8	-7	-11	-27	-96	-34	-22	-21	-18	-15	-15	-27	-40	-17	-24	-32	-52	-21	-21
	16	18	15	19	16	30	33	32	38	59	133	61	38	34	29	22	22	39	58	37	56	79	123	79	45
19	36	25	28	28	42	45	63	66	26	41	23	18	19	15	12	20	18	14	20	39	26	33	39	39	31
	-5	-13	-48	-8	-11	-31	-50	-49	-13	-19	-13	-16	-18	-18	-17	-17	-32	-108	-30	-32	-17	-42	-55	-27	-29
	43	39	77	37	54	77	115	117	40	62	37	35	38	34	30	38	50	122	51	71	44	76	96	68	60
20	35	27	45	55	62	101	70	79	84	43	40	30	41	47	26	47	49	82	65	63	52	50	78	59	55
	-51	-29	-96	-142	-109	-201	-353	-139	-41	-15	-38	-23	-19	-97	-166	-206	-123	-273	-72	-11	-68	-38	-42	-71	-101
	87	57	142	198	173	303	424	220	126	60	78	53	60	145	192	253	173	356	138	76	121	90	122	132	157
21	47	24	38	49	25	31	23	20	14	13	17	47	39	17	36	42	31	38	38	46	50	73	53	38	35
	-20	-11	-8	-20	-16	-8	-5	-10	-15	-17	-22	-63	-88	-26	-47	-199	-283	-199	-67	-53	-71	-98	-115	-68	-64
	68	36	47	71	41	40	29	31	31	31	39	110	128	44	85	242	315	238	106	100	123	172	169	108	100
22	44	43	44	22	27	24	19	15	24	17	12	17	19	14	10	8	15	17	19	25	23	25	19	38	22
	-26	-8	-11	-8	-2	-5	-8	-7	-12	-13	-14	-20	-30	-18	-19	-15	-12	-11	-9	-10	-11	-3	0	-11	-12
	70	52	57	31	30	29	27	24	38	31	26	38	50	33	30	25	29	29	30	35	35	29	20	50	35
23	61	74	60	61	37	40	32	19	17	41	77	108	110	55	91	43	61	72	170	187	144	80	112	173	80
	-106	-304	-143	-69	-91	-61	-26	-10	-12	-40	-270	-280	-208	-473	-396	-215	-225	-230	-337	-312	-81	-118	-248	-282	-189
	168	379	204	132	130	102	59	30	83	348	389	318	528	488	260	288	303	508	501	226	200	362	455	270	
24	107	50	35	48	99	90	85	97	58	82	45	28	11	27	67	9	17	32	31	23	26	22	22	29	47
	-116	-130	-168	-86	-311	-266	-170	-153	-141	-398	-201	-48	-28	-28	-68	-104	-84	-144	-48	-45	-13	-18	-21	-31	-118
	224	180	204	136	411	357	256	251	200	481	248	78	40	57	136	113	102	177	80	70	41	41	44	61	166
25	25	24	42	64	78	76	92	101	72	32	24	17	30	48	32	27	25	29	21	21	19	13	15	16	39
	-16	-1	-12	-84	-114	-117	-136	-87	-47	-33	-22	-60	-63	-54	-53	-199	-98	-89	-39	-8	-5	-8	-8	-6	-57
	42	26	55	149	193	195	229	189	120	67	47	77	94	104	86	228	123	119	61	30	25	23	24	23	97
26	16	16	30	30	28	21	29	28	24	16	74	42	27	23	18	16	9	12	14	31	48	52	40	29	28
	-6	-7	-55	-30	-46	-58	-12	-8	-124	-117	-345	-156	-80	-33	-15	-20	-21	-22	-84	-62	-153	-74	-20	-10	-65
	23	24	85	60	76	80	42	38	149	134	420	199	108	57	34	37	31	35	100	94	203	128	61	40	94
27	25	54	72	35	54	81	104	144	83	105	225	195	196	99	243	354	304	150	196	252	206	173	75	79	146
	-23	-105	-180	-32	-31	-224	-251	-207	-147	-166	-611	-433	-325	-228	-457	-999	-898	-767	-709	-1123	-676	-589	-85	-24	-387
	49	159	252	68	86	306	357	352	231	272	837	628	522	328	701	1354	1203	918	905	1376	883	762	161	103	534
28	73	41	83	72	88	81	159	262	281	240	212	107	52	49	14	16	3	0	10	10	6	17	12	14	79
	-54	-39	-84	-162	-151	-237	-509	-606	-467	-413	-452	-299	-319	-179	-93	-42	-35	-31	-30	-12	-10	-15	-13	-18	-178
	127	81	168	235	241	319	669	870	749	653	664	406	372	229	108	59	39	31	42	23	18	33	27	32	258
29	14	9	5	5	3	18	23	18	10	8	4	10	7	7	4	14	10	10	10	9	10	12	18	29	11
	-18	-12	-10	-10	-9	-14	-39	-27	-11	-14	-18	-21	-22	-19	-21	-24	-23	-22	-21	-20	-15	-14	-17	-21	-18
	34	23	17	16	12	33	63	46	22	23	23	31	30	27	26	40	34	33	33	31	26	27	36	52	31
30	27	23	24	25	19	36	47	48	42	18	23	57	27	10	12	21	8	8	6	11	8	23	29	31	24
	-15	-20	-18	-13	-7	-19	-102	-91	-37	-13	-30	-155	-109	-31	-24	-23	-40	-21	-15	-17	-16	-45	-186	-75	-47
	44	44	42	38	27	57	151	140	81	32	54	213	137	43	37	46	49	30	23	30	25	69	217	107	72

Provisional Hourly Values (nT) of AU, AL and AE Indices OCTOBER 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	15	17	16	11	10	9	8	11	19	13	12	11	10	11	10	16	20	19	20	26	82	90	117	185	32
	AL	-8	-6	-1	-1	-1	-1	-1	-1	-4	-9	-11	-13	-16	-18	-19	-18	-23	-24	-40	-30	-176	-251	-204	-207	-45
	AE	23	24	18	13	12	10	10	13	24	24	24	25	27	29	29	34	44	43	61	57	259	342	321	392	77
2		230	52	32	24	23	46	81	112	112	151	104	56	84	85	140	71	114	161	185	148	113	203	239	178	114
		-89	-57	-13	0	2	-4	-37	-223	-216	-144	-43	-16	-108	-558	-415	-130	-174	-136	-204	-141	-127	-620	-574	-116	-173
		320	110	46	23	20	52	119	335	330	296	148	73	193	644	555	202	288	298	390	290	242	825	815	295	288
3		70	111	107	123	93	38	21	58	68	85	109	93	182	110	149	185	146	189	227	232	130	50	148	132	119
		-23	-215	-509	-247	-129	-27	-30	-78	-243	-249	-195	-412	-283	-318	-357	-653	-305	-463	-577	-404	-199	-86	-312	-198	-271
		94	327	618	372	223	66	52	137	313	336	305	506	465	429	506	839	451	653	806	638	330	137	460	331	391
4		187	155	119	103	120	283	349	188	101	167	125	239	262	148	234	187	127	241	217	123	104	134	145	153	175
		-374	-140	-122	-230	-61	-264	-203	-24	-108	-386	-902	-923	-581	-440	-688	-685	-377	-338	-285	-438	-345	-500	-501	-387	-388
		562	296	242	334	182	547	553	212	209	554	1029	1162	843	589	924	873	504	580	503	563	450	635	647	541	564
5		134	90	76	112	66	50	52	77	69	185	122	93	108	163	110	40	50	68	51	46	41	75	140	101	88
		-328	-242	-133	-324	-131	-50	-183	-116	-325	-484	-481	-371	-887	-404	-173	-89	-154	-190	-119	-130	-46	-240	-614	-240	-269
		463	333	210	437	198	101	236	193	396	670	604	465	995	567	284	129	205	259	170	177	89	315	755	342	358
6		51	39	81	81	82	87	51	43	115	101	121	93	91	54	132	123	176	143	65	58	63	97	89	160	91
		-35	-26	-116	-314	-254	-286	-169	-86	-388	-1029	-314	-171	-376	-264	-497	-362	-366	-411	-196	-175	-244	-324	-255	-604	-303
		87	66	198	397	336	375	221	130	504	1130	437	265	468	319	629	485	542	556	261	234	308	422	345	766	395
7		173	154	189	104	88	95	220	111	87	200	137	117	116	131	73	62	52	52	41	37	43	45	121	90	106
		-473	-339	-395	-307	-164	-471	-467	-300	-91	-501	-707	-606	-461	-399	-328	-245	-219	-256	-189	-311	-282	-216	-307	-239	-345
		647	495	586	413	252	567	688	412	179	702	845	724	578	530	401	308	271	310	231	349	325	262	429	330	451
8		165	129	74	103	96	97	123	115	96	118	145	118	169	77	102	132	155	208	202	126	124	101	87	50	121
		-506	-220	-104	-261	-242	-259	-323	-234	-71	-279	-657	-1021	-713	-179	-212	-571	-396	-676	-650	-407	-500	-188	-164	-72	-371
		672	351	178	365	338	357	446	349	168	398	803	1140	883	257	314	703	552	885	854	535	624	291	253	123	493
9		52	48	30	32	109	124	101	142	181	118	128	139	125	139	90	120	65	32	75	138	152	145	202	207	112
		-29	-38	-28	-25	-152	-323	-296	-436	-547	-591	-855	-435	-303	-236	-338	-512	-167	-155	-217	-342	-407	-296	-486	-378	-316
		82	87	59	57	262	447	397	578	729	711	984	575	429	376	428	632	232	187	292	482	560	441	688	587	429
10		158	55	66	77	90	70	79	138	62	27	17	37	51	39	26	26	45	28	17	10	13	14	15	15	49
		-264	-43	-49	-130	-342	-388	-532	-207	-46	-14	-30	-47	-94	-31	-25	-28	-30	-19	-17	-18	-19	-13	-7	-3	-100
		422	98	116	208	433	458	613	346	109	42	49	85	145	71	51	54	75	47	35	29	33	27	24	19	150
11		27	15	46	70	111	108	113	74	69	51	20	13	61	76	144	107	106	75	54	43	15	20	44	69	64
		-2	-4	-31	-278	-454	-300	-212	-287	-134	-13	-13	-30	-52	-295	-437	-314	-275	-282	-46	-49	-13	-26	-138	-186	-161
		29	20	78	349	566	408	326	362	204	66	34	44	114	372	582	421	381	358	101	92	29	47	183	255	226
12		113	127	85	59	128	144	125	100	204	160	146	101	161	70	36	55	48	86	78	81	52	66	103	129	102
		-270	-213	-231	-106	-375	-467	-246	-431	-709	-593	-443	-539	-520	-162	-91	-41	-140	-136	-237	-160	-120	-195	-303	-408	-297
		383	341	316	165	504	612	372	532	914	754	591	640	683	233	128	96	189	222	316	243	173	261	406	538	401
13		160	120	83	45	25	33	42	42	42	68	113	116	75	74	79	94	143	86	66	37	49	64	95	84	76
		-324	-209	-154	-14	-3	-13	-45	-171	-210	-159	-175	-125	-23	-39	-147	-266	-307	-210	-130	-48	-228	-258	-202	-65	-147
		486	330	237	60	29	47	89	215	253	229	289	242	99	113	226	361	450	297	197	86	278	323	298	150	224
14		68	53	35	46	28	27	26	23	24	23	35	31	40	27	24	36	26	23	40	15	18	23	39	52	33
		-37	-38	-50	-30	-25	-5	-34	-117	-29	-30	-46	-20	-82	-59	-40	-74	-75	-112	-212	-91	-3	-1	-3	-150	-57
		106	92	85	76	54	33	62	142	54	54	83	52	123	87	65	111	101	136	253	107	21	24	43	203	90
15		39	23	21	17	26	31	26	27	26	14	8	21	65	103	73	75	39	16	43	21	23	64	57	37	37
		-88	-3	-3	-18	-47	-9	-6	-42	-11	-9	-12	-19	-202	-219	-258	-228	-94	-13	2	0	-16	-174	-196	-26	-70
		128	26	24	36	73	40	34	70	38	25	21	41	268	322	332	304	133	30	41	21	40	239	255	65	109

PROVISIONAL HOURLY VALUES OF AU, AL, AND AE INDICES
(continued)

OCTOBER 1995

16	47	25	46	38	31	47	26	16	25	16	32	95	134	120	65	34	35	76	188	109	140	127	119	108	71
	-1	-9	-28	-92	-46	-3	-1	-2	-15	-13	-56	-235	-212	-117	-58	-61	-112	-280	-429	-272	-128	-108	-116	-143	-106
	49	35	75	131	77	50	27	19	42	31	89	331	348	237	124	95	148	357	619	382	270	236	236	252	177
17	112	85	77	92	101	123	121	122	131	52	19	15	31	52	65	83	65	33	25	27	18	29	39	25	64
	-76	-86	-71	-104	-263	-311	-140	-344	-206	-87	-77	-41	-33	-105	-279	-200	-194	-12	-4	-8	-4	-19	-35	-32	-114
	189	172	149	197	365	434	262	467	338	140	98	56	64	158	345	283	259	46	31	36	22	49	75	59	179
18	18	31	39	56	64	71	56	26	21	19	34	69	126	84	91	115	268	224	145	157	107	-27	-29	11	74
	-30	-58	-173	-108	-76	-40	-14	-1	-11	-29	-129	-247	-296	-409	-164	-160	-400	-441	-149	-148	-449	-792	-772	-695	-241
	49	90	213	165	141	113	71	28	33	49	165	317	423	495	256	275	669	666	294	305	556	764	743	707	316
19	79	105	183	38	103	128	111	69	255	147	78	114	106	40	53	40	26	34	36	37	44	46	44	39	81
	-508	-553	-610	-461	-570	-395	-238	-217	-415	-232	-113	-43	-25	-32	-47	-26	-22	-13	-22	-18	-2	1	0	-9	-190
	588	659	793	500	675	524	350	286	672	380	192	158	131	73	101	67	49	48	58	55	47	44	44	49	273
20	18	15	22	43	113	141	124	86	114	164	100	156	121	75	66	173	111	55	171	221	154	65	71	45	101
	-7	-6	-4	-116	-677	-363	-148	-52	-133	-480	-777	-435	-329	-457	-256	-518	-524	-67	-386	-537	-260	-64	-34	-66	-279
	26	22	27	159	791	504	273	139	247	646	878	592	452	532	323	692	635	123	558	759	415	130	106	112	381
21	79	46	37	31	28	47	81	82	141	98	115	77	81	108	101	74	80	40	34	72	56	45	84	92	72
	-165	-118	-32	-24	-20	-29	-145	-350	-368	-214	-275	-304	-283	-426	-339	-154	-393	-317	-148	-209	-227	-150	-257	-263	-217
	246	165	70	56	49	78	228	433	510	313	392	382	364	535	440	229	474	357	184	282	285	196	341	356	290
22	82	72	67	86	55	64	57	53	45	44	31	30	46	82	76	46	70	81	108	101	86	40	119	171	71
	-132	-251	-147	-173	-155	-87	-140	-357	-293	-85	-63	-104	-169	-260	-211	-123	-230	-241	-270	-384	-214	-65	-218	-287	-194
	214	325	216	261	211	152	199	411	339	130	95	136	215	342	288	169	300	322	379	486	301	105	338	458	266
23	153	121	165	136	106	138	101	74	34	104	94	103	96	149	221	196	123	130	130	163	207	49	38	40	120
	-409	-444	-317	-401	-395	-372	-244	-83	-39	-94	-431	-543	-470	-393	-394	-306	-203	-313	-538	-538	-355	-41	-37	-44	-309
	563	567	484	538	502	512	346	157	74	199	526	646	567	543	615	503	327	444	669	702	563	91	76	85	429
24	46	97	39	19	12	9	16	16	11	16	18	51	59	113	96	33	89	51	92	107	75	37	25	16	48
	-279	-230	-21	-10	-11	-9	-5	-7	-55	-66	-138	-192	-275	-360	-147	-110	-523	-252	-221	-198	-115	-53	-18	-7	-137
	327	328	60	30	23	18	22	24	66	83	156	243	334	473	243	143	613	304	314	305	191	91	44	24	186
25	25	75	81	51	67	76	93	89	47	39	21	18	31	27	28	20	16	16	12	11	14	12	11	11	37
	-48	-164	-165	-271	-238	-167	-105	-37	-33	-26	-38	-27	-33	-72	-31	-55	-42	-11	-8	-11	-12	-11	-8	-5	-67
	74	239	247	322	306	243	199	127	81	66	60	45	65	100	60	75	58	28	21	24	28	25	21	17	105
26	11	10	9	10	14	19	21	18	17	13	17	16	18	21	35	24	17	26	24	23	40	99	100	54	27
	-5	-5	-8	-7	-4	-1	0	-5	-36	-108	-21	-21	-35	-36	-16	-38	-46	-26	-10	-22	-63	-98	-34	-3	-27
	18	16	18	18	19	20	23	23	54	122	40	37	53	57	52	63	63	52	34	47	104	198	135	59	55
27	18	47	56	36	22	23	17	14	12	8	9	16	23	42	30	75	49	34	23	16	17	23	50	73	31
	-3	-18	-63	-21	-1	0	0	-1	0	-3	-6	-8	-11	-99	-262	-351	-158	-13	-4	-6	-5	-6	-32	-119	-49
	22	67	119	57	24	21	16	15	13	13	16	24	35	142	293	426	208	48	28	24	23	30	83	193	81
28	28	27	29	28	20	20	12	14	13	14	13	14	15	17	22	20	18	17	19	17	19	21	22	27	19
	-4	0	-4	-3	-1	0	-5	-1	-1	-3	-4	-8	-9	-9	-13	-15	-15	-9	-8	-9	-31	-19	-5	-8	-8
	33	27	34	31	22	20	19	17	14	18	18	23	24	26	36	36	33	28	29	27	51	41	28	36	28
29	28	22	15	24	33	41	31	35	53	35	54	39	19	14	7	9	11	15	14	18	18	19	20	18	25
	-5	-1	0	0	1	-26	-36	-123	-122	-105	-115	-74	-21	-22	-12	-13	-12	-9	-11	-7	-7	-4	-3	-3	-30
	34	25	15	24	31	68	69	159	177	141	171	114	42	37	19	23	23	25	26	26	26	24	23	22	56
30	16	17	17	27	36	31	30	34	25	19	39	45	88	93	271	264	239	290	63	39	83	49	69	144	85
	-4	-7	-10	-11	-7	-3	0	0	1	-2	-65	-123	-159	-296	-566	-553	-543	-382	-59	-39	-114	-170	-182	-268	-148
	21	25	27	38	43	34	29	34	24	22	105	169	248	390	837	819	783	672	123	79	198	220	252	413	234
31	126	73	143	111	48	32	27	52	56	46	18	7	24	52	34	99	67	150	182	197	156	127	124	104	86
	-324	-323	-675	-299	-85	-81	-197	-275	-132	-85	-50	-40	-26	-51	-105	-498	-227	-386	-401	-301	-202	-281	-213	-95	-223
	451	397	819	411	133	114	225	327	189	133	70	48	51	103	140	598	295	536	584	499	359	410	338	201	310

PROVISIONAL HOURLY VALUES OF AU, AL, AND AE INDICES
(continued)

NOVEMBER 1995

Provisional Hourly Values (nT) of AU, AL and AE Indices NOVEMBER 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	86	99	151	196	219	217	260	140	149	110	85	80	83	97	88	30	25	32	141	160	105	63	85	89	116
	AL	-270	-382	-552	-549	-502	-441	-408	-154	-185	-295	-213	-169	-468	-644	-176	-73	-17	-68	-446	-338	-148	-155	-285	-271	-300
	AE	357	482	704	746	722	659	669	295	335	406	299	250	551	741	265	104	43	102	588	500	254	220	372	361	418
2		48	76	58	155	119	155	163	114	99	104	80	145	91	51	82	74	51	91	31	26	26	25	23	19	79
		-217	-152	-148	-363	-543	-652	-408	-394	-422	-348	-422	-429	-175	-213	-304	-344	-200	-294	-142	-59	-68	-23	-25	-24	-265
		266	229	207	519	663	809	572	509	522	453	503	575	267	266	386	420	252	387	173	86	94	49	48	43	346
3		14	14	19	20	13	44	37	45	39	18	36	11	14	13	6	7	10	8	6	9	8	3	8	5	17
		-21	-24	-9	-9	-10	-37	-162	-224	-268	-290	-217	-107	-36	-12	-13	-13	-31	-121	-148	-170	-63	-17	-13	-6	-84
		36	39	29	30	24	82	200	270	308	308	253	120	52	26	20	21	41	129	155	179	71	20	21	12	102
4		7	8	13	11	18	46	61	65	14	35	30	71	118	138	192	247	128	68	34	20	6	13	22	43	59
		-5	-7	-9	-14	-35	-86	-73	-51	-88	-271	-186	-85	-191	-251	-431	-679	-343	-20	-28	-35	-21	-14	-13	-48	-124
		12	16	23	26	54	133	134	116	103	307	218	157	311	390	623	927	471	89	62	56	27	28	35	92	184
5		102	142	121	74	46	14	19	11	14	26	30	86	107	65	121	198	69	63	101	90	104	169	136	70	82
		-153	-314	-222	-143	-80	-57	-18	-5	-12	-23	-21	-202	-173	-56	-269	-405	-68	-67	-149	-159	-168	-379	-236	-109	-145
		257	457	344	217	126	71	38	16	27	50	51	289	281	123	390	604	138	131	251	250	273	550	373	180	229
6		136	172	117	66	95	69	108	134	65	55	56	93	66	99	40	104	98	74	102	55	55	76	65	91	87
		-186	-503	-155	-146	-249	-267	-441	-439	-203	-111	-157	-399	-617	-423	-320	-586	-378	-284	-383	-270	-127	-163	-91	-210	-296
		324	676	273	213	345	337	550	574	270	167	214	493	683	524	362	692	477	360	486	326	183	240	156	302	384
7		85	48	40	55	94	60	70	54	111	82	111	149	147	116	50	51	26	16	27	28	34	39	23	29	64
		-152	-119	-64	-88	-175	-359	-177	-304	-388	-384	-363	-394	-290	-208	-115	-21	-22	-11	-24	-211	-198	-169	-35	-22	-179
		238	168	106	144	269	420	248	359	500	467	475	543	438	325	166	72	48	28	52	239	232	208	60	52	244
8		35	49	49	48	47	65	49	43	26	21	19	21	56	37	15	16	18	23	24	18	16	22	29	35	32
		-96	-98	-85	-149	-148	-84	-38	-64	-44	-135	-67	-112	-67	-43	-81	-206	-250	-147	-46	-18	-31	-75	-61	-21	-90
		132	148	136	197	195	150	87	107	70	157	88	135	124	81	97	222	268	171	70	36	48	98	91	58	124
9		27	18	27	23	22	17	23	22	15	18	13	6	7	28	35	77	42	16	12	14	11	14	11	13	21
		-22	-19	-24	-9	-19	-11	-10	-27	-29	-56	-11	-13	-12	-48	-134	-136	-22	-20	-41	-114	-52	-28	-12	-10	-37
		50	38	52	33	41	28	33	50	45	76	25	20	21	77	170	215	65	37	54	129	64	43	23	24	59
10		13	22	39	25	38	17	18	22	18	20	8	9	10	19	35	27	29	21	14	21	11	14	28	35	21
		-4	-10	-82	-92	-22	0	-2	-24	-19	-11	-32	-57	-87	-30	-112	-43	-22	-73	-116	-159	-45	-16	-37	-74	-49
		18	33	122	118	61	17	20	46	38	32	41	67	99	50	148	72	52	94	131	181	56	31	67	111	71
11		31	52	77	67	25	14	12	13	15	9	11	28	28	19	16	14	12	16	16	43	45	76	141	81	36
		-63	-53	-67	-95	-16	-4	-8	-13	-25	-35	-36	-193	-55	-120	-17	-15	-15	-13	-29	-163	-101	-124	-300	-106	-69
		95	106	144	163	42	18	21	26	41	45	48	222	85	141	34	30	29	30	47	206	146	202	442	189	106
12		132	89	65	62	51	32	46	52	113	63	91	158	98	42	26	19	19	37	75	127	40	34	31	17	63
		-74	-31	-30	-88	-135	-32	-36	-203	-412	-219	-117	-174	-91	-20	-39	-149	-114	-151	-182	-539	-90	-16	-5	0	-123
		208	121	96	150	187	64	83	256	526	283	209	333	190	63	66	168	133	188	258	666	130	51	37	17	187
13		13	27	14	14	13	18	18	19	24	20	7	8	14	46	49	21	34	57	43	19	15	13	13	14	22
		-2	-9	-16	-33	-10	-16	-46	-25	-20	-7	-6	-8	-17	-43	-17	-77	-225	-205	-79	-13	-18	-9	-5	-2	-38
		16	37	31	49	23	34	64	45	45	27	15	17	33	91	67	99	260	263	123	33	34	23	19	17	61
14		32	66	69	52	55	49	30	20	28	16	17	12	25	18	9	22	20	11	10	14	15	31	70	57	31
		-23	-63	-20	-13	-17	-5	-6	-2	-19	-22	-124	-92	-5	-9	-11	-20	-10	-10	-10	-18	-64	-121	-141	-54	-37
		57	131	91	66	73	54	37	22	48	39	143	105	31	27	22	43	30	22	20	33	79	152	211	111	69
15		33	28	27	36	60	80	61	76	37	21	8	9	8	25	14	20	20	24	10	7	6	6	6	7	26
		-12	-10	-10	-21	-55	-96	-31	-15	-16	-28	-18	-9	-8	-26	-11	-17	-17	-13	-9	-5	-4	-5	-3	0	-18
		46	38	38	57	115	177	93	92	54	50	27	20	17	52	27	39	39	38	19	13	11	12	9	7	45

PROVISIONAL HOURLY VALUES OF **AU**, **AL**, AND **AE** INDICES
(continued)

NOVEMBER 1995

16	8	13	20	25	28	28	38	27	16	14	14	9	13	27	58	24	11	11	8	8	9	11	22	39	20
	1	-3	0	0	0	0	0	4	6	3	0	-1	-5	-16	-106	-18	-9	-11	-6	-5	-5	-5	-14	-126	-13
	7	17	20	26	28	27	38	21	10	10	13	12	19	44	166	44	21	22	14	14	15	17	36	166	34
17	107	85	108	152	116	62	41	48	37	39	26	35	24	17	15	19	11	8	10	9	15	16	18	28	43
	-186	-79	-86	-60	-8	-1	-1	-16	-7	-18	-43	-53	-12	-1	-5	-6	-5	-5	-4	-4	-7	-21	-17	-86	-30
	294	166	194	213	124	64	41	65	44	59	69	90	37	19	21	25	16	14	14	14	22	38	36	115	75
18	28	16	22	20	23	14	10	12	10	18	14	10	15	12	9	15	13	12	8	7	14	47	51	52	19
	-27	-4	-4	-11	-30	-78	-181	-173	-90	-76	-39	-35	-8	-9	-9	-9	-15	-22	-94	-30	-41	-248	-181	-78	-62
	56	21	26	31	53	93	192	186	101	95	55	46	24	21	19	25	29	35	102	38	56	295	233	131	82
19	93	96	110	70	63	60	47	51	34	22	12	16	18	43	22	23	7	9	14	25	51	60	49	33	43
	-109	-88	-44	-50	-240	-40	-43	-192	-161	-125	-71	-58	-48	-49	-64	-75	-76	-82	-72	-70	-123	-257	-151	-42	-97
	203	185	155	120	304	101	91	244	196	148	84	75	68	94	87	100	83	92	86	95	175	318	200	77	141
20	43	40	31	25	28	52	37	68	58	26	39	44	21	23	14	8	5	6	6	5	7	22	63	57	30
	-83	-34	-8	-8	-19	-68	-172	-369	-133	-145	-116	-96	-36	-11	-9	-13	-12	-11	-41	-45	-42	-112	-126	-21	-72
	127	75	40	33	48	120	209	438	192	173	156	141	59	35	24	22	17	17	47	50	50	134	189	80	103
21	24	18	15	19	24	19	20	41	30	16	5	5	7	9	13	18	11	13	10	11	10	13	24	22	17
	-25	-22	-3	-7	-15	-53	-49	-54	-45	-36	-39	-21	-10	-10	-25	-25	-16	-63	-88	-56	-16	-20	-43	-33	-32
	51	42	19	26	39	73	70	95	75	53	46	27	18	20	40	45	27	77	98	67	27	34	68	57	50
22	31	20	22	16	27	27	18	17	15	17	13	38	26	16	17	48	85	29	22	21	20	20	26	49	27
	-74	-4	-3	0	1	0	1	0	0	-16	-8	-99	-81	-6	-30	-263	-351	-128	-41	-22	-14	-15	-23	-92	-53
	107	25	25	15	25	27	17	15	15	34	21	138	108	23	49	311	438	157	63	44	35	36	49	142	80
23	68	27	25	30	22	18	29	27	12	44	5	10	20	17	10	12	4	9	12	30	31	54	64	63	27
	-118	-7	-4	-3	-3	-2	-4	-23	-78	-88	-92	-77	-35	-5	-6	-7	-8	-9	-56	-105	-70	-75	-29	-8	-38
	188	35	30	34	26	20	33	50	90	133	99	88	56	23	17	20	13	19	69	135	101	130	93	71	66
24	28	31	32	23	13	11	6	4	5	7	4	3	1	1	14	8	7	9	10	10	9	9	11	22	12
	0	-10	-11	-2	0	-4	-5	-5	-3	-5	-5	-5	-7	-10	-16	-78	-107	-56	-31	-74	-45	-14	-5	-6	-21
	29	42	44	25	14	16	12	10	8	12	10	9	9	12	32	87	115	67	42	85	55	24	16	29	33
25	38	16	13	8	7	10	8	7	6	8	6	5	5	3	4	2	3	4	4	4	5	7	6	7	8
	-5	0	-1	0	0	0	0	-1	-3	-6	-5	-32	-64	-15	-4	-8	-8	-6	-5	-7	-8	-7	-16	-14	-9
	44	16	15	9	7	9	8	9	10	15	12	38	71	19	9	11	12	10	10	12	14	14	23	22	17
26	11	20	53	51	20	20	20	17	15	17	9	4	3	3	7	6	8	8	8	9	9	10	10	10	15
	-21	-14	-23	-9	-2	-1	-1	-3	-1	-1	-5	-17	-26	-9	-12	-9	-9	-10	-6	-7	-3	-3	-4	-3	-8
	33	35	78	61	22	22	22	20	17	19	14	23	30	13	19	15	18	18	15	17	14	14	15	14	24
27	10	10	23	29	36	47	69	138	77	169	79	220	87	40	85	94	180	211	215	105	144	145	90	36	97
	-1	-1	-45	-60	-30	-27	-103	-288	-128	-199	-915	-666	-57	-43	-170	-389	-395	-540	-422	-378	-210	-252	-111	-27	-227
	12	12	70	90	67	74	173	426	206	369	995	887	145	84	256	483	576	752	638	483	355	398	202	64	326
28	34	16	28	43	28	37	43	46	21	19	39	25	12	20	18	30	44	29	28	52	63	79	69	52	36
	-68	-54	-109	-106	-140	-50	-65	-119	-86	-149	-94	-65	-30	-55	-64	-216	-251	-145	-66	-241	-236	-135	-135	-182	-119
	103	71	138	150	169	88	108	167	107	169	134	91	43	76	83	248	296	176	94	294	300	215	205	235	157
29	115	188	112	29	29	43	58	68	134	75	40	30	34	78	70	30	63	62	26	18	18	20	13	49	58
	-470	-291	-145	-23	-4	-27	-249	-323	-325	-242	-142	-124	-156	-86	-76	-209	-389	-173	-126	-111	-68	-75	-35	-44	-163
	587	481	258	53	33	70	308	393	460	318	183	155	191	165	147	240	452	236	154	129	86	96	49	95	222
30	40	78	53	66	73	75	109	100	45	40	52	37	27	34	35	17	11	15	7	8	17	10	15	11	41
	-42	-102	-49	-90	-143	-246	-218	-42	-52	-146	-311	-71	-31	-37	-31	-25	-29	-25	-15	-13	-14	-22	-17	-17	-75
	84	181	103	157	216	322	327	142	98	187	365	110	60	73	68	43	40	40	22	22	32	33	34	29	116

Provisional Hourly Values (nT) of AU, AL and AE Indices DECEMBER 1995

DAYUT		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	AU	9	13	17	23	23	33	33	35	13	13	26	140	208	116	156	199	197	126	258	254	211	97	102	131	101
	AL	-17	-19	-35	-91	-4	-7	-18	-44	-108	-127	-214	-321	-275	-483	-593	-417	-592	-470	-382	-268	-333	-299	-98	-187	-225
	AE	27	33	54	116	28	41	53	80	122	140	241	461	484	600	750	618	790	597	640	524	545	396	201	319	327
2		83	75	49	73	28	30	34	21	21	31	104	155	160	54	71	32	19	14	8	20	20	30	47	43	51
		-392	-120	-10	-48	-51	-67	-87	-172	-163	-210	-381	-234	-261	-244	-427	-275	-184	-112	-109	-177	-35	-4	-30	-41	-160
		476	195	61	123	81	99	122	194	184	241	486	389	422	300	499	308	203	128	119	198	55	35	79	85	212
3		45	49	16	18	11	33	31	28	17	28	36	19	53	70	31	20	12	20	27	43	55	30	62	75	34
		-34	-28	-30	-42	-10	-15	-36	-39	-63	-264	-239	-42	-57	-147	-180	-251	-73	-30	-19	-111	-384	-33	-61	-230	-101
		80	78	47	60	23	50	69	69	81	292	275	61	110	218	211	272	85	51	48	155	440	64	124	306	136
4		146	165	169	149	263	152	94	67	130	217	140	69	48	33	34	30	23	19	10	26	18	47	73	89	92
		-418	-397	-367	-416	-532	-279	-158	-182	-159	-519	-312	-132	-115	-126	-108	-137	-267	-69	-17	-7	-57	-183	-118	-51	-214
		565	563	537	566	797	432	253	251	290	736	452	202	164	160	143	168	292	89	29	35	77	232	192	140	307
5		67	61	22	18	10	16	28	22	27	14	11	6	10	9	10	14	7	12	7	9	11	13	27	31	19
		-35	-19	-6	-7	-9	-9	-11	-11	-12	-16	-12	-8	-8	-10	-11	-16	-31	-40	-17	-29	-81	-168	-90	-13	-28
		103	80	29	27	21	26	40	34	40	32	24	15	19	19	22	31	39	53	24	39	93	183	118	45	48
6		22	19	20	23	33	33	49	36	41	24	16	11	22	37	55	45	21	18	16	28	23	22	25	32	28
		-18	-20	-18	-20	-21	-19	-19	-32	-41	-54	-58	-33	-75	-126	-134	-74	-65	-62	-127	-36	-8	-13	-22	-31	-47
		41	41	40	44	55	53	69	69	83	79	75	46	97	164	189	119	86	81	145	66	33	36	49	64	76
7		20	20	26	23	27	27	20	29	23	29	19	13	49	25	21	35	22	24	17	20	19	19	17	13	23
		-15	-14	-16	-13	-14	-11	-11	-8	-9	-9	-9	-18	-180	-137	-46	-114	-92	-33	-16	-44	-8	-4	-4	-2	-34
		37	36	42	37	42	39	32	38	34	39	30	31	229	163	67	149	115	58	35	66	28	24	22	16	59
8		18	24	29	33	43	21	25	44	32	26	35	21	14	10	16	12	17	7	9	8	10	18	21	29	22
		-1	-3	-4	-21	-16	-3	-8	-48	-23	-27	-7	-40	-14	-20	-47	-14	-13	-8	-21	-70	-14	-5	-9	-16	-19
		20	28	35	55	60	26	34	93	56	54	44	62	29	31	64	26	31	16	31	80	25	24	31	46	42
9		27	48	49	68	197	141	105	34	29	91	165	101	141	87	28	27	10	8	19	12	17	16	14	27	61
		-10	-3	-27	-255	-321	-81	-93	-108	-98	-311	-209	-186	-387	-169	-56	-63	-53	-52	-8	-20	-49	-55	-34	-77	-114
		38	51	78	324	519	223	199	143	128	402	375	287	528	257	85	91	64	61	29	34	68	73	50	105	175
10		65	77	63	43	65	150	98	63	38	18	7	5	9	9	12	10	11	8	5	8	10	10	11	13	34
		-187	-141	-193	-162	-105	-270	-91	-23	-18	-13	-10	-7	-13	-9	-13	-11	-12	-10	-27	-16	-22	-15	-28	-29	-59
		253	219	257	206	171	422	190	87	58	33	18	13	23	19	25	22	25	20	33	25	33	27	40	44	94
11		16	13	22	25	26	28	29	23	17	28	10	20	18	22	17	42	33	19	12	10	16	13	15	16	20
		-10	-27	-105	-64	-17	-3	-13	-25	-18	-27	-36	-127	-33	0	-16	-45	-37	-5	-30	-6	-27	-5	0	0	-28
		27	40	127	90	43	32	43	49	37	56	47	148	51	23	33	87	71	24	44	17	44	18	15	15	49
12		15	16	19	19	21	23	24	17	29	17	11	10	13	39	84	51	57	70	110	99	35	46	79	31	39
		0	-2	-6	-1	3	1	0	-4	-7	-1	0	-4	-12	-58	-74	-76	-76	-151	-380	-278	-26	-52	-82	-4	-54
		15	18	26	20	17	22	25	21	37	18	11	14	25	98	159	127	133	222	491	377	62	99	162	36	93
13		43	35	18	15	16	13	10	12	12	14	15	10	8	5	6	8	11	15	6	8	17	23	14	15	15
		-10	-14	-4	-4	-4	-4	-3	-3	-3	-4	-5	-5	-5	-27	-18	-8	-9	-13	-51	-8	-8	-4	-1	-2	-9
		55	51	24	20	22	18	15	17	16	19	21	17	14	33	24	17	21	29	59	18	26	28	17	18	25
14		23	30	54	83	107	53	77	40	33	27	22	29	16	23	18	16	21	15	17	36	22	18	15	16	34
		-3	-6	-47	-16	9	-1	-9	-16	-43	-29	-35	-100	-13	0	-4	-2	-1	0	-19	-98	-58	-18	-3	-4	-21
		28	37	102	99	97	56	87	57	77	57	57	129	29	24	22	18	23	16	38	135	81	37	20	21	56
15		19	20	19	19	19	36	43	69	47	57	82	159	82	62	123	70	57	53	187	214	133	44	102	78	75
		-18	-11	-12	-2	0	1	0	-15	-88	-150	-105	-176	-273	-553	-268	-37	-50	-260	-586	-486	-168	-52	-161	-219	-154
		38	32	32	23	21	34	44	86	136	208	188	335	355	616	391	108	108	315	774	701	302	97	264	298	229

PROVISIONAL HOURLY VALUES OF **AU**, **AL**, AND **AE** INDICES
(continued)

DECEMBER 1995

16	67	112	109	168	308	221	178	172	54	89	109	46	72	81	23	20	32	27	31	25	29	25	23	24	85
	-220	-340	-480	-434	-521	-288	-207	-402	-197	-201	-318	-325	-455	-714	-278	-178	-108	-69	-50	-12	-21	-30	-15	-10	-245
	289	454	590	603	831	511	386	575	252	291	427	372	528	796	302	200	141	98	82	38	52	56	39	36	331
17	29	29	17	28	20	16	30	36	48	74	76	91	50	52	46	65	28	90	72	29	43	31	37	53	45
	-4	-9	-16	-33	-5	-3	-12	-162	-290	-171	-364	-228	-96	-86	-165	-43	-108	-323	-280	-56	-9	-45	-41	-65	-109
	34	39	35	62	27	20	44	199	338	246	441	319	146	138	212	108	137	414	353	86	53	77	79	119	155
18	64	37	19	15	13	19	20	23	20	25	14	-3	34	99	93	49	15	12	15	30	25	22	22	27	30
	-14	-3	-4	-5	-4	-8	-7	-12	-16	-12	-114	-232	-244	-226	-235	-187	-108	-87	-30	-22	-21	-33	-37	-28	-70
	78	41	24	22	19	28	27	36	37	38	129	228	279	325	328	237	124	100	46	53	48	56	61	55	101
19	28	47	46	56	63	47	52	105	84	41	12	14	27	66	50	25	25	84	45	25	42	25	21	18	44
	-41	-183	-72	-20	-14	-34	-125	-300	-178	-125	-57	-21	-32	-211	-152	-136	-152	-313	-78	-42	-19	-7	-3	-4	-97
	70	231	119	76	79	82	178	407	264	167	70	35	59	277	203	163	179	399	125	69	63	33	26	24	142
20	20	18	18	17	33	46	34	40	20	18	14	22	47	124	101	89	48	31	26	19	13	13	12	13	35
	-4	-4	-4	-6	-11	-14	-7	-6	-1	-2	-14	-157	-108	-228	-203	-44	1	-5	-12	-6	-2	0	0	-1	-35
	25	24	23	24	44	61	43	48	22	22	30	180	156	353	304	133	46	37	39	27	17	14	13	15	71
21	14	18	18	22	18	14	24	24	37	51	59	46	37	83	150	59	99	220	219	217	127	105	187	218	86
	0	-1	-2	-4	-2	-3	-1	0	-1	-2	-2	0	-1	-80	-153	-96	-201	-319	-356	-261	-139	-188	-134	-167	-88
	16	20	22	26	21	18	26	24	38	53	62	48	38	163	304	156	300	539	576	479	268	294	323	386	175
22	273	185	123	101	106	107	209	143	114	145	187	281	150	83	97	205	268	292	196	188	196	184	141	136	171
	-161	-82	-62	-64	-76	-121	-133	-109	-347	-162	-201	-325	-341	-286	-206	-357	-301	-362	-223	-360	-739	-192	-91	-114	-226
	435	268	185	166	184	229	344	253	462	308	389	606	491	370	304	564	570	654	420	549	936	377	233	251	398
23	120	91	115	75	35	34	19	10	13	40	83	80	26	46	41	24	11	6	15	31	29	36	18	25	43
	-203	-315	-155	-65	-36	-22	-10	-11	-20	-68	-212	-140	-39	-57	-20	-13	-19	-19	-73	-100	-45	-12	-3	-12	-69
	324	407	271	141	73	57	30	22	34	109	295	220	66	103	61	38	31	26	89	132	75	50	23	38	113
24	41	72	48	61	69	68	102	109	166	193	251	81	146	288	265	180	97	58	38	46	61	65	69	56	109
	-31	-81	-23	-39	-96	-44	-64	-300	-205	-420	-340	-203	-609	-793	-772	-276	-135	-146	-171	-164	-174	-146	-255	-110	-233
	72	154	72	102	166	114	167	411	372	614	592	285	756	1082	1038	457	233	206	211	211	236	213	324	166	344
25	50	48	60	58	32	59	70	69	16	37	22	43	45	68	48	59	60	38	62	117	112	83	69	60	58
	-166	-125	-219	-131	-62	-166	-147	-80	-40	-65	-65	-92	-173	-164	-181	-363	-337	-236	-165	-195	-119	-103	-70	-92	-148
	217	175	281	190	95	226	218	149	56	102	88	135	219	232	230	423	398	274	228	314	232	188	140	152	207
26	55	64	66	106	127	96	60	55	51	75	87	52	31	27	39	67	29	27	69	49	47	40	37	40	58
	-101	-106	-126	-168	-307	-137	-167	-248	-257	-193	-127	-101	-212	-98	-192	-111	-210	-290	-503	-143	-37	-99	-17	-26	-166
	157	172	193	275	436	234	229	303	309	269	215	153	244	125	232	179	239	319	573	194	86	141	55	66	225
27	52	49	41	33	41	62	70	73	127	44	31	16	39	36	58	36	33	30	25	18	36	13	21	25	42
	-166	-81	-8	-12	-31	-26	-62	-124	-50	-17	-7	-17	-88	-140	-214	-24	-18	-12	-23	-66	-147	-128	-31	-16	-63
	219	132	50	46	73	90	133	199	179	62	39	34	127	177	272	61	52	43	50	86	185	142	53	42	106
28	28	24	21	31	32	20	29	51	47	32	10	11	10	9	13	17	13	10	18	26	20	21	16	15	22
	0	-4	-3	-3	-4	-4	-25	-91	-97	-17	-2	-2	-3	-6	-18	-40	-154	-87	-7	-5	-48	-38	-13	-6	-28
	29	29	25	35	38	26	55	143	146	50	13	14	14	16	31	57	168	98	26	32	69	60	30	22	51
29	13	14	15	24	22	34	35	39	54	37	23	14	10	7	12	22	29	21	16	27	34	22	26	24	24
	-13	-7	-2	-2	-3	-11	-12	-11	-23	-30	-1	-3	-3	-10	-12	-123	-68	-39	-23	-43	-78	-152	-41	-5	-30
	27	21	18	27	26	47	48	52	78	68	26	18	14	18	25	145	97	61	41	71	113	175	69	30	55
30	29	26	34	27	20	16	17	28	37	27	17	7	20	22	15	23	22	20	23	25	25	21	20	17	22
	-5	-20	-70	-4	0	0	1	-9	-35	-14	-19	-49	-127	-63	-14	-20	-23	-4	-2	0	-3	-1	0	-3	-20
	35	47	104	32	20	16	16	38	74	42	37	57	147	85	30	44	46	25	27	25	29	23	20	21	43
31	15	17	22	21	35	95	144	59	44	31	26	31	61	21	17	35	45	42	59	51	49	34	28	18	42
	-6	-6	-11	-7	-12	-43	-255	-2	1	0	-4	-66	-181	-64	-85	-221	-77	-12	-44	-196	-39	0	-5	-5	-56
	22	24	33	29	48	139	401	62	43	32	31	98	243	86	103	257	123	55	104	248	90	34	34	24	98

MONTHLY and YEARLY **AE** 1957 - 1995

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual mean
1957							159	145	311	156	168	217	
1958	193	255	301	263	231	273	270	201	185	175	132	183	221.9
1959	184	256	205	193	208	206	274	225	270	217	246	236	226.8
1960	171	162	183	317	207	235	225	211	212	324	277	255	231.6
1961	156	168	141	166	154	163	252	145	149	143	129	149	159.7
1962	90	95	100	160	110	131	140	172	198	221	152	155	143.6
1963	132	95	94	109	124	142	137	156	229	153	130	115	134.6
1964	116	122	133	149	124	95	99	88	137	142	97	71	114.4
1965	83	121	113	93	94	178	132	130	143	89	87	101	113.6
1966	108	130	152	145	162	146	180	176	223	152	148	157	156.5
1967	135	139	121	168	278	205	177	172	204	123	161	196	173.4
1968	187	227	256	231	268	302	213	203	206	184	198	163	219.9
1969	132	169	227	255	268	225	172	175	198	161	152	110	187.1
1970	118	104	210	233	199	243	276	222	203	194	192	135	194.1
1971	188	177	194	245	241	230	189	195	213	189	155	153	197.5
1972	192	156	203	203	193	238	177	259	196	202	180	133	194.3
1973	221	262	315	337	241	273	232	223	225	261	192	183	247.1
1974	201	226	324	309	297	278	322	307	306	326	248	245	282.3
1975	198	246	283	227	238	542	240	220	188	197	244	180	250.3
1976													
1977													
1978	192	238	244	293	311	308	214	240	246	193	215	177	239.2
1979	213	196	248	298	253	255	224	255	217	189	153	158	221.7
1980	150	165	123	182	184	262	204	181	166	196	199	151	180.2
1981	148	196	239	325	320	219	280	280	207	253	218	159	237.0
1982	179	387	221	305	291	368	373	319	347	276	255	278	299.9
1983	219	321	318	382	292	284	262	265	230	264	283	238	279.8
1984	214	254	301	330	315	284	280	261	311	302	247	255	279.6
1985	226	235	176	271	183	220	265	224	202	204	200	186	216.0
1986	187	273	208	138	203	188	172	232	217	161	188	138	192.2
1987	123	155	164	115	167	160	195	255	271	254	201	147	183.9
1988	180	215	218	233	196	234							
1989													
1990	181	298	296	363	292	249	215	289	220	204	132	108	237.3
1991	120	151	275	270	304	477	364	389	320	332	319	206	294.1
1992	193	290	213	192	281	283	196	238	306	247	228	202	239.1
1993	229	211	326	260	216	216	191	194	211	209	203	203	222.5
1994	214	350	332	348	382	287	209	154	199	285	218	187	263.7
1995	190	213	220	213	286	210	147	183	213	258	138	150	201.8

Unit: nT

The definitive indices for July 1988 to December1989 were not available at the date of publication of this Bulletin. The values for 1990 to 1995 correspond to provisional indices (see IAGA Bulletins 32u to 32x, page 21, and this Bulletin, page 21).

SECTION 4

CLASSIFICATION OF DAYS

CLASSIFICATION OF DAYS

Quiet days 1995

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	C K .	. . .	. . .	. . .	C . *	. . .	. . .	C C *	C C *	C K *	. . .	. . .
2	. . .	. . .	. . .	. . .	. . .	. . .	C C .	C C .	C C *	. . .	. . .	. . .
3	. . .	. . .	C . .	C C *	. . .	. . .	. . .	C C .	C C .	. . .	C . .	. . .
4	. . .	. . .	. . .	C C *	. . .	C . .	. K .	C C .	C . .	. . .	. . .	. . .
5	. . .	C . .	. . .	. K .	. . .	C C .	C C *	C C .	. . .	. . .	. . .	C C .
6	. . .	. . .	C K .	C . .	. . .	. K .	C C *	C C *	. . .	. . .	. . .	C C .
7	. . .	. . .	C C *	. . .	. . .	C C .	C C .	K . .	. . .	. . .	. . .	C C .
8	C . .	. . .	C C *	. . .	. . .	C C *	C C .	. . .	. . .	. . .	. . .	C K *
9	. C .	C C *	. . .	. . .	. . .	C C *	C C .	. . .	. . .	. . .	C C *	. . .
10	. . .	C K *	. . .	. . .	C C *	. . .	C C *	. . .	. . .	. . .	C C .	C C .
11	. . .	. . .	. . .	. . .	C C .	C C .	C C *	. . .	. . .	. . .	. . .	C C .
12	C . .	. . .	. . .	. . .	C C .	C C *	C C *	C . .	. . .	. . .	. . .	. C .
13	. K .	. . .	. . .	C . .	. . .	C C *	C C .	. . .	. . .	. . .	C C .	C C *
14	C C .	. . .	. . .	C C .	C K .	C C .	C C .	. . .	. . .	. . .	C C .	C C .
15	C K *	. . .	. . .	C C *	C . *	C . .	C C .	. . .	. . .	C C .	C C *	. . .
16	. . .	K . .	. . .	C C *	. . .	. . .	. . .	. . .	. . .	. . .	K K .	. . .
17	. . .	. . .	. . .	C C .	. . .	C . .	. . .	. . .	C C .	. . .	. K .	. . .
18	. . .	. . .	C K .	C C .	. . .	. . .	. . .	C . .	C C *	. . .	C C .	C K *
19	C C .	C C .	C C *	C C .	. . .	. . .	. . .	. . .	C C .	. . .	. . .	. C .
20	. . .	C C .	C C .	. C .	. . .	. . .	. . .	C C .	. . .	. . .	C C .	C C .
21	. . .	C C .	C C *	C C *	C . *	. . .	C C .	C C *	C . .	. . .	C C *	. . .
22	. . .	C C *	C C *	. . .	C C .	. . .	C C .	. . .	C K *	. . .	. K .	. . .
23	C . .	C C .	. K .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	C K .	. . .
24	C C *	C C *	C K .	. . .	. . .	C C *	. . .	. . .	. . .	. . .	C C *	. . .
25	C C .	C C *	C . .	. . .	. . .	. . .	C . .	. . .	C C .	C K *	C C *	. . .
26	C C *	. . .	. . .	. . .	. . .	. . .	C C .	C . .	C K .	C C *	C . .	. . .
27	C C *	. . .	. . .	. . .	C . *	C . .	. C .	. C .	. . .	K K .	. . .	C . .
28	C . *	. . .	. . .	. . .	C C .	. . .	C C .	C . .	. . .	C C *	. . .	C C .
29	. . .	. . .	. . .	. . .	. . .	K . .	K C .	. . .	C C *	C C *	. . .	C C *
30	. . .		. . .	C C .	. . .	. . .	C C .	C C *	C C .	. . .	. . .	C C *
31	. . .		. C .		. . .		C C .	C C *		. . .		. K .

C: indicates very quiet period
K: indicates quiet period
This characteri.ation is deduced from aa values - see text p.13.
The first column is relative to the U.T.day,
the second column to the 48 hour interval centered on U.T.day.

An asterisk in the third column indicates that the U.T. day is one of
the five quietest days of the month - according to Kp, see text p.22

CLASSIFICATION OF DAYS (continued)

JANUARY 1995

Five international quietest days (from Kp)		:	15 24 26 27 28
24-hours quiet intervals (from aa)	C – very quiet	:	1 8 12 14 15 19 23 24 25 26 27 28
	K – quiet	:	NONE
48-hours quiet intervals (from aa)	C – very quiet	:	9 14 19 24 25 26 27
	K – quiet	:	1 13 15

FEBRUARY 1995

Five international quietest days (from Kp)		:	9 10 22 24 25
24-hours quiet intervals (from aa)	C – very quiet	:	5 9 10 19 20 21 22 23 24 25
	K – quiet	:	16
48-hours quiet intervals (from aa)	C – very quiet	:	9 19 20 21 22 23 24 25
	K – quiet	:	10

MARCH 1995

Five international quietest days (from Kp)		:	7 8 19 21 22
24-hours quiet intervals (from aa)	C – very quiet	:	3 6 7 8 18 19 20 21 22 24 25
	K – quiet	:	NONE
48-hours quiet intervals (from aa)	C – very quiet	:	7 8 19 20 21 22 31
	K – quiet	:	6 18 23 24

APRIL 1995

Five international quietest days (from Kp)		:	3 4 15 16 21
24-hours quiet intervals (from aa)	C – very quiet	:	3 4 6 13 14 15 16 17 18 19 21 30
	K – quiet	:	NONE
48-hours quiet intervals (from aa)	C – very quiet	:	3 4 14 15 16 17 18 19 20 21 30
	K – quiet	:	5

MAY 1995

Five international quietest days (from Kp)		:	1 10 15 21 27
24-hours quiet intervals (from aa)	C – very quiet	:	1 10 11 12 14 15 21 22 27 28
	K – quiet	:	NONE
48-hours quiet intervals (from aa)	C – very quiet	:	10 11 12 22 28
	K – quiet	:	14

JUNE 1995

Five international quietest days (from Kp)		:	8 9 12 13 24
24-hours quiet intervals (from aa)	C – very quiet	:	4 5 7 8 9 11 12 13 14 15 17 24 27
	K – quiet	:	29
48-hours quiet intervals (from aa)	C – very quiet	:	5 7 8 9 11 12 13 14 24
	K – quiet	:	6

CLASSIFICATION OF DAYS (continued)

JULY 1995

Five international quietest days (from Kp)		:	5 6 10 11 12
24-hours quiet intervals (from aa)	C – very quiet	:	2 5 6 7 8 9 10 11 12 13 14 15 21 22 25 26 28 30 31
	K – quiet	:	29
48-hours quiet intervals (from aa)	C – very quiet	:	2 5 6 7 8 9 10 11 12 13 14 15 21 22 26 27 28 29 30 31
	K – quiet	:	4

AUGUST 1995

Five international quietest days (from Kp)		:	1 6 21 30 31
24-hours quiet intervals (from aa)	C – very quiet	:	1 2 3 4 5 6 12 18 20 21 26 28 30 31
	K – quiet	:	7
48-hours quiet intervals (from aa)	C – very quiet	:	1 2 3 4 5 6 20 21 27 30 31
	K – quiet	:	NONE

SEPTEMBER 1995

Five international quietest days (from Kp)		:	1 2 18 22 29
24-hours quiet intervals (from aa)	C – very quiet	:	1 2 3 4 17 18 19 21 22 25 26 29 30
	K – quiet	:	NONE
48-hours quiet intervals (from aa)	C – very quiet	:	1 2 3 17 18 19 25 29 30
	K – quiet	:	22 26

OCTOBER 1995

Five international quietest days (from Kp)		:	1 25 26 28 29
24-hours quiet intervals (from aa)	C – very quiet	:	1 15 25 26 28 29
	K – quiet	:	27
48-hours quiet intervals (from aa)	C – very quiet	:	15 26 28 29
	K – quiet	:	1 25 27

NOVEMBER 1995

Five international quietest days (from Kp)		:	9 15 21 24 25
24-hours quiet intervals (from aa)	C – very quiet	:	3 9 10 13 14 15 18 20 21 23 24 25 26
	K – quiet	:	16
48-hours quiet intervals (from aa)	C – very quiet	:	9 10 13 14 15 18 20 21 24 25
	K – quiet	:	16 17 22 23

DECEMBER 1995

Five international quietest days (from Kp)		:	8 13 18 29 30
24-hours quiet intervals (from aa)	C – very quiet	:	5 6 7 8 10 11 13 14 18 20 27 28 29 30
	K – quiet	:	NONE
48-hours quiet intervals (from aa)	C – very quiet	:	5 6 7 10 11 12 13 14 19 20 28 29 30
	K – quiet	:	8 18 31

CLASSIFICATION OF DAYS 1995 (continued)

INTERNATIONAL QUIETEST AND MOST DISTURBED DAYS, 1995

Month	Quietest Days 1 - 5					Quietest Days 6 - 10					Most Disturbed Days 1 - 5				
Jan	28	26	15	27	24	14	1	19	25	12	30	17	3	18	29
Feb	25	22	24	10	9	23	21	5	20	17	13	28	12	14	11
Mar	21	22	7	8	19	18	20	6 K	24	25	12	13	1	26	11
Apr	3	21	4	15	16	30	14	17 K	6 K	19	7	8	27	9	10
May	1	21	15	10	27	14	22	11	28	29 A	3	2	5	16	30
Jun	13	12	8	24	9	17	11	15	14	27	19	30	1	3	20
Jul	10	11	6	5	12	7	21	8	13	2	16	24	17	1 *	18 *
Aug	31	21	6	1	30	28	4	20	2	5	14	8	9	25 *	10 *
Sep	29	18	22	1	2	19	3	26	30	25	8	27	5	11	6
Oct	28	29	1	26	25	15	27	14	16 A	17 A	4	20	8	7	18
Nov	24	25	21	9	15	26	14	16 K	13	23	1	6	27	2	5 *
Dec	8	13	30	18	29	7	11	28	20	6	24	22	16	1 *	4 *

These days are arranged according to their degree of quietness or disturbance, respectively.

VERY QUIET INTERVALS, 1995

Kp not exceeding 1+ for at least 8 intervals
(= one day) in sucession

First ..... last Eighth					Duration Eighths
Jan	19	E6	20	E6	9
	24	E2	25	E1	8
	25	E5	27	E4	16
	27	E6	28	E8	11
Feb	9	E4	10	E7	12
	22	E1	23	E2	10
	23	E6	25	E8	19
Mar	6	E3	9	E1	23
	19	E2	20	E4	11
	20	E7	23	E3	21
Apr	2	E7	4	E8	18
	15	E1	16	E6	14
	20	E8	22	E3	12
May	14	E4	15	E4	9
Jun	8	E3	9	E5	11
	11	E4	14	E4	25
	24	E4	25	E3	8
Jul	4	E7	7	E1	19
	7	E3	8	E4	10
	9	E8	12	E7	24
	13	E4	14	E5	10
Aug	1	E5	2	E5	9
	20	E6	22	E4	15

First ..... last Eighth					Duration Eighths
Aug	30	E3	31	E8	14
Sep	1	E2	2	E6	13
	3	E2	4	E1	8
	17	E8	18	E7	8
	21	E7	22	E8	10
	28	E6	30	E3	14
Oct	25	E4	26	E7	12
	28	E1	30	E3	19
Nov	3	E4	4	E3	8
	8	E7	9	E8	10
	10	E3	11	E7	13
	13	E8	14	E7	8
	15	E3	16	E7	13
	20	E4	22	E1	14
	23	E2	25	E8	23
	26	E3	27	E2	8
Dec	7	E7	8	E8	10
	11	E3	12	E5	11
	13	E1	13	E8	8
	14	E3	15	E2	8
	18	E1	18	E8	8
	28	E7	29	E7	9
	30	E1	31	E1	9

LIST OF MAGNETIC STORMS, 1995

Gives consecutive sequences of three-hour-intervals (Eighth E of the Greenwich day), in which at least one Kp reached or surpassed 7+ and no Kp was smaller than 5-

Beginning			s.s.c.		Duration	Number of Eighths with Kp =							
			d.	UT	Eighths	7-	7o	7+	8-	8o	8+	9-	9o
Apr	7	E2		-	7	.	1	1	.	1	.	.	.

SECTION 5

RAPID VARIATIONS

STORM SUDDEN COMMENCEMENTS (**ssc**)

For technical reasons, the 1995 rapid variations data were not available at the date of publication of the present Bulletin (see page 26). As example of the presentation of these data, we give hereafter the beginning of the 1993 list.

LIST OF ssc 1993:

Sudden commencements followed by a storm or a period of storminess, as selected from the monthly reports of the 42 observatories listed below by their three letter code. The name of observatories together with their geographical coordinates and operation dates are given on section 2 (pages29-35). The alternative codes used by some observatories are given in brackets:

SOD DOB NUR LER ESK WNG NGK VAL HAD DOU BDV CLF HRB NAG GCK MMB AQU EBR COI BJI SPT FRD PEG (PEN) KAK HTY KNY QUE SZT (TEN) LNP HYB ETT LUA PMG TAN MPO GNA HER CNB AMS CZT PAF (KGL) DRV (DUM).

Events are checked with the records of HON and EBR. Measurements of quality, duration and amplitude are from copies provided by the five low-latitude observatories: MBO, FUQ, HON, PMG, ABG.

JANUARY 1993									
1901	1022	22222	4.5	27	7A	6B	5C	3si	(1018-1024)

FEBRUARY 1993								
1702	0301	22222	3.5	46	25A	13B	2C	(0300-0303)
2002	0029	22222	5.9	11	1A	4B	8C	(0024-0030)
2702	2220	-2222	4.7	17	3A	11B	13C	(2217-2222)

SOLAR FLARE EFFECTS (**sfe**)

For technical reasons, the 1995 rapid variations data were not available at the date of publication of the present Bulletin (see page 26). As example of the presentation of these data, we give hereafter the beginning of the 1993 list.

LIST OF sfe 1993:

Times of commencements of solar-flare effects (*sfe*) selected from the monthly lists sent by 42 observatories, as reported in the list of *ssc* and checked by the following 30 observatories, identified by their IAGA three letter code (see section 2, pages 29-35):

LER ESK WNG NGK VAL HAD BDV CLF HRB NAG SUA MMB SOF AQU EBR COI SPT PEN KAK HTY KNY QUE TEN LNP API MPO GNA HER CNB EYR

JANUARY

none

FEBRUARY **C** **10/02** **08:52**

A	WNG2	VAL3	HRB0	SUA3	SOF3	COI2	SPT1	PEN2	LNP3	MPO2
B	LER2	ESK2	HAD2	CLF3	NAG1	AQU1	TEN2			
C	NGK0	BDV1	(MMB1)	(KAK1)	(HTY2)	(KNY1)	QUE1	[API0]	GNA1	HER0
	(CNB1)	(EYR1)								
D										
E										
X	EBR									

FEBRUARY **C** **14/02** **12:52**

A	SOF3	TEN3								
B	WNG2	SUA2	SPT1	MPO2						
C	LER3	ESK3	NGK2	VAL1	HAD3	CLF1	HRB1	NAG1	[MMB0]	AQU1
	PEN2	[KAK0]	[HTY2]	[KNY0]						
D	BDV	EBR	COI	QUE	HER					
E										
X										

TRANSACTIONS OF IAGA MEETINGS

	Bulletin
Transactions of the Rome Meeting, 1922	No. 3
Transactions of the Madrid Meeting, 1924	No. 5
Comptes rendus de l'Assemblée de Stockholm, 1930	No. 8
Transactions of the Oslo Meeting, 1948	No. 13
Transactions of the Brussels Meeting, 1951	No. 14
Le Noyau Terrestre, Rome, 1954	No. 15a
Problèmes de la Physique de la haute atmosphère, 1954	No. 15b
Transactions of the Toronto Meeting, 1957	No. 16
Paléomagnétisme et Variation Séculaire, Toronto, 1957	No. 16a
Aéronomie, Toronto, 1957	No. 16b
Rapid Magnetic Variations, Utrecht, 1959	No. 16c
Transactions of the Helsinki and Berkeley Meetings 1960/1963	No. 19
Atlas of Indices K (Vol. 1 : Text ; Vol. 2 : Figures)	No. 21
Programme and Abstracts of the St Gall Meeting, 1957	No. 24
Transactions of the St Gall Meeting, 1967	No. 25
Programme and abstracts of the General Scientific Assembly, Madrid, 1969	No. 26
Transactions of the General Scientific Assembly, Madrid, 1969	No. 27
The World Magnetic Survey, 1957-1969	No. 28
Grid values for the IGRF 1965	No. 29
Transactions of the XV General Assembly, Moscow, 1971	No. 31
Programme and abstracts for the Second General Scientific Assembly, Kyoto, 197	No. 34
Transactions of the Second General Scientific Assembly, Kyoto, 1973	No. 35
Programme and Abstracts of the XVI General Assembly, Grenoble, 1975	No. 36
Transactions of the XVI General Assembly, Grenoble, 1975	No. 37
Grid values and charts of the IGRF 1975	No. 38
Transactions of the III General Scientific Assembly, Seattle, 1977	No. 41
Transactions of the XVII General Assembly, Canberra, 1979	No. 44
Program and abstracts of the IV General Scientific Assembly, Edimbourg, 1981	No. 45
Transactions of the IV General Scientific Assembly, Edimbourg, 1981	No. 46
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Program and abstracts of the V Scientific Assembly, Prague, 1985	No. 50
Transactions of the V Scientific Assembly, Prague, 1985	No. 51
Grid-Point Values and Charts for the IGRF 1985	No. 52
Program and abstracts of the VI Scientific Assembly, Exeter, 1989	No. 53
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IAGA Symposium No. 3, Symposium on Magnetism of the Earth's Interior, Pittsburgh, 1964
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IAGA Symposium No. 5, Communications présentées à la Réunion de Sao José dos Campos (Brésil),
IAGA Symposium No. 6, Symposium on Aurora and Magnetic Storms, Birkeland, 1967
IAGA Symposium No. 7, Symposium on Upper Atmospheric Winds, Waves and Ionospheric Drifts, St Gall, 1967
IAGA Symposium No. 8, Symposium on Laboratory Measurements of Aeronomic Interest, Toronto, 1963
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The names of the files for indices aa, an(3Kn), as(3Ks), am(3Km), Kp(ap), Dst and AE are:

- ...95.dat for hourly or three hourly, and daily values
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- ...95.dmv for daily and monthly values (only Dst)

You can use the visualization software in two ways :

1 - Directly from the diskette :
Hit the command : INTERAA, then give the current year : 1995

2 - Installation on a drive of your computer
Hit INSTAL <drive>: , then ENTER (Example : INSTAL C:)
Hit the command : INTERAA, then give the current year : 1995

If you have diskettes for previous years (1982 to 1994 are available), you can use the same software (interaa.exe), provided that the data files for the corresponding years are on the directories <drive>:\indAA (AA for 82 to 94 years, respectively)

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Geomagnetic Indices, K and C, 1949	No. 12c
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Geomagnetic Data, 1959, Indices K and C No. 12n1, Rapid Variations	No. 12n2
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Geomagnetic Data, 1961, Indices K and C No. 12p1, Rapid Variations	No. 12p2
Geomagnetic Data, 1962, Indices K and C No. 12q1, Rapid Variations	No. 12q2
Geomagnetic Data, 1963, Indices K and C No. 12r1, Rapid Variations	No. 12r2
Geomagnetic Data, 1964, Indices K and C No. 12s1, Rapid Variations	No. 12s2
Geomagnetic Data, 1965, Indices K and C No. 12t1, Rapid Variations	No. 12t2
Geomagnetic Data, 1966, Indices K and C No. 12u1, Rapid Variations	No. 12u2
Geomagnetic Data, 1967, Indices K and C No. 12v1, Rapid Variations	No. 12v2
Geomagnetic Data, 1968, Indices K and C No. 12w1, Rapid Variations	No. 12w2
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Geomagnetic Data, 1974, Indices, Rapid Variations, Special Intervals	No. 32e
Geomagnetic Data, 1975, Indices, Rapid Variations, Special Intervals	No. 32f
Geomagnetic Data, 1976, Indices, Rapid Variations, Special Intervals	No. 32g
Geomagnetic Data, 1977, Indices, Rapid Variations, Special Intervals	No. 32h
Geomagnetic Data, 1978, Indices, Rapid Variations, Special Intervals	No. 32i
Geomagnetic Data, 1979, Indices, Rapid Variations, Special Intervals	No. 32j
Geomagnetic Data, 1980, Indices, Rapid Variations, Special Intervals	No. 32k
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