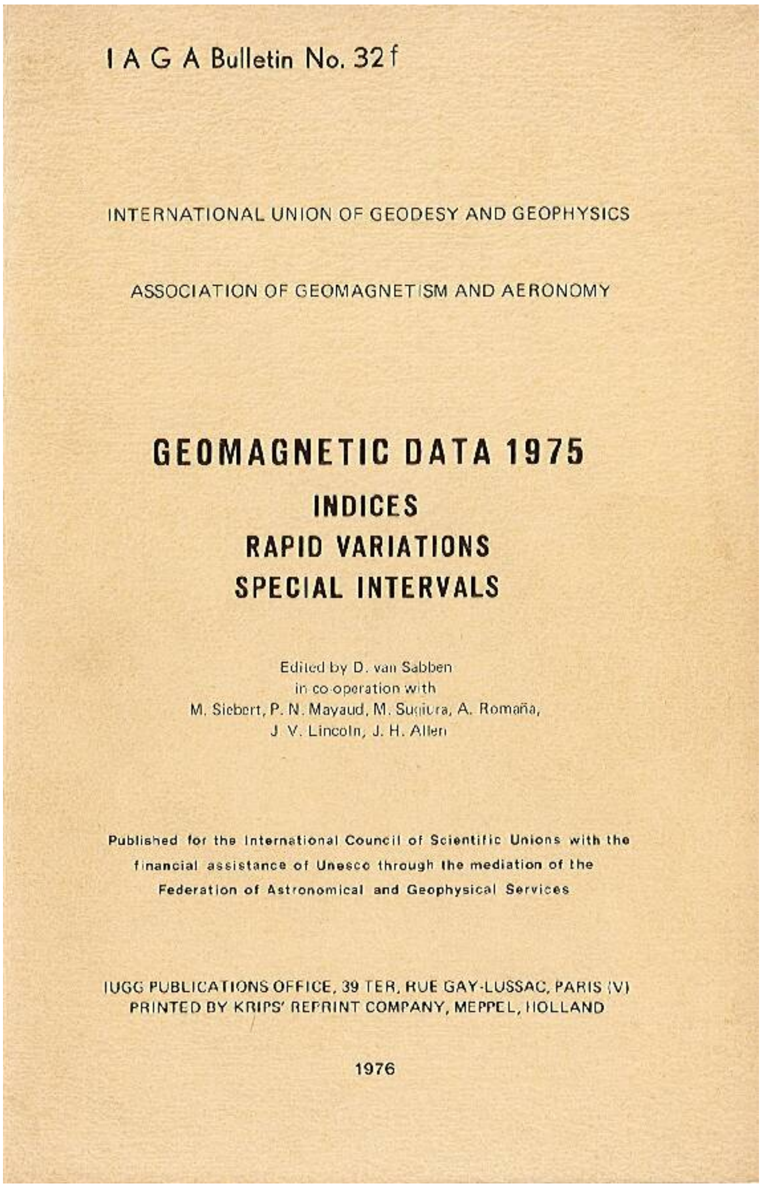

I A G A Bulletin No. 32 f

INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS

ASSOCIATION OF GEOMAGNETISM AND AERONOMY

GEOMAGNETIC DATA 1975

INDICES
RAPID VARIATIONS
SPECIAL INTERVALS

Edited by D. van Sabben
in co-operation with
M. Siebert, P. N. Mayaud, M. Sugiura, A. Romaña,
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Published for the International Council of Scientific Unions with the financial assistance of Unesco through the mediation of the Federation of Astronomical and Geophysical Services

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CONTENTS

INTRODUCTION

The yearly IAGA-Bulletin 32 is the continuation of the series IAGA-Bulletins 12.1 (Indices K and C) and 12.2 (Rapid Variations). In accordance with recommendations of the IAGA-Assemblies in Madrid (1969) and Moscow (1971), the publication of C and K-indices of individual observatories ended with the 1969 data, whereas planetary indices like Dst, AE, Kn, Ks, Km and a survey of magnetic storms were included instead. The compilation of C and K-indices at the data center in De Bilt and the publication of the derived indices Ci, Kp etc. continued as before, [1] as well as the determination of the international quiet and disturbed days. The K-indices of individual observatories have been put on magnetic tape in De Bilt for the years 1969 through 1974. These tapes are available through the World Digital Data Centers for Geomagnetism. Besides, tables of local K-indices can be found in the bulletins of many observatories.

The IAGA-Bulletin 32 is prepared for publication by the International Service of Geomagnetic Indices (ISGI) at De Bilt. The data, based on the reports of more than 100 observatories, are provided by the following institutes (under the responsibility of the following collaborators):

Kon. Nederlands Meteorol. Inst., De Bilt (D. van Sabben): Ci, Q- and D-days.
Institut für Geophysik, Göttingen (M. Siebert): Kp, ap, Ap, Cp.
Institut de Physique du Globe, Paris (P.N. Mayaud): Kn, Ks, etc.
NASA-Goddard Space Flight Center, Greenbelt (M. Sugiura): Dst.
Observatorio del Ebro, Roquetas (A. Romana): Rapid Variations.
Environmental Data Service, Boulder (J.V. Lincoln): Magnetic storm data and magnetograms (J.H. Allen): AE-data.

The ISGI, formely called Permanent Service or "C- and K Center", operates under the supervision of IAGA-Division V : Observatories, Instruments, Indices and Data. Since 1954 it forms part of the Federation of Astronomical and Geophysical Services. The work began in 1906 with the collection and publication of the daily character figure C (as reported by the observatories in a scale 0 - 2) and its daily mean value Ci, in the series "Caractère Magnétique des Jours" (et des Années) and in the Journal "Terrestrial Magnetism", together with lists of selected quiet and disturbed days. In 1938, this work was extended backwards to 1890. For the years 1884 - 1890 Ci figures were published in Terr. Magn. vol. 52 pp. 33 - 38, 1947 (see also Transacts. Washington Meeting 1939, IATME-Bull. pp. 183 - 195). In 1940, the C-data and the selected days became part of the IATME - Bulletin 12, later IAGA - Bulletin 12.

The three-hourly K-index (scale 0 - 9) was introduced by Bartels in 1938. From the K-figures of 12 selected stations, planetary indices Kp were derived. Both K and Kp were officially adopted by the IAGA in 1951 and the series of Kp was extended backwards to 1932 during the subsequent period. The K-figures of the selected stations for these early years were published as supplementary (table 1b) in Bulletins 12g and 12l. In addition to Kp, the corresponding range figures ap and related daily indices Ap and Cp have been published regularly in the IAGA - Bulletins 12.

The meaning of C, Ci, K and Kp, is explained in textbooks, e.g. Landolt-Börnstein, Zahlenwerte und Funktionen, Band 3, pp. 731-744 (Berlin 1952, Springer Verlag), and in Terrestrial Magnetism and Atmospheric Electricity 44, pp. 411-433 (1939) and 46, pp. 301 - 303 (1941). The results of an exten-

[1] However, according to a recommendation of the IAGA-Assembly in Grenoble in 1975 a new index aa will be published instead of Ci and the C-figures will no longer be compiled. This change will be introduced for the 1976-data.

sive study on the index K by P.N. Mayaud are given, together with practical rules for its determination, in the "Atlas of Indices K", IAGA-Bulletin No. 21 (1967). The exact definition of Kp is given in IATME-Bulletin No. 12b, reprinted at the end of the IAGA-Bulletin No. 12i, and in the Journal of Geophysical Research, Vol. 54, pp. 295 - 299, Sept. 1949. The indices have also been described, for use in correlation studies in other geophysical fields, in the Annals of the IGY, Vol. 4, pp. 227 - 236 (London, Pergamon Press 1957).

A collection of diagrams for Kp, 1932/33 and 1940 to 1950, together with diagrams for the daily characters 1884 - 1950, is given in: Abhandlungen Akad. Wiss. Göttingen, Math.-Phys. Klasse, Sonderheft 1 (1951). A second collection from 1937 (up to 1958) has appeared in: Abhandlungen Akad. Wiss. Göttingen, Math.-Phys. Klasse, Beiträge zum Geophysikalischen Jahr, Heft 3 (1958). A discussion on time variations of geomagnetic activity, indices Kp and Ap, 1932 - 1961 has appeared in Annales de Géophysique, Tome 19, pp. 1 - 20, 1963. Tables and diagrams of these planetary indices for the whole period 1932 - 1961 are printed in IAGA-Bulletin No. 18.

Other planetary indices derived from the K-indices, are the three-hourly indices Kn and Ks for the Northern- and Southern hemisphere and their mean value Km. These indices are published in the IAGA-Bulletin 32 from 1968*) onwards: They are described in a publication of the Centre National de la Recherche Scientifique, Paris 1968: "Indices Kn, Ks et Km, 1964 - 1967", by P.N. Mayaud. The complete series of these indices and the related quantities an, as etc. for the years from 1959 onwards is available on punched cards at WDC - A for Solar Terr. Physics, Boulder, in the same format as in the above publication.

The equatorial Dst-index for ring current intensity is also published in the IAGA-Bulletin 32 from 1970 onwards. A description of this index is given in the reports for earlier years. 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 No. X-645-71-278 of the Goddard Space Flight Center. This report supersedes earlier Dst-publications by Sugiura and co-workers. Recently, these Dst values have been recomputed, using the data of four stations. Hourly Dst-values for the IGY, based on the data of eight stations, are given in Annals of the IGY, Vol. 35. The same volume contains three-hourly values of Dst for the IGY as determined by W. Kertz in a somewhat different way. The hourly values from 1957 onwards are available on magnetic tape at WDC-A for Solar Terr. Physics in Boulder.

The auroral electrojet index AE cannot yet be included in the IAGA-Bulletin. At present this index is not available in time. However, graphs of preliminary AE-indices for selected intervals are included in part D of this Bulletin. References to AE are given at the end of part B, together with references to the indices Q and R from individual observatories and to indices Kp, Ap and Cp of earlier years.

A description of all indices mentioned in this introduction is given by M. Siebert in "Handbuch der Physik", Vol. 49/3, pp. 206 - 275 (Springer Verlag, 1971).

Data on rapid variations are given less extensive than in the former IAGA-Bulletins. According to decisions made at the IAGA-Assemblies in Madrid, 1969, and in Grenoble, 1975, the lists of sudden impulses (si), bays and pulsations, minor disturbances

*) For Kn, Ks etc. 1969 and 1968 see Supplementary Tables in Part E of the IAGA-Bulletins 32a and 32b.

and rejected solar-flare effects are omitted. Storm sudden commencements (ssc) are given only if reported by a sufficient number of stations. Pulsations without bays have been published in the quarterly bulletins and their yearly supplement up to 1 Jan. 1974. Checklists are now sent to the observatories for the reported "very remarkable events" and solar-flare effects only.

The Bulletin 32 further contains a data survey for special intervals (mostly magnetic storms) consisting of a survey of indices over the selected time intervals, data on sc's, ranges etc. from individual observatories and magnetograms of selected stations, reduced to the same time scale and comparable intensity scales.

Most data appearing in the yearly IAGA-Bulletin 32 have been given earlier in monthly bulletins, partly in a preliminary form.

The values of Kp, Ap and Cp for a calendar month are usually available, in a table and in graphical representation, before the end of the next month, and they are distributed, in time for 27-day recurrence forecasts, to about 400 institutions in many countries. This service is carried out by the Institut für Geophysik, Herzberger Landstrasse 180, 34 Göttingen, Germany. Requests may be directed to this address.

Monthly tables of Kn, Ks, Km and related quantities are distributed by the Institut de Physique du Globe, 4 Place Jussieu, Tour 14, 75230 Paris Cedex 05, France.

Monthly bulletins on Ci, selected quiet and disturbed days and preliminary data on rapid geomagnetic variations are sent to about 190 observatories and institutions by the International Service of Geomagnetic Indices, c/o Royal Netherlands Meteorological Institute, De Bilt, Netherlands.

The data on rapid variations are collected and prepared for publication at the Observatorio del Ebro, Roquetas, Spain.

Much of the data published in these bulletins can also be found in the monthly publication "Solar Geophysical Data" issued by the NOAA Environmental Data Service, Boulder, Colorado, USA.

IAGA - Division V: Observatories, Instruments, Indices and Data

Paul H. Serson, Chairman

International Service of Geomagnetic Indices

D. van Sabben, Director

Koninklijk Nederlands Meteorologisch Instituut, De Bilt, Netherlands

EXPLANATION OF THE TABLES AND DIAGRAMS

Part A. List of Observatories.

The observatories are arranged according to their geographic latitudes. The two letter symbols have been chosen as far as possible in accordance with the List of Observatories, compiled by G. Fanselau (IAGA-Bulletin No. 20, 1965). For observatories which have removed over a small distance, the old name is sometimes maintained, but the coordinates correspond always with the new site. The symbols are used in the tables of K-figures (now on magnetic tape, formerly in IAGA-Bulletin 12.1) and in the lists of rapid variations (Part C of this Bulletin). Observatories taking into consideration certain data from ionospheric or solar observatories for their reports of solar-flare effects, are marked by an asterisk.

The last three columns contain the scale value of the H-records in γ/mm*, the lower limit for K = 9 used by the observatory in scaling K-indices and the period of time for which the observatory reported K-indices. Of this period, the first and, if the reporting has ended, the last year are given. A letter indicates whether the reporting has been continuous or almost continuous (C) or with interruptions (I). Details of the reporting-periods can be found in IAGA-Bulletin 12, page 12 (up to 1947) and corresponding places in later IAGA-Bulletins.

Part B. Indices.

B. 1, 2 The daily international character figure Ci is defined as the mean value of the C figures of about 30 observatories. These are the observatories from which the C-figures are generally received within four weeks after the end of the month.

B. 3 The selection of the quiet and disturbed days 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.

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 even for different months of the same year, the selected quiet 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 marked by the letter A if for that day: Ap $>$6, or marked by the letter K if Ap $\leqslant$6, and one Kp $\geqslant$3o or two Kp values are $\geqslant$ 3-.

A selected "disturbed day" is considered "not really disturbed" and marked by an asterisk if Ap $<$ 20. (Ref.: P.N. Mayaud, Ann. Géophysique t. 26, 1969, pp. 901 - 921).

* 1γ = 1 nT (nanotesla)

B. 4 The planetary three-hour-range index Kp is the mean standardized K-index from 13 observatories between 46^{o} and 63^{o} northern or southern geomagnetic latitude. The scale is 0 to 9, expressed in thirds of a unit, e.g., 5- is 4 2/3, 5o is 5, 5+ is 5 1/3. This planetary index is designed to measure solar particle radiation by its magnetic effects, especially to meet the need of research workers in the ionospheric field. Several other indices are derived from Kp, namely the 3 hour index ap (the equivalent range) and the daily indices Ap and Cp.

The Kp-stations are: Meanook (Canada), Sitka (Alaska), Lerwick (Shetlands), Eskdalemuir (Scotland), Lovö (Sweden), Rude Skov (Denmark), Wingst (Germany), Witteveen (Netherlands), Hartland (England), Ottawa (Canada), Fredericksburg (Virginia), Amberley (New Zealand), Toolangi (Australia).

The three hour equivalent amplitude ap is related to 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 γ for K = 9. At such a station the average range in γ's* of the most disturbed of the three force components in a three hour-interval can be taken as 2·ap (for instance, for Kp = 3+, as 36γ). In other words ap is an equivalent amplitude in the unit 2γ.

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 2γ for a standard station.

Observatories wishing to compute, from their own K-indices, a local equivalent amplitude ak, may proceed as follows:

K =	0	1	2	3	4	5	6	7	8	9
ak =	0	3	7	15	27	48	80	140	240	400

This table is valid for all observatories. Using the values of the table, ak has the meaning of an index. If it is desired to convert the index ak into an equivalent amplitude in the unit γ*, the conversion factor is obtained from the lower limit for K = 9 valid at the station by dividing the limit by 250. For instance, at Sodankylä, where the lower limit for K = 9 is 1500γ, the factor is 6, so that, for K = 3, the equivalent amplitude is 90γ, or, in other words the index ak for Sodankylä expresses equivalent amplitudes in the unit 6γ. Similary, Ak is the daily average of the ak.

Use of the daily Ap (planetary) or Ak (local value) is recommended in preference to the sum of the indices Kp or K.

The last column gives the daily planetary character figure Cp, as defined in Bulletin 12e, p. 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, p. 111, Table 2) may

* 1γ = 1 nT

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

B. 5 -8 These tables give the frequencies of occurrence of Kp-values during the year, the monthly average values of Ap and Cp and lists of magnetic storms and of very quiet intervals, based on the successive occurrence of certain Kp-values.

The diagrams of Kp show the values of Kp from the table B 4 in a "musical note script" as defined in the key. The arrangement in solar rotations is made in order to show the 27-day recurrence tendency.

B. 9 The three-hourly indices Kn and Ks for the Northern and Southern hemispheres are derived from the K-indices of observatories in the sub-auroral zones of the Northern and Southern hemispheres, namely: Memambetsu (Japan), Petropavlovsk, Magadan, Podk. Tungusta, Tomsk, Sverdlovsk (USSR), Niemegk (Germany), Witteveen (Netherlands), Hartland (England), Fredericksburg, Tucson (USA), Ottawa, Victoria (Canada), Amberley (New Zealand), Toolangi, Gangara (Australia), Kerguelen, Crozet (Indian Ocean), Hermanus (South Africa), Argentine Isl., South Georgia (UK) and Trelew (Argentine). These K-indices are standardized according to the distances of the stations to the auroral zones. The stations are arranged in groups, each group representing a longitude sector in one of the hemispheres (see table at the top of page XII). The mean standardized K for each sector is converted into an equivalent amplitude and the weighted means an and as of these amplitudes are converted back into Kn and Ks. Km is derived in the same way from am, the mean of an and as. (This method is different from the method followed in the case of Kp, where ap is derived from Kp).

The tables are printed mechanically. As the indices are determined with an accuracy of one third of a unit, the values of 3Kn, 3Ks and 3Km are tabulated. An, As and Am are the daily mean values of the amplitudes an, as and am, Am2 is the mean of am over a 48-hour period centered in the middle of the day. σ n and σ s indicate the standard deviations of the sector values of K in the N. - and S. hemispheres. Monthly mean values of An, As and Am are given at the bottom of the tables.

B. 10, 11 The equatorial Dst-index for the intensity of the ring current is the deviation of the horizontal component H from its quiet time value, averaged over a number of low latitude stations. These stations are: Honolulu (Pacific), San Juan (USA), Hermanus (South Africa) and Kakioka (Japan). The exact definition of Dst is given in earlier data publications (see Introduction, for references). Monthly tables of hourly Dst-values are given, followed by a table of daily mean values and a graph of hourly values for the whole year.

Part C. Rapid Variations.

C. 1 Sudden commencements followed by a magnetic storm or by an increase in activity lasting at least one hour (ssc). This list is based upon the data as reported monthly by the observatories. The times in the column at the left are mean values; but the earliest and latest times reported by the observatories for the beginning of the phenomenon are added in brackets. For printing reasons only the minutes are given. These minutes generally belong to the hour of the phenomenon; but if they are underlined, they belong to the preceding hour. The observatories are mentioned in six groups under the letters A, B, C, D, E, X, as follows:

A... when the phenomenon in their magnetograms is very remarkable

B... when it is a fair, ordinary, but unmistakable

C... when it is a poor or doubtful case

D... when it was decidedly not recorded in the magnetograms although the records were satisfactory

E... when the phenomenon cannot be discerned because of heavy disturbance

X... when the record is missing

In some cases one or more observatories preferred another qualification (si, b, bp, etc.); these observatories are included in parentheses.

The meaning of the symbols b, bs, etc. is:

b.... clear and isolated bay appearing during a calm period without pulsations or sharp beginning

bs... bay with sharp beginning without pulsations

bp... bay with pulsations without sharp beginning

bps.. bay with pulsations and sharp beginning

pi2.. train of pulsations of irregular shape and beginning mostly impulsive, with period 40 - 150 sec., consisting of several series of oscillations, each series lasting about 10 minutes (pi2 corresponds with the former pt)

pg... giant pulsations, viz., exceptional pulsations of very great period and regularity, with sufficient relative amplitude

si... sudden magnetic change which could not be classified as ssc, bs etc.

C. 2a Solar-flare effects (sfe) were reported by many observatories. A check of the reported cases has been made by the observatories, mentioned in the heading of the table. In some cases data from the monthly reports of other stations have also been used, in order to get a better idea of the reported effects. The symbols of such stations are included in square brackets. The times tabulated in the column at the left are mean values of the times given for the beginning of a phenomenon. In cases where a clear simultaneous disturbance from an ionospheric or solar observatory or from a radio service, which gives support to the geomagnetic solar-flare effect, has been well established, the indicated time has been underlined. Stations in the daylight hemisphere have been written behind the indicated times and grouped in the same way as in Table C. 1. Observatories near the subsolar point are underlined. Stations lying in the twilight-zone, which reported a clear disturbance are indicated by dotted brackets. Stations under the same circumstances in full dark have been given in parentheses. Stations on the night-side of the earth, which gave a negative or doubtful answer, have been omitted.

C. 2b Doubtful solar-flare effects. In general, the following cases have been considered as doubtful: those where well located stations (with respect to the subsolar point) did not report such an effect, (although several other stations have reported it), and those where some stations in full dark mentioned a disturbance which considering the hour and their geographic position, was probably no night-side bay coexisting with a sfe at the day-side of the earth. Further some cases were considered doubtful because the interpretation of the totality of data was hindered by simultaneous world wide perturbation and also when the solar, radioelectric and ionospheric records were available, but did not show any clear effect at the time of the presumed sfe. Nevertheless it is very probable that several of these cases are real solar-flare effects.

C. 3 Remarkable events. In this list exceptional magnetic disturbances are given of the types which are no longer reported regularly. These disturbances have been checked by the observatories mentioned in the heading of the table. They are listed because of exceptional amplitude, unusual sharp onset or other very remarkable features.

Part D. Data on special intervals

The data for each interval are given on three successive pages, one page contains a selection of magnetograms. On the opposite page, the first lines give a survey of indices Kp, Kn and Ks for the selected interval. Dst is given in a graphical form as follows: A single horizontal line indicates that Dst is negative, a double line means Dst $<$ -50, a triple line means Dst $<$-100 etc. In the list of data from individual observatories, the sign of the amplitude of an sscis to be taken algebraically for D and Z, D reckoned positive if towards the East and Z reckoned positive if downwards. sc* means that the sc-movement (for which the amplitudes are given) was preceded by a small reverse impuls. The ranges of D, H and Z are the differences between the highest and the lowest values of these components attained during the storm. The end of the storm is indicated by the cessation time of reasonably marked disturbance movements in the traces, more specifically when the K-index diminishes to 2 or less for a reasonable period.

The stations for which K-indices are given, are selected on the basis of a representative distribution over all parts of the world. The stations are indicated by their symbols, according to part A of this Bulletin.

Magnetograms are given for three groups of stations, namely for stations inside the polar caps (upper diagram), for stations in the auroral zone (middle diagrams) and for stations in lower latitudes (lower diagram). The selected stations may not always be the same, depending on the availability of the magnetograms. The magnetograms have been reduced to the same time scale and comparable intensity scales. Only the H-component is shown, except for some stations near by the geomagnetic pole, where both H and D or X and Y are given. The Sq - variation has been substracted from the records.

Graphs of preliminary AU, AL and AE (= AU - AL) values for the selected intervals are given at the bottom of the magnetogram-pages in the same time scale. These graphs are indicative of the definite AE (11) values to be published later.

Tables of provisional 2.5-minute values of AE for each selected interval are given on a separate page, either preceding or following the two pages mentioned above.

Note concerning Kn and Ks (page IX, B. 9)

The table below indicates what observatories have been used in each longitude sector in the determination of Kn and Ks.

1959	MT -- --	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1960	MT -- --	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1961	MT -- --	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1962	MT -- --	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1963	MT -- --	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1964	MT -- --	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1965	MT -- --	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1966	MT -- --	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1967	MG MT --	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1968	MG MT --	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1969	MG PK MT	TM SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1970	MG PK MT	TM[1] SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1971	MG PK MT	SV -- --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1972	MG PK MT	SV -- --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG HR --	AR -- --
1973	MG PK MT	PT SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG CZ HR	AR TW --
1974	MG PK MT	PT[3] SV --	NI WI HA	FR -- --	VI TU --	AM TO GN	KG CZ[2] HR	AR TW --
1975	MG PK MT	PT[4] SV	NI WI HA	OT FR --	VI NE TU	AM TO GN	KG CZ HR	AR SG TW

1 - TM manque à partir d'août

2 - CZ manque pour janvier

3 - PT manque de septembre à décembre

4 - PT manque de janvier à mars, et en décembre

Note on the unit γ

In this Bulletin the unit γ (gamma) for the intensity of the geomagnetic field has still been used in some tables and diagrams, although the IAGA has now officially adopted the SI-unit tesla. One gamma corresponds with one nano-tesla (nT).

LIST OF OBSERVATORIES

Symbol	Observatory	Collaborator	Geographic Lat.	Geographic Long.	Geomagnetic Lat.	Geomagnetic Long.	S_H γ/mm	K=9 lower limit	K rep.
	Alert		+82° 30'	297° 30'	+85.7°	168.7°			
BT	Cheisa (B. Tikhaya)	V. Y. Danilov	+80 37	58 03	+71.3	156.0	5	2000	34I -
CC	Cape Chelyuskin	V. A. Smirnov	+77 43	104 17	+66.2	176.5	10	2500	55C -
TH	Thule	K. Lassen	+77 29	290 50	+89.0	358.0	8	1000	55C70
MX	Mould Bay		+76 12	240 36	+79.1	284.7			
RB	Resolute Bay	R. G. Madill	+74 41	265 10	+83.0	289.6		1500	52C55
B4	Bear Island	S. Berger	+74 31	19 01	+71.1	124.0	17	2000	57C59
DI	Dikson	A. M. Denisova	+73 33	80 34	+63.0	161.6	10	1500	34I -
MS	Matoshkin Shar	N. D. Medvedev	+73 16	56 24	+64.8	146.5		2500	55C56
TI	Tiksy	T. L. Kaplan	+71 35	129 00	+60.4	191.4	5	1000	55I -
PB	Point Barrow	T. L. Hardiman	+71 18	203 15	+68.5	241.1	30	2500	57C -
TR	Tromsø	S. Berger	+69 40	18 57	+67.2	116.8	5	2000	47C -
GO	Godhavn	K. Lassen	+69 14	306 29	+79.9	32.5	10	1800	43I -
AI	Abisko	K. Borg	+68 21	18 49	+66.0	115.0	10	1500	
MM	Murmansk	G. A. Lokinov	+68 15	33 05	+63.5	126.2	7	2500	57C -
LZ	Lovozero		+67 59	35 01	+62.8	127.3			
KI	Kiruna	G. Gustafsson	+67 50	20 25	+65.3	115.8	11	1500	52I -
SO	Sodankylä *	E. Kataja	+67 22	26 38	+63.8	120.0	9	1500	14I -
WE	Welen	N. I. Zueva	+66 10	190 10	+61.8	237.1	8	1250	55C -
CO	College *	J. B. Townsend	+64 52	212 10	+64.6	256.5	8	2500	41C -
BL	Baker Lake	R. G. Madill	+64 20	263 58	+73.8	315.2	6	2500	52C55
RY	Leirvogur (Reykj.)	Th. Saemundsson	+64 11	338 18	+70.2	71.0	15	1500	64C -
SR	Srednikan	N. W. Savangeewa	+62 26	152 19	+53.2	210.6	4	550	40I -
DO	Dombås	E. Gjøen	+62 04	9 07	+62.3	100.1	9	750	25C -
YA	Yakutsk	A. A. Danilov	+62 01	129 40	+51.0	193.8	6	550	41I -
PT	Podk. Tungusta		+61 31	90 00			3	650	72C -
NU	Nurmijärvi *	M. Kivinen	+60 30	24 39	+57.8	112.6	8	750	58C -
LE	Lerwick *	B. R. Leaton	+60 08	358 49	+62.5	88.6	4	1000	32C -
MG	Magadan *		+60 07	151 01	+50.6	210.1	2	550	67C -
LN	Leningrad	G. D. Swetlajev	+59 57	30 42	+56.2	117.4	3	600	55C -
LO	Lovö	F. Eleman	+59 21	17 50	+58.1	105.8	4	600	30C -
CH	Churchill		+58 48	265 54	+68.8	322.5			
SI	Sitka *	R. J. Main, Jr.	+57 04	224 40	+60.0	275.4	7	1000	32C -
SV	Sverdlovsk	T. N. Panov	+56 44	61 04	+48.5	140.7	5	550	41I -
TM	Tomsk	O. K. Gordjejev	+56 28	84 56	+45.9	159.6	4	350	58C70
RS	Rude Skov	A. Lundbak	+55 51	12 27	+55.8	98.5	10	600	40C -
KN	Kazan	M. P. Tsjerzor	+55 50	48 51	+49.3	130.4	5	550	41I -
MO	Moskva	W. N. Bobrov	+55 28	37 19	+50.8	120.5	2	550	45I -
ES	Eskdalemuir *	B. R. Leaton	+55 19	356 48	+58.5	82.9	4	750	32C -
GW	Great Whale River		+55 16	282 13	+66.8	347.2			
NS	Novosibirsk		+55 02	82 54			2	500	72C -
ME	Meanook	Anne B. Cook	+54 37	246 34	+61.8	301.0	11	1500	32C -
HL	Helu	W. Czyszek	+54 37	18 49	+53.4	103.7	4	550	56C -
MN	Minsk	M. S. Babuchnikov	+54 04	27 08	+50.6	113.8	4	550	62C -
ST	Stonyhurst	J. E. Worthy S. J.	+53 51	357 32	+56.9	82.7	6	600	60C66
WN	Wingst *	D. Voppel	+53 45	9 04	+54.5	94.1	5	500	40C -
PK	Petropavlovsk		+53 06	158 38	+44.4	218.2			
WI	Witteveen *	D. van Sabben	.52 49	6 40	+54.2	91.0	10	500	40C -
IR	Irkutsk	W. S. Pirozjkov	+52 10	104 27	+41.0	176.9	6	350	41I -
SW	Swider	Z. Kalinowska	+52 07	21 15	+50.6	104.6	4	500	42I -
NI	Niemegk *	K. Lengning	+52 04	12 40	+52.2	96.3	2	500	37C -
VL	Valentia *	S. Mc Williams	+51 56	349 45	+56.6	73.4	3	500	58C -
BE	Belsk	J. Marianiuk	+51 50	20 48	+50.4	104.1	1	500	60C -
GT	Göttingen	M. Siebert	+51 33	9 58	+52.3	93.7	3	500	
CM	Collmberg *	R. Schminder	+51 19	13 00	+51.5	96.5	1	500	54I67
HA	Hartland *	H. F. Finch	+51 00	355 31	+54.6	79.0	4	500	29C -
KV	Kiev	I. A. Mjelnitsjoek	+50 43	30 18	+47.3	112.2	2	350	58C -
MA	Manhay	L. Koenigsfeld	+50 18	5 41	+52.0	88.8	2	500	40C -
DB	Dourbes *	A. de Vuyst	+50 06	4 36	+51.7	88.7	4	500	55C -
RA	Racibórz	W. Kraiński	+50 05	18 11					
PR	Pruhonice *	V. Bucha	+49 59	14 32	+49.9	97.3	4	500	53C -

LIST OF OBSERVATORIES - continued

Sym-bol	Observatory	Collaborator	Geographic Lat.		Geographic Long.		Geomagnetic Lat.	Geomagnetic Long.	S_H γ/mm	K=9 lower limit	K rep.
LV	Lvov	P. W. Soemaroek	+49°	54'	23°	45'	+48.0°	105.8°	3	550	55C -
KD	Karaganda	G. I. Gerasimov	+49	49	73	05	+40.0	148.4	2	350	66C -
BV	Budkov	J. Bouška	+49	04	14	01	+49.1	96.2	1		69I -
VI	Victoria	B. Caner	+48	31	236	35	+54.3	292.7	2	500	57C -
NE	Newport	A. H. Travis	+48	10	242	32	+55.1	300.0	4	600	68C -
FU	Fürstenfeldbruck *	K. Wienert	+48	10	11	17	+48.8	93.3	3	500	48C -
CF	Chambon-la-Forêt*	J. P. le Mouel	+48	01	2	16	+50.4	83.9	6	500	40I -
HB	Hurbanovo *	S. Pintér	+47	54	18	12	+47.1	99.8	4	350	51C -
UB	Ulan Bator	G. Chimiddorj	+47	52	107	03	+36.1	178.0	1	300	56C -
JO	St. Johns	G. A. Brown	+47	36	307	19	+58.7	21.4	6	750	69C -
NA	Nantes	O. Noblanc	+47	15	358	27	+50.5	80.1	6	500	50C59
SA	Yushno-Sakhalinsk	B. E. Mardjerfjeld	+46	57	142	43	+36.9	206.7	3	350	54C -
TY	Tihany		+46	54	17	53	+46.4	99.1	4		58C -
OD	Odessa	A. I. Storojinskii	+46	47	30	53	+43.8	111.1	3	350	55C -
KK	Novo Kazalinsk	A. K. Karpjenko	+45	46	62	07	+39.9	138.6	1	350	66C -
OT	Ottawa	J. Hruska	+45	24	284	27	+57.0	351.5	6	750	32C -
SU	Surlari		+44	41	26	15	+42.5	106.0	2	350	57C -
GC	Grocka *	M. Stojković	+44	38	20	46	+43.6	100.9	3	350	58I -
RT	Roburent *	M. Bossolasco	+44	18	7	53	+45.8	88.5			56C -
MT	Memambetsu *	T. Yoshimatsu	+43	55	144	12	+34.0	208.4	2	350	57C -
AG	Agincourt	A. A. Onhauser	+43	47	280	44	+55.0	347.0	5	600	40C69
VK	Vladivostok	E. I. Bobuljova	+43	41	132	10	+33.0	198.0	4	300	55C -
AT	Alma Ata		+43	16	77	23	+33.4	152.0			64C -
PN	Panagjuriste	K. Kostov	+42	31	24	11			3	350	72C -
LG	Logroño *	T. Miguel Lafuente	+42	27	357	30	+46.1	77.0	4	350	57C -
AQ	Aquila *	F. Molina	+42	23	13	19	+42.9	92.9	5	350	58C -
TF	Tbilisi (Tiflis)	N. A. Katziachwili	+42	05	44	42	+36.7	122.1	1	350	40I -
TK	Tashkent	Zarotsjentseva	+41	25	69	12	+32.4	143.7	2	300	41I -
MD	Maddalena	M. Giorgi	+41	13	9	24	+42.7	88.5	3	350	58C63
IK	Istanbul-Kandilli	O. Uyar	+41	04	29	04	+38.5	107.5	3	300	52C -
EB	Ebro *	J. O. Cardus	+40	49	0	30	+43.9	79.7	3	350	42C -
CI	Coimbra	V. Seiça	+40	13	351	35	+44.8	71.3	4	350	51C -
BD	Boulder		+40	02	254	42	+48.9	316.4			
TL	Toledo	R. Gómez-Menor	+39	53	355	57	+43.6	75.7	6	350	48C -
ON	Onagawa		+38	36	141	28	+28.4	206.7			
FR	Fredericksburg	R. Kuberry	+38	12	282	38	+49.6	349.8	2	500	32C -
PE	Pendeli *		+38	03	23	52	+36.2	102.0	4	300	59C -
GI	Gibilmanna *	M. Georgi	+37	59	14	01	+38.5	92.2	2	350	54C57
AK	Ashkhabad	W. G. Dubrovskij	+37	57	58	06	+30.5	133.4	2	300	58C -
SM	San Miguel	A. Silva de Sousa	+37	46	334	21	+45.6	50.9	4	350	51C -
AE	Almeria	L. Valbuena Vera	+36	51	357	32	+40.6	75.3	5	350	64C -
SF	San Fernando	M. Catalán	+36	28	353	48	+41.0	71.3	3	350	40C -
KA	Kakioka *	T. Yoshimatsu	+36	14	140	11	+26.0	206.0	3	300	36C -
TP	Teheran (Persia) *	H. K. Afshar	+35	44	51	23	+29.3	126.4	2	300	57I -
KS	Ksara	J. Plassard	+33	50	35	54	+30.4	112.0	6	300	49C -
SS	Simosato	K. Sugiura	+33	34	135	56	+23.0	202.4	2	300	57C59
AV	Averroes (Maroc)	P. Stahl	+33	18	352	35	+38.1	69.1	3	350	70C -
DS	Dallas	Lavon Posey	+32	59	263	15	+43.0	327.7			69C -
AS	Aso *	Y. Tamura	+32	53	131	01	+22.1	198.1	3	300	57I57
TU	Tuscon	Clyde J. Beers	+32	15	249	10	+40.4	312.2	3	350	38C -
KY	Kanoya *	T. Yoshimatsu	+31	25	130	53	+20.5	198.1	2	300	58C -
QU	Quetta *	K. U. Siddiqi	+30	11	66	57	+21.6	139.7	2	300	55I -
ML	Misallat	M. Fahim	+29	45	30	54	+26.7	105.8	2	300	56C -
SZ	Santa Cruz (Ten.)	A. G. Cogollor	+28	29	343	43	+35.0	58.6	3	300	64C -
LP	Lunping *	T. I. Ho	+25	00	121	10	+13.8	189.5	2	300	68C -
TA	Tamanrasset	L. Le Donche	+22	48	5	31	+25.4	80.6	4	300	52I -
HO	Honolulu	R. C. Munson	+21	19	202	00	+21.1	266.5	3	300	38I -
TE	Teoloyucan *	C. Cañón Amaro	+19	45	260	49	+29.6	327.1	3	300	51I -
AL	Alibag		+18	38	72	52	+ 9.5	143.6	4	300	40C -
SJ	San Juan	M. Vazquez	+18	07	293	51	+29.9	3.2	2	300	38C -

LIST OF OBSERVATORIES - continued

Symbol	Observatory	Collaborator	Geographic Lat	Geographic Long.	Geomagnetic Lat.	Geomagnetic Long.	S_H γ/mm	K=9 lower limit	K rep.
HD	Hyderabad	B. J. Srivastava	+17° 25'	78° 33'	+ 7.6°	148.9°	5	300	69I -
MB	M'Bour *	H. G. Barsczus	+14 24	343 03	+21.3	55.0	7	350	52C -
MU	Muntinlupa *	C. M. Santos	+14 22	121 01	+ 3.0	189.7	4	300	64C -
GU	Guam	K. Cravens	+13 35	144 52	+ 4.0	212.9	2	300	58C -
AN	Annamalanaigar		+11 24	79 41	+ 1.5	149.4			
AA	Addis Ababa	E. Cambron	+09 02	38 46	+ 5.3	109.2		300	
TV	Trivandrum		+08 29	76 57	- 1.1	146.4			
KR	Koror	K. Gravens	+07 20	134 30	+ 3.2	203.4		300	58
PA	Paramaribo	D. van Sabben	+05 49	304 47	+17.0	14.5	7		57C58
FQ	Fúquene	J. del C. Quintero	+05 28	286 16	+16.9	355.1	4	300	57C60
BA	Bangui	J. Vassal	+04 26	18 34	+ 4.6	88.5	3	350	52I -
MC	Moca	A. G. Cogollor	+03 21	8 40	+ 5.7	78.6	3	300	64C -
BN	Bunia	P. Herrinck	+01 32	30 11	- 0.4	99.3	2		
TT	Tatuoca	J. A. Ferreira	-01 12	311 29	+ 9.6	20.8	3		
LR	Lwiro *	G. Bonnet	-02 15	28 48	- 4.0	98.2	5	350	58C60
HN	Hollandia	D. van Sabben	-02 34	140 31	-12.6	210.3	5	300	57C58
BI	Binza	(P. Herrinck (G. Lesambo	-04 23	15 16	- 3.4	83.2	4		65I -
TG	Tangerang	R. Susanto	-06 10	106 38	-17.6	175.4	4	300	40I -
LU	Luanda	V. S. Moreira	-08 55	13 10	- 7.2	80.5	3	350	61C -
PM	Port Moresbey *	I. B. Everingham	-09 25	147 09	-18.6	218.0	3	300	58C -
KC	Karavia (Congo)	(P. Herrinck (G. Lesambo	-11 39	27 28	-12.7	94.1	5		
HU	Huancayo *	A. A. Giesecke M.	-12 02	284 41	- 0.6	353.8	3	600	37C -
DA	Darwin	L. S. Prior	-12 20	131 00	-22.0	201.3			
AP	Apia *	A. L. Burrows	-13 48	188 14	-16.0	260.2	4	300	40C57
PP	Papeete-Pamataï	Ch. Rouchouse	-17 34	210 25	-15.3	282.8	2	350	68C -
TN	Tananarive *	(Kakoto (Hee	-18 55	47 33	-23.1	112.1	1	300	50C -
MR	Mauritius	B. M. Badya	-20 06	57 33	-26.6	122.4	3	500	56C60
LQ	La Quiaca	R. P. J. Hernández	-22 06	294 24	-10.6	3.2	3	350	64C -
VA	Vassouras	L. I. Gama	-22 24	316 21	-11.9	23.9	4	600	52C64
LM	Lourenço Marques	F. Augusto Leal	-25 55	32 35	-27.7	95.8	3	300	67C68
BR	Brisbane	R. F. Thyer	-27 32	152 55	-35.8	226.9		500	57C64
WA	Watheroo	P. M. Mc Gregor	-30 19	115 53	-41.8	185.6	3	350	37C59
PI	Pilar	R. P. J. Hernández	-31 40	296 07	-20.2	4.0	3	300	40I -
GN	Gnangara *	P. J. Gregson	-31 47	115 57	-43.2	185.8	3	350	59C -
HR	Hermanus *	L. Loubser	-34 25	19 14	-33.7	81.7	2, 3	300	40C -
AC	Las Acacias	H. A. Hartmann	-35 00	302 19	-24.0	10.3	2	350	64C -
TO	Toolangi *	L. S. Prior	-37 32	145 28	-46.7	220.8	4	500	41C -
AM	Amberley *	A. L. Burrows	-43 09	172 43	-47.7	252.5	5	500	37C -
TW	Trelew *	O. P. Pelliciuoli	-43 15	294 41	-31.7	3.2	3	350	57C -
CZ	Crozet	R. Schlich	-46 26	51 52	-51.4	109.7	2	500	72C -
KG	Kerguelen	R. Schlich	-49 21	70 12	-56.5	127.8	6	750	57I -
SG	South Georgia		-5[illegible] 17	323 31	-42.2	26.0	5	350	
MI	Macquarie Island	N. G. Chamberlain	-54 30	158 57	-60.7	243.0	25	1500	52C -
OR	Orcadas del Sur		-60 44	315 13	-50.1	18.2		400	
AR	Argentine Island	J. C. Farman	-65 15	295 44	-53.8	3.3	4	500	57C -
OA	Oasis		-66 06	92 09	-77.2	160.8	8	2000	57C58
WK	Wilkes *		-66 15	110 35	-77.2	179.2	25	2500	58C66
MY	Mirny	U. N. Oviannikov	-66 33	93 01	-77.0	146.8	6	2000	57C -
DU	Dumont d'Urville	R. Schlich	-66 40	140 01	-75.6	230.9	8	1800	57C -
MW	Mawson *	N. G. Chamberlain	-67 36	62 53	-73.2	103.1	10	1500	55C -
CT	Charcot		-69 23	139 01	-78.3	234.5		1500	57C58
PO	Pionerskaya		-69 44	95 30	-80.3	146.5	12	2000	57C58
NL	Novolazarevskaya	V. A. Kazarin	-70 46	11 50	-66.2	53.6	15	1500	60C -
BB	Base Baudouin		-70 26	24 19	-69.	63.			64C66
HT	Hallett		-72 19	170 13	-74.7	278.2	31	2500	57C62
HY	Halley Bay	J. C. Farman	-75 31	333 20	-65.8	24.2	7	1500	57C -
SB	Scott Base *	A. L. Burrows	-77 51	166 47	-79.0	294.4	22	2000	57C -
LA	Little America	J. J. Gniewek	-78 11	197 50	-74.0	312.0		2500	57C58
VO	Vostok	I. N. Babakov	-78 27	106 52	-89-2	91.4	11	2000	58I -
BY	Byrd Island		-80 01	240 29	-70.6	336.3	24	2500	58C60
SP	South Pole		-90		-78.5	0.0	29	2000	60

TABLE 1 INTERNATIONAL CHARACTER-FIGURES, Ci, 1905 - 1975

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean for the year
1905	0.7	0.7	0.6	0.6	0.5	0.6	0.5	0.7	0.7	0.5	0.7	0.4	0.59
06	0.4	0.9	0.7	0.6	0.6	0.6	0.7	0.6	0.8	0.6	0.6	0.7	0.65
07	0.7	0.8	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.66
08	0.6	0.7	0.9	0.7	0.8	0.7	0.5	0.8	0.9	0.5	0.6	0.5	0.68
09	0.8	0.6	0.8	0.5	0.6	0.5	0.5	0.6	0.7	0.7	0.5	0.6	0.62
1910	0.6	0.7	0.8	0.7	0.7	0.5	0.6	0.8	0.8	1.0	0.8	0.8	0.72
11	0.8	0.9	0.8	0.8	0.7	0.5	0.6	0.5	0.5	0.6	0.5	0.4	0.63
12	0.4	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.4	0.4	0.46
13	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.4	0.48
14	0.5	0.5	0.6	0.5	0.4	0.5	0.6	0.6	0.5	0.6	0.6	0.5	0.54
1915	0.5	0.6	0.7	0.6	0.6	0.6	0.5	0.6	0.6	0.8	0.8	0.5	0.62
16	0.6	0.6	0.9	0.7	0.8	0.7	0.6	0.8	0.8	0.8	0.8	0.6	0.71
17	0.8	0.7	0.6	0.6	0.7	0.6	0.6	0.8	0.6	0.7	0.5	0.7	0.66
18	0.6	0.8	0.7	0.8	0.7	0.6	0.7	0.8	0.9	0.8	0.8	0.9	0.75
19	0.8	0.8	0.9	0.7	0.8	0.6	0.5	0.7	0.8	0.9	0.5	0.7	0.72
1920	0.6	0.5	0.8	0.6	0.6	0.4	0.5	0.6	0.9	0.6	0.6	0.6	0.62
21	0.5	0.5	0.7	0.7	0.8	0.6	0.5	0.6	0.5	0.6	0.6	0.6	0.61
22	0.6	0.7	0.8	0.8	0.6	0.6	0.7	0.7	0.7	0.7	0.5	0.4	0.64
23	0.5	0.6	0.5	0.4	0.5	0.5	0.4	0.4	0.5	0.6	0.4	0.5	0.48
24	0.6	0.6	0.6	0.4	0.5	0.6	0.6	0.4	0.7	0.5	0.5	0.4	0.54
1925	0.4	0.4	0.4	0.5	0.5	0.7	0.6	0.6	0.7	0.8	0.5	0.6	0.56
26	0.8	0.8	0.8	0.8	0.6	0.5	0.5	0.5	0.8	0.7	0.5	0.5	0.65
27	0.6	0.7	0.8	0.6	0.6	0.5	0.6	0.6	0.8	0.8	0.4	0.6	0.63
28	0.4	0.6	0.5	0.5	0.8	0.7	0.7	0.6	0.8	0.8	0.6	0.5	0.63
29	0.5	0.8	0.8	0.5	0.6	0.6	0.7	0.6	0.8	0.8	0.7	0.7	0.67
1930	0.7	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.8	0.9	0.6	0.5	0.83
31	0.5	0.6	0.6	0.4	0.5	0.6	0.6	0.7	0.8	1.0	0.8	0.7	0.66
32	0.8	0.8	1.0	0.9	0.8	0.4	0.5	0.7	0.7	0.7	0.6	0.7	0.70
33	0.6	0.6	0.7	0.8	0.6	0.6	0.5	0.6	0.8	0.6	0.6	0.5	0.64
34	0.5	0.6	0.8	0.4	0.5	0.4	0.4	0.7	0.7	0.5	0.4	0.7	0.56
1935	0.7	0.7	0.7	0.6	0.5	0.7	0.6	0.5	0.9	0.9	0.6	0.7	0.67
36	0.7	0.8	0.6	0.8	0.7	0.7	0.7	0.4	0.5	0.7	0.7	0.5	0.65
37	0.6	0.9	0.8	0.8	0.7	0.7	0.8	0.5	0.6	1.0	0.7	0.6	0.74
38	1.1	0.8	0.6	0.8	0.7	0.5	0.7	0.7	0.8	0.8	0.6	0.6	0.74
39	0.5	0.9	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.9	0.5	0.6	0.76
1940	0.8	0.7	0.8	0.7	0.7	0.7	0.6	0.6	0.7	0.7	0.8	0.8	0.73
41	0.7	0.8	1.0	0.6	0.6	0.6	0.7	0.7	0.8	0.6	0.7	0.6	0.70
42	0.5	0.6	0.9	0.7	0.4	0.5	0.7	0.7	0.7	0.9	0.7	0.6	0.65
43	0.5	0.5	0.7	0.6	0.6	0.6	0.7	1.0	0.9	0.9	0.8	0.6	0.70
44	0.6	0.5	0.8	0.6	0.5	0.4	0.4	0.5	0.5	0.5	0.3	0.6	0.53
1945	0.5	0.5	0.7	0.6	0.4	0.3	0.4	0.4	0.4	0.5	0.3	0.6	0.47
46	0.6	0.7	0.8	0.6	0.6	0.6	0.7	0.4	0.8	0.5	0.5	0.4	0.61
47	0.6	0.5	1.0	0.6	0.6	0.7	0.6	0.8	1.0	0.8	0.6	0.5	0.69
48	0.6	0.7	0.7	0.6	0.8	0.5	0.6	0.8	0.7	1.0	0.7	0.7	0.71
49	0.7	0.7	0.8	0.6	0.7	0.6	0.5	0.6	0.6	0.9	0.7	0.5	0.65
1950	0.7	0.7	0.7	0.8	0.8	0.6	0.7	0.8	0.8	0.9	0.8	0.7	0.74
51	0.8	0.9	0.9	1.0	0.8	0.8	0.8	0.9	1.1	0.8	0.8	0.8	0.89
52	0.8	0.9	1.0	1.0	0.9	0.7	0.6	0.6	0.9	0.8	0.6	0.7	0.81
53	0.7	0.6	0.8	0.7	0.6	0.5	0.7	0.8	0.8	0.7	0.6	0.4	0.67
54	0.5	0.8	0.8	0.7	0.4	0.4	0.5	0.6	0.9	0.7	0.5	0.4	0.59
1955	0.6	0.7	0.8	0.7	0.6	0.5	0.4	0.6	0.6	0.6	0.6	0.5	0.59
56	0.9	0.7	0.9	0.9	0.8	0.8	0.6	0.7	0.7	0.6	0.9	0.5	0.76
57	0.7	0.7	1.0	0.9	0.6	0.8	0.6	0.6	1.0	0.7	0.8	0.8	0.77
58	0.8	1.0	1.1	0.8	0.8	0.8	0.8	0.7	0.6	0.7	0.4	0.8	0.77
59	0.7	1.0	0.7	0.7	0.8	0.8	1.0	0.9	1.1	0.8	0.8	0.8	0.83
1960	0.7	0.7	0.8	1.1	0.9	0.8	0.8	0.8	0.8	1.0	0.9	0.9	0.84
61	0.6	0.7	0.6	0.6	0.7	0.6	0.9	0.6	0.6	0.5	0.4	0.5	0.61
62	0.3	0.6	0.4	0.7	0.4	0.6	0.7	0.8	0.8	1.0	0.6	0.6	0.63
63	0.5	0.4	0.4	0.5	0.7	0.6	0.6	0.7	1.0	0.6	0.6	0.5	0.61
64	0.6	0.7	0.6	0.7	0.6	0.5	0.5	0.4	0.6	0.5	0.4	0.3	0.53
1965	0.4	0.6	0.5	0.4	0.4	0.5	0.5	0.5	0.6	0.4	0.4	0.4	0.45
66	0.4	0.4	0.6	0.4	0.4	0.4	0.5	0.6	0.9	0.5	0.5	0.6	0.52
67	0.5	0.5	0.4	0.5	0.8	0.7	0.5	0.5	0.7	0.6	0.6	0.7	0.58
68	0.6	0.8	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.65
69	0.4	0.6	0.8	0.7	0.6	0.5	0.4	0.5	0.6	0.5	0.5	0.4	0.54
1970	0.4	0.4	0.6	0.7	0.4	0.5	0.8	0.5	0.5	0.6	0.6	0.4	0.52
71	0.6	0.6	0.6	0.7	0.6	0.5	0.5	0.5	0.7	0.6	0.5	0.5	0.58
72	0.7	0.5	0.6	0.6	0.5	0.6	0.4	0.7	0.6	0.6	0.6	0.5	0.57
73	0.8	0.9	0.9	1.0	0.7	0.7	0.6	0.6	0.7	0.8	0.6	0.6	0.73
74	0.7	0.7	1.0	0.9	0.8	0.8	0.8	0.9	0.9	1.0	0.7	0.8	0.83
1975	0.8	0.8	0.9	0.7	0.7	0.6	0.6	0.5	0.4	0.5	0.8	0.6	0.65

TABLE 2 INTERNATIONAL CHARACTER-FIGURES, Ci 1975

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.3	1.4	1.0	0.4	0.3	1.1	0.7	0.5	0.4	0.1	0.4	1.4
2	0.2	1.0	0.4	0.1	0.9	1.4	0.2	0.2	0.3	0.1	1.4	1.2
3	0.5	0.6	0.6	0.2	0.9	0.7	0.3	0.1	0.0	0.6	1.7	0.6
4	1.5	0.4	0.3	0.4	0.8	0.5	0.2	0.1	0.0	0.5	1.5	0.6
5	1.3	0.9	1.3	0.4	1.2	0.8	0.1	1.2	0.0	0.2	1.1	0.4
6	1.3	0.3	1.1	0.8	1.3	0.6	0.2	0.4	0.8	1.2	0.6	0.4
7	1.4	0.8	0.0	1.1	1.2	0.2	0.8	0.2	0.3	1.5	0.6	0.2
8	1.6	0.3	0.0	1.5	0.9	0.1	1.4	0.9	0.2	1.6	0.3	1.0
9	0.4	0.5	0.4	1.6	0.9	0.1	1.3	1.0	1.2	1.5	1.6	0.9
10	0.1	1.4	1.8	1.4	1.1	0.1	1.0	1.0	1.2	1.1	1.0	0.6
11	0.2	1.5	1.7	1.4	0.0	0.8	1.1	0.3	1.1	0.4	0.7	0.3
12	0.2	1.6	1.5	1.2	0.0	1.2	0.3	0.1	1.1	0.7	0.4	0.1
13	1.5	1.2	1.2	1.2	0.2	0.8	0.6	0.2	0.8	0.4	0.1	0.1
14	1.5	1.2	1.3	1.0	0.8	0.5	0.8	1.0	0.7	0.6	0.1	0.3
15	0.9	1.1	0.8	0.3	0.0	0.9	0.9	1.1	0.4	0.0	0.1	0.4
16	1.3	1.3	1.2	0.2	1.3	1.0	0.8	0.2	0.1	0.6	0.2	0.8
17	1.2	0.8	0.8	0.2	0.8	0.8	0.9	0.5	0.7	0.4	1.2	0.5
18	1.2	0.8	1.0	0.2	0.4	0.7	0.8	0.2	0.8	0.2	0.4	0.2
19	0.6	0.6	0.7	0.1	0.9	0.8	0.5	0.1	0.3	0.1	0.4	0.2
20	0.5	0.5	0.9	1.2	1.3	0.2	0.3	0.9	0.2	0.3	0.6	0.1
21	0.3	0.5	0.0	1.1	0.6	0.4	0.3	0.9	0.2	0.2	1.0	0.6
22	0.5	0.2	0.1	0.8	0.5	0.2	0.2	0.7	0.1	0.2	1.7	0.6
23	0.9	1.4	0.8	1.2	0.4	0.1	0.2	0.6	0.0	0.3	0.4	0.3
24	0.5	0.9	1.0	0.9	0.1	0.0	0.3	0.2	0.0	0.0	0.9	0.2
25	0.4	1.0	0.6	0.4	0.9	0.2	1.5	0.6	0.0	0.0	0.8	1.1
26	0.2	0.4	1.0	0.3	1.0	0.2	1.1	0.1	0.9	0.3	0.9	1.5
27	1.0	0.1	1.5	0.1	0.6	0.1	0.7	0.2	1.0	0.1	0.2	1.5
28	0.7	0.6	1.5	0.0	0.1	0.1	0.6	0.2	0.5	0.6	0.4	0.8
29	0.2		1.1	0.0	0.8	1.2	0.1	1.2	0.1	0.6	1.4	0.8
30	0.5		0.5	0.2	0.1	1.1	0.1	0.8	0.0	0.4	1.6	0.6
31	1.0		0.6		0.1		0.2	0.3		1.0		0.2
Mean	0.77	0.83	0.86	0.66	0.66	0.56	0.60	0.52	0.45	0.51	0.79	0.60

Mean for the Year 0.65

TABLE 3 INTERNATIONAL QUIET AND DISTURBED DAYS 1975

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

For explanation of Tables 1, 2 and 3: see page VII.

TABLE 4 PLANETARY THREE-HOUR-INDICES Kp, EQUIVALENT RANGES ap, DAILY AVERAGE RANGES Ap, AND PLANETARY DAILY CHARACTER FIGURES Cp.

	Kp	Sum	Jan 1975 ap								Sum	Ap	Cp
1	2+ 3o 2o 1+ 1o 2- 2o 2-	15o	9	15	7	5	4	6	7	6	59	7	0.4
2	1+ 1+ 0+ 0+ 1- 0+ 2- 1-	7-	5	5	2	2	3	2	6	3	28	4	0.1
3	1+ 1o 2+ 1+ 2- 2+ 2+ 3-	15o	5	4	9	5	6	9	9	12	59	7	0.4
4	4- 4- 4o 5- 5- 5o 4o 4+	34o	22	22	27	39	39	48	27	32	256	32	1.3
5	4o 4- 4o 3+ 4o 4+ 4+ 4+	32o	27	22	27	18	27	32	32	32	217	27	1.2
6	3o 2+ 2o 2+ 3+ 3+ 5- 6+	27+	15	9	7	9	18	18	39	94	209	26	1.2
7	8- 5+ 5o 3+ 3+ 3- 2+ 3-	32+	179	56	48	18	18	12	9	12	352	44	1.5
8	3+ 4o 5o 5o 5+ 4+ 5o 2+	34+	18	27	48	48	56	32	48	9	286	36	1.4
9	2o 2+ 3- 2+ 2o 2o 1- 1+	15+	7	9	12	9	7	7	3	5	59	7	0.4
10	2- 1o 2+ 3o 2- 0+ 0+ 1+	12-	6	4	9	15	6	2	2	5	49	6	0.3
11	2o 1+ 1o 1o 1- 1- 0+ 2-	9-	7	5	4	4	3	3	2	6	34	4	0.1
12	2o 0+ 0+ 1- 0+ 0+ 2+ 2o	8+	7	2	2	3	2	2	9	7	34	4	0.1
13	4+ 5o 4o 4- 4o 4o 5- 4+	34o	32	48	27	22	27	27	39	32	254	32	1.3
14	4o 5o 4- 4- 5o 4+ 5- 4o	34+	27	48	22	22	48	32	39	27	265	33	1.3
15	3+ 3o 2+ 2+ 2+ 2+ 4- 4+	24-	18	15	9	9	9	9	22	32	123	15	0.9
16	4o 3o 2o 3+ 4- 4+ 3+ 4+	28o	27	15	7	18	22	32	18	32	171	21	1.1
17	4o 3+ 5o 4+ 4- 4o 4- 5-	33-	27	18	48	32	22	27	22	39	235	29	1.3
18	5- 4o 2+ 4o 4+ 3+ 3+ 2+	28+	39	27	9	27	32	18	18	9	179	22	1.1
19	2+ 3- 3o 3o 2- 2- 2+ 2o	19-	9	12	15	15	6	6	9	7	79	10	0.6
20	3+ 3- 2o 2o 1o 2+ 3- 3-	19-	18	12	7	7	4	9	12	12	81	10	0.6
21	2o 1o 1- 1+ 2o 3- 2+ 1-	13-	7	4	3	5	7	12	9	3	50	6	0.3
22	1- 1o 1+ 0+ 1+ 3o 3- 3o	13+	3	4	5	2	5	15	12	15	61	8	0.4
23	3o 2o 2o 2- 3o 3- 4- 2+	20+	15	7	7	6	15	12	22	9	93	12	0.7
24	3o 3o 1+ 3+ 2- 2+ 2o 1+	18o	15	15	5	18	6	9	7	5	80	10	0.6
25	1- 1- 0+ 1o 1- 3o 2o 1o	9+	3	3	2	4	3	15	7	4	41	5	0.2
26	3+ 1o 1- 0+ 1o 1- 1o 1-	9-	18	4	3	2	4	3	4	3	41	5	0.2
27	1- 3- 3- 4- 3- 3+ 4- 2+	22-	3	12	12	22	12	18	22	9	110	14	0.8
28	5- 3+ 3- 2o 2o 1o 2o 2-	19+	39	18	12	7	7	4	7	6	100	12	0.7
29	2- 2+ 1+ 2o 2+ 1+ 1+ 1o	13+	6	9	5	7	9	5	5	4	50	6	0.3
30	2- 1+ 2- 2+ 1- 1o 2+ 3o	14o	6	5	6	9	3	4	9	15	57	7	0.4
31	2+ 1+ 1+ 3+ 2+ 4+ 4o 4o	23o	9	5	5	18	9	32	27	27	132	16	0.9

	Kp	Sum	Feb 1975 ap								Sum	Ap	Cp
1	3+ 5o 5- 5- 5o 4+ 4+ 5-	36o	18	48	39	39	48	32	32	39	295	37	1.4
2	5- 4+ 4- 4o 4- 3o 4- 2o	29o	39	32	22	27	22	15	22	7	186	23	1.1
3	3- 4- 3o 2o 3o 2+ 2o 1+	20o	12	22	15	7	15	9	7	5	92	12	0.7
4	2+ 3- 1+ 1+ 3o 3- 2+ 3o	19-	9	12	5	5	15	12	9	15	82	10	0.6
5	3+ 3- 2+ 3o 3+ 4+ 3o 3+	25+	18	12	9	15	18	32	15	18	137	17	0.9
6	2+ 3- 2+ 2- 1o 2o 3- 2+	17o	9	12	9	6	4	7	12	9	68	8	0.5
7	3- 3o 3- 3o 2+ 3+ 3+ 3+	24-	12	15	12	15	9	18	18	18	117	15	0.8
8	3- 3- 3- 2+ 1o 1+ 1- 2-	15o	12	12	12	9	4	5	3	6	63	8	0.4
9	4o 3o 2+ 0o 0+ 2- 2+ 4-	17+	27	15	9	0	2	6	9	22	90	11	0.6
10	5- 5o 5- 3o 4+ 5- 4o 6-	36o	39	48	39	15	32	39	27	67	306	38	1.4
11	5+ 4o 4- 3+ 4- 5o 5o 5o	35o	56	27	22	18	22	48	48	48	289	36	1.4
12	4+ 4+ 5- 5- 4- 5- 5- 5-	36-	32	32	39	39	22	39	39	39	281	35	1.4
13	4o 4- 4- 3+ 4- 4+ 5o 4o	32-	27	22	22	18	22	32	48	27	218	27	1.2
14	4+ 4o 4- 4- 3+ 4+ 4- 4o	31o	32	27	22	22	18	32	22	27	202	25	1.2
15	3+ 3+ 4- 3- 4- 4- 4o 4o	28+	18	18	22	12	22	22	27	27	168	21	1.1
16	3+ 4- 4o 4+ 4- 5o 5- 4+	33o	18	22	27	32	22	48	39	32	240	30	1.3
17	3- 3o 3o 3+ 3o 3o 3- 3-	23+	12	15	15	18	15	15	12	12	114	14	0.8
18	4o 4o 3o 2o 3+ 2o 2+ 3-	23+	27	27	15	7	18	7	9	12	122	15	0.9
19	2o 3o 3o 3- 3- 1o 3- 3-	20-	7	15	15	12	12	4	12	12	89	11	0.6
20	3o 2- 2+ 3- 1o 1- 2o 2+	16-	15	6	9	12	4	3	7	9	65	8	0.4
21	3- 2o 2- 2o 2o 3o 2o 2o	17+	12	7	6	7	7	15	7	7	68	8	0.5
22	3- 2- 1+ 2o 2- 2o 2- 2o	15o	12	6	5	7	6	7	6	7	56	7	0.4
23	3+ 2+ 4- 6o 5+ 5- 3o 3o	31+	18	9	22	80	56	39	15	15	254	32	1.3
24	4o 3+ 2o 1+ 3+ 4- 3o 4-	24+	27	18	7	5	18	22	15	22	134	17	0.9
25	4o 5- 4o 3- 4o 3o 2o 2+	27-	27	39	27	12	27	15	7	9	163	20	1.0
26	3o 4- 2+ 2o 1+ 1+ 1+ 0+	15+	15	22	9	7	5	5	5	2	70	9	0.5
27	1- 2o 2+ 0+ 1+ 1+ 0+ 1+	10-	3	7	9	2	5	5	2	5	38	5	0.2
28	2o 3- 3- 1+ 2o 3- 4- 4-	21-	7	12	12	5	7	12	22	22	99	12	0.7

TABLE 4 PLANETARY THREE-HOUR-INDICES Kp, EQUIVALENT RANGES ap, DAILY AVERAGE RANGES Ap, AND PLANETARY DAILY CHARACTER FIGURES Cp.

	Kp	Sum	March 1975				ap				Sum	Ap	Cp
1	4o 3+ 5- 4- 2o 3+ 3+ 4-	28o	27	18	39	22	7	18	18	22	171	21	1.1
2	4- 3o 2- 2+ 2o 2- 2o 3-	19o	22	15	6	9	7	6	7	12	84	10	0.6
3	3o 2o 1+ 2o 2+ 3- 3+ 3+	20o	15	7	5	7	9	12	18	18	91	11	0.7
4	3+ 3- 2+ 2o 2- 1- 1+ 2+	16+	18	12	9	7	6	3	5	9	69	9	0.5
5	3+ 4o 4o 5o 5- 5- 4o 3+	33o	18	27	27	48	39	39	27	18	243	30	1.3
6	2+ 3+ 4o 4- 3o 4+ 3+ 4-	28-	9	18	27	22	15	32	18	22	163	20	1.0
7	1o 1o 0+ 1- 1- 1- 1- 1o	6o	4	4	2	3	3	3	3	4	26	3	0.1
8	0+ 0+ 0o 0o 0+ 1- 0+ 0+	2+	2	2	0	0	2	3	2	2	13	2	0.0
9	0+ 0+ 1- 0+ 1+ 1+ 2o 5-	11o	2	2	3	2	5	5	7	39	65	8	0.4
10	6o 5o 5o 6o 5+ 6- 7o 7o	47o	80	48	48	80	56	67	132	132	643	80	1.8
11	7- 6+ 5o 4o 4+ 4+ 4- 5+	40-	111	94	48	27	32	32	22	56	422	53	1.6
12	4+ 5o 4o 4o 3+ 4+ 5+ 5+	36-	32	48	27	27	18	32	56	56	296	37	1.4
13	5- 3o 2+ 3+ 3o 4- 6o 4+	30+	39	15	9	18	15	22	80	32	230	29	1.3
14	3+ 4+ 4o 3+ 3+ 4- 4+ 6-	32o	18	32	27	18	18	22	32	67	234	29	1.3
15	4o 3+ 3o 3+ 3- 4o 4o 3o	27+	27	18	15	18	12	27	27	15	159	20	1.0
16	3- 3o 5+ 5o 4+ 4o 2+ 3o	30-	12	15	56	48	32	27	9	15	214	27	1.2
17	4- 3+ 3- 3- 2- 2- 2+ 4-	22-	22	18	12	12	6	6	9	22	107	13	0.8
18	4- 2o 2+ 3- 3o 5- 3- 3+	24+	22	7	9	12	15	39	12	18	134	17	0.9
19	2+ 2- 2o 1o 2+ 2- 3o 4+	18+	9	6	7	4	9	6	15	32	88	11	0.6
20	2+ 3- 2+ 3o 3o 4- 3+ 3-	23o	9	12	9	15	15	22	18	12	112	14	0.8
21	2+ 1o 1o 1- 0o 0o 0+ 0+	6-	9	4	4	3	0	0	2	2	24	3	0.1
22	0+ 2- 2- 3- 1- 1+ 1- 3-	12-	2	6	6	12	3	5	3	12	49	6	0.3
23	4- 4o 4- 3- 2- 1- 1o 2o	19+	22	27	22	12	6	3	4	7	103	13	0.7
24	2o 1o 1+ 4o 4- 4o 3- 3-	21+	7	4	5	27	22	27	12	12	116	14	0.8
25	3- 2+ 2- 1o 3- 2- 2- 1+	15o	12	9	6	4	12	6	6	5	60	8	0.4
26	1o 3o 3o 4+ 4- 3- 4- 3-	24o	4	15	15	32	22	12	22	12	134	17	0.9
27	3o 3- 2o 3- 4+ 6+ 6o 4-	31-	15	12	7	12	32	94	80	22	274	34	1.4
28	3o 4- 6o 5- 5o 4+ 5- 4o	35+	15	22	80	39	48	32	39	27	302	38	1.4
29	3+ 4+ 4+ 3+ 3+ 4+ 3o 2+	28+	18	32	32	18	18	32	15	9	174	22	1.1
30	3o 2+ 2o 2+ 3- 2- 2o 3-	19-	15	9	7	9	12	6	7	12	77	10	0.5
31	3+ 3+ 3- 2- 2+ 3o 3+ 2o	22-	18	18	12	6	9	15	18	7	103	13	0.7

	Kp	Sum	April 1975				ap				Sum	Ap	Cp
1	3- 2- 3- 2o 1o 2+ 1- 1-	14-	12	6	12	7	4	9	3	3	56	7	0.4
2	2- 1+ 1o 1- 1- 1o 2+ 2+	11o	6	5	4	3	3	4	9	9	43	5	0.2
3	3o 2- 2o 1- 1o 1+ 2- 2-	13o	15	6	7	3	4	5	6	6	52	6	0.3
4	2- 2+ 2- 2- 1+ 2- 2+ 3-	15+	6	9	6	6	5	6	9	12	59	7	0.4
5	3+ 2o 2o 2- 1- 2+ 3+ 2+	18-	18	7	7	6	3	9	18	9	77	10	0.5
6	3o 2o 2+ 2+ 2o 3- 3- 5o	22o	15	7	9	9	7	12	12	48	119	15	0.8
7	3- 2o 2- 3o 4o 3o 5o 6-	27o	12	7	6	15	27	15	48	67	197	25	1.2
8	4- 4o 3o 4o 5- 6- 5o 3-	33-	22	27	15	27	39	67	48	12	257	32	1.3
9	5- 6o 5o 4+ 4o 6o 5- 6-	40+	39	80	48	32	27	80	39	67	412	52	1.6
10	5+ 5o 4o 4+ 4o 3+ 4o 5o	35o	56	48	27	32	27	18	27	48	283	35	1.4
11	5+ 5o 4o 5- 5o 4o 3- 3+	34o	56	48	27	39	48	27	12	18	275	34	1.4
12	3- 3+ 3+ 5o 4- 3+ 3o 6-	30o	12	18	18	48	22	18	15	67	218	27	1.2
13	5+ 4o 6- 2+ 3+ 2+ 3+ 4o	30+	56	27	67	9	18	9	18	27	231	29	1.3
14	5- 5- 3+ 3o 2+ 3o 3o 3o	27o	39	39	18	15	9	15	15	15	165	21	1.1
15	2o 2- 1+ 1+ 2- 3- 2+ 2-	15-	7	6	5	5	6	12	9	6	56	7	0.4
16	3- 2+ 2+ 1o 1- 1+ 1o 1-	12o	12	9	9	4	3	5	4	3	49	6	0.3
17	1- 0+ 1- 2- 2o 2+ 1+ 1-	10-	3	2	3	6	7	9	5	3	38	5	0.2
18	1- 1+ 1- 2o 3o 2- 1+ 2-	12+	3	5	3	7	15	6	5	6	50	6	0.3
19	1+ 2- 1+ 1o 2- 2+ 1o 1-	11o	5	6	5	4	6	9	4	3	42	5	0.2
20	0+ 1- 2o 2+ 3o 5- 6- 5+	24o	2	3	7	9	15	39	67	56	198	25	1.2
21	6o 2+ 2o 3o 4o 4- 3+ 1+	26-	80	9	7	15	27	22	18	5	183	23	1.1
22	3+ 4o 3+ 2o 3- 2o 3- 4-	24-	18	27	18	7	12	7	12	22	123	15	0.9
23	4o 3+ 4- 5- 3- 5- 4- 4-	30+	27	18	22	39	12	39	22	22	201	25	1.2
24	4o 3o 3o 4o 2+ 3o 3o 3o	25+	27	15	15	27	9	15	15	15	138	17	0.9
25	3- 3- 2+ 2- 2- 2- 1- 2-	15o	12	12	9	6	6	6	3	6	60	8	0.4
26	4- 1+ 1o 2+ 2- 2+ 3- 2o	17o	22	5	4	9	6	9	12	7	74	9	0.5
27	1+ 3- 1o 1+ 0o 0+ 1+ 1+	9+	5	12	4	5	0	2	5	5	38	5	0.2
28	1+ 1- 0+ 0+ 0o 1- 1o 1-	5o	5	3	2	2	0	3	4	3	22	3	0.0
29	1- 0o 0+ 1+ 0+ 1- 0+ 0+	4o	3	0	2	5	2	3	2	2	19	2	0.0
30	0+ 1o 3- 2o 1+ 1o 1o 2o	11+	2	4	12	7	5	4	4	7	45	6	0.3

TABLE 4 PLANETARY THREE-HOUR-INDICES Kp, EQUIVALENT RANGES ap, DAILY AVERAGE RANGES Ap, AND PLANETARY DAILY CHARACTER FIGURES Cp.

	Kp	Sum	May 1975				ap				Sum	Ap	Cp
1	1o 1o 2o 2- 2- 1+ 2- 2o	12+	4	4	7	6	6	5	6	7	45	6	0.3
2	2+ 3o 3o 3+ 3+ 3- 4- 4-	25o	9	15	15	18	18	12	22	22	131	16	0.9
3	4- 4+ 3+ 3o 4- 3o 2+ 3+	27-	22	32	18	15	22	15	9	18	151	19	1.0
4	4- 3+ 3o 2- 2+ 2- 2+ 4o	22o	22	18	15	6	9	6	9	27	112	14	0.8
5	6- 4+ 4+ 3- 3+ 4o 4+ 5o	34-	67	32	32	12	18	27	32	48	268	34	1.3
6	6o 6o 4o 3o 3o 4o 3- 4o	33-	80	80	27	15	15	27	12	27	283	35	1.4
7	3o 2- 3- 4- 5- 4+ 4+ 4-	28o	15	6	12	22	39	32	32	22	180	22	1.1
8	4- 2+ 2+ 2o 2o 2+ 3+ 4o	22o	22	9	9	7	7	9	18	27	108	14	0.8
9	3+ 2+ 2+ 3o 3- 3- 3+ 4+	24o	18	9	9	15	12	12	18	32	125	16	0.9
10	5o 5- 4- 2+ 3- 1o 2o 3-	24o	48	39	22	9	12	4	7	12	153	19	1.0
11	0+ 1- 0+ 1- 0+ 1- 0+ 0o	3+	2	3	2	3	2	3	2	0	17	2	0.0
12	0+ 1- 1- 0+ 0+ 1- 2- 1-	5+	2	3	3	2	2	3	6	3	24	3	0.1
13	1- 1o 2- 1o 1o 1+ 2+ 3o	12o	3	4	6	4	4	5	9	15	50	6	0.3
14	5- 3+ 3- 3- 2o 1+ 2o 3-	21+	39	18	12	12	7	5	7	12	112	14	0.8
15	1- 1+ 1+ 0+ 0+ 0+ 0+ 0+	5o	3	5	5	2	2	2	2	2	23	3	0.1
16	0+ 3o 6- 4- 5- 3+ 4o 4+	29o	2	15	67	22	39	18	27	32	222	28	1.2
17	3o 3+ 3+ 4- 4- 2+ 1+ 1o	22-	15	18	18	22	22	9	5	4	113	14	0.8
18	2- 2+ 2+ 2- 2- 2o 2o 2+	16o	6	9	9	6	6	7	7	9	59	7	0.4
19	3o 3o 3- 2o 1o 0+ 5o 3+	20+	15	15	12	7	4	2	48	18	121	15	0.9
20	4+ 4+ 5o 5- 2o 3+ 1+ 1o	26o	32	32	48	39	7	18	5	4	185	23	1.1
21	3- 3- 2- 3- 2+ 2o 4- 3-	20+	12	12	6	12	9	7	22	12	92	12	0.7
22	2o 2o 3- 3+ 3+ 2+ 2- 2+	20-	7	7	12	18	18	9	6	9	86	11	0.6
23	2- 3- 3- 3- 2- 1+ 2+ 1-	16-	6	12	12	12	6	5	9	3	65	8	0.4
24	1- 1o 2o 2- 1o 1o 1+ 2+	11o	3	4	7	6	4	4	5	9	42	5	0.2
25	2+ 2+ 1o 1+ 2o 3o 4o 5-	21-	9	9	4	5	7	15	27	39	115	14	0.8
26	5o 5- 4- 2+ 1+ 2- 1+ 2-	22-	48	39	22	9	5	6	5	6	140	18	1.0
27	2o 2o 3- 2+ 3+ 2o 3- 2+	19+	7	7	12	9	18	7	12	9	81	10	0.6
28	2+ 1+ 0+ 0+ 1- 2o 2- 1o	10-	9	5	2	2	3	7	6	4	38	5	0.2
29	2+ 2o 3+ 2+ 2- 3- 3- 3-	20-	9	7	18	9	6	12	12	12	85	11	0.6
30	2- 2+ 2- 2- 1+ 1+ 1o 2-	13-	6	9	6	6	5	5	4	6	47	6	0.3
31	1o 1o 0+ 0+ 1o 1+ 1- 1+	7o	4	4	2	2	4	5	3	5	29	4	0.1

	Kp	Sum	June 1975				ap				Sum	Ap	Cp
1	2o 1+ 1o 2o 4o 4+ 6- 5-	25o	7	5	4	7	27	32	67	39	188	24	1.1
2	5- 5o 5- 4o 3o 3o 3o 4o	31+	39	48	39	27	15	15	15	27	225	28	1.2
3	3o 2o 3- 3- 3- 2+ 3- 3o	21o	15	7	12	12	12	9	12	15	94	12	0.7
4	3o 3o 3- 2- 2+ 2+ 2+ 3-	20o	15	15	12	6	9	9	9	12	87	11	0.6
5	3+ 2+ 2+ 3- 2o 2o 3o 4-	21+	18	9	9	12	7	7	15	22	99	12	0.7
6	3o 3- 3- 3o 2+ 2o 2+ 2+	20+	15	12	12	15	9	7	9	9	88	11	0.6
7	2- 1+ 2o 1+ 1- 1o 2o 3o	13o	6	5	7	5	3	4	7	15	52	6	0.3
8	1- 1- 1o 1o 2- 1o 0+ 1o	7+	3	3	4	4	6	4	2	4	30	4	0.1
9	2- 3- 1o 1+ 1o 1o 1- 1o	10+	6	12	4	5	4	4	3	4	42	5	0.2
10	1- 1- 1- 1- 1o 1+ 1o 1+	7+	3	3	3	3	4	5	4	5	30	4	0.1
11	2o 2- 3+ 4+ 3o 2+ 3+ 2+	22+	7	6	18	32	15	9	18	9	114	14	0.8
12	3o 3+ 4- 4+ 5o 4o 4- 4+	31+	15	18	22	32	48	27	22	32	216	27	1.2
13	3o 3+ 3- 3- 3+ 3- 3o 3-	23+	15	18	12	12	18	12	15	12	114	14	0.8
14	1+ 1+ 2+ 2+ 3- 2o 3o 1+	16+	5	5	9	9	12	7	15	5	67	8	0.5
15	1+ 2o 2o 3+ 2+ 4- 3- 4-	21o	5	7	7	18	9	22	12	22	102	13	0.7
16	3+ 3+ 3- 4- 3- 4- 3+ 3o	26-	18	18	12	22	12	22	18	15	137	17	0.9
17	2- 1o 2o 4- 3- 3o 3+ 3o	20+	6	4	7	22	12	15	18	15	99	12	0.7
18	3o 3+ 3- 2- 2+ 3o 3- 2-	20+	15	18	12	6	9	15	12	6	93	12	0.7
19	3o 2o 3- 2o 3- 3o 3- 3-	21-	15	7	12	7	12	15	12	12	92	12	0.7
20	2- 2- 1+ 1o 1+ 1o 3- 2-	12+	6	6	5	4	5	4	12	6	48	6	0.3
21	2+ 3- 2- 2- 1+ 2+ 2+ 3o	17+	9	12	6	6	5	9	9	15	71	9	0.5
22	2o 2o 1+ 1+ 1- 0+ 2- 1+	11-	7	7	5	5	3	2	6	5	40	5	0.2
23	1o 1+ 0+ 0+ 1- 1+ 1+ 1+	8-	4	5	2	2	3	5	5	5	31	4	0.1
24	1- 1- 1- 1o 0+ 0+ 0+ 0+	4+	3	3	3	4	2	2	2	2	21	3	0.0
25	0o 1+ 1o 1- 1+ 1o 2o 2o	9+	0	5	4	3	5	4	7	7	35	4	0.2
26	2- 2- 2o 1+ 1o 1o 1+ 1-	11-	6	6	7	5	4	4	5	3	40	5	0.2
27	1o 1o 1o 0+ 1o 1o 1- 1+	7+	4	4	4	2	4	4	3	5	30	4	0.1
28	1- 1- 2- 2- 2- 1- 1- 1+	9o	3	3	6	6	6	3	3	5	35	4	0.2
29	2- 2o 3- 2o 3+ 5+ 6- 4+	27o	6	7	12	7	18	56	67	32	205	26	1.2
30	5o 4+ 4- 3- 3- 3- 3o 4-	28-	48	32	22	12	12	12	15	22	175	22	1.1

TABLE 4 PLANETARY THREE-HOUR-INDICES Kp, EQUIVALENT RANGES ap, DAILY AVERAGE RANGES Ap, AND PLANETARY DAILY CHARACTER FIGURES Cp.

	Kp	Sum	July 1975				ap				Sum	Ap	Cp
1	2+ 2+ 3- 4o 1+ 2+ 2- 3o	20-	9	9	12	27	5	9	6	15	92	12	0.7
2	3- 2+ 1o 0+ 2- 1+ 1o 2+	13-	12	9	4	2	6	5	4	9	51	6	0.3
3	2o 2o 2+ 2- 2- 1+ 2o 2o	15o	7	7	9	6	6	5	7	7	54	7	0.3
4	2- 1- 1- 1+ 2- 1+ 3- 3-	13-	6	3	3	5	6	5	12	12	52	6	0.3
5	1+ 0+ 2- 1o 1+ 1o 1o 2o	10-	5	2	6	4	5	4	4	7	37	5	0.2
6	0+ 1o 1o 0+ 1o 2+ 3o 2+	11+	2	4	4	2	4	9	15	9	49	6	0.3
7	4+ 2+ 1+ 2o 3- 2o 3- 3o	20+	32	9	5	7	12	7	12	15	99	12	0.7
8	4o 6o 4+ 5o 5o 5- 3o 1+	33+	27	80	32	48	48	39	15	5	294	37	1.4
9	2- 4+ 4o 7- 5+ 4- 3- 3-	31o	6	32	27	111	56	22	12	12	278	35	1.4
10	1o 3+ 4- 3o 4o 3+ 3o 3o	24+	4	18	22	15	27	18	15	15	134	17	0.9
11	3o 3- 5o 4o 4o 2o 2+ 1-	24-	15	12	48	27	27	7	9	3	148	18	1.0
12	2- 1o 2o 0+ 1o 2- 2+ 1+	11+	6	4	7	2	4	6	9	5	43	5	0.2
13	1o 2o 1+ 1+ 3- 3- 3o 3+	17+	4	7	5	5	12	12	15	18	78	10	0.5
14	3o 2+ 2+ 3o 2+ 2+ 3- 4o	22o	15	9	9	15	9	9	12	27	105	13	0.8
15	3o 2o 3+ 3+ 4- 3+ 3- 2+	24-	15	7	18	18	22	18	12	9	119	15	0.8
16	3+ 3o 2+ 3o 3o 2+ 2o 2o	21o	18	15	9	15	15	9	7	7	95	12	0.7
17	2+ 2o 3- 3o 4- 2+ 3o 4-	23-	9	7	12	15	22	9	15	22	111	14	0.8
18	3o 2o 3o 4o 4- 3o 2+ 2+	23+	15	7	15	27	22	15	9	9	119	15	0.8
19	2+ 3- 2o 2- 1+ 2+ 3o 2+	18-	9	12	7	6	5	9	15	9	72	9	0.5
20	2o 2o 2+ 2o 1o 1o 2o 2o	14+	7	7	9	7	4	4	7	7	52	6	0.3
21	0+ 1o 2o 2+ 2+ 1o 2o 2-	13-	2	4	7	9	9	4	7	6	48	6	0.3
22	1o 1o 2- 2- 1+ 2o 2- 3-	13o	4	4	6	6	5	7	6	12	50	6	0.3
23	2o 3o 2o 1- 0+ 1o 1o 2-	12-	7	15	7	3	2	4	4	6	48	6	0.3
24	3- 1+ 2o 2- 1+ 1o 1o 2-	13-	12	5	7	6	5	4	4	6	49	6	0.3
25	3- 4- 6o 4- 5- 4- 4+ 4+	33o	12	22	80	22	39	22	32	32	261	33	1.3
26	4o 3+ 3o 3o 3+ 4- 3+ 4-	27+	27	18	15	15	18	22	18	22	155	19	1.0
27	3- 3+ 3o 2o 2o 2o 3- 2o	20-	12	18	15	7	7	7	12	7	85	11	0.6
28	4o 3o 2o 2- 2- 2o 2- 2-	18-	27	15	7	6	6	7	6	6	80	10	0.6
29	1+ 1+ 1- 1+ 1+ 0+ 1- 2-	9-	5	5	3	5	5	2	3	6	34	4	0.1
30	2- 2+ 1o 1+ 1o 1o 1- 1+	10+	6	9	4	5	4	4	3	5	40	5	0.2
31	2- 1o 0+ 0+ 1o 1o 1- 3o	9o	6	4	2	2	4	4	3	15	40	5	0.2

	Kp	Sum	Aug 1975				ap				Sum	Ap	Cp
1	3- 4- 3- 2o 1- 1o 2o 2-	16+	12	22	12	7	3	4	7	6	73	9	0.5
2	2o 2- 2- 2- 2o 2+ 2- 2-	15-	7	6	6	6	7	9	6	6	53	7	0.3
3	1o 1o 1o 1+ 2+ 1- 1o 1o	9+	4	4	4	5	9	3	4	4	37	5	0.2
4	2o 1o 1- 2- 1o 2o 2+ 2-	12+	7	4	3	6	4	7	9	6	46	6	0.3
5	4- 5- 4+ 5- 4+ 4o 4+ 2+	32+	22	39	32	39	32	27	32	9	232	29	1.3
6	3o 3o 3- 2o 0+ 0+ 1- 0+	12+	15	15	12	7	2	2	3	2	58	7	0.4
7	0o 0o 0o 0+ 2+ 3- 2o 2o	9+	0	0	0	2	9	12	7	7	37	5	0.2
8	3o 5- 4o 3- 1- 1o 2- 2-	19+	15	39	27	12	3	4	6	6	112	14	0.8
9	2+ 2- 2+ 2+ 2- 4- 4+ 4o	22+	9	6	9	9	6	22	32	27	120	15	0.8
10	3o 4- 5- 4- 2+ 2o 2- 0+	21+	15	22	39	22	9	7	6	2	122	15	0.9
11	0+ 1+ 2+ 3o 2+ 1o 1+ 2-	13+	2	5	9	15	9	4	5	6	55	7	0.3
12	1+ 1- 1o 1- 1+ 1- 1- 1-	7o	5	3	4	3	5	3	3	3	29	4	0.1
13	1o 1+ 1+ 2- 1+ 1+ 1o 2-	11-	4	5	5	6	5	5	4	6	40	5	0.2
14	4o 4+ 4o 3o 3- 1o 2- 2+	23o	27	32	27	15	12	4	6	9	132	16	0.9
15	4- 2o 3- 4- 4o 3+ 4- 3-	26-	22	7	12	22	27	18	22	12	142	18	1.0
16	1- 1o 1o 2o 2+ 1o 2o 1-	11-	3	4	4	7	9	4	7	3	41	5	0.2
17	2+ 3+ 3- 2o 2- 2+ 2o 2-	18o	9	18	12	7	6	9	7	6	74	9	0.5
18	1o 1+ 2o 3- 1o 0+ 2o 1+	12-	4	5	7	12	4	2	7	5	46	6	0.3
19	1o 1- 1+ 1o 1- 1+ 2- 0+	8o	4	3	5	4	3	5	6	2	32	4	0.1
20	0o 1- 1o 2o 4- 4+ 3- 5-	19o	0	3	4	7	22	32	12	39	119	15	0.8
21	3- 4o 3- 2- 2o 4- 3+ 4+	24+	12	27	12	6	7	22	18	32	136	17	0.9
22	4- 3+ 2o 3+ 2- 2- 2o 3o	21-	22	18	7	18	6	6	7	15	99	12	0.7
23	4- 3- 1o 3o 2o 1+ 2- 1+	17-	22	12	4	15	7	5	6	5	76	10	0.5
24	0+ 2- 0+ 1- 3- 1+ 2+ 2+	12-	2	6	2	3	12	5	9	9	48	6	0.3
25	2o 3- 3- 1+ 2o 2- 3- 3-	18-	7	12	12	5	7	6	12	12	73	9	0.5
26	2o 1o 1- 1o 1+ 1- 2- 2o	10+	7	4	3	4	5	3	6	7	39	5	0.2
27	3- 3+ 1- 1- 0+ 0+ 0+ 1+	10-	12	18	3	3	2	2	2	5	47	6	0.3
28	2- 1+ 1o 1o 1- 1o 2- 2+	11-	6	5	4	4	3	4	6	9	41	5	0.2
29	4+ 5+ 4o 4- 4o 3+ 3- 4-	31o	32	56	27	22	27	18	12	22	216	27	1.2
30	4o 4o 4o 2+ 1+ 2o 1+ 2o	21o	27	27	27	9	5	7	5	7	114	14	0.8
31	1+ 2o 2+ 2+ 1o 1o 2o 2o	14o	5	7	9	9	4	4	7	7	52	6	0.3

TABLE 4 PLANETARY THREE-HOUR-INDICES Kp, EQUIVALENT RANGES ap, DAILY AVERAGE RANGES Ap, AND PLANETARY DAILY CHARACTER FIGURES Cp.

	Kp	Sum	Sept 1975 ap								Sum	Ap	Cp
1	1- 2- 2- 2o 2- 3- 2+ 2-	14+	3	6	6	7	6	12	9	6	55	7	0.3
2	3o 2o 1+ 1o 1+ 2o 1o 1+	13o	15	7	5	4	5	7	4	5	52	6	0.3
3	1+ 0o 1- 0+ 1- 1+ 1o 1-	6o	5	0	3	2	3	5	4	3	25	3	0.1
4	0+ 1- 1- 0+ 1- 0+ 1- 1o	5-	2	3	3	2	3	2	3	4	22	3	0.0
5	1o 1- 1- 1o 1- 1o 1+ 2-	8o	4	3	3	4	3	4	5	6	32	4	0.1
6	3- 2o 2o 3+ 3+ 3+ 2- 3o	21+	12	7	7	18	18	18	6	15	101	13	0.7
7	2o 2o 2+ 3- 1+ 1- 1- 2o	14-	7	7	9	12	5	3	3	7	53	7	0.3
8	2+ 1+ 1+ 1o 2o 2- 2- 2o	13+	9	5	5	4	7	6	6	7	49	6	0.3
9	3- 3- 4- 4o 5o 4o 4- 3+	29o	12	12	22	27	48	27	22	18	188	24	1.1
10	4+ 5+ 4o 4- 4- 4- 2+ 3+	30+	32	56	27	22	22	22	9	18	208	26	1.2
11	4+ 4+ 3+ 4+ 4- 4o 4- 4-	31+	32	32	18	32	22	27	22	22	207	26	1.2
12	5- 4- 4- 3o 4o 2+ 2- 2+	25+	39	22	22	15	27	9	6	9	149	19	1.0
13	4o 4+ 2+ 4+ 2- 1o 2- 4-	23o	27	32	9	32	6	4	6	22	138	17	0.9
14	4o 3+ 3+ 3- 3+ 1o 1o 1-	19+	27	18	18	12	18	4	4	3	104	13	0.7
15	1+ 1+ 3+ 1o 1o 2- 2+ 2+	14+	5	5	18	4	4	6	9	9	60	8	0.4
16	2+ 3- 1+ 1o 1+ 1o 1o 1-	11+	9	12	5	4	5	4	4	3	46	6	0.3
17	1+ 3o 3o 1- 3- 3- 4- 3+	20+	5	15	15	3	12	12	22	18	102	13	0.7
18	3- 2+ 2o 2+ 3+ 4- 4o 3-	23o	12	9	7	9	18	22	27	12	116	14	0.8
19	2+ 1+ 3- 2+ 3- 1+ 2- 2-	16o	9	5	12	9	12	5	6	6	64	8	0.4
20	1+ 2- 2- 1+ 1+ 3- 2o 2+	14+	5	6	6	5	5	12	7	9	55	7	0.3
21	3o 1o 0+ 1- 1o 2o 2o 1o	11o	15	4	2	3	4	7	7	4	46	6	0.3
22	1+ 1o 1o 1- 1o 1- 1o 1o	8-	5	4	4	3	4	3	4	4	31	4	0.1
23	3- 1+ 1o 1o 0+ 0+ 0+ 1-	8-	12	5	4	4	2	2	2	3	34	4	0.1
24	0+ 1- 1- 0+ 0o 0o 0+ 1o	3+	2	3	3	2	0	0	2	4	16	2	0.0
25	1- 1o 1o 0+ 0+ 1- 0+ 1-	5o	3	4	4	2	2	3	2	3	23	3	0.1
26	2- 3o 2+ 2- 3+ 3+ 3+ 4-	22+	6	15	9	6	18	18	18	22	112	14	0.8
27	4+ 3- 4- 2+ 3- 3o 2+ 1+	22+	32	12	22	9	12	15	9	5	116	14	0.8
28	2o 2o 2- 3- 2- 3o 1- 2o	16-	7	7	6	12	6	15	3	7	63	8	0.4
29	2- 2- 2o 2- 1o 0+ 1- 1-	10-	6	6	7	6	4	2	3	3	37	5	0.2
30	0+ 0o 1- 0+ 0+ 0+ 1- 2-	4+	2	0	3	2	2	2	3	6	20	2	0.0

	Kp	Sum	Oct 1975 ap								Sum	Ap	Cp
1	3o 2+ 1+ 2o 0+ 1o 1- 1o	12-	15	9	5	7	2	4	3	4	49	6	0.3
2	2- 0+ 0o 0+ 0o 0o 1- 2-	5-	6	2	0	2	0	0	3	6	19	2	0.0
3	1- 0+ 1- 3o 3+ 2- 4- 4-	17o	3	2	3	15	18	6	22	22	91	11	0.7
4	4+ 3- 2o 1o 1- 0+ 2- 2o	15-	32	12	7	4	3	2	6	7	73	9	0.5
5	3o 3- 2- 1+ 2- 0+ 0+ 1o	12o	15	12	6	5	6	2	2	4	52	6	0.3
6	2+ 4o 5- 4+ 4- 3+ 5- 3o	30o	9	27	39	32	22	18	39	15	201	25	1.2
7	5- 5+ 5+ 4o 4- 4o 3+ 5+	36-	39	56	56	27	22	27	18	56	301	38	1.4
8	4+ 5- 5- 4+ 4o 5- 5- 7-	38o	32	39	39	32	27	39	39	111	358	45	1.5
9	5- 5- 5+ 5o 4o 3+ 4+ 5-	36o	39	39	56	48	27	18	32	39	298	37	1.4
10	3+ 5o 5o 2+ 3o 3+ 3+ 4-	29o	18	48	48	9	15	18	18	22	196	24	1.2
11	3- 1o 1+ 0+ 2- 3- 3o 3-	15+	12	4	5	2	6	12	15	12	68	8	0.5
12	3o 3o 3o 2o 2- 3o 4- 1+	21-	15	15	15	7	6	15	22	5	100	12	0.7
13	1o 3- 3- 1o 2o 2- 2- 2o	15-	4	12	12	4	7	6	6	7	58	7	0.4
14	1+ 0+ 3o 3o 2+ 3- 2o 2+	17o	5	2	15	15	9	12	7	9	74	9	0.5
15	1o 2- 1+ 2+ 1- 1- 1- 1o	9+	4	6	5	9	3	3	3	4	37	5	0.2
16	2+ 2- 2- 3o 2o 2o 4- 2-	18o	9	6	6	15	7	7	22	6	78	10	0.5
17	3+ 2o 2- 2+ 2+ 2- 1o 1+	16-	18	7	6	9	9	6	4	5	64	8	0.4
18	0o 1o 1- 1o 2+ 2- 2o 1-	9+	0	4	3	4	9	6	7	3	36	4	0.2
19	0o 0+ 0+ 1- 1o 1o 2- 1+	6+	0	2	2	3	4	4	6	5	26	3	0.1
20	2- 1+ 1- 1- 1o 1- 1o 3-	10-	6	5	3	3	4	3	4	12	40	5	0.2
21	3+ 2o 1o 2- 0+ 0+ 0+ 2o	11o	18	7	4	6	2	2	2	7	48	6	0.3
22	2o 2- 2- 1+ 1o 1- 2- 2+	12+	7	6	6	5	4	3	6	9	46	6	0.3
23	3o 3o 1- 1+ 1o 0+ 1+ 1+	12o	15	15	3	5	4	2	5	5	54	7	0.3
24	2+ 2+ 2- 1- 1- 0+ 0+ 0+	9-	9	9	6	3	3	2	2	2	36	4	0.2
25	1- 0+ 1+ 1+ 1+ 1- 0+ 0o	6o	3	2	5	5	5	3	2	0	25	3	0.1
26	2o 0+ 1o 1o 1- 3- 1o 2o	11-	7	2	4	4	3	12	4	7	43	5	0.2
27	3o 3- 1+ 0+ 0+ 1- 0+ 0+	9o	15	12	5	2	2	3	2	2	43	5	0.2
28	2- 0+ 1- 2- 2- 2o 4- 4-	15+	6	2	3	6	6	7	22	22	74	9	0.5
29	3o 4- 4o 1+ 0+ 1- 1+ 3o	17+	15	22	27	5	2	3	5	15	94	12	0.7
30	3- 2o 2+ 2+ 1+ 2- 2- 3+	17+	12	7	9	9	5	6	6	18	72	9	0.5
31	3o 4o 5+ 3o 1- 3o 3o 1+	23+	15	27	56	15	3	15	15	5	151	19	1.0

TABLE 4 PLANETARY THREE-HOUR-INDICES Kp, EQUIVALENT RANGES ap, DAILY AVERAGE RANGES Ap, AND PLANETARY DAILY CHARACTER FIGURES Cp.

	Kp								Sum	Nov 1975 ap								Sum	Ap	Cp
1	1+	1+	2-	2+	2-	1o	1-	3+	13+	5	5	6	9	6	4	3	18	56	7	0.4
2	2+	3o	2o	3+	4-	4o	7-	6o	31o	9	15	7	18	22	27	111	80	289	36	1.4
3	6o	6-	6-	5+	5o	6o	6-	5+	45-	80	67	67	56	48	80	67	56	521	65	1.7
4	5+	5+	5o	5o	5o	4+	4o	3-	37-	56	56	48	48	48	32	27	12	327	41	1.5
5	3+	3-	3-	5-	3o	4+	4o	3+	28o	18	12	12	39	15	32	27	18	173	22	1.1
6	3+	3+	2-	2+	3+	3o	0+	1-	18o	18	18	6	9	18	15	2	3	89	11	0.6
7	3-	3-	2-	3-	2+	3+	2+	1+	19o	12	12	6	12	9	18	9	5	83	10	0.6
8	2o	2-	3-	2o	1o	2o	2-	1+	14+	7	6	12	7	4	7	6	5	54	7	0.3
9	2o	3+	5-	4-	4o	6-	6+	4-	33+	7	18	39	22	27	67	94	22	296	37	1.4
10	3o	2-	2-	3-	3-	3-	4o	6-	24o	15	6	6	12	12	12	27	67	157	20	1.0
11	4o	3-	2+	3-	2o	3-	3o	3-	22o	27	12	9	12	7	12	15	12	106	13	0.8
12	4-	3-	2o	2-	1+	2o	2o	2-	17o	22	12	7	6	5	7	7	6	72	9	0.5
13	1+	2+	1+	1-	0+	0o	1-	0+	7o	5	9	5	3	2	0	3	2	29	4	0.1
14	0+	1-	0+	0+	0+	1o	2o	1o	6o	2	3	2	2	2	4	7	4	26	3	0.1
15	1o	1o	1o	0+	0o	1-	1o	3o	8o	4	4	4	2	0	3	4	15	36	4	0.2
16	2+	2+	2+	1o	1o	1-	1+	1o	12o	9	9	9	4	4	3	5	4	47	6	0.3
17	1-	1-	2o	2+	4+	4+	4o	4-	22o	3	3	7	9	32	32	27	22	135	17	0.9
18	3o	2-	2-	2+	2-	1o	1o	1o	13+	15	6	6	9	6	4	4	4	54	7	0.3
19	2o	3-	4-	1+	1o	1o	2+	1+	15+	7	12	22	5	4	4	9	5	68	8	0.5
20	2+	2o	2o	1o	1-	3-	3-	3+	17-	9	7	7	4	3	12	12	18	72	9	0.5
21	5-	3+	4+	4-	2-	1o	3o	3-	24+	39	18	32	22	6	4	15	12	148	18	1.0
22	2o	3+	5o	6-	5o	6+	6+	4-	37+	7	18	48	67	48	94	94	22	398	50	1.5
23	4+	2-	2+	1-	1-	1+	1o	1o	13o	32	6	9	3	3	5	4	4	66	8	0.4
24	1+	1o	0+	2o	4o	4o	4-	3-	19o	5	4	2	7	27	27	22	12	106	13	0.8
25	4+	3-	3o	3o	3o	3o	2o	2+	23+	32	12	15	15	15	15	7	9	120	15	0.8
26	1o	2+	4+	4+	4-	1-	1o	2-	19o	4	9	32	32	22	3	4	6	112	14	0.8
27	2+	1-	2o	1+	1o	1+	1o	2-	11+	9	3	7	5	4	5	4	6	43	5	0.2
28	3-	1+	3o	2+	3o	2+	2-	1o	17+	12	5	15	9	15	9	6	4	75	9	0.5
29	2o	3-	5-	5o	4-	5-	5o	3+	31o	7	12	39	48	22	39	48	18	233	29	1.3
30	5o	5-	4+	4-	5o	4-	5-	5-	36-	48	39	32	22	48	22	39	39	289	36	1.4

	Kp								Sum	Dec 1975 ap								Sum	Ap	Cp
1	5-	4+	4+	4+	4o	5-	4+	4o	35-	39	32	32	32	27	39	32	27	260	32	1.3
2	4o	4o	4+	5-	4-	3o	4o	4o	32-	27	27	32	39	22	15	27	27	216	27	1.2
3	4-	2-	2+	3o	3o	3-	2+	3-	21+	22	6	9	15	15	12	9	12	100	12	0.7
4	3o	3-	2+	3+	3+	3+	2o	1+	21+	15	12	9	18	18	18	7	5	102	13	0.7
5	2+	1+	2+	2o	3-	2+	2+	2o	17+	9	5	9	7	12	9	9	7	67	8	0.5
6	1o	2o	1-	2-	3-	2o	2+	2-	14o	4	7	3	6	12	7	9	6	54	7	0.3
7	1+	1-	1o	1-	0+	1+	1+	1o	8-	5	3	4	3	2	5	5	4	31	4	0.1
8	2o	4o	3-	2-	3-	4-	4-	5-	25o	7	27	12	6	12	22	22	39	147	18	1.0
9	5-	3o	1+	4-	4o	3o	1-	1+	22-	39	15	5	22	27	15	3	5	131	16	0.9
10	0+	0+	1-	3-	4-	3o	0+	1+	12+	2	2	3	12	22	15	2	5	63	8	0.4
11	1-	1+	2+	2-	1-	1+	2+	1-	11o	3	5	9	6	3	5	9	3	43	5	0.2
12	1+	1-	1-	1-	0+	0+	0+	1-	5o	5	3	3	3	2	2	2	3	23	3	0.1
13	0o	0o	0+	1-	0+	2-	1o	1o	5o	0	0	2	3	2	6	4	4	21	3	0.0
14	1o	0+	1o	1o	2o	2o	2o	3-	12o	4	2	4	4	7	7	7	12	47	6	0.3
15	3+	3-	2+	1+	2-	2-	1+	2+	17-	18	12	9	5	6	6	5	9	70	9	0.5
16	3+	4-	3-	3-	2o	3-	3o	3o	23o	18	22	12	12	7	12	15	15	113	14	0.8
17	2o	4-	2-	1-	2-	3-	2-	2+	16+	7	22	6	3	6	12	6	9	71	9	0.5
18	2+	2-	1o	1+	2o	2-	2-	2o	14-	9	6	4	5	7	6	6	7	50	6	0.3
19	1+	2+	1-	1o	2o	3-	1o	0+	11+	5	9	3	4	7	12	4	2	46	6	0.3
20	1o	3-	1-	0+	0o	0o	0o	0+	5o	4	12	3	2	0	0	0	2	23	3	0.1
21	1o	1-	1-	2+	3+	3o	3-	2o	16-	4	3	3	9	18	15	12	7	71	9	0.5
22	4-	2+	2+	2o	2-	2+	3-	2+	19+	22	9	9	7	6	9	12	9	83	10	0.6
23	2-	3o	2o	1+	2-	1-	2o	2+	15-	6	15	7	5	6	3	7	9	58	7	0.4
24	0o	1-	0o	0o	0o	0+	2-	2o	5-	0	3	0	0	0	2	6	7	18	2	0.0
25	3o	4-	4-	3o	4-	3o	2o	4o	26o	15	22	22	15	22	15	7	27	145	18	1.0
26	4+	4-	4+	4o	5-	5o	5o	4o	35o	32	22	32	27	39	48	48	27	275	34	1.4
27	3+	4+	5o	3o	3-	5+	5o	4-	32+	18	32	48	15	12	56	48	22	251	31	1.3
28	4+	3+	3o	2o	1o	3-	2o	4-	22o	32	18	15	7	4	12	7	22	117	15	0.8
29	3o	4-	3+	3-	3o	2+	4-	2+	24o	15	22	18	12	15	9	22	9	122	15	0.9
30	4-	3+	2+	2+	2o	2-	3-	2o	20o	22	18	9	9	7	6	12	7	90	11	0.6
31	3o	3-	1o	1o	1-	1o	2-	2o	13o	15	12	4	4	3	4	6	7	55	7	0.3

TABLE 5 FREQUENCIES OF Kp INDICES, 1975

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

TABLE 6 MONTHLY AVERAGES OF Ap AND Cp, 1975

	Jan	Feb	Mch	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Ap	16	18	20	16	13	11	12	10	10	12	18	12	13.9
Cp	0.71	0.86	0.86	0.71	0.67	0.56	0.58	0.52	0.46	0.53	0.77	0.58	0.65

TABLE 7 LIST OF MAGNETIC STORMS, 1975

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

Beginning	s.c. d. GMT	Duration Eighths	Number of Eighths with Kp= 7- 7o 7+	8- 8o 8+	9- 9o
Jan 06 E7	-	5	. . .	1 . .	. .

TABLE 8 VERY QUIET INTERVALS, 1975

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

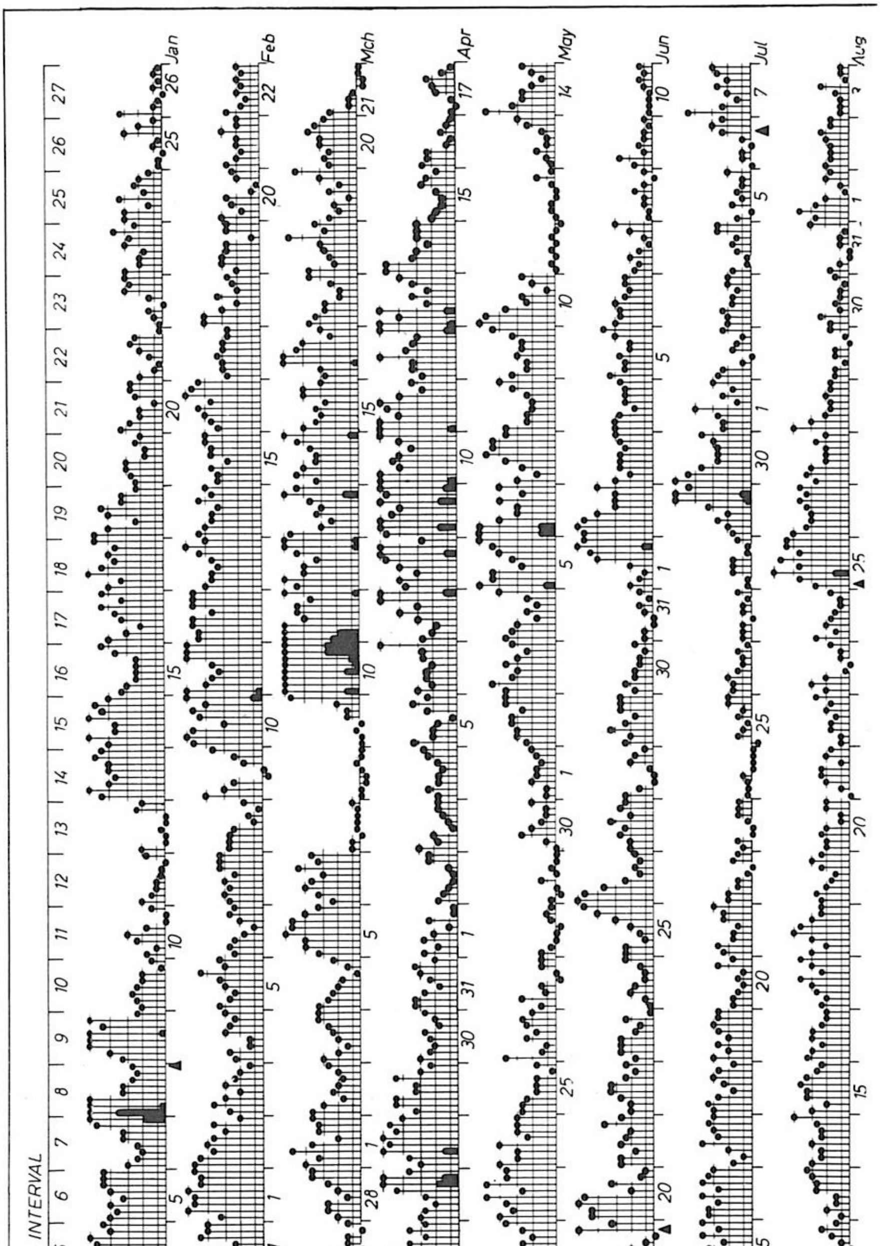
First. . . . . last Eighth		Duration Eighths
Jan 26 E2	27 E1	8
Mch 07 E1	09 E6	22
21 E2	22 E1	8
Apr 16 E4	17 E3	8
27 E3	30 E2	24
May 11 E1	12 E6	14
15 E1	16 E1	9
31 E1	31 E8	8
Jun 09 E3	10 E8	14
22 E8	25 E6	23
26 E4	28 E2	15

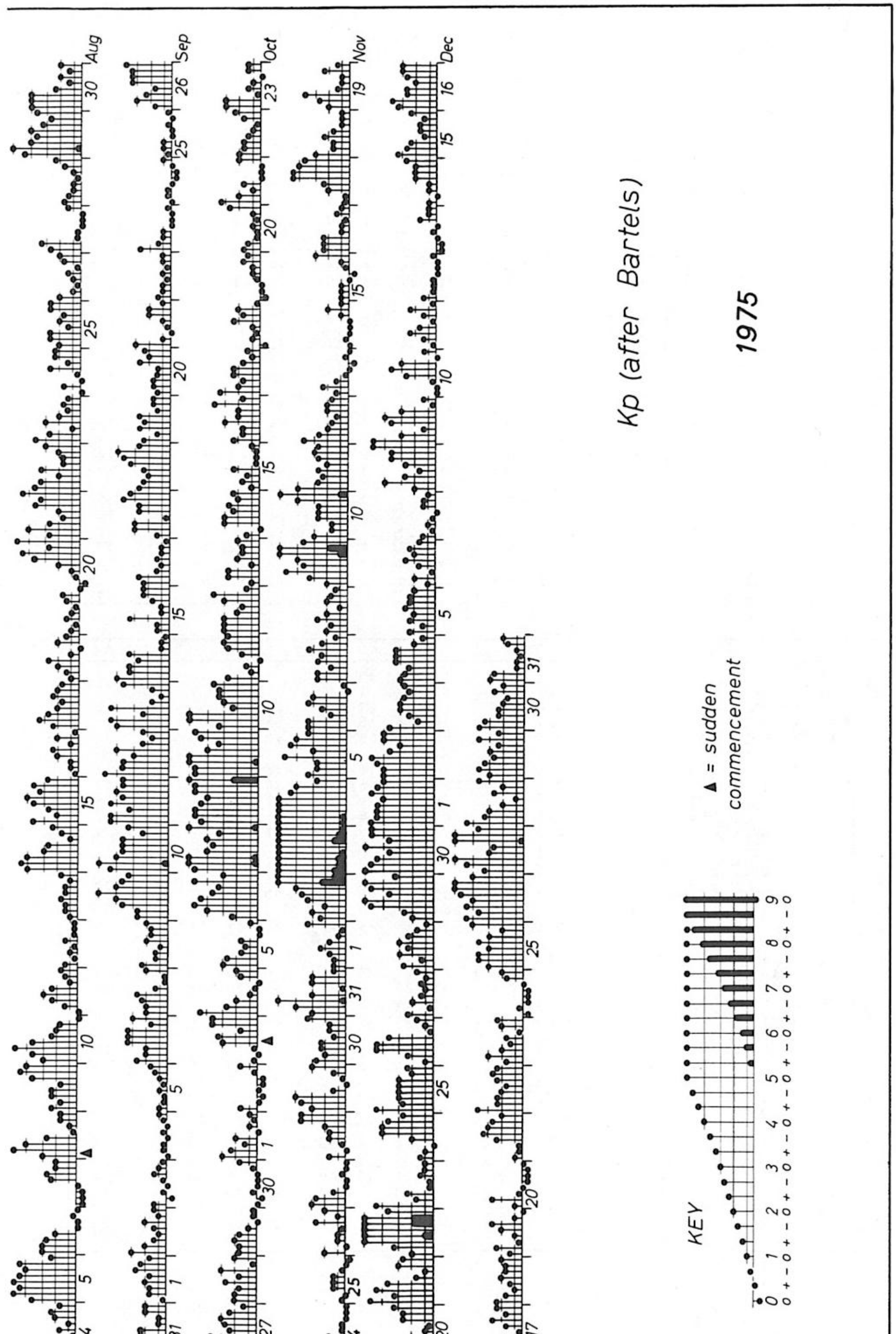
First. . . . . last Eighth		Duration Eighths
Aug 06 E5	07 E4	8
12 E1	13 E3	11
Sep 02 E7	05 E7	25
21 E8	22 E8	9
23 E2	25 E8	23
29 E5	30 E7	11
Oct 24 E4	25 E8	13
Nov 13 E3	14 E6	12
14 E8	15 E7	8
23 E4	24 E3	8
Dec 07 E1	07 E8	8
11 E8	13 E5	14
20 E3	21 E3	9

TABLE 8a LIST OF Kp', 1975

Reduction of Kp to Kp' due to solar flare effects

Month	Day	Eighth	Kp	Kp'
Mch	22	4	3-	2+


DAYS IN SOLAR ROTATION INTERVAL
ROT.-NO.
1975
1935
1936
1937
1938
1939
1940
1941


Kp (after Bartels)
1975
KEY
▲ = sudden commencement
1942
1943
1944
1945
1946
1947

(For explanation: see page IX)

JAN. 1975

	3 Kn								σn		an								An
1	4	7	6	4	4	5	6	3	4312	3213	10	19	14	10	8	12	14	7	12
2	3	2	1	1	3	2	4	1	4322	3343	6	5	2	3	7	4	9	3	5
3	3	2	6	4	6	7	8	7	1123	4342	7	5	16	10	15	18	23	20	14
4	9	8	11	14	15	16	11	12	2243	5636	32	24	43	72	95	108	41	55	59
5	10	9	11	10	13	14	13	12	3333	5365	39	31	45	39	61	74	63	55	51
6	7	5	5	8	10	10	14	17	3324	4523	19	12	11	23	39	39	81	138	45
7	19	13	12	9	10	8	5	8	1432	4212	192	62	57	32	35	22	13	21	54
8	9	11	14	14	15	14	15	8	2544	5574	29	47	86	80	93	75	91	24	66
9	5	6	8	7	7	7	3	4	1321	5654	12	15	21	17	20	17	7	9	15
10	4	2	5	8	4	0	0	2	3132	3114	8	5	13	26	9	1	0	5	8
11	3	1	4	3	2	3	1	4	3231	2425	7	3	8	7	5	6	2	9	6
12	4	1	0	1	1	1	8	6	5232	2231	9	2	1	2	2	2	23	14	7
13	11	11	10	10	13	12	14	11	3322	5463	50	45	37	37	67	59	84	47	53
14	10	12	10	11	15	12	14	11	3334	6552	35	56	38	46	99	54	82	43	57
15	9	7	5	7	7	8	10	11	1222	3323	29	19	13	19	19	21	34	44	25
16	10	7	5	11	12	13	10	12	2535	5535	34	18	11	49	59	63	35	54	40
17	11	9	14	13	12	11	11	12	4432	5543	42	32	75	66	53	48	41	55	52
18	12	10	6	12	14	10	9	7	3313	3355	51	39	14	52	71	34	31	18	39
19	6	6	8	10	5	5	7	5	2333	3444	14	16	24	36	13	11	18	12	18
20	8	7	5	5	2	8	8	8	2213	2444	25	17	12	11	5	22	23	22	17
21	5	2	2	4	7	7	7	2	3221	5362	12	5	4	8	18	20	17	4	11
22	0	3	4	1	5	10	8	8	1322	3534	0	6	8	3	12	34	22	24	14
23	8	5	5	6	9	8	12	7	4224	5452	22	12	12	14	31	23	51	18	23
24	7	8	3	10	5	8	5	4	4524	2645	19	24	6	35	11	23	13	9	18
25	1	1	1	3	2	9	6	3	2221	3612	2	2	3	7	4	32	14	6	9
26	7	2	3	3	5	2	3	2	6233	5312	19	4	7	6	12	5	6	4	8
27	3	6	7	10	8	10	11	7	4122	2443	6	15	20	40	21	40	42	18	25
28	12	7	7	6	7	4	7	4	2243	3342	52	17	18	15	18	8	17	8	19
29	4	6	3	8	8	4	5	4	2513	3234	10	15	7	23	21	9	11	8	13
30	4	3	5	6	4	4	7	8	3243	3363	8	7	13	16	8	10	19	24	13
31	5	3	5	10	8	14	13	10	3332	5463	12	6	11	34	26	81	68	37	34
																			26.8

JAN. 1975

	3 Ks								σs		as								As
1	7	7	7	4	5	4	4	5	0323	3333	17	20	19	9	11	10	10	11	13
2	4	1	0	2	3	2	4	2	3112	2222	10	3	1	5	7	5	9	4	6
3	5	4	9	7	5	6	10	8	5422	2233	13	8	27	20	13	14	39	25	20
4	10	8	10	11	12	14	11	11	2324	2633	38	25	40	46	58	78	43	43	46
5	11	7	9	10	10	11	10	9	3021	2141	41	19	33	34	40	42	36	32	35
6	7	6	5	6	9	9	14	15	3111	0243	18	15	12	15	32	30	77	95	37
7	18	12	11	9	9	9	8	9	3321	0255	165	57	46	30	30	27	22	33	51
8	13	12	15	14	13	11	15	9	4445	3134	65	59	90	76	61	41	94	29	64
9	6	4	6	6	6	5	4	4	3211	2232	15	10	15	16	16	13	8	10	13
10	4	3	5	8	5	2	0	2	3032	2213	10	7	13	21	12	4	1	5	9
11	4	4	3	4	3	3	3	4	1313	3220	9	9	7	10	7	7	6	9	8
12	4	2	2	3	3	4	9	9	1231	1435	8	5	4	7	6	9	31	27	12
13	12	11	11	10	11	13	13	12	2112	2234	60	45	46	38	50	61	69	59	54
14	13	11	9	10	13	12	13	11	3211	1154	64	41	30	34	64	58	64	45	50
15	8	6	5	7	8	8	11	12	2001	2221	25	16	13	17	21	22	43	53	26
16	10	7	5	9	10	12	11	12	2124	2133	36	17	12	32	38	58	48	55	37
17	10	9	10	10	10	12	11	11	4222	0133	37	27	39	39	34	53	43	46	40
18	9	9	5	8	11	7	10	8	3221	2234	33	27	13	24	45	20	39	21	28
19	6	6	6	9	5	5	6	5	0123	3121	15	14	15	30	13	12	15	12	16
20	8	6	5	5	4	9	8	7	1223	3223	23	14	12	12	10	27	26	20	18
21	5	3	2	4	6	8	7	2	2021	4220	11	7	5	8	16	21	19	5	12
22	1	2	4	2	5	9	7	9	2211	1244	3	4	8	4	11	31	19	27	13
23	10	7	8	5	9	8	10	7	5322	1253	35	18	24	13	30	25	35	20	25
24	8	7	4	6	5	7	5	2	5311	2143	21	20	9	24	11	18	12	5	15
25	1	2	2	2	3	8	7	4	2210	4134	3	4	5	5	7	23	17	9	9
26	6	3	3	2	5	3	4	3	3311	2131	14	6	6	5	12	6	10	7	8
27	5	9	9	9	9	11	10	8	5321	1442	11	28	33	31	28	49	38	24	30
28	11	8	6	6	8	4	7	4	1241	2122	47	21	15	14	21	9	19	9	19
29	6	4	5	7	8	4	6	3	2101	2321	15	8	13	17	25	10	14	7	14
30	4	5	5	8	5	6	8	8	4242	0432	10	12	13	22	13	15	25	22	17
31	5	6	6	8	8	13	12	11	3333	2114	12	14	16	24	21	68	56	45	32
																			25.1

JAN. 1975

	3 Km								Σ Km	am								Am	Am 2
1	6	7	6	4	4	5	5	4	13.7	14	20	16	9	9	11	12	9	13	13
2	4	2	1	2	3	2	4	1	6.3	8	4	2	4	7	4	9	3	5	8
3	4	3	8	6	6	6	9	8	16.7	10	7	21	15	14	16	31	22	17	20
4	10	8	11	12	14	15	11	11	30.7	35	24	41	59	76	93	42	49	52	40
5	10	8	10	10	11	12	11	11	27.7	40	25	39	36	50	58	49	44	43	41
6	7	6	5	7	10	10	14	16	25.0	18	14	11	19	36	35	79	117	41	53
7	19	12	12	9	9	8	7	9	28.3	179	59	52	31	32	24	17	27	53	60
8	11	12	15	14	14	12	15	9	34.0	47	53	88	78	77	58	92	27	65	43
9	6	5	7	7	7	6	4	4	15.3	14	13	18	17	18	15	8	10	14	26
10	4	3	5	8	4	1	0	2	9.0	9	6	13	23	10	2	1	5	9	9
11	4	3	4	4	3	3	2	4	9.0	8	6	8	9	6	6	4	9	7	6
12	4	2	1	2	2	2	9	8	10.0	8	4	3	5	4	5	27	21	10	18
13	12	11	11	10	12	12	14	12	31.3	55	45	41	37	58	60	77	53	53	41
14	11	11	10	10	14	12	14	11	31.0	50	48	34	40	82	56	73	44	53	47
15	9	7	5	7	7	8	10	11	21.3	27	18	13	18	20	21	38	48	25	35
16	10	7	5	11	11	12	11	12	26.3	35	18	11	41	49	60	41	55	39	38
17	10	9	12	12	11	12	11	11	29.3	40	29	57	52	43	51	42	50	46	44
18	11	9	6	10	12	9	10	7	24.7	42	33	14	38	58	27	35	20	33	33
19	6	6	7	9	5	5	6	5	16.3	14	15	20	33	13	12	16	12	17	21
20	8	6	5	5	3	8	8	8	17.0	24	16	12	12	7	24	24	21	18	14
21	5	3	2	4	7	8	7	2	12.7	11	6	5	8	17	21	18	5	11	12
22	1	2	4	1	5	9	8	8	12.7	2	5	8	3	11	32	21	26	14	15
23	9	6	7	5	9	8	11	7	20.7	28	15	18	13	31	24	43	19	24	23
24	7	8	4	9	5	7	5	3	16.0	20	22	8	29	11	20	13	7	16	16
25	1	1	2	3	3	9	6	3	9.3	2	3	4	6	6	28	15	7	9	10
26	6	2	3	3	5	3	4	3	9.7	16	5	7	6	12	6	8	6	8	13
27	4	8	8	10	8	11	10	8	22.3	9	21	26	35	24	44	40	21	28	22
28	11	7	6	6	7	4	7	4	17.3	49	19	16	15	19	8	18	8	19	21
29	5	5	4	7	8	4	5	4	14.0	12	12	10	20	23	10	12	8	13	13
30	4	4	5	7	5	5	8	8	15.3	9	9	13	19	11	12	22	23	15	15
31	5	4	6	9	8	14	13	11	23.3	12	10	14	29	24	75	62	41	33	33
																		25.9	

FEB. 1975

	3 Km								Σ Km	am								Am	Am 2
1	10	12	11	12	14	11	12	12	31.3	37	51	45	59	74	47	58	56	53	51
2	12	10	10	11	10	9	11	5	26.0	53	40	38	48	36	27	42	12	37	38
3	6	9	8	6	8	7	6	4	18.0	15	28	22	15	25	17	16	9	18	19
4	5	6	4	4	7	8	7	8	16.3	11	16	8	10	20	22	17	24	16	18
5	8	6	6	9	10	12	8	8	22.3	25	16	16	28	36	53	24	26	28	23
6	5	6	6	6	4	6	8	6	15.7	11	16	14	16	9	16	22	16	15	21
7	7	6	8	9	7	10	10	9	22.0	18	16	21	29	19	37	38	27	26	22
8	8	7	8	7	3	5	2	5	15.0	21	20	24	19	7	12	4	13	15	19
9	10	6	6	0	0	7	7	11	15.7	34	14	14	1	1	17	20	50	19	24
10	13	13	11	8	13	13	11	14	32.0	63	62	48	22	70	68	45	83	58	43
11	12	8	9	9	10	15	15	13	30.3	59	26	29	32	34	95	92	62	54	58
12	12	11	13	14	11	13	13	12	33.0	51	41	70	71	43	65	61	53	57	55
13	11	9	9	9	11	11	13	10	27.7	49	30	31	30	49	45	64	35	42	44
14	11	10	10	10	9	12	12	11	28.3	44	35	35	37	28	56	55	46	42	40
15	9	9	10	7	10	10	11	11	25.7	30	28	34	17	40	40	48	46	35	38
16	8	8	10	12	9	13	12	11	27.7	26	24	38	55	31	67	56	49	43	38
17	8	7	8	9	8	8	8	8	21.3	21	18	26	28	25	22	21	22	23	31
18	10	10	8	5	8	6	7	7	20.3	37	36	24	12	25	14	19	18	23	22
19	6	8	8	8	9	4	8	8	19.7	14	22	22	25	28	8	22	23	21	19
20	7	4	6	8	4	2	5	7	14.3	20	8	16	22	8	5	12	17	14	15
21	5	5	5	5	6	10	6	5	15.7	13	11	11	13	15	36	16	12	16	14
22	7	4	4	6	5	6	6	6	14.7	18	10	8	14	13	15	14	14	13	27
23	9	6	10	18	15	13	8	8	29.0	27	16	36	166	94	68	23	21	56	37
24	10	8	4	4	10	10	8	9	21.0	40	22	9	8	38	37	26	31	26	36
25	10	12	10	8	11	8	6	6	23.7	39	51	40	22	44	23	15	16	31	29
26	8	9	6	6	7	4	4	1	15.0	26	30	15	15	17	9	8	3	15	16
27	2	5	6	1	5	4	2	4	9.7	5	12	15	2	11	9	5	9	9	10
28	4	6	7	4	6	8	11	9	18.3	9	16	19	9	16	23	48	32	22	22
																		29.5	

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	3 Kn								σn		an								An
1	9	11	11	13	14	12	13	13	2242	4454	31	47	46	64	81	54	65	64	57
2	13	11	11	12	11	8	12	5	4432	5271	61	46	41	56	43	25	52	12	42
3	6	9	8	5	8	7	7	4	3412	3363	16	29	26	13	26	18	17	8	19
4	5	6	4	4	7	8	5	8	5432	2323	11	15	8	10	19	22	13	23	15
5	8	7	6	9	11	12	9	9	4213	4432	25	17	16	33	43	57	28	28	31
6	4	7	6	5	4	6	7	7	3312	2133	10	20	16	16	8	14	20	20	16
7	7	7	7	10	8	10	11	9	3223	3672	20	17	19	34	22	40	50	29	29
8	7	7	9	8	4	5	2	5	2342	2222	19	19	27	22	8	12	4	13	16
9	10	6	5	0	0	6	7	10	3111	2324	35	14	14	0	1	15	18	40	17
10	12	13	12	8	14	14	11	15	3662	7633	51	69	51	22	79	71	44	91	60
11	13	9	10	10	10	15	15	13	1122	2755	67	31	35	36	37	95	92	64	57
12	11	11	14	14	11	13	13	13	3264	4446	47	43	73	80	47	69	61	63	60
13	11	9	10	9	12	11	13	10	3242	5432	43	32	40	32	53	47	62	36	43
14	11	10	11	10	10	11	12	11	3522	4254	45	37	41	39	35	50	51	41	42
15	9	9	10	7	11	11	11	11	2542	3353	29	30	40	18	46	42	48	43	37
16	8	8	11	13	9	13	12	11	1322	3533	26	24	49	65	33	68	59	48	47
17	7	8	9	9	9	6	8	8	3243	4245	20	21	28	29	28	25	23	23	25
18	11	10	8	5	9	6	7	7	3332	1354	43	38	25	12	27	14	20	19	25
19	5	7	8	9	8.	3	8	7	3533	4154	11	20	24	29	25	6	21	20	20
20	8	3	7	8	3	2	5	6	5224	1253	21	6	19	24	7	5	11	16	14
21	5	4	4	6	7	10	6	5	4332	3342	12	9	10	14	17	34	16	11	15
22	7	4	3	6	6	5	6	5	3224	2212	17	9	6	15	14	13	14	12	13
23	8	7	10	19	15	13	8	8	5135	4524	25	17	38	185	96	67	26	22	60
24	10	8	3	4	10	10	8	10	5232	3424	38	24	7	10	39	38	22	35	27
25	10	12	11	8	11	8	6	6	2134	2412	40	57	44	23	50	25	16	16	34
26	8	9	6	6	7	4	3	1	3411	6353	22	27	14	15	19	9	7	3	15
27	2	5	7	1	5	5	1	4	2352	4322	5	11	19	2	12	11	3	9	9
28	4	5	3	4	6	9	11	10	3422	2486	8	15	24	9	15	28	50	37	23
																			31.0

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	3 Ks								σs		as								As
1	11	12	11	12	13	10	12	11	3442	2334	43	55	45	54	66	40	52	49	51
2	11	10	10	10	9	9	9	5	2222	3253	45	35	34	40	28	29	31	13	32
3	6	8	7	7	8	6	6	4	1311	2103	14	26	17	17	25	15	15	10	17
4	4	5	4	5	8	8	7	8	2231	3133	10	16	8	11	22	21	20	25	17
5	8	6	6	8	9	11	7	8	1103	3312	25	14	16	23	29	50	20	24	25
6	5	5	5	6	4	7	8	5	2321	2322	13	13	12	16	10	17	24	12	15
7	6	6	8	8	7	10	8	8	0211	1123	16	15	24	24	17	34	26	26	23
8	8	7	8	6	3	5	2	6	4331	2333	24	20	22	15	6	13	5	14	15
9	10	6	6	0	0	7	8	12	1221	0124	34	15	14	1	0	18	22	60	21
10	14	12	11	8	13	13	11	14	3412	2243	76	55	45	23	61	65	47	74	56
11	12	8	8	9	9	15	15	12	1221	0312	51	22	23	28	32	94	92	60	50
12	12	10	13	13	10	13	13	11	3323	2242	55	39	67	62	40	61	62	44	54
13	12	9	8	9	11	11	13	10	5120	1230	55	28	21	28	44	44	65	34	40
14	11	9	9	10	7	13	12	12	3413	2145	43	32	28	34	20	62	60	52	41
15	9	8	9	7	10	10	11	11	3421	1244	30	25	27	17	34	37	49	49	34
16	8	8	8	11	9	13	12	11	2201	3324	26	24	26	45	28	67	53	49	40
17	8	6	8	9	8	7	7	8	1022	2224	22	16	25	27	22	19	19	22	22
18	9	10	8	5	8	6	7	7	2322	4143	31	34	24	11	22	14	19	17	22
19	7	8	7	8	9	4	8	9	3532	1534	18	23	20	21	31	10	23	27	22
20	7	4	6	7	4	2	6	7	2142	0322	19	9	14	20	9	5	14	18	14
21	6	5	5	5	5	10	6	5	2323	2210	14	13	13	13	13	38	16	13	17
22	7	5	4	6	5	7	6	6	4214	2032	19	12	9	14	12	17	14	15	14
23	9	6	10	18	15	13	7	7	5414	1133	29	15	34	147	91	68	20	20	53
24	11	7	5	3	10	10	9	9	5312	1243	42	20	11	6	37	37	30	28	26
25	10	11	10	8	10	8	6	6	2214	2220	38	46	37	21	38	22	15	15	29
26	9	9	6	6	6	4	4	2	4401	4222	29	32	15	15	16	10	9	4	16
27	3	5	5	1	4	4	3	4	1332	2143	6	12	11	2	10	8	6	9	8
28	4	7	6	4	6	7	11	9	2502	1062	10	17	15	9	16	18	46	27	20
																			23.4

MAR. 1975

	3 Kn								σn		an								An
1	10	8	12	11	6	9	10	9	1234	4534	35	24	53	42	16	33	34	31	34
2	9	7	6	7	6	4	7	7	3542	3233	32	20	15	18	16	10	19	18	19
3	7	4	2	6	7	8	9	9	4332	3322	18	9	5	14	18	25	30	31	19
4	8	6	7	5	5	4	4	7	3123	3422	25	15	17	13	12	9	10	17	15
5	9	9	11	14	14	14	11	9	3444	6633	30	33	49	80	77	71	45	30	52
6	5	8	11	10	10	13	9	9	3233	4664	13	25	49	39	37	64	33	33	37
7	2	1	0	1	3	2	3	4	2222	3102	5	3	1	3	6	5	6	10	5
8	1	0	0	0	0	2	1	1	2112	1121	2	1	1	1	1	5	2	2	2
9	0	2	2	1	4	5	7	12	0322	2332	0	4	5	3	8	11	18	60	14
10	14	12	12	17	16	14	16	17	3335	6445	83	56	60	135	118	83	120	141	100
11	17	17	14	12	13	11	10	12	1365	3325	144	130	74	60	62	44	34	60	76
12	11	12	10	13	11	10	13	15	2425	4342	42	54	39	70	42	40	70	88	56
13	11	8	7	9	9	10	16	12	4233	4361	50	21	18	31	32	39	106	53	44
14	7	11	11	10	11	11	11	14	2325	4552	20	45	45	39	47	42	48	31	46
15	11	8	9	10	8	10	11	8	2343	4552	44	26	27	36	26	39	46	25	34
16	7	9	14	14	12	11	6	8	3353	3334	20	31	80	78	55	45	14	22	43
17	9	8	8	9	5	7	7	11	3334	3433	29	-26	24	29	13	17	17	47	25
18	9	5	7	9	9	12	8	9	5244	2533	33	11	18	28	27	60	22	31	29
19	6	4	7	4	8	5	8	12	4342	6465	14	9	18	8	24	12	26	52	20
20	6	8	7	9	9	10	9	7	1344	4663	15	22	17	31	29	39	33	18	26
21	6	3	4	2	0	0	1	2	1132	1122	14	7	9	4	1	1	3	4	5
22	2	4	5	7	3	4	4	7	2222	1322	4	10	13	18	6	9	8	20	11
23	8	9	9	8	5	2	4	6	3343	2241	25	27	29	26	12	5	8	15	19
24	5	3	4	11	13	13	8	7	1223	6543	13	6	8	50	61	63	22	20	30
25	7	5	6	4	9	6	6	4	2342	5544	18	13	15	8	28	15	16	10	15
26	1	5	8	13	10	8	10	8	3323	4252	3	13	24	66	36	21	35	22	28
27	8	7	6	9	12	16	15	9	3334	5231	24	20	14	32	59	111	95	33	49
28	7	10	16	11	13	11	11	10	2234	3654	19	34	104	49	63	50	50	39	51
29	10	12	12	11	9	11	8	7	2555	4532	35	55	58	47	32	48	23	18	40
30	8	6	5	7	7	4	6	8	4223	3213	22	16	12	18	18	9	14	21	16
31	8	8	7	5	7	8	10	6	3213	3422	22	24	17	13	20	25	36	16	22
																			31.7

MAR. 1975

	3 Ks								σs		as								As
1	10	8	11	10	7	8	10	11	2313	4125	40	23	45	36	17	25	38	47	34
2	9	7	6	5	6	3	5	7	3202	0124	33	18	14	13	14	7	13	19	16
3	6	3	3	6	6	8	9	7	4311	1133	16	7	6	16	16	21	28	20	16
4	8	6	6	4	4	3	2	8	4012	1125	23	15	14	10	8	7	5	22	13
5	9	10	10	12	13	13	10	9	4404	3536	32	38	36	59	62	61	39	32	45
6	6	7	9	10	9	12	7	8	3223	1125	14	18	27	36	30	58	19	24	28
7	3	3	0	1	3	3	3	4	1112	2524	6	6	1	3	7	6	6	9	6
8	2	1	2	0	0	2	1	0	2221	1221	4	3	4	1	1	5	2	1	3
9	0	2	3	1	3	5	6	14	1242	1303	1	4	6	3	6	12	15	74	15
10	14	13	12	18	16	15	18	18	4215	3358	79	70	51	157	120	94	164	164	112
11	17	17	12	12	11	11	9	14	1223	2144	140	125	59	53	50	45	32	79	73
12	11	12	11	12	11	12	13	15	2124	1254	48	51	46	52	42	59	64	99	58
13	11	5	6	9	9	11	15	13	3222	3255	50	12	16	32	31	44	93	69	43
14	8	11	9	10	11	10	11	15	2544	1321	25	43	29	34	42	37	45	86	43
15	11	8	8	10	8	11	11	9	3223	4233	43	24	21	34	26	46	44	28	33
16	8	7	11	13	13	10	7	7	3422	2144	24	19	50	62	67	37	18	17	37
17	9	8	6	8	4	6	7	12	1442	1124	32	23	15	21	10	14	18	52	23
18	11	5	6	8	8	13	9	11	5322	2222	42	12	16	21	26	62	27	43	31
19	7	4	6	2	8	4	8	11	3333	5253	18	10	14	5	24	10	25	46	19
20	7	7	7	9	8	10	10	8	2555	0253	18	18	17	28	26	37	35	25	26
21	7	3	3	2	0	1	1	1	4112	0232	20	7	6	4	0	2	3	2	6
22	2	6	5	6	3	4	2	9	1320	3433	4	14	13	15	6	9	5	28	12
23	10	9	8	7	4	2	2	7	3333	0121	36	33	25	19	9	4	5	17	19
24	6	4	5	11	12	11	7	7	2313	3132	14	10	11	48	53	42	17	20	27
25	7	6	5	4	9	6	5	5	3321	5015	20	14	13	8	28	15	11	11	15
26	3	6	9	12	9	8	10	7	2425	2531	7	15	27	54	32	26	36	17	27
27	8	6	5	8	12	17	16	10	1203	3224	22	15	13	24	59	134	112	40	52
28	8	8	13	10	11	10	11	9	2323	3224	22	26	67	40	49	35	46	32	40
29	9	10	10	9	9	11	8	6	3334	3320	31	34	36	32	28	42	23	16	30
30	8	5	4	7	6	3	6	7	4333	4010	25	12	9	18	16	7	16	17	15
31	8	7	5	4	7	8	9	6	3321	3122	23	18	12	10	16	21	31	15	19
																			30.2

MAR. 1975

	3 Km								Σ Km	am								Am	Am2
1	10	8	11	10	7	9	10	10	25.0	38	23	49	39	17	29	36	39	34	29
2	9	7	6	6	6	4	6	7	17.0	32	19	15	15	15	8	16	19	17	19
3	7	4	2	6	7	8	9	8	17.0	17	8	5	15	17	23	29	25	17	16
4	8	6	6	5	4	4	4	7	14.7	24	15	16	11	10	8	8	20	14	24
5	9	10	11	13	13	13	11	9	29.7	31	35	42	69	69	66	42	31	48	34
6	5	8	10	10	10	13	8	9	24.3	13	22	38	38	34	61	26	23	33	30
7	2	2	0	1	3	3	3	4	6.0	5	5	1	3	6	6	6	9	5	12
8	1	1	1	0	0	2	1	0	2.0	3	2	3	1	1	5	2	1	2	4
9	0	2	2	1	3	5	6	13	10.7	0	4	5	3	7	11	16	67	14	29
10	14	13	12	17	16	15	17	18	40.7	81	63	55	146	119	89	142	152	106	84
11	17	17	13	12	12	11	9	13	34.7	142	127	67	57	56	44	33	69	74	81
12	11	12	11	13	11	11	13	15	32.3	45	52	42	61	42	50	67	94	57	48
13	11	7	7	9	9	11	15	13	27.3	50	17	17	32	32	41	99	61	44	46
14	8	11	10	10	11	10	11	14	28.3	23	44	37	37	44	40	46	84	44	45
15	11	8	8	10	8	11	11	9	25.3	44	25	24	35	26	43	45	27	34	42
16	8	8	13	13	13	11	6	7	26.3	22	25	65	70	61	41	16	20	40	35
17	9	8	7	8	5	6	7	11	20.3	30	25	19	25	12	16	17	49	24	26
18	10	5	7	6	8	13	8	10	23.0	37	11	17	25	26	61	24	37	30	24
19	6	4	6	3	6	5	8	11	17.0	16	10	16	7	24	11	26	50	20	24
20	7	7	7	9	9	10	10	8	22.3	17	20	17	29	28	38	34	21	26	22
21	7	3	4	2	0	0	1	1	6.0	17	7	6	4	0	1	3	3	5	13
22	2	5	5	6	3	4	3	8	12.0	4	12	13	16	6	9	7	24	11	13
23	9	9	9	8	5	2	3	6	17.0	31	30	27	23	11	4	7	16	19	17
24	5	4	4	11	12	12	7	7	20.7	13	8	9	49	57	52	19	20	28	20
25	7	6	6	4	9	6	5	4	15.7	19	14	14	8	28	15	13	10	15	23
26	2	6	8	12	10	8	10	7	21.0	5	14	25	60	34	23	36	19	27	23
27	8	7	5	9	12	17	16	10	28.0	23	17	13	28	59	122	104	36	50	44
28	8	9	14	11	12	11	11	10	28.7	21	30	86	45	56	42	48	35	45	53
29	9	11	11	10	9	11	8	7	25.3	33	44	47	39	30	45	23	17	35	33
30	8	6	4	7	7	4	6	7	15.3	24	14	10	18	17	8	15	19	15	19
31	8	8	6	5	7	8	9	6	19.0	23	21	14	12	19	23	33	15	20	18
																		30.8	

APR. 1975

	3 Km								Σ Km	am								Am	Am2
1	6	4	7	7	4	6	4	1	13.0	16	8	20	17	8	16	8	3	12	13
2	4	3	3	2	2	3	6	6	9.7	10	7	6	5	5	7	14	16	9	10
3	8	5	5	2	3	4	4	5	12.0	23	11	13	5	7	9	10	12	11	11
4	5	6	4	5	5	6	7	8	15.3	12	14	10	13	12	16	20	22	15	14
5	8	4	5	4	2	7	8	6	15.0	26	10	16	9	4	20	23	15	15	16
6	8	5	8	6	7	9	7	13	21.0	22	12	21	15	19	27	19	63	25	20
7	7	4	5	8	11	8	14	15	24.0	18	10	12	26	48	25	74	95	39	37
8	11	10	9	12	13	14	14	7	30.0	43	39	27	52	68	85	75	19	51	57
9	13	13	13	12	11	15	12	15	34.7	63	67	69	59	44	101	58	92	69	65
10	14	11	11	13	10	9	12	14	31.3	82	50	42	65	39	32	53	76	55	61
11	14	12	11	12	14	11	7	9	30.0	78	59	43	58	74	44	20	32	51	48
12	7	9	10	14	10	9	8	15	27.3	18	28	35	75	36	31	25	91	42	44
13	13	10	14	7	10	6	9	12	27.0	64	36	83	18	35	14	31	51	42	42
14	12	12	8	8	7	8	9	9	24.3	56	54	25	22	18	21	27	30	32	27
15	5	4	4	5	5	7	7	5	14.0	13	10	10	11	13	19	20	13	14	16
16	7	5	5	4	2	4	3	1	10.7	20	13	15	9	4	8	6	3	10	11
17	2	1	2	5	5	7	4	3	9.7	4	3	5	13	12	17	8	6	9	8
18	3	4	3	6	8	5	6	4	13.0	6	8	7	15	23	13	15	10	12	11
19	4	5	4	4	7	7	4	3	12.7	10	13	10	8	17	17	9	6	11	12
20	1	2	6	7	8	13	15	15	22.3	2	4	15	20	24	70	97	83	40	32
21	15	6	7	8	11	11	9	3	23.3	93	16	17	24	46	42	33	7	35	42
22	8	10	9	7	8	6	7	10	21.7	22	39	32	18	21	14	20	39	26	30
23	10	9	9	12	8	12	9	9	25.0	40	27	31	52	22	59	32	30	37	32
24	10	8	8	10	7	8	9	9	23.0	37	24	25	39	17	21	29	29	28	27
25	7	7	6	6	6	5	1	4	14.0	17	20	16	15	16	11	2	10	13	17
26	10	3	2	6	5	6	7	6	15.0	37	7	5	16	12	15	19	14	16	13
27	3	7	4	5	1	1	3	4	9.3	7	19	8	12	3	2	6	9	8	9
28	4	2	1	0	0	2	3	2	4.7	9	5	3	1	1	4	6	5	4	5
29	3	0	1	4	1	1	1	1	4.0	6	0	3	9	2	3	2	2	3	6
30	1	3	7	7	3	3	3	5	10.7	3	6	17	19	7	6	6	13	10	8
																		24.8	

APR. 1975

	3 Kn								σn		an								An
1	7	3	8	7	4	7	3	2	4223	2312	19	7	24	18	8	17	7	5	13
2	4	3	3	3	3	4	6	7	2321	2324	9	7	7	6	6	6	15	19	10
3	8	4	6	2	4	4	5	5	4232	4234	21	10	14	5	8	9	11	12	11
4	4	6	5	5	5	7	7	8	2432	5562	10	15	11	13	13	19	17	22	15
5	8	5	6	5	3	7	8	6	4343	2433	21	11	16	11	6	19	26	16	16
6	8	4	7	6	7	9	8	13	2233	3533	21	10	20	15	16	28	21	62	24
7	7	4	5	9	11	9	13	14	2223	3143	18	9	12	30	50	27	70	79	37
8	11	11	9	12	13	14	14	7	4554	5542	42	42	31	56	64	82	76	19	52
9	13	14	14	13	11	15	12	14	2555	2322	64	76	77	62	50	102	55	81	71
10	13	12	11	14	10	9	11	13	3235	5243	69	57	48	73	40	28	49	70	54
11	13	12	11	12	14	11	7	9	3353	3542	70	57	44	59	82	47	19	32	51
12	7	9	10	14	10	9	8	14	2343	3233	17	28	37	80	36	28	24	83	42
13	14	10	14	6	10	6	8	11	5333	5234	73	34	85	16	37	14	26	46	41
14	12	12	9	8	7	8	9	9	3512	4541	60	57	27	22	19	23	27	29	33
15	4	4	4	5	5	7	7	6	5233	4341	10	10	9	13	12	20	19	15	14
16	7	5	7	4	2	4	4	2	2123	3423	18	13	17	9	5	9	8	4	10
17	1	1	3	6	6	7	5	3	2224	3321	2	3	7	16	14	20	11	7	10
18	3	3	3	7	8	6	6	4	2232	1453	6	7	7	18	24	15	15	9	13
19	4	5	5	5	7	7	4	3	3513	4312	8	13	11	7	20	19	10	6	12
20	1	2	6	7	9	14	15	14	1132	3334	2	4	16	20	29	71	95	77	39
21	16	6	7	8	12	11	9	4	7224	3432	104	14	17	26	53	44	32	10	38
22	8	11	10	7	8	6	7	9	3433	3222	22	41	34	17	24	14	20	32	26
23	10	9	10	12	8	13	9	9	3133	1453	37	31	37	60	24	67	32	27	39
24	10	8	8	11	7	8	9	9	3234	2111	38	24	26	42	17	26	27	27	28
25	7	8	7	6	7	6	1	4	3423	2323	17	22	19	16	17	14	3	10	15
26	9	3	3	7	6	7	7	6	2213	1522	32	6	6	19	14	17	18	15	16
27	4	7	3	6	1	1	3	4	1434	2222	8	20	7	15	3	3	7	9	9
28	4	2	2	1	0	3	4	3	2112	1223	9	4	5	2	1	6	9	6	5
29	2	0	2	5	2	2	2	1	3024	2313	5	0	4	12	4	5	4	3	5
30	1	4	7	8	4	3	4	6	2323	3334	3	8	19	21	9	7	8	15	11
																			25.3

APR. 1975

	3 Ks								σs		as								As
1	6	4	7	6	4	6	4	0	2212	1122	14	9	17	16	9	15	9	1	11
2	5	3	2	2	2	3	5	6	4410	2332	11	7	5	4	5	6	13	14	8
3	8	5	5	2	3	4	4	5	3134	1132	25	11	13	5	7	8	9	12	11
4	5	5	4	5	5	6	8	8	3313	3222	13	12	9	13	11	14	22	21	14
5	9	4	6	3	1	8	7	6	5200	3322	31	9	15	7	3	21	20	14	15
6	8	6	8	6	7	8	7	13	4151	2011	23	14	22	14	20	25	18	65	25
7	7	4	5	8	11	8	14	16	3233	3244	19	10	11	23	45	22	79	111	40
8	11	10	8	11	14	15	14	7	4324	4532	45	36	24	48	72	87	74	19	51
9	13	12	13	12	10	15	12	15	3014	2224	62	58	62	56	38	100	60	102	67
10	15	11	10	12	10	10	12	14	2234	2121	94	43	36	57	38	35	58	82	55
11	14	12	11	12	13	11	7	9	4233	1131	86	60	42	56	66	41	20	32	50
12	7	9	10	13	10	10	9	15	3355	3023	20	28	34	69	36	34	27	98	43
13	12	10	14	7	9	6	10	12	4422	2354	55	37	81	20	32	14	36	57	42
14	12	11	8	8	6	7	8	9	3531	5523	52	50	23	22	16	19	26	32	30
15	6	4	4	4	5	7	8	5	6323	3222	16	10	10	9	13	17	21	12	14
16	8	5	6	4	1	3	2	1	3313	3201	21	13	14	9	3	7	4	3	9
17	2	2	1	4	4	5	2	2	3122	0012	5	4	3	10	9	13	5	4	7
18	3	4	3	5	8	4	6	4	2333	5212	7	10	7	13	21	10	15	10	12
19	5	6	4	4	6	6	3	2	4735	3432	11	14	10	10	14	14	7	5	11
20	1	2	6	7	7	13	15	15	2213	4337	3	4	14	19	19	69	98	99	41
21	14	7	6	8	10	10	10	2	6322	2232	82	18	16	22	40	40	34	5	32
22	8	10	9	7	7	6	7	11	3544	4122	23	36	30	18	18	14	20	45	26
23	11	8	8	11	8	12	9	9	2323	1441	43	23	25	44	21	52	32	32	34
24	10	8	8	10	6	7	9	9	2423	2144	36	24	24	36	16	17	32	32	27
25	7	7	5	6	6	4	0	4	3323	4112	17	18	13	14	15	9	1	9	12
26	11	4	2	5	4	6	7	5	3533	2212	43	8	4	13	10	14	20	13	16
27	3	7	4	4	1	0	2	4	2514	2132	7	19	8	9	3	1	4	9	8
28	4	2	1	0	0	1	1	2	3221	0213	8	5	2	1	0	2	3	4	3
29	3	0	0	3	0	0	0	0	3011	0110	6	0	1	6	0	1	1	0	2
30	1	2	6	6	2	2	2	5	1232	2333	2	5	15	16	4	5	4	11	8
																			24.1

MAY 1975

	3 Kn								σn		an								An
1	2	3	7	6	5	4	6	5	2222	3313	5	7	19	14	12	10	14	13	12
2	6	9	11	8	9	8	10	10	1443	2442	16	27	43	24	31	22	38	40	30
3	9	12	9	9	12	6	6	8	2513	6432	28	55	31	32	51	22	16	26	33
4	10	9	9	5	8	5	7	11	4232	5342	35	30	33	11	21	13	20	41	26
5	14	11	13	9	9	10	11	13	5421	3233	84	41	68	29	32	39	46	65	51
6	16	15	11	11	8	10	8	10	5434	4611	104	96	47	47	26	38	21	39	52
7	8	6	9	11	13	12	11	9	2422	4432	23	14	28	44	64	56	48	33	39
8	10	7	8	7	7	7	9	10	3233	2342	36	19	22	19	19	18	28	36	25
9	9	7	8	9	8	8	8	12	4331	2232	30	19	26	30	24	24	26	52	29
10	13	12	10	8	9	4	6	7	1234	4544	67	57	39	24	33	9	15	18	33
11	1	2	2	2	1	2	0	0	1122	2212	3	5	4	5	3	4	1	1	3
12	0	2	1	0	1	3	5	1	1422	3122	1	4	3	1	3	7	12	3	4
13	2	4	5	3	3	4	8	9	2243	4434	5	9	12	7	6	10	22	28	12
14	11	9	8	9	6	5	5	7	5223	6334	47	31	24	28	16	11	11	19	23
15	3	5	4	1	1	2	3	0	1533	3342	6	13	10	3	2	4	7	1	6
16	1	9	16	11	15	9	9	12	2453	5413	3	30	111	45	88	27	30	51	48
17	9	10	11	11	11	7	4	3	2322	3322	28	39	44	49	45	18	8	7	30
18	5	7	8	6	7	6	6	8	1323	5442	12	19	22	16	19	14	16	22	18
19	8	8	9	8	5	3	13	10	5125	2244	25	26	27	26	13	6	62	34	27
20	15	12	13	14	6	9	4	4	4244	0522	87	60	70	79	14	32	8	10	45
21	8	8	6	8	8	7	9	8	2223	3232	26	23	15	26	25	17	32	22	23
22	6	8	8	10	8	7	4	8	2232	3335	16	21	25	38	26	18	10	21	22
23	4	8	8	9	5	5	7	4	3233	1333	9	25	25	27	13	11	17	8	17
24	4	4	6	6	4	4	4	7	1224	2322	8	9	14	16	8	9	8	18	11
25	6	7	4	5	6	10	11	11	4421	2344	16	19	10	13	15	34	47	48	25
26	12	13	10	9	5	6	5	5	3662	3211	57	63	40	27	13	15	12	12	30
27	6	8	9	8	9	7	8	7	3323	2433	16	21	30	24	33	17	24	20	23
28	8	4	2	1	3	5	5	4	3332	3313	22	10	4	2	7	12	13	10	10
29	7	6	9	9	5	8	8	9	1213	2231	17	16	30	28	13	23	23	27	22
30	5	7	6	6	5	4	4	5	3322	3312	13	16	14	14	12	9	8	12	13
31	3	3	1	2	4	4	3	4	1222	2212	6	6	3	4	8	8	7	9	6
																			24.1

MAY 1975

	3 Ks								σs		as								As
1	4	2	8	5	5	4	5	7	2133	4112	8	4	21	12	12	8	12	19	12
2	5	8	8	7	9	10	11	11	1331	3333	12	22	26	17	30	35	42	41	28
3	10	10	8	9	11	6	7	9	4524	3223	36	39	21	32	42	14	18	32	29
4	11	8	9	6	7	5	7	10	4233	4224	45	24	28	14	17	12	17	38	24
5	15	12	14	8	8	11	11	13	6423	2313	87	52	71	26	25	48	47	62	52
6	16	15	11	10	7	10	9	12	5224	2235	107	94	48	40	20	37	32	55	54
7	8	5	8	11	14	11	11	9	2334	2322	24	11	26	43	71	48	50	31	38
8	10	5	7	7	6	6	11	11	4143	2342	36	16	19	18	16	14	43	48	26
9	10	8	8	8	7	8	9	14	4222	2101	36	24	24	24	20	25	30	78	33
10	14	12	11	8	8	4	7	8	2231	3223	84	53	47	24	26	10	18	26	36
11	0	2	0	1	1	0	0	0	1313	2012	1	4	1	2	2	0	1	1	2
12	1	1	0	0	0	1	4	0	2211	0231	2	3	1	1	0	3	8	1	2
13	2	4	4	3	1	1	9	9	2321	0332	5	10	10	7	2	3	32	31	13
14	12	10	8	10	9	4	5	8	4235	5326	60	36	25	36	31	9	12	22	29
15	2	6	5	0	0	1	1	0	3731	1230	5	14	11	1	1	2	3	0	5
16	0	9	14	10	15	9	8	11	1631	4315	1	30	73	34	96	31	22	42	41
17	9	9	10	10	11	7	3	2	4412	1002	33	31	37	38	42	18	7	4	26
18	5	5	7	6	6	4	8	5	3234	3224	13	13	20	15	15	10	21	13	15
19	9	9	8	7	3	1	11	10	7243	0235	28	27	25	20	7	2	48	35	24
20	14	12	12	13	6	9	2	2	6254	1131	82	55	57	62	16	27	5	5	39
21	8	8	5	7	7	4	9	7	3422	4322	26	23	11	20	18	10	29	19	20
22	5	7	8	9	8	6	5	6	2524	2122	13	19	24	32	21	16	12	15	19
23	4	5	7	8	4	4	6	1	1323	2342	8	13	20	26	9	9	15	2	13
24	2	4	5	5	2	2	2	5	2442	0203	4	8	12	13	5	5	5	13	8
25	6	6	4	4	4	9	12	12	5323	2323	16	14	10	10	9	29	53	57	25
26	13	11	10	7	5	4	2	3	5452	4323	63	43	35	17	12	10	5	7	24
27	5	7	9	7	8	6	8	6	2422	2222	12	17	27	20	22	14	22	16	19
28	7	4	1	1	1	3	4	1	2431	3201	20	9	3	2	3	6	8	2	7
29	7	6	10	6	4	9	8	8	4343	3412	20	16	35	16	10	33	23	21	22
30	5	6	7	5	4	4	2	3	2553	4522	12	14	19	13	10	8	4	6	11
31	3	2	0	1	1	2	1	3	1102	2321	7	5	0	3	3	5	3	6	4
																			22.6

MAY 1975

	3 Km								Σ Km	am								Am	Am 2
1	3	2	7	5	5	4	5	6	12.3	6	5	20	13	12	9	13	16	12	14
2	6	8	10	7	9	9	10	11	23.3	14	25	34	20	30	28	40	41	29	26
3	9	11	8	9	11	7	7	9	23.7	32	47	26	32	46	18	17	29	31	31
4	10	9	9	5	7	5	7	10	20.7	40	27	30	12	19	12	18	39	25	34
5	14	11	13	9	9	11	11	13	30.3	86	47	69	27	28	43	47	63	51	49
6	16	15	11	11	8	10	8	11	30.0	105	95	48	44	23	37	26	47	53	45
7	8	5	9	11	13	12	11	9	26.0	24	13	27	43	68	52	49	32	39	33
8	10	7	7	7	7	6	10	11	21.7	36	17	20	19	18	16	35	42	25	32
9	9	8	8	9	8	8	9	13	24.0	33	21	25	27	22	25	28	65	31	35
10	14	12	11	8	9	4	6	8	24.0	75	55	43	24	29	10	16	22	34	27
11	1	2	1	2	1	1	0	0	2.7	2	4	2	4	2	2	1	1	2	6
12	0	2	1	0	0	2	4	1	3.3	1	4	2	1	1	5	10	2	3	4
13	2	4	5	3	2	3	9	9	12.3	5	9	11	7	4	7	27	29	12	16
14	12	10	8	9	8	4	5	7	21.0	53	34	24	32	23	10	11	20	26	19
15	3	5	4	1	1	1	2	0	5.7	6	13	10	2	2	3	5	1	5	17
16	1	9	15	10	15	9	8	11	26.0	2	30	92	39	92	29	26	46	45	32
17	9	10	10	11	11	7	4	3	21.7	31	35	40	43	43	18	8	6	28	30
18	5	6	8	6	7	5	7	7	17.0	13	16	21	15	17	12	19	18	16	19
19	8	9	8	8	4	2	12	10	20.3	26	27	26	23	10	4	55	35	26	34
20	14	12	13	13	6	9	3	4	24.7	84	57	64	70	15	29	6	8	42	33
21	8	8	5	8	8	6	9	8	20.0	26	23	13	23	22	14	31	21	22	20
22	6	7	8	10	8	7	5	7	19.3	14	20	24	35	23	17	11	18	20	20
23	4	7	8	9	5	4	6	2	15.0	8	19	22	27	11	10	16	5	15	14
24	3	4	5	6	3	3	3	6	11.0	6	9	13	15	7	7	6	15	10	11
25	6	7	4	5	5	9	11	12	19.7	16	17	10	11	12	31	50	52	25	25
26	12	12	10	8	5	5	4	4	20.0	60	53	37	22	12	13	9	9	27	28
27	6	7	9	8	9	6	8	7	20.0	14	19	28	22	28	15	23	18	21	15
28	8	4	1	1	2	4	4	3	9.0	21	9	3	2	5	9	10	6	3	15
29	7	6	9	8	5	9	8	8	20.0	19	16	32	22	12	28	23	24	22	17
30	5	6	6	6	5	4	3	4	13.0	12	16	16	14	11	9	6	9	12	12
31	3	3	1	2	3	3	2	4	7.0	7	5	2	4	6	6	5	3	5	8
																		23.3	

JUNE 1975

	3 Km								Σ Km	am								Am	Am 2
1	6	3	4	6	10	11	14	13	22.3	15	7	8	15	39	43	72	61	33	37
2	13	15	14	12	9	9	8	11	30.3	68	96	85	58	27	32	23	48	55	46
3	9	6	8	8	9	6	8	9	21.0	27	15	25	22	28	14	26	30	23	26
4	9	8	9	7	6	7	6	7	19.7	27	23	29	19	16	19	15	20	21	23
5	10	8	8	7	6	8	9	10	22.0	34	22	25	19	16	21	28	34	25	23
6	8	8	9	8	9	6	6	7	20.3	26	22	27	24	29	14	16	17	22	20
7	6	4	6	6	3	3	5	9	14.0	14	9	15	15	6	6	12	27	13	13
8	4	2	4	3	4	3	1	3	8.0	8	5	9	7	9	6	3	7	7	10
9	5	8	4	4	4	2	2	4	11.0	11	21	9	8	8	5	4	8	9	8
10	3	2	2	3	3	4	2	4	7.7	7	4	5	6	6	9	5	9	6	12
11	7	6	10	11	9	6	8	6	21.0	17	14	39	46	27	15	24	16	25	22
12	9	8	10	10	12	11	9	12	27.0	28	26	39	39	60	47	33	51	40	32
13	9	9	8	8	9	7	9	7	22.0	28	32	23	22	29	17	27	19	25	29
14	4	5	8	8	8	6	8	4	17.0	10	11	21	26	24	15	21	8	17	19
15	4	5	6	9	6	11	8	11	20.0	10	12	14	32	16	43	21	43	24	25
16	10	11	8	10	9	9	8	9	24.7	34	41	26	38	29	29	21	28	31	28
17	5	4	7	9	8	8	10	9	20.0	12	10	19	32	25	22	35	32	23	24
18	9	9	7	6	7	9	7	6	20.0	31	30	19	15	19	28	20	15	22	23
19	8	6	9	7	8	7	8	8	20.3	22	16	28	17	21	18	24	24	21	18
20	5	4	4	4	5	3	6	4	11.7	12	8	9	9	11	6	15	10	10	15
21	7	8	5	6	4	6	6	8	16.7	17	23	11	14	8	15	16	23	16	13
22	5	5	4	4	4	1	4	4	10.3	11	12	8	10	8	2	8	9	9	9
23	3	4	1	1	2	3	3	4	7.0	7	9	2	2	4	7	6	8	6	6
24	3	1	2	4	0	0	0	0	3.3	6	2	4	9	1	1	1	0	3	5
25	0	4	4	2	4	4	5	5	9.3	1	10	10	5	10	10	12	13	9	8
26	5	7	6	5	4	4	3	1	11.7	12	18	16	11	9	9	7	3	11	10
27	3	4	3	1	3	4	2	4	8.0	7	8	7	3	6	8	5	10	7	7
28	2	2	5	4	5	2	2	4	8.7	4	5	12	10	11	5	4	8	7	10
29	5	7	7	6	9	13	15	13	25.0	13	17	20	16	29	62	90	65	39	33
30	14	12	11	9	8	7	8	10	26.3	72	54	41	28	21	18	24	38	37	41
																		19.9	

JUNE 1975

	3 Kn								σn		an								An
1	5	4	4	7	10	12	15	14	2233	2312	12	9	9	17	40	52	59	73	38
2	13	14	15	12	9	9	9	11	3234	2224	65	73	91	56	29	30	27	42	52
3	6	6	8	8	8	7	8	9	2232	3421	24	16	26	21	26	19	24	27	23
4	9	9	9	7	7	7	6	8	4244	4421	27	27	33	17	19	16	15	21	22
5	9	8	8	8	6	6	9	9	3432	0222	31	25	26	23	14	16	27	33	24
6	8	8	9	9	9	5	6	6	4423	5453	21	21	27	28	29	12	16	14	21
7	5	5	6	6	3	3	5	8	2224	1333	12	11	16	16	7	7	13	26	14
8	4	3	4	4	4	3	2	3	2232	3211	8	6	10	9	10	7	5	7	8
9	5	7	5	5	5	3	2	5	4424	3321	12	18	11	11	11	6	5	11	11
10	3	2	2	3	4	4	3	4	3113	2421	7	5	5	6	8	10	6	10	7
11	7	6	12	13	9	8	9	7	2453	2222	17	16	51	61	32	21	23	20	31
12	9	9	11	11	13	11	10	11	3322	4322	32	32	42	45	61	47	35	50	43
13	10	10	8	9	10	7	8	8	3331	2415	35	39	24	29	36	20	26	24	29
14	4	5	8	9	8	8	8	4	2125	3232	9	11	22	28	26	21	24	9	19
15	5	6	6	9	7	10	8	10	1422	3413	11	16	14	26	20	40	25	36	24
16	9	11	9	10	9	9	8	9	2423	4311	33	47	27	40	32	30	24	27	33
17	5	4	7	10	8	8	9	9	1222	3312	11	9	19	39	26	25	32	29	24
18	9	10	8	6	8	9	8	7	3422	2424	29	37	23	16	22	29	21	18	24
19	8	6	9	7	8	8	8	8	1241	3342	24	15	29	17	25	23	24	22	22
20	5	4	5	5	5	4	7	5	3333	3222	13	9	11	11	13	8	19	11	12
21	7	6	6	6	4	6	7	5	2232	3432	17	22	14	14	10	16	19	22	17
22	4	6	4	5	3	1	5	5	1233	4222	10	14	8	13	6	3	12	12	10
23	3	4	1	2	2	4	4	4	1213	3232	7	8	2	4	5	9	8	10	7
24	3	1	2	4	0	0	0	0	2233	2210	6	3	4	10	1	1	1	0	3
25	0	5	5	3	5	4	6	6	1122	2331	1	12	12	7	11	10	15	15	10
26	5	7	6	6	5	4	4	2	3434	5321	12	18	16	14	11	10	10	5	12
27	4	5	3	2	4	4	4	4	2212	2212	9	11	7	5	8	9	8	10	8
28	3	3	6	5	6	3	3	5	3233	3322	6	7	14	12	14	6	6	11	10
29	6	7	8	7	10	13	14	12	2223	3441	14	18	21	17	36	67	78	60	39
30	13	11	11	8	8	7	8	10	2434	3443	59	50	45	26	22	19	23	34	36
																			21.1

JUNE 1975

	3 Ks								σs		as								As
1	7	3	4	5	10	10	12	11	4122	5012	19	6	8	12	38	34	56	48	28
2	14	16	14	12	8	10	7	12	4343	0015	71	120	79	60	26	34	20	53	58
3	9	5	8	8	9	4	9	9	6223	1264	30	13	24	23	31	9	28	33	24
4	9	7	8	7	5	7	6	7	4543	3135	27	19	25	20	13	20	15	18	20
5	10	7	8	6	7	8	9	10	2423	5223	37	20	24	14	17	26	29	34	25
6	9	8	9	7	9	6	6	8	4432	3334	32	24	28	20	29	15	16	21	23
7	6	4	6	5	2	2	5	9	3432	2333	16	8	14	13	5	5	12	28	13
8	3	2	4	2	4	2	0	4	0322	5213	7	4	8	5	8	5	1	8	6
9	4	6	4	3	2	1	1	2	3641	2322	10	25	8	6	4	3	2	4	8
10	3	1	2	3	2	4	2	4	2122	2213	7	3	5	6	4	8	5	8	6
11	7	5	9	9	8	4	7	5	4542	2322	17	13	27	31	22	10	19	13	19
12	8	7	10	9	12	11	9	12	4222	2324	25	20	36	33	59	46	30	52	38
13	8	8	8	6	8	6	9	6	3330	1202	21	26	23	16	21	15	28	14	21
14	4	5	7	8	8	4	7	3	2336	4223	10	12	20	23	23	9	19	6	15
15	4	4	6	10	5	11	6	11	4550	1312	9	8	14	36	11	47	16	50	24
16	10	10	8	10	8	9	7	9	4433	3122	36	35	26	36	26	28	19	29	29
17	5	5	7	8	8	7	10	10	3333	3235	12	12	19	26	24	20	38	35	23
18	9	8	6	6	7	8	7	5	3310	1032	33	23	15	14	17	26	19	11	20
19	8	7	9	7	6	5	8	6	2334	2312	21	18	28	17	16	13	25	26	21
20	5	3	3	4	4	2	4	4	2410	2520	12	7	7	8	10	5	10	8	8
21	7	8	4	6	3	6	5	6	0214	2011	18	24	8	15	7	15	12	25	16
22	5	5	4	3	4	0	2	3	4244	3130	11	11	9	7	9	1	4	6	7
23	3	4	1	0	1	2	2	3	1320	0323	6	10	2	0	2	5	4	6	4
24	3	1	1	3	0	0	0	0	4222	0100	6	2	3	7	0	1	0	0	2
25	0	4	4	1	4	4	4	5	0441	5423	0	8	9	3	8	9	10	12	7
26	5	7	7	4	4	4	2	0	4542	3521	12	19	17	8	8	6	5	1	10
27	2	2	3	0	2	3	1	4	0221	2513	5	5	7	1	4	7	3	9	5
28	1	2	4	4	3	2	1	2	1143	3223	3	4	9	8	7	4	2	5	5
29	5	7	7	6	8	12	15	13	2525	2243	12	17	18	15	22	56	102	70	39
30	14	12	10	9	7	7	8	11	3533	4253	75	57	38	29	19	18	25	43	38
																			18.7

JULY 1975

	3 Kn								σn		an								An
1	6	9	8	12	4	8	6	9	3322	4332	16	27	22	56	10	24	14	26	25
2	7	7	4	2	5	4	4	7	3223	5513	17	18	8	5	13	9	8	20	12
3	7	6	8	6	6	5	6	6	3222	3221	17	16	22	14	14	12	15	15	16
4	6	3	3	6	6	4	6	8	2232	2232	14	6	6	14	14	9	16	21	13
5	3	3	6	5	6	4	4	5	3234	6213	6	6	16	12	16	9	8	13	11
6	2	4	4	2	4	8	8	8	1233	3322	4	10	8	5	9	22	26	23	13
7	13	9	6	7	8	7	7	9	2433	3321	61	28	15	20	25	19	17	27	27
8	10	13	13	14	13	12	9	4	3664	2563	37	64	68	85	69	54	32	10	52
9	5	13	11	17	12	10	8	8	3633	5232	13	63	43	134	59	35	24	21	49
10	4	11	12	9	11	9	9	8	3332	4223	8	42	51	30	47	32	27	24	33
11	9	10	14	12	12	6	5	3	4446	5231	28	34	77	59	60	14	13	7	37
12	5	4	8	2	4	6	6	4	3242	3431	12	10	23	4	9	14	16	9	12
13	4	6	5	5	8	8	9	11	2223	2323	8	14	11	11	23	23	32	43	21
14	8	8	8	9	8	7	8	11	2322	3322	26	22	24	27	21	20	22	43	26
15	8	6	11	10	11	9	7	7	3233	1322	22	16	45	36	43	29	19	20	29
16	9	8	8	10	8	7	5	7	4232	3241	33	23	25	38	25	18	13	17	24
17	7	6	9	9	11	7	7	10	3254	4222	18	14	31	29	43	20	20	37	27
18	8	7	9	11	9	8	8	6	3222	2323	25	19	33	48	32	24	23	16	28
19	7	8	7	5	7	7	9	8	3242	4221	20	23	19	11	17	19	27	21	20
20	5	5	8	7	4	3	5	7	1333	2232	12	11	24	18	8	7	11	17	14
21	2	4	7	7	7	5	7	6	3223	3432	5	10	18	19	18	13	19	14	15
22	4	5	7	6	6	6	5	8	3330	2221	9	11	18	15	14	15	13	25	15
23	6	9	7	3	2	3	4	4	1434	4442	16	32	17	7	5	7	8	10	13
24	9	5	7	6	4	3	5	5	3233	3341	27	11	17	14	10	7	11	13	14
25	8	10	18	12	13	10	10	10	3295	3234	26	34	159	55	62	35	37	38	56
26	11	11	9	10	8	9	9	9	3443	3435	44	41	27	39	26	33	28	33	34
27	8	10	9	7	5	7	7	6	4443	3331	26	34	29	17	13	18	18	14	21
28	10	9	7	7	7	7	5	5	3333	4331	38	29	18	17	18	17	13	13	20
29	5	5	4	5	6	3	4	5	2143	5433	11	12	8	12	14	6	8	12	10
30	5	8	4	5	4	4	2	4	3423	4322	12	21	10	12	8	10	5	10	11
31	4	4	3	2	4	3	2	9	3346	2414	10	10	6	5	9	6	5	27	10
																			22.8

JULY 1975

	3 Ks								σs		as								As
1	7	8	8	12	4	8	5	10	3334	1244	20	23	26	52	8	22	11	36	25
2	10	6	4	1	4	4	4	7	5322	2133	34	14	9	2	10	8	9	17	13
3	7	6	7	5	4	4	5	5	4343	4212	19	16	18	11	9	9	12	13	13
4	6	2	2	3	4	1	8	9	4220	3255	16	5	5	7	10	3	23	27	12
5	4	2	5	4	3	2	1	5	4232	2323	9	4	12	9	7	5	2	12	8
6	1	2	1	1	4	6	8	6	1222	5561	2	5	3	2	8	15	21	16	9
7	13	8	5	6	7	6	9	10	3333	0145	62	22	11	14	18	16	27	34	26
8	12	12	12	15	12	11	9	5	5447	2231	60	60	51	88	56	50	29	11	51
9	5	11	10	13	12	8	9	8	2233	3122	12	43	39	64	53	22	29	23	36
10	3	10	10	8	11	9	9	8	2532	3044	7	36	39	21	43	28	30	23	28
11	8	9	14	12	11	5	5	2	3433	5222	24	29	79	53	44	12	13	5	32
12	5	4	6	2	3	5	6	4	5232	1151	11	9	14	5	6	12	15	8	10
13	4	5	2	3	7	8	9	6	3431	1232	10	11	5	6	17	23	28	26	16
14	8	7	8	7	6	6	7	12	3441	1323	24	17	22	17	14	14	19	57	23
15	9	7	8	9	9	9	8	6	3322	4034	33	19	24	27	32	28	23	14	25
16	9	7	7	9	10	7	5	5	3314	3421	29	18	17	32	36	18	12	12	22
17	7	6	7	7	8	7	7	9	2233	2212	18	14	20	20	26	18	20	27	20
18	8	6	8	11	10	8	8	5	2312	3223	25	14	22	46	38	23	24	13	26
19	8	7	5	4	6	6	9	8	3243	4022	21	20	11	10	15	15	29	24	18
20	7	5	8	6	2	2	4	5	4333	2302	20	12	22	16	5	5	9	11	13
21	2	2	5	5	7	4	7	5	2231	4233	4	4	12	12	17	10	19	11	11
22	4	4	7	4	4	4	4	6	2332	2112	9	9	16	10	10	8	10	15	11
23	5	8	5	2	1	2	4	4	3342	2202	12	22	12	4	2	5	9	10	10
24	8	4	5	7	3	2	2	4	2345	3122	24	9	11	18	7	4	4	9	11
25	6	11	15	10	14	10	11	12	2442	3115	15	45	99	38	74	34	47	58	51
26	12	10	9	9	11	9	9	10	3344	4033	51	34	28	30	46	30	31	40	36
27	10	11	8	6	5	6	7	8	3233	2133	36	43	26	16	12	14	20	22	24
28	11	8	5	6	7	7	6	5	5222	5232	42	21	12	14	17	20	16	11	19
29	6	4	1	3	5	1	2	6	5323	4223	14	10	3	7	13	2	4	15	9
30	5	8	5	5	2	4	2	4	3345	0234	13	22	11	11	5	8	4	10	11
31	5	4	1	1	2	2	0	8	3321	2214	13	10	3	2	5	4	1	22	8
																			20.2

JULY 1975

	3 Km								Σ Km	am								Am	Am2
1	7	8	8	12	4	8	5	9	20.3	18	25	24	54	9	23	13	32	25	22
2	8	6	4	1	5	4	4	7	13.0	25	16	6	3	12	8	9	18	12	15
3	7	6	7	5	5	4	6	6	15.3	18	16	20	12	12	10	14	14	15	12
4	6	2	3	4	5	3	7	8	12.7	15	5	6	10	12	6	20	24	12	12
5	3	2	6	5	5	3	2	5	10.3	7	5	14	11	12	7	5	13	9	10
6	1	4	3	1	4	7	8	7	11.7	3	8	6	3	9	18	23	19	11	15
7	13	8	5	7	8	7	8	9	21.7	61	25	13	17	22	18	22	30	26	33
8	11	13	12	14	13	12	9	4	29.3	49	62	59	86	63	52	31	10	52	44
9	5	12	11	15	12	9	8	8	26.7	12	53	41	99	56	28	26	22	42	38
10	3	10	11	8	11	9	9	6	23.0	7	39	45	26	45	30	29	24	31	36
11	8	9	14	12	12	5	5	3	22.7	26	32	78	56	52	13	13	6	35	28
12	5	4	7	2	4	5	6	4	12.3	12	10	19	5	8	13	15	8	11	13
13	4	5	4	4	7	8	9	10	17.0	9	13	8	9	20	23	30	34	18	18
14	8	7	8	8	7	7	7	11	21.0	25	20	23	22	17	17	20	50	24	26
15	9	7	10	9	10	9	8	7	23.0	28	17	35	31	38	29	21	17	27	27
16	9	7	8	10	9	7	5	6	20.3	31	20	21	35	30	18	13	15	23	23
17	7	6	8	8	10	7	7	9	20.7	18	14	25	25	34	19	20	32	23	24
18	8	6	9	11	10	8	8	6	22.0	25	16	27	47	35	23	24	14	26	24
19	7	8	6	4	6	7	9	8	18.3	20	21	15	10	16	17	28	22	19	20
20	6	5	8	7	3	3	4	6	14.0	16	12	23	17	6	6	10	14	13	14
21	2	3	6	6	7	5	7	5	13.7	4	7	15	15	18	12	19	13	13	12
22	4	4	7	5	5	5	5	7	14.0	9	10	18	12	12	12	11	20	13	14
23	6	9	6	2	1	3	4	4	11.7	14	27	14	5	3	6	8	10	11	13
24	8	4	6	6	4	2	4	5	13.0	25	10	14	16	8	5	8	11	12	22
25	7	10	17	11	13	10	11	11	30.0	20	39	129	46	68	35	42	48	53	38
26	11	10	9	10	10	9	9	10	26.0	48	38	27	34	36	31	30	36	35	37
27	9	10	9	7	5	6	7	7	20.0	31	38	27	17	13	16	19	18	22	25
28	10	8	6	6	7	7	6	5	18.3	40	25	15	15	18	18	15	12	20	16
29	5	5	2	4	5	2	3	5	10.3	12	11	5	9	13	4	6	13	9	12
30	5	8	5	5	3	4	2	4	12.0	13	21	11	12	7	9	4	10	11	10
31	5	4	2	1	3	2	1	8	8.7	12	10	5	3	7	5	3	24	9	13
																		21.4	

AUG. 1975

	3 Km								Σ Km	am								Am	Am2
1	8	11	8	6	2	3	5	4	15.7	22	47	24	16	4	7	13	10	18	15
2	6	5	6	5	6	6	4	4	14.0	14	12	15	12	16	14	9	10	13	10
3	3	3	3	4	5	3	4	3	9.3	7	5	7	8	13	6	8	6	8	9
4	6	4	2	4	3	5	6	5	11.7	16	8	5	10	6	13	15	11	11	19
5	9	11	12	12	11	11	10	7	27.7	33	45	58	55	47	43	36	17	42	30
6	9	9	9	6	1	2	3	1	13.3	27	32	28	16	2	5	6	3	15	17
7	1	0	0	1	8	8	6	5	9.7	2	1	1	2	22	22	15	13	10	16
8	8	13	11	8	2	4	5	5	18.7	24	69	44	26	4	9	11	13	25	22
9	7	5	7	8	6	10	12	12	22.3	19	12	19	25	15	38	54	59	30	27
10	8	11	11	10	7	7	5	0	19.7	22	41	47	38	19	17	12	1	25	26
11	1	5	6	8	6	2	5	5	12.7	2	11	14	26	16	5	11	12	12	11
12	4	2	3	2	4	2	2	2	7.0	8	4	7	4	8	4	4	5	6	8
13	3	4	4	7	6	4	2	5	11.7	6	8	10	19	14	9	5	11	10	18
14	11	11	12	9	8	3	5	6	21.7	47	47	56	29	25	7	11	14	30	24
15	9	6	8	10	12	9	11	8	24.3	31	16	26	38	54	29	48	21	33	22
16	3	2	4	7	7	4	5	2	11.3	6	5	8	17	20	10	13	5	11	20
17	7	9	9	6	5	7	5	4	17.3	20	27	28	16	12	19	13	10	18	16
18	3	4	7	8	3	1	4	3	11.0	6	9	18	25	6	2	10	7	10	10
19	4	2	4	3	3	3	5	1	8.3	8	4	10	6	6	6	12	2	7	7
20	0	1	3	8	10	11	9	12	18.0	1	3	6	24	39	44	27	56	25	20
21	8	11	7	5	6	11	8	11	22.3	22	48	19	11	14	41	25	44	28	32
22	10	10	7	8	5	5	4	8	19.0	40	40	17	24	13	13	10	25	23	25
23	10	7	5	8	7	5	5	3	16.7	36	19	11	24	17	11	12	6	17	14
24	1	5	1	2	7	4	7	7	11.3	3	12	3	4	20	8	19	17	11	12
25	6	7	7	5	6	7	8	7	17.7	14	19	20	12	16	18	22	19	18	15
26	6	4	2	3	4	2	5	5	10.3	15	9	5	7	10	4	11	13	9	12
27	7	8	1	2	0	0	1	3	7.3	17	26	3	4	1	1	2	7	8	8
28	4	4	4	4	3	2	6	8	11.7	9	10	8	8	6	4	15	21	10	18
29	11	12	11	10	11	9	8	9	27.0	45	60	46	37	43	28	21	32	39	32
30	9	11	11	9	5	7	4	4	20.0	31	43	45	28	11	18	9	10	24	24
31	3	6	5	8	4	4	5	5	13.3	7	15	12	24	8	8	13	11	12	12
																		18.0	

AUG. 1975	3 Kn								σn		an								An
1	8	12	9	7	3	4	6	6	2322	3222	25	51	29	19	6	8	15	14	21
2	6	5	7	6	8	7	4	4	2321	2213	16	12	17	14	21	17	10	10	15
3	3	3	4	4	6	4	4	3	0023	2332	7	6	9	9	15	8	8	6	9
4	6	4	3	5	4	7	6	6	3313	2341	15	10	6	12	9	17	16	14	12
5	10	12	14	13	11	11	10	7	2332	3142	35	51	71	61	50	47	40	18	47
6	8	10	8	7	1	2	3	1	2233	2522	24	34	26	19	2	5	6	3	15
7	1	1	1	1	7	7	6	5	2212	2422	2	2	2	2	20	20	15	12	9
8	8	13	11	8	2	5	5	6	3234	3433	21	63	45	25	4	11	12	15	25
9	7	5	8	9	7	10	11	12	2223	4532	20	12	22	27	18	39	50	53	30
10	8	11	12	10	8	6	5	1	1442	3541	25	45	58	40	22	16	13	2	28
11	1	5	5	9	7	2	4	5	2221	2341	2	12	13	31	18	4	10	11	13
12	4	2	4	2	5	2	3	3	1241	2221	8	4	8	5	11	5	6	6	7
13	3	4	4	7	6	4	3	5	1324	5221	6	9	10	20	15	10	6	13	11
14	12	11	12	10	9	4	5	6	1254	1321	52	46	59	37	30	9	12	16	33
15	9	6	9	10	13	9	11	7	2031	5232	33	14	29	36	65	30	41	19	33
16	3	3	4	7	8	5	6	3	2223	4220	7	6	9	17	22	11	15	6	12
17	7	9	9	7	5	7	6	5	2733	2421	19	32	30	19	11	20	14	12	20
18	3	4	7	9	3	2	5	4	2234	1452	7	9	20	30	6	4	12	8	12
19	3	1	4	3	3	4	5	0	1221	2431	6	3	9	6	7	8	12	1	7
20	0	2	3	7	10	11	8	12	1112	2431	1	4	7	20	39	43	22	55	24
21	7	11	8	5	7	10	9	10	2322	2213	19	49	21	12	18	39	29	40	28
22	10	10	7	9	6	6	5	9	2322	2211	37	40	17	30	14	15	11	27	24
23	10	7	4	8	7	5	5	4	4323	4222	35	19	10	26	17	12	13	9	18
24	1	5	2	2	8	4	7	6	1232	3231	3	11	4	5	21	9	18	16	11
25	6	7	8	5	7	7	7	7	3333	3522	14	19	23	12	18	19	20	18	18
26	5	4	3	4	4	3	5	4	2222	3233	12	8	6	8	10	6	12	9	9
27	7	8	1	2	0	0	1	4	4323	1122	17	24	3	5	1	1	3	8	8
28	4	5	4	4	3	2	5	8	5243	3452	9	11	9	8	7	5	13	21	10
29	11	13	12	10	11	9	8	9	3562	3223	42	61	53	37	45	27	23	32	40
30	10	11	11	8	5	7	4	5	5652	3534	36	43	41	26	12	18	10	11	25
31	3	7	6	8	4	4	5	5	3423	1245	7	17	16	25	8	9	15	11	14
																			19.0

AUG. 1975	3 Ks								σs		as								As
1	7	11	7	6	1	3	4	3	4243	2453	20	43	19	14	3	7	10	6	15
2	5	5	6	4	5	4	4	4	4212	4324	13	11	14	10	11	10	8	10	11
3	4	3	3	3	5	2	3	3	2132	3331	8	7	6	6	11	4	7	6	7
4	6	3	1	4	2	4	6	4	5415	2131	16	7	3	8	4	9	14	8	9
5	9	10	11	11	11	10	9	7	0512	3021	30	40	45	50	44	38	33	17	37
6	9	9	9	5	0	2	3	1	3460	1122	30	30	30	13	1	4	6	3	15
7	0	0	0	0	8	6	6	6	1001	3233	1	0	0	1	23	24	15	14	10
8	9	14	11	9	2	3	5	5	4334	2033	27	75	43	27	4	7	11	12	26
9	7	5	6	8	5	10	12	13	1323	2444	17	12	16	24	12	37	59	65	30
10	7	10	10	10	7	7	5	0	2433	4421	20	37	36	36	17	16	11	1	22
11	1	4	6	6	6	3	5	5	1552	1331	2	10	15	21	14	6	12	12	12
12	3	2	2	1	2	1	0	2	1432	2213	7	4	5	2	5	2	1	4	4
13	3	4	4	7	5	4	2	4	2535	6422	7	8	10	19	13	8	5	9	10
14	11	11	12	8	7	2	4	5	3452	3323	41	47	52	21	20	5	9	13	26
15	9	7	8	10	11	9	12	8	2322	1012	29	18	24	40	42	28	54	22	32
16	2	2	3	7	7	4	5	2	3304	4122	5	4	7	17	18	8	12	4	9
17	7	8	8	5	6	7	5	3	3532	2120	20	22	26	13	14	18	12	7	17
18	2	4	6	7	2	0	4	3	2223	3132	5	9	15	20	5	1	8	7	9
19	4	2	4	3	2	2	5	1	3131	3222	10	5	10	6	5	4	12	3	7
20	0	1	2	9	10	11	9	12	0323	2124	0	2	5	29	38	45	32	57	26
21	8	11	7	4	5	11	8	11	2431	2212	24	47	18	10	11	42	21	48	28
22	11	10	7	7	5	4	4	8	2241	3224	43	40	18	18	13	10	9	23	22
23	10	7	5	8	6	4	5	1	4523	2221	36	19	12	23	16	10	11	3	16
24	2	5	1	1	7	3	8	7	1312	3325	4	13	2	3	19	7	21	17	11
25	6	7	7	5	5	7	8	7	3242	3422	14	20	17	12	13	17	24	20	17
26	7	4	2	3	4	1	4	6	5430	1225	17	9	5	7	9	2	10	16	9
27	6	9	1	1	0	1	0	3	4432	1214	16	28	3	3	1	2	1	6	8
28	4	4	3	3	2	1	6	8	2200	3314	10	10	7	7	5	3	16	21	10
29	11	12	10	10	10	9	7	9	5533	4024	49	59	39	38	40	30	20	32	38
30	8	11	11	9	4	7	3	4	5453	2044	26	43	49	29	10	17	7	9	24
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	3 Kn								σn	an								An
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3	4	0	2	1	2	4	3	2	2112 3522	8	1	5	2	4	8	7	4	5
4	1	3	3	2	2	1	2	3	2122 2214	3	6	7	5	5	2	5	6	5
5	3	4	3	4	2	4	4	5	1443 3332	7	8	6	10	5	8	8	12	8
6	7	4	8	10	10	9	4	8	5253 3211	19	10	22	34	38	30	9	26	24
7	6	6	6	6	5	2	2	5	0223 2222	14	15	16	22	11	4	5	13	13
8	5	3	5	4	5	7	4	8	4134 1523	13	6	12	8	11	17	10	21	12
9	8	7	9	10	13	11	10	9	3232 3433	21	18	33	40	63	47	37	28	36
10	11	14	12	11	11	10	7	9	2423 4441	50	73	51	42	48	34	18	29	43
11	11	10	10	13	10	11	11	9	3243 2542	49	39	40	68	37	45	44	33	44
12	12	9	11	10	12	7	5	7	3233 4513	56	33	46	37	56	17	11	18	34
13	11	11	8	11	5	4	5	9	5332 2525	48	49	22	50	11	8	11	30	29
14	11	9	8	9	10	3	3	3	5323 2122	50	28	21	29	35	7	6	6	23
15	3	4	10	3	3	5	7	7	1233 1355	7	8	39	6	7	11	20	20	15
16	6	6	3	4	4	3	3	2	4522 4221	14	15	7	8	9	7	7	5	9
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18	6	5	6	6	9	9	10	7	2131 1032	16	12	16	15	31	30	36	19	22
19	6	4	8	8	8	4	5	5	1314 3221	14	9	25	23	26	8	11	12	16
20	3	4	5	4	4	7	6	8	0312 2424	7	9	11	8	9	19	14	22	12
21	8	2	2	3	3	6	6	4	3121 1251	22	4	4	7	7	14	16	8	10
22	4	1	4	2	3	3	4	4	2112 1112	8	2	8	5	6	6	8	8	6
23	6	3	3	4	0	1	1	1	4122 1212	15	6	7	9	0	2	2	3	6
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25	3	3	3	0	1	3	1	3	3340 3133	7	7	6	0	2	6	2	6	5
26	4	6	7	5	10	8	10	10	2533 5576	8	16	18	13	37	26	39	35	24
27	11	6	11	8	11	10	7	4	4064 6561	41	15	41	23	45	34	18	9	28
28	4	4	3	9	5	9	3	6	3324 3304	10	10	7	32	11	29	7	16	15
29	4	4	5	6	4	2	4	2	3244 3312	10	8	13	14	8	5	8	4	9
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3	3	1	1	0	1	3	1	0	1110 2311	6	2	2	0	2	6	3	1	3
4	1	2	2	1	1	0	1	1	3222 2013	3	5	4	3	3	0	3	2	3
5	3	2	1	2	1	2	3	6	3311 2204	6	4	3	4	2	5	7	14	6
6	7	4	8	9	9	9	5	8	5442 2044	17	9	22	33	33	32	12	23	23
7	6	5	5	7	3	1	2	6	3302 2224	16	11	13	17	7	2	4	16	11
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9	8	7	10	10	12	12	9	9	3131 0224	25	17	36	34	58	59	31	32	37
10	12	14	10	10	11	9	7	10	6403 3320	57	82	36	34	49	32	19	36	43
11	9	9	8	11	9	10	9	9	0124 2254	30	28	24	48	29	35	30	32	32
12	11	9	9	9	9	7	4	6	6530 2135	50	32	31	30	32	20	10	21	28
13	10	9	5	10	5	2	4	10	5323 2217	34	33	13	34	11	5	8	36	22
14	11	10	8	7	11	3	2	0	3120 3421	46	34	21	19	42	7	5	1	22
15	4	4	8	2	2	5	7	7	1233 1125	9	10	25	5	5	11	19	20	13
16	6	4	2	2	4	2	2	3	4432 4413	14	9	5	5	8	4	4	6	7
17	4	10	8	2	5	8	9	9	3231 3311	10	38	26	4	13	24	31	29	22
18	7	5	6	6	9	8	10	6	4210 3404	20	12	14	14	29	25	34	21	21
19	7	4	8	8	8	4	4	4	1222 2321	17	9	21	21	21	8	9	10	15
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21	7	2	2	3	2	6	6	4	3131 3235	20	4	4	7	5	14	15	8	10
22	3	1	4	1	2	2	3	4	2150 4501	6	3	10	2	4	5	7	8	6
23	8	3	1	2	0	1	0	1	2213 1213	21	6	2	5	1	2	1	2	5
24	1	2	2	0	0	0	0	2	2231 0101	2	5	5	1	0	1	0	4	2
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26	5	7	5	5	10	6	9	10	2530 2123	11	17	13	13	34	25	31	34	22
27	10	7	9	8	9	9	7	4	2363 5232	36	18	32	23	29	28	18	9	24
28	4	6	3	8	4	8	2	5	2345 3121	9	14	7	24	10	21	4	12	13
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11	10	10	9	12	9	10	10	9	26.3	39	34	32	58	33	40	37	33	38	37
12	12	9	10	9	11	7	5	7	23.3	53	32	38	33	44	19	11	19	31	33
13	11	11	7	11	5	3	4	9	20.3	41	41	17	42	11	6	9	33	25	26
14	11	9	8	8	10	3	2	2	17.7	48	31	21	24	39	7	5	4	22	18
15	4	4	9	3	3	5	7	7	14.0	8	9	32	6	6	11	19	20	14	13
16	6	5	3	3	4	2	2	2	9.0	14	12	6	7	9	5	5	5	8	12
17	4	10	8	2	7	8	9	9	19.0	9	35	24	4	17	24	30	29	22	16
18	7	5	6	6	9	9	10	7	19.7	18	12	15	15	30	28	35	20	22	21
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21	8	2	2	3	3	6	6	4	11.3	21	4	4	7	6	14	16	8	10	10
22	3	1	4	1	2	2	3	4	5.7	7	2	9	3	5	5	7	8	6	8
23	7	3	2	3	0	1	1	1	6.0	18	6	4	7	1	2	2	2	5	5
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	3 Km								Σ Km	am								Am	Am 2
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4	10	6	6	3	2	3	5	6	13.7	40	15	15	6	5	7	13	16	15	18
5	7	6	5	6	6	1	1	4	12.0	20	16	11	14	14	3	3	8	11	17
6	5	9	11	11	10	9	12	8	25.0	13	27	49	50	38	33	57	23	36	35
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9	12	11	13	13	10	9	10	12	30.0	53	44	68	65	39	31	39	54	49	52
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12	8	7	8	6	6	9	9	4	19.0	21	17	23	15	14	33	32	10	21	19
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16	8	4	4	8	6	6	10	5	17.0	22	9	10	23	15	15	34	13	18	15
17	9	4	5	7	7	5	4	3	14.7	28	10	11	18	17	13	10	7	14	13
18	0	3	2	2	8	5	6	3	9.7	1	6	4	4	23	12	14	7	9	8
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21	9	4	3	5	1	1	2	5	10.0	27	8	7	11	2	2	4	13	9	10
22	6	5	5	4	5	3	5	6	13.0	14	12	12	9	12	7	11	15	12	10
23	8	6	2	4	4	2	4	5	11.7	21	15	4	9	10	4	9	12	11	11
24	6	5	5	1	3	2	2	1	8.3	14	12	11	3	6	5	5	3	7	8
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	3 Kn								σn		an								An
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3	2	0	3	8	8	5	10	10	2122	1331	4	1	6	23	22	12	34	37	17
4	11	6	7	3	2	3	6	6	4132	2454	49	15	17	7	5	7	15	15	16
5	7	6	5	6	6	1	1	4	3434	4232	18	14	11	14	14	3	3	8	11
6	5	10	12	12	10	9	12	8	2344	2366	12	34	52	51	39	32	56	24	38
7	12	13	13	14	13	11	10	14	2336	6755	55	62	70	80	63	41	35	73	60
8	10	12	11	15	11	13	12	17	3435	2624	38	55	43	87	44	65	57	121	64
9	12	12	14	14	11	9	10	12	4433	2244	53	58	78	75	45	30	39	56	54
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17	8	4	5	7	7	5	4	4	2222	3333	23	9	11	19	19	13	10	10	14
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19	0	0	0	1	3	3	4	5	2012	0133	1	0	1	3	6	6	8	11	5
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21	8	4	3	4	1	1	1	5	4122	1221	24	8	7	10	2	2	3	13	9
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23	8	7	2	5	5	2	4	4	4524	4333	21	17	4	11	12	4	8	9	11
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27	8	5	4	1	2	2	0	1	3221	1212	22	13	8	2	4	5	1	3	7
28	3	1	3	4	5	6	10	10	3222	1066	7	2	7	9	13	15	38	39	16
29	7	9	11	3	0	3	4	8	3442	2436	18	28	43	7	1	7	8	26	17
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3	3	0	3	6	8	5	10	11	4032	3342	6	0	6	21	26	13	36	43	19
4	9	6	5	3	2	3	4	7	2143	2025	31	14	13	6	5	7	10	17	13
5	8	7	5	6	5	2	1	4	4324	2323	22	18	12	14	13	4	2	8	12
6	5	7	11	11	10	10	12	8	2433	1145	13	20	47	48	37	34	59	22	35
7	11	12	12	12	11	9	9	12	4423	3223	45	60	53	53	44	27	27	55	46
8	10	11	10	12	10	12	12	16	4333	3124	36	42	38	57	40	53	55	118	55
9	12	9	12	12	9	9	10	12	5043	3212	53	30	59	56	33	33	39	53	45
10	7	11	12	5	8	8	9	12	4322	1156	20	44	53	13	21	23	31	52	32
11	7	2	3	1	6	8	9	8	1202	3212	17	5	7	3	16	24	29	22	15
12	8	6	5	6	5	9	9	5	3353	2312	23	16	21	14	13	28	27	12	19
13	4	7	6	3	7	4	5	5	3500	1133	10	18	15	7	18	10	12	12	13
14	3	1	8	10	8	8	6	6	1157	3113	7	2	26	39	23	24	15	23	20
15	4	3	5	7	2	3	4	5	1431	2433	8	7	11	18	5	7	8	13	10
16	8	4	4	8	6	6	9	6	3204	3412	25	10	9	25	15	15	31	14	18
17	9	5	5	6	6	6	4	2	1112	1242	32	11	11	16	15	14	10	5	14
18	0	3	2	2	8	5	7	4	1311	3342	1	6	4	5	24	11	17	8	10
19	2	1	2	2	3	3	4	5	2222	3442	5	3	5	5	6	7	9	11	6
20	6	4	3	2	4	3	3	5	5332	5532	15	10	6	4	8	6	7	26	10
21	9	4	3	5	1	1	2	5	5232	3332	29	9	7	12	3	3	4	13	10
22	7	6	5	4	5	3	4	6	4331	2244	17	14	13	9	12	7	10	15	12
23	7	6	2	4	4	2	4	6	3432	5222	20	14	5	8	8	5	10	15	11
24	6	6	4	1	3	2	3	2	1321	3325	16	14	10	3	6	5	6	5	8
25	2	2	3	5	6	3	2	3	2202	5323	5	4	7	11	15	6	5	6	7
26	5	1	3	4	5	9	5	5	2220	2134	11	3	6	9	12	27	12	11	11
27	8	5	4	1	3	3	1	3	3331	4322	21	11	9	3	7	6	3	6	8
28	4	2	4	4	6	7	12	10	1212	2453	10	5	9	10	15	17	52	38	20
29	8	9	10	4	3	3	4	9	3643	4435	25	30	37	10	7	7	10	29	19
30	4	6	7	6	6	5	5	8	1343	2433	10	14	18	15	14	11	12	26	15
31	7	9	12	9	4	10	10	4	5322	1223	18	31	60	33	8	37	35	8	29
																			13.0

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	3 Kn								σn		an								An
1	3	4	4	7	6	6	2	9	3322	4723	7	9	10	19	16	14	5	33	14
2	6	7	5	9	11	11	17	15	2412	6342	15	16	11	33	50	48	137	94	51
3	14	14	16	16	15	17	15	14	4676	3444	85	80	105	118	91	127	91	71	96
4	15	12	12	14	15	14	11	8	4333	5762	93	59	59	85	95	71	49	22	67
5	8	6	7	13	9	12	10	9	4134	4443	22	15	20	65	27	53	40	32	34
6	9	9	4	8	10	9	1	2	5624	4422	32	30	9	25	39	33	3	4	22
7	7	7	4	9	8	9	7	3	3435	4434	17	17	9	31	23	33	20	7	20
8	4	4	6	6	4	6	6	3	2223	3564	9	10	16	15	9	15	14	7	12
9	5	8	14	10	12	17	18	9	2122	4864	11	25	73	36	52	146	164	27	67
10	8	4	5	7	8	8	11	14	3221	3336	21	9	13	19	21	22	43	85	29
11	9	7	5	7	7	9	9	8	3223	4422	32	20	12	19	17	30	29	23	23
12	9	7	6	4	4	7	5	4	2222	2322	27	18	15	10	10	17	11	10	15
13	2	4	3	2	0	1	2	0	2221	1210	5	10	7	5	1	3	5	0	5
14	0	2	1	0	1	4	5	2	2321	1223	1	5	2	1	2	9	11	4	4
15	1	2	2	0	0	3	4	8	2222	1424	2	4	5	1	1	7	8	22	6
16	6	4	7	4	4	2	4	3	4341	3331	15	10	19	8	10	5	9	6	10
17	3	2	5	8	13	12	11	10	1115	4685	6	4	12	23	69	59	45	39	32
18	6	4	5	6	4	3	3	3	3133	2202	16	8	13	14	9	6	6	7	10
19	4	7	10	3	3	3	8	5	2332	1232	10	17	34	6	7	7	21	11	14
20	6	4	5	3	3	9	3	9	2211	2444	16	9	13	7	6	29	26	28	17
21	14	9	11	9	5	3	9	8	4351	2252	72	29	48	31	13	7	29	24	32
22	4	7	13	17	14	20	18	8	3234	3754	9	20	66	140	84	216	160	26	90
23	10	4	6	2	2	3	3	2	4424	1112	35	10	15	5	5	7	7	4	11
24	3	3	1	6	9	12	11	7	2222	1552	6	6	3	16	33	56	43	19	23
25	11	7	8	10	8	9	6	5	6435	2202	41	17	24	37	25	27	15	12	25
26	3	7	12	12	9	2	3	5	1453	3212	6	18	52	55	30	5	7	12	23
27	4	1	5	5	4	4	2	5	5244	3322	9	3	13	13	8	10	4	12	9
28	6	3	8	8	10	7	3	3	3433	3331	15	7	21	21	34	17	6	7	16
29	4	5	13	14	11	14	15	9	3142	3552	9	13	63	79	42	74	96	33	51
30	14	12	11	11	15	12	14	11	2134	3745	74	52	43	45	100	51	74	48	61
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	3 Ks								σs		as								As
1	4	3	4	6	5	5	3	10	2213	4224	10	6	9	14	12	12	7	37	13
2	6	6	6	11	11	12	17	15	2222	3363	15	15	15	41	42	54	121	94	50
3	12	12	14	15	13	16	15	13	4141	2634	56	56	75	91	66	120	94	66	78
4	13	10	12	13	14	10	10	7	5243	2231	65	39	52	64	74	37	39	20	49
5	8	7	8	13	8	10	10	9	2222	2434	25	17	25	67	26	40	35	32	33
6	9	8	3	7	10	9	2	4	3311	4242	33	21	6	18	40	30	4	8	20
7	7	5	4	8	6	8	5	3	5324	2221	17	12	8	25	16	25	13	7	15
8	4	2	5	4	4	6	5	2	2312	1132	10	5	12	10	9	15	11	5	10
9	5	8	13	10	13	18	18	11	3310	2531	12	26	66	38	70	155	150	42	70
10	8	5	5	9	10	9	11	14	2322	2425	22	11	13	27	36	29	50	74	33
11	9	8	6	6	8	9	9	8	2230	6122	31	21	14	15	26	32	29	25	24
12	8	6	5	5	5	7	6	4	3331	2112	26	15	11	12	12	17	14	9	15
13	3	4	3	2	1	2	4	1	0212	1232	7	9	6	5	2	5	8	3	6
14	3	4	3	1	1	5	6	2	1101	4322	6	8	7	2	3	11	14	4	7
15	1	4	4	1	1	3	3	8	1121	2422	3	8	8	2	2	7	7	22	7
16	5	5	4	5	4	3	6	6	3323	3443	11	11	10	11	10	7	15	16	11
17	4	4	7	8	13	14	11	11	3442	2734	10	9	18	25	61	71	48	47	36
18	7	6	5	8	6	5	5	4	5321	4445	17	14	12	23	14	11	11	10	14
19	6	6	8	6	4	4	9	5	1133	5432	16	16	26	14	10	9	29	11	16
20	6	4	7	4	5	8	9	9	2342	4245	15	8	18	10	11	26	27	32	18
21	11	9	10	10	5	5	10	10	3312	2555	43	29	34	35	11	13	39	35	30
22	8	8	11	14	15	18	16	9	4334	2510	22	24	49	84	102	170	119	28	75
23	11	4	7	4	4	5	5	4	3021	3444	43	8	19	8	8	11	11	8	15
24	5	4	4	8	11	12	10	8	3221	2143	11	9	8	25	46	54	34	24	27
25	10	5	7	7	10	10	7	7	3353	3445	38	13	17	19	39	37	20	19	25
26	3	6	11	12	8	5	5	7	3154	2453	7	14	44	58	22	11	13	19	24
27	4	2	4	5	4	5	2	4	2325	2334	10	5	10	11	9	13	4	9	9
28	6	5	7	9	9	7	5	5	2440	2443	15	12	19	28	27	17	11	12	18
29	5	8	11	14	11	15	12	9	1321	1433	12	26	42	73	41	96	57	33	48
30	12	11	9	10	14	11	12	12	1001	2142	56	48	32	39	71	47	60	55	51
																			28.2

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	3 Km								ΣKm	am								Am	Am2
1	4	4	4	6	6	5	3	10	14.0	8	8	9	16	14	13	6	35	14	17
2	6	6	5	10	11	12	17	15	27.3	15	16	13	37	46	51	129	94	50	50
3	13	13	15	16	14	17	15	13	33.7	70	68	90	105	78	123	93	68	87	80
4	14	11	12	14	14	12	11	6	32.0	79	49	55	74	85	54	44	21	58	59
5	8	6	8	13	8	11	10	9	24.3	23	16	22	66	26	47	38	32	34	35
6	9	8	4	8	10	9	1	3	17.3	32	26	8	22	40	32	3	6	21	24
7	7	6	4	9	7	9	6	3	17.0	17	15	8	28	20	29	16	7	18	17
8	4	3	6	5	4	6	5	3	12.0	10	7	14	13	9	15	12	6	11	19
9	5	8	13	10	13	18	18	10	31.7	12	25	69	37	61	150	157	35	63	41
10	8	4	5	6	9	8	11	14	22.3	22	10	13	23	29	26	47	79	31	46
11	9	8	5	7	8	9	9	8	21.0	31	21	13	17	22	31	29	24	24	27
12	9	6	5	5	5	7	5	4	15.3	27	16	13	11	11	17	13	9	15	16
13	3	4	3	2	1	2	3	0	6.0	6	10	6	5	2	4	7	1	5	7
14	2	3	2	1	1	4	5	2	6.7	4	6	5	2	2	10	12	4	6	5
15	1	3	3	1	0	3	3	8	7.3	3	5	6	2	1	7	7	22	7	8
16	5	4	6	4	4	3	5	5	12.0	13	10	15	10	10	6	12	11	11	11
17	4	3	6	8	13	13	11	11	23.0	8	6	15	24	65	65	46	43	34	23
18	6	5	5	7	5	4	4	4	13.3	16	11	12	18	11	8	9	8	12	24
19	5	6	9	4	4	4	8	5	15.0	13	16	30	10	8	8	25	11	15	13
20	6	4	6	4	4	9	8	9	16.7	16	8	16	9	8	27	26	30	18	22
21	12	9	11	9	5	4	10	9	23.0	57	29	41	33	12	10	34	29	31	34
22	6	8	12	16	15	19	17	9	34.0	16	22	58	112	93	193	139	27	83	51
23	10	4	7	3	3	4	4	3	12.7	39	9	17	6	6	9	9	6	13	37
24	4	3	3	8	11	12	10	8	19.7	8	7	6	21	41	56	39	22	25	21
25	10	6	3	9	9	9	7	6	21.3	39	15	21	28	32	32	17	15	25	30
26	3	6	11	12	8	4	4	6	16.0	6	16	48	57	26	8	10	15	23	20
27	4	2	5	5	4	5	2	4	10.3	9	4	11	12	9	11	4	10	9	12
28	6	4	7	8	9	7	4	4	16.3	15	9	20	24	30	17	8	10	17	20
29	4	7	12	14	11	14	14	9	23.3	10	20	53	76	42	85	77	33	50	41
30	13	11	10	11	14	11	13	12	31.7	65	50	38	42	86	49	67	51	56	55
																		29.0	

DEC. 1975

	3 Km								ΣKm	am								Am	Am2
1	11	11	11	12	12	13	12	12	31.3	50	41	44	58	58	61	55	53	53	53
2	10	10	11	12	11	9	11	11	28.3	37	36	43	60	42	30	45	41	42	40
3	9	3	5	8	9	8	7	6	19.0	30	7	13	26	31	22	18	23	21	26
4	8	6	6	9	10	9	5	5	19.3	21	15	15	29	38	31	12	11	22	20
5	5	3	6	7	8	7	7	5	16.0	12	6	15	18	21	18	20	12	15	16
6	3	4	2	6	9	7	7	5	14.3	7	9	5	15	27	17	20	11	14	13
7	2	3	3	3	1	4	4	4	8.0	5	6	6	6	3	10	9	8	7	13
8	6	9	5	5	8	11	11	14	23.0	15	33	12	13	25	50	46	76	34	26
9	11	8	5	10	12	9	2	5	20.7	45	22	12	36	53	33	5	13	27	28
10	1	1	2	7	11	8	1	3	11.3	3	2	5	18	45	23	3	7	13	16
11	3	3	5	5	4	5	7	3	11.7	6	7	12	13	10	13	18	6	11	12
12	3	3	3	3	1	1	1	2	5.7	7	7	7	7	2	3	2	4	5	6
13	0	1	2	3	3	5	4	3	7.0	0	2	4	6	6	12	10	6	6	5
14	2	1	4	3	7	7	7	8	13.0	5	2	8	7	19	18	18	24	13	13
15	9	7	6	4	6	6	5	8	17.0	30	17	15	8	15	16	12	26	17	20
16	9	9	7	6	6	6	8	8	20.3	31	30	17	16	14	26	25	23	23	20
17	5	9	5	3	5	7	7	7	16.0	13	33	11	7	13	20	17	19	17	16
18	5	3	3	3	7	6	4	5	12.0	12	6	7	7	19	14	10	13	11	12
19	3	5	3	4	7	8	3	1	11.3	6	12	6	8	18	22	7	3	10	10
20	2	5	2	1	0	1	2	1	4.7	4	11	4	3	1	3	4	3	4	7
21	3	2	2	5	10	9	8	6	16.0	6	4	4	21	38	32	26	16	18	14
22	9	5	6	5	8	7	8	7	18.3	31	13	15	12	21	19	23	17	19	19
23	5	6	4	4	7	3	5	6	13.3	11	16	10	9	17	6	12	15	12	12
24	0	3	0	0	1	1	6	6	5.7	0	6	1	1	2	3	15	15	6	13
25	8	9	10	8	11	9	7	10	24.0	22	31	35	23	46	30	18	39	31	27
26	10	9	11	10	14	14	13	10	30.3	39	28	48	40	80	85	66	33	53	44
27	8	12	12	7	9	15	14	10	29.0	21	51	54	19	32	90	72	40	47	47
28	11	8	7	6	4	9	8	9	20.7	46	26	20	16	10	31	22	31	25	33
29	8	8	9	8	9	7	11	7	22.3	22	23	30	22	33	18	45	17	26	24
30	9	8	6	7	6	6	7	6	18.3	28	24	14	18	16	15	17	15	18	19
31	5	6	3	3	4	5	5	5	12.0	13	15	6	7	8	12	11	12	11	11
																		20.4	

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	3 Kn								σn		an								An
1	12	12	12	14	13	13	12	11	5444	5664	57	52	54	75	63	66	58-	46	59
2	11	11	12	14	11	9	12	11	3442	6533	44	44	55	71	46	31	54	45	49
3	9	3	6	9	9	8	7	8	3225	5333	32	6	14	31	33	21	17	24	22
4	8	7	6	10	11	9	4	4	5313	5634	25	18	16	35	42	33	10	9	24
5	6	3	7	8	8	7	8	5	2235	4653	14	7	17	21	22	20	22	13	17
6	3	4	2	6	9	6	8	4	2333	6566	6	10	5	15	32	16	23	10	15
7	2	2	3	2	1	4	4	3	3322	2564	5	5	6	4	3	10	9	7	6
8	5	9	5	5	8	11	10	13	2221	3323	11	32	13	12	23	50	40	66	31
9	12	7	4	10	12	10	2	4	3232	5523	54	18	9	37	54	34	4	10	28
10	0	0	2	7	11	8	1	3	1124	7322	1	1	4	20	50	26	2	7	14
11	3	3	5	5	3	4	5	1	1123	4233	6	7	11	11	7	9	13	3	3
12	2	2	2	3	1	1	0	1	1231	1213	5	4	5	6	2	2	1	3	4
13	0	0	0	2	2	5	4	2	0012	3332	0	0	1	5	4	11	9	5	4
14	1	0	3	3	6	6	6	7	2121	1234	2	0	7	6	14	14	14	20	10
15	9	7	6	3	5	6	5	8	3112	3333	32	18	14	6	12	14	11	25	17
16	9	9	7	6	5	8	8	8	3421	2334	27	32	18	16	13	24	25	24	22
17	5	9	4	3	5	8	6	7	3421	2314	11	32	10	6	13	21	14	19	16
18	4	3	3	3	7	5	4	5	3111	4324	10	7	6	6	20	12	9	12	10
19	3	5	3	3	7	8	3	1	1122	5632	6	13	6	6	17	26	6	3	10
20	1	5	2	1	0	0	1	1	2431	0333	3	11	4	2	0	1	3	3	3
21	2	1	2	8	10	9	8	5	2223	5331	5	3	4	22	37	31	23	13	17
22	9	5	6	5	6	6	8	6	3232	4142	28	11	15	12	15	16	23	16	17
23	4	7	5	4	7	3	5	6	2333	5152	10	19	11	10	18	6	13	15	13
24	0	2	0	0	0	1	6	7	1210	0275	1	4	1	0	0	3	15	17	5
25	8	9	9	8	12	9	6	11	2334	2336	22	27	31	21	56	29	15	47	31
26	11	9	12	11	14	15	13	10	4242	3431	46	31	55	48	85	94	66	35	58
27	7	12	12	7	9	15	14	10	3532	4344	18	57	53	19	31	96	71	40	48
28	11	9	8	6	3	9	7	9	2131	1633	49	29	21	14	7	28	18	32	25
29	7	9	10	8	10	8	11	7	3223	3343	19	29	34	23	37	21	50	17	29
30	9	9	6	7	7	5	7	6	3342	4133	27	31	14	18	18	13	17	14	19
31	6	7	4	3	3	5	5	5	5343	2313	15	19	8	7	7	11	12	11	11
																			20.7

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	3 Ks								σs		as								As
1	11	9	10	11	12	12	12	12	2111	1343	43	30	34	42	53	57	53	60	47
2	9	9	9	11	10	9	10	10	2244	3200	30	27	30	49	38	30	36	36	35
3	9	4	5	8	9	8	7	6	1112	1243	28	8	12	21	30	24	19	22	21
4	6	5	6	8	10	9	6	6	5621	2143	16	12	14	24	34	29	14	14	20
5	4	3	5	6	7	7	7	5	2433	3134	9	6	13	15	20	17	17	11	14
6	3	4	2	6	8	7	7	5	1331	3334	7	9	5	15	23	18	18	13	14
7	2	3	3	4	2	4	4	4	3031	2353	5	7	7	8	4	10	9	10	8
8	7	10	4	6	8	11	12	14	4431	0234	20	34	10	14	26	50	52	86	37
9	10	8	6	10	12	9	3	6	4333	2435	36	26	15	36	52	32	6	16	27
10	2	2	3	6	10	7	2	4	3212	4332	5	4	6	16	40	20	4	8	13
11	3	4	5	6	5	7	8	4	2130	2423	7	8	13	15	12	17	22	10	13
12	4	4	4	4	1	2	1	2	2221	3223	9	10	10	8	3	4	2	5	6
13	0	1	3	4	4	5	4	3	0202	2434	0	3	6	8	9	12	10	7	7
14	3	2	4	4	8	8	8	9	4234	2432	7	4	10	8	24	22	22	27	16
15	9	7	6	5	7	7	5	9	3522	1333	28	17	16	11	17	18	13	28	19
16	10	9	6	6	6	9	8	8	4431	1234	36	28	15	15	15	29	25	22	23
17	6	10	5	4	6	7	7	7	3423	2142	14	35	12	8	14	18	20	20	18
18	6	3	4	3	7	6	5	6	2321	2335	15	6	8	7	17	16	11	15	12
19	3	5	3	4	7	7	4	1	4223	4234	7	12	7	10	19	17	8	3	10
20	2	5	2	2	1	2	2	1	3311	2430	5	11	5	4	2	4	5	2	5
21	3	2	2	8	10	9	9	7	3232	0242	7	5	4	21	38	33	28	20	20
22	10	6	6	5	9	8	8	7	0222	2323	34	15	15	13	27	22	24	19	21
23	5	6	4	4	6	2	5	6	1422	2322	12	14	10	9	15	5	12	14	11
24	0	4	0	0	1	2	6	6	0211	3432	0	8	1	1	3	4	14	15	6
25	8	10	10	8	10	9	8	9	2222	1231	22	35	40	26	36	31	22	32	31
26	9	8	10	9	14	14	13	11	2222	3141	32	26	40	32	76	77	67	42	49
27	8	11	12	7	10	14	14	10	3222	2043	25	45	56	19	34	84	74	40	47
28	11	8	7	7	5	10	8	9	3240	2442	43	24	18	18	13	34	25	29	26
29	8	7	9	8	9	6	10	6	1122	3354	24	18	27	22	29	16	40	16	24
30	9	6	5	7	6	7	7	6	0201	1433	28	16	13	18	15	18	17	16	18
31	5	5	2	3	4	6	5	5	3301	3543	11	11	4	6	8	14	11	13	10
																			20.3

(for explanation: see page IX)

JANUARY 1975

UNIT=GAMMAS G.M.T.

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
1	-7	-9	-10	-11	-12	-9	-8	-7	-14	-13	-10	-9	-10	-8	-5	-5	-8	-8	-7	-9	-9	-7	-7	-10
2	-10	-10	-8	-6	-5	-2	-2	-3	-1	1	1	0	-1	-3	-4	-1	0	2	2	3	4	3	2	2
3	2	6	16	17	17	18	20	17	4	1	5	1	0	-2	-5	-3	-2	0	5	10	11	11	16	13
4	5	5	2	3	3	-2	-4	-7	-7	-12	-8	-4	-1	-7	-17	-29	-25	-23	-22	-18	-22	-20	-19	-25
5	-25	-22	-18	-21	-17	-17	-21	-21	-28	-24	-14	-14	-14	-16	-18	-19	-20	-20	-16	-16	-25	-23	-19	-17
6	-17	-16	-16	-13	-12	-10	-12	-13	-9	-8	-6	-6	-10	-11	-10	-10	-8	-12	-16	-20	-7	-18	-21	-23
7	-41	-46	-49	-59	-50	-46	-54	-44	-38	-29	-29	-31	-30	-30	-28	-35	-33	-27	-23	-19	-23	-27	-24	-11
8	-4	0	4	6	-3	8	-9	-6	-3	-4	-8	-9	-22	-26	-28	-30	-31	-35	-44	-36	-28	-27	-21	-22
9	-18	-16	-16	-17	-17	-17	-18	-21	-18	-17	-15	-16	-17	-16	-17	-18	-18	-16	-15	-19	-19	-20	-22	-21
10	-20	-22	-22	-21	-20	-17	-18	-12	-10	-12	-13	-12	-11	-9	-11	-13	-12	-14	-15	-18	-18	-20	-18	-16
11	-13	-13	-15	-20	-20	-18	-17	-15	-12	-11	-12	-10	-9	-7	-11	-15	-20	-18	-17	-15	-12	-9	-8	-7
12	-7	-10	-11	-12	-12	-9	-6	-4	-5	-5	-8	-7	-6	-3	1	2	4	5	8	12	12	8	10	18
13	18	6	2	2	-4	-2	1	-9	-21	-36	-31	-24	-21	-18	-21	-28	-23	-26	-27	-24	-30	-37	-36	-29
14	-23	-21	-23	-24	-18	-21	-19	-17	-13	-17	-19	-19	-13	-17	-16	-29	-40	-45	-41	-44	-45	-47	-43	-39
15	-38	-33	-29	-26	-24	-21	-18	-17	-13	-11	-17	-15	-10	-11	-6	-2	-5	-10	-13	-13	-17	-38	-47	-46
16	-37	-31	-25	-22	-22	-18	-15	-14	-11	-7	-9	-9	-18	-23	-28	-30	-28	-28	-26	-29	-33	-30	-30	-32
17	-33	-29	-24	-27	-23	-20	-18	-21	-24	-18	-17	-17	-17	-18	-17	-15	-18	-22	-24	-25	-28	-27	-29	-34
18	-37	-31	-26	-25	-22	-22	-18	-17	-16	-15	-17	-16	-16	-18	-17	-18	-18	-17	-18	-23	-27	-26	-20	-20
19	-17	-15	-14	-16	-16	-14	-11	-8	-7	-9	-15	-12	-11	-12	-10	-6	-6	-12	-16	-17	-20	-19	-20	-21
20	-19	-18	-14	-17	-16	-10	-7	-5	1	2	2	1	-1	-3	-4	-6	-7	-9	-9	-14	-13	-16	-20	-19
21	-17	-17	-16	-16	-16	-12	-9	-7	-7	-3	-4	-5	-7	-7	-7	-8	-5	-9	-12	-15	-16	-12	-13	-15
22	-15	-15	-13	-12	-11	-7	-4	-2	2	2	3	2	-1	-2	-4	-2	-6	-12	-16	-15	-12	-12	-20	-25
23	-24	-11	-12	-10	-6	1	6	2	1	2	5	6	5	3	1	3	3	-3	-7	-19	-13	-5	-6	-11
24	-15	-12	-10	-7	-3	0	3	1	-2	-5	-5	-2	-5	-3	-6	-5	-9	-13	-15	-15	-15	-12	-9	-8
25	-7	-5	-6	-7	-6	-5	-5	-5	-1	-1	1	5	9	8	6	8	5	3	1	0	-3	0	0	-2
26	-6	-4	-1	5	5	4	1	2	5	6	6	2	-1	0	5	7	7	6	6	5	6	3	2	4
27	10	19	24	28	27	32	13	11	5	-3	-10	-13	-13	-11	-7	-3	-11	-9	-12	-21	-21	-22	-19	-15
28	-19	-15	-15	-10	-6	-6	-9	-12	-9	-9	-9	-8	-9	-13	-13	-10	-9	-10	-11	-11	-10	-6	-3	-1
29	4	8	6	10	11	16	18	13	9	7	1	-6	-9	-8	-1	2	2	-1	-4	-3	-2	-2	-1	1
30	5	8	12	13	11	10	6	5	6	2	3	9	7	7	7	12	16	11	8	6	4	-3	-4	-4
31	-7	-8	-5	-3	-2	-2	1	11	13	11	10	7	4	5	10	17	13	1	-1	-2	-8	-7	-7	-8

FEBRUARY 1975

UNIT=GAMMAS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	G.M.T. 24
1	-3	-4	-14	-14	-30	-31	-31	-29	-23	-22	-28	-17	-26	-22	-21	-23	-23	-29	-35	-31	-26	-21	-19	-21
2	-15	-14	-15	-14	-7	-5	-7	-15	-10	-13	-17	-18	-21	-19	-17	-13	-11	-11	-12	-8	-3	-3	-6	-7
3	-9	-15	-19	-19	-19	-15	-16	-17	-12	-11	-11	-13	-16	-17	-17	-12	-12	-11	-10	-6	-5	-4	-5	-5
4	-7	-8	-9	-10	-8	-5	0	0	3	6	5	-1	-5	-6	-8	-5	-4	-3	-3	3	5	5	2	-1
5	2	-3	-8	-7	-4	-4	-3	-3	-4	-5	-4	-6	-2	-10	-7	-4	-9	-15	-10	-9	-10	-9	-10	-13
6	-12	-12	-15	-17	-13	-8	-6	-6	-5	0	2	4	4	1	-2	-2	-4	-6	-7	-7	-4	-2	-6	-6
7	-6	-7	-10	-9	-11	-12	-17	-20	-15	-11	-7	-12	-15	-17	-14	-11	-14	-20	-23	-23	-16	-11	-6	-12
8	-9	-2	-7	-8	-9	-11	-13	-11	-2	-4	-9	-9	-8	-9	-8	-7	-6	-5	-6	-7	-5	-6	-2	3
9	-4	-10	-12	-13	-12	-15	-17	-15	-13	-9	-8	-7	-7	-7	-5	-3	-3	-6	6	6	5	-2	-13	-18
10	-12	-7	-9	-16	-26	-29	-38	-47	-50	-37	-29	-30	-28	-25	-20	-14	-19	-23	-17	-18	-18	-31	-30	-33
11	-28	-32	-32	-31	-31	-30	-30	-28	-27	-21	-15	-13	-12	-9	-11	-12	-11	-21	-13	-17	-31	-36	-42	-43
12	-35	-34	-27	-30	-29	-26	-36	-41	-42	-39	-32	-27	-33	-25	-28	-25	-26	-35	-38	-32	-28	-37	-40	-38
13	-27	-26	-33	-33	-26	-24	-21	-23	-22	-23	-24	-18	-18	-23	-19	-18	-15	-17	-22	-22	-17	-19	-23	-27
14	-26	-29	-31	-28	-26	-19	-17	-21	-25	-20	-16	-13	-14	-14	-12	-11	-23	-25	-24	-26	-34	-31	-34	-31
15	-31	-26	-21	-19	-21	-19	-16	-22	-21	-19	-17	-15	-17	-21	-18	-13	-12	-18	-18	-17	-19	-21	-24	-32
16	-36	-31	-29	-25	-21	-19	-18	-21	-14	-9	-14	-18	-23	-18	-12	-15	-30	-30	-31	-25	-23	-22	-24	-29
17	-24	-24	-24	-24	-21	-18	-24	-17	-19	-13	-15	-22	-22	-19	-18	-15	-15	-17	-15	-12	-12	-14	-21	-24
18	-27	-28	-32	-30	-26	-26	-31	-30	-23	-16	-10	-9	-14	-18	-17	-16	-16	-16	-15	-11	-12	-18	-23	-25
19	-18	-13	-15	-21	-2	-11	-7	-7	-5	-12	-12	-15	-10	-3	5	-2	-4	-5	-7	-10	-13	-13	-10	-9
20	-7	-4	-4	-3	-2	-2	-1	-1	-6	-7	-2	-2	-3	-3	-1	-4	-9	-9	-9	-8	-11	-11	-11	-17
21	-18	-16	-16	-15	-14	-14	-12	-11	-10	-10	-8	-4	2	9	9	13	5	-1	0	2	4	1	0	-2
22	3	3	6	6	5	5	4	2	2	1	2	2	-1	-5	-5	-6	-5	-6	-2	-4	-2	-5	-5	0
23	4	7	8	6	4	5	5	6	10	-15	-50	-33	-43	-32	-32	-41	-49	-35	-26	-26	-28	-33	-35	-34
24	-28	-28	-24	-21	-22	-16	-19	-18	-21	-19	-19	-20	-17	-13	-6	-11	-21	-23	-21	-17	-16	-16	-14	-14
25	-12	-9	-15	-17	-22	-22	-29	-31	-33	-29	-28	-25	-22	-21	-23	-21	-18	-9	-5	-2	2	1	0	1
26	4	2	3	2	-5	0	0	-4	-5	-13	-12	-13	-15	-13	-9	-7	-9	-12	-11	-10	-6	-5	-4	-4
27	-1	-2	-1	1	-1	-6	-7	-4	-5	-5	-2	-2	1	4	4	3	3	0	0	4	4	1	1	-1
28	1	2	5	6	9	10	8	7	-4	-6	-6	-1	3	7	5	1	3	5	6	2	-11	-10	-10	-9

MARCH 1975

UNIT=GAMMAS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	G.M.T. 24
1	-5	-7	-16	-11	-7	-7	-11	-16	-16	-15	-13	-15	-13	-7	-7	-6	-11	-17	-19	-20	-25	-24	-16	-15
2	-15	-13	-13	-11	-10	-8	-8	-13	-17	-18	-16	-12	-9	-8	-7	-7	-10	-13	-12	-6	-10	-13	-14	-14
3	-12	-10	-9	-6	-1	1	1	1	-3	-2	0	7	9	8	8	6	1	1	4	6	2	-8	-12	-11
4	-3	-7	-6	-7	0	1	0	-3	-4	-7	-5	-1	1	2	2	1	-1	0	4	4	4	5	0	-3
5	-5	-4	-10	-13	-22	-32	-37	-36	-35	-38	-30	-32	-23	-15	-16	-28	-33	-28	-22	-24	-24	-20	-16	-16
6	-17	-18	-16	-13	-9	-9	-16	-20	-27	-28	-26	-21	-15	-12	-11	-22	-39	-33	-30	-27	-26	-31	-29	-25
7	-22	-21	-20	-18	-14	-12	-12	-14	-13	-11	-10	-8	-6	-5	-5	-4	-5	-3	-2	1	3	-2	-6	-8
8	-6	-7	-1	4	6	4	4	1	-2	-1	2	2	3	5	8	7	6	4	-1	-1	-2	-4	-8	-8
9	-8	-7	-4	-3	-1	-1	0	2	1	1	3	5	3	3	7	4	1	-1	-1	0	2	6	3	3
10	-12	-44	-62	-56	-52	-54	-64	-59	-64	-54	-40	-44	-58	-75	-62	-73	-79	-77	-71	-66	-70	-84	-90	-67
11	-76	-71	-74	-80	-68	-61	-67	-67	-63	-65	-59	-45	-42	-36	-36	-41	-43	-46	-45	-46	-48	-48	-47	-50
12	-42	-42	-40	-47	-41	-35	-38	-39	-52	-49	-35	-35	-29	-30	-36	-41	-48	-48	-45	-47	-54	-53	-52	-47
13	-48	-44	-38	-37	-35	-35	-35	-36	-36	-32	-32	-25	-21	-17	-19	-21	-27	-35	-41	-40	-39	-38	-39	-42
14	-39	-32	-30	-27	-28	-32	-33	-36	-34	-32	-29	-27	-21	-22	-30	-31	-34	-36	-34	-28	-26	-29	-34	-32
15	-26	-27	-26	-25	-29	-29	-28	-30	-33	-29	-26	-24	-25	-29	-26	-28	-26	-32	-33	-34	-33	-32	-35	-29
16	-23	-23	-17	-16	-18	-21	-17	-16	-25	-26	-30	-29	-29	-27	-24	-24	-30	-33	-29	-24	-27	-26	-26	-19
17	-22	-27	-24	-23	-24	-23	-18	-18	-26	-29	-27	-24	-23	-22	-21	-20	-23	-21	-21	-21	-21	-23	-22	-25
18	-26	-28	-26	-22	-18	-21	-20	-19	-24	-25	-19	-15	-11	-10	-8	-14	-24	-29	-33	-37	-41	-41	-37	-31
19	-23	-22	-22	-21	-20	-16	-15	-16	-12	-12	-13	-13	-13	-15	-13	-13	-15	-16	-15	-10	-10	-13	-8	-5
20	-1	-3	0	-4	-8	-9	-9	-11	-16	-14	-9	-6	-8	-14	-17	-22	-23	-21	-22	-28	-21	-18	-20	-18
21	-14	-9	-4	-4	-6	-7	-7	-6	-5	-6	-6	-9	-8	-9	-7	-7	-9	-10	-9	-5	-3	-2	-2	-3
22	-4	-6	-5	-1	2	-1	0	5	2	6	3	6	4	2	1	3	6	12	14	12	10	13	21	20
23	12	11	-2	-15	-21	-34	-37	-35	-28	-23	-18	-10	-7	-8	-8	-8	-9	-14	-15	-15	-13	-8	4	2
24	-2	-3	-2	1	4	8	9	12	12	8	14	5	-2	-9	-7	-5	-11	-9	-22	-25	-25	-15	-14	-9
25	-4	2	-2	-4	-2	1	7	6	8	3	-1	-1	1	-1	-3	-8	-7	-10	-8	-6	-9	-8	-6	-3
26	-2	-4	-7	-7	-5	0	10	19	15	19	-1	-4	-22	-14	-10	-12	-18	-16	-20	-17	-12	-8	-6	-7
27	-14	-23	-15	-16	-16	-14	-11	-9	-7	-4	-3	0	10	2	-12	-28	-32	-57	-69	-59	-49	-45	-52	-51
28	-47	-43	-36	-34	-36	-33	-34	-34	-30	-29	-19	-22	-26	-26	-32	-33	-32	-30	-32	-34	-37	-34	-29	-23
29	-23	-28	-37	-33	-28	-29	-32	-27	-26	-22	-28	-23	-18	-20	-24	-23	-23	-27	-27	-26	-22	-20	-20	-21
30	-16	-13	-14	-17	-18	-19	-16	-17	-15	-14	-14	-13	-7	-9	-9	-8	-11	-11	-10	-11	-14	-16	-16	-15
31	-15	-20	-22	-25	-23	-16	-12	-8	-6	-4	-1	-1	-5	-7	-10	-11	-11	-12	-18	-18	-12	-11	-10	-12

APRIL 1975

UNIT=GAMMAS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	G.M.T. 24
1	-15	-12	-9	-6	-5	-6	-7	-8	-7	-5	-2	2	2	-1	-4	-4	-6	-5	-3	-4	-3	-5	-6	-6
2	-9	-9	-6	-2	0	2	3	1	2	2	-1	-1	-2	-4	-2	1	1	4	7	11	9	9	9	10
3	8	7	11	14	17	18	15	5	4	5	4	3	1	1	1	0	-2	-1	1	-1	-2	-1	-1	2
4	4	6	8	4	5	5	6	8	5	1	-2	-2	-2	-6	-6	-4	-3	-5	-6	-7	-7	-7	-5	-7
5	-12	-11	-9	-7	-5	-4	-4	-4	-1	0	0	-2	-2	-2	1	1	-1	-5	-12	-12	-11	-13	-16	-15
6	-13	-11	-9	-12	-10	-10	-9	-7	-3	1	-4	0	-4	-5	-7	-15	-20	-16	-9	0	-2	-18	-13	-8
7	-4	-3	-6	-12	-16	-15	-12	-9	-4	-3	-3	-4	-3	-3	7	11	18	14	-4	-21	-23	-39	-41	-27
8	-25	-28	-39	-35	-33	-31	-27	-28	-23	-12	-16	-15	-14	-16	-21	-23	-27	-21	-36	-40	-34	-31	-28	-27
9	-25	-33	-39	-41	-45	-50	-55	-54	-44	-40	-35	-36	-26	-26	-33	-30	-29	-34	-33	-37	-40	-42	-44	-46
10	-48	-42	-43	-46	-53	-51	-41	-31	-30	-29	-20	-22	-18	-20	-19	-21	-30	-27	-31	-28	-25	-28	-36	-37
11	-31	-32	-30	-31	-30	-30	-29	-30	-24	-30	-33	-35	-28	-27	-25	-25	-24	-29	-29	-31	-30	-31	-36	-33
12	-33	-29	-29	-27	-27	-27	-25	-21	-17	-19	-26	-28	-29	-25	-22	-27	-26	-24	-19	-18	-18	-22	-32	-41
13	-50	-51	-42	-38	-36	-35	-34	-34	-32	-26	-21	-20	-26	-29	-27	-24	-19	-14	-14	-22	-27	-35	-39	-35
14	-32	-30	-30	-34	-31	-30	-33	-28	-22	-20	-23	-24	-22	-21	-19	-22	-20	-19	-20	-19	-16	-18	-20	-21
15	-22	-26	-25	-24	-22	-20	-19	-18	-16	-16	-16	-13	-12	-13	-14	-12	-12	-16	-17	-14	-12	-13	-17	-21
16	-22	-26	-22	-20	-16	-14	-15	-12	-8	-4	-4	-8	-9	-11	-12	-10	-10	-8	-7	-7	-4	-5	-6	-6
17	-7	-9	-10	-7	-4	-4	-2	1	6	7	9	9	2	0	1	4	3	3	6	7	9	7	5	5
18	6	7	10	10	10	7	2	0	5	8	8	1	-2	-5	-5	-3	-2	-2	-6	-7	-6	-4	-4	-6
19	-6	-4	-3	-1	1	1	0	-2	-1	-1	-3	-6	-1	3	7	9	4	6	2	-3	-1	3	6	8
20	9	7	5	1	2	5	7	5	1	5	1	-2	2	0	-3	-5	1	-7	-24	-48	-61	-70	-65	-49
21	-41	-40	-24	-17	-10	-7	-2	1	3	9	17	12	0	-12	-21	-24	-29	-27	-31	-28	-24	-22	-22	-22
22	-23	-24	-20	-17	-20	-24	-24	-20	-17	-12	-7	-7	-9	-13	-11	-9	-8	-9	-14	-16	-17	-17	-14	-9
23	-7	-8	-9	-7	-10	-11	-20	-13	-12	-8	-5	-6	-4	-6	-9	-7	-20	-20	-17	-13	-11	-18	-22	-18
24	-16	-13	-15	-10	-6	-10	-15	-13	-8	-6	-5	-6	-9	-9	-10	-10	-9	-9	-13	-15	-16	-18	-16	-9
25	-2	-1	-3	-6	-9	-8	-7	-5	-3	-3	-5	-4	-5	-5	-7	-9	-3	-7	-5	-4	-5	-8	-10	-9
26	-9	-9	-7	-4	-5	-6	-8	-6	-3	-5	-9	-8	-6	-6	-4	-3	-2	-4	-6	-3	-3	-5	-6	-5
27	-4	-5	-3	-4	-6	-5	-5	-4	-2	0	-2	-3	-2	-2	-2	-1	1	2	2	4	5	3	2	-1
28	-1	0	2	3	2	1	0	0	-1	-1	2	4	5	6	4	5	6	5	6	9	10	11	10	9
29	9	8	6	6	6	6	7	8	7	6	4	4	5	7	6	6	8	8	5	5	9	13	15	15
30	14	15	15	14	12	9	9	11	8	3	3	5	6	6	3	3	5	8	7	7	7	7	4	2

MAY 1975

UNIT=GAMMAS G.M.T.

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
1	2	4	5	8	9	8	16	21	18	13	15	12	6	6	4	2	3	3	1	-5	-1	-1	4	9
2	12	12	14	14	4	0	5	3	2	-9	-11	-8	-11	-13	-20	-21	-20	-17	-23	-23	-21	-19	-14	-17
3	-19	-14	-15	-21	-27	-26	-27	-28	-19	-14	-11	-12	-11	-19	-25	-19	-12	-11	-15	-17	-16	-15	-10	-11
4	-10	-10	-5	-4	-2	-6	-9	-8	-3	-1	-7	-10	-10	-9	-8	-5	-5	-3	-6	-10	-10	-14	-22	-28
5	-33	-32	-29	-30	-33	-27	-19	-23	-14	-15	-16	-17	-15	-11	-13	-10	-6	-10	-13	-21	-25	-20	-15	-13
6	-20	-25	-25	-33	-45	-37	-34	-34	-36	-34	-31	-32	-34	-34	-34	-31	-26	-28	-31	-30	-27	-29	-20	-17
7	-17	-16	-17	-16	-13	-11	-7	-8	-6	-2	-3	-17	-22	-21	-19	-24	-27	-23	-16	-17	-17	-21	-23	-17
8	-15	-13	-11	-10	-12	-16	-14	-13	-13	-12	-7	-9	-5	-8	-11	-11	-7	-7	-13	-19	-18	-18	-22	-12
9	-9	-10	-14	-19	-18	-18	-18	-21	-17	-14	-18	-16	-11	-14	-19	-17	-12	-13	-14	-13	-13	-13	-13	-17
10	-18	-13	-17	-31	-36	-37	-37	-31	-25	-27	-23	-25	-22	-23	-22	-23	-21	-21	-21	-23	-25	-25	-19	-14
11	-10	-9	-10	-10	-10	-10	-11	-9	-7	-8	-9	-12	-13	-12	-10	-8	-7	-7	-9	-11	-13	-14	-14	-13
12	-12	-9	-8	-8	-6	-7	-5	-3	0	1	-1	-2	1	5	9	11	10	11	11	6	6	6	7	10
13	9	9	10	9	11	13	12	13	14	12	15	16	17	16	14	13	13	15	15	10	3	3	1	-2
14	-9	-13	-14	-14	-19	-19	-19	-19	-19	-20	-21	-26	-24	-21	-19	-19	-21	-22	-26	-25	-23	-22	-20	-17
15	-12	-12	-11	-11	-10	-10	-7	-5	-2	-1	-2	-3	-2	-4	-7	-8	-8	-8	-6	-4	-3	0	1	2
16	2	5	9	25	28	21	14	-5	-16	-11	-6	-1	-4	-4	-2	-2	-9	-9	-10	-5	-8	-5	-11	-5
17	-5	-3	-4	-6	-9	-15	-14	-11	-13	-11	-11	-9	-5	-6	-5	-3	-8	-7	-4	-1	1	1	-1	-4
18	-5	-7	-9	-8	-8	-9	-11	-8	-7	-3	-4	-4	-3	-2	-3	-4	-5	-5	-5	-2	4	4	5	5
19	5	8	6	1	-4	-10	-10	-5	-8	-4	-1	1	-1	-1	2	3	3	2	3	5	15	22	25	37
20	37	44	2	-18	-17	-17	-14	-13	-9	-17	-22	-16	-18	-18	-19	-22	-22	-17	-14	-12	-10	-10	-9	-6
21	-5	-11	-14	-14	-16	-11	-8	-6	-3	-1	-1	4	2	-2	-6	-4	-4	-4	-5	-4	-8	-4	-1	0
22	1	1	-1	-3	-5	-7	-5	-5	-4	-3	0	2	3	-1	0	-2	-3	-7	-10	-6	-3	-3	-3	-2
23	2	4	2	1	-1	-8	-10	-8	-4	-3	0	-3	-5	-6	-5	-3	-5	-6	-5	-7	-5	-2	1	3
24	3	3	1	0	-1	0	-3	-5	0	1	3	1	3	3	2	1	-1	-3	-1	-2	0	5	5	3
25	-1	-4	-4	1	1	0	1	3	6	6	9	11	9	7	10	12	15	5	-10	-18	-26	-29	-27	-32
26	-32	-34	-31	-37	-33	-34	-34	-31	-22	-18	-13	-7	-4	-2	-2	2	4	8	8	4	6	7	9	11
27	10	7	10	11	5	1	9	19	22	24	27	24	13	4	3	2	-3	-8	-5	-1	0	1	5	8
28	4	3	1	-4	-4	-2	-1	1	1	-2	0	2	5	7	6	7	6	7	8	9	8	8	6	4
29	6	5	0	-3	-9	-6	-2	0	1	-2	4	7	12	15	13	6	0	-9	-5	-6	-9	-10	-10	-6
30	-2	1	-1	-5	-2	-6	-7	-10	-6	-4	-1	1	2	1	-2	-4	-5	-5	-4	-2	1	1	1	0
31	-3	-2	-3	-2	-2	2	2	4	5	6	9	12	12	8	3	1	2	1	2	5	5	6	5	3

JUNE 1975

UNIT=GAMMAS

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 G.M.T.
1	2	3	6	4	4	7	11	11	9	10	15	12	10	15	16	23	21	25	19	12	12	12	2	4
2	0	-5	-10	-13	-19	-22	-15	-13	-21	-18	-15	-9	-6	-11	-14	-16	-21	-22	-18	-21	-21	-21	-19	-20
3	-20	-17	-18	-16	-13	-13	-12	-10	-6	-5	-5	-1	-6	-6	-7	-7	-10	-7	-6	-10	-8	-8	-8	-4
4	-7	-11	-13	-11	-7	-7	-6	-4	-4	-3	1	-1	-5	-7	-6	-8	-9	-10	-11	-10	-8	-5	-3	1
5	-3	-8	-12	-15	-14	-10	-3	1	-3	2	5	4	1	-3	-7	-8	-5	-7	-8	-9	-6	-6	-10	-10
6	-10	-6	-9	-14	-14	-10	-7	-2	-1	-4	0	3	2	-1	-3	-4	-7	-6	-8	-8	-4	-1	0	-1
7	-4	-7	-11	-8	-8	-6	-6	-3	-6	-1	6	6	3	1	-2	-2	-2	-2	-2	-3	-4	-6	-1	4
8	4	2	0	0	3	3	1	0	1	2	4	1	2	1	-1	0	0	1	3	4	5	-1	-3	-3
9	-2	1	0	0	-2	-3	0	1	5	6	10	14	11	8	4	4	3	3	5	6	9	10	8	6
10	3	3	2	0	-2	-1	0	1	4	6	8	5	2	0	-2	-3	-2	-1	0	1	1	1	5	4
11	8	10	9	9	8	7	0	-8	-9	-15	-15	-11	-12	-10	-9	-10	-6	3	5	5	7	3	0	2
12	5	6	2	-3	-3	-2	3	12	7	9	2	6	6	-2	-4	-2	-4	-10	-6	-14	-10	-9	-9	-14
13	-13	-18	-15	-15	-12	-15	-11	-7	-2	-1	-1	1	2	-2	-4	-4	-3	-4	-8	-7	-6	-4	-9	-11
14	-12	-15	-15	-12	-9	-5	-3	-2	-1	2	7	9	8	6	1	-2	-4	-1	0	1	8	10	11	10
15	6	2	0	-1	-4	1	2	1	-4	-2	4	9	13	11	6	-6	-6	-1	1	6	7	1	1	2
16	-2	-3	-8	-13	-11	-8	-6	-2	-7	-9	-5	-5	-2	-2	-5	-8	-8	-9	-6	-4	0	0	-3	2
17	-2	-7	-10	-5	-3	-1	3	6	-1	-2	-2	2	2	-1	-2	-3	-5	-4	-2	-6	-4	-2	-3	-7
18	-9	-7	-11	-13	-15	-11	-11	-7	-2	2	4	7	6	2	0	3	5	-2	-5	-1	-4	-1	0	0
19	-1	-3	-1	-4	-5	-3	1	-2	0	-1	-4	-8	-6	-4	-5	-7	-5	-6	-10	-10	-5	-5	-5	-1
20	-1	-6	-6	-4	-2	-2	-1	1	3	2	2	2	3	1	1	4	7	4	0	-3	-6	-7	-7	-8
21	-8	-8	-9	-12	-12	-7	-3	-1	-4	-9	-9	-4	-4	-6	-8	-9	-7	-7	-8	-2	-2	-8	-8	-7
22	-5	-1	-1	-1	-6	-3	-4	-4	-7	-9	-10	-10	-6	-6	-6	-7	-6	-7	-4	0	-2	0	4	5
23	3	2	4	3	1	0	1	3	4	3	2	-1	2	4	6	9	8	8	6	6	8	8	6	7
24	5	4	4	4	5	6	7	8	8	6	9	13	16	18	18	17	17	15	13	11	11	13	14	16
25	15	16	16	16	18	21	30	28	27	27	27	25	24	23	20	20	21	20	16	9	4	0	-1	1
26	0	-3	-4	-1	4	8	11	12	11	13	16	16	17	16	18	20	21	19	19	16	13	12	13	14
27	14	14	15	17	14	15	16	17	16	14	11	9	9	9	9	9	10	10	11	13	12	12	11	10
28	12	13	13	15	18	19	16	15	16	17	19	20	22	21	18	18	15	14	15	16	18	15	12	13
29	11	13	10	9	14	17	20	21	24	27	32	38	39	42	32	39	26	16	15	3	-8	-15	-14	-14
30	-15	-15	-19	-16	-17	-13	-17	-14	-15	-18	-14	-14	-13	-13	-14	-15	-16	-15	-14	-15	-11	-13	-11	-12

JULY 1975

UNIT=GAMMAS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	G.M.T. 24
1	-13	-11	-10	-10	-9	-10	-7	-3	-4	-8	-7	-7	-8	-12	-13	-14	-12	-6	3	5	5	-3	0	-6
2	-11	-10	-8	-6	-6	-6	-3	1	3	4	1	0	0	0	2	0	1	3	3	1	5	7	1	2
3	0	-1	-1	-1	1	3	8	9	6	5	5	4	6	4	2	2	3	1	-3	-5	-4	1	-1	1
4	1	-2	-3	-2	-2	0	2	5	6	3	2	3	3	6	5	3	5	4	3	0	4	2	0	1
5	4	3	4	4	6	5	3	3	3	2	8	10	4	2	3	10	12	11	12	11	9	7	7	3
6	3	3	5	9	11	14	14	17	16	15	14	16	17	17	17	16	11	18	27	28	18	13	14	16
7	7	4	10	12	9	-2	4	3	5	3	1	7	13	13	5	4	1	-4	-12	-19	-25	-33	-36	-39
8	-40	-41	-46	-52	-59	-60	-56	-52	-50	-44	-40	-34	-37	-28	-26	-33	-49	-42	-39	-33	-31	-28	-27	-24
9	-22	-21	-19	-22	-28	-27	-30	-24	-15	-33	-39	-28	-13	-14	-27	-29	-28	-29	-37	-43	-41	-30	-26	-23
10	-27	-28	-25	-18	-17	-21	-14	-15	-12	-15	-11	-6	-5	-4	-12	-12	-16	-19	-24	-26	-24	-22	-22	-19
11	-19	-15	-13	-5	3	12	4	-7	-5	3	-1	-3	-5	-10	-14	-16	-17	-17	-18	-17	-16	-15	-15	-15
12	-15	-13	-7	-4	-3	-1	-6	-9	-8	-11	-12	-10	-7	-8	-10	-9	-7	-8	-7	-6	-4	-3	-5	-7
13	-6	-7	-7	-2	0	-4	-3	1	0	-4	-7	-8	-9	-9	-10	-9	-7	-9	-12	-12	-14	-15	-18	-21
14	-19	-16	-13	-9	-8	-8	-9	-4	0	-1	-4	-3	0	2	1	-2	2	1	-1	-1	-2	-10	-16	-15
15	-14	-7	-6	-3	-1	0	-4	-8	-6	-7	-6	-11	-16	-16	-12	-13	-13	-20	-24	-21	-15	-11	-9	-7
16	-9	-10	-9	-5	-3	-2	-3	-3	-2	-6	-7	-13	-13	-11	-5	-4	-7	-10	-12	-14	-8	-8	-9	-9
17	-9	-8	-7	-6	-7	-7	-9	-9	-7	-11	-11	-11	-17	-14	-10	-11	-10	-9	-5	0	0	-3	-4	-5
18	-2	-1	2	4	3	-4	-7	-2	-1	-2	-4	-7	-4	-3	-3	-8	-9	-11	-12	-12	-11	-9	-5	-3
19	-3	-3	1	2	-3	-5	-5	-5	-2	1	-1	0	-1	-1	0	0	-3	-8	-12	-18	-18	-17	-12	-9
20	-8	-5	-3	-1	-3	-5	-6	-7	-11	-6	-4	-3	-4	-5	-7	-5	-6	-8	-12	-12	-8	-7	-9	-7
21	-6	-3	2	4	5	4	4	6	6	6	0	0	1	3	5	4	4	4	2	2	-4	-8	-10	-8
22	-5	-2	0	0	2	0	-5	-8	-4	2	4	2	2	4	8	7	6	3	2	3	5	3	3	1
23	2	6	12	4	0	-3	-1	0	1	2	-1	-5	-6	-4	-7	-6	-5	-4	-4	-4	0	1	3	-2
24	-4	-2	4	9	9	7	0	-6	-7	-6	-5	-4	-3	-3	-2	-1	1	0	1	2	0	1	6	2
25	4	12	18	13	15	-5	-36	-56	-53	-30	-23	-24	-35	-36	-51	-46	-38	-35	-38	-43	-48	-45	-40	-33
26	-28	-28	-21	-22	-23	-25	-23	-22	-23	-27	-22	-19	-14	-14	-16	-21	-22	-20	-17	-17	-24	-20	-13	-13
27	-14	-13	-11	-10	-12	-11	-10	-13	-13	-10	-10	-5	-3	-1	-2	-5	-6	-3	-2	-1	0	-7	-9	-7
28	-8	-7	-8	-8	-8	-12	-13	-15	-13	-10	-7	-6	-2	-2	1	-3	-7	-12	-12	-12	-12	-13	-9	-8
29	-9	-8	-5	-6	-6	-9	-11	-11	-10	-7	-5	-5	-6	-5	-3	-4	-4	-2	0	0	0	-2	-6	-10
30	-13	-12	-11	-10	-10	-5	-5	-6	-5	-2	-2	-5	-7	-4	-5	-11	-13	-12	-11	-11	-8	-9	-6	-3
31	-2	-3	-3	-4	-4	-2	-3	-2	0	1	3	5	6	5	7	5	3	5	6	7	7	2	9	9

AUGUST 1975

UNIT=GAMMAS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	G.M.T. 23	24
1	10	16	14	9	-9	-24	-15	-9	-6	-12	-2	3	7	6	4	2	4	4	4	4	-2	1	3	3
2	3	4	9	11	11	11	4	3	1	5	7	5	5	11	10	2	1	1	6	10	7	6	7	9
3	7	7	5	7	6	3	1	-1	-2	0	3	4	4	-1	-1	-2	-5	-6	-5	-1	1	1	1	3
4	1	-1	-2	-3	-3	-3	-5	-3	-4	-3	0	-3	-2	-3	-3	-1	-1	3	4	-1	4	6	7	8
5	4	-1	-1	6	-3	0	-6	-5	-11	-10	-9	-17	-25	-20	-16	-20	-22	-23	-19	-15	-13	-14	-20	-20
6	-20	-17	-14	-15	-13	-17	-18	-20	-17	-12	-11	-10	-11	-11	-11	-13	-13	-11	-9	-7	-9	-11	-12	-13
7	-12	-10	-7	-5	-4	-7	-8	-8	-8	-5	-4	-6	-1	2	2	2	-1	-1	-1	-4	-11	-14	-12	-13
8	-12	-8	-11	-17	-37	-37	-37	-34	-39	-25	-15	-8	-7	-8	-9	-9	-10	-8	-5	-5	-4	-6	-10	-11
9	-4	2	2	1	-4	-7	-9	-12	-9	-8	-5	-2	1	5	9	10	5	-5	-16	-30	-29	-31	-33	-32
10	-29	-27	-23	-27	-35	-30	-32	-41	-41	-34	-29	-30	-31	-34	-38	-40	-33	-28	-24	-26	-25	-25	-24	-25
11	-25	-19	-14	-12	-14	-16	-17	-19	-14	-8	-9	-13	-17	-19	-17	-16	-15	-16	-17	-18	-21	-20	-22	-25
12	-25	-22	-16	-15	-15	-15	-16	-16	-15	-13	-13	-13	-13	-14	-13	-13	-11	-9	-6	-7	-8	-10	-11	-13
13	-12	-7	-4	-4	-3	-4	-5	-6	-7	-13	-21	-24	-23	-20	-15	-12	-8	-8	-8	-5	-5	-4	-3	-5
14	-2	-9	-21	-26	-24	-35	-40	-38	-30	-26	-18	-18	-19	-15	-18	-22	-25	-22	-21	-16	-13	-8	-7	-7
15	-19	-17	-17	-22	-23	-23	-26	-22	-20	-24	-27	-28	-29	-26	-28	-29	-26	-24	-32	-35	-36	-29	-22	-20
16	-20	-18	-12	-10	-13	-14	-13	-13	-12	-7	-5	-7	-8	-9	-11	-14	-16	-10	-3	-6	-6	-7	-6	-5
17	-6	-7	-10	-17	-22	-26	-25	-20	-17	-14	-13	-14	-13	-12	-12	-15	-13	-5	0	-3	-5	-7	-7	-8
18	-8	-6	-3	-5	-5	-5	-4	-6	-7	-6	-4	-3	-4	-7	-8	-11	-13	-13	-12	-10	-9	-7	-8	-13
19	-14	-11	-6	-4	-4	-3	-1	-3	-8	-5	-2	-1	-2	-4	-3	-5	-5	-7	-10	-11	-10	-6	-2	-2
20	-3	-3	0	1	1	2	5	4	5	11	11	-3	-18	-22	-27	-24	-7	-1	-3	-8	-13	-22	-18	-22
21	-20	-14	-12	-18	-26	-23	-18	-15	-10	-5	0	1	-2	-2	-1	2	-5	-8	-10	-9	-12	-14	-10	-12
22	-13	-16	-14	-12	-17	-17	-14	-11	-6	-7	-4	-3	-6	-9	-10	-10	-10	-5	0	2	-1	-5	-7	-12
23	-20	-20	-13	-8	-6	-4	-2	-3	-3	-2	-3	-9	-10	-9	-8	-9	-9	-7	-4	-1	-1	-3	-4	-6
24	-5	-6	-5	-4	-7	-8	-8	-6	-7	-4	-3	-4	-12	-15	-16	-12	-11	-8	-4	-8	-11	-10	-9	-7
25	-6	-1	-4	-8	-9	-6	-3	-3	-4	-1	1	1	-2	-1	-6	-3	-1	2	7	6	-1	-5	-8	-7
26	-6	-1	2	2	4	2	3	4	5	7	7	5	6	5	4	3	3	3	1	-2	-4	-5	-8	-12
27	-17	-20	-22	-24	-20	-13	-7	-4	-4	-4	-7	-5	-3	-2	-3	-3	-2	0	2	2	0	1	0	-5
28	-6	-6	-2	0	-2	2	7	8	7	7	7	6	4	4	5	3	4	9	11	8	2	-2	2	3
29	6	3	2	-7	-20	-25	-27	-31	-29	-27	-26	-26	-31	-30	-22	-19	-11	-14	-13	-10	-8	-9	-20	-18
30	-23	-27	-23	-26	-28	-27	-26	-20	-19	-22	-17	-14	-14	-14	-18	-23	-20	-14	-12	-10	-13	-16	-11	-7
31	-6	-7	-8	-10	-12	-10	-6	0	1	0	2	1	3	3	3	-2	-1	-1	1	-4	-6	-4	0	2

SEP TEMBER 1975

UNIT=GAMMAS G.M.T.

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
1	3	4	4	3	-3	-8	-8	-3	0	-2	-2	-4	-4	-6	-8	-10	-12	-7	-4	-8	-10	-9	-8	-11
2	-17	-18	-6	1	1	2	5	5	2	4	7	8	9	6	6	3	-4	-6	-6	-8	-11	-9	-10	-10
3	-8	-6	-7	-5	-3	-3	-1	-1	0	4	4	3	7	7	6	7	5	2	2	3	3	2	1	0
4	2	5	7	8	4	1	-3	-4	-2	1	3	3	2	-1	-5	-7	-7	-7	-5	-4	-6	-4	-2	-4
5	-4	-2	4	5	5	3	2	3	6	7	6	5	4	3	-1	-2	2	6	7	6	6	10	14	12
6	10	10	9	9	12	14	12	6	10	16	18	6	-9	-23	-24	-27	-29	-19	-17	-23	-29	-31	-30	-30
7	-23	-15	-13	-12	-10	-9	-7	-7	-3	-5	-6	-7	-7	-10	-13	-14	-13	-11	-7	-8	-11	-11	-9	-10
8	-12	-14	-12	-10	-7	-9	-8	-4	-2	-4	-6	-9	-9	-7	-8	-10	-7	-4	-4	-3	-5	-13	-11	-14
9	-14	-10	-10	-13	-12	-11	-16	-15	-14	-18	-21	-18	-15	-18	-27	-28	-21	-17	-17	-15	-18	-19	-15	-14
10	-15	-26	-36	-40	-37	-31	-31	-26	-20	-19	-21	-21	-20	-18	-26	-24	-21	-18	-20	-22	-22	-26	-27	-27
11	-33	-31	-22	-22	-25	-25	-22	-17	-16	-17	-14	-12	-17	-18	-17	-19	-16	-17	-19	-20	-20	-17	-13	-13
12	-23	-24	-20	-17	-24	-24	-16	-14	-12	-14	-16	-17	-14	-11	-13	-15	-10	-5	-4	-4	-12	-19	-19	-17
13	-20	-23	-24	-22	-19	-17	-15	-10	-10	-10	-17	-15	-11	-11	-14	-15	-14	-10	-8	-7	-6	-14	-15	-10
14	-12	-14	-15	-14	-17	-18	-16	-11	-13	-11	-5	-6	-14	-18	-15	-13	-11	-13	-13	-14	-15	-12	-7	-3
15	-4	-3	-2	-1	2	2	0	-3	-2	1	0	-2	-1	0	-3	-4	-5	-7	-7	-10	-14	-13	-11	-7
16	-5	-2	0	0	-2	-2	-3	-1	1	2	-1	-3	-6	-4	-2	-2	-2	-2	-1	2	4	4	6	8
17	10	12	17	16	6	-5	3	5	11	11	12	12	9	9	9	4	3	-1	-5	-7	-10	-12	-9	-8
18	-9	-9	-5	-1	5	4	3	2	1	2	4	1	-2	-11	-7	-4	-4	-6	-10	-10	-12	-12	-7	-7
19	-4	-3	-1	1	1	0	-1	2	-2	-1	-3	-1	-1	-1	-1	-1	-1	-2	-1	-4	-7	-9	-8	-4
20	-4	-3	0	2	1	2	0	2	4	4	6	4	4	5	4	2	0	1	1	1	-1	-8	-7	-6
21	-3	-4	-2	2	4	4	3	3	6	3	1	1	0	3	5	6	4	1	-1	-1	0	-3	-2	-4
22	-5	-4	-3	1	4	3	2	3	5	6	4	5	5	5	4	5	8	8	8	6	4	5	3	3
23	4	2	2	4	7	6	5	5	6	4	3	4	4	6	7	8	7	8	6	5	4	5	5	6
24	5	5	7	8	7	7	9	8	8	7	6	5	5	3	4	7	8	9	10	11	11	10	6	4
25	2	5	8	10	11	12	14	14	15	15	12	10	12	13	16	20	20	18	16	16	14	13	13	13
26	13	19	19	14	10	11	14	11	9	10	14	14	9	3	-9	-18	-15	-11	-8	-8	-15	-20	-23	-19
27	-8	-11	-14	-17	-21	-23	-26	-27	-22	-19	-21	-23	-21	-13	-19	-20	-22	-22	-21	-19	-15	-11	-10	-9
28	-10	-10	-8	-9	-9	-6	-3	-2	-3	-7	-9	-5	-1	5	8	0	-2	-1	-1	-3	-6	-9	-9	-10
29	-9	-7	-4	-5	-5	-3	-5	-2	-5	-5	-4	-2	-1	0	-1	0	0	0	1	-1	-6	-6	-5	-4
30	-2	-2	-1	-4	-2	-2	-2	-2	-1	-1	2	6	6	7	7	9	8	5	7	9	12	13	14	18

OCTOBER 1975

UNIT=GAMMAS G.M.T.

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
1	20	15	6	4	5	6	6	6	7	2	0	2	3	2	3	2	1	1	5	5	5	4	2	1
2	0	0	2	2	2	5	7	8	10	8	7	6	5	4	6	9	12	13	14	13	12	12	13	13
3	11	10	11	11	12	13	18	23	26	22	15	17	11	7	6	6	7	6	4	-6	-15	-12	-12	-21
4	-25	-24	-21	-21	-21	-20	-21	-18	-15	-12	-13	-11	-12	-14	-12	-11	-10	-10	-10	-9	-10	-14	-18	-15
5	-11	-5	-1	-6	-8	-8	-9	-11	-13	-17	-13	-10	-11	-14	-10	-5	-1	-2	-2	-2	-3	-2	-2	1
6	2	0	0	-4	-9	-16	-22	-29	-39	-43	-47	-38	-24	-23	-25	-24	-25	-29	-31	-28	-27	-28	-25	-23
7	-21	-20	-30	-36	-32	-27	-24	-31	-42	-48	-34	-25	-31	-31	-35	-31	-24	-23	-29	-31	-32	-33	-23	-22
8	-30	-30	-36	-36	-35	-33	-31	-40	-45	-48	-44	-33	-35	-37	-39	-39	-36	-33	-40	-46	-40	-38	-40	-48
9	-37	-34	-32	-43	-45	-44	-50	-49	-37	-32	-27	-27	-31	-30	-25	-24	-27	-28	-27	-20	-23	-25	-27	-26
10	-31	-35	-37	-38	-44	-51	-41	-40	-32	-24	-22	-24	-26	-34	-31	-28	-28	-31	-36	-35	-33	-30	-29	-25
11	-28	-31	-28	-27	-28	-25	-25	-22	-19	-16	-15	-13	-16	-18	-14	-11	-14	-18	-21	-26	-27	-30	-29	-33
12	-31	-27	-30	-26	-26	-30	-32	-32	-29	-26	-22	-21	-19	-19	-18	-23	-27	-29	-35	-29	-26	-23	-22	-22
13	-20	-19	-19	-18	-22	-25	-26	-24	-18	-14	-12	-15	-15	-15	-15	-13	-13	-13	-12	-16	-19	-18	-20	-21
14	-23	-21	-15	-14	-15	-15	-15	-15	-17	-28	-25	-27	-24	-20	-17	-19	-23	-23	-21	-20	-16	-15	-13	-13
15	-13	-11	-10	-10	-10	-9	-8	-6	-4	-4	-5	-6	-2	-4	-5	-5	-5	-6	-5	-1	0	2	3	8
16	10	5	3	0	0	-3	-4	-3	-3	0	3	2	2	3	6	5	-1	-3	-7	0	-1	-7	-11	-11
17	-12	-4	-2	-2	-2	-5	-10	-11	-12	-13	-16	-14	-7	-5	-5	-3	-7	-10	-11	-11	-9	-10	-10	-10
18	-9	-5	-3	-4	-9	-10	-9	-9	-6	-2	1	0	-2	-5	-4	-3	-3	-5	-1	-1	-5	-4	-4	-2
19	-1	1	4	5	3	1	1	1	2	5	6	5	7	5	5	4	5	3	5	6	2	1	2	1
20	0	-1	3	2	0	2	3	0	0	2	4	6	2	1	3	3	3	5	5	4	2	0	1	0
21	-5	2	-5	-7	-8	-7	-9	-12	-14	-9	-2	1	5	5	4	4	1	-1	0	1	0	-4	-2	2
22	5	3	7	5	4	3	-3	-10	-13	-8	-2	2	2	0	6	9	7	4	3	2	-2	-5	-5	-5
23	-1	2	0	0	-1	1	2	-1	-5	-4	-1	4	8	7	9	10	10	13	13	10	8	2	-1	-4
24	-6	-9	-6	-2	0	0	-4	-4	-6	-4	-3	1	1	0	-1	-1	-1	-2	-3	-3	-2	-1	-1	-2
25	0	3	4	3	3	5	5	6	6	7	8	6	6	8	11	11	10	9	9	6	8	7	5	3
26	5	8	7	7	7	6	5	4	4	4	6	11	9	2	3	-1	-6	-5	-1	7	3	4	1	4
27	7	-1	-7	-13	-14	-14	-12	-9	-5	-3	1	3	0	-2	-1	-2	-2	-2	0	1	0	0	1	2
28	5	6	5	4	1	1	1	3	5	1	5	10	13	16	21	18	21	23	8	1	-11	-21	-30	-28
29	-23	-26	-28	-29	-29	-31	-33	-38	-32	-23	-18	-18	-19	-18	-16	-12	-13	-13	-13	-13	-12	-12	-13	-13
30	-16	-16	-17	-15	-15	-16	-19	-15	-11	-8	-3	-1	-3	-6	-4	-4	-4	-5	-3	-4	-9	-16	-13	-7
31	-8	-13	-21	-27	-35	-28	-31	-43	-51	-41	-35	-28	-22	-19	-17	-17	-28	-38	-41	-36	-32	-30	-29	-27

NOVEMBER 1975

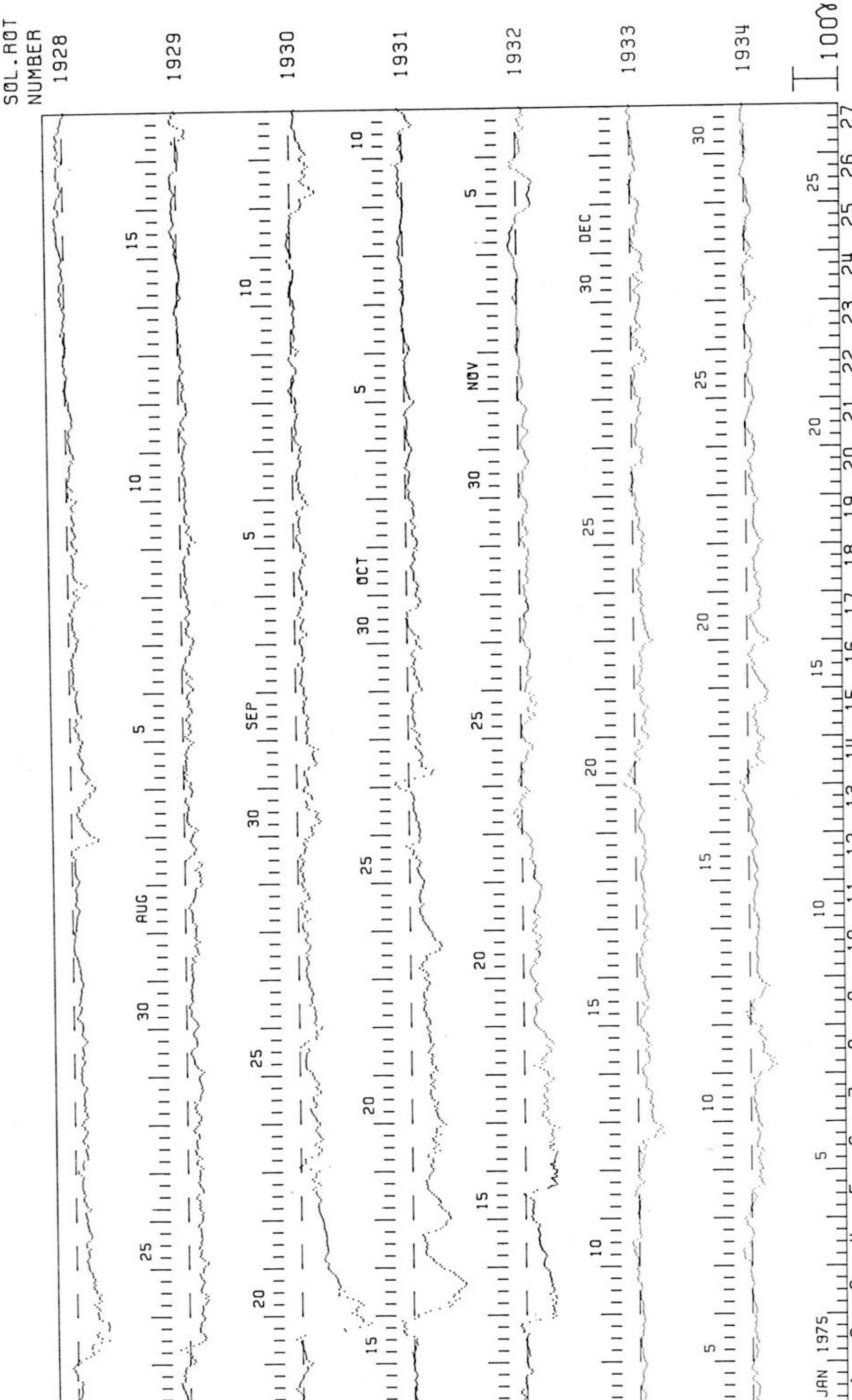
UNIT=GAMMAS

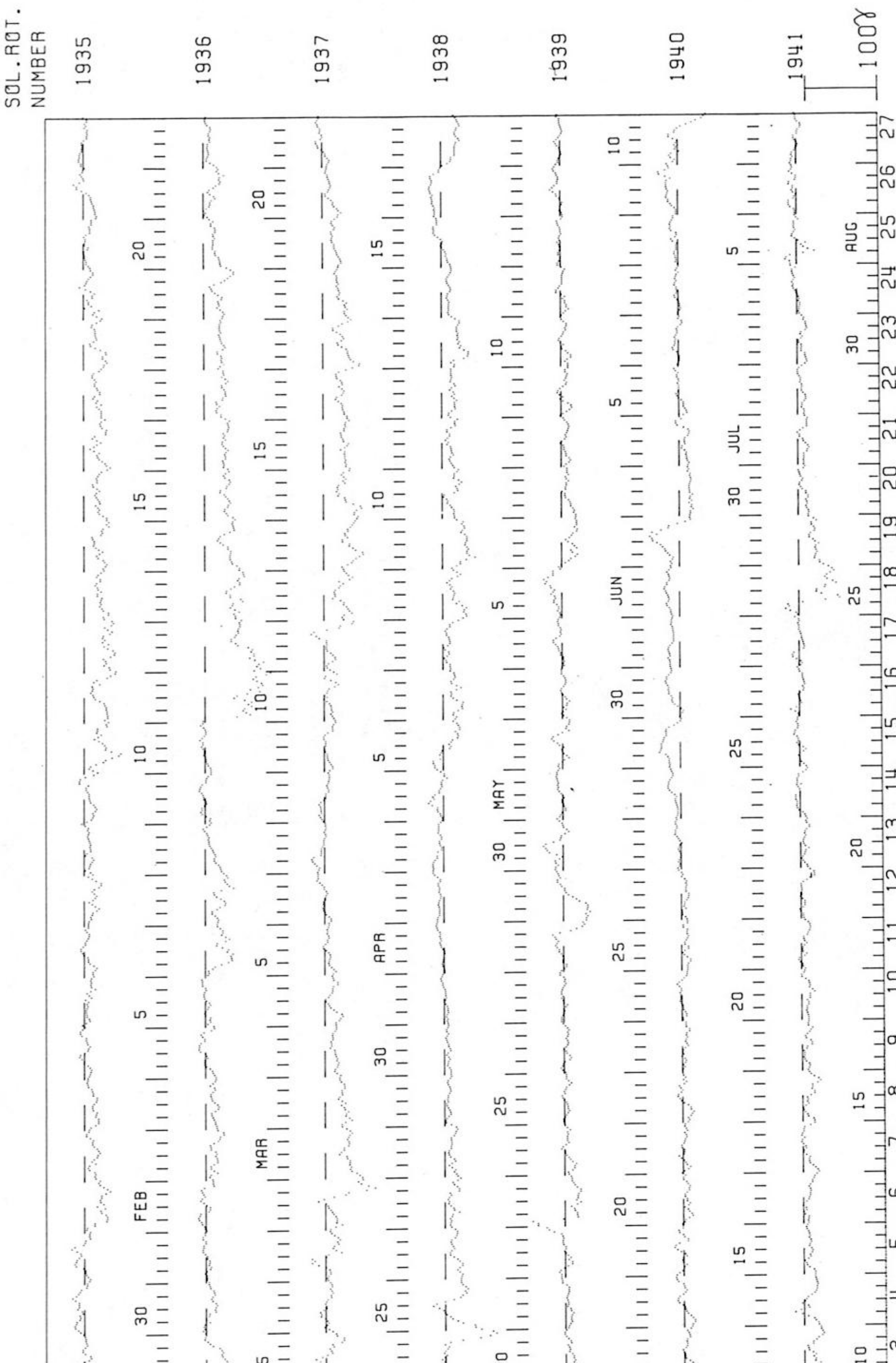
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	G.M.T. 24
1	-25	-22	-18	-19	-21	-19	-19	-22	-21	-16	-8	-5	-4	-6	-6	-8	-10	-9	-7	-6	-7	-6	-5	-8
2	-3	-2	-7	-12	-11	-12	-12	-9	-5	-4	-1	-18	-31	-31	-22	-21	-29	-36	-51	-54	-61	-55	-55	-53
3	-48	-50	-53	-53	-57	-61	-64	-68	-74	-68	-59	-49	-51	-47	-48	-51	-51	-58	-55	-61	-60	-64	-69	-64
4	-53	-50	-48	-59	-62	-53	-56	-54	-54	-49	-44	-37	-38	-40	-41	-39	-46	-48	-42	-41	-40	-37	-34	-27
5	-22	-19	-22	-23	-24	-23	-32	-34	-27	-24	-30	-29	-27	-27	-27	-31	-41	-39	-35	-34	-35	-38	-35	-34
6	-31	-33	-33	-30	-31	-33	-31	-28	-27	-28	-28	-29	-26	-23	-18	-20	-26	-24	-23	-21	-22	-21	-21	-19
7	-16	-17	-22	-23	-23	-20	-16	-15	-15	-17	-17	-19	-22	-21	-19	-21	-21	-25	-22	-21	-20	-22	-23	-22
8	-18	-18	-17	-16	-17	-18	-20	-20	-22	-21	-21	-21	-21	-22	-21	-18	-19	-18	-18	-18	-21	-24	-25	-24
9	-24	-21	-15	-12	-5	-5	2	-4	-22	-30	-28	-27	-26	-25	-38	-62	-36	-106	-110	-96	-88	-92	-85	-78
10	-67	-57	-43	-36	-36	-37	-37	-32	-31	-22	-20	-19	-17	-18	-21	-25	-19	-22	-25	-38	-33	-40	-50	-42
11	-44	-41	-37	-32	-31	-32	-31	-28	-26	-24	-22	-22	-21	-18	-15	-14	-15	-18	-24	-24	-24	-23	-22	-22
12	-24	-34	-30	-27	-23	-21	-20	-18	-17	-16	-17	-16	-17	-15	-15	-19	-19	-21	-21	-21	-21	-21	-19	-18
13	-16	-13	-12	-12	-11	-10	-8	-8	-8	-8	-6	-5	-5	-3	-4	-7	-10	-11	-12	-10	-7	-7	-7	-8
14	-6	-5	-4	-5	-3	-4	-6	-7	-7	-6	-7	-7	-7	-7	-7	-8	-8	-8	-7	-8	-12	-12	-11	-10
15	-10	-9	-7	-6	-3	-5	-7	-4	-2	-1	-1	-2	-3	-3	-4	-5	-5	-7	-7	-7	-7	-5	-4	-8
16	-11	-9	-10	-14	-15	-13	-15	-14	-11	-15	-18	-18	-14	-12	-6	-2	0	2	3	0	4	5	7	16
17	16	17	12	14	15	17	24	23	20	17	13	0	-20	-38	-51	-63	-75	-82	-87	-88	-89	-89	-80	-70
18	-54	-48	-44	-40	-36	-33	-32	-27	-20	-12	-16	-13	-15	-14	-13	-14	-16	-16	-14	-14	-15	-14	-11	-5
19	2	0	0	-1	0	-1	-11	-11	-8	-7	-10	-11	-9	-6	-2	-1	-1	3	3	-7	-13	-13	-13	-13
20	-12	-11	-5	-4	0	1	0	-1	-2	-5	-5	-3	6	11	10	5	-2	-8	-9	-6	-9	-13	-9	-5
21	-8	-6	-3	-5	-10	-16	-18	-22	-20	-24	-30	-24	-19	-17	-15	-12	-13	-14	-12	-16	-16	-17	-15	-2
22	3	2	9	9	8	6	7	-7	-22	-19	-24	-36	-33	-39	-46	-73	-85	-77	-97	-96	-90	-90	-87	-81
23	-70	-59	-53	-47	-41	-40	-37	-28	-25	-23	-24	-24	-24	-22	-20	-20	-22	-22	-25	-25	-26	-25	-24	-21
24	-17	-17	-16	-13	-13	-11	-12	-12	-11	-10	-8	-1	4	5	4	-11	-11	-21	-25	-29	-33	-33	-30	-26
25	-23	-19	-22	-21	-18	-22	-21	-21	-22	-21	-23	-14	-7	-6	-6	-18	-14	-16	-13	-13	-16	-16	-11	-12
26	-11	-11	-10	-9	-9	-5	-4	-5	-4	-16	-24	-21	-15	-7	-7	-10	-9	-11	-10	-9	-9	-9	-7	-9
27	-16	-20	-19	-16	-11	-10	-10	-10	-13	-14	-13	-12	-11	-12	-14	-11	-11	-10	-9	-9	-10	-10	-9	-9
28	-10	-6	-6	-4	-4	-9	-15	-10	-7	-5	8	13	9	5	6	2	-2	-1	-1	-3	-5	-4	1	0
29	-1	-3	-2	3	7	15	4	-15	-12	-8	-17	-26	-27	-30	-26	-31	-40	-46	-44	-43	-44	-43	-47	-45
30	-40	-41	-48	-38	-33	-36	-39	-37	-35	-33	-25	-27	-27	-30	-34	-33	-32	-36	-37	-37	-45	-46	-39	-29

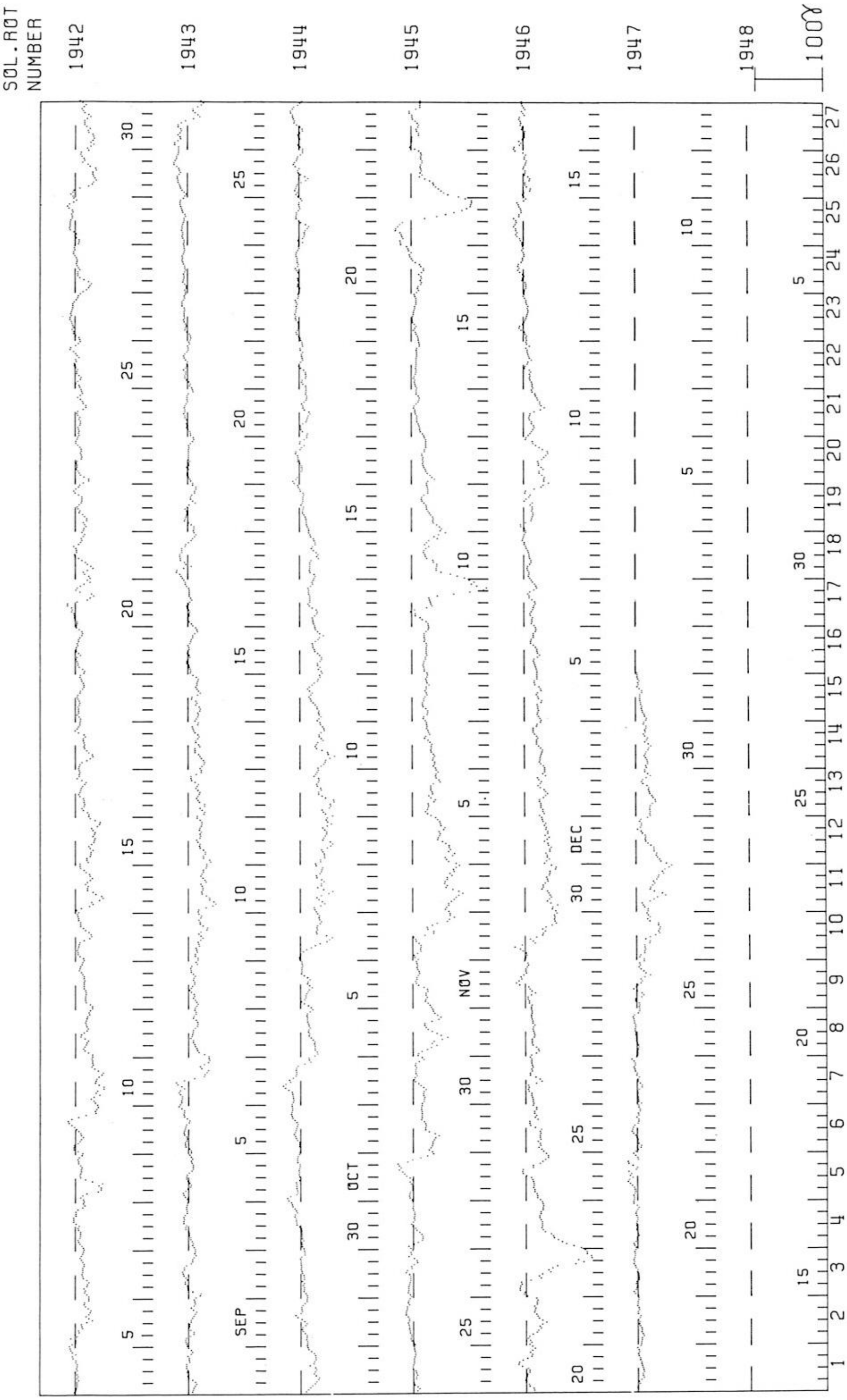
DECEMBER 1975

UNIT=GAMMAS

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


SØL.RØT NUMBER
1928
1929
1930
1931
1932
1933
1934
100γ
JAN 1975
AUG
SEP
OCT
NØV
DEC


SØL.RØT. NUMBER
1935
1936
1937
1938
1939
1940
1941
100γ
FEB
MAR
APR
MAY
JUN
JUL
AUG


SOL.ROT NUMBER
1942
1943
1944
1945
1946
1947
1948
100γ
SEP
OCT
NOV
DEC

DAILY MEANS OF EQUATORIAL DST FOR 1975

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	-9	-23	-13	-5	7	11	-7	1	-5	5	-12	-32
2	-2	-12	-12	1	-8	-15	-1	6	-2	8	-25	-25
3	7	-12	-1	5	-17	-9	2	1	1	7	-58	-21
4	-11	-2	-1	-1	-9	-6	2	0	-1	-15	-46	-20
5	-19	-7	-23	-6	-19	-6	6	-12	4	-7	-30	-15
6	-13	-5	-22	-9	-30	-5	15	-13	-7	-23	-26	-12
7	-34	-13	-9	-8	-16	-3	-3	-6	-10	-30	-20	-5
8	-16	-7	1	-26	-12	1	-40	-15	-8	-38	-20	-11
9	-18	-8	1	-38	-15	4	-27	-8	-17	-32	-45	-23
10	-16	-25	-62	-32	-24	1	-17	-30	-25	-33	-33	-16
11	-14	-24	-55	-30	-10	-1	-9	-17	-19	-22	-25	-8
12	-1	-33	-43	-26	1	-1	-8	-13	-15	-26	-20	-3
13	-17	-23	-34	-30	11	-7	-8	-9	-14	-18	-9	1
14	-27	-23	-31	-24	-20	0	-6	-20	-13	-19	-7	7
15	-20	-20	-29	-17	-6	2	-10	-25	-4	-5	-5	-3
16	-23	-22	-24	-11	0	-5	-8	-10	0	-1	-7	2
17	-23	-19	-23	2	-6	-2	-8	-12	4	-8	-27	-4
18	-21	-20	-24	1	-4	-3	-5	-7	-4	-4	-22	-3
19	-14	-9	-15	1	4	-4	-5	-5	-2	3	-5	3
20	-9	-6	-13	-12	-10	-1	-6	-6	1	2	-3	2
21	-11	-4	-7	-15	-5	-7	1	-10	1	-3	-15	7
22	-8	0	5	-15	-3	-4	1	-9	4	0	-40	0
23	-4	-19	-12	-12	-3	4	-1	-7	5	3	-31	0
24	-7	-19	-4	-11	1	11	0	-8	7	-2	-14	1
25	0	-16	-2	-6	-2	18	-27	-3	13	6	-16	-5
26	3	-6	-5	-6	-11	12	-21	1	1	4	-10	-20
27	-1	0	-24	-1	8	12	-7	-7	-18	-3	-12	-29
28	-10	1	-32	4	3	16	-9	3	-5	3	-2	-13
29	3	0	-25	7	0	17	-6	-17	-3	-21	-22	-19
30	7	0	-13	8	-2	-15	-8	-19	4	-10	-36	-15
31	2	0	-12	0	3	0	2	-3	0	-29	0	-7
MEAN	-11	-13	-18	-10	-6	1	-7	-9	-4	-10	-21	-9

ANNUAL MEAN -10

REFERENCES TO OTHER INDICES

Q QUARTER HOURLY DISTURBANCE INDEX FOR HIGH LATITUDE STATIONS

The Q - index was introduced in order to enable a precise correlation of geomagnetic activity with ionospheric, auroral and other observations for stations at latitudes higher than 58°. (Ref.: IAGA-resolutions Toronto 1957 and Helsinki 1960). It is a quarter hourly measure, on a quasi logarithmic scale, of the maximum deviation in γ's of the most disturbed horizontal component from its normal quiet-day value (the highest value of either ΔH and ΔD, or ΔX and ΔY). When the trace shows both positive and negative deviations during a 15 minute-interval, however, the total range is used instead.

The relation between Q and this deviation (or range) Δ is as follows:

Q =	0	1	2	3	4	5	6	7	8	9	10(T)	11(E)
$\Delta \leq$	10	20	40	80	140	240	400	660	1000	1500	2200	>2200

The details of the scaling technique of the Q-indices are explained in:

J. Bartels and N. Fukushima, Abh. Akad. Wiss. Göttingen, Math.-Phys. Klasse, Sonderheft 3 (1956).

or: J. Bartels, Annals of the IGY, 4, 220 - 236 (1957).

Since the IGY Q-indices have been determined and published for certain periods of time by 26 stations. In recent years only Sodankylä seems to have continued this practice. Mimeographed publications are available directly from this observatory.

The following data are available through the World Data Centers for Geomagnetism: (IGY = 7.57 - 12.58).

Arctica III	5.59 - 3.60	Welen	7.57 - 11.59, 64, 65
Heiss Isl.	64, 65	College	7.57, 6 - 9.58
Tikhaya Bay	7.57 - 2.59	Baker Lake 1)	IGY
Murchison Bay	7.57 - 7.59	Yellowknife 1)	7.57 - 7.58
C. Chelyuskin	IGY, 59, 64, 65	Nurmijärvi	5 - 6.61
Thule	IGY	Lerwick	IGY
Resolute Bay 1)	IGY	Eskdalemuir	IGY
Dikson	7.57 - 9.59, 64, 65	Macquarie Isl.	IGY
Tiksy	IGY, 64, 65	Mirny	IGY, 3 - 10, 59, 64, 65
P. Barrow	7.57 - 8.58	Mawson	IGY
Godhavn	IGY	Novolazarevskaja	64, 65
Kiruna 2)	7.57 - 12.61	Halley Bay	IGY, 7.60 - 10.62
Sodankylä	1.57 - today	Vostok	64, 65
		Base Roi Baudouin	5.58 - 2.59

1) Publications of the Dominion Observatory, Ottawa, Vol. 27, No. 4 (1963)
2) Kiruna Geophysical Data, Data Report No. 631 (febr. 1963)

R HOURLY DISTURBANCE INDEX FOR HIGH LATITUDE STATIONS

For some observatories in geomagnetic latitudes higher than about 65°, hourly R-indices are available. The R-index is defined as the absolute hourly range in each horizontal component, expressed in tens of gamma (Ref.: IAGA resolution, Berkeley 1963).

The hourly range in the horizontal component was introduced as a measure of magnetic activity by Russian workers (especially Nikolski).

R-indices for Canadian stations are given in the magnetic yearbooks (Publications of the Dominian Observatory, Ottawa, Canada up to and including Volume 39; thereafter Publications of the Earth Physics Branch), for the stations:

Resolute Bay and Baker Lake (IGY and from 1960 onwards).
Alert (starting 1 October 1961).
Mould Bay (starting 1 August 1962).
Fort Churchill (IGY and from 1966 onwards).
Great Whale River (starting 1 January 1967).

Prior to 1964 the hourly range was measured at the Canadian arctic observatories in the principal horizontal component only, from 1964 onwards it was measured in both components X and Y.

R-indices of the stations Thule and Godhavn (Greenland) are determined since 1964, for the components H, D and Z. They are published in the magnetic yearbooks for these stations, which are issued by the Meteorologisk Institut, Charlottenlund, Denmark.

Daily, monthly and yearly mean values of R-indices (based on the H-component) from arctic and antarctic USSR-stations for the period 1934 through 1967 are given in a publication of the Arctic and Antarctic Institute, Fontanka 34, Leningrad (1970). This concerns the following stations:

Welen (1935 - '47, 1951 - '67),
Tiksi (1944 - '67),
Dikson (1934 - '67),
C. Chelyuskin (1935 - 167),
B. Tikhaya (1934 - '58),
O. Cheisa (1958 - '67).
Arctic drifting stations:
NP 3 - 13 (1954 - '67).

Mirny (1956 - '67),
Molodezhnaya (1964 - '67),
Lazarev (1960 - '61),
Novolazarevskaya (1961 - '67),
Vostok (1958 - '67).

R-indices of the station Loparskaya (near Murmansk) from 1954 onwards are available at WDC - B2, Molodezhnaya 3, Moscow, 117-296, USSR. These indices are also given in the publication "Auroral Phenomena" of the Polar Geophysical Institute, Ac. of Sciences of the USSR, Apatity, starting with the year 1970.

AE AURORAL ELECTROJET ACTIVITY INDEX

AE, at any instant of time, is the range of deviation from quiet time reference levels of the horizontal magnetic field (H) around the auroral oval. In practice, it is defined as the largest positive deviation (AU) minus the largest negative deviation (AL) from the H-variation records of a network of northern hemisphere auroral zone magnetic observatories. The average $\frac{AU+AL}{2}$ is called AO, an auxiliary auroral electrojet index. These indices may be derived from instantaneous values of H-deviations, or from averages over any suitable time interval.

(Ref: IAGA-resolution 2, Madrid 1969 and IAGA-resolution 13, Moscow 1971. For complete definition see: Davis, T.N. and Sugiura, M., J. G. Res. Vol. 71, 3, p. 736 - 792, 1966).

For the period January 1966 through December 1974, 2.5-min and hourly average AE, AU, AL and AO indices have been derived by the National Geophysical and Solar-Terrestrial Data Center of NOAA in the U.S.A. A network of stations as uniformly spaced in longitude as possible, was used. The number of stations contributing data to the derivation for each month is indicated parenthetically in identifying the index, such as, AE(10) or AE(11). These indices are available on magnetic tape from World Data Center A for Solar-Terrestrial Physics, National Oceanic and Atmospheric Administration, Boulder, Colorado 80302, U.S.A. Daily graphs of the 2.5-min indices are available on 35mm microfilm. Annual summaries of the hourly average indices, explanatory text, and 2.5-min daily graphs have been published for these years in the WDC-A UAG Report series. Graphical representations of AU, AL, and AE appear for some intervals of special interest in Solar-Geophysical Data, Part II (Comprehensive Reports), published monthly by NGSDC.

For the period September 1964 through 1965, the indices AE, AU, and AL for each 2.5-min and as hourly averages were derived at the NASA Goddard Space Flight Center. For July 1957 through September 1964, hourly values of AE were derived and published by the Geophysical Institute, University of Alaska. These indices are available from WDC-A for STP on either magnetic tape or 35 mm microfilm. All AE indices have been exchanged with other WDC's as outlined in the Guide to International Data Exchange, ICSU, December 1973.

TABLE 1 STORM SUDDEN COMMENCEMENTS (ssc) 1975

Sudden commencements followed by a magnetic storm or period of storminess. For explanation see pages IX and X.

JANUARY

06 1957 (54-60) A: SU IK SF TA SJ BA HU LM HR - B: TP TU SZ GU PM PP TO DU - C: NE MT KA KY HO - (si: A: LG PE QU TE TW; B: AQ EB SS GN)

07 2322 (14-29) A: OT SU TL FR AE QU SJ GU LM TW; B: CO SI HL WN SW VL FU AQ IK EB PE TP BA PM HU PP TO CZ KG; C: ES WI NI DB BU NE CF HB MT KA TU KY HO DU - (si: A: SF TA; B: BE TE HR; C: SS)

FEBRUARY

23 0826 (22-28) B: SW PE QU SJ BA PM LM TO; C: MT KA SS KY PP - (si: B: TA - bp: B: KG)

MARCH

09 2251 (42-59) A: SO CF LG KS; B: BE DB BU; C: LE WN - (si: HL - bp: B: VL EB)

23 2208 (05-09) A: LG SJ; B: BA PM HU AC TW; C: SI EB AE PP - (si: A: SU SF KS LM; B: HL TA HR - b: C: CF - cr: A: TL - sfe: HO)

APRIL

none

MAY

16 0308 (05-15) A: BU VI SU LG FR PE AE KS TA TE SJ BA HU AC TW; B: SO CO ES HL WN WI SW VL BE DB BU FU HB MT AQ IK EB KA TU KY HO GU PM LM GN TO; C: LN NI NE CF CI TL SZ PP TN - (si: B: NU HR)

19 1951 (48-54) A: SO CO LE NU ES WN WI VL DB VI HB OT SU LG AQ IK EB TL FR PE AE KS TU QU SZ TA HO TE SJ GU BA HU AP LM AC DU; B:DO HL SW BE BU FU CF MT CI KA KY PM GN HR TO CZ KG; C: NI NE -(si: B: SS)

25 1630 (24-34) A: LG; B: SW QU; C: WN? TL PE BA

27 0634 (29-40) A: LG KS TA SJ BA; B: QU PP? LM AC TW; C: AQ EB TL PE AE - (si: A: TE; B: HL TN; C: MT KA KY - bs: A: HU)

JUNE

01 1002 (58-08) B: BU BA AC; C: WN WI IK AE

01 1239 (38-40) B: PM TO; C: DU - (bp: C: MT KA KY)

JULY

06 1721 (18-25) A: LG PE AE SF KS QU TA TE SJ BA AC TW; B: LEES HL WN WI SW VL BE DB BU FU CF HB SU AQ IK EB TL SZ PM HU LM; C: NI CI PP TN - (si: B: DO; C: MT KA KY)

09 1206 (05-08) B: TW; C: WN BU - (si: A: TE; B: HL - sfe: BA)

TABLE 1 STORM SUDDEN COMMENCEMENTS (ssc) 1975 - continued

JULY continued

25 0221 (10-24) A: LG SF KS TA TE SJ AC TW; B: CO LE ES HL WN WI SW FU AQ IK PE QU BA PM HU; C: NI VL DB BU NE CF HB EB TL SS SZ - (si: C: HO - sfe: TN)

31 2215 (10-20) A: CO SU LG KS TA SJ AC TW; B: ES HL WN VL BE DB BU VI FU AQ IK EB PE AE QU HO GU BA; C: WI NI NE CF HB SS TU SZ AP PP? - (si: A: OT FR SF TE; B: LM; C: MT TL? KA KY - b: B: NU)

AUGUST

08 0315 (07-18) A: DB SU LG SF AC TW; B: HL WN WI VL BU FU CF AQ IK TL PE QU TA BA PM HU; C: VI HB EB PP? - (si: A: AE SJ LM; B: KY; C: MT KA HR - b: SW - bp: B: KG)

SEPTEMBER

06 1045 (43-50) B: SO BU TA; C: WN VL HB - (si: A: SF TN; B: HL SU IK - sfe: TL)

OCTOBER

03 0618 (17-19) A: LG; B: HL QU; C: NE PP? - (si: B: AC; C: BA - bs: B: HU)

03 1115 (11-16) A: SU LG TA AC; B: WN VL BE DB FU AQ IK PE AE QU LM CZ KG; C: LE ES WI NI BU CF HB EB TL SZ BA - (si: A: NU; C: PP - bp: C: VI - sfe: SS)

14 0617 (09-19) A: AC; B: VI QU SJ BA GN TO TW; C: PP - (si: A: SF TA; B: HL VL LG AE LM; C: EB HO - bs: B: HU)

NOVEMBER

21 2305 (02-07) A: LG AE SJ LM; B: IK CI FR QU TA HO GU BA PM HU PP DU; C: WI NI BU VI CF EB - (si: A: CO SU SF; B: NU HL PE HR; C: TL?)

24 1109 (07-11) B: BE IK PE SF QU; C: BA LM - (si: A: TA)

DECEMBER

none

TABLE 2a SOLAR - FLARE EFFECTS (sfe) 1975

Times of commencement of solar-flare effects (sfe) checked by 54 observatories, namely: SO CO DO NU SI WN WI NI VL GT CM DB BU NE FU HB OT MT LG AQ IK EB CI BD TL FR PE KA TP SS TU KY QU LP HO AL SJ HD MU GU PA BA PM HU GN HR AC TO TW CZ KG MI DU MW. Stations from which the monthly reports have been used, although their checking lists were not received, are the following ones: SU SZ TE PP TN LM. Strong effects are marked by an asterisk. See also page X.

JANUARY - JUNE

none

JULY

31 1328 A: SO DO NU FU OT LG PE AC TW - B: SI WN GT DB NE [CF] HB AQ IK CI FR QU LP (HO) AL SJ (HD) (MU) (GU) - C: CO WI NI BU BD TP TU BA HR CZ KG - D: EB TL PA

AUGUST

22 1228 A: CM PE AC - B: SO WN GT DB BU FU IK CI [SZ] BA - C: DO NU NI HB LG AQ TL TP SJ PA HR - D: WI OT EB QU CZ KG - E: (CO) (SI) BD FR (MW) - X: TW (si: AE)

SEPTEMBER - DECEMBER

none

TABLE 2b DOUBTFUL SOLAR-FLARE EFFECTS (sfe) 1975

Times of commencement of presumed solar-flare effects checked by 54 observatories, the same as for Table 2a. Effects which very probably are real sfe's indicated by an asterisk. See also pages X and XI.

JANUARY

none

FEBRUARY

none

MARCH

none

APRIL

24 1700 B: LG PE [TE] SJ TW - C: NU DB CI BD PA AC - D: DO WN WI NI GT BU FU HB AQ EB TL - E: SO CO SI NE OT (IK) FR TU HO (HD) (DU)

MAY

none

JUNE

09 2130 A: OT (LG) FR - B: (SO) CO SI (WN) NE (EB) TU SJ GU - C: SS LP HO - D: MT KA KY PA PM - E: (DU) - X: HB - (b: C: HD)

11 1148 A: WN DB FU BA - B: NU GT HB CI (SS) (HO) (GU) - C: NI LG IK TL TP QU SJ HD HR CZ - D: DO WI BU AQ EB PE AL PA AC - E: SO (CO) (NE) OT BD FR (TU) KG DU

25 0711 A: NU (OT) (AC) (TW) - B: SO CO (SI) (NE) [SU] LG (FR) (TU) QU LP (HO) AL (SJ) HD MU GU (HU) [TN] (MI) - C: DO WN NI GT HB IK CI TP SS BA HR TO CZ - D: WI DB BU FU MT AQ EB TL PE KA KY PM GN - X: KG - (si: [LM])

27 1738* A: SO OT LG FR AC - B: WN GT HO SJ HU TW - C: CO DO SI WI NI DB NE FU CI TU - D: NU BU HB AQ EB BD TL PE PA - E: (IK) - X: QU

JULY

22 1411 A: BA - B: WN GT DB FU HB LG PE TP QU (AL) SJ - C: SO DO SI WI NI BU NE AQ IK CI FR TU PA HU HR AC TW - D: CO NU OT EB BD TL - E: (SS) (LP) - X: MI DU

TABLE 2b DOUBTFUL SOLAR-FLARE EFFECTS (sfe) 1975 - continued

(JULY)

29 2021 A: {LG} - B: {WN} FR {AL} SJ HU - C: SI NE OT BD SS TU HO GU AG TW - D: MT KA KY PA PM - E: CO

AUGUST

02 1426 A: CM - B: (HO) BA - C: CO WN NI GT DB LG CI TU SJ HR - D: SO DO NU WI OT BU HB EB TL PE TP PA AC TW - E: SI NE FR (SS) (HD) (GU) (DU) - si: FU

07 0133* B: HD MU GU - C: MT KA SS KY LP - D: SO CO SI NE BD TP TU QU HO AL PM GN TO MI DU

07 1500 B: WN BA - C: SI NI GT CI SJ HU AC - D: WI DB BU FU HB LG AQ IK EB TL PE TU PA HR TW - E: (CO) DO {NE} OT BD FR (HD) (DU)

21 0910 A: SO - B: WN VL CZ - C: NU NI GT DB FU LG IK MU BA HR - D: WI BU HB MT AQ CI EB TL PE KA TP SS KY QU LP AL GN - E: DO {FR} HD MW

21 1517* A: CM AC TW - B: WN GT BU FU - C: SO CO NU WI NI DB HB LG PA BA HR - D: OT AQ IK EB CI TL - E: DO SI NE BD FR PE TU SJ (HD) HU

22 0115 A: MU - B: {NU} SS LP PP - C: AL - D: MT KA KY QU PM GN MI - E: {SO} CO {DO} SI (BU) NE {OT} (IK) BD {FR} TU HO (SJ) HD GU (HR) TO KG DU

SEPTEMBER

none

OCTOBER

none

NOVEMBER

none

DECEMBER

none

TABLE 3 REMARKABLE EVENTS 1975

Times of commencement and ending of presumed remarkable events checked by 45 observatories, namely: SO CO NU SI WN WI NI VL GT DB BU NE FU HB OT MT LG AQ IK EB CI BD TL FR PE KA SS TU KY QU HO SJ MU GU PA BA PM HU GN HR TO CZ KG MI MW. Period in minutes and amplitudes in γ's, as reported by some stations, are added in parentheses, e.g. (7.2-5) means period 7.2 minutes, amplitude 5γ. Beginning or ending times of the respective phenomenon are given in square-brackets if clearly deviating from the times at the left. See also page XI.

JANUARY

none

FEBRUARY

pg

21 1550 -1710 B: CO (6-30) GT LG EB CI; C: SI (NI) BU [1620-1632] (11-16.8) NE BD FR PE TU QU HO SJ GU BA HR MW; D: 19; E: OT MI - X: PA KG - (si: TL - pi2: GT [1638-1643] - pc: CO)

MARCH

none

APRIL

none

MAY

pg

05 1545 -1750 B: CO (3-15) SI (4-10) FR GU (10-5); C: (NI) NE LG BD (0.8-3) TL [1340-1550] PE TU QU HO SJ MU BA HR; D: 20 - E: OT MI MW - X: SS -(pi2: KG (1.5-24)

pi2

13 2042 -2058 A: SO NU (-22) GT BU (1.3-12.7) FU (1.2-15) [-2048] AQ (1.5-7) IK (1.5-6) EB TL PE (1-2) HO (-7) SJ MU GU HU HR (1.5-7.5); B: NI [2024-] MT (0.7-0.46γ/s) CI BD (1.3-5) FR KA SS (0.7-0.18γ/s) [1924-] TU (1.5-3) QU GN CZ (1.3-6); C: CO (-4) SI (-7) WI (2-8) DB NE LG KY TO KG (1.3-18); D: 4; E: OT MW - (ssc: SO - bp: B: VL - pi1: BA (-13) [2011--2108])

pg

25 1630 -1800 A: FU (25-10) LG; B: CO (5-7) NU (24-60) WI (24-45) DB BU (8.3 - 19.2) [17..-1750] NE (7-15) FR (7-15) QU HO (7-5) SJ (8-10) GU BA (- 14) C: SI GT BD (25-20) TL [1026-] TU PA (10-12) KG (8.3-2); D: 16; E: OT AQ - (ssc: PE - pi2: C: SS (1.3-0.08γ/s) [1649-] - pc5: B: NI)

JUNE

none

JULY

pi1

08 0818 -1115 A: MT (0.5-1.28γ/s) KA [0903-0920]; B: GT NE (-5) BD (0.6-10) FR TU KY (0.6-0.85γ/s) [0903-0920] HO BA (-4) [0902-0910] ;C:SO [0803-0835] NI

TABLE 3 REMARKABLE EVENTS 1975 - continued

pi1

08 0818 BU (0.6-3.3) [0904-0919] QU SJ GU KG (0.6-2); D: 15; E: CO SI OT TL
-1115 TO MI MW - pi2: B: SS (0.7-0.14γ/s) [-1054] - pc3: B: GT; C: NI)

pg

29 1410 B: CZ (0.9-9) MI; C: CO SI NE LG FR TU MU BA D: 3%
-1650

AUGUST

none

SEPTEMBER

pc1 (pearls)

06 0350 B: SO [0432-] NI [0406-06..] TU MU CZ (2.2s-50) KG (1.6s-50) MW; C:
-0555 SI NE QU SJ GU BA (-03) [0439-0505] ; D:23 (pc4: B: FR - pc5: B:CO(4-3)

OCTOBER

none

NOVEMBER

none

DECEMBER

none

Indices	6	7	8	9
UT	06 12 18	06 12 18	06 12 18	06 12 18
Kp	3o 2+ 2o 2+ 3+ 3+ 5- 6+	8- 5+ 5o 3+ 3+ 3- 2+ 3-	3+ 4o 5o 5o 5+ 4+ 5o 2+	2o 2+ 3- 2+ 2o 2o 1- 1+
3Kn	7 5 5 8 10 10 14 17	19 13 12 9 10 8 5 8	9 11 14 14 15 14 15 8	5 6 8 7 7 7 3 4
3Ks	7 6 5 6 9 9 14 15	18 12 11 9 9 9 8 9	13 12 15 14 13 11 15 9	6 4 6 6 6 5 4 4
Dst				

JANUARY 1975

Values underlined are for X and Y,
X, Y, H and Z are given in gammas,
D in minutes.

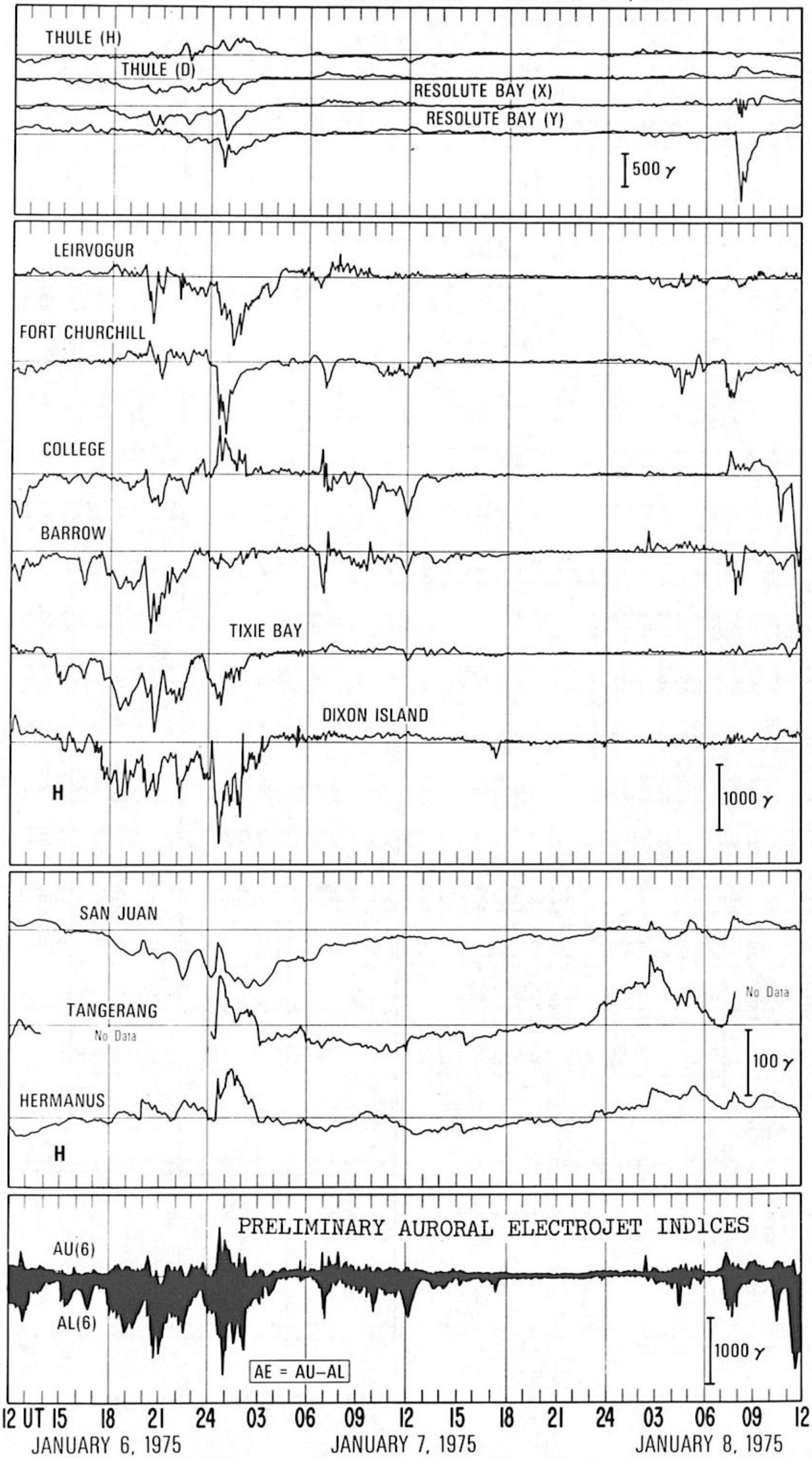
Data from Individual Observatories:

OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
TR	67.2N	6	08--	..	..	..	..	07(1) 08(7)	7	390	1420	1355	08	21
CO	64.6N	6	10--	..	..	..	..	06(4,5,7,8) 07(1,3,5)	6	204	1510	760	07	13
SI	60.0N	6	11--	..	..	..	..	07(3)	-	--	650	470	07	13
OT	57.0N	6	1200	..	..	..	..	07(1)	7	84	258	154	07	19
NE	55.1N	6	1957	SC*	4	9	3	07(1)	7	63	130	166	07	20
VI	54.3N	6	1957	SC	- 3.6	+19	+ 4	07(1)	7	64	263	182	09	01
WI	54.2N	6	12--	..	..	..	..	06(8) 07(1) 08(7)	7	47	275	85	08	22
FR	49.6N	6	13--	..	..	..	..	07(1)	6	33	134	39	07	21
BD	48.9N	6	1958	SC*	- 1	28	- 8	07(7)	7	47	133	52	07	18
TU	40.4N	6	1958	SC	- 1	+28	+ 2	06(8) 07(1)	6	28	195	30	09	01
MT	34.0N	6	1957	SC	+ 0.3	+29	- 1	07(1)	6	21	119	28	07	21
SJ	29.9N	6	1430	..	..	..	..	07(1)	6	8	76	40	07	16
KA	26.0N	6	1957	SC	+ 0.3	+18	+12	07(1)	6	13	99	55	07	21
KY	20.5N	6	1957	SC	+ 0.2	+22	+ 8	07(1)	6	11	101	43	07	21
AL	09.5N	6	1956	SC	- 0.9	29	- 9	06(8)	5	7	116	47	07	16
HD	07.6N	6	1957	SI	- 0.5	+31	- 3	07(1)	6	7	115	14	07	21
GU	04.0N	6	1957	SC	--	20	-10	07(1)	6	--	--	--	07	17
AN	01.5N	6	1956	SC	- 1.3	38	21	--	-	7	123	78	07	16
TV	01.1S	6	1956	SC	0.3	30	38	--	-	5	111	98	07	16
PM	18.6S	6	1956	SC	- 0.9	31	17	07(1,2)	5	12	90	70	07	22
HR	33.7S	6	1957	SC	+ 2	+36	+21	07(1) 08(7)	6	33	138	114	08	22
TO	46.7S	6	1958	SC	1.2	12	2	07(1)	5	20	210	50	07	16
CZ	51.4S	6	1957	SC	4	37	2	07(1)	6	28	131	120	07	16
KG	56.5S	6	1957	SC	7	32	9	06(8) 07(1)	7	55	582	462	07	16
MI	60.7S	6	1100	..	..	..	..	08(4)	8	194	1460	1120	09	00
DU	75.6S	6	1957	SC	83	89	80	07(2)	7	910	1190	685	07	08
RB	83.0N	7	2322	SC	+23	+18	+10	08(3) Ranges since 06, 1200	-	1552	765	726	08	12
MX	79.1N	7	2322	SC	+12	+45	+ 6	08(3)	-	1544	2100	782	07	03
BL	73.9N	7	2322	SC*	--	-32 *	-27 *	08(2)	-	1632	1056	1408	08	22
CH	68.8N	7	2322	SC*	+13 *	+20 *	+63	07(1)	-	1481	1008	1113	08	22
GW	66.8N	7	2322	SC	- 4.6	+41	+105	06(3)	-	340	918	1339	08	20
CO	64.6N	7	2321	SC*	+ 9	+45	+14	08(4)	8	193	2170	980	09	02
SI	60.0N	7	2322	SC*	+ 4.6*	+ 6.8*	- 2.9*	08(3)	-	--	--	370	09	01
JO	58.7N	6	1900	..	..	..	..	07(1)	7	268	116	424	08	21
NE	55.1N	7	2321	SC*	1	13	3	08(3)	6	47	198	121	09	02
VI	54.3N	7	2321	SC	- 1.9	+20	- 5	08(3)	6	46	197	115	09	01
FR	49.6N	7	2322	SC*	+ 3	+17	- 5	08(3)	5	17	125	29	08	22
BD	48.9N	7	2323	SC*	- 2	14	- 3	08(3)	6	26	129	32	09	15
MT	34.0N	7	2321	SC*	+ 1.3	+ 9	- 4	08(3,4,5)	5	12	67	24	08	24
KA	26.0N	7	2321	SC*	+ 0.8	+ 8	+ 4	08(3,4,5)	5	8	61	32	08	24
KY	20.5N	7	2321	SC*	+ 0.6	+11	+ 4	08(1,3,4,5)	5	8	85	33	08	24
HD	07.6N	7	2321	SC	- 0.3	+12	- 1	08(3,4,6,7)	5	5	144	19	08	22
GU	04.0N	7	2322	SC	--	20	-05	08(1)	5	0	120	30	08	23
PM	18.6S	7	2322	SC*	- 2.0*	+ 9	..	08(3,4)	6	24	140	50	09	00
CZ	51.4S	7	2322	SC	2	11	2	08(7)	5	25	119	53	08	22
KG	56.5S	7	2322	SC*	4	19	4	08(7)	6	47	219	114	08	22
DU	75.6S	7	2322	SC	37	55	75	08(3)	7	810	650	980	08	18

THREE-HOUR-RANGE INDICES, K

JAN	6		7		8		9	
BT	7644	3334	4555	6774	3443	4663	3443	4553
CC	5344	6667	8644	4533	4466	7755	4333	5433
DI	5334	6777	9754	4644	4565	8875	5833	4645
TI	----	----	----	----	----	----	----	----
MM	3221	3476	8653	3222	2344	5583	3322	2322
KI	4221	3476	8753	2211	2344	5583	3322	1212
WE	2123	6466	6566	6211	3367	6763	2124	3221
CO	2126	6366	6465	6221	3368	7653	2133	4210
RY	6432	4487	8675	4422	4555	5564	3334	2212
DO	2122	3458	9543	3222	2344	5462	2222	2313
YA	2213	3456	7545	5312	3367	7563	2222	4322
LE	2111	2346	8532	2211	2233	5452	1111	1212
NU	2112	3456	7443	2222	2244	5462	1122	2312
LO	2122	3446	8543	2222	2344	5462	1122	2322
SI	2224	4255	6374	5222	2467	7543	2233	2100
SV	1113	4446	6333	3322	3244	5563	1222	3322
RS	2222	3456	7543	3323	3344	5562	2222	2312
ME	2224	4355	7654	5223	3467	6543	2243	2211
WI	3112	3457	7543	3323	3345	5572	1122	2212
IR	2333	5555	7444	5423	4455	6564	2333	3222
VL	3212	3356	6542	2212	2333	5462	1112	2211
KV	2112	4456	7443	3323	3344	5563	1233	3322
DB	2112	3345	6532	2222	3334	5461	1112	2111
KD	1112	3345	5332	2212	2232	4452	1000	1100
VI	2324	4245	7463	3223	3565	5433	1233	3110
JO	2221	2236	7333	3333	3333	3332	2222	1101
OT	3221	2246	7443	3223	2554	3332	2332	1101
MT	1113	4345	6443	4312	4355	5443	1122	3211
WL	0023	3344	6444	4323	4355	6453	1022	2111

JAN	6		7		8		9	
TK	2214	3546	6444	3323	4455	5563	2133	3312
IK	2113	4446	7433	3323	3355	4562	1112	2211
TL	1100	2345	6331	3212	2323	3451	0111	1100
FR	3222	3355	6443	2222	3454	4442	2333	1101
SM	2223	334-	-443	33-2	2433	-3--	----	2322
KS	3222	3456	7433	3333	4456	5573	2222	2122
TU	2222	3356	6543	3323	3565	4443	2232	1001
KY	1213	4345	6443	3323	5455	5442	2112	3211
QU	3233	4456	3343	3323	5455	5563	3213	1211
TA	2211	3345	6312	2223	3344	3452	1212	1100
HO	1232	3211	0001	1133	4232	1222	1122	2112
AL	2333	3445	6443	3324	5555	5563	3333	2322
SJ	2111	2345	6542	2223	3443	3342	1111	1000
GU	2313	3345	65--	----	5454	4332	2222	3201
BA	2123	2345	6333	3334	4454	3362	2223	2111
PM	3322	3344	5533	3334	5455	5433	2232	3211
HU	2112	3455	5533	3433	3444	4433	2111	2332
PP	0012	2344	3333	2223	4453	3322	2122	1101
TN	1122	0234	4232	321-	--53	4442	1122	2100
GN	2222	3345	6343	3333	4356	6463	3222	3211
HR	2123	3245	6443	3323	4444	3463	2122	2211
TO	2322	4344	5443	3322	5466	5443	2222	3101
AM	2223	3344	6453	3222	5565	4342	2232	2112
MI	2225	6455	6466	6221	4458	7763	3224	4211
MY	3444	4467	7765	4233	6755	5562	2445	2213
MW	4333	4477	9564	4423	5565	5584	3444	3233
NL	3211	2257	7643	3212	3443	4451	1112	1211
SB	3332	3566	7432	3443	5564	3333	3233	2433
VO	3344	3355	5443	5433	5553	3342	3233	2322


THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500 γ
LEIRVOGUR
FORT CHURCHILL
COLLEGE
BARROW
TIXIE BAY
DIXON ISLAND
H
1000 γ
SAN JUAN
TANGERANG
No Data
No Data
100 γ
HERMANUS
H
PRELIMINARY AURORAL ELECTROJET INDICES
AU(6)
AL(6)
AE = AU−AL
1000 γ
12 UT 15 18 21 24 03 06 09 12 15 18 21 24 03 06 09 12
JANUARY 6, 1975
JANUARY 7, 1975
JANUARY 8, 1975

Preliminary AE (6) - indices at 2.5 min. intervals UT

Unit: nT 1 nT = 1 Gamma

d	h	m	00		05		10		15		20		25		30		35		40		45		50		55	
06	12	00	678	505	596	618	584	560	632	638	709	887	966	1025	1013	967	873	665	594	544	561	535	508	505	450	362
	13		301	301	352	379	379	367	356	370	331	352	387	347	338	347	399	419	370	294	286	280	245	200	182	186
	14		196	205	202	199	190	138	141	170	150	173	167	135	112	109	115	120	109	99	105	111	166	324	455	415
	15		353	300	470	522	418	399	419	435	433	410	369	335	305	234	276	367	339	242	196	184	203	204	251	205
	16		211	224	226	246	261	345	337	438	418	531	550	562	548	496	428	296	263	300	266	234	222	216	162	164
	17		147	159	159	173	176	232	143	187	174	181	235	194	153	218	398	477	442	487	685	670	590	478	661	628
	18		682	686	582	701	715	846	703	705	723	720	758	835	796	859	974	980	992	998	1028	952	964	882	853	805
	19		818	797	811	923	918	847	792	717	703	623	682	720	634	589	604	584	597	582	549	478	495	470	527	442
	20		535	699	975	817	698	867	932	945	1119	984	1280	918	756	701	793	871	1231	1278	1081	937	807	821	730	831
	21		731	642	760	749	795	863	913	867	668	632	766	719	686	711	736	655	660	701	626	709	711	597	638	811
	22		909	858	802	810	677	884	913	860	688	667	533	524	515	494	507	492	472	608	643	564	482	425	382	432
	23		387	410	479	455	385	322	275	291	303	326	344	509	400	461	605	505	465	576	448	474	573	480	430	453
07	00		554	556	553	592	578	577	615	763	1022	821	1003	1286	1659	1389	1509	1636	1707	1650	1467	1498	1631	1692	1231	1345
	01		1118	1019	1036	999	948	924	1113	1173	1236	1217	1180	1120	1085	981	828	701	624	1020	1087	1158	1012	1014	1168	1262
	02		1285	1318	567	679	471	557	408	367	450	398	434	355	398	407	365	397	408	387	402	334	386	388	507	378
	03		580	278	347	333	348	231	132	120	144	123	127	153	184	269	329	301	303	288	315	306	273	285	273	242
	04		174	130	99	58	112	98	120	134	147	151	126	140	158	164	145	152	125	92	98	92	85	90	83	120
	05		108	96	102	129	60	102	105	106	131	63	91	113	181	326	64	82	152	33	82	111	122	125	169	65
	06		74	85	94	107	80	160	144	137	157	112	108	86	134	155	134	179	126	274	154	214	507	899	561	642
	07		802	412	438	346	378	422	507	414	374	509	404	206	198	189	196	237	232	358	252	429	372	473	248	259
	08		187	145	170	223	258	304	270	292	302	363	340	280	237	268	253	230	385	329	355	235	207	226	220	249
	09		315	280	324	293	415	353	315	246	340	286	220	185	309	218	353	347	437	274	286	268	406	385	440	523
	10		620	529	443	483	447	292	295	337	309	259	252	278	322	292	266	251	269	288	356	361	357	344	356	367
	11		393	401	379	347	306	353	390	384	423	442	394	322	311	297	252	264	312	339	374	410	452	522	575	577
	12		603	664	701	747	773	757	655	580	519	452	437	432	402	363	340	298	252	262	233	214	194	180	139	133
	13		136	122	108	100	128	108	118	123	119	82	92	114	119	130	153	156	178	224	188	217	237	205	202	185
	14		186	183	187	222	202	227	216	225	228	239	237	182	171	173	175	153	140	118	120	190	195	159	125	81
	15		77	80	109	104	95	109	168	105	217	240	141	84	137	87	87	93	101	112	116	93	89	132	124	95
	16		62	97	92	83	69	50	86	72	68	80	91	100	95	121	126	115	118	135	113	113	113	104	86	61
	17		84	96	93	158	93	158	146	110	181	240	271	284	255	194	152	87	95	86	89	81	84	89	89	84
	18		86	98	104	80	92	69	54	46	46	50	54	66	60	48	54	46	46	52	62	60	60	54	46	48
	19		41	52	45	60	49	50	54	59	59	62	56	64	56	68	87	49	53	57	46	63	58	37	60	63
	20		68	63	67	79	39	59	54	64	45	33	42	42	41	54	54	62	60	69	75	62	52	44	49	46
	21		49	49	37	41	52	49	44	38	54	44	46	49	49	39	53	46	47	47	46	38	46	46	49	52
	22		52	63	63	46	41	54	54	49	46	46	46	46	46	46	35	35	46	57	55	44	46	46	46	57
	23		46	38	43	51	43	57	59	54	40	51	85	52	48	65	61	62	48	51	73	51	59	94	43	54
08	00		151	86	67	81	62	78	54	56	62	72	62	62	67	62	67	62	59	40	42	57	48	55	75	60
	01		67	87	40	64	40	35	53	73	82	68	70	51	54	56	89	62	71	73	85	67	32	67	56	52
	02		80	122	120	96	100	70	57	56	62	55	78	30	67	77	57	54	40	123	159	378	159	132	116	112
	03		97	59	55	59	51	132	151	193	218	223	233	219	206	181	159	159	147	127	135	145	147	130	66	124
	04		180	162	175	168	147	177	155	209	303	277	280	233	181	267	109	192	163	181	418	556	528	612	518	422
	05		279	261	206	226	296	299	268	302	207	246	279	181	288	199	165	139	135	82	134	160	180	180	184	166
	06		157	84	149	158	302	131	137	90	52	39	49	54	49	28	35	63	72	61	62	57	54	46	37	41
	07		32	21	28	51	62	70	64	78	100	90	79	82	88	142	361	479	650	504	834	691	771	836	532	584
	08		594	557	750	595	544	533	389	482	575	582	541	410	347	411	298	282	228	217	223	218	207	225	217	176
	09		220	256	259	325	323	298	244	266	261	283	240	261	305	313	280	241	225	257	254	243	227	243	189	197
	10		211	183	180	155	171	142	149	156	161	179	172	206	202	238	278	304	514	639	811	908	900	798	643	488
	11		453	453	416	420	332	267	306	261	233	239	257	317	562	659	856	1008	1304	1397	1338	1399	1657	1546	1312	1061

Preliminary AE (6) - indices at 2.5 min. intervals UT

Unit: nT 1 nT = 1 Gamma

d h m	00		05		10		15		20		25		30		35		40		45		50		55	
09 18 00	73	73	75	73	73	69	54	51	49	35	43	58	67	86	86	90	90	85	74	81	87	73	74	101
19	92	127	104	93	84	75	69	75	72	68	79	79	85	85	79	79	79	85	85	85	79	74	85	73
20	78	104	144	189	333	363	394	407	358	319	293	264	233	215	204	195	201	190	173	158	147	147	132	121
21	118	104	89	81	72	64	55	55	55	55	55	69	61	64	67	72	89	106	106	102	115	126	118	121
22	126	140	129	149	151	152	158	147	127	118	101	77	80	104	111	153	198	209	204	184	166	235	183	165
23	256	276	318	289	376	565	486	562	669	534	664	827	900	892	928	873	898	710	733	647	730	704	752	815
10 00	823	801	788	731	617	658	658	725	863	893	916	924	918	791	717	725	635	619	662	717	773	861	809	922
01	981	1053	1119	1186	1229	1201	1125	1037	926	734	1156	990	935	867	988	972	946	960	910	1114	1049	783	846	850
02	814	819	780	738	678	730	760	785	759	956	1015	923	834	768	683	632	609	531	560	644	649	532	551	566
03	560	503	447	435	451	422	404	424	365	355	368	370	363	322	349	381	396	394	402	352	379	384	424	423
04	425	388	324	368	380	424	483	466	386	475	542	476	438	453	498	541	479	460	515	510	565	639	688	692
05	665	623	581	542	485	440	398	334	373	357	318	313	338	395	381	424	424	427	481	497	508	501	489	478
06	456	478	480	482	422	401	416	427	402	508	559	584	551	625	780	642	537	495	569	632	546	522	624	609
07	587	537	512	488	464	472	491	501	504	480	455	486	560	541	579	557	596	562	636	592	548	431	390	399
08	368	363	369	408	325	291	299	295	291	274	273	245	285	391	397	358	383	391	389	381	366	341	321	313
09	311	374	498	561	653	680	661	487	344	579	566	649	703	905	1255	1339	1448	1407	1224	940	725	706	615	1202
10	083	993	1184	1279	1332	1410	1308	1102	607	394	443	474	423	471	603	1127	832	590	567	550	491	466	408	474
11	532	519	508	474	421	355	330	279	255	241	246	358	352	250	226	396	461	566	1207	1179	975	798	766	421
12	607	765	671	420	490	544	475	464	543	589	554	581	559	664	610	517	509	554	571	653	657	577	347	285
13	403	462	457	457	503	524	566	749	755	753	666	561	573	669	571	399	360	349	467	508	465	493	488	519
14	519	526	515	481	472	410	392	405	420	476	391	601	507	477	576	670	601	1221	1381	1496	904	985	971	936
15	060	937	862	883	848	805	812	828	764	738	765	669	590	538	495	515	537	561	613	629	813	748	830	918
16	898	876	891	732	746	792	820	785	723	701	668	604	746	823	653	709	592	629	650	582	679	728	751	879
17	823	812	864	802	749	794	734	687	711	632	750	781	798	859	785	750	721	714	693	699	602	536	441	397
18	433	527	570	487	328	294	302	311	293	476	395	304	243	449	392	572	697	503	647	695	722	1632	1587	1539
19	678	701	902	767	774	1088	1179	1068	937	915	1002	1130	1232	1180	1058	1063	1016	1005	992	1072	882	967	1077	949
20	847	817	817	803	830	851	803	747	913	1062	910	1047	1009	908	857	827	795	730	829	709	795	747	674	621
21	581	639	633	650	598	514	454	514	539	362	336	502	609	387	375	440	560	494	435	428	494	561	573	551
22	467	432	463	455	398	448	474	701	537	555	607	492	448	496	502	567	432	460	459	367	401	366	375	627
23	600	539	441	462	463	631	734	914	1198	1254	1233	1032	867	683	995	984	757	477	574	631	604	450	557	456
11 00	392	386	366	366	378	409	543	545	594	618	721	838	845	883	1024	823	710	681	654	547	372	252	270	246
01	269	391	359	330	424	300	224	239	249	267	246	191	278	205	209	269	671	944	1085	1005	892	871	995	1290
02	217	1096	1042	1041	1130	1107	1119	1205	1110	1224	1396	1456	1369	1258	1157	1107	1007	952	882	821	798	750	792	708
03	780	895	1260	1362	1308	1271	1382	1316	1256	1097	1106	962	1021	1270	1275	1179	1047	1017	994	1080	936	839	760	757
04	678	689	635	577	612	581	611	569	562	567	649	549	663	422	475	502	618	486	431	298	317	350	475	362
05	315	282	196	200	205	211	236	241	240	268	247	254	305	394	372	439	438	523	545	532	440	547	624	622
06	626	673	748	698	654	691	682	601	610	440	514	374	230	160	199	243	296	296	277	312	269	445	511	581
07	915	1040	721	815	737	631	842	944	890	692	683	723	429	781	389	465	474	660	401	357	461	653	509	564
08	644	553	577	610	635	639	620	508	418	343	321	294	322	411	433	444	417	332	284	353	397	407	655	649
09	558	503	462	422	434	427	409	424	388	351	357	436	406	450	378	354	328	447	408	517	546	544	482	474
10	450	421	391	378	389	361	281	416	325	416	630	600	728	891	1028	826	480	549	637	637	781	833	826	709
11	584	442	465	573	684	1031	456	453	650	565	646	810	834	815	774	728	741	747	712	604	382	416	489	477
12	387	385	374	356	347	322	317	295	270	318	384	404	359	324	274	250	311	229	247	247	262	295	264	253
13	213	286	423	444	455	455	244	215	343	428	500	576	554	451	638	859	904	679	664	653	772	824	770	743
14	691	656	559	527	466	432	462	348	288	269	317	234	384	337	298	333	332	285	279	284	283	237	238	248
15	270	281	300	270	265	251	212	160	158	156	159	158	166	158	156	297	365	487	631	631	568	557	481	373
16	319	312	369	400	278	262	233	271	301	321	347	446	693	625	696	730	695	678	761	844	842	815	927	903
17	842	728	657	598	494	450	470	456	450	394	377	360	379	352	406	417	425	408	377	337	296	272	261	277

Indices	8								9								10								11							
UT			06		12		18				06		12		18				06		12		18				06		12		18	
Kp	0+	0+	0o	0o	0+	1-	0+	0+	0+	0+	1-	0+	1+	1+	2o	5-	6o	5o	5o	6o	5+	6-	7o	7o	7-	6+	5o	4o	4+	4+	4-	5+
3Kn	1	0	0	0	0	2	1	1	0	2	2	1	4	5	7	12	14	12	12	17	16	14	16	17	17	17	14	12	13	11	10	12
3Ks	2	1	2	0	0	2	1	0	0	2	3	1	3	5	6	14	14	13	12	18	16	15	18	18	17	17	12	12	11	11	9	14
Dst																																

MARCH 1975

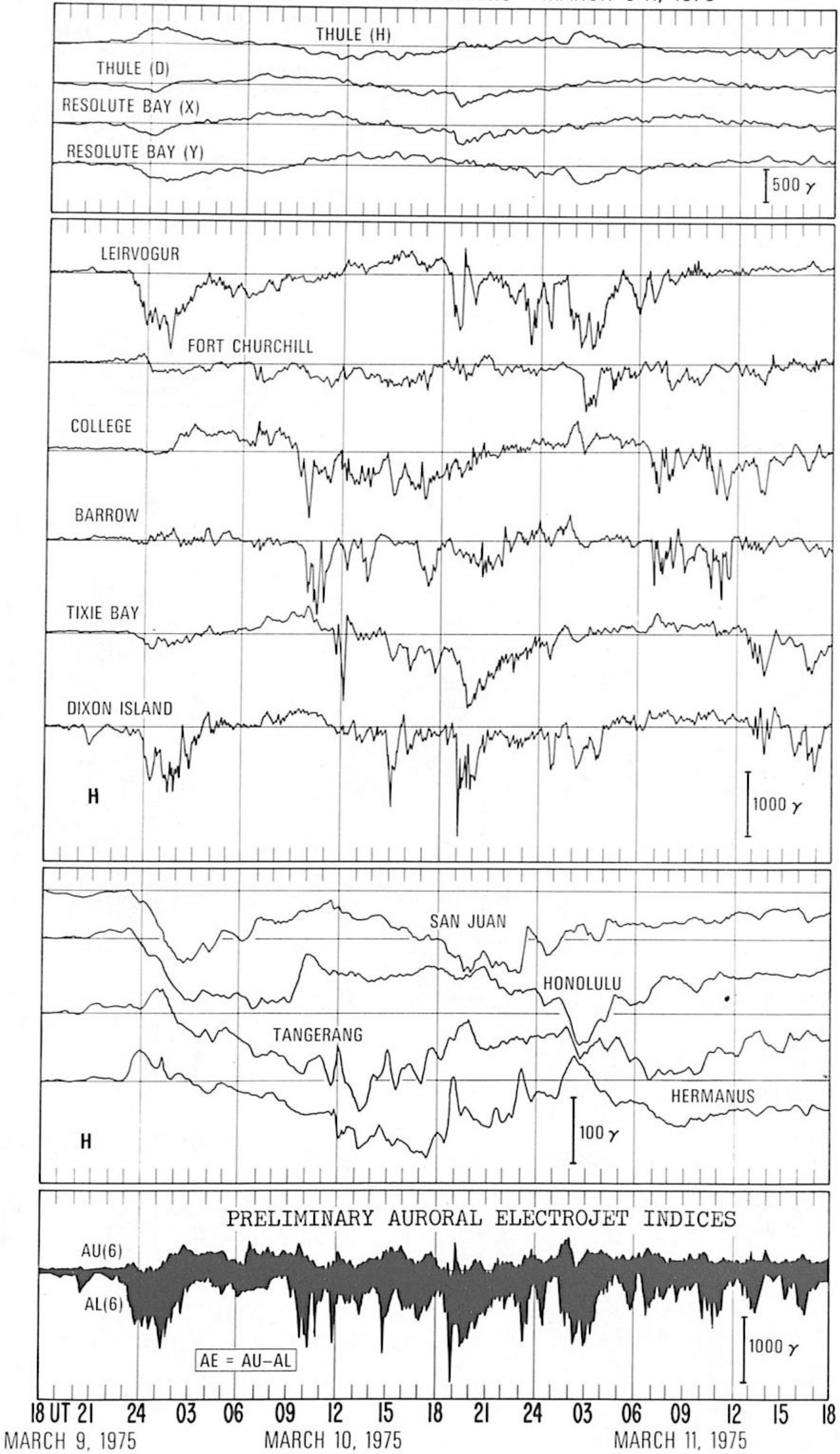
Values underlined are for X and Y.
X, Y, H and Z are given in gammas,
D in minutes.

Data from Individual Observatories:

OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
ME	61.8N	8	2345	..	..	..	..	10(4)	8	238	936	838	11	18
RB	83.0N	9	1400	..	..	..	..	11(1)	-	502	508	269	12	00
MX	79.1N	9	1400	..	..	..	..	11(4)	-	785	525	506	12	02
BL	73.9N	9	2000	..	..	..	..	10(3)	-	531	741	760	11	23
CH	68.3N	9	2135	..	..	..	..	11(1)	-	796	1008	1096	11	19
TR	67.2N	9	1949	SC	- 5	-15	..	10(7) 11(1)	7	390	1810	1475	13	03
GW	66.8N	9	2300	..	..	..	..	11(1)	-	289	1196	1408	11	19
JO	58.7N	9	2300	..	..	..	..	11(1)	6	322	240	610	11	15
OT	57.0N	9	1800	..	..	..	..	10(8)	6	45	244	363	13	02
NE	55.1N	9	14--	..	..	..	..	10(4,5) 11(1,2,3)	6	63	233	422	17	12
KA	26.0N	9	2000	..	..	..	..	10(1,4,5,6) 11(1,2,4) 12(4)	5	12	143	70	12	24
MT	34.0N	9	2000	..	..	..	..	10(5)	6	17	156	37	12	24
TU	40.4N	9	23--	..	..	..	..	10(4) 11(1,2)	6	23	165	45	15	12
BD	48.9N	9	23--	..	..	..	..	11(1)	7	43	155	110	16	20
FR	49.6N	9	23--	..	..	..	..	10(8) 11(1,2)	6	40	132	125	16	15
WI	54.2N	9	20--	..	..	..	..	10(7,8) 13(7)	7	54	320	150	15	02
VI	54.3N	9	----	..	..	..	..	10(4)	7	56	183	426	14	01
HO	21.1N	9	20--	..	..	..	..	11(2)	6	7	181	34	11	14
KY	20.5N	9	2000	..	..	..	..	10(1,4,5,6,8) 11(1,2,4) 12(4)	5	10	138	68	12	24
AL	09.5N	9	20--	..	..	..	..	10(1,7)	6	5	194	35	11	23
HD	07.6N	9	2000	..	..	..	..	10(1,5)	6	4	197	28	13	03
AN	01.5N	9	20--	..	..	..	..	--	-	4	182	82	11	23
TV	01.1S	9	20--	..	..	..	..	--	-	3	199	138	11	23
PM	18.6S	9	20--	..	..	..	..	10(4,5)	5	6	140	70	16	17
HR	33.7S	9	22--	..	..	..	..	10(7,8) 13(7)	6	41	171	154	15	02
GN	43.2S	9	23--	..	..	..	..	10(4)	8	34	210	180	13	00
TO	46.7S	9	22--	..	..	..	..	10(4)	7	30	300	90	13	04
CZ	51.4S	9	2200	..	..	..	..	10(7)	7	58	282	179	13	03
KG	56.5S	9	2200	..	..	..	..	10(7,8)	8	93	1053	568	13	04
MI	60.7S	9	18--	..	..	..	..	10(4,5) 11(4,5) 12(4,5,6) 14(5) 16(4,5)	7	213	1440	1040	16	20
DU	75.6S	9	2000	..	..	..	..	10(1) 11(1,2)	5	440	670	540	12	08
CO	64.6N	10	00--	..	..	..	..	10(4) 12(4)	7	326	1570	1350	13	03
SI	60.0N	10	00--	..	..	..	..	10(5)	-	--	--	830	16	20
SJ	29.9N	10	2246	..	..	..	..	10(1)	6	11	120	37	13	03
GU	04.0N	10	0012	..	..	..	..	10(1)	6	0	170	40	17	12

THREE-HOUR-RANGE INDICES, K

MAR	8		9		10		11			8		9		10		11	
BT	0111	1121	1221	2335	6456	6775	5655	7665	TK	2221	1200	2122	1234	6335	5564	4444	4433
CC	1211	0021	1211	1335	6447	6655	6655	7545	IK	1000	0101	0001	1125	6435	5576	6533	4434
DI	1111	1121	1111	2467	8659	8886	8765	7756	TL	1010	1100	0010	1115	5433	3466	6632	3334
TI	1100	1111	1111	2426	6568	8798	8666	9776	FR	0100	0111	0110	1124	4445	4456	6644	4335
MM	0111	0111	1111	1137	7547	6787	8754	5466	SM	----	----	----	----	----	----	----	----
KI	0000	0110	0011	1137	7547	5787	8754	4467	KS	1011	0101	1102	1235	5536	5676	6533	4445
WE	0000	0001	1010	0123	5568	8775	6566	7543	TU	1000	0101	0110	1225	5546	5455	6654	4334
CO	0000	0000	0000	0112	5457	6665	5566	6543	KY	1010	0100	0110	1122	5335	5545	5545	4323
RY	0001	1121	0111	2337	8665	5699	8876	4448	QU	1122	1200	1121	1264	3435	6564	5433	3432
DO	0000	0111	0001	1235	6536	6788	8644	4546	TA	0111	1112	1001	1125	5433	4466	6522	3324
YA	1111	0111	0110	0135	4438	8766	6666	5433	HO	1100	0101	0010	1223	5335	4544	6654	3223
LE	0000	0000	0000	1125	6434	5688	6543	3435	AL	2222	1211	1232	2234	6445	5564	5433	3433
NU	0000	0000	0011	1124	5435	6786	6534	4445	SJ	0000	0000	0000	0123	6544	3455	5433	3333
LO	0001	0000	0012	1135	5445	6677	6643	4445	GU	2111	1100	0121	1223	6445	55-3	5545	4323
SI	0000	0000	0010	1113	5568	7655	7676	6433	BA	2111	2211	1222	2235	6454	4466	6533	4325
SV	1211	0000	0232	1224	5336	6666	6633	4433	PM	2121	0111	0111	1123	4435	5443	5545	4333
RS	----	----	----	----	----	----	----	----	HU	1111	2331	0111	3323	5544	6655	4423	3543
ME	1000	1111	1110	1113	6768	7756	7676	6444	PP	0000	0101	0011	0111	2335	3343	5543	2223
WI	0000	0000	0000	1235	6444	5577	6533	4545	TN	1221	2200	0111	1023	3244	4455	5544	3434
IR	2121	1211	1221	2235	6447	7666	5555	5433	GN	1111	1111	1111	1234	5548	6565	6645	5434
VL	0011	1201	0011	2225	5444	4466	6533	4335	HR	1010	0100	0001	2225	5545	5566	5553	3335
KV	0112	1111	1232	2224	5-45	5577	7643	5544	TO	1010	0100	0121	1124	4447	6554	6655	4424
DB	0010	1000	0001	1235	5434	4466	6533	4445	AM	1110	0100	0111	1114	3446	5553	5554	4324
KD	1222	1211	2232	1224	4335	5554	5533	3333	MI	0010	0000	0100	0113	6567	7665	6567	7534
VI	0000	0000	0110	0213	5567	6445	6665	4334	MY	3454	3223	4442	2324	5555	3656	5664	4554
JO	0000	0000	0000	0115	5444	4466	6643	3335	MW	1000	0013	1320	1257	7666	6586	8865	5557
OT	0000	0100	0110	1125	5556	4468	6664	4335	NL	1111	1100	1110	1115	7664	4579	8754	4337
MT	1000	0100	0110	1123	4335	6545	5545	4333	SB	2000	0012	1110	0335	6444	4344	5553	3344
WL	0000	1200	0012	2223	6446	6655	6655	5332	VO	3222	2103	2212	2214	5444	4344	4433	4334


THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500 γ
LEIRVOGUR
FORT CHURCHILL
COLLEGE
BARROW
TIXIE BAY
DIXON ISLAND
H
1000 γ
SAN JUAN
HONOLULU
TANGERANG
HERMANUS
H
100 γ
PRELIMINARY AURORAL ELECTROJET INDICES
AU(6)
AL(6)
AE = AU−AL
1000 γ
18 UT 21 24 03 06 09 12 15 18 21 24 03 06 09 12 15 18
MARCH 9, 1975
MARCH 10, 1975
MARCH 11, 1975

Indices	15	16	17	18
UT	06 12 18	06 12 18	06 12 18	06 12 18
Kp	1- 1+ 1+ 0+ 0+ 0+ 0+ 0+	0+ 3o 6- 4- 5- 3+ 4o 4+	3o 3+ 3+ 4- 4- 2+ 1+ 1o	2- 2+ 2+ 2- 2- 2o 2o 2+
3Kn	3 5 4 1 1 2 3 0	1 9 16 11 15 9 9 12	9 10 11 11 11 7 4 3	5 7 8 6 7 6 6 8
3Ks	2 6 5 0 0 1 1 0	0 9 14 10 15 9 8 11	9 9 10 10 11 7 3 2	5 5 7 6 6 4 8 5
Dst				

MAY 1975

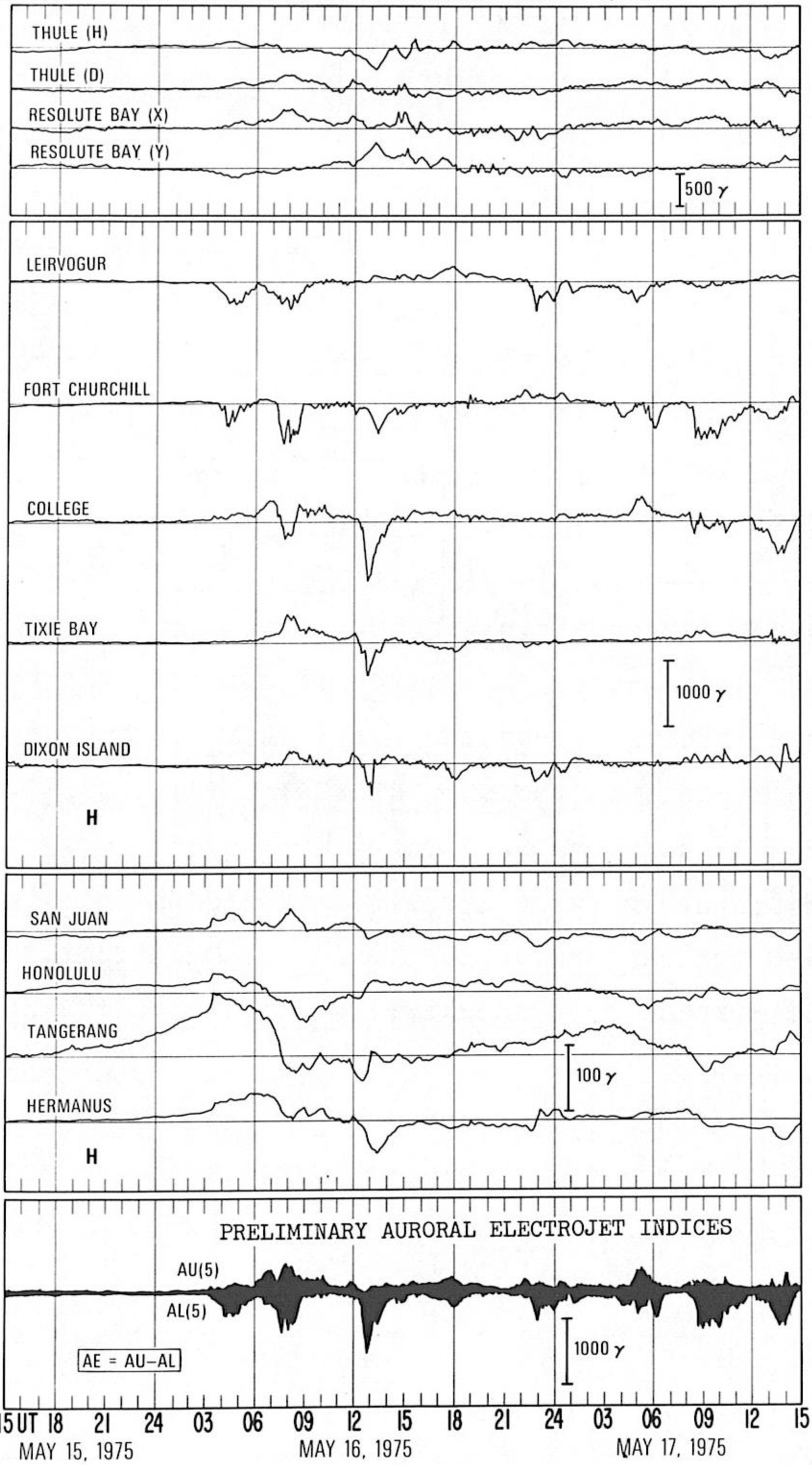
Values underlined are for X and Y.
X, Y, H and Z are given in gammas,
D in minutes.

Data from Individual Observatories:

OBS. 2 letter IAGA code	GEOMAGNETIC LATITUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
AN	01.5N	15	0307	SC	- 0.7	26	10	--	-	3	137	47	16	24
TV	01.1S	15	0307	SC	0.0	21	32	--	-	3	150	93	16	24
RB	83.0N	16	0308	SC	+ 6	-20	- 5	16(7)	-	537	496	445	17	23
MX	79.1N	16	0308	SC*	-38 *	-29	+ 3	16(8)	-	725	638	437	18	01
BL	73.9N	16	0308	SC*	--	-16 *	--	06(3)	-	523	455	827	17	23
CH	68.8N	16	0308	SC	--	-12	--	16(3)	-	768	832	960	17	19
TR	67.2N	16	0308	SC*	-10 *	-18 *	-10 *	16(6)	6	108	1040	600	17	15
GW	66.8N	16	0300	..	..	..	..	16(3)	-	171	874	986	17	15
CO	64.6N	16	0308	SC*	-10	+47	+ 5	16(5)	7	152	1270	810	16	19
ME	61.8N	16	0308	SC	1.6	31	19	16(3)	7	122	782	1036	17	18
JO	58.7N	16	0308	SC	--	+	+	16(3)	5	118	188	278	17	16
OT	57.0N	16	0208	..	..	..	..	16(3)	6	200	235	180	17	15
NE	55.1N	16	0308	SC	1	22	3	16(3)	6	31	205	166	17	18
VI	54.3N	16	0308	SC	- 0.8	+19	+ 4	16(3)	6	39	159	122	17	19
WI	54.2N	16	0308	SC*	- 1 *	+26	0	16(3,5,6)	5	15	185	45	17	18
FR	49.6N	16	0308	SC	- 0.5	+23	- 3	16(3)	6	27	90	75	17	15
BD	48.9N	16	0308	SC	- 1	17	- 2	16(3)	5	19	110	56	17	19
TU	40.4N	16	0307	SC	- 1	+17	+ 1	16(3)	6	10	110	25	17	18
MT	34.0N	16	0308	SC	+ 0.4	+16	- 1	16(3,5)	5	9	117	23	17	19
SJ	29.9N	16	0308	SC	+ 0.5	13	3	16(5)	5	10	64	18	17	12
KA	26.0N	16	0308	SC	++ 0.5	+16	+ 9	16(3,5)	5	8	82	56	17	19
HO	21.1N	16	0308	SC	- 0	+ 3	+ 2	16(3)	5	6	77	18	17	--
KY	20.5N	16	0308	SC	+ 0.5	+17	+ 8	16(3,5)	5	8	87	57	17	19
AL	09.5N	16	0307	SC	..	..	..	16(3)	5	4	120	27	16	24
HD	07.6N	16	0308	SC	+ 0.1	+20	- 1	16(3,5)	5	4	131	23	17	21
GU	04.0N	16	0307	SC	..	17	- 5	16(3)	6	0	110	40	17	16
PM	18.6S	16	0307	SC*	+ 0.2*	17	16	16(3,5)	5	4	120	80	17	16
HR	33.7S	16	0308	SC	+ 2	+10	+11	16(5)	5	14	88	61	17	15
GN	43.2S	16	0308	SC	+ 0.5	3	2	16(5)	7	27	90	140	17	16
TO	46.7S	16	04--	..	..	..	..	16(5)	6	11	141	97	17	15
CZ	51.4S	16	0308	SC	..	..	..	16(3,5,8) 17(1)	4	13	99	38	17	02
KG	56.5S	16	0308	SC*	1	6	2	16(4,5,6,8)	4	24	130	105	17	02
MI	60.7S	16	0308	SC	- 2	- 9	- 9	16(5)	7	199	1200	550	17	19
MW	73.2S	16	0310	SC	2	39	30	16(6)	6	61	472	522	17	22
DU	75.6S	16	0308	SC	17	32	59	16(5)	6	582	340	510	17	17

THREE-HOUR-RANGE INDICES, K

MAY	15		16		17		18			15		16		17		18	
BT	3232	2331	2655	5445	5655	6443	4444	4333	TK	1321	1111	0564	5332	2244	4211	2333	2232
CC	2222	3432	1344	6434	5444	6433	4433	4334	IK	1111	1110	1344	5334	3233	4211	1212	2232
DI	3122	3321	0455	7555	5455	6633	4444	4455	TL	0001	0100	0443	4234	3222	3310	0111	1131
TI	2222	2311	1365	8554	3354	6541	3344	4232	FR	1220	0020	1463	4244	3444	3211	2332	1223
MM	2121	1111	0244	6446	5333	4311	1223	3233	SM	----	----	----	----	----	----	----	----
KI	1011	1111	0234	5437	5323	4211	1222	3134	KS	1001	0001	0454	5335	3322	4211	0112	2333
WE	0110	0010	1275	8333	3444	6211	1233	3112	TU	1320	0010	0464	4334	3444	3211	2332	2223
CO	1110	0000	0364	7332	3454	5221	2233	3211	KY	1110	0110	0354	5233	3243	4211	2222	3222
RY	2221	2112	1564	4546	6544	3323	4532	2324	QU	1---	----	-354	5333	2344	3221	2223	2232
DO	1111	1110	0354	4444	3333	4311	2222	3322	TA	1100	0010	1411	1234	3222	3211	1211	1233
YA	2211	1101	1344	7333	3333	4322	2133	3222	HO	1010	0010	2354	4233	2333	3210	0231	1122
LE	0001	0000	0243	3334	3322	4211	2221	2222	AL	1222	1111	2354	4333	2434	3321	2332	2232
NU	1010	0100	0244	4434	3333	4321	1122	2222	SJ	0210	0000	0353	4333	2333	3210	2221	0122
LO	0111	0100	0244	4434	3333	4211	1222	3222	GU	1100	0010	1364	5233	3243	4221	1222	3122
SI	1320	0000	0373	7243	3444	4211	2332	2211	BA	1121	1111	1344	4234	3233	4311	1221	1---
SV	1111	0100	1244	5334	3333	4311	2222	3123	PM	1220	0100	2354	5343	2333	4212	0133	3011
RS	1111	0000	0344	4444	3333	4321	1222	2333	HU	1211	1211	0333	4433	2332	4321	1212	2332
ME	2331	1112	1575	6343	3455	4222	2343	2223	PP	0110	0000	0354	4231	3333	2100	0131	1121
WI	1111	1110	0354	5435	4334	4321	1221	2333	TN	0111	0010	2344	4333	3244	3211	1111	1232
IR	1221	0112	2354	6243	2345	5312	2233	2222	GN	1121	1100	0243	7333	2334	5321	2223	3231
VL	1112	1310	1343	4335	3333	4210	2222	3322	HR	0010	0000	0343	5324	3233	4210	2111	1132
KV	1222	2221	1454	5444	3344	4322	2232	2333	TO	0110	0100	0253	6322	2344	4210	1233	3221
DB	----	----	----	----	----	----	----	----	AM	2120	0000	0253	5232	3344	3211	2232	2121
KD	0000	0000	0222	3112	1212	3000	0111	2021	MI	0110	0000	0265	7332	3445	6221	1234	4111
VI	1330	0010	0464	5233	3444	4211	2332	2213	MY	2231	1133	1433	4323	3444	3651	2443	2252
JO	0100	0010	0453	3233	3433	3210	1211	1122	MW	2232	1132	2455	5546	5555	4332	3443	3355
OT	1310	0020	0373	3234	3444	3211	2331	1113	NL	----	----	----	----	----	----	----	----
MT	1100	0110	0354	5223	3344	4211	1222	3122	SB	1220	0021	1342	4333	3334	4322	2232	2222
WL	0020	0100	0364	6332	3133	4232	2033	3233	VO	----	----	----	----	----	----	----	----


THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500 γ
LEIRVOGUR
FORT CHURCHILL
COLLEGE
TIXIE BAY
1000 γ
DIXON ISLAND
H
SAN JUAN
HONOLULU
TANGERANG
100 γ
HERMANUS
H
PRELIMINARY AURORAL ELECTROJET INDICES
AU(5)
AL(5)
AE = AU−AL
1000 γ
15 UT 18 21 24 03 06 09 12 15 18 21 24 03 06 09 12 15
MAY 15, 1975
MAY 16, 1975
MAY 17, 1975

Preliminary AE (6) - indices at 2.5 min. intervals UT

Unit: nT 1 nT = 1 Gamma

d	h	m	00		05		10		15		20		25		30		35		40		45		50		55	
15	15	00	170	68	73	67	67	64	73	87	87	76	65	61	63	61	63	67	55	59	59	61	67	64	68	68
	16		72	72	65	72	69	69	69	66	66	66	62	62	62	65	66	62	67	62	67	64	67	67	64	64
	17		62	62	64	62	64	62	53	62	53	62	62	62	57	62	57	59	59	56	48	54	55	61	78	61
	18		56	56	58	73	78	64	64	61	56	61	67	61	61	48	50	56	50	59	56	48	48	59	50	50
	19		50	48	42	47	48	54	49	52	49	43	43	43	43	40	40	40	37	36	36	36	36	35	34	38
	20		36	36	36	33	34	36	36	32	35	36	36	39	39	40	43	46	40	35	32	29	26	26	36	32
	21		30	30	32	29	27	26	23	21	20	17	17	17	16	16	16	19	18	18	18	15	15	13	13	13
	22		13	13	13	13	16	13	13	13	13	11	11	13	10	10	13	16	16	16	10	13	10	10	13	18
	23		18	16	13	16	16	16	9	12	12	14	11	15	15	19	19	15	22	22	22	22	22	22	22	22
16	00		33	36	39	39	50	50	33	30	33	27	27	22	22	22	22	22	23	14	14	14	23	23	27	27
	01		27	27	25	27	36	36	36	34	23	27	27	28	31	31	31	27	27	29	29	29	29	29	35	35
	02		38	40	46	46	49	48	48	48	48	49	49	43	43	43	46	58	54	57	56	56	47	58	58	58
	03		58	56	56	53	60	95	137	141	165	147	136	137	145	150	163	174	201	227	223	224	241	246	242	254
	04		240	252	323	391	374	406	440	391	390	401	405	380	360	365	390	442	461	461	453	452	451	411	452	428
	05		428	423	338	314	282	271	243	267	295	303	290	263	259	225	233	225	214	200	184	196	175	123	137	176
	06		212	223	220	228	222	248	245	254	265	283	301	342	394	441	464	459	482	473	496	496	474	476	476	477
	07		471	484	531	476	477	483	415	342	460	460	537	653	759	830	907	950	977	935	840	692	678	678	828	859
	08		916	739	756	756	804	809	805	774	681	738	659	577	556	515	426	403	388	373	314	285	236	240	246	221
	09		229	261	304	292	255	239	247	229	227	250	263	266	253	248	242	213	217	237	237	216	196	217	213	260
	10		262	237	268	236	203	161	172	214	167	122	102	105	88	98	104	114	112	94	91	103	97	128	123	125
	11		111	120	125	111	103	95	94	115	111	135	110	111	98	101	93	141	197	227	220	204	200	197	252	294
	12		259	211	162	124	117	103	73	88	182	129	157	176	449	523	601	653	802	876	929	837	838	828	745	684
	13		671	629	578	552	478	487	468	502	557	514	470	448	444	391	373	348	342	332	329	322	275	276	272	270
	14		235	224	234	210	186	182	186	159	164	138	153	172	288	237	204	163	160	160	221	277	277	261	256	273
	15		256	216	174	138	144	145	156	162	168	175	168	176	179	176	154	164	193	212	177	147	150	148	148	145
	16		137	132	135	143	148	151	156	167	189	202	218	208	210	199	202	205	207	202	204	227	204	215	221	246
	17		256	255	255	265	265	266	265	270	281	287	289	292	302	307	311	355	389	366	433	397	431	426	458	425
	18		405	383	362	356	347	320	287	255	228	206	199	198	181	173	177	171	160	128	139	208	160	154	140	143
	19		145	151	144	113	102	105	103	124	113	113	116	117	115	125	164	174	161	129	98	102	113	92	74	89
	20		90	85	75	85	91	93	104	106	77	68	61	56	52	54	59	57	38	44	38	30	27	39	42	45
	21		52	61	69	69	71	82	98	104	107	112	106	123	101	133	152	154	159	151	137	129	140	131	153	181
	22		216	242	274	285	283	277	272	259	238	211	172	144	159	216	238	270	301	354	378	404	454	520	548	551
	23		509	343	336	324	348	381	350	285	273	283	298	298	238	233	234	234	245	272	297	320	330	334	348	324
17	00		317	314	314	282	275	257	263	296	253	284	290	227	229	219	203	235	142	103	86	78	68	91	135	166
	01		199	229	230	233	224	216	210	217	238	212	208	181	195	202	179	168	186	163	144	155	151	158	147	132
	02		143	147	151	162	159	152	129	125	120	140	144	144	125	136	151	169	177	185	171	147	139	147	171	168
	03		160	163	141	164	177	138	137	127	163	168	164	141	133	122	109	98	109	128	144	174	230	249	230	234
	04		288	282	293	282	310	301	280	261	253	262	278	267	258	271	278	289	264	294	289	326	396	563	624	617
	05		662	590	569	553	556	577	600	574	516	532	519	480	452	417	404	354	325	302	347	469	456	402	363	402
	06		482	488	485	516	508	416	492	414	372	305	251	219	192	152	156	143	122	143	135	143	127	102	100	103
	07		100	84	87	81	81	84	78	67	81	72	64	72	75	67	67	87	90	86	66	85	84	117	96	114
	08		119	117	163	176	195	186	137	134	156	208	243	292	328	328	369	389	678	496	491	550	506	551	620	704
	09		707	631	618	599	597	581	596	583	638	622	553	464	477	493	472	514	540	545	490	540	596	627	595	632
	10		590	572	540	464	382	335	374	409	575	467	476	456	404	338	330	343	330	298	285	274	293	303	316	335
	11		332	332	329	287	269	245	232	219	224	261	232	227	211	179	169	158	124	145	137	137	132	129	127	127
	12		124	122	103	148	116	222	213	202	202	218	243	229	218	198	196	190	214	230	244	258	244	222	227	254
	13		279	311	316	473	426	415	398	396	418	459	490	535	543	596	603	584	508	507	473	431	419	628	789	642
	14		633	631	645	526	385	320	286	262	219	190	165	158	144	139	115	111	102	61	50	55	41	59	80	35

Preliminary AE (5) - indices at 2.5 min. intervals UT

Unit: nT 1 nT = 1 Gamma

d	h	m 00		05		10		15		20		25		30		35		40		45		50		55	
09	00	228	270	414	467	506	503	477	456	404	428	391	431	443	423	408	433	412	423	410	354	355	351	312	292
	01	270	261	265	269	277	283	313	322	329	333	330	324	341	333	343	334	311	313	332	339	353	348	324	305
	02	274	258	253	273	287	323	335	351	362	354	351	316	355	362	328	370	359	363	375	421	520	483	438	396
	03	356	333	298	311	334	335	281	244	237	233	225	219	233	236	229	233	222	210	190	160	152	137	137	129
	04	116	106	94	79	106	80	75	94	123	121	116	112	108	93	76	92	92	97	97	105	111	103	105	105
	05	97	97	93	75	52	63	61	67	72	78	103	127	122	103	92	100	108	129	125	136	154	186	152	125
	06	121	130	115	100	122	128	112	98	153	211	135	156	249	250	240	213	203	194	154	167	182	193	180	151
	07	126	150	144	135	132	201	159	139	156	119	85	90	100	147	172	183	265	371	458	310	344	321	370	389
	08	405	389	373	347	305	334	400	460	525	558	587	663	711	776	838	819	782	827	894	817	626	589	504	459
	09	427	404	408	409	491	565	581	579	605	560	473	433	438	473	486	626	661	704	683	604	563	513	470	469
	10	559	537	539	527	522	534	596	516	438	426	508	551	533	512	494	504	544	573	631	755	765	651	662	636
	11	667	598	503	479	463	449	460	488	533	403	329	255	213	205	194	229	300	420	526	587	574	545	674	718
	12	643	611	570	502	437	348	377	345	310	285	240	258	237	200	167	183	194	249	277	257	255	258	308	342
	13	370	361	372	365	419	366	399	429	460	475	456	481	495	550	543	520	542	635	672	726	710	732	792	962
	14	810	914	1029	1022	918	882	956	882	802	820	531	939	1030	1012	986	1020	1135	1198	1035	943	954	843	926	910
	15	826	776	926	833	795	684	637	584	557	551	529	471	401	457	489	431	390	355	312	305	268	247	262	273
	16	278	314	293	302	276	240	220	211	227	221	229	236	241	270	289	293	278	261	247	225	226	237	226	202
	17	235	268	333	328	308	309	324	375	428	459	451	508	559	613	658	1164	968	971	1099	1159	913	934	918	1020
	18	1002	802	721	701	682	669	662	638	641	616	589	575	556	561	597	632	622	576	507	452	383	392	419	430
	19	340	317	349	340	322	279	245	228	212	214	201	182	169	144	119	127	174	168	129	130	127	139	211	255
	20	267	267	239	226	236	211	186	168	157	160	159	140	170	189	202	224	250	240	221	194	202	221	221	208
	21	221	216	200	157	151	140	122	119	121	102	94	114	129	116	71	57	84	93	83	59	53	81	79	108
	22	141	164	210	219	238	252	253	239	215	195	130	149	152	335	199	250	258	244	287	316	314	275	274	289
	23	274	245	240	213	182	196	214	218	232	243	231	196	160	152	144	144	144	120	110	116	196	386	440	422
10	00	474	426	381	464	475	512	544	594	564	519	528	529	535	543	536	539	532	543	543	558	558	520	462	423
	01	469	534	672	695	691	653	631	596	670	739	782	832	893	909	896	865	910	952	901	778	735	678	617	623
	02	681	739	811	820	844	951	786	641	607	554	642	904	992	945	1061	1161	1236	1304	1282	1246	1214	1118	1022	934
	03	969	1042	1145	1190	1245	1283	1306	1173	1120	1131	1061	969	826	818	868	849	770	695	671	714	679	652	705	803
	04	780	858	742	629	725	550	526	541	520	463	413	338	388	347	346	341	326	303	330	357	398	394	396	401
	05	378	352	344	291	246	221	190	166	144	159	125	113	177	155	170	176	166	163	192	219	249	249	237	258
	06	326	439	476	546	489	421	417	446	393	363	326	348	388	374	387	406	417	406	504	480	323	337	375	342
	07	400	354	298	288	211	214	178	212	206	198	183	168	152	154	114	118	108	131	145	128	111	131	120	86
	08	89	97	95	81	98	72	54	60	64	42	53	44	38	58	88	102	84	73	58	58	67	55	50	43
	09	41	53	93	111	85	99	84	88	98	85	79	79	74	71	64	86	97	111	129	161	185	120	147	168
	10	186	205	234	247	263	281	339	386	351	359	403	642	829	844	769	777	691	579	448	382	347	354	314	278
	11	244	241	212	222	207	279	298	307	276	225	186	259	278	332	330	279	294	225	180	164	170	204	226	248
	12	243	262	260	268	241	244	271	327	357	389	317	351	356	396	413	415	354	332	350	328	317	356	350	436
	13	511	609	793	807	909	970	975	915	905	880	758	678	601	542	523	523	545	555	588	586	594	607	630	596
	14	644	685	572	606	623	598	559	536	536	560	564	644	637	620	649	596	575	567	574	573	565	665	653	532
	15	691	831	905	516	406	484	532	528	436	421	438	929	913	692	536	521	597	656	657	704	652	637	488	571
	16	582	566	528	521	529	537	504	420	351	333	309	278	269	342	360	332	295	291	281	291	314	319	298	298
	17	286	295	313	327	339	345	310	307	303	291	299	303	329	346	364	391	422	420	423	412	414	329	344	338
	18	310	291	282	277	242	224	213	204	191	225	256	218	193	203	204	176	164	169	177	169	160	156	159	157
	19	152	145	136	116	102	87	85	73	79	74	65	52	40	55	52	41	36	42	30	27	29	32	43	43
	20	58	63	88	102	100	123	144	161	160	179	202	258	266	272	292	322	350	379	353	350	342	324	355	385
	21	424	448	447	435	482	499	529	510	524	533	607	613	557	587	555	431	470	526	594	657	681	624	595	604
	22	597	553	500	467	436	380	295	312	306	297	280	277	299	320	331	309	305	318	311	320	349	341	327	341
	23	343	312	362	381	407	418	527	556	472	444	458	476	487	505	634	612	606	568	478	441	463	403	432	464

Indices	9	10	11	12
UT	06 12 18	06 12 18	06 12 18	06 12 18
Kp	3- 3- 4- 4o 5o 4o 4- 3+	4+ 5+ 4o 4- 4- 4- 2+ 3+	4+ 4+ 3+ 4+ 4- 4o 4- 4-	5- 4- 4- 3o 4o 2+ 2- 2+
3Kn	8 7 9 10 13 11 10 9	11 14 12 11 11 10 7 9	11 10 10 13 10 11 11 9	12 9 11 10 12 7 5 7
3Ks	8 7 10 10 12 12 9 9	12 14 10 10 11 9 7 10	9 9 8 11 9 10 9 9	11 9 9 9 9 7 4 8
Dst				

SEPTEMBER 1975

Values underlined are for X and Y.
X, Y, H and Z are given in gammas,
D in minutes.

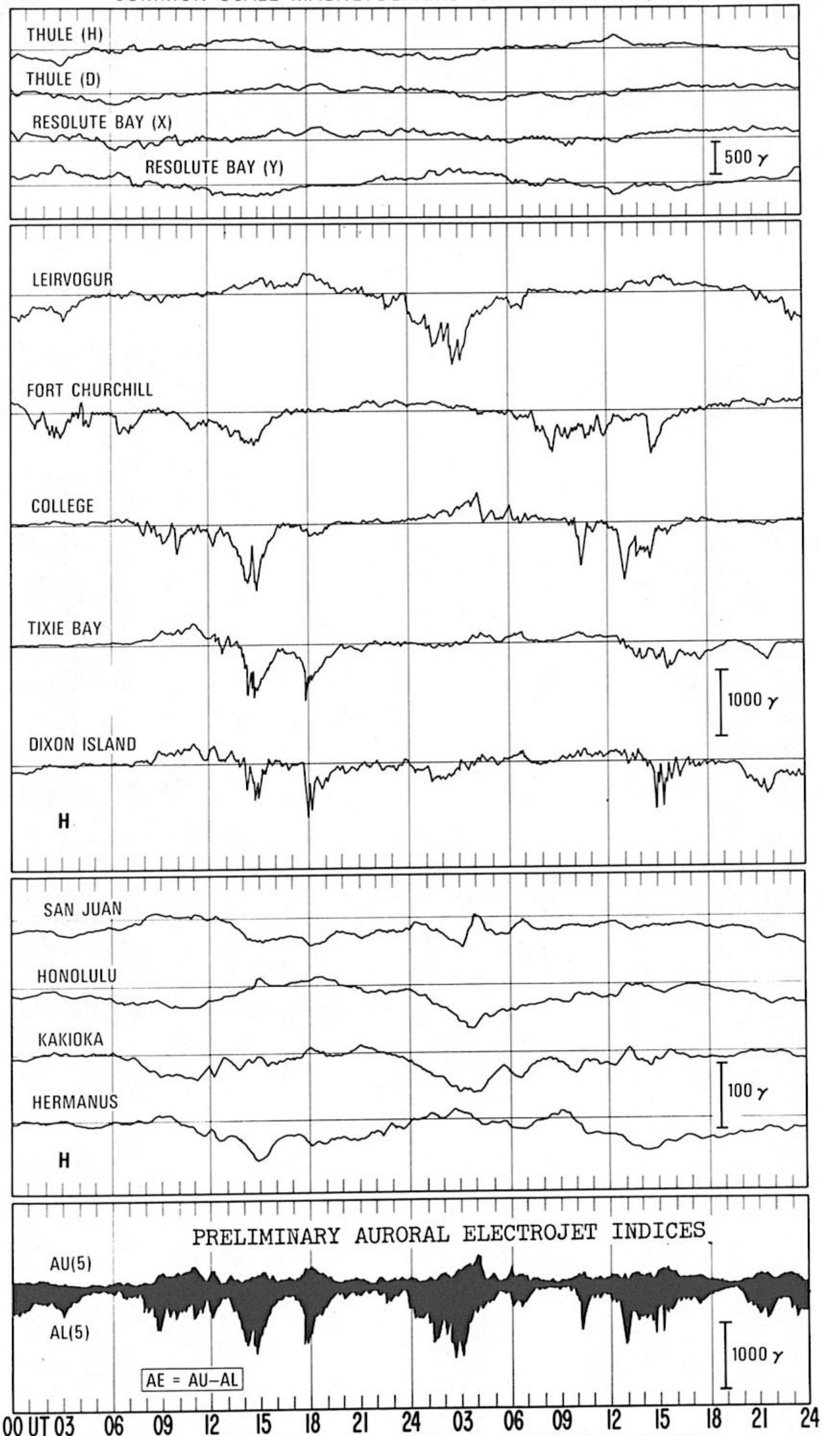
Data from Individual Observatories:

OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY (3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
CH	68.8N	8	2050	..	..	..	..	10(2)	-	912	1416	960	10	19
TR	67.2N	8	2106	SC*	- 6 *	-77 *	+13	10(1) 11(1)	7	255	1332	811	13	04
HD	07.6N	8	1200	..	..	..	..	09(6)	5	5	104	30	12	16
RB	83.0N	9	0700	..	..	..	..	09(7)	-	522	363	285	10	22
MX	79.1N	9	0800	..	..	..	..	09(7)	-	562	366	355	10	14
BL	73.9N	9	0750	..	..	..	..	09(6)	-	612	975	785	10	22
GW	66.3N	9	0000	..	..	..	..	10(2)	-	273	1136	1037	10	16
CO	64.6N	9	01--	..	..	..	..	09(5) 11(4) 12(5)	7	230	1860	680	12	16
ME	61.8N	9	0100	..	..	..	..	10(2)	7	90	967	537	13	11
SI	60.0N	9	0720	SC	+ 3.7	0	- 4.4	11(4)	6	60	600	560	12	16
JO	58.7N	9	0000	..	..	..	..	10(2)	4	80	114	124	10	15
OT	57.0N	9	----	..	..	..	..	10(2)	5	120	112	152	12	06
NE	55.1N	9	00--	..	..	..	..	10(2)	6	43	103	198	14	14
VI	54.3N	9	0720	SC	--	+ 9	--	10(2)	6	35	77	161	12	15
WI	54.2N	9	0000	..	..	..	..	09(5)	5	20	144	75	11	01
BD	48.9N	9	02--	..	..	..	..	10(2)	6	30	90	59	14	18
AL	09.5N	9	0000	..	..	..	..	09(5,6) 10(3)	5	5	100	36	10	19
AN	01.5N	9	0000	..	..	..	..	--	-	3	148	51	10	19
TV	01.1S	9	0000	..	..	..	..	--	-	3	180	85	10	19
HR	33.7S	9	11--	..	..	..	..	09(5)	5	14	80	55	10	19
GN	43.2S	9	05--	..	..	..	..	09(5,6)	5	18	80	110	11	18
CZ	51.4S	9	1100	..	..	..	..	10(2)	5	25	74	60	11	06
KG	56.5S	9	0600	..	..	..	..	10(1,2)	5	26	242	151	11	06
MI	60.7S	9	01--	..	..	..	..	09(5) 10(5) 11(4)	7	135	1150	540	12	16
DU	75.6S	9	0400	..	..	..	..	09(2,3,4,5,6) 10(2,3) 11(1,4,5)	4	338	422	420	11	14

THREE-HOUR-RANGE INDICES, K

SEP	9		10		11		12	
BT	2344	1334	4444	4334	4444	3355	4433	6314
CC	4444	6654	5544	6634	5446	5535	5433	7525
DI	4355	7875	6555	7856	7445	5767	6544	6646
TI	2356	9775	4555	6666	5346	5766	4445	6634
MM	4224	5655	6633	4547	7434	4577	7333	4444
KI	5324	6655	7743	4546	7434	4477	7433	4344
WE	1235	8653	3666	6523	3236	6533	3344	7312
CO	2255	7542	4546	6523	3347	5433	4345	7322
RY	5554	5556	7853	4536	7743	4477	6643	4336
DO	3234	4444	5533	4434	5423	3445	4433	4223
YA	2334	5443	3435	6433	4326	4554	4344	6323
LE	3223	4343	5532	3424	4323	3444	3322	3223
NU	3124	4543	5433	4433	3323	3444	4333	3323
LO	3234	4453	5533	4434	4433	3444	4333	4323
SI	1244	6532	4645	5422	2346	5322	4444	5212
SV	----	----	----	----	4334	3443	4223	5323
RS	3233	4444	4443	3433	4423	3444	4333	4323
ME	1255	6533	4765	5423	4356	5333	4455	5222
WI	3234	5444	4434	4434	5434	3544	5343	4323
IR	2344	5543	4454	5433	5435	4454	4343	5323
VL	3333	4433	4433	3323	4324	4444	4332	4313
KV	3334	5453	4534	4443	4434	4543	4333	5423
DB	3223	4443	4434	3323	4434	3444	4233	4322
KD	2222	2322	0122	3322	1113	3232	3011	3211
VI	2344	5333	3654	4223	3455	3232	4454	4122
JO	2232	2223	3422	2112	3333	2232	3221	1122
OT	2243	3323	5543	3323	4444	3233	4433	3112
MT	1133	4432	4444	4312	2325	4333	3333	4111
WL	0044	4531	1254	4310	1045	3441	1143	5211

	9		10		11		12	
TK	3333	5532	4533	3433	3323	3432	3243	4323
IK	3223	5543	3323	3423	4324	3443	4232	4323
TL	3122	4333	3423	3333	4323	3344	4221	3312
FR	3343	4333	4543	3213	4344	4333	5344	3222
SM	----	3433	4544	4333	5333	3352	5332	3222
KS	3223	6434	3433	5335	3245	4444	3345	4323
TU	3333	4333	4534	3313	5445	3334	5444	4112
KY	2233	4332	4443	4322	3324	3343	3233	4121
QU	3342	5533	3333	4433	3323	4442	3333	4423
TA	3232	4433	3332	2232	3324	3243	3322	4121
HO	3222	3323	4433	3323	4424	3324	3343	3223
AL	3233	5532	4353	4433	4443	3432	4443	3323
SJ	2243	4333	4543	2123	3233	2223	4322	2112
GU	2233	4323	4443	4313	3334	3322	3333	4211
BA	3232	5433	3323	3322	3234	2343	4333	3222
PM	3224	4323	2433	4312	3334	2323	3233	4211
HU	2232	4433	4432	4333	3232	3332	4323	4323
PP	2222	3212	2423	3231	3323	2222	3333	2111
TN	2243	5423	2344	4433	3234	2442	3132	4422
GN	2334	5533	3444	5424	3235	3422	2233	4312
HR	3233	5434	3443	4323	3233	3343	4233	3222
TO	2234	4532	2434	5323	3325	4322	3343	4211
AM	2243	4422	3434	4423	3434	3323	3343	3211
MI	3356	7642	4566	7523	3347	5533	4345	6422
MY	2444	4452	3454	3324	3553	3745	4454	4423
MW	5445	5665	7764	4546	6644	4587	6653	3436
NL	3232	3334	6853	2324	4423	2244	5542	2213
SB	3333	5533	3343	3233	4323	3234	4432	3233
VO	2344	4433	3344	3322	4334	3344	4333	3223


THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500 γ
LEIRVOGUR
FORT CHURCHILL
COLLEGE
TIXIE BAY
1000 γ
DIXON ISLAND
H
SAN JUAN
HONOLULU
KAKIOKA
HERMANUS
100 γ
H
PRELIMINARY AURORAL ELECTROJET INDICES
AU(5)
AL(5)
1000 γ
AE = AU−AL
00 UT 03 06 09 12 15 18 21 24 03 06 09 12 15 18 21 24
SEPTEMBER 9, 1975
SEPTEMBER 10, 1975

Indices	6								7								8								9							
UT		06		12		18				06		12		18				06		12		18				06		12		18		
Kp	2+	4o	5-	4+	4-	3+	5-	3o	5-	5+	5+	4o	4-	4o	3+	5+	4+	5-	5-	4+	4o	5-	5-	7-	5-	5-	5+	5o	4o	3+	4+	5-
3Kn	5	10	12	12	10	9	12	8	12	13	13	14	13	11	10	14	10	12	11	15	11	13	12	17	12	12	14	14	11	9	10	12
3Ks	5	7	11	11	10	10	12	8	11	12	12	12	11	9	9	12	10	11	10	12	10	12	12	16	12	9	12	12	9	9	10	12
Dst																																

OCTOBER 1975

Data from Individual Observatories:

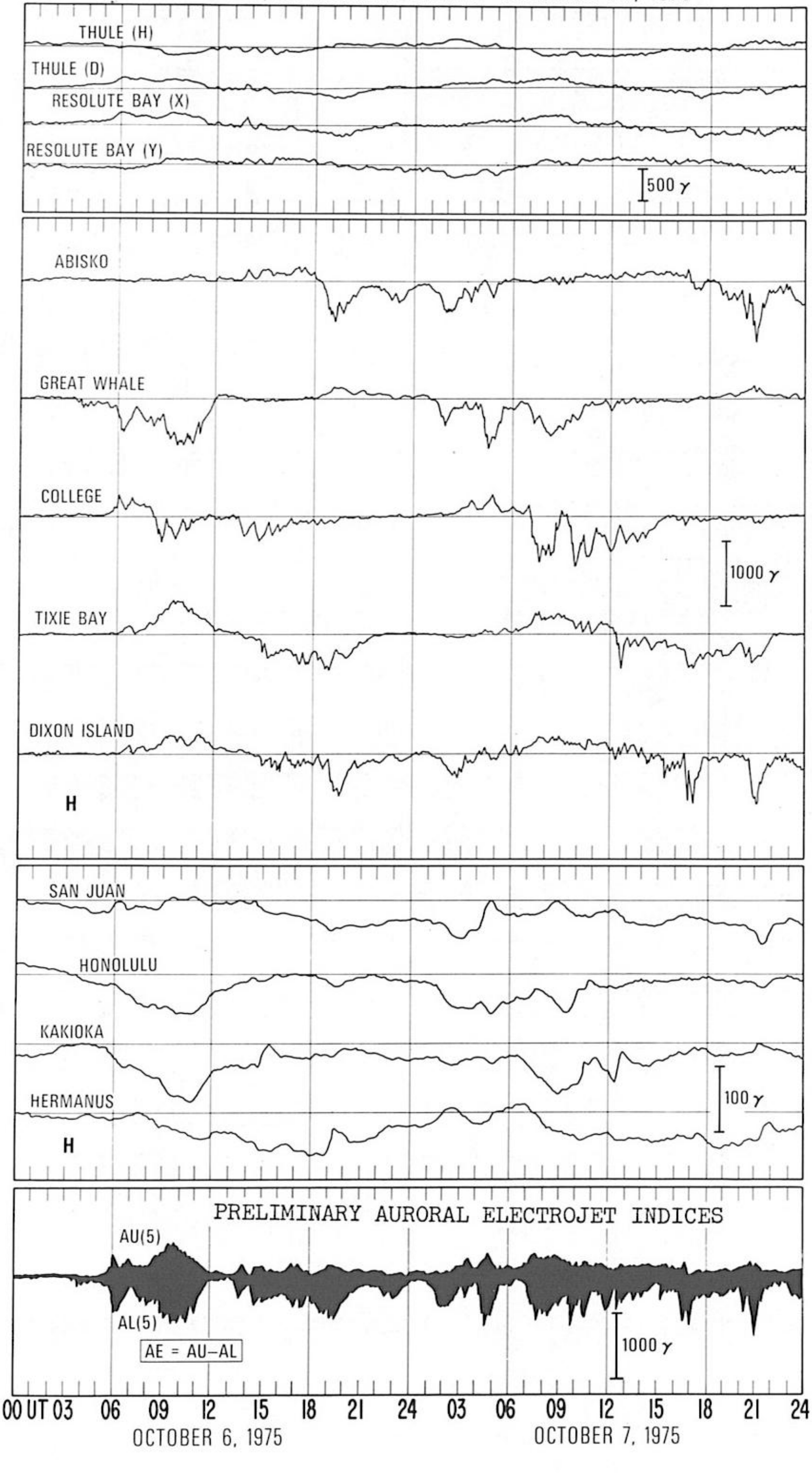
Values underlined are for X and Y.
X, Y, H and Z are given in gammas,
D in minutes.

OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	COMMENCEMENT hr min (UT)	COMMENCEMENT TYPE	SC - AMPLITUDES D(')	SC - AMPLITUDES H(γ)	SC - AMPLITUDES Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY (3 HOUR PERIOD)	K	RANGES D(')	RANGES H(γ)	RANGES Z(γ)	UT END DAY	UT END HOUR
RB	83.0N	6	0030	..	..	..	..	06(5)	-	536	541	274	08	01
MX	79.1N	6	0500	..	..	..	..	06(3)	-	363	384	384	08	01
BL	73.9N	6	0420	..	..	..	..	06(6)	-	481	537	760	07	24
CH	68.8N	6	0425	..	..	..	..	07(2)	-	714	878	974	07	18
TR	67.2N	6	11--	..	..	..	..	08(8)	7	290	1403	1600	11	02
CO	64.6N	6	05--	..	..	..	..	7(3) 8(4) 9(3,4)	7	215	1960	1010	11	02
ME	61.8N	6	0530	..	..	..	..	09(3)	8	121	1101	565	09	12
SI	60.0N	6	05--	..	..	..	..	8(4)	-	70	--	730	10	10
JO	58.7N	6	0300	..	..	..	..	07(2)	4	135	85	255	08	00
NE	55.1N	6	05--	..	..	..	..	10(2)	6	44	125	230	11	04
VI	54.3N	6	----	..	..	..	..	06(4) 07(2,3,4)	5	31	93	140	11	01
WI	54.2N	6	04--	..	..	..	..	06(7) 07(8) 08(8) 8(2,4,7,8) 9(2,3,4) 10(2,3)	6	38	215	60	10	10
TU	40.4N	6	05--	..	..	..	..	7(1,2,3,4,8)	5	16	120	30	10	12
MT	34.0N	6	0512	..	..	..	..	07(3,4,5) 08(4)	5	13	103	23	10	10
KA	26.0N	6	0512	..	..	..	..	07(3,4,5) 08(4)	5	10	90	50	10	10
HO	21.1N	6	05--	..	..	..	..	8(3)	5	6	71	21	--	--
KY	20.5N	6	0512	..	..	..	..	07(3,4,5) 08(4)	5	10	93	54	10	10
AL	09.5N	6	05--	..	..	..	..	06(7) 07(5) 08(6,8) 09(2)	5	5	120	47	09	19
HD	07.6N	6	0500	..	..	..	..	6(4) 7(6) 8(6)	5	5	126	32	10	23
GU	04.0N	6	0508	..	..	..	..	7(4)	5	10	120	30	10	09
AN	01.5N	6	05--	..	..	..	..	--	-	3	172	72	09	19
TV	01.1S	6	05--	..	..	..	..	--	-	2	215	96	09	19
PM	18.6S	6	04--	..	..	..	..	06(4) 07(3,4) 08(4) 09(3) 10(2)	5	6	110	50	11	00
HR	33.7S	6	18--	..	..	..	..	08(8)	6	19	104	101	10	09
GN	43.2S	6	04--	..	..	..	..	06(7) 07(4,5)	5	16	90	120	08	00
CZ	51.4S	6	0600	..	..	..	..	08(8)	6	37	102	56	10	08
KG	56.5S	6	0600	..	..	..	..	08(8)	7	47	458	280	10	03
MI	60.7S	6	04--	..	..	..	..	07(3,4) 08(4) 09(3,4)	7	159	1360	710	11	01
DU	75.6S	6	1500	..	..	..	..	07(3) 09(1) 10(2,3)	5	544	396	552	10	09
FR	49.6N	7	01--	..	..	..	..	8(8)	6	29	88	79	10	09
BD	48.9N	7	01--	..	..	..	..	10(3)	6	31	116	73	11	06
SJ	29.9N	7	0100	..	..	..	..	8(7)	5	8	77	26	08	04
OT	57.0N	8	0300	..	..	..	..	07(8)	6	240	40	125	10	09

THREE-HOUR-RANGE INDICES, K

OCT	6		7		8		9	
BT	3354	0343	5444	4226	4444	4456	7546	3635
CC	3344	5553	4454	7545	5447	6666	6557	6744
DI	4355	5675	6655	6757	6457	6888	7656	5576
TI	3267	7675	3457	8787	3468	7898	4465	5655
MM	2234	4575	6434	4678	6436	4667	6444	3367
KI	2223	4475	6535	3577	6436	5678	6444	3467
WE	1466	6532	2578	6544	3459	7665	4377	5522
CO	1465	5432	3476	5433	3457	6554	3477	5433
RY	4554	4566	7755	4566	6655	4468	7674	4457
DO	3334	4354	4543	4446	5544	5548	6343	3356
YA	2244	3353	4457	6444	3436	4556	4355	5444
LE	2223	3353	5442	3445	4433	3446	6333	3345
NU	2223	3354	4433	3445	4433	3556	4334	3354
LO	2333	3354	4443	3445	4434	4546	4444	3355
SI	1466	4321	3476	5323	3467	6444	3576	5333
SV	2333	2443	5334	4344	3325	5446	3345	4344
RS	3333	4354	4443	3446	4433	3546	4445	3255
ME	2677	3332	4576	4334	4576	6445	4687	4334
WI	2443	4364	5553	4546	4444	3556	5445	3455
IR	3445	4553	4356	5444	3456	5656	4456	4444
VL	2333	3353	5544	3445	4443	3546	4444	3344
KV	3343	3354	4453	4545	4455	4555	4445	4454
DB	2333	3253	4443	3445	4433	3546	4335	3344
KD	-222	2323	2333	2221	2243	3342	2333	2222
VI	2345	3331	4555	4233	4555	4345	4565	3333
JO	1344	3332	4444	3223	3433	3333	4444	3334
OT	1453	3232	4454	3223	4535	3336	5554	4225
MT	1334	3331	3355	5334	2345	3434	3344	3333
WL	1145	3440	1466	5444	1456	4545	3355	3433

OCT	6		7		8		9	
TK	2444	3442	2464	5545	3354	3666	3444	3342
IK	2333	3353	4443	3445	4434	3446	4335	3344
TL	1332	2253	4442	2434	3333	2335	3225	4344
FR	2454	3332	4544	3224	4435	4346	5554	4335
SM	2343	3352	5544	2445	3353	2446	5433	3344
KS	3343	4364	5354	4563	4335	2574	4456	4535
TU	1444	4431	5555	4225	3535	4455	4555	4334
KY	2344	3431	3355	5334	3345	4434	3344	3323
QU	-334	3453	2464	4544	3344	3545	3334	3344
TA	23--	----	----	----	3333	3336	3334	3334
HO	1334	3331	4345	3223	2445	3234	4354	3222
AL	3344	3453	2444	4544	4433	3545	3543	3343
SJ	2343	3332	4543	4324	3433	2455	5433	2233
GU	2455	3322	4455	4322	3455	3534	4444	3323
BA	2242	2354	4333	2334	3333	23--	--34	3334
PM	2135	3332	3355	4322	2445	4434	2454	3323
HU	2334	5543	4423	4344	----	----	----	----
PP	2143	3221	3334	2113	3334	2234	2344	2222
TN	2143	3353	3353	2434	224-	----	--25	4233
GN	3244	3452	3345	5334	3345	5555	3355	4444
HR	2233	4354	4543	3334	3334	3436	3335	3334
TO	2245	4431	3345	4333	2445	4445	3355	4334
AM	2244	3331	3454	4223	3444	3335	3354	3333
MI	2564	5542	3577	5543	3557	6665	3477	6533
MY	3454	3252	4554	3334	3544	3456	4545	3335
MW	3453	4465	6655	3657	4645	4568	5564	4476
NL	2344	3363	6644	3445	6633	3447	6663	2336
SB	3444	3333	3433	3344	3333	3445	4344	3445
VO	----	----	----	----	----	----	----	----



THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500 γ
ABISKO
GREAT WHALE
COLLEGE
1000 γ
TIXIE BAY
DIXON ISLAND
H
SAN JUAN
HONOLULU
KAKIOKA
100 γ
HERMANUS
H
PRELIMINARY AURORAL ELECTROJET INDICES
AU(5)
AL(5)
AE = AU−AL
1000 γ
00 UT 03 06 09 12 15 18 21 24 03 06 09 12 15 18 21 24
OCTOBER 6, 1975
OCTOBER 7, 1975

October 06, 00.00 - October 08, 00.00, 1975

Preliminary AE (5) - indices at 2.5 min. intervals UT

Unit: nT 1 nT = 1 Gamma

d h m	00		05		10		15		20		25		30		35		40		45		50		55	
06 00 00	53	43	37	30	36	36	33	33	30	16	22	36	36	31	14	16	36	47	44	68	71	54	41	31
01	48	53	30	27	27	28	30	19	19	12	13	28	34	17	13	19	16	22	22	22	26	26	25	24
02	22	32	23	23	24	35	38	38	35	32	25	28	31	28	28	28	31	31	28	30	27	27	33	27
03	27	27	27	27	38	57	96	96	60	51	44	44	57	118	185	121	102	108	121	144	150	137	121	97
04	91	75	51	73	100	126	123	110	100	84	65	38	41	50	53	66	82	84	87	97	94	84	89	86
05	82	89	95	111	137	161	170	174	167	175	170	181	214	249	255	287	353	364	523	586	628	680	840	734
06	706	671	697	676	607	580	542	531	531	537	551	527	511	532	522	487	499	467	513	446	379	363	352	305
07	313	332	375	386	390	406	414	439	471	481	486	503	527	546	535	521	476	452	435	459	481	503	561	581
08	567	550	519	517	500	525	577	624	628	655	620	679	735	657	621	692	770	807	930	896	886	905	916	987
09	1095	1052	1071	1085	1053	1041	1050	1081	1093	1101	1222	1226	1162	1145	1138	1170	1145	1118	1136	1202	1183	1110	1085	1035
10	955	945	973	1035	956	908	966	999	1044	1032	1063	980	885	774	803	703	675	674	696	783	847	753	628	613
11	623	589	540	505	501	483	456	406	390	379	371	356	315	272	232	186	149	126	124	99	113	118	111	96
12	103	97	119	152	155	153	139	130	122	113	119	108	91	93	85	87	100	78	49	38	20	30	30	41
13	46	65	78	67	65	62	104	146	187	217	267	287	334	376	399	412	451	466	450	410	399	358	305	275
14	244	221	197	184	177	153	125	117	176	266	334	387	468	527	563	548	514	516	499	464	457	446	443	499
15	559	519	542	510	490	469	420	420	414	414	418	428	433	416	407	423	441	432	415	389	373	430	346	351
16	388	404	375	338	331	334	316	339	340	348	342	362	377	375	398	430	477	526	517	496	499	536	587	646
17	638	608	611	583	512	480	484	540	585	619	636	621	569	554	571	583	531	473	448	438	413	382	360	377
18	354	326	304	360	403	436	456	432	409	445	480	504	519	547	589	646	645	610	589	597	611	650	689	648
19	597	594	722	722	757	812	796	756	730	742	725	730	792	848	804	745	714	676	658	632	561	502	498	504
20	502	488	468	454	445	439	430	415	399	325	292	285	305	295	281	287	328	346	341	327	306	300	292	288
21	265	239	248	269	265	263	237	205	206	214	198	181	169	164	166	161	182	200	221	233	230	222	239	250
22	234	221	218	221	215	198	218	240	240	247	269	256	289	308	330	340	337	340	335	313	266	201	205	237
23	256	286	339	362	350	343	340	356	347	350	343	340	324	285	247	208	179	173	179	186	183	167	147	131
07 00	118	122	125	118	102	99	99	110	121	112	112	118	131	134	141	134	125	109	96	109	115	121	115	115
01	115	102	105	118	144	157	163	170	170	176	176	176	182	182	189	217	219	262	306	357	412	454	474	474
02	474	474	493	512	433	470	526	487	479	550	544	518	444	457	470	468	439	420	440	466	437	374	390	412
03	452	392	357	354	262	266	285	311	323	330	358	422	491	575	577	511	453	414	366	318	289	261	288	284
04	247	272	257	200	187	216	221	232	351	463	454	457	650	802	805	763	1006	1025	993	1035	851	892	922	930
05	879	827	803	828	799	789	553	547	473	432	464	436	332	263	218	174	277	318	194	203	262	259	250	237
06	230	264	275	278	281	291	297	284	262	279	240	192	187	160	147	131	128	131	139	150	162	163	169	170
07	176	185	191	227	241	306	284	309	351	502	524	587	650	718	712	773	726	716	798	1038	1039	990	932	834
08	670	681	765	747	766	813	866	828	778	778	772	809	826	844	929	873	802	786	792	759	714	766	801	794
09	750	718	724	732	705	682	692	752	748	711	640	589	543	560	560	562	536	555	577	521	479	555	671	613
10	751	959	935	871	806	774	688	588	522	552	701	627	529	471	428	392	533	644	662	696	787	812	835	826
11	790	769	704	606	481	431	411	392	367	298	263	305	368	395	428	433	422	406	395	429	440	467	463	440
12	457	507	528	556	597	625	648	656	623	584	587	586	568	484	395	319	259	250	245	225	325	406	517	659
13	613	549	454	457	497	552	597	522	476	446	441	417	401	414	409	389	369	381	426	400	402	412	454	533
14	539	522	516	487	408	352	359	363	374	381	387	449	478	451	424	397	369	358	369	393	383	372	399	381
15	359	336	305	288	273	262	251	231	229	235	261	280	267	253	271	259	231	561	497	332	340	365	369	394
16	430	345	413	336	300	300	300	315	423	368	341	305	311	324	311	300	357	332	343	353	352	348	374	423
17	494	592	753	936	676	609	623	580	575	613	721	783	818	594	491	451	423	438	450	439	389	382	381	431
18	429	451	411	380	364	344	331	327	337	345	336	361	378	377	379	387	394	394	396	396	366	312	289	279
19	282	302	316	318	316	310	324	335	369	417	404	396	411	414	411	412	422	424	405	399	382	369	347	340
20	328	300	274	244	276	337	340	346	321	311	288	269	247	244	265	343	439	484	536	529	613	751	545	371
21	367	416	483	570	675	815	883	907	934	930	861	992	1118	972	896	825	774	687	641	555	449	445	440	485
22	456	375	301	224	254	277	254	291	282	265	242	206	208	212	208	221	234	224	215	179	150	144	134	144
23	150	163	228	240	202	154	60	75	133	157	128	120	144	176	183	244	260	282	305	350	379	382	414	404

November 02, 00.00 - November 4 , 00.00, 1975

Preliminary AE (5) - indices at 2.5 min. intervals UT

Unit: nT 1 nT = 1 Gamma

d	h m	00		05		10		15		20		25		30		35		40		45		50		55	
02	00 00	101	113	124	101	92	83	72	87	111	111	105	101	86	93	88	91	85	84	81	80	79	89	90	74
	01	69	62	57	61	70	82	100	88	87	102	105	118	121	133	122	133	138	130	123	123	120	121	110	102
	02	106	100	89	78	76	86	95	96	115	114	137	143	134	118	134	161	140	160	164	176	186	157	164	137
	03	123	111	128	124	129	120	90	107	73	99	171	212	225	65	50	46	53	56	57	73	50	80	75	62
	04	57	91	86	116	126	134	153	137	121	127	122	109	94	91	95	121	103	95	87	98	95	124	127	127
	05	121	127	98	116	91	87	89	97	97	106	99	117	114	114	121	117	109	113	113	113	90	95	98	125
	06	127	98	103	92	84	89	89	84	84	95	98	95	81	70	81	78	62	59	68	62	84	89	97	124
	07	138	120	125	130	106	119	106	84	133	173	147	157	176	147	176	163	147	147	147	136	155	117	120	131
	08	128	117	114	112	87	96	85	79	82	87	112	125	125	112	107	101	121	112	137	115	115	128	125	100
	09	122	133	133	168	179	192	173	165	163	146	177	163	166	152	141	141	144	149	146	144	157	187	213	203
	10	192	173	165	176	181	192	221	245	227	200	184	181	181	186	200	223	242	236	256	288	333	351	408	429
	11	453	475	544	571	534	502	467	430	394	392	403	400	401	398	360	339	311	279	225	236	253	232	245	324
	12	374	395	423	429	432	446	475	517	559	525	573	603	629	666	722	792	672	650	586	571	504	471	379	338
	13	327	320	316	334	327	313	268	224	224	254	286	272	244	245	229	262	306	321	332	351	354	343	343	306
	14	292	318	306	355	351	329	310	309	300	317	459	597	572	564	536	503	446	351	376	354	351	384	421	466
	15	486	542	620	728	777	817	829	855	841	826	834	841	904	915	818	691	677	625	588	533	435	413	416	456
	16	413	375	371	390	405	420	454	492	513	508	512	517	555	608	546	598	541	549	508	534	534	494	535	537
	17	515	528	556	595	598	560	583	599	615	629	590	572	612	644	684	700	677	634	647	554	479	436	403	354
	18	386	371	360	364	432	466	446	427	555	687	562	563	548	508	464	478	472	474	783	536	474	647	665	620
	19	642	660	641	668	724	701	687	681	713	814	838	838	899	894	894	915	936	848	674	769	804	805	909	871
	20	860	860	859	849	930	938	948	993	985	927	801	767	810	746	705	695	692	609	591	634	671	644	673	738
	21	775	799	757	711	618	589	559	538	482	453	426	381	405	480	432	416	483	500	418	355	412	264	297	356
	22	314	331	389	422	434	441	467	416	371	341	343	358	322	290	304	311	259	173	173	235	241	176	140	152
	23	189	543	649	612	746	779	742	757	757	680	772	702	648	713	620	654	597	609	626	601	572	580	557	487
03	00	450	453	441	449	468	431	408	385	427	424	454	461	439	383	351	385	381	404	488	530	572	564	557	580
	01	603	596	513	516	575	690	710	649	667	668	596	631	620	558	647	678	716	789	727	605	597	581	614	553
	02	594	599	572	523	530	590	625	772	841	901	911	878	867	811	824	891	976	800	806	657	724	768	648	634
	03	615	559	499	489	477	455	440	378	349	352	368	349	338	330	342	364	372	407	412	402	445	463	478	410
	04	409	400	399	407	433	459	472	505	497	501	501	510	547	520	456	465	473	547	532	559	593	616	577	656
	05	658	704	660	640	580	584	593	663	625	603	593	635	704	734	811	773	722	746	753	731	648	932	797	706
	06	717	716	727	724	696	685	693	664	792	819	882	934	980	1064	1169	1106	783	596	614	798	864	691	637	637
	07	764	758	623	517	349	362	336	335	391	292	513	481	411	424	432	490	539	542	541	574	635	629	632	606
	08	608	673	705	648	606	560	560	563	552	560	538	547	536	509	544	619	652	620	577	667	642	425	507	441
	09	465	411	1156	914	1082	1357	913	1166	1244	1190	1022	1191	1846	2196	2371	1875	1336	1305	1616	1402	1499	1560	1414	1481
	10	1366	995	822	1097	1366	1231	1138	1350	1117	1097	907	738	854	919	842	751	708	777	800	885	981	1029	1018	1015
	11	808	1055	860	692	635	487	490	465	450	603	787	989	953	841	733	538	901	1157	1264	1388	1337	1279	1191	1114
	12	1193	1254	1206	1111	1127	1045	1023	939	753	592	417	406	373	345	250	523	556	528	516	528	475	517	555	626
	13	668	810	855	815	717	729	778	822	869	822	750	770	821	817	899	840	818	829	783	733	775	747	725	788
	14	854	805	696	613	475	474	621	500	711	637	668	571	517	450	412	342	384	419	432	440	470	533	585	674
	15	729	811	833	870	752	741	702	800	831	916	979	905	1071	1178	1150	1233	1246	1209	1121	1136	926	917	934	918
	16	905	799	758	652	663	685	749	689	668	726	794	836	865	872	846	884	859	764	657	639	569	453	565	624
	17	551	649	677	700	646	663	761	769	832	896	916	883	811	761	704	633	586	558	525	670	689	747	731	567
	18	561	705	677	701	679	670	723	770	901	831	689	745	766	697	492	575	684	671	734	756	734	675	744	686
	19	715	761	708	689	575	582	575	686	699	886	953	1024	1094	1211	969	714	686	899	954	858	910	1104	1208	1164
	20	1161	1216	1134	1096	1022	946	892	819	735	816	858	849	781	842	740	651	657	663	738	535	478	544	434	530
	21	543	571	589	652	687	692	716	692	617	612	646	668	635	569	540	594	636	615	647	695	840	897	812	741
	22	585	534	564	558	446	498	555	515	570	413	462	453	450	492	513	587	633	681	684	571	384	352	362	411
	23	400	532	604	503	432	517	348	266	263	252	230	135	159	270	154	283	169	98	165	228	171	189	182	148

Indices	2	3	4	5
UT	06 12 18	06 12 18	06 12 18	06 12 18
Kp	2+ 3o 2o 3+ 4- 4o 7- 6o	6o 6- 6- 5+ 5o 6o 6- 5+	5+ 5+ 5o 5o 5o 4+ 4o 3-	3+ 3- 3- 5- 3o 4+ 4o 3+
3Kn	6 7 5 9 11 11 17 15	14 14 16 16 15 17 15 14	15 12 12 14 15 14 11 8	8 6 7 13 9 12 10 9
3Ks	6 6 6 11 11 12 17 15	12 12 14 15 13 16 15 13	13 10 12 13 14 10 10 7	8 7 8 13 8 10 10 9
Dst				

NOVEMBER 1975

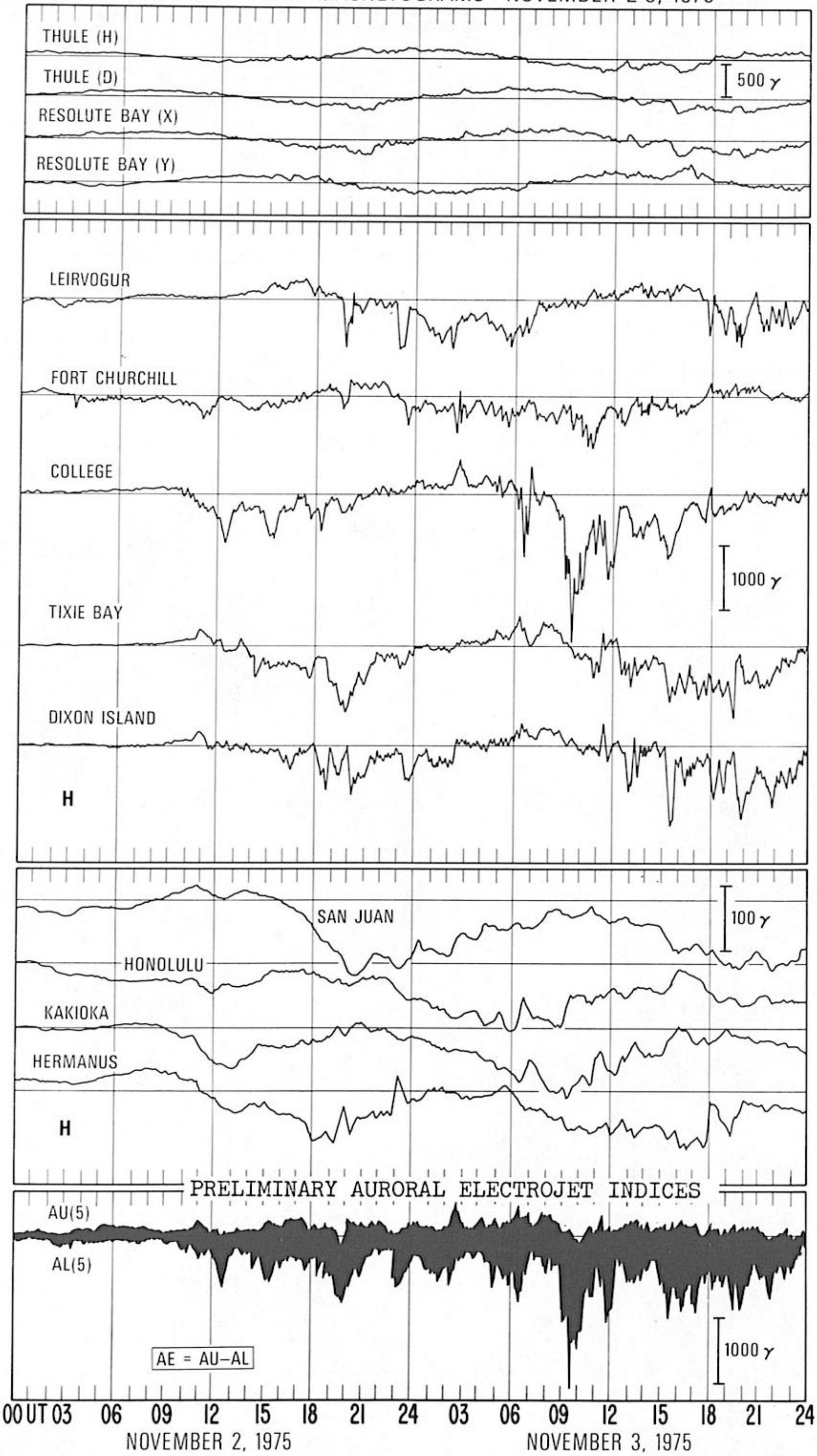
Values underlined are for X and Y.
X, Y, H and Z are given in gammas,
D in minutes.

Data from Individual Observatories:

OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY (3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
HO	07.6N	1	2200	..	..	..	..	02(5,6,7) 03(4,5,6,7) 04(5) 05(4,6)	5	6	147	21	05	22
RB	83.0N	2	0330	..	..	..	..	03(6)	-	450	474	289	04	00
MX	79.1N	2	1500	..	..	..	..	03(6)	-	712	523	616	04	03
BL	73.9N	2	0330	..	..	..	..	02(2)	-	547	771	850	03	23
CH	68.8N	2	0310	..	..	..	..	03(4)	-	972	1241	1041	03	21
TR	67.2N	2	04--	..	..	..	..	02(7) 03(6,7)	7	283	1355	1428	04	22
GW	66.3N	2	0200	..	..	..	..	03(2)	-	358	1651	1455	03	21
CO	64.6N	2	09--	..	..	..	..	03(4)	8	495	2860	1780	05	24
ME	61.8N	2	0305	..	..	..	..	03(2,3,4)	8	193	1338	1055	05	01
SI	60.0N	2	09--	..	..	..	..	03(4)	-	140	--	--	04	16
JO	58.7N	2	1100	..	..	..	..	02(7)	6	272	316	450	04	15
OT	57.0N	2	0330	..	..	..	..	02(8) 03(3) 04(1)	6	220	190	170	06	06
NE	55.1N	2	03--	..	..	..	..	03(3,4)	7	59	286	435	06	18
VI	54.3N	2	----	..	..	..	..	03(2,3,4)	7	55	215	360	05	01
WI	54.2N	2	09--	..	..	..	..	02(7) 03(6)	7	45	260	105	04	22
FR	49.6N	2	15--	..	..	..	..	04(1)	6	35	160	95	06	07
BD	48.9N	2	09--	..	..	..	..	03(3)	6	45	136	120	06	08
TU	40.4N	2	15--	..	..	..	..	03(3,4) 04(1)	6	22	120	25	05	01
MT	34.0N	2	0636	..	..	..	..	03(4)	6	14	135	28	04	24
SJ	29.9N	2	1100	..	..	..	..	02(7)	6	6	126	35	04	24
KA	26.0N	2	0636	..	..	..	..	03(3,4,5) 04(4)	5	9	114	61	04	24
HO	21.9N	2	08--	..	..	..	..	03(3)	5	8	94	29	04	--
KY	20.5N	2	0636	..	..	..	..	03(3,4,5) 04(4,5)	5	8	119	54	04	24
AL	09.5N	2	04--	..	..	..	..	02(4,6,7,8) 03(4,5,6,7) 04(5,6)	5	6	145	22	04	20
GU	04.0N	2	0839	..	..	..	..	03(4)	5	0	80	20	04	17
AN	01.5N	2	04--	..	..	..	..	--	-	5	157	54	04	20
TV	01.1S	2	04--	..	..	..	..	--	-	4	178	83	04	20
PM	18.6S	2	07--	..	..	..	..	02(4) 03(4,6) 04(4)	5	6	110	50	06	17
HR	33.7S	2	08--	..	..	..	..	02(6,7,8) 03(6,7)	5	27	106	96	04	21
GN	43.2S	2	06--	..	..	..	..	03(5,6,7) 04(4,5)	6	20	110	120	04	18
TO	46.7S	2	11--	..	..	..	..	03(4)	6	22	140	80	04	21
CZ	51.4S	2	0900	..	..	..	..	02(7) 03(6)	6	44	175	130	04	22
KG	56.5S	2	0900	..	..	..	..	02(7) 03(6)	9	61	929	314	04	22
MI	60.7S	2	02--	..	..	..	..	03(3,4,6) 04(3,4,5)	7	209	1310	1160	05	21
DU	75.6S	2	0600	..	..	..	..	03(1,2,8)	5	595	602	478	04	00

THREE-HOUR-RANGE INDICES, K

NOV	2	3	4	5		2	3	4	5
BT	3232 0265	4444 5646	5435 6533	2434 2243	TK	2225 4454	3345 6555	4444 5532	2125 2533
CC	3234 3565	5447 7767	5557 7535	4445 4745	IK	2224 3465	4334 5664	4435 5553	3224 2543
DI	4335 5677	7557 8888	6766 8765	4445 5875	TL	1323 3365	4343 3554	4333 4443	2223 2542
TI	2126 8687	6679 9888	6567 8764	3337 6764	FR	3323 3355	5554 4545	6444 4332	3224 2333
MM	3213 4677	6456 6887	6555 5554	3234 3664	SM	3333 3465	5443 4555	5344 4552	2324 3543
KI	2212 4586	6756 6786	6645 4455	3223 3564	KS	1035 4566	4345 5773	5345 6652	2145 4541
WE	1226 6765	---- 8864	4568 7433	1-38 3553	TU	3323 3455	5566 4544	6545 5333	2234 3543
CO	2225 6664	5578 6654	4577 7532	3337 4533	KY	2114 4343	3455 5443	3335 5431	2235 3322
RY	4332 4588	7666 5776	8766 5444	6445 4556	QU	1--- ----	-454 5554	2434 5532	233- ----
DO	3222 3698	5445 5765	5534 5543	3233 3444	TA	2324 2445	3334 3453	4324 4443	3314 2443
YA	2213 6556	3466 6664	4456 7643	2226 3533	HO	2224 3244	3455 3433	3434 4322	2233 2333
LE	---- ----	---- ----	---- ----	---- ----	AL	2235 4555	3445 5554	3334 5532	2345 3532
NU	2212 3486	5434 5778	4434 5552	3224 3444	SJ	2223 2464	4444 3544	5333 4333	2223 2333
LO	2223 4487	5445 5764	5444 5553	3234 2444	GU	2125 4234	3455 5534	4334 4222	2234 3223
SI	1316 6454	6677 7644	4665 6322	1236 4332	BA	2224 3445	3433 3553	4334 4443	3324 3443
SV	2313 4355	5335 5553	5434 6542	3124 2443	PM	2125 4333	3445 4533	3345 4222	2234 2222
RS	3222 3476	5434 5665	4434 5552	3234 3544	HU	3223 4654	4333 5654	4323 4332	2233 4432
ME	2326 6455	6888 7654	5676 6432	2246 3333	PP	2124 2242	4354 2324	3334 3231	2233 2221
WI	2212 2476	6444 5765	5545 5663	4224 2554	TN	2224 3555	3244 3453	3314 3444	1023 3432
IR	3335 5556	4456 5664	4456 6542	2335 3543	GN	2234 5555	4455 6664	4346 6333	3236 3333
VL	2323 3465	5443 4555	5444 4553	3224 2543	HR	2223 3555	3343 4553	4444 4342	2235 3443
KV	3334 4575	5445 6664	5545 5653	3334 2544	TO	2224 4445	4456 4444	3445 5332	3335 3332
DB	2212 2365	4334 4654	4434 4543	3224 2443	AM	2234 4344	4565 4444	3444 4332	3334 3232
KD	0113 3323	3224 5352	3224 5531	1112 1332	MI	2325 6554	6677 6764	5577 7432	2345 4642
VI	2324 4455	6777 6643	5556 6432	2244 4333	MY	4444 3344	4445 4765	4564 3343	4565 4343
JO	1313 2265	6454 4454	5434 3332	3123 3333	MW	3444 4477	6765 6787	6765 5575	5444 4665
OT	2313 3365	5665 4456	6344 3222	3224 2333	NL	3313 3566	7665 4666	6744 3442	3333 2443
MT	2114 5354	3456 5543	4445 5431	1125 3322	SB	3333 3454	4444 4444	4444 5444	3344 3343
WL	0026 5443	1366 6553	3356 5541	0035 3431	VO	2333 3444	3434 4544	4444 3333	3344 3433


THULE (H)
THULE (D)
500 γ
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
LEIRVOGUR
FORT CHURCHILL
COLLEGE
1000 γ
TIXIE BAY
DIXON ISLAND
H
SAN JUAN
100 γ
HONOLULU
KAKIOKA
HERMANUS
H
PRELIMINARY AURORAL ELECTROJET INDICES
AU(5)
AL(5)
AE = AU–AL
1000 γ
00 UT 03 06 09 12 15 18 21 24 03 06 09 12 15 18 21 24
NOVEMBER 2, 1975
NOVEMBER 3, 1975

Indices	20	21	22	23
UT	06 12 18	06 12 18	06 12 18	06 12 18
Kp	2+ 2o 2o 1o 1- 3- 3- 3+	5- 3+ 4+ 4- 2- 1o 3o 3-	2o 3+ 5o 6- 5o 6+ 6+ 4-	4+ 2- 2+ 1- 1- 1+ 1o 1o
3Kn	6 4 5 3 3 9 8 9	14 9 11 9 5 3 9 8	4 7 13 17 14 20 18 8	10 4 6 2 2 3 3 2
3Ks	6 4 7 4 5 8 9 9	11 9 10 10 5 5 10 10	8 8 11 14 15 18 16 9	11 4 7 4 4 5 5 4
Dst				

NOVEMBER 1975

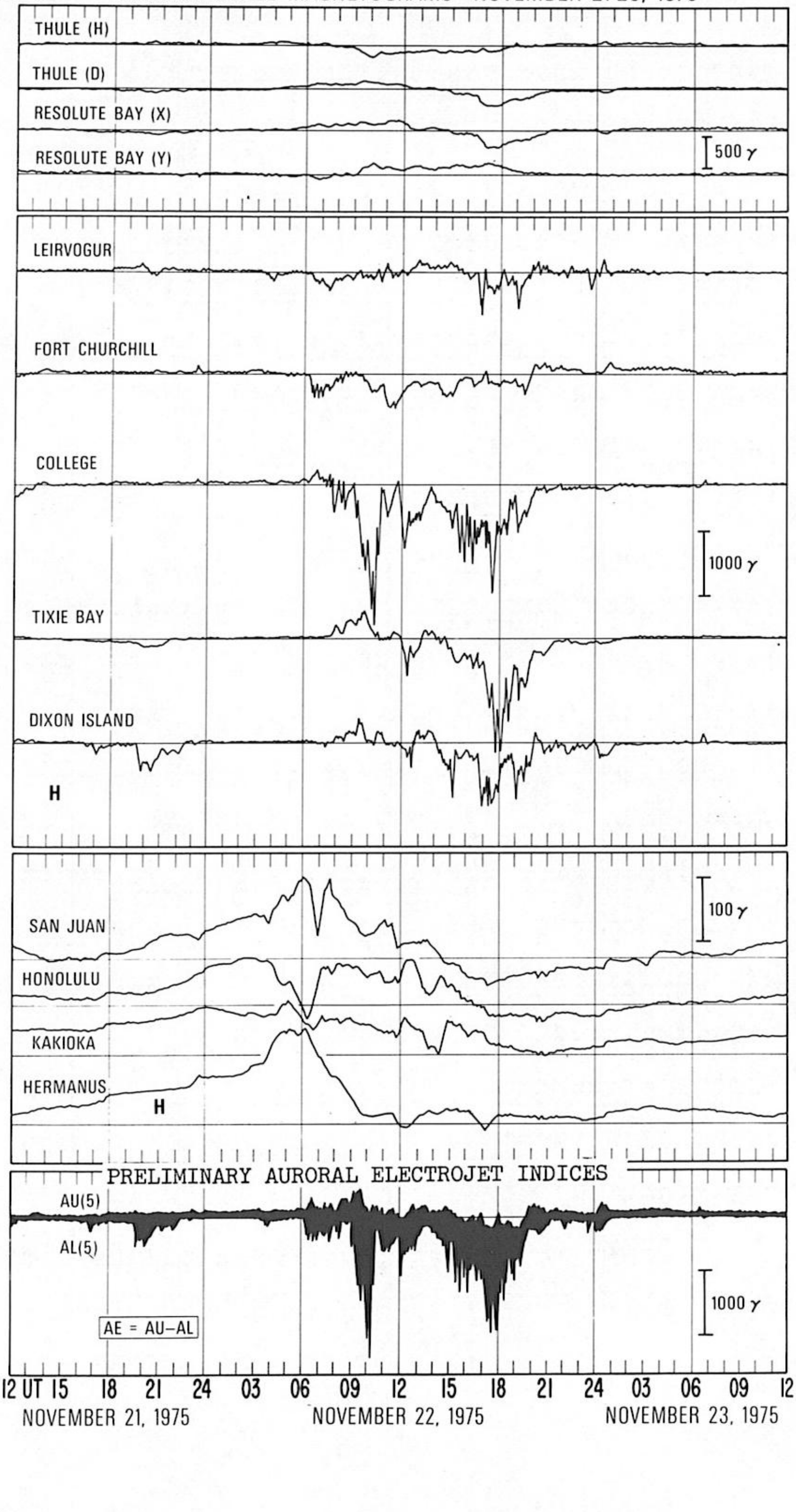
Values underlined are for X and Y.
X, Y, H and Z are given in gammas,
D in minutes.

Data from Individual Observatories:

OBS. 2 letter IAGA code	GEOMAGNETIC LATITUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY (3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
NE	55.1N	20	20--	..	..	..	..	22(4)	7	47	313	275	24	01
BD	48.9N	20	19--	..	..	..	..	22(6)	6	30	206	106	23	08
RB	83.0N	21	2305	SC*	-90 *	-28	+ 3	22(6)	-	275	462	187	23	12
MX	79.1N	21	2305	SC*	+94	-45 *	+12	22(4)	-	431	542	342	23	09
BL	73.9N	21	2305	SC*	-27	+243 *	-93 *	22(4)	-	410	427	664	23	02
CH	68.8N	21	2305	SC*	+63 *	+168 *	-61 *	22(4)	-	522	748	644	23	07
TR	67.2N	21	1935	..	+15	-221	+46	22(6,7)	7	185	1270	1105	23	01
GW	66.8N	21	2305	SC*	+20.9	+89 *	-80 *	22(4)	-	190	877	764	23	04
ME	61.8N	21	1400	..	..	..	..	22(4)	8	184	978	1036	23	06
JO	58.7N	21	2305	SC	--	+	+	22(7)	6	195	265	472	23	02
OT	57.0N	21	0115	..	..	..	..	21(1)	5	110	75	25	22	21
VI	54.3N	21	2305	SC	- 1.4	+ 9	..	22(4)	7	50	268	269	23	02
WI	54.2N	21	2305	SC	- 2	+26	0	22(6,7)	7	52	295	90	23	01
FR	49.6N	21	2305	SC*	- 0.5	+12	- 2	22(3,4,5,6,7)	5	18	190	80	23	01
TU	40.4N	21	23--	..	..	..	..	22(4,6)	6	15	175	20	23	03
MT	34.0N	21	2300	..	..	..	..	22(4,6,7)	6	11	135	27	22	24
KA	26.0N	21	2300	..	..	..	..	22(6,7)	6	8	101	60	22	24
HO	21.9N	21	2304	SC	- 0	+ 5	+ 3	22(4)	5	8	94	29	22	22
KY	20.5N	21	2300	..	..	..	..	22(4,6)	6	8	116	62	22	24
AL	09.5N	21	2304	SC	- 0.4	10	- 4	22(6)	6	5	208	26	22	20
HD	07.6N	21	2306	SC	- 0.3	+10	- 1	22(6)	6	5	214	14	23	01
GU	04.0N	21	2305	SC	--	15	-04	22(6)	6	0	140	20	22	21
AN	01.5N	21	2304	SC	- 0.5	12	..	--	-	4	200	59	22	20
TV	01.1S	21	2304	SC	0.0	10	12	--	-	3	198	--	22	20
PM	18.6S	21	2304	SC*	- 0.9*	+12	+ 8	22(4,6)	6	7	120	60	22	22
HR	33.7S	21	2304	SC	+ 1	+13	+ 9	22(6)	6	37	173	154	23	01
CZ	51.4S	21	2305	SC	..	..	..	22(6)	7	47	243	123	23	02
KG	56.5S	21	2305	SC	3	13	4	22(6)	8	83	658	439	23	03
MI	60.7S	21	02--	..	..	..	..	22(6,7)	9	308	2100	1520	.23	00
DU	75.6S	21	2305	SC	212	50	110	22(2)	6	712	545	715	23	10
CO	64.6N	22	06--	..	..	..	..	22(4)	8	610	2440	1720	22	21
SI	60.0N	22	06--	..	..	..	..	22(4)	-	190	--	640	22	22
GN	43.2S	22	02--	..	..	..	..	22(6)	7	28	110	170	22	23
TO	46.7S	22	03--	..	..	..	..	22(4,5,6)	6	30	180	110	22	23
VI	54.3N	23	0631	SC	- 0.9	+16	+ 4	23(3)	2	2	16	6	23	08
HD	07.6N	23	0632	SC	- 0.1	+ 3	0	24(5)	5	1	69	16	24	22
PM	18.6S	23	0631	SC	0.3	6	5	26(3,4)	5	5	70	50	27	00

THREE-HOUR-RANGE INDICES, K

NOV	20		21		22		23			20		21		22		23	
BT	3340	0033	7532	1033	2445	2453	4230	1111	TK	3332	2333	4344	3143	3465	5753	3442	2201
CC	4342	1533	5433	2235	3345	6764	4241	1222	IK	2122	1433	5223	2153	2345	5763	4121	1211
DI	4332	2656	6454	3565	3356	8885	5342	2232	TL	2211	0333	4223	0142	1234	3663	4230	1200
TI	3231	1645	4365	3244	2267	8995	4232	2222	FR	2121	0222	5343	1123	1355	5553	3220	0111
MM	3111	1466	5233	2264	1235	5875	5121	1111	SM	3222	2232	4342	3232	2244	3653	4222	3222
KI	3110	0456	5333	1153	1234	5775	5121	0110	KS	3321	2544	6234	3254	4355	6765	0032	3311
WE	1111	0222	3365	3313	1269	7883	3141	0111	TU	2221	1333	5343	1123	2356	5652	3120	1111
CO	1121	0222	4356	4113	1268	6763	3131	0121	KY	1221	2222	3332	1122	3346	4652	2131	1111
RY	4211	2345	7554	3353	2455	5776	5231	1221	QU	3222	1433	4333	2143	3355	4653	3331	2111
DO	2111	0234	3223	1142	1334	4774	5021	1201	TA	3221	1333	5223	1133	2334	4--2	4311	2211
YA	3121	1333	5343	2132	1247	6873	3220	0111	HO	2121	2222	3333	2122	2345	4552	2120	1211
LE	----	----	----	----	----	----	----	----	AL	3222	2433	4533	2243	3355	4653	3232	2222
NU	2110	0234	4222	1142	1234	4774	4121	0100	SJ	1120	1222	3333	1123	2244	5653	3121	1211
LO	2121	1334	4233	1142	1234	4774	4131	1110	GU	2221	2223	3233	2123	3355	4651	2242	2112
SI	1112	0222	4455	3022	1268	7773	3130	0111	BA	3232	2333	5333	2243	3345	5663	4232	2221
SV	2111	1433	4323	1232	1235	5763	3121	1100	PM	2222	2222	2333	2123	3346	5653	2232	1222
RS	2221	1334	4233	2143	1334	4764	4131	1110	HU	1111	2432	3322	2343	2343	5565	4222	3321
ME	1112	1222	4476	3123	2268	6553	3220	1122	PP	1121	2122	3222	1022	1244	3442	2131	1211
WI	2221	0444	5333	1143	1345	5774	5021	1110	TN	2231	2432	4222	3142	22--	----	3242	1111
IR	2222	1433	4334	2143	2247	5873	3232	1111	GN	2132	1322	3334	1144	2235	6763	3121	1212
VL	2111	1344	4233	1142	1234	3663	4120	1100	HR	2121	1333	4343	1143	3344	5653	4132	1111
KV	2122	1444	4334	1242	2345	5763	4233	1111	TO	2232	1222	3343	1123	2246	6653	3221	1111
DB	2121	1334	4232	1143	1235	4763	4021	0110	AM	2231	1222	3344	2112	2346	5653	3121	1111
KD	1122	2121	3112	1121	1135	3552	2221	0100	MI	2522	1322	4456	4122	2468	7993	3121	0110
VI	2122	1222	5464	2122	1257	5652	3120	1221	MY	3342	2233	5454	2133	3666	4554	4443	2122
JO	3110	1122	5342	2122	1344	4663	3110	1100	MW	5332	3466	6563	2365	3555	6875	5431	1222
OT	2111	1222	6443	2122	0256	4452	3120	1110	NL	2221	1234	7552	1132	1335	4665	4221	1111
MT	2121	2222	3233	2122	2246	4662	2121	0110	SB	3221	3344	4433	2333	3444	3455	5232	2343
WL	1222	2333	4333	2133	0256	5662	3032	1210	VO	3333	3333	2344	4323	3444	4454	4455	3333


THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500 γ
LEIRVOGUR
FORT CHURCHILL
COLLEGE
1000 γ
TIXIE BAY
DIXON ISLAND
H
SAN JUAN
100 γ
HONOLULU
KAKIOKA
HERMANUS
H
PRELIMINARY AURORAL ELECTROJET INDICES
AU(5)
AL(5)
1000 γ
AE = AU−AL
12 UT 15 18 21 24 03 06 09 12 15 18 21 24 03 06 09 12
NOVEMBER 21, 1975
NOVEMBER 22, 1975
NOVEMBER 23, 1975

November 21, 12.00 - November 23, 12.00, 1975

Preliminary AE (5) - indices at 2.5 min. intervals UT

Unit: nT 1 nT = 1 Gamma

d	h	m	00		05		10		15		20		25		30		35		40		45		50		55	
21	12	00	56	95	164	156	154	187	187	159	143	126	103	112	109	112	115	54	52	34	31	40	48	57	64	56
	13		56	61	68	50	50	46	16	49	42	56	81	84	69	72	78	86	93	92	92	89	102	89	77	77
	14		80	80	71	74	63	63	52	54	66	63	63	66	63	52	52	54	54	52	49	63	63	63	49	50
	15		49	58	66	69	54	57	68	68	57	68	66	66	66	66	66	77	77	74	79	79	71	71	57	54
	16		66	66	66	57	58	60	57	60	106	74	112	101	76	62	65	82	82	76	74	85	146	132	185	225
	17		270	233	194	165	123	132	157	148	129	98	134	146	132	95	118	101	115	106	109	106	89	115	140	118
	18		134	123	120	135	137	140	123	123	137	128	115	120	134	148	150	150	142	131	128	134	146	139	131	117
	19		115	120	128	126	140	115	116	133	150	139	142	153	142	128	128	176	228	343	554	384	378	370	371	391
	20		397	405	411	385	368	402	470	484	490	487	467	431	391	371	323	312	329	292	278	281	256	239	202	200
	21		195	190	193	179	196	213	213	244	267	278	267	247	253	219	205	205	208	210	199	188	179	194	210	238
	22		250	272	253	244	216	205	194	168	140	126	115	103	86	83	89	86	84	72	81	67	78	86	84	70
	23		73	67	120	98	151	156	156	151	123	100	86	86	84	70	73	70	70	59	50	61	61	59	56	70
22	00		70	90	90	98	87	87	78	81	93	95	95	97	100	84	84	75	86	84	84	84	84	78	78	74
	01		61	64	64	67	75	78	75	73	70	67	70	73	73	73	70	70	70	72	75	75	73	81	81	81
	02		81	84	84	92	92	81	67	72	89	97	95	95	92	89	87	87	87	84	92	100	92	108	104	98
	03		106	114	98	120	109	109	106	123	145	145	145	119	143	112	116	124	131	116	197	178	155	190	228	198
	04		221	190	167	132	120	108	143	139	162	142	173	161	158	158	139	143	139	131	123	135	139	120	139	116
	05		100	108	123	119	119	108	105	105	114	106	89	89	105	108	86	103	109	103	115	138	142	134	138	133
	06		130	136	134	146	139	108	125	157	225	405	293	493	550	581	487	373	437	491	617	524	448	367	369	393
	07		484	459	396	296	281	300	320	365	384	286	247	509	516	355	278	402	233	327	481	561	585	523	361	299
	08		278	269	204	194	202	202	339	244	192	485	393	421	358	309	349	330	359	351	360	368	383	376	351	343
	09		305	255	186	391	696	483	756	823	879	1164	1153	1350	1442	1209	1349	1490	1645	1667	1351	1158	1004	964	1040	1245
	10		377	1476	1967	1726	1325	2200	1969	1475	866	731	1079	1210	1056	734	378	320	295	349	260	217	240	298	382	545
	11		648	540	519	533	540	505	524	561	491	499	579	644	555	483	537	496	513	529	451	357	336	325	307	295
	12		216	231	548	899	730	580	539	416	308	481	605	546	501	607	587	577	547	506	566	607	586	589	550	648
	13		573	635	537	454	419	382	393	362	357	330	362	275	296	276	270	296	268	270	294	275	230	203	223	199
	14		282	309	320	312	338	314	327	325	349	391	403	407	421	434	451	420	450	538	517	538	512	666	792	879
	15		953	813	544	406	408	449	429	393	459	863	1038	1042	564	519	399	880	966	1141	783	533	244	236	466	883
	16		475	347	554	486	1121	849	592	446	771	701	842	836	593	700	719	621	628	761	935	894	779	660	721	870
	17		975	643	700	757	874	849	908	1044	1172	1475	1397	1355	1308	1461	1618	1540	1096	902	966	1085	1309	1397	1594	1617
	18		710	1223	1162	1045	1121	497	474	759	1099	1177	881	769	884	831	740	702	510	438	387	460	516	637	742	617
	19		480	788	801	388	455	495	469	415	426	494	589	665	555	520	462	424	363	316	292	369	372	333	410	282
	20		293	307	318	346	342	323	355	409	370	338	317	344	382	379	422	443	419	365	341	344	344	341	336	312
	21		256	210	181	192	200	150	143	112	125	123	128	123	127	125	180	177	166	163	155	142	117	123	131	145
	22		151	163	177	244	244	233	258	230	199	163	153	155	179	185	182	165	115	117	125	123	120	128	132	140
	23		120	106	109	114	104	96	114	141	153	145	94	87	60	59	65	165	311	130	177	139	58	70	101	87
23	00		96	104	121	177	236	259	230	255	343	349	436	429	364	307	321	353	351	328	326	299	276	254	197	194
	01		161	147	136	109	101	108	106	105	114	111	108	105	95	84	75	81	84	75	84	100	95	95	86	97
	02		92	81	84	84	86	89	100	121	108	122	117	108	103	106	100	108	114	100	99	111	124	116	105	108
	03		119	121	117	126	145	141	146	120	121	114	118	115	118	112	121	126	123	118	113	108	123	130	125	119
	04		114	129	110	106	98	93	93	95	98	96	88	99	105	107	113	116	108	107	112	112	109	99	94	100
	05		94	91	86	86	80	75	75	78	80	77	69	76	75	64	54	64	81	70	66	66	62	62	58	57
	06		60	71	82	82	71	71	56	60	67	67	67	67	74	86	164	112	85	96	106	112	124	90	90	86
	07		78	85	93	86	78	74	63	59	63	74	71	55	59	63	60	65	58	55	63	67	67	52	64	53
	08		63	67	74	63	74	71	71	67	67	82	82	71	81	86	74	78	67	63	64	64	72	74	74	74
	09		71	74	74	86	74	63	63	74	67	67	78	63	63	63	63	63	63	63	63	67	63	52	59	63
	10		63	74	67	67	56	63	63	41	67	52	75	78	78	78	71	71	71	71	71	60	56	56	56	56
	11		56	60	56	52	63	71	67	56	56	41	41	45	49	52	60	75	64	60	60	60	75	71	60	60

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