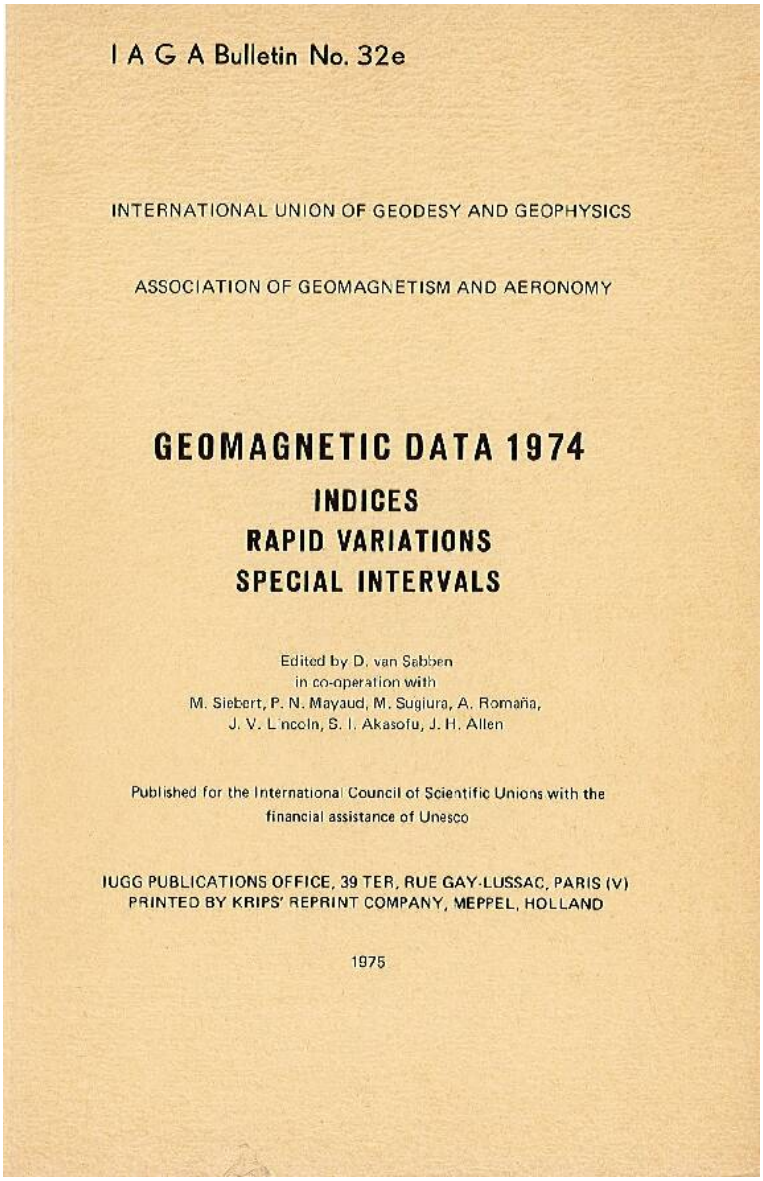

I A G A Bulletin No. 32e

INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS

ASSOCIATION OF GEOMAGNETISM AND AERONOMY

GEOMAGNETIC DATA 1974

INDICES
RAPID VARIATIONS
SPECIAL INTERVALS

Edited by D. van Sabben
in co-operation with
M. Siebert, P. N. Mayaud, M. Sugiura, A. Romaña,
J. V. Lincoln, S. I. Akasofu, J. H. Allen

Published for the International Council of Scientific Unions with the financial assistance of Unesco

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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 is discontinued, whereas planetary indices like Dst, AE, Kn, Ks, Km and a survey of magnetic storms are 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. continues as before,[1] as well as the determination of the international quiet and disturbed days. The K-indices of individual observatories are put on magnetic tape in De Bilt. These are made available through the World Digital Data Centers for Geomagnetism from 1969 onwards. 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.

Geophysical Institute, College (S.I. Akasofu): Magnetograms of polar cap stations.

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 GeophysicalServices. 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 station, 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, starting with the data for the year 1975 and the C-figures will no longer be compiled.

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 as in the former IAGA-Bulletin 12. 2, except that, according to decisions made at the IAGA-Assembly in Madrid, 1969, certain less important cases are no longer published. The list of so called minor distur-

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

bances and rejected solar-flare effects are omitted; ssc's, si's, bays and pulsations, are given only if reported by a sufficient number of stations; pulsations without bays are published in the quarterly bulletins and their yearly supplement.*) Checklists are sent to the observatories for the reported pg's and sfe's 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 and quarterly 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, as well as threemonthly bulletins on pulsations *), are sent to about 190 observatories and institutions by the International Service of Geomagnetic Indices, c/o Royal Netherlands Meteorological Institute, De Bilt, Netherlands. A yearly supplement to the threemonthly bulletins is distributed in the same way.

The data on rapid variations, including pulsations, 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.

*) Note: The publication of these threemonthly bulletins has been discontinued per 31 December 1973.

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

Paul H. Serson, Chairman

International Service of Geomagnetic Indices

D. van Sabben, Director

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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 $Ap \leqslant 6$, but 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).

B. 4 The planetary three-hour-range index Kp is the mean standardized K-index from 13 observatories between 46° and 63° 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

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, 11 in the Northern and 8 in the Southern hemisphere, namely: Memambetsu (Japan), Petropavlovsk, Magadan, Podk. Tungusta, Sverdlovsk (USSR), Niemegk (Germany), Witteveen (Netherlands), Hartland (England), Fredericksburg (USA), Victoria (Canada), Tucson (USA), Amberley (New Zealand), Toolangi, Gnangara (Australia), Kerguelen, Crozet (Indian Ocean), Hermanus (South Africa), Argentine Isl. 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. 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. Only the cases reported by at least ten stations

are given. Stations in isolated regions are thereby counted morefold, depending on the local density of the stations' network. 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.

C. 2 Bays or pulsational disturbances associated with bays. The times at the left-hand side of the table have the same meaning as in table C. 1. The observatories are mentioned in groups, according to the qualification (b, bs, bp, etc) which they have attributed to the phenomenon in accordance with the definitions given by the Copenhagen- and Berkeley meetings. The classification symbols A, B, C, D, E, X, are the same as mentioned in C. 1. 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

If pulsations precede or follow the beginning of the bay with a time lag of not more than about ten minutes, then symbols bp and bps are used. If the interval is greater, both phenomena are reported separately. As for the ssc's, this list contains only the cases reported by at least ten stations (isolated stations counted morefold). Moreover it may be that a bay has been selected by the observatories out of a group of many similar disturbances all occurring on the same day. Therefore the list is not complete and it seems better not to use this table for statistical purposes without caution. This holds also for the other tables.

C. 3 Sudden impulses (si). These are sudden magnetic changes which could not be classified as ssc, bs, etc. As for the ssc's, this list contains only the cases reported by at least ten stations (isolated stations counted morefold). The mean times and extreme times of the beginning of the phenomena are given as in table C. 1.

C. 4 Giant pulsations (pg) are given, which were reported originally by at least two stations (or by one station, if situated in a very isolated region and if the pg was classified as A). These pg's were checked by the observatories, mentioned in the heading of the table. It is very probable that several cases included in the Table are not real pg's in the sense given to the former classical polar pg's. Nevertheless, in order to clarify the actual signification of this denomination for the different observatories and to know the world distribution of this phenomenon, the table gives the answers to the checking-lists for all the cases in which a positive answer was given by some observatories, situated in regions where typical pg's have been observed in the past. Period and amplitude of the pg's as reported by the individual observatories are also included, as well as the times of beginning and ending of the phenomenon if these deviate from the times given in the left column.

C. 5a 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. 5b 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.

Part D. Data on special intervals.

The first lines give a survey of indices Kp, Kn and Ks for the selected periods. 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 ssc

is to be taken algebraïcally 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, but arranged according to geomagnetic latitude.

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.

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*) Stations used in Part D, which are not included in the List of Observatories (Part A) are the following:

CB	Cambridge Bay	$69^{o}\ 1'$ N	255^{o}	geomagn.	+77.0	301.0
NQ	Narssarssuaq	$61^{o}\ 11'$ N	$314^{o}\ 35'$	"	+71.2	37.6

LIST OF OBSERVATORIES

Symbol	Observatory	Collaborator	Geographic		Geomagnetic		S_H	K=9 lower limit	K rep.
			Lat.	Long.	Lat.	Long.	γ/mm		
	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 *	G. Schulz	+53 44	9 04	+54.5	94.0	6	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

Symbol	Observatory	Collaborator	Geographic		Geomagnetic		S_H γ/mm	K=9 lower limit	K rep.
			Lat.	Long.	Lat.	Long.			
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	2	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		Geomagnetic		S_H γ/mm	K=9 lower limit	K rep.
			Lat	Long.	Lat.	Long.			
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-Pamatai	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	Lourenco 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	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		-54 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 - 1974

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	0.6	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

TABLE 2 INTERNATIONAL CHARACTER-FIGURES, Ci 1974

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.8	0.6	1.0	0.9	0.3	1.2	0.4	0.2	1.1	1.2	0.2	0.4
2	0.6	0.5	0.9	0.8	0.9	0.9	0.6	1.1	1.3	1.2	0.0	0.8
3	0.6	0.2	1.0	1.5	1.0	1.0	0.4	1.5	1.0	0.6	0.2	1.0
4	0.9	0.2	0.4	1.4	1.3	0.3	1.2	1.2	1.0	0.5	0.1	0.4
5	0.7	0.3	1.0	1.0	1.3	0.1	1.8	1.1	0.9	0.4	0.2	0.4
6	0.5	0.2	1.0	1.1	0.3	0.1	1.9	1.0	0.8	0.6	0.7	0.1
7	0.0	0.4	0.8	0.8	0.8	0.0	0.9	1.1	0.7	0.2	0.4	0.5
8	0.7	0.3	1.0	0.8	0.7	0.2	1.3	1.1	0.2	0.7	1.1	0.9
9	0.4	0.1	1.4	0.8	0.6	0.2	0.8	0.9	0.1	1.4	1.3	1.6
10	0.9	0.9	1.3	1.2	0.0	0.8	1.0	0.8	0.1	0.5	0.6	1.1
11	0.2	1.3	1.4	0.9	0.1	1.2	0.7	0.4	0.0	0.2	1.7	1.1
12	0.2	1.4	0.7	0.0	0.1	1.2	1.0	0.1	0.3	0.9	1.7	0.9
13	0.2	0.9	0.3	0.2	0.1	1.1	0.7	0.3	0.8	1.9	1.5	1.1
14	0.5	0.5	0.8	0.1	0.5	0.9	1.1	0.1	0.5	1.2	1.4	0.5
15	1.0	0.0	0.0	0.0	1.5	1.5	0.5	0.2	1.7	1.4	0.6	0.7
16	0.8	0.4	1.5	0.1	1.3	0.9	0.4	0.3	1.8	1.8	0.9	0.4
17	0.7	0.6	0.3	0.3	1.4	0.8	0.2	0.2	0.0	1.6	0.7	1.0
18	1.3	0.0	0.0	1.5	1.2	0.6	0.1	0.6	1.0	1.4	0.4	1.2
19	0.4	0.0	0.0	1.4	1.0	0.6	0.2	1.4	1.5	1.2	0.9	1.1
20	0.7	0.9	1.1	1.4	1.1	1.1	0.5	1.5	1.3	1.5	1.1	1.2
21	0.7	1.0	1.7	1.2	1.0	0.3	0.3	1.4	1.5	0.4	1.2	0.9
22	0.2	0.8	1.6	1.2	1.0	0.2	0.4	1.4	1.0	0.8	1.0	0.8
23	0.1	1.5	1.4	1.3	1.3	0.3	1.8	1.5	0.9	0.2	0.9	1.0
24	0.3	1.3	1.3	1.1	1.5	0.4	1.5	1.2	1.1	1.4	1.1	0.7
25	1.6	1.3	1.3	1.1	0.9	0.6	1.1	0.8	1.3	1.1	0.8	0.8
26	1.5	1.2	1.1	1.0	0.6	1.5	0.9	0.3	1.5	1.2	0.8	0.6
27	1.4	1.3	1.1	1.0	0.7	1.7	1.2	1.0	1.2	1.2	0.4	1.0
28	1.0	1.2	0.9	1.1	0.5	1.2	0.9	0.9	0.8	1.2	0.1	0.5
29	1.1		1.3	1.1	0.4	1.1	0.8	1.4	0.8	0.8	0.1	0.6
30	1.0		0.9	1.0	0.9	0.8	0.6	0.9	1.1	0.5	0.0	0.3
31	0.9		1.1		1.2		0.2	1.0		0.3		0.9
Mean	0.71	0.69	0.95	0.91	0.82	0.76	0.82	0.87	0.91	0.95	0.74	0.79

Mean for the Year 0.83

TABLE 3 INTERNATIONAL QUIET AND DISTURBED DAYS 1974

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

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. 1974	ap	Sum	Ap	Cp
1	4o 4- 3- 2+ 4- 3o 3o 3-	25o	27 22 12 9	22 15 15 12	134	17	0.9
2	2o 2+ 2o 3- 2+ 2o 3o 2+	19-	7 9 7 12	9 7 15 9	75	9	0.5
3	3- 3o 2+ 2o 3o 2+ 3o 2o	20+	12 15 9 7	15 9 15 7	89	11	0.6
4	3+ 3- 2- 2+ 2+ 2- 5- 2o	21-	18 12 6 9	9 6 39 7	106	13	0.8
5	4o 3+ 2+ 2+ 2o 2o 3o 4-	23-	27 18 9 9	7 7 15 22	114	14	0.8
6	4o 3+ 3- 3- 2o 2- 2+ 1-	19+	27 18 12 12	7 6 9 3	94	12	0.7
7	2- 0+ 0+ 0+ 0+ 0o 1- 1-	4+	6 2 2 2	2 0 3 3	20	2	0.0
8	1o 1- 1+ 1o 3o 4- 3+ 2o	16o	4 3 5 4	15 22 18 7	78	10	0.5
9	2- 2- 2+ 1+ 2o 2- 2+ 2-	15-	6 6 9 5	7 6 9 6	54	7	0.3
10	1+ 3o 3- 2+ 3+ 3o 4o 2+	22o	5 15 12 9	18 15 27 9	110	14	0.8
11	3- 2+ 1+ 2- 1- 1+ 1- 1o	12-	12 9 5 6	3 5 3 4	47	6	0.3
12	1+ 2o 1o 1o 1+ 2o 0+ 1-	10-	5 7 4 4	5 7 2 3	37	5	0.2
13	1o 2- 1+ 1o 2o 0+ 1+ 2o	11-	4 6 5 4	7 2 5 7	40	5	0.2
14	3o 1- 1- 2+ 2o 3- 2+ 2-	15+	15 3 3 9	7 12 9 6	64	8	0.4
15	1- 2o 2o 3o 4+ 3+ 3o 4-	22o	3 7 7 15	32 18 15 22	119	15	0.8
16	3o 4o 3- 3- 3+ 3o 3o 2o	24-	15 27 12 12	18 15 15 7	121	15	0.9
17	4o 4+ 2+ 2o 1+ 3- 4- 3-	23o	27 32 9 7	5 12 22 12	126	16	0.9
18	2o 2+ 5o 4- 3+ 5o 4- 3+	28+	7 9 48 22	18 48 22 18	192	24	1.2
19	3o 3- 2- 2- 1o 2+ 3o 2o	17+	15 12 6 6	4 9 15 7	74	9	0.5
20	3- 3+ 3+ 3- 2o 2+ 3+ 3o	23-	12 18 18 12	7 9 18 15	109	14	0.8
21	3o 4o 4o 3+ 3o 3+ 2- 1+	24-	15 27 27 18	15 18 6 5	131	16	0.9
22	1o 1o 1+ 1+ 1+ 0+ 2o 2-	10o	4 4 5 5	5 2 7 6	38	5	0.2
23	2+ 1o 2- 1- 1- 1o 1- 0+	8+	9 4 6 3	3 4 3 2	34	4	0.1
24	0o 0+ 1o 1- 0+ 0+ 1+ 3+	7+	0 2 4 3	2 2 5 18	36	4	0.2
25	3o 5o 5o 4- 5- 6- 6- 6+	39o	15 48 48 22	39 67 67 94	400	50	1.6
26	6o 4+ 4+ 4+ 3o 4o 5o 5-	36-	80 32 32 32	15 27 48 39	305	38	1.4
27	5+ 5- 4- 5- 3- 4+ 5- 4+	34+	56 39 22 39	12 32 39 32	271	34	1.3
28	4- 3+ 3- 2+ 2- 3+ 4o 4+	25+	22 18 12 9	6 18 27 32	144	18	1.0
29	4o 4- 4- 4- 4- 4+ 4- 2+	29o	27 22 22 22	22 32 22 9	178	22	1.1
30	5- 3o 2o 2+ 3+ 3+ 4+ 4+	27+	39 15 7 9	18 18 32 32	170	21	1.1
31	4o 3o 4+ 3- 3- 3+ 4o 2+	26+	27 15 32 12	12 18 27 9	152	19	1.0

	Kp	Sum	Feb. 1974	ap	Sum	Ap	Cp
1	2+ 3- 1+ 2o 2+ 2- 4o 4+	21-	9 12 5 7	9 6 27 32	107	13	0.8
2	4o 3o 2- 2+ 3- 2+ 2o 2+	20+	27 15 6 9	12 9 7 9	94	12	0.7
3	2o 3o 2+ 2+ 2o 1+ 2- 2o	17-	7 15 9 9	7 5 6 7	65	8	0.4
4	1+ 3+ 1+ 2- 1o 1- 3- 1o	13o	5 18 5 6	4 3 12 4	57	7	0.4
5	1+ 2o 1o 1+ 2o 3+ 2+ 2o	15+	5 7 4 5	7 18 9 7	62	8	0.4
6	2+ 3o 1- 0+ 1o 2- 2o 3-	14-	9 15 3 2	4 6 7 12	58	7	0.4
7	4- 3- 2+ 2o 2+ 1+ 2+ 2-	18+	22 12 9 7	9 5 9 6	79	10	0.6
8	0o 0+ 0+ 2- 2o 3- 2- 2-	10+	0 2 2 6	7 12 6 6	41	5	0.2
9	2o 1+ 1- 1- 1- 0o 1- 2-	8-	7 5 3 3	3 0 3 6	30	4	0.1
10	2+ 2- 2+ 2o 1o 2o 4+ 5-	20+	9 6 9 7	4 7 32 39	113	14	0.8
11	3+ 4o 3- 3o 5- 4- 5+ 5o	32-	18 27 12 15	39 22 56 48	237	30	1.3
12	4- 6- 6- 5+ 5o 4o 3+ 3o	36-	22 67 67 56	48 27 18 15	320	40	1.4
13	3o 3- 3+ 3+ 4o 4o 4o 3o	27+	15 12 18 18	27 27 27 15	159	20	1.0
14	3o 3o 2+ 4- 2+ 2+ 2- 2o	20+	15 15 9 22	9 9 6 7	92	12	0.7
15	1+ 2+ 1- 0+ 1o 1- 1- 1-	8-	5 9 3 2	4 3 3 3	32	4	0.1
16	1- 2o 0+ 0+ 2- 2- 3+ 3o	13o	3 7 2 2	6 6 18 15	59	7	0.4
17	3- 3o 3- 3- 3o 2- 2+ 2+	20+	12 15 12 12	15 6 9 9	90	11	0.6
18	0+ 0+ 0+ 0o 0+ 0o 0o 0+	2-	2 2 2 0	2 0 0 2	10	1	0.0
19	0+ 0o 1+ 1+ 1- 2- 1- 1+	7+	2 0 5 5	3 6 3 5	29	4	0.1
20	3- 0+ 1- 2- 3o 4+ 3o 3-	18+	12 2 3 6	15 32 15 12	97	12	0.7
21	5- 4- 4o 4o 4o 3o 3- 3o	29o	39 22 27 27	27 15 12 15	184	23	1.1
22	2+ 3- 3o 1+ 1- 1+ 3o 5o	19+	9 12 15 5	3 5 15 48	112	14	0.8
23	5o 3+ 4+ 3+ 5+ 5o 6o 5+	38-	48 18 32 18	56 48 80 56	356	44	1.5
24	6- 3o 4o 4o 2o 3- 5o 4+	31-	67 15 27 27	7 12 48 32	235	29	1.3
25	5o 4+ 4+ 4o 3o 5o 5o 3+	34o	48 32 32 27	15 48 48 18	268	34	1.3
26	4+ 4- 3+ 5o 4- 4o 4- 4+	32o	32 22 18 48	22 27 22 32	223	28	1.2
27	3+ 4+ 4o 3o 3+ 4+ 4- 5o	31o	18 32 27 15	18 32 22 48	212	26	1.2
28	4+ 4o 4o 3+ 4+ 3+ 4+ 4+	32o	32 27 27 18	32 18 32 32	218	27	1.2

* For explanation of these indices, see pages VIII and IX.

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

	Kp	Sum	March 1974	ap	Sum	Ap	Cp
1	5- 3+ 2+ 2+ 3- 3o 4o 4o	26+	39 18 9 9	12 15 27 27	156	20	1.0
2	4+ 3+ 3+ 4- 2o 4o 2+ 3o	26o	32 18 18 22	7 27 9 15	148	18	1.0
3	5- 2o 4- 3+ 4o 2+ 3- 4-	26+	39 7 22 18	27 9 12 22	156	20	1.0
4	3o 3+ 2o 2+ 3- 2o 1o 1+	18-	15 18 7 9	12 7 4 5	77	10	0.5
5	3+ 3o 2+ 3- 3- 3+ 4+ 4+	26o	18 15 9 12	12 18 32 32	148	18	1.0
6	4o 4- 2o 4o 4- 4o 3o 2+	27-	27 22 7 27	22 27 15 9	156	20	1.0
7	3o 3- 1o 2o 2- 4- 2+ 4o	20+	15 12 4 7	6 22 9 27	102	13	0.7
8	3- 3o 4+ 3o 3+ 1+ 2+ 4+	24+	12 15 32 15	18 5 9 32	138	17	0.9
9	3+ 5+ 4o 3- 4o 5o 5o 4o	33+	18 56 27 12	27 48 48 27	263	33	1.3
10	4o 4- 5+ 4+ 4+ 4- 4o 3+	33-	27 22 56 32	32 22 27 18	236	30	1.3
11	3+ 5- 5o 4o 4o 5o 4+ 3o	33+	18 39 48 27	27 48 32 15	254	32	1.3
12	4- 3+ 3+ 3o 2+ 2+ 3o 3o	24o	22 18 18 15	9 9 15 15	121	15	0.9
13	3- 4o 3o 2o 1+ 1o 1- 1o	16-	12 27 15 7	5 4 3 4	77	10	0.5
14	2+ 3o 3+ 3o 3o 4- 4o 1o	23+	9 15 18 15	15 22 27 4	125	16	0.9
15	0o 0+ 0+ 1- 1o 1+ 1+ 1o	6o	0 2 2 3	4 5 5 4	25	3	0.1
16	3- 2+ 4o 2+ 5- 6+ 7o 3o	32+	12 9 27 9	39 94 132 15	337	42	1.5
17	3- 4- 3+ 1o 1o 1+ 1- 1o	15-	12 22 18 4	4 5 3 4	72	9	0.5
18	1o 1o 0+ 1- 1o 0+ 0+ 0o	5-	4 4 2 3	4 2 2 0	21	3	0.0
19	0+ 1o 0o 0o 0+ 0+ 0o 2o	4o	2 4 0 0	2 2 0 7	17	2	0.0
20	2- 2- 1- 1o 2+ 4- 5- 6+	22o	6 6 3 4	9 22 39 94	183	23	1.1
21	4+ 5+ 4o 5+ 5+ 6+ 7- 7-	44o	32 56 27 56	56 94 111 111	543	68	1.7
22	5+ 4o 4o 6o 4+ 3+ 4+ 5-	36o	56 27 27 80	32 18 32 39	311	39	1.4
23	5+ 5o 3+ 4o 6o 5+ 3o 5-	37-	56 48 18 27	80 56 15 39	339	42	1.5
24	4o 5- 5- 4o 3+ 4+ 4+ 5+	35-	27 39 39 27	18 32 32 56	270	34	1.3
25	5o 4+ 4+ 3+ 3o 4- 4+ 4-	32-	48 32 32 18	15 22 32 22	221	28	1.2
26	4- 4- 4- 3- 3+ 4- 3+ 4-	28-	22 22 22 12	18 22 18 22	158	20	1.0
27	4+ 5- 4+ 4- 4- 3o 2o 1+	27o	32 39 32 22	22 15 7 5	174	22	1.1
28	3- 3+ 4+ 3o 3+ 3- 3o 3+	26-	12 18 32 15	18 12 15 18	140	18	1.0
29	3+ 4+ 4- 5- 5o 5o 5- 4-	34+	18 32 22 39	48 48 39 22	268	34	1.3
30	5- 4o 4- 3o 3- 4- 3- 3o	27+	39 27 22 15	12 22 12 15	164	20	1.0
31	4- 4o 4+ 4+ 3- 4+ 4- 2+	29+	22 27 32 32	12 32 22 9	188	24	1.1

	Kp	Sum	April 1974	ap	Sum	Ap	Cp
1	3o 2- 4+ 4o 3o 4- 1+ 3-	24-	15 6 32 27	15 22 5 12	134	17	0.9
2	3- 2o 3- 2o 2+ 3- 3o 5o	22+	12 7 12 7	9 12 15 48	122	15	0.9
3	5o 5- 3o 4o 5+ 4o 6o 4-	36-	48 39 15 27	56 27 80 22	314	39	1.4
4	5o 5- 5o 4- 5+ 5o 3- 2-	33o	48 39 48 22	56 48 12 6	279	35	1.4
5	3o 2o 3- 5- 3o 3+ 4- 3o	25+	15 7 12 39	15 18 22 15	143	18	1.0
6	4o 6- 4o 3+ 3- 3o 4- 3+	30-	27 67 27 18	12 15 22 18	206	26	1.2
7	4- 3o 5o 3o 2o 3+ 3- 2-	24+	22 15 48 15	7 18 12 6	143	18	1.0
8	1o 3- 2- 4- 4- 3- 3o 3-	21o	4 12 6 22	22 12 15 12	105	13	0.8
9	2- 3- 3o 3o 2+ 3o 5- 3+	24-	6 12 15 15	9 15 39 18	129	16	0.9
10	4- 4o 5o 4- 4o 4o 4- 4o	32o	22 27 48 22	27 27 22 27	222	28	1.2
11	4+ 5o 2+ 3- 5- 2+ 1o 0+	23-	32 48 9 12	39 9 4 2	155	19	1.0
12	0+ 1o 1- 1- 0+ 1- 1+ 1o	6o	2 4 3 3	2 3 5 4	26	3	0.1
13	1o 2+ 2o 2o 2o 2+ 2- 1+	15-	4 9 7 7	7 9 6 5	54	7	0.3
14	2o 2+ 1o 1- 1o 1+ 1+ 2-	11+	7 9 4 3	4 5 5 6	43	5	0.2
15	2- 1- 0+ 0+ 1o 1- 1- 1+	7-	6 3 2 2	4 3 3 5	28	4	0.1
16	1o 0o 1- 0+ 1- 1o 1+ 2o	7o	4 0 3 2	3 4 5 7	28	4	0.1
17	2o 0+ 1o 1o 1+ 2o 2- 2+	12-	7 2 4 4	5 7 6 9	44	6	0.2
18	3+ 6+ 6o 5+ 4o 4o 4o 5+	38+	18 94 80 56	27 27 27 56	385	48	1.6
19	4- 5+ 4+ 3- 4+ 6+ 4+ 4+	35+	22 56 32 12	32 94 32 32	312	39	1.4
20	4+ 5- 5+ 5+ 5o 5- 4+ 6-	39+	32 39 56 56	48 39 32 67	369	46	1.5
21	5o 4+ 6- 4- 4+ 3+ 4- 5-	35-	48 32 67 22	32 18 22 39	280	35	1.4
22	4+ 4+ 4+ 5- 4o 4+ 4+ 4-	34o	32 32 32 39	27 32 32 22	248	31	1.3
23	5- 4- 4- 5o 4- 4+ 4- 4-	32+	39 22 22 48	22 32 22 22	229	29	1.3
24	4+ 3+ 2- 1+ 2o 3- 4+ 5-	24+	32 18 6 5	7 12 32 39	151	19	1.0
25	4+ 4o 4+ 2+ 3o 3- 3o 3+	27o	32 27 32 9	15 12 15 18	160	20	1.0
26	5- 3+ 2o 3- 3- 2+ 4- 5o	26+	39 18 7 12	12 9 22 48	167	21	1.1
27	5- 4o 4- 3+ 3- 2- 2o 3+	25+	39 27 22 18	12 6 7 18	149	19	1.0
28	3+ 3o 3o 3+ 5o 4+ 3o 4-	29-	18 15 15 18	48 32 15 22	183	23	1.1
29	3o 2o 2o 3+ 4- 4o 4o 4o	26o	15 7 7 18	22 27 27 27	150	19	1.0
30	3o 3- 3+ 2o 3o 3+ 3- 4o	24o	15 12 18 7	15 18 12 27	124	16	0.9

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

	Kp	Sum	May 1974	ap				Sum	Ap	Cp
1	3- 2o 0+ 1- 1- 3- 3+ 3-	15o	12 7 2 3	3 12 18 12				69	9	0.5
2	3o 3- 3o 2+ 2+ 5- 4- 4o	26-	15 12 15 9	9 39 22 27				148	18	1.0
3	6- 5o 4+ 2+ 3+ 2o 2o 2-	26+	67 48 32 9	18 7 7 6				194	24	1.2
4	4o 4- 4- 5o 5o 4o 5- 5-	35-	27 22 22 48	48 27 39 39				272	34	1.3
5	4+ 5- 5o 5+ 4- 4- 4+ 4o	35o	32 39 48 56	22 22 32 27				278	35	1.4
6	2+ 3- 2o 2- 2- 1+ 1- 0+	13-	9 12 7 6	6 5 3 2				50	6	0.3
7	1- 1o 2o 3- 5o 4+ 2- 1+	19-	3 4 7 12	48 32 6 5				117	15	0.8
8	2- 1- 1+ 4o 1+ 2+ 4- 4o	19o	6 3 5 27	5 9 22 27				104	13	0.7
9	3+ 3+ 3o 3- 3- 2- 1- 1+	19-	18 18 15 12	12 6 3 5				89	11	0.6
10	1- 1+ 1o 0+ 0+ 1- 0+ 0o	5-	3 5 4 2	2 3 2 0				21	3	0.0
11	0+ 0+ 0+ 2+ 1+ 1+ 1+ 2o	9+	2 2 2 9	5 5 5 7				37	5	0.2
12	3o 1+ 0+ 0+ 0+ 0+ 1o 1+	8o	15 5 2 2	2 2 4 5				37	5	0.2
13	0+ 1o 1o 1- 1o 1+ 1+ 2o	9-	2 4 4 3	4 5 5 7				34	4	0.1
14	2+ 2- 0+ 2o 2+ 1+ 4- 4-	17+	9 6 2 7	9 5 22 22				82	10	0.6
15	4+ 3- 4- 5- 5+ 4+ 3o 4+	32+	32 12 22 39	56 32 15 32				240	30	1.3
16	4- 4- 5- 4- 4+ 3+ 3+ 5-	31+	22 22 39 22	32 18 18 39				212	26	1.2
17	5o 6- 4o 4- 5+ 4+ 3o 5-	36-	48 67 27 22	56 32 15 39				306	38	1.4
18	4o 5- 4+ 4- 3+ 3o 3o 4-	30-	27 39 32 22	18 15 15 22				190	24	1.1
19	3o 3o 4+ 3+ 4- 3o 3+ 3-	26+	15 15 32 18	22 15 18 12				147	18	1.0
20	4+ 3o 3- 3o 4- 2+ 4o 3o	26o	32 15 12 15	22 9 27 15				147	18	1.0
21	3+ 3o 3+ 4o 3o 3+ 3+ 3+	27-	18 15 18 27	15 18 18 18				147	18	1.0
22	3+ 4- 3+ 3o 3o 3- 5o 4+	28+	18 22 18 15	15 12 48 32				180	22	1.1
23	3+ 4o 4- 3- 3- 4+ 5+ 4-	30-	18 27 22 12	12 32 56 22				201	25	1.2
24	5- 5- 5o 4+ 3+ 4- 6- 5o	36+	39 39 48 32	18 22 67 48				313	39	1.4
25	3o 3- 1+ 4o 4- 2+ 2+ 3o	22+	15 12 5 27	22 9 9 15				114	14	0.8
26	3o 3- 3- 2+ 2o 2+ 3o 2o	20o	15 12 12 9	7 9 15 7				86	11	0.6
27	4+ 4- 2+ 2+ 2- 2o 2+ 3o	22-	32 22 9 9	6 7 9 15				109	14	0.8
28	3o 2+ 3- 4- 3- 1- 0+ 2o	17+	15 9 12 22	12 3 2 7				82	10	0.6
29	1+ 2o 2o 2+ 1+ 2+ 2+ 2-	15+	5 7 7 9	5 9 9 6				57	7	0.4
30	2- 2+ 2+ 3o 4- 5- 3+ 3o	24o	6 9 9 15	22 39 18 15				133	17	0.9
31	3o 4- 3o 4+ 4+ 4- 4- 6o	32-	15 22 15 32	32 22 22 80				240	30	1.3

	Kp	Sum	June 1974	ap				Sum	Ap	Cp
1	5o 3o 4- 4o 4+ 4- 3o 5-	31+	48 15 22 27	32 22 15 39				220	28	1.2
2	4o 2+ 3+ 4+ 3+ 4- 3- 2+	26o	27 9 18 32	18 22 12 9				147	18	1.0
3	3o 4- 4o 4+ 2+ 3+ 3- 3+	27-	15 22 27 32	9 18 12 18				153	19	1.0
4	3+ 3o 2o 1+ 2- 1+ 2+ 2+	17+	18 15 7 5	6 5 9 9				74	9	0.5
5	1o 2+ 2- 1+ 2o 2- 1+ 2-	13o	4 9 6 5	7 6 5 6				48	6	0.3
6	2- 3- 2o 1+ 3- 1- 1o 0o	12o	6 12 7 5	12 3 4 0				49	6	0.3
7	0+ 0+ 1- 0+ 1- 1o 1+ 1o	6-	2 2 3 2	3 4 5 4				25	3	0.1
8	1o 2- 2+ 1+ 2- 2+ 1+ 1-	12+	4 6 9 5	6 9 5 3				47	6	0.3
9	1o 1o 0+ 1o 2+ 3o 3o 2-	13+	4 4 2 4	9 15 15 6				59	7	0.4
10	3+ 3- 3- 2o 3- 3o 4+ 3-	23+	18 12 12 7	12 15 32 12				120	15	0.8
11	2o 4- 3- 4+ 4+ 4o 5o 6o	32o	7 22 12 32	32 27 48 80				260	32	1.3
12	5o 4o 4o 6- 4- 3- 3o 3o	31o	48 27 27 67	22 12 15 15				233	29	1.3
13	4+ 4+ 4- 3- 3o 4o 3o 3o	28o	32 32 22 12	15 27 15 15				170	21	1.1
14	3+ 4- 3- 3- 3o 4- 4+ 3-	26o	18 22 12 12	15 22 32 12				145	18	1.0
15	4+ 4+ 5- 4- 6- 4o 4- 5+	36-	32 32 39 22	67 27 22 56				297	37	1.4
16	4- 3+ 4o 3- 2o 3- 3o 3o	24+	22 18 27 12	7 12 15 15				128	16	0.9
17	3o 3o 4- 3- 3+ 3+ 2o 3o	24o	15 15 22 12	18 18 7 15				122	15	0.9
18	3o 2+ 2+ 1+ 2+ 2o 1+ 3+	18o	15 9 9 5	9 7 5 18				77	10	0.5
19	3+ 1+ 2- 3- 3- 3o 4o 2o	21-	18 5 6 12	12 15 27 7				102	13	0.7
20	3- 3o 3+ 3+ 3- 3+ 3o 5-	26o	12 15 18 18	12 18 15 39				147	18	1.0
21	3+ 1+ 1o 1- 2o 2o 1+ 2o	14-	18 5 4 3	7 7 5 7				56	7	0.4
22	3o 3o 1o 2o 2o 2o 2o 1+	16+	15 15 4 7	7 7 7 5				67	8	0.5
23	2- 1+ 1o 2o 3- 2+ 1+ 2+	15-	6 5 4 7	12 9 5 9				57	7	0.4
24	2+ 2o 2+ 2+ 2+ 2- 2+ 2-	17o	9 7 9 9	9 6 9 6				64	8	0.4
25	2- 1- 2o 0+ 0+ 1o 1+ 5o	12+	6 3 7 2	2 4 5 48				77	10	0.5
26	4+ 5o 5- 5+ 5o 4+ 5- 4o	37+	32 48 39 56	48 32 39 27				321	40	1.5
27	5- 6+ 6o 4o 5- 5o 6o 4o	41-	39 94 80 27	39 48 80 27				434	54	1.6
28	5- 4- 3+ 4+ 4+ 4- 4o 3+	31+	39 22 18 32	32 22 27 18				210	26	1.2
29	3+ 3- 3- 4o 4+ 4o 3+ 2+	27-	18 12 12 27	32 27 18 9				155	19	1.0
30	3+ 3+ 3o 3+ 3+ 3o 3o 1+	24-	18 18 15 18	18 15 15 5				122	15	0.9

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

	Kp	Sum	July 1974	ap	Sum	Ap	Cp
1	3o 2+ 2+ 2o 2+ 2- 3- 2+	19-	15 9 9 7	9 6 12 9	76	10	0.5
2	2o 2o 3+ 3+ 3- 3o 2- 3-	21-	7 7 18 18	12 15 6 12	95	12	0.7
3	2- 2- 3o 3- 2o 2- 2- 3o	17+	6 6 15 12	7 6 6 15	73	9	0.5
4	5o 4+ 4- 2o 4o 5+ 3+ 5-	32+	48 32 22 7	27 56 18 39	249	31	1.3
5	5+ 7- 5+ 5o 6- 6+ 6- 6+	46+	56 111 56 48	67 94 67 94	593	74	1.8
6	7- 8+ 9- 6o 7+ 6+ 5o 3o	51+	111 236 300 80	154 94 48 15	1038	130	1.9
7	4- 4- 2+ 2+ 2+ 3+ 2+ 4-	24-	22 22 9 9	9 18 9 22	120	15	0.8
8	3+ 3o 3+ 4o 6- 5o 5- 5+	34+	18 15 18 27	67 48 39 56	288	36	1.4
9	4o 4o 3- 3- 2+ 2- 3o 3o	23+	27 27 12 12	9 6 15 15	123	15	0.9
10	3o 3- 3+ 4- 4+ 3+ 3+ 4-	27+	15 12 18 22	32 18 18 22	157	20	1.0
11	2o 3o 2+ 3- 3+ 3o 3+ 3o	23-	7 15 9 12	18 15 18 15	109	14	0.8
12	3- 3o 2o 4- 4o 4- 5- 5-	28+	12 15 7 22	27 22 39 39	183	23	1.1
13	4- 3o 3o 3- 2+ 2+ 3- 2-	21+	22 15 15 12	9 9 12 6	100	12	0.7
14	4+ 5+ 4- 2o 4- 2- 2+ 4o	27o	32 56 22 7	22 6 9 27	181	23	1.1
15	3o 3o 3o 2- 3- 2o 1+ 2+	19o	15 15 15 6	12 7 5 9	84	10	0.6
16	3- 3+ 3o 2+ 2- 1o 2- 2-	17+	12 18 15 9	6 4 6 6	76	10	0.5
17	3o 2- 1+ 2- 2- 2+ 3o 2-	16+	15 6 5 6	6 9 15 6	68	8	0.5
18	3- 2o 1+ 1+ 1+ 1o 2- 1o	12+	12 7 5 5	5 4 6 4	48	6	0.3
19	1- 2- 1o 1o 2+ 2+ 2+ 2o	13+	3 6 4 4	9 9 9 7	51	6	0.3
20	2- 2o 3- 2+ 2+ 2- 3o 4-	19+	6 7 12 9	9 6 15 22	86	11	0.6
21	3o 1+ 1o 1o 2- 2+ 3- 3o	16o	15 5 4 4	6 9 12 15	70	9	0.5
22	1- 1o 3o 1+ 2- 2o 2- 3o	14+	3 4 15 5	6 7 6 15	61	8	0.4
23	5- 6+ 5- 7o 6+ 6o 7- 6-	47+	39 94 39 132	94 80 111 67	656	82	1.8
24	6- 6- 5o 5o 5o 5+ 5o 4o	41-	67 67 48 48	48 56 48 27	409	51	1.6
25	3o 4- 4o 5- 3o 3+ 3+ 3+	28+	15 22 27 39	15 18 18 18	172	22	1.1
26	3- 5o 3+ 2+ 3o 3+ 4o 3o	27-	12 48 18 9	15 18 27 15	162	20	1.0
27	3+ 4- 5- 5- 4- 2+ 4- 4-	30-	18 22 39 39	22 9 22 22	193	24	1.2
28	5- 5- 3- 3+ 1+ 3- 3o 1+	24-	39 39 12 18	5 12 15 5	145	18	1.0
29	2- 4- 3- 3+ 2o 3o 2+ 3-	21+	6 22 12 18	7 15 9 12	101	13	0.7
30	2- 2+ 3- 3+ 1+ 2- 2- 1+	16o	6 9 12 18	5 6 6 5	67	8	0.5
31	2+ 2+ 1o 1o 2- 1+ 2- 1+	13-	9 9 4 4	6 5 6 5	48	6	0.3

	Kp	Sum	Aug. 1974	ap	Sum	Ap	Cp
1	2- 2- 2o 2- 2- 2- 1- 1o	12o	6 6 7 6	6 6 3 4	44	6	0.2
2	2- 1o 2- 1- 4- 5+ 5- 5-	23+	6 4 6 3	22 56 39 39	175	22	1.1
3	3+ 3o 4o 4+ 4o 5o 5+ 5+	34+	18 15 27 32	27 48 56 56	279	35	1.4
4	6o 3+ 3+ 2o 2- 3- 4o 4-	27-	80 18 18 7	6 12 27 22	190	24	1.1
5	4+ 4o 4- 3+ 3+ 3- 3+ 3+	28o	32 27 22 18	18 12 18 18	165	21	1.1
6	4- 3+ 2+ 3- 3+ 3+ 5- 4-	27o	22 18 9 12	18 18 39 22	158	20	1.0
7	4o 3o 3- 3+ 3- 4- 4o 5-	28o	27 15 12 18	12 22 27 39	172	22	1.1
8	4- 5- 3+ 2+ 2- 2+ 3- 3-	23+	22 39 18 9	6 9 12 12	127	16	0.9
9	2- 4- 3+ 2+ 1+ 4- 3+ 4+	24-	6 22 18 9	5 22 18 32	132	16	0.9
10	4o 4o 3+ 3- 2- 2o 3+ 3o	24o	27 27 18 12	6 7 18 15	130	16	0.9
11	3o 2+ 3- 3- 2- 2- 3- 2+	19o	15 9 12 12	6 6 12 9	81	10	0.6
12	1+ 2- 2- 1o 1o 1o 1o 2o	11-	5 6 6 4	4 4 4 7	40	5	0.2
13	1o 2- 2o 1+ 2- 1o 1+ 2o	12o	4 6 7 5	6 4 5 7	44	6	0.2
14	2- 2+ 1o 1- 0+ 1o 1o 1+	9+	6 9 4 3	2 4 4 5	37	5	0.2
15	2- 1o 1- 1o 2o 1o 1- 1-	9-	6 4 3 4	7 4 3 3	34	4	0.1
16	0+ 2o 2- 2o 1o 1o 1+ 2o	11+	2 7 6 7	4 4 5 7	42	5	0.2
17	3- 1o 0+ 1o 2+ 2- 1- 1+	11o	12 4 2 4	9 6 3 5	45	6	0.3
18	1+ 1+ 3- 2- 3- 2o 1+ 4-	17-	5 5 12 6	12 7 5 22	74	9	0.5
19	4o 3+ 5o 5+ 5o 5o 4+ 5-	37-	27 18 48 56	48 48 32 39	316	40	1.4
20	6- 6- 5+ 5- 4o 5o 5- 4o	39o	67 67 56 39	27 48 39 27	370	46	1.5
21	6- 4+ 5- 5o 4+ 4o 4o 4+	36+	67 32 39 48	32 27 27 32	304	38	1.4
22	5+ 4+ 4o 4+ 4+ 4+ 5+ 4o	36o	56 32 27 32	32 32 56 27	294	37	1.4
23	5+ 4+ 5- 5o 4o 4+ 5- 4o	36+	56 32 39 48	27 32 39 27	300	38	1.4
24	4+ 4o 3- 5+ 4o 4- 4o 2-	30-	32 27 12 56	27 22 27 6	209	26	1.2
25	3+ 3o 3o 3- 2+ 3- 2- 3+	22o	18 15 15 12	9 12 6 18	105	13	0.8
26	2o 1o 1o 2- 2o 3- 3- 2o	15o	7 4 4 6	7 12 12 7	59	7	0.4
27	3- 4- 4- 3+ 4o 3- 3o 3o	26o	12 22 22 18	27 12 15 15	143	18	1.0
28	5- 3o 2o 3- 3- 4- 3+ 4+	26+	39 15 7 12	12 22 18 32	157	20	1.0
29	4+ 5- 3+ 6- 4o 5- 4- 2o	32+	32 39 18 67	27 39 22 7	251	31	1.3
30	5- 3+ 1+ 2+ 2+ 2o 4o 3o	23o	39 18 5 9	9 7 27 15	129	16	0.9
31	4o 4- 3+ 2o 2+ 3+ 4+ 4+	27+	27 22 18 7	9 18 32 32	165	21	1.1

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

	Kp	Sum	Sept. 1974	ap	Sum	Ap	Cp
1	3+ 5o 3+ 3+ 4+ 3o 3o 4o	29+	18 48 18 18	32 15 15 27	191	24	1.2
2	5- 3+ 4+ 5- 3- 3+ 5- 5+	33o	39 18 32 39	12 18 39 56	253	32	1.3
3	4- 3+ 3+ 3+ 3- 3o 3+ 2+	25o	22 18 18 18	12 15 18 9	130	16	0.9
4	3+ 3+ 3o 2+ 2+ 2- 5- 5o	26-	18 18 15 9	9 6 39 48	162	20	1.0
5	5- 4+ 3o 4o 2+ 3- 2- 2+	25o	39 32 15 27	9 12 6 9	149	19	1.0
6	4o 3+ 3- 3- 1+ 2+ 3+ 2o	22-	27 18 12 12	5 9 18 7	108	14	0.8
7	3- 3- 2+ 3- 2- 3o 4- 2o	21-	12 12 9 12	6 15 22 7	95	12	0.7
8	3o 2- 2+ 2- 1+ 1+ 2o 2-	15o	15 6 9 6	5 5 7 6	59	7	0.4
9	2+ 2o 0+ 0+ 2o 1+ 1+ 1o	11-	9 7 2 2	7 5 5 4	41	5	0.2
10	3- 2o 1- 1+ 1+ 1+ 1+ 2o	13-	12 7 3 5	5 5 5 7	49	6	0.3
11	2o 2- 1+ 1- 1- 1+ 1- 1-	9o	7 6 5 3	3 5 3 3	35	4	0.2
12	0+ 1- 2- 0+ 1- 2o 3+ 1o	10o	2 3 6 2	3 7 18 4	45	6	0.3
13	1o 2- 2+ 4+ 3+ 4- 4- 3+	23+	4 6 9 32	18 22 22 18	131	16	0.9
14	2o 1+ 1- 2o 2- 1o 3- 4o	15+	7 5 3 7	6 4 12 27	71	9	0.5
15	1+ 2- 1+ 3- 7+ 8- 7+ 6-	35o	5 6 5 12	154 179 154 67	582	73	1.8
16	8o 8- 6o 7- 6+ 3- 3- 2o	42o	207 179 80 111	94 12 12 7	702	88	1.8
17	2- 2+ 1- 0+ 1o 1- 0o 0o	7-	6 9 3 2	4 3 0 0	27	3	0.1
18	0o 1- 2+ 1- 5- 6- 3- 3+	20o	0 3 9 3	39 67 12 18	151	19	1.0
19	6- 3+ 5+ 5- 3+ 3o 4- 5-	34-	67 18 56 39	18 15 22 39	274	34	1.4
20	5- 4- 5- 5- 4o 6- 3+ 4o	35-	39 22 39 39	27 67 18 27	278	35	1.4
21	4+ 2+ 2o 4- 6+ 6+ 4+ 5+	35-	32 9 7 22	94 94 32 56	346	43	1.5
22	5- 4o 4- 4- 4o 4- 2o 4o	30-	39 27 22 22	27 22 7 27	193	24	1.2
23	3- 3- 3- 2+ 3+ 3- 4- 4o	24o	12 12 12 9	18 12 22 27	124	16	0.9
24	3- 5+ 5- 4+ 4o 4- 3+ 1+	29+	12 56 39 32	27 22 18 5	211	26	1.2
25	4+ 3o 2+ 3o 4- 5- 5o 5+	31+	32 15 9 15	22 39 48 56	236	30	1.3
26	5- 5o 5o 5o 4+ 4+ 4o 4o	36+	39 48 48 48	32 32 27 27	301	38	1.4
27	4- 4- 3o 5- 5o 3+ 4+ 2o	30-	22 22 15 39	48 18 32 7	203	25	1.2
28	3+ 3o 2o 2+ 4- 3- 3+ 3o	23+	18 15 7 9	22 12 18 15	116	14	0.8
29	3o 3o 3- 3o 4- 4o 3o 2-	24o	15 15 12 15	22 27 15 6	127	16	0.9
30	3+ 4o 2+ 4o 3+ 3+ 3+ 4+	28o	18 27 9 27	18 18 18 32	167	21	1.1

	Kp	Sum	Oct. 1974	ap	Sum	Ap	Cp
1	5o 4+ 2+ 4- 5- 4o 4+ 3o	31+	48 32 9 22	39 27 32 15	224	28	1.2
2	3o 2+ 3+ 3+ 4+ 3+ 5o 6o	31-	15 9 18 18	32 18 48 80	238	30	1.3
3	4+ 3- 3- 2o 1+ 3- 2+ 2o	20o	32 12 12 7	5 12 9 7	96	12	0.7
4	2+ 2o 2o 1+ 2- 2o 2o 3+	17-	9 7 7 5	6 7 7 18	66	8	0.4
5	3- 2- 1+ 2- 2o 2- 2o 4o	17o	12 6 5 6	7 6 7 27	76	10	0.5
6	5- 2+ 2o 2+ 2- 1o 2- 2o	18-	39 9 7 9	6 4 6 7	87	11	0.6
7	0+ 2- 1- 2o 1- 2- 3- 2o	12-	2 6 3 7	3 6 12 7	46	6	0.3
8	2o 1+ 1o 2o 2o 1o 4o 4-	17o	7 5 4 7	7 4 27 22	83	10	0.6
9	3o 6- 5- 4o 5o 5- 5+ 3+	36-	15 67 39 27	48 39 56 18	309	39	1.4
10	3+ 3+ 3o 2- 1+ 1o 2- 3-	18o	18 18 15 6	5 4 6 12	84	10	0.6
11	3o 2o 1o 1+ 1o 1o 2- 1+	12+	15 7 4 5	4 4 6 5	50	6	0.3
12	1o 2+ 2+ 2- 4o 3- 5- 4+	23o	4 9 9 6	27 12 39 32	138	17	0.9
13	6- 7o 7- 6+ 7- 6+ 5+ 4o	48o	67 132 111 94	111 94 56 27	692	86	1.8
14	3o 3o 2o 2+ 1+ 5+ 5+ 6o	28+	15 15 7 9	5 56 56 80	243	30	1.3
15	6o 6- 6o 6- 3+ 3o 3+ 5+	38+	80 67 80 67	18 15 18 56	401	50	1.6
16	5o 5- 5o 6o 6+ 6- 5- 7o	44+	48 39 48 80	94 67 39 132	547	68	1.7
17	4+ 5+ 5+ 5- 5- 6o 4+ 5-	39+	32 56 56 39	39 80 32 39	373	47	1.5
18	6- 6- 4+ 4- 5- 4+ 5+ 4o	38-	67 67 32 22	39 32 56 27	342	43	1.5
19	4o 4o 3+ 4+ 5- 5- 4o 4-	33-	27 27 18 32	39 39 27 22	231	29	1.3
20	3+ 5o 5o 5o 5o 6- 4o 4o	37o	18 48 48 48	48 67 27 27	331	41	1.5
21	2+ 3o 4- 2- 1o 2- 2o 3-	18o	9 15 22 6	4 6 7 12	81	10	0.6
22	2+ 2- 4- 3o 3+ 3+ 4o 2-	23o	9 6 22 15	18 18 27 6	121	15	0.9
23	1+ 2+ 1+ 1o 0+ 0+ 1- 2+	10-	5 9 5 4	2 2 3 9	39	5	0.2
24	5- 6+ 6- 4- 3+ 4o 3+ 4-	35-	39 94 67 22	18 27 18 22	307	38	1.4
25	4- 3o 4o 3+ 4- 4+ 2+ 4+	29-	22 15 27 18	22 32 9 32	177	22	1.1
26	4o 4- 5o 4- 4o 4o 4+ 4-	32+	27 22 48 22	27 27 32 22	227	28	1.2
27	4+ 4o 2+ 3+ 3+ 5+ 4o 3o	30-	32 27 9 18	18 56 27 15	202	25	1.2
28	5+ 4+ 2- 3+ 4- 4o 4- 5o	31o	56 32 6 18	22 27 22 48	231	29	1.3
29	4o 4- 4- 3+ 3+ 3- 3- 3-	26o	27 22 22 18	18 12 12 12	143	18	1.0
30	3o 3- 2o 3- 3o 3o 1+ 3-	20+	15 12 7 12	15 15 5 12	93	12	0.7
31	3o 2+ 1o 1o 0+ 2- 3- 2+	14+	15 9 4 4	2 6 12 9	61	8	0.4

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

	Kp	Sum	Nov. 1974	ap				Sum	Ap	Cp
1	3- 2+ 1o 1- 0+ 0+ 1o 3o	11+	12 9 4 3	2	2	4	15	51	6	0.3
2	2o 3o 1- 1+ 1o 0+ 0+ 1o	10-	7 15 3 5	4	2	2	4	42	5	0.2
3	1o 2- 1+ 2- 1- 1o 1- 3o	11o	4 6 5 6	3	4	3	15	46	6	0.3
4	2- 1o 0+ 0+ 0+ 1- 1o 1-	6o	6 4 2 2	2	3	4	3	26	3	0.1
5	1+ 1o 1o 1o 1o 1- 2- 3-	10+	5 4 4 4	4	3	6	12	42	5	0.2
6	3o 3- 3- 2- 3o 2+ 1- 1+	17+	15 12 12 6	15	9	3	5	77	10	0.5
7	1+ 2+ 2o 3- 1o 2+ 2+ 1o	15o	5 9 7 12	4	9	9	4	59	7	0.4
8	2+ 2- 1+ 1o 3o 3o 5o 6-	23o	9 6 5 4	15	15	48	67	169	21	1.1
9	5+ 6- 6- 5- 5- 4o 2o 2+	34+	56 67 67 39	39	27	7	9	311	39	1.4
10	2+ 3o 2+ 1o 1o 2o 2o 4-	17+	9 15 9 4	4	7	7	22	77	10	0.5
11	3+ 3o 2o 3+ 5o 7o 6o 6-	35+	18 15 7 18	48	132	80	67	385	48	1.6
12	6+ 6+ 6o 5o 6- 5+ 6- 5+	46-	94 94 80 48	67	56	67	56	562	70	1.8
13	5- 4o 4+ 5- 4- 5- 5- 5o	36-	39 27 32 39	22	39	39	48	285	36	1.4
14	6- 6- 5o 4+ 5o 5- 1o 1-	32o	67 67 48 32	48	39	4	3	308	38	1.4
15	1+ 1o 2- 3+ 3+ 2- 3- 3-	18-	5 4 6 18	18	6	12	12	81	10	0.6
16	2+ 3o 4- 3+ 3o 3+ 4- 2+	25-	9 15 22 18	15	18	22	9	128	16	0.9
17	4+ 3+ 2o 2+ 3- 3- 2o 3-	22o	32 18 7 9	12	12	7	12	109	14	0.8
18	3- 1+ 2- 3- 2- 2o 2+ 1o	15+	12 5 6 12	6	7	9	4	61	8	0.4
19	2- 3- 2- 3- 2+ 4- 3+ 3+	21+	6 12 6 12	9	22	18	18	103	13	0.7
20	4- 3+ 3o 5- 4o 4- 4- 2+	28+	22 18 15 39	27	22	22	9	174	22	1.1
21	2+ 3+ 4o 4+ 3+ 5- 3+ 4o	29+	9 18 27 32	18	39	18	27	188	24	1.1
22	3+ 4o 4- 3o 3o 4- 3+ 3o	27o	18 27 22 15	15	22	18	15	152	19	1.0
23	3o 2+ 3o 3- 3+ 3+ 3o 4-	24+	15 9 15 12	18	18	15	22	124	16	0.9
24	4- 4+ 2+ 3+ 3+ 5- 4o 5o	31-	22 32 9 18	18	39	27	48	213	27	1.2
25	4- 4- 3o 2+ 2- 4- 4- 4-	25+	22 22 15 9	6	22	22	22	140	18	1.0
26	3+ 2+ 3- 2+ 4- 4o 3o 3o	24+	18 9 12 9	22	27	15	15	127	16	0.9
27	3o 2+ 2+ 2- 1+ 2o 2- 3o	17+	15 9 9 6	5	7	6	15	72	9	0.5
28	2+ 3o 3- 1o 1+ 1- 1- 0+	12o	9 15 12 4	5	3	3	2	53	7	0.3
29	1o 1o 2- 1o 0+ 1- 0+ 0o	6o	4 4 6 4	2	3	2	0	25	3	0.1
30	0+ 1o 0o 0+ 0+ 0o 0o 1+	3+	2 4 0 2	2	0	0	5	15	2	0.0

	Kp	Sum	Dec. 1974	ap				Sum	Ap	Cp
1	1o 0+ 0+ 1o 1o 2- 3- 3o	11o	4 2 2 4	4	6	12	15	49	6	0.3
2	4- 4o 3- 3- 2+ 3- 3o 2+	23+	22 27 12 12	9	12	15	9	118	15	0.8
3	3+ 3o 2+ 3- 3- 2o 4+ 3+	24-	18 15 9 12	12	7	32	18	123	15	0.9
4	3+ 3o 3- 2o 1+ 1+ 1o 1o	16-	18 15 12 7	5	5	4	4	70	9	0.5
5	1- 1- 1- 1o 2+ 2+ 3o 2o	13-	3 3 3 4	9	9	15	7	53	7	0.3
6	2o 2- 1- 2- 1o 1o 0+ 1-	9o	7 6 3 6	4	4	2	3	35	4	0.2
7	2- 1+ 2- 2+ 3- 3- 2- 2o	16o	6 5 6 9	12	12	6	7	63	8	0.4
8	2- 2o 2o 3- 3o 3+ 3o 4o	22-	6 7 7 12	15	18	15	27	107	13	0.8
9	4o 5o 4o 5o 5o 5+ 5o 4+	38-	27 48 27 48	48	56	48	32	334	42	1.5
10	4+ 4o 4- 2+ 3+ 4- 3o 3-	27o	32 27 22 9	18	22	15	12	157	20	1.0
11	3- 4- 3+ 4o 4o 3+ 4+ 2+	28-	12 22 18 27	27	18	32	9	165	21	1.1
12	3o 4- 4- 3+ 4o 3+ 2o 3o	26o	15 22 22 18	27	18	7	15	144	18	1.0
13	3- 3+ 2o 2+ 4- 5- 5- 4o	27+	12 18 7 9	22	39	39	27	173	22	1.1
14	4o 4- 3+ 1+ 0+ 2o 3- 2+	20-	27 22 18 5	2	7	12	9	102	13	0.7
15	2o 3- 4- 3o 3- 3o 3- 3+	23o	7 12 22 15	12	15	12	18	113	14	0.8
16	2- 0+ 1+ 1o 1o 2+ 3+ 3-	14-	6 2 5 4	4	9	18	12	60	8	0.4
17	3- 4- 3- 2+ 2o 4- 4o 4+	25+	12 22 12 9	7	22	27	32	143	18	1.0
18	4+ 4o 4o 4o 4o 5- 4o 3o	32o	32 27 27 27	27	39	27	15	221	28	1.2
19	4+ 4o 3+ 4o 3+ 3+ 5- 5-	32-	32 27 18 27	18	18	39	39	218	27	1.2
20	4o 3+ 3+ 4+ 4- 3+ 3+ 3-	28o	27 18 18 32	22	18	18	12	165	21	1.1
21	3o 4- 3o 3+ 4- 3+ 4- 4-	27+	15 22 15 18	22	18	22	22	154	19	1.0
22	4o 4o 2+ 2o 2+ 3o 2o 3-	22+	27 27 9 7	9	15	7	12	113	14	0.8
23	3- 2+ 2+ 2o 3o 4+ 4+ 4-	25-	12 9 9 7	15	32	32	22	138	17	0.9
24	3o 3- 2+ 2+ 3+ 3o 2+ 4-	23-	15 12 9 9	18	15	9	22	109	14	0.8
25	2o 2o 1o 2- 1+ 3+ 5- 2o	18o	7 7 4 6	5	18	39	7	93	12	0.7
26	2o 3o 3+ 3+ 2+ 2o 3- 2-	20+	7 15 18 18	9	7	12	6	92	12	0.7
27	3- 3+ 5- 4+ 3+ 3+ 3+ 3o	28o	12 18 39 32	18	18	18	15	170	21	1.1
28	2+ 2+ 4- 3+ 2+ 3- 2+ 2o	21o	9 9 22 18	9	12	9	7	95	12	0.7
29	2+ 2+ 2o 3+ 3o 2+ 2+ 2+	20o	9 9 7 18	15	9	9	9	85	11	0.6
30	2o 2- 0+ 1- 1- 1- 2+ 3o	11+	7 6 2 3	3	3	9	15	48	6	0.3
31	4+ 4+ 2+ 2- 2- 2+ 3o 2o	22-	32 32 9 6	6	9	15	7	116	14	0.8

TABLE 5 FREQUENCIES OF Kp INDICES, 1974

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

TABLE 6 MONTHLY AVERAGES OF Ap AND Cp, 1974

	Jan	Feb	Mch	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Ap	15	16	23	21	18	17	24	19	23	26	18	15	19.6
Cp	0.71	0.74	0.97	0.94	0.84	0.81	0.88	0.86	0.96	1.00	0.76	0.80	0.86

TABLE 7 LIST OF MAGNETIC STORMS, 1974

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
Jul 04 E8	04 15.34				
	06 03.21	16	2 . 1	. . 1	1 .
Sep 15	15 13.43	9	1 . 2	2 1 .	. .

TABLE 8 VERY QUIET INTERVALS, 1974

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

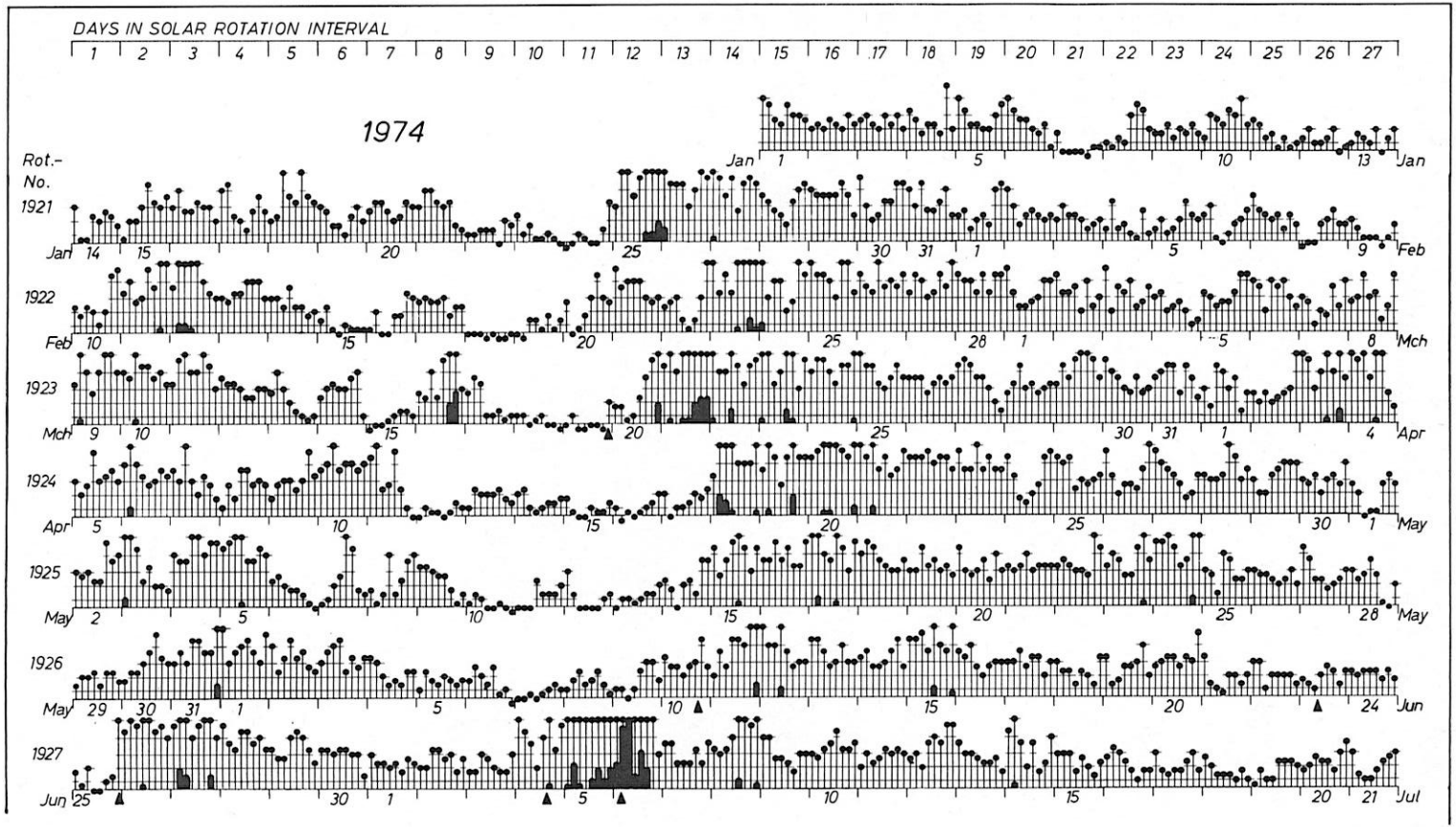
First. . . . . last Eighth		Duration Eighths
Jan 07 E2	08 E4	11
23 E4	24 E7	12
Feb 18 E1	19 E5	13
Mch 14 E8	15 E8	9
17 E4	19 E7	20
Apr 11 E7	13 E1	11
15 E2	16 E7	14

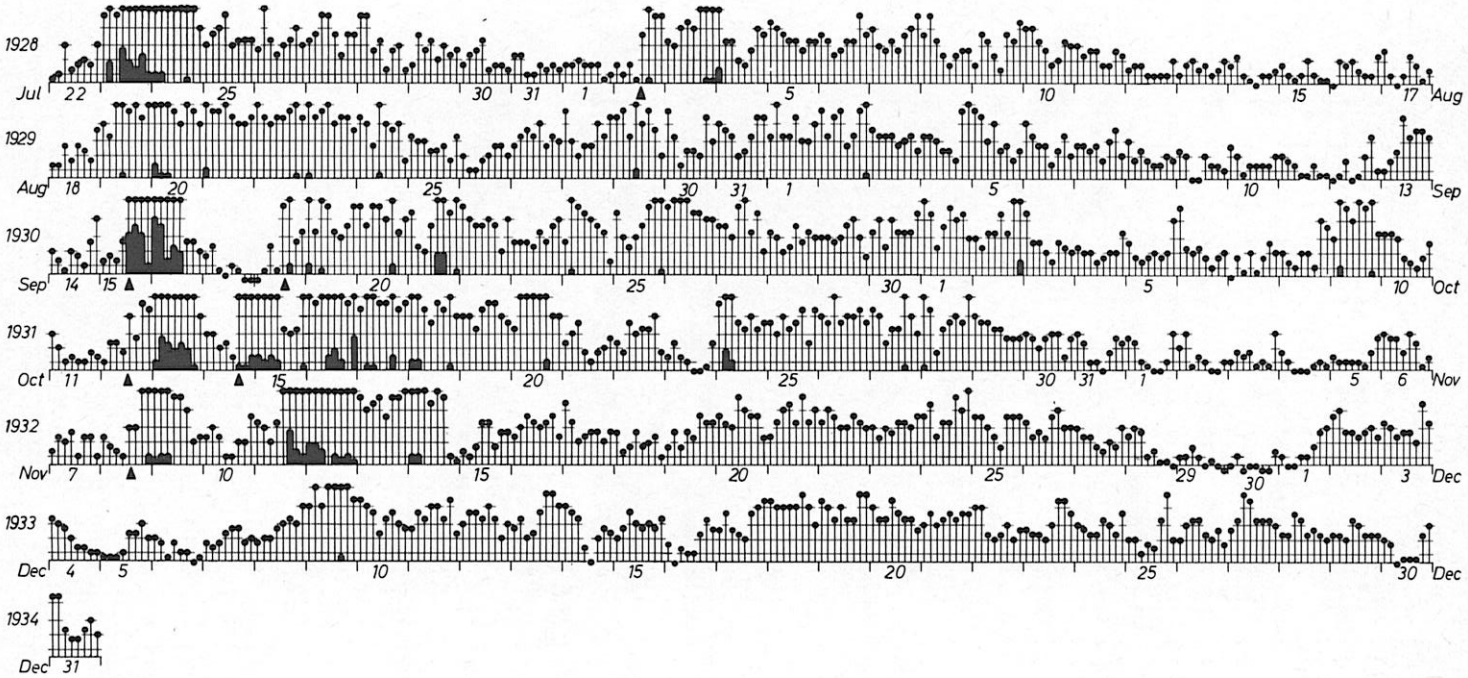
First. . . . . last Eighth		Duration Eighths
May 09 E7	11 E3	13
12 E2	13 E7	14
Jun 06 E6	08 E1	12
Sep 11 E3	12 E2	8
17 E3	18 E2	8
Nov 04 E2	05 E6	13
29 E4	Dec 01 E5	18
Dec 04 E5	05 E4	8

TABLE 8a · LIST OF Kp', 1974

Reduction of Kp to Kp' due to solar flare effects

Month	Day	Eighth	Kp	Kp'
Apr	15	5	1o	1-
Jul	03	3	3o	3-
	04	5	4o	4-
	05	6	6+	6o


DAYS IN SOLAR ROTATION INTERVAL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
1974
Rot.-
No.
1921
Jan 14 15 20 25 30 31 1 5 9 Feb
1922
Feb 10 15 20 25 28 1 5 8 Mch
1923
Mch 9 10 15 20 25 30 31 1 4 Apr
1924
Apr 5 10 15 20 25 30 1 May
1925
May 2 5 10 15 20 25 28 May
1926
May 29 30 31 1 5 10 15 20 24 Jun
1927
Jun 25 30 1 5 10 15 20 21 Jul
Jan 1 5 10 13 Jan



Kp (after Bartels)

KEY

0 1 2 3 4 5 6 7 8 9

0 + − 0 + − 0 + − 0 + − 0 + − 0 + − 0 + − 0 + − 0

▲ = sudden commencement

1974

(For explanation: see page IX)

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	3 Kn								σn									An
1	9	9	7	9	10	9	10	7	3313	4363	28	29	17	31	40	32	34	20	29
2	5	5	5	8	6	7	9	7	3113	1553	11	12	13	24	15	20	32	20	18
3	6	7	5	5	9	8	8	5	4322	4352	16	18	12	13	33	22	22	12	19
4	7	6	4	6	8	5	13	5	3231	3242	20	15	8	15	26	11	70	13	22
5	9	8	6	7	7	6	9	9	3312	3153	31	24	15	17	19	15	28	28	22
6	8	8	7	7	6	5	7	2	4313	2362	26	23	17	18	16	11	17	5	17
7	4	1	1	1	2	0	1	1	4112	2123	10	2	2	3	5	1	3	2	4
8	2	1	4	2	9	11	10	6	2231	4841	4	2	9	5	31	46	38	14	19
9	4	4	6	4	6	4	8	4	2352	2232	8	10	16	8	16	10	21	10	12
10	3	7	7	6	11	9	11	7	1331	3363	6	19	20	16	46	31	45	18	25
11	7	5	5	5	3	4	2	2	4232	2222	19	12	11	11	7	8	4	5	10
12	2	4	3	4	4	8	1	2	2212	5623	4	8	6	8	9	21	2	4	8
13	3	4	4	4	6	1	2	5	0332	4245	6	9	8	8	16	2	5	11	8
14	7	2	2	6	6	9	7	4	6322	1513	17	4	4	14	15	28	19	9	14
15	2	5	5	9	13	9	8	10	2312	3043	5	11	12	29	70	29	24	34	27
16	8	9	7	9	10	9	9	5	2020	6452	25	29	18	29	38	28	28	12	26
17	10	12	5	5	4	8	10	7	3412	3335	38	53	13	12	9	22	38	17	25
18	5	5	12	11	10	16	11	9	2244	6522	13	12	54	49	37	104	43	31	43
19	7	6	4	3	3	7	8	5	3031	2333	20	14	8	7	6	19	23	13	14
20	7	8	9	9	8	7	10	9	4234	4333	18	22	30	28	23	20	36	27	26
21	8	10	11	9	10	10	5	2	3331	4422	22	36	44	32	34	38	12	5	28
22	2	3	4	4	3	1	6	4	1132	1264	5	6	8	8	7	3	16	10	8
23	5	2	6	1	1	3	2	0	5253	2131	12	5	14	3	3	7	5	1	6
24	0	1	2	2	0	1	4	10	0221	2365	0	2	5	5	1	3	8	38	8
25	8	10	12	10	13	16	15	16	3522	3644	21	35	51	38	64	116	97	118	68
26	14	10	12	12	10	12	14	12	2233	6532	84	38	55	51	39	53	80	60	58
27	14	13	9	14	7	12	12	12	3433	2433	75	66	32	72	20	55	57	54	54
28	10	9	7	6	5	10	13	12	3531	2332	37	29	20	15	12	36	67	55	34
29	10	9	9	10	12	14	11	7	3113	5342	37	32	30	39	55	73	49	18	42
30	10	7	5	6	11	11	13	11	5230	5553	36	20	11	14	49	41	62	42	34
31	9	8	10	7	9	10	11	7	4231	5653	28	21	39	19	30	37	50	19	30
																			24.5

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	3 Ks								σs									As
1	9	8	7	8	9	9	9	7	1212	3242	27	23	18	22	32	28	31	19	25
2	6	5	6	6	6	7	9	6	2212	1121	14	12	14	16	15	20	29	14	17
3	6	7	5	5	8	7	9	7	2232	3132	15	20	13	12	24	19	28	19	19
4	8	6	5	8	7	5	12	8	1122	1325	24	15	11	23	18	13	59	23	23
5	9	8	6	7	7	6	10	8	2221	1221	28	21	16	18	18	14	37	24	22
6	8	8	8	8	6	5	7	4	1322	2131	24	22	21	21	14	11	20	8	18
7	3	0	2	1	1	1	3	1	3112	3133	7	1	4	3	3	2	6	3	4
8	2	1	3	4	9	11	9	5	1321	1452	4	2	7	9	27	43	33	12	17
9	6	7	8	6	10	6	8	6	2212	1141	15	19	21	14	34	15	21	15	19
10	4	8	8	8	9	9	11	5	1132	4132	8	24	26	22	33	27	47	12	25
11	7	5	3	4	3	6	3	2	1321	1233	18	12	6	8	7	14	7	5	10
12	4	4	3	5	5	7	2	2	4222	1151	10	10	6	11	12	20	4	5	10
13	4	4	5	5	6	2	4	6	2222	1123	10	10	12	11	15	4	9	16	11
14	7	3	4	6	7	9	9	6	2341	2323	19	7	10	16	19	27	28	16	18
15	5	5	6	8	13	11	9	11	3221	2311	13	13	15	24	62	47	27	42	30
16	9	9	8	7	9	8	8	6	3121	2131	27	31	22	18	30	21	23	15	23
17	9	9	6	5	5	7	10	8	2121	1232	28	31	16	12	11	19	39	23	22
18	6	6	10	10	9	14	11	10	1211	3454	16	15	40	35	29	78	49	37	37
19	7	6	5	6	5	8	8	7	1123	4336	18	14	11	14	12	25	26	17	17
20	6	7	7	7	7	6	9	8	1133	1223	16	18	20	20	19	14	29	22	20
21	7	8	9	8	8	8	6	3	1221	2233	18	25	32	24	25	22	16	7	21
22	3	4	5	2	3	2	5	5	3461	2313	7	10	11	5	7	5	12	11	9
23	5	3	4	2	3	4	3	1	3231	1533	13	6	9	5	7	8	7	3	7
24	0	2	3	2	2	2	5	9	1031	1025	1	4	7	5	5	4	11	30	8
25	8	11	14	11	15	16	16	17	3313	5655	25	44	73	45	93	117	119	130	81
26	15	10	11	10	8	10	14	12	5242	3122	96	35	42	39	24	36	77	59	51
27	12	11	10	11	7	13	12	11	1123	1422	55	45	35	46	19	61	59	44	46
28	9	9	7	7	6	9	11	12	4121	2114	31	31	19	18	15	27	45	56	30
29	9	9	9	9	11	12	10	6	1311	3111	33	27	27	31	50	55	36	16	34
30	10	9	6	7	11	11	12	11	2131	3222	35	27	15	17	50	42	51	44	35
31	10	8	10	8	10	9	10	7	4111	1112	35	21	38	24	36	33	36	19	30
																			23.8

JAN. 1974

	3 Km								Σ Km	am							Am	Am2
1	9	8	7	8	10	9	9	7	22.3	28	26	18	26	36	30	32	19	27	25
2	5	5	5	7	6	7	9	7	17.0	13	12	13	20	15	20	31	17	18	20
3	6	7	5	5	9	8	8	6	18.0	15	19	13	13	29	21	25	15	19	19
4	8	6	4	7	8	5	13	7	19.3	22	15	9	19	22	12	65	18	23	22
5	9	8	6	7	7	6	9	8	20.0	29	23	16	18	18	14	33	26	22	24
6	8	8	7	7	6	5	7	3	17.0	25	23	19	19	15	11	18	6	17	15
7	4	0	1	1	2	0	2	1	3.7	8	1	3	3	4	1	5	3	4	6
8	2	1	4	3	9	11	10	5	15.0	4	2	8	7	29	45	35	13	18	13
9	5	6	7	5	8	5	8	5	16.3	12	15	19	11	25	13	21	13	16	20
10	3	8	8	7	10	9	11	6	20.7	7	22	23	19	39	29	46	15	25	20
11	7	5	4	4	3	5	3	2	11.0	18	12	9	10	7	11	6	5	10	15
12	3	4	3	4	4	8	1	2	9.7	7	9	6	10	10	21	3	4	9	9
13	4	4	4	4	6	1	3	6	10.7	8	9	10	10	15	3	7	14	10	10
14	7	3	3	6	7	9	8	5	16.0	18	6	7	15	17	27	23	13	16	14
15	4	5	5	9	13	10	8	10	21.3	9	12	13	27	66	38	26	38	29	26
16	8	9	7	8	10	8	8	6	21.3	26	30	20	23	34	25	25	14	25	29
17	9	11	6	5	4	8	10	7	20.0	33	42	14	12	10	21	38	20	24	25
18	6	5	11	11	9	15	11	10	26.0	15	13	47	42	33	91	46	34	40	29
19	7	6	4	4	4	8	8	6	15.7	19	14	10	10	9	22	24	15	15	26
20	7	7	8	8	8	7	9	8	20.7	17	20	25	24	21	17	33	24	23	23
21	7	9	10	9	9	9	6	3	20.7	20	30	38	28	29	30	14	6	24	20
22	3	4	4	3	3	2	6	5	10.0	6	8	9	7	7	4	14	11	8	11
23	5	2	5	2	2	4	3	1	8.0	12	5	11	4	5	8	6	2	7	6
24	0	1	3	2	1	2	4	10	7.7	0	3	6	5	3	4	10	34	8	16
25	8	10	13	11	14	16	16	17	35.0	23	40	62	41	78	116	108	124	74	54
26	15	10	11	11	9	11	14	12	31.0	90	36	49	45	32	45	79	59	54	67
27	13	12	9	12	7	12	12	11	29.3	65	56	33	59	19	58	58	49	50	45
28	10	9	7	7	6	9	12	12	24.0	34	30	20	17	14	31	56	55	32	36
29	10	9	9	10	12	13	11	7	27.0	35	29	29	35	53	64	42	17	38	34
30	10	8	5	6	11	11	12	11	24.7	36	23	13	16	50	42	57	43	35	36
31	9	8	10	8	9	10	11	7	24.0	32	21	38	22	33	35	43	19	30	31
																		24.2	

FEB. 1974

	3 Km								Σ Km	am							Am	Am2
1	6	6	4	6	6	5	11	11	18.3	14	15	10	14	16	13	46	43	21	23
2	9	6	4	6	7	7	6	6	17.0	29	15	8	16	18	19	14	15	17	20
3	5	6	7	7	5	4	4	5	14.3	11	15	18	17	13	10	9	12	13	14
4	3	7	5	4	3	4	8	2	12.0	7	20	12	10	6	10	21	5	11	10
5	4	4	3	3	6	9	7	6	14.0	8	8	6	6	15	33	18	15	14	12
6	6	6	3	1	5	6	6	8	13.7	15	15	6	3	11	14	16	26	13	16
7	9	6	6	6	8	4	7	4	16.7	27	15	16	15	21	9	18	10	16	14
8	1	1	2	5	5	8	5	4	10.3	2	2	4	13	11	23	13	10	10	10
9	4	3	2	1	2	0	2	5	6.3	10	6	4	2	5	1	5	12	6	10
10	4	4	7	7	2	7	14	12	19.0	10	8	17	20	5	18	74	51	25	21
11	9	9	7	8	13	12	14	14	28.7	32	31	19	24	61	53	81	75	47	48
12	8	13	13	14	14	11	8	8	29.7	25	64	63	84	75	42	25	21	50	48
13	7	7	8	9	11	11	10	9	24.0	20	18	24	30	46	48	34	27	31	31
14	8	7	6	9	8	7	5	5	18.3	22	20	14	32	24	17	11	12	19	21
15	3	5	2	2	4	3	3	2	8.0	7	11	4	5	8	6	6	5	7	9
16	2	4	2	0	5	5	9	9	12.0	5	10	5	1	11	13	32	27	13	13
17	6	7	8	8	8	5	7	7	18.7	15	17	21	24	24	11	19	19	19	16
18	2	2	2	1	3	1	0	0	3.7	4	4	5	2	6	2	1	0	3	8
19	1	0	4	5	3	5	3	4	8.3	2	1	9	11	6	12	6	8	7	7
20	8	1	4	6	8	12	8	7	18.0	21	3	10	16	23	57	25	19	22	23
21	11	9	10	11	12	9	8	9	26.3	48	29	38	43	55	28	21	30	37	30
22	6	6	8	5	3	4	9	14	18.3	14	15	22	11	6	9	28	80	23	30
23	12	8	11	8	15	14	16	14	32.7	58	22	50	26	89	79	112	78	64	52
24	14	8	10	11	5	9	13	12	27.3	77	21	40	50	13	29	67	54	44	56
25	12	11	12	10	9	14	14	9	30.3	53	42	51	37	33	78	73	32	50	45
26	11	9	9	12	11	11	10	11	28.0	41	31	31	59	43	42	39	45	41	42
27	9	10	9	8	10	12	9	13	26.7	28	40	31	24	35	54	33	69	39	40
28	11	9	10	9	12	9	12	12	28.0	50	33	39	32	57	31	55	59	45	42
																		25.3	

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	3 Kn								σn		an						An
1	5	6	5	6	6	5	11	11	2421	2652	12	15	11	14	16	12	43	46	21
2	9	6	4	7	7	7	5	6	2222	3324	31	16	8	17	20	20	13	15	18
3	5	7	6	7	6	5	4	4	2432	1243	12	18	16	19	14	11	9	10	14
4	3	7	5	5	2	4	8	2	2422	1353	6	19	11	11	5	10	25	5	12
5	3	4	2	3	6	9	7	7	1223	2133	7	8	5	6	16	31	19	18	14
6	6	6	3	1	5	7	7	8	1212	3633	14	16	6	3	11	17	17	23	13
7	9	6	6	6	7	4	7	4	1211	2243	31	15	15	15	18	9	17	10	16
8	0	1	1	6	5	8	6	4	1221	3643	1	2	3	14	11	23	16	10	10
9	4	3	3	1	2	0	2	5	4022	2215	9	6	6	3	5	1	5	12	6
10	5	3	7	8	3	6	14	13	5234	1263	11	7	18	21	6	16	78	61	27
11	9	10	7	8	14	12	14	14	3632	4141	29	35	20	24	76	60	81	80	51
12	9	14	14	16	15	11	9	8	3322	2353	31	72	77	105	97	42	27	25	60
13	7	8	9	10	13	12	10	8	2332	5654	17	21	28	38	66	57	38	25	36
14	8	7	6	10	8	7	6	6	3303	5415	24	18	14	37	26	20	14	14	21
15	3	5	2	1	4	3	3	1	1222	2112	6	11	5	3	8	7	6	3	6
16	2	5	2	0	4	5	10	9	2231	3445	5	11	5	1	10	12	38	27	14
17	7	7	7	8	9	4	7	7	2322	4243	18	18	18	25	27	10	17	17	19
18	1	2	1	0	2	0	0	0	2321	2110	3	4	3	1	4	1	1	0	2
19	0	0	4	4	2	5	3	4	1133	5215	1	1	9	9	4	12	7	9	7
20	7	1	3	5	8	13	8	8	2333	2543	19	3	6	13	21	62	25	22	21
21	12	9	11	11	12	9	7	9	5533	5223	53	31	41	44	57	29	18	29	38
22	5	7	8	5	3	4	8	15	2323	1433	12	17	25	11	6	8	23	88	24
23	13	8	12	9	15	14	16	14	3132	3123	65	26	51	28	96	85	118	84	69
24	13	7	11	12	6	9	14	12	3334	0433	69	19	45	53	14	30	72	54	45
25	13	11	12	10	9	14	14	9	3453	2333	63	47	55	40	28	75	76	29	52
26	11	10	10	13	11	11	10	11	3333	3333	41	36	39	66	42	47	40	46	45
27	8	11	10	7	10	12	10	13	2312	3433	25	46	34	20	40	51	34	70	40
28	11	10	11	10	13	9	13	13	1332	5242	50	38	42	36	61	32	61	62	48
																			26.8

FEB. 1974

	3 Ks								σs		as						As
1	6	6	4	6	6	6	11	10	1111	3121	16	14	8	14	15	14	49	39	21
2	9	6	4	6	6	7	6	6	2111	1242	28	14	8	16	15	19	15	14	16
3	5	5	7	6	5	4	4	6	4221	2142	11	12	20	15	12	10	10	14	13
4	4	8	6	4	4	4	7	2	1442	3423	8	21	14	9	8	10	18	5	12
5	4	4	4	3	6	10	7	5	2311	2143	8	8	8	7	14	35	18	12	14
6	7	6	3	1	5	5	6	9	3112	2342	17	14	7	3	12	11	15	29	14
7	8	6	7	6	8	4	7	4	3131	2424	23	16	17	15	24	9	19	10	17
8	1	1	2	5	5	8	5	4	1221	2334	2	3	4	13	12	24	11	10	10
9	5	3	1	1	3	1	3	5	2332	2223	11	6	2	2	6	2	6	12	6
10	4	4	7	7	2	7	14	10	4121	2144	10	8	17	20	5	20	71	40	24
11	10	9	7	8	11	11	14	13	2412	0244	34	28	18	23	47	46	81	69	43
12	7	12	11	13	12	11	8	7	2313	4122	20	55	50	63	54	42	23	18	41
13	8	6	8	8	8	10	9	9	1313	2225	23	15	21	21	26	40	29	30	26
14	7	8	6	9	8	6	4	5	2321	2253	20	22	14	27	21	15	9	11	17
15	4	5	2	3	4	2	3	4	3412	2413	8	11	4	6	9	5	6	8	7
16	2	4	2	0	5	6	8	9	1312	2223	5	9	5	1	12	14	26	27	12
17	5	6	8	8	7	5	8	8	1122	1344	12	15	24	23	20	11	21	22	19
18	3	2	3	1	4	2	0	0	2112	2310	6	5	7	3	8	4	1	0	4
19	1	1	4	5	3	5	2	4	3121	3423	2	2	9	13	7	11	5	8	7
20	8	1	5	7	8	12	8	6	3132	2213	24	3	13	19	24	52	24	16	22
21	11	8	10	11	12	9	8	9	3521	5131	42	26	35	42	52	27	23	30	35
22	6	6	7	5	3	5	9	14	1242	1411	15	14	19	11	6	11	33	73	23
23	11	7	11	8	14	14	16	14	1123	2303	50	18	49	25	81	74	106	73	60
24	14	8	10	11	5	9	13	12	4214	2204	85	23	35	48	13	28	62	53	43
25	11	10	11	10	10	14	14	10	3243	2020	42	37	46	35	39	82	71	35	48
26	11	8	8	12	11	10	10	11	3221	1122	42	26	23	52	44	37	39	44	38
27	9	10	9	9	9	12	9	13	3213	3313	32	35	29	27	29	56	32	68	39
28	11	9	10	9	12	9	11	12	2312	3234	49	29	35	29	54	29	49	56	41
																			24.0

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	3 Kn								σn								An
1	12	8	6	7	8	8	11	11	3213	3342	58	26	14	20	23	26	47	45	32
2	12	8	9	10	6	11	6	8	1332	3313	51	23	28	35	14	46	15	22	29
3	11	5	11	9	11	8	8	10	5334	3333	49	12	44	33	45	26	22	35	33
4	8	8	6	7	8	5	4	4	3153	4333	21	26	15	20	25	12	9	9	17
5	9	8	7	6	8	10	13	12	3141	3563	30	24	18	16	22	37	62	58	33
6	11	9	5	11	11	11	8	7	5212	2552	45	30	13	43	47	42	26	19	33
7	8	7	3	5	7	11	8	11	3323	3752	21	17	6	13	17	49	21	49	24
8	6	7	11	8	10	4	7	12	2222	2341	16	18	45	23	38	10	20	53	28
9	7	11	10	9	12	13	14	11	2322	2273	19	48	36	27	51	65	78	42	46
10	10	9	14	11	14	11	11	10	3433	4332	39	33	73	50	76	42	45	36	49
11	9	12	14	11	13	14	12	9	0233	5433	29	55	80	49	68	81	51	31	56
12	9	8	9	9	8	7	9	8	3212	3253	31	25	27	28	23	17	30	21	25
13	7	11	8	6	5	3	3	3	2223	4111	19	41	25	16	13	7	6	7	17
14	6	8	8	9	9	10	12	3	2232	3153	15	22	26	33	29	35	57	7	28
15	0	1	1	0	3	4	5	4	1232	1233	1	3	3	1	6	9	11	8	5
16	6	6	10	8	14	16	18	8	4145	5554	15	16	40	21	79	114	159	26	59
17	7	10	9	4	3	5	3	4	3642	2213	19	39	27	9	6	11	6	9	16
18	2	2	1	2	4	0	0	0	3233	1000	5	4	3	4	8	0	0	0	3
19	0	4	1	1	1	1	1	5	1222	2112	1	8	2	2	3	3	2	13	4
20	4	4	3	4	8	11	12	15	3223	3355	10	9	6	8	21	44	58	90	31
21	11	13	9	15	14	17	16	17	2214	2134	44	65	30	88	76	139	109	121	84
22	14	11	11	15	12	9	11	12	2332	2222	75	47	48	102	57	31	49	53	58
23	14	12	9	10	16	13	8	12	1212	1321	85	56	29	39	104	68	23	51	57
24	10	11	11	11	11	11	12	13	4234	3533	40	49	48	50	43	47	54	69	50
25	13	10	11	10	9	10	12	10	3333	3353	66	39	45	40	27	35	55	36	43
26	9	10	11	8	11	10	10	9	1232	3553	29	35	41	22	46	39	36	31	35
27	11	12	12	11	11	8	7	4	3423	4463	47	60	51	45	50	25	18	10	38
28	7	8	11	9	11	7	9	8	3322	3333	19	22	50	31	46	20	27	23	30
29	8	10	10	12	14	13	11	9	3522	3463	22	35	34	53	79	66	50	33	47
30	11	10	11	8	9	10	8	8	3343	5643	47	39	42	26	28	34	21	24	33
31	10	11	11	13	7	11	11	8	4324	2643	34	41	49	65	19	46	41	21	40
																			34.9

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	3 Ks								σs								As
1	13	8	5	7	8	10	10	11	3431	4215	65	21	12	18	26	35	40	47	33
2	11	7	8	8	6	12	8	8	3522	3112	49	19	21	24	15	54	23	22	28
3	12	4	9	8	10	7	8	10	3213	3514	52	10	27	25	40	19	24	39	30
4	9	8	4	7	7	3	4	5	2123	3153	28	21	10	19	20	7	8	11	16
5	9	8	4	6	6	9	12	13	3311	1340	30	22	10	15	16	29	51	62	29
6	11	8	5	10	9	10	8	7	3322	2224	47	23	13	37	33	40	26	17	30
7	9	6	2	4	6	12	7	10	4112	1411	29	14	5	9	14	53	18	39	23
8	6	7	9	8	9	3	8	14	1123	1123	16	18	33	21	30	7	23	73	28
9	9	11	9	8	10	13	14	10	1242	1440	27	49	33	24	37	61	71	35	42
10	10	8	12	10	11	10	11	10	2242	2031	35	23	54	39	48	35	42	37	39
11	8	11	11	10	10	10	11	10	1212	3323	26	49	44	40	40	38	44	38	40
12	10	7	7	8	6	6	8	7	2122	2132	35	18	18	22	16	14	22	18	20
13	7	8	6	4	5	4	2	3	2233	2342	18	24	14	9	11	8	5	6	12
14	8	5	7	6	7	9	11	4	5351	1132	21	11	19	14	18	33	48	9	22
15	0	2	0	0	1	3	4	4	1410	3434	1	5	1	0	3	6	8	9	4
16	6	6	10	8	13	17	18	8	1352	3652	15	16	39	21	63	125	156	24	57
17	7	8	7	3	3	4	2	3	1251	1231	18	26	20	7	7	9	4	7	12
18	0	0	1	1	2	1	1	0	1131	3220	1	1	2	2	4	2	2	0	2
19	1	5	0	1	1	1	0	5	2302	2312	3	13	0	2	2	3	1	12	5
20	5	6	3	4	8	10	12	16	4220	3134	11	14	6	8	23	40	60	108	34
21	11	14	9	14	14	17	16	17	3312	4343	49	72	27	71	81	138	118	124	85
22	15	12	10	15	11	9	12	13	4112	1212	101	55	40	99	50	28	55	64	62
23	15	12	9	8	15	13	8	14	3411	3124	90	56	28	26	87	66	22	81	57
24	10	11	11	11	8	10	11	14	5313	4214	36	44	44	43	26	35	44	77	44
25	15	10	10	10	9	8	12	11	5222	3315	92	37	39	39	27	25	57	47	45
26	10	9	10	8	10	10	9	10	2134	2214	35	31	38	21	39	40	32	39	34
27	11	11	11	9	11	9	7	3	3123	3141	42	44	43	32	45	28	17	7	32
28	8	8	11	9	10	7	8	11	1441	3236	21	26	43	29	37	17	22	45	30
29	8	9	8	11	13	14	12	9	5223	1343	21	27	26	43	65	78	51	29	43
30	11	9	10	8	9	10	9	10	3133	1312	42	29	38	23	30	37	27	34	33
31	9	10	11	13	7	12	11	6	3446	2142	33	40	43	62	18	54	49	14	39
																			32.6

MAR. 1974

	3 Km								Σ Km	am							Am	Am2
1	13	8	5	7	8	9	11	11	24.0	62	24	13	19	24	30	43	46	33	37
2	11	8	8	9	6	11	7	8	22.7	50	21	24	30	15	50	19	22	29	31
3	11	5	10	9	11	8	8	10	24.0	50	11	36	29	43	23	23	37	32	27
4	8	8	5	7	8	4	4	4	16.0	24	24	12	20	22	10	9	10	16	21
5	9	8	6	6	7	9	12	12	23.0	30	23	14	16	19	33	57	60	32	27
6	11	8	5	10	10	11	8	7	23.3	46	26	13	40	40	41	26	18	31	30
7	8	6	3	5	6	12	7	11	19.3	25	16	6	11	15	51	19	44	23	25
8	6	7	10	8	10	4	8	13	22.0	16	18	39	22	34	9	22	63	28	30
9	8	11	10	8	11	13	14	10	28.3	23	48	34	25	44	63	74	38	44	41
10	10	9	13	11	13	10	11	10	29.0	37	28	63	44	62	38	43	37	44	47
11	9	12	13	11	12	12	11	10	30.0	27	52	62	45	54	60	48	34	48	42
12	9	8	8	8	7	6	8	7	20.3	33	21	23	25	19	16	26	19	23	23
13	7	9	7	5	5	3	3	3	14.0	18	33	20	13	12	7	6	6	14	17
14	7	7	8	8	8	10	12	4	21.3	18	17	23	23	24	34	52	8	25	15
15	0	2	1	0	2	3	4	4	5.3	1	4	2	1	5	7	10	9	5	16
16	6	6	10	8	14	16	18	8	28.7	15	16	39	21	71	119	158	25	58	36
17	7	9	8	4	3	4	2	4	13.7	19	32	24	8	7	10	5	8	14	31
18	1	1	1	1	3	0	0	0	2.3	3	3	3	3	6	1	1	0	3	4
19	1	4	0	1	1	1	0	5	4.3	2	10	1	2	2	3	1	12	4	5
20	4	5	3	4	8	11	12	15	20.7	10	11	6	8	22	42	59	99	32	31
21	11	13	9	14	14	17	16	17	37.0	47	68	29	79	79	138	113	123	85	74
22	15	12	11	15	12	9	12	12	32.7	88	51	44	100	53	30	52	59	60	71
23	15	12	9	9	15	13	8	13	31.3	87	56	28	32	95	67	23	66	57	52
24	10	11	11	11	10	11	11	14	29.7	38	46	46	47	34	41	49	73	47	51
25	14	10	11	10	9	9	12	11	28.7	79	38	42	39	27	30	56	41	44	42
26	9	9	10	8	11	10	10	10	25.7	32	33	39	22	42	40	34	35	35	38
27	11	12	11	10	11	8	7	4	24.7	44	52	47	38	47	26	17	9	35	34
28	7	8	11	9	11	7	8	10	23.7	20	24	46	30	41	19	24	34	30	29
29	8	9	9	11	14	14	12	9	28.7	21	31	30	48	72	72	51	31	45	39
30	11	10	10	8	9	10	8	9	25.0	44	34	40	24	29	35	24	29	32	42
31	10	10	11	13	7	11	11	7	26.7	34	40	46	64	18	50	45	17	39	34
																		33.8	

APR. 1974

	3 Km								Σ Km	am							Am	Am2
1	8	4	11	11	9	11	4	6	21.3	22	8	49	41	31	45	9	16	28	26
2	6	4	8	6	7	7	7	13	19.3	14	10	26	14	17	17	20	70	24	30
3	13	11	9	12	16	11	15	10	32.3	66	48	27	52	116	48	87	35	60	51
4	12	10	13	12	14	12	7	5	28.3	58	39	67	55	86	55	19	13	49	50
5	8	6	7	13	9	8	9	8	22.7	23	14	19	70	29	25	32	25	30	36
6	10	13	10	9	8	8	10	9	25.7	35	62	36	28	25	21	37	31	34	33
7	10	8	12	9	7	9	8	5	22.7	35	23	51	30	19	28	23	11	28	25
8	3	5	4	11	11	7	8	7	18.7	7	13	8	41	46	17	23	20	22	21
9	4	7	8	8	6	8	12	10	21.0	10	18	21	25	16	23	58	34	26	29
10	9	9	12	10	11	10	10	10	27.0	30	32	58	35	49	38	34	40	40	36
11	11	12	7	7	13	6	3	1	20.0	44	51	17	20	64	15	7	3	28	25
12	1	1	3	1	0	1	4	3	4.7	2	2	7	3	1	3	8	6	4	10
13	2	6	5	4	5	6	4	3	11.7	5	14	11	8	13	14	9	6	10	8
14	4	5	4	2	3	3	4	5	10.0	10	12	8	5	6	7	10	11	9	8
15	4	2	1	1	2	1	1	4	5.3	8	5	2	3	5	3	2	9	5	5
16	3	1	2	1	2	2	3	5	6.3	6	2	5	3	4	5	7	11	5	5
17	5	0	2	2	5	7	5	7	11.0	13	1	5	5	11	19	12	20	11	24
18	8	13	15	15	11	10	11	12	31.7	25	63	91	90	44	38	43	59	57	44
19	11	13	12	8	10	16	11	11	30.7	45	63	52	22	35	118	49	50	54	53
20	11	12	12	13	15	13	11	13	33.3	44	60	57	63	88	62	45	63	60	59
21	12	11	14	10	13	9	10	12	30.3	52	50	73	36	62	27	36	51	48	53
22	11	11	12	11	11	11	11	10	29.3	50	47	51	48	44	45	41	38	46	46
23	12	9	10	13	11	11	11	10	29.0	60	33	34	66	42	47	43	36	45	41
24	13	10	5	5	5	7	12	11	22.7	68	34	12	11	11	19	54	47	32	37
25	13	10	11	8	9	7	9	9	25.3	63	35	44	26	32	20	26	28	35	33
26	12	9	5	7	8	7	9	12	23.0	59	30	12	17	22	17	33	58	31	34
27	12	11	10	11	8	6	5	8	23.7	60	44	39	45	26	15	12	25	33	32
28	9	8	8	9	11	11	10	10	25.3	28	25	26	30	50	50	35	37	35	28
29	7	6	7	9	11	10	11	10	23.7	20	14	17	32	41	37	47	38	31	33
30	10	7	10	7	8	9	6	12	23.0	35	20	40	18	24	30	16	57	30	27
																		31.7	

APR. 1974

	3 Kn								σn		an						An
1	8	4	11	11	9	12	4	7	3333	4622	22	9	46	46	31	51	10	17	29
2	6	4	8	6	6	7	8	14	3232	2234	15	9	25	14	16	17	22	71	24
3	13	12	9	12	16	11	15	10	5314	5373	62	51	28	54	120	43	92	39	61
4	13	11	14	12	14	12	7	6	4564	3641	63	50	79	59	82	57	20	14	53
5	8	6	8	14	9	8	10	8	2125	3113	22	14	23	82	32	26	35	26	33
6	10	13	11	9	9	8	9	9	3333	3221	37	69	41	29	29	26	33	31	37
7	9	8	13	9	7	9	8	5	2234	2342	31	25	66	31	20	31	25	11	30
8	4	5	4	11	12	7	9	8	2224	5333	8	12	9	49	53	19	27	23	25
9	5	7	8	8	6	8	12	10	2313	1343	11	19	24	26	16	23	59	37	27
10	9	9	13	10	12	11	11	11	4121	4433	31	32	64	37	55	44	41	42	43
11	11	12	8	8	14	7	4	1	2332	3233	46	60	21	24	71	17	9	3	31
12	2	2	3	2	1	2	4	3	2222	1221		4	7	5	2	4	9	7	5
13	3	6	6	5	6	6	5	3	2125	3321	6	15	15	12	14	14	11	7	12
14	5	5	4	4	3	4	6	5	3232	4233	11	13	10	8	7	9	14	13	11
15	4	3	1	2	3	2	1	5	2333	2431	8	6	3	4	7	5	3	12	6
16	3	1	3	2	3	4	4	5	0253	3135	6	2	7	4	6	8	10	13	7
17	5	0	3	3	5	6	5	7	1132	2554	13	1	7	6	12	16	13	17	11
18	8	13	15	15	11	10	11	11	1215	3522	26	67	92	95	41	37	42	49	56
19	10	13	11	8	11	17	11	11	3433	2333	39	62	45	22	41	123	48	48	54
20	11	12	12	13	15	14	11	13	3542	6233	44	59	60	70	92	73	49	64	64
21	12	11	14	10	13	9	10	11	3342	5134	54	48	81	38	64	28	38	46	50
22	11	12	12	11	11	11	10	10	2533	2552	43	56	57	50	44	43	38	34	46
23	12	10	10	14	10	12	10	10	2322	2533	57	36	36	71	40	51	37	36	46
24	12	9	6	5	5	7	11	11	3242	2454	58	31	14	11	13	20	48	42	30
25	12	10	11	8	9	8	8	9	3224	4352	59	34	41	26	33	21	26	27	33
26	12	9	5	7	8	7	10	12	4212	2355	55	27	13	18	24	20	34	51	30
27	12	11	11	12	9	7	6	9	4334	3343	55	42	46	54	28	18	16	27	36
28	9	9	9	9	12	12	9	10	1232	2513	28	28	27	32	60	51	29	34	36
29	8	6	7	9	11	10	11	10	5422	3325	21	14	17	33	43	40	45	38	31
30	9	8	11	8	8	9	7	11	4643	1433	32	26	41	21	26	31	20	44	30
																			32.9

APR. 1974

	3 Ks								σs		as						As
1	8	3	12	10	9	10	4	6	4111	2322	21	7	52	35	31	40	8	14	26
2	5	5	8	5	7	7	7	13	3331	1223	13	11	26	13	18	17	18	68	23
3	13	11	9	11	16	12	14	9	7524	1264	70	46	27	50	112	52	81	32	59
4	12	9	12	11	15	12	7	5	4144	2422	53	29	56	50	90	53	18	12	45
5	8	6	6	12	9	8	9	8	2214	4221	24	14	15	58	27	23	28	24	27
6	9	12	9	9	8	6	10	9	3131	2121	33	55	32	27	21	16	40	32	32
7	10	8	10	9	7	8	8	5	2143	4121	39	21	36	28	19	24	21	11	25
8	3	5	4	10	10	6	7	7	3335	4112	6	13	8	34	40	16	19	18	19
9	4	7	7	8	6	8	12	9	1223	1233	9	18	19	23	15	23	57	32	25
10	9	9	12	9	11	9	9	10	4331	3215	28	31	52	33	43	31	27	38	35
11	11	11	6	6	12	5	2	1	3122	1343	42	42	14	16	57	13	5	3	24
12	0	0	3	0	0	1	3	2	0111	0242	0	1	7	1	0	2	6	5	3
13	1	5	3	2	5	6	4	2	2213	2130	3	13	7	4	12	14	8	4	8
14	4	5	3	1	2	3	2	4	4312	2222	9	11	6	3	5	6	5	8	7
15	4	2	0	1	1	0	0	3	2203	1102	8	4	0	2	3	1	0	6	3
16	3	1	1	0	1	1	2	4	2111	2353	6	2	3	1	2	3	4	9	4
17	5	0	1	1	5	8	5	8	2011	1227	13	0	3	3	11	22	11	24	11
18	8	12	15	14	11	10	11	13	2344	2133	25	58	91	85	48	40	44	68	57
19	11	13	12	8	9	16	11	12	4541	1423	50	64	59	21	30	114	49	52	55
20	11	12	12	12	14	11	10	13	5344	4322	44	60	54	57	83	50	40	62	56
21	12	12	13	9	13	9	10	12	4153	3145	51	52	65	33	61	27	34	56	47
22	12	10	11	11	11	11	11	11	3133	3343	58	39	44	47	45	47	44	42	46
23	13	9	9	13	11	11	11	10	2136	2250	62	29	32	61	43	42	48	35	44
24	14	10	4	5	4	7	13	12	5522	0142	78	36	10	11	8	18	61	51	34
25	13	10	11	8	9	7	9	9	1224	4252	66	35	46	26	31	20	30	29	35
26	13	9	5	7	7	6	9	13	5612	3146	62	33	11	17	20	15	31	65	32
27	13	11	9	10	8	5	4	8	6546	2223	64	47	32	35	25	11	9	24	31
28	9	8	8	9	10	11	11	10	4324	2315	28	23	24	27	40	48	42	40	34
29	7	6	6	9	10	10	11	10	2464	2041	20	14	16	32	39	35	50	39	31
30	10	6	10	6	8	9	5	13	4161	2324	37	14	40	16	21	29	13	69	30
																			30.3

MAY 1974

	3 Kn								σn								An
1	6	5	2	2	4	8	9	8	2333	1322	16	11	4	4	8	25	28	26	15
2	8	8	9	8	7	11	9	12	1323	4431	25	22	27	24	18	49	31	53	31
3	13	13	11	7	9	6	7	6	2533	1221	66	61	48	19	29	16	20	15	34
4	11	10	10	13	12	10	12	12	4233	2334	50	39	39	64	54	38	57	55	50
5	11	13	14	14	10	10	10	10	3443	2334	43	61	81	80	39	38	40	36	52
6	7	8	6	6	6	5	3	1	1211	1202	17	22	15	14	14	12	6	2	13
7	3	3	8	8	13	12	4	5	1222	3232	6	7	21	23	68	51	10	13	25
8	5	2	5	10	5	6	9	11	1322	1231	12	4	12	36	12	16	33	44	21
9	9	9	9	8	8	5	3	5	1423	3413	28	31	31	21	23	12	6	11	20
10	3	5	5	1	2	2	1	1	2222	1422	6	11	11	3	5	5	3	2	6
11	0	1	1	7	4	5	4	6	1232	3331	1	3	3	17	10	12	10	14	9
12	8	4	2	1	1	0	4	5	4232	1122	22	8	4	2	3	1	8	13	8
13	2	4	4	3	5	4	5	6	2223	3544	4	8	9	6	11	8	12	14	9
14	7	5	1	6	8	4	10	10	3224	4233	19	12	3	16	22	9	37	37	19
15	11	8	10	11	13	11	9	11	2232	2223	46	22	40	46	63	42	29	48	42
16	9	10	12	11	12	9	10	12	3433	3331	33	40	57	46	55	29	36	58	44
17	14	15	11	13	14	11	9	12	2555	5323	73	87	46	62	76	47	29	53	59
18	12	13	12	10	10	9	9	11	3322	3103	51	67	55	36	38	31	29	41	44
19	8	9	13	9	11	8	9	8	1122	3313	25	29	64	31	45	26	28	25	34
20	11	10	8	9	11	7	11	8	3331	3211	45	39	26	30	45	17	49	26	35
21	9	10	11	12	9	9	9	9	1323	2331	31	36	41	54	29	31	27	29	35
22	8	11	10	8	8	9	11	11	1423	3352	25	44	36	24	24	27	49	44	34
23	8	13	11	9	9	12	14	10	1444	2321	26	65	42	28	28	53	71	35	44
24	12	12	12	12	9	10	13	11	4433	1242	51	52	60	54	32	35	67	49	50
25	9	7	5	11	10	7	7	7	3443	4322	33	20	12	48	35	18	17	18	25
26	7	7	9	8	6	7	8	6	2343	3531	18	20	28	22	15	18	25	15	20
27	11	9	6	8	5	6	7	8	3525	3332	43	32	14	21	13	16	17	26	23
28	7	5	8	10	8	3	2	6	3323	3223	20	13	23	40	23	6	4	16	18
29	5	5	7	7	4	7	7	5	2122	3352	11	13	19	20	10	17	18	12	15
30	5	8	9	9	11	11	9	9	2533	3421	12	26	27	33	43	48	28	28	31
31	8	10	9	13	11	10	10	14	2213	3234	23	34	32	66	48	39	34	72	44
																			29.3

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	3 Ks								σs								As
1	6	4	2	1	1	5	7	6	3353	2331	16	8	4	3	2	11	20	16	10
2	7	8	9	7	7	10	8	9	1434	4111	20	23	31	19	19	35	24	32	25
3	13	10	11	6	6	6	6	4	2222	1223	61	35	43	15	16	14	14	9	26
4	10	9	8	10	10	9	13	12	2422	1133	35	28	24	40	37	31	66	53	39
5	10	11	11	13	9	9	11	12	4523	1226	38	49	49	66	28	32	46	53	45
6	6	8	4	4	4	3	1	1	1322	2433	15	23	10	9	9	6	3	3	10
7	1	2	6	7	11	9	2	3	3214	2111	2	4	16	19	46	28	4	7	16
8	3	1	5	10	4	4	8	11	3320	2223	7	2	12	35	10	10	23	42	18
9	9	9	9	8	8	5	0	2	4532	2213	31	33	29	21	21	11	1	4	19
10	1	4	3	0	0	1	0	1	1241	0202	3	9	6	1	0	2	0	2	3
11	0	0	1	5	3	3	2	4	0111	3423	0	1	2	13	6	6	5	8	5
12	7	3	0	0	0	1	3	3	5111	0241	19	6	1	1	0	2	7	7	5
13	0	1	3	2	3	1	2	5	1312	2331	1	2	7	5	6	3	5	12	5
14	8	5	1	3	4	2	10	11	4522	2145	21	13	2	7	10	4	39	48	18
15	11	7	11	11	14	10	10	12	3311	3421	44	17	41	44	76	37	34	57	44
16	11	11	14	11	12	8	10	13	4424	5224	41	50	80	47	52	21	34	63	49
17	14	15	9	12	14	10	10	11	3444	2125	77	92	28	56	80	35	36	48	57
18	13	12	12	9	10	9	11	11	5112	2253	61	52	55	33	40	28	44	47	45
19	8	9	11	9	11	9	9	8	2121	6311	25	29	49	28	41	29	30	21	32
20	11	9	8	8	11	6	12	9	3322	4111	49	27	24	24	41	15	57	31	34
21	11	8	9	12	8	9	9	8	4314	3223	41	23	28	56	23	28	29	25	32
22	8	11	9	6	8	9	15	13	2313	2125	25	42	31	15	23	33	89	64	40
23	9	13	11	7	7	11	16	10	3442	3344	32	63	43	17	20	49	120	35	47
24	12	11	13	11	9	10	16	15	6224	1345	53	47	68	50	29	39	108	92	61
25	11	8	6	11	9	6	5	8	3445	1123	42	21	16	43	33	14	11	25	26
26	8	8	8	7	6	5	9	5	4354	2341	24	22	22	18	15	11	29	11	19
27	12	10	4	4	4	3	5	9	3412	1114	59	37	10	9	9	7	12	28	21
28	8	7	8	10	7	1	0	4	4545	1302	21	18	24	38	18	3	0	10	17
29	4	4	6	7	3	5	6	4	2554	4322	9	9	16	18	7	11	16	9	12
30	6	9	6	8	7	10	8	8	4632	2123	14	30	15	21	19	37	23	22	23
31	7	9	8	10	10	8	9	15	1311	3313	20	29	21	35	35	26	28	100	37
																			27.1

MAY 1974

	3 Km								Σ Km	am							Am	Am2
1	6	4	2	2	2	7	8	8	13.0	16	10	4	4	5	18	24	21	13	20
2	8	8	9	8	7	11	9	11	23.7	22	22	29	22	18	42	27	42	28	29
3	13	11	11	7	8	6	7	5	22.7	63	48	45	17	23	15	17	12	30	33
4	11	10	9	12	11	10	13	12	29.3	43	34	31	52	45	35	61	54	44	41
5	10	12	13	14	9	10	11	11	30.0	40	55	65	73	33	35	43	44	49	40
6	6	8	5	5	5	4	2	1	12.0	16	23	13	11	11	9	5	2	11	18
7	2	2	7	8	12	10	3	4	16.0	4	5	18	21	57	39	7	10	20	16
8	4	1	5	10	5	5	9	11	16.7	10	3	12	35	11	13	28	43	19	24
9	9	9	9	8	8	5	1	4	17.7	29	32	30	21	22	12	3	8	20	17
10	2	4	4	1	1	1	0	1	4.7	4	10	9	2	2	3	1	2	4	6
11	0	1	1	6	4	4	3	5	8.0	1	2	3	15	8	9	7	11	7	6
12	8	3	1	0	0	0	3	4	6.3	21	7	2	1	1	1	7	10	6	7
13	1	2	4	2	4	2	4	5	8.0	2	5	8	5	8	5	9	13	7	8
14	7	5	1	5	6	3	10	11	16.0	20	13	2	12	16	6	38	42	19	21
15	11	7	10	11	13	10	9	12	27.7	45	19	40	45	69	39	32	53	43	40
16	10	11	13	11	12	8	10	12	29.0	37	45	68	46	54	25	35	60	46	52
17	14	15	10	12	14	11	9	12	32.3	75	90	37	59	78	41	32	51	58	53
18	12	12	12	10	10	9	10	11	28.7	56	59	55	35	39	29	36	44	44	43
19	8	9	12	9	11	9	9	8	25.0	25	29	56	29	43	28	29	23	33	34
20	11	9	8	9	11	6	12	9	25.0	47	33	25	27	43	16	53	28	34	34
21	10	9	10	12	8	9	9	9	25.3	36	30	34	55	26	30	28	27	33	33
22	8	11	9	7	8	9	13	12	25.7	25	43	33	19	23	30	69	54	37	35
23	9	13	11	8	8	12	15	10	28.7	29	64	42	22	24	51	96	35	45	47
24	12	11	13	12	9	10	15	13	31.7	52	49	64	52	30	37	87	70	55	48
25	10	8	6	11	10	6	6	8	21.7	37	21	14	45	34	16	14	22	25	32
26	8	8	8	7	6	6	9	5	19.0	21	21	25	20	15	14	27	13	20	22
27	12	10	5	6	5	5	6	9	19.3	51	34	12	15	11	12	15	27	22	22
28	7	6	8	10	7	2	1	5	15.3	20	15	24	39	20	4	2	13	17	16
29	4	5	7	7	4	6	7	4	14.7	10	11	17	19	8	14	17	10	13	15
30	5	9	8	9	9	11	8	8	22.3	13	28	21	27	31	42	25	25	27	24
31	8	9	8	11	11	9	9	14	26.3	21	32	26	50	42	33	31	86	40	38
																		28.0	

JUNE 1974

	3 Km								Σ Km	am							Am	Am2
1	12	8	10	11	9	9	8	13	26.7	51	24	39	44	33	32	21	64	39	40
2	10	8	8	12	9	9	6	7	23.0	35	23	26	55	30	32	15	17	29	34
3	9	10	10	12	6	8	7	9	23.7	29	38	37	51	16	22	17	30	30	26
4	10	8	6	5	4	3	5	6	15.7	38	25	14	11	9	7	13	16	17	17
5	3	7	5	5	5	4	3	4	12.0	6	18	13	12	13	10	6	8	11	12
6	4	7	6	4	8	2	1	0	10.7	10	20	15	8	21	5	2	1	10	8
7	1	0	1	1	2	2	3	3	4.3	2	1	3	2	4	4	6	6	4	6
8	2	5	7	4	4	6	3	2	11.0	4	11	18	9	9	14	7	4	10	7
9	2	1	0	4	7	8	8	5	11.7	4	3	0	9	17	22	22	11	11	13
10	9	7	7	6	8	8	9	7	20.3	27	20	18	15	23	23	33	18	22	23
11	5	10	8	12	11	9	13	14	27.3	12	35	21	51	41	29	70	81	43	42
12	14	10	12	14	9	7	9	8	27.7	71	40	52	73	28	20	28	24	42	45
13	12	12	10	7	9	11	7	9	25.7	58	54	37	17	27	46	20	29	36	31
14	9	10	7	7	8	10	11	8	23.3	31	35	19	18	25	40	42	23	29	35
15	12	12	11	10	14	12	9	14	31.3	58	56	46	37	84	52	30	75	55	45
16	10	10	11	9	6	8	9	10	24.3	36	34	45	29	14	22	31	36	31	38
17	8	9	11	8	9	8	6	8	22.3	25	27	42	24	31	25	14	23	26	24
18	8	7	7	4	8	5	4	9	17.3	25	18	20	10	24	11	10	32	19	20
19	9	5	5	8	8	7	11	5	19.3	28	11	12	23	26	20	42	13	22	24
20	8	9	10	11	8	8	8	13	25.0	24	27	35	42	22	26	24	68	34	27
21	10	4	3	1	4	5	4	5	12.0	35	10	7	3	10	12	10	13	13	19
22	8	8	3	5	5	6	7	4	15.3	23	23	6	13	12	15	17	10	15	13
23	5	3	4	7	7	8	4	6	14.7	11	6	9	20	17	23	10	16	14	15
24	7	8	7	7	6	5	7	5	17.3	20	21	20	18	15	11	17	13	17	15
25	5	3	6	1	2	4	4	13	12.7	13	6	16	3	4	8	8	64	15	29
26	13	14	13	14	13	11	12	10	33.3	63	76	69	74	68	44	55	37	61	55
27	12	16	14	13	12	12	14	11	34.7	58	106	83	70	53	55	77	42	68	57
28	12	10	9	10	11	9	10	9	26.7	56	40	29	39	44	31	39	27	38	41
29	9	8	9	11	11	10	9	7	24.7	29	22	29	43	50	38	32	17	33	32
30	9	9	9	9	10	7	8	4	21.7	27	29	28	33	40	19	25	10	26	26
																		27.3	

JUNE 1974

	3 Kn								σn								An
1	12	9	11	12	11	10	8	11	4432	4223	52	32	47	52	46	34	26	47	42
2	10	8	9	13	10	10	7	7	3142	3333	35	25	31	61	36	40	20	20	34
3	9	11	11	12	7	9	8	9	2222	2331	31	42	41	58	18	28	21	29	34
4	10	9	6	5	6	4	6	7	3213	5233	35	28	16	12	14	9	16	18	19
5	4	7	6	5	7	5	3	4	2324	3523	9	20	15	12	17	13	7	10	13
6	5	8	7	4	8	3	2	0	1234	3241	13	24	19	10	25	6	4	1	13
7	1	0	2	2	3	4	4	4	2223	2323	3	1	5	4	6	9	10	9	6
8	3	6	8	4	4	7	4	3	3123	3320	6	14	22	10	10	19	9	6	12
9	2	2	0	5	8	8	8	5	2302	3433	5	5	0	11	23	26	26	12	14
10	8	8	7	7	8	9	11	8	5222	2336	25	24	18	18	26	27	45	24	26
11	6	10	7	12	11	10	13	14	1431	3323	16	38	20	54	46	37	63	77	44
12	12	11	12	14	10	8	9	8	5343	4412	60	43	54	80	34	24	31	24	44
13	12	12	10	8	9	11	8	8	1234	1432	53	51	39	23	29	46	24	25	36
14	9	10	7	8	9	10	10	8	2323	2341	28	38	20	21	29	36	38	26	30
15	12	11	12	11	14	11	10	12	5213	3334	57	49	54	44	76	47	35	57	52
16	9	9	10	9	6	8	9	9	2121	2221	31	30	37	30	16	23	30	28	28
17	8	9	10	8	9	8	6	9	2243	3632	24	28	39	23	31	26	16	27	27
18	8	7	8	5	8	6	4	9	3243	4322	23	18	22	12	23	14	10	28	19
19	8	5	6	8	9	8	11	5	4232	3432	24	12	15	25	27	22	41	13	22
20	8	10	10	11	8	9	8	12	3223	3323	25	34	36	50	26	29	21	51	34
21	9	4	4	2	6	7	5	6	1214	5332	28	10	9	5	14	17	11	15	14
22	8	9	4	6	7	7	6	5	3322	4322	23	28	8	15	17	18	14	11	17
23	5	3	6	8	8	8	4	7	2253	3422	11	7	14	24	23	24	10	17	16
24	7	7	8	8	7	6	7	5	3222	2444	20	19	25	21	18	15	18	13	19
25	5	3	6	2	3	4	4	14	2224	5222	13	7	14	5	6	9	9	72	17
26	13	13	14	14	13	12	12	11	2253	2222	64	70	81	82	70	51	56	46	65
27	13	16	15	13	12	13	14	11	2415	4441	64	107	87	70	57	62	72	49	71
28	12	11	9	11	12	9	9	10	4413	3233	60	47	29	46	51	32	31	34	41
29	10	8	10	11	12	11	9	7	3132	4432	34	25	36	44	53	42	30	19	35
30	8	9	9	10	11	8	8	5	4343	3433	26	28	30	39	43	26	26	13	29
																			29.1

JUNE 1974

	3 Ks								σs								As
1	12	7	9	10	7	9	6	14	4344	1114	51	17	32	35	20	31	15	81	35
2	10	8	7	11	8	8	4	6	2426	2214	35	21	20	49	23	24	10	14	25
3	9	9	9	11	6	6	6	9	2345	2114	28	33	33	45	14	15	14	31	27
4	11	8	5	4	2	2	4	6	3323	2021	42	22	11	9	4	4	10	14	15
5	1	6	5	5	4	3	2	3	2333	2323	3	16	11	11	9	7	5	6	9
6	4	6	5	3	7	2	0	0	3321	3300	8	16	12	6	18	4	0	0	8
7	1	0	0	0	1	0	1	1	2111	2022	2	1	1	1	2	0	3	3	2
8	1	4	6	4	4	4	3	1	2342	2222	2	8	15	9	8	10	6	2	8
9	2	0	0	3	5	7	7	4	1103	4234	4	1	0	6	11	19	19	10	9
10	9	6	7	5	8	7	8	5	5333	2311	29	16	17	13	21	20	21	12	19
11	4	9	8	11	10	8	14	14	1312	3112	8	31	21	49	37	21	76	85	41
12	14	10	11	13	8	6	8	8	6121	2103	82	37	49	65	21	15	25	25	40
13	13	12	10	5	8	11	6	9	2341	1314	62	57	36	11	26	45	15	32	36
14	9	9	7	6	8	11	11	7	3321	2122	33	33	18	14	21	44	46	20	29
15	12	13	10	9	15	12	8	15	6241	4225	59	63	39	31	93	57	25	92	57
16	11	10	12	9	5	8	9	11	1434	2125	42	38	52	27	12	21	31	44	33
17	9	8	11	8	9	8	5	7	3243	2212	27	26	46	25	32	23	12	19	26
18	9	7	7	4	8	4	4	10	4244	4123	28	18	18	9	25	8	10	36	19
19	9	4	4	8	8	7	11	5	4414	4122	31	10	10	21	25	18	43	12	21
20	8	7	10	10	7	8	9	14	3434	1242	24	20	34	35	18	23	28	85	33
21	11	4	2	0	3	4	4	5	3431	4223	42	10	5	1	6	8	9	12	12
22	8	7	2	4	3	5	7	4	3222	1422	23	18	5	10	7	12	20	8	13
23	5	2	2	6	4	8	4	6	3221	1242	11	5	5	16	10	23	10	15	12
24	7	8	6	6	5	3	6	6	4614	2342	20	23	14	15	12	7	16	14	15
25	6	3	7	1	1	4	3	12	4161	3112	14	6	18	2	2	8	7	57	14
26	13	14	12	13	13	10	12	9	0235	3122	62	81	57	65	66	37	54	27	56
27	12	16	14	13	11	11	14	10	3236	2333	52	105	78	69	49	48	81	36	65
28	12	9	9	9	10	9	11	7	4332	1122	53	33	28	32	37	31	47	20	35
29	8	7	8	11	11	10	10	6	2222	4041	24	19	23	43	48	35	34	15	30
30	9	9	8	9	10	5	8	3	4334	6121	29	31	26	27	38	12	24	7	24
																			25.6

JULY 1974

	3 Kn								σn				an								An
1	8	8	8	7	7	5	8	7	2221	5223	24	21	21	17	18	12	26	17	20
2	6	8	11	11	8	8	5	8	1345	3322	14	21	46	45	21	24	12	22	26
3	6	6	9	8	7	5	6	8	1222	3421	14	14	27	25	19	13	14	26	19
4	12	12	10	8	11	13	10	12	4533	3321	53	54	39	23	46	64	35	60	47
5	13	18	13	16	12	14	13	16	2638	2553	64	148	63	106	60	86	68	109	88
6	15	23	22	17	17	14	12	9	3745	3231	99	362	305	125	130	74	60	29	148
7	11	9	8	8	8	10	7	10	4432	2233	46	31	21	22	24	34	18	39	29
8	9	9	11	12	13	12	11	13	2323	4333	32	29	41	58	67	57	49	68	50
9	11	11	8	8	7	6	8	8	2214	3231	42	49	23	25	20	14	23	26	28
10	8	8	10	11	11	9	9	10	2235	3433	22	24	36	49	50	30	28	39	35
11	5	11	7	8	9	8	9	8	2422	4342	12	42	20	22	33	24	32	24	26
12	8	10	6	10	11	10	13	11	3425	3344	21	35	14	34	44	35	61	47	36
13	11	8	10	9	8	7	7	6	3331	4331	41	25	34	28	23	19	20	15	26
14	11	14	11	6	8	6	7	11	4833	3234	44	81	42	15	26	15	18	41	35
15	8	8	9	5	7	5	4	6	1214	2432	25	25	28	12	17	12	8	15	18
16	7	10	9	8	5	4	5	5	3433	4642	19	36	29	23	13	10	11	11	19
17	8	5	5	6	6	7	8	5	5133	5342	21	12	11	15	14	17	22	12	16
18	8	5	5	5	5	3	6	4	2334	2112	22	13	12	11	12	7	14	10	13
19	3	5	3	4	6	7	7	6	2223	4333	6	11	7	9	16	20	18	14	13
20	5	7	8	7	7	5	8	9	2244	4323	12	19	26	17	19	11	24	29	20
21	8	4	4	4	5	5	7	8	3321	2434	25	9	9	9	12	13	18	22	15
22	4	4	9	5	6	6	5	9	4242	4324	8	9	31	11	14	14	13	29	16
23	12	16	13	17	15	14	15	12	3522	4345	60	114	64	136	92	86	94	56	88
24	14	14	13	14	13	14	12	11	2433	3443	72	83	70	72	62	71	52	45	66
25	9	11	11	14	8	10	9	9	1424	2322	31	42	45	80	26	34	28	31	40
26	9	13	9	7	9	9	10	9	1412	5352	29	62	33	19	31	32	38	32	35
27	10	11	14	13	10	7	11	11	4252	2232	35	41	71	67	34	18	42	43	44
28	13	13	8	9	6	7	9	4	3233	2342	66	61	23	30	14	20	27	10	31
29	5	11	8	11	6	8	7	8	3522	1432	11	42	23	45	15	21	18	24	25
30	5	6	9	12	4	5	5	4	3455	3423	11	16	31	55	9	12	11	10	19
31	5	6	4	4	6	4	5	4	2332	1243	12	16	10	9	14	8	13	9	11
																			35.5

JULY 1974

	3 Ks								σs				as								As
1	8	5	6	7	4	2	8	6	1225	4321	23	13	14	17	8	5	23	16	15
2	6	6	9	10	6	6	4	7	2314	1226	14	16	29	35	16	15	9	19	19
3	5	3	8	7	5	3	4	11	1112	2111	12	7	21	18	11	6	8	42	16
4	12	11	11	5	9	11	8	11	3572	3123	58	44	42	13	29	44	22	42	37
5	14	18	12	14	13	14	15	14	4765	2231	74	158	59	76	61	80	92	81	85
6	15	24	21	16	16	13	13	9	4723	3422	101	388	268	108	108	70	61	28	142
7	9	9	5	7	8	6	4	6	3322	5421	33	31	12	17	24	14	9	15	19
8	9	8	10	9	11	11	13	12	1541	2351	29	26	38	30	48	50	67	59	43
9	12	12	8	6	5	3	7	8	3131	2303	53	55	23	14	11	7	17	24	26
10	8	9	9	11	11	8	8	10	3334	3223	25	32	32	50	47	22	24	36	34
11	5	10	6	7	8	9	7	8	3534	3133	12	36	15	19	22	30	20	24	22
12	6	9	6	7	9	8	13	12	2141	2123	15	31	14	18	33	24	64	57	32
13	10	9	8	8	8	5	7	4	2442	2201	35	30	26	23	21	12	17	10	22
14	13	15	10	7	8	4	5	10	4431	2224	66	87	38	18	24	9	12	39	37
15	8	8	9	5	5	4	5	6	3243	3122	25	23	31	11	12	8	12	15	17
16	8	10	8	7	5	2	5	4	5422	3412	26	37	23	17	11	5	11	8	17
17	8	4	5	5	5	4	4	4	3431	2213	22	9	13	11	11	10	8	8	12
18	6	4	3	3	4	2	2	3	3211	4232	16	10	6	7	10	5	5	6	8
19	2	5	2	2	4	5	5	4	3320	0231	4	11	4	4	8	13	13	10	8
20	5	7	9	6	4	3	9	9	3651	4231	11	17	27	14	10	6	32	31	19
21	8	5	4	4	3	4	4	7	2243	3224	26	12	9	8	7	8	10	17	12
22	1	2	9	5	4	4	4	8	1252	2226	3	5	30	12	8	9	10	24	13
23	13	16	14	15	15	14	16	12	4233	1164	70	113	77	90	90	73	107	56	85
24	16	14	12	13	11	11	12	9	3224	4332	104	85	60	68	41	48	57	28	61
25	8	9	10	12	6	9	9	7	2134	1232	24	31	35	54	16	28	27	18	29
26	8	10	8	6	8	8	10	9	3221	2332	23	39	23	16	21	23	37	29	26
27	8	10	13	11	9	5	10	9	5253	1313	26	35	62	43	31	11	37	32	35
28	12	12	8	8	4	6	7	2	1142	2110	57	55	23	24	9	16	20	4	26
29	4	9	8	10	4	8	6	6	3514	2123	8	33	21	35	10	23	15	16	20
30	5	7	9	10	3	3	5	3	3343	1112	11	17	27	37	7	7	11	6	15
31	5	5	3	3	4	4	4	2	2231	2313	12	12	6	6	8	8	10	4	8
																			31.0

JULY 1974

	3 Km								Σ Km	am							Am	Am2
1	8	7	7	7	5	4	8	7	17.7	23	17	17	17	13	9	25	17	17	21
2	6	7	10	10	7	7	4	8	19.7	14	19	37	40	18	19	10	21	22	19
3	5	5	8	8	6	4	5	10	17.0	13	11	24	21	15	10	11	34	17	23
4	12	11	11	7	10	12	9	12	28.0	55	49	41	18	38	54	28	51	42	49
5	13	18	13	15	13	14	14	15	38.3	69	153	61	91	61	83	80	95	87	109
6	15	23	21	16	16	14	13	9	42.3	100	375	286	117	119	72	61	29	145	99
7	10	9	6	7	8	8	6	9	21.0	40	31	16	19	24	24	14	27	24	39
8	9	9	10	11	12	12	12	13	29.3	31	28	39	44	57	53	58	63	47	38
9	11	12	8	7	6	4	7	8	21.0	47	52	23	20	16	10	20	25	27	36
10	8	9	10	11	11	8	8	10	25.0	24	28	34	49	48	26	26	37	34	27
11	5	10	7	7	9	9	8	8	21.0	12	39	17	20	28	27	26	24	24	26
12	7	9	6	8	10	9	13	12	24.7	18	33	14	26	39	30	63	52	34	31
13	10	9	9	8	8	6	7	5	20.7	38	28	30	25	22	15	19	13	24	36
14	12	14	10	7	8	5	6	10	24.0	55	84	40	17	25	12	15	40	36	28
15	8	8	9	5	6	4	4	6	16.7	25	24	29	12	15	10	10	15	16	21
16	8	10	8	7	5	4	5	4	17.0	23	36	26	20	12	8	11	10	18	16
17	8	5	5	5	5	5	6	4	14.3	21	11	12	13	12	13	15	10	13	12
18	7	5	4	4	5	3	4	4	12.0	19	11	9	9	11	6	9	8	10	10
19	2	5	3	3	5	6	6	5	11.7	5	11	6	7	12	16	15	12	11	12
20	5	7	8	6	6	4	9	9	18.0	11	18	26	16	15	8	28	30	19	16
21	8	5	4	4	4	4	6	7	14.0	25	11	9	9	9	10	14	19	13	15
22	3	3	9	5	5	5	5	8	14.3	6	7	30	12	11	11	11	26	14	33
23	13	16	13	16	15	14	15	12	38.0	65	113	70	113	91	80	100	56	86	66
24	15	14	13	13	12	12	12	10	33.7	88	84	65	70	52	59	54	36	64	63
25	9	10	10	13	8	9	9	8	25.3	27	36	40	67	21	31	27	24	34	37
26	8	11	9	7	8	9	10	9	23.7	26	50	28	17	26	28	37	31	30	34
27	9	10	13	12	9	6	10	10	26.3	30	38	67	55	33	15	39	38	39	38
28	13	12	8	9	5	7	8	3	21.7	62	58	23	27	11	18	23	7	29	29
29	4	10	8	10	5	8	6	7	19.3	9	38	22	40	13	22	16	20	23	21
30	5	6	9	11	4	4	5	4	16.0	11	16	29	46	8	9	11	8	17	16
31	5	6	4	4	5	4	5	3	12.0	12	14	8	8	11	8	11	7	10	11
																		33.2	

AUG. 1974

	3 Km								Σ Km	am							Am	Am2
1	4	5	6	7	4	4	2	2	11.3	10	12	16	17	8	8	4	5	10	9
2	5	2	5	3	9	14	13	12	21.0	11	5	12	6	30	76	64	56	33	29
3	10	9	11	12	11	14	14	14	31.7	40	27	49	55	45	84	79	76	57	53
4	14	9	10	6	5	7	10	10	23.7	84	33	38	14	12	18	37	35	34	45
5	11	9	11	10	11	7	9	8	25.3	48	33	44	39	44	19	30	26	35	31
6	10	11	7	7	10	10	12	10	25.7	35	43	17	18	35	34	57	36	34	33
7	11	9	8	9	8	10	10	12	25.7	47	28	26	28	26	36	35	51	35	37
8	11	13	9	7	5	6	8	8	22.3	42	62	27	20	13	16	21	23	28	31
9	5	11	10	7	4	9	8	11	21.7	11	49	40	19	9	33	24	50	29	28
10	11	11	8	7	5	5	10	8	21.7	43	47	23	20	11	12	35	26	27	26
11	8	7	8	7	6	5	7	6	18.0	25	19	22	20	14	11	19	15	18	17
12	5	5	5	4	2	4	3	6	11.3	12	12	11	8	4	8	6	14	9	12
13	4	5	7	5	5	3	4	5	12.7	8	13	18	11	13	6	8	13	11	10
14	4	6	5	2	1	3	3	4	9.3	10	16	12	5	2	7	6	10	9	9
15	5	4	2	5	6	2	2	1	9.0	12	8	5	11	15	5	4	3	8	9
16	1	7	5	8	4	3	3	6	12.3	3	19	13	24	9	6	7	16	12	10
17	6	4	2	3	7	5	1	4	10.7	16	10	5	7	19	12	3	8	10	11
18	3	4	8	6	7	6	4	10	16.0	7	8	24	14	20	15	9	38	17	23
19	10	10	12	12	14	12	12	12	31.3	34	37	56	57	76	53	51	54	52	51
20	14	14	15	13	10	13	11	10	33.3	80	80	93	61	40	62	49	39	63	63
21	15	12	13	13	11	11	12	11	32.7	88	54	61	70	50	48	52	46	59	55
22	14	12	11	12	12	11	14	11	32.3	72	53	47	54	55	49	73	43	56	56
23	14	11	12	14	10	12	12	11	32.0	82	44	57	72	34	59	55	44	56	54
24	11	11	8	14	11	10	10	6	27.0	46	41	22	82	45	34	36	16	40	39
25	10	8	8	8	6	7	5	9	20.3	35	23	24	26	16	18	12	27	23	22
26	6	4	4	4	5	7	7	5	14.0	14	8	9	8	13	20	17	11	13	18
27	6	9	10	10	9	7	8	9	22.7	16	27	37	37	33	17	25	27	27	24
28	11	8	6	7	7	11	8	11	23.0	43	21	15	19	17	41	25	44	28	34
29	10	11	9	15	11	12	10	7	28.3	40	47	28	103	47	53	37	17	47	38
30	12	9	4	7	7	5	11	8	21.0	58	30	8	17	18	12	50	25	27	31
31	11	9	10	6	8	9	11	11	25.0	41	33	34	14	21	32	49	48	34	34
																		30.4	

AUG. 1974

	3 Kn								σn	an							An
1	5	5	7	7	4	4	2	3	2234 4422	11	12	20	19	10	10	5	6	12
2	4	3	6	3	10	14	12	11	3212 2342	10	7	15	6	36	83	51	49	32
3	9	9	11	12	11	14	13	14	2233 4352	32	28	48	59	48	78	68	80	55
4	14	9	11	6	5	8	9	11	3232 2334	75	32	43	15	13	23	33	41	34
5	11	9	12	10	11	8	9	9	4242 3431	46	31	52	38	42	22	32	29	37
6	10	11	7	8	10	10	12	10	2423 1532	34	48	18	21	35	35	57	34	35
7	10	9	8	10	9	11	9	11	2432 4333	38	32	26	34	31	42	31	47	35
8	10	12	8	8	6	8	8	8	3232 2232	39	55	26	22	15	21	24	26	29
9	4	11	9	7	5	10	8	11	1333 3334	9	43	29	19	11	37	26	49	28
10	10	12	8	7	5	6	10	8	3613 3242	39	53	25	20	13	16	36	23	28
11	8	8	8	8	6	5	7	8	1231 3342	26	23	26	24	14	13	18	22	21
12	5	6	6	4	2	4	3	5	3222 2234	12	15	14	9	5	9	6	13	10
13	5	6	8	5	6	3	4	7	3143 3221	11	14	21	13	16	7	10	18	14
14	5	7	5	3	1	3	4	6	4442 3431	11	18	12	6	3	7	8	14	10
15	5	4	2	5	7	3	2	2	2333 2312	11	8	4	12	19	6	5	5	9
16	2	8	5	9	4	3	4	7	2434 5333	4	22	12	27	8	7	9	17	13
17	7	5	2	4	7	5	1	5	1321 2422	17	11	5	8	19	12	3	11	11
18	3	4	8	6	8	7	4	10	2230 2522	6	10	22	14	24	17	9	34	17
19	10	9	13	14	14	12	12	12	3342 5142	34	27	62	72	74	58	53	60	55
20	15	15	15	13	11	14	11	11	3443 3542	89	92	101	70	45	73	47	42	70
21	14	13	14	15	12	12	11	11	2443 3421	86	61	73	87	55	53	49	45	64
22	14	13	12	12	12	12	13	10	7423 1553	84	61	52	60	58	53	65	39	59
23	14	12	13	14	10	13	11	11	5344 2242	84	51	67	73	34	63	49	41	58
24	12	11	8	15	11	9	10	6	5633 3232	51	47	24	98	50	32	40	14	45
25	10	8	9	9	7	7	5	9	3333 2331	38	26	31	29	18	20	11	32	26
26	6	4	4	4	6	7	7	6	0233 3432	14	8	10	10	14	20	20	14	14
27	7	9	11	10	10	7	8	9	2463 2341	18	31	42	37	34	19	25	29	29
28	11	8	6	7	7	10	9	11	4324 3443	46	21	15	20	19	37	28	50	30
29	11	12	9	16	11	11	10	7	4714 2453	45	58	31	119	44	49	36	20	50
30	11	8	4	7	7	5	11	8	3431 2343	49	26	9	17	19	12	47	24	25
31	11	9	10	6	8	9	11	11	3342 3353	41	33	39	16	22	31	48	48	35
																		31.9

AUG. 1974

	3 Ks								σs	as							As
1	4	5	5	6	2	3	1	1	4566 1323	10	13	12	15	5	6	3	3	8
2	5	2	4	2	8	13	14	13	3222 2210	11	4	8	5	24	68	76	62	32
3	11	8	11	12	11	15	15	14	3343 1231	47	26	49	52	41	90	90	73	59
4	15	9	9	5	4	6	11	9	2122 4152	93	33	33	13	10	14	41	29	33
5	11	10	10	10	11	6	9	8	2244 5342	49	35	36	39	45	15	28	23	34
6	10	10	6	6	10	9	12	10	3431 1311	36	38	16	15	35	32	57	39	34
7	12	8	8	8	8	9	10	12	4332 2133	56	23	26	21	21	30	40	54	34
8	11	13	9	7	5	5	7	7	3641 2321	44	69	27	18	11	11	18	19	27
9	5	12	12	7	3	9	8	12	1323 1234	12	55	51	20	7	29	22	51	31
10	11	10	8	7	4	4	10	9	2432 1423	46	40	22	20	9	8	34	28	26
11	8	6	7	6	6	4	8	3	2432 3121	23	14	19	16	14	10	21	7	16
12	5	4	4	3	1	3	2	6	2241 2444	11	10	9	7	2	6	5	16	8
13	3	5	6	4	5	2	3	4	2342 3322	6	13	15	10	11	4	6	8	9
14	4	6	5	2	1	3	2	3	4442 2332	10	14	11	4	2	7	5	7	8
15	6	4	3	4	4	2	1	0	1212 1311	14	9	6	10	10	4	3	1	7
16	1	7	6	8	5	3	2	6	2363 6215	2	17	14	22	11	6	5	15	12
17	6	4	3	3	7	5	1	2	1211 3211	14	10	6	6	19	11	3	5	9
18	4	3	8	5	6	5	4	11	3241 2321	8	7	26	13	16	13	8	42	17
19	9	11	12	11	14	11	11	11	1522 3433	33	48	51	43	78	48	48	49	50
20	14	13	14	12	10	12	12	10	5451 1263	71	67	85	52	35	52	51	36	56
21	15	11	11	12	11	11	12	11	1343 3212	90	48	48	52	45	43	55	47	54
22	12	11	11	11	12	11	14	11	3226 1341	59	46	43	49	52	45	81	46	53
23	14	10	11	14	10	12	13	11	2334 1123	81	37	48	71	35	55	62	47	55
24	11	10	7	13	10	10	9	7	1225 2314	41	35	20	65	40	35	32	18	36
25	9	7	6	8	6	6	5	8	3213 3113	32	20	16	24	14	16	12	22	20
26	6	4	4	3	5	8	6	4	4331 2222	14	9	8	7	11	21	15	8	12
27	6	8	9	10	9	6	8	8	2133 2215	14	23	32	38	32	15	24	24	25
28	10	8	6	7	6	11	8	10	4343 1324	39	22	14	18	15	45	23	39	27
29	10	10	8	15	11	12	10	6	4524 4412	35	36	25	88	50	57	37	15	43
30	13	10	4	7	7	5	12	9	5511 2334	67	34	8	18	17	11	53	27	29
31	10	9	9	5	8	9	11	11	4332 5125	40	33	29	12	21	33	49	48	33
																		28.9

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	3 Kn								σn		an						An
1	9	13	10	9	11	9	8	11	1343	3133	27	65	34	31	46	31	24	46	38
2	12	8	12	13	9	10	11	14	3242	3243	56	26	60	65	32	34	45	72	49
3	9	9	10	10	8	8	9	7	3322	3322	33	27	35	37	26	26	33	17	29
4	8	10	9	7	6	6	11	12	2551	1164	25	40	32	18	16	15	45	56	31
5	12	11	9	11	7	8	5	7	3323	1322	52	50	28	44	18	24	12	18	31
6	10	8	8	8	6	6	10	6	2323	3442	38	23	25	25	14	16	34	14	24
7	7	5	6	10	4	9	10	6	3214	2331	18	13	15	39	10	28	36	16	22
8	8	4	8	7	4	4	6	4	3122	5233	22	8	21	17	10	9	14	10	14
9	6	6	1	2	6	3	4	4	3232	2343	14	14	3	4	15	7	9	9	9
10	7	5	3	4	4	4	5	7	6211	3535	17	11	7	9	10	8	11	18	11
11	4	5	4	2	2	5	2	2	2332	2223	9	11	10	5	4	11	5	5	8
12	0	2	6	0	2	6	10	4	1341	3354	1	4	14	1	4	16	40	10	11
13	2	4	8	12	10	11	9	9	2332	2323	5	10	23	60	34	44	32	31	30
14	6	4	3	6	6	4	8	11	1221	2432	15	9	7	16	14	8	25	47	18
15	5	4	5	8	19	20	19	15	5322	5241	11	8	12	22	186	210	184	89	90
16	20	17	15	17	15	8	8	7	4554	2252	202	121	89	129	100	23	21	17	88
17	4	6	2	2	3	2	1	0	2433	3320	10	14	4	5	7	5	2	0	6
18	0	1	5	2	12	14	8	10	0223	1232	0	2	13	4	56	85	25	37	28
19	15	9	14	12	10	9	11	11	1132	5443	100	28	84	60	38	33	43	50	55
20	11	8	13	14	12	16	9	11	2344	4633	46	22	63	78	51	112	29	45	56
21	11	6	6	10	15	16	12	13	2123	1344	43	15	14	39	101	119	52	68	56
22	13	10	12	10	11	9	6	11	6563	3445	70	37	53	37	42	31	16	47	42
23	7	7	8	7	11	8	10	10	3532	3325	18	20	22	19	43	22	36	37	27
24	6	14	12	11	11	11	9	4	5224	4333	14	73	52	49	45	42	31	9	39
25	11	8	7	10	12	13	14	14	3322	5543	49	22	19	34	53	68	72	75	49
26	12	12	13	13	14	14	10	12	4353	6632	59	51	64	63	79	78	37	52	60
27	9	9	9	13	15	9	11	6	1235	5241	28	28	28	68	90	33	49	16	43
28	8	9	7	6	10	7	9	8	3541	1344	21	33	19	16	36	19	32	24	25
29	6	7	8	8	9	11	8	6	3233	2331	16	17	22	26	33	42	25	16	25
30	8	10	7	11	11	9	9	12	2433	3123	24	34	18	43	43	31	31	56	35
																			35.0

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	3 Ks								σs		as						As
1	9	13	9	10	12	8	7	13	1133	3203	31	68	29	35	54	26	17	65	41
2	14	8	11	12	8	8	12	14	4224	2043	74	26	49	54	23	25	58	86	49
3	10	9	10	10	8	8	9	6	2215	3331	39	27	35	34	23	24	27	16	28
4	9	8	8	6	6	5	12	13	2231	2232	28	24	26	14	15	12	58	62	30
5	13	12	8	10	6	7	4	6	5223	3114	62	51	25	35	14	18	10	14	29
6	11	8	7	7	4	6	9	7	4313	2313	50	22	18	19	10	14	32	17	23
7	8	6	7	9	4	9	10	6	3324	2121	24	16	17	31	10	30	34	15	22
8	8	4	7	6	4	2	7	6	3223	2222	25	10	18	14	8	5	18	15	14
9	6	6	1	2	4	3	2	3	1222	4432	15	14	2	5	9	6	5	6	8
10	6	4	3	4	4	3	4	5	4412	1103	16	9	7	10	9	7	8	12	10
11	5	4	3	0	1	3	2	0	2431	3231	11	10	7	1	3	6	4	1	5
12	1	3	5	0	0	5	9	4	1161	1243	2	6	12	1	1	13	32	9	10
13	2	4	7	11	9	9	8	8	2421	1333	5	9	20	42	29	33	23	22	23
14	6	6	4	5	4	4	8	11	1223	2223	16	14	8	13	9	8	23	44	17
15	5	5	4	7	19	19	18	14	3242	0543	11	13	10	19	178	188	167	73	82
16	20	16	15	17	16	8	6	5	3344	2243	213	104	93	125	105	21	16	12	86
17	5	7	1	1	3	3	1	0	3622	2420	11	17	3	2	6	6	2	0	6
18	0	1	5	2	11	15	8	8	1321	3332	1	3	12	5	49	92	23	23	26
19	15	9	13	12	10	9	8	11	1331	0114	99	32	63	52	35	30	24	41	47
20	11	8	11	12	12	14	9	10	5244	3245	44	24	49	57	54	71	28	38	46
21	11	6	6	10	15	14	11	13	1112	3205	42	14	15	39	99	85	47	61	50
22	12	9	9	10	11	8	6	10	4244	4214	51	27	32	38	41	24	14	35	33
23	6	5	6	7	10	8	9	10	2330	1144	14	11	15	17	35	21	31	39	23
24	5	12	12	10	11	10	10	5	3351	5203	11	58	57	37	43	39	35	12	37
25	11	7	8	9	10	12	13	12	3532	1331	49	19	22	33	39	57	65	55	42
26	11	11	12	13	13	12	10	11	2234	5444	47	47	54	63	67	58	34	50	53
27	9	7	8	14	14	9	13	6	1212	4142	29	20	21	75	78	33	61	14	41
28	8	9	6	7	11	7	10	7	3221	3122	24	27	14	20	43	20	34	20	25
29	7	7	8	8	9	11	7	5	2342	3212	20	19	23	24	28	49	20	11	24
30	8	10	6	10	9	9	9	13	2223	4111	26	36	14	35	32	32	32	68	34
																			32.1

SEP. 1974

	3 Km								Σ Km	am							Am	Am2
1	9	13	9	9	11	9	8	12	26.7	29	66	32	33	50	28	21	55	39	42
2	13	8	12	12	9	9	12	14	29.7	65	26	54	60	28	30	51	79	49	43
3	10	9	10	10	8	8	9	7	23.7	36	27	35	35	24	25	30	17	29	33
4	8	9	9	6	6	5	12	12	22.3	26	32	29	16	16	13	52	59	30	32
5	12	12	9	10	6	8	5	6	22.7	57	51	27	40	16	21	11	16	30	31
6	11	8	8	8	5	6	9	6	20.3	44	23	21	22	12	15	33	15	23	21
7	8	6	6	10	4	9	10	6	19.7	21	15	16	35	10	29	35	15	22	20
8	8	4	7	6	4	3	6	5	14.3	24	9	19	15	9	7	16	12	14	15
9	6	6	1	2	5	3	3	4	10.0	14	14	2	4	12	7	7	8	9	10
10	7	4	3	4	4	3	4	6	11.7	17	10	7	9	9	7	10	15	11	9
11	4	5	4	1	1	4	2	1	7.3	10	11	8	3	3	8	4	3	6	7
12	0	2	5	0	1	6	10	4	9.3	1	5	13	1	2	14	36	9	10	12
13	2	4	8	12	9	10	9	9	21.0	5	10	22	51	32	39	28	27	27	20
14	6	5	4	6	5	4	8	11	16.3	16	11	8	14	11	8	24	45	17	20
15	5	5	5	7	19	19	19	14	31.0	11	11	11	20	182	199	175	81	86	82
16	20	16	15	17	15	8	7	6	34.7	207	112	91	127	102	22	19	14	87	85
17	5	6	1	1	3	3	1	0	6.7	11	16	3	3	6	6	2	0	6	14
18	0	1	5	2	12	15	8	9	17.3	0	3	13	4	53	88	24	30	27	31
19	15	9	14	12	10	9	9	11	29.7	99	30	74	56	36	31	33	46	51	49
20	11	8	12	13	12	15	9	11	30.3	45	23	56	67	52	91	29	41	51	41
21	11	6	6	10	15	15	11	13	29.0	42	15	15	39	100	102	50	64	53	51
22	12	9	11	10	11	9	6	11	26.3	60	32	42	38	42	28	15	41	37	43
23	6	6	7	7	10	8	9	10	21.0	16	16	18	18	39	22	33	38	25	31
24	5	13	12	11	11	11	9	4	25.3	13	65	54	43	44	41	33	10	38	35
25	11	8	8	10	11	13	13	13	29.0	49	21	21	34	46	62	68	65	46	45
26	12	11	12	13	14	13	10	12	32.3	53	49	59	63	73	68	35	51	56	52
27	9	8	8	14	14	9	12	6	26.7	28	24	24	71	84	33	55	15	42	40
28	8	9	6	7	10	7	9	8	21.3	22	30	16	18	40	20	33	22	25	29
29	7	7	8	8	9	11	8	5	21.0	18	18	22	25	31	46	23	13	25	27
30	8	10	6	10	10	9	9	13	25.0	25	35	16	39	37	31	31	62	35	34
																		33.5	

OCT. 1974

	3 Km								Σ Km	am							Am	Am2
1	12	11	6	11	12	11	11	8	27.3	56	47	15	44	58	41	48	25	42	37
2	8	5	9	9	13	9	14	15	27.3	24	13	30	27	67	33	82	98	47	40
3	10	7	7	5	4	8	7	6	18.0	40	17	17	13	10	23	17	15	19	30
4	6	4	6	4	5	6	6	9	15.3	14	10	14	8	12	16	16	33	15	15
5	7	4	3	4	5	5	6	11	15.0	19	10	7	9	13	13	15	41	16	19
6	12	7	5	6	6	4	5	5	16.7	53	19	13	16	14	8	11	13	18	16
7	1	4	2	6	1	4	7	7	10.7	2	10	5	16	3	10	20	19	11	11
8	5	3	4	6	7	5	11	10	17.0	12	7	8	16	18	11	48	38	20	24
9	8	11	11	11	14	12	14	10	30.3	23	49	47	49	80	58	83	36	53	39
10	8	8	8	4	4	4	5	8	16.3	24	26	23	8	10	8	11	23	17	28
11	9	5	4	3	4	3	5	5	12.7	29	11	8	7	9	6	12	11	12	12
12	3	7	7	4	11	7	13	12	21.3	7	17	20	10	41	19	66	56	30	46
13	14	17	17	16	16	16	14	11	40.3	79	130	141	111	112	120	73	43	101	67
14	8	8	5	7	6	14	14	15	25.7	22	23	13	20	14	78	80	90	43	63
15	14	14	14	14	10	8	10	13	32.3	83	81	75	73	35	22	35	64	59	64
16	13	11	11	17	17	15	13	16	37.7	68	46	49	129	123	93	61	110	85	67
17	12	13	13	12	14	15	12	13	34.7	51	64	70	57	73	100	60	65	68	71
18	14	13	10	10	13	11	14	11	32.0	72	62	38	37	67	48	75	44	55	57
19	9	10	9	13	13	11	10	11	28.7	32	37	30	65	61	48	38	41	44	53
20	9	13	14	14	14	15	11	10	33.3	28	69	79	82	76	98	42	37	64	48
21	5	8	9	5	4	7	6	8	17.3	11	21	31	12	10	17	16	22	18	30
22	6	4	9	9	11	10	11	5	21.7	16	9	28	32	44	39	41	12	28	20
23	4	6	3	2	1	1	5	8	10.0	8	16	6	5	3	2	11	24	9	33
24	14	16	15	10	10	11	10	9	31.7	84	110	87	38	35	46	34	31	58	40
25	10	8	11	9	10	11	6	11	25.3	38	21	44	31	40	49	15	48	36	38
26	11	10	11	10	11	11	12	11	29.0	44	39	48	39	44	47	57	45	45	40
27	11	10	6	10	10	14	11	9	27.0	42	39	15	36	37	81	48	29	41	42
28	14	10	5	9	11	11	9	14	27.7	72	35	11	28	42	47	33	83	44	42
29	9	9	9	9	9	7	7	8	22.3	32	30	32	28	32	20	20	21	27	31
30	8	7	5	7	8	8	4	7	18.0	21	19	13	19	26	23	10	17	19	18
31	8	4	3	4	1	6	7	7	13.3	22	10	6	9	3	14	20	17	13	14
																		37.3	

OCT. 1974

	3 Kn								σn		an						An
1	12	11	6	11	12	11	11	9	4324	1452	56	50	16	46	55	43	45	27	42
2	8	5	10	9	13	10	15	15	6333	3333	23	12	35	29	63	35	88	102	48
3	11	6	7	6	5	8	7	7	2131	3333	43	16	20	14	12	24	17	18	21
4	5	4	5	4	5	6	7	9	3322	4233	11	10	13	10	12	14	18	32	15
5	7	5	4	4	5	5	5	11	4512	2323	19	12	8	10	12	13	13	42	16
6	12	6	6	6	6	4	5	5	3213	3134	59	15	15	16	14	8	12	13	19
7	1	4	3	7	1	4	8	7	2244	2323	2	10	7	18	2	10	22	18	11
8	4	2	4	6	7	5	11	10	3222	4344	10	5	9	16	17	11	47	34	19
9	9	12	11	12	15	12	14	10	1443	3343	27	53	44	51	95	59	75	35	55
10	8	8	8	4	3	4	4	8	3242	2234	21	24	23	9	7	9	10	22	16
11	8	4	4	4	4	3	5	5	3222	2132	23	9	9	8	9	7	11	11	11
12	3	7	7	4	11	7	13	12	2433	3232	7	17	19	10	43	20	64	56	30
13	14	17	16	16	16	16	14	11	2574	3545	85	138	118	112	112	115	85	42	101
14	8	7	5	7	6	14	15	15	3221	5336	23	19	13	18	16	80	94	103	46
15	14	15	15	14	9	8	9	12	3374	2314	79	89	99	86	33	24	31	59	63
16	13	11	12	17	16	15	13	16	4336	3544	65	50	57	144	119	101	65	116	90
17	12	14	15	12	14	16	13	13	4364	3233	52	72	87	57	76	114	66	66	74
18	14	13	11	10	14	12	14	11	5433	2553	86	66	46	39	72	59	72	47	61
19	9	10	10	14	13	12	11	10	3223	2324	30	39	35	73	70	57	42	35	48
20	9	13	14	15	14	15	11	10	2553	3655	28	66	84	95	85	103	46	39	68
21	4	8	10	5	4	6	7	8	2312	3544	10	24	37	11	9	16	19	25	19
22	7	4	10	10	11	10	11	5	3344	5243	17	9	36	40	50	36	44	12	31
23	3	6	3	2	1	0	4	8	1413	2112	7	16	7	4	2	1	8	24	9
24	13	16	14	10	10	11	9	10	5452	3314	68	108	84	34	35	44	32	34	55
25	10	8	11	9	11	12	6	11	3233	5413	38	21	44	27	42	52	16	47	36
26	10	10	12	11	11	12	12	11	2234	3444	39	39	57	47	49	51	59	43	48
27	11	11	7	10	10	14	11	8	2332	3443	43	41	18	37	39	82	49	26	42
28	13	10	6	8	11	11	10	14	3524	4433	66	37	14	26	46	45	34	85	44
29	10	10	10	9	9	8	8	7	2342	4233	34	36	39	33	33	23	21	19	30
30	7	7	5	8	8	8	4	6	3522	2433	19	19	12	23	26	24	9	16	19
31	8	5	3	3	1	5	7	7	3211	2134	22	12	6	7	2	13	19	18	12
																			38.7

OCT. 1974

	3 Ks								σs		as						As
1	12	11	6	11	12	10	12	8	4333	2342	56	44	14	43	60	39	51	23	41
2	8	6	8	8	13	9	14	15	3222	1312	25	14	24	24	70	31	76	93	45
3	10	7	6	5	4	8	6	5	4232	3133	37	17	14	12	9	23	16	13	18
4	7	4	6	3	5	7	6	10	3111	2424	17	9	14	7	11	18	15	34	16
5	7	4	3	4	5	5	6	10	5521	3214	18	8	6	9	13	13	16	40	15
6	11	8	5	6	6	4	5	5	3221	4532	47	23	12	16	14	8	11	12	18
7	1	5	2	6	2	4	7	7	3302	2634	3	11	4	14	4	10	19	20	11
8	6	4	3	7	7	5	11	11	3122	3135	14	8	7	17	18	11	48	43	21
9	7	11	11	11	13	12	15	10	2320	3223	19	44	49	47	65	57	90	38	51
10	9	9	8	4	5	4	5	8	1442	3333	27	28	23	8	13	8	13	25	18
11	10	6	4	3	4	3	5	5	2334	5223	35	14	8	6	8	6	12	11	13
12	3	7	8	5	10	7	13	12	1313	1244	7	17	21	11	39	18	67	56	30
13	14	17	18	16	16	17	13	11	3512	5645	73	122	165	110	111	125	61	44	101
14	8	9	5	8	5	14	13	14	3231	2134	22	27	13	21	12	76	66	77	39
15	15	14	12	12	10	8	10	13	5331	2143	87	72	52	59	37	21	40	68	55
16	14	11	10	16	17	14	12	16	5323	2214	71	42	40	114	126	85	57	104	80
17	11	12	12	12	13	14	12	13	4134	1125	50	56	52	57	70	86	54	65	61
18	12	12	9	10	13	10	14	11	3124	2151	59	57	30	35	62	37	78	42	50
19	10	10	8	12	12	10	9	11	3223	1135	34	35	24	57	52	39	33	46	40
20	9	14	14	13	13	15	10	10	2422	1664	29	72	75	68	66	93	39	35	60
21	5	7	8	6	4	7	6	7	1142	2322	13	18	26	14	10	17	14	19	16
22	6	4	7	8	10	11	10	5	1122	2351	15	8	20	23	39	42	38	12	25
23	4	6	3	3	2	1	6	8	1322	2343	8	16	6	6	5	3	14	24	13
24	15	16	15	11	10	11	10	9	4262	2023	101	113	91	43	35	47	36	29	62
25	10	8	11	10	10	11	6	11	5131	2115	37	21	44	35	39	46	15	46	36
26	11	10	10	9	10	11	12	11	4124	2224	50	39	39	32	39	42	54	46	43
27	11	10	5	10	10	14	11	9	1213	0114	42	37	13	35	35	81	46	31	40
28	14	9	4	9	10	11	9	14	3121	1334	77	33	8	30	37	48	32	81	43
29	9	8	8	8	9	7	7	8	1323	2222	30	23	26	24	31	18	20	23	24
30	8	7	6	6	8	8	5	7	3521	3133	22	18	14	15	26	21	11	17	18
31	8	4	3	4	2	6	8	7	3324	5433	22	8	6	10	4	14	22	17	13
																			35.9

NOV. 1974

	3 Kn								σn		an						An
1	7	5	2	1	0	1	4	9	3222	2323	19	13	5	2	1	3	9	30	10
2	5	7	2	4	4	3	0	2	2423	4412	11	17	4	10	9	6	1	5	8
3	2	3	4	4	3	3	2	8	2132	1123	5	7	10	10	6	6	5	26	9
4	4	2	1	1	1	3	4	1	2232	3623	10	5	3	2	3	7	8	3	5
5	2	2	3	3	3	2	6	7	2211	4542	5	5	7	7	7	5	15	18	9
6	8	6	7	4	9	8	2	5	2122	4623	25	15	17	9	32	21	5	11	17
7	4	6	6	8	4	7	8	4	3213	2543	10	14	14	25	8	20	22	8	15
8	7	4	4	3	9	8	14	14	4231	1244	17	9	9	6	28	26	77	81	32
9	14	13	15	14	14	11	6	7	4377	3515	76	70	92	78	82	48	15	18	60
10	6	7	7	4	3	6	6	11	4252	4885	15	20	17	9	7	16	16	49	19
11	9	7	7	11	16	19	16	15	3333	5554	28	19	18	44	105	176	118	90	75
12	15	15	16	14	16	15	15	14	1464	4663	92	100	110	83	108	91	94	76	94
13	12	10	11	12	12	14	13	13	3334	5434	54	36	41	59	52	74	70	65	56
14	14	15	14	14	15	14	6	1	4425	4352	77	98	76	76	95	71	14	3	64
15	3	2	5	9	10	5	8	8	1432	2343	6	5	11	33	34	12	26	22	19
16	4	8	11	9	10	10	12	8	2251	4423	10	22	42	32	38	39	52	23	32
17	11	7	5	5	9	8	6	7	6532	4654	44	20	13	13	28	23	16	20	22
18	5	3	3	9	6	5	9	3	5314	7265	13	7	7	29	16	11	29	7	15
19	4	5	5	8	7	10	9	9	4323	3212	10	13	13	22	19	34	32	28	21
20	9	8	7	13	10	10	10	6	3323	3241	29	23	19	62	40	36	37	16	33
21	5	7	12	12	10	13	9	11	3442	5523	12	18	57	60	35	66	32	43	40
22	8	10	9	9	9	12	9	7	3334	2232	25	38	30	29	29	51	28	18	31
23	8	6	8	8	10	11	8	10	3233	4442	21	14	23	25	37	41	23	36	28
24	9	10	6	9	9	13	11	13	3212	1524	33	40	16	33	31	65	47	70	42
25	9	9	9	6	5	10	11	10	4121	3332	30	30	27	16	13	39	45	39	30
26	8	6	7	6	11	12	8	8	3121	3543	23	16	19	16	46	56	26	21	28
27	8	5	6	6	4	6	5	8	2223	2425	23	13	14	14	8	15	11	25	15
28	5	8	7	4	5	2	1	1	2643	4232	13	25	18	10	12	4	3	2	11
29	1	2	4	4	0	2	0	1	3545	1313	3	5	9	8	1	5	1	2	4
30	0	3	0	0	0	0	0	2	1110	1104	0	7	1	0	0	0	0	5	2
																			28.2

NOV. 1974

	3 Ks								σs		as						As
1	6	4	4	2	1	2	4	8	1113	2323	15	10	10	5	2	4	8	24	10
2	6	5	4	5	4	2	1	2	2312	2233	14	13	8	11	10	4	3	4	8
3	4	4	6	5	3	4	5	9	2212	1553	8	10	14	12	7	8	12	27	12
4	5	4	3	1	1	3	4	3	3211	3333	13	10	6	3	3	7	8	7	7
5	4	2	4	4	4	1	7	9	1234	3324	8	5	8	10	8	3	18	29	11
6	8	8	7	6	9	8	2	7	1114	4213	23	23	18	15	27	21	5	17	19
7	6	7	6	8	4	8	7	4	1311	1331	14	19	14	26	9	24	20	10	17
8	8	6	4	3	10	9	15	16	2121	3234	21	14	9	7	38	28	101	108	41
9	13	12	13	12	11	10	5	4	2122	4123	64	59	63	55	47	37	11	9	43
10	5	4	6	3	4	5	6	10	3131	2135	12	10	14	6	8	11	16	40	15
11	8	7	6	11	15	18	16	15	3212	5444	22	19	16	44	92	154	118	99	71
12	17	13	14	14	14	15	15	13	1242	4554	124	69	83	75	82	98	93	63	86
13	11	10	9	12	10	12	11	12	3121	1313	47	37	30	52	37	53	50	59	46
14	15	13	11	13	13	12	5	4	4400	4333	94	64	47	62	66	53	11	8	51
15	4	4	3	8	10	5	8	7	1312	1312	8	9	7	23	35	13	21	18	17
16	5	7	7	9	9	10	9	7	2221	2034	13	19	20	28	31	35	32	20	25
17	8	7	4	6	6	7	7	6	3351	2242	25	17	10	15	16	17	20	14	17
18	4	1	3	7	5	6	8	4	1211	2232	10	3	6	18	12	14	22	8	12
19	5	6	6	9	9	11	10	9	2412	4444	12	15	14	27	31	50	39	31	27
20	10	7	7	13	10	11	9	7	3123	1232	36	18	19	61	37	47	32	19	34
21	6	7	10	10	10	13	11	11	1131	2154	16	18	39	37	39	66	44	50	39
22	8	9	9	9	7	11	8	7	3112	1212	24	29	29	27	19	42	24	20	27
23	8	6	5	8	9	10	9	11	3312	1042	25	15	13	23	33	35	31	44	27
24	9	8	7	9	10	13	11	13	3311	1424	28	25	18	27	35	61	49	63	38
25	9	7	8	6	6	11	10	10	2122	4233	28	18	23	14	15	46	37	38	27
26	7	5	6	5	9	11	9	7	2232	2142	17	13	14	13	33	41	31	19	23
27	8	4	4	5	5	6	6	7	1223	3213	21	10	10	12	11	14	15	20	14
28	6	6	4	5	5	3	3	3	1125	5362	14	14	10	12	13	7	6	6	10
29	2	2	3	2	1	3	1	1	3332	3133	4	4	6	4	3	6	3	3	4
30	1	3	1	1	1	1	1	6	2312	3333	3	7	2	3	3	3	3	14	5
																			26.1

NOV. 1974

	3 Km								Σ Km	am							Am	Am2
1	7	5	4	2	0	1	4	9	10.7	17	12	8	4	1	3	8	27	10	11
2	5	6	3	5	4	2	1	2	9.3	12	15	6	11	10	5	2	5	8	9
3	3	4	5	5	3	3	4	8	11.7	7	8	12	11	7	7	8	26	11	9
4	5	4	2	1	1	3	4	2	7.3	12	8	5	3	3	7	8	5	6	8
5	3	2	3	4	3	2	7	8	10.7	6	5	7	8	7	4	17	24	10	11
6	8	7	7	5	9	8	2	6	17.3	24	19	18	12	30	21	5	14	18	16
7	5	7	6	8	4	8	8	4	16.7	12	17	14	25	8	22	21	9	16	15
8	7	5	4	3	9	9	15	15	22.3	19	12	9	7	33	27	89	94	36	39
9	13	13	14	13	13	11	5	6	29.3	70	65	78	66	64	42	13	14	52	44
10	6	6	6	3	4	5	6	11	15.7	14	15	16	7	8	13	16	45	17	23
11	8	7	7	11	15	18	16	15	32.3	25	19	17	44	99	165	118	95	73	65
12	16	14	15	14	15	15	15	13	39.0	108	85	97	79	95	94	93	70	90	86
13	11	10	10	12	11	13	12	13	30.7	50	36	36	55	44	64	60	62	51	66
14	14	14	13	13	14	13	5	2	29.3	85	81	61	69	81	62	12	5	57	46
15	3	3	4	9	10	5	8	7	16.3	7	7	9	28	35	13	23	20	18	25
16	5	7	9	9	10	10	11	8	23.0	12	20	31	30	34	37	42	22	29	25
17	10	7	5	6	8	7	7	7	19.0	35	19	12	14	22	20	18	17	20	21
18	5	2	3	8	6	5	8	4	13.7	12	5	6	23	14	12	25	8	13	15
19	5	6	6	8	8	11	10	9	21.0	11	14	14	25	25	42	35	30	29	24
20	9	7	7	13	10	11	10	7	24.7	33	20	19	61	39	41	34	17	33	33
21	6	7	11	11	10	13	10	11	26.3	14	18	48	49	37	66	38	46	40	35
22	8	10	9	9	8	11	8	7	23.3	24	34	30	28	24	47	26	19	29	31
23	8	6	7	8	10	10	9	10	22.7	23	14	18	24	35	38	27	40	27	28
24	9	9	7	9	9	13	11	13	26.7	31	32	17	30	33	63	48	67	40	35
25	9	8	8	6	6	11	11	10	23.0	29	24	25	15	14	42	41	38	29	32
26	7	6	7	6	10	11	9	7	21.0	20	14	17	15	40	49	28	20	25	25
27	8	5	5	5	4	6	5	8	15.3	22	12	12	13	10	15	13	22	15	20
28	5	7	6	5	5	2	2	2	11.3	13	19	14	11	13	5	5	4	11	10
29	1	2	3	3	1	2	1	1	4.7	3	4	7	6	2	5	2	2	4	4
30	1	3	0	0	1	1	0	4	3.3	2	7	1	1	2	2	1	10	3	4
																		27.2	

DEC. 1974

	3 Km								Σ Km	am							Am	Am2
1	2	2	1	5	5	6	9	10	13.3	5	4	3	11	12	16	33	35	15	15
2	9	9	8	8	8	9	10	8	23.0	27	30	21	22	23	27	35	26	26	25
3	8	8	7	9	9	7	12	9	23.0	26	21	17	28	30	18	60	33	29	27
4	9	8	6	6	4	5	3	3	14.7	28	26	16	14	10	11	6	7	15	17
5	1	1	1	4	7	7	9	5	11.7	2	3	3	8	17	18	28	11	11	10
6	5	4	2	4	3	4	1	2	8.3	11	8	4	9	7	8	2	5	7	12
7	4	4	6	8	9	8	5	6	16.7	8	8	16	25	30	22	12	15	17	14
8	5	4	7	8	9	11	9	11	21.3	11	10	18	24	33	44	32	43	27	31
9	9	12	10	13	14	16	14	12	33.3	31	58	39	68	79	118	75	53	65	51
10	11	10	10	7	9	10	8	7	24.0	47	37	34	18	33	40	26	17	32	44
11	6	8	9	12	12	9	12	6	24.7	15	22	28	56	51	32	58	16	35	32
12	7	9	9	11	11	9	5	8	23.0	20	31	32	41	42	28	12	23	29	29
13	6	8	6	8	10	13	12	10	24.3	16	23	14	24	36	63	55	40	34	29
14	11	8	8	3	4	6	7	7	18.0	42	22	22	6	8	14	19	17	19	26
15	4	6	9	8	9	8	7	8	19.7	9	16	30	23	31	26	19	24	22	16
16	4	1	4	3	4	8	10	9	14.3	9	3	8	7	8	23	38	27	15	19
17	7	9	7	7	6	11	12	12	23.7	20	29	17	19	16	46	59	57	33	33
18	11	9	11	11	11	12	11	8	28.0	43	31	44	46	45	58	43	26	42	41
19	10	10	9	11	10	10	12	12	28.0	39	38	28	43	38	35	58	59	42	41
20	11	8	8	11	10	10	10	8	25.3	44	21	26	49	36	38	39	22	34	35
21	7	9	6	9	11	9	10	10	23.7	18	29	16	30	41	31	39	39	30	30
22	11	9	6	6	8	9	6	8	21.0	41	30	14	16	21	33	16	22	24	25
23	7	6	6	6	10	14	10	8	22.3	17	15	15	16	35	71	39	26	29	25
24	7	6	6	7	9	9	7	9	20.0	19	16	15	19	31	30	18	32	23	25
25	5	5	2	5	5	10	13	7	17.3	13	12	5	13	11	38	62	18	22	24
26	7	8	10	8	8	7	8	5	20.3	17	23	34	26	22	19	23	11	22	29
27	6	9	12	12	9	9	9	8	24.7	15	29	60	54	32	27	33	24	34	28
28	7	5	10	10	7	7	5	5	18.7	19	12	40	34	18	19	12	12	21	22
29	6	5	6	9	9	6	7	6	18.0	15	13	14	30	33	14	18	15	19	15
30	4	4	2	2	3	2	7	9	11.0	8	8	4	5	6	4	17	27	10	17
31	12	11	6	5	7	8	9	7	21.7	51	42	14	12	18	26	28	17	26	20
																		26.1	

DEC. 1974

	3 Kn								σn								An
1	2	0	1	4	5	7	9	10	2121	6553	4	1	2	8	13	19	30	34	14
2	9	10	8	9	8	8	9	7	3432	4312	30	34	21	29	25	22	31	19	26
3	8	7	6	9	9	6	13	9	3322	3135	21	19	14	27	27	14	65	31	27
4	9	7	7	5	5	5	2	3	3232	4321	29	20	20	13	12	11	5	6	15
5	1	1	1	3	7	7	9	4	2221	5663	2	2	2	7	20	19	29	10	11
6	5	3	2	4	2	3	0	1	3422	2112	12	7	4	10	5	7	1	2	6
7	3	3	6	8	8	8	4	5	3243	2334	7	6	15	24	25	22	10	11	15
8	3	4	7	8	10	11	9	11	2343	6225	7	9	19	25	37	46	31	42	27
9	9	12	11	14	15	16	14	12	4543	4845	31	60	47	80	93	107	79	56	69
10	11	10	11	8	10	11	9	7	2223	5453	49	40	42	22	40	49	29	17	36
11	6	8	9	13	12	10	14	6	1236	3442	15	25	28	68	53	36	72	16	39
12	8	10	10	10	11	9	5	8	5453	4525	22	40	39	37	43	31	11	26	31
13	7	8	6	9	10	13	13	10	3235	5652	17	24	15	28	40	65	66	40	37
14	11	9	8	2	4	7	7	6	2232	5533	43	27	26	5	8	18	20	15	20
15	4	7	10	8	10	9	8	9	3223	5532	8	17	37	26	35	29	24	27	25
16	3	0	4	4	4	9	11	8	1132	3742	7	1	10	8	8	28	41	24	16
17	7	9	6	6	6	11	12	11	4221	2443	17	30	16	16	15	50	52	50	31
18	10	9	12	12	12	12	11	8	2244	3642	36	28	52	53	52	59	41	22	43
19	11	11	9	11	10	10	12	13	6313	2344	45	42	31	46	36	40	56	65	45
20	12	7	9	12	10	10	10	7	1312	3343	51	20	29	59	39	40	39	20	37
21	7	10	6	9	11	10	11	10	4313	4442	19	36	15	30	43	34	44	34	32
22	11	9	5	7	7	10	6	6	5413	3413	46	33	13	18	18	35	16	16	24
23	7	6	6	6	10	14	11	9	2111	5565	18	15	15	15	35	73	44	28	30
24	8	6	5	7	10	9	7	10	3122	3534	21	15	12	19	37	33	18	34	24
25	5	4	2	5	5	10	13	6	2332	4562	13	10	4	13	12	37	63	15	21
26	5	7	11	9	8	8	9	5	2424	5345	12	20	42	33	26	21	28	13	24
27	6	9	14	12	9	9	10	8	4463	1624	16	27	73	53	32	33	36	24	37
28	7	4	11	11	8	8	5	5	3364	3342	17	10	48	42	21	22	11	13	23
29	5	5	5	9	11	6	7	7	5323	3466	13	12	11	28	41	15	17	19	20
30	4	4	1	1	3	2	6	8	3322	1224	10	8	2	3	6	4	16	24	9
31	11	9	6	5	6	7	8	5	3312	1562	44	33	14	11	16	20	26	11	22
																			27.0

DEC. 1974

	3 Ks								σs								As
1	3	3	2	6	5	6	10	10	3132	2225	7	7	4	14	11	14	36	35	16
2	8	8	8	6	7	9	10	9	2221	1345	24	25	21	14	20	32	39	33	28
3	9	8	8	9	9	8	12	10	1323	1412	31	23	21	29	32	21	55	34	31
4	9	9	5	6	4	5	4	4	1313	1435	28	32	13	15	8	11	8	9	16
5	1	1	2	4	6	6	9	5	2241	1141	3	3	4	9	14	16	28	11	11
6	4	4	2	3	4	4	1	3	1221	4426	10	10	5	7	9	9	3	7	8
7	4	4	7	8	10	8	6	7	1311	2142	10	9	18	26	35	23	14	19	19
8	6	4	6	8	9	11	10	11	3211	1122	14	10	16	23	30	41	34	44	27
9	9	12	9	12	13	17	14	11	1322	1664	31	55	32	55	65	130	72	50	61
10	11	10	8	6	9	9	8	7	2011	3132	46	35	26	14	27	32	23	18	28
11	6	7	9	11	11	9	11	7	1313	1233	15	19	28	43	50	28	45	17	31
12	7	8	8	11	10	8	5	7	2324	2122	19	23	24	44	40	24	12	20	26
13	6	8	6	8	9	13	11	10	3412	2222	16	21	14	21	31	61	44	39	31
14	11	7	7	3	4	5	7	7	3354	5122	42	17	18	6	9	11	18	19	18
15	4	6	8	7	9	8	6	8	1421	1523	9	15	24	20	27	24	15	22	20
16	5	3	2	3	4	7	10	9	2222	2124	12	6	5	6	8	18	35	31	15
17	8	9	7	8	7	11	13	13	3211	2132	23	28	18	23	18	42	66	64	35
18	11	9	10	10	10	12	11	9	2332	2324	49	33	35	39	39	57	44	31	41
19	9	9	8	11	10	9	13	12	3121	2242	33	33	25	41	40	29	61	54	40
20	10	8	8	10	9	10	10	8	2224	2011	36	23	23	40	33	35	39	24	32
21	7	8	6	9	10	9	10	11	0211	1223	17	23	16	31	40	28	35	44	29
22	10	9	6	6	8	9	6	9	2111	2214	37	28	14	14	24	31	16	27	24
23	7	6	6	6	10	13	10	8	3111	3342	17	15	16	16	35	70	35	23	28
24	7	6	7	7	8	9	7	9	0212	2321	17	16	18	20	24	27	19	30	21
25	5	6	3	5	4	10	13	8	2321	2154	13	14	7	12	10	39	62	21	22
26	8	8	8	7	7	7	7	4	3312	4222	22	26	26	20	19	18	19	8	20
27	6	9	11	12	9	8	9	8	3332	1113	15	31	48	55	31	21	30	24	32
28	8	6	9	8	6	6	5	5	4422	3122	21	14	32	26	16	16	13	12	19
29	7	6	6	9	8	6	7	5	6311	2122	17	14	16	33	26	14	19	11	19
30	3	4	2	4	3	1	7	9	1411	4334	6	8	5	8	6	3	17	31	11
31	12	12	6	5	7	9	9	8	3212	1123	59	51	14	13	20	33	29	23	30
																			25.4

TABLE 10 Dst (for explanation: see page IX)

JANUARY 1974

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	-5	-8	-3	-3	-6	-4	-3	-0	-2	-3	-4	0	-3	-5	-10	-12	-12	-8	-6	-4	-5	-5	-9	-11
2	-6	-3	-2	-4	-4	-3	-1	2	2	2	-1	0	0	-2	-8	-11	-11	-14	-9	-7	-1	-1	-2	0
3	1	3	4	2	4	4	6	5	7	6	4	1	-5	2	0	-1	-1	-5	-5	-3	0	2	4	6
4	0	-0	0	0	-0	3	6	6	6	5	5	4	6	3	4	2	3	2	-1	-8	-8	-6	-2	-0
5	-7	-6	-3	5	3	3	0	5	7	-0	1	3	3	2	3	7	9	8	6	3	2	2	2	7
6	5	2	2	3	1	-3	0	1	-2	-4	-6	-3	1	-1	-5	-6	-4	-5	-3	-3	-0	1	2	1
7	-2	1	4	7	8	8	8	6	5	5	5	7	6	6	7	7	7	9	9	9	12	13	14	15
8	17	16	16	14	13	12	12	14	14	16	18	20	19	13	7	-4	-16	-22	-20	-14	-5	-1	2	4
9	6	11	18	22	23	18	8	10	11	14	14	15	21	14	20	21	14	9	2	8	9	11	11	8
10	10	11	11	9	5	1	2	7	7	3	3	1	-3	-5	-6	-6	-6	-11	-11	-8	-9	-4	-8	-9
11	-2	-3	-1	2	3	2	4	6	7	5	3	2	-1	-1	1	4	3	1	2	3	5	7	7	8
12	10	12	7	5	5	9	11	11	8	7	7	6	7	6	1	-5	-7	-5	-2	-0	-0	0	2	5
13	6	5	5	10	13	13	16	15	18	14	11	9	8	5	1	2	4	4	4	5	6	4	2	2
14	-1	2	8	16	20	23	25	26	27	21	20	15	16	16	22	19	12	17	14	11	3	6	8	12
15	13	12	14	15	17	16	13	12	12	8	8	5	9	2	-3	-7	-12	-7	-7	-6	-2	-3	-8	-7
16	-5	-6	-10	-12	-11	-13	-12	-9	-4	-5	-4	-6	-9	-3	-2	-9	-12	-6	-0	-4	-9	-2	1	-0
17	-4	-4	-1	-2	-1	2	4	5	7	8	4	2	4	3	-1	-3	-4	-5	-6	-10	-11	-11	-8	-5
18	-3	-3	-3	4	9	12	6	-4	-12	-12	-6	-3	-5	-7	-5	-7	-10	-8	-7	2	6	4	-3	-5
19	-8	-13	-12	-10	-7	-6	-2	2	4	2	2	5	7	5	1	-2	-9	-13	-16	-16	-17	-14	-9	-8
20	-7	-10	-11	-8	-9	-11	-7	-3	1	-3	-3	-5	-5	-5	-6	-6	-8	-9	-10	-7	-6	-6	-4	-6
21	-7	-9	-11	-9	-10	-9	-10	-12	-15	-16	-12	-12	-7	-6	-7	-4	-7	-8	-9	-8	-6	-4	-2	-4
22	-3	-4	-5	-4	-2	1	3	4	6	7	5	6	6	6	7	10	12	11	10	8	6	8	7	5
23	1	-3	-2	-1	0	-1	1	6	9	8	8	9	8	9	9	10	8	7	5	5	4	7	10	12
24	12	11	10	10	11	11	12	14	16	13	12	12	13	14	14	16	18	18	18	16	18	18	16	18
25	25	34	28	24	14	4	-12	-25	-21	-21	-12	-9	-14	-24	-33	-32	-31	-42	-47	-55	-55	-64	-57	-51
26	-41	-39	-39	-35	-34	-30	-27	-28	-26	-27	-27	-29	-25	-21	-16	-15	-19	-23	-20	-17	-29	-33	-35	-29
27	-23	-25	-24	-30	-29	-22	-19	-22	-22	-20	-17	-15	-12	-13	-14	-13	-16	-23	-26	-26	-24	-26	-32	-33
28	-33	-30	-26	-19	-18	-11	-11	-7	-4	-7	-9	-10	-11	-12	-14	-8	-8	-5	-14	-13	-13	-9	-14	-22
29	-24	-23	-18	-17	-17	-19	-14	-4	-6	-7	-7	-7	-9	-8	-9	-9	-7	-4	-12	-19	-22	-23	-19	-17
30	-19	-23	-18	-10	-5	-4	-5	-5	-5	-5	-9	-9	-8	-15	-21	-15	-13	-9	-6	-16	-14	-15	-10	-9
31	-12	-12	-12	-6	-9	-13	-11	-8	-5	-4	-2	-0	-2	-6	-6	-5	-4	-7	-11	-15	-16	-13	-9	-6

FEBRUARY 1974

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

TABLE 10 Dst - continued

MARCH 1974

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	G.M.T. 24
1	-7	-9	-13	-11	-9	-10	-14	-15	-14	-11	-11	-10	-5	-3	-5	-8	-9	-6	-7	-10	-8	-4	-2	-3
2	-5	-3	-8	-9	-8	-10	-9	-10	-7	-15	-16	-8	1	3	2	-7	-16	-13	-6	-5	-6	-6	-4	-10
3	-7	-1	1	3	2	2	-2	-10	-12	-13	-10	-10	-16	-20	-18	-13	-10	-10	-14	-16	-12	-7	-9	-6
4	-2	-1	-3	-8	-6	-4	-5	-6	-6	-5	-10	-13	-8	-4	-0	-2	-3	-6	-6	-5	-3	-1	4	5
5	6	-6	-18	-19	-15	-13	-14	-12	-9	-12	-8	-5	-2	-2	-0	-7	-6	-8	-9	-12	-13	-6	-5	-22
6	-26	-21	-24	-28	-26	-18	-12	-10	-7	-12	-18	-11	-15	-17	-13	-12	-11	-15	-11	-11	-10	-5	-4	-4
7	-2	-1	-8	-13	-12	-7	-4	-2	-3	-5	-3	2	4	4	-5	-14	-25	-25	-21	-18	-16	-14	-19	-17
8	-16	-15	-15	-16	-13	-10	-11	-14	-10	-16	-11	-6	-9	-12	-7	-7	-8	-8	-10	-16	-17	-11	-15	-14
9	-16	-19	-22	-25	-28	-33	-30	-23	-17	-14	-4	5	12	7	-1	0	-7	-23	-27	-13	-13	-11	-13	-11
10	-13	-6	-3	-4	-4	-6	-4	-5	-15	-13	-15	-8	-8	-13	-16	-19	-15	-16	-14	-13	-9	-8	-5	-1
11	-2	-3	-2	-5	-6	-2	-5	-14	-17	-21	-16	-8	-7	-6	-9	-8	-12	-16	-22	-16	-10	-7	-7	-3
12	-5	-6	-3	-6	-6	-8	-10	-10	-7	-7	-7	-8	-4	-1	-3	-6	-6	-4	-6	-3	-4	-2	-2	-0
13	1	-2	0	0	-5	-7	-11	-10	-8	-5	-6	-2	-1	3	1	1	1	1	-0	1	5	4	1	4
14	5	4	0	1	2	1	-1	-6	-4	-4	-5	-8	-5	-3	-6	-16	-22	-20	-18	-18	-15	-10	-9	-7
15	-6	-4	-3	-3	-2	-2	-1	1	2	1	1	3	3	3	4	7	10	11	10	8	8	11	10	11
16	8	9	10	12	6	3	0	-6	-4	-4	4	13	12	4	-15	-35	-57	-79	-81	-84	-85	-70	-64	-59
17	-51	-44	-43	-44	-47	-45	-42	-38	-33	-29	-27	-28	-27	-28	-25	-22	-21	-18	-18	-14	-11	-10	-14	-18
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19	2	3	2	3	3	5	7	7	8	7	7	11	11	9	6	5	6	5	4	5	9	14	20	20
20	21	21	23	17	13	14	11	9	9	10	10	9	7	8	-2	-9	-10	-14	-26	-37	-44	-49	-42	-39
21	-37	-36	-38	-42	-33	-36	-30	-22	-28	-25	-25	-31	-33	-27	-24	-43	-71	-75	-69	-71	-72	-65	-71	-68
22	-53	-53	-51	-47	-45	-45	-40	-39	-45	-49	-46	-46	-41	-46	-44	-41	-40	-33	-32	-34	-25	-21	-24	-28
23	-36	-29	-39	-40	-31	-22	-20	-24	-32	-30	-28	-28	-22	-23	-32	-38	-34	-31	-29	-30	-25	-20	-16	-9
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25	-26	-22	-29	-33	-29	-19	-15	-25	-31	-26	-17	-13	-13	-16	-22	-24	-26	-27	-24	-26	-23	-18	-12	-9
26	-14	-20	-19	-15	-13	-13	-19	-19	-22	-16	-11	-12	-18	-23	-24	-22	-17	-19	-21	-17	-20	-18	-13	-10
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29	-10	-13	-19	-17	-13	-11	-12	-10	-10	-12	-11	-9	-7	-13	-20	-16	-20	-35	-42	-42	-37	-29	-28	-30
30	-33	-33	-35	-33	-28	-17	-15	-15	-22	-21	-14	-8	-9	-14	-20	-17	-22	-27	-25	-30	-30	-29	-26	-26
31	-22	-18	-18	-14	-9	-14	-21	-22	-17	-20	-22	-14	-12	-15	-19	-22	-24	-19	-19	-22	-18	-10	-7	-8

APRIL 1974

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	-16	-17	-16	-14	-11	-8	-7	-13	-22	-37	-44	-40	-29	-28	-32	-29	-24	-22	-20	-22	-19	-16	-17	-16
2	-14	-16	-19	-18	-14	-9	-6	-10	-11	-7	-4	-1	-8	-15	-16	-18	-17	-17	-17	-13	-11	-19	-34	-43
3	-46	-36	-44	-45	-33	-17	-12	-7	-7	-23	-21	-13	-8	-19	-30	-29	-24	-31	-37	-28	-31	-32	-37	-41
4	-35	-35	-34	-35	-37	-38	-35	-36	-30	-32	-28	-22	-19	-29	-48	-49	-45	-37	-38	-32	-29	-28	-23	-17
5	-17	-15	-12	-12	-7	-5	-3	-2	-2	-10	-18	-10	-13	-14	-11	-7	-5	-7	-15	-19	-17	-12	-10	-14
6	-12	-10	-11	-26	-40	-35	-24	-15	-14	-13	-11	-10	-8	-9	-10	-8	-7	-8	-8	-11	-13	-14	-17	-19
7	-16	-15	-19	-15	-12	-7	-10	-14	-16	-15	-12	-7	-6	-7	-9	-9	-13	-16	-13	-12	-9	-5	-7	-8
8	-9	-9	-7	-5	-3	3	10	10	10	10	9	-1	-19	-22	-17	-13	-13	-18	-24	-18	-13	-12	-13	-12
9	-5	-6	-7	-5	-2	-2	3	0	-2	-2	-2	2	1	-2	-2	0	3	3	-7	-2	-4	-1	-3	-4
10	-3	-4	-5	-9	-5	-5	7	3	-10	-1	3	-1	-7	-12	-8	0	2	-4	-3	-5	-6	0	-0	1
11	-5	-11	-16	-22	-16	-9	-5	-4	-6	-4	-5	-5	-1	-3	-7	-6	-4	-2	-3	-4	-2	-2	-2	-3
12	-4	-5	-7	-6	-2	1	3	1	3	4	4	6	6	6	7	6	5	4	3	5	7	8	8	8
13	6	4	3	6	8	5	5	5	4	4	5	6	3	1	3	4	3	5	3	3	6	6	5	5
14	6	5	5	4	3	5	8	6	6	4	5	9	10	13	17	15	16	15	15	14	11	8	3	3
15	1	3	6	10	14	15	16	15	14	14	13	11	9	9	11	11	12	14	16	16	15	11	8	6
16	8	10	12	16	18	19	20	19	19	20	18	16	12	10	14	15	17	20	19	17	14	16	16	14
17	12	9	12	14	16	20	20	19	19	20	17	14	11	10	12	8	4	3	0	-2	-2	-1	3	10
18	13	12	2	-19	-38	-60	-75	-74	-70	-83	-72	-54	-50	-52	-57	-52	-43	-38	-35	-46	-54	-61	-53	-37
19	-30	-30	-36	-44	-57	-61	-49	-36	-34	-29	-26	-22	-22	-17	-24	-33	-37	-31	-43	-44	-43	-51	-42	-34
20	-34	-32	-25	-30	-32	-25	-18	-25	-27	-21	-21	-14	-13	-15	-21	-21	-22	-27	-25	-20	-26	-28	-24	-26
21	-26	-18	-19	-21	-18	-18	-17	-18	-21	-14	-9	-13	-16	-16	-12	-10	-11	-13	-18	-20	-17	-20	-25	-19
22	-26	-18	-14	-15	-17	-20	-23	-31	-38	-36	-30	-23	-28	-32	-29	-27	-27	-31	-25	-31	-31	-29	-30	-26
23	-23	-31	-28	-22	-19	-19	-28	-26	-24	-22	-16	-16	-14	-18	-26	-22	-14	-21	-25	-28	-23	-25	-33	-32
24	-25	-22	-16	-12	-14	-16	-14	-16	-15	-13	-10	-7	-6	-7	-6	-8	-7	-4	-2	-5	-16	-20	-18	-15
25	-13	-15	-24	-25	-18	-15	-14	-19	-20	-13	-9	-10	-14	-12	-14	-12	-15	-13	-13	-10	-12	-14	-19	-18
26	-18	-13	-11	-6	-10	-7	-1	-2	-5	-3	-6	-5	-3	-1	-3	-7	-8	-3	-0	2	4	-9	-17	-25
27	-26	-16	-9	-19	-16	-18	-13	-14	-17	-17	-17	-9	-5	-12	-10	-5	-6	-7	-10	-9	-2	2	-2	-5
28	5	3	-9	-11	-9	-8	-7	-4	-6	-1	-6	-8	-14	-17	-14	-18	-19	-16	-15	-15	-16	-15	-9	-9
29	-8	-11	-15	-19	-20	-17	-15	-10	-4	-6	-1	-4	-3	2	-6	-19	-8	-0	1	-14	-28	-31	-31	-27
30	-20	-16	-17	-19	-25	-28	-28	-22	-18	-16	-15	-13	-15	-15	-16	-14	-14	-7	-3	-0	3	-7	-11	-12

MAY 1974

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

JUNE 1974

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	-21	-21	-13	-12	-16	-14	-12	-8	-6	-6	-10	-5	-5	-8	-8	-8	-7	-7	-1	-1	-0	-2	-13	-15
2	-6	-1	-1	-4	-4	-2	-1	-5	-2	-4	-1	-5	-8	-4	-4	-5	-4	0	-1	-1	1	-2	-2	-1
3	-3	-3	-4	-7	-10	-10	-11	-10	-6	-4	-6	-7	-5	-2	-2	-1	-0	1	4	2	2	0	1	-1
4	-2	-4	-7	-8	-9	-8	-8	-6	-5	-3	0	2	-1	-3	-3	-3	-2	2	3	2	0	-3	-5	0
5	4	7	7	5	-1	-3	-1	-2	-0	2	3	1	2	2	2	1	2	4	6	6	9	8	4	-0
6	-1	1	-0	-0	0	3	5	8	6	3	6	7	10	11	7	6	6	7	8	7	6	6	7	8
7	6	6	5	5	6	7	7	7	5	6	7	5	4	6	8	11	13	16	18	17	15	11	8	8
8	8	8	9	8	9	8	9	10	7	8	10	8	9	10	9	11	8	4	1	3	5	6	8	11
9	12	12	13	16	16	19	19	17	17	19	18	16	16	14	9	9	11	9	7	4	3	-2	-3	-3
10	-5	-4	-3	-3	-5	-7	-9	-7	-5	-2	1	-0	-2	-5	-11	-13	-2	6	13	18	13	7	7	8
11	6	5	7	8	15	22	20	13	12	3	-2	-4	-13	-16	-13	-9	-11	-10	-8	-14	-10	-11	-8	-16
12	-26	-30	-25	-26	-29	-21	-30	-25	-12	-25	-24	-15	-13	-13	-17	-18	-18	-15	-12	-13	-17	-21	-20	-18
13	-19	-21	-25	-27	-26	-21	-14	-13	-12	-7	-5	-5	-7	-6	-7	-14	-12	-9	-6	-6	-9	-11	-13	-14
14	-18	-25	-26	-25	-19	-17	-16	-15	-11	-9	-6	-9	-7	-4	-7	-5	-5	-12	-15	-19	-12	-8	-12	-12
15	-17	-24	-22	-14	-10	-11	-18	-14	-15	-19	-18	-16	-13	-9	-8	-6	-10	-10	-10	-11	-12	-13	-12	-15
16	-14	-12	-14	-15	-10	-11	-5	-4	-7	-9	-5	-4	-8	-4	-3	-1	-5	-4	-7	-5	-4	-1	-4	-6
17	-8	-9	-9	-8	-5	-4	-9	-18	-20	-18	-11	-9	-10	-10	-10	-10	-10	-9	-9	-12	-9	-8	-12	-11
18	-10	-6	-6	-5	-6	-11	-10	-9	-4	0	-2	-6	-10	-11	-8	-5	-0	0	-3	-4	-3	-3	-2	-6
19	-10	-10	-5	-3	-1	2	3	3	2	3	8	2	-1	2	2	-1	-1	-2	-2	-11	-10	-4	-2	1
20	8	8	14	13	12	7	-3	-10	-11	-11	2	3	-4	2	3	0	-8	-5	-4	-8	-15	-25	-25	-19
21	-20	-16	-14	-13	-12	-12	-14	-11	-6	-2	-4	-4	-4	-4	1	2	-2	-2	-5	-7	-7	-6	-6	-8
22	-9	-7	-5	-0	3	3	1	2	1	3	0	-2	1	-1	2	4	-2	-0	1	-1	3	5	7	8
23	5	3	6	5	4	4	3	2	3	28	30	30	27	26	25	19	11	12	16	14	10	8	7	7
24	1	0	5	4	4	2	4	3	4	5	5	0	-1	4	6	4	5	10	11	8	7	10	10	11
25	10	11	13	15	11	8	4	1	2	3	4	5	3	1	1	4	2	2	3	2	3	4	5	11
26	18	24	37	36	32	22	-18	-9	-6	1	2	-6	-5	-1	1	3	-5	-7	-4	-12	-11	-8	-8	-9
27	-8	-9	-8	-18	-27	-28	-28	-36	-43	-32	-35	-29	-25	-20	-19	-19	-25	-25	-22	-20	-18	-18	-14	-17
28	-28	-28	-24	-22	-15	-16	-16	-12	-12	-9	-14	-20	-24	-24	-22	-19	-19	-10	-10	-15	-13	-16	-15	-9
29	-11	-12	-16	-13	-14	-16	-19	-16	-12	-10	-8	-6	-8	-6	-8	-12	-9	-12	-14	-16	-12	-14	-8	-8
30	-13	-10	-9	-9	-13	-11	-11	-11	-12	-7	-6	-8	-5	-6	-5	-5	-4	-7	-11	-11	-10	-6	-5	-3

JULY 1974

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	-8	-13	-9	-7	-8	-8	-12	-11	-9	-8	-9	-11	-10	-8	-5	-3	-3	-1	-4	-6	-1	-5	-4	-2
2	-4	-6	-3	-4	-5	-2	-2	-7	-13	-9	-9	-12	-16	-15	-11	-10	-12	-9	-6	-6	-5	-3	-4	-7
3	-5	-3	-1	1	0	-1	-1	-3	-2	-3	-2	-3	-6	-7	-7	-5	-5	-4	1	7	11	7	-0	-6
4	-11	-13	-23	-29	-36	-37	-40	-37	-32	-23	-22	-22	-18	-15	-12	-6	-7	-12	-12	-8	-6	-5	-6	-12
5	-21	-37	-52	-53	-50	-66	-80	-85	-85	-85	-73	-66	-66	-71	-72	-75	-72	-65	-60	-50	-41	-52	-65	-60
6	-63	-49	-42	-22	-33	-142	-202	-196	-191	-189	-164	-149	-143	-142	-147	-140	-137	-125	-122	-124	-124	-116	-107	-96
7	-94	-99	-101	-92	-85	-81	-80	-78	-78	-79	-78	-76	-63	-56	-55	-54	-55	-53	-52	-52	-49	-46	-34	-34
8	-33	-29	-30	-39	-45	-44	-48	-47	-44	-46	-45	-43	-46	-43	-45	-46	-51	-46	-47	-49	-49	-58	-55	-55
9	-48	-44	-45	-49	-44	-47	-49	-48	-43	-42	-39	-39	-39	-39	-37	-38	-38	-37	-35	-37	-36	-36	-33	-31
10	-28	-26	-27	-30	-32	-35	-34	-33	-36	-36	-38	-38	-37	-35	-35	-37	-33	-31	-35	-36	-41	-37	-35	-31
11	-29	-26	-23	-20	-23	-27	-28	-26	-24	-24	-24	-25	-27	-24	-23	-25	-32	-34	-31	-31	-26	-22	-22	-19
12	-18	-18	-17	-19	-22	-26	-26	-24	-20	-18	-16	-18	-21	-22	-22	-22	-25	-35	-32	-28	-32	-23	-22	-21
13	-29	-35	-30	-22	-15	-16	-24	-25	-23	-21	-22	-19	-21	-19	-19	-23	-24	-23	-21	-14	-8	-5	-4	-4
14	-8	-16	-30	-28	-26	-26	-26	-34	-37	-33	-27	-25	-27	-35	-28	-25	-22	-23	-23	-22	-25	-21	-13	-17
15	-21	-26	-21	-20	-20	-22	-25	-25	-21	-15	-15	-16	-18	-18	-22	-25	-26	-25	-22	-20	-20	-19	-18	-16
16	-15	-16	-17	-17	-18	-23	-29	-30	-28	-26	-26	-26	-26	-21	-17	-15	-15	-15	-15	-19	-22	-23	-21	-21
17	-21	-20	-18	-14	-10	-11	-13	-19	-17	-13	-10	-17	-20	-20	-11	-5	-3	-6	-9	-7	-3	-4	-2	0
18	-1	2	11	16	13	13	11	9	7	5	1	2	3	4	4	2	2	-2	-1	0	1	-0	1	1
19	2	3	3	4	10	16	16	17	16	16	16	14	10	6	4	-3	-0	2	3	0	-0	-0	3	4
20	4	8	12	15	11	10	7	0	-1	2	5	1	-12	-10	-3	-5	-9	-9	-8	-5	-5	-11	-8	-6
21	-7	-7	-9	-10	-3	-1	-1	-1	-0	-1	1	2	-2	-7	-5	-2	-2	-3	-3	-1	-2	-4	-2	-0
22	-2	-2	-2	-4	-3	-2	-5	-6	-8	-8	-7	-7	-7	-10	-8	3	3	3	3	7	9	13	9	5
23	-5	-1	-17	-27	-35	-32	-45	-31	-31	-34	-51	-70	-53	-44	-42	-47	-69	-70	-71	-69	-68	-54	-47	-47
24	-45	-45	-50	-47	-42	-37	-47	-53	-48	-48	-52	-43	-42	-38	-36	-40	-36	-39	-39	-35	-35	-33	-30	-27
25	-26	-26	-24	-22	-25	-28	-27	-26	-26	-31	-22	-21	-23	-27	-32	-34	-34	-31	-28	-27	-26	-25	-23	-25
26	-24	-22	-21	-20	-29	-32	-25	-22	-21	-17	-16	-18	-21	-17	-16	-14	-14	-14	-14	-14	-16	-17	-11	-5
27	-5	-17	-16	-15	-16	-18	-27	-27	-26	-25	-23	-23	-28	-26	-19	-16	-18	-22	-24	-27	-27	-21	-20	-14
28	-18	-19	-24	-29	-26	-26	-21	-22	-24	-20	-22	-22	-21	-20	-20	-21	-24	-27	-26	-19	-17	-15	-15	-16
29	-15	-14	-17	-15	-16	-20	-22	-23	-18	-17	-21	-21	-19	-18	-18	-23	-27	-29	-24	-20	-17	-17	-19	-19
30	-19	-19	-17	-12	-7	-7	-11	-14	-15	-17	-16	-11	-13	-15	-14	-15	-16	-17	-16	-17	-20	-21	-21	-18
31	-16	-16	-17	-15	-14	-15	-13	-11	-11	-10	-8	-7	-3	-3	-1	-1	-1	-1	-2	-3	-2	-5	-4	-3

AUGUST 1974

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	-6	-6	-6	-7	-8	-8	-10	-9	-11	-13	-15	-12	-8	-5	-6	-9	-8	-7	-9	-8	-6	-6	-9	-12
2	-14	-15	-11	-8	-7	-5	-6	-6	-6	-5	-5	-6	-7	-2	3	2	2	-9	-14	-33	-46	-58	-59	-49
3	-40	-37	-33	-28	-25	-22	-23	-18	-19	-14	-11	-12	-17	-17	-15	-24	-29	-27	-32	-43	-43	-41	-51	-54
4	-53	-47	-33	-37	-42	-38	-35	-30	-27	-24	-24	-26	-28	-26	-23	-20	-19	-16	-21	-20	-23	-22	-27	-26
5	-20	-17	-19	-17	-12	-11	-8	-13	-16	-13	-13	-25	-25	-18	-16	-16	-15	-15	-14	-12	-13	-12	-14	-15
6	-17	-10	-8	-4	-7	-8	-8	-7	-9	-8	-6	-4	-8	-5	-6	-5	-3	-7	-9	-8	-14	-15	-16	-18
7	-16	-20	-20	-15	-11	-13	-11	-7	-8	-7	-6	-8	-8	-8	-3	-1	-7	-7	-13	-11	-12	-14	-21	-25
8	-18	-12	-11	-19	-37	-42	-29	-19	-15	-12	-12	-9	-11	-11	-12	-11	-10	-12	-11	-9	-7	-16	-20	-19
9	-13	-10	-9	-7	-13	-17	-17	-14	-11	-10	-9	-14	-15	-12	-10	-9	-9	-17	-12	-9	-8	-12	-18	-20
10	-9	-2	-2	-2	-12	-8	-3	-0	1	-3	-4	-6	-6	-7	-5	-6	-5	-8	-13	-9	-16	-15	-14	-10
11	-8	-8	-7	-6	-4	-3	-4	-7	-5	-4	-6	-10	-13	-12	-11	-13	-12	-11	-10	-9	-6	-6	-6	-5
12	-6	-2	-0	1	1	3	5	3	0	0	-1	-1	-3	-1	2	4	2	2	5	6	5	5	4	5
13	1	-0	1	-1	1	4	5	5	4	10	10	5	7	5	3	4	5	2	1	-0	1	4	6	6
14	10	8	11	13	11	7	8	12	12	12	12	9	5	4	5	7	8	6	6	10	12	9	6	7
15	8	10	11	12	14	16	17	17	17	17	17	17	18	20	22	19	21	22	23	21	14	12	12	14
16	18	20	17	16	16	14	9	8	6	6	10	11	10	10	16	16	17	16	16	15	15	9	3	4
17	12	17	16	12	12	15	16	18	16	13	15	17	17	12	8	7	9	6	4	4	3	-0	-3	-2
18	-2	1	1	3	7	9	10	11	14	15	18	20	21	22	14	15	13	17	13	14	13	11	4	-6
19	-10	-8	-2	-3	2	9	24	12	-5	-18	-26	-32	-35	-32	-29	-22	-22	-21	-24	-23	-26	-31	-33	-29
20	-26	-27	-29	-29	-28	-35	-38	-41	-35	-40	-35	-26	-24	-26	-28	-30	-33	-30	-26	-24	-22	-30	-31	-31
21	-35	-41	-42	-33	-28	-23	-26	-25	-28	-21	-23	-27	-25	-28	-29	-27	-27	-27	-26	-25	-20	-22	-27	-30
22	-30	-31	-29	-32	-26	-23	-26	-23	-26	-23	-17	-18	-22	-33	-32	-30	-26	-24	-21	-25	-25	-24	-26	-26
23	-25	-32	-27	-19	-18	-21	-30	-24	-18	-17	-15	-21	-19	-19	-18	-19	-25	-24	-23	-15	-14	-18	-20	-25
24	-23	-28	-29	-29	-24	-19	-19	-15	-17	-20	-14	-26	-28	-28	-29	-32	-34	-31	-32	-29	-28	-26	-25	-28
25	-32	-37	-30	-23	-20	-16	-15	-15	-13	-11	-8	-8	-10	-15	-21	-22	-21	-21	-19	-15	-13	-15	-18	-22
26	-26	-23	-21	-17	-13	-9	-9	-10	-9	-5	-5	-9	-13	-12	-10	-12	-11	-10	-9	-12	-12	-12	-14	-15
27	-15	-13	-12	-14	-11	-12	-11	-13	-19	-15	-13	-20	-28	-25	-25	-23	-19	-23	-30	-23	-19	-22	-22	-22
28	-21	-22	-24	-20	-14	-15	-14	-14	-15	-13	-11	-6	-9	-11	-16	-17	-19	-21	-21	-22	-21	-24	-34	-38
29	-33	-33	-36	-32	-33	-30	-22	-27	-35	-37	-31	-1	-8	-12	-20	-20	-24	-24	-19	-16	-13	-12	-15	-17
30	-18	-23	-29	-24	-14	-9	-6	-4	-5	-5	-6	-5	-9	-9	-9	-5	-1	-1	-3	-15	-16	-18	-17	-15
31	-11	-15	-14	-5	-2	0	-6	-1	-5	-5	-4	-5	-4	-4	-7	-5	-2	-6	-6	-10	-11	-17	-22	-14

SEPTEMBER 1974

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	-8	-3	-11	-16	-16	-11	-14	-15	-11	-6	-7	-12	-14	-20	-19	-16	-10	-13	-12	-13	-8	-9	-11	-15
2	-22	-23	-18	-13	-8	-12	-21	-17	-8	-9	-4	-0	-2	-2	-6	-7	-6	-9	-16	-17	-17	-21	-18	-23
3	-25	-26	-23	-15	-10	-8	-10	-8	-13	-15	-15	-11	-7	-10	-15	-18	-17	-13	-10	-15	-15	-15	-12	-11
4	-13	-9	-7	-5	-4	-9	-8	-10	-12	-8	-7	-8	-6	-7	-8	-6	-4	-5	-7	-9	-18	-17	-17	-15
5	-20	-18	-32	-25	-23	-22	-16	-11	-14	-18	-19	-13	-9	-8	-8	-9	-14	-12	-11	-9	-9	-9	-11	-12
6	-9	-10	-10	-10	-8	-8	-12	-12	-12	-10	-11	-8	-5	-5	-8	-10	-6	-9	-9	-6	-5	-5	-7	-7
7	-9	-10	-11	-15	-12	-9	-5	-0	-1	-3	-10	-8	-4	-2	-4	-8	-10	-15	-16	-18	-16	-15	-14	-14
8	-9	-6	-6	-5	-5	-7	-11	-8	-10	-7	-3	-2	-2	-3	-8	-10	-5	-2	-2	-4	-5	-3	-4	-3
9	-1	-0	-1	-5	-4	1	0	1	1	-0	3	3	2	1	3	2	4	3	5	9	9	8	7	6
10	3	1	-3	-6	-4	-1	0	-1	1	-1	-2	-2	-4	-3	-4	-3	-2	-1	-0	0	2	3	4	5
11	7	8	6	5	8	9	7	7	9	13	14	16	18	14	11	8	8	11	12	12	12	14	14	12
12	12	13	13	12	11	8	6	9	12	15	14	15	15	16	16	16	13	7	-2	-1	-2	-2	-1	-4
13	-4	-4	-4	-4	-2	-2	-0	10	10	-8	-19	-15	-18	-20	-18	-4	5	13	15	15	10	11	2	6
14	7	12	7	3	4	2	1	4	8	14	18	11	11	9	6	3	1	1	-3	-7	-9	-8	-17	-20
15	-11	-5	-5	-4	-3	-2	1	1	2	5	6	16	7	-3	-45	-97	-94	-130	-150	-157	-138	-137	-132	-123
16	-112	-123	-122	-127	-139	-133	-127	-114	-101	-82	-83	-95	-82	-86	-85	-82	-80	-80	-77	-74	-69	-64	-60	-58
17	-60	-59	-53	-50	-52	-54	-57	-59	-58	-58	-56	-56	-55	-56	-56	-55	-54	-53	-51	-50	-50	-50	-48	-47
18	-45	-43	-42	-39	-39	-38	-37	-39	-43	-43	-39	-35	-32	-33	-25	-31	-43	-38	-28	-24	-32	-33	-33	-40
19	-20	5	-1	-9	-9	-8	-23	-38	-40	-46	-47	-40	-31	-34	-44	-49	-45	-41	-38	-33	-34	-37	-43	-42
20	-36	-34	-32	-28	-25	-23	-21	-33	-36	-34	-29	-28	-28	-37	-45	-45	-38	-35	-41	-41	-36	-31	-31	-27
21	-27	-21	-14	-13	-12	-12	-11	-12	-14	-13	-15	-20	-18	0	-8	-11	-18	-37	-35	-40	-37	-37	-48	-50
22	-36	-32	-35	-36	-37	-35	-34	-36	-33	-32	-23	-28	-28	-26	-27	-30	-30	-27	-26	-22	-21	-23	-21	-19
23	-16	-16	-17	-14	-16	-16	-20	-21	-20	-17	-17	-21	-15	-20	-23	-25	-25	-19	-15	-14	-18	-20	-18	-12
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26	-35	-31	-32	-30	-38	-48	-52	-48	-41	-43	-46	-40	-26	-19	-22	-20	-18	-33	-32	-30	-23	-14	-14	-17
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28	-23	-24	-20	-21	-25	-26	-23	-23	-22	-26	-27	-23	-17	-16	-16	-15	-18	-18	-16	-22	-23	-18	-16	-17
29	-17	-17	-12	-9	-11	-12	-14	-13	-14	-15	-13	-13	-5	-5	-16	-18	-20	-14	-15	-15	-15	-14	-12	-9
30	-9	-10	-16	-26	-25	-17	-12	-12	-12	-15	-17	-19	-11	-6	-8	-9	-13	-11	-17	-16	-17	-13	-15	-25

OCTOBER 1974

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
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2	-12	-10	-6	-4	-4	-7	-14	-11	-13	-10	-10	-10	-10	-12	-13	-7	-5	-8	-19	-21	-32	-27	-26	-19
3	-19	-23	-15	-13	-10	-12	-11	-12	-6	-8	-8	-7	-8	-9	-11	-15	-16	-15	-17	-11	-13	-13	-18	-15
4	-16	-18	-12	-7	-4	-3	-3	-7	-8	-7	-5	-4	-5	-6	-5	-9	-10	-11	-6	-7	-5	-5	-7	-7
5	-7	-5	1	5	8	9	5	-0	-1	-3	-4	-2	-2	-8	-9	-9	-6	-1	2	5	8	6	-8	-10
6	-15	-9	-3	1	2	-4	-6	-6	-4	-2	-2	-3	-6	-6	-4	-5	-5	-5	-2	-2	-4	-7	-5	-5
7	-4	-3	1	6	5	6	4	4	3	-1	-3	-3	-4	-4	-5	-5	-4	1	2	2	9	9	1	-1
8	0	4	6	8	10	10	9	8	6	8	8	3	2	3	4	2	2	2	-1	2	-3	-13	-20	-23
9	-24	-25	-22	-22	-35	-47	-55	-54	-44	-43	-31	-26	-22	-27	-33	-35	-29	-29	-35	-41	-34	-34	-24	-22
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13	-25	-35	-56	-80	-85	-77	-93	-102	-88	-91	-101	-101	-107	-114	-118	-117	-110	-105	-100	-93	-89	-80	-67	-61
14	-57	-49	-44	-42	-36	-28	-26	-26	-29	-27	-30	-28	-24	-25	-23	-20	-32	-49	-59	-65	-72	-73	-75	-83
15	-82	-79	-79	-71	-64	-61	-56	-61	-59	-55	-50	-45	-40	-35	-31	-32	-30	-30	-28	-35	-35	-37	-41	-45
16	-44	-40	-40	-45	-44	-44	-33	-34	-49	-60	-46	-51	-57	-50	-46	-44	-51	-62	-52	-53	-53	-61	-75	-68
17	-64	-59	-56	-55	-54	-51	-55	-49	-55	-57	-48	-43	-43	-40	-40	-41	-50	-46	-41	-46	-50	-43	-41	-41
18	-47	-56	-52	-53	-45	-43	-45	-43	-47	-44	-36	-39	-42	-46	-48	-41	-41	-41	-39	-37	-41	-37	-34	-35
19	-41	-41	-40	-37	-32	-33	-31	-27	-27	-29	-31	-28	-33	-29	-27	-27	-28	-35	-34	-37	-41	-40	-33	-29
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21	-39	-37	-33	-31	-28	-27	-26	-22	-20	-22	-20	-25	-29	-22	-21	-20	-20	-21	-23	-23	-28	-27	-29	-31
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23	-23	-23	-21	-19	-22	-19	-14	-14	-15	-13	-11	-9	-9	-9	-7	-8	-11	-9	-9	-6	-3	9	22	26
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31	-12	-8	-7	-4	-3	-2	-3	-2	-2	-3	-4	-3	-4	-3	-3	-1	3	0	-1	-5	-10	-15	-19	-20

TABLE 10 Dst - continued Part B

NOVEMBER 1974

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	-11	-9	-9	-6	-4	-3	-3	-1	-2	1	1	0	-2	-1	0	-0	1	0	-1	2	-1	-3	-7	-7
2	-11	-10	-9	-5	-2	-1	-1	1	1	3	6	4	6	4	4	3	4	4	5	6	7	6	4	3
3	3	0	0	1	4	6	9	5	2	2	6	8	4	5	4	4	5	4	5	7	9	10	13	10
4	10	10	9	8	11	13	13	11	9	7	6	6	6	7	6	4	5	3	2	2	0	2	2	0
5	-0	1	2	6	10	11	13	12	10	10	13	12	9	10	12	10	10	10	13	16	10	2	-0	-2
6	0	3	5	10	8	5	1	4	6	6	6	8	4	-4	-17	-21	-16	-11	-8	-7	-6	-1	7	12
7	11	11	11	13	8	5	9	15	15	11	3	3	5	4	4	5	2	-7	-11	-8	-2	-0	0	2
8	1	1	-5	-3	-3	-3	-1	2	2	1	4	2	-0	-3	9	8	11	15	12	-4	-28	-58	-65	-58
9	-63	-60	-61	-58	-64	-65	-57	-67	-65	-52	-59	-62	-60	-56	-58	-55	-55	-54	-52	-52	-52	-48	-43	-39
10	-38	-39	-40	-42	-45	-43	-40	-35	-33	-31	-29	-29	-28	-27	-29	-30	-28	-26	-26	-29	-29	-21	-15	-14
11	-11	-15	-15	-13	-15	-16	-15	-18	-15	-9	2	6	-16	-24	-49	-55	-70	-66	-63	-57	-69	-64	-69	-70
12	-61	-63	-55	-64	-64	-66	-68	-69	-71	-62	-54	-55	-63	-55	-61	-64	-60	-58	-61	-60	-76	-64	-54	-50
13	-52	-46	-38	-38	-40	-49	-51	-48	-42	-48	-49	-44	-41	-43	-49	-50	-47	-43	-49	-57	-63	-64	-53	-51
14	-50	-42	-33	-20	-38	-45	-37	-41	-47	-49	-58	-59	-55	-49	-65	-61	-55	-49	-47	-46	-42	-35	-30	-26
15	-23	-21	-21	-22	-25	-27	-27	-26	-25	-25	-29	-36	-40	-36	-32	-29	-26	-25	-25	-28	-31	-24	-21	-18
16	-17	-14	-14	-14	-18	-22	-28	-24	-27	-33	-35	-36	-33	-28	-33	-37	-31	-28	-36	-40	-36	-27	-21	-21
17	-27	-29	-23	-26	-29	-36	-32	-27	-24	-25	-27	-28	-32	-34	-36	-37	-38	-37	-37	-41	-41	-40	-35	-31
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20	3	8	7	5	3	-3	-4	-1	3	2	-3	-7	-11	-9	-10	-13	-14	-24	-24	-24	-17	-8	-6	-3
21	0	2	1	-2	-1	-0	-8	-13	-21	-17	-30	-27	-16	-14	-15	-31	-34	-23	-20	-22	-28	-18	-8	-9
22	-10	-11	-11	-15	-19	-22	-15	-13	-15	-14	-12	-15	-17	-16	-19	-20	-21	-21	-20	-19	-14	-9	-9	-7
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24	-10	-9	-7	-8	-16	-17	-18	-15	-12	-14	-15	-17	-15	-14	-15	-18	-15	-15	-19	-20	-18	-18	-10	-10
25	-8	-3	-2	-6	-15	-19	-15	-13	-13	-6	-8	-7	-6	-8	-9	-16	-13	-16	-18	-17	-17	-15	-13	-8
26	-4	-3	-1	-3	-2	-2	-5	-9	-8	-8	-9	-7	-9	-14	-14	-19	-22	-21	-18	-15	-13	-12	-12	-8
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28	3	3	3	0	-4	-8	-9	-10	-8	-8	-6	-4	-1	-0	-2	-3	-3	-4	-3	-3	-3	1	2	3
29	5	7	6	1	-1	-2	-3	-3	-4	-3	-1	0	3	3	3	3	3	2	2	1	2	2	3	5
30	8	11	10	5	3	1	3	3	2	-0	-2	-2	0	0	2	4	6	6	7	7	6	8	11	13

DECEMBER 1974

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	17	19	20	21	20	17	16	15	16	17	15	11	10	8	3	3	4	3	1	-6	-16	-21	-29	-31
2	-31	-29	-28	-25	-24	-26	-29	-30	-29	-31	-35	-32	-27	-19	-14	-6	-1	12	15	10	15	7	4	2
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4	-3	-8	-5	-5	-9	-11	-11	-9	-4	-0	-2	-2	-3	-5	-6	-5	-4	-5	-6	-9	-11	-12	-13	-9
5	-7	-6	-4	-4	-4	-4	-2	-1	-2	-1	-3	-2	-5	-6	-5	-7	-7	-5	-7	-10	-9	-9	-7	-6
6	-5	-5	-5	-7	-5	-4	-1	1	-1	1	-0	-3	-4	-2	-1	5	6	7	4	3	4	6	6	6
7	5	3	4	6	8	10	13	13	10	15	17	16	7	-1	-3	-0	-1	0	0	0	2	2	1	1
8	2	5	3	-0	-1	-1	1	-1	-4	3	11	8	9	6	5	-0	-8	-10	-3	1	4	-1	2	-2
9	-6	-4	-7	-10	-8	-10	-12	-4	-1	-11	-14	-15	-9	-8	-20	-35	-37	-56	-42	-48	-54	-49	-38	-32
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16	-10	-7	-5	-5	-6	-8	-10	-11	-14	-18	-18	-14	-11	-9	-8	-11	-10	-8	-7	-1	5	11	22	26
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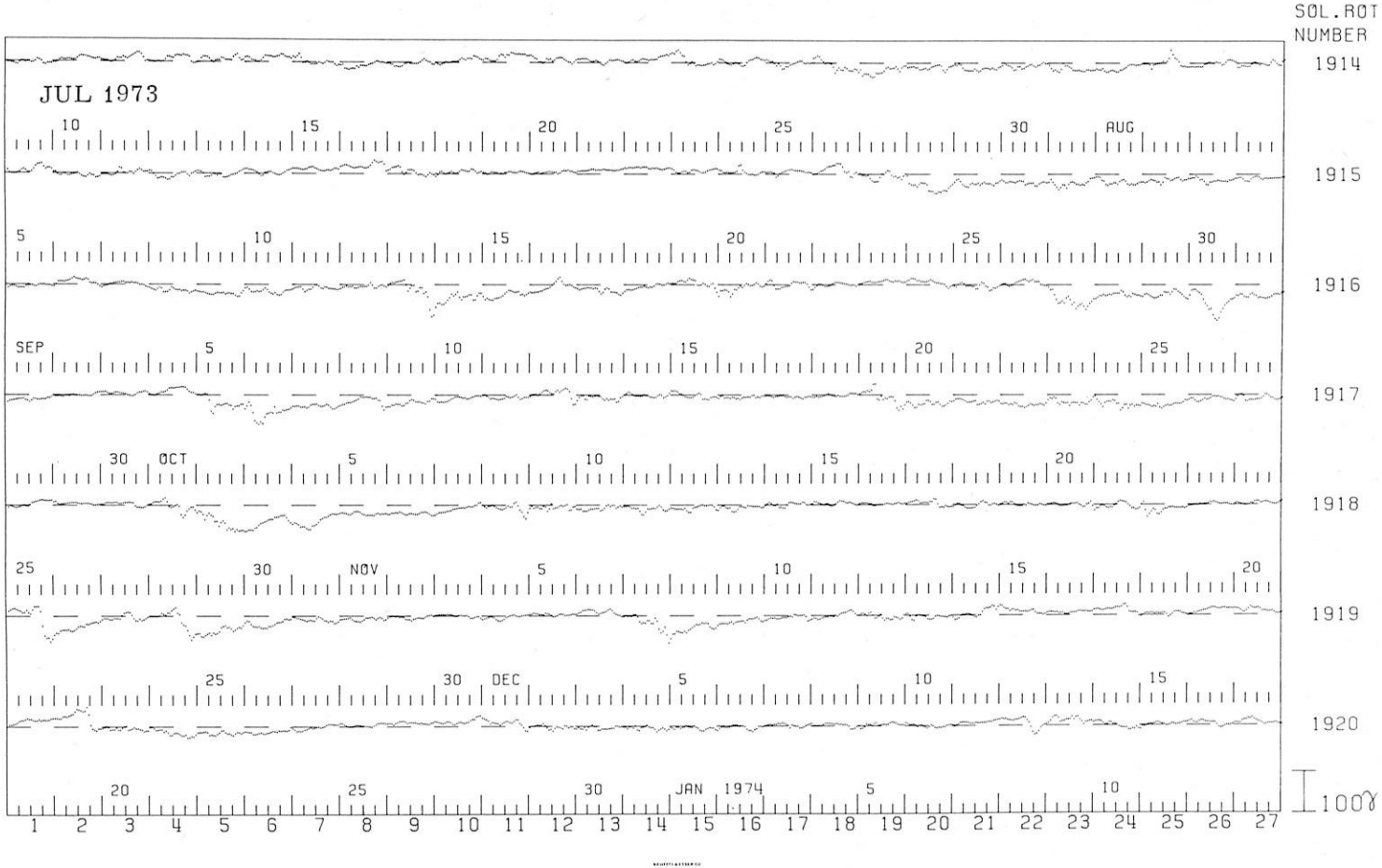
31	5	0	-12	-9	-5	-11	-13	-13	-13	-14	-14	-10	-6	1	3	-1	-8	-5	1	5	3	1	-0	-1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SEP
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20
25
1917
30
OCT
5
10
15
20
1918
25
30
NOV
5
10
15
20
1919
25
30
DEC
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10
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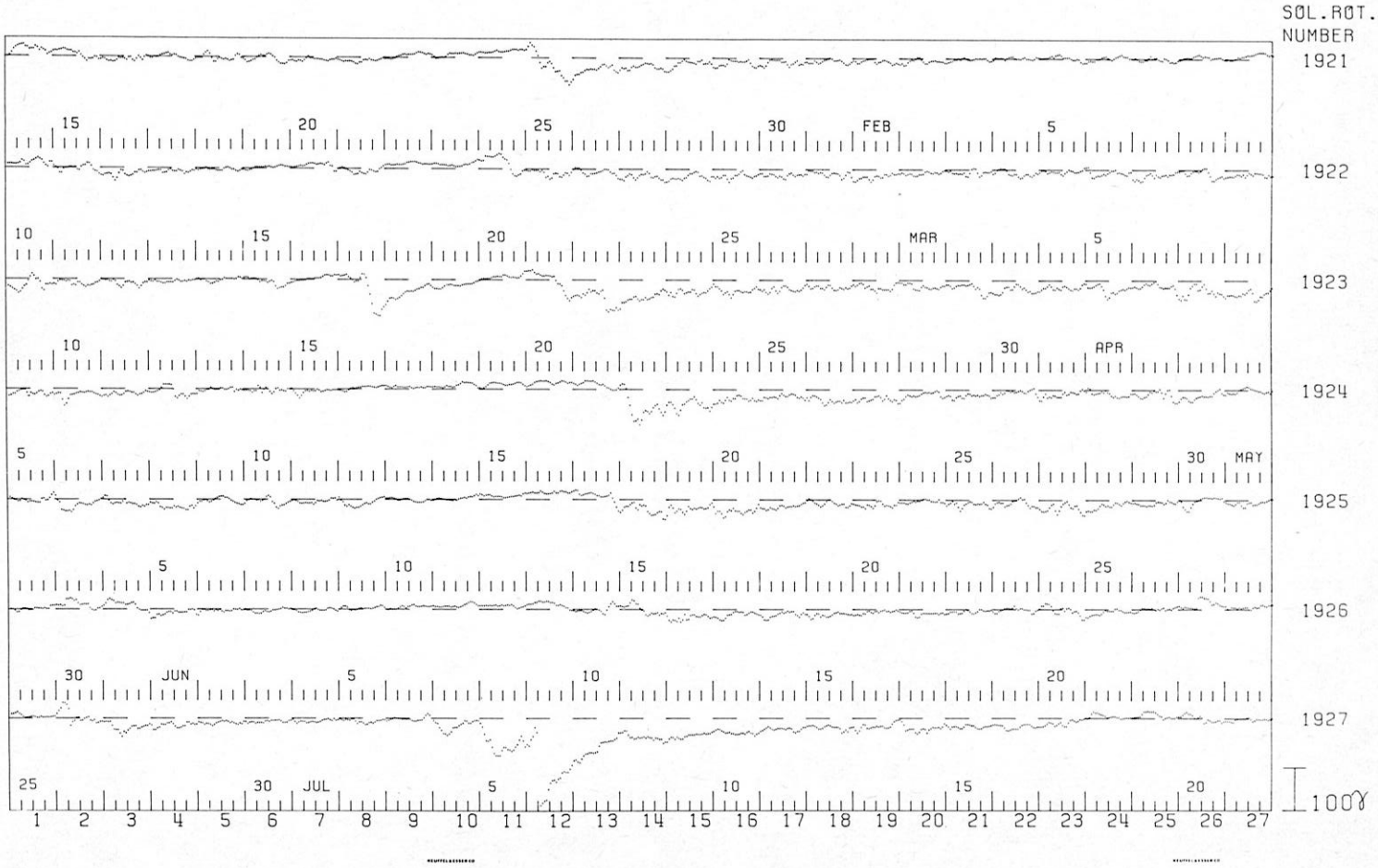
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NUMBER
1921
15 20 25 30 FEB 5
1922
10 15 20 25 MAR 5
1923
10 15 20 25 30 APR
1924
5 10 15 20 25 30 MAY
1925
5 10 15 20 25
1926
30 JUN 5 10 15 20
1927
25 30 JUL 5 10 15 20
100γ
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

Graph of hourly equatorial Dst for 1974

Part B

DAILY MEANS OF EQUATORIAL DST FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	-5	-8	-9	-22	-2	-9	-7	-9	-12	-17	-3	6
2	-4	-8	-7	-15	-1	-3	-8	-15	-12	-13	1	-15
3	2	-3	-9	-27	-14	-3	-2	-28	-14	-13	5	-8
4	1	0	-4	-33	-9	-3	-19	-29	-9	-7	6	-7
5	3	0	-9	-11	-18	3	-63	-15	-15	-1	8	-5
6	-1	1	-14	-15	-3	5	-124	-9	-8	-4	-0	0
7	7	-3	-9	-11	-5	9	-68	-11	-10	1	5	5
8	6	3	-12	-7	-4	8	-45	-16	-5	2	-7	1
9	13	7	-14	-2	-9	11	-41	-12	2	-33	-57	-22
10	-1	12	-10	-3	-1	-0	-34	-7	-1	-16	-31	-24
11	3	-2	-9	-6	3	-1	-26	-8	11	-3	-34	-18
12	4	-14	-5	3	8	-20	-23	2	9	8	-62	-16
13	8	-7	-1	5	16	-13	-19	4	-1	-87	-48	-12
14	15	-3	-7	9	6	-13	-25	9	2	-43	-45	-17
15	4	2	3	11	-25	-14	-21	16	-50	-49	-27	-16
16	-6	7	-23	16	-21	-7	-21	12	-94	-50	-27	-5
17	-2	-5	-29	10	-28	-10	-11	10	-54	-49	-32	-2
18	-3	11	-13	-46	-16	-5	4	11	-36	-43	-21	-19
19	-6	10	7	-36	-9	-1	7	-16	-31	-33	4	-16
20	-6	13	-4	-24	-13	-3	-1	-30	-33	-44	-6	-21
21	-9	-10	-45	-17	-4	-7	-3	-28	-22	-26	-15	-15
22	5	-8	-40	-27	-11	1	-1	-26	-29	-16	-15	-11
23	5	-19	-28	-23	-8	13	-44	-21	-18	-9	-10	-7
24	14	-18	-26	-12	-20	5	-41	-26	-13	-22	-14	-11
25	-20	-16	-22	-15	-13	5	-27	-18	-12	-12	-11	-12
26	-28	-14	-17	-7	-8	3	-18	-12	-31	-18	-10	-12
27	-22	-11	-16	-11	-3	-23	-21	-19	-29	-12	-11	-17
28	-14	-17	-15	-10	-8	-17	-21	-18	-21	-17	-3	-10
29	-13		-19	-12	2	-12	-20	-23	-13	-15	1	-4
30	-11		-23	-15	11	-8	-15	-11	-15	-6	5	1
31	-8		-17		9		-8	-8		-5		-5
MEAN	-2	-4	-14	-12	-6	-4	-25	-11	-19	-21	-15	-10

ANNUAL MEAN -12

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^{o}, 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 1973, 2.5-min and hourly average AE, AU, 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 publiced by the Geophysical Institute, University of Alaska. These indices are available from WDC-A for STP on either magnetic tape or 35mm microfilm and 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) 1974

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

JANUARY

24 2258 (50-64) A: SO DB CF OD SU TK AE TI ? TA LM; B: DO LE ES HL AQ EB ? CI TL ? SZ BA KG; C: WI HB - (b: B: SW - bs: A: NU SF; B: BE KS - bp: A: IR FU; B: TF - bps: A: VL IK PE LU; B: WN NI ? KV MA BU).

FEBRUARY

10 1702 (56-07) A: QU - B: BU LM AC; C: WN - (Si: A: TW; B: HL; C: ba PP ?).

20 20 0157 (56-60) A: UB; B: PM LM; C: HO LU PP TN - (si: B: BA AC; C: KY - bs: B: HU).

MARCH

09 0612 (08-15) A: LM; B: TI BA; C: UB PP - (si: A: FU; B: IR; C: NI LU - b: B: HU).

16 1128 (18-33) B: BE VL TK TI LM; C: EB TL ? LU - (si: B: TA; C: BA)

19 2205 (03-08) A: CO SI SU LG FR AC; B: ES WN VL HB AQ TI KS HO SJ BA PM LM GN TW DU; C: LE BU NE CF UB TK EB TL AE TU PP KG - (si: A: IR FU SF TA; B: DO NU HL IK DS ; C: WI MT KA SS KY LU).

APRIL

03 0437 (35-40) A: SU TK SJ GU LM AC; B: LE Es HL KV UB AQ EB QU SZ TA HO LU PM HU PP TO KG; C: DB VI ? MT KA SS TU KY - (si: A: SO MO WN FU LG AE DS TW; B: NU WI VL BE BU HB TL ? TI BA DU; CF - sfe: OD IK)

03 1236 (33-40) A: KS; B: SW VL CF CI; C: WN TL - (si: B: BA; C: LE - bp: B: TI).

18 0232 (24-27) B: SW SU IK LM; C: WN VL DB CF - (si: A: SF; B: HL FU TA LU; C: TL ? BA).

MAY

02 1609 (05-17) B:: AE QU SJ BA; C: SZ - (si: A: LG; B: KS; C: UB - bp: B: OD).

JUNE

10 1850 (46-55) A: SO SI WI IR DB VI CF UB OD SU LG TK AE TI QU TA SJ BA LU HU LM AC TW; B: DO LE ES HL WN SW VL KV BU NE FU HB OT AQ IK EB TL SF KS SZPM PP GN TO KG; C: NI MT FR KA KY - (si: A: NU; B: BE; C: SS HO HR).

12 0824 (20-29) B: WN VL SU TK QU BA; C: BU - (si: A: OD TW; B: HL FU - bp: A: TA; C:KY)

23 0858 (52-63) A: MO VI UB OD OT SU PE QU SZ TA SJ BA LU AC TW; B: SO CO WN BU NE FU AQ IK TI TU HO GU TO; C: LE ES WI DB CF PP KG - (si: A: NU IR SF DS LM; B: DO MT KA SS KY PM TN GN - bs: A: HU - bps: A: KV).

25 2329 (23-33) A: CO DO SI MO WN WI IR KV DB BU VI CF UB HB OD OT SU LG AQ TK IK EB CI TL FR PE AE SF TI KS DS TU QU TA HO SJ GU BA LU HU TN LM AC TW DU; B: LE ES HL SW NI VL BE NE FU MT KA KY SZ PM PP GN TO CZ; C: SS HR - (bs: A: SO NU - bp: B: KG).

TABLE 1 STORM SUDDEN COMMENCEMENTS (ssc) 1974 - continued

JULY

04 0112 (10-18) A: SJ; B: WN PM; C: BU NE AQ TA BA HU PP - (si: A: SF; B: OD SU TW - bs: B: PE - sfe: HO)

04 1534 (27-36) A: SO NU WN WI KV DB BU CF SU LG IK CI TL PE AE SF TI QU HO SJ BA LU LM AC TW; B: DO LE MO ES IR VL FU HB MT AQ KA KS SS KY SZ GU PM PP HR CZ KG; C: VI NE EB TU - (si: A: SI OD; B: TA GN)

05 1929 (20-34) A: SI PE KS QU PP; B: NE PM TO; C: SS TU - (si: B: KY GU HU; C: MT KA - bp: A: CF - bps: A: OD IK).

06 0322 (20-31) A: LE MO ES WN WI VL KV BU NE CF DB SU AQ LG IK EB CI PE SF SS QU SZ GU BA LU HU PP LM TO; B: FU MT KA KY HO GN HR CZ - (si: A: NI OD SJ AC? TW; B: VI TL PM).

23 0341 (33 - 51) A: KS TA; B: LM DU - (si: A: SF; B: IK - bp: CF EB - bps: B: BA).

AUGUST

02 1227 (25-30) A: UB TK PE AC; B: SO WN VL KV DB FU SU LG IK CI TL QU TA BA LU PM LM TW; C: LE ES WI NI BU VI NE CF HB MT AQ CI AE KA TI TU KY HO PM.

SEPTEMBER

15 1343 (40-46) A: SO NU SI ES WN WI VL DB BU VI CF OT SU AQ LG IK EB CI TL FR PE SF KS SS DS TU QU SZ TA HO SJ GU BA LU PM HU LM TO AC TW CZ KG DU; B: DO LE NI NE FU HB MT KA KY PP GN HR.

18 1434 (31-36) SO CO NU SI ES WN DB VI HB OT SU LG EB CI TL FR PE AE SF KS DS QU SZ TA HO SJ GU BA LU HU LM AC TW CZ KG DU; B: DO LE WI NI VL BU FU CF MT AQ IK KA KY PM PP GN HR TO; C: NE TU SS.

OCTOBER

12 1244 (40-49) A: SO DO NU LE SI ES WN DB VI UB HB SU LG AQ TK IK EB CI TL FR PE AE SF TI KS QU SZ SJ BA LU HU LM AC TW CZ; B: CO WI NI VL BU NE FU CF MT KA SS KY HO GU PM PP TN GN TO KG DU; C: TU - (si: A: OT HR).

12 2016 (14-25) A: PE HO HR; B: SO WN WI FU HB TU GU - (si: A: TI SJ LU HU AC TW B: BU TK EB PP).

14 1634 (31-36) A: TK AC TW; B: LE WN WI VL DB FU SU LG AQ IK CI TL PE QU SJ LM; C: NI BU VI CF HB EB AE HO LU PP HR CZ KG - (si: A: SF; B: ES).

20 0345 (41-48) A: LM TW; B: WN VL DB BU FU CF HB IK CI SZ HO LU PM PP TO KG C: NI SS - (si: A: SU LG SF AC; B: AQ TL? AE KY GU BA HU HR DU; C: LE WI EB TI).

23 1849 (48-50) B: BU FU LG PM; C: WN DB IK QU BA LU

24 0008 (05-10) B: AE KS SJ; C: CF SZ - (si: B: TK TI BA; C: EB).

NOVEMBER

08 1414 (09-17) A: SO NU SI ES IR DB UB SU LG TK CI FR PE AE KS QU SZ TA HO SJ BA HU LM HR AC TW CZ; B: DO LE MO WN WI KV VI NE FU CF HB OD MT AQ TF IK EB TL KA TI SS KY GU LU PM PP TN GN TO KG DU; C: NI BU TU - (si: A: SF).

14 0249 (42-52) A: UB QU GU HU HR AC; B: IK KS TU LU PP LM; C: MT KA SS KY SZ - (si: A: SU SF BA TW; B: MO TA HO PM GN TO).

DECEMBER

none

TABLE 2 BAYS AND PULSATIONS 1974

Times of commencement of bays or pulsational disturbances associated with bays. Stations which reported other kinds of disturbances are included in parentheses. For explanation: see page X.

JANUARY

01 1414 (03-25) b: A: BU; B: SW - bs: B: BE - bp: A: UB OD; B: LZ KV TK IK TI QU TO KG DU; C: MT KA KY.

01 2005 (00-22) bs: A: SO NU - bp: A: CF UB OD PE TI; B: VL KV BU AQ TF TK EB TL QU LU LM; C: WN NI DB - bps: A: MA LG TA; B: HL IK SZ BA - (si: C: TN).

02 1821 (00-30) bs: A: SO - bp: A: SU LG PE; B: HL WN VL KV MA OD IK LM KG C: NI BU CF TF? EB TI.

02 1858 (53-63) b: A: PE SF; B: HL CF - bp: B: MA IK EB TL TI - bps: C: DB.

03 1808 (51-20) b: A: WN SU SF; B: SW FU - bs: A: SO NU PE; B: HL KS - bp: A: OD LG CI TL; B: WI VL KV MA BU IK EB TI LM; C: NI CF HB TF - bps: A: MO; B: LE ES DB - (si: A: LG; B: BA).

04 1839 (20-42) b: B: DO SW - bs: A: NU IR SU - bp: A: WN WI VL BU FU UB OD LG AQ TK CI TL PE AE TI LM; B: LZ LE ES BE MA MT TF EB KA KY GN KG; C: SS - bps: A: KV IK QU; B: DB - (ssc: A: SO).

05 0007 (00-12) b: B: HL SU - bp: A: FU CF OD CI SF; B: MA DB IK TL TI LM - bps: B: EB.

05 2342 b: B: KV - bp: A: OD SF; B: MA BU CF SU IK EB TL; C: DB TI.

06 1802 (00-05) b: A: NU; B: SW - bp: A: TI; B: KV MA OD TF IK KG; C: EB LM - bps: B: HL

08 1656 (43-71) b: A: PE; B: SW TA - bs: A: LG; B: HL; C: BA - bp: A: MA FU CF OD TF TK IK CI TL AE LM; B: WN WI NI VL BU HB EB LU - bps: A: MO TI; B: BE DB .

10 1802 (45-08) b: B: SW - bs: A: NU LG SF; B: HL NI BU TA - bp: A: WN KV MA FU SU AQ LM; B: LZ VL TF EB KG - bps: A: SO DO MO CF OD IK TL PE TI; B: LE ES WI DB HB LU - (si: B: AE BA).

12 1550 (41-55) b: A: NU; B: LE SW TK - bp: B: LZ ES VL KV MA FU OD TF IK KG; C: WI NI BU HB SU - bps: B: MO TI QU.

14 0121 (18-25) b: A: SF; B: HL SW - bs: B: BE - bp: A: FU OD SU PE; B: LE ES VL MA CF AQ IK EB TL TI TA LM; C: LZ WN - bps: A: AE; B: KV CI SZ BA.

15 1200 (53-10) b: B: NE - bp: A: OD PM; B: MT KA KY.

17 0239 (30-50) b: A: FR SJ; B: WN - bp: A: CI; B: VL KV EB TU HU; C: LZ - bps: A: SZ.

17 1929 (10-42) bp: A: LZ FU OD IK PE TI QU LU; B: VL KV MA CF TF EB TL SZ LM KG; C: SU - bps: A: TA; B: DO HL WI; C: DB - (si: A: LG; B: BA)

18 1644 (35-63) b: B: HL SW - bs: A: NU QU - bp: A: WN WI CF HB OD SU AQ EB CI TL TI SZ LM; B: VL DB MT TF FR KA KY TA KG DU - bps: A: MO NI KV BU TK IK PE SS; B: DO LE ES BE MA - (si: B: BA).

20 1842 (34-52) b: A: NU; B: SW - bs: B: HL - bp: A: TI; B: WN VL KV MA CF OD TF IK EB KG; C: WI TL - bps: A: MO; B: BU; C: NI.

21 0719 (18-20) bp: B: VI FR HO - bps: B: PP; C: TU.

TABLE 2 BAYS AND PULSATIONS 1974 - continued

(JANUARY)

21 1450 (38-68) b: A: IK AE TI; B: WN TK - bs: B: HL - bp: A: OD SU; B: KV MA DB BU TF EB KA KY DU; C: NI HB MT SS - bps: A: MO - (sfe: TL).

22 1934 (30-44) bp: B: SO KV MA TF TK IK TI LM; C: CF - bps: B: HL.

27 0923 (17-32) bp: A: OD; B: TF TK IK; C: MT KA KY - bps: B: HL.

27 1737 (22-52) b: A: TA; B: SW - bs: A: NU; B: HL - bp: A: CF OD EB TI LM; B: WN VL MA SU TF IK TL - bps: A: BU TK; B: DO NI BE HB QU.

27 2128 (17-46) b: A: SF TA - bs: A: AE; B: HL - bp: A: CF; B: MA OD EB LU; C: TL.

29 1253 (43-60) b: B: SW EB - bs: B: HL - bp: B: OD SS GU - bps: B: TO.

29 1502 (53-10) b: A: EB; B: WN - bs: B: HL - bp: A: OD IK SS; B: LZ MA MT KA KY GU.

30 1438 (33-46) b: B: SW - bp: A: OD SS; B: KV MT IK KA KY KG - bps: B: TO.

30 1939 (20-55) b: A: AE; B: SW TA - bs: A: SF; B: HL KS - bp: A: AQ; B: KV MA SU EB CI LM KG; C: MT TF KA KY - bps: A: DO NU MO WI NI VL BU HB CF OD LG IK TF TL PE; B: WN DB SZ LU TO - (ssc: A: SO - si: B: BE; C: BA).

31 1837 (32-49) bs: A: LG - bp: A: CF TL PE; B: WN WI VL MA AQ EB TA LU - bps: A: OD TK; B: NI KV BU HB IK - (si: B: BE).

FEBRUARY

01 1915 (00-30) b: A: AQ PE SF SZ LM; B: HL BE - bp: A: NU CF OD LG TA HR B: WN NI VL BU HB TF TK EB CI BA LU - bps: A: UB; B: MO.

01 2222 (10-38) b: A: PE - bs: B: HL - bp: A: FU CF OD TL SF SZ; B: WI KV MA BU AQ TF IK EB CI TA; C: NI HR - bps: B: SO.

04 1938 (30-44) b: B: SW PE - bs: A: NU; C: NI - bp: A: OD; B: DO WN WI VL KV DB BU FU AQ TF TK IK EB; C: TL - bps: A: SO MO SU; B: LE ES HL.

07 0133 (24-50) bs: B: HL - bp: A: LG; B: LE KV MA CF OD IK CI; C: LZ TF EB - (si: C: KS).

07 0209 (00-18) b: A: SJ - bs: A: AE - bp: B: TA LU LM AC TW; C: HR - (si: A: SO; C: BA).

08 2327 (20-29) b: A: AE - bs: B: HL - bp: A: NU OD PE; B: SO LE ES VL MA CF IK EB LM; C: TL LU - bps: A: LG; B: KV - (si: B: BA).

09 2207 (00-10) b: A: AE; C: TN - bs: C: NI - bp: A: NU OD LG PE SF; B: SO LE ES VL FU CF IK EB CI TL TI TA LM; C: LZ BU TF LU - bps: A: KV SU; C: BA.

10 1957 (50-66) bp: A: NU WN VL MA FU CF HB AQ IK EB TL PE SF TI QU; B: WI BE - bps: A: BU LG; B: ES NI DB LU - (si: C: KS).

11 1816 (14-20) bp: B: WN EB; C: TL - bps: B: MO LM - (ssc: A: SO - (si: A: OD; B: BE).

12 0439 (35-42) b: B: FR - bp: A: SF SJ; B: EB - bps: A: HU AC; B: TW.

13 1400 (54-11) b: A: PE - bp: A: OD SU; B: BE TF TK IK EB TI; C: SS.

TABLE 2 BAYS AND PULSATIONS 1974 - continued

(FEBRUARY)

13 1725 b: A: SU SF - bs: A: PE TA; B: HL - bp: A: WN CF TI; B: NI BU HB (10-38) TK EB; C: TF - bps: A: OD LG; B: DB TL LU LM - (si: B: BA).

14 2135 (24-43) bp: A: LG; B: LE ES MA IK EB CI; C: KV CF SZ.

16 1857 (48-63) bs: B: HL - bp: A: TI; B: WN VL MA IK KG; C: BU EB - bps: B: KV - (ssc: B: SO QU - si: A: OD LG SF; B: IR TA LM; C: BA).

17 2052 (50-54) bs: A: KS bp: B: KV MA CF TF IK EB PE TI - bps: B: BA.

19 2332 (30-35) b: B: SW - bp: A: NU; B: SO WI VL KV MA PE; C: LZ WN CF.

20 1609 (00-20) b: A: TI; B: SW - bp: B: MT TK IK EB KA SS KY GN KG ; C: TF.

21 0121 (15-30) b: A: SJ - bp: A: CF CI AE; B: IK EB SZ LM HR AC TW; C: TL - bps: A: TA; B: BA.

23 1946 bs: A: KS; B: BE - bp: A: CF EB TI; B: WN MA TK TL TA - bps: A: (38-60) VL IK PE; B: MO - (ssc: C: SZ - si: A: LG).

24 1844 (41-54) b: A: SF bs: A: LG - bp: A: CF OD EB; B: VL MA TK TL LM C: WN - bps: A: PE; B: IK - (ssc: B: SO).

25 1850 b: A: CF SF; B: DO - bs: A: PE KS; B: BE - bp: A: MA BU TL HR; B: (42-56) WN NI VL HB SZ LM KG; C: TK - bps: A: OD LG IK.

25 2329 (24-37) b: A: SF - bs: BE - bp: A: TA; B: WN MA BU OD IK EB LM - bps: B: VL CF BA.

27 1701 (00-03) bp: B: EB LM; C: MT KA KY - bps: B: MO.

MARCH

01 1846 (32-57) b: A: AE SF; B: HL SW FU TN; C: PP - bs: A: NU SU - bp: A: SO WN AQ TL TI; B: ES WI NI VL BU TF TK EB LM HR CZ KG ; C: CF - bps: A: MO OD PE; B: DO LE KV DB UB HB IK TA - (si: B: BA)

02 1552 b: B: SW TK - bs: A: SO - bp: B: VL IK; C: EB - bps: A: TI; B: LM - (48-57) - (si: C: KG).

02 2104 (00-06) bs: A: SO; B: HL LG - bp: B: WN VL KV IK EB; C: BU CF TL - bps: B: LE - (si: B: OD).

03 2235 (14-45) b: B: HL SW TN - bs: C: NI - bp: A: VL OD SU PE AE TI; B: ES KV CF AQ TF IK EB TL SZ LU LM; C: BU HR - bps: A: SO LG CI SF; B: TA BA; C: DB.

05 2021 (12-37) b: B: SW; C: PP bs: A: KS; B: HL NI BE - bp: A: FU AQ TL SZ TA; B: WN VL BU HB EB LM CZ; C: TF - bps: A: OD LG; B: DB IK HR -(ssc A: SO - si: A: SF; B: LE BA).

06 1704 (53-10) b: B: WN SW CF - bp: A: TI; B: VL IK HR CZ KG - bps: A: UB

07 1717 (00-27) b: B: HL WN - bs: A: SU - bp: A: MO CF OD PE TI; B: WI VL KV BU TF TK IK EB TL TA LM CZ KG; C: NI HB - bps: A: UB.

08 1328 (26-30) bp: A: TI; B: OD IK DU - bps: B: KV UB - (ssc: C: HB - si: B: FU; C: LE).

08 2206 (57-12) bp: A: PE TI TA LU HR; B: OD TF IK EB LM - bps: B: BE BA.

TABLE 2 BAYS AND PULSATIONS 1974 - continued

(MARCH)

11 1213 (06-15) bp: B: HL MT KA SS KY DU

11 1719 (59-30) b: A: WN SF - bs: A: KS; B: HL SW NI BU - bp: A: SO DO MO CF OD SU AQ; B: WI VL HB EB LM KG - bps: A: DB LG TL; B: IK HR - (si: B: BA).

12 1936 (30-41) b: B: SW SF - bs: C: NI - bp: A: LG PE; B: LZ VL BU CF OD IK EB TL; C: WN WI TF HR - bps: B: HL KV - (si: B: BA).

14 1855 (48-76) b: A: CF AQ; B: SW SZ - bs: A: LG - bp: A: FU OD TL PE; B: MO WN WI VL DB BU TK IK EB TA LM CZ; C: HB TF HR - bps: A: UB TI; B: HL NI KV BA.

20 1456 (45-75) b: A: PE; B: TI - bp: A: OD; B: TF IK; C: LZ MT KA SS KY - bps: A: UB SU.

20 2130 (27-34) b: A: TI - bs: A: VL KS; B: BE - bp: A: OD EB LM; B: WN TF CZ - bps: A: CF AQ IK TL PE LU HR - (ssc: A: AE TA; B: SF SZ BA - si: A: LG).

22 2211 (05-15) b: A: SF; B: TI - bp: A: CF OD IK; B: WN BU EB TL; C: HR - bps: B: VL.

23 1201 (57-08) b: C: NE - bs: B: EB - bp: A: HO GU TO; B: MT TK KA KY LM DU - bps: A: OD SS; B: VL; C: PP - (si: A: SF).

23 1442 (27-49) bp: B: WN EB KG DU - bps: A: MO HB OD IK TI; B: DO TK GU LM - (si: BE).

23 2209 (00-16) b: B: TI - bs: A: LG bp: A: CF OD HR; B: IK EB LM KG - bps: B: TA PP.

24 1743 (38-52) bp: B: WN VL EB KG; C: BU HR - bps: A: TI; B: LM - (ssc: B: SO - si: A: LG; B: SF).

24 2244 (40-48) bp: A: OD EB LM; B: WN BU KG - bps: A: CF IK LU HR AC ; B: TL - (si: B: BE BA).

25 1755 (49-65) bp: A: CF TA; B: VL LM CZ; C: TL HR - bps: B: BE - (ssc: B: SO).

27 1135 (30-45) b: B: PP - bp: B: SS GU; C: LZ MT KA KY - bps: A: UB

30 0016 (02-30) b: A: PE AE SF - bp: A: CF LG TA LU; B: OD IK EB CI BA HR.

30 1713 (03-25) b: B: WN BE - bp: A: OD PE; B: HL VL BU CF TF TK IK EB TL LM HR CZ; C: NI HB - bps: B: QU - (si: B: BA).

30 2354 (40-60) b: A: PE SF; B: TI - bs: A: LG; B: BE - bp: A: FU CF OD IK TL; B: EB CI QU SZ TA BA HR - bps: A: LU; B: HL.

31 1647 (39-52) bp: A: MO CI; B: WN KV OD IK EB LM; C: HR - bps: B: QU.

31 1959 (50-75) b: B: SW TI SZ AC - bs: B: HL - bp: A: MO OD IK LM; B: LE WN VL KV CF SU TF EB LU KG - bps: A: LG CI PE QU HR; B: BE BU; C: NI - (si: B: BA).

APRIL

01 1511 (00- 25) b: B: SW TK TI - bp: A: OD; B: KV IK LM GN; C: MT KA KY - bps: A: MO UB; B: HL.

TABLE 2 BAYS AND PULSATIONS 1974 - continued

(APRIL)

02 2052 (49-60) b: B: SW BE - bp: A: CF; B: VL EB TL KG - (ssc: A: SO; B: WN)

03 1338 (25-46) bp: A: OD LM; B: GN KG DU - (si: A: FU; B: BE).

03 1836 (28-45) bs: A: LG - bp: A: FU EB HR; B: MO WN VL BU GN - bps: A: CF OD IK LU; B: TL - (ssc: C: SZ - si: A: PE).

04 0012 (06-15) b: A: SJ - bp: A: TW; B: EB HU - bps: A: AC.

09 1807 (44-27) b: A: BU PE; B: WN - bs: B: HL UB - bp: A: CF OD TK TI LM; B: WI NI VL HB IK EB TL TA KG - bps: A: LG QU; B: DB.

11 1303 (00-09) b: A: IR; B: SW - bp: A: KV TK SS GU; B: MT KA KY GN DU - bps: A: UB - (si: C: KS).

19 1503 bp: A: LM; B: VL MT EB KA KY GN DU - bps: A: OD TK SS TO; B: DO PP - (si: A: LG SF; C: TL?).

24 1944 (41-50) b: A: NU; B: HL SW - bp: B: PE CZ KG - bps: B: LM.

24 2033 (28-40) b: A: SU AE - bp: A: MO VL FU OD EB; B: LE ES WN BU CF AQ CI; C: HB - bps: A: LG IK PE TA LU; B: DB TL SZ LM HR - (si: A: SF; B: BA)

26 2139 (36-40) bp: A: SU TA; B: WN OD IK EB TL SZ LU; C: BU - bps: B: BA.

27 2144 (42-47) bs: A: SO - bp: B: WN VL; C: WI BU CF EB - bps: A: LG - (ssc: HL - si: B: BA).

29 2036 (25-40) bp: B: LE WN VL DB; C: WI CF TL - bps: A: LG; B: DO; C: NI

30 2123 (22-24) bs: A: NU; B: HL - bp: B: DO WN EB KG; C: BU - bps: A: SO; B: LM.

30 2217 (12-20) bs: A: KS; B: BE DB - bp: A: FU; B: WN BU KG - bps: A: SO DO CF OD LG AQ IK EB CI PE AE TA LU; B: TL BA LM HR - (si: A: SF).

MAY

04 2027 (22-40) b: A: TN - bs: A: SO TA; B: BE - bp: A: FU AQ IK EB CI PE LU LM HR AC; B: UB CZ KG - bps: A: BU CF OD LG TL TI SF QU; B: DO WN NI VL DB HB.

08 0925 bs: B: HL - bp: B: KV OD; C: TU HO PP - bps: A: CO VI UB - (ssc: (24-28) C: NE - si: C: BA).

08 2033 (28-36) bp: A: SO LM; B: LE ES WN VL DB CF OD EB TL HR; C: WI BU - bps: B: DO.

14 1959 (50-68) b: B: TI - bs: A: KS - bp: A: OD SF; B: WN VL CF AQ EB TL HR; C: BU SZ - bps: A: LG; B: DO HL BA LU LM - (ssc: A: SO; B: QU TA).

15 1345 (42-46) bs: B: VL LG - bp: B: CF AQ IK HR; C: EB - bps: B: ES WN SZ LU; C: BU.

16 2255 (45-63) b: B: PE - bp: A: CF; B: VL EB TL KG - bps: A: LG BA; B: SZ.

17 0851 (45-55) bs: B: PP - bp: B: MT KA KY DU; C: HO.

TABLE 2 BAYS AND PULSATIONS 1974 - continued

(MAY)

17 1420 (01-39) b: A: TI; B: SW bp: A: SO FU CF HB OD SU LM; B: WN VL IK KG - bps: A: MO WI QU; B: ES NI DB BU - (si: C: BA).

18 1413 (10-20) bp: B: LM DU; C: MT KA KY - bps: B: MO.

22 1959 (50-65) b: A: SF; B: SZ - bs: A: TA; B: HL - bp: A: FU SU EB CI TI LU HR; B: LE WN VL BU OD AQ KG; C: NI HB - bps: A: SO CF LG IK TL; B: DO ES DB BA LM - (si: A: AE TN).

23 1849 (33-64) b: A: SU SF TN AC; C: PP - bs: A: LG TI KS TA; B: HL - bp: A: WN WI OD EB; B: ES CI CZ - bps: A: SO MO DB BU FU CF AQ IK TL QU BA LU LM HR; B: NI VL HB - (ssc: B: SZ - si: A: AE).

24 1930 (24-34) bs: A: TA; B: MO - bp: A: SU EB; B: CZ KG - bps: A: SO VL FU CF OD LG IK PE LU HR; B: WN NI BU HB AQ TL LM - (ssc: B: SZ - si: A: BA).

25 1103 (00-10) b: B: PP - bp: A: UB; B: KV OD DU; C: HO.

27 0057 (40-66) b: A: TI - bs: A: SO KS; B: HL - bp: A: CF AE; B: WN VL BE KV OD AQ IK EB CI TL; C: BU - bps: A: LG PE SF TA BA; B: SZ LU LM.

28 0925 (23-26) bp: A: AC - bps: A: TW; B: HU; C: PP - (ssc: B: SJ).

31 2104 (00-15) bp: A: CF OD AE; B: WN VL EB TL - bps: A: LG TA LU; B: NI LM - (ssc: B: SZ).

JUNE

02 1515 (00-22) b: B: WN SW CF - bp: A: OD; B: BU LM KG - bps: A: MO; B: HL; C: NI.

03 1029 (20-36) b: B: TK bs: B: HL IK LM - bp: A: OD; B: SU EB - bps: A: UB

03 2106 (00-10) b: A: SF; B: CF EB - bs: A: PE; B: BE - bp: A: SU LG; B: VL OD IK TL TI LU LM; C: HR - bps: B: BA.

05 2329 (23-31) bp: A: LG; B: HL VL FU PE; C: WN KV BU CF EB LM.

09 1919 (17-21) bp: B: SO UB IK; C: WN LM - bps: A: TI; B: KV KG - (si: BE).

10 0114 (00-24) b: A: KV TI; B: HL SW; C: TN - bs: A: SU TA; B: BE - bp: A: OD LG IK AE; B: SO WN VL BU FU CF EB CI TL SZ LM; C: WI NI HB LU - bps: B: BA.

11 2104 (00-13) b: A: TI - bs: A: KS; B: PP - bp: A: WN CF OD AQ IK EB SF LM; B: VL FU HB TK TL - bps: A: MO LG TA LU; B: DO BU BA - (ssc: A: SO).

12 0930 (28-36) bs: C: PP - bp: B: HO DU; C: MT - bps: B: TO - (si: B: QU).

13 1520 (09-30) b: A: PE - bs: B: BE - bp: A: CF OD; B: EB LM; C: HB MT KA KY - bps: C: NI - (si: HL).

15 1236 (22-45) b: A: EB PE; C: PP - bs: A: AC - bp: A: OD IK LM; B: WN VL BU TK CI SS TA DU - bps: A: MO TO - (si: A: KS).

15 1704 (57-14) b: A: PE; B: BU; C: TK - bs: A: SO; B: BE - bp: A: OD; B: WN IK QU KG - bps: A: MO.

TABLE 2 BAYS AND PULSATIONS 1974 - continued

(JUNE)

15 2101 (57-06) bs: A: SO - bp: B: WN VL BU CF OD EB TA - bps: A: LG PE; B: DO BA LU.

15 2306 (00-15) b: A: SJ - bp: A: LM; B: EB TA - bps: A: SO AC; B: SZ LU.

16 2252 (48-54) bp: B: WN; C: CF EB - bps: A: AC; B: VL BA LM; C: SZ - (ssc: C: DB - si: B: TA).

18 1325 (20-35) b: A: IR - bp: B: UB OD GN DU; C: KV MT KA SS KY - bps : B: TO.

18 2316 (09-36) b: B: HL SW BE SF - bs: A: TA - bp: A: CF OD SU LG PE LU AC; B: WN WI VL KV DB BU FU UB IK EB CI TL TI SZ LM HR-bps: A: SO BA; B: LE ES.

20 2113 (06-18) b: A: AE TI; B: SW SF - bs: A: SO KS TA; B: HL BE - bp: A: BU CF OD SU TL; B: WN WI VL FU AQ TK EB LM - bps: A: DO LG IK PE QU BA LU; B: NI DB HB.

22 1945 (44-48) b: B: WN; C: BU EB - bps: A: LM; B: SO CZ KG; C: KV.

23 2059 (57-63) bp: B: SO WN BE BU OD QU; C: KV EB LM.

27 1911 (04-23) bs: A: LG KS TA; B: DB - bp: A: OD; B: WN BU IK LM HR CZ - bps: A: CF TL LU; B: - (ssc: C: SZ).

29 1930 (27-36) b: C: TK - bp: B: OD QU LM - (si: B: SZ).

JULY

03 2145 (40-50) bp: B: WN VL KV SU IK HR CZ KG; C: TL - bps: A: LM; B: DO - (ssc: A: SO).

04 0212 (04-14) b: C: TN - bs: A: KS - bp: B: VL LU; C: HB - bps: A: PE; B: WN BU IK TI - (si: B: QU BA).

04 2345 (40-49) bs: A: KS - bp: A: CF OD EB; B: VL - bps: A: BA LU; B: LU; B: LM - (si: C: KG).

12 2034 (20-40) b: A: NU; B: WN FU - bp: A: LM; B: DO BU EB TL TI KG; C NI HB - bps: A: MO; B: ES QU.

14 0301 (52-16) b: A: CO - bp: A: DS HU; B: VI TU LM; C: HO - bps: A; FR PP AC.

14 2114 (06-20) b: A: AE - bs: A: LG - bp: A: PE; B: KV FU CF SU EB CI TL SZ; C: WI - bps: A: IK SF LU LM; B: SO WN VL BU OD AQ QU BA; C: NI HB - (si: A: NU).

16 0314 (11-20) b: B: SJ; C: PP - bs: A: HU - bps: A: AC; B: TW

21 2107 (04-10) bp: B: LE ES VL EB TL LM; C: WI CF - bps: A: SO; C: BA.

22 0733 (27-35) b: B: PP - bp: A: OT; B: VI; C: TU - bps: B: HO.

23 2022 (08-36) bs: B: VL - bp: B: EB LM - bps: A: CF IK TL KA; B:WN FU - (ssc: A: SZ - si: A: SF TA SJ; B: CI).

26 1856 (50-66) b: B: CI - bp: A: LG; B: OD TL LM CZ; C: NI HB - (ssc: B: SO)

TABLE 2 BAYS AND PULSATIONS 1974 - continued

AUGUST

03 2028 (18-43) bs: A: LG KS AC - bp: B: EB - bps: B: WN VL CF TL; C:BU - (si: B: SF).

04 2037 (28-48) bs: A: LG KS - bp: A: OD SU PE TI LU; B: WN KV BU FU CF EB TL HR; C: HB TF - bps: A: IK LM; B: SO DO VL BA; C: NI - (ssc A: TA).

05 0214 (10-20) b: B: SJ - bp: A: HU; B: KV OD SU EB LM; C: TF - bps: A:AC

05 2013 (12-15) bp: B: WN VL CF OD IK; C: EB - bps: A: PE; B: DO LM; C: NI BU - (ssc: B: SO).

06 2020 (17-31) b: A: CI AE; B: TK - bs: A: LG - bp: A: OD IK PE; B: WN BU CF HB EB LM; C: NI TF - bps: A: TL TI; B: SO DO BA.

07 0000 (55-10) b: B: SJ - bs: B: SF - bp: B: WN CF; C: EB TL - bps: A: CI LM AC; B: VL SZ BA HU.

07 1810 (06-17) bp: A: OD PE; B: WN WI VL FU CF IK EB TL - bps: A: SO; B: DO MO BU; C: NI HB - (ssc: C: KG).

12 2104 (00-10) bp: A: NU LG PE; B: SO WN WI VL KV FU OD EB LM; C:CF - bps: A: SU; C: TI BA.

13 2211 (06-20) bp: A: SU LG PE AE; B: WN KV FU OD TF IK EB TI LM; C: CF - bps: B: TA BA.

16 2312 (10-15) bp: A: LG; B: ES VL BU CI LM; C: WN CF IK EB - bps:B:LE

18 2313 (02-21) bp: A: WN OD LG; B: ES VL FU CF HB TF IK EB CI TL BA - bps: A: SO; B: LE BU SZ; C: NI - (ssc: B: LM).

22 1704 (50-16) b: B: CF - bs: A: KS; B: WN - bp: A: OD; B: NI DB BU HB IK EB CZ - bps: B: TL BA - (si: A: TN).

22 2018 (10-33) b: A: EB SF - bs: A: LG KS - bp: A: DB HB OD IK; B:VL QU - bps: A: BU CF TL LU; B: DO WN BA - (ssc: C: NE - si: A: TN).

23 1116 (11-20) bp: A: OD; B: HO LM GN DU - bps: B: PP - (sfe: BA).

23 1825 (20-36) bs: A: SO PE - bp: A: OD CI TL; B: WN BU CF HB IK EB QU LM CZ; C: NI - bps: B: MO BA.

25 2152 (42-60) b: A: AE; B: WN PE SZ - bp: A: CI; B: LE ES VL FU EB TL; C: KV CF BA.

28 0106 (b: A: NU PE AE - bp: A: OD CI; B: WN WI NI VL KV BU FU CF HB AQ IK EB TL LU LM TW - bps: A: TA BA HU AC; B: SZ HR.

28 1653 (50-56) b: A: SU - bp: A: OD; B: WN IK; C: CF EB - bps: B: MO LM; C: NI BU.

29 1024 (19-32) b: B: NE - bp: A: HO; B: MT KA KY DU.

30 1858 (52-66) b: B: TK - bp: A: KV PE; B: WN WI BU OD AQ PP LM GN CZ KG; C: NI HB EB HR - bps: A: UB; B: DO QU - (ssc: A: SO).

SEPTEMBER

02 1941 (35-46) bp: B: IK EB CI - bps: A: LM; B: DO VL CF TL BA LU HR - (si: A: LG SF.

TABLE 2 BAYS AND PULSATIONS 1974 - continued

(SEPTEMBER)

02 2240 (32-42) b: A: AE; B: SZ - bp: A: CF; B: WN BU EB TL KG; C: LU HR

04 2039 (36-47) b: A: TN - bp: B: EB CI AC - bps: A: SO WN CF PE SF TI QU LM; B: DO NI VL BU FU HB AQ IK TL SZ LU; si: B: BA.

07 1914 (09-27) b: B: CF EB TI - bp: A: SU LG PE; B: ES WN BU FU IK CI TL QU LM HR; C: NI HB - bps: B: BA - (ssc: A: SO).

10 0015 (05-18) bp: A: CI; B: LE WN FU; C: BU CF EB - bps: A: VL AE; B: AQ LU - (si: A: TA LM; C: BA).

12 1840 (35-53) bp: A: IK CI PE; B: LE WI VL DB FU CF EB KG; C: TL SS - bps: A: SO DO NU SU AQ LM; B: WN BU TI; C: HB - (si: B: TA).

16 2014 (13-15) bs: A: SO NU - bp: B: LE WN VL FU LM KG; C: NI BU EB - bps: A: DO; C: HB.

20 1500 (45-15) b: A: CF EB TN; B: KG - bs: A: BU PE KS; B: WN - bp: A: HB SU IK TL; B: VL MT CI KA SS KY LM CZ - bps: A: NI QU; B:TA - (si: B: BA).

23 2202 (57-05) b: A: SU - bs: A: AE SF - bp: A: LM; B: WN BU IK EB PE TA LU; C: TL? - bps: A: CI; B: VL CF BA - (si: A: LG).

24 0412 (11-13) bp: A: CF SJ; B: VL EB - bps: A: FR HU AC - (ssc: B:LM TW; C: TL).

25 0109 (06-16) b: A: SU TI - bs: A: SF KS - bp: B: WN VL BU FU CI EB QU LM; C: HB CI - bps: A: LG IK PE BA; B: AQ TL LU HR; C: NI - (si: A: SO AE).

25 2034 (27-36) b: A: SU - bs: A: LG SF - bp: A: EB LM; B: WN VL BU FU - bps: A: CF IK TL PE QU SZ LU AC; B: HB - (si: B: BA).

26 2259 (54-63) b: A: SF - bs: A: SO LG KS BA - bp: A: EB TA LM; B: WN BU CF - bps: A: IK TL PE LU; B: VL.

27 1239 (35-50) bs: A: SO - bp: B: KG; C: MT KA KY - bps: A: SS.

27 1912 (02-22) b: A: SF - bp: A: CF; B: WN VL BU IK EB TL PE SZ LM - bps: A: SO LG; B: ES; C: NI - (si: B: BA).

OCTOBER

01 1306 (05-07) bp: B: MT KA KY DU - bps: A: UB; B: SS GU.

01 1644 (32-56) b: B: WN BU EB TN - bp: A: TK PE; B: VL DB HB IK CI TL QU LM KG; C: NI - bps: B: BA.

02 1808 (56-30) b: A: CF EB - bp: A: PE; B: WN VL BU FU HB IK TL LM C: HR - bps: B: NI BA - (ssc: B: SO).

02 2050 (43-57) b: A: EB - bs: A: LG SF KS - bp: A: PE; B: DB LU PP LM HR - bps: A: WN CF HB; B: VL BU FU TL QU.

03 0131 (27-36) b: A: SJ HU; B: SF - bp: B: EB - bps: A: AC; B: TW.

TABLE 2 BAYS AND PULSATIONS 1974 - continued

(OCTOBER)

04 2203 (50-22) bp: A: CF; B: DO ES WN DB BU FU SU AQ IK EB PE TI SZ LU LM HR; C: TL - bps: A: LG; B: LE VL BA; C: NI - (si: A: SF - cr: B: PP).

07 2002 (56-04) bs: B: BA - bp: A: TI; B: WN VL FU; C: BU CF - bps: B: SO DO.

08 1827 (25-30) bp: A: HB IK CI TI; B: SO WN VL BU FU EB TL CZ KG; C: NI MT KA KY HR - bps: A: UB TK LM GN; B: QU - (ssc: B: SO).

09 1917 (13-24) bp: A: TK EB TI LM; B: WN NI VL BU FU HB CI TL KY CZ KG; C: MT KA - bps: A: QU LU HR - (ssc: A: SO).

10 2135 (27-37) b: A: AE - bp: A: LG PE; B: VL CF AQ EB TI LM; C: WN - bps: B: SO BA.

18 1919 (11-28) b: A: SF - bp: B: EB - bps: A: WN CF HB IK TL PE; B: BU FU LU HR - (si: B: BA).

22 1907 (01-17) b: A: SF; B: SZ - bs: A: AE - bp: A: NU CF SU PE; B: WN DB BU FU HB EB CI TL CZ KG; C: NI - bps: A: DO - (ssc: B: SO).

24 2049 (36-64) b: A: CF; B: WN - bp: B: IK EB CI TL LM; C: BU - bps: B: BA.

28 2141 (30-57) bs: A: KS; B: SZ BA - bp: A: CF EB AE; B: VL TL - bps: A: LG PE LU; B: LM - (ssc: A: SO).

NOVEMBER

01 2125 (18-40) b: B: TI - bs: A: KS - bp: A: WN CF OD; B: LE ES WI VL KV BU FU HB AQ TF IK EB CI PE QU SZ LM; C: TL - bps: A: DO SU; B: MO; C: NI.

03 2156 (47-65) b: B: SF - bp: A: LG PE; B: LE WI VL KV CF OD IK EB; C: WN TF TL - bps: C: NI.

10 2312 (07-15) b: A: SF TI - bs: A: KS - bp: A: SZ; B: VL TF TK EB LU;C: WN - bps: A: PE.

17 0139 (31-62) b: A: LG AE SJ - bs: A: SZ; B: EB TL - bp: A: CF HU - bps: A: AC TW; B: BA.

18 0930 (28-36) b: B: UB; C: NE MT KA KY PP - bps: A: VI; C: TU.

18 1754 (42-60) b: A: SU; B: IK - bs: B: IR - bp: A: AE; B: OD TK; C: KV KY.

19 0130 (28-32) bs: A: TW; B: HU - bp: B: UB; C: EB LU - (ssc: B: BA; C: TI - si: B: TA).

20 1854 (51-57) bs: A: SO - bp: B: WN IK EB; C: BU TL - bps: A: LG; B: DO VL; C: CF.

22 1503 (50-18) b: B: TK - bp: A: UB OD TI; C: MT TF KA KY - bps: A: MO.

24 1530 (17-42) b: B: BU TK EB - bp: A: UB OD SU TI; B: HB IK LM KG - (si: B: BA).

TABLE 2 BAYS AND PULSATIONS 1974 - continued

(NOVEMBER)

24 1717 (10-20) b: B: EB - bp: A: OD; B: WN VL BU CF SU LM - bps: A: SO TI; C: HB - (si: B: BA).

24 2048 (46-50) bp: A: CF LG EB LU; B: VL IK TL HR - bps: A: SO TI; B: BA

25 2228 (24-30) bp: A: AC; B: ES WN FU EB LM CZ; C: BU SZ - bps: B: VL CF IK BA LU HR; C: TL TA - (si: A: LG).

27 2148 (44-50) b: B: SZ - bs: A: SO SF KS - bp: A: OD SU LG IK; B: LE ES WN WI VL DB FU EB TL LM; C: BU TF - bps: A: AE; B: DO KV CF AQ TI BA - (si: B: TA).

DECEMBER

02 0311 (08-16) b: A: SJ HU; C: TU - bp: A: AC TW; B: NE SZ.

03 1848 (47-50) bp: A: AQ; B: WN VL DB FU EB LM - bps: A: UB CF TI; B: LE; C: BU - (ssc: A: SO - si: C: TK).

05 1900 (52-08) b: A: IR - bs: A: SO KS - bp: A: DO NU OD SU IK PE SF TA; B: LE ES WN WI VL KV BU FU CF HB AQ TF TK EB TL LM HR CZ KG - bps: A: MO UB TI; B: DB QU LU; C: NI BA.

08 1335 (30-44) bp: B: KV MT KA KY GN - bps: A: UB.

09 1126 (20-40) bp: A: OD; B: SO MT KA SS KY PP.

09 1558 (48-66) b: A: SF - bs: B: CF - bp: B: WN BU - bps: A: OD QU LU B: MO HR.

09 1748 (43-60) b: B: SF - bp: B: VL - bps: A: WN CF OD QU; B: MO TL; C: BU (si: A: LG).

10 1720 (15-28) b: B: TK - bp: A: OD SU IK PE; B: TA; C: DB HB TF - bps: A: MO LG; B: TI BA.

11 1929 (20-44) bs: A: SF; B: BU SZ; C: NI - bp: A: SO WI CF OD EB TL PE B: ES WN VL DB FU HB TF TK CI LU LM HR CZ - bps: A: DB LG IK TI; B: DO LE KV QU TA BA.

12 2128 (20-46) b: B: TK - bp: A: SO UB OD LG PE; B: LE ES WN WI VL FU CF TF IK EB TL QU; C: DB HB - bps: B: TI; C: NI.

13 1730 (18-35) bp: A: EB; B: TA LM - bps: A: CF OD; B: WN VL DB BU TL QU LU HR - (si: B: BA).

13 1921 (08-31) b: B: QU - bs: B: DB - bp: A: OD EB TL; B: WN VL TA LM HR - bps: A: CF; B: DO BU LU - (si: B: BA).

15 1713 (00-20) b: A: CI AE; B: WN BU TK - bp: A: UB OD; B: KV TF IK EB TL TI QU; C: DB - bps: A: MO.

15 2207 (56-15) b: B: QU - bp: A: OD PE AE TA; B: KV CF AQ IK EB TI LU HR; C: SZ LM - bps: A: LG; B: BA.

16 1817 (00-20) b: A: PE; B: TK EB - bp: A: OD IK; B: LE ES WN WI VL KV DB BU CF AQ EB CI TI QU; C: TF TL.

TABLE 2 BAYS AND PULSATIONS 1974 - continued

(DECEMBER)

18 1707 (56-11) bp: A: WN LU; B: VL EB LM HR - bps: A: MO CF HB OD LG; B: DB BU FU TL BA.

19 1854 (48-60) bp: B: WN EB; C: BU - bps: A: CF; B: VL DB LU HR; C: TL - (ssc: A: SO - si: A: SF).

21 2018 (12-21) b: A: SF - bp: A: PE AE; B: WN VL BU OD IK EB - bps: A: CF LG;; B: TL - (ssc: A: SO - si: B: BA).

23 1858 (54-66) b: A: AE SF - bp: A: OD; B: WN BU EB - bps: A: SO PE; B: CF IK TL.

24 1616 (00-25) b: A: PE TI; B: CF TK - bp: A: UB OD SU; B: TF IK QU KG; C: DB - bps: B: MO.

24 2102 (51-09) b: A: AE SF; B: TK - bs: B: BA - bp: A: SO CF OD SU LG IK TL PE TI; B: WN WI KV DB BU FU HB AQ TF EB CI QU TA LU LM HR; NI - bps: B: SZ.

25 1945 (40-54) b: A: SF - bs: A: DB LG PE KS; B: SZ - bp: A: WI SU TI LM; B: KV AQ TF QU CZ KG; C: NI - bps: A: WN CF OD IK EB TL LU; B: DO VL BU HB FU CI TA HR - (ssc: B: BA - si: A: AE).

27 1053 (50-60) b: B: TK - bp: A: UB; B: MT KA KY PP.

31 1919 (11-21) bs: A: SO - bp: A: NU OD IK; B: WN VL BU AQ PE KG; C: TF EB - bps: A: TI; B: QU.

TABLE 3 SUDDEN IMPULSES (si) 1974

Times of commencement of sudden magnetic changes or impulses (si) which could not be classified as ssc, bp, etc. For explanation: see page X.

JANUARY

10 1533 (27-37) A: VL LG LM; B: LE ES HL WN BE KV FU AQ PE TA; C: WI BU EB LU - (ssc: A: MA; C: CF IK SZ BA).

FEBRUARY

13 0727 (26-29) A: SU LG; B: LE ES BE HB LM; C: TL? - (ssc: B: WN MA; C: VL BU - sfe: HL).

MARCH

10 1615 (13-17) A: FU SF; B: ES HU - (ssc: B: WN VL LM; C: BA - bp: B: OD - bps: A: AC).

APRIL

none

MAY

07 1320 (15-25) A: FU SF; B: OD TL QU; C: MT KA SS KY TA.

17 0514 (12-16) A: FU SF; B: MO WN VL BU HB OD AE BA LU; C: NI - (ssc: A: LM).

JUNE

none

JULY

04 1734 (32-36) A: SF BA AC; B: MT KA KY QU PP.

AUGUST

02 1704 (54-06) A: OD PE SF SS TA GU LU HU TN AC TW; B: ES WN WI BU FU MT IK EB CI TL KA KY QU BA PP - (ssc: A: SZ; B: VL CF LM KG).

15 1432 (28-34) A: SO AE KS QU; B: WN WI VL BU FU OD IK EB TL SF TI SZ?TA BA LU HU LM AC - (ssc: B: KV - bs: A: NU - sfe: NI HB).

29 1108 A: LG; B: BA PM - (ssc: B: TA HU - bp: B: OD - cr: PP?).

SEPTEMBER

14 0110 (08-14) A: LG QU; B: EB LU; C: TI BA - (bs: B: HU - sfe: IK TN).

19 0025 (21-30) A: LG PE SF TA; B: EB LU - (ssc: A: QU; B: BA; C: SZ - bs: A: CF)

TABLE 3 SUDDEN IMPULSES (si) - continued

(SEPTEMBER)

21 1245 (34-46) A: SF SS AC; B: KY QU BA LU PM; C: MT EB TL TA KA - (ssc: A: SJ GU; B: SO TU HO - bps: B: PP).

OCTOBER

none

NOVEMBER

none

DECEMBER

02 1722 (21-25) A: OD AC TW; B: WN VL FU BU BA HU HR; C: TL - (ssc: A: LG QU B: TK IK PE TI LU LM; C: AQ.

02 2034 (33-35) A: AC TW; B: TI BA HU.

07 0647 A: SF TA; B: IK QU AC; C: BA LU - (ssc: C: SU - bs: B: LM - sfe: AE)

16 2354 (52-58) A: SO LG IK PE AE SF TI KS QU BA LU HR AC; B: MO KV BU FU AQ TF EB TL? PM; C: NI TU KY- (ssc: A: TK TA; B: WN VL OT SU LM; C: DB HB SZ - sfe: CF).

28 0138 (35-40) A: AC; B: TA TW; C: BA - (ssc: B: PM - b: A: AE - bs: B: HU - cr: B: PP?).

TABLE 4 GIANT PULSATIONS 1974

Times of commencement and ending of presumed giant pulsations (pg) checked by 53 observatories, namely: LZ SO CO DO YA NU SI SV WN NI VL BE GT DB BU FU NE OD MT LG AQ IK EB CI TL FR PE SM KA KS SS DS TU KY QU HO SJ MB MU GU PM HU AP PP GN HR TO AM CZ KG MI MW SB. 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 5 γ . Beginning or ending times of the reported phenomenon are given in square-brackets if clearly deviating from the times at the left. See also page X1.

JANUARY

none

FEBRUARY

12 1512 -1540 A: CO(4.7-5) FU OD(10-6) LG; B: SI(5-8) WN(4.5-12) VL(3.8-15) DB BU (4.6-8) AQ(4-2) CI TU(4-4) MU GN(7-5) HR(4.1-4); C: SO DO SM HO MB GU TO MI MW; D: 8; E: NU BE PE HU - (pi2: C: SS(0.8-0.08) CZ(1.2-6) - pc: A: FR(0.8-16); B: SV(4.5-4) GT(0.6-8) DS(0.5-3) SJ(1-2); C: NE(0.8-2) AP KG(1.5-11) SB - pc4: B: NI; C: YA(1-1) pc5: B: NI PP(8.3-); C: LZ - pc3+pc4: C: TL; pc5: EB(4.2-20).

MARCH

10 0400 -1330 A: FU[0840-] OD[0420-1410] (3-6) LG MU; B: SO DO(2-12) NI BE DB MW (5-150); C: BU(5.3-12) CI HO PP GN TO MI; D: 6; E: IK KS HU HR; X: PE QU - (pi2: B: SV(3.5-8); C: CO(5.3-50) - pi1+pi2: NU - pc: AQ? - pc: A: GT(0.6-1) FR(4.4-17); B: SI(1-7) SV(0.8-6) NE(5.7-18) SM DS(0.5-1) TU (4-4) SJ(1-1) GU(1-1) SB; C: SS(0.3-0.1) KG(1.2-10) - pc3: B: WN [0843-1245](0.7-10) VL; C: TL - pc4: B: YA [0000-0900](1.2) - pc5: B: LZ[0200-] YA [0900-0915](3.3-30) NI - pc+pi: A: AM - pc2+pc3+pc4+pc5: C: EB PP - pc3+pc4: A: FU - pc4+pi: B: AP.

APRIL

none

MAY

05 0915 -1200 A: FU OD(4-5) LG; B: SO NI DB BU(4.5-16) AQ[1120-] TL[1124-] (5-7) KS (-10) QU MU KG(1.8-18); C: DO WN IK CI SM TU(8-4) SJ MB PM - D: 8 - E: CO YA NU BE NE FR PE HR MW SB; X: MI - (pi2: B: SV(5-15); C: SS(1-0.05) - CZ(0.7-4) - pc: B: SV(3.5-4) GT(0.7-1) DS(0.6-1) HO(0.7-1); C: GU(1-1) AP AM - pc3: A: NI - pc4: A: FU - pc5: A: LZ; B: SI(0.5-5); C: NI PP.

20 0015 -0025 A: SI(4-50) AM(-18); B: NI NE(3.9-31) OD [-0210](9-6) DS(3-4) TU (4 -5) QU; C: NI LG SM HO(4-3) SJ PM GN MI MW SB; D: 23; E: LZ SO BE FR; X: PE MU - (pc: A: CO(3.2-58) AP; B: GU(0.7-1); C: SS(0.5-0.04) - pc3: B: YA(0.3-3).

31 0920 -1830 A: DO(4-30) DB FU OD(5-8) LG MU; B: SO SI(4-20) NI VL [1320-1426](4.6--16) BE AQ [1310-1340](4-3) CI TL(3-6) SM DS(4-6) QU PP(2-) HR [1320 - 1415](4.1-6) KG(2.1-15); C: IK TO MI; D: 6; E: CO NU PE KS MB HU MW - (pi2: A: FR(1.8-30); B: SO SV(3.5-12) GU(0.8-1) - pc: A: FU; B: GT(0.7 - 1) BU(3.8-10) NE(5.3-13) SS(0.5-0.1) TU(5-5) HO(0.5-1) SJ(2-3) AP AM SB - pc2: A: WN [04..-1145](0.2-2) - pc4: B: NI - pc5: B: YA(3.3-6) WN [1310-1350](5-20) NI EB [1322-1352](4-22); C: LZ [1045-1705] PP).

TABLE 4 GIANT PULSATIONS 1974 - continued

JUNE

16 1200 -1700 A: FU [1420-] OD [1420-] (5-7); B: DO(4-20) NI DB FU [1420-] LG TL[1418-] (5-5) QU MU; C: SO BU?(3.5-7) AQ CI HO GU HU HR(4.5-20); D: 14; E: CO BE PE SS; X: PP - (pi2: B: NU SV(4-7) KS(-3) - pc: B: SI(1-5) GT (0.6-1) DS(0.7-1) TU(9-6) SJ(4-1); C: NE(1.3-4) FR(0.7-2) SM AP AM - pc3: A: FU - pc4: B: YA(1.0-3) VL - pc5: B: LZ [1418-1517] (5.0-6) SI (1-5); C: WN [1420-] (6-13) NI).

18 0500 A: CO(18-117); B: SI(15-35) NE(27-9) MU; C: DO OD LG QU HO; D: 30; E: BE; BE; X: SM PP - pc: B: SV(1-3) GT(0.5-1) DS(1-1) TU(1-1) AM; C: FR(0.9-2) GU - pc3: C: LZ - pc4: YA(1.0-3) NU.

JULY

19 1555 -1705 A: NU [-1620] (0.8-33); B: LG MU GU(1.5-4); C: LZ [-17..] DO SI(11-7) WN SM DS(5-2) TU SJ(5-1) HU HR(6.3-2) MI; D: 25; E: BE; X: PE-(pi2 : EB; B: SV(1.5-9); C: SO [-1600] GT(0.7-) SS(1.3-0.1) CZ(1.8-1) - pc: A: CO(2.2-14); C: FR(7.7-4) - pc4: FU - pc5: PP(8.3-).

AUGUST

11 0916 -0929 A: DO(2-30) NU(1.6-9) FU OD(3-8) MU CZ(1.8-13); B: SO NI DB QU GU (2-3); C: SI IK CI SJ(1-2) HU GN MW; D: 15; E: CO PP; X: BE GT-(pi2 A: WN(1.3-15); B: SO SV(2-5) VL AQ KS(-2) HR(1.8-4); C: TL? SM? - pc: B: FR(2-6) DS(0.7-1); C: NE(1.1-2) TU(-1) AM - pc5: C: LZ [-1116]

20 1010 -1028 A: DB FU [0820-1440] OD [09-1320] (6-7) LG MU; B: SO SI(9-105) VL[0925-] (3.8-9) AQ [09..-15..] CI TL [0910-] (4-5) SM KS(-12) QU; C: IK PM HU HR (4.3-3) KG(0.8-4); D: 7; E: CO DO NU BE NE FR MB MW; X: PE-(pi2: A: HO(0.7-8); B: KS(-3) GU(1-2) PP - pc: A: GT(0.7-1); B: SV(1-7) DS (1-1) TU(1.3-1) AP AM; C: BU(4-5) SS(0.3-0.06) TU(1.3-1) SJ(4-2) SB - pc3: B: TL - pc5: B: LZ [03..-13..] ; C: WN [0815-1135] (5-12) NI EB [1005-1028] (4.2-18).

SEPTEMBER

none

OCTOBER

23 2200 -2340 A: NI DB FU OD(5-8) LG AQ(6-5) CI TL(5-6) QU(-9) MB(5-20) MU; B: SO NU(6.3-8) WN(6-12) VL(5.6-13) GT (7-7) IK EB(6.7-35) FR(6-9) KS (-12) DS(5-5) TU(4-6) HO(6.5) SJ(5-4) GU(6-7) GN(5-5) HR(6-7) TO(6-8) MI(6-50); C: DO PM CZ(5.3-6) KG(4.8-8); D: 5; E: BE PE HU - pi2: A: SV(7-10); B: NE(0.8-19) - pc: A: SI(1.5-7) AP AM SB; B: CO(4.6-51) BU (6.3-7); C: SM SS(3-0.04) - pc5: A: YA(6.6-24); B: LZ SO NI PP(5-).

28 0410 -0435 A: SI(9-40); B: MU; C: SO CO(11.6-87) DB LG DS TU QU SJ; D: 28; E: BE FR MW SB - (pi2: B: KS(-2) GU(1-2); C: SS(1-0.06) KG(1.5-5) - pc: B: NE(10-14) OD HO(1-1) AP; C: AM - pc4: B: YA [0427-0440] (1-6) - pc5: B: LZ [0425-0528]).

NOVEMBER

22 1446 -1820 A: SI(0.6-10) FU LG; B: WN [-1502] (6.5-15) DB AQ [-1500] (5-3) CI TL (5-6) KS 17..-18.. QU MU PP? HR(-4); C: NI DO OD IK MB PP?; D:

TABLE 4 GIANT PULSATIONS 1974 - continued

(NOVEMBER)

22 1446 -1820 8; E: LZ CO NU BE PE HU MI MW - (pi2: A: NE(0.9-25); B: SV(5-6) VL FR(0.7-11) KS(-2); C: SS(0.7-0.04) CZ(0.7-2) - pc: A: HO(0.7-1) AP; B: GT(0.6-1) TL DS(0.7-2) TU(1-2) SJ(2-1) GU(0.5-1) AM; C: SM - pc4: B: YA [-1620](1.3-3); C: NI - pc5: B: SO EB(5-35) PP(3.3-); C: NI - pc +pi: A: SB - pc3 + pc4: A: FU; B: PP.

DECEMBER

19 1143 -1155 A: SO DB FU OD(6-12) LG AQ(4-8) CI TL(5-11) PE(4-16) QU(5-13) MU; B: LZ [-1208] DO(4-50) SI(5-50) WN(4-25) VL(3.4-27) BE(5.3-27) BU(4.1 - 14) IK(4.5-15) EB(4.5-30) DS(4-10) TU(4-10) SJ(4-6) MB(4-12) GU(5-7) PM(5-6) GN(5-13) HR(-5) AM KG(4.2-66); C: NI HO CZ(5.3-20); D: 4; E: CO NU KS HU MI MW SB - (pi2: A: SV(5-29) - pc: A: NE(4.8-19) AP; B: GT (0.5-1) FR(4.5-23); C: SM SS(4-0.1) - pc3: B: PP - pc5: A: SO YA(6.6-19); B: PP - pc5: A: SO YA(6.6-19); B: PP(4.2-); C: NI).

TABLE 3 SUDDEN IMPULSES (si) - continued

(SEPTEMBER)

21 1245 (34-46) A: SF SS AC; B: KY QU BA LU PM; C: MT EB TL TA KA - (ssc: A: SJ GU; B: SO TU HO - bps: B: PP).

OCTOBER

none

NOVEMBER

none

DECEMBER

02 1722 (21-25) A: OD AC TW; B: WN VL FU BU BA HU HR; C: TL - (ssc: A: LG QU B: TK IK PE TI LU LM; C: AQ.

02 2034 (33-35) A: AC TW; B: TI BA HU.

07 0647 A: SF TA; B: IK QU AC; C: BA LU - (ssc: C: SU - bs: B: LM - sfe:AE)

16 2354 (52-58) A: SO LG IK PE AE SF TI KS QU BA LU HR AC; B: MO KV BU FU AQ TF EB TL? PM; C: NI TU KY- (ssc: A: TK TA; B: WN VL OT SU LM; C: DB HB SZ - sfe: CF).

28 0138 (35-40) A: AC; B: TA TW; C: BA - (ssc: B: PM - b: A: AE - bs: B: HU - cr: B: PP?).

TABLE 5a SOLAR-FLARE EFFECTS (sfe) 1974

Times of commencement of solar-flare effects (sfe) checked by 63 observatories, namely: SO CO DO YA NU SI SV WN NI VL BE GT CM RA DB BU FU VI NE HB OD OT MT LG AQ TK IK EB CI TL FR PE SM AE KA KS SS DS TU KY QU SZ HO SJ HD MB MU GU PM HU AP PP GN HR AC TO AM TW CZ KG MI MW SB. Stations from which the monthly reports have been used, although their check-lists were not received, are the following ones: MO HL WI CF UB SU TA BA TN LM. Strong effects are marked by an asterisk. See also page XI.

JANUARY

none

FEBRUARY

none

MARCH

none

APRIL

13 0525 A: CM OD LG TK GU - B: YA NU SV GT (VI) (OT) PE SS HD PM TO - C: DO WN BE DB RA BU HB IK KS MU AP - D: FU MT EB KA KY GN HR CZ KG MI MW - E: SO CO NI AQ (DS) (PP) - X: QU.

16 0737 A: CM LG KS MU - B: SV WN BE GT RA OD AQ IK EB AE HD PM - C: DO YA NU NI BU TK SS MB GU HR - D: SO VL DB FU HB MT CI SM KA KY GN TO CZ KG MW - E: {CO} TL (DS) (PP) - X: QU SZ - (b: B: PE)

16 1622* A: CM LG CI FR DS TU HU AC -B: SI VL VI OT (QU) SZ MB (MU) TW - C: WN GT RA BU NE EB TL SM AE HO PP- D: SO DO NU NI BE DB FU HB OD AQ IK PE SJ - E: (CO).

MAY

01 1524 A: DO WN LG AE {QU} SZ HU - B: SO VL GT DB BU FU OD OT AQ {TK} CI TU SJ MB (GU) {PP} AC TW - C: NI VI HB IK EB TL DS HR - D: NU CM NE FR SM KS - E: CO SI BE - X: RA - (b: A: PE; B: (HD)).

JUNE

none

JULY

02 0732 A: WN CM? GT OD PE KS MU - B: YA NU SV BU {VI} HB SS HD GU [TN] HR - C: NI DB LG AQ IK TL SZ PM GN - D: DO VL MT EB KA KY KG SB - E: SO {CO} {SI} BE RA (NE) AE (TU) (DS) (HO) MB (PP) CZ {MW} - X: CI QU - (si: SM? BA).

03 0831* A: WN CM OD AQ TK AE QU HD HR - B: YA SV [WI] GT DB BU HB IK EB MU - C: SO DO NI BE LG SM SS SZ GU - D: NU VL MT KA KS KY GN CZ KG - E: {CO} {SI} TL (TU) (PP) - X: RA CI - (b: B: PE MB).

04 0647* A: LG - B: WN NI CF HB [SU] MT IK EB AE KA SS KY QU HR - (ssc : A: [UB] [LM] - si: A: LU; B: [MO] WI VL KV BU FU OD AQ TL[TA]GN; C: [BA]).

TABLE 5a SOLAR-FLARE EFFECTS (sfe) - continued

04 1351* A: SI WN GT CM VI NE HB OT AQ IK CI FR AE KS SZ MB HR AC TW - B: SO SV [WI] NI VL LG EB DS SJ HU [TN] - C: CO DB TL TU - D:QU - E: TK HD MW SB - X: RA SM - (si: A: BE FU OD PE; B: BU; B: BU C: DO?).

AUGUST

none

SEPTEMBER

09 1413* A: DO NU {SI} SV DB FU OT LG FR PE AE SZ - B: SO (YA) WN GT VI OD EB CI DS TU {QU} SJ HU AC TW - C: NI VL BE RA BU HB AQ IK SM - D: CM NE TL - E: KS - E: MB.

09 1436* A: DO NU SV DB FU OT LG FR PE AE SZ AC TW - B: SO WN GT OD CI TL DS TU {QU} (HD) SJ HU - C: SI NI VL BE RA BU VI NE HB AQ IK EB SM - D: CM HR - E: KS (PP) - X: MB.

OCTOBER

11 0327* B: YA SV [UB] MT TK KA SS KY QU HO HD GU PM AP GN TO; C: MU AM CZ - D: KG MI MW SB - E: PP.

NOVEMBER

05 1534 A: CM OT FR DS TU AC - B: LG CI SJ HU HR - C: WN VL EB AE SZ MB TW - D: DO NU NI GT DB BU VI FU HB AQ TL PE - E: (HD) {PP} - X: SM.

DECEMBER

none

TABLE 5b DOUBTFUL SOLAR-FLARE EFFECTS (sfe) 1974

Times of commencement of presumed solar-flare effects checked by 63 observatories, the same as for Table 5a. Effects which very probable are real sfe's are indicated by an asterisk. See also page XI.

JANUARY

12 1030 A: CM (MU) - B: (YA) HR AC TW - C: BE BU OD IK AE QU SZ MB - D: SO DO NU SV WN NI VL GT DB FU HB LG AQ TK EB CI PE SM KS HD GN KG MW SB - E: (CO) (PP) - X: RA CZ.

23 1714* A: VI HU AC TW - B: (DO) (YA) (WN) (GT) NE (FU) (OD) OT FR (PE) DS (QU) SZ SJ PP [(TN)] (MW) -C: SI CI MB AP HR - D: CM HO SB - E:MU - X: BA LG TU CZ - (b: HD).

FEBRUARY

07 1933 A: (MU) TW SB - B: OT HU AM - C: SI VI FR DS HO SJ PP - D:NE TU AP MI - E: CO - X: RA SM QU AC - (b: (HD)).

19 1546 A: OT FR HU - B: (NU) (SI) (SV) WN VL DB VI DS TU (QU) (HO) (MU)(GU) AC TW - C: DO NI NE SM SZ SJ - D: GT CM BU FU HB LG AQ EB CI TL PE AE HR SB - X: RA - (b: B: HD; C: SO? OD - bs: C: MB).

MARCH

02 1059* A: (VI) LG PE KS SZ - B: NU WN [HL] GT OD (OT) - C: SV NI BE DB RA FU HB AQ TK KI CI SM MB TW - D: DO VL CM BU EB TL AE SJ HD HR AC CZ KG MW - E: SO (CO) (SI) (DS) (TU) (PP) - X: QU.

APRIL

13 0751* A: SV CM LG MU - B: YA WN BE GT RA BU AQ TK EB HD HR - C: NU NI FU OD SS SZ - D: SO DO VL DB HB MT IK CI TL PE SM AE KA KS KY MB GU PM GN CZ KG MW - E: (CO) (PP) - X: QU.

13 1046 A: CM KS - B: SV WN HR - C: SO NU NI BE GT DB RA BU FU OD TK SZ SJ KG - D: DO YA VL HB LG AQ IK EB CI TL PE SM AE HD MB AC CZ MW - E: (DS) (PP) - X: QU.

15 1308 A: CM KS - B: WN GT RA AQ CI AE PE - C: SO SV NI BE BU OD LG IK FR DS SZ MB HU HR - D: DO NU VL DB NE FU OT EB TL SM TU QU SJ AC TW CZ - E: (PP).

MAY

none

JUNE

02 0426 A: TK PE GU - B: YA OD SS HD MU AP TO - C: NU WN RA MT IK KA KY HO - D: DO NI CM DB FU KS PM GN AM KG MI - E: SO CO SI SV BE GT BU HB AQ (EB) (FR) (AE) (DS) (TU) (SJ) (MB) (PP) (MW) - X: QU CZ

JULY

03 0309* A: GU - B: YA MT TK KA KY HD - C: WN NI NE SS HO PM MU - D: SO DO NU SI SV VI HB OD IK KS QU AP GN TO AM MI - E: CO BE RA PP - X: CI.

TABLE 5b DOUBTFUL SOLAR-FLARE EFFECTS (sfe) 1974 - continued

(JULY)

07 1210 A: SV CM KS - B: YA NU WN {VI} OT DS {TU} QU (HO) MB (GU) (PP?) HR - C: SO NI BE DB RA BU NE LG SZ HU CZ - D: DO VL GT HB TK IK CI TL FR PE SJ AC TW - E: CO {SI} AQ EB AE (MW) (SB) - X: SM - (ssc: HD - si: B: OD - b: B: (AP); C: (AM)).

AUGUST

17 1435* A: LG KS - B: SO WN GT DB VI FU OD OT {TK} DS TU [CF] {QU} SZ (MU) HU AC TW - C: DO NU SI SV NI BE RA BU HB AQ EB CI FR AE [BA] SJ MB HR - D: VL CM NE IK TL SM - E: CO (PP) - X: PE.

SEPTEMBER

10 2134* A: {MU} HU AP PP - B: (NU) DS TU (QU) HO - C: SI VI NE SS SJ GU - D: CO YA OT MT FR KA KY PM AC TO AM TW MI SB - E: (HD).

OCTOBER

11 1016 A: CM KS - B: WN {OT} QU HR - C: SO NU SV BE GT RA OD LG TK SZ - D: DO NI VL DB BU FU HB AQ IK EB CI TL PE SM AE HD MB GN AC TW CZ KG MW SB - E: (PP).

11 1123 A: GT - B: DO NU WN BU OD {OT} LG AE (DS) - C: SO SV NI VL BE DB RA HB AQ TK EB CI TL SM QU SZ SJ - D: CM IK PE KS HD HU HR AC TW CZ KG MW - E: (PP) - (si: B: FU).

11 1438 A: CM HU - B: OT DS TU TW - C: WN BE GT DB RA LG SM SZ SJ HR AC - D: SO DO NU NI VL BU NE FU HB OD AQ IK EB CI TL FR PE AE KS MB CZ - E: (PP).

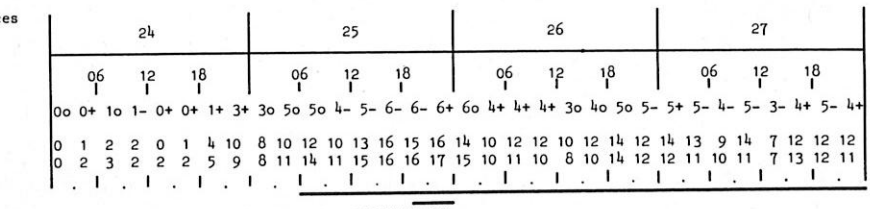
11 1731* A: SI OT HU - B: TU (QU) HO SB - C: VI NE LG EB CI FR DS SZ SJ PP AC TW - D: VL TL SM AE MB AP - E: CO.

12 1145 A: CM SZ - B: WN GT LG AE QU SJ HD (MU) TW - C: BE RA BU IK MB HR AC MW - D: SO DO NU SV NI VL DB HB OD AQ TK EB CI TL FR PE SM HU CZ KG SB - E: KS (PP) - (ssc: FU).

NOVEMBER

none

DECEMBER



JANUARY 1974

Data from Individual Observatories:

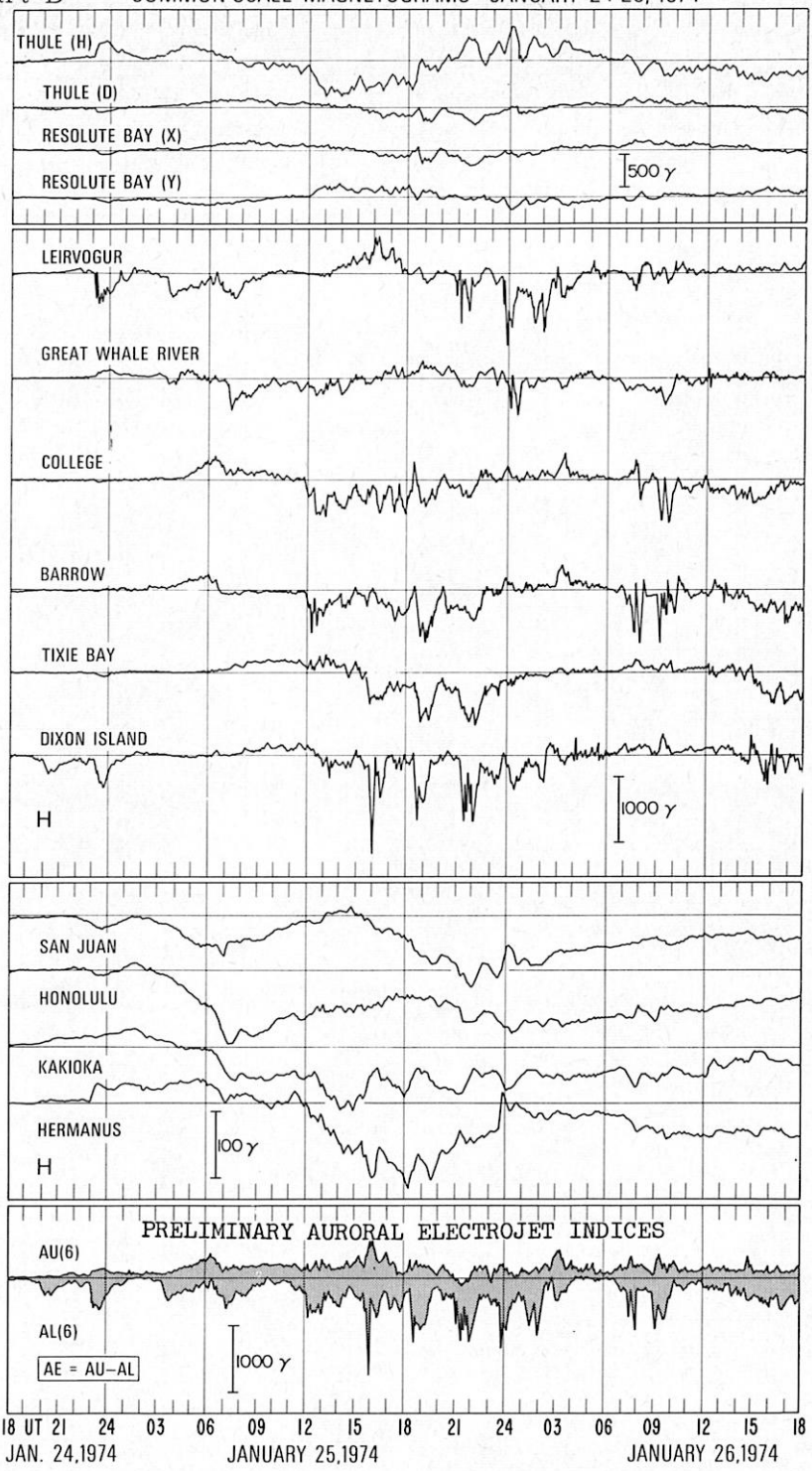
OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
RB	83.0N	24	2000	..	..	..	..	25(7)	-	405	411	164	27	00
MX	79.1N	24	2200	..	..	..	..	25(7)	-	411	372	219	26	06
BL	73.8N	24	2000	..	..	..	..	25(7)	-	387	926	688	27	00
CH	68.8N	24	2100	..	..	..	..	26(5)	-	665	949	725	27	00
GH	66.8N	24	2000	..	..	..	..	27(1)	-	284	945	1293	27	12
JO	58.7N	24	2258	..	..	..	..	25(8)	6	44	170	285	27	11
OT	57.0N	24	1652	SC	+ 1.1	- 6.0	+ 3.2	25(2) 26(1)	6	42	265	213	26	18
NE	55.1N	24	21--	..	..	..	..	27(1)	5	36	135	160	28	10
VI	54.3N	24	----	..	..	..	..	25(3,6,7) 26(2,3)	5	24	124	152	28	12
WI	54.2N	24	2259	SC	+ 3	+ 26	0	25(6,7,8) 26(1,7)	6	35	230	115	28	02
OS	43.0N	24	20--	..	..	..	..	26(1)	6	21	126	40	28	09
TU	40.4N	24	21--	..	..	..	..	25(8)	6	14	125	25	27	12
MT	34.0N	24	23--	..	..	..	..	25(5,6,7,8) 27(4)	5	12	109	22	27	13
KA	26.0N	24	23--	..	..	..	..	25(3,5,6)	5	8	118	52	27	13
HB	21.3N	24	2259	SC	+ 1.6	+ 7	..	25(8)	6	3	91	24	31	24
HO	21.1N	24	23--	..	..	..	..	25(3)	5	07	119	32	27	12
KY	20.5N	24	23--	..	..	..	..	25(3,5,6,7)	5	7	139	55	27	13
AL	09.5N	24	2255	SC	- 0.4	9	- 3	25(5,6,7)	6	4	168	18	26	01
HO	7.6N	24	2300	..	..	..	..	25(5,6,7)	6	4	175	24	27	11
AN	01.5N	24	2255	SC	- 0.5	8	3	--	-	4	208	61	26	01
TV	01.1S	24	2255	SC	0.0	9	11	--	-	3	226	123	26	01
HR	33.7S	24	23--	SC	..	..	..	25(5)	6	32	158	162	28	03
GN	43.3S	24	23--	..	..	..	..	25(7)	6	19	120	140	31	20
KG	56.5S	24	2259	SC	..	+ 3	..	25(6,7)	8	102	721	138	27	04
MM	73.2S	24	2305	SC	- 8	-385	+159	26(1)	8	176	1348	1158	26	13
CO	64.6N	25	04--	..	..	..	..	27(4)	7	190	1400	870	28	04
ME	61.8N	25	0320	..	..	..	..	25(2,5) 26(1)	6	59	597	509	26	12
SI	60.0N	25	04--	..	..	..	..	25(3)	7	70	810	470	28	10
BD	48.9N	25	05--	..	..	..	..	26(1)	6	27	125	55	28	12
SJ	29.9N	25	02--	..	..	..	..	25(8)	5	8	121	34	26	03
GU	04.0N	25	00--	..	..	..	..	25(3)	5	5	170	25	26	18
HU	00.6S	25	0152	..	..	..	..	25(5,6,7)	6	8	286	58	26	03
PH	18.7S	25	05--	..	..	..	..	25(3,5,6,7)	5	10	110	70	27	12
TO	46.7S	25	04--	..	..	..	..	25(3,6)	6	23	160	60	28	12
MI	60.7S	25	0400	..	..	..	..	25(5) 26(4)	7	186	1186	936	26	18

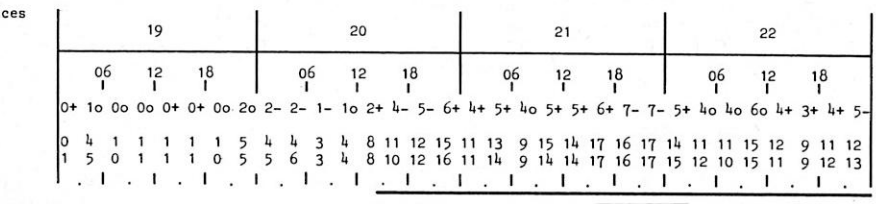
THREE-HOUR-RANGE INDICES, K

JAN	24		25		26		27	
GO	1123	2223	3344	4455	6544	4445	6644	4445
BT	2323	1135	4354	5757	7655	4766	6755	3776
RY	0111	1116	5564	5668	8766	4466	7755	3546
PB	0111	1322	3444	7566	4577	5566	5548	3565
CC	0112	1335	4443	5667	6654	7766	6646	3665
KI	0000	0026	3333	6577	7544	3475	6543	3557
CO	0000	0002	2445	5565	4566	5544	4337	4553
MM	0011	1136	4333	6677	7554	4576	5543	3557
DI	2222	2356	5344	6988	8656	6787	6656	4687
DO	0011	0033	3443	4688	7434	3555	6434	2655
WE	1111	1122	1365	7776	4466	5555	4436	3663
ME	0110	1112	3554	6555	5566	4434	5546	2343
TI	1111	1224	3355	6788	6555	6787	5556	4886
SI	0000	0001	1474	6655	4456	3344	5446	2332
ES	0011	0024	3432	3656	5333	3454	4333	2455
NU	0010	0023	2233	3666	5333	3444	4333	2554
OT	0111	1112	2634	4345	6443	3344	5334	2223
VL	0011	1014	3442	4556	5333	2355	5324	3454
VI	0010	0102	1354	4554	4554	3334	5545	3333
YA	1111	0235	4354	6666	6566	6666	5647	4555
FR	0111	0003	3443	4446	5343	2354	5524	2444
FU	0001	0024	2333	4656	5333	2434	4323	2554
SV	0011	0024	2233	4655	5334	4444	4434	2444
KV	0222	1124	3344	5666	5334	3555	5435	2554
PK	0011	1123	2144	5555	4455	4454	4445	3344
TL	0010	0014	2231	3555	5332	2244	3313	2344
DS	0111	1013	3544	5445	6344	3355	5544	2444
IR	1111	1124	3243	5665	4344	4555	4335	3444
TU	0011	0003	3544	4445	5344	3354	5544	2444
KD	0011	0013	2232	4545	4333	3333	3524	2333

THREE-HOUR-RANGE INDICES, K

JAN	24		25		26		27	
IK	0001	1025	2233	5656	5333	3454	4324	2555
MT	0001	1112	2243	5555	4344	4444	4335	2333
VK	0020	1122	2233	5554	4444	4444	4535	2444
TK	2112	1124	3353	6665	4334	3545	3225	2554
KS	0011	1135	3343	5666	5433	3445	3333	2345
SJ	0010	0103	3443	4455	4333	2254	5423	1443
TA	0111	1124	2232	3556	5333	2244	3313	1334
QU	----	----	----	----	-234	4445	3324	2443
HO	0010	0013	3353	4434	4243	3243	4433	2324
KY	0111	1112	3353	5554	4343	4444	4434	2333
AL	1222	2124	3343	6665	4333	3544	3334	2443
BA	1121	1124	3243	4556	5333	3344	3324	2444
GU	0111	1211	3353	5545	4343	4333	3344	2332
HU	0111	2222	3443	6664	3222	3443	3313	3433
LU	0121	0113	3222	3554	3333	3223	1224	1332
PP	0000	0011	3344	3344	3333	2243	3433	0223
PM	1111	1112	3354	5554	4343	4323	4444	2333
TN	1121	1021	--33	5433	3333	2343	1234	1133
AC	0010	1101	3434	5455	4223	3344	4323	2443
TW	0010	1112	3444	4455	4223	2354	4323	2433
HR	0011	1024	3354	6556	5343	2354	3344	2544
GN	1121	1123	2343	4565	5444	4455	4445	3554
TO	0121	1112	2463	5645	4454	3344	4444	3443
AM	0011	0012	2454	5544	4344	3343	4434	2343
MI	0010	0000	2355	7666	4567	5543	4447	4662
NL	0111	1014	3663	4567	7543	2356	6534	2445
MW	2231	2146	5565	6657	8664	3476	7754	3677
MY	2332	1022	4566	5457	5565	3555	4554	3576
SB	2122	2233	3343	4465	5443	3454	5444	3454
VQ	2233	3123	3444	5455	3443	3344	5544	4444


THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500 γ
LEIRVOGUR
GREAT WHALE RIVER
COLLEGE
BARROW
TIXIE BAY
DIXON ISLAND
H
1000 γ
SAN JUAN
HONOLULU
KAKIOKA
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
JAN. 24,1974
JANUARY 25,1974
JANUARY 26,1974



Data from Individual Observatories:

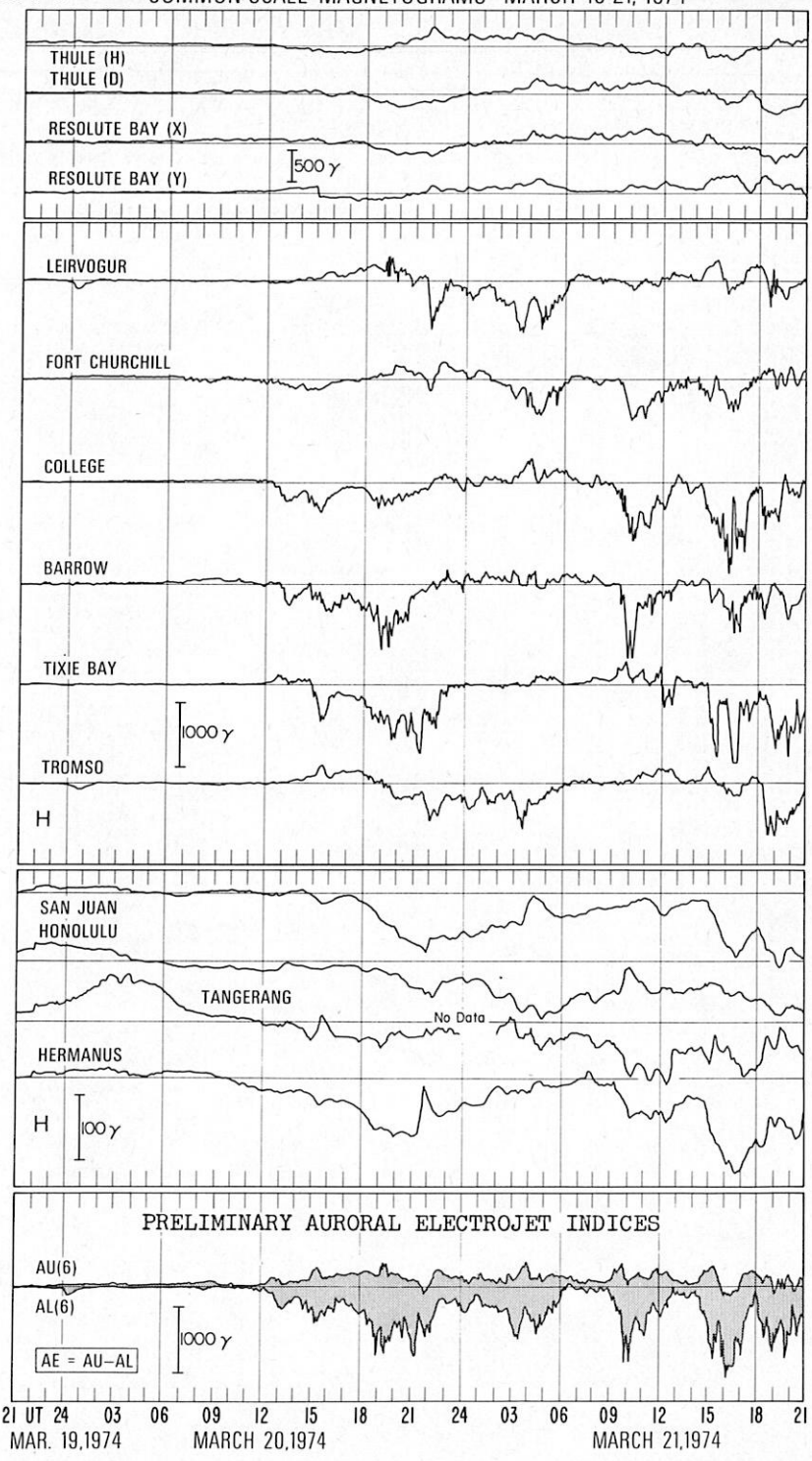
OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
RB	83.0N	19	2204	SC*	- 18	+ 12 *	..	21(7)	-	524	571	276	22	13
MX	79.1N	19	2204	SC	- 37	+ 10	- 5	21(7)	-	740	504	446	22	02
BL	73.8N	19	2204	SC*	- 9 *	- 39 *	+ 9 *	21(2,6)	-	623	622	788	21	22
CH	68.8N	19	2204	SC*	+ 10	- 31	- 14 *	21(4)	-	604	920	1123	22	03
GW	66.8N	19	2205	SC*	- 4.6*	- 28	- 14	20(8)	-	307	1279	1783	22	15
CO	64.6N	19	2204	SC*	11	- 41	13	21(6)	7	390	1870	1130	27	21
ME	61.8N	19	2105	SC*	5	21	9	21(4) 22(4) 23(4) 24(2)	8	159	1410	509	01	01
SI	60.0N	19	2204	SC*	3	9	- 4	21(6)	8	100	970	630	27	14
JO	58.7N	19	2204	SC*	1.0	+ 10.0	+ 2.2	21(1)	4	42	410	600	22	02
OT	57.0N	19	2205	SC*	- 1.6	+ 33.2	+ 13.0	20(8)	7	50	450	520	22	02
NE	55.1N	19	2204	SC*	- 1	18	..	22(4)	6	43	220	320	27	19
VI	54.3N	19	2204	SC*	+ 1.1	+ 13	- 3	21(6)	6	38	196	185	25	12
FR	49.6N	19	2204	SC*	..	17	- 3	21(6)	6	30	200	115	27	16
BD	48.9N	19	2204	SC*	- 2	15	..	21(4)	6	33	175	105	27	18
DS	43.0N	19	2204	SC*	1	14	- 3	21(6)	6	19	174	64	27	15
TU	40.4N	19	2204	SC*	- 1	10	..	21(6)	6	15	145	40	27	18
SJ	29.9N	19	2203	SC	..	5	2	21(6)	6	9	113	53	23	05
MB	21.3N	19	2203	SC	..	+ 9	..	20(7,8) 21(6,7,8) 23(1)	5	5	105	30	27	06
HO	21.1N	19	2204	SC*	1	10	5	22(4)	5	10	125	40	25	12
AL	09.5N	19	2204	SC	- 0.2	9	- 2	20(8)	5	3	118	21	21	01
HO	7.6N	19	2202	SC	- 0.2	8	- 1	21(6)	6	4	175	24	23	23
GU	04.0N	19	2203	SC	..	10	6	22(4)	5	5	175	30	25	17
AN	01.5N	19	2204	SC	- 0.3	8	5	--	-	2	162	44	21	01
TV	01.1S	19	2204	SC	0.0	8	9	--	-	1	183	76	21	01
PM	18.7S	19	2204	SC*	- 0.5*	10	8	25(3) 29(5) 31(4)	5	7	160	60	02	00
PM	18.7S	19	2204	SC*	- 0.5*	10	8	21(2,6) 22(1,4) 23(5)	5	7	160	60	02	00
GN	43.2S	19	2204	SC	--	6	- 1	21(5)	7	28	140	160	27	19
KG	56.5S	19	2204	SC	+ 1.8	+ 9	+ 8	20(8)	6	82	590	434	22	16
WI	54.2N	20	15--	..	..	..	..	21(8)	7	50	225	125	23	04
MT	34.0N	20	12--	..	..	..	..	21(4,5,6,8) 22(4) 23(5)	5	12	129	40	27	19
KA	26.0N	20	12--	..	..	..	..	21(6) 22(4) 23(5)	5	9	101	69	27	19
KY	20.5N	20	12--	..	..	..	..	21(5,6) 22(4) 23(5)	5	8	110	63	27	19
HR	33.7S	20	14--	..	..	..	..	20(8) 21(6)	6	32	152	162	26	09
TO	46.7S	20	13--	..	..	..	..	22(4)	6	30	210	90	27	21
MI	60.7S	20	1120	..	..	..	..	21(4,6)	8	320	1926	1373	21	21
MH	73.2S	20	1500	..	..	..	..	20(7,8) 21(2)	7	134	984	953	21	13
HU	00.6S	21	0337	..	..	..	..	21(6,7)	6	7	269	35	23	21

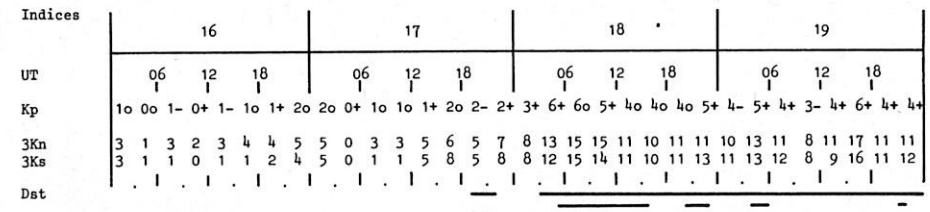
THREE-HOUR-RANGE INDICES, K

MAR	19		20		21		22	
GD	1112	1221	2123	4454	3555	5556	6445	5346
BT	2212	2112	3333	4646	5555	5777	6666	7665
RY	0111	1113	4111	3467	6755	5678	7656	4357
PB	1112	2112	4112	4465	5447	5665	4468	6443
CC	1111	1112	2222	3666	4546	5666	6457	7555
KI	0111	1001	2111	3567	6735	5788	6446	4346
CO	0100	0001	1112	5544	3546	4764	4457	6433
MM	0111	0001	2111	3567	6645	5687	7446	5457
DI	2222	2222	3323	6778	6665	5888	7568	8887
DO	0122	2101	3112	3478	6544	5788	7435	4355
WE	1111	0012	1111	5656	4537	6975	4448	6433
ME	0100	1212	1121	3345	4667	7756	5458	6334
TI	1211	1111	2222	6789	4547	7998	5468	7675
SI	0100	0001	1111	3334	3546	6854	4547	6332
ES	0000	0102	2101	2345	4434	4566	4334	3344
NU	0111	1101	2112	2457	4434	5566	5444	4344
OT	0101	1113	1111	2237	4435	4455	6446	3345
VL	0101	1201	2122	2345	4434	4466	4234	3344
VI	0100	0002	1111	2333	4545	4654	5546	4333
YA	2121	1112	2222	5467	4336	7766	5336	5345
FR	0100	0002	1111	2335	4435	4655	5445	4344
FU	0100	1002	1111	2455	3334	4565	4234	3344
SV	0100	0001	1111	3445	3434	4555	4335	4344
KV	1211	1112	2122	3555	4535	4666	53-5	5444
PK	0101	1112	1212	3455	4536	4555	5445	4334
TL	0000	0101	1020	2235	3334	4655	3224	3334
DS	1200	1003	2221	2235	4535	5655	5455	4245
IR	1212	1112	2323	3546	4545	6666	5446	5445
TU	0200	0102	1211	3334	3535	5655	5455	4344
KD	0110	0000	0122	2335	2333	4455	3235	3223

THREE-HOUR-RANGE INDICES, K

MAR	19		20		21		22	
IK	0100	1012	1101	2435	3425	5565	4335	4344
MT	0200	0002	1211	3444	3435	5545	4445	4233
VK	1201	1113	2312	3555	5545	5655	5456	4334
TK	2232	1002	2233	3435	3445	5565	4445	5454
KS	1201	1102	2202	5446	4445	5666	4325	5455
SJ	0100	0002	1100	2354	3534	4655	4434	1234
TA	0111	1102	1111	1345	4334	5655	4324	3334
QU	----	----	----	----	----	----	--34	4343
HO	1100	0002	2101	3244	4445	3444	4335	3234
KY	1200	0002	2201	3434	3434	5544	4345	4332
AL	1312	1112	2322	4445	3445	5554	3435	5343
BA	1212	2112	2223	2345	4334	4645	4335	4334
GU	1221	0112	2322	3324	3434	4533	5445	3322
HU	0100	2221	1121	2444	3433	5664	4334	4354
LU	0001	0001	1101	2355	3223	4543	2214	3222
PP	0100	0002	1200	2013	3434	3433	4234	2032
PN	1211	1112	2222	4334	4544	4534	5435	3233
TN	0222	2101	1221	2334	3235	3444	3234	3333
AC	0200	0102	2201	2--4	----	----	4434	3344
TW	1201	1202	2211	2354	3523	4665	5434	4344
HR	0100	0002	1202	2346	4535	4655	5455	3344
GN	1200	0002	2211	4445	4435	7666	5436	4454
TO	1200	0002	2212	3345	3435	5544	4446	4344
AM	0200	0001	1211	3434	3435	5545	4445	4234
MI	0200	0001	1001	6645	3548	6874	4568	5433
NL	1111	0011	1111	1268	6834	4677	7545	3336
MW	1211	0001	3221	3577	6765	4577	6666	3477
MY	1321	0001	3342	2434	4565	4566	5555	3374
SB	1210	0012	3111	2235	4634	4445	5645	3344
VO	2221	1022	2222	2344	3434	4444	4444	4334


THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500γ
LEIRVOGUR
FORT CHURCHILL
COLLEGE
BARROW
TIXIE BAY
1000γ
TROMSO
H
SAN JUAN
HONOLULU
TANGERANG
No Data
HERMANUS
H
100γ
PRELIMINARY AURORAL ELECTROJET INDICES
AU(6)
AL(6)
AE = AU−AL
1000γ
21 UT 24 03 06 09 12 15 18 21 24 03 06 09 12 15 18 21
MAR. 19,1974
MARCH 20,1974
MARCH 21,1974



APRIL 1974

Data from Individual Observatories:

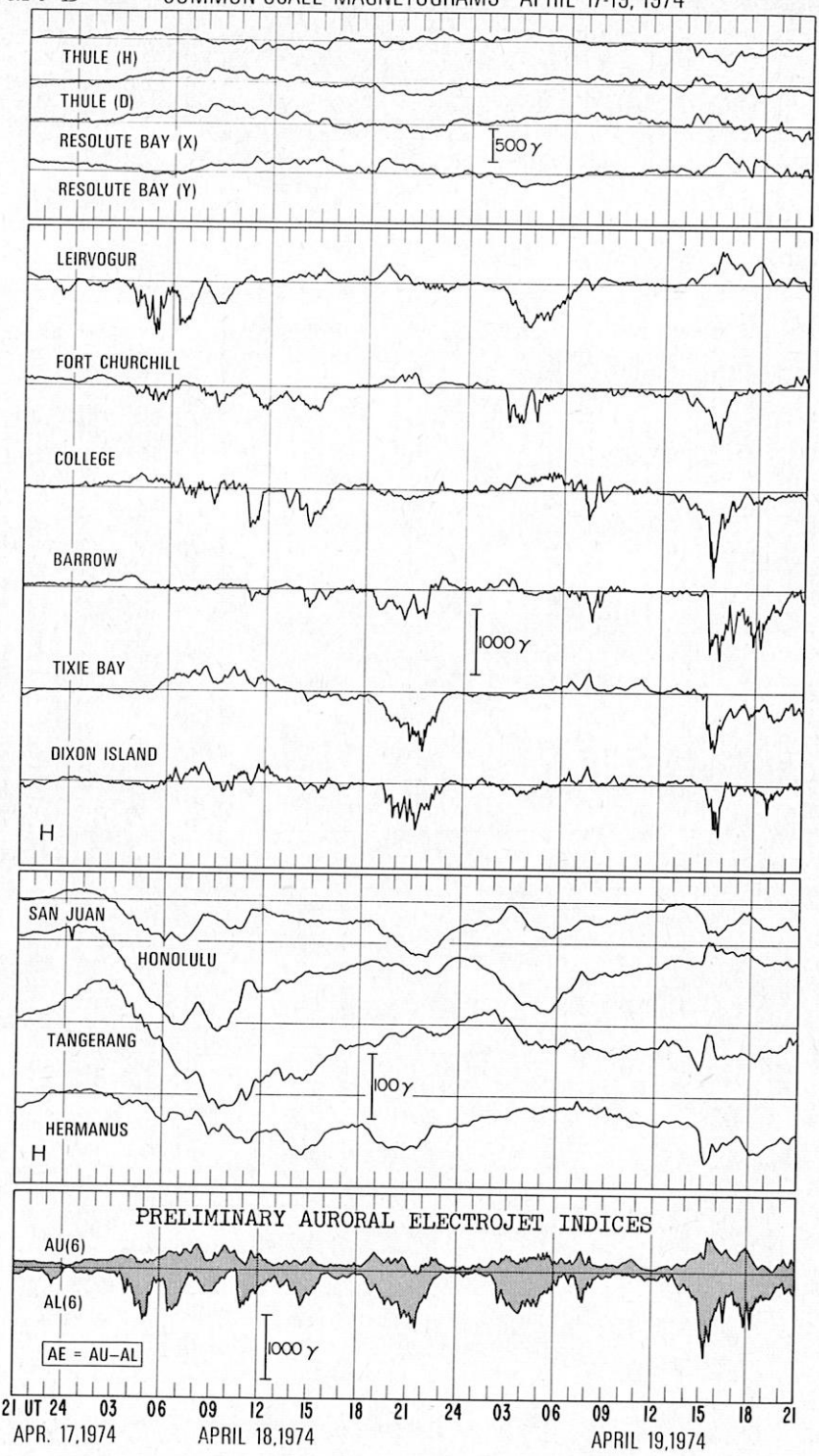
OBS. 2 letter IAGA code	GEOMAGNETIC LATITUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
HX	79.1N	17	2100	..	..	..	..	19(6)	-	647	577	420	20	03
SI	60.0N	17	08--	..	..	..	..	18(3)	7	110	920	540	24	02
JO	58.7N	17	1415	..	..	..	..	18(3)	7	34	400	365	19	23
OT	57.0N	17	1415	SC	+ 1.8	- 15.3	- 7.8	18(2,3,8)	6	40	430	369	19	23
VI	54.3N	17	----	..	..	..	..	18(3,4)	6	33	161	265	22	15
DS	43.0N	17	21--	..	..	..	..	18(4)	6	21	116	43	24	06
TU	40.4N	17	21--	..	..	..	..	19(6)	5	17	125	30	24	06
AL	09.5N	17	21--	..	..	..	..	19(5,6)	5	6	125	38	19	21
AN	01.5N	17	21--	..	..	..	..	--	-	4	175	81	19	21
TV	01.1S	17	21--	..	..	..	..	--	-	4	206	113	19	21
RB	83.0N	18	0000	..	..	..	..	19(6)	-	547	524	380	20	02
BL	73.8N	18	0000	..	..	..	..	18(7)	-	530	686	961	20	00
CH	68.8N	18	0100	..	..	..	..	19(6)	-	732	1142	907	20	00
GW	66.8N	18	0100	..	..	..	..	18(4)	-	235	1059	866	19	19
CO	64.6N	18	00--	..	..	..	..	20(3)	7	264	1890	900	24	05
ME	61.8N	18	0305	..	..	..	..	18(2,4) 19(2,3) 20(3) 21(3)	7	106	1297	688	23	18
NE	55.1N	18	00--	..	..	..	..	18(3)	6	43	265	268	24	06
HI	54.2N	18	02--	..	..	..	..	19(6) 20(8)	6	30	220	105	24	03
FR	49.6N	18	02--	..	..	..	..	19(6)	6	28	145	110	24	06
BO	48.9N	18	02--	..	..	..	..	18(3)	6	33	110	70	24	09
MT	34.0N	18	02--	..	..	..	..	18(4) 19(6) 20(5)	5	16	143	36	24	07
SJ	29.9N	18	00--	..	..	..	..	18(2)	5	11	97	35	21	12
KA	26.0N	18	02--	..	..	..	..	18(2,3,4) 19(6) 20(5)	5	12	137	65	24	07
HB	21.3N	18	01--	..	..	..	..	18(7,8)	5	2	56	7	21	15
HO	21.1N	18	00--	..	..	..	..	18(4)	5	08	159	36	24	06
KY	20.5N	18	02--	..	..	..	..	18(2,3,4) 19(6) 20(5)	5	10	139	78	24	07
HD	7.6N	18	0100	..	..	..	..	18(2,3,4) 19(5,6)	5	5	134	30	19	23
GU	04.0N	18	00--	..	..	..	..	18(2)	6	10	220	40	24	09
HU	00.6S	18	0230	..	..	..	..	18(2,3)	5	7	266	55	22	05
PH	18.7S	18	00--	..	..	..	..	23(1) 27(4)	5	5	210	80	01	00
PH	18.7S	18	00--	..	..	..	..	18(4) 19(6) 22(4)	5	5	210	80	01	00
GN	43.2S	18	02--	..	..	..	..	19(6)	7	28	160	140	24	07
KG	56.5S	18	0230	..	..	..	..	18(8) 19(6)	6	43	442	285	21	10
MI	60.7S	18	0340	..	..	..	..	19(6)	8	160	1653	582	19	20
MW	73.2S	18	0400	..	..	..	..	18(7,8)	7	110	792	636	19	12

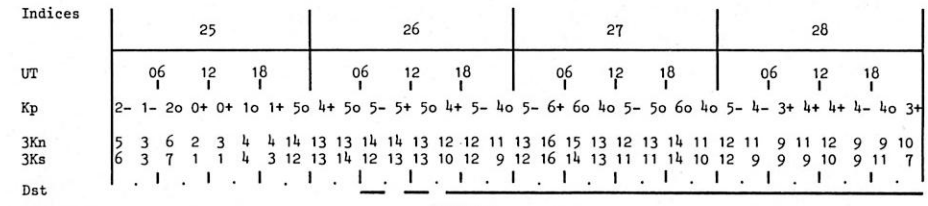
THREE-HOUR-RANGE INDICES, K

APR	16		17		18		19	
GO	2122	2233	2124	4433	3345	6444	4334	5644
BT	3222	1233	4322	3433	5555	5445	4465	5545
RY	2012	2244	5221	2446	4776	4455	6663	5665
PB	1113	3442	2455	5455	5335	3774	4576	7655
CC	2122	1233	3122	2433	3553	3355	5543	3655
KI	0012	1133	2011	2454	4664	5566	5643	5666
CO	1000	0000	1012	2321	3456	6544	4463	5733
MM	1122	1134	2111	2455	3554	5566	5643	5556
DI	2222	2245	3222	3754	4566	6577	5554	4766
DO	1133	2223	2122	3333	3755	4357	4633	6864
WE	---U	0111	1101	1321	2677	6654	3553	6843
ME	1010	1221	2121	2222	3766	4334	4674	4644
TI	2222	1122	2222	3764	3566	6588	4565	5866
SI	1000	0110	2022	1111	2677	5434	3663	5733
ES	1011	1223	2111	2223	3544	4444	3432	4544
NU	1022	1112	2111	1323	3554	4345	3433	5644
OT	1011	1111	1022	2121	3665	3246	4543	3444
VL	1012	1213	2012	2223	3544	4444	3432	4534
VI	1010	0111	2021	1111	3566	3233	4552	3533
YA	2221	1112	2331	2322	2456	4334	4343	3644
FR	1000	1111	2011	1112	3455	3334	4533	4644
FU	1022	1112	1101	1132	3254	4444	2332	3534
SV	1021	1112	2111	2332	3444	3344	3333	3634
KV	1233	2123	2232	1434	3554	4455	3333	3645
PK	1111	1122	2111	2322	3456	4443	3453	4544
TL	0000	0112	1010	1223	1443	4433	2321	2534
DS	1010	1112	2121	2112	3566	3344	5542	5644
IR	2222	2222	2122	3433	4455	4434	3433	3634
TU	1000	0211	2021	2111	3555	3344	4542	4533
KD	2332	1112	3242	2321	3444	3333	3332	2533

THREE-HOUR-RANGE INDICES, K

APR	16		17		18		19	
IK	1021	1123	1011	2323	3453	3334	2222	3535
MT	1010	1111	1000	2212	2445	3223	3333	3543
VK	4431	1213	4442	2324	4543	4234	5552	3543
TK	2332	1212	2322	2423	3654	4534	4443	4545
KS	1022	1133	2112	3222	2454	4434	2222	5646
SJ	1000	0111	1000	1112	3554	1255	4532	3443
TA	1100	0122	2100	1113	3443	1244	3222	3544
QU	3443	2222	2343	2323	3555	4533	3433	4545
HO	1000	1111	0001	1111	3555	3334	4452	3443
KY	1111	1121	1000	2321	2555	3223	3432	4533
AL	1132	2122	2221	2323	3654	4432	3333	5544
BA	1122	2222	2222	2222	3344	4444	2133	3544
GU	2111	1112	2112	2211	3655	3423	3433	4533
HU	1011	2421	1010	3321	3554	4444	3432	4543
LU	0011	1000	1100	1222	2333	3333	2221	2543
PP	0000	0011	0010	1000	1445	3321	0431	2433
PM	1121	1111	2110	2211	2445	4322	3443	4533
TN	----	----	--21	2212	24--	----	--23	-132
AC	1000	0111	2000	2013	3453	3344	4431	2434
TW	1000	0101	2000	2313	3554	3345	4542	2444
HR	1000	0022	2011	2214	3454	4444	4333	4544
GN	2011	0011	2001	2432	3346	5434	3442	4744
TU	0100	1001	1011	1321	2456	4434	3343	3643
AM	1111	1001	2010	1200	2455	4334	4353	3533
MI	0000	0000	0001	1301	1467	6744	2455	6843
NL	0000	0012	2011	1123	6975	3356	6753	2654
MW	3111	1156	4211	4355	3444	3477	3453	4656
MY	1231	0012	2322	2222	3343	3334	3344	3543
SB	1000	0012	2021	1011	3344	3334	4433	3443
VO	2221	1122	2211	2112	2333	3334	3333	3533


THULE (H)
THULE (D)
RESOLUTE BAY (X)
500γ
RESOLUTE BAY (Y)
LEIRVOGUR
FORT CHURCHILL
COLLEGE
BARROW
1000γ
TIXIE BAY
DIXON ISLAND
H
SAN JUAN
HONOLULU
TANGERANG
100γ
HERMANUS
H
PRELIMINARY AURORAL ELECTROJET INDICES
AU(6)
AL(6)
AE = AU-AL
1000γ
21 UT 24 03 06 09 12 15 18 21 24 03 06 09 12 15 18 21
APR. 17,1974
APRIL 18,1974
APRIL 19,1974



JUNE 1974

Data from Individual Observatories:

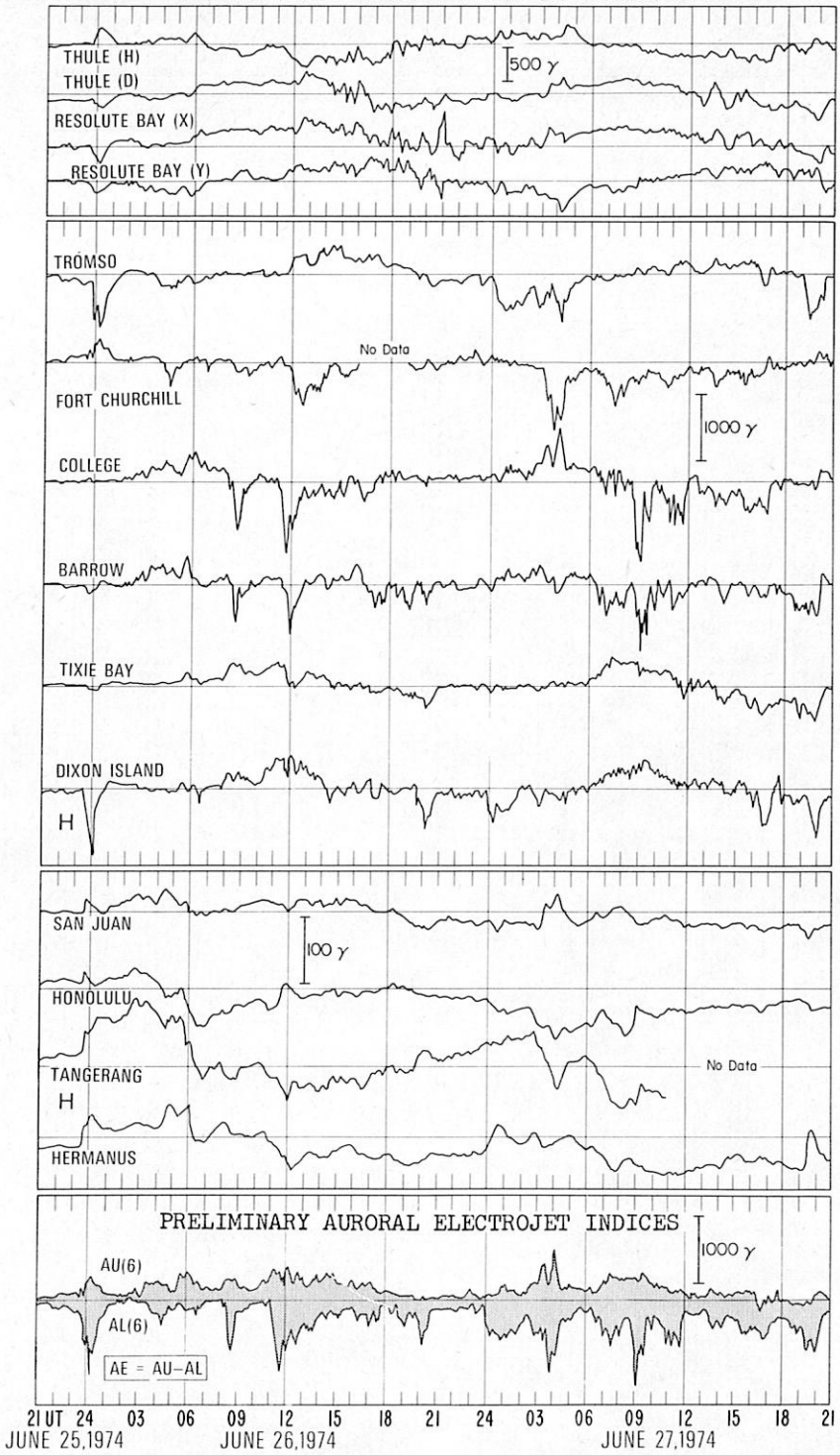
OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
RB	83.0N	25	2330	SC	+ 30	+ 74	+ 33	26(7)	-	910	717	667	28	05
MX	79.1N	25	2330	SC	- 75	+115	- 3	26(8)	-	909	812	456	28	07
BL	73.8N	25	2330	SC*	- 27 *	- 57	+ 27	27(2)	-	821	1222	1290	28	00
CH	68.8N	25	2329	SC*	- 44 *	-116	- 46	27(2)	-	1222	1599	1120	27	21
GW	66.8N	25	2330	SC	- 14.0	- 48	- 72	27(3)	-	572	1512	1378	27	21
CO	64.6N	25	2329	SC*	31	63	47	27(4)	7	205	2070	1040	29	19
ME	61.8N	25	2330	SC*	8	144	518	26(4) 27(4) 28(2)	7	190	1142	829	27	21
SI	60.0N	25	2329	SC*	8	74	1	27(4)	8	120	1340	780	29	19
JO	58.7N	25	2328	SC*	+ 3.2	+ 55.0	+ 25.0	27(2)	6	25	315	300	28	21
OT	57.0N	25	2328	SC*	+ 7.1	+ 12.6	+ 29.7	27(2)	7	68	331	325	28	23
NE	55.1N	25	2329	SC*	- 6	94	4	27(2)	6	55	238	390	01	08
VI	54.3N	25	2329	SC*	+ 2.0	+ 64	- 9	27(2,3,4)	6	45	192	293	30	21
HI	54.2N	25	2330	SC*	- 1 *	+105	0	27(6,7)	6	31	250	95	29	21
FR	49.6N	25	2329	SC*	4	88	- 10	27(2)	6	24	142	98	01	13
BD	48.9N	25	2329	SC*	- 3	78	- 5	27(2)	7	45	130	100	30	22
DS	43.0N	25	2329	SC*	- 0.5	70	9	27(2)	7	23	117	53	30	18
TU	40.4N	25	2329	SC*	- 3	52	4	27(2)	6	20	105	35	30	21
MT	34.0N	25	2329	SC*	+ 4.1	+ 11	- 10	26(3,4) 27(2,3,4)	5	14	139	38	29	19
SJ	29.9N	25	2329	SC*	2	23	8	27(2)	5	6	97	20	28	06
KA	26.0N	25	2329	SC*	+ 2.6	+ 11	+ 5	26(3) 27(2,3)	5	10	130	63	29	19
MB	21.3N	25	2329	SC	..	+ 46	..	26(2)	5	3	51	6	28	21
HO	21.1N	25	2329	SC*	1	23	8	26(2)	5	11	106	36	27	18
KY	20.5N	25	2329	SC*	+ 2.7	+ 18	+ 9	26(3) 27(2,3)	5	10	139	58	29	20
AL	09.5N	25	2329	SC	- 0.3	33	- 5	25(8)	5	5	140	35	26	21
HD	7.6N	25	2329	SC	- 0.3	36	- 2	26(1,2,3,4) 27(2)	5	4	152	32	28	23
GU	04.0N	25	2329	SC*	- 1	31	14	27(3)	5	10	170	40	30	14
AN	01.5N	25	2329	SC	- 1.0	38	14	--	-	3	181	58	26	21
HU	00.6S	25	2329	SC	1	42	7	26(5,6)	5	6	157	33	28	02
TV	01.1S	25	2329	SC	0.0	31	47	--	-	4	213	--	26	21
PM	18.7S	25	2328	SC*	- 0.2*	22	20	27(2,3,4)	5	5	160	60	01	00
HR	33.7S	25	2329	SC	+ 2	+ 33	+ 21	25(8) 26(2) 27(2,3,7)	5	30	110	81	29	02
GN	43.2S	25	2332	SC	+ 5	12	25	27(4)	6	20	130	120	30	14
TO	46.7S	25	2329	SC*	+ 1.*	-22.*	- 1	26(4) 27(4)	6	32	160	60	28	16
MI	60.7S	25	2330	SC*	- 7 *	- 39 *	- 27 *	26(4,5) 27(3,4)	7	202	992	957	27	21
MW	73.2S	25	1640	..	..	..	..	27(7)	8	242	1669	999	28	03

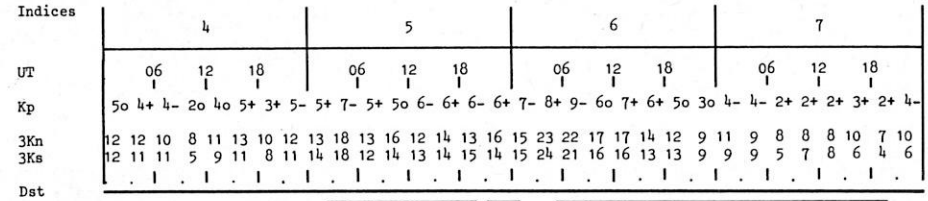
THREE-HOUR-RANGE INDICES, K

JUN	25		26		27		28	
GO	2132	3334	5545	6654	5545	6664	6336	6544
BT	4432	3335	6677	7565	6766	5655	5655	6555
RY	4321	1337	7764	5656	7775	5667	7554	5455
PB	2222	3334	4566	6655	5557	5464	5446	65--
CC	2132	2436	6567	6455	6554	7545	6544	6555
KI	2122	1236	7445	5556	6745	4576	8435	6474
CO	2120	1113	3577	6543	4677	5543	5435	6533
MM	2111	2236	6446	5456	6645	4676	7335	5464
DI	3222	3447	7566	7576	7666	6776	6546	7466
DO	1010	1114	4444	5444	4653	5555	6435	5443
WE	1110	2114	4568	7543	4677	6653	5444	7533
ME	2131	1124	4577	6444	5677	6444	5656	6434
TI	2112	2324	4567	6565	5577	6775	5445	8565
SI	2130	0114	4688	7333	5788	5443	4545	5333
ES	2010	1224	4434	4453	4553	4553	4334	4443
NU	1011	1114	2435	5543	4544	5544	4345	4343
OT	2121	0115	3544	3343	3764	3453	6443	4334
VL	2122	1214	4445	4453	5553	4553	4233	4443
VI	2130	0115	4445	5444	5666	4444	5544	4333
YA	2120	1324	4446	6454	4556	5553	4334	5343
FR	2120	0115	4554	4444	4654	3454	5433	4334
FU	2110	0114	4435	4433	4443	4453	4223	3332
SV	1120	1104	4444	4343	3444	4443	3324	4232
KV	2223	2215	4545	5453	4554	5554	4334	4344
PK	1221	2214	5466	5344	4555	4443	3434	4333
TL	2210	0115	4434	3333	4442	3453	3322	3332
DS	2131	1115	5555	4444	5754	4454	5433	4333
IR	2221	2323	3565	5443	4555	5455	4334	5434
TU	2120	0115	5555	5444	5644	4344	5533	3323
KD	1111	1213	3333	4332	3333	3342	3223	3222

THREE-HOUR-RANGE INDICES, K

JUN	25		26		27		28	
IK	1211	1215	5535	4443	4433	4553	4323	3333
MI	1121	1114	4455	4333	4555	3333	3323	3322
VK	1222	2233	5566	6445	5465	4443	5224	5332
TK	2422	3115	3545	4453	4555	5553	3444	4343
KS	2220	0116	5645	5543	4544	5563	3234	4343
SJ	1020	0004	4433	3333	3543	2343	4323	3332
TA	2100	0115	4543	4433	4452	4353	3313	4332
QU	2231	2115	3555	4433	3454	4443	3324	4343
HO	1010	0003	4545	3332	3453	2332	3333	2333
KY	1110	1214	4454	4333	3554	4333	3323	3222
AL	2332	2215	4555	3343	3544	4443	2344	4343
BA	2220	1215	4545	4333	4443	3353	3323	4332
GU	2120	1114	3444	3332	4554	4333	2433	3223
HU	1021	2-23	3433	5542	3532	4443	3322	4432
LU	1112	2104	4422	2221	3243	2231	1112	3211
PP	1000	0003	3544	2221	3342	2131	3232	2131
PM	1120	1013	3444	4322	3555	4343	3333	3332
TN	2232	1315	4444	3343	4454	3452	3123	3332
AC	2020	1114	4533	3333	3643	3333	4322	3332
TW	2030	0213	4533	4343	4643	4343	4322	2342
HR	2110	0115	4544	4342	4553	3453	3233	3333
GN	1121	1215	5555	5453	4556	5553	4344	5342
TO	1120	1124	4446	5433	3556	4443	3334	3332
AM	1020	1104	4455	5333	3565	4342	4343	3332
MI	0000	1102	2557	7432	3577	6542	4335	7532
NL	2121	0115	4764	4334	6865	4464	----	---:
MW	4431	1247	7765	5564	7765	5786	6566	4464
MY	2321	0125	5444	4573	4634	3784	4443	5365
SB	1130	0115	4345	4234	4754	3343	4333	4443
VO	2121	1114	4334	4323	4544	3343	4333	4333


THULE (H)
THULE (D)
500 γ
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
TROMSO
No Data
FORT CHURCHILL
1000 γ
COLLEGE
BARROW
TIXIE BAY
DIXON ISLAND
H
SAN JUAN
100 γ
HONOLULU
TANGERANG
No Data
H
HERMANUS
PRELIMINARY AURORAL ELECTROJET INDICES
1000 γ
AU(6)
AL(6)
AE = AU-AL
21 UT 24 03 06 09 12 15 18 21 24 03 06 09 12 15 18 21
JUNE 25,1974
JUNE 26,1974
JUNE 27,1974



JULY 1974

Data from Individual Observatories:

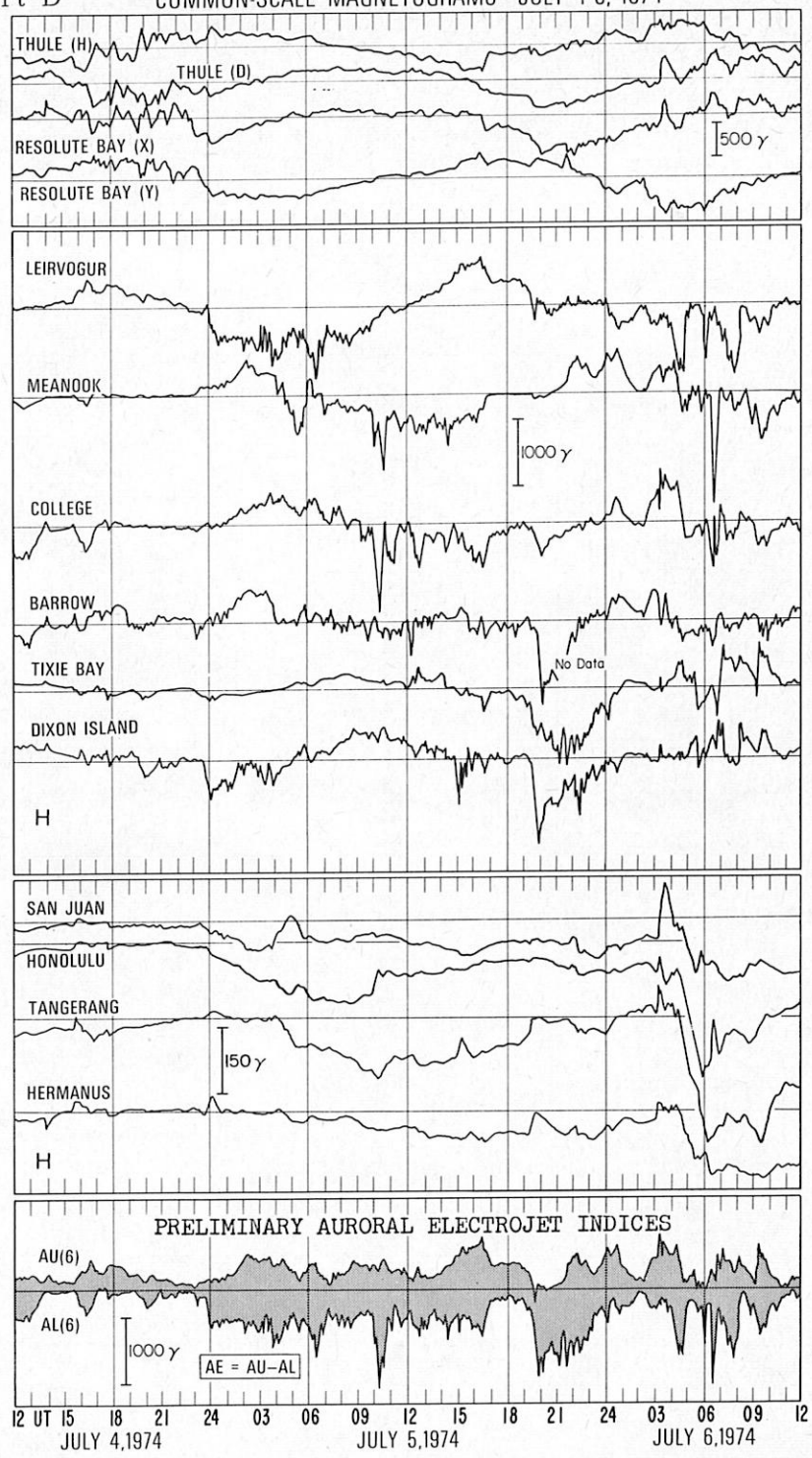
OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
RB	83.0N	4	1534	SC	- 12	- 81	- 31	06(7)	-	976	1111	1081	07	02
HX	79.1N	4	1534	SC	+ 12	- 62	+ 2	06(7)	-	781	1339	953	07	02
BL	73.8N	4	1534	SC*	- 34 *	+195	-106	6(6)	-	1005	1112	1530	06	23
CH	68.8N	4	1533	SC*	- 56 *	+132	+ 89 *	05(2)	-	1147	2249	1756	06	22
GW	66.8N	4	1534	SC*	- 5.6	+ 16	- 17 *	06(2)	-	551	2069	2016	06	22
CO	64.6N	4	01--	..	..	..	..	06(5)	7	445	2480	2000	07	12
ME	61.8N	4	0110	..	..	..	..	04(2) 05(4,5) 06(2,3,4)	9	140	720	414	06	21
SI	60.0N	4	1535	SC	- 7	23	11	06(3)	9	200	1990	950	07	05
JO	58.7N	4	1540	SC	- 1.0	+ 10.0	+ 12.0	06(2)	8	200	700	900	06	21
OT	57.0N	4	1537	SC	- 2.2	+ 12.9	+ 6.6	06(3)	9	209	733	925	06	23
NE	55.1N	4	1533	SC	- 2	13	..	05(4)	8	85	534	709	05	18
VI	54.3N	4	1533	SC	- 2.1	+ 13	+ 6	--	-	--	--	--	09	09
WI	54.2N	4	1534	SC*	- 2 *	+ 84 *	0	04(6) 05(6,7)	6	35	270	205	06	03
FR	49.6N	4	1533	SC*	4	- 14	1	06(2)	9	72	645	545	07	05
BD	48.9N	4	01--	..	..	..	..	06(3)	9	147	400	500	09	12
DS	43.0N	4	01--	..	..	..	..	06(3)	9	65	346	140	09	07
TU	40.4N	4	1533	SC*	- 1	8	1	06(3)	9	52	295	55	09	06
HT	34.0N	4	1534	SC	+ 0.7	+ 36	- 1	05(2,4,8)	5	19	161	41	--	--
SJ	29.9N	4	1533	SC	0.5	15	3	06(2)	8	16	229	35	07	05
KA	26.0N	4	1534	SC	+ 0.8	+ 29	+ 18	05(2,4,8)	5	16	147	73	--	--
MB	21.3N	4	1349	SC	- 4.5	+ 40	..	06(2)	7	9	206	36	09	06
HO	21.1N	4	1534	SC	..	12	6	05(4)	5	12	144	55	07	05
KY	20.5N	4	1534	SC	+ 0.6	+ 31	+ 16	04(6) 05(2,4,8)	5	14	154	71	--	--
AL	09.5N	4	1534	SC	- 0.5	31	- 3	05(7)	6	4	124	34	05	24
HD	7.6N	4	1534	SC	- 0.5	28	- 2	05(7)	6	4	121	24	06	01
GU	04.0N	4	1533	SC	..	22	- 6	06(2)	9	11	380	50	07	05
AN	01.5N	4	1534	SC	- 1.0	30	19	--	-	4	128	71	05	24
HU	00.6S	4	1533	SC	2	84	5	06(2)	8	15	444	54	06	23
TV	01.1S	4	1534	SC	0.0	26	38	--	-	2	128	139	05	24
PM	18.7S	4	1533	SC	0.5	22	19	05(2,4)	5	5	160	30	05	18
HR	33.7S	4	1534	SC	+ 1	+ 16	+ 4	05(2,7)	5	31	99	75	06	03
GN	43.2S	4	01--	..	..	..	..	5(6)	6	19	120	130	06	03
KG	56.5S	4	1533	SC*	+ 1.6	+ 31	+ 10	06(1)	7	74	614	549	--	--
HI	60.7S	4	1533	SC	- 2	+ 39	+ 42	06(5,6)	8	273	2081	1310	06	21
MW	73.2S	4	1533	SC	0	- 86	- 27	05(7) 06(7)	8	234	1391	1373	06	17
NE	55.1N	6	0321	SC*	- 3	110	13	06(2,3)	9	318	1060	1215	07	10
WI	54.2N	6	0321	SC*	- 17 *	+ 55	- 3	06(2)	8	35	440	340	07	05
HT	34.0N	6	0321	SC*	+ 2.9	+ 45	- 8	06(2,3)	7	33	231	66	06	24
KA	26.0N	6	0321	SC*	+ 1.7	+ 44	+ 26	06(2,3)	7	24	248	105	06	24
HO	21.1N	6	0321	SC	1	29	14	06(2)	8	13	212	65	07	05
KY	20.5N	6	0321	SC*	+ 2.1	+ 51	+ 23	06(2)	8	21	285	137	06	24
HD	7.6N	6	0320	SC	- 1.0	34	- 8	06(2,3)	8	4	265	51	07	03
GN	43.2S	6	0322	SC*	- 12 *	-60 *	- 40	6(2,3)	7	32	230	170	06	22
KG	56.5S	6	0321	SC*	+ 21.0	-180	- 43	06(2)	9	166	1045	524	06	22

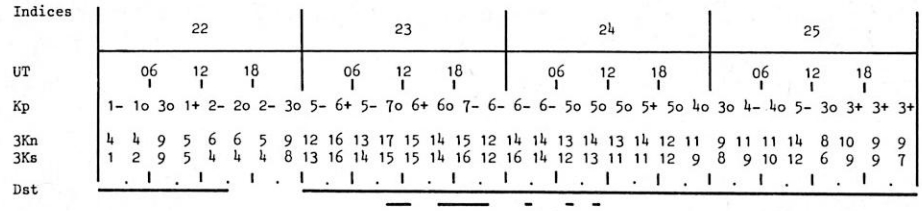
THREE-HOUR-RANGE INDICES, K

JUL	4		5		6		7	
GO	2344	5765	5554	6655	4666	6554	5333	4554
BT	5664	5556	6455	5677	6777	6674	5656	3655
RY	6763	4656	6776	6675	6886	6665	5633	3434
PB	5545	4534	5565	6576	5666	7664	4434	4435
CC	5543	5446	6654	5565	5865	6474	5543	3434
KI	7622	3547	8864	6676	7864	6665	6522	3324
CO	4555	6523	5557	6654	5775	7753	4424	3323
MM	7733	3557	7755	6676	6765	7654	6533	2324
DI	7645	4567	7765	6887	7888	7565	6545	3445
DU	6532	4546	7753	7779	8885	7753	1522	3423
WE	3653	5633	4778	7775	5777	8853	4434	2323
ME	6664	4434	6768	7646	7897	7743	5644	3334
TI	4545	4556	6666	7788	7788	7674	4445	3424
SI	4653	5423	5788	7655	6898	8753	4533	2324
ES	4331	4534	4543	5655	6875	6642	3323	3423
NU	3322	4534	5534	6666	6675	7642	3322	2322
OT	4432	3434	4866	4336	8895	5353	3322	2324
VL	4323	4534	4643	4555	5764	6442	3312	3333
VI	3643	4434	5758	4445	5--7	6543	5533	2324
YA	4343	4435	4436	5556	4786	7543	4323	2323
FR	4443	4434	4755	4436	6985	5553	4332	2334
FU	4322	3434	4443	3555	4754	5432	3313	2323
SV	3322	3443	3434	4654	4775	5443	3222	3322
KV	4444	5544	5654	5665	4665	645-	-223	4423
PK	3443	3434	4546	4545	6786	6543	3223	3324
TL	3330	3333	5453	3464	4643	5633	3222	3233
DS	4443	3435	5756	4546	5896	4454	5332	3334
IR	----	----	----	----	----	----	----	----
TU	4242	3435	5746	4446	5896	4444	5432	3323
KD	3-23	2333	3---	----	----	----	----	----

THREE-HOUR-RANGE INDICES, K

JUL	4		5		6		7	
IK	4332	5534	5423	3565	4764	5543	3312	3323
MT	2232	3434	3535	4445	4776	5442	2112	3323
VK	5353	4535	6535	5556	5776	6542	5433	3334
TK	4423	3543	5635	4565	4876	5542	2223	3324
KS	4312	6535	5423	4575	47--	--43	3223	4334
SJ	3432	2324	5634	4445	4855	4553	3221	3224
TA	3412	6545	3434	4455	3754	5543	3312	3454
QU	3342	3533	4544	4465	4866	5543	2333	3323
HO	3332	2323	3435	3334	4876	4334	4422	2323
KY	2232	3523	3535	4445	4876	5432	2212	3313
AL	4443	3544	4534	4464	4855	5543	2322	3323
BA	3222	4434	5433	4455	4754	6543	3223	4223
GU	3332	3433	5545	4345	4966	4343	4322	3223
HU	3432	3543	4543	4544	4864	4653	3321	3432
LU	2122	1313	3234	4434	3565	5554	4333	2111
PP	3340	2322	2535	4233	4866	5432	3321	2112
PM	2232	3423	3535	4345	4877	5342	3322	3223
TN	2311	2323	4213	4333	3544	4422	2122	1122
AC	3331	3424	5633	3335	5854	4343	3311	3223
TW	4441	4424	5643	3454	5854	4353	3422	4322
HR	4422	4433	4534	4454	4775	5543	3211	2112
GN	4232	4433	5525	5655	4776	6442	3313	2212
TU	3333	3433	3546	4545	5676	6543	3323	2222
AM	4332	3323	3546	4454	4686	6443	2322	2112
MI	3343	5721	4656	7765	5777	8852	3414	2203
NL	7741	1225	6776	5558	7887	5443	5622	2112
MW	7753	3547	6674	6687	6777	5584	6544	3325
MY	4433	3345	6443	4487	5665	4476	4433	4234
SB	3442	3443	4543	4454	5655	5543	3433	3443
VO	3433	3434	4443	3455	5654	5443	4333	3934


THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500 γ
LEIRVOGUR
MEANOOK
1000 γ
COLLEGE
BARROW
TIXIE BAY
No Data
DIXON ISLAND
H
SAN JUAN
HONOLULU
TANGERANG
150 γ
HERMANUS
H
PRELIMINARY AURORAL ELECTROJET INDICES
AU(6)
AL(6)
1000 γ
AE = AU−AL
12 UT 15 18 21 24 03 06 09 12 15 18 21 24 03 06 09 12
JULY 4,1974
JULY 5,1974
JULY 6,1974



JULY 1974

Data from Individual Observatories:

OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(y)	Z(y)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(y)	Z(y)	UT END DAY	HOUR
NE	55.1N	22	21--	..	..	..	..	23(2)	7	60	314	556	26	10
FR	49.6N	22	21--	..	..	..	..	23(2)	6	35	158	112	28	06
HD	7.6N	22	2345	..	..	..	..	23(4,5)	6	4	153	25	25	11
HH	73.2S	22	2305	..	..	..	..	23(2,3) 24(1,3,7)	7	144	1134	1180	25	00
RB	83.0N	23	0400	..	..	..	..	23(7)	-	750	657	533	25	04
HX	79.1N	23	0000	..	..	..	..	23(7)	-	791	676	570	25	06
BL	73.8N	23	0100	..	..	..	..	23(6)	-	682	1148	1061	25	01
CH	68.8N	23	0100	..	..	..	..	23(5)	-	700	1242	1247	25	00
GW	66.8N	23	0100	..	..	..	..	24(2)	-	284	1354	2746	25	00
CO	64.6N	23	00--	..	..	..	..	25(4)	7	292	2320	1490	25	16
ME	61.8N	23	0100	..	..	..	..	23(4) 24(3) 25(4)	8	187	1327	575	25	12
SI	60.0N	23	00--	..	..	..	..	23(4)	8	150	1480	780	28	11
JO	58.7N	23	0010	..	..	..	..	23(2,7) 24(2)	6	52	500	980	25	22
OT	57.0N	23	----	..	..	..	..	23(4)	6	68	458	560	25	23
VI	54.3N	23	----	..	..	..	..	23(2)	7	48	188	456	26	09
MI	54.2N	23	01--	..	..	..	..	23(4)	7	35	310	170	25	00
BD	48.9N	23	01--	..	..	..	..	23(4)	6	39	115	150	26	11
DS	43.0N	23	01--	..	..	..	..	23(2)	6	22	129	61	28	12
TU	40.4N	23	00--	..	..	..	..	23(2)	6	17	115	45	26	12
MT	34.0N	23	01--	..	..	..	..	23(4)	6	17	114	52	24	24
SJ	29.9N	23	00--	..	..	..	..	23(6)	6	10	110	38	24	16
KA	26.0N	23	01--	..	..	..	..	23(4)	6	12	104	87	24	24
MB	21.3N	23	00--	..	..	..	..	23(7)	6	4	51	13	25	03
HO	21.1N	23	00--	..	..	..	..	23(2)	5	11	111	37	24	18
KY	20.5N	23	01--	..	..	..	..	23(4)	6	13	126	79	24	24
AL	09.5N	23	00--	..	..	..	..	23(4)	6	5	138	28	25	00
GU	04.6N	23	00--	..	..	..	..	23(4)	6	5	205	55	25	00
AN	01.5N	23	00--	..	..	..	..	--	-	3	164	70	25	00
HU	00.6S	23	0100	..	..	..	..	23(5,6,7)	5	8	235	52	24	23
TV	01.1S	23	00--	..	..	..	..	--	-	3	173	127	25	00
PM	18.7S	23	00--	..	..	..	..	23(4)	6	5	200	70	26	09
HR	33.7S	23	0100	..	..	..	..	23(7)	6	38	142	125	24	23
GN	43.2S	23	00--	..	..	..	..	23(4,5)	6	21	150	130	28	12
KG	56.5S	23	0100	..	..	..	..	23(7)	7	52	551	315	24	22
MI	60.7S	23	0130	..	..	..	..	24(3,4)	8	211	1750	1060	24	20

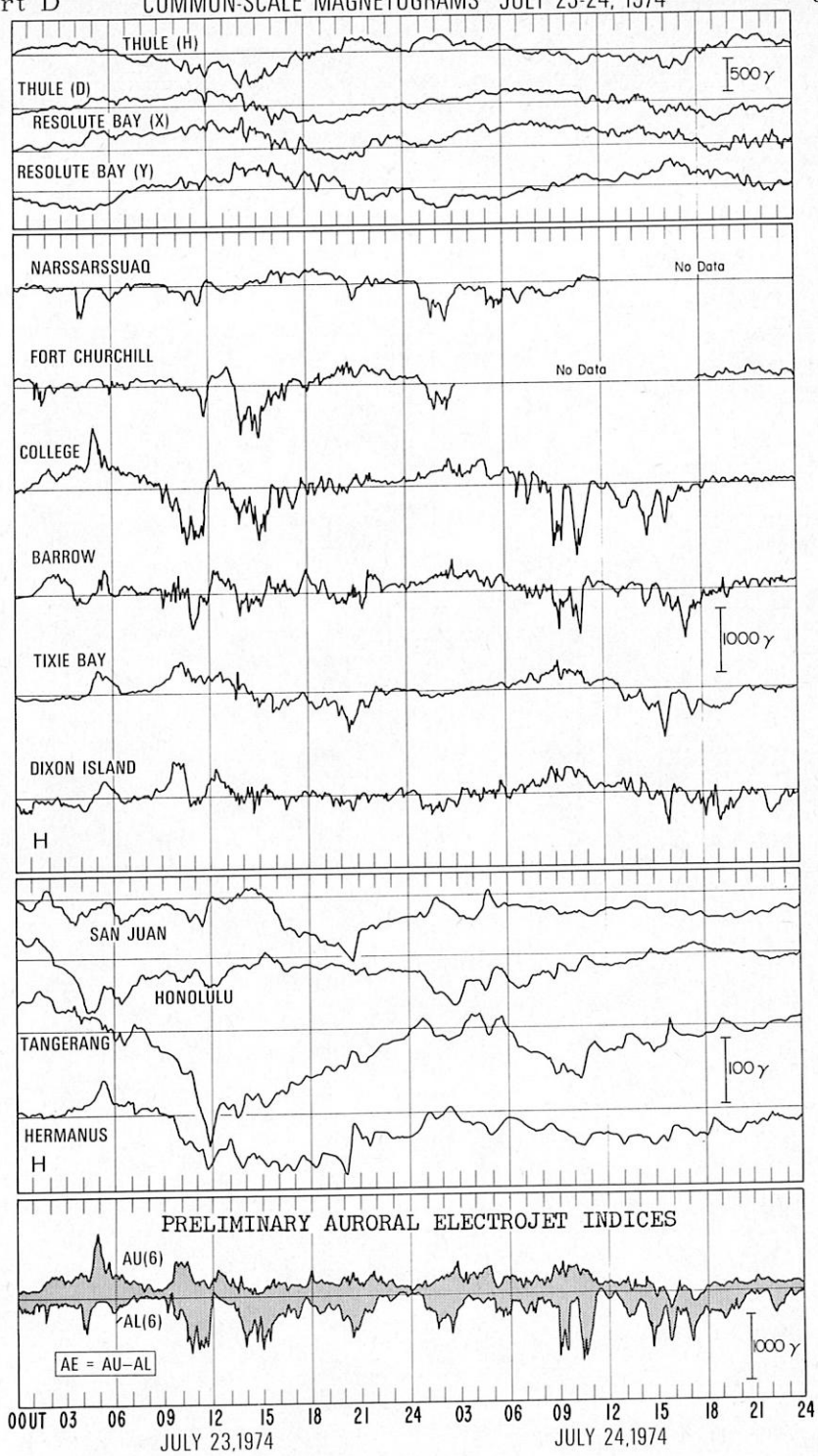
THREE-HOUR-RANGE INDICES, K

JUL	22				23				24				25			
GO	3154	3433	4446	7754	6535	6645	4345	5544								
BT	4345	3344	5677	7655	6776	6665	5666	4445								
RY	2232	2235	6766	6786	8675	5575	5655	4456								
PB	2345	2434	5556	6556	5557	5654	4467	5434								
CC	2144	2234	5656	6546	5566	6655	5455	4445								
KI	1121	2125	5746	7677	8754	5566	4434	4355								
CO	2152	1112	4667	7654	5577	6643	3457	5432								
MM	1122	2125	5746	7667	7655	5666	4444	4455								
DI	2245	2356	6657	7666	6666	6776	5556	4666								
DO	0022	3223	6746	7777	7544	5554	3344	4333								
WL	1131	1313	4858	8865	4568	7643	5335	----								
ME	2152	2223	5768	7655	6767	5543	3567	4333								
TI	1245	2344	5757	8677	5567	7875	4456	5665								
SI	1141	1122	5768	8653	5577	6533	3446	4333								
ES	0121	2323	3545	6665	4444	5554	3334	3433								
NU	0021	3222	4646	6666	6434	5553	2233	4433								
OT	1141	2223	4646	4454	5554	3333	3343	3222								
VL	0122	2323	4545	5565	5444	4544	3333	3433								
VI	1141	1213	4756	5543	5655	4433	3546	3333								
YA	1223	1233	5645	6654	5546	5553	2346	3333								
FR	2142	2124	5645	4454	5554	4444	3444	3333								
FU	0222	3213	3535	5565	4434	3443	2334	2323								
SV	1122	2122	4546	5553	4444	5544	3234	3333								
KV	1132	3223	4546	6565	5545	4554	3345	3434								
PK	2322	2222	4445	5543	4455	4433	3345	3333								
TL	0121	2222	3445	4563	4434	3343	2234	2312								
DS	2242	2223	5656	5553	5644	5444	4455	3333								
IR	2132	3224	4546	6544	5445	5544	3345	3434								
TU	2142	1223	4656	4553	5644	3333	3445	2323								
KD	2121	1222	3434	4433	3333	4433	3223	2322								

THREE-HOUR-RANGE INDICES, K

JUL	22				23				24				25			
IK	1131	2222	3536	5565	4434	4543	2234	2323								
MT	1121	2222	3344	5543	3445	4433	2335	2222								
VK	1023	2332	3556	6533	4345	4442	2345	3332								
TK	1332	2232	4546	5544	4445	4543	3235	3324								
KS	1133	2233	4546	5554	4334	4544	2335	3444								
SJ	1020	0112	4445	4653	4523	3323	3333	1123								
TA	1030	3323	3545	4563	4433	4333	2334	3323								
QU	2233	2222	3446	4443	3354	4433	3254	3332								
HO	0030	1112	4555	4433	5543	3323	2344	2322								
KY	0122	2222	4446	4433	4545	3332	2334	2222								
AL	2232	2222	4456	4444	3434	4433	3444	3323								
BA	1132	2222	3546	5453	4433	4333	2234	2323								
GU	1122	2222	5546	4332	5444	3332	2335	3322								
HU	0121	3322	4444	5553	4422	4432	2323	3332								
LU	0010	2222	1424	4542	2223	3321	1113	1111								
PP	0030	1121	3554	5432	4544	2231	2343	1111								
PM	3322	1111	4546	5432	5445	4332	2335	2222								
TN	0121	1211	2324	4343	2233	2322	2224	2212								
AC	0021	2223	4533	4553	5522	3332	3323	2212								
TW	0031	2214	5544	5543	5533	2333	3323	2332								
HR	0021	1112	4545	5464	5434	3443	3333	2332								
GN	1121	1121	4556	6543	5455	5553	3345	3433								
TO	1132	1221	4546	5444	5545	5443	3345	2322								
AM	0142	1102	4645	4443	4556	3332	2445	2221								
MI	0041	1100	3747	7665	4588	6543	2357	5333								
NL	0121	0003	7874	5566	7644	3343	4435	3342								
MW	2343	2235	5775	4666	7676	4676	4666	4556								
MY	2533	1132	3443	4464	4434	3775	3443	2656								
SB	1132	1122	3543	5434	4543	3433	3354	3333								
VO	2132	1122	3443	4433	4444	3344	3333	2223								

COMMON-SCALE MAGNETOGRAMS JULY 23-24, 1974



Indices

	18								19								20								21							
UT			06			12			18				06			12			18				06			12			18			
Kp	1+	1+	3-	2-	3-	2o	1+	4-	4o	3+	5o	5+	5o	5o	4+	5-	6-	6-	5+	5-	4o	5o	5-	4o	6-	4+	5-	5o	4+	4o	4o	4+
3Kn	3	4	8	6	8	7	4	10	10	9	13	14	14	12	12	12	15	15	15	13	11	14	11	11	14	13	14	15	12	12	11	11
3Ks	4	3	8	5	6	5	4	11	9	11	12	11	14	11	11	11	14	13	14	12	10	12	12	10	15	11	11	12	11	11	12	11
Dst	-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

AUGUST 1974

Data from Individual Observatories:

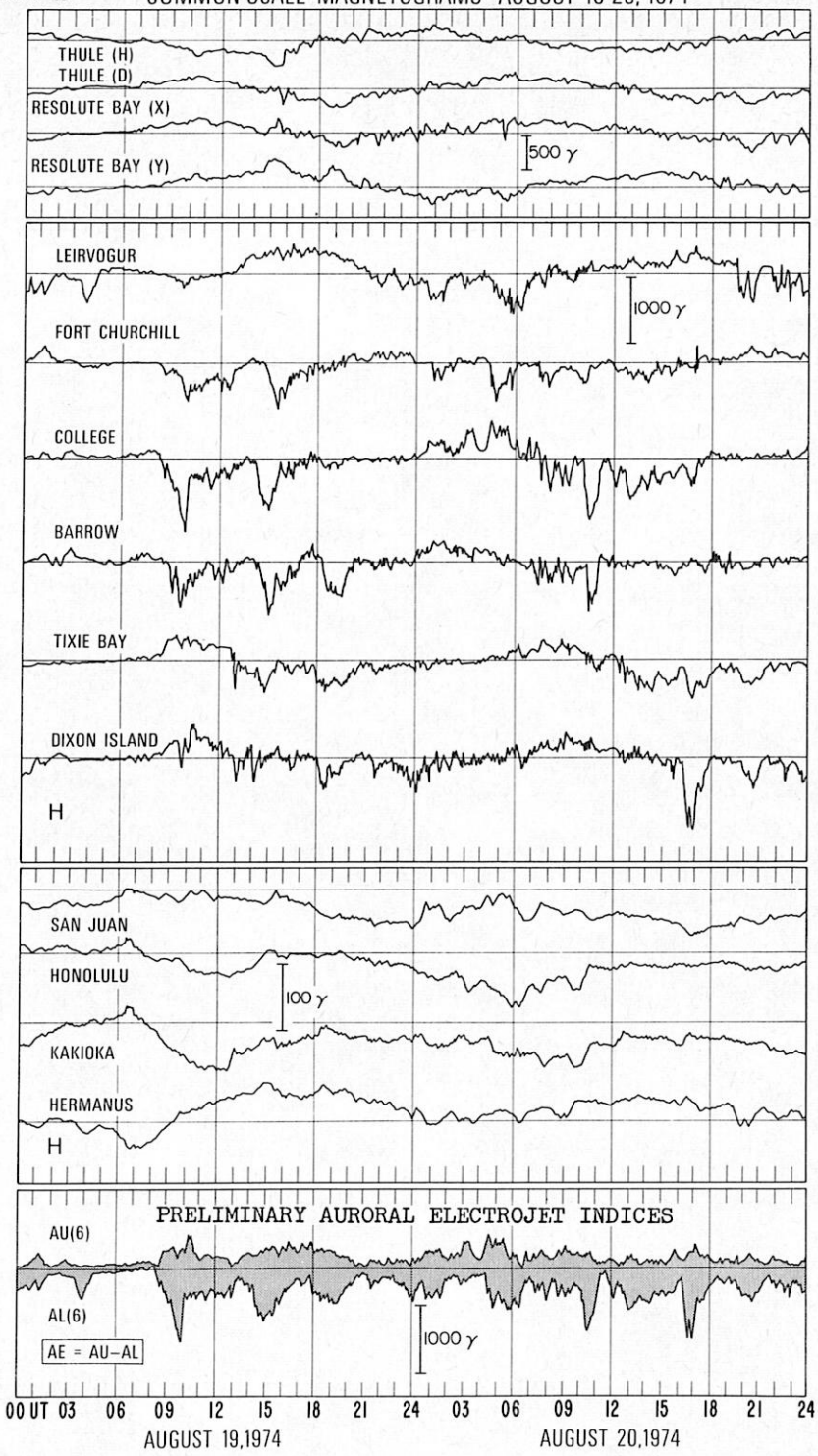
OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
CH	68.8N	18	2200	..	..	..	..	20(2)	-	1004	819	1065	20	18
GW	66.8N	18	2200	..	..	..	..	20(1)	-	328	996	1113	20	18
CO	64.6N	18	22--	..	..	..	..	23(4)	8	229	2290	1160	24	21
SI	60.0N	18	22--	..	..	..	..	20(3)	7	90	580	680	24	20
JO	58.7N	18	----	..	..	..	..	20(2)	6	65	315	232	21	19
OT	57.0N	18	2225	SC	+ 1.1	+ 6.2	+ 5.3	20(1,2)	6	59	233	277	21	19
NE	55.1N	18	21--	..	..	..	..	20(4)	6	50	170	295	22	20
WI	54.2N	18	23--	..	..	..	..	20(1,6) 22(6,7)	6	37	260	100	24	20
FR	49.6N	18	21--	..	..	..	..	20(3)	6	32	141	81	25	11
DS	43.0N	18	22--	..	..	..	..	22(1)	6	27	121	60	25	10
TU	40.4N	18	22--	..	..	..	..	22(1)	6	22	125	45	25	13
HD	07.6N	18	2200	..	..	..	..	20(4)	5	6	165	27	20	18
HU	00.6S	18	2320	..	..	..	..	19(6)	5	9	198	40	21	05
HR	33.7S	18	23--	..	..	..	..	20(1) 22(7) 23(1)	5	22	109	68	24	20
GN	43.2S	18	23--	..	..	..	..	19(5) 23(4) 24(4)	6	20	120	100	24	21
TO	46.7S	18	22--	..	..	..	..	19(3,5,6) 20(4)	5	23	120	50	20	18
MW	73.2S	18	2320	..	..	..	..	19(8) 20(3,7) 21(1)	7	214	984	1021	21	03
RB	83.0N	19	0600	..	..	..	..	19(7)	-	664	568	639	21	07
MX	79.1N	19	0000	..	..	..	..	19(7)	-	866	688	656	21	05
BL	73.8N	19	0700	..	..	..	..	19(7)	-	789	999	965	20	23
ME	61.8N	19	0750	..	..	..	..	19(3) 20(4) 21(3) 22(4) 23(4)	8	188	1029	565	23	17
VI	54.3N	19	----	..	..	..	..	20(1,2,3,4)	6	47	117	237	24	21
BD	48.9N	19	08--	..	..	..	..	22(1)	6	45	120	90	25	19
MT	34.0N	19	04--	..	..	..	..	19(3,5) 21(1,4) 23(2,4) 24(4)	5	18	159	35	24	21
KA	26.0N	19	04--	..	..	..	..	19(3) 24(4)	5	13	118	78	24	21
MB	21.3N	19	00--	..	..	..	..	20(1)	5	2	50	6	24	00
KY	20.5N	19	04--	..	..	..	..	19(3) 24(4)	5	11	129	61	24	21
AL	09.5N	19	04--	..	..	..	..	19(3,4) 20(6)	5	5	156	47	20	18
GU	04.0N	19	00--	..	..	..	..	19(3)	5	10	140	30	24	18
AN	01.5N	19	04--	..	..	..	..	--	-	4	180	59	20	18
TV	01.1S	19	04--	..	..	..	..	--	-	3	205	126	20	18
PM	18.7S	19	06--	..	..	..	..	23(1,4) 24(4)	5	9	140	50	25	18
PH	18.7S	19	06--	..	..	..	..	19(3,5) 20(4) 21(1,4)	5	9	140	50	25	18
KG	56.5S	19	0900	..	..	..	..	21(1)	6	34	315	220	23	03
MI	60.7S	19	0650	..	..	..	..	20(4)	7	118	992	697	20	19

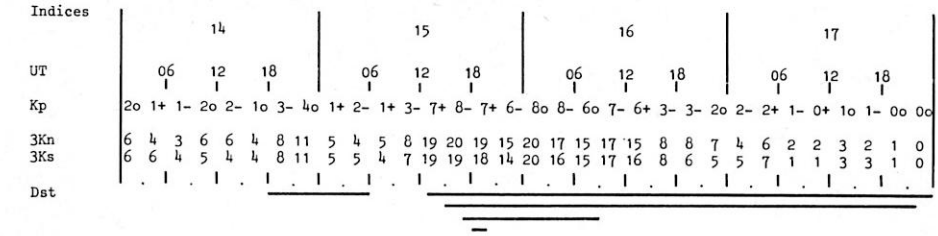
THREE-HOUR-RANGE INDICES, K

AUG	18				19				20				21			
GO	2134	4323	4334	5644	3445	6564	5436	6664								
BT	4443	3344	4456	6554	5776	6654	6666	6665								
RY	3232	3225	5645	6566	6776	5577	7655	4567								
PB	2343	2313	4466	6665	5466	5455	5477	5665								
CC	2133	3225	5445	6455	5656	7645	6544	6666								
KI	2122	3116	6335	6667	7645	4576	8535	5667								
CO	1243	3111	3267	6643	5567	5533	4576	5543								
MM	2222	3116	5325	5657	7655	4576	8445	6667								
DI	2233	3426	6457	7577	7666	6866	7556	7878								
DO	1122	4324	4445	6556	7644	5555	7444	5445								
WE	1131	2122	3367	8754	4667	7633	5466	7544								
ME	1242	2223	4387	7645	6777	5434	6578	6335								
TI	1232	3324	3367	8675	5566	7766	6467	8765								
SI	1131	2112	3366	6734	4577	5433	4565	6434								
ES	1122	3324	4345	4434	5444	4554	5434	4433								
NU	1122	3223	3324	4434	5434	4544	5324	5443								
OT	1232	2112	3344	4433	6654	3344	5554	3224								
VL	1122	3324	4344	3444	5543	3443	4433	3443								
VI	1232	2213	4345	5534	6666	4334	5665	4334								
YA	2222	2213	3335	6454	4445	5543	5456	5554								
FR	1132	2113	3355	4444	5664	3444	5455	4344								
FU	2222	2323	3344	3344	5343	3443	4333	3443								
SV	2112	3223	3334	5454	4434	4543	4435	5443								
KV	1122	3324	3355	4455	5444	4543	4444	4444								
PK	0232	3213	3354	5444	5555	4544	6455	4434								
TL	1111	1213	3342	2343	3342	2453	3332	3443								
DS	2232	3224	4455	4434	6565	3434	5555	3344								
IR	2333	4324	4465	6554	4455	4544	----	----								
TU	1232	3123	4445	3434	5565	3333	5555	3444								
KD	2222	2212	3333	3443	3333	3432	2323	4433								

THREE-HOUR-RANGE INDICES, K

AUG	18				19				20				21			
IK	2112	3323	3334	4344	5434	3543	4324	3443								
MT	0122	3212	2254	5444	4444	4423	5445	4433								
VK	1223	3232	2234	5444	4366	5533	5456	5554								
TK	1233	3333	3355	3543	4544	3543	4445	4553								
KS	2123	4334	4343	3344	4454	4553	4345	4553								
SJ	0122	2223	3343	2433	4443	2333	4433	3333								
TA	2113	3323	3333	3343	4443	3443	4333	3443								
QU	2333	3323	3455	3444	4444	3433	4454	4442								
HO	0122	3222	3344	4432	3444	3323	5344	3332								
KY	1122	3212	2354	4333	4444	4423	4344	4333								
AL	1233	4323	3355	3444	3444	3533	4444	3442								
BA	2122	4323	3443	3333	4443	2343	4334	3343								
GU	2222	3212	3455	5333	4445	4323	5444	4334								
HU	1122	3323	3333	4543	4342	4442	4322	4433								
LU	1012	2112	1233	3332	2122	2321	2134	3321								
PP	0121	2111	2344	3222	2453	2121	4343	2132								
PM	1122	3223	3454	5332	4445	4322	5445	4323								
TN	1022	1122	2243	2233	2232	1332	3234	2332								
AC	1021	2324	3343	2334	5442	2333	4422	2234								
TW	1032	2324	3443	4334	5453	3433	5423	3344								
HR	2122	3214	3343	4344	5444	3443	4343	3343								
GN	1132	3224	4334	6554	4444	4533	5445	5554								
TO	1232	2223	3354	5543	3445	4422	5455	4443								
AM	0232	2203	3344	5433	3454	3333	5454	4333								
MI	0131	2101	2145	6654	4667	6633	4566	7544								
NL	2121	0005	5524	3446	7765	3456	8744	4446								
MW	3332	2226	5545	4567	6676	5675	7557	5666								
MY	2332	2003	4443	3443	3443	3753	6444	4765								
SB	2132	1102	3333	3444	4643	3343	5444	3344								
VO	2222	1103	3333	3433	----	----	6334	4353								


THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500 γ
LEIRVOGUR
1000 γ
FORT CHURCHILL
COLLEGE
BARROW
TIXIE BAY
DIXON ISLAND
H
SAN JUAN
HONOLULU
100 γ
KAKIOKA
HERMANUS
H
PRELIMINARY AURORAL ELECTROJET INDICES
AU(6)
AL(6)
AE = AU−AL
1000 γ
00 UT 03 06 09 12 15 18 21 24 03 06 09 12 15 18 21 24
AUGUST 19,1974
AUGUST 20,1974



SEPTEMBER 1974

Data from Individual Observatories:

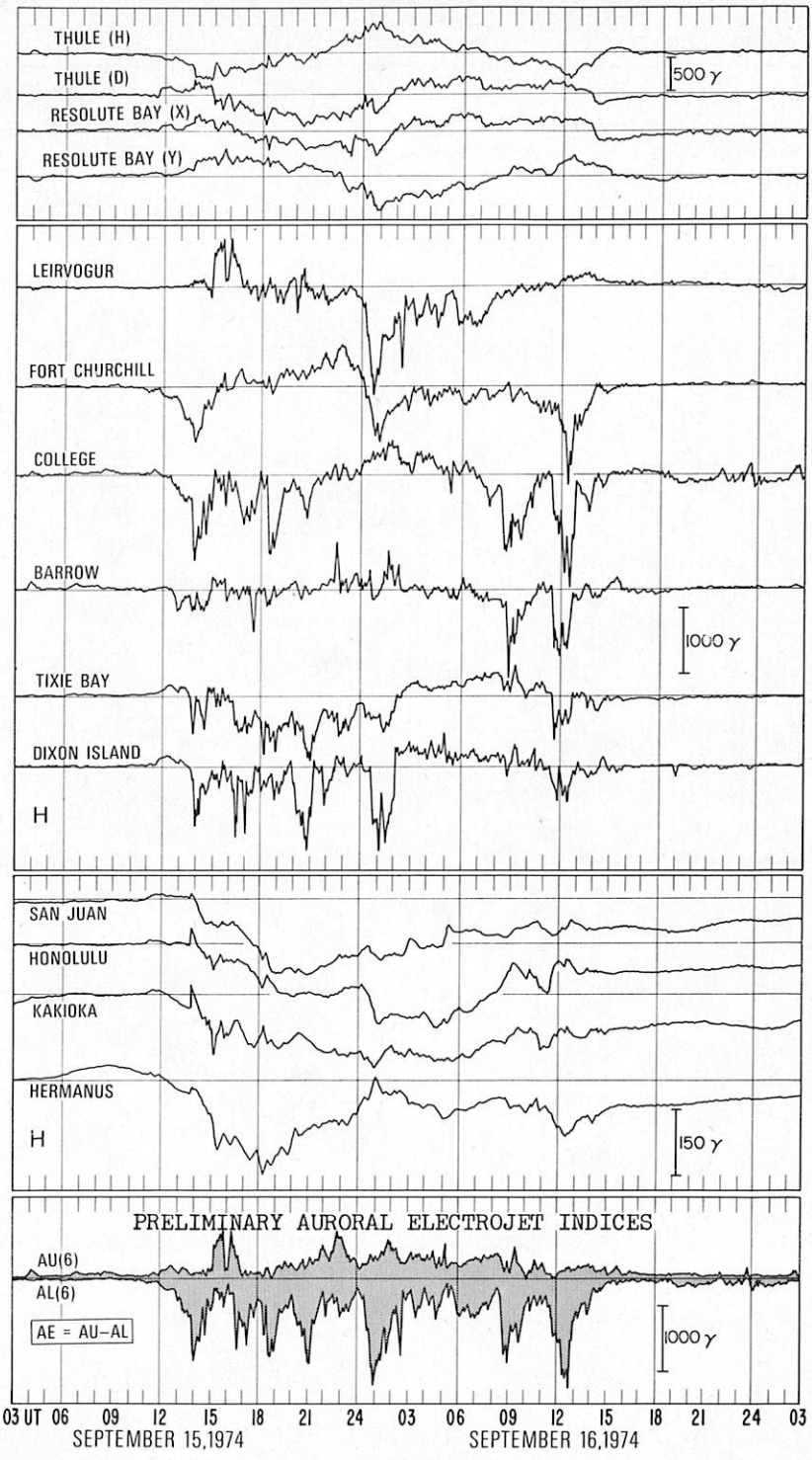
OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
RB	83.0N	15	1343	SC*	+103 *	+106 *	+ 57 *	16(1)	-	948	675	510	17	01
MX	79.1N	15	1343	SC*	- 25	+112 *	- 5	16(1)	-	991	677	796	17	04
BL	73.8N	15	1344	SC	- 14	-156	+123	16(5)	-	847	1360	1494	17	00
CH	68.8N	15	1343	SC	-149	-172	- 94	16(5)	-	916	2216	1568	16	19
GW	66.8N	15	1344	SC	+ 38.6	-130	+146	16(1)	-	419	1788	1691	16	19
CO	64.6N	15	12--	..	..	..	..	16(5)	8	363	2370	1600	16	17
ME	61.8N	15	1347	SC	24	504	264	15(5,6) 16(3,4)	8	225	1255	1008	16	18
SI	60.0N	15	1344	SC	10	-308	-217	16(3)	9	260	1750	1070	16	17
JO	58.7N	15	----	..	..	..	..	15(7) 16(1,2)	7	129	680	640	17	05
OT	57.0N	15	----	..	..	..	..	15(7) 16(1,2)	7	109	732	529	17	05
NE	55.1N	15	1343	SC	- 6	65	..	16(2)	7	77	550	705	16	18
VI	54.3N	15	1343	SC	- 9.5	+ 63	+ 13	15(5,6,7) 16(2,4)	7	62	393	668	16	18
WI	54.2N	15	1343	SC	- 13	+115	+ 6	15(6) 16(1)	7	62	330	355	16	16
FR	49.6N	15	1343	SC*	- 15	- 60	22	16(1)	7	50	230	190	16	16
BD	48.9N	15	1344	SC*	- 13	60	20	16(2)	7	55	300	200	17	00
DS	43.0N	15	1343	SC*	- 9	36	20	15(5)	7	33	223	86	16	15
TU	40.4N	15	1343	SC*	3	50	2	15(5)	7	29	255	80	16	18
MT	34.0N	15	1343	SC*	+ 3.4	+ 70	- 9	15(5,6,7)	6	21	234	50	16	19
SJ	29.9N	15	1343	SC	1	15	3	15(5)	6	11	187	67	17	00
KA	26.0N	15	1343	SC*	+ 2.6	+ 57	+ 35	15(5,6,7)	6	13	194	77	16	19
HE	21.3N	15	1343	SC	- 4.5	+ 51	- 22	15(7)	6	6	90	23	17	00
HO	21.1N	15	1343	SC*	1	44	19	16(1)	6	12	225	33	16	16
KY	20.5N	15	1343	SC*	+ 2.1	+ 58	+ 32	15(5,6,7)	6	12	191	89	16	24
AL	09.5N	15	1342	SC	- 1.0	30	- 8	15(5)	7	9	188	62	16	15
HD	7.6N	15	1344	SC	- 0.7	36	- 3	15(7)	8	9	230	22	17	00
GU	04.0N	15	1343	SC*	- 1	46	- 14	15(5)	7	10	170	40	17	05
AN	01.5N	15	1342	SC	- 1.3	37	28	--	-	7	225	109	16	15
HU	00.6S	15	1342	SC	5	142	11	15(8)	8	19	542	64	16	21
TV	01.1S	15	1342	SC	0.4	38	39	--	-	6	223	237	16	15
PM	18.7S	15	1343	SC	0.5	53	42	15(5,6)	6	11	180	120	17	06
HR	33.7S	15	1343	SC	+ 2	+ 19	+ 15	15(6)	7	28	228	212	16	15
GN	43.2S	15	1343	SC	- 01	+08	- 01	15(5,6) 16(1,4)	7	44	180	260	16	16
TO	46.7S	15	1343	SC	- 5.7	75	16	15(5,6,7) 16(1,3,4)	6	43	280	140	16	18
KG	56.5S	15	1343	SC*	- 15.0	+ 51	+ 24	15(6) 16(1)	9	196	1328	483	16	17
MI	60.7S	15	1035	SC	- 5	+ 19	+ 21	15(5,6,7) 16(3,5)	8	435	2343	1362	16	17
MM	73.2S	15	0350	..	..	..	..	16(1)	8	66	1857	1621	16	15

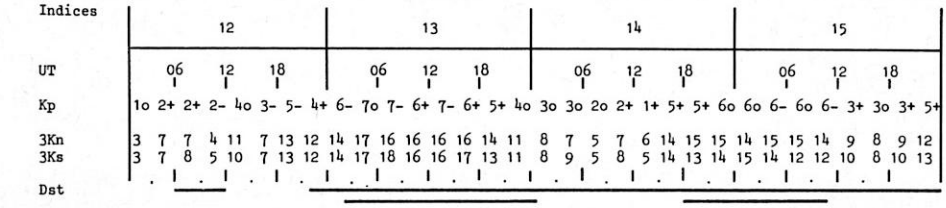
THREE-HOUR-RANGE INDICES, K

SEP	14		15		16		17	
GU	2224	4434	2225	6556	7555	7422	2233	3332
BT	3324	2356	4434	5756	7565	6333	4323	5332
RY	3222	2346	3322	5875	9765	4333	4211	2201
PB	3223	3344	3333	5666	6577	7532	3223	4311
CC	3223	2345	3323	6665	6565	6323	3222	4221
KI	2012	1246	2113	6776	9646	6443	1111	2111
CO	2203	1113	2233	7675	5677	8312	2201	2100
MM	2213	2356	2213	7776	8546	6453	2221	2111
DI	4224	2566	3224	8899	9767	7454	3322	3222
DO	2213	2134	1123	8988	7846	6342	1100	1000
WE	2102	0123	1211	8976	6788	9511	1201	2110
ME	2112	2223	2122	8675	9888	8323	2211	2111
TI	3223	2554	2223	8888	8569	8433	3222	2222
SI	2102	1123	1212	8885	7898	8322	1210	1100
ES	2112	2133	2123	6885	6645	5331	1100	1100
NU	1002	1034	0113	9976	7736	6332	1101	0000
OT	2101	2033	0112	5574	7765	5222	1211	1100
VL	2111	2134	1113	5674	7644	5221	1111	1111
VI	2212	1124	0122	7775	6767	6312	1110	0000
YA	3222	1245	2221	7886	6467	6323	2321	2101
FR	2112	2034	3122	7655	7656	5222	2310	1000
FU	2112	1134	0114	5664	6534	4331	1112	1100
SV	2112	1233	1112	5785	7445	5331	0100	1000
KV	2232	2134	2233	6775	6535	5342	2231	2221
PK	2223	2234	2222	6675	6566	5423	2222	2220
TL	1000	0112	0012	6654	5435	5221	0101	1000
DS	3212	3135	3223	7765	6657	6222	2310	1110
IR	2112	2134	1323	6776	7456	6333	2222	2211
TU	3222	2124	2123	7665	6656	6222	2211	1100
KD	2122	2233	2232	4554	6335	4221	2221	2011

THREE-HOUR-RANGE INDICES, K

SEP	14		15		16		17	
IK	2112	2123	1112	6675	6435	5332	1211	1100
MT	1112	2123	0212	6664	5455	4222	1201	1100
VK	2103	2233	1223	6675	7456	5311	1101	2110
TK	2332	2134	0343	7665	6446	5433	1332	2121
KS	3222	2125	0103	8-76	7336	7332	1110	0000
SJ	2101	1034	1113	6655	5545	4232	1200	0000
TA	---1	1133	2113	6665	5425	5221	2210	0110
QU	2334	2--3	3333	7564	6---	----	3201	2000
HU	2112	1123	1112	6653	6566	4211	2100	0000
KY	2212	2123	0112	6664	5445	5212	1201	1100
AL	3443	2233	3334	7564	6555	4332	2423	2221
BA	2223	2223	1213	7665	5446	5232	1211	2200
GU	3212	2123	2222	7653	6456	5323	3220	1110
HU	2112	3433	1113	6875	6544	6532	1212	2221
LU	1123	3112	0123	5775	4445	5421	1122	2100
PP	2112	0022	0112	6553	6435	4111	0201	0000
PM	3223	1123	1112	6655	5546	5312	2210	1100
TN	1122	1220	1122	6453	4325	5331	1222	2101
AC	2111	2124	1122	6663	5---	3211	1300	0100
TW	2221	2234	2222	6564	5534	3221	2301	1210
HR	2113	2133	1113	6764	6545	5222	2100	0000
GN	3112	1245	1112	7764	7467	5322	1100	1100
TO	2312	2123	1212	6664	6566	5322	2210	1100
AM	2212	1013	1212	6654	6566	6311	1210	1100
MI	1212	1012	0112	8885	5687	8421	0201	1000
NL	2112	1124	1111	4686	8765	5211	2110	1101
MW	4312	1266	2333	7555	8776	6235	2312	1223
MY	3323	3234	2443	5444	8564	5222	3532	3210
SB	3223	3234	3223	5544	6455	6212	2321	1132
VO	3223	2234	3323	5543	5354	4112	2323	2221


THULE (H)
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
500 γ
LEIRVOGUR
FORT CHURCHILL
COLLEGE
BARROW
1000 γ
TIXIE BAY
DIXON ISLAND
H
SAN JUAN
HONOLULU
KAKIOKA
HERMANUS
H
150 γ
PRELIMINARY AURORAL ELECTROJET INDICES
AU(6)
AL(6)
AE = AU-AL
1000 γ
03 UT 06 09 12 15 18 21 24 03 06 09 12 15 18 21 24 03
SEPTEMBER 15,1974
SEPTEMBER 16,1974



OCTOBER 1974

Data from Individual Observatories:

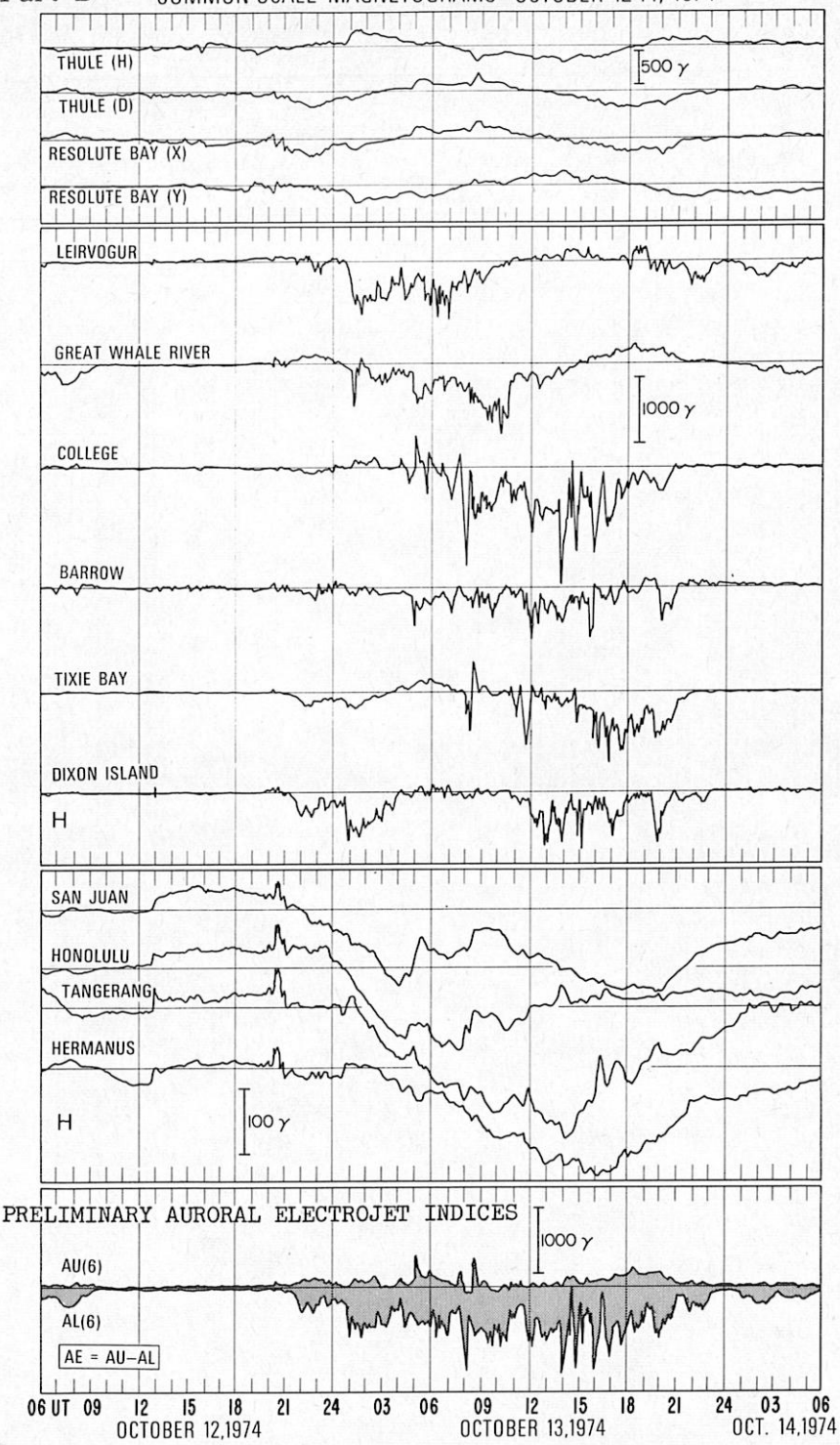
OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
RB	83.0N	12	1244	SC	- 24	- 45	- 18	12(7)	-	494	550	323	14	06
HX	79.1N	12	1244	SC	- 11	- 34	- 2	12(7)	-	534	622	372	14	06
BL	73.8N	12	1243	SC*	+ 14	+217 *	-121	13(3)	-	567	815	925	14	07
CH	68.8N	12	1244	SC*	+ 24	+136 *	+152 *	13(5)	-	760	672	816	14	11
GW	66.8N	12	1244	SC*	- 8.3*	+ 23	- 35	13(4)	-	276	1406	1435	14	11
CO	64.6N	12	1244	SC*	- 9	55	- 20	13(5)	8	596	2420	1990	13	23
SI	60.0N	12	1245	SC*	- 5	25	9	13(5)	9	260	1750	1250	13	23
JO	58.7N	12	----	..	..	..	..	13(2,3)	6	64	280	353	13	21
OT	57.0N	12	1244	SC*	+ 14.6	- 31.3	- 13.9	13(2,3)	6	65	295	218	13	21
NE	55.1N	12	1244	SC*	- 6	16	..	13(2)	7	100	425	475	13	22
VI	54.3N	12	1244	SC*	- 3.9	+ 14	+ 6	13(2)	8	73	266	429	14	03
WI	54.2N	12	1244	SC*	- 3 *	+ 60 *	- 2	13(6,7)	6	35	230	190	14	01
FR	49.6N	12	1244	SC*	7	- 19	- 2	16(8)	6	38	139	138	21	01
BO	48.9N	12	1245	SC*	- 2	10	3	13(2)	6	45	185	130	14	06
OS	43.0N	12	1245	SC*	- 1	12	- 3	13(2)	6	23	192	58	14	06
TU	40.4N	12	1244	SC*	1	8	..	16(5)	6	29	180	40	21	09
HT	34.0N	12	1244	SC*	+ 0.4	+ 34	- 1	13(3,4,6,7)	5	14	191	32	13	21
SJ	29.9N	12	1243	SC*	- 0.5	8	3	13(2)	6	8	169	34	14	06
KA	26.0N	12	1244	SC	+ 0.6	+ 27	+ 17	13(1,4,6,7)	5	10	192	71	13	21
HB	21.3N	12	1243	SC*	- 1.9	- 34	- 6	12(7,8)	5	1	81	5	14	06
HO	21.1N	12	1244	SC	1	17	5	13(1)	5	10	195	43	13	21
KY	20.5N	12	1244	SC	+ 0.5	+ 29	+ 14	12(7) 13(1,4,5,6,7)	5	17	211	84	13	21
AL	09.5N	12	1244	SC	- 0.6	26	- 5	12(7) 13(1,2,5,6)	5	5	210	43	13	21
HD	7.6N	12	1244	SC	- 0.5	28	- 1	13(6)	6	6	258	29	14	06
GU	04.0N	12	1244	SC	..	22	- 6	13(1)	6	5	200	30	14	06
AN	01.5N	12	1244	SC	- 1.1	32	20	--	-	3	238	74	13	21
HU	00.6S	12	1244	SC	3	98	5	13(6)	6	8	348	38	13	22
TV	01.1S	12	1244	SC	0.1	26	32	--	-	3	235	92	13	21
PM	18.7S	12	1244	SC	0.5	26	22	16(4)	6	6	200	20	21	08
HR	33.7S	12	2015	SC	+ 2	+ 29	+ 9	13(6)	6	27	203	110	13	23
GN	43.3S	12	1244	SC*	2	27 *	12	13(3,4,5,6)	6	21	178	124	14	04
TO	46.7S	12	1245	SC*	- 0.9*	36	6	13(3)	7	30	190	120	13	22
KG	56.5S	12	1243	SC*	- 4.4	+ 50	+ 14	13(5,6)	8	123	1034	439	13	24
HI	60.7S	12	1245	SC	- 4	- 23	- 21	13(3)	8	294	1614	1044	13	21
MW	73.2S	12	1245	SC*	- 5 *	+128	+ 68	13(2)	8	122	1048	1044	14	00
ME	61.8N	13	0110	..	..	..	..	13(4,5,6)	9	159	1070	754	13	18

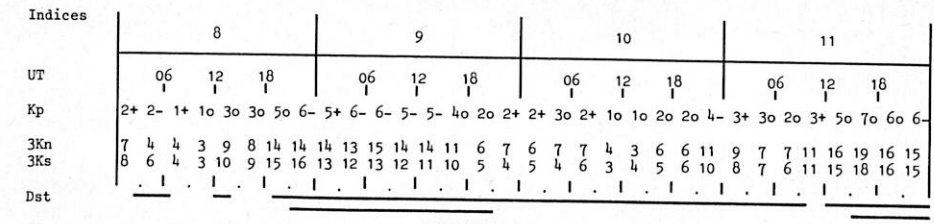
THREE-HOUR-RANGE INDICES, K

OCT	12		13		14		15	
GU	1233	3444	4565	3445	4323	3555	6655	5534
BT	4343	3346	7345	5445	4433	3566	5565	4545
RY	2332	4335	7776	5566	5422	3678	6754	4446
PB	2342	3344	4566	6664	2225	4765	4576	4444
CC	3242	3235	6354	5654	4433	2657	5466	4434
KI	1121	3236	6763	5666	3222	2577	7455	4447
CO	1231	2233	4786	8752	2214	3774	5477	4334
MM	1122	3246	7764	5666	3223	2577	7455	4457
DI	3243	4346	7655	7775	5434	3778	7555	7747
DO	2221	3234	7666	7776	3223	2588	8544	4337
WE	1131	1134	4797	8963	2213	3775	5588	6433
ME	1242	3233	6778	9743	3233	2555	5688	4333
TI	2232	3245	5798	7876	3334	4998	6577	76--
SI	1130	2233	5789	9853	2223	2554	6579	4233
ES	1121	4344	5654	4654	2222	1555	6544	3335
NU	1111	4244	5645	7855	2212	1466	6443	3335
OT	0232	4243	4665	5322	3212	1335	6554	3234
VL	1222	3344	5653	4554	3232	1545	5544	3335
VI	0231	3333	4876	7543	3223	2553	5666	3233
YA	1121	2134	6567	6764	3322	4474	4466	4434
FR	1332	4254	5666	5443	3322	2455	5565	3235
FU	1122	3244	4543	4554	3233	2445	4434	2234
SV	1332	3244	5444	6655	2232	2566	4434	3434
KV	2222	4365	6645	5765	3333	2556	5444	3444
PK	1222	4245	4565	6653	2223	3465	4565	4334
TL	0011	3243	5553	3554	2221	2443	4444	2334
DS	1331	3254	6656	5443	3322	2454	6665	3235
IR	2331	4354	5456	5664	3323	3565	5566	5444
TU	1331	3354	6656	6443	3332	1644	5655	3235
KD	1212	2233	4434	4444	1121	1444	3334	3323

THREE-HOUR-RANGE INDICES, K

OCT	12		13		14		15	
IK	1212	4354	5544	5555	3212	2555	4334	3344
MT	1221	4244	4455	4552	2212	3355	4455	3333
VK	1231	4344	5456	5653	3333	3464	3366	3323
TK	2122	4354	5554	5664	3322	2555	4444	4343
KS	2222	5465	6634	5565	3333	3655	4334	4455
SJ	1221	4355	5655	4335	3311	1543	5554	3334
TA	1122	3354	---4	5454	3312	2444	3412	2243
GU	2323	4354	5544	5654	3423	2555	3344	4343
HO	1220	3254	5454	4431	2323	2342	4444	2234
KY	2221	4354	5445	5552	2223	2355	3454	3332
AL	2332	4353	5533	5544	3332	2545	3434	4343
BA	2232	4353	4333	3645	2223	3645	3334	3344
GU	2331	4355	6445	4542	3423	2345	4443	4333
HU	1222	5454	5544	5652	2212	2654	4534	4454
LU	0001	3342	3445	6654	2211	1554	2234	2122
PP	1220	3353	2453	4320	2312	2333	3334	2232
PM	1321	4344	3455	4542	3222	2443	3543	4334
TN	1111	2111	1022	2242	3343	3443	2222	1544
AC	1222	4355	4645	4443	3312	2534	5533	4343
TW	1222	4355	4655	4444	3323	2544	5533	4344
HR	1232	4254	4554	4654	3312	1555	4534	3334
GN	1221	3243	5466	6643	2222	2555	4454	4434
TO	1231	4244	4475	5533	2322	2444	4454	3234
AM	1231	3243	3564	6532	2423	2533	4445	3234
MI	0220	1133	6687	6763	2214	3774	5577	4232
NL	----	----	----	----	----	----	----	----
MW	3443	4236	7855	3375	443-	2577	66-5	4436
MY	4343	2225	5455	3334	3443	2345	5545	3324
SB	3231	3455	4554	3333	3332	1545	4444	3344
VO	3332	3234	4554	3333	3433	3434	4554	3334


THULE (H)
500 γ
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
LEIRVOGUR
GREAT WHALE RIVER
1000 γ
COLLEGE
BARROW
TIXIE BAY
DIXON ISLAND
H
SAN JUAN
HONOLULU
TANGERANG
HERMANUS
H
100 γ
PRELIMINARY AURORAL ELECTROJET INDICES
1000 γ
AU(6)
AL(6)
AE = AU−AL
06 UT 09 12 15 18 21 24 03 06 09 12 15 18 21 24 03 06
OCTOBER 12,1974
OCTOBER 13,1974
OCT. 14,1974



NOVEMBER 1974

Data from Individual Observatories:

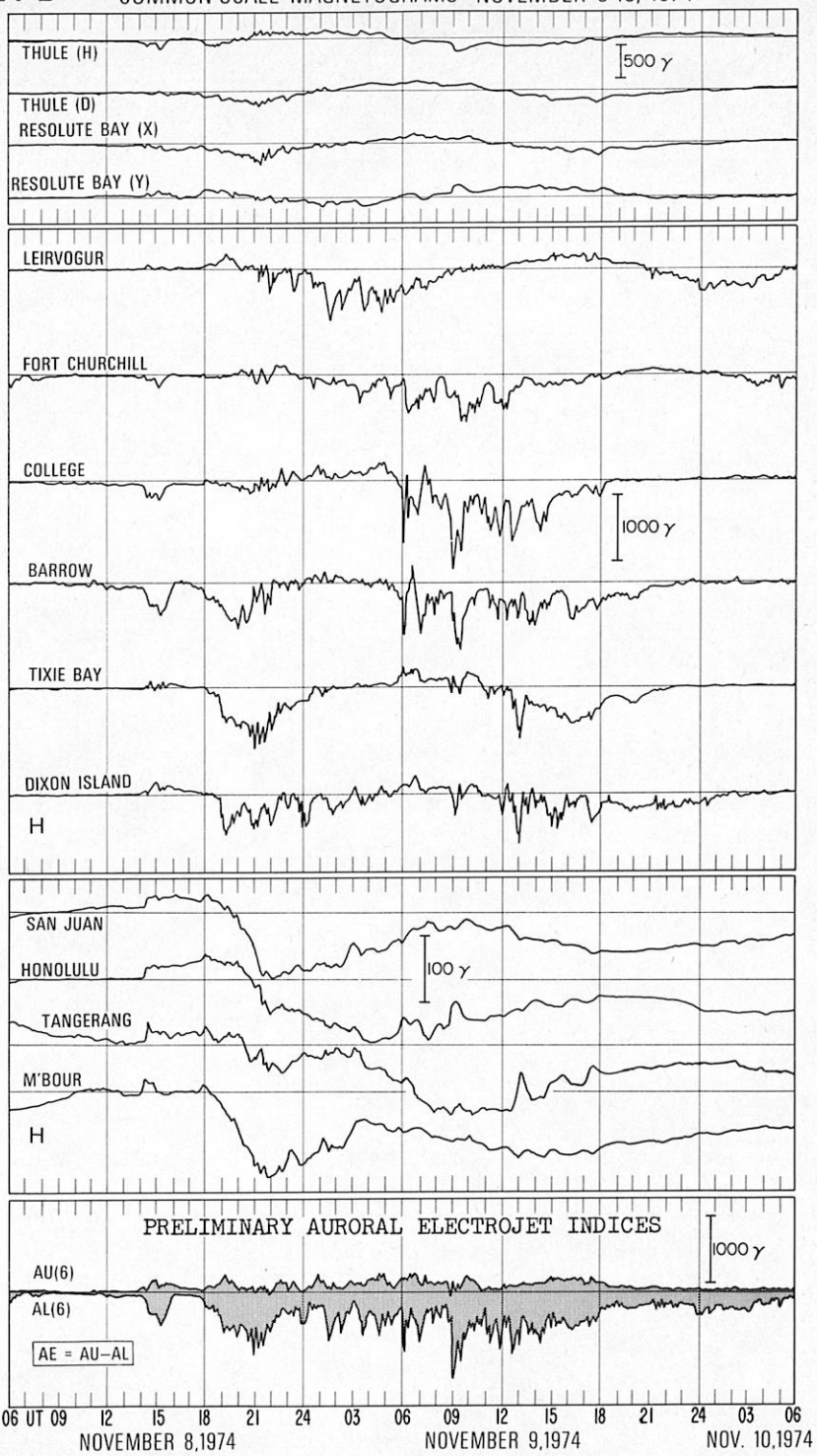
OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
JO	56.7N	7	----	..	..	..	..	08(8)	5	35	240	220	09	18
OT	57.0N	7	----	..	..	..	..	08(8) 09(3)	6	47	226	289	09	17
RB	83.0N	8	1414	SC	- 35	- 50	- 21	08(8)	-	357	466	216	09	22
MX	79.1N	8	1414	SC	- 36	- 37	- 2	08(8)	-	438	497	321	10	02
BL	73.8N	8	1414	SC	- 40	- 26	- 61	09(2)	-	491	587	894	10	06
CH	68.8N	8	1414	SC	- 77	+ 69	- 23	09(4)	-	510	922	1071	10	09
GW	66.8N	8	1415	SC*	+ 6.9	+ 30	- 18 *	09(2)	-	225	1228	1278	10	09
CO	64.6N	8	14--	..	..	..	..	09(4)	7	315	1700	1230	09	19
ME	61.8N	8	1415	SC	11	62	19	09(3,4) 11(4) 12(2,3) 13(4) 14(4)	8	161	1914	847	14	18
SI	60.0N	8	1415	SC	- 7	15	7	09(4)	8	90	930	750	09	19
NE	55.1N	8	1414	SC*	- 5	18	..	09(7)	7	50	210	300	09	19
VI	54.3N	8	1415	SC	- 4.7	+ 13	+ 9	09(4)	7	42	148	250	09	18
WI	54.2N	8	1414	SC*	+ 2 *	- 14 *	0	08(7,8)	6	30	140	85	09	19
FR	49.6N	8	1414	SC*	- 3	14	- 2	09(3)	6	29	101	101	09	16
BD	48.9N	8	1415	SC*	- 3	9	2	09(3)	6	35	90	90	09	21
DS	43.0N	8	1414	SC*	- 1	10	- 3	09(3)	6	26	123	43	10	00
TU	40.4N	8	1414	SC*	- 1	11	1	09(3)	6	19	125	35	09	20
MT	34.0N	8	1414	SC*	+ 0.9	+ 26	- 2	09(4,5)	5	11	125	25	09	19
SJ	29.9N	8	1409	SC	1	9	2	08(7)	6	8	144	34	09	14
KA	26.0N	8	1414	SC*	+ 0.9	+ 23	+ 13	09(4,5)	5	7	116	47	09	19
MB	21.3N	8	1414	SC*	+ 0.4	- 24	- 5	08(7)	6	2	116	14	10	00
HO	21.1N	8	1414	SC	..	14	5	08(8)	5	06	125	38	09	18
KY	20.5N	8	1414	SC*	+ 0.8	+ 24	+ 12	08(8) 09(4,5)	5	7	122	49	09	19
AL	09.5N	8	1414	SC	- 0.1	21	- 2	08(7)	6	5	123	21	09	18
HO	07.6N	8	1415	SC	- 0.2	23	- 2	08(7,8)	5	5	125	10	09	18
GU	04.0N	8	1414	SC	..	20	- 5	08(8)	5	3	120	30	09	19
AN	01.5N	8	1414	SC	- 0.8	27	15	--	-	3	118	35	09	18
HU	00.6S	8	1413	SC	2	81	5	08(6,7,8)	5	7	268	42	09	16
TV	01.1S	8	1414	SC	0.0	19	26	--	-	3	115	76	09	18
PH	18.7S	8	1409	SC	0.2	28	24	08(7)	5	7	130	60	09	19
HR	33.7S	8	1414	SC	+ 3	+ 16	+ 16	08(7,8)	5	17	93	106	09	16
GN	43.2S	8	1415	SC	1	24	5	08(7,8) 09(5)	5	13	110	90	09	19
TO	46.7S	8	1415	SC*	- 1.0*	45	9	08(7,8) 09(3,4,5)	5	16	140	60	09	19
KG	56.5S	8	1414	SC*	+ 2.5	+ 24	+ 10	08(8)	8	82	704	492	09	20
MI	60.7S	8	1416	..	..	..	..	09(4)	8	235	1128	707	09	19
MM	73.2S	8	1414	SC*	+ 10 *	- 75 *	- 23	09(2)	7	154	942	931	10	06

THREE-HOUR-RANGE INDICES, K

NOV	8		9		10		11	
GO	2223	4554	3634	3325	3233	3234	4233	4545
BT	4332	4445	5444	5533	5333	3555	5434	4676
RY	3211	3366	7765	4455	4532	2157	5323	5668
PB	3223	4565	4776	5543	3364	3344	3326	6767
CC	3222	5445	4436	7544	4223	4434	5334	5776
KI	2010	2267	6644	4554	5211	1347	5113	5778
CO	1001	4445	4677	6441	2243	2222	2235	6765
MM	2111	3267	6644	5545	5222	1257	5123	6778
DI	3222	5577	6657	8665	5333	5656	6335	7989
DO	1111	2377	7543	4423	3211	1333	3223	5978
WE	2101	3356	5578	7552	1142	2223	3116	8886
ME	2121	2334	5779	5322	2342	2212	2234	6755
TI	2221	5488	5567	8764	2233	5565	4224	8989
SI	1011	3334	4568	5431	1242	2112	2135	8854
ES	1111	3545	4543	4423	2221	1234	3222	4766
NU	2110	2266	5433	4422	2211	0323	2112	4766
OT	1111	3136	5564	3211	1221	1113	1222	3333
VL	1101	3345	4443	3333	3211	1234	3213	4665
VI	2121	3234	4567	5421	1242	1003	2334	6654
YA	2111	4355	4356	6533	3132	2335	4224	7855
FK	3211	3345	5464	4222	2321	0003	3234	4544
FU	2112	2354	4432	4323	2212	1234	3313	4755
SV	2110	3255	5434	5423	2221	2335	2223	5765
KV	2223	3365	6443	5433	2222	2335	3323	5766
PK	----	---3	4455	5422	2332	2223	3134	6655
TL	1100	2245	4432	3322	2200	0214	3313	4565
DS	----	----	----	----	----	----	----	----
IR	2212	4356	5435	5533	1122	2335	2335	6755
TU	3121	3355	5565	4321	1332	1113	3324	5555
KD	2211	2244	4424	4322	1310	1224	2123	4545

THREE-HOUR-RANGE INDICES, K

NOV	8		9		10		11	
IK	2112	3355	5533	4422	2211	1225	3224	5666
MT	1111	3244	3345	5421	1121	1223	3224	6654
VK	1121	4345	3345	5431	0132	2323	3135	6655
TK	2121	4355	4353	5423	3141	3335	2345	5765
KS	2212	4466	5543	5522	1211	1236	3225	6677
SJ	3101	3265	5343	3311	2100	0003	2124	5554
TA	2211	3365	4433	3222	1211	1234	3324	3565
QU	2121	3344	3443	4422	2212	2324	2334	5554
HQ	2001	3355	3444	3300	0121	0113	3123	4454
KY	2111	4245	3445	5321	1121	1223	3234	5654
AL	2322	4364	3543	5422	2332	2334	3345	6665
BA	2122	3365	4433	3322	2211	2235	3324	6565
GU	3111	4255	4434	4322	2220	2223	3234	5555
HU	3212	4555	3334	4422	1101	3323	2113	6754
LU	1001	2244	3223	3320	1000	0013	2103	4553
PP	1110	3334	2443	2200	0120	0011	2223	4442
PM	2111	4254	3444	4331	1110	1222	3234	6653
TN	2122	2253	3343	4331	1201	1224	3123	5554
AC	2111	4334	5334	3302	1000	1113	3214	3554
TW	2211	4365	4443	2311	1111	2233	3214	3564
HR	3222	3355	4443	3321	2211	1125	3234	5665
GN	3211	4355	4434	5411	1121	1233	2223	6756
TO	3211	4355	4455	5321	1231	1112	2223	6654
AM	3211	3244	4555	3310	1231	1112	2324	5544
MI	2100	4445	4468	7330	1232	2111	2135	7765
NL	2111	2276	5654	4422	2221	1124	1222	3666
MW	3422	3466	6755	6655	5543	3256	5434	5677
MY	3443	3444	4544	4322	3543	2234	4554	4544
SB	3322	3354	4434	3332	2222	2333	4333	4654
VO	4332	3454	3444	3232	2323	2234	4444	4444


THULE (H)
500 γ
THULE (D)
RESOLUTE BAY (X)
RESOLUTE BAY (Y)
LEIRVOGUR
FORT CHURCHILL
COLLEGE
1000 γ
BARROW
TIXIE BAY
DIXON ISLAND
H
SAN JUAN
HONOLULU
100 γ
TANGERANG
M'BOUR
H
PRELIMINARY AURORAL ELECTROJET INDICES
1000 γ
AU(6)
AL(6)
AE = AU−AL
06 UT 09 12 15 18 21 24 03 06 09 12 15 18 21 24 03 06
NOVEMBER 8,1974
NOVEMBER 9,1974
NOV. 10,1974

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No. 12	Geomagnetic Indices, C and K, 1940 1946	Out of print
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No. 12b	Geomagnetic Indices, K and C, 1948	Out of print
No. 12c	Geomagnetic Indices, K and C, 1949	Out of print
No. 12d	Geomagnetic K-Indices, International Polar Year, August 1932 to 1933	
No. 12e	Geomagnetic Indices, K and C, 1950	Out of print
No. 12f	Geomagnetic Indices, K and C, 1951	Out of print
No. 12g	Geomagnetic Indices, K and C, 1952	Out of print
No. 12h	Geomagnetic Indices, K and C, 1953	
No. 12i	Geomagnetic Indices, K and C, 1954	
No. 12j	Geomagnetic Indices, K and C, 1955	
No. 12k	Geomagnetic Indices, K and C, 1956	
No. 12l	Geomagnetic Data, 1957, Indices K and C, Rapid Variations	
No. 12m1	Geomagnetic Data, 1958, Indices K and C	
No. 12m2	Geomagnetic Data, 1958, Rapid Variations	
No. 12n1	Geomagnetic Data, 1959, Indices K and C	
No. 12n2	Geomagnetic Data, 1959, Rapid Variations	
No. 12o1	Geomagnetic Data, 1960, Indices K and C	
No. 12o2	Geomagnetic Data, 1960, Rapid Variations	
No. 12p1	Geomagnetic Data, 1961, Indices K and C	
No. 12p2	Geomagnetic Data, 1961, Rapid Variations	
No. 12q1	Geomagnetic Data, 1962, Indices K and C	
No. 12q2	Geomagnetic Data, 1962, Rapid Variations	
No. 12r1	Geomagnetic Data, 1963, Indices K and C	
No. 12r2	Geomagnetic Data, 1963, Rapid Variations	
No. 12s1	Geomagnetic Data, 1964, Indices K and C	
No. 12s2	Geomagnetic Data, 1964, Rapid Variations	
No. 12t1	Geomagnetic Data, 1965, Indices K and C	
No. 12t2	Geomagnetic Data, 1965, Rapid Variations	
No. 12u1	Geomagnetic Data, 1966, Indices K and C	
No. 12u2	Geomagnetic Data, 1966, Rapid Variations	
No. 12v1	Geomagnetic Data, 1967, Indices K and Ci	
No. 12v2	Geomagnetic Data, 1967, Rapid Variations	
No. 12w1	Geomagnetic Data, 1968, Indices K and Ci	
No. 12w2	Geomagnetic Data, 1968, Rapid Variations	
No. 12x1	Geomagnetic Data, 1969, Indices K and Ci	
No. 12x2	Geomagnetic Data, 1969, Rapid Variations	

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