

GEOMAGNETIC MEASUREMENTS AT ARGENTINE ISLANDS 1957-82

P. A. SALINO



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ISBN 0 85203 114 1



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F. A. SALINO

Published by the British Antarctic Survey,
High Cross, Madingley Road,
Cambridge CB3 0ET, UK

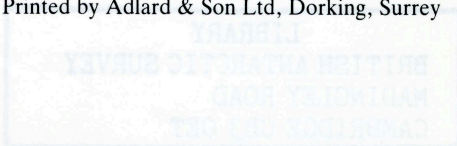
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ISBN 0 85665 114 1

Cover photograph: Faraday Station, Argentine Islands



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Printed by Adlard & Son Ltd, Dorking, Surrey



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P. A. SALINO

SUMMARY

This report describes the operation of the magnetic observatory on the Argentine Islands from its opening in 1957 to the end of 1982. Full details of the site, buildings, instruments, and their operation are given.

A 'normal' and an insensitive La Cour Magnetograph were installed in 1955 and repositioned in 1971 and 1970 respectively. The QHM has been used throughout for measuring the horizontal component, a 'Quartz Declinometer' replaced the 'Kew pattern' magnetometer

for measuring declination in 1982 and the PPM replaced the BMZ for calculating the vertical component in 1979.

The method of computing mean hourly values is described and the accuracy and reliability of the data is discussed. Tables are given listing the monthly and annual means, and listing the mean diurnal variation for each month. These tables are for the *H*, *D* and *Z* components and list values for all days, 'quiet days' and 'disturbed days'.

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ACKNOWLEDGEMENTS

The author would like to acknowledge the contributions made by British Antarctic Survey staff who have, over the years, made observations at the Argentine Islands and who did much of the preliminary working up.

He would also like to acknowledge the contributions

made by J. C. Farman and W. M. Sievwright, who set up the digitizing and computing system, and to thank the Meteorological Office and the British Geological Survey for use of the facilities at Lerwick Observatory for training personnel.

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1 INTRODUCTION

The British Antarctic Survey (BAS) base, Argentine Islands (latitude $65^{\circ}15'S$, longitude $64^{\circ}16'W$) was built in 1954, on Galindez Island, which is in the Argentine Islands archipelago. The Argentine Islands lie 6 km west of the Graham Land coast, Antarctica. Although the geophysical observatory is still called Argentine Islands (A. 973), the BAS station name was changed to Faraday in 1977.

The geomagnetic observatory is housed in two huts approximately 250 m to the east of the main hut (Fig. 1). The variometer hut and the fibreglass hut were built in 1955 and 1969 respectively. Three sets of instruments are used to produce a continuous record of variations of the horizontal (H) and vertical (Z) geomagnetic field components and of the magnetic declination (D). These are sensitive and insensitive (or 'normal' and 'storm') La Cour magnetographs, set up in 1956, and a fluxgate magnetometer installed in 1974. Absolute values of the three field components are measured periodically using a set of quartz horizontal magnetometers (QHMs), a Kew declinometer, replaced by a quartz declinometer (QD) in 1982, a set of magnetometric zero balances (BMZs) and a proton precession magnetometer (PPM), which was first used successfully in 1969.

The observatory is normally run by two people, who are trained in the United Kingdom. They serve two years at the observatory, with a one year overlap between personnel changes to maintain continuity and standards. The station is relieved once a year by a BAS ship and all records and observations are returned to the United Kingdom. They are first checked, then absolute hourly values of the three field components are calculated and the variation record microfilmed. Absolute hourly values and the microfilm are sent to the World Data Centres where they are made available for use. At the observatory, the variation records are used to produce a provisional K -index for each three-hour period. At the end of each month, the indices are transmitted to Institut de Physique du Globe, Paris, France, via BAS headquarters. They are then used in the calculation of the geomagnetic disturbance indices, which are published in International Association of Geomagnetism and Aeronomy (IAGA) bulletins.

This report describes the observatory buildings, the operation of recording instruments and the absolute instruments and the preparation of the absolute hourly values. It covers the period from setting up the observatory in 1955 to the end of 1982.

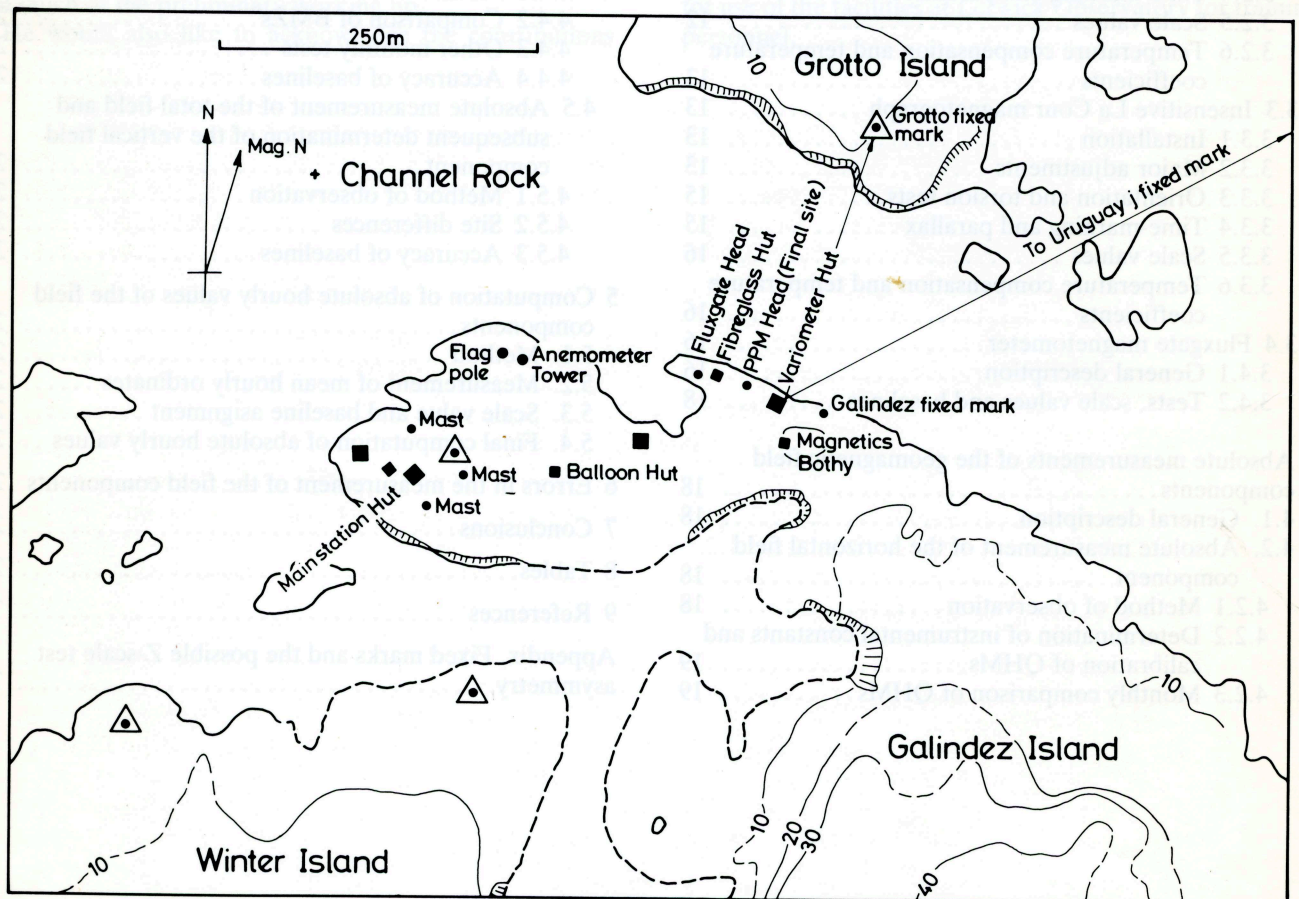


Fig. 1. Map of magnetic observatory on Argentine Islands and surrounding area.

2 OBSERVATORY SITE AND BUILDINGS

2.1. Position of huts and magnetic survey

The positions of the two geomagnetic observatory huts are shown in Fig. 1. The La Cour magnetographs and absolute instruments are kept in the variometer hut, which was built using only non-magnetic materials. The electronic controls for the fluxgate and proton precession magnetometers are kept in the fibreglass hut, which was erected in 1969. This hut was originally intended to be non-magnetic, but the installation of seismometer equipment and new partitions meant that the sensing heads for both instruments had to be moved outside, away from this hut. Fig. 1 shows the positions of these sensing heads and the directions from the variometer hut to the fixed marks that are used during absolute observations (see section 4). All electrical power for the huts comes from the main station hut via the magnetics bothy which, since 1972, has also been used to store the spare absolute instruments.

A magnetic survey of the Argentine Islands was carried out in 1960/61, measuring the vertical geomagnetic field component (Agger and others, 1963). The results, presented in Fig. 2 show large field gradients on Grotto Island and much smaller field variations south of Meek Channel, in the vicinity of the magnetic observatory huts. These field gradients were interpreted as indicating Andean intrusive rock bodies under Grotto Island. Field component values are quoted for the absolute instrument pier positions in the variometer hut. Thus, site-difference corrections are needed when PPM observations are taken as the PPM is located away from the variometer hut. Site-difference corrections are discussed in section 4.5.2.

2.2 Variometer hut

A floor plan of the variometer hut is shown in Fig. 3 (positions of variometers not drawn to scale). The magnetographs, the QHM and the Kew declinometer are mounted on piers topped with marble slabs. This raises them to an easy working level. The BMZ was kept on its own tripod, which was erected on marble slabs. The absolute instruments are left on the piers between observations and the spare BMZs are stored in the bothy, away from the variometer huts. The Kew declinometer magnet was kept in the QHM room and, from 1971 to 1977, it was kept in a position such that it affected the QHM readings (details of this effect are given in section 4.2.4). The QD magnet has a larger magnetic moment than the Kew declinometer magnet so it is stored in the fibreglass hut. The observation hatch in the QHM room allows observation of the azimuth of the sun, stars and Grotto fixed mark, while the other fixed marks are observed through sighting tubes.

In 1971, the hut was covered with butyl sheeting, which required minimal maintenance, making it unnecessary to repaint and repair the hut every year.

In 1963, and again in 1971, the underfloor fibreglass insulation was replaced. The old insulation had sagged and

some panels had fallen out completely, reducing the degree of thermal stability that could be maintained within the hut. Between January and March 1963, this fibreglass was stored under the hut and its steel wrapping straps affected QHM readings. These were subsequently corrected for this effect.

Heating is provided by pyrotenax cable, which is fixed to the walls near floor level and connected to a 230-V, 50-Hz supply controlled by thermostats. The pyrotenax cable is doubled back on itself to prevent any effects at the lower frequencies registered by the magnetograph. In 1960, the thermostats in all the rooms were changed for more reliable units. In April 1971, the thermostat in the QHM absolute room was replaced by a new type of relay (AMCR), which caused a change of about 2 nT in the measured H baselines. The thermostatically controlled switching of the heating causes a small ripple on the field component traces and not a step change as would be expected if the pyrotenax produced a magnetic field. This implies that there is some rectification of the heating supply, though no reason why this should occur has been found. However, as the amplitude of the ripple is small and occurs infrequently, the effect can be considered negligible. In an attempt to stop this ripple, a new heating system was installed in 1976. This consisted of Beckmann contact thermometers in the variometer rooms switching Tetcol AC relays in the magnetics bothy, which controlled Hotfoil GRP heating panels. These Hotfoil panels caused a larger effect on the field component traces than the original system so the original pyrotenax was reconnected. Until they were removed in 1981, the Hotfoil panels were occasionally used to raise the temperature to carry out temperature coefficient tests.

The H and Z variometers produce records that have temperature-dependent baselines and scale values; therefore, it is advantageous to keep the variometer room temperature constant. After the underfloor insulation was replaced in 1963, the temperature within the variometer room could be kept steady to within $\pm 0.1^\circ\text{C}$.

No humidity control is provided as the humidity within the variometer hut always remains low.

2.3 Fibreglass hut

The fibreglass hut, erected in 1969, is used to house the electronics of the fluxgate magnetometer and the PPM, and the seismometer recorder. Originally, it was built as a non-magnetic hut to house the PPM, its sensing head and coil system. However, it was uninsulated and the heating could not maintain a temperature above 0°C during the winter. Therefore, partitions were installed and only a quarter of the hut is heated by a thermostatically controlled heater. However, even with insulation, the temperature still fluctuates by approximately ± 5 degrees. Since the partitions were made with some magnetic materials, the PPM head was moved away from the fibreglass hut.

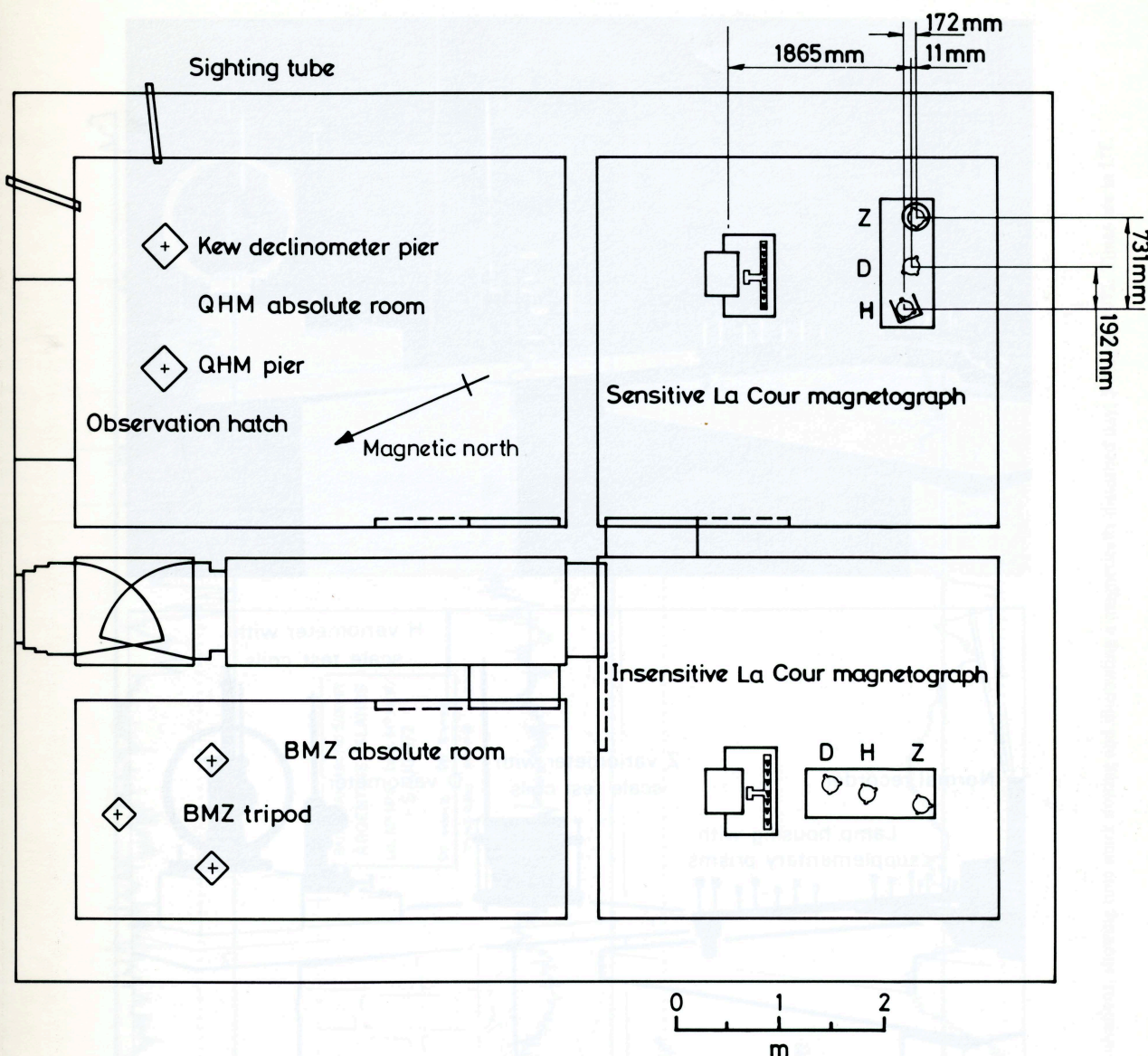


Fig. 3. Floor plan of the variometer hut, showing the position of the La Cour variometers in 1982.

monad (or recording) magnet with a larger scale value, which, when used with shorter optical levers, gives larger scale values for the insensitive magnetogram. The other set is called the sensitive, or 'normal set' (Fig. 4). If the sensitive magnetograph record is lost, or when geomagnetic activity is high and the sensitive record is confused or faint, the insensitive magnetogram may be used to provide a record of field variations. The sensitive magnetograph is set up to produce a daily (U.T.) magnetogram (Figs. 5 and 6) with the *H* field component record at the top of the paper, increasing field strength up the paper, the *D* field component in the centre portion of the magnetogram, increasing easterly up the paper and the *Z* field component on the lower portion of the magnetogram, increasing down the paper (becoming less negative). The insensitive magnetograph produces a magnetogram (Figs. 7 and 8) measuring the variations of the field components in the same sense as the normal magnetograph. Originally they were recorded

with *D* at the top of the paper, *H* in the middle and *Z* at the bottom of the magnetogram. However, in 1970, the insensitive magnetograph was dismantled and reassembled, changing the order in which the variations were recorded, so that *Z* has, since then, been recorded at the top, *H* in the middle and the *D* at the bottom of the magnetogram.

Both magnetographs use supplementary prisms to record large geomagnetic field variations. Without these prisms, the traces would move off their ascribed sections of the magnetogram and would not be recorded. A full set of prisms on the sensitive magnetograph produces three supplementary traces either side of the main *H* field component trace, four either side of the main *D* trace and two either side of the main *Z* trace. The insensitive magnetograph's prisms are set up to give one supplementary trace either side of the main *H* and *Z* traces and two either side of the main *D* trace.

Until 1979, battery banks in the main hut (Fig. 1) sup-

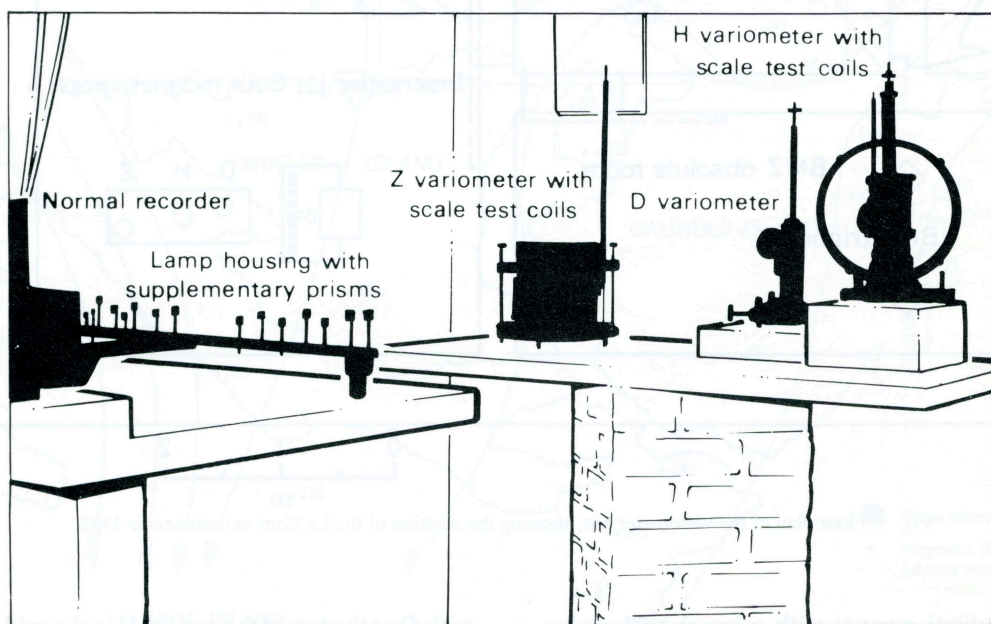
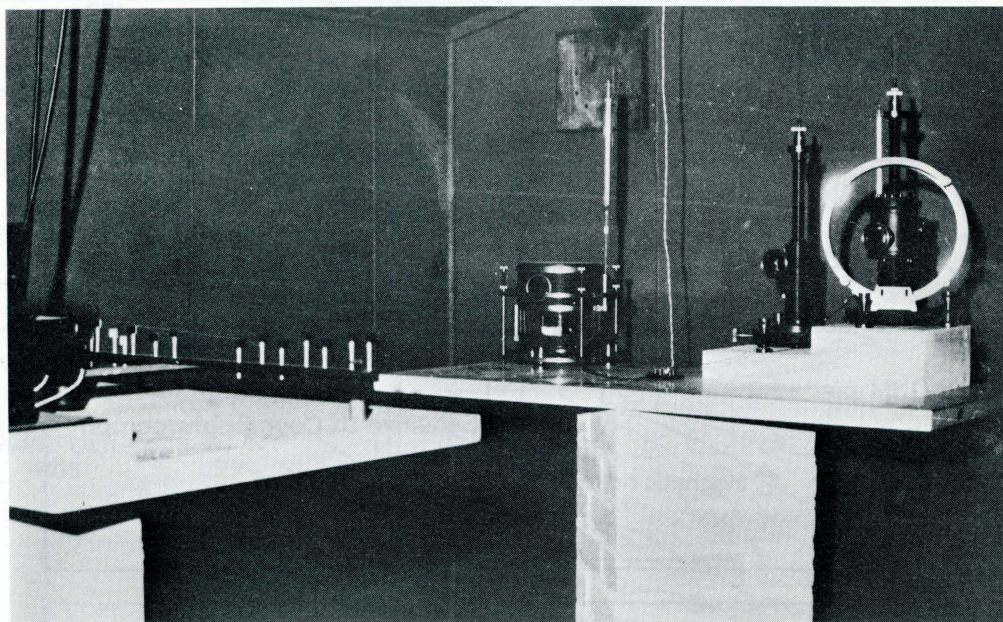


Fig. 4. Sensitive magnetograph after reassembly in 1971. Note the scale test coils on the *H* and *Z* variometer and, compared with Figs. 10 and 11, the full set of supplementary prisms.

plied recording and time mark lamp currents. The intensities of the traces were controlled from the main station hut. Thus, the recording lamp current could be increased during periods of high geomagnetic activity without going into the variometer hut. In 1979, a stabilized power supply replaced the batteries. The batteries are kept as a back-up supply and switch-in automatically if there is a power failure.

The normal recorder produces magnetograms at 15 mm/h, the speed being controlled by a weight driven clock. Magnetograms were originally produced on uncoated photographic paper. In 1969, this was replaced by a

high resolution paper, Kodak Bromide, which was waterproof and suffered less shrinkage than the uncoated paper. Production of the Bromide paper stopped in 1975 and it was replaced by Kodak Veribrom N2 paper, the paper size changing from 12×15 inches to 12×16 inch sheets in 1978. Magnetograms are changed at midnight UTC and then developed, dried and annotated.

H-variometer silica gel driers are changed weekly. As the lower chamber of the *Z* variometer is sealed, its drier only needs replacing when the seal is broken.

An EDA fluxgate magnetometer (see section 3.4) was installed in March 1974 and the sensing head aligned to

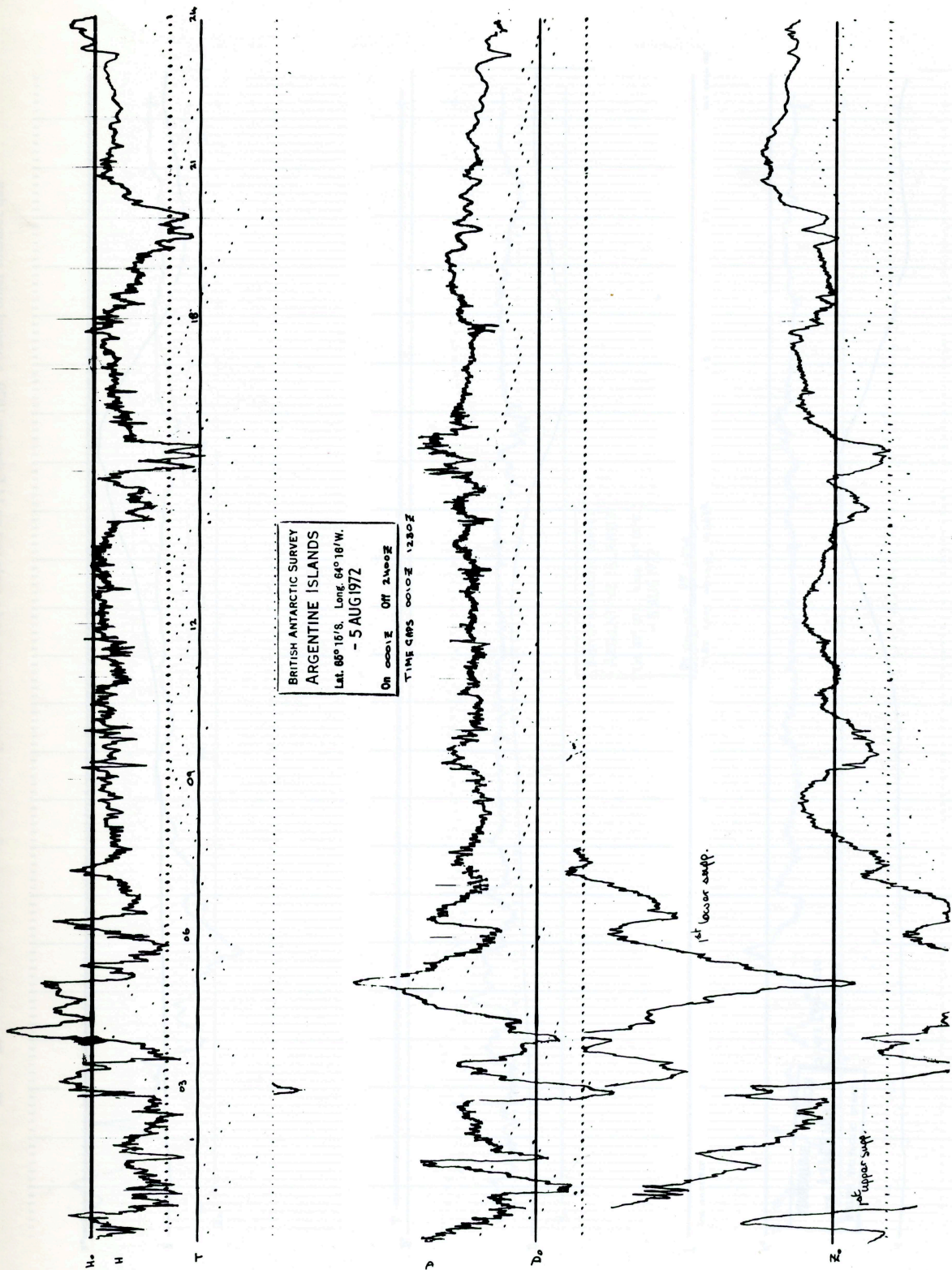


Fig. 5. The sensitive magnetogram, with notable pulsations, showing time mark dotting and illustrating a magnetically disturbed day, 5 August 1972. Times are in UT.

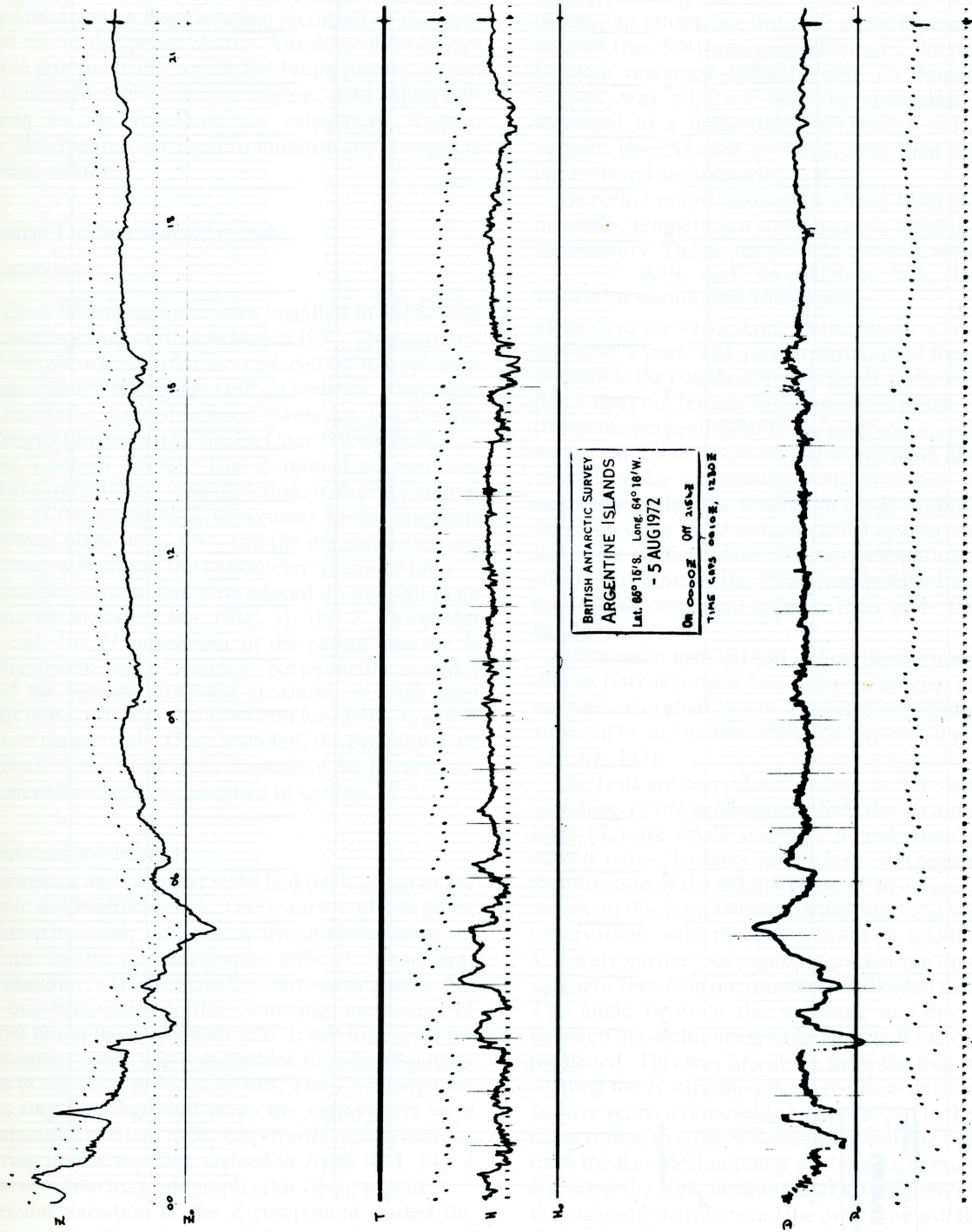


Fig. 7. The insensitive magnetogram for the same day as Fig. 5, the larger scale values giving a clearer record. Time-mark dotting and gaps can also be seen.

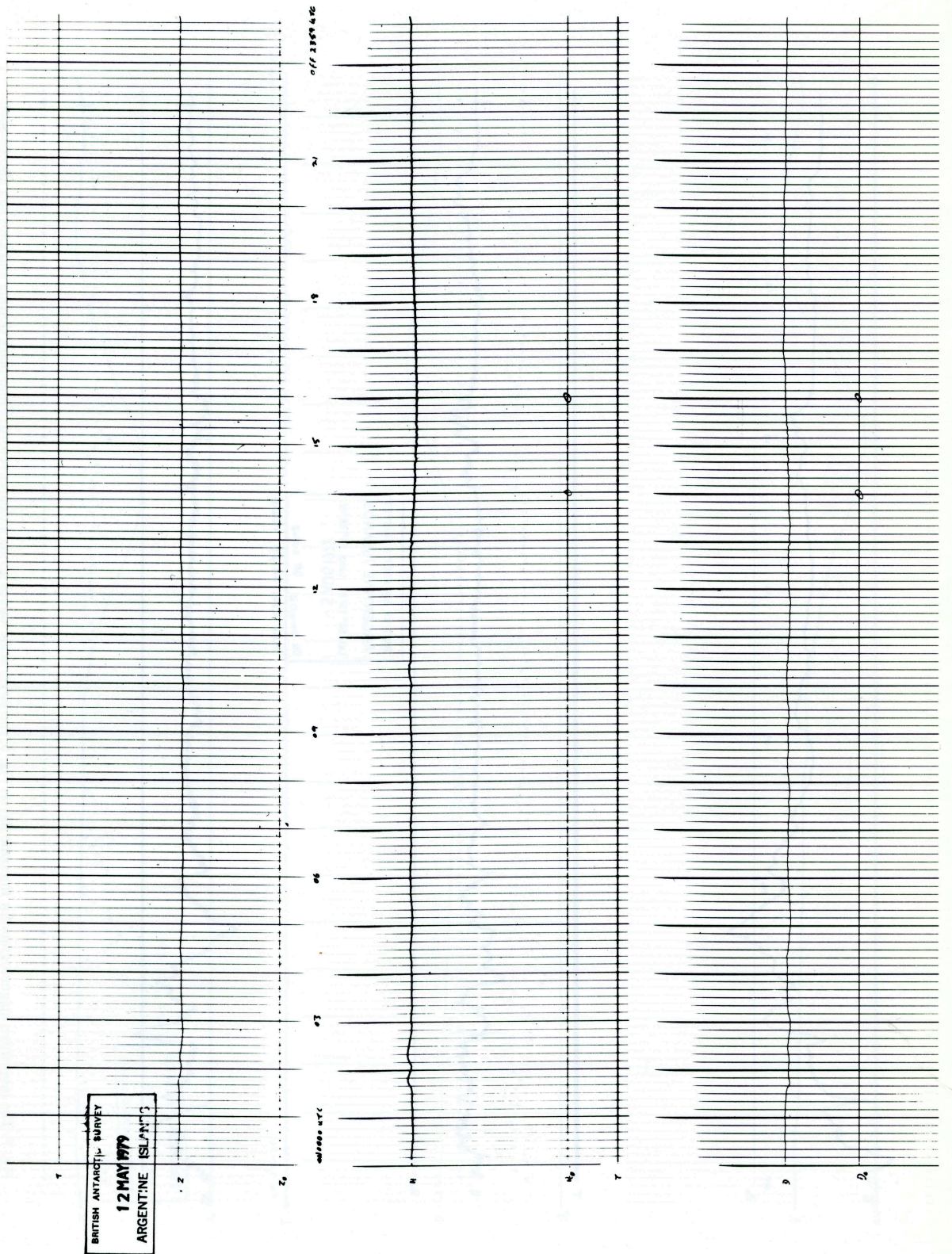


Fig. 8. The insensitive magnetogram, with time lines for 12 May 1979.

record the H , D and Z field components. This instrument was first used to produce paper chart records only but, from January 1980, it has also produced digital magnetic cassette records using a data logger. These charts can be used if both sensitive and insensitive La Cour records are lost.

Records of the field-components produced by the La Cour magnetographs or by the fluxgate magnetometer are measured relative to a fixed baseline recorded on the magnetogram or on the paper charts. Absolute observations (Section 4) give spot values of the field components. Knowing the scale values of the magnetogram, field values corresponding to the baselines are calculated. Regular absolute observations are used to monitor any changes in the baseline values.

3.2 Sensitive La Cour magnetograph

3.2.1 Installation

The La Cour magnetographs were installed in 1955, with continuous recording starting in March 1957. The variometers and the normal recorder were placed on marble slabs which were fixed to brick piers built on bedrock. They were set up according to instructions given by the Danish Meteorological Institute (1978), La Cour (1930) and by La Cour and Laursen (1930). The Z monad magnet was installed in a roughly east-west direction, so the misorientation angle of the sensitive Z variometer to the magnetic prime vertical plane was 24.5° , and the magnetic axis was roughly perpendicular to the variometer/recorder line.

The sensitive variometers were placed on the slab in an approximately east-west line (Fig. 3), the Z variometer farthest east, the D variometer in the centre and the H variometer to the west. Distances between the recorder drum and the variometers were measured in 1960; they were 1820 mm, 1870 mm and 1790 mm for the H , D and Z variometers respectively. Once installed, the orientation of the variometers and the torsion constant of the D variometer fibre were checked, as described in section 3.2.3.

3.2.2 Major adjustments

Both variometer and recorder slabs had been set up at the same height in 1955. This made it necessary to tilt the prism bar and lamp assembly upwards; it also made carrying out adjustments to the magnetographs difficult. Therefore, during February 1971, the sensitive variometers were dismantled and reassembled after removing one course of bricks from under the variometer slab. It was lowered 8 cm and the magnetograph was reassembled to produce a magnetogram in the same order as before. The Z variometer's plexiglass ring was shattered when the variometers were being dismantled and had to be temporarily replaced with a perspex ring until a new one arrived in April 1971. Fig. 4 shows the sensitive magnetograph after being rebuilt.

The secular variation of the Z -component caused the angle between the magnetic axis of the monad magnet and the horizontal (the so-called ex-level angle) to increase slowly. This meant that it was necessary periodically to regrind or replace the magnet. In January 1969, the sensitive Z monad magnet No. 120 was replaced by magnet No. 504, which had been ground for the Z -field strength at

Argentine Islands at that time. Further grinding was necessary in June 1978.

In 1982, magnet No. 504 was replaced by magnet ~~No. 214~~ in an attempt to stop the Z scale value asymmetry (see Appendix). However, after it was installed on 30 March, the baseline value started to drift at a rate of about 1.4 nT per day, although the scale value remained stable. Despite checks, no reason for this drift could be found so the old magnet (no. 504) was reinstalled on 2 August 1982. The baseline remained constant until 25 August when the magnet was adjusted and the measured scale value increased to a theoretically impossible value. The new magnet, ~~No. 214~~, was installed; since then the variometer has behaved satisfactorily.

The other major adjustments have been changes of the bimetallic temperature compensation strips in the H and Z variometers. This is discussed in detail in section 3.2.6.

3.2.3 Orientation and torsion tests

These tests are carried out on the sensitive set of variometers once a year. The secular variation of the geomagnetic field alters the couple acting on the H variometer magnet so that it does not remain in the magnetic prime vertical plane (the plane perpendicular to the magnetic meridian). Knowing the direction of the magnetic meridian in the La Cour room, regular orientation tests indicated when it was necessary to alter the torsion on the H variometer's quartz fibre (La Cour and Laursen, 1930) to keep the magnet in the prime vertical plane. The misorientation angle is also checked by plotting the H field component baseline against the D field component ordinate (McComb, 1952, par. 331, fig. 144).

Orientation tests carried out on the D variometer check that its fibre is torsion free, with the magnet aligned in the magnetic meridian. If the magnet is out of alignment, it is adjusted by the method described by McComb (1952, par. 331, fig. 143).

The tests are carried out in June or July when the daily variations of the geomagnetic field due to ionospheric currents (S_R) are small, during a period when geomagnetic activity is low. To carry out the tests, it is necessary to know the direction of the magnetic meridian across the variometer room; this is established in the following way. Absolute observations using the Kew pattern declinometer (Section 4.3) were carried out regularly so that the direction of the magnetic meridian measured on its divided circle is known. The angle between the magnetic meridian and a line between the declinometer pier and the H variometer is then measured. This was first done from the hall of the hut by sighting the H variometer and the Kew declinometer pier. In later years, a removable hatch was put in the variometer room wall so that the H variometer could be sighted directly from the Kew declinometer pier and its azimuth measured. Knowing the Kew declinometer divided-circle readings of the magnetic meridian and the dimensions of the room, the direction of the magnetic meridian through the H variometer is marked on the walls. Lines parallel to the meridian through the H variometer are marked, to align the Helmholtz-Gauguin coils, with their axes perpendicular or parallel to the meridian, centred on either the H or D variometers and through the D variometer itself. The coils

214 not supplied till 1983, installed 1984

1984

075 11/92

are aligned by stretching cotton across the room along the desired lines. The estimated error in coil alignment using this technique is $\pm\frac{1}{2}^\circ$.

The orientation of the H variometer magnet is checked by placing the coils over the H variometer and aligning them so that the axis of the coils is perpendicular to the meridian. A current of about 100 mA is passed through the coils and any deflections, seen on the ground glass screen within the normal recorder, are measured. If there is a significant deflection of the magnet, the variometer is adjusted by the method described in La Cour and Laursen (1930). Since the estimated error in coil alignment is $\pm\frac{1}{2}^\circ$, a significant deflection would be seen if the magnet was more than $\pm\frac{1}{2}^\circ$ from the prime vertical plane. Now

$$\tan x = \frac{uS_H}{7.49I} \quad 1$$

(McComb, 1952, equation 344, with 12-inch diameter coils), where x =angle from the prime vertical, u =deflection of the H trace, S_H =the H component scale value and I =the current passed in mA. Normally, a 100-mA current was used, so, for an average scale value of 4 nT/mm, a trace deflection of >1.6 mm indicates that the magnet needs to be realigned.

The Helmholtz-Gaugain coils are moved over the D variometer, with their axis parallel to the meridian. A similar deflection test is carried out to check that the D variometer fibre is in a torsion-free state. Realigning the coils so that their axis is perpendicular to the meridian, the D scale value can be checked by measuring deflections on the magnetogram in the same way as the H scale value is evaluated (Laursen, 1943). At the end of these tests the coils are returned to the H variometer, with their axis perpendicular to the meridian, for the routine H scale tests. The orientation of H and D variometer magnets are also checked using the plots described in the previous section.

Torsion tests on the D variometer are carried out about once a year. The torsion head is first rotated clockwise and then anti-clockwise, allowing the trace to settle in each case. The angular deflection is measured and the torsion constant calculated knowing the distance between the variometer and recorder drum. The torsion constant could be checked, using the formula:

$$k' = M_s(H+C) \frac{h}{f-h} \quad 2$$

(McComb, 1952, equation 99), where k' =torsion constant in dyne cm per radian ($\equiv T/29$, where T is the torsion constant given on the certificates supplied with the fibres), H =the horizontal field component, C =horizontal field due to other magnets (≈ 0) and h =the mean angular displacement (radians) for a twist, f (radians), in the fibre. M_s is the magnetic moment of the magnet. All quantities are given in c.g.s. units.

3.2.4 Time-marking and parallax

Time-marks on the magnetograms are made using a lamp placed behind the recording lamp which is lit for 3 seconds every 10 minutes and 10 seconds on the hour. Light from the lamp is reflected by free-standing plane mirrors, which

are mounted on the variometer slab, or from the variometer mirrors themselves, on to the magnetograms. The plane mirrors produce time-lines across the full width of each record. Alternatively, reflections from the variometer mirrors produced dots above each trace on the magnetogram. Examples of each method can be seen in Figs. 5 and 6. Time-lines were used for the period covered by this report, except from January 1971 to November 1975 when the dotting method was used.

Current to the time-mark lamps was switched by the Synchronome impulse transmitter kept in the main hut. This was replaced in 1976 by a digital clock with the impulse transmitter remaining as backup. These are both checked regularly against radio time-signals. Clock errors are normally small enough (less than 10 seconds) to make time corrections to the magnetograms unnecessary.

Until 1971, mean parallax corrections were evaluated for each period between variometer adjustments. The parallax was measured by increasing the current near a time-mark or by using the scale tests. After 1971, parallax corrections can be measured each day from two time-gaps. These are produced by switching off the recording lamp for two minutes, centred between time lines. The time-gaps give the parallax of the trace at one position on the chart. As the parallax changes with trace ordinate, the parallax corrections are found by examining a time-gap at the same ordinate value as that required.

3.2.5 Scale values

The Helmholtz-Gaugain coils are used to evaluate the scale values of the H - and Z -field components' records. The two sets of coils are centred on the variometer magnets with the coil axis parallel to the magnetic meridian on the H variometer and the axis vertical on the Z variometer. These scale tests were initially carried out about once a week but, after 1965, they have been performed about twice a week. Both sets of coils are connected to a power supply in the main hut so that scale tests are carried out remotely from the variometer hut. The scale test schedule has varied. The first schedule used was to pass a current of 10 mA, -10 mA, 12 mA and finally -12 mA through the coils for $\frac{1}{4}$ minute each. This was changed in March 1968, so that a current of 10 mA and then -10 mA was passed for 10 minutes each. It was changed again, in September 1970, such that the current increased to 10 mA over a minute, starting at a time mark, 10 mA was passed for 4 minutes, then the current reduced to zero over a minute; the same routine was repeated for -10 mA. A scale test of this type can be seen in Fig. 6 (the H and Z coils produce fields that affect D). Mean H and Z scale values for each month are calculated; if they show a significant change over several months, a new scale value is adopted.

The scale values of the D field component variations (S_D) is calculated from the geometry of the magnetograph and the variometer constants. Provided the other magnets do not effect the D variometer magnet, it is given by:

$$S_D = \frac{3438}{2R} \left(1 - \frac{k'}{Hm} \right) \quad 3$$

(arcmin/mm from McComb, 1952, equation 124), where R is the effective distance from the D lens to the recording drum, H

the horizontal field component, m is the magnetic moment of the magnet and k' is from equation 2. All quantities are given in c.g.s. units. This value was checked occasionally using Helmholtz-Gaugain coils, as described in the previous section. It was only changed when the geometry was changed or when repeated yearly checks indicated that it was necessary to do so.

Scale values for each component of the sensitive magnetogram covering the period 1957–1982 are shown in Fig. 9. Before 1981, the H and Z component scale values were calculated to two decimal places. If scale tests indicated that the scale value had changed by 0.01 nT/mm, then the adopted scale value was changed. Changing the scale value at this low threshold caused a large number of scale value changes that did not significantly improve the accuracy of the absolute field component values. Therefore, from 1981, the scale values of the H and Z components have been quoted to only one decimal place.

The scale values of the H and D component record have remained nearly constant. Small changes in the H scale value occurred when the variometer was adjusted and when the magnetograph was dismantled and reassembled in 1971.

The orientation of the Z monad magnet was altered in 1959 and in 1971. The Z scale value is dependent on the misorientation angle of the monad magnet to the prime vertical plane, so turning the monad magnet will alter the scale value of the record. Replacement of the monad magnet in 1969, and again in 1982, only produced small changes in scale value. However, when the monad magnet no. 504 was ground and reinstalled in August 1982 the scale value changed to -7.5 nT/mm. Between 25 August and 24 September 1982, the insensitive magnetogram Z record was used because the sensitive Z record was unreliable and scale tests gave the theoretically impossible scale value of -33 nT/mm.

Scale values derived from scale tests using the Helmholtz coils were checked by plotting the ordinates of the magnetogram traces against field values measured using the absolute instruments (described in section 4). These comparisons showed that there was good agreement between the two methods of determining scale values.

After the new Z monad magnet, no. 504, was installed in July 1969 it was noticed that the Z scale tests were not symmetrical, one deflection being larger than the other. Also, the scale values derived from the scale tests varied as a function of trace ordinate. It has been found that varying the misorientation angle of the Z monad magnet changes this asymmetry. The scale value changed by up to 2 nT/mm when the trace ordinate changed by 56 mm. However, scale value calculated graphically from absolute observations are almost the same as the mean values calculated from scale tests using the coils (± 0.1 nT/mm). Therefore, it has not been possible to prove that the asymmetry is real or whether it is due to the method by which scale values are evaluated. Further details of this asymmetry are given in the Appendix.

3.2.6 Temperature compensation and temperature coefficients

H and Z variometers are affected by temperature changes, so that the H baseline increases and the Z baseline decreases with increasing temperature. This is compensated for by using bimetallic strips within the variometers (La Cour, 1930; La Cour and Laursen, 1930). Neither sensitive nor insensitive sets of variometers have been adjusted to compensate completely

for temperature variations, so that temperature corrections have to be applied to the values calculated from the magnetograms.

Temperature coefficients are evaluated at approximately yearly intervals by carrying out repeated absolute observations (see section 4) at different variometer room temperatures. The temperature coefficient may be checked by plotting the field component baselines against temperature. By plotting recorded temperature against the ordinate of the temperature traces recorded on the magnetograms, the scale values and baselines of the temperature traces are calculated. Before 1967, only the insensitive Z variometer temperature was recorded at chart change; after this time both Z variometer temperatures have been recorded. Tests in 1962 showed that there was no significant temperature gradient along the variometer slab. Therefore, except during rapid temperature changes (1–2 degrees per hour), such as when the heater relays stick, the variometer magnets and the Z -variometer thermometer are at the same temperature.

The temperature coefficients change when the scale values of the field component vary. Thus, when the scale value is changed, the sensitive H and Z variometer bimetallic strips are adjusted to minimize the temperature coefficients. In 1976, the sensitive H variometer was modified to allow a longer bimetallic strip to be fitted, so that temperature compensation could be improved. The old H strip was fitted in the sensitive Z variometer to reduce its temperature coefficient further. Changes in the Z temperature coefficient have been much larger than for H as the Z component scale value has varied over a greater range. Changes in the temperature coefficients are summarized in Table 1.

Table 1. Temperature coefficients of the normal magnetograph.

H field variometer		Z field variometer	
Period	Temp. coeff. (nT/deg)	Period	Temp. coeff. (nT/deg)
1957–76	3.1–4.9	1957–76	0.0–3.0
1976–82	1.0–2.3	1976–82	2.5–3.1

3.3 Inensitive La Cour magnetograph

3.3.1 Installation

The insensitive La Cour magnetograph was installed before the sensitive magnetograph in 1955, following the same instructions as described in section 2.2.1. By installing the insensitive magnetograph first, personnel were able to gain experience before attempting to set up the sensitive magnetograph.

The variometers were placed at different distances from the recorder; the H variometer was closest to the recorder at about 800 mm, with the D and Z variometers at about 1200 mm and 1800 mm respectively. Orientation of the variometers and verification of the torsion constant of the D variometer fibre were performed by the same methods as described in section 3.2.3.

3.3.2 Major adjustments

In July 1970, the variometer slab was reset 8.4 cm lower than the recorder slab. Also, the positions of the variometers were altered. The D variometer is now closest to the recorder at

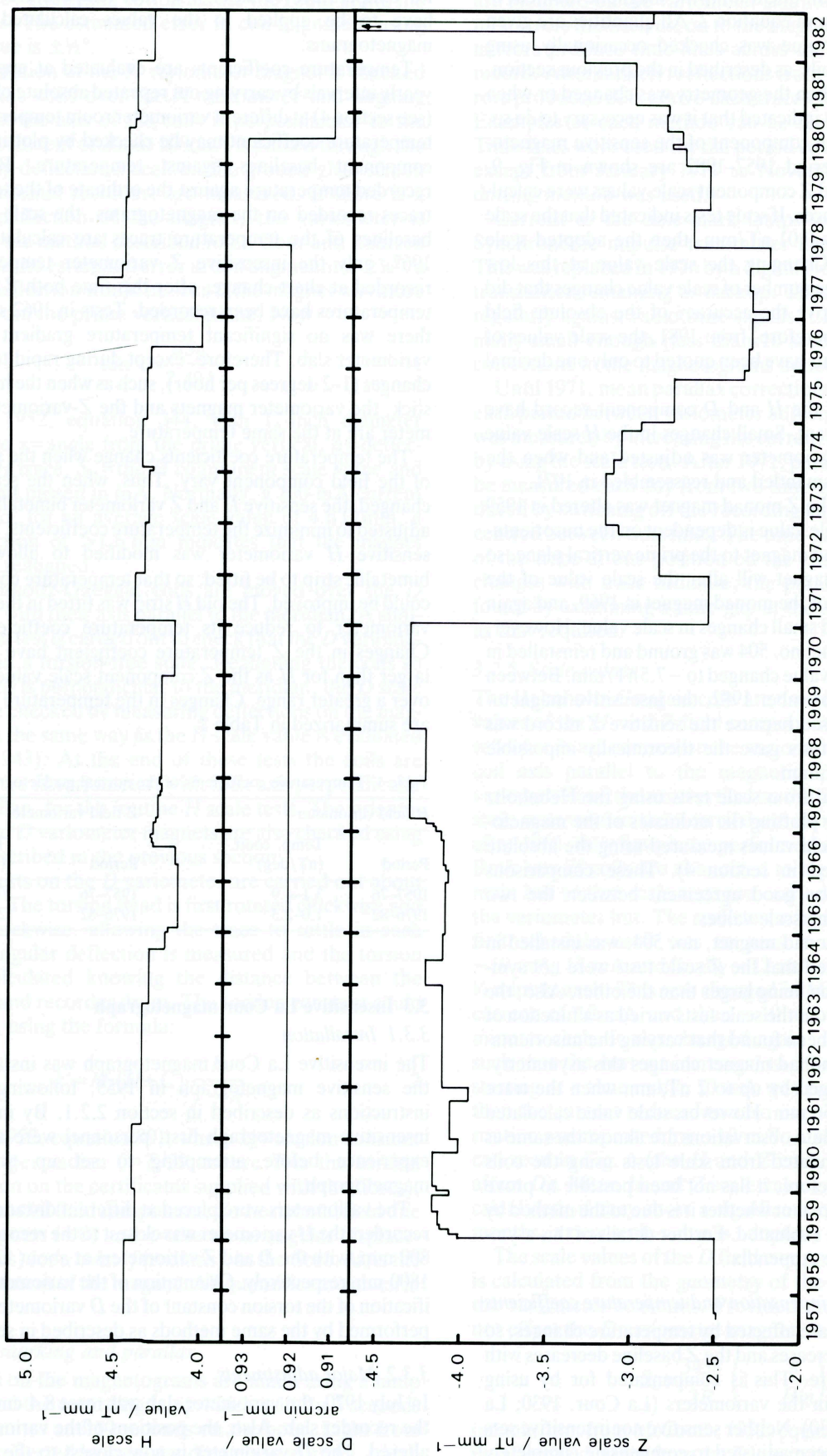


Fig. 9. Scale values of the *H*, *D* and *Z* components of the sensitive magnetogram for the period 1957–1982. Changes are marked to the nearest month. Periods of less than a month between changes have not been shown. From August 1982 to September 1982 the scale value of the vertical field component was greater than was theoretically possible. So the record for this period was considered unreliable and the storm magnetograph record of *Z* was used instead.

660 mm and the H and Z variometers are 1230 mm and 1875 mm from the recorder, as illustrated in Fig. 3. The order of the magnetogram traces was changed, so that the Z field component is recorded at the top of the magnetogram, H in the middle and D at the bottom. During reassembly, the D variometer fibre was broken and had to be replaced with a spare fibre, No. 264, which has a high torsion constant. Fibre No. 264 was replaced by fibre No. 1454 which had the required small torsion constant, in July 1971. Figs. 10 and 11 show the insensitive La Cour magnetograph before and after adjustment respectively. The other major adjustment to the insensitive La Cour magnetograph, carried out in 1978, was to regrind the Z variometer monad magnet. This was to adjust for the secular variation of that field component.

3.3.3 Orientation and torsion tests

These are carried out nearly every year using the methods described in section 3.2.3.

3.3.4 Time-marking and parallax

Time-marks and time-gaps are produced as described in section 3.2.4. Both time-mark lamps are controlled by the observatory clock. Time-lines have been used for the period covered by this report, except from mid-1970 to July 1977 when time-dots were used. When plane mirrors were reinstalled in July 1977, it was necessary to mount the H and D mirrors on a table next to the variometer slab. In 1979, movement of the prism bar and the Z variometer 3 cm eastwards allowed the time-line mirrors to be placed on the variometer slab. Magnetograms

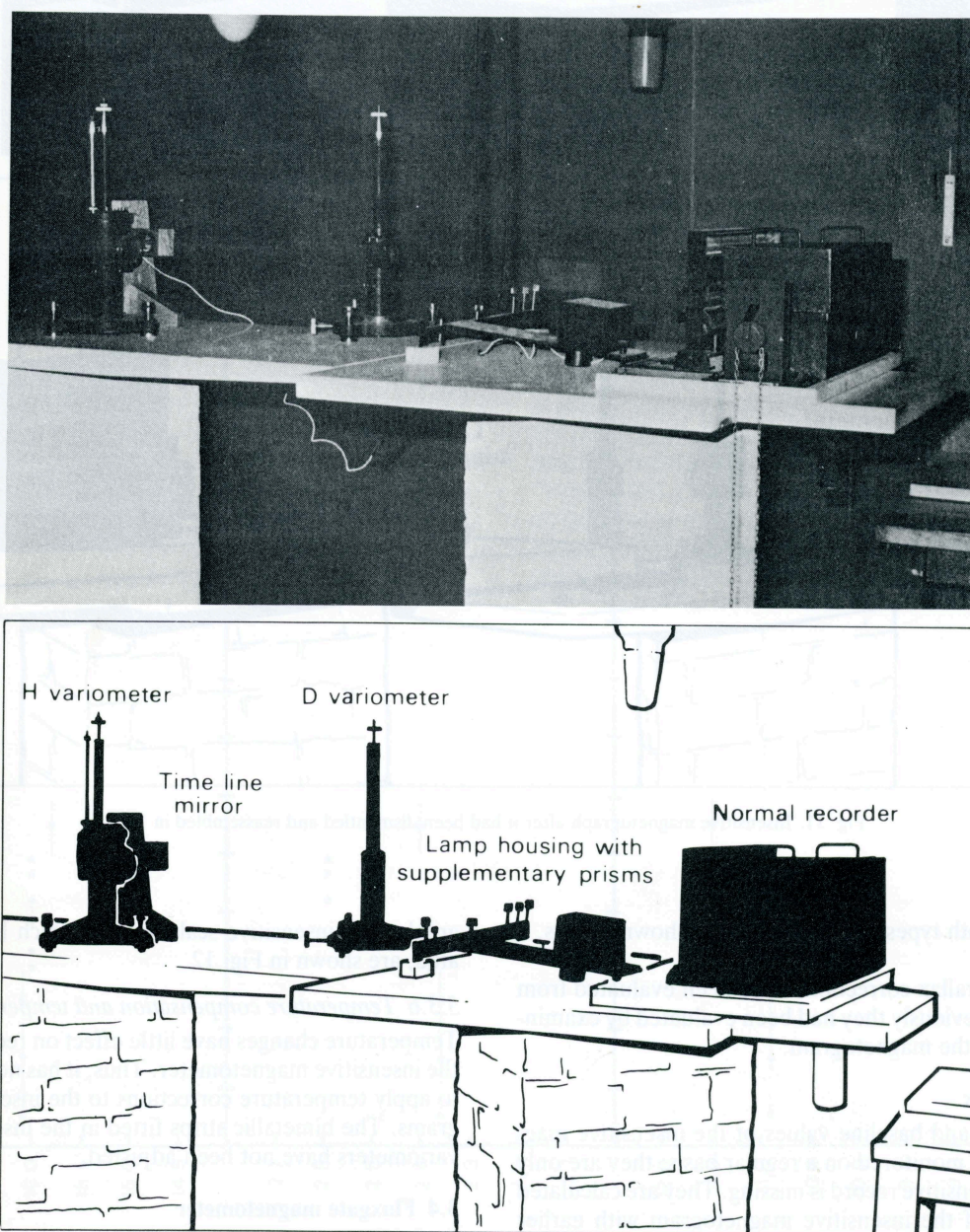


Fig. 10. Inensitive magnetograph before reassembly in 1970. Note that the multiple lamp was canted upwards so that light entered the D variometer. The D variometer prism was also at full lock. The time-mark lamp is beside the H variometer. The Z variometer, off to the left of the picture, was flat on the slab without levelling legs.

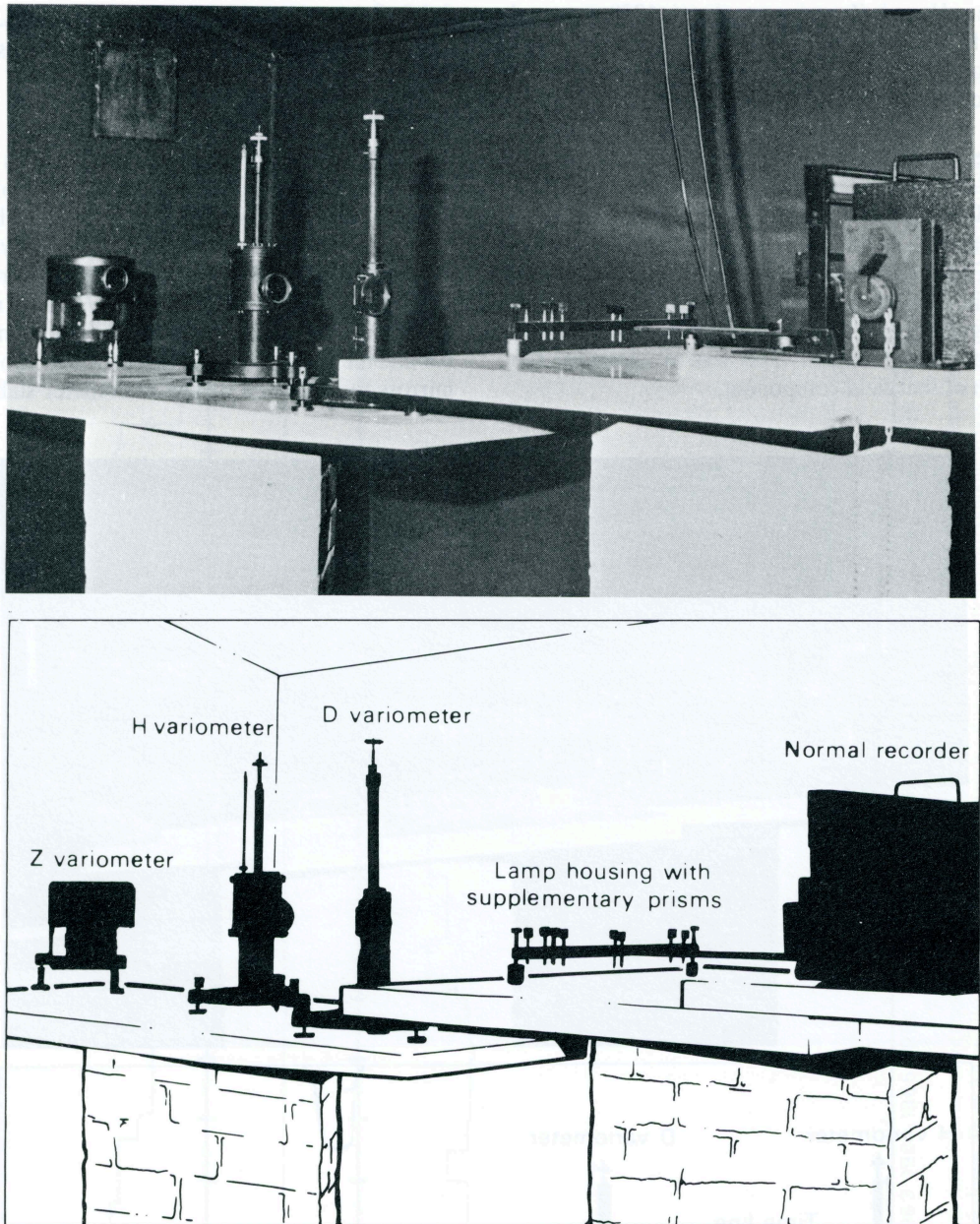


Fig. 11. Insensitive magnetograph after it had been dismantled and reassembled in 1970.

produced with both types of time-marks are shown in Figs. 7 and 8.

After 1971, parallax corrections have been evaluated from the time-gaps. Previously they had been evaluated by examining either end of the magnetogram.

3.3.5 Scale values

The scale values and baseline values of the insensitive magnetogram are not monitored on a regular basis; they are only evaluated if the sensitive record is missing. They are calculated by comparison of the insensitive magnetogram with earlier values obtained using the sensitive magnetogram. About once a year, they are also checked using the Helmholtz-Gauguin coils, which are moved from the sensitive La Cour magneto-

graph. The insensitive scale values, which have been evaluated, are shown in Fig. 12.

3.3.6 Temperature compensation and temperature coefficients

Temperature changes have little effect on records made using the insensitive magnetometer. Thus, it has not been necessary to apply temperature corrections to the insensitive magnetograms. The bimetallic strips fitted in the insensitive *H* and *Z* variometers have not been adjusted.

3.4 Fluxgate magnetometer

3.4.1 General description

An EDA three-component fluxgate magnetometer, model FM100B, was installed in March 1974. This instrument

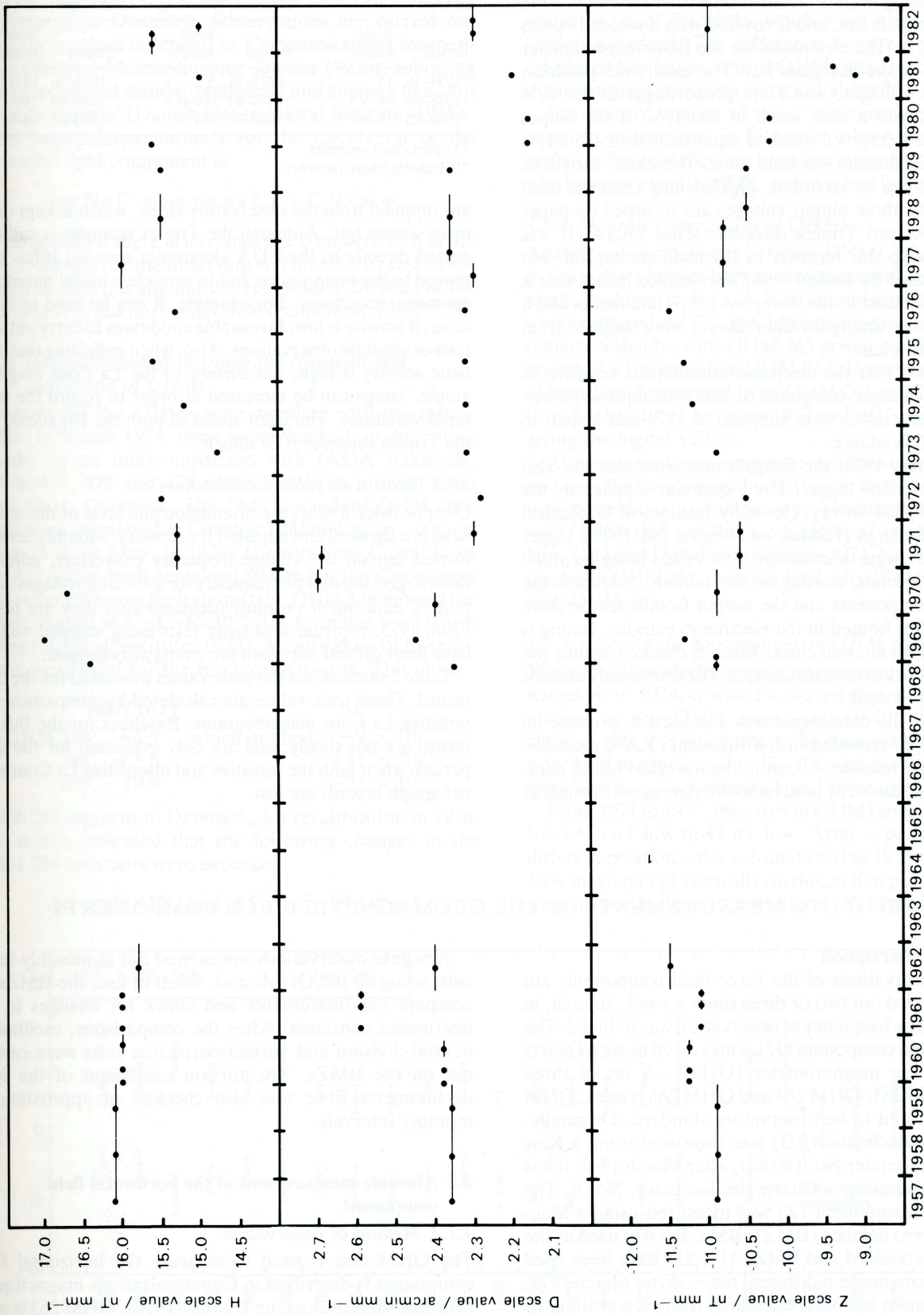


Fig. 12. Scale values of the *H*, *D* and *Z* components of the insensitive magnetogram for the period 1957-82. The dots indicate the scale values calculated and the horizontal bars indicate the period of data used to evaluate the scale values.

measures three orthogonal field components and its sensing head is orientated to monitor the H , D and Z field components. The sensing head is mounted on a concrete block, 30 m from the fibreglass hut, and is covered with a wooden box as shown in Fig. 1. The electronics for the EDA magnetometer are installed in the fibreglass hut. The electronics produces three output voltages, which are proportional to the field components, with a scale value of 50 nT/V. If the output voltage exceed ± 9.5 V, which is equivalent to ± 475 nT, a latching circuit doubles the scale value. Therefore, variations of ± 1000 nT can be recorded. This latching circuit is reset manually. The three output voltages are recorded on paper chart by a Record Triplex recorder, series 270SA. It was planned to keep this recorder in the main station hut, but problems caused by station radio interference meant that it was finally installed in the fibreglass hut. Time-marks and a stabilized power supply for the recorder were supplied from the main station hut.

It was found that the electronic console was sensitive to temperature changes. Integrated circuits with improved temperature characteristics were supplied in 1979 and helped to reduce this dependence.

After January 1980, the fluxgate magnetometer was also connected to a data logger. The logger was supplied by the British Geological Survey, (formally Institute of Geological Sciences) Edinburgh (Riddick and others, 1981). The logger records on to magnetic cassettes, spot values being recorded every thirty seconds, starting on the minute. It records the three field components and the output from a temperature sensor, which is housed in the electronics console. Timing is controlled by an internal clock, which is checked against the observatory clock at cassette changes. The error rarely exceeds two seconds per week.

From 1980, the data logger was also used to produce an analogue output recorded with a Rikadenki KA42 recorder. The Rikadenki recorder is kept in the fibreglass hut to minimize problems caused by local radio interference. Time-marks

Table 2. Fluxgate chart recorder scale values.

H field component (nT/mm)		D field component (arc min/mm)		Z field component (nT/mm)	
Period	Scale values	Period	Scale values	Period	Scale values
†1974-76	15	1974-76	2.2	1974-76	15-17
†1978-80	4-5.5	1978-80	0.6-0.9	1978-80	4-6
*1980-82	8-9	*1980-82	0.6	*1980-82	8-9

†Triplex chart recorder.

*Rikadenki chart recorder.

are supplied from the observatory clock, which is kept in the main station hut. Although the Triplex recorder is still connected directly to the EDA electronics console, it has been moved to the main station hut to provide a useful monitor of geomagnetic activity. For example, it can be used to determine, if activity is low, favourable conditions to carry out scale tests or absolute observations. Also, when indicating that magnetic activity is high, the current to the La Cour magnetographs' lamps can be increased in order to record the more rapid variations. The chart speed of both the Rikadenki and the Triplex recorder is 20 mm/h.

3.4.2 Tests, scale values and baselines

Once or twice a year, the orientation and level of the sensing head are checked and adjusted if necessary. Monthly tests are carried out on the voltage-frequency converters, adjusting them to give the correct frequency for stabilized voltages. They require adjustment on most occasions that they are tested. From 1975, recorder sensitivity tests using stepped voltages have been carried out when the charts are changed.

Table 2 summarizes the scale values evaluated for the chart record. These scale values are calculated by comparison with sensitive La Cour magnetograms. Baselines for the fluxgate record are not steady, and are only evaluated for the short periods when both the sensitive and insensitive La Cour magnetograph records are lost.

4 ABSOLUTE MEASUREMENTS OF THE GEOMAGNETIC FIELD COMPONENTS

4.1 General description

Absolute observations of the three field components are normally carried out two or three times a week, though, in some years, this frequency of observation was reduced. The horizontal field component (H) is measured using a Quartz horizontal-force magnetometer (QHM). A set of three QHMs, QHM 263, QHM 264 and QHM 265 is used; QHM 263 is considered to be observatory standard. Originally, the magnetic declination (D) was measured using a Kew Pattern declinometer No. 140 but, after March 1982, it has been measured using a Quartz declinometer, No. 9. The vertical field component (Z) was measured using a Magnetometric zero balance (BMZ). BMZ 109 was used as the observatory standard and BMZs 110, 231 have been used for comparisons made at different times. After March 1979, the Z component has been calculated from observations of the total field (F) which is measured using a proton precession magnetometer (PPM).

Absolute observations are carried out at monthly intervals, using all the QHMs and, when in use, the BMZs, to compare the instruments and check for changes in the instrument constants. After the comparisons, oscillation, neutral-division and vernier-correction tests were carried out on the BMZs. The torsion coefficient of the Kew declinometer fibre was also checked at approximately monthly intervals.

4.2 Absolute measurement of the horizontal field component

4.2.1 Method of observation

The QHM that is used to measure the horizontal field component is described in Communications magnetiques, l'Institut Meteorologique Danois (1936). QHM 263 is used as the observatory standard, with QHMs 264 and 265 being for comparisons to check for changes in constants of the

instruments. QHMs 263 and 265 have remained at Argentine Islands from 1957 to the present but, from April 1976 until January 1977, QHM 264 was not used as it was being recalibrated in Denmark. Observations are carried out using the method described in Communications magnetiques, l'Institut Meteorologique Danois (1936), following 'the international standard schedule' and keeping to a 'stiff 2 minute scheme' (Danish Meteorological Institute, 1978).

The approximate formula for the calculation of the horizontal field component is

$$\log H = C - \log \sin \phi + C_1 t - C_2 H \cos \phi$$

This applies if there is less than one complete turn in the fibre at the start of the observation. Here, C , C_1 and C_2 are constants, ϕ is the angular deflection for a 2π twist in the fibre and H is the horizontal field component, in $\text{nT} \times 10^4$.

4.2.2 Determination of instrumental constants and calibration of QHMs

Constants for the QHMs were supplied with the instruments. In March 1974, these were checked, at Argentine Islands, by an intercomparison with IAGA standards, QHMs 477, 478 and 479 which had been brought from Rude Skov, Denmark. The IAGA standard QHM constants were calculated in October 1973 and again, on their return to Rude Skov, in 1974. The constants C_1 and C_2 of the IAGA standards remained steady but the C constants were reduced during their round trip. QHM 479 showed the largest change in C of -6×10^{-5} (for formulae see Danish Meteorological Institute, 1978). Mean values of the constants were used for the intercomparisons. This gave:

	ΔH (nT)	which implied	ΔC
for QHM 263	-4.9		-9×10^{-5}
264	+5.8		$+11 \times 10^{-5}$
265	-10.9		-21×10^{-5}

QHM 264 was sent to Denmark, for recalibration in 1976. The results indicated that the following changes to the QHM 264 constants were necessary

$$\Delta C = +15 \times 10^{-5} \text{ and } \Delta C_1 = -5 \times 10^{-5} \text{ deg}^{-1}$$

These changes, and the changes for QHM 263 and 265 constants, which were calculated in 1973, were adopted from January 1977. In 1981, calibration was checked again, against a set of 2 QHMs, which were brought from the United Kingdom. The difference between the baselines calculated for the two sets of QHMs was less than 5 nT, so the instrument constants were not altered.

The rates of change of the C constants are small compared to instruments in European observatories. This is probably because they are kept at a constant temperature, which rarely exceeds 10°C , and at a low humidity.

4.2.3 Monthly comparison of QHMs

Analyses of comparisons between QHMs 263, 264 and 265 indicate that changes between instrumental constants were small, as shown in Fig. 13. Until the instrument constants were corrected in 1977, the difference between 263 and 265 remained steady, with QHM 265 giving baselines approximately 7 nT higher than QHM 263. However, differences of baselines determined from QHM 263 and 264 increased from 5 nT to 10 nT between 1957 and 1977, with QHM 263 giving the higher values.

Although no thermometer comparisons have been carried out, the baselines indicate that no changes in temperature corrections are necessary. Thermometers supplied with QHMs 263 and 265 were replaced by thermometers Nos. 1543 and 1544. From October 1974, No. 1543 has been used with QHM 263 and from 1964, No. 1544 has been used with QHM 265.

4.2.4 Effect of the Kew magnet on QHM observations

When the Kew declinometer was returned to the United Kingdom in 1978, it was discovered that storing the Kew magnet in the QHM room caused apparent baseline changes. The positions where the Kew magnet and QHM were kept are indicated in Fig. 14, and the times that they were kept in each position (A and B) are given in Table 3.

From 1971 to 1977, the error in QHM baselines increased from 6-8 nT low to 11 nT low. After experimenting with different positions, it was found in May 1979 that, with the Kew magnet kept vertically on the shelf in position A, there were no noticeable baseline effects. The baselines for 1971

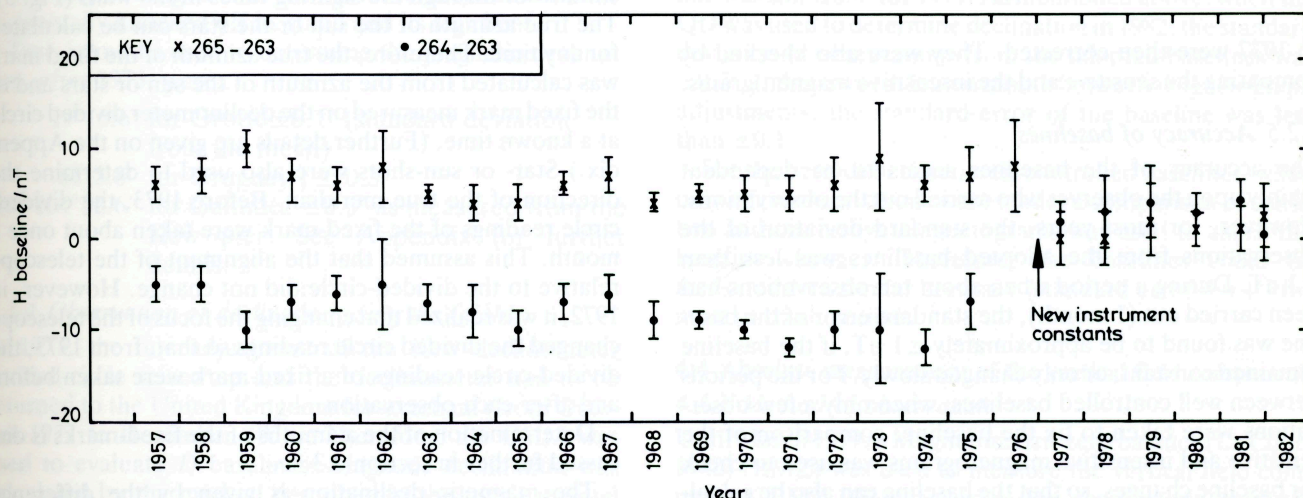


Fig. 13. Mean differences between QHM baselines, with standard deviations, for the period 1957-82 (see text for further details).

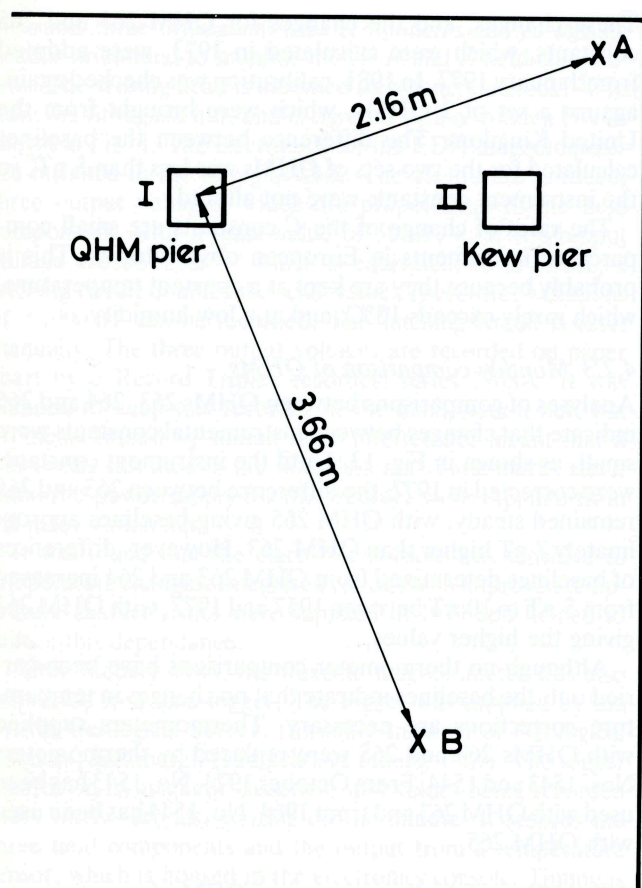


Fig. 14. Positions where the Kew declinometer magnet was stored in the QHM absolute room.

Table 3. Storage positions of Kew declinometer magnet.

	Magnet kept	QHM used
23 November 1971 to 31 December 1977	A (Horizontal)	I
1 January 1978 to 31 December 1978	-	II
2 January 1979 to 28 February 1979	A (Horizontal)	I
1 March 1979 to 11 May 1979	B	I
11 May 1979 onwards	A (Vertical)	I

See Fig. 14.

to 1977 were then corrected. They were also checked by comparing the sensitive and the insensitive magnetograms.

4.2.5 Accuracy of baselines

The accuracy of the baselines seems to be dependent mainly upon the observer who carried out the observations. However, for most years, the standard deviation of the observations from the adopted baselines was less than ± 3 nT. During a period when about ten observations had been carried out (1 month), the standard error of the baseline was found to be approximately ± 1 nT, if the baseline remained constant, or only changed slowly. For the periods between well controlled baselines, when only a few observations were taken to fix the baseline, comparison of the sensitive and insensitive magnetograms was used to check for baseline changes, so that the baseline can also be calculated to an accuracy of ± 1 nT.

Intercomparisons between IAGA standard sets of QHMs and the observatory set of QHMs checks the long term stability of baselines. Although no intercomparisons were carried out until 1974, there was little difference (maximum -5 nT change) between instruments in the set, for the time from when the QHMs were sent to Argentine Islands in 1957 to when the intercomparisons were first carried out. The intercomparison in 1974 indicated that the necessary corrections were small and that the error due to changes in the instrument constants was between 0 and -5 nT. Further intercomparisons in 1981 indicated that the maximum change from 1974 to 1980 was less than 5 nT.

4.3 Absolute measurement of magnetic declination

4.3.1 Method of observation

Magnetic declination was measured with a Kew pattern declinometer, No. 140. This instrument was replaced, in March 1982, by a Quartz declinometer (QD) No. 9 (Kring Lauridsen, 1980). In 1978, the Kew declinometer was returned to the United Kingdom for overhaul and QHM No. 263 was used to measure magnetic declination for that year. Measuring the magnetic declination using the QHM and with the QD are discussed in sections 4.3.4 and 4.3.5 respectively; the use of the Kew declinometer is described below.

The Kew declinometer was used to measure the magnetic declination by observing the orientation of a magnet, which is suspended within the instrument. The magnet is fixed to a tube, which has a glass graticule fitted in one end. By observing the graticule with the telescope, the orientation of the magnet/tube assembly was read on the divided circle. Knowing the divided circle reading of the true meridian, the magnetic declination was then calculated.

As the axis of the tube may not be aligned with the magnetic axis of the magnet, observations were taken twice with the magnet/tube assembly upright and twice with it inverted. The mean of the four observations was used to determine the average declination eliminating the effect of misalignment between the magnet and the tube.

Determining the divided-circle reading of the true meridian was crucial. This was done by taking readings with the telescope pointing at a fixed mark, viewed through the window or through the sighting tubes in the walls (Fig. 3). The true azimuth of the sun or the stars can be calculated for any time. Therefore, the true azimuth of the fixed mark was calculated from the azimuth of the sun or stars and of the fixed mark measured on the declinometer divided circle at a known time. (Further details are given on the Appendix.) Star- or sun-shots were also used to determine the direction of the true meridian. Before 1973, the divided-circle readings of the fixed-mark were taken about once a month. This assumed that the alignment of the telescope relative to the divided-circle did not change. However, in 1972, it was realized that changing the focus of the telescope changed the divided circle readings so that, from 1973, the divided-circle readings of a fixed-mark were taken before and after each observation.

Determination of the azimuths of the fixed-marks is discussed further in section 4.3.3.

The magnetic declination is given by the difference between the mean vernier reading when the magnet is at

rest and that of the true meridian, plus the torsion correction if needed. The true meridian vernier reading was given by the difference between the mean fixed mark vernier reading and the true azimuth of the fixed mark. The torsion correction is half the angle through which the fibre has turned during the observation, multiplied by the torsion constant.

4.3.2 Torsion corrections

Before and after each observation, the angles at which the bob settled were noted. If the two angles were different, the fibre had been under tension during the observation and a torsion correction was needed. Before December 1959, a double unspun silk suspension was used. After 1959, the Kew declinometer was used with a double nylon suspension. Both types of suspension had torsion coefficients of about 1 arc min per degree. The torsion coefficient was determined at approximately monthly intervals and, for a few months after a fibre was replaced, it was checked more frequently.

4.3.3 Fixed-marks and determination of the true meridian

Three fixed-marks have been used at Argentine Islands geomagnetic observatory. The positions of these marks are shown in Fig. 1. The first, Grotto, was used from 1957 to 1969. From 1967 to 1969, snow accumulation on Grotto Island restricted its use; therefore, a new mark was erected on Galindez Island, which was used when the Grotto fixed-mark was obscured. The most recent mark, known as Uruguay j, was erected on Uruguay Island in October 1969. Since then, it has been used for all observations, except in poor visibility when Galindez was used.

The true azimuth of the Grotto fixed-mark was determined by, and later checked by, taking sun and star shots. When first erected, the azimuths of the other two fixed-marks were calculated from the fixed mark bearings, which were measured on the Kew divided-circle. These calculated azimuths were subsequently confirmed by sunshots.

The divided-circle readings of the true meridian used from 1957 to 1973, were:

175°50.8' for 1957 to August 1965
and 175°56.8' for August 1965 to 1973.

The angle changed in 1965, when the declinometer was accidentally knocked off its stand and its legs bent.

True azimuths used to determine the magnetic declination, after 1973, were:

19°15.6' for Grotto $\pm 0.1'$ (standard deviation from the mean)
61°3.8' for Uruguay j $\pm 0.3'$
and 104°32.6' for Galindez $\pm 0.3'$ as measured from the Kew pier. See Appendix for further details.

4.3.4 Observation of declination using the QHM

In 1977, the fine adjustment of the Kew declinometer divided-circle seized up and the declinometer had to be returned to the United Kingdom for overhaul (from October 1977 to December 1978). Therefore, the QHM was used to evaluate *D* baselines. Magnetic declination was calculated by the method described in the user's manual (Danish Meteorological Institute, 1978). This method gave

a standard deviation of baseline observations of $\pm 0.4'$ from the adopted baselines, similar to the error obtained when using the Kew declinometer.

When observations using the QHM started, there was an apparent jump of 1.1' in the baseline. Intercomparisons of normal and storm magnetograms showed that this jump was not real, so a correction of 1.1' was applied to the baseline for the period when the QHM was used.

4.3.5 Observation of declination using the Quartz declinometer

The Quartz declinometer (QD) (Kring Lauridsen, 1980) replaced the Kew declinometer in March 1982. The QD uses the same principle as the Kew declinometer, except that a mirror, mounted on the side of the magnet, is used to align the telescope at 90° to the magnetic axis instead of the telescope being aligned with the magnet's magnetic axis. As its name suggests, the QD magnet is suspended from a quartz fibre.

Observations with the QD are taken, four times with the magnet in the erect position, and then four times with it in the inverted position, the mean azimuth of the magnet is then calculated. Torsion of the fibre is checked before and after the observation using a bar of the same weight as the magnet, but a torsion correction is rarely required. Each month, the dip angle of the magnet and of the mirror-normal are checked. During 1982, the dip-angle of the mirror-normal only required adjustment once.

4.3.6 Accuracy of baselines

When the Kew declinometer was first used, the standard deviation of observations from the adopted baselines was approximately $\pm 0.2'$. The standard deviation from the baseline varied from year to year, which is probably attributable to different observers. However, deterioration of the instrument caused the standard deviation of observations to increase with time. In 1974-1976, the standard deviation from the baseline was approximately $\pm 0.4'$. For 1978, the QHM was used to produce *D* baselines, as described above. The Kew declinometer was returned to Argentine Islands in 1979 but no improvement in baseline scatter was achieved; the standard deviation from the baseline was still $\pm 0.4'$ for 1979. As mentioned above, when the QD was used to determine declination in 1982, the standard deviation of observations from the adopted baselines was $\pm 0.3'$. If there was at least a month between magnetograph adjustments, the standard error of the baseline was less than $\pm 0.1'$.

For the periods between well-controlled baselines, when only a few observations were made, a comparison of sensitive and insensitive magnetograms was used to check the baseline changes. Therefore, the baselines could be measured to a similar accuracy (standard error $\pm 0.1'$) for most of these periods.

4.4 Absolute measurement of the vertical field component

4.4.1 Method of observation

Until March 1979, a Magnetometric zero balance (La Cour, 1942) (BMZ) was used to measure the vertical field component. BMZ 109 was used as the observatory standard, with BMZs 110 and 231 being used for comparisons. BMZ

110 was used at Argentine Islands with BMZ 109 from June 1957 until 1959 and from 1973 until 1977, after recalibration in the UK. BMZ 231 was supplied in 1960 and was used for comparisons until March 1979. From March 1979, a proton precession magnetometer (PPM) was used to determine the vertical field component (see section 4.5).

Observations were made with the BMZ using a method described by La Cour (1942); eight measurements of the vertical field component were made at one-minute intervals. The temperature of the field magnet was recorded one minute before the observations, at each observation and one minute after the observations. ΔT was determined by taking two-minute differences. Calculation of the Z-field component from the BMZ observations is described by La Cour (1942).

4.4.2 Comparison of BMZs

BMZ comparisons were carried out at monthly intervals. The yearly averages of the differences between the baselines calculated using BMZ 109 and the other BMZs are shown in Fig. 15. The large differences between 109 and 110 observed in 1957 and 1958 were clearly unsatisfactory. A new field magnet, 110A, was supplied in 1959 and used with BMZ 110. However, this combination gave even larger differences and, from 1960, BMZ 231 replaced BMZ 110. From 1961 to 1967, the field magnet from BMZ 110 was used with BMZ 231 and is referred to as BMZ 231/110, from 1961 to 1967. Although each BMZ should only be used with the field magnet supplied with it for absolute

measurements, it could be used in this configuration for making comparisons.

In early November 1964, BMZ 231 was moved with the monad magnet in an unclamped position, which resulted in an apparent shift in the baseline that were calculated from BMZ 231 observations.

BMZ 110 was recalibrated and returned to Argentine Islands in 1973, but was damaged in May 1976, increasing the 110–109 difference. Further damage, in March 1977, caused the 110–109 differences to become erratic, varying between +40 nT and +110 nT, so it was returned to the United Kingdom at the end of 1977. The difference between BMZs 110 and 109 decreased rapidly during the period from 1973 to when it was damaged. However, as the difference between BMZs 231 and 109 do not show a similar change it was assumed that the instrument constants of BMZ 109 did not alter during this time.

After some comparisons, a small baseline change was seen, but comparison of sensitive and insensitive magnetograms show no such change. These apparent changes are probably caused by changes in distance between either the field magnet or the supplementary magnet and the monad magnet. The ends of the field magnet, or of the supplementary magnet, which are screwed to the body of the BMZ, may not be clean. If their distance from the monad magnet varies the compensating field which they produce at the monad magnet will vary also. These variations are random, so mean values of several comparisons will give the correct field component values.

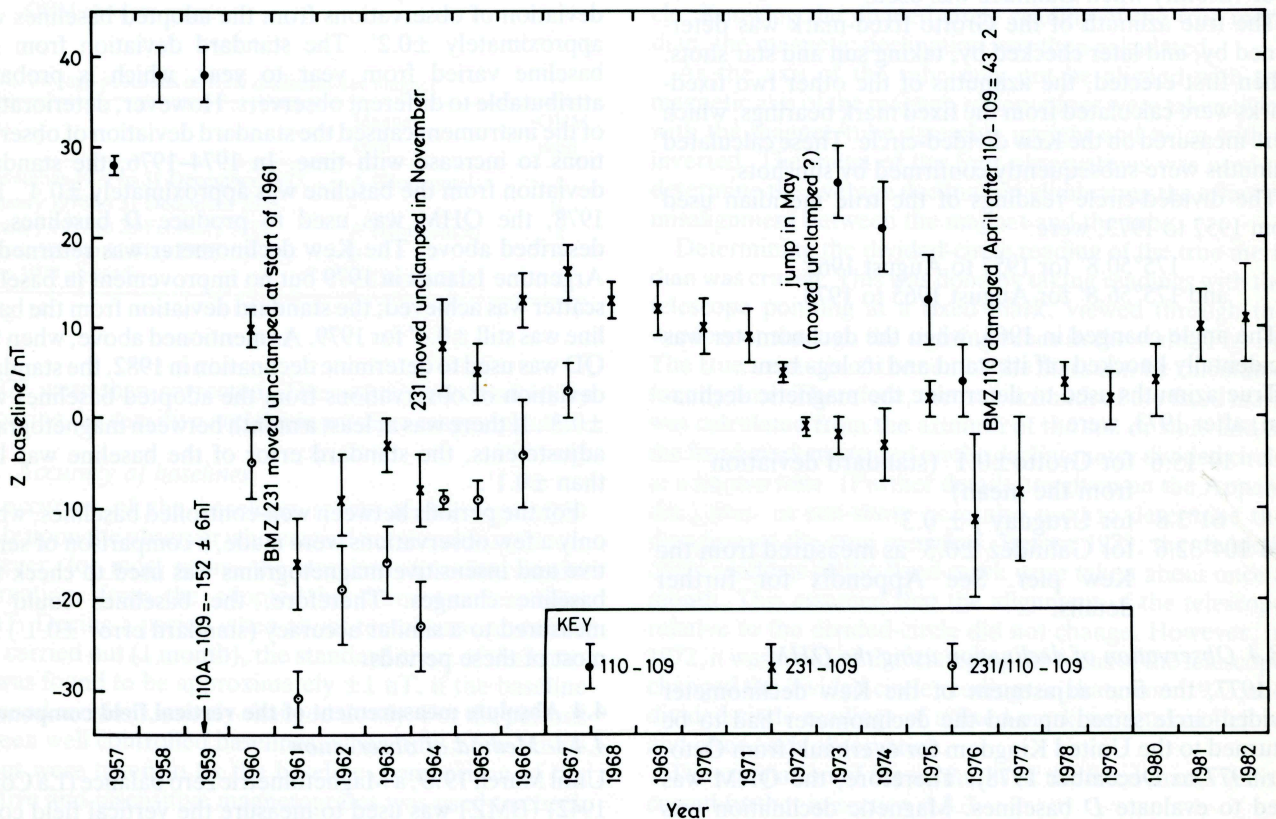


Fig. 15. Mean differences for each year between BMZ baselines, for BMZs 110, 231 and 231/110 relative to the baselines calculated from measurements using the observatory standard BMZ 109.

4.4.3 Other monthly tests

In addition to comparisons, oscillation and vernier correction tests were carried out monthly. After 1965, neutral division tests were also carried out at monthly intervals.

Ten oscillations with the monad magnet facing north, south and east were timed. The east-facing period was calculated from the north- and south-facing periods and compared with the measured period (La Cour, 1942). The neutral division was also calculated from these periods (La Cour, 1942).

The period in the east-facing position gave an indication of any changes in the monad magnet, such as a change in centre of gravity due to corrosion. The results of the monthly tests indicate that none of the monad magnets have changed.

The vernier correction was evaluated by noting the turn magnet readings at position A and B, (La Cour, 1942). The mean of the normal pointing (position A) and (360° -abnormal pointing) (position B) reading, gave the vernier correction.

Neutral-division positions also have remained constant. The results of these tests indicate that the constants of BMZ 109 have not changed during the time that it has been used as the observatory standard.

4.4.4 Accuracy of baselines

When BMZ 109 was in use, the standard deviation of observations from adopted baselines, was $\pm 2-3$ nT. Therefore, the standard error of the baseline was normally less than ± 1 nT (under the same conditions as described in sections 4.2.5 and 4.3.6).

4.5 Absolute measurement of the total field and subsequent determination of the vertical field component

4.5.1 Method of observation

In 1962, the first instrument measuring the total field, F , a Venner proton precession magnetometer (PPM), was installed at Argentine Islands observatory. A Helmholtz coil system, which produced a uniform field to back-off one field component, was used to measure the perpendicular field component. After problems with stability and maintaining a level base for the coils, it was returned to the United Kingdom in 1964. Another similar Venner PPM was installed in 1967, but suffered from the same problems.

In 1968, an Elsec PPM was taken to Argentine Islands and, despite suffering from mains interference, was used to check Z baselines. This was done by the $F^2 = H^2 + Z^2$ method, described below, where H is the horizontal component of the geomagnetic field and Z is the vertical component.

From 1977, a Barringer Research PPM (GM122) was used to determine the Z component from the total field measurement and, after March 1979, it replaced BMZ 109 as the observatory standard. The sensing head was first mounted in the fibreglass hut but, with the installation of seismology equipment in December 1977, it had to be re-sited approximately 20 m west of the fibreglass hut. It was moved to its present site, between the magnetics huts, in October 1980 (See Fig. 1). Using the Barringer Research

PPM, ten readings of the total field (F) are taken over a one-minute period and the mean value of F is calculated. Then, using the provisional baselines, the H -field component is calculated from the magnetograms for the beginning and end of the PPM observation. After applying the site-difference correction from the variometer hut to the PPM head, Z is calculated from:

$$Z = (F^2 - H^2)^{1/2}$$

Applying the site-difference correction to the Z -field component between the PPM and the variometer hut, the value for the Z component at the BMZ pier is calculated and the baselines for the magnetograms are derived.

4.5.2 Site differences

Site differences for each position were determined by simultaneous observations with the BMZ, QHM and PPM. The corrections for the various configurations of the system are as follows:

- (a) for the head in the fibreglass hut, determined in May and October 1977

$$\Delta H = -18 \text{ nT}$$

and

$$\Delta Z = +2 \text{ nT}$$

- (b) when the triplex recorder was removed from the hut

$$\Delta H = 10 \text{ nT}$$

$$\Delta Z = -1 \text{ nT}$$

- (c) after moving the head to the west of the fibreglass hut

$$\Delta H = +2 \text{ nT}$$

$$\Delta Z = -3 \text{ nT}$$

- (d) and to the east of the fibreglass hut, between the two huts

$$\Delta H = +3 \text{ nT}$$

$$\Delta Z = -4 \text{ nT determined in October 1980}$$

Here ΔH is the difference in H , moving from the variometer hut to the PPM head, and ΔZ is the difference in Z , moving back again.

4.5.3 Accuracy of baselines

The H baselines, derived at the time of observing the total field given by the PPM, are used to determine the Z baseline. This method has the advantage, over using the finally adopted baselines, as any changes in baselines are quickly identified and investigated. Also, there is no difference in the accuracy of the resultant Z baseline. For 1979, the standard deviation of observations from the Z baseline determined by both methods was ± 2 nT. (For the same period using BMZ observations it was ± 3 nT.)

If the period between baseline changes is at least a month, the standard error of the baseline is less than ± 1 nT. As before, if a period when few observations were taken to fix the baseline is preceded and followed by periods of well-controlled baseline measurements, comparison of sensitive and insensitive records can be used to calculate the baseline to a similar accuracy.

5 COMPUTATION OF ABSOLUTE HOURLY VALUES OF THE FIELD COMPONENTS

5.1 Method

The mean absolute values of the three field components, H , D and Z , are calculated for each hour and are sent to the World Data Centres. These values are calculated from the mean hourly ordinates that are measured from the baselines on the sensitive magnetogram. Where the sensitive magnetograph record was lost, insensitive or fluxgate records are used to calculate the mean absolute-hourly values. The baseline values and the scale are used with the mean ordinates to calculate the absolute value of the field components for each hour.

5.2 Measurement of mean hourly ordinates

Before 1964, the mean hourly ordinates were scaled by hand. From 1964, the co-ordinates of the field component traces and of the baselines have been measured using a digitizing table, which is interfaced to a PDP11 computer. Co-ordinates of traces and baselines are measured and stored, with a resolution of 0.001" (0.0025 mm). Baseline co-ordinates are selected for each hour, but the frequency of trace digitizing depends on the level of geomagnetic activity. This digitizing frequency is high enough for the trace to be defined by linear interpolation between the selected points. At least five or six samples for each field component are selected for a quiet hour, but twenty or more are needed for a disturbed hour. The PDP11 computer is then used to produce files of the mean hourly ordinates. If short sections of the sensitive record are lost (<20 minutes), the insensitive magnetogram or the fluxgate records are used to interpolate the missing sensitive magnetogram traces. For longer periods, the insensitive magnetogram or the fluxgate chart records are digitized.

5.3 Scale value and baseline assignment

The scale values are evaluated, as described in section 3.2.5, and baselines are calculated from absolute observations (see sections 4 and 3.1). Discrete steps in the baseline plots are checked to ensure that they coincided with adjustments made to the magnetograph. The size of these steps are checked by comparison of the sensitive magnetogram with the insensitive magnetogram or with the fluxgate record. A linear best fit is made to the baseline measure-

ments and, if it slowly drifted by a few nT over several months, it is redefined as steps of 1 or 2 nT, changing at 2400 UT. Fig. 16 shows the baselines for 1981, which is a typical year. The adopted baselines are indicated by the unbroken line.

Until 31 December 1978, the temperature dependent H - and Z - baselines were corrected to baselines at a standard temperature, usually 0°C. Then, the magnetogram temperature ordinates were used to measure the temperature at a particular hour and the baselines at that temperature were calculated using the temperature coefficients (see section 3.2.6). In practice, the temperature changed very little. Therefore, from 1 January 1979, the ambient temperature baselines (not corrected to 0°C) have been used for the periods when the hut was kept at a steady temperature. Temperature corrections are only applied for the periods when adjustments were made and the temperature raised, or for occasions when there was heater or thermostat failure. Every few years, the baselines and scale values are reviewed to check that there are no erroneous long-term changes in the values used.

5.4 Final computation of absolute hourly values

The computer files of mean hourly ordinates are checked against the records themselves to ensure that the ordinates of traces produced by the supplementary prisms have been corrected. Then, for short periods up to a day or so of a missing sensitive record, the insensitive magnetogram or fluxgate ordinates are converted to sensitive ordinates. A graph to convert these ordinates is drawn by comparing the records made either side of the missing period or, if an adjustment had been made, on one side only. For longer periods, when the insensitive magnetograms or the fluxgate charts are used, baselines for these records are calculated from the absolute observations. The scale values for the insensitive magnetograms or the fluxgate record are calculated by comparison of records or by plotting absolute field measurements against ordinates. All the baselines and scale values, with dates of change of the type of record used, are used by a computer program that converts the files of mean ordinate values to files of mean absolute hourly values. These results are checked and sent to the World Data Centres.

6 ERRORS IN THE MEASUREMENT OF THE FIELD COMPONENTS

Errors have been evaluated for three ways in which the sensitive magnetograms are often used to study the geomagnetic field. These are to study:

- (a) the diurnal range of the field components, if used as variation data;
- (b) the range of the field components over periods greater than a day when baselines may have changed (interdiurnal range), and
- (c) the measurement of absolute values of the field components.

For case (a) the sources of error that were considered were those associated with the scale value and a possible temperature variation which was not compensated. The error in the baseline determination will not normally contribute in this case and was not considered. For case (b), in addition to the possible causes of error considered in case (a), the error associated with the baseline was also considered. For case (c), all the causes of error mentioned above were considered, in addition an estimate of the error in the field values measured using the absolute instruments was included in the calculation. Errors have been evaluated for

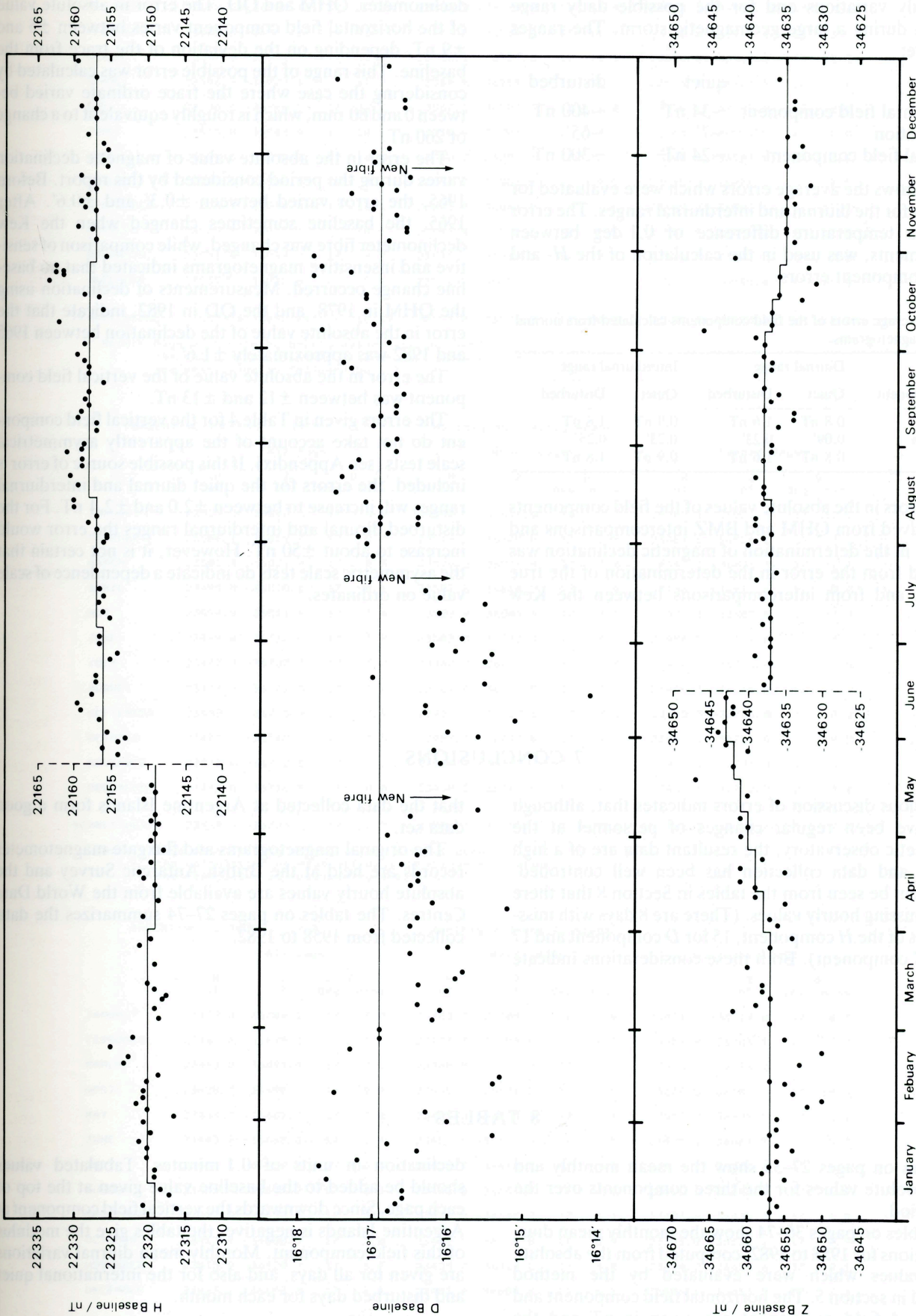


Fig. 16. Baseline plots for the three field components for 1981. The adopted baselines used for calculated field components are marked by the solid lines and the absolute observations by dots. The baseline jumps on May 22 and June 15 were caused by adjustment to the variometers. Times when the suspension in the Kew declinometer was broken are marked by arrows. Careful examination of the declination record shows that there were no real changes in the baseline when the Kew fibre was replaced; hence the adopted *D* baseline remained constant. It should be noted that the *H* and *Z* component baselines have not been corrected to 0°C.

quiet daily variations and for the possible daily range observed during a large geomagnetic storm. The ranges used were:

	quiet	disturbed
Horizontal field component	~34 nT	~400 nT
Declination	~7'	~65'
Vertical field component	~24 nT	~300 nT

Table 4 shows the average errors which were evaluated for each year for the diurnal and interdiurnal ranges. The error due to a temperature difference of 0.1 deg between measurements, was used in the calculation of the *H*- and *Z*-field component errors.

Table 4. Average errors of the field components calculated from normal magnetograms.

Field component	Diurnal range		Interdiurnal range	
	Quiet	Disturbed	Quiet	Disturbed
Horizontal	0.8 nT	1.6 nT	0.9 nT	1.8 nT
Declination	0.09'	0.23'	0.23'	0.25'
Vertical	0.8 nT	1.6 nT	0.9 nT	1.8 nT

The errors in the absolute values of the field components were derived from QHM and BMZ intercomparisons and the error in the determination of magnetic declination was estimated from the error in the determination of the true meridian and from intercomparisons between the Kew

declinometer, QHM and QD. The error in absolute value of the horizontal field component varies between ± 5 and ± 9 nT, depending on the deviation of the trace from the baseline. This range of the possible error was calculated by considering the case where the trace ordinate varied between 0 and 60 mm, which is roughly equivalent to a change of 260 nT.

The error in the absolute value of magnetic declination varies during the period considered by this report. Before 1965, the error varied between $\pm 0.3'$ and $\pm 0.6'$. After 1965, the baseline sometimes changed when the Kew declinometer fibre was changed, while comparison of sensitive and insensitive magnetograms indicated that no baseline change occurred. Measurements of declination using the QHM in 1978, and the QD in 1982, indicate that the error in the absolute value of the declination between 1965 and 1982 was approximately $\pm 1.6'$.

The error in the absolute value of the vertical field component was between ± 12 and ± 13 nT.

The errors given in Table 4 for the vertical field component do not take account of the apparently asymmetrical scale tests (see Appendix). If this possible source of error is included, the errors for the quiet diurnal and interdiurnal ranges will increase to between ± 2.0 and ± 2.4 nT. For the disturbed diurnal and interdiurnal ranges the error would increase to about ± 50 nT. However, it is not certain that the asymmetric scale tests do indicate a dependence of scale value on ordinates.

7 CONCLUSIONS

The previous discussion of errors indicates that, although there have been regular changes of personnel at the geomagnetic observatory, the resultant data are of a high standard and data collection has been well controlled. Also, it can be seen from the tables in Section 8 that there are few missing hourly values. (There are 8 days with missing values of the *H* component, 15 for *D* component and 17 for the *Z* component). Both these considerations indicate

that the data collected at Argentine Islands form a good data set.

The original magnetograms and fluxgate magnetometer records are held at the British Antarctic Survey and the absolute hourly values are available from the World Data Centres. The tables on pages 27-74 summarize the data collected from 1958 to 1982.

8 TABLES

The tables on pages 27-35 show the mean monthly and yearly absolute values for the three components over the same period.

The tables on pages 36-74 show the monthly mean diurnal variations for 1958 to 1982, computed from the absolute hourly values which were evaluated by the method described in section 5. The horizontal field component and the vertical field component are given in nT and the

declination in units of 0.1 minutes. Tabulated values should be added to the baseline value given at the top of each page. Since downwards the vertical field component at Argentine Islands is negative, the tables give the modulus of this field component. Monthly mean diurnal variations are given for all days, and also for the international quiet and disturbed days for each month.

ARGENTINE ISLANDS 1958

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	23578.5*	-36936.4*	17	12.3*	23586.8	-36939.0	17	11.9	23564.3*	-36945.3*	17	13.6*
FEBRUARY	23561.0	-36932.0	17	12.7	23573.0	-36929.8	17	11.8	23532.6	-36928.6	17	13.4
MARCH	23547.0	-36931.7	17	12.4	23556.1	-36927.5	17	11.4	23534.8	-36933.5	17	13.2
APRIL	23546.3	-36922.1	17	11.7	23564.0	-36919.2	17	11.2	23536.0	-36922.4	17	12.0
MAY	23546.6	-36910.5	17	11.2	23562.5	-36907.5	17	11.0	23529.7	-36908.9	17	12.0
JUNE	23535.8	-36903.4	17	10.5	23550.4	-36903.1	17	10.6	23504.8	-36904.5	17	11.0
JULY	23529.6	-36898.7	17	10.3	23540.2	-36898.1	17	10.4	23500.9	-36903.9	17	11.9
AUGUST	23534.4	-36880.4	17	9.6	23543.2	-36883.3	17	9.5	23515.9	-36876.1	17	9.5
SEPTEMBER	23524.4	-36874.8	17	10.1	23541.0	-36867.9	17	9.4	23489.3	-36881.5	17	11.5
OCTOBER	23529.3	-36855.3	17	10.1	23543.4	-36855.1	17	9.5	23501.5	-36856.2	17	12.3
NOVEMBER	23541.4	-36839.2	17	9.2	23543.5	-36841.1	17	9.2	23535.8	-36843.7	17	9.0
DECEMBER	23535.1	-36832.8	17	9.9	23541.2	-36829.9	17	9.5	23523.2	-36848.4	17	11.4
YEARLY MEANS	23542.3*	-36892.8*	17	10.8*	23553.8	-36891.8	17	10.4	23521.7*	-36895.3*	17	11.7*

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1959

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	23529.2	-36818.6	17	8.9	23542.3	-36811.0	17	7.6	23509.1	-36831.3	17	11.1
FEBRUARY	23508.1	-36819.7	17	8.7	23514.8	-36820.8	17	7.9	23489.6	-36826.1	17	9.6
MARCH	23502.4	-36821.4	17	8.3	23520.3	-36816.4	17	7.0	23449.7	-36831.1	17	11.1
APRIL	23494.4	-36818.1	17	8.1	23507.8	-36814.2	17	7.4	23480.2	-36817.6	17	8.7
MAY	23494.9	-36811.6	17	7.4	23503.4	-36809.4	17	7.5	23482.1	-36807.0	17	7.3
JUNE	23499.0	-36792.0	17	7.0	23503.8	-36792.0	17	6.9	23480.5	-36789.6	17	7.9
JULY	23477.3	-36787.3	17	7.7	23488.9	-36786.1	17	7.6	23430.9	-36796.4	17	10.0
AUGUST	23477.9	-36772.5	17	7.6	23489.5	-36771.9	17	7.2	23455.3	-36765.0	17	7.9
SEPTEMBER	23468.9	-36765.4	17	7.9	23481.6	-36767.6	17	7.6	23445.5	-36761.0	17	8.2
OCTOBER	23477.3	-36748.2	17	7.5	23487.7	-36747.0	17	6.9	23456.1	-36756.4	17	8.8
NOVEMBER	23473.0	-36732.8	17	7.6	23484.2	-36732.4	17	7.3	23452.1	-36735.4	17	8.2
DECEMBER	23477.8	-36718.9	17	8.0	23488.2	-36718.5	17	7.1	23466.8	-36722.2	17	9.0
YEARLY MEANS	23489.9	-36783.6	17	7.9	23501.1	-36782.3	17	7.3	23466.5	-36786.6	17	9.0

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1960

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	23478.8	-36709.1	17	7.8	23483.7	-36704.8	17	7.0	23471.3	-36714.0	17	8.7
FEBRUARY	23469.6	-36699.2	17	7.5	23473.7	-36698.9	17	6.7	23459.9	-36703.4	17	7.7
MARCH	23463.0	-36691.4	17	7.2	23468.0	-36691.4	17	6.9	23444.0	-36696.2	17	8.1
APRIL	23428.7	-36698.5	17	8.0	23455.1	-36691.5	17	6.9	23379.8	-36704.7	17	10.0
MAY	23439.7	-36689.7	17	7.0	23455.6	-36684.9	17	6.6	23417.9	-36698.9	17	8.2
JUNE	23443.7	-36668.3	17	5.9	23452.5	-36672.3	17	6.5	23425.5	-36664.9	17	5.7
JULY	23438.1	-36660.9	17	6.3	23450.9	-36660.1	17	6.2	23416.3	-36656.6	17	6.7
AUGUST	23435.9	-36647.2	17	6.3	23448.8	-36646.4	17	6.0	23411.6	-36643.3	17	6.4
SEPTEMBER	23427.8	-36638.5	17	6.2	23436.0	-36640.7	17	6.1	23406.6	-36632.3	17	6.8
OCTOBER	23413.9	-36630.5	17	7.0	23436.1	-36630.0	17	5.9	23381.8	-36622.1	17	7.9
NOVEMBER	23415.9	-36624.2	17	6.7	23425.7	-36623.8	17	6.0	23374.2	-36628.6	17	8.1
DECEMBER	23423.2	-36608.3	17	6.4	23433.9	-36608.9	17	6.1	23406.1	-36613.5	17	7.3
YEARLY MEANS	23439.8	-36663.7	17	6.9	23451.7	-36662.8	17	6.4	23416.2	-36664.9	17	7.6

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1961 Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	23427.6	-36593.2	16	5.9	23433.2	-36594.3	16	5.7	23419.2	-36595.6	16	7.1
FEBRUARY	23416.9	-36585.4	16	5.8	23425.0	-36583.1	16	5.2	23414.0	-36587.3	16	6.9
MARCH	23412.5	-36572.5	16	4.8	23419.0	-36574.9	16	4.9	23400.8	-36570.6	16	4.7
APRIL	23406.0	-36565.6	16	4.5	23406.5	-36569.6	16	4.7	23394.6	-36564.4	16	4.8
MAY	23406.0	-36554.0	16	4.2	23409.2	-36555.0	16	4.3	23399.2	-36551.1	16	4.0
JUNE	23402.0	-36542.0	16	4.1	23405.9	-36541.6	16	4.1	23387.6	-36543.4	16	4.3
JULY	23387.9	-36538.7	16	4.5	23394.8	-36538.8	16	4.6	23370.3	-36533.4	16	5.3
AUGUST	23396.0	-36528.4	16	3.8	23398.7	-36529.6	16	3.8	23383.2	-36529.1	16	4.0
SEPTEMBER	23391.9	-36513.0	16	3.8	23399.7	-36512.4	16	3.7	23387.2	-36510.6	16	3.7
OCTOBER	23378.7	-36508.3	16	4.1	23395.5	-36502.0	16	3.4	23352.3	-36512.4	16	5.3
NOVEMBER	23384.3	-36493.7	16	3.7	23390.3	-36488.3	16	3.5	23373.9	-36497.1	16	4.6
DECEMBER	23387.8	-36479.9	16	3.6	23393.3	-36477.0	16	2.9	23374.5	-36484.2	16	5.0
YEARLY MEANS	23399.7	-36539.3	16	4.4	23405.9	-36538.9	16	4.2	23388.1	-36539.9	16	5.0

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1962 Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	23384.1*	-36473.9*	16	3.6*	23384.0	-36474.7	16	3.4	23380.8	-36474.2	16	3.9
FEBRUARY	23379.9	-36462.3	16	3.7	23381.0	-36463.4	16	3.5	23380.3	-36460.5	16	4.0
MARCH	23372.2*	-36451.0*	16	3.4*	23374.4	-36450.0	16	3.3	23368.3	-36452.4	16	3.8
APRIL	23362.5	-36445.9	16	3.5	23363.6	-36446.4	16	3.6	23352.3	-36446.2	16	4.0
MAY	23364.5	-36436.7	16	3.1	23370.7	-36434.8	16	2.8	23358.5	-36436.0	16	3.6
JUNE	23361.2	-36424.0	16	2.8	23368.4	-36423.7	16	2.7	23357.3	-36418.8	16	2.5
JULY	23357.0	-36412.7	16	2.8	23360.8	-36412.4	16	2.7	23351.1	-36409.7	16	2.7
AUGUST	23349.3	-36405.6	16	2.7	23355.4	-36408.1	16	2.8	23342.0	-36402.8	16	2.1
SEPTEMBER	23339.0	-36399.0*	16	3.1	23347.0	-36397.1	16	2.8	23335.5	-36396.3*	16	3.2
OCTOBER	23335.6*	-36391.8*	16	3.1*	23338.1*	-36390.5*	16	2.8*	23331.9	-36391.6	16	3.4
NOVEMBER	23339.4	-36378.5*	16	2.6	23344.3	-36377.5	16	2.2	23331.9	-36376.0	16	2.8
DECEMBER	23338.0	-36368.7	16	2.8	23340.7	-36369.5	16	2.0	23330.7	-36372.2	16	3.9
YEARLY MEANS	23356.0*	-36420.6*	16	3.1*	23361.1*	-36421.2*	16	2.9*	23351.7	-36420.1*	16	3.3

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1963 Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	23334.1	-36355.3	16	2.2	23330.0	-36354.7	16	2.3	23324.7	-36354.7	16	2.6
FEBRUARY	23329.2*	-36351.6*	16	1.9*	23330.7	-36349.9*	16	1.7*	23320.1	-36356.4	16	2.7
MARCH	23325.6	-36342.4	16	1.6	23325.7	-36341.9	16	1.5	23319.4	-36344.2	16	1.8
APRIL	23318.1	-36337.8	16	1.4*	23318.8	-36338.6	16	1.6	23318.9	-36337.5	16	1.6
MAY	23313.3	-36322.9*	16	1.2	23319.3	-36320.4	16	1.1	23307.0	-36325.3	16	1.5
JUNE	23302.8	-36314.5	16	1.2	23310.7	-36314.2	16	1.3	23287.0	-36312.9	16	1.0
JULY	23305.2	-36302.9	16	1.0	23312.2	-36303.6	16	1.0	23298.3	-36297.9	16	0.8
AUGUST	23296.9	-36293.8	16	1.0	23306.4	-36293.7	16	0.8	23283.9	-36292.3	16	0.9
SEPTEMBER	23279.4	-36290.7	16	1.5	23296.6	-36289.7	16	1.1	23250.9	-36289.4	16	1.1
OCTOBER	23280.2	-36286.6	16	1.4	23285.2	-36289.0	16	1.2	23261.1	-36284.9	16	2.1
NOVEMBER	23283.1	-36277.2	16	1.1	23285.5	-36276.1	16	0.8	23276.5	-36279.2	16	1.8
DECEMBER	23289.0*	-36262.0*	16	0.9*	23290.0	-36261.5	16	0.6	23284.1*	-36263.4*	16	1.5*
YEARLY MEANS	23304.6*	-36311.0*	16	1.4*	23309.9	-36310.5*	16	1.2*	23294.5*	-36312.3*	16	1.6*

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1964

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	D deg	D mins	H nT	Z nT	D deg	D mins	H nT	Z nT	D deg	D mins
JANUARY	23281.6	-36254.2	16	0.7	23283.9	-36253.6	16	0.3	23277.0	-36253.6	16	0.8
FEBRUARY	23274.0	-36245.2	16	0.4	23274.2	-36246.4	16	0.2	23272.5	-36243.9	16	0.7
MARCH	23266.9	-36236.7	16	0.3	23269.7	-36235.8	16	0.3	23259.3	-36236.5	16	0.7
APRIL	23259.4	-36231.6	16	0.4	23267.2	-36230.2	16	0.3	23248.3	-36231.8	16	1.3
MAY	23257.4	-36227.3	16	0.3	23262.5	-36229.8	16	0.2	23249.8	-36225.6	16	0.2
JUNE	23255.0	-36216.1	16	59.9	23260.7	-36216.4	16	59.8	23240.3	-36218.9	16	60.0
JULY	23252.0	-36204.5	16	59.6	23254.6	-36202.7	16	59.7	23249.5	-36205.0	16	59.3
AUGUST	23247.2	-36194.6	16	59.5	23248.9	-36194.2	16	59.5	23243.6	-36194.1	16	59.4
SEPTEMBER	23241.9	-36185.6	16	59.5	23246.3	-36184.2	16	59.4	23235.2	-36183.0	16	59.6
OCTOBER	23236.2	-36179.4	16	59.4	23237.2	-36177.7	16	59.4	23233.0	-36178.8	16	58.9
NOVEMBER	23238.6	-36166.8	16	59.1	23235.8	-36166.0	16	59.3	23236.7	-36169.1	16	59.1
DECEMBER	23242.6	-36152.7	16	58.9	23244.2	-36151.0	16	58.8	23245.8	-36153.2	16	58.9
YEARLY MEANS	23254.4	-36207.8	16	59.8	23257.1	-36207.3	16	59.8	23249.2	-36207.8	16	59.9

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1965

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	D deg	D mins	H nT	Z nT	D deg	D mins	H nT	Z nT	D deg	D mins
JANUARY	23234.9	-36145.1	16	59.1	23233.7	-36145.6	16	59.2	23235.0	-36146.2	16	59.0
FEBRUARY	23225.1	-36137.6	16	59.1	23228.6	-36138.8	16	58.8	23218.7	-36135.6	16	59.4
MARCH	23217.6	-36133.5	16	59.2	23219.5	-36134.6	16	59.1	23210.3	-36131.7	16	59.1
APRIL	23209.0	-36126.9	16	59.2	23211.5	-36129.8	16	59.4	23194.5	-36120.8	16	59.0
MAY	23207.9	-36118.4	16	59.0	23209.8	-36120.7	16	59.2	23201.7	-36120.2	16	58.9
JUNE	23202.2	-36111.3	16	59.1	23204.7	-36112.9	16	59.1	23189.5	-36109.3	16	0.1
JULY	23200.7	-36101.2	16	58.9	23201.6	-36103.8	16	59.1	23196.8	-36099.3	16	58.5
AUGUST	23195.7	-36092.7	16	59.0	23199.5	-36094.9	16	58.9	23189.5	-36091.7	16	59.3
SEPTEMBER	23187.8	-36084.3	16	59.2	23191.3	-36083.5	16	59.2	23176.9	-36087.0	16	59.8
OCTOBER	23188.7	-36073.1	16	58.7	23188.1	-36075.2	16	58.9	23185.5	-36073.8	16	58.6
NOVEMBER	23187.8	-36062.8	16	58.6	23187.0	-36063.0	16	58.7	23185.0	-36061.9	16	58.9
DECEMBER	23185.8	-36053.4	16	58.8	23187.0	-36051.6	16	58.7	23186.2	-36051.1	16	58.9
YEARLY MEANS	23203.5	-36103.2	16	59.0	23205.2	-36104.5	16	59.0	23197.5	-36102.4	16	59.1

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1966

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	D deg	D mins	H nT	Z nT	D deg	D mins	H nT	Z nT	D deg	D mins
JANUARY	23180.0	-36045.4	16	58.6	23180.6	-36044.9	16	58.4	23175.1	-36044.4	16	58.8
FEBRUARY	23170.6	-36037.9	16	58.6	23172.6	-36037.8	16	58.5	23165.2	-36036.7	16	58.7
MARCH	23158.4	-36035.6	16	58.8	23160.9	-36037.4	16	58.9	23147.1	-36031.8	16	59.2
APRIL	23156.5	-36028.2	16	58.4	23160.7	-36025.0	16	58.3	23149.9	-36029.8	16	58.8
MAY	23150.1	-36016.2	16	58.5	23158.8	-36014.0	16	58.2	23145.3	-36014.6	16	58.7
JUNE	23147.9	-36006.6	16	58.2	23152.1	-36006.3	16	58.1	23140.5	-36009.3	16	58.5
JULY	23141.5	-35993.2	16	58.0	23144.4	-35995.8	16	58.4	23129.6	-35990.1	16	57.6
AUGUST	23137.2	-35993.4	16	57.9	23141.7	-35990.5	16	57.9	23122.2	-35996.7	16	58.6
SEPTEMBER	23119.9	-35992.2	16	58.4	23126.5	-35994.7	16	58.5	23095.2	-35990.9	16	58.6
OCTOBER	23127.8	-35977.9	16	58.2	23133.7	-35977.2	16	58.0	23119.0	-35977.7	16	58.4
NOVEMBER	23129.0	-35962.3	16	57.8	23134.0	-35960.0	16	57.6	23124.5	-35959.6	16	58.4
DECEMBER	23123.1	-35948.7	16	58.0	23130.3	-35946.4	16	57.4	23120.7	-35947.3	16	58.1
YEARLY MEANS	23145.0	-36002.9	16	58.3	23149.7	-36002.5	16	58.2	23136.2	-36002.4	16	58.5

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1967

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	23114.6	-35942.9	16	0.9	23116.4	-35939.3	16	57.5	23107.8	-35941.8	16	58.3
FEBRUARY	23106.2	-35938.0	16	57.6	23112.9	-35934.8	16	57.4	23094.9	-35941.3	16	58.5
MARCH	23104.9	-35929.1	16	57.3	23110.0	-35929.3	16	57.1	23099.8	-35928.7	16	57.4
APRIL	23098.8	-35921.1	16	57.2	23104.2	-35918.2	16	57.1	23091.7	-35920.3	16	57.2
MAY	23076.0	-35920.7	16	57.5	23092.8	-35919.3	16	57.1	23022.4	-35921.8	16	58.0
JUNE	23077.4	-35919.2	16	57.6	23084.7	-35916.1	16	57.5	23062.9	-35921.0	16	57.9
JULY	23083.5	-35902.4	16	57.1	23087.1	-35904.1	16	57.3	23076.5	-35902.2	16	56.9
AUGUST	23083.6	-35890.0	16	57.0	23085.4	-35894.5	16	57.2	23082.7	-35886.0	16	56.7
SEPTEMBER	23070.1	-35882.8	16	57.5	23078.1	-35883.5	16	57.3	23048.9	-35876.9	16	57.9
OCTOBER	23071.7	-35874.3	16	57.3	23076.9	-35868.4	16	56.8	23067.6	-35874.3	16	57.8
NOVEMBER	23072.7	-35862.4	16	57.4	23076.9	-35862.3	16	56.8	23070.2	-35863.2	16	58.1
DECEMBER	23068.2	-35851.6	16	57.6	23071.1	-35848.4	16	57.2	23060.7	-35853.6	16	58.6
YEARLY MEANS	23085.5	-35902.7	16	57.7	23091.4	-35901.5	16	57.2	23073.8	-35902.6	16	57.9

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1968

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	23058.8	-35850.2	16	58.6	23064.5	-35850.2	16	58.0	23050.0	-35853.7	16	59.8
FEBRUARY	23049.0	-35841.1	16	57.9	23055.8	-35838.7	16	57.3	23039.8	-35842.7	16	58.5
MARCH	23043.7	-35834.6	16	57.7	23049.3	-35836.5	16	57.4	23041.3	-35830.1	16	57.3
APRIL	23040.6	-35827.1	16	57.4	23048.6	-35825.6	16	57.2	23029.0	-35831.7	16	58.1
MAY	23037.5	-35818.6	16	57.0	23045.4	-35819.7	16	56.9	23029.8	-35816.5	16	57.0
JUNE	23032.2	-35808.7	16	56.8*	23040.8	-35810.8	16	56.8	23011.5	-35804.9	16	57.4
JULY	23032.8	-35797.4	16	56.6	23037.2	-35795.3	16	56.7	23026.4	-35796.9	16	56.4
AUGUST	23028.9	-35785.7	16	56.6	23034.7	-35783.5	16	56.7	23017.8	-35786.0	16	56.6
SEPTEMBER	23020.1	-35779.9	16	57.0	23023.6	-35779.8	16	57.1	23005.3	-35777.7	16	57.5
OCTOBER	23016.8	-35772.1	16	57.2	23024.0	-35772.0	16	56.8	22998.4	-35772.0	16	57.9
NOVEMBER	23005.9	-35773.9	16	57.8	23016.1	-35765.7	16	56.8	22975.3	-35793.5	16	59.9
DECEMBER	23014.5	-35753.2	16	57.1	23014.8	-35753.2	16	57.1	23012.2	-35753.6	16	57.0
YEARLY MEANS	23031.7	-35803.4	16	57.3*	23037.9	-35802.6	16	57.1	23019.7	-35804.9	16	57.8

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1969

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	23008.9	-35755.1	16	56.8	23009.9	-35757.3	16	56.3	23003.4	-35753.7	16	56.9
FEBRUARY	22996.0	-35748.0	16	57.3	23001.5	-35743.0	16	56.8	22982.3	-35752.3	16	58.9
MARCH	22983.7	-35742.0	16	57.1	22990.0	-35743.9	16	56.9	22959.9	-35743.0	16	57.7
APRIL	22982.2	-35735.4	16	56.7	22987.6	-35733.2	16	56.7	22973.2	-35731.5	16	56.8
MAY	22978.4	-35724.6	16	56.5	22988.3	-35723.0	16	56.2	22953.9	-35725.5	16	57.4
JUNE	22980.4	-35716.5	16	56.2	22983.8	-35716.4	16	56.3	22976.3	-35716.4	16	56.4
JULY	22979.9	-35705.5	16	56.0	22984.1	-35705.8	16	56.1	22971.4	-35703.7	16	55.3
AUGUST	22975.3	-35695.8	16	56.2	22977.7	-35695.2	16	56.2	22971.7	-35691.9	16	56.0
SEPTEMBER	22965.1	-35686.4	16	56.5	22973.1	-35687.3	16	56.4	22951.7	-35680.5	16	56.6
OCTOBER	22961.3	-35680.7	16	56.6	22966.8	-35678.5	16	56.2	22947.4	-35689.1	16	57.3
NOVEMBER	22965.7	-35667.6	16	56.5	22967.9	-35669.6	16	55.9	22957.9	-35666.9	16	56.9
DECEMBER	22967.2	-35654.4	16	56.3	22971.2	-35647.7	16	56.0	22966.3	-35655.7	16	56.4
YEARLY MEANS	22978.6	-35709.1	16	56.6	22983.5	-35708.4	16	56.3	22968.0	-35709.2	16	56.9

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1970 Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	22962.0	-35646.0*	16	56.7	22960.8	-35644.9	16	56.4	22958.9	-35646.3	16	57.1
FEBRUARY	22949.3	-35639.0	16	56.7	22948.0	-35639.3	16	56.7	22951.4	-35638.5	16	56.9
MARCH	22931.5	-35646.4	16	57.3	22941.2	-35642.3	16	56.5	22912.5	-35652.8	16	58.8
APRIL	22924.9	-35641.4	16	57.0	22934.9	-35639.1	16	56.6	22909.2	-35641.0	16	57.4
MAY	22927.8	-35635.7	16	56.6	22933.4	-35635.7	16	56.4	22920.3	-35633.3	16	57.3
JUNE	22923.0	-35625.1	16	56.5	22928.8	-35626.1	16	56.5	22911.6	-35624.2	16	57.0
JULY	22912.5	-35616.2	16	56.6	22920.4	-35617.0	16	56.8	22900.5	-35611.6	16	57.1
AUGUST	22910.3	-35609.9*	16	56.8	22919.4	-35612.1	16	56.7	22888.2	-35609.4*	16	57.2
SEPTEMBER	22909.0	-35598.9	16	56.8	22913.9	-35599.1	16	56.7	22903.2	-35596.6	16	57.1
OCTOBER	22902.3	-35590.8	16	57.3	22910.8	-35588.9	16	56.9	22887.6	-35596.8	16	58.5
NOVEMBER	22902.7	-35581.3*	16	57.2	22909.4	-35578.5	16	57.0	22890.1	-35581.0*	16	57.8
DECEMBER	22900.4	-35566.7*	16	57.4	22903.2	-35567.6	16	57.1	22885.9	-35569.6*	16	58.5
YEARLY MEANS	22921.1	-35616.5*	16	56.9	22927.0	-35615.9	16	56.7	22910.0	-35618.3*	16	57.6

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1971 Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	22901.0	-35563.1	16	57.6	22906.8	-35562.3	16	57.1	22888.3	-35565.2	16	58.4
FEBRUARY	22886.6	-35563.6	16	57.3	22893.1	-35560.8	16	57.0	22875.4	-35563.8	16	57.8
MARCH	22878.2	-35555.3	16	56.5	22881.1	-35555.4	16	56.3	22872.3	-35552.6	16	56.9
APRIL	22867.6	-35552.2	16	56.6	22875.5	-35550.2	16	56.5	22854.5	-35553.6	16	57.0
MAY	22866.5	-35540.9	16	56.1	22871.2	-35539.6	16	56.2	22855.0	-35535.3	16	55.9
JUNE	22867.5	-35530.6	16	56.2	22871.5	-35532.1	16	56.1	22859.8	-35528.5	16	56.3
JULY	22863.7	-35519.9	16	56.0	22867.8	-35519.2	16	56.1	22858.7	-35520.2	16	56.3
AUGUST	22860.5	-35511.8	16	55.8	22861.9	-35512.5	16	56.2	22855.8	-35509.2	16	55.5
SEPTEMBER	22849.2	-35505.3	16	56.0	22851.0	-35507.0	16	56.1	22836.6	-35504.4	16	56.1
OCTOBER	22846.3	-35496.4	16	56.2	22852.0	-35491.9	16	55.8	22837.3	-35500.1	16	56.3
NOVEMBER	22851.8	-35481.1	16	56.0	22855.3	-35481.4	16	55.7	22843.1	-35482.3	16	56.7
DECEMBER	22846.0	-35476.9	16	56.6	22850.8	-35472.7	16	56.1	22838.1	-35477.9	16	57.6
YEARLY MEANS	22865.3	-35524.5	16	56.4	22869.8	-35523.8	16	56.3	22856.3	-35524.4	16	56.7

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1972 Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	22843.4	-35474.1	16	56.7	22852.5	-35473.0	16	56.1	22835.7	-35474.9	16	57.6
FEBRUARY	22836.4	-35468.0	16	56.3	22838.6	-35465.8	16	56.1	22830.5	-35466.5	16	56.8
MARCH	22828.6	-35464.7	16	56.2	22833.3	-35464.7	16	56.1	22817.8	-35465.3	16	56.1
APRIL	22825.0	-35455.7	16	55.9	22832.1	-35454.9	16	55.5	22817.5	-35450.3	16	56.0
MAY	22822.3	-35440.0	16	55.8	22826.6	-35449.9	16	55.7	22814.5	-35454.6	16	56.3
JUNE	22812.0	-35440.4	16	55.7	22824.4	-35439.4	16	55.5	22788.1	-35435.3	16	55.3
JULY	22812.8	-35434.7	16	55.8	22815.3	-35434.6	16	55.7	22804.5	-35433.0	16	56.4
AUGUST	22794.5	-35432.2	16	56.1	22807.3	-35430.9	16	56.1	22770.8	-35427.5	16	55.4
SEPTEMBER	22797.5	-35421.6	16	56.1	22803.6	-35420.8	16	55.8	22778.8	-35423.1	16	56.7
OCTOBER	22796.7	-35411.8	16	56.0	22802.7	-35414.4	16	55.6	22790.8	-35409.6	16	56.4
NOVEMBER	22796.1	-35399.6	16	55.7	22802.9	-35400.5	16	55.7	22778.9	-35397.9	16	55.2
DECEMBER	22802.3	-35384.8	16	55.7	22805.5	-35385.4	16	55.3	22796.4	-35384.9	16	56.7
YEARLY MEANS	22813.9	-35436.4	16	56.0	22820.4	-35436.2	16	55.8	22802.0	-35435.2	16	56.2

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1973

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	D deg	mins	H nT	Z nT	D deg	mins	H nT	Z nT	D deg	mins
JANUARY	22788.5	-35380.9	16	56.1	22792.2	-35381.5	16	55.8	22781.4	-35381.9	16	56.1
FEBRUARY	22774.7	-35380.0	16	56.4	22784.6	-35378.0	16	56.0	22753.3	-35389.5	16	58.0
MARCH	22762.9	-35376.0	16	56.4	22773.7	-35373.8	16	55.8	22742.4	-35374.7	16	57.0
APRIL	22749.9	-35374.2	16	56.1	22763.7	-35377.3	16	55.9	22731.3	-35379.2	16	57.0
MAY	22755.4	-35362.4	16	55.7	22762.7	-35359.1	16	55.6	22736.5	-35354.3	16	55.9
JUNE	22753.9	-35350.3	16	55.6	22759.3	-35352.0	16	55.6	22740.3	-35347.1	16	55.7
JULY	22755.6	-35340.4	16	55.4	22759.1	-35344.9	16	55.6	22748.4	-35336.3	16	55.3
AUGUST	22751.1	-35332.0	16	55.5	22758.7	-35331.8	16	55.6	22737.4	-35327.6	16	55.7
SEPTEMBER	22742.4	-35325.8	16	56.1	22746.6	-35323.7	16	55.8	22731.4	-35326.8	16	56.9
OCTOBER	22737.7	-35318.2*	16	55.8	22747.5	-35315.9	16	55.4	22730.3	-35315.8*	16	56.1
NOVEMBER	22739.0	-35308.8	16	55.7	22739.3	-35310.2	16	55.7	22735.7	-35307.3	16	56.1
DECEMBER	22740.9	-35297.0	16	55.6	22742.0	-35297.5	16	55.2	22738.3	-35294.7	16	56.5
YEARLY MEANS	22754.3	-35345.4*	16	55.9	22760.8	-35345.5	16	55.7	22742.2	-35345.1*	16	56.3

Note: - Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1974

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	D deg	mins	H nT	Z nT	D deg	mins	H nT	Z nT	D deg	mins
JANUARY	22719.0	-35289.8	16	55.8	22720.5	-35289.4	16	55.5	22706.1	-35291.1	16	56.2
FEBRUARY	22715.7	-35286.2	16	55.8	22719.8	-35286.5	16	55.8	22709.1	-35284.4	16	56.0
MARCH	22697.2	-35284.5	16	56.1	22698.0	-35286.5	16	56.0	22685.2	-35282.6	16	56.5
APRIL	22696.3	-35277.9	16	55.5	22709.3	-35277.6	16	55.2	22684.5	-35276.2	16	55.9
MAY	22692.0	-35270.8	16	55.7	22697.3	-35274.7	16	55.3	22685.5	-35268.8	16	56.0
JUNE	22690.3	-35260.2	16	55.1	22698.8	-35263.6	16	54.9	22683.0	-35254.5	16	54.6
JULY	22678.4	-35252.8	16	55.7	22693.8	-35249.6	16	55.6	22648.1	-35242.0	16	55.9
AUGUST	22682.3	-35240.5	16	55.6	22692.5	-35242.9	16	55.5	22673.5	-35234.8	16	55.6
SEPTEMBER	22676.5	-35232.3	16	55.9	22683.3	-35234.0	16	56.0	22658.5	-35232.6	16	56.5
OCTOBER	22671.1	-35219.9	16	56.0	22679.9	-35221.8	16	55.7	22652.1	-35214.0	16	56.7
NOVEMBER	22672.9	-35209.8	16	55.9*	22682.2	-35207.9	16	55.5	22656.4	-35212.7	16	56.7*
DECEMBER	22674.6	-35195.9	16	56.0	22679.2	-35196.4	16	55.7	22669.4	-35195.9	16	56.5
YEARLY MEANS	22688.7	-35251.5	16	55.8*	22696.2	-35252.6	16	55.6	22676.0	-35249.1	16	56.1*

Note: - Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1975

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	D deg	mins	H nT	Z nT	D deg	mins	H nT	Z nT	D deg	mins
JANUARY	22673.7	-35195.7	16	55.8	22675.6	-35193.9	16	55.5	22669.6	-35198.0	16	56.2
FEBRUARY	22667.0	-35187.2	16	55.4	22672.7	-35186.7	16	54.9	22659.6	-35186.0	16	55.7
MARCH	22656.8	-35184.8	16	55.6	22664.8	-35184.2	16	55.2	22638.7	-35185.5	16	56.1
APRIL	22655.6	-35178.0	16	54.9	22662.1	-35176.4	16	54.5	22641.5	-35174.3	16	55.1
MAY	22652.7	-35168.7	16	54.5	22656.3	-35170.2	16	54.7	22647.8	-35165.1	16	54.2
JUNE	22652.1	-35158.8	16	54.5	22656.6	-35159.6	16	54.5	22646.0	-35155.6	16	54.3
JULY	22645.0	-35151.0	16	54.8	22647.2	-35150.9	16	54.9	22636.2	-35147.3	16	54.5
AUGUST	22641.4	-35141.8	16	54.8	22645.3	-35143.0	16	54.9	22636.9	-35139.4	16	54.6
SEPTEMBER	22640.0	-35138.5	16	54.7	22644.3	-35138.2	16	54.7	22631.1	-35138.3	16	54.5
OCTOBER	22635.2	-35132.3	16	54.7	22640.9	-35131.5	16	54.5	22624.9	-35133.6	16	55.0
NOVEMBER	22627.6	-35133.6	16	55.2	22632.8	-35138.4	16	55.0	22616.0	-35128.9	16	56.0
DECEMBER	22633.1	-35126.4	16	54.6	22636.1	-35126.7	16	54.3	22628.9	-35127.1	16	55.2
YEARLY MEANS	22648.3	-35157.9	16	54.9	22652.9	-35158.3	16	54.8	22639.8	-35156.6	16	55.1

Note: - Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by *.

ARGENTINE ISLANDS 1976

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	22625.9	-35121.2	16	54.7	22632.9	-35117.1	16	54.1	22618.9	-35127.8	16	55.6
FEBRUARY	22618.7	-35114.9	16	54.4	22622.3	-35113.4	16	53.8	22611.6	-35114.9	16	54.0
MARCH	22602.1	-35113.1	16	54.2	22616.4	-35108.9	16	53.8	22574.4	-35107.7	16	54.5
APRIL	22597.3	-35108.3	16	54.0	22610.5	-35107.9	16	53.8	22567.1	-35101.3	16	54.4
MAY	22599.9	-35101.0	16	53.5	22608.2	-35104.0	16	53.5	22582.5	-35097.2	16	53.5
JUNE	22598.8	-35090.2	16	53.0	22600.8	-35091.9	16	53.1	22593.1	-35087.3	16	52.8
JULY	22595.7	-35082.1	16	53.1	22600.9	-35081.7	16	53.0	22591.4	-35079.5	16	53.2
AUGUST	22591.7	-35073.9	16	53.1	22594.5	-35074.4	16	53.0	22582.0	-35071.1	16	53.2
SEPTEMBER	22582.9	-35065.8	16	52.9	22587.2	-35066.9	16	52.9	22573.3	-35060.4	16	52.9
OCTOBER	22578.5	-35055.2	16	52.7	22583.5	-35049.9	16	52.3	22567.9	-35053.3	16	52.9
NOVEMBER	22580.8	-35045.0	16	52.5	22584.9	-35042.7	16	52.4	22573.9	-35047.9	16	52.9
DECEMBER	22577.3	-35044.0	16	52.8	22580.6	-35046.3	16	52.6	22568.6	-35043.1	16	53.1
YEARLY MEANS	22595.7	-35084.5	16	53.4	22601.9	-35083.8	16	53.2	22583.7	-35082.6	16	53.6

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1977

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	22571.4	-35037.5	16	52.8	22571.5	-35036.3	16	52.6	22563.3	-35037.9	16	53.6
FEBRUARY	22562.1	-35031.5	16	52.6	22564.3	-35030.6	16	52.3	22560.2	-35034.2	16	52.7
MARCH	22555.2	-35023.4	16	52.4	22563.5	-35019.3	16	51.9	22547.3	-35026.2	16	52.8
APRIL	22542.1	-35018.5	16	52.5	22552.5	-35017.8	16	52.3	22528.0	-35013.5	16	52.6
MAY	22541.7	-35016.9	16	52.6	22549.1	-35015.7	16	52.4	22528.7	-35015.8	16	52.7
JUNE	22546.3	-35007.5	16	52.2	22545.8	-35009.9	16	52.4	22542.3	-35005.0	16	52.3
JULY	22533.5	-34998.1	16	52.4	22539.2	-34996.3	16	52.6	22529.0	-34993.0	16	52.0
AUGUST	22522.7	-34991.9	16	52.6	22527.0	-34991.2	16	52.6	22518.0	-34989.1	16	52.5
SEPTEMBER	22514.2	-34983.4	16	52.7	22522.7	-34983.1	16	52.3	22498.8	-34982.6	16	53.4
OCTOBER	22511.8	-34979.2	16	52.7	22520.7	-34977.0	16	52.3	22490.8	-34983.1	16	53.4
NOVEMBER	22515.2	-34970.1	16	52.6	22519.6	-34967.1	16	52.5	22505.3	-34971.9	16	53.3
DECEMBER	22507.4	-34961.6	16	52.4*	22515.1	-34961.7	16	52.3	22494.7	-34965.9	16	52.6*
YEARLY MEANS	22535.2	-35001.5	16	52.5*	22540.9	-35000.5	16	52.4	22525.5	-35001.5	16	52.8*

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1978

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	22507.0	-34956.1	16	52.6	22509.3	-34956.5	16	52.0	22497.2	-34947.6	16	53.7
FEBRUARY	22492.8	-34951.9	16	52.7	22498.7	-34951.3	16	51.8	22479.6	-34948.2	16	53.0
MARCH	22483.0	-34947.7	16	52.3	22490.1	-34948.6	16	51.8	22472.5	-34947.3	16	52.8
APRIL	22471.4	-34950.0	16	51.8	22481.7	-34950.1	16	51.9	22455.4	-34950.3	16	51.5
MAY	22466.5	-34942.4	16	51.9	22478.2	-34946.3	16	51.7	22442.3	-34929.4	16	52.8
JUNE	22469.9	-34933.8	16	51.0	22480.4	-34934.3	16	50.8	22458.0	-34929.4	16	51.0
JULY	22466.1	-34928.5	16	50.7	22471.4	-34920.7	16	50.7	22453.5	-34928.1	16	50.3
AUGUST	22458.2	-34918.0	16	50.9	22468.3	-34912.6	16	50.8	22422.3	-34896.4	16	52.2
SEPTEMBER	22447.2	-34909.0	16	51.6	22460.0	-34908.3	16	50.8	22424.7	-34895.2	16	52.9
OCTOBER	22447.8	-34901.6	16	51.2	22454.4	-34902.2	16	50.8	22431.1	-34899.2	16	51.7
NOVEMBER	22446.6	-34895.0	16	51.2	22452.9	-34893.0	16	50.4	22434.7	-34892.0	16	52.0
DECEMBER	22455.4	-34881.1	16	50.6	22464.5	-34880.8	16	50.0	22446.9	-34879.7	16	51.1
YEARLY MEANS	22467.6	-34925.4	16	51.5	22475.8	-34925.4	16	51.1	22451.5	-34920.2	16	52.1

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1979

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	22444.4	-34878.8	16	51.7	22452.2	-34873.3	16	51.0	22437.1	-34885.0	16	52.4
FEBRUARY	22431.9	-34869.9	16	51.7	22437.8	-34867.2	16	51.1	22415.4	-34871.2	16	52.2
MARCH	22416.9	-34864.0	16	52.0	22420.0	-34862.3	16	51.4	22411.4	-34864.6	16	53.2
APRIL	22409.4	-34863.6	16	51.4	22426.6	-34857.4	16	51.1	22383.6	-34866.3	16	51.4
MAY	22413.8	-34851.2	16	50.8	22421.0	-34851.1	16	50.7	22397.8	-34849.4	16	50.6
JUNE	22415.9	-34838.8	16	50.6	22421.6	-34839.6	16	50.6	22409.5	-34838.3	16	50.5
JULY	22411.0	-34828.9	16	50.6	22413.1	-34826.4	16	50.6	22407.7	-34830.7	16	51.0
AUGUST	22397.4	-34822.9	16	51.1	22404.7	-34824.0	16	51.0	22378.8	-34820.5	16	51.3
SEPTEMBER	22390.9	-34818.9	16	51.3	22393.2	-34822.5	16	51.3	22375.0	-34818.4	16	52.0
OCTOBER	22390.8	-34809.2	16	51.2	22396.5	-34804.1	16	50.8	22378.3	-34815.3	16	51.9
NOVEMBER	22394.0	-34797.4	16	50.7	22396.0	-34796.8	16	50.4	22383.4	-34801.0	16	51.1
DECEMBER	22400.7	-34781.6	16	50.4	22406.3	-34781.7	16	50.0	22394.0	-34780.9	16	51.1
YEARLY MEANS	22409.7	-34835.2	16	51.1	22415.8	-34833.9	16	50.8	22397.7	-34836.8	16	51.6

Note: - Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1980

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	22391.9	-34776.7	16	50.3	22394.5	-34772.0	16	49.7	22384.8	-34781.3	16	51.6
FEBRUARY	22380.8	-34774.1	16	50.1	22387.0	-34770.0	16	49.6	22374.2	-34772.5	16	50.4
MARCH	22378.7	-34764.6	16	49.8	22383.5	-34764.9	16	49.6	22363.4	-34766.5	16	49.8
APRIL	22367.5	-34764.1	16	49.9	22370.2	-34767.6	16	50.2	22355.7	-34766.3	16	50.2
MAY	22365.1	-34754.3	16	50.1	22366.5	-34756.5	16	50.1	22350.7	-34754.6	16	50.2
JUNE	22357.0	-34751.9	16	50.2	22359.6	-34752.5	16	50.3	22340.5	-34752.2	16	50.4
JULY	22353.6	-34744.7	16	50.2	22361.3	-34745.3	16	50.1	22345.8	-34750.7	16	50.8
AUGUST	22348.1	-34731.9	16	50.1	22350.9	-34734.1	16	50.3	22344.5	-34730.0	16	49.9
SEPTEMBER	22348.5	-34723.4	16	50.4	22351.4	-34721.8	16	50.2	22340.1	-34725.7	16	50.3
OCTOBER	22337.8	-34716.9	16	50.8	22342.8	-34715.2	16	50.6	22324.0	-34711.0	16	51.5
NOVEMBER	22344.6	-34705.2	16	50.5	22345.0	-34706.2	16	50.0	22345.4	-34705.2	16	51.0
DECEMBER	22340.3	-34700.4	16	50.4	22342.9	-34698.0	16	50.2	22321.7	-34710.1	16	51.6
YEARLY MEANS	22359.4	-34742.2	16	50.2	22363.0	-34742.1	16	50.1	22349.2	-34743.8	16	50.6

Note: - Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1981

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins	H nT	Z nT	deg	D mins
JANUARY	22343.8	-34688.4	16	49.1	22346.0	-34685.8	16	48.8	22338.5	-34688.5	16	49.3
FEBRUARY	22324.0	-34689.9	16	49.8	22329.9	-34687.5	16	49.1	22317.3	-34692.6	16	50.4
MARCH	22304.3	-34691.0	16	49.8	22315.4	-34687.5	16	49.1	22300.6	-34687.5	16	50.1
APRIL	22292.3	-34689.1	16	49.6	22305.5	-34689.4	16	49.3	22259.8	-34688.1	16	50.4
MAY	22295.4	-34683.1	16	49.0	22315.3	-34681.2	16	48.7	22265.6	-34680.8	16	49.4
JUNE	22304.4	-34666.0	16	48.4	22306.9	-34669.4	16	48.5	22295.7	-34664.2	16	48.3
JULY	22290.4	-34660.4	16	48.8	22300.6	-34659.7	16	48.7	22256.0	-34662.2	16	49.4
AUGUST	22283.6	-34657.3	16	49.1	22290.3	-34658.8	16	49.2	22275.3	-34654.6	16	49.7
SEPTEMBER	22283.8	-34647.3	16	49.2	22288.4	-34649.2	16	49.3	22274.7	-34646.2	16	49.5
OCTOBER	22270.6	-34644.1	16	49.8	22281.3	-34639.5	16	49.2	22253.9	-34647.1	16	50.5
NOVEMBER	22281.4	-34630.4	16	49.1	22289.8	-34625.9	16	48.7	22279.1	-34631.3	16	49.4
DECEMBER	22290.7	-34611.7	16	48.8	22290.2	-34612.4	16	48.7	22285.3	-34605.7	16	49.0
YEARLY MEANS	22296.9	-34663.1	16	49.2	22305.0	-34662.2	16	48.9	22283.5	-34662.4	16	49.6

Note: - Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

ARGENTINE ISLANDS 1982

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	D deg	D mins	H nT	Z nT	D deg	D mins	H nT	Z nT	D deg	D mins
JANUARY	22283.5	-34603.8	16	48.6	22292.4	-34602.0	16	48.3	22271.9	-34603.3	16	49.0
FEBRUARY	22252.1	-34617.6	16	50.1	22255.8	-34617.0	16	49.7	22246.0	-34619.3	16	50.9
MARCH	22253.7	-34607.4	16	48.7	22259.7	-34608.0	16	48.5	22238.7	-34605.1	16	48.9
APRIL	22243.4	-34610.6	16	48.4	22251.8	-34613.3	16	48.6	22219.6	-34604.7	16	49.3
MAY	22252.0	-34602.2	16	47.8	22259.1	-34603.4	16	47.6	22227.3	-34595.3	16	48.1
JUNE	22239.3	-34590.6	16	47.7	22250.6	-34592.7	16	47.7	22225.6	-34590.7	16	47.8
JULY	22223.0	-34588.5	16	48.3	22246.1	-34580.7	16	47.6	22198.2	-34605.1	16	49.3
AUGUST	22223.0	-34584.1	16	48.0	22225.5	-34590.0	16	47.9	22208.2	-34580.7	16	48.3
SEPTEMBER	22204.5	-34577.0	16	48.5	22219.5	-34579.0	16	48.8	22154.7	-34551.0	16	48.5
OCTOBER	22215.5	-34566.1	16	49.1	22227.2	-34566.4	16	48.6	22200.9	-34559.9	16	49.6
NOVEMBER	22218.5	-34554.8	16	49.4	22227.7	-34551.3	16	48.3	22194.8	-34565.1	16	51.7
DECEMBER	22220.1	-34546.9	16	49.3	22223.8	-34548.0	16	48.5	22209.5	-34542.9	16	50.3
YEARLY MEANS	22235.7	-34587.3	16	48.7	22244.9	-34587.7	16	48.4	22216.3	-34585.3	16	49.3

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by a *.

corrected 1992 OAS

ARGENTINE ISLANDS 1982

Monthly and yearly means

	All days				Quiet days				Disturbed days			
	H nT	Z nT	D deg	D mins	H nT	Z nT	D deg	D mins	H nT	Z nT	D deg	D mins
JANUARY	22283.5	-34603.8	16	48.6	22292.4	-34602.0	16	48.3	22271.9	-34603.3	16	49.0
FEBRUARY	22252.1	-34617.6	16	50.1	22255.8	-34617.0	16	49.7	22246.0	-34619.3	16	50.9
MARCH	22253.7	-34607.4	16	48.7	22259.7	-34608.0	16	48.5	22238.7	-34605.1	16	48.9
APRIL	22243.7	-34612.0	16	48.4	22251.8	-34613.3	16	48.6	22220.9	-34612.8	16	49.3
MAY	22251.9	-34600.3	16	47.8	22259.1	-34601.8	16	47.6	22227.3	-34595.3	16	48.1
JUNE	22239.3	-34590.6	16	47.7	22250.6	-34592.7	16	47.7	22225.6	-34590.7	16	47.8
JULY	22223.0	-34588.5	16	48.3	22246.1	-34580.7	16	47.6	22198.2	-34605.1	16	49.3
AUGUST	22223.4	-34584.1	16	48.0	22226.3	-34590.0	16	47.9	22209.0	-34580.7	16	48.3
SEPTEMBER	22204.5	-34577.0	16	48.5	22219.5	-34579.0	16	48.8	22154.7	-34551.0	16	48.5
OCTOBER	22215.9	-34567.9	16	49.1	22227.2	-34566.4	16	48.6	22201.1	-34561.4	16	49.6
NOVEMBER	22218.5	-34554.8	16	49.4	22227.7	-34551.3	16	48.3	22194.8	-34565.1	16	51.7
DECEMBER	22220.2	-34548.3	16	49.3	22224.0	-34549.2	16	48.5	22209.5	-34542.9	16	50.3
YEARLY MEANS	22235.8	-34587.5	16	48.7	22245.0	-34587.6	16	48.4	22216.5	-34586.1	16	49.3

Note:- Days with missing hourly values are not used in the calculation of means. If days have been excluded the mean value is followed by *.

Temp corrections recalculated

OAS 1987

ARGENTINE ISLANDS

Horizontal Intensity

1958

Tabular Baseline= 23000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	597	599	604	603	602	599	596	594	589	583	576	564	554	541	536	535	546	557	571	581	585	591	598	593	1
FEBRUARY	583	590	600	596	592	582	586	567	566	554	559	553	543	535	525	516	520	531	545	557	566	570	572	574	
MARCH	560	564	565	565	564	565	565	562	567	569	572	566	554	533	511	497	493	502	517	533	544	549	552	557	
APRIL	551	553	554	556	558	560	567	568	567	568	570	568	555	536	518	505	505	516	528	537	540	542	542	547	
MAY	548	546	547	550	553	555	558	560	560	561	562	562	559	547	533	526	524	529	534	538	541	541	540	544	
JUNE	529	530	527	528	532	534	535	538	541	543	548	548	547	541	533	529	529	533	537	539	538	536	532	532	
JULY	528	528	520	528	533	533	534	534	536	537	539	538	536	533	524	516	515	521	528	530	529	532	526	525	
AUGUST	541	543	545	542	542	539	540	542	542	543	544	544	538	526	515	509	510	516	523	532	535	537	537	540	
SEPTEMBER	532	533	534	539	542	539	540	537	540	543	544	542	529	512	496	484	485	491	504	516	523	529	527	525	
OCTOBER	548	553	555	554	552	548	545	545	543	543	537	529	515	497	483	476	480	497	513	527	536	542	542	546	
NOVEMBER	565	569	570	569	565	561	557	555	552	548	541	529	512	499	493	494	503	517	530	542	551	554	556	560	
DECEMBER	563	564	564	563	562	559	555	549	543	538	530	518	504	490	485	483	492	506	523	532	547	556	554	559	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	599	597	603	607	606	606	603	598	592	584	574	557	543	535	539	549	571	591	604	612	608	603	597	602	
FEBRUARY	586	590	592	595	592	588	586	585	584	584	584	575	561	548	534	526	529	544	557	572	581	582	586	592	
MARCH	572	572	570	572	577	575	576	572	575	575	575	570	558	539	519	504	501	509	525	546	560	568	566	571	
APRIL	572	577	578	578	580	578	579	578	578	577	579	572	558	541	528	519	525	537	553	563	569	569	570	577	
MAY	565	565	563	563	564	567	567	568	568	571	573	572	569	559	545	541	542	550	558	563	567	566	568	567	
JUNE	548	550	548	551	552	550	550	552	553	554	555	557	556	552	544	539	539	543	550	555	555	551	550	553	
JULY	540	539	536	537	540	538	543	543	544	546	545	545	543	539	533	531	531	535	541	545	545	543	542	539	
AUGUST	546	546	549	550	547	550	548	551	550	549	551	550	545	533	523	521	525	531	539	544	548	547	547	548	
SEPTEMBER	551	553	554	555	554	554	554	554	556	559	561	556	543	525	508	498	499	508	523	533	541	545	547	551	
OCTOBER	559	562	565	563	561	559	558	559	558	558	556	550	534	515	498	491	494	508	527	544	550	554	558	564	
NOVEMBER	562	563	565	565	564	563	561	560	556	551	544	531	517	504	497	496	505	522	537	549	554	556	559	563	
DECEMBER	559	565	565	564	564	564	563	559	552	542	533	521	506	493	491	490	500	518	530	551	560	562	559	570	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	587	589	595	590	581	575	580	581	573	567	565	558	544	529	516	520	537	546	557	563	570	574	575	575	1
FEBRUARY	577	601	644	615	594	564	489	503	501	446	474	491	501	509	506	492	499	508	528	534	540	559	562	555	
MARCH	545	546	547	547	544	548	547	540	549	556	571	564	550	533	502	491	489	490	504	520	529	533	541	544	
APRIL	537	533	538	541	542	554	563	562	563	564	570	574	554	531	514	494	494	500	508	518	525	527	522	528	
MAY	529	519	523	534	540	542	547	551	552	551	556	552	552	542	524	521	515	511	512	505	511	504	505	515	
JUNE	486	497	474	472	487	491	497	499	500	516	526	531	524	524	514	512	514	517	518	513	506	500	491	499	
JULY	502	501	493	498	506	500	510	506	517	516	526	514	518	519	504	478	477	489	495	493	486	500	481	471	
AUGUST	532	546	554	529	519	508	518	525	521	513	515	521	521	508	497	496	498	498	499	507	512	516	511	517	
SEPTEMBER	497	485	495	508	526	508	517	507	517	522	523	518	501	486	475	459	459	454	454	465	473	485	469	439	
OCTOBER	530	539	541	536	527	522	510	522	519	516	502	487	476	454	449	444	451	474	488	493	508	516	517	514	
NOVEMBER	565	577	570	571	565	559	547	545	544	537	534	527	504	487	485	489	498	512	518	532	542	547	549	554	
DECEMBER	568	568	563	558	555	556	552	544	533	529	523	513	495	477	467	459	470	474	500	505	526	550	528	544	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1959

Tabular Baseline= 23000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	547	549	552	553	551	549	547	545	542	538	530	517	506	496	488	485	491	502	516	525	537	541	545	546	
FEBRUARY	526	529	536	537	534	525	521	519	517	518	516	509	493	477	469	465	470	479	492	501	508	512	519	525	
MARCH	516	519	522	521	520	518	517	515	520	521	520	513	501	481	463	454	459	469	483	494	502	507	509	513	
APRIL	499	501	501	502	507	509	510	509	513	510	510	508	497	482	468	461	462	470	480	489	493	494	494	498	
MAY	500	495	498	499	499	500	500	500	499	502	504	504	500	492	482	477	477	482	489	495	497	495	495	497	
JUNE	495	495	496	499	497	500	501	502	505	509	509	506	506	500	493	490	490	494	498	502	501	495	496	494	
JULY	479	479	476	476	476	477	477	478	483	481	479	481	480	477	470	465	464	470	482	480	483	482	482	479	
AUGUST	479	480	479	482	485	484	487	487	487	487	490	487	481	471	462	454	456	463	473	480	481	479	477	481	
SEPTEMBER	480	481	480	480	481	481	479	479	482	485	485	482	468	453	440	431	433	443	454	465	473	470	473	474	
OCTOBER	495	499	498	498	494	490	489	486	487	489	488	480	466	451	438	432	437	450	463	475	481	486	489	492	
NOVEMBER	501	499	499	494	489	486	485	483	480	477	471	463	451	440	430	428	433	447	460	472	482	489	495	498	
DECEMBER	503	504	505	503	500	494	490	485	479	474	466	457	450	441	438	439	447	459	471	480	493	495	496	500	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	551	554	557	559	559	559	561	559	556	550	541	527	516	510	504	506	518	534	541	546	550	551	552	555	
FEBRUARY	528	532	533	532	531	528	525	525	525	524	520	512	500	485	475	473	479	493	510	5					

ARGENTINE ISLANDS

Horizontal Intensity

1960

Tabular Baseline= 23000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	508	503	505	504	499	497	493	489	483	478	472	465	457	447	439	435	440	454	470	482	490	498	497	494	
FEBRUARY	488	490	494	492	493	489	485	482	480	478	474	467	460	447	434	427	429	438	451	462	472	477	479	483	
MARCH	473	476	478	478	480	479	475	477	475	474	473	469	464	451	438	429	425	432	446	456	462	468	468	466	
APRIL	433	431	428	433	438	435	435	440	441	443	444	441	429	418	412	410	411	405	420	429	430	429	427	429	
MAY	437	441	439	441	445	444	446	442	443	444	447	447	446	439	432	426	429	432	436	439	441	440	439	439	
JUNE	441	438	437	433	434	438	440	443	444	447	448	450	451	448	444	441	442	445	448	451	450	447	446	445	
JULY	434	431	432	432	438	438	437	439	440	442	445	444	445	442	438	433	432	435	439	442	442	439	438	437	
AUGUST	438	436	438	442	438	435	435	437	440	440	442	441	440	434	427	422	423	427	432	439	440	439	436	441	
SEPTEMBER	431	431	434	435	437	435	437	436	438	438	439	436	427	416	405	399	403	409	417	427	434	435	434	434	
OCTOBER	429	429	432	430	424	426	425	423	424	424	423	417	405	386	372	372	377	391	403	415	424	428	430	426	
NOVEMBER	447	444	440	437	432	427	410	417	409	406	397	399	386	376	372	376	389	403	417	429	434	445	447	443	
DECEMBER	449	449	451	447	443	441	435	428	423	418	414	405	399	390	384	381	387	400	417	426	438	442	445	445	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	505	510	511	511	507	506	501	496	490	485	478	468	455	447	441	440	448	461	473	482	493	500	500	501	
FEBRUARY	496	496	497	495	493	486	485	482	482	482	476	467	457	447	440	437	440	449	460	469	476	481	485	490	
MARCH	477	480	481	480	482	482	478	478	477	474	475	474	466	453	441	434	434	439	449	461	472	480	482	486	
APRIL	459	460	462	463	462	458	456	458	459	463	461	461	456	445	435	430	436	444	453	457	458	460	461	464	
MAY	456	457	455	455	458	455	459	457	456	457	458	458	456	451	444	443	446	451	459	462	462	459	461	462	
JUNE	454	452	451	452	450	452	452	454	453	454	454	454	455	452	447	443	445	449	455	459	457	454	456	457	
JULY	446	449	450	450	452	450	450	450	452	452	453	453	454	452	447	443	444	447	453	456	457	455	455	453	
AUGUST	450	453	452	451	453	452	451	451	453	455	455	454	452	444	439	435	436	441	447	449	450	449	451	451	
SEPTEMBER	442	444	447	447	448	447	447	445	445	448	449	447	438	421	407	401	403	411	423	433	438	442	444	447	
OCTOBER	453	455	456	456	451	452	449	445	444	443	439	431	418	404	394	393	401	416	430	438	445	448	451	455	
NOVEMBER	439	442	441	439	440	438	435	434	431	428	420	411	400	388	385	388	397	414	429	438	444	446	445	445	
DECEMBER	448	454	453	452	449	445	445	438	436	433	424	418	411	402	398	394	403	417	434	444	454	452	453	454	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	497	508	496	499	496	500	496	487	472	464	461	458	455	437	423	421	423	438	468	480	478	491	487	476	
FEBRUARY	481	485	489	478	477	474	468	470	470	470	463	458	449	432	414	412	420	437	444	457	466	473	472	477	
MARCH	452	450	453	451	459	457	446	458	458	457	466	436	447	441	426	421	409	411	432	448	448	453	448	426	
APRIL	395	400	355	366	387	394	389	404	413	419	419	412	368	351	370	383	372	299	349	372	378	336	373	377	
MAY	408	422	409	415	426	420	434	432	432	421	434	433	427	419	410	404	407	406	399	404	414	415	408	423	
JUNE	426	416	417	406	406	414	416	416	420	426	426	433	436	434	427	427	429	430	432	440	438	433	432	430	
JULY	414	412	409	414	419	423	414	421	425	429	434	426	433	423	422	413	407	403	408	413	417	406	404	400	
AUGUST	412	408	414	423	405	395	405	419	425	425	425	424	418	414	401	396	398	398	399	413	416	413	414	421	
SEPTEMBER	404	402	405	403	407	404	407	414	416	411	410	414	404	406	397	390	400	403	399	408	418	415	409	416	
OCTOBER	399	381	396	396	374	384	391	392	400	401	405	390	377	346	334	335	335	357	377	400	309	405	404	382	
NOVEMBER	467	432	414	404	390	382	385	361	325	316	299	347	335	327	321	325	356	371	398	418	409	419	430	429	
DECEMBER	453	449	449	436	415	418	416	409	411	404	405	386	378	367	359	352	358	377	397	404	414	432	434	425	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1961

Tabular Baseline= 23000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	443	446	447	446	445	441	439	434	431	429	426	419	412	403	397	392	398	412	422	429	434	437	439	441	
FEBRUARY	428	429	431	433	432	431	428	427	425	423	421	418	408	397	387	382	386	397	408	416	422	424	424	427	
MARCH	422	421	424	426	426	427	423	423	420	419	417	412	401	392	384	384	389	399	408	414	416	417	416	420	
APRIL	404	408	408	410	412	414	414	413	415	415	416	417	409	399	389	386	390	397	403	408	407	403	404	405	
MAY	402	404	406	407	408	408	406	408	407	409	408	409	408	404	399	397	401	406	409	410	410	408	406	404	
JUNE	397	398	398	399	398	399	399	401	403	406	405	406	407	405	403	401	403	404	405	406	405	400	400	398	
JULY	385	384	380	382	387	385	388	389	389	394	391	394	395	391	383	383	384	389	392	393	391	387	388	386	
AUGUST	393	395	394	398	399	399	399	398	398	401	403	404	400	396	389	386	387	391	394	397	397	395	395	395	
SEPTEMBER	398	400	400	398	401	400	398	398	397	398	399	399	393	383	372	368	370	377	385	393	394	394	394	396	
OCTOBER	390	389	389	388	388	383	385	384	384	386	387	381	371	360	352	349	350	357	371	387	390	388	389	389	
NOVEMBER	399	399	397	398	396	395	392	390	388	388	384	376	367	360	356	355	361	371	380	387	391	397	398	399	
DECEMBER	402	404	403	401	399	397	395	393	388	382	378	374	369	363	365	366	371	381	387	392	395	398	402	401	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	447	448	450	449	450	449	444	441	436	434	434	431	423	410	399	392	399	413	428	439	445	444	445	448	
FEBRUARY	436	436	437	437	438	437	435	434	431	430	427	422	411	400	392	389	396	409	422	432	437	439	436	437	
MARCH	424	425	431	434	435	434	431	429	427	425	423	418	408	398	389	389	397	407	418						

ARGENTINE ISLANDS

Horizontal Intensity

1962

Tabular Baseline= 23000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
JANUARY	397	397	398	398	396	396	394	393	388	382	376	373	368	365	362	362	369	376	381	386	389	390	390	392	392	392	2
FEBRUARY	390	390	393	393	392	390	387	385	384	383	380	375	368	360	356	357	361	371	378	382	384	386	387	388	388	388	1
MARCH	380	381	382	383	384	382	383	382	381	381	381	376	367	357	349	345	346	352	362	369	375	378	378	380	380	380	
APRIL	366	367	370	370	370	369	371	369	370	371	373	371	365	356	345	341	343	351	357	362	360	360	363	363	363	363	
MAY	363	364	366	366	367	367	368	367	369	371	372	370	365	359	356	357	360	363	364	364	364	362	358	360	360	360	
JUNE	356	355	357	360	361	360	363	362	362	365	368	368	367	366	362	360	362	364	364	361	360	359	356	355	355	355	
JULY	352	353	353	355	357	357	358	358	359	359	360	361	361	360	357	356	357	359	360	361	357	351	353	353	352	352	
AUGUST	346	345	346	352	354	352	354	353	355	356	356	357	355	349	344	341	341	344	349	352	349	345	343	344	344	344	
SEPTEMBER	343	345	345	348	347	348	347	347	345	345	345	343	340	332	324	320	320	327	333	335	338	339	338	343	343	343	
OCTOBER	348	346	348	347	350	349	345	344	344	341	339	333	325	315	307	306	312	322	329	337	339	340	343	343	343	343	2
NOVEMBER	355	356	355	355	354	353	350	347	343	338	332	326	316	313	312	313	321	331	339	343	347	346	350	351	351	351	
DECEMBER	351	354	354	353	353	351	348	345	339	335	332	327	323	316	313	316	323	329	337	341	345	347	348	351	351	351	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
JANUARY	393	393	394	394	394	393	392	392	389	384	377	373	370	365	361	361	366	375	384	391	394	393	392	395	395	395	
FEBRUARY	387	389	389	391	391	389	387	387	385	385	382	376	368	359	352	353	358	370	382	389	392	394	394	394	394	394	
MARCH	384	386	384	386	386	383	383	381	381	381	380	376	366	356	348	346	350	358	369	376	380	381	382	382	382	382	
APRIL	364	366	367	368	370	369	370	370	369	370	371	371	367	358	351	349	349	352	359	362	362	363	364	365	365	365	
MAY	371	372	373	372	370	369	371	372	371	372	372	373	372	368	363	362	365	369	373	375	374	373	373	373	373	373	
JUNE	367	365	365	365	365	365	366	366	367	369	371	370	369	368	365	365	367	371	373	374	373	373	372	372	372	372	
JULY	356	358	358	358	358	359	361	360	357	362	362	363	362	360	358	358	360	363	366	365	365	362	364	364	363	363	
AUGUST	353	355	355	356	357	357	358	357	359	360	361	362	359	351	345	343	346	349	355	359	360	359	358	354	354	354	
SEPTEMBER	351	354	354	354	353	356	355	353	352	353	353	351	344	334	327	324	325	334	343	350	352	352	351	353	353	353	
OCTOBER	344	344	345	348	347	348	344	345	339	341	343	337	331	321	312	311	318	327	335	343	348	348	347	350	350	350	1
NOVEMBER	354	358	357	356	356	356	355	353	350	346	339	329	320	314	313	317	327	339	347	351	354	357	357	358	358	358	
DECEMBER	350	352	353	352	351	350	349	347	342	338	333	328	323	318	317	320	325	334	344	349	349	351	349	351	351	351	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
JANUARY	400	399	407	401	400	403	398	396	389	375	367	369	363	359	352	353	364	370	372	379	378	382	382	383	383	383	
FEBRUARY	395	392	398	400	403	400	395	393	390	390	388	384	373	363	358	356	360	366	370	364	365	368	376	379	381	381	
MARCH	381	383	385	384	387	383	385	387	382	382	385	377	363	353	346	341	337	339	345	346	357	364	369	376	376	376	
APRIL	356	359	366	368	364	364	365	359	369	369	375	375	361	351	332	322	325	339	337	341	337	331	342	348	348	348	
MAY	364	365	373	372	368	367	365	366	368	370	373	372	368	360	350	347	348	347	344	348	349	345	333	341	341	341	
JUNE	351	353	351	359	360	350	359	362	361	367	370	367	368	365	359	360	361	368	359	348	349	345	343	343	343	343	
JULY	359	360	354	358	360	357	351	347	356	352	356	359	356	352	348	342	344	348	353	356	360	358	342	342	342	342	
AUGUST	335	336	322	341	340	343	345	349	351	361	355	356	349	347	338	336	333	341	345	344	338	335	330	339	339	339	
SEPTEMBER	345	351	357	364	351	348	342	348	337	338	341	346	340	332	320	319	318	325	321	310	321	327	318	333	333	333	
OCTOBER	351	336	341	346	358	353	347	346	351	343	338	324	317	311	303	303	303	316	321	331	323	327	338	336	336	336	
NOVEMBER	357	362	350	354	352	353	342	339	338	328	324	316	296	302	304	304	311	319	326	332	342	333	340	342	342	342	
DECEMBER	350	348	353	349	344	344	342	338	330	327	322	314	316	310	304	305	313	314	331	331	338	342	333	341	341	341	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1963

Tabular Baseline= 23000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
JANUARY	344	344	345	345	343	342	341	342	338	335	330	323	318	315	312	315	322	330	335	339	339	339	340	342	342	342	
FEBRUARY	339	341	343	343	342	341	339	336	335	334	333	331	322	311	303	299	302	309	321	329	335	337	338	337	337	337	1
MARCH	333	334	335	334	336	336	335	335	333	332	332	331	325	313	301	296	301	309	320	327	329	330	329	329	329	329	
APRIL	318	320	322	323	323	325	324	324	325	324	325	325	320	312	303	301	304	310	315	318	318	316	318	320	320	320	
MAY	311	312	312	313	313	315	316	315	316	317	318	319	317	313	309	306	307	311	315	315	314	313	312	311	311	311	
JUNE	296	296	298	298	299	301	303	302	305	307	308	309	308	306	304	303	305	306	306	305	303	300	300	299	299	299	
JULY	302	304	302	303	303	304	305	305	305	307	308	309	310	310	307	304	305	307	310	309	305	303	300	298	298	298	
AUGUST	295	295	297	297	299	300	302	301	302	304	306	306	304	298	292	289	289	293	295	297	295	290	291	292	292	292	
SEPTEMBER	278	283	280	278	285	287	287	289	287	287	289	287	282	273	265	260	262	267	276	281	285	281	280	280	280	280	
OCTOBER	288	288	289	288	289	289	286	286	284	282	286	282	274	265	257	255	258	267	279	285	288	287	284	287	287	287	
NOVEMBER	296	295	297	296	295	295	292	289	286	284	280	275	266	260	258	258	262	274	282	287	289	293	295	295	295	295	
DECEMBER	304	304	305	305	303	301	298	295	290	285	280	276	271	267	264	264	270	280	288	292	295	299	301	301	301		

ARGENTINE ISLANDS

Horizontal Intensity

1964

Tabular Baseline= 23000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	291	295	297	298	296	294	291	287	282	278	276	271	268	263	261	261	266	275	280	284	285	285	285	289	
FEBRUARY	282	283	284	286	285	285	284	281	278	276	273	271	267	260	255	255	258	265	271	274	277	277	274	277	
MARCH	275	277	276	275	275	275	275	274	274	273	271	268	261	252	246	246	251	257	263	266	266	267	269	272	
APRIL	260	263	263	263	266	267	266	266	267	267	268	267	262	255	248	245	247	252	259	261	257	255	255	251	
MAY	251	254	256	256	258	259	261	261	262	263	263	263	262	258	252	250	253	256	259	258	258	256	255	254	
JUNE	254	253	252	254	252	251	252	253	255	256	258	260	260	259	256	254	254	256	258	257	256	253	252	253	
JULY	248	250	249	251	252	252	253	252	253	254	255	255	257	255	253	251	252	254	255	253	251	249	248	248	
AUGUST	246	247	249	249	248	250	250	250	251	252	252	253	251	248	243	238	239	242	244	246	246	246	246	246	
SEPTEMBER	245	246	249	249	247	247	247	247	247	248	248	246	243	236	229	227	228	233	238	241	242	240	241	243	
OCTOBER	243	245	246	247	248	246	245	243	242	240	239	236	227	216	211	212	219	227	236	239	240	240	241	242	
NOVEMBER	251	252	252	251	251	248	246	245	242	239	234	225	219	214	214	219	226	234	237	241	243	247	248	248	
DECEMBER	255	255	255	255	254	254	251	248	245	241	235	229	224	220	220	223	230	238	243	244	247	249	253	254	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	293	293	294	294	293	292	290	287	284	282	279	276	270	264	261	264	271	281	290	291	291	290	291	294	
FEBRUARY	280	282	283	283	283	282	281	279	277	274	273	272	269	261	255	252	255	265	274	275	281	281	281	283	
MARCH	276	277	277	278	279	278	276	275	274	273	271	268	262	254	250	251	255	261	266	270	272	274	277	279	
APRIL	268	268	269	270	270	269	270	270	270	271	271	271	265	258	252	252	258	265	271	272	271	271	271	270	
MAY	263	263	264	263	263	262	263	263	264	264	265	264	264	259	256	254	256	262	265	265	265	265	264	264	
JUNE	260	261	260	260	260	260	260	260	260	261	263	263	262	261	257	255	258	261	263	264	263	262	261	261	
JULY	251	252	253	253	254	254	254	254	253	254	256	257	258	256	253	250	253	256	259	259	257	256	255	254	
AUGUST	246	248	248	250	252	251	251	251	251	254	254	255	253	248	243	239	240	244	248	247	250	250	251	251	
SEPTEMBER	248	250	251	250	250	249	249	249	249	250	250	248	245	239	233	234	237	242	245	249	249	248	248	249	
OCTOBER	244	245	245	244	243	243	243	243	241	240	238	234	225	216	213	215	223	231	239	243	245	245	246	247	
NOVEMBER	245	245	246	246	246	243	243	242	242	239	234	225	216	214	211	216	224	234	233	239	240	244	246	246	
DECEMBER	258	257	256	257	256	255	253	251	249	245	239	230	225	223	226	228	234	238	241	244	244	245	251	256	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	298	306	309	310	306	298	290	285	275	267	274	266	263	254	249	240	241	254	262	274	280	281	282	283	
FEBRUARY	286	289	289	292	284	285	284	282	277	271	272	267	266	263	258	264	258	264	263	262	265	268	264	269	
MARCH	275	282	276	274	276	266	269	273	272	270	265	262	259	251	243	240	241	241	243	248	242	249	250	257	
APRIL	250	256	252	255	261	267	266	262	265	263	266	261	256	249	242	234	232	233	244	246	229	226	224	219	
MAY	238	244	247	244	250	247	252	254	257	262	263	260	261	258	243	239	240	245	250	247	251	251	246	245	
JUNE	241	238	231	233	225	219	227	236	241	244	247	251	249	251	249	246	243	242	244	241	244	242	238	246	
JULY	250	254	244	252	249	245	250	249	252	254	252	253	257	255	257	253	253	251	250	245	246	239	240	239	
AUGUST	252	254	255	247	245	248	243	244	248	248	248	250	245	246	238	230	233	238	238	236	239	241	244	238	
SEPTEMBER	247	247	251	245	243	245	243	243	246	249	242	241	238	228	217	211	211	218	226	229	228	229	231	237	
OCTOBER	243	245	251	253	257	257	252	243	242	237	236	234	223	210	200	200	213	218	227	220	226	229	224	231	
NOVEMBER	255	252	251	252	256	247	245	242	238	237	238	223	218	212	213	219	224	228	231	236	240	244	242	237	
DECEMBER	260	261	260	260	259	259	255	252	247	243	235	229	224	219	225	230	236	240	244	250	255	256	249	250	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1965

Tabular Baseline= 23000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	244	245	245	246	243	242	241	239	236	231	228	224	221	217	217	221	226	232	236	238	240	240	242	244	
FEBRUARY	232	234	235	235	234	233	232	230	229	227	223	219	214	208	204	204	210	220	227	232	232	229	228	230	
MARCH	222	225	225	227	228	228	226	224	223	223	223	221	213	205	198	195	198	204	212	218	221	220	220	222	
APRIL	213	213	214	214	213	214	210	211	213	212	213	212	209	202	193	191	196	204	209	212	212	211	211	211	
MAY	207	206	206	208	209	209	208	208	208	211	211	212	212	200	204	202	204	207	210	211	210	207	205	205	
JUNE	197	199	199	200	203	203	203	204	206	200	207	208	208	204	202	200	201	203	203	203	201	199	195	196	
JULY	197	198	198	198	199	201	201	203	203	203	204	205	204	203	200	198	199	202	204	203	201	199	198	196	
AUGUST	191	192	194	196	198	199	199	200	201	202	202	204	202	198	192	189	189	192	195	195	193	191	192	192	
SEPTEMBER	186	189	192	194	195	195	195	194	195	194	196	196	191	183	175	170	171	177	183	188	188	187	187	187	
OCTOBER	196	196	198	200	200	200	198	195	193	192	192	192	186	176	167	163	165	174	182	189	193	193	194	195	
NOVEMBER	197	198	199	199	198	197	195	194	191	188	183	177	169	165	165	169	177	186	191	193	193	194	194	196	
DECEMBER	197	198	199	199	198	195	193	190	187	182	177	172	168	163	163	166	172	181	188	192	193	196	197	196	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	241	242	242	244	242	242	239	236	233	230	227	223	220	218	218	221	223	228	233	236	239	242	245	243	
FEBRUARY	229	232	234	235	235	234	233	233	231	229	226	223	217	214	213	215	221	229	234	236	235</				

ARGENTINE ISLANDS

Horizontal Intensity

1966

Tabular Baseline= 23000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	190	192	194	193	193	191	190	187	185	181	177	173	167	160	156	156	159	168	175	183	184	186	188	190	
FEBRUARY	180	182	183	184	184	181	180	179	177	174	171	166	158	151	145	145	150	159	168	174	174	176	176	178	
MARCH	162	164	166	166	167	165	166	166	167	170	168	166	157	148	138	133	137	144	152	158	161	162	159	160	
APRIL	158	159	160	162	164	164	163	163	164	164	164	164	158	149	141	138	141	148	154	156	156	155	156	157	
MAY	149	149	151	151	152	153	155	155	156	157	158	157	155	151	145	142	143	148	150	148	146	143	143	144	
JUNE	143	145	147	146	147	147	148	148	149	150	152	154	153	151	148	146	147	149	149	148	147	147	146	144	
JULY	135	136	137	139	140	140	139	142	144	146	147	148	147	144	140	139	140	142	144	145	144	142	139	138	
AUGUST	133	135	137	136	139	140	141	142	143	143	145	146	145	139	132	129	130	132	133	138	137	136	133	131	
SEPTEMBER	119	123	123	125	124	125	128	130	130	128	131	134	126	116	106	98	99	104	111	118	119	119	119	121	
OCTOBER	136	138	139	141	139	137	136	136	133	134	135	133	125	113	103	98	100	108	120	129	132	135	134	133	
NOVEMBER	142	145	145	144	142	140	136	133	131	128	122	115	108	101	101	104	112	124	130	134	139	140	140	143	
DECEMBER	139	141	143	144	142	139	137	133	127	122	115	107	100	93	89	92	101	110	118	126	130	133	136	137	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	191	192	192	192	192	190	190	188	186	183	178	173	167	161	156	153	155	164	176	184	189	190	193	195	
FEBRUARY	181	183	182	182	181	180	179	178	178	176	173	170	163	157	150	149	151	157	167	178	181	182	181	182	
MARCH	164	167	169	172	173	170	170	168	166	165	165	163	157	147	139	136	137	143	152	162	168	170	169	170	
APRIL	165	165	167	166	166	166	165	165	165	165	165	165	160	151	141	138	143	152	160	164	164	165	165	166	
MAY	159	160	160	159	159	158	158	159	159	160	161	163	162	157	152	150	154	160	163	163	160	158	159	159	
JUNE	151	151	150	150	150	150	150	151	151	153	153	154	155	153	150	149	150	153	155	155	155	155	153	153	
JULY	141	142	142	142	143	144	143	144	144	145	146	146	145	143	141	140	142	146	148	149	149	148	147	146	
AUGUST	141	143	143	142	143	144	144	144	143	146	147	147	145	140	133	129	131	135	140	144	146	145	143	142	
SEPTEMBER	130	133	132	133	132	132	134	132	134	135	136	137	130	119	108	100	102	110	117	126	129	130	133	134	
OCTOBER	141	142	143	144	144	142	142	142	140	139	139	136	128	116	106	103	108	118	129	137	141	139	144	145	
NOVEMBER	142	144	146	146	145	145	144	142	138	133	126	118	111	104	105	110	119	129	137	141	143	145	148	151	
DECEMBER	146	145	146	146	145	145	143	140	137	130	122	114	106	99	97	98	107	117	125	132	141	147	150	149	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	184	189	193	190	190	189	188	182	181	178	176	171	163	150	144	152	156	161	171	180	176	179	180	179	
FEBRUARY	179	179	181	184	185	175	173	173	171	164	166	163	150	144	139	137	143	157	168	172	157	168	169	170	
MARCH	151	151	152	150	153	148	155	154	167	182	166	169	152	149	132	121	122	131	132	131	130	142	144	147	
APRIL	147	154	156	157	161	167	165	164	162	161	162	161	155	145	139	135	134	138	143	141	139	135	136	137	
MAY	137	138	140	143	145	150	151	153	155	158	154	157	152	147	140	137	138	142	143	145	141	139	141	140	
JUNE	122	132	138	138	142	143	143	142	145	147	150	157	153	151	145	142	139	139	136	133	131	132	133	138	
JULY	115	118	120	127	127	124	117	132	136	138	142	146	140	135	133	130	129	131	133	133	132	125	124	124	
AUGUST	110	114	120	114	122	128	127	132	132	133	141	144	148	129	126	123	122	116	107	120	110	108	105	101	
SEPTEMBER	90	92	83	91	86	85	101	115	116	100	105	115	109	111	93	82	86	87	91	95	98	87	81	86	
OCTOBER	132	131	131	135	134	130	127	131	124	132	133	125	114	101	92	88	88	100	109	125	116	117	120	120	
NOVEMBER	139	144	145	142	138	136	132	124	125	124	115	112	108	102	99	93	101	113	121	127	140	136	133	138	
DECEMBER	144	152	158	156	147	142	137	131	126	121	115	107	96	90	82	80	92	104	107	115	120	121	124	128	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1967

Tabular Baseline= 23000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	128	128	129	128	127	126	124	121	121	114	109	102	95	87	85	85	95	108	118	123	122	123	125	126	
FEBRUARY	116	121	121	124	124	122	119	116	114	112	106	99	91	84	78	78	83	90	99	107	108	110	111	112	
MARCH	116	118	121	121	119	118	117	116	115	115	114	110	100	86	74	68	71	80	92	102	107	110	111	115	
APRIL	102	102	103	106	107	107	110	108	109	109	110	109	103	90	78	71	75	83	91	97	98	100	101	102	
MAY	70	76	68	66	71	65	73	77	83	87	89	88	87	79	71	68	70	74	78	78	79	77	74	75	
JUNE	66	65	69	73	75	77	80	82	82	84	86	86	85	83	79	76	76	79	81	79	77	76	73	71	
JULY	79	80	80	82	83	84	85	86	86	88	89	89	87	85	80	78	80	82	85	87	85	83	81	80	
AUGUST	81	83	86	86	89	90	89	90	91	91	92	92	90	82	73	68	68	73	81	85	84	82	80	80	
SEPTEMBER	74	78	78	78	80	82	81	81	81	83	85	81	72	59	48	41	40	49	59	67	70	70	71	73	
OCTOBER	82	83	85	86	87	85	83	83	83	81	80	75	63	48	37	34	40	53	66	73	75	76	79	83	
NOVEMBER	88	88	88	86	86	84	82	80	77	72	66	58	49	42	41	46	54	65	74	82	85	83	86	87	
DECEMBER	88	87	86	85	83	80	78	73	70	67	62	56	48	38	32	35	45	55	64	72	77	82	86	88	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	128	129	131	132	130	129	127	124	120	116	109	102	97	88	83	85	93	106	117	125	127	131	132	133	
FEBRUARY	121	124	127	128	129	127	125	123	120	117	116	110	100	90	87	88	93	101	108	114	115	113	115	119	
MARCH	120	121	123	124	124	124	122	120	120	120	117	111	100	87	77	73	76	88	102	112	117	120	121	122	
APRIL	107	10																							

ARGENTINE ISLANDS

Horizontal Intensity

1968

Tabular Baseline= 22500 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	577	578	578	579	578	577	573	569	567	562	557	551	541	530	521	517	523	536	548	558	566	572	576	576	
FEBRUARY	561	566	567	568	568	565	564	562	562	558	556	549	536	524	512	507	512	523	536	548	548	554	559	561	559
MARCH	553	556	558	560	560	559	557	560	557	555	554	551	543	531	518	509	509	513	528	537	542	544	542	547	
APRIL	543	544	546	548	550	551	552	553	554	551	553	552	546	533	520	514	515	523	531	537	540	539	538	541	
MAY	537	537	538	539	541	542	542	542	544	545	546	547	545	539	530	524	524	528	533	536	537	534	534	535	
JUNE	532	530	530	531	530	531	533	538	539	541	542	540	540	536	530	525	525	528	531	531	530	528	527	527	
JULY	530	531	530	530	533	532	533	533	535	537	538	538	537	534	528	526	527	532	535	536	536	534	532	531	
AUGUST	529	529	529	532	533	534	534	535	536	535	537	537	535	526	517	512	513	519	525	531	530	529	530	528	
SEPTEMBER	524	526	530	527	529	530	530	530	531	532	533	530	524	511	497	489	491	500	510	519	522	521	522	524	
OCTOBER	531	531	532	532	531	529	529	528	528	527	526	522	510	492	479	478	486	494	506	516	521	523	525	528	
NOVEMBER	524	524	524	524	522	520	518	516	514	510	503	494	475	469	467	471	481	493	503	507	514	521	522	525	
DECEMBER	530	532	536	535	532	529	529	524	520	517	514	504	492	481	475	475	485	497	510	520	523	528	529	532	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	576	530	582	583	582	582	578	574	569	568	568	564	551	539	531	525	531	543	555	563	571	576	578	580	
FEBRUARY	567	571	571	571	571	570	569	567	566	566	561	553	541	528	518	515	520	536	550	559	566	566	572	566	
MARCH	558	560	562	563	566	563	562	561	560	560	558	552	544	534	523	515	518	527	540	548	552	553	553	554	
APRIL	554	556	556	557	557	556	555	556	556	557	557	555	548	537	524	520	523	532	543	551	555	554	554	555	
MAY	546	547	546	544	548	548	548	548	549	551	552	553	550	544	534	530	531	537	543	546	549	549	549	548	
JUNE	539	540	540	540	541	542	540	541	540	542	543	543	542	540	537	534	534	538	542	545	545	543	544	544	
JULY	531	533	536	536	538	539	537	537	536	537	539	539	538	535	529	527	532	538	543	545	545	542	542	541	
AUGUST	537	537	536	539	541	540	539	540	541	541	542	541	537	529	523	518	519	523	529	535	537	536	535	537	
SEPTEMBER	532	534	535	536	536	535	534	533	532	533	533	531	522	508	494	487	491	503	515	523	527	530	531	533	
OCTOBER	534	537	537	538	537	535	535	534	535	532	530	524	512	499	489	486	491	503	517	527	532	536	537	537	
NOVEMBER	530	534	534	535	533	530	527	526	523	517	509	502	492	483	478	482	492	503	514	523	526	526	531	534	
DECEMBER	524	527	530	531	532	531	530	527	522	520	516	506	493	480	472	473	485	502	513	521	526	528	532	534	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	572	572	571	571	569	570	564	561	560	548	536	538	533	521	508	508	514	533	543	550	554	566	571	571	
FEBRUARY	555	561	558	563	565	559	557	559	560	550	550	541	521	507	498	501	513	515	523	537	535	539	546	542	
MARCH	554	555	557	559	559	563	555	559	552	551	551	551	538	533	526	515	505	512	519	529	534	536	537	542	
APRIL	531	527	527	535	537	544	548	542	552	541	545	544	539	528	512	502	503	509	514	518	519	525	526	529	
MAY	537	532	533	536	546	542	535	532	538	545	544	542	538	531	521	515	513	515	522	526	519	517	516	518	
JUNE	517	503	499	499	492	491	504	523	532	540	537	526	530	519	512	506	507	509	510	508	502	504	504	502	
JULY	529	531	520	521	530	522	526	526	534	537	535	535	532	533	528	525	525	528	525	522	521	522	513	517	
AUGUST	516	517	520	531	521	526	526	527	526	526	529	527	521	511	503	495	500	507	510	523	519	510	518	517	
SEPTEMBER	501	500	500	493	504	512	519	524	525	524	526	518	514	500	482	464	474	486	491	505	511	511	515	520	
OCTOBER	533	513	518	519	515	505	512	514	514	524	522	530	513	482	448	458	468	461	470	483	487	488	487	496	
NOVEMBER	495	485	487	487	486	488	484	483	485	487	482	468	416	424	426	434	446	465	481	480	492	507	511	507	
DECEMBER	530	535	542	540	528	521	534	526	520	520	519	500	481	468	464	470	476	486	508	518	522	530	529	528	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1969

Tabular Baseline= 22100 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	925	925	925	926	926	925	923	920	916	913	911	909	900	889	879	874	876	884	893	903	912	917	920	922	
FEBRUARY	905	908	912	914	913	912	910	909	908	905	903	898	889	880	868	862	862	872	880	889	899	904	902	902	
MARCH	891	892	894	896	898	897	897	897	898	897	894	890	879	864	851	848	853	862	872	883	888	880	888	890	
APRIL	885	886	889	893	894	893	893	892	892	892	893	892	885	872	861	857	860	866	874	877	880	881	881	886	
MAY	877	878	878	878	879	880	880	883	887	888	890	887	884	877	869	865	867	872	877	879	877	878	876	876	
JUNE	878	878	878	876	881	882	883	883	885	886	886	887	886	884	878	874	873	876	879	881	881	879	878	878	
JULY	877	876	876	876	876	880	881	881	884	885	886	887	886	882	876	874	875	879	882	881	881	881	878	876	
AUGUST	876	875	875	877	877	879	881	882	883	884	886	886	881	872	863	859	860	865	872	875	876	874	875	876	
SEPTEMBER	867	869	870	874	874	875	877	877	878	882	881	877	869	855	841	837	839	844	854	862	865	865	865	866	
OCTOBER	877	879	878	876	876	874	873	872	871	870	869	864	853	841	827	821	824	835	850	861	868	869	872	874	
NOVEMBER	882	883	882	882	880	878	875	872	870	866	860	853	842	834	830	832	842	857	866	874	878	880	881	881	
DECEMBER	881	882	884	884	884	882	879	876	878	865	860	854	848	839	833	834	841	853	865	875	880	882	882	880	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	921	924	926	925	925	925	925	923	919	915	913	910	904	893	881	872	873	881	893	905	915	922	924	924	
FEBRUARY	911	914	916	917	917	916	915	914	913	911	908	903	895	884	872	864	863	873	888	899	907</				

ARGENTINE ISLANDS

Horizontal Intensity

1970

Tabular Baseline= 22500 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	477	478	479	479	478	478	475	475	473	470	467	464	458	448	437	429	425	428	440	452	462	468	473	475	477
FEBRUARY	464	467	468	469	469	466	463	462	461	459	457	455	445	431	416	406	406	416	429	442	452	458	461	461	461
MARCH	439	443	447	445	443	444	444	444	445	446	446	444	433	415	394	390	394	404	415	426	437	444	437	437	437
APRIL	430	429	428	429	430	433	437	436	437	437	439	437	430	417	405	398	399	406	415	422	425	426	426	428	428
MAY	427	427	429	430	431	431	433	433	435	437	439	437	433	425	417	412	413	417	423	428	428	428	427	426	426
JUNE	420	418	419	421	421	423	423	425	427	429	430	431	429	426	420	417	417	420	423	425	424	423	421	420	420
JULY	405	409	410	411	412	414	412	414	418	418	418	420	418	416	410	407	408	410	414	415	415	413	408	407	407
AUGUST	411	410	414	411	409	411	414	414	415	419	420	419	415	408	399	396	397	400	406	411	413	413	411	410	410
SEPTEMBER	417	420	420	421	420	419	416	418	420	419	420	418	408	395	384	379	382	392	400	407	410	411	412	413	413
OCTOBER	414	415	416	417	414	413	412	412	412	408	402	392	380	369	366	372	385	393	403	409	411	409	413	413	413
NOVEMBER	422	423	424	421	419	416	414	412	411	409	405	395	382	368	361	360	369	384	396	405	414	418	418	421	421
DECEMBER	420	421	420	417	415	413	410	401	400	395	387	379	371	368	369	375	388	397	405	409	413	417	419	419	419

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	473	477	479	478	478	478	476	474	469	465	464	458	446	434	426	422	425	440	449	457	466	474	474	475	475
FEBRUARY	464	464	466	467	467	466	463	462	460	460	460	457	447	432	416	402	398	407	423	437	451	459	461	463	463
MARCH	452	454	454	454	454	453	452	452	452	453	454	450	439	422	407	400	402	413	426	440	449	451	452	454	454
APRIL	442	443	443	443	444	444	444	446	446	446	446	444	434	420	409	406	409	418	426	433	436	438	439	440	440
MAY	436	437	437	437	438	437	436	437	437	438	438	437	435	430	421	416	418	424	432	435	436	437	437	435	435
JUNE	426	426	426	427	427	428	428	428	430	431	433	434	431	429	426	423	424	427	430	433	433	431	431	430	430
JULY	415	418	418	420	419	422	422	422	424	426	428	426	423	419	415	414	415	418	422	424	423	421	419	417	417
AUGUST	418	421	422	422	421	421	422	422	422	423	424	425	422	416	409	406	408	411	417	422	422	422	423	424	424
SEPTEMBER	422	424	425	427	430	427	422	421	422	420	422	420	411	400	389	384	387	395	404	413	415	416	417	420	420
OCTOBER	420	423	424	424	422	421	420	419	419	419	417	412	402	388	376	372	380	394	407	417	421	421	421	422	422
NOVEMBER	422	424	426	426	427	426	425	422	418	416	410	402	388	375	366	366	377	394	408	416	420	423	424	425	425
DECEMBER	416	419	421	421	420	418	414	411	407	403	400	393	383	372	369	372	379	390	399	406	410	416	417	420	420

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	484	481	480	475	476	468	468	467	470	468	460	449	441	435	427	423	423	435	447	454	459	471	477	477	477
FEBRUARY	461	467	472	473	470	464	463	463	462	458	456	458	451	435	423	413	415	422	435	446	449	457	462	462	462
MARCH	411	413	421	424	417	419	421	422	428	431	430	433	415	391	348	369	389	400	403	405	431	460	409	402	402
APRIL	412	408	404	412	402	415	423	419	422	424	433	428	425	404	390	385	386	387	396	407	410	406	408	412	412
MAY	418	412	422	426	426	429	428	432	430	433	444	435	428	420	416	407	405	408	411	414	412	411	409	409	409
JUNE	401	403	405	407	402	405	410	413	421	425	427	433	425	415	408	407	407	406	411	415	411	411	406	407	407
JULY	387	404	412	407	405	396	392	397	407	415	407	413	408	407	399	395	399	402	403	399	395	394	383	387	387
AUGUST	389	381	397	387	374	369	383	393	397	411	415	407	393	383	377	378	377	373	380	389	394	394	388	385	385
SEPTEMBER	413	418	415	418	416	419	409	418	421	410	413	417	406	392	377	373	375	387	392	397	393	399	401	399	399
OCTOBER	400	396	395	396	397	399	398	399	401	398	390	384	384	375	364	356	360	370	381	379	392	397	392	396	396
NOVEMBER	422	429	424	413	403	394	394	389	396	397	394	379	370	346	341	345	354	369	382	391	401	410	409	413	413
DECEMBER	418	423	417	412	408	406	396	359	367	381	377	374	368	358	356	353	358	372	377	382	390	399	406	404	404

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1971

Tabular Baseline= 22000 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	916	917	919	918	917	914	912	909	905	901	898	893	882	872	865	865	874	887	898	904	910	916	915	916	916
FEBRUARY	899	900	901	904	901	901	901	899	898	896	894	891	883	867	854	847	850	860	872	884	891	896	894	895	895
MARCH	884	888	889	891	892	891	891	891	890	888	888	883	876	864	853	849	850	857	868	875	878	878	880	883	883
APRIL	866	869	871	872	875	876	876	876	877	877	878	877	871	862	852	848	850	857	862	865	866	867	867	865	865
MAY	863	860	863	866	867	868	871	872	874	873	874	874	872	867	860	858	860	863	866	867	865	865	863	864	864
JUNE	865	864	864	866	868	868	868	869	870	872	874	875	871	868	866	864	865	868	869	869	866	864	863	865	865
JULY	857	860	861	859	863	864	867	866	866	868	869	871	871	868	863	861	861	863	866	865	863	861	859	858	858
AUGUST	857	856	857	859	861	862	862	863	864	866	868	869	866	861	855	852	853	857	861	863	862	860	860	857	857
SEPTEMBER	850	853	853	853	854	855	855	855	855	856	858	857	851	843	834	831	833	839	845	849	851	851	850	850	850
OCTOBER	854	856	857	855	855	854	853	852	851	850	849	848	842	831	825	822	826	833	843	849	851	852	852	852	852
NOVEMBER	863	864	864	862	862	861	859	858	857	856	848	841	833	828	825	828	835	846	853	856	859	861	862	863	863
DECEMBER	859	858	860	861	861	857	855	852	848	843	837	831	824	819	817	822	829	838	847	854	856	859	859	858	858

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	911	911	914	915	915	916	916	915	913	908	901	891	880	875	877	884	900	915	920	920	920	918	915	912	912
FEBRUARY	903	907	908	911	908	906	906	905	904	901	899														

ARGENTINE ISLANDS

Horizontal Intensity

1972

Tabular Baseline= 22000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	855	855	857	857	858	858	855	853	849	844	838	833	826	819	818	817	824	837	846	847	848	848	850	851	
FEBRUARY	845	848	850	851	851	850	848	846	844	842	839	833	824	816	808	809	814	823	832	838	841	841	841	842	
MARCH	833	837	839	839	840	839	840	839	839	840	841	839	831	817	803	795	796	805	816	825	831	834	833	835	
APRIL	826	829	832	832	833	833	834	834	835	836	838	836	828	818	807	803	805	811	817	821	823	822	823	825	
MAY	818	819	822	823	825	826	827	827	828	830	829	829	827	822	815	811	812	818	823	823	823	822	820	818	
JUNE	807	804	804	807	808	810	809	814	814	816	817	819	819	816	813	810	811	814	817	818	816	812	810	806	
JULY	809	810	810	811	810	813	814	814	814	815	818	819	817	814	810	808	809	812	817	817	815	813	810	808	
AUGUST	800	798	797	797	799	795	790	794	798	800	802	800	799	791	783	778	780	786	791	795	797	797	799	801	
SEPTEMBER	802	803	804	806	802	802	803	804	806	807	809	808	802	790	779	774	774	781	788	795	799	800	800	798	
OCTOBER	807	808	809	809	807	806	804	802	803	804	805	800	788	776	765	762	765	779	792	801	806	807	809	806	
NOVEMBER	812	815	812	808	808	804	803	801	799	795	792	784	777	770	767	768	776	786	795	801	804	808	810	812	
DECEMBER	815	818	818	819	819	818	814	810	805	800	795	789	783	776	773	774	781	791	800	807	810	813	813	813	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	861	862	864	865	866	865	864	862	858	855	851	845	836	831	828	830	836	843	849	850	855	859	860	863	
FEBRUARY	846	849	851	851	852	851	850	847	846	845	844	840	830	819	811	810	813	821	832	839	844	847	842	847	
MARCH	838	842	844	844	844	842	841	840	840	842	843	843	836	822	808	799	801	808	820	838	841	843	842	841	
APRIL	833	835	837	837	837	836	836	836	838	838	839	841	836	823	812	809	812	820	829	834	838	838	837	839	
MAY	827	826	827	827	827	829	830	830	831	832	833	832	829	824	816	811	812	819	825	829	831	829	831	829	
JUNE	821	819	821	822	823	824	824	824	825	826	827	828	826	823	820	817	818	823	828	830	830	829	827	829	
JULY	815	815	814	813	813	813	814	814	816	817	817	819	817	814	810	809	812	815	819	820	820	818	817	817	
AUGUST	808	809	810	810	812	813	810	812	812	814	814	814	810	801	793	790	791	794	802	810	811	811	811	814	
SEPTEMBER	807	808	811	811	810	811	811	809	809	810	814	814	808	796	786	780	781	785	794	801	807	806	808	809	
OCTOBER	809	812	812	813	812	812	809	809	808	809	811	809	801	789	778	772	773	783	794	804	810	811	813	812	
NOVEMBER	811	813	814	816	816	813	810	810	808	804	798	791	784	779	776	777	783	794	805	811	813	815	815	815	
DECEMBER	813	818	819	820	818	817	815	812	808	803	798	792	787	782	778	778	786	799	810	814	814	815	818	818	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	849	850	852	853	853	851	851	847	844	834	828	832	828	823	813	795	806	821	833	842	843	837	835	837	
FEBRUARY	840	846	849	852	851	850	850	850	850	839	840	834	829	819	811	795	794	803	813	827	829	831	828	829	826
MARCH	820	822	822	823	822	824	822	830	837	835	835	830	825	811	797	788	787	796	807	813	812	819	821	824	
APRIL	821	824	823	817	815	817	826	831	833	830	841	830	821	815	805	799	800	806	809	810	812	808	810	811	
MAY	796	801	813	816	820	820	823	819	823	828	823	822	820	814	810	807	805	815	822	813	812	814	810	804	
JUNE	776	758	755	772	773	777	765	791	797	799	802	808	806	804	807	802	800	797	802	803	793	784	812	765	
JULY	800	800	804	806	801	814	808	811	807	809	820	818	812	808	801	801	799	800	806	806	804	800	793	781	
AUGUST	796	786	781	786	788	755	728	755	768	774	782	770	769	763	755	745	754	763	764	764	774	783	794	812	
SEPTEMBER	786	790	798	793	765	771	781	784	791	788	788	790	789	777	765	767	762	766	768	767	773	784	782	772	
OCTOBER	793	796	795	804	798	799	794	795	799	799	797	792	783	769	754	758	763	779	796	799	804	800	809	806	
NOVEMBER	813	818	798	772	775	771	777	778	778	776	780	767	761	755	748	752	761	767	779	785	788	795	798	801	
DECEMBER	814	815	815	816	817	816	807	801	795	787	786	784	782	771	765	764	771	787	791	802	812	811	803	803	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1973

Tabular Baseline= 22000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	802	802	802	803	804	801	799	796	791	787	783	778	771	767	764	763	770	780	786	791	791	796	800	800	
FEBRUARY	785	788	789	792	793	791	789	785	783	780	781	776	766	754	744	742	745	755	768	774	776	778	780	780	
MARCH	770	773	775	779	777	777	774	779	776	775	774	772	764	749	738	733	736	740	749	759	759	760	758	763	
APRIL	755	751	755	753	757	759	760	761	756	761	761	762	752	742	732	727	730	736	742	748	750	751	748	751	
MAY	750	753	752	753	758	760	761	762	759	761	762	763	760	754	748	747	748	753	757	758	755	754	752	750	
JUNE	747	747	749	752	750	753	754	754	754	756	759	759	760	759	756	755	755	757	757	754	753	752	749	746	
JULY	748	751	754	754	756	755	756	757	756	757	757	761	762	759	755	755	756	758	759	757	756	753	753	750	
AUGUST	747	749	750	752	753	754	755	755	754	755	756	755	754	753	745	743	745	748	750	751	753	752	750	748	
SEPTEMBER	742	746	749	750	750	750	752	750	749	751	753	751	745	735	727	721	723	729	737	741	743	742	740	741	
OCTOBER	746	748	750	748	749	747	747	745	743	744	742	738	731	721	713	709	714	724	733	738	742	745	745	745	
NOVEMBER	750	750	752	752	751	750	747	745	742	739	734	727	722	717	713	717	724	733	740	741	745	747	748	750	
DECEMBER	752	754	754	754	755	754	752	748	743	738	732	726	721	717	716	719	725	733	740	745	750	751	752	751	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	797	800	803	803	804	803	802	799	796	791	786	781	771	762	762	770	780	791	799	799	798	801	805	808	
FEBRUARY	798	802	799	797	797	795	794	789	789	789	788	783	773	761	750	751	758	770	781	789					

ARGENTINE ISLANDS

Horizontal Intensity

1974

Tabular Baseline= 22000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
JANUARY	730	732	733	733	732	732	729	726	724	717	713	708	703	699	697	696	702	712	717	720	723	725	726	728		
FEBRUARY	721	722	725	726	727	727	724	724	722	718	714	711	706	701	696	697	705	710	717	717	718	717	717	717	718	
MARCH	702	705	703	706	709	710	709	708	708	707	707	704	695	687	679	672	674	682	689	692	695	696	694	699		
APRIL	695	700	702	700	700	701	702	704	704	707	705	705	701	693	685	682	684	689	694	697	693	689	688	692		
MAY	685	686	687	693	695	695	699	700	699	700	700	700	700	696	689	685	686	689	693	690	688	686	686	682		
JUNE	682	684	688	687	688	690	690	690	691	694	696	697	697	695	692	691	690	692	693	690	690	687	686	686		
JULY	675	676	673	675	674	668	664	674	680	681	681	685	684	684	680	678	679	683	685	684	680	679	679	678		
AUGUST	677	675	680	684	685	689	688	688	688	688	690	691	690	685	679	675	676	677	681	683	679	679	677	674		
SEPTEMBER	680	678	680	683	684	682	684	685	684	685	689	687	680	670	659	657	659	662	671	675	677	675	676	677		
OCTOBER	679	690	693	693	693	693	679	678	679	679	677	672	664	651	643	643	645	654	667	674	677	679	677	677		
NOVEMBER	684	687	689	688	687	685	683	688	676	672	669	662	654	648	645	645	655	665	671	678	681	681	683	683		
DECEMBER	687	690	693	694	692	689	688	684	678	673	667	661	655	651	647	648	655	664	673	675	679	682	683	685		

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	727	729	730	731	731	731	729	726	724	720	715	710	705	701	697	697	702	714	723	727	728	731	732	731	
FEBRUARY	729	728	727	728	728	727	725	724	723	721	717	711	707	701	700	702	712	716	722	724	725	725	726	727	
MARCH	704	705	707	709	708	706	705	701	702	702	703	701	693	682	672	667	671	680	693	702	706	709	711	713	
APRIL	712	712	715	716	716	715	715	714	714	714	715	715	710	701	693	690	693	701	709	713	711	709	710	710	
MAY	695	697	699	701	699	702	700	698	698	699	700	700	701	697	690	684	687	692	697	700	699	698	699	700	
JUNE	699	700	700	700	699	700	698	696	699	699	700	701	701	700	696	694	695	698	700	701	700	699	698	696	
JULY	690	691	691	691	692	692	691	693	693	694	694	698	698	696	692	691	691	695	697	698	696	695	693	691	
AUGUST	691	691	691	694	693	691	694	695	693	696	697	697	696	692	687	684	686	690	695	696	695	693	693	692	
SEPTEMBER	684	687	688	689	690	688	689	686	687	687	691	691	689	679	669	663	664	669	677	685	687	687	686	687	
OCTOBER	688	686	691	692	692	693	690	686	684	683	682	681	671	660	649	645	651	664	678	687	689	692	690	694	
NOVEMBER	692	694	696	696	696	694	693	691	688	685	681	675	666	657	652	651	658	670	682	691	693	692	691	689	
DECEMBER	686	690	693	695	693	692	690	688	684	680	674	665	657	649	646	650	662	676	683	688	689	689	690	693	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	720	723	723	721	721	719	716	715	713	706	701	700	693	691	691	682	683	691	698	706	713	708	705	708	
FEBRUARY	711	715	716	721	729	728	719	721	714	713	710	709	700	695	675	676	695	702	716	712	710	711	710	712	
MARCH	685	697	690	696	704	698	699	701	707	707	704	704	684	683	666	648	651	668	673	668	684	680	667	680	
APRIL	682	687	689	688	680	680	681	691	704	705	699	701	693	683	674	671	677	683	683	684	676	668	669	682	
MAY	668	680	683	697	681	684	694	704	700	698	704	701	703	695	683	679	678	681	686	679	671	661	669	673	
JUNE	663	670	683	682	685	680	681	680	684	692	696	693	694	694	692	692	687	687	687	673	678	670	679	670	
JULY	659	671	652	658	654	595	567	620	607	653	651	659	656	662	654	650	652	660	663	655	642	653	661	658	
AUGUST	676	664	668	672	683	691	677	676	679	677	683	681	676	671	666	664	663	668	674	676	669	676	670	664	
SEPTEMBER	669	655	657	664	661	662	670	673	670	670	682	678	664	659	633	637	640	634	644	652	658	653	658	658	
OCTOBER	664	657	652	652	653	665	647	659	661	670	668	658	645	622	624	619	619	620	654	659	665	674	668	669	
NOVEMBER	668	671	676	668	667	669	662	663	657	656	663	644	637	625	626	628	636	651	660	664	668	663	667	667	
DECEMBER	683	688	692	698	698	688	687	685	671	665	660	654	654	652	641	640	647	653	668	659	665	667	674	677	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1975

Tabular Baseline= 22000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	686	686	689	690	691	689	687	684	678	673	671	666	660	654	648	649	653	661	669	674	677	676	679	683	
FEBRUARY	677	680	680	681	683	683	670	676	673	669	666	661	656	649	643	642	644	650	661	669	671	670	674	674	
MARCH	662	665	667	667	667	669	670	668	667	666	666	661	654	645	637	632	632	640	648	653	657	657	656	660	
APRIL	652	658	661	661	663	664	665	664	664	664	664	665	659	651	643	639	642	646	651	653	654	650	650	652	
MAY	649	651	652	648	650	655	657	658	658	658	659	659	659	654	648	647	649	652	654	653	651	648	649	648	
JUNE	648	649	648	649	651	653	653	653	655	656	656	657	656	655	654	652	653	654	655	654	651	646	645	647	
JULY	639	640	642	642	643	643	646	647	646	648	650	652	652	649	645	644	644	646	649	649	645	641	639	640	
AUGUST	640	641	641	640	641	639	641	644	645	646	649	648	646	641	635	634	636	639	641	643	642	641	640	640	
SEPTEMBER	640	642	644	645	645	644	644	645	646	646	647	645	640	632	626	624	627	632	637	643	644	640	641	642	
OCTOBER	643	645	643	644	644	643	643	643	641	641	637	634	629	621	614	611	616	623	631	637	642	639	640	642	
NOVEMBER	640	641	642	641	641	640	639	637	634	628	624	620	613	608	604	601	606	613	623	627	632	634	637	639	
DECEMBER	647	648	649	649	647	645	641	638	634	629	625	620	614	610	609	613	620	627	634	637	637	640	642	643	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	684	686	686	687	686	685	683	681	679	675	673	671	663	654	648	648	652	663	675	683	685	687	687	691	
FEBRUARY	683	686	686	687	687	683	679	676	677	674	670	667	663	656	650	649	654	660	667						

ARGENTINE ISLANDS

Horizontal Intensity

1976

Tabular Baseline= 22000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	634	635	637	638	639	639	637	634	631	625	621	616	610	606	604	607	610	620	627	632	628	630	630	631	
FEBRUARY	626	628	630	631	631	631	630	627	626	622	618	613	608	602	598	600	605	613	617	619	619	618	618	621	
MARCH	607	611	611	614	612	611	611	610	601	607	609	606	599	589	582	579	583	589	598	604	606	605	602	607	
APRIL	599	598	601	602	602	602	601	601	603	600	603	603	599	592	585	586	589	594	597	598	599	593	592	597	
MAY	594	594	596	595	598	602	602	606	607	607	607	607	608	605	600	595	597	599	600	600	596	596	595	592	
JUNE	593	594	594	595	594	595	598	599	599	601	601	604	603	602	601	601	602	604	605	604	599	596	596	594	
JULY	592	591	592	592	594	593	595	595	594	595	596	598	600	599	596	596	597	600	602	601	597	596	594	593	
AUGUST	591	590	593	593	594	594	594	594	592	595	594	597	595	590	585	583	585	589	592	594	594	592	591	590	
SEPTEMBER	584	586	589	590	590	587	587	587	586	589	591	590	586	579	571	565	564	570	577	582	584	585	586	586	
OCTOBER	587	589	589	589	588	585	583	583	583	583	581	580	572	562	554	552	558	567	577	584	585	586	584	585	
NOVEMBER	593	594	594	592	590	588	586	584	580	577	574	570	564	558	558	561	567	577	585	589	589	587	589	593	
DECEMBER	593	592	592	590	589	587	586	582	577	573	569	563	559	555	553	554	561	571	577	580	584	587	589	591	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	640	642	643	644	644	641	640	637	635	630	627	622	621	618	617	617	619	630	637	638	635	638	638	638	
FEBRUARY	626	628	629	628	630	632	632	627	627	625	621	618	615	608	602	604	612	619	625	623	623	623	628	629	
MARCH	622	621	621	623	625	625	624	625	622	620	619	617	611	602	595	593	598	605	612	619	623	624	624	625	
APRIL	614	615	617	615	617	615	615	614	614	614	613	611	609	602	596	595	598	604	610	612	614	613	614	613	
MAY	609	607	607	605	607	608	607	609	609	611	611	612	611	608	602	600	602	606	610	611	612	611	612	612	
JUNE	599	599	599	599	598	598	598	598	598	593	600	600	601	601	600	600	599	600	603	605	606	606	605	604	
JULY	596	597	597	599	599	599	600	600	599	600	601	601	603	602	600	599	601	604	606	606	605	604	603	602	
AUGUST	593	593	594	595	594	596	594	595	596	596	597	598	597	592	588	587	590	594	598	598	598	596	595	594	
SEPTEMBER	588	589	589	593	592	589	589	590	589	590	592	594	591	584	576	571	575	579	585	590	591	588	589	590	
OCTOBER	594	594	593	595	595	592	590	588	587	584	583	579	573	565	557	557	563	572	582	588	592	594	594	594	
NOVEMBER	594	597	597	598	595	593	591	588	586	582	579	574	566	559	557	563	572	583	591	594	593	594	594	597	
DECEMBER	593	593	592	591	591	589	588	586	583	578	572	567	563	556	555	559	568	575	580	585	588	589	596	597	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	622	622	634	632	634	630	634	635	629	620	621	617	603	593	591	605	599	604	614	629	622	622	621	621	
FEBRUARY	618	615	620	622	626	626	624	621	622	622	620	612	608	598	589	585	588	601	606	612	610	614	612	609	
MARCH	593	607	603	608	603	581	575	576	534	575	595	587	576	552	551	547	548	553	568	571	576	582	570	573	
APRIL	585	579	574	570	555	559	567	569	572	557	575	572	573	564	554	557	561	570	564	564	569	564	565	571	
MAY	571	572	572	563	573	589	583	592	607	603	598	599	604	601	593	582	585	585	572	578	566	573	565	575	
JUNE	585	579	577	581	578	583	583	600	597	600	595	608	603	598	597	599	599	600	603	601	597	589	591	588	
JULY	586	590	592	582	590	585	584	587	590	592	594	598	603	598	597	598	598	595	598	594	587	587	586	582	
AUGUST	580	575	590	588	586	586	590	587	584	592	594	595	590	583	568	567	572	575	577	579	582	576	578	576	
SEPTEMBER	573	572	582	589	583	577	578	583	579	585	588	581	575	567	560	550	546	554	563	569	573	576	579	577	
OCTOBER	577	582	584	586	587	581	567	572	572	570	567	567	557	547	544	544	550	556	565	568	568	573	570	574	
NOVEMBER	590	592	587	586	586	585	581	579	575	572	569	562	553	549	550	551	556	567	572	579	583	577	585	586	
DECEMBER	599	587	583	579	578	578	581	567	562	566	560	556	552	549	544	538	546	556	567	572	579	584	578	584	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1977

Tabular Baseline= 22000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	581	584	584	584	585	583	581	579	575	572	570	567	562	555	552	540	551	558	566	570	576	576	578	579	
FEBRUARY	570	571	575	577	578	575	575	573	569	568	567	566	560	547	538	533	534	542	552	558	564	565	566	568	
MARCH	556	559	561	565	566	566	566	565	564	563	563	561	554	546	538	533	534	542	551	556	557	552	553	554	
APRIL	542	542	543	545	548	548	548	549	549	549	549	549	546	538	530	528	531	535	539	543	541	538	539	538	
MAY	537	540	540	539	541	541	543	543	546	546	548	548	549	544	539	535	537	541	542	543	541	540	540	538	
JUNE	543	542	541	542	543	543	545	544	546	547	550	551	551	549	547	545	547	550	552	551	549	546	545	543	
JULY	529	529	528	533	532	529	530	530	532	536	537	538	540	538	534	532	532	535	537	538	536	534	534	531	
AUGUST	520	521	519	521	525	526	524	526	525	525	528	529	528	523	517	515	517	519	521	524	524	523	523	522	
SEPTEMBER	517	517	519	521	519	519	521	522	523	524	527	527	521	508	498	492	492	498	506	512	514	514	515	515	
OCTOBER	519	520	519	519	519	521	520	520	520	516	517	515	507	494	484	483	488	497	509	516	521	521	519	520	
NOVEMBER	529	529	529	529	527	524	523	520	517	513	509	503	497	491	489	492	499	508	515	520	522	525	528	528	
DECEMBER	523	524	524	523	522	517	516	514	510	504	500	494	488	484	478	479	484	496	508	513	517	518	520	522	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	581	585	586	585	585	584	583	580	575	572	571	570	564	554	545	541	542	553	562	571	577	581	583	584	
FEBRUARY	573	573	575	579	579	576	573	572	569	568	568	564	554	542	533	534	538	548	560	569	573	574	573	577	
MARCH	568	570	572	573	572	572	571	570	569	569</															

ARGENTINE ISLANDS

Horizontal Intensity

1978

Tabular Baseline= 22000 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	520	522	524	521	520	520	519	514	510	504	501	497	487	482	479	478	487	495	505	513	515	519	516	518	
FEBRUARY	509	509	509	512	510	509	506	504	502	498	499	495	485	473	463	457	459	466	478	487	493	498	502	504	
MARCH	493	492	493	497	499	498	497	496	496	497	495	489	478	463	452	447	452	461	472	478	484	486	488	489	
APRIL	470	474	474	471	475	476	478	481	482	485	485	484	476	466	456	447	450	457	465	470	475	476	472	470	
MAY	465	464	466	465	466	465	469	469	470	473	478	478	472	467	460	453	454	459	466	470	470	469	465	464	
JUNE	464	466	466	467	465	468	469	471	474	477	476	476	476	474	468	467	467	469	471	474	474	470	465	463	
JULY	462	459	461	463	465	465	467	468	468	469	471	472	471	469	463	458	460	465	469	472	471	470	467	464	
AUGUST	458	459	460	462	460	459	458	454	465	463	466	469	465	455	450	447	447	451	457	461	461	459	457	455	
SEPTEMBER	456	460	461	463	463	459	459	459	456	456	456	454	445	431	420	412	415	423	434	445	451	450	451	456	
OCTOBER	464	465	467	467	466	461	456	457	457	457	456	449	437	421	408	404	410	422	436	448	456	458	461	464	
NOVEMBER	467	469	468	468	464	460	460	457	453	449	441	434	423	413	406	407	415	429	442	451	454	458	464	466	
DECEMBER	478	479	479	477	477	472	469	463	458	451	443	432	425	420	418	421	432	444	454	459	463	469	472	474	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	518	522	523	522	520	520	519	517	514	512	507	500	495	489	484	483	487	496	504	512	517	519	521	522	
FEBRUARY	512	514	515	517	515	512	509	506	504	505	506	502	492	479	466	459	462	474	487	495	504	508	509	515	
MARCH	500	501	503	505	505	502	500	499	498	499	496	491	478	465	454	450	456	468	481	493	501	504	507	507	
APRIL	486	489	489	488	490	490	490	491	492	493	494	492	480	468	458	454	457	465	472	480	483	485	486	488	
MAY	476	480	481	480	481	480	483	484	485	486	487	486	483	475	463	457	460	467	475	480	482	481	480	482	
JUNE	481	481	478	480	479	480	476	478	478	480	481	482	483	480	477	476	477	481	483	486	485	485	481	480	
JULY	471	472	473	472	472	472	472	472	473	474	474	474	472	469	464	462	462	467	472	476	477	477	475	471	
AUGUST	471	471	472	469	470	469	469	470	471	473	474	474	471	465	460	457	456	459	464	469	472	472	470	469	
SEPTEMBER	468	472	469	470	471	469	468	467	467	468	470	467	459	447	434	428	430	439	451	462	467	466	464	466	
OCTOBER	472	471	472	471	470	469	468	466	467	466	463	459	448	432	416	407	411	423	438	455	465	464	465	467	
NOVEMBER	474	472	469	468	464	462	462	462	459	454	446	436	426	419	416	419	425	440	449	456	464	473	475	479	
DECEMBER	474	477	477	480	481	480	480	477	470	460	449	440	433	427	427	434	446	461	473	479	481	482	481	477	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	526	526	532	519	519	518	519	506	503	492	492	494	467	458	453	455	471	467	486	500	503	513	504	508	
FEBRUARY	516	511	511	513	506	505	498	503	499	480	487	484	459	445	447	437	434	438	457	465	474	473	484	485	
MARCH	486	483	480	483	495	493	496	496	494	488	488	483	473	455	438	435	443	446	456	452	461	472	471	472	
APRIL	432	445	442	429	446	445	461	472	474	476	480	486	477	472	457	435	435	441	452	450	460	461	459	444	
MAY	457	449	448	439	443	436	438	441	437	445	467	462	433	429	433	422	424	431	438	452	453	455	441	443	
JUNE	456	462	456	451	443	444	454	457	463	467	474	470	464	464	455	455	454	456	458	461	463	456	456	452	
JULY	441	433	437	439	443	436	450	456	457	456	469	467	467	469	456	446	451	462	465	461	462	463	455	443	
AUGUST	424	426	423	427	420	411	488	377	439	424	436	444	432	408	411	414	419	422	427	434	428	428	427	427	
SEPTEMBER	447	447	455	464	464	444	448	451	432	428	415	416	406	384	386	380	386	396	406	423	425	422	429	438	
OCTOBER	456	450	456	452	454	443	427	434	432	435	437	426	418	399	386	384	391	405	422	437	442	451	455	456	
NOVEMBER	464	473	471	471	462	448	451	448	440	437	421	421	410	395	387	384	401	413	429	443	431	439	447	448	
DECEMBER	480	490	491	480	491	474	462	447	438	442	434	415	401	409	403	401	408	427	439	441	452	459	469	477	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1979

Tabular Baseline= 22000 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	461	464	465	464	464	460	459	455	449	444	436	424	417	410	410	411	418	431	445	452	453	454	457	462	
FEBRUARY	447	451	453	451	451	450	446	442	442	440	437	432	422	406	393	388	392	403	420	435	441	442	441	444	
MARCH	426	429	433	433	436	437	439	438	441	441	440	436	421	399	380	366	366	374	388	402	414	421	422	424	
APRIL	411	409	409	414	417	420	423	426	426	428	429	428	421	409	391	379	375	383	394	401	405	406	410	410	
MAY	412	414	414	415	418	421	421	422	422	425	426	426	423	415	402	394	393	398	405	411	413	412	413	415	
JUNE	414	415	416	414	416	418	418	421	421	422	423	424	424	419	411	405	405	410	414	416	416	413	413	414	
JULY	408	407	408	410	412	413	415	416	416	416	417	418	417	412	405	401	402	407	412	414	411	410	410	408	
AUGUST	396	397	399	403	402	404	405	408	410	410	410	409	406	395	384	378	378	383	388	396	397	395	393	392	
SEPTEMBER	400	400	400	399	401	402	401	402	402	402	405	401	392	376	363	356	357	366	378	389	394	397	399	400	
OCTOBER	409	411	411	408	406	405	402	404	405	405	403	395	388	363	348	343	348	359	376	389	398	401	405	406	
NOVEMBER	417	419	419	415	411	408	406	405	403	399	392	382	370	357	349	349	358	372	386	398	407	410	412	414	
DECEMBER	422	424	425	426	423	418	414	412	407	401	396	386	376	366	362	362	369	380	391	402	408	413	417	418	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	467	468	471	469	472	471	471	467	462	458	447	434	425	417	418	420	428	441	453	457	456	460	458	464	
FEBRUARY	455	456	457	458	456	452	453	451	450	447	446	438	422	405	391	387	397	412	430	444	447	450	453	453	
MARCH	430	435	440	440	442	443	441	439	440	440	440	435	420	399	379	366	362	373	391	408	422	430	431	436	
APRIL	433	434	436	440	44																				

ARGENTINE ISLANDS

Horizontal Intensity

1980

Tabular Baseline= 22000 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	412	413	414	413	410	409	408	405	400	394	386	375	364	357	354	358	367	379	386	390	396	403	405	408	
FEBRUARY	397	399	399	402	400	398	395	393	391	391	387	376	364	352	342	339	345	358	374	381	385	386	391	393	
MARCH	394	397	398	395	394	393	393	393	393	394	393	385	371	354	339	334	338	350	364	376	383	386	386	388	
APRIL	374	376	378	378	377	380	381	382	381	382	383	381	371	355	339	330	332	341	353	362	368	371	370	375	
MAY	370	370	370	370	370	372	374	375	375	376	376	375	371	359	346	340	343	349	356	362	366	366	365	367	
JUNE	353	355	356	357	360	361	360	363	364	367	368	366	362	357	350	344	343	348	354	356	357	357	355	355	
JULY	351	353	352	351	353	356	356	358	358	360	360	360	359	355	346	342	343	346	352	357	357	355	352	352	
AUGUST	349	348	349	351	352	353	354	355	355	357	358	358	354	345	335	326	328	335	342	348	351	350	351	351	
SEPTEMBER	355	359	359	359	360	361	361	360	361	363	364	361	353	339	323	313	312	321	333	344	349	351	351	355	
OCTOBER	355	359	361	362	357	352	349	349	348	349	349	339	327	312	295	288	293	307	321	335	345	351	352	353	
NOVEMBER	369	370	370	368	366	361	359	355	351	347	342	331	320	309	301	299	307	321	335	345	353	361	363	366	
DECEMBER	364	366	367	364	362	361	358	353	348	343	333	321	312	303	297	296	305	320	332	343	347	354	358	360	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	410	413	413	414	412	412	411	409	403	398	389	377	366	360	357	362	372	385	392	397	398	403	406	409	
FEBRUARY	401	403	404	407	408	408	405	402	400	397	392	381	367	354	344	343	348	363	378	389	395	397	399	403	
MARCH	395	397	400	400	400	398	398	397	397	399	397	391	378	361	347	339	341	353	367	379	388	393	393	396	
APRIL	375	380	382	382	381	381	381	382	382	383	384	380	371	355	341	334	337	347	359	367	371	372	375	381	
MAY	372	373	374	373	373	374	374	373	373	374	375	373	368	358	344	337	340	350	360	367	371	372	374	376	
JUNE	360	361	358	358	359	361	362	361	362	362	362	362	360	356	349	346	348	354	362	366	367	366	365	365	
JULY	358	360	361	362	363	364	364	364	365	369	367	366	364	360	353	348	348	354	361	366	365	365	363	362	
AUGUST	348	350	350	353	354	355	354	354	356	356	358	359	357	349	338	332	334	341	348	354	357	355	356	357	
SEPTEMBER	361	363	364	363	364	362	359	360	361	362	364	362	354	341	328	317	316	323	335	347	353	356	358	363	
OCTOBER	359	360	361	361	360	358	356	357	354	352	348	340	327	310	297	295	303	319	334	344	352	358	360	362	
NOVEMBER	365	368	370	366	364	362	363	359	357	353	346	336	322	307	299	300	309	322	332	343	352	358	363	364	
DECEMBER	358	361	361	359	361	362	361	358	354	348	338	327	316	309	302	301	311	330	341	346	353	356	359	360	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	410	402	402	402	398	400	398	396	391	389	388	366	358	352	350	355	356	365	383	380	392	402	402	406	
FEBRUARY	397	402	394	401	394	387	379	376	381	381	384	370	344	354	339	330	334	351	372	377	373	376	388	378	
MARCH	387	391	390	372	367	372	371	374	376	373	377	372	357	347	331	322	325	336	350	359	365	367	366	369	
APRIL	366	362	364	367	359	371	374	377	375	373	375	378	363	347	331	321	318	325	336	345	350	355	349	359	
MAY	358	360	362	359	358	361	366	372	371	372	369	372	365	342	329	321	323	328	328	335	343	342	339	342	
JUNE	330	338	340	337	344	348	346	355	363	375	376	363	352	345	337	326	321	327	326	332	326	329	321	323	
JULY	332	340	340	345	350	352	353	356	354	355	355	358	356	351	344	339	339	337	344	350	349	339	330	329	
AUGUST	356	348	345	342	350	349	349	349	349	355	358	358	350	343	333	319	324	333	337	342	342	345	346	347	
SEPTEMBER	345	348	347	346	351	353	353	350	355	360	363	356	347	339	321	305	302	309	321	333	338	341	337	343	
OCTOBER	347	355	355	358	344	335	325	329	332	343	342	326	312	298	277	271	276	292	299	318	329	332	339	341	
NOVEMBER	381	376	371	367	370	367	361	351	350	346	335	318	317	315	304	302	307	324	341	349	354	364	359	362	
DECEMBER	354	358	359	352	350	355	348	336	332	328	320	309	299	275	262	263	275	286	300	319	327	333	337	345	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Horizontal Intensity

1981

Tabular Baseline= 22000 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	357	357	359	359	358	357	356	355	350	343	335	327	316	311	311	317	327	341	350	354	352	352	352	354	
FEBRUARY	332	337	341	343	342	341	337	337	339	338	336	328	318	302	289	283	285	292	307	318	327	335	334	334	
MARCH	320	322	323	327	329	326	323	325	326	324	322	317	301	280	263	251	252	261	278	293	304	310	310	315	
APRIL	304	301	297	300	294	300	301	298	308	311	311	312	301	282	263	255	256	265	277	295	292	294	301	307	
MAY	300	301	300	298	295	291	289	301	304	304	307	304	302	295	284	278	279	282	288	293	296	297	299	300	
JUNE	303	302	304	306	303	304	304	303	305	306	310	311	311	307	301	297	298	302	304	306	306	305	305	304	
JULY	285	285	288	286	290	295	296	295	297	299	300	300	299	290	276	281	281	285	289	294	294	292	289	286	
AUGUST	286	286	286	286	288	293	292	290	293	292	294	292	287	278	267	262	264	271	277	284	286	284	284	286	
SEPTEMBER	295	298	296	298	298	298	297	299	299	299	299	293	282	266	253	244	244	254	266	260	286	286	289	292	
OCTOBER	290	295	295	289	289	286	286	286	286	284	281	275	265	245	228	218	222	231	249	263	276	280	285	290	
NOVEMBER	305	305	305	303	298	295	292	287	287	283	277	270	261	247	242	242	249	261	276	286	293	296	296	301	
DECEMBER	311	315	318	317	313	309	303	299	292	286	278	270	260	254	255	258	264	274	286	294	300	303	307	309	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	356	355	358	359	361	360	360	359	354	348	341	331	321	313	311	316	326	345	356	360	356	352	350	355	
FEBRUARY	342	346	347	348	348	348	345	345	343	343	341	337	326	309	293	281	282	292	309	324	336	343	344	346	
MARCH	330	330	332	335	334	330	328	330	330	331	3														

ARGENTINE ISLANDS

Horizontal Intensity

1982

Tabular Baseline= 22000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	304	305	306	304	302	299	296	292	288	285	279	269	258	248	245	247	252	268	282	290	293	294	297	301	
FEBRUARY	270	272	272	272	271	264	260	259	260	258	255	254	244	233	217	213	213	222	233	246	256	264	272	268	
MARCH	267	270	269	269	269	268	268	268	267	266	265	263	252	237	220	209	210	221	235	247	256	260	266	267	
APRIL	247	247	247	249	252	252	254	257	257	258	256	255	251	237	225	219	219	223	229	237	241	242	243	247	
MAY	252	253	253	250	249	253	257	259	261	262	262	263	260	253	242	237	236	241	247	251	253	254	250	249	
JUNE	237	236	236	234	234	234	236	239	244	244	246	245	247	246	242	237	238	240	242	243	239	235	236	236	
JULY	216	217	216	218	217	219	225	226	228	231	231	230	230	228	222	217	218	220	223	227	227	225	222	219	
AUGUST	222	220	224	226	227	227	226	229	228	231	232	235	228	221	211	204	206	213	219	226	226	225	223	223	
SEPTEMBER	212	217	215	214	214	211	209	212	213	216	219	214	206	192	180	175	176	184	192	203	209	210	209	207	
OCTOBER	232	232	233	233	232	230	226	223	223	224	227	220	209	192	178	174	179	191	204	213	221	224	223	228	
NOVEMBER	240	241	238	237	232	229	225	222	220	218	213	205	198	187	182	184	190	201	216	223	229	234	238	240	
DECEMBER	245	250	246	247	241	236	230	227	222	215	207	195	186	179	179	184	194	208	219	227	228	236	239	241	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	302	304	306	310	311	310	307	306	299	293	284	275	265	260	260	259	267	283	294	299	304	307	309	306	
FEBRUARY	264	271	274	277	279	274	267	265	266	265	263	259	248	229	217	211	211	223	237	255	262	270	277	275	
MARCH	270	275	277	278	278	277	277	277	275	274	274	269	256	240	223	212	212	225	241	254	262	266	269	272	
APRIL	257	257	259	258	259	259	258	261	261	261	261	259	255	245	231	226	228	234	242	249	254	255	254	262	
MAY	255	259	258	259	260	262	262	263	261	263	266	267	264	258	240	243	247	252	258	262	263	264	262	262	
JUNE	244	245	249	247	249	250	249	249	252	254	256	257	256	254	249	239	244	247	254	257	256	253	252	252	
JULY	241	242	242	242	239	240	247	247	245	247	249	250	254	249	244	241	241	245	249	251	250	250	249	251	
AUGUST	225	223	226	229	230	228	227	230	230	232	233	234	231	222	211	204	206	215	223	229	232	230	228	231	
SEPTEMBER	224	227	234	234	232	235	232	232	237	237	244	233	222	206	189	179	181	189	200	210	223	222	223	226	
OCTOBER	234	238	241	247	243	240	240	240	239	238	237	231	219	202	187	184	191	205	220	228	235	237	237	241	
NOVEMBER	244	247	246	245	240	237	236	235	231	227	220	214	209	204	196	196	200	210	226	232	234	241	242	253	
DECEMBER	236	240	241	243	241	239	237	233	229	223	215	204	196	187	186	190	204	215	222	232	239	239	240	242	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	310	313	302	296	291	285	280	275	274	272	266	252	244	233	229	231	233	246	266	277	280	288	288	296	
FEBRUARY	265	268	268	269	257	249	248	250	250	244	251	255	247	223	207	206	212	210	218	243	248	275	274	268	
MARCH	264	255	247	241	242	239	249	251	245	252	247	247	238	228	205	193	200	208	220	231	242	252	270	261	
APRIL	228	220	212	220	229	229	232	234	246	254	244	237	236	211	203	189	191	192	195	206	210	217	218	218	
MAY	223	233	222	217	217	226	233	239	256	255	248	249	250	241	219	215	206	206	215	222	229	227	205	201	
JUNE	229	230	237	216	205	206	209	224	233	233	236	238	241	238	229	222	228	229	222	226	221	216	220	226	
JULY	195	200	188	184	179	192	197	201	209	217	210	206	203	205	200	194	195	189	191	197	204	207	205	187	
AUGUST	219	211	205	215	208	199	195	202	212	218	218	226	213	204	190	184	195	205	209	213	215	215	213	212	
SEPTEMBER	190	213	178	164	148	140	124	153	144	161	157	146	145	132	128	137	135	144	145	163	172	167	168	160	
OCTOBER	234	230	224	214	213	210	202	199	206	210	220	211	193	177	160	156	157	174	194	194	204	215	218	214	
NOVEMBER	221	223	217	213	212	207	202	196	192	194	195	188	175	148	145	154	154	169	198	203	210	215	216	230	
DECEMBER	264	262	247	245	226	216	207	207	212	207	206	187	176	167	160	163	176	189	206	214	202	223	229	237	

Note:—The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1958

Tabular Baseline= 1020 minutes

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	130	129	126	118	111	102	89	75	62	58	58	67	88	105	128	158	187	201	195	182	165	146	135	134	1
FEBRUARY	125	118	87	101	104	95	94	91	90	95	87	88	93	103	120	146	177	197	210	201	183	161	145	131	
MARCH	116	109	109	98	101	99	91	98	101	101	101	94	87	89	100	126	155	187	203	199	183	160	143	134	
APRIL	120	107	89	83	89	91	100	107	108	109	111	105	94	89	97	119	143	162	168	164	152	145	134	128	
MAY	111	100	99	90	87	87	93	93	102	108	111	111	109	104	106	116	128	137	142	143	137	136	130	122	
JUNE	109	92	79	85	79	80	80	83	90	98	105	114	112	109	111	118	123	128	128	125	121	123	118	120	
JULY	107	98	90	87	83	78	79	81	85	85	99	102	104	104	104	110	121	130	130	127	124	117	118	111	
AUGUST	98	93	83	78	70	67	69	77	83	85	88	90	87	81	88	103	118	131	136	133	120	114	110	105	
SEPTEMBER	102	95	88	88	86	85	87	84	81	85	82	71	61	61	75	99	126	150	163	161	146	132	120	104	
OCTOBER	100	100	76	89	84	78	71	66	61	60	59	56	62	70	85	113	145	171	178	172	153	135	117	106	
NOVEMBER	101	97	93	89	82	72	60	49	42	34	34	41	52	73	94	119	146	160	160	149	133	119	110	105	
DECEMBER	103	100	96	94	88	76	66	54	42	36	33	41	59	80	105	130	159	174	178	162	145	127	114	109	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	129	127	127	121	110	105	91	73	54	40	41	56	89	115	142	174	203	207	189	166	143	123	117	125	
FEBRUARY	123	122	118	115	111	106	95	88	86	80	79	77	69	83	91	117	148	178	189	181	166	144	131	127	
MARCH	117	106	109	74	105	103	98	97	97	93	86	77	64	62	74	102	137	169	187	180	167	153	140	131	
APRIL	126	118	111	102	103	96	92	97	95	98	100	90	80	76	87	111	134	151	156	149	132	131	131	127	
MAY	112	111	106	105	102	103	103	104	104	105	107	103	98	94	97	107	120	129	130	125	121	119	117	113	
JUNE	100	106	103	104	98	99	99	101	100	100	99	100	101	97	100	110	119	123	121	117	112	112	107	108	
JULY	108	108	99	94	87	92	92	93	93	93	95	97	98	98	104	112	119	123	122	115	112	109	112	113	
AUGUST	94	93	93	90	88	85	87	89	89	89	87	82	79	76	84	101	113	122	123	117	108	102	99	97	
SEPTEMBER	100	97	94	91	90	88	87	86	85	82	76	61	47	43	55	80	111	135	151	149	129	114	106	103	
OCTOBER	100	100	94	88	87	85	79	76	71	67	61	54	46	51	69	95	126	150	160	157	138	120	108	104	
NOVEMBER	100	95	93	92	87	81	70	61	51	44	43	47	55	69	85	102	136	151	151	139	124	112	108	105	
DECEMBER	100	98	92	90	85	76	65	49	42	37	39	48	62	79	100	126	152	162	159	147	135	121	110	103	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	132	135	140	130	126	118	96	85	63	70	76	85	102	124	140	178	197	214	217	199	182	159	145	145	1
FEBRUARY	131	116	-42	50	58	29	60	72	84	146	127	143	142	155	164	176	204	228	243	228	204	183	164	138	
MARCH	120	119	117	82	90	81	69	83	81	111	119	116	113	118	124	149	175	198	213	210	202	167	151	146	
APRIL	113	85	82	56	87	84	83	102	107	117	121	120	110	111	112	133	152	172	178	168	164	164	139	125	
MAY	95	77	102	67	74	73	69	74	100	109	124	136	146	136	123	135	138	143	153	168	167	170	160	149	
JUNE	127	60	26	68	76	74	55	55	60	78	105	147	138	126	133	136	136	145	145	153	149	158	143	150	
JULY	128	105	95	85	80	68	63	71	95	77	123	135	133	135	115	111	126	150	159	173	174	143	165	136	
AUGUST	90	85	47	39	14	19	50	68	67	74	87	109	107	93	102	116	128	147	153	153	139	137	132	118	
SEPTEMBER	117	82	76	74	57	54	78	70	67	98	91	85	84	90	120	143	155	175	190	199	191	189	160	105	
OCTOBER	112	111	100	98	86	67	49	40	34	59	65	65	98	113	132	167	193	227	229	226	200	183	151	131	
NOVEMBER	104	101	88	85	81	64	47	30	24	19	32	43	46	77	98	127	157	172	162	151	134	117	107	104	
DECEMBER	111	108	101	103	95	84	78	67	46	37	35	44	59	83	119	137	170	194	220	194	176	173	157	144	

Note:--The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1959

Tabular Baseline= 1020 minutes

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	91	90	90	89	82	72	66	48	38	27	28	26	47	68	94	119	150	167	163	149	132	113	99	100	
FEBRUARY	87	86	87	82	72	65	53	38	39	39	37	39	40	68	90	116	137	153	158	149	133	116	102	94	
MARCH	83	79	80	66	65	65	60	52	59	61	54	53	50	52	72	96	120	136	142	133	119	106	97	95	
APRIL	86	74	65	62	60	58	58	63	62	65	66	60	54	58	70	86	104	120	126	121	113	108	102	94	
MAY	73	69	68	59	58	55	58	55	53	63	66	70	69	66	70	83	93	101	100	96	91	89	87	83	
JUNE	71	63	60	57	48	49	49	52	59	58	63	69	73	73	74	83	87	90	91	86	85	82	79	75	
JULY	78	74	66	61	55	52	56	60	71	74	80	80	81	80	78	88	92	93	98	93	92	86	84	82	
AUGUST	71	70	59	54	46	42	44	48	57	71	71	78	76	71	79	90	103	113	114	113	103	91	87	80	
SEPTEMBER	84	69	52	54	55	51	46	46	60	60	63	57	54	55	70	93	114	129	142	138	127	112	93	85	
OCTOBER	80	74	69	61	56	46	44	35	42	39	40	38	41	54	67	88	111	128	136	135	124	108	97	86	
NOVEMBER	81	74	62	56	46	40	36	30	24	29	34	40	51	62	77	99	120	141	147	143	130	115	103	93	
DECEMBER	88	82	76	69	58	45	30	21	15	15	23	39	56	75	94	112	132	146	149	140	132	117	106	97	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	90	88	83	76	70	61	50	41	32	19	16	22	34	50	69	98	124	142	138	126	114	99	90	92	
FEBRUARY	86	85	84	83	81	75	70	65	56	46	33	29	30	43	64	91	118	135	131	119	102	89	85	88	
MARCH	83	80	74	70	68	63	58	54	52	46	41	31	24	26	36	65	96	113	119	112	100	91	90	91	
APRIL	85	77	70	71	68	69	67	67	67	64	61	54	45	43	55	73	94	106	108	101	91	85	84	81	
MAY	78	74	74	70	71	73	71	70	71	71	71	71	68	65	68	78	88	93	90	84	77	74	74	74	
JUNE	68	72	71	65	62	61	64	65	65	65	64	66	64	63	64	72	80	84							

ARGENTINE ISLANDS

Declination East (1/10 mins)

1960

Tabular Baseline= 1020 minutes

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	87	82	74	70	61	54	44	32	24	17	17	26	37	53	76	107	137	151	151	142	127	112	100	90	90
FEBRUARY	86	80	70	67	63	53	49	45	40	30	24	24	35	42	59	87	115	136	143	135	125	109	98	90	90
MARCH	75	70	62	61	55	51	46	50	49	51	50	44	40	45	54	73	96	120	130	129	116	105	91	77	77
APRIL	85	60	58	39	36	39	43	48	61	69	71	73	74	73	83	97	107	125	130	129	121	108	105	89	89
MAY	69	67	59	58	53	51	51	48	53	58	63	66	66	67	74	85	89	94	97	92	86	83	83	78	78
JUNE	67	56	42	31	29	28	32	31	39	50	61	69	70	70	71	75	81	84	82	76	73	71	67	72	72
JULY	66	55	42	49	46	37	33	37	44	46	55	62	71	70	73	80	86	91	88	81	77	74	73	69	69
AUGUST	61	56	52	36	35	19	25	41	46	55	54	61	58	56	61	74	89	100	102	95	90	84	79	75	75
SEPTEMBER	67	56	48	49	38	31	35	29	33	42	46	45	38	40	50	68	89	105	116	115	106	94	80	78	78
OCTOBER	66	49	48	45	37	34	30	23	33	40	48	52	53	57	77	98	118	135	143	131	121	101	80	62	62
NOVEMBER	65	63	56	50	45	38	25	13	21	29	34	43	56	76	98	115	127	131	123	112	103	88	79	79	79
DECEMBER	68	63	59	46	40	25	13	6	4	7	10	15	33	56	76	103	130	142	143	132	114	94	80	74	74

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	85	84	79	74	63	52	38	29	15	4	1	8	22	41	64	95	123	139	140	127	114	102	92	90	90
FEBRUARY	85	81	73	62	57	50	43	40	35	32	25	21	26	35	52	77	101	116	119	112	101	91	86	87	87
MARCH	74	75	71	67	60	54	51	54	54	54	53	45	36	37	43	58	78	99	112	114	106	93	85	81	81
APRIL	81	78	70	58	51	51	47	56	58	65	60	57	50	49	59	76	91	99	100	92	85	79	77	76	76
MAY	69	69	64	63	61	56	56	58	58	61	61	61	59	55	59	69	80	85	84	78	70	69	70	70	70
JUNE	66	65	54	61	58	61	55	56	58	61	64	62	61	61	64	70	78	83	80	72	67	65	65	65	65
JULY	68	65	60	59	55	53	56	54	55	55	56	59	59	57	61	68	76	79	75	68	64	62	62	63	63
AUGUST	59	52	51	53	53	45	52	52	51	55	52	54	47	43	49	61	74	84	86	79	74	69	68	68	68
SEPTEMBER	63	61	61	58	54	50	49	49	50	49	46	38	29	27	35	56	79	96	106	104	93	80	72	67	67
OCTOBER	67	66	64	57	53	49	44	41	39	34	29	24	22	27	42	64	88	104	111	104	91	77	67	64	64
NOVEMBER	74	67	63	58	52	45	33	26	16	14	8	10	30	44	65	82	102	111	110	103	94	84	76	73	73
DECEMBER	72	64	63	57	50	41	34	22	12	6	6	9	18	45	70	96	113	123	120	107	96	84	74	73	73

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	110	95	62	61	57	59	47	24	15	5	15	29	49	62	90	125	156	177	177	179	155	135	122	98	98
FEBRUARY	85	76	59	61	65	46	51	56	52	32	19	27	34	40	70	103	123	144	156	145	131	100	94	87	87
MARCH	85	63	44	55	45	30	21	43	54	60	61	62	54	68	80	97	117	162	169	165	137	133	95	53	53
APRIL	114	70	62	-68	-23	20	13	6	75	85	94	109	131	131	138	135	127	173	192	212	198	141	135	129	129
MAY	56	39	47	54	50	59	67	67	63	55	62	68	77	93	95	118	107	116	125	120	121	110	103	89	89
JUNE	61	54	35	11	-2	-12	18	16	13	57	67	78	81	77	80	82	85	87	80	82	75	71	68	87	87
JULY	73	37	3	50	30	19	-7	12	17	21	56	76	116	102	100	101	109	128	115	103	104	88	94	78	78
AUGUST	42	38	37	-2	5	-68	-24	30	50	57	72	70	68	66	71	89	109	129	135	126	130	112	101	86	86
SEPTEMBER	76	31	45	53	22	-7	11	-7	0	40	50	63	70	74	81	96	110	125	143	130	133	119	80	89	89
OCTOBER	71	13	16	-7	-30	-12	6	-8	44	53	56	79	89	102	143	164	172	176	193	173	166	129	79	33	33
NOVEMBER	44	62	36	42	47	68	58	17	51	60	104	72	66	73	103	135	143	153	157	128	125	108	55	50	50
DECEMBER	78	73	56	12	10	-15	-25	-33	-23	7	25	37	66	98	115	132	162	175	189	173	145	115	96	83	83

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1961

Tabular Baseline= 960 minutes

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	669	664	656	652	643	634	625	616	610	608	609	619	633	645	662	684	708	720	719	709	697	688	680	674	674
FEBRUARY	665	657	657	652	648	643	635	630	622	619	622	627	632	639	652	672	692	705	708	706	698	689	678	669	669
MARCH	654	650	645	637	635	628	625	623	620	625	629	622	622	632	647	663	680	690	687	682	674	667	662	659	659
APRIL	642	643	627	626	625	626	626	631	635	633	638	637	635	634	642	656	668	677	678	672	667	661	656	654	654
MAY	637	632	631	630	625	622	619	629	629	635	638	643	645	646	649	655	660	661	659	655	650	650	651	650	650
JUNE	637	634	636	629	621	621	624	632	629	633	638	643	649	649	651	656	658	658	656	650	648	647	646	646	646
JULY	646	641	631	627	623	618	619	625	622	637	646	652	663	659	659	661	668	668	664	659	654	646	651	652	652
AUGUST	641	637	631	623	621	617	620	621	625	631	630	633	637	635	638	647	655	663	664	661	654	649	645	642	642
SEPTEMBER	636	636	630	626	625	619	621	621	623	625	627	624	619	619	627	644	661	673	676	675	666	657	649	639	639
OCTOBER	637	631	636	628	627	619	616	613	616	620	617	619	622	628	635	650	669	685	691	685	675	665	656	648	648
NOVEMBER	643	640	634	630	621	613	607	603	601	601	602	611	620	629	641	653	665	676	681	680	673	665	659	652	652
DECEMBER	647	638	633	626	618	609	601	597	593	592	595	605	619	634	650	663	677	682	681	676	669	659	657	652	652

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	669	663	656	649	643	633	625	620	610	610	608	616	627	636	652	672	696	712	718	714	703	698	682	672	672
FEBRUARY	668	658	656	652	648	643	637	630	625	621	617	617	619	626	641	663	686	700	699	689	678	669	662	658	658
MARCH	657	655	653	651	644	641	639	637	634	630	623	618	613	622	636	657	675	681	681	676	669	663	661	660	660
APRIL	646	645	640	639	637	640	638	637	636	638	635	634	630	629	637	653	666	673	675	670	664	657	652	650	650
MAY	644	641	638	636	634	629	635	638	640	640															

ARGENTINE ISLANDS

Declination East (1/10 mins)

1962

Tabular Baseline= 960 minutes

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	644	643	639	631	626	618	612	604	597	593	595	602	614	628	642	658	674	682	679	670	661	654	647	644	2
FEBRUARY	641	640	636	632	624	618	617	615	611	605	601	603	608	616	630	653	671	683	684	679	667	657	650	646	
MARCH	636	633	628	628	623	618	618	616	617	617	614	609	608	614	625	640	658	672	677	672	661	651	643	640	1
APRIL	628	631	628	618	611	615	617	617	621	627	629	629	627	624	631	648	659	667	668	664	656	647	640	638	
MAY	632	627	625	620	618	619	618	622	627	626	631	631	631	629	632	638	644	648	647	642	639	638	636	633	
JUNE	623	620	621	616	610	608	615	618	624	629	629	631	635	635	635	639	641	641	639	636	634	633	633	626	
JULY	627	619	619	614	612	610	612	615	622	625	630	631	632	633	637	640	644	642	641	635	634	632	627	630	
AUGUST	617	612	607	608	607	606	607	617	626	627	628	629	631	631	632	638	646	650	650	644	639	635	630	631	
SEPTEMBER	620	622	614	608	606	607	608	615	616	621	625	624	620	622	631	646	661	669	674	668	651	643	637	626	
OCTOBER	624	611	604	607	610	605	603	608	609	610	614	617	622	625	636	650	666	681	682	674	667	646	637	632	2
NOVEMBER	630	627	619	615	611	606	597	591	587	585	592	602	617	625	634	646	658	666	670	664	657	647	643	637	
DECEMBER	634	628	621	617	613	606	598	590	584	585	589	597	609	620	637	655	672	681	680	672	660	649	642	640	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	644	643	639	636	631	625	618	611	605	600	596	600	610	620	634	651	667	677	674	664	652	641	638	639	
FEBRUARY	640	638	636	633	629	624	621	618	613	608	603	604	608	612	626	645	668	685	682	670	660	649	641	640	
MARCH	637	636	634	632	629	624	622	619	619	619	616	610	605	609	621	638	654	665	670	662	652	642	638	637	
APRIL	624	633	631	628	629	629	629	629	630	633	631	628	622	619	622	646	647	657	659	655	650	646	642	640	
MAY	631	629	627	624	620	621	626	624	625	625	625	625	624	624	628	635	640	640	638	634	629	628	628	628	
JUNE	629	627	626	624	621	620	619	621	623	626	627	628	628	629	629	634	638	640	636	630	626	626	626	627	
JULY	631	629	619	612	613	619	622	624	627	628	629	629	628	628	629	633	636	637	636	631	629	628	628	626	
AUGUST	625	626	622	619	622	624	625	626	629	628	627	625	622	616	619	628	638	645	645	638	632	629	628	627	
SEPTEMBER	624	627	623	619	624	625	623	621	619	617	613	609	604	604	615	629	649	662	664	657	646	639	634	624	
OCTOBER	618	609	611	618	616	612	613	611	605	609	609	605	608	613	624	640	658	672	676	667	659	650	639	637	1
NOVEMBER	630	627	625	623	619	616	610	602	596	590	587	590	597	607	620	637	650	656	653	647	638	634	635	635	
DECEMBER	631	628	625	620	615	608	599	591	583	580	582	588	600	613	626	639	653	658	656	649	640	635	634	635	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	641	642	636	622	621	604	601	586	575	573	595	617	633	649	662	679	694	700	690	685	672	663	651	639	
FEBRUARY	643	641	636	631	624	615	610	612	607	606	613	603	595	613	632	663	682	693	698	706	688	668	651	644	
MARCH	643	633	631	632	612	605	606	607	607	613	607	606	618	630	641	650	666	682	692	688	680	665	644	643	
APRIL	606	624	631	606	586	606	602	600	606	638	645	651	658	650	657	673	682	684	691	687	674	655	628	624	
MAY	634	630	626	620	610	605	600	613	624	627	638	640	650	645	646	646	652	661	663	659	654	655	639	630	
JUNE	602	620	621	607	573	582	600	601	613	629	621	628	643	644	642	643	640	640	646	648	641	643	641	627	
JULY	616	610	619	605	601	587	587	593	627	628	653	642	647	652	656	654	651	647	640	636	637	621	619	627	
AUGUST	622	586	562	574	565	575	589	604	624	627	618	625	637	643	645	649	656	655	656	651	644	642	629	635	
SEPTEMBER	628	639	605	584	582	581	593	617	601	635	653	646	637	638	638	658	669	675	691	675	655	644	629	586	
OCTOBER	627	580	596	616	616	606	602	609	606	609	618	620	638	644	647	662	682	693	681	682	683	644	633	630	
NOVEMBER	634	626	597	593	593	597	566	577	583	578	596	608	642	646	657	663	673	684	691	675	666	644	641	636	
DECEMBER	636	622	601	605	607	602	592	584	589	590	599	608	621	629	647	665	690	711	720	724	703	680	662	655	

Note:—The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1963

Tabular Baseline= 960 minutes

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	627	624	623	618	610	601	593	586	585	584	581	588	600	615	634	653	664	671	667	660	650	640	633	626	
FEBRUARY	623	618	616	613	608	604	602	597	595	592	591	589	589	594	606	625	647	664	671	668	656	642	631	624	3
MARCH	614	614	612	606	603	603	604	604	601	599	601	598	596	592	594	603	621	639	655	659	653	641	628	622	618
APRIL	609	610	604	602	601	600	602	606	608	608	609	606	602	602	610	624	636	642	641	634	627	624	620	616	1
MAY	611	603	597	593	596	601	604	607	613	616	618	617	615	613	614	620	627	629	625	621	618	616	612	612	612
JUNE	611	606	599	599	594	598	601	604	609	609	612	615	617	618	620	622	625	624	622	618	617	619	615	616	
JULY	606	603	599	592	593	592	596	596	606	610	609	613	618	619	620	623	625	624	620	617	613	614	614	611	
AUGUST	598	596	595	592	590	594	596	602	608	616	616	617	613	612	615	620	627	630	632	626	619	615	614	607	
SEPTEMBER	601	594	587	583	593	590	589	597	608	620	620	617	615	614	618	630	642	653	657	645	636	630	621	607	
OCTOBER	610	606	603	597	598	595	594	596	594	596	599	599	598	605	614	627	643	656	660	654	643	631	613	613	
NOVEMBER	613	609	605	602	597	590	585	581	579	575	576	583	593	604	615	631	649	658	659	651	641	629	624	617	
DECEMBER	617	616	611	605	599	590	581	574	566	566	567	573	586	604	618	636	651	658	653	644	633	625	624	620	1

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	627	628	627	623	620	622	608	601	591	584	579	580	589	608	628	651	668	670	660	652	642	632	627	625	
FEBRUARY	622	622	621	618	615	610	604	599	593	589	587	587	585	586	599	618	641	6							

ARGENTINE ISLANDS

Declination East (1/10 mins)

1964

Tabular Baseline= 960 minutes

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	616	612	606	601	597	588	581	577	569	570	574	579	591	599	610	627	646	651	646	636	630	625	621	618	
FEBRUARY	610	605	600	593	589	589	586	584	581	578	575	578	585	591	604	619	636	645	644	635	626	621	619	614	
MARCH	604	600	597	591	586	587	590	593	591	587	586	583	583	590	602	617	630	637	636	630	621	611	608	606	
APRIL	600	594	589	592	594	593	591	595	600	600	605	602	600	599	604	612	623	627	625	620	615	609	607	592	
MAY	598	596	596	592	586	596	594	598	599	603	603	604	603	603	605	613	617	617	615	612	609	609	605	603	
JUNE	598	595	593	591	583	585	586	592	597	599	602	601	602	605	605	608	611	611	606	602	600	601	599	599	
JULY	593	582	586	586	583	587	590	592	595	597	599	602	600	601	601	605	607	608	605	600	599	595	596	594	
AUGUST	591	590	580	579	580	579	584	589	592	594	597	596	594	591	594	601	610	615	615	609	603	600	594	593	
SEPTEMBER	591	587	581	581	579	581	585	589	592	592	591	587	584	584	592	602	613	621	625	620	610	604	598	594	
OCTOBER	588	589	589	587	584	581	580	581	580	578	577	577	578	584	594	608	623	629	627	621	610	604	599	589	
NOVEMBER	600	597	590	586	580	573	569	564	559	558	561	568	579	592	604	613	621	624	621	614	609	606	605	604	
DECEMBER	599	592	591	588	582	575	568	561	554	551	550	558	572	587	599	613	624	628	623	615	608	604	603	601	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	615	611	605	606	600	595	587	579	576	574	574	578	583	590	599	616	633	637	629	622	622	616	616	617	
FEBRUARY	606	606	604	600	598	596	592	586	580	575	571	576	582	586	598	614	631	638	635	626	620	614	610	609	
MARCH	609	608	607	604	600	597	593	592	592	589	585	581	580	584	592	609	620	626	626	622	616	612	609	608	
APRIL	605	604	602	600	598	596	597	597	597	598	598	595	591	591	597	609	619	623	619	612	606	606	604	604	
MAY	604	602	600	597	594	593	593	596	599	600	600	598	597	597	600	611	619	617	612	606	604	603	602	602	
JUNE	596	594	594	593	593	594	596	597	597	600	599	597	598	599	602	605	606	606	604	600	598	597	597	597	
JULY	599	595	593	593	593	593	595	592	593	595	597	598	596	595	596	600	605	606	602	597	599	598	599	599	
AUGUST	593	594	592	590	590	589	592	594	594	594	594	592	587	584	586	594	603	610	611	607	602	598	597	597	
SEPTEMBER	591	592	591	589	588	586	587	587	588	588	586	583	578	580	587	598	608	614	619	614	606	599	598	594	
OCTOBER	596	596	596	594	589	586	584	582	578	574	573	575	575	578	589	605	619	624	622	618	611	604	600	599	
NOVEMBER	602	601	599	595	591	585	579	573	566	560	560	566	578	588	599	611	619	620	614	607	603	604	606	604	
DECEMBER	602	597	593	591	584	580	573	565	555	550	549	558	572	585	593	604	610	610	610	609	608	605	605	603	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	613	604	602	592	584	580	552	555	538	561	587	601	614	611	622	644	672	680	670	657	642	638	617	605	
FEBRUARY	618	595	585	575	572	574	572	581	576	577	579	594	606	604	611	628	642	652	654	653	639	634	623	617	
MARCH	608	595	591	596	576	571	583	588	582	578	590	596	601	604	614	629	649	660	661	657	641	607	608	594	
APRIL	598	577	569	593	598	601	596	595	614	613	618	609	608	610	617	625	636	640	656	646	640	628	628	580	
MAY	595	585	588	567	549	579	584	602	603	615	606	614	615	613	613	626	623	624	622	618	610	611	602	591	
JUNE	604	581	576	576	547	556	567	589	605	604	614	610	616	624	618	619	623	624	617	611	605	611	597	608	
JULY	596	567	568	563	552	579	577	579	593	591	594	616	603	608	608	612	609	614	612	601	605	587	594	598	
AUGUST	593	590	557	566	572	544	559	580	593	594	608	601	606	603	606	611	616	618	622	615	610	609	589	584	
SEPTEMBER	602	589	564	568	565	565	572	582	592	591	595	596	597	597	603	612	625	634	640	629	614	610	589	581	
OCTOBER	576	584	582	576	578	576	576	575	575	581	583	581	584	594	598	604	619	629	618	608	581	594	590	566	
NOVEMBER	599	590	581	580	566	552	549	555	552	556	559	562	577	587	609	626	634	641	637	628	623	616	606	597	
DECEMBER	602	586	590	586	578	570	559	548	544	542	543	560	573	588	603	612	631	635	626	619	612	613	611	606	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1965

Tabular Baseline= 960 minutes

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
JANUARY	600	597	594	589	583	576	570	563	557	552	553	560	573	584	596	608	620	628	628	619	613	607	604	602		
FEBRUARY	595	592	589	586	580	576	575	571	565	562	560	562	570	579	593	611	627	632	629	621	612	605	599	597		
MARCH	591	589	587	585	582	579	574	574	577	578	574	571	570	574	585	600	615	628	631	624	615	605	599	597		
APRIL	594	590	584	580	572	573	579	581	584	586	588	586	581	582	589	602	614	620	617	610	603	600	598	596		
MAY	589	588	583	582	582	579	579	584	588	589	591	591	588	589	592	597	602	603	600	596	594	593	591	590		
JUNE	582	582	582	582	579	577	582	586	584	589	594	596	597	598	600	602	606	605	601	596	595	593	594	587		
JULY	583	587	580	577	578	579	575	583	584	589	591	593	595	595	596	599	602	603	600	595	592	592	590	587		
AUGUST	584	581	580	578	578	580	582	585	587	589	590	590	588	587	589	595	603	607	608	604	600	590	596	592	588	
SEPTEMBER	585	583	579	579	578	579	580	581	583	582	584	580	578	578	586	599	613	622	627	622	613	600	598	594		
OCTOBER	586	582	583	581	578	574	571	571	570	570	571	569	569	570	576	588	605	621	627	624	615	604	596	592		
NOVEMBER	593	591	585	580	575	571	565	560	555	552	554	559	567	578	590	603	613	620	622	617	608	607	603	597		
DECEMBER	594	590	588	582	577	570	562	555	548	545	548	560	572	583	596	610	624	632	632	626	617	608	603	600		

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	602	597	595	593	588	585	580	573	566	562	559	563	571	583	595	608	619	625	623	612	608	606	605	604	
FEBRUARY	596	594	595	590	585	581	581	579	572	562	558	559	567	579	589	602	615	620	615						

ARGENTINE ISLANDS

Declination East (1/10 mins)

1966

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	592	591	587	584	579	573	567	558	553	548	548	551	560	571	585	601	619	632	632	624	613	603	597	594	
FEBRUARY	589	588	585	582	576	572	569	566	563	560	556	554	559	566	580	599	618	630	630	625	613	601	593	589	
MARCH	587	583	580	577	577	574	573	572	571	573	575	567	566	568	578	597	614	626	632	623	612	604	597	592	
APRIL	581	580	575	574	573	572	571	575	575	575	576	574	572	572	580	593	604	610	609	603	597	592	590	587	
MAY	581	581	580	575	572	574	578	578	580	581	584	584	584	583	583	585	592	599	602	600	598	593	591	589	582
JUNE	576	578	576	573	572	573	575	577	579	582	584	584	583	584	586	589	592	592	591	588	585	584	584	581	
JULY	575	574	571	568	566	563	563	568	576	584	584	587	585	584	586	591	594	596	593	588	584	583	582	583	
AUGUST	578	573	570	566	564	565	568	569	570	575	578	579	580	574	577	585	593	600	604	597	589	583	580	580	
SEPTEMBER	574	573	561	561	556	560	567	572	577	585	588	582	573	572	577	590	608	620	627	624	618	619	584	580	
OCTOBER	579	579	574	572	567	566	564	561	559	560	561	561	560	562	569	584	605	620	628	625	617	606	595	585	
NOVEMBER	585	583	579	573	568	559	552	544	538	536	542	549	558	569	583	601	614	622	622	615	605	599	592	589	
DECEMBER	585	579	577	576	569	561	553	541	533	529	533	541	555	571	587	602	619	632	634	629	619	608	597	590	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	593	590	587	584	581	574	569	564	558	552	546	551	559	569	582	597	612	620	621	614	609	601	598	597	
FEBRUARY	591	590	589	587	585	581	576	571	567	560	555	555	555	558	571	590	611	627	629	620	607	595	590	589	
MARCH	590	582	587	586	585	583	583	579	576	576	573	569	564	565	574	591	611	626	630	622	609	599	595	593	
APRIL	583	583	582	581	579	579	578	578	578	578	578	574	570	565	572	587	600	605	603	596	587	584	582	582	
MAY	582	582	582	581	580	578	576	576	577	578	579	579	578	578	580	588	595	595	592	587	583	581	581	581	
JUNE	582	581	580	578	576	578	579	579	579	580	581	581	581	580	581	585	589	590	588	584	580	579	581	581	
JULY	584	586	580	580	581	578	576	579	583	584	585	586	584	582	584	590	594	594	592	584	580	580	581	581	
AUGUST	577	572	573	572	572	574	575	573	576	577	577	576	573	568	570	580	590	596	599	594	586	581	580	579	
SEPTEMBER	579	581	581	579	574	579	580	582	583	580	579	571	564	559	565	579	597	612	618	615	605	594	588	586	
OCTOBER	581	583	583	580	577	573	570	567	561	559	557	553	553	555	562	579	599	615	622	620	610	597	589	585	
NOVEMBER	587	584	581	576	571	567	561	550	542	535	536	544	557	567	580	594	605	610	609	604	599	594	592	588	
DECEMBER	577	577	576	572	567	561	554	541	530	523	524	532	544	560	575	595	610	621	623	615	607	601	595	592	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	589	592	588	590	582	571	567	548	541	539	542	543	559	577	603	619	635	653	649	633	615	601	594	592	
FEBRUARY	588	586	582	577	568	548	542	545	552	568	569	563	567	576	586	605	627	637	637	644	623	608	598	593	
MARCH	591	580	572	573	567	543	546	547	546	564	598	584	606	603	607	625	631	640	650	624	608	610	609	593	
APRIL	581	580	565	568	568	568	564	568	567	571	572	573	575	584	599	609	615	623	622	618	620	608	602	594	
MAY	569	573	579	566	545	555	565	564	569	561	594	592	596	596	599	603	608	619	625	627	618	608	599	569	
JUNE	558	567	571	575	572	569	568	582	584	585	591	594	588	589	593	598	598	597	597	602	597	596	589	582	
JULY	551	555	557	555	548	529	513	535	564	597	592	604	599	595	601	601	603	603	600	595	589	580	581	589	
AUGUST	578	567	580	565	553	566	575	581	580	586	596	594	595	575	583	590	598	614	636	607	598	587	584	574	
SEPTEMBER	576	570	523	551	535	506	531	533	553	602	632	636	609	601	597	618	635	640	641	631	621	588	566	559	
OCTOBER	579	569	552	542	536	533	537	537	544	554	569	579	577	588	594	605	621	637	644	642	637	628	611	599	
NOVEMBER	587	587	578	570	563	555	540	531	530	539	554	565	573	585	589	610	625	643	646	638	622	612	591	592	
DECEMBER	590	574	572	572	558	546	536	510	521	521	534	546	556	581	593	612	639	656	655	646	633	615	596	585	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1967

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	616	599	595	593	584	576	571	558	549	566	567	572	584	601	620	639	656	662	657	645	661	654	649	647	
FEBRUARY	583	580	576	573	568	563	559	554	547	539	533	536	547	558	574	592	610	623	626	619	607	596	588	584	
MARCH	575	575	571	567	562	560	560	558	557	553	547	540	537	540	553	575	599	617	623	618	607	595	585	582	
APRIL	573	568	559	555	554	557	560	561	564	564	563	558	553	551	560	576	594	605	606	602	594	586	581	578	
MAY	565	564	559	541	546	554	552	565	564	575	578	580	578	579	579	586	594	599	599	594	592	590	584	581	
JUNE	573	561	564	566	565	566	567	569	573	576	580	580	579	580	580	585	589	589	587	583	581	580	584	580	
JULY	570	566	563	562	559	555	559	565	569	568	571	573	572	572	574	579	584	586	585	579	575	573	573	574	
AUGUST	566	563	560	550	557	555	558	561	562	563	566	568	564	561	565	575	586	595	596	591	582	575	573	570	
SEPTEMBER	561	563	558	549	551	554	556	556	563	569	569	562	557	556	564	582	603	619	627	621	607	594	583	571	
OCTOBER	569	562	562	562	561	559	557	557	554	551	547	543	541	548	561	582	605	622	630	626	611	593	584	577	
NOVEMBER	581	574	569	566	561	554	542	533	527	525	529	539	551	567	581	597	614	625	625	621	612	601	593	589	
DECEMBER	578	574	572	567	560	550	541	534	527	528	530	539	549	565	586	612	631	642	639	627	610	599	586	582	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	582	582	580	578	576	572	565	553	540	530	526	528	543	560	579	599	616	620	617	605	596	590	587	587	
FEBRUARY	576	577	574	573	569	567	563	556	548	539	535	534	541	554	569	583	601	613	620	616	605	591	583	580	
MARCH	580	578	577	574	570	567	563	559	556	552	543	537	532	537	549	571	593	610	612	605	595	587	584	581	
APRIL	571	572	570	567	565	564	566	566	56																

ARGENTINE ISLANDS

Declination East (1/10 mins)

1968

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	587	584	583	581	576	570	561	547	539	534	535	540	547	558	578	606	633	649	654	647	634	618	604	594	
FEBRUARY	580	573	575	573	569	562	560	548	543	544	542	545	545	556	570	589	608	630	642	638	624	605	589	583	
MARCH	577	573	568	564	557	556	554	560	558	556	556	552	551	554	564	581	603	622	631	626	614	600	586	576	
APRIL	574	567	562	551	549	556	561	566	566	563	567	565	559	555	562	580	596	607	612	607	597	589	583	579	
MAY	568	555	555	552	548	549	554	557	562	564	570	571	570	568	572	583	592	595	594	588	582	577	572	573	
JUNE	563	561	557	556	550	541	548	554	549	562	570	580	583	580	579	584	588	589	586	581	576	575	568	565	1
JULY	565	560	558	557	552	551	553	552	561	566	565	568	570	570	569	576	582	586	583	577	571	568	567	566	
AUGUST	562	556	557	554	547	546	550	554	561	563	567	566	562	559	565	575	586	594	595	589	579	570	570	569	
SEPTEMBER	563	555	551	550	550	552	553	557	560	563	559	556	550	549	556	577	600	615	618	612	608	586	578	572	
OCTOBER	570	561	560	561	558	552	550	550	547	543	546	545	540	544	560	581	604	625	632	627	613	596	582	574	
NOVEMBER	577	570	576	574	567	562	552	545	536	534	533	542	556	572	587	609	622	628	627	618	607	599	595	586	
DECEMBER	572	571	570	564	555	550	541	529	524	523	525	527	538	549	571	605	636	648	639	625	605	589	575	570	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	588	586	584	580	577	573	561	548	540	535	535	533	531	543	562	592	620	636	648	635	623	606	596	590	
FEBRUARY	580	582	580	578	576	570	565	554	546	538	538	528	534	543	557	573	593	614	621	616	606	591	586	583	
MARCH	580	576	573	573	568	568	568	565	563	557	550	544	542	546	554	568	589	609	617	611	598	590	583	579	
APRIL	576	573	568	566	565	564	567	567	568	566	568	565	552	549	557	573	589	599	601	594	585	578	575	575	
MAY	572	570	562	561	559	560	565	566	568	567	568	565	560	556	560	572	582	589	586	582	575	571	570	570	
JUNE	568	566	566	566	564	563	566	566	568	568	568	567	566	566	564	569	575	580	579	574	570	567	567	566	
JULY	568	564	566	566	564	567	556	559	564	566	566	568	566	564	565	573	580	584	581	573	568	566	566	567	
AUGUST	568	566	562	564	561	561	561	563	564	563	563	561	553	550	555	565	578	586	589	586	578	570	567	567	
SEPTEMBER	570	570	573	570	565	562	562	562	559	557	552	543	535	533	543	567	595	612	618	613	597	583	579	575	
OCTOBER	575	574	572	569	565	562	558	553	550	546	542	534	531	537	548	565	587	606	611	608	599	589	581	577	
NOVEMBER	581	577	571	566	558	552	544	539	532	526	524	530	542	553	569	591	606	615	613	605	595	586	583	584	
DECEMBER	573	575	577	574	571	566	557	543	531	526	526	532	536	544	568	603	634	643	631	609	586	570	565	567	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	597	595	588	587	581	569	553	534	533	532	546	569	579	582	607	631	652	666	675	670	650	630	616	601	
FEBRUARY	593	571	571	573	563	558	539	518	534	547	554	555	548	569	592	609	626	653	665	659	646	624	594	579	
MARCH	576	560	562	557	550	541	527	522	532	548	551	546	555	568	566	582	608	629	635	637	625	609	589	573	
APRIL	587	571	551	531	541	553	560	561	568	548	566	576	577	568	568	589	604	619	635	631	621	614	609	592	
MAY	559	533	542	542	532	512	529	526	553	563	579	592	597	594	592	599	609	602	599	596	592	585	576	576	
JUNE	560	552	540	543	527	484	512	533	515	547	586	627	636	626	621	626	609	605	604	600	593	593	567	569	
JULY	563	551	541	545	538	528	538	537	544	572	563	573	581	588	573	577	580	581	583	580	578	576	566	559	
AUGUST	541	544	548	538	514	516	516	527	553	571	577	579	574	576	587	596	605	610	610	601	586	563	573	571	
SEPTEMBER	554	514	503	503	536	536	547	547	563	584	572	584	586	584	585	606	626	646	643	629	610	591	579	567	
OCTOBER	573	549	545	551	540	514	521	537	537	533	554	580	562	554	585	612	633	666	674	663	643	613	585	572	
NOVEMBER	548	540	584	585	586	586	564	572	558	559	559	567	582	619	621	651	662	663	664	654	638	621	615	578	
DECEMBER	570	568	570	558	527	520	514	510	515	521	525	519	534	548	575	612	643	655	656	647	627	610	588	579	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1969

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	567	564	562	562	556	550	544	536	530	530	531	534	536	543	555	578	609	628	631	622	609	594	584	576	
FEBRUARY	570	567	566	563	560	554	552	550	544	539	536	535	537	544	557	575	605	626	634	633	623	608	593	578	
MARCH	573	567	558	559	557	553	553	551	552	550	553	542	538	542	557	581	604	621	625	619	609	595	585	573	
APRIL	564	560	559	552	552	547	547	552	555	557	558	555	553	554	561	576	591	600	601	597	588	581	576	575	
MAY	559	558	550	543	543	537	540	552	561	566	566	565	568	566	568	578	588	591	589	584	577	574	573	566	
JUNE	567	561	554	547	549	547	545	550	555	554	558	561	562	563	566	572	577	579	578	575	571	568	568	568	
JULY	558	556	552	542	543	546	549	549	555	560	561	561	559	558	562	569	576	578	576	570	566	564	564	563	
AUGUST	561	555	545	545	544	549	553	556	555	559	560	557	553	549	555	567	580	589	590	584	575	571	568	566	
SEPTEMBER	560	557	550	547	545	547	548	550	554	553	554	550	548	542	554	572	590	606	613	609	594	581	572	566	
OCTOBER	568	563	557	556	554	549	547	544	540	541	542	534	535	543	553	573	597	616	625	618	606	589	578	573	
NOVEMBER	570	567	566	560	554	546	535	525	520	519	523	528	537	555	569	588	606	617	618	612	602	586	578	574	
DECEMBER	568	566	562	558	554	546	536	528	517	513	516	525	538	549	566	586	607	619	620	612	600	586	577	573	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	571	568	564	561	558	554	546	538	531	525	525	525	526	529	539	565	601	621	622	613	600	587	580	573	
FEBRUARY	563	562	562	562	561	558	556	554	546	539	533	528	528	534	549	571	597	619	628	626	613	594	578	571	
MARCH	571	569	568	566	560	558	556	556	558	557	547	537	527	525	538	567	593	611</							

ARGENTINE ISLANDS

Declination East (1/10 mins)

1970

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	567	565	562	559	556	548	542	533	528	527	528	529	531	537	554	578	609	629	633	625	612	598	585	576	
FEBRUARY	570	567	564	561	558	553	548	543	537	531	527	530	525	528	539	560	593	624	637	634	619	600	584	575	
MARCH	569	571	566	562	557	556	552	553	550	553	554	549	540	539	550	571	596	618	631	630	614	601	588	578	
APRIL	568	559	557	548	549	546	550	551	555	561	563	560	559	559	563	577	595	607	610	603	591	586	582	576	
MAY	564	561	560	557	550	549	554	556	558	560	560	561	559	559	562	572	583	588	588	583	579	575	574	570	
JUNE	569	563	556	552	549	545	545	549	549	554	560	566	570	570	572	578	582	585	583	578	574	571	572	569	
JULY	554	563	556	549	542	539	541	546	553	559	571	575	574	578	577	581	586	589	588	583	577	576	572	567	
AUGUST	566	559	560	549	547	547	545	549	555	566	568	572	567	564	566	577	589	597	600	594	584	579	574	570	
SEPTEMBER	568	563	559	554	549	546	546	550	551	552	555	552	547	546	557	577	596	610	614	609	598	588	579	574	
OCTOBER	571	568	563	560	555	556	551	548	547	544	540	538	540	547	561	586	614	631	637	629	615	602	587	576	
NOVEMBER	574	565	565	561	557	552	546	535	530	529	532	537	546	553	575	599	619	633	637	626	610	593	583	579	
DECEMBER	582	578	572	568	563	555	544	536	525	520	522	530	547	566	587	604	622	631	629	618	604	594	588	585	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	569	566	563	559	556	550	543	533	528	528	529	527	524	524	542	568	602	622	627	616	606	593	581	574	
FEBRUARY	571	569	567	565	562	556	551	547	539	535	531	526	518	518	528	551	584	619	639	639	623	604	584	573	
MARCH	566	565	563	561	560	560	558	558	554	552	546	535	524	522	533	558	587	609	618	614	597	581	573	570	
APRIL	571	559	562	558	558	557	559	561	558	558	555	548	543	540	548	567	588	601	602	594	585	578	575	573	
MAY	564	562	562	562	558	558	560	560	559	560	559	559	555	551	556	567	579	585	584	578	571	567	567	563	
JUNE	567	564	558	559	557	557	559	561	564	563	564	563	562	560	563	570	576	580	577	571	567	563	563	565	
JULY	566	569	566	556	558	564	564	566	567	570	568	570	567	563	565	572	578	583	580	574	568	567	567	565	
AUGUST	568	566	563	558	558	560	563	564	565	565	563	563	560	558	561	569	580	587	589	581	574	570	569	568	
SEPTEMBER	571	568	565	563	558	559	560	557	561	558	555	548	540	540	549	569	587	598	603	598	586	579	572	570	
OCTOBER	570	570	570	568	566	559	557	555	552	546	541	536	534	537	550	575	603	621	621	609	593	581	575	573	
NOVEMBER	574	565	565	561	557	552	552	539	531	531	527	529	534	541	560	582	606	624	632	622	605	588	580	579	
DECEMBER	580	576	572	569	566	560	552	538	526	514	511	518	538	560	582	601	615	623	621	613	601	592	586	584	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	572	566	562	551	546	530	529	523	516	516	530	535	548	562	572	596	618	633	636	634	621	611	601	588	
FEBRUARY	573	564	561	558	554	550	548	542	538	532	525	539	538	539	544	568	604	632	641	637	618	597	585	571	
MARCH	575	578	565	560	544	548	538	548	540	546	573	571	564	562	581	602	625	640	658	671	645	655	629	592	
APRIL	577	547	560	537	537	514	528	534	547	571	597	584	583	584	586	592	608	621	617	610	580	588	600	579	
MAY	574	562	566	554	544	541	545	542	549	557	573	576	575	587	583	586	595	597	596	594	595	588	588	586	
JUNE	582	565	550	539	522	525	530	521	527	550	569	586	595	600	596	601	597	600	595	587	589	584	589	582	
JULY	541	571	555	533	492	500	520	521	534	549	585	601	600	620	610	604	604	600	603	600	600	599	587	575	
AUGUST	560	524	540	518	506	500	503	507	544	582	601	637	614	609	597	601	610	620	619	610	598	589	582	570	
SEPTEMBER	566	560	556	555	553	542	522	534	525	533	550	553	557	562	577	593	606	619	624	625	619	608	594	582	
OCTOBER	586	580	562	558	550	563	551	546	546	538	528	537	555	566	583	612	640	657	664	653	645	629	598	583	
NOVEMBER	574	544	543	540	528	532	530	508	512	524	548	565	581	574	623	640	650	656	658	646	624	605	589	580	
DECEMBER	580	573	561	556	552	554	534	550	523	529	535	547	569	597	622	632	647	654	659	640	619	608	602	593	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1971

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	575	573	571	569	565	558	551	536	532	528	528	535	541	554	573	604	629	642	642	632	618	601	589	578	
FEBRUARY	568	565	565	566	564	563	557	551	545	539	535	533	532	537	554	580	609	631	641	634	617	599	584	574	
MARCH	560	560	558	554	553	554	554	552	553	547	543	539	537	540	552	572	593	612	616	612	597	582	566	565	
APRIL	558	553	551	547	542	543	553	554	558	559	562	562	554	552	560	577	591	600	602	595	588	581	578	565	
MAY	559	544	541	547	544	543	550	545	553	554	561	563	563	562	568	577	583	583	581	577	573	572	566	565	
JUNE	560	554	553	550	551	548	546	548	552	556	562	566	568	570	571	574	577	577	574	569	565	566	564	564	
JULY	558	552	551	550	548	548	552	552	555	559	561	564	564	562	564	568	571	575	572	569	565	564	563	561	
AUGUST	561	553	544	542	540	538	542	545	549	554	557	556	558	558	561	569	577	580	580	575	568	566	566	566	
SEPTEMBER	561	555	543	541	541	547	545	546	547	552	551	550	546	546	552	568	582	592	597	594	585	574	565	563	
OCTOBER	558	550	550	548	544	543	543	543	545	545	547	546	543	546	553	567	586	601	610	607	595	582	572	565	
NOVEMBER	565	563	558	553	546	541	534	533	526	524	526	531	536	549	563	577	590	599	603	600	592	584	574	578	
DECEMBER	575	571	567	563	558	547	537	525	520	516	519	530	543	558	574	591	607	618	616	609	598	588	582	579	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	574	577	577	573	570	563	557	546	534	525	526	531	540	553	573	604	628	628	614	600	587	577	575	573	
FEBRUARY	568	572	572	573	569	562	557	553	543	536	530	530	530	535	547	573	603	627	633	622	606	588	580	576	
MARCH	565	564	564	561	561	557	555	555	551	551															

ARGENTINE ISLANDS

Declination East (1/10 mins)

1972

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	579	574	564	561	558	553	543	530	522	516	520	527	545	561	576	598	616	620	616	604	588	579	577	579	
FEBRUARY	567	564	563	558	558	553	546	537	530	525	523	523	532	542	559	584	602	613	613	602	590	579	570	568	
MARCH	556	557	554	550	546	545	544	547	548	547	544	540	537	535	545	567	592	607	613	608	592	578	570	566	
APRIL	560	550	549	542	538	541	545	544	545	551	552	550	548	547	553	569	582	590	592	588	579	572	567	565	
MAY	556	553	547	545	544	546	547	548	554	552	554	554	553	552	554	564	574	579	576	571	569	567	566	562	
JUNE	555	541	538	544	545	541	537	541	541	548	556	563	566	565	570	572	576	577	575	568	564	563	561	560	
JULY	561	556	552	550	543	547	545	545	547	553	557	559	558	559	561	568	574	576	572	567	564	562	564	562	
AUGUST	558	550	548	540	540	533	533	545	554	561	565	564	559	556	562	574	583	589	593	588	578	563	559	564	
SEPTEMBER	561	557	552	545	536	533	541	548	550	550	548	546	540	535	544	561	581	597	607	607	596	584	577	567	
OCTOBER	557	556	552	549	544	538	532	529	531	535	536	533	534	540	552	572	592	608	614	613	600	585	574	567	
NOVEMBER	564	559	554	545	539	532	526	518	513	511	517	528	538	552	568	586	597	604	606	604	592	582	576	566	
DECEMBER	567	560	554	548	542	535	524	514	508	507	513	523	537	551	565	582	601	613	610	601	589	579	571	567	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	575	573	565	562	557	552	545	536	525	518	517	520	531	550	563	580	598	607	605	593	577	568	568	571	
FEBRUARY	565	565	564	561	559	554	551	546	540	529	525	521	525	529	545	567	587	602	609	603	592	583	571	571	
MARCH	558	560	559	558	558	556	554	550	551	550	547	539	531	526	534	554	578	597	603	600	589	575	567	563	
APRIL	554	557	555	553	550	550	550	550	549	548	548	543	537	532	539	555	571	578	580	575	569	564	561	561	
MAY	557	552	553	552	550	551	554	556	556	554	553	554	556	547	549	560	572	577	572	566	560	558	557	558	
JUNE	557	553	553	552	550	546	545	549	553	553	555	553	552	551	552	558	566	570	566	561	556	554	554	554	
JULY	558	557	555	553	550	549	551	553	555	555	556	557	556	554	555	561	568	570	568	563	560	559	557	559	
AUGUST	562	560	560	558	556	554	554	554	554	557	555	553	548	545	550	563	577	587	587	582	571	564	563	562	
SEPTEMBER	563	555	555	553	549	548	546	546	546	545	546	542	531	527	534	553	574	588	599	595	584	572	566	565	
OCTOBER	560	560	558	557	554	549	547	546	544	541	540	534	526	525	532	548	571	591	601	598	584	571	563	559	
NOVEMBER	563	563	562	559	554	546	539	532	525	520	522	527	535	543	555	570	584	596	597	589	578	573	572	566	
DECEMBER	564	559	558	554	549	542	533	521	512	508	509	520	533	544	558	574	588	596	595	586	575	566	563	564	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	581	580	567	558	557	555	546	529	520	514	540	550	561	574	587	614	634	630	627	626	603	591	592	590	
FEBRUARY	568	563	559	554	552	552	545	527	516	520	527	528	543	545	565	609	629	643	643	622	603	582	570	565	
MARCH	551	549	538	518	518	512	518	543	550	543	544	550	566	558	564	586	610	622	622	617	582	578	570	561	
APRIL	559	531	535	522	503	510	540	514	521	549	562	569	574	572	572	588	597	604	601	603	593	580	579	574	
MAY	558	551	540	543	550	546	546	548	561	557	557	558	556	556	559	569	582	583	578	575	586	584	582	576	
JUNE	531	477	487	533	537	519	481	501	493	523	560	579	596	595	617	603	593	593	597	583	578	580	565	555	
JULY	568	561	556	544	533	546	530	523	527	549	559	565	563	572	581	589	589	590	587	581	578	574	586	577	
AUGUST	540	515	519	494	499	483	468	519	546	579	587	537	583	587	593	607	599	597	601	598	578	523	517	567	
SEPTEMBER	571	557	541	528	483	490	524	538	562	557	560	562	568	545	561	576	596	618	630	638	626	615	611	568	
OCTOBER	544	539	542	541	536	533	528	522	524	541	541	540	543	550	572	594	607	612	623	632	621	594	580	577	
NOVEMBER	572	566	545	498	488	478	479	468	479	488	518	542	548	575	589	605	607	615	620	625	605	589	584	557	
DECEMBER	574	562	545	534	533	526	511	500	508	519	533	547	555	562	580	598	617	641	638	624	615	607	590	583	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1973

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	563	556	557	552	542	538	532	529	522	517	520	528	540	557	570	587	605	614	612	601	594	584	577	574	
FEBRUARY	559	557	548	551	548	543	540	536	534	531	533	532	533	540	555	579	603	625	632	627	609	589	575	562	
MARCH	549	554	548	548	546	545	552	548	546	552	551	547	547	552	562	578	598	615	615	605	594	572	557	549	
APRIL	547	540	538	530	526	527	536	545	547	564	566	569	564	566	573	582	593	599	602	589	578	569	563	556	
MAY	541	540	536	534	540	542	545	548	554	567	571	569	563	562	566	571	576	577	573	569	558	562	557	544	
JUNE	550	545	543	537	533	540	546	546	549	554	559	563	566	567	570	573	574	572	569	565	563	557	555	552	
JULY	548	544	548	547	539	539	542	544	547	556	555	558	562	561	563	568	571	570	566	559	556	557	559	552	
AUGUST	550	548	545	542	535	539	541	543	546	553	555	557	557	556	558	566	573	577	578	573	563	560	555	552	
SEPTEMBER	558	550	547	543	541	542	544	542	548	551	553	552	553	552	555	567	584	597	604	599	586	575	561	560	
OCTOBER	551	546	544	534	537	536	532	534	539	539	538	539	544	547	556	572	589	604	613	607	591	581	568	558	
NOVEMBER	560	556	551	548	546	539	534	530	522	518	518	526	537	550	563	576	588	597	604	600	592	583	574	568	
DECEMBER	565	558	554	549	540	534	526	517	513	511	515	522	538	553	564	576	592	602	606	600	591	584	575	570	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	570	565	565	562	556	549	540	531	524	514	512	522	534	553	573	595	594	596	590	578	570	567	568	573	
FEBRUARY	559	561	554	552	553	551	545	534	529	523	522	525	529	533	547	569	594	614	621	616	599				

ARGENTINE ISLANDS

Declination East (1/10 mins)

1974

Tabular Baseline= 960 minutes

UT	All-days mean diurnal variation																								no of days excluded
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JANUARY	563	562	554	550	546	539	532	527	519	514	515	521	535	553	570	587	602	609	606	595	585	577	573	566	
FEBRUARY	555	553	554	551	549	542	537	537	534	525	526	534	541	551	567	583	596	601	597	589	578	570	560	555	
MARCH	542	545	542	544	541	543	543	548	549	551	553	548	551	556	564	581	598	606	607	599	585	564	555	544	
APRIL	543	530	534	530	529	534	540	549	550	562	561	563	565	568	572	574	579	580	577	568	561	558	558	549	
MAY	545	541	536	534	536	539	544	549	550	562	561	563	565	568	572	574	579	580	577	568	561	558	558	549	
JUNE	538	539	534	535	529	531	535	540	543	554	558	560	563	564	566	569	569	567	564	560	555	549	553	545	
JULY	550	542	537	530	533	538	531	542	548	553	567	569	571	578	577	579	579	577	572	567	561	559	557	561	
AUGUST	532	532	537	532	532	532	539	549	550	556	561	564	562	559	563	574	584	587	582	578	566	559	561	551	
SEPTEMBER	542	535	538	541	530	535	537	542	550	559	559	556	555	555	557	572	586	597	601	596	585	571	564	553	
OCTOBER	546	540	536	538	537	528	524	527	533	535	545	550	553	559	572	583	601	614	615	613	598	582	564	551	
NOVEMBER	561	559	553	545	538	531	528	523	521	523	531	537	546	555	565	582	594	602	606	601	594	582	571	568	1
DECEMBER	566	558	553	547	537	529	523	519	513	513	515	529	548	562	577	593	607	615	611	604	589	582	576	572	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	562	560	556	552	549	542	535	529	522	513	509	514	529	547	566	583	596	595	589	580	574	571	572	568	
FEBRUARY	558	561	568	560	555	551	545	543	537	528	523	527	534	546	561	579	604	595	587	574	568	565	562	563	
MARCH	565	560	561	560	547	543	544	546	549	549	544	538	533	537	548	566	588	595	595	590	579	571	569	570	
APRIL	554	552	551	549	547	547	546	545	546	546	544	539	533	531	533	555	569	576	575	568	561	559	557	553	
MAY	552	548	550	552	551	546	546	546	547	546	547	547	547	545	554	558	568	572	568	562	558	555	554	553	
JUNE	558	549	540	545	537	534	534	537	543	542	545	549	551	551	553	558	562	563	561	554	552	551	552	554	
JULY	558	556	551	542	545	545	545	545	553	541	546	556	558	559	562	566	569	571	568	564	561	560	560	560	
AUGUST	554	552	552	549	544	539	551	548	552	557	553	553	550	546	551	561	569	574	571	564	559	558	559	558	
SEPTEMBER	551	550	553	554	551	552	550	552	554	555	553	548	543	539	547	564	577	589	594	592	578	570	565	562	
OCTOBER	554	553	550	550	547	548	547	541	535	534	536	536	533	537	546	564	586	599	603	598	588	575	565	562	
NOVEMBER	564	559	555	549	547	542	537	528	521	518	519	524	528	536	548	568	587	598	598	592	583	576	571	571	
DECEMBER	565	563	559	553	548	541	529	518	510	506	508	514	529	543	567	588	602	608	607	596	584	580	582	580	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
JANUARY	556	562	547	546	545	544	535	520	513	517	528	526	539	561	581	597	617	623	620	610	597	581	568	561		
FEBRUARY	543	541	549	552	552	536	527	528	530	526	528	533	540	546	559	574	591	604	607	611	612	603	573	560	549	539
MARCH	543	533	526	533	534	540	544	555	555	562	588	567	568	559	570	593	615	622	641	625	603	554	520	521		
APRIL	549	511	524	504	492	500	516	557	550	564	564	571	576	579	590	601	602	605	607	594	583	570	554	556		
MAY	543	539	513	521	511	524	546	558	547	572	573	572	585	597	598	587	594	589	587	568	564	565	553	531		
JUNE	520	513	507	514	493	500	506	528	528	570	572	570	584	581	573	576	572	570	570	566	563	540	555	526		
JULY	542	539	526	505	501	504	469	507	520	532	582	591	601	636	624	618	606	597	588	579	585	551	567	577		
AUGUST	507	514	524	512	542	529	519	546	544	559	565	574	576	572	580	596	603	595	594	583	553	561	556	536		
SEPTEMBER	535	506	514	523	495	510	508	522	551	567	572	571	593	588	565	594	606	623	629	624	619	591	582	573		
OCTOBER	526	508	506	527	526	505	482	495	512	545	582	592	600	603	606	611	636	643	637	629	616	606	572	544		
NOVEMBER	562	566	561	527	509	497	499	501	520	545	564	555	564	587	602	606	618	617	634	620	615	597	569	575	1	
DECEMBER	568	554	554	554	536	513	513	519	509	520	521	544	565	574	594	606	618	624	627	619	606	589	576	564		

Note:--The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1975

Tabular Baseline= 960 minutes

UT	All-days mean diurnal variation																								no of days excluded
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JANUARY	565	556	552	548	544	536	531	527	521	517	519	525	537	546	563	583	601	611	609	599	592	578	570	567	
FEBRUARY	548	547	539	543	541	535	527	528	530	526	528	533	540	546	559	574	591	604	607	594	578	563	557	552	
MARCH	546	547	540	540	540	544	543	541	543	547	541	542	544	550	559	576	595	601	599	588	577	562	547	535	
APRIL	542	527	534	530	532	536	541	544	545	548	549	548	544	542	550	563	573	579	576	568	562	557	543	535	
MAY	537	538	526	523	524	527	530	536	536	539	548	551	552	553	555	560	563	563	559	555	553	550	550	544	
JUNE	534	535	534	532	536	537	539	539	543	541	545	548	551	553	554	558	561	559	555	550	547	544	544	546	
JULY	546	537	537	535	533	531	534	535	541	546	547	554	556	558	562	563	565	565	560	556	552	551	548	549	
AUGUST	544	540	539	531	519	521	530	535	540	546	548	549	550	547	551	561	568	572	572	566	560	556	553	548	
SEPTEMBER	541	540	533	530	528	531	532	535	537	536	536	533	534	536	545	558	571	579	581	574	566	558	555	551	
OCTOBER	546	541	537	532	527	527	527	524	523	524	528	530	530	534	543	556	572	588	595	589	579	565	555	551	
NOVEMBER	553	546	541	540	532	528	521	515	510	512	522	532	542	552	560	572	588	600	605	601	586	576	571	557	
DECEMBER	552	548	543	539	531	525	516	507	505	504	507	519	532	544	558	573	583	589	588	583	572	567	562	558	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	559	557	554	551	550	546	538	533	527	518	515	518	524	533	555	579	601	607	599	589	576	564	563	563	
FEBRUARY	559	559	551	549	544	533	526	526	528	521	517	518	523	532	546	562	577	588	589	581	570	563	562	560	
MARCH	551	553	554	550	548	547	545	546	545	542	539	532	529	531	541	555	572	581	583	57					

ARGENTINE ISLANDS

Declination East (1/10 mins)

1976

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	554	551	547	541	534	525	517	512	507	502	504	510	524	543	558	575	592	595	588	583	576	570	564	562	
FEBRUARY	544	539	537	534	530	528	526	521	518	511	511	520	530	539	554	569	581	587	586	576	564	554	551	541	
MARCH	533	525	526	523	519	519	523	527	526	530	530	530	531	541	550	563	575	584	584	575	565	555	553	536	532
APRIL	533	522	515	515	517	512	513	525	533	545	550	548	544	543	553	560	566	568	566	557	553	547	536	536	
MAY	521	523	511	514	518	521	523	532	532	533	544	547	547	543	543	547	551	553	551	547	546	541	535	528	
JUNE	528	526	520	518	513	515	519	521	522	526	534	534	536	537	539	541	543	542	538	535	534	534	536	531	
JULY	531	524	521	521	523	519	520	522	524	527	529	537	538	537	536	541	545	544	540	536	534	533	533	532	
AUGUST	528	526	524	518	520	519	521	519	523	525	526	532	529	528	532	541	547	551	550	544	538	536	533	531	
SEPTEMBER	524	518	520	508	505	508	506	510	519	523	526	522	520	522	526	536	548	559	566	562	552	543	538	531	
OCTOBER	527	521	517	513	508	500	502	504	505	506	511	508	506	514	523	538	556	569	572	566	557	547	539	530	
NOVEMBER	533	527	525	518	513	506	501	493	486	486	490	503	514	523	534	548	559	563	560	553	550	544	535	540	
DECEMBER	540	531	523	518	512	504	496	487	481	481	486	493	509	526	541	561	576	578	573	563	555	548	545	544	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	551	549	546	540	534	526	520	512	505	495	496	504	523	540	553	564	573	581	578	569	562	555	554	552	
FEBRUARY	544	544	544	539	537	533	527	521	516	509	507	511	518	526	538	554	567	572	570	556	547	545	544	547	
MARCH	540	537	536	537	535	535	532	534	529	529	524	516	511	515	526	540	555	565	568	562	553	547	539	537	
APRIL	541	539	536	533	534	531	532	531	531	531	533	532	527	527	536	548	556	559	557	550	544	541	539	538	
MAY	537	533	531	527	531	532	533	534	534	533	533	534	533	531	534	540	546	547	545	541	537	535	535	534	
JUNE	531	531	528	525	521	524	524	523	529	530	531	533	533	532	533	538	542	543	540	534	531	531	530	529	
JULY	529	527	526	526	526	529	526	527	529	529	531	533	533	530	529	534	539	541	536	530	527	529	531	531	
AUGUST	529	528	529	524	525	524	524	525	526	528	528	528	526	524	528	534	541	544	544	539	534	532	533	534	
SEPTEMBER	529	530	523	522	523	518	519	518	519	522	520	515	515	516	520	533	546	555	560	556	546	536	532	532	
OCTOBER	525	522	520	519	513	506	505	502	500	496	498	500	505	505	513	533	554	563	562	555	549	543	537	533	
NOVEMBER	533	530	528	524	519	513	507	498	488	486	489	501	513	520	529	540	550	554	552	546	538	536	538	537	
DECEMBER	537	533	527	522	514	510	503	494	483	482	486	494	506	519	529	544	558	565	566	559	554	551	547	546	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	553	544	555	541	533	514	508	507	502	496	503	509	518	550	578	593	609	613	611	618	610	605	585	580	
FEBRUARY	541	520	519	522	518	514	510	503	511	508	508	529	535	548	560	581	597	596	597	589	560	543	560	498	
MARCH	532	519	523	510	474	473	484	481	502	527	542	551	565	600	595	594	604	615	618	608	583	557	525	501	
APRIL	529	481	467	477	474	464	458	492	517	500	599	593	588	586	610	606	599	599	597	574	572	552	522	514	
MAY	502	499	450	482	479	498	489	531	556	532	570	594	591	575	562	550	564	566	564	556	555	551	521	488	
JUNE	527	511	491	496	491	482	494	505	494	503	544	544	554	557	557	556	554	552	544	541	541	541	542	540	
JULY	540	517	501	508	527	499	504	519	525	531	533	554	556	550	543	542	547	546	543	542	544	533	533	527	
AUGUST	519	517	528	510	516	516	519	513	518	518	521	542	526	528	541	563	560	563	559	553	549	550	533	517	
SEPTEMBER	510	500	515	482	480	481	473	482	503	521	545	542	543	548	548	550	561	570	584	583	571	542	544	529	
OCTOBER	521	519	512	505	506	472	471	489	496	512	529	522	521	550	552	559	569	575	584	578	558	544	534	518	
NOVEMBER	529	517	515	517	507	495	487	482	478	485	488	507	524	537	544	557	573	584	585	574	574	554	541	536	
DECEMBER	547	508	482	498	496	488	483	476	484	490	501	518	539	548	554	574	592	594	589	576	566	555	546	543	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1977

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	532	524	519	517	513	506	501	493	487	486	487	491	500	511	529	548	567	579	580	574	569	559	551	543	
FEBRUARY	529	524	522	520	511	511	511	505	500	497	496	497	497	506	522	538	556	571	577	573	559	547	536	531	
MARCH	521	511	513	511	510	510	511	513	512	511	506	503	502	506	514	532	551	565	566	560	550	539	530	529	
APRIL	512	510	507	507	501	503	510	512	526	525	530	526	522	518	526	541	553	557	555	550	541	530	524	517	
MAY	522	516	511	509	514	510	511	516	519	519	523	528	528	528	531	536	542	545	542	536	534	534	533	530	
JUNE	521	516	517	514	509	509	510	514	516	520	524	525	528	526	527	532	536	536	532	527	525	525	526	523	
JULY	517	515	515	513	509	501	499	503	509	519	523	529	535	536	538	541	543	545	540	535	531	530	530	525	
AUGUST	521	516	515	511	503	508	509	512	509	516	526	527	531	528	533	541	547	551	552	547	539	535	534	525	
SEPTEMBER	523	514	508	500	494	502	509	517	518	518	521	517	512	514	522	537	552	563	571	566	555	543	536	530	
OCTOBER	529	524	517	513	509	506	504	501	502	502	507	503	506	508	520	538	558	574	579	572	563	551	542	532	
NOVEMBER	531	527	524	517	509	502	499	489	484	483	489	498	507	517	532	548	561	569	571	568	562	555	549	543	
DECEMBER	536	528	521	515	508	496	491	485	483	480	478	485	495	509	526	545	565	579	580	573	561	551	543	541	1

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	534	527	524	522	519	514	508	499	493	488	485	489	496	503	517	537	560	577	574	566	557	547	541	537	
FEBRUARY	528	527	522	522	519	516	509	503	497	495	493	493	491	496	512	528	549	564	566	560	549	539	534	533	
MARCH	525	524																							

ARGENTINE ISLANDS

Declination East (1/10 mins)

1978

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	536	529	520	513	509	505	497	494	479	479	484	491	503	517	532	551	572	579	578	570	562	553	546	541	
FEBRUARY	525	523	520	515	511	506	502	495	490	485	490	494	492	504	519	542	568	586	591	582	570	556	542	532	
MARCH	522	516	509	500	505	502	503	505	507	506	501	493	491	499	514	535	554	568	576	574	563	548	537	524	
APRIL	513	506	493	489	489	489	495	505	513	513	511	510	510	507	512	527	547	556	559	556	545	534	533	525	
MAY	517	511	505	498	486	487	489	491	505	516	529	528	531	537	527	531	540	545	544	540	533	528	522	519	
JUNE	512	503	499	491	485	486	483	490	501	503	509	517	518	516	519	524	529	532	528	524	518	517	517	518	
JULY	507	500	502	499	492	488	489	492	497	498	502	503	507	508	512	521	529	528	526	520	515	514	518	512	
AUGUST	505	500	497	491	485	479	475	497	496	503	508	516	509	511	515	519	530	537	541	535	526	520	517	514	
SEPTEMBER	514	510	505	496	490	488	488	491	496	503	504	505	502	497	506	526	548	565	570	565	551	533	523	517	
OCTOBER	510	509	508	504	498	488	478	478	479	479	477	476	479	486	504	526	553	574	579	572	554	537	522	517	
NOVEMBER	516	512	509	505	498	488	479	465	458	463	464	470	482	499	518	538	559	575	579	572	558	539	527	519	
DECEMBER	514	513	506	497	491	482	469	454	446	444	444	457	478	501	521	544	562	573	571	561	545	528	519	516	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	528	524	522	519	514	508	502	496	485	477	474	481	494	505	521	540	557	565	561	553	544	537	535	534	
FEBRUARY	527	525	523	520	514	508	499	493	483	481	480	477	477	481	499	526	551	570	573	562	550	539	532	530	
MARCH	527	525	522	517	514	511	507	505	502	499	492	484	478	482	500	522	545	561	563	552	541	533	532	528	
APRIL	516	515	517	515	514	509	514	514	511	512	506	501	495	497	505	521	538	548	553	549	540	530	527	523	
MAY	520	516	515	510	506	507	514	512	515	514	516	512	510	506	509	518	532	539	536	530	523	519	519	515	
JUNE	513	509	509	503	497	488	493	501	506	505	505	505	508	507	510	516	519	523	517	512	509	509	508	511	
JULY	506	504	503	503	502	503	503	503	503	503	506	503	502	500	504	513	522	524	521	512	507	505	505	504	
AUGUST	508	508	507	503	500	499	502	504	507	503	504	501	500	496	497	505	519	529	533	527	516	511	510	511	
SEPTEMBER	509	505	500	502	504	502	500	498	497	495	493	486	478	477	489	509	530	548	555	548	534	519	516	511	
OCTOBER	510	506	502	502	502	497	496	493	488	483	475	470	467	471	484	507	543	569	569	563	544	524	515	513	
NOVEMBER	514	509	507	500	494	486	477	471	461	454	450	455	471	490	508	529	548	559	557	550	541	529	520	517	
DECEMBER	512	508	504	500	495	488	476	461	447	442	444	455	472	495	515	531	544	550	549	542	529	516	508	508	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	539	523	500	496	492	495	492	466	472	490	516	522	534	559	572	576	596	600	601	582	578	575	558	546	
FEBRUARY	545	532	518	517	498	480	474	474	478	476	504	511	489	527	533	555	590	605	614	598	590	557	536	529	
MARCH	518	504	494	468	503	482	496	498	505	513	508	496	492	502	527	563	573	589	606	616	593	568	543	515	
APRIL	506	492	477	458	443	437	449	483	506	519	518	520	538	531	528	530	544	573	570	568	555	539	546	515	
MAY	521	508	481	476	461	455	417	425	471	501	576	574	604	648	681	668	675	677	579	566	548	534	511	524	
JUNE	536	506	493	471	458	466	421	442	490	500	519	524	524	521	526	541	546	548	546	540	532	528	538	524	
JULY	484	489	500	491	467	427	431	446	465	473	485	495	518	527	538	546	557	541	535	536	528	531	540	519	
AUGUST	515	483	471	469	456	423	410	505	483	529	546	567	543	575	575	557	565	567	573	568	557	539	528	523	
SEPTEMBER	513	515	507	488	471	470	461	458	472	505	520	559	567	545	546	562	593	605	596	592	582	538	527	519	
OCTOBER	508	507	506	503	492	474	429	439	460	474	493	495	504	512	537	555	582	590	591	588	568	547	531	520	
NOVEMBER	525	506	503	509	492	464	463	425	421	446	465	490	505	522	546	571	595	607	610	601	580	556	544	528	
DECEMBER	517	519	504	484	490	478	456	436	434	448	444	447	498	528	537	566	584	587	587	583	560	537	522	518	

Note:--The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1979

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	520	521	518	512	510	502	492	478	463	454	453	464	483	502	523	550	580	593	587	572	555	538	526	521	
FEBRUARY	519	512	512	508	507	500	494	485	479	476	473	473	470	479	500	528	563	583	590	582	565	544	529	525	
MARCH	516	503	499	504	500	499	500	496	494	499	496	490	480	479	491	518	550	580	593	590	575	552	538	526	
APRIL	509	497	483	486	488	485	490	501	504	508	510	514	504	493	501	517	540	557	564	559	547	535	531	524	
MAY	506	499	492	487	489	485	486	492	497	503	508	505	503	500	504	515	526	535	537	532	526	523	520	512	
JUNE	509	503	499	492	492	486	487	492	498	503	505	505	506	505	508	517	524	527	524	519	515	513	514	511	
JULY	508	501	494	492	489	488	493	498	498	506	506	505	504	503	510	518	525	527	526	520	515	510	514	511	
AUGUST	507	503	498	492	489	486	489	495	497	501	505	504	505	501	502	515	532	544	548	542	534	528	524	518	
SEPTEMBER	516	506	493	488	491	491	490	493	493	495	494	487	479	480	495	516	544	564	573	570	555	538	530	522	
OCTOBER	515	511	505	502	498	494	489	487	479	475	474	470	467	477	493	518	547	569	581	579	564	546	531	522	
NOVEMBER	516	512	504	500	495	481	470	458	458	449	451	459	469	482	502	528	554	573	579	574	562	544	531	523	
DECEMBER	511	509	506	500	489	475	461	451	443	437	444	453	468	489	511	535	559	575	578	573	558	540	525	517	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	518	520	515	511	506	498	489	477	462	449	447	451	470	492	514	545	578	593	580	562	539	521	508	509	
FEBRUARY	525	519	516	510	505	498	496	489	480	469	460	456	460	468	487	517	551	578	583	570	552	535	523	516	
MARCH	519	516	513	510	507	502	504	504	508	502															

ARGENTINE ISLANDS

Declination East (1/10 mins)

1980

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	510	507	505	500	495	488	478	464	450	439	434	442	464	488	512	539	564	577	575	559	543	526	511	508	
FEBRUARY	507	506	502	499	494	490	484	474	460	453	447	446	454	471	494	524	550	566	568	558	541	523	514	508	
MARCH	504	501	497	491	487	482	478	477	477	477	469	457	453	460	476	502	529	548	555	548	535	522	514	511	
APRIL	498	492	490	484	482	481	484	486	488	488	491	483	473	469	477	499	523	538	544	539	527	520	511	503	
MAY	504	499	497	489	486	488	491	491	491	489	493	495	492	488	491	505	518	526	529	524	517	512	508	508	
JUNE	500	493	492	490	489	484	484	489	490	494	503	506	507	503	506	512	520	524	524	520	513	509	503	500	
JULY	502	499	497	487	486	491	494	496	498	499	498	499	497	493	496	506	516	522	523	516	510	511	509	509	
AUGUST	503	496	490	488	485	482	484	483	489	495	498	497	492	486	489	505	522	533	535	531	520	510	508	508	
SEPTEMBER	518	504	492	491	487	487	487	486	488	489	485	478	471	467	475	499	526	548	562	559	543	528	517	514	
OCTOBER	509	506	503	499	489	482	473	468	467	472	470	469	472	479	495	518	544	569	580	575	561	543	528	518	
NOVEMBER	513	506	498	498	491	481	471	454	450	448	452	463	477	492	509	530	552	569	573	568	552	539	527	517	
DECEMBER	517	513	510	500	493	481	465	445	432	430	430	445	468	492	513	542	576	592	583	565	545	528	517	517	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	500	502	500	491	483	478	473	462	451	445	435	440	455	482	503	531	559	571	561	547	526	512	504	506	
FEBRUARY	505	503	500	498	496	491	485	477	463	451	440	433	441	464	492	522	542	554	551	543	529	514	508	510	
MARCH	501	500	499	497	492	490	490	488	485	479	466	454	447	451	467	493	520	541	551	545	528	514	509	505	
APRIL	508	498	497	493	493	496	497	497	495	494	489	480	470	466	478	498	521	534	540	536	527	519	512	506	
MAY	503	499	495	499	497	496	491	490	494	495	495	490	487	483	486	502	518	527	527	522	514	507	502	502	
JUNE	504	501	497	498	497	497	498	497	496	499	501	500	498	496	496	499	509	518	521	519	513	506	502	502	
JULY	503	502	499	492	495	497	496	497	501	500	499	502	496	491	492	500	508	514	516	510	505	500	500	501	
AUGUST	505	504	496	497	498	488	493	498	500	501	501	498	492	484	488	502	517	528	530	524	515	506	506	507	
SEPTEMBER	508	502	502	498	496	490	489	489	489	488	485	475	466	460	469	490	519	545	560	556	537	522	514	509	
OCTOBER	512	511	509	507	503	497	494	489	481	472	465	462	462	468	488	510	536	555	563	556	543	530	519	514	
NOVEMBER	513	510	505	501	494	489	479	463	457	449	449	451	455	469	486	510	531	551	560	555	546	537	528	520	
DECEMBER	509	510	505	498	494	485	472	455	438	435	436	444	464	489	511	539	568	587	579	555	533	516	510	510	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	522	513	512	506	494	489	481	472	451	431	426	434	474	500	531	559	592	602	615	594	500	555	527	523	
FEBRUARY	516	513	498	496	494	482	466	447	407	412	431	441	470	490	514	547	575	583	586	582	569	543	532	508	
MARCH	508	499	484	470	465	451	443	445	456	476	474	467	480	498	503	519	539	552	558	553	548	538	527	511	
APRIL	504	485	477	478	475	484	483	471	480	487	506	488	480	477	482	506	536	553	559	558	538	534	515	494	
MAY	498	491	476	458	460	480	486	488	479	467	489	524	518	513	505	514	524	531	542	535	530	524	497	513	
JUNE	497	481	474	470	471	462	454	460	468	477	517	534	529	521	532	534	540	547	548	545	525	525	495	487	
JULY	498	500	500	485	487	492	492	493	492	497	499	502	503	496	500	509	518	528	536	521	517	522	541	540	
AUGUST	507	490	470	483	482	467	457	450	467	483	503	507	495	490	494	515	538	545	543	541	528	514	510	512	
SEPTEMBER	516	506	474	476	471	478	471	468	475	484	484	485	484	483	483	508	532	548	562	563	550	534	521	527	
OCTOBER	499	509	514	504	481	472	452	436	440	470	472	485	495	519	527	553	571	593	596	586	572	556	529	524	
NOVEMBER	521	498	480	500	500	480	461	445	450	439	439	459	500	513	524	545	566	582	590	577	563	550	529	519	
DECEMBER	527	525	519	499	500	480	451	427	426	433	436	457	479	492	523	557	608	623	618	594	576	558	541	537	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Declination East (1/10 mins)

1981

Tabular Baseline= 960 minutes

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	497	496	494	491	484	475	464	451	438	430	428	438	454	479	503	526	550	559	552	539	523	508	498	497	
FEBRUARY	502	490	490	489	484	480	474	470	468	455	448	447	450	458	479	509	538	563	571	567	552	536	522	512	
MARCH	502	492	490	491	483	478	471	476	471	470	466	459	454	460	480	504	533	556	566	557	541	524	513	509	
APRIL	503	488	477	464	469	467	466	470	482	482	494	484	477	469	480	504	528	544	549	541	529	518	513	508	
MAY	495	489	482	469	455	452	450	461	471	485	490	496	494	489	491	501	513	518	519	517	512	508	503	501	
JUNE	487	483	480	477	472	467	461	460	471	476	480	482	486	485	485	494	500	502	501	499	495	494	493	489	
JULY	497	485	472	467	461	461	463	467	477	480	484	488	494	495	497	501	508	514	512	506	505	499	497	492	
AUGUST	497	485	476	468	467	469	463	471	472	477	480	482	478	477	486	504	518	530	532	528	517	507	504	505	
SEPTEMBER	494	489	479	476	472	467	470	474	467	472	470	464	458	458	469	489	517	540	552	551	537	523	513	503	
OCTOBER	497	496	493	486	481	475	471	467	460	453	453	457	459	469	487	507	536	559	572	568	556	534	517	504	
NOVEMBER	498	494	489	483	472	466	451	437	433	432	436	447	462	476	498	519	540	554	559	552	542	530	517	507	
DECEMBER	497	495	491	481	471	458	441	430	417	417	423	440	458	482	503	522	541	554	558	551	538	521	509	503	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	490	492	491	490	488	478	466	456	441	434	433	438	450	469	492	521	548	556	546	529	509	498	492	493	
FEBRUARY	498	493	489	485	480	476	470	470	461	451	445	438	432	437	454	486	524	555	569	567	551	530	511	501	
MARCH	501	498	497	495	487	482	482	478	473	468	456	441	434	441	461	490	523	547	553	542	523	510	506	506	
APRIL	500	496	4																						

ARGENTINE ISLANDS

Declination East (1/10 mins)

1982

Tabular Baseline= 960 minutes

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	494	491	486	478	473	465	454	443	433	428	424	430	444	462	488	519	545	558	558	550	534	517	503	496	
FEBRUARY	493	495	486	486	479	473	463	450	455	449	447	460	470	480	497	521	547	571	586	584	567	549	522	502	
MARCH	487	487	471	474	469	469	464	465	462	461	456	453	447	452	465	490	521	540	548	542	531	516	509	501	
APRIL	484	469	462	458	457	450	456	462	463	469	475	480	474	473	482	494	510	522	526	526	521	514	502	491	
MAY	476	472	455	488	452	458	462	459	471	471	474	482	480	479	482	493	500	506	506	500	493	491	485	478	
JUNE	479	475	460	455	447	446	445	457	462	470	477	482	488	489	490	493	497	498	498	493	491	488	493	484	
JULY	452	464	461	452	450	453	458	462	474	483	484	492	497	495	500	505	508	509	512	505	499	495	492	485	
AUGUST	486	467	461	460	448	445	450	455	462	467	477	480	480	476	481	496	506	516	519	514	505	495	493	489	
SEPTEMBER	482	472	451	441	430	439	448	463	460	472	483	480	473	476	482	499	522	544	550	547	534	512	503	480	
OCTOBER	490	481	473	472	469	462	454	451	451	454	460	457	460	467	484	506	531	554	564	559	545	528	509	500	
NOVEMBER	501	483	486	485	473	464	459	446	442	443	446	449	462	480	499	522	539	552	563	561	550	534	520	507	
DECEMBER	497	493	495	494	473	463	450	433	423	421	425	444	472	498	517	540	558	565	562	553	537	520	507	502	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	490	490	486	484	481	476	467	456	442	434	426	432	449	466	484	511	537	547	539	524	511	496	489	488	
FEBRUARY	510	499	491	488	490	485	476	472	464	452	447	448	460	464	482	507	536	557	562	561	541	521	507	503	
MARCH	497	494	482	475	474	478	479	477	473	467	460	448	439	438	452	478	507	532	543	538	520	504	497	493	
APRIL	494	489	486	480	479	489	477	477	470	474	474	473	467	458	464	480	501	511	515	512	509	504	488	497	
MAY	476	473	468	462	466	471	472	469	470	471	472	473	471	465	469	481	493	498	496	490	484	480	481	481	
JUNE	481	469	478	469	463	459	466	472	475	479	478	480	476	473	474	483	488	491	491	484	483	481	481	482	
JULY	477	475	473	464	458	460	474	465	471	473	474	477	477	477	478	483	491	493	492	486	480	480	479	474	
AUGUST	484	481	478	475	466	456	467	476	474	473	473	469	463	457	461	478	495	505	510	506	496	491	488	485	
SEPTEMBER	489	488	480	473	474	473	474	472	471	475	462	461	457	459	463	480	508	531	545	540	526	515	506	498	
OCTOBER	494	489	482	478	473	470	468	462	457	453	456	450	444	447	462	483	523	548	556	545	529	510	500	493	
NOVEMBER	498	495	489	483	471	465	458	444	434	430	431	438	449	463	477	490	507	528	540	542	532	522	512	504	
DECEMBER	491	486	487	488	482	481	471	452	436	428	425	434	456	479	499	518	532	540	537	523	511	500	492	492	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	504	489	478	463	459	440	431	417	416	423	427	431	447	468	495	533	563	580	582	573	559	542	522	514	
FEBRUARY	482	490	470	472	467	468	465	438	452	469	471	500	499	495	516	542	558	580	597	598	579	565	537	510	
MARCH	482	469	436	458	449	466	461	449	443	467	456	461	459	475	478	509	544	550	564	560	548	530	532	502	
APRIL	489	449	448	429	432	396	413	434	445	464	483	519	507	513	535	536	543	549	552	553	556	551	534	512	
MAY	468	465	430	399	421	423	426	434	479	473	482	511	528	533	521	526	519	524	519	514	505	503	478	468	
JUNE	461	492	446	417	396	417	420	476	476	480	479	487	513	503	503	507	513	508	515	502	493	487	497	492	
JULY	357	478	434	432	442	465	447	450	492	493	488	519	528	524	533	533	537	526	547	548	543	519	520	484	
AUGUST	511	474	458	444	388	386	390	416	452	449	501	514	518	504	507	536	528	529	537	534	515	493	508	496	
SEPTEMBER	457	453	367	357	315	372	358	412	386	458	534	550	540	559	534	545	577	605	603	585	565	530	522	468	
OCTOBER	498	486	445	444	454	441	428	425	439	459	489	482	482	496	510	535	557	575	580	577	556	538	501	500	
NOVEMBER	500	482	510	501	498	482	480	467	467	470	462	455	476	489	518	549	580	601	616	607	589	556	534	507	
DECEMBER	506	498	477	484	469	440	436	425	417	441	441	462	501	528	538	567	584	578	576	573	565	545	523	509	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1958

Tabular Baseline= 36500 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	462	458	457	454	449	443	441	439	437	430	425	418	411	406	406	404	409	419	433	444	452	460	459	459	1
FEBRUARY	461	457	451	444	436	426	416	415	418	413	416	417	418	418	414	409	409	418	429	443	456	462	463	462	
MARCH	456	450	442	434	432	429	422	416	422	423	427	427	425	420	415	409	407	414	425	439	451	458	459	458	
APRIL	439	435	430	424	420	418	414	412	411	412	414	417	420	419	414	409	410	415	422	430	435	435	437	430	
MAY	420	417	416	412	409	406	405	403	401	401	404	406	409	410	407	407	407	408	410	414	417	419	420	424	
JUNE	419	410	404	406	402	396	392	393	395	395	398	399	401	404	404	404	404	405	405	408	408	409	410	410	
JULY	406	405	402	401	399	396	394	389	386	389	391	386	392	397	396	394	396	400	403	408	407	414	409	408	
AUGUST	391	390	387	381	377	373	373	373	374	374	376	370	380	379	375	372	372	375	380	387	391	391	391	391	
SEPTEMBER	392	387	384	380	373	374	373	371	371	372	371	373	371	366	359	353	354	358	367	378	389	395	393	392	
OCTOBER	376	372	367	363	360	356	353	352	348	348	345	344	342	339	335	330	330	339	351	363	374	382	381	379	
NOVEMBER	359	358	355	352	348	345	343	341	339	336	329	324	318	314	311	312	317	326	337	347	355	357	358	358	
DECEMBER	358	354	351	347	343	339	336	333	329	323	318	312	307	302	303	301	305	315	329	342	356	363	363	361	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	458	456	458	459	457	454	450	446	441	436	430	419	400	403	405	406	413	420	443	452	454	456	452	451	
FEBRUARY	440	447	444	441	437	434	430	430	432	431	426	421	417	415	411	406	404	411	420	433	442	444	445	445	
MARCH	447	443	436	430	431	430	427	425	426	425	427	429	427	422	413	404	400	404	415	428	438	444	444	443	
APRIL	431	430	428	426	423	418	416	417	416	414	415	417	418	414	406	403	403	409	418	426	430	428	426	428	
MAY	412	411	410	409	407	407	406	405	406	406	405	406	407	407	405	402	402	406	408	411	412	411	411	410	
JUNE	408	408	405	406	404	402	402	402	402	401	401	401	402	403	402	401	400	401	403	405	405	402	403	403	
JULY	403	402	401	401	399	398	398	396	396	395	395	395	397	396	394	393	394	393	400	402	401	400	399	397	
AUGUST	389	388	388	386	385	383	383	383	381	382	383	383	384	381	378	375	374	377	382	386	389	387	387	386	
SEPTEMBER	378	377	375	373	372	371	370	371	371	371	371	372	369	362	353	346	344	349	359	367	376	378	377	377	
OCTOBER	370	367	366	363	360	359	359	358	358	357	355	356	350	342	335	331	331	336	346	358	363	367	369	370	
NOVEMBER	357	356	354	352	351	349	348	346	344	340	334	328	325	321	318	317	320	329	340	348	351	352	353	353	
DECEMBER	348	349	347	346	343	341	339	337	331	323	318	312	306	303	304	301	307	315	325	335	344	347	346	349	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	482	470	464	459	449	437	441	443	441	438	422	426	419	413	408	414	421	434	449	459	474	482	477	478	1
FEBRUARY	488	481	478	453	431	401	350	342	340	341	367	390	422	434	430	430	430	436	447	468	475	480	482	478	
MARCH	468	464	449	426	429	422	410	376	404	423	426	428	424	420	414	414	417	421	434	448	462	473	477	473	
APRIL	446	436	429	424	417	410	408	394	399	405	409	407	414	416	416	410	416	420	422	441	447	446	447	448	
MAY	417	414	420	407	409	406	397	390	385	380	387	391	402	407	407	410	409	410	410	413	426	432	434	449	
JUNE	452	402	385	413	412	390	378	384	378	375	384	384	394	402	400	411	414	414	414	414	416	422	427	434	
JULY	409	411	405	404	400	393	387	369	362	375	382	354	379	398	398	395	400	419	418	439	433	476	448	440	
AUGUST	393	396	387	363	346	344	354	353	353	350	368	376	379	380	378	377	377	376	383	392	398	400	402	403	
SEPTEMBER	412	396	392	383	352	368	372	365	366	366	361	356	367	363	359	353	361	368	381	398	416	437	433	427	
OCTOBER	382	377	370	362	358	352	345	340	317	313	309	312	321	325	331	328	335	355	370	383	409	422	422	411	
NOVEMBER	365	367	360	358	352	345	341	341	343	342	334	329	320	316	313	315	321	332	340	353	363	365	367	367	
DECEMBER	384	371	364	356	351	350	348	344	339	330	322	319	310	303	304	305	311	325	347	370	393	407	404	407	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1959

Tabular Baseline= 36000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	842	838	835	832	829	825	824	823	820	815	809	800	792	789	788	786	790	801	815	826	835	841	844	845	
FEBRUARY	845	841	837	830	823	818	817	812	814	815	808	806	800	795	793	792	797	805	818	829	837	842	847	851	
MARCH	837	836	827	825	820	813	810	813	816	818	820	816	813	808	803	800	805	813	822	832	839	845	844	838	
APRIL	831	828	826	823	820	814	811	809	809	810	814	817	817	814	810	808	807	811	817	823	827	829	829	831	
MAY	821	818	818	815	811	806	803	800	800	803	805	808	810	812	811	809	808	811	814	818	818	818	820	821	
JUNE	798	798	797	794	791	791	789	787	783	782	783	785	789	791	791	791	793	794	796	798	797	796	796	797	
JULY	799	794	788	784	782	777	775	776	776	782	776	782	786	789	790	787	789	794	791	795	793	797	796	796	
AUGUST	782	781	779	774	768	766	759	757	761	764	766	767	770	771	769	767	768	773	778	783	785	785	785	785	
SEPTEMBER	787	783	774	769	762	755	754	750	751	755	761	764	763	758	752	749	751	757	763	771	780	786	787	788	
OCTOBER	767	764	760	754	747	745	745	740	742	743	741	740	736	734	731	729	731	737	745	755	763	770	771	770	
NOVEMBER	759	755	751	743	734	731	729	727	725	723	718	717	714	712	710	710	714	721	730	740	749	756	759	759	
DECEMBER	747	743	740	736	731	725	721	716	711	705	700	696	694	692	692	692	697	704	714	726	738	743	745	747	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	825	824	826	826	825	824	825	821	817	813	807	798	791	790	789	786	789	799	809	812	815	817	818	819	
FEBRUARY	835	833	831	828	825	825	824	823	822	822	821	818	813	807	800	796	799	805	820						

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1920

Tabular Baseline= 36000 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	732	731	729	725	720	717	714	710	705	700	697	692	690	685	680	678	681	692	705	715	722	731	733	731	
FEBRUARY	719	716	713	709	706	702	700	697	699	699	695	691	688	683	676	672	673	679	691	703	713	718	719	720	
MARCH	706	704	701	697	695	690	687	686	683	685	687	684	685	684	681	677	674	678	687	695	702	708	712	708	
APRIL	718	718	704	691	691	687	678	677	681	686	693	692	691	691	691	692	693	693	707	713	715	718	718	721	
MAY	701	698	696	693	689	684	682	681	680	678	684	687	687	687	686	686	689	690	692	695	696	696	697	698	
JUNE	674	673	671	664	661	658	660	658	659	661	664	665	668	671	671	671	672	672	674	675	674	673	674	675	
JULY	668	664	665	664	663	658	655	652	651	652	654	654	657	659	660	660	660	662	666	667	668	667	667	668	
AUGUST	657	656	656	648	643	637	638	636	634	640	644	646	648	648	645	642	642	644	648	654	656	656	656	658	
SEPTEMBER	656	653	647	642	638	635	628	622	622	624	629	637	637	635	631	628	629	631	636	644	653	657	657	656	
OCTOBER	654	649	641	628	622	618	614	615	620	617	616	617	619	615	611	612	615	625	636	645	655	663	666	658	
NOVEMBER	652	644	637	633	626	621	602	607	600	599	599	611	609	607	605	608	613	620	630	645	645	654	657	655	
DECEMBER	632	630	627	622	615	610	606	600	598	594	592	589	586	583	581	580	585	596	610	622	631	637	638	635	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	723	724	722	721	718	715	713	711	709	704	698	692	687	684	678	674	677	687	698	706	714	721	721	721	
FEBRUARY	716	713	712	709	705	701	701	699	700	700	698	695	691	685	682	679	679	685	695	703	706	707	707	707	
MARCH	702	701	699	698	696	693	691	690	690	690	689	690	689	685	682	679	677	678	683	690	697	701	702	702	
APRIL	699	699	698	693	689	689	687	688	689	689	691	692	692	690	686	684	685	688	692	694	695	696	696	696	
MAY	689	689	688	686	686	683	681	681	681	682	684	684	684	685	684	682	683	684	687	689	688	686	686	686	
JUNE	676	675	673	673	672	671	670	671	670	670	670	671	671	671	671	670	671	673	675	676	675	673	674	673	
JULY	662	663	663	662	661	661	659	659	657	656	657	659	660	661	660	659	659	660	662	663	662	661	660	659	
AUGUST	651	651	650	650	649	647	646	645	644	643	642	645	646	645	642	640	641	643	646	650	651	650	650	650	
SEPTEMBER	650	649	647	646	645	642	640	640	641	642	642	643	640	635	629	625	626	627	634	641	647	649	649	648	
OCTOBER	643	641	639	638	635	635	633	632	632	631	629	627	623	617	611	608	611	617	625	632	639	643	642	641	
NOVEMBER	639	641	638	635	635	634	631	628	626	622	618	611	607	603	602	601	604	612	621	627	631	635	634	635	
DECEMBER	625	626	624	622	619	615	612	607	607	606	600	593	587	583	581	583	590	599	610	618	625	627	627	628	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	738	747	734	730	725	725	719	710	698	692	689	684	685	681	677	680	679	696	716	725	736	757	758	755	
FEBRUARY	728	723	717	707	704	699	695	693	701	707	698	693	693	687	678	676	680	686	695	709	723	730	729	730	
MARCH	722	718	702	692	696	682	676	685	676	685	691	684	677	689	688	686	675	681	698	711	716	728	749	723	
APRIL	743	764	695	641	670	690	661	644	659	670	695	685	667	669	686	705	707	695	758	766	761	774	756	751	
MAY	723	708	707	709	697	688	691	695	691	661	680	696	695	685	685	689	699	698	699	707	712	714	722	724	
JUNE	673	668	666	656	639	632	649	641	654	658	666	669	673	675	673	674	674	673	674	680	678	677	676	678	
JULY	676	650	658	660	662	659	640	627	626	626	631	634	645	651	658	660	660	658	670	675	679	680	683	687	
AUGUST	657	655	658	631	620	600	622	623	607	626	644	646	651	652	646	640	642	642	646	659	663	665	671	671	
SEPTEMBER	666	657	638	621	618	606	593	575	570	566	589	624	634	644	643	640	645	645	645	658	672	681	674	675	
OCTOBER	664	654	637	590	554	549	556	577	594	572	586	590	599	599	597	610	621	644	667	675	692	709	712	681	
NOVEMBER	695	658	635	626	608	604	503	562	526	534	536	629	635	633	628	638	649	654	674	707	686	692	690	687	
DECEMBER	645	641	637	621	607	608	604	583	584	581	582	581	580	582	583	581	592	608	626	644	652	672	672	659	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1961

Tabular Baseline= 36000 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	610	610	609	605	603	600	596	592	589	586	584	580	578	575	573	572	574	583	592	598	603	607	609	610	
FEBRUARY	602	599	597	595	591	588	586	584	582	578	575	575	571	569	567	566	568	575	584	591	597	603	604	606	
MARCH	584	583	580	577	574	572	569	566	564	566	565	567	566	564	562	562	565	570	575	579	581	582	583	584	
APRIL	573	571	570	566	565	563	560	561	561	561	561	563	563	562	560	558	561	564	568	571	572	572	574	574	
MAY	559	558	555	554	553	548	545	547	547	548	549	551	554	554	554	555	558	558	560	560	559	558	558	558	
JUNE	546	545	545	544	540	538	538	538	537	537	538	539	540	542	542	543	544	545	545	546	546	545	544	544	
JULY	548	545	542	543	538	533	531	531	529	523	520	529	534	539	538	540	541	543	545	547	547	547	547	548	
AUGUST	534	534	533	531	527	524	522	523	523	526	526	526	526	526	525	524	525	527	530	533	534	534	533	533	
SEPTEMBER	522	521	518	516	514	509	507	506	509	510	510	511	510	508	504	502	503	508	513	518	521	523	524	525	
OCTOBER	521	516	509	510	511	506	503	505	503	501	503	502	498	497	496	495	494	499	508	526	527	525	524	521	
NOVEMBER	508	507	504	502	499	498	497	495	491	488	485	482	480	479	479	479	481	485	491	497	502	506	507	508	
DECEMBER	494	494	492	490	488	486	484	482	477	473	468	465	463	460	461	462	465	472	479	485	490	495	496	494	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	605	606	607	606	606	603	600	598	594	591	589	585	583	581	575	573	573	580	590	598	604	604	605	606	
FEBRUARY	591	590	590	590	589	590	588	587	584	582	580	577	575	570	565	566	569	574	582	590	592</				

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1962

Tabular Baseline= 36000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	486	485	484	483	481	481	480	478	475	471	467	462	459	458	457	458	462	467	472	476	480	483	484	484	2
FEBRUARY	474	473	473	471	469	466	465	464	462	460	457	454	452	449	446	445	448	454	460	466	470	474	474	475	1
MARCH	460	459	457	456	453	451	451	449	449	449	449	449	446	443	440	438	439	442	449	456	459	461	460	459	1
APRIL	453	452	451	448	446	444	440	439	440	440	441	442	444	443	440	438	440	444	448	452	454	454	455	454	1
MAY	440	440	439	437	436	435	433	433	434	434	434	434	435	436	435	435	435	437	439	440	440	439	439	440	1
JUNE	427	427	427	426	423	420	419	419	419	420	421	423	424	425	425	425	426	427	427	425	426	426	425	426	1
JULY	416	415	415	413	411	409	407	406	408	410	410	412	413	413	413	413	414	415	415	416	415	414	415	415	1
AUGUST	411	410	409	407	405	399	395	395	397	401	404	406	406	406	404	404	404	405	409	412	411	410	410	411	1
SEPTEMBER	409	408	406	398	395	392	390	388	389	394	396	398	399	396	392	390	391	396	401	407	412	412	411	410	1
OCTOBER	405	401	397	394	391	387	386	385	386	384	383	383	382	382	379	379	381	386	393	402	408	410	410	407	2
NOVEMBER	394	392	389	387	385	381	378	375	373	371	368	365	363	364	363	364	368	373	379	385	390	392	393	394	1
DECEMBER	385	384	382	378	376	374	372	369	365	362	358	354	353	351	350	351	353	358	365	375	379	384	385	385	1

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	481	481	482	482	483	482	482	480	477	474	471	466	461	461	461	461	464	469	474	478	479	481	481	481	1
FEBRUARY	473	472	471	471	469	468	466	465	464	464	463	459	456	453	448	447	449	454	461	466	470	471	470	470	1
MARCH	456	456	454	453	452	451	450	450	449	449	449	449	447	443	439	438	440	444	450	455	458	457	455	455	1
APRIL	452	452	450	449	448	447	446	445	445	445	445	445	446	444	441	441	440	441	445	448	449	450	450	450	1
MAY	437	437	436	434	434	434	433	433	433	433	434	434	434	434	434	433	434	436	438	438	437	436	435	435	1
JUNE	425	424	424	424	424	422	422	423	422	422	423	422	423	424	424	424	424	426	426	426	425	425	424	423	1
JULY	413	414	413	411	411	411	409	410	412	412	412	412	412	412	412	413	414	415	415	415	414	414	413	412	1
AUGUST	411	411	410	409	409	408	408	407	408	408	408	409	409	406	403	402	403	406	410	412	412	412	410	407	1
SEPTEMBER	406	404	401	399	399	397	396	396	396	397	398	398	395	390	387	384	384	389	396	402	405	405	404	403	1
OCTOBER	403	400	398	398	395	392	389	389	386	385	385	386	385	382	378	377	378	381	387	396	401	402	402	400	1
NOVEMBER	389	389	387	386	385	384	384	382	379	375	371	367	364	362	360	361	366	372	377	382	384	385	384	384	1
DECEMBER	381	381	381	380	378	377	376	373	370	367	364	360	358	355	355	355	356	360	367	373	374	376	375	376	1

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	487	488	488	484	477	481	477	476	473	468	460	456	451	451	449	454	464	473	478	484	488	491	493	491	1
FEBRUARY	476	472	475	473	471	467	462	461	458	455	451	447	445	440	437	437	442	449	457	464	472	476	481	482	1
MARCH	463	462	462	460	455	452	453	449	446	446	446	445	440	440	439	438	439	444	451	458	464	467	470	469	1
APRIL	453	452	457	451	443	440	432	433	435	430	433	436	436	439	435	435	441	450	451	459	465	467	469	466	1
MAY	440	441	441	436	435	432	429	431	433	434	431	426	427	430	432	433	435	437	439	443	445	444	442	447	1
JUNE	424	425	426	425	414	410	410	408	407	404	409	415	416	420	421	424	424	425	423	423	424	425	425	428	1
JULY	419	415	411	410	400	394	387	391	398	404	404	405	412	412	414	412	416	420	420	421	417	412	419	419	1
AUGUST	412	409	403	400	400	403	389	382	379	386	393	404	403	404	404	405	405	409	410	411	411	412	411	415	1
SEPTEMBER	410	413	409	394	379	369	364	369	372	368	387	395	398	397	392	393	396	402	403	408	421	421	418	416	1
OCTOBER	408	397	392	399	395	388	383	376	372	370	375	375	377	380	380	381	381	389	398	408	415	422	422	414	1
NOVEMBER	396	395	385	383	378	365	358	361	368	361	361	360	351	359	364	364	368	373	381	390	400	404	404	402	1
DECEMBER	397	392	386	379	374	373	371	364	356	359	356	354	356	353	350	349	351	355	363	384	394	408	405	404	1

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1963

Tabular Baseline= 36000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	369	368	367	365	362	360	359	358	354	350	346	342	339	337	337	339	344	350	356	361	363	366	368	369	3
FEBRUARY	365	363	362	358	356	354	351	349	348	348	347	345	342	338	336	334	335	341	348	356	363	366	366	365	3
MARCH	351	350	348	345	344	343	342	340	339	340	340	340	337	335	331	329	331	335	342	349	353	354	352	351	3
APRIL	342	343	341	340	338	335	334	334	333	334	336	337	338	335	332	330	332	335	340	344	344	344	344	343	3
MAY	327	325	323	321	320	319	317	317	319	318	320	322	323	324	324	323	323	325	327	328	327	326	326	326	3
JUNE	319	317	315	314	312	312	309	308	310	312	313	313	314	315	315	315	316	317	317	317	316	317	318	318	3
JULY	307	306	304	302	299	299	297	296	298	302	303	303	303	303	304	303	304	305	307	306	305	305	304	305	3
AUGUST	299	298	295	293	292	287	286	288	290	290	292	293	294	293	292	291	291	294	296	299	299	298	299	300	3
SEPTEMBER	303	298	285	282	281	280	280	280	280	283	287	290	290	288	286	283	286	290	296	302	306	308	307	306	3
OCTOBER	297	294	292	286	287	286	282	282	281	281	280	281	280	277	276	275	276	281	288	295	301	302	300	299	3
NOVEMBER	289	287	286	284	282	279	278	277	275	273	270	267	264	262	262	261	262	270	278	285	289	291	291	290	3
DECEMBER	276	275	274	273	271	268	265	262	259	256	253	249	246	245	244	244	247	255	262	268	272	275	276	275	1

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	362	363	364	363	362	362	362	361	359	354	349	343	338	337	338	340	345	352	356	359	360	361	362	362	1
FEBRUARY	358	357	356	355	354	353	353																		

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1964

Tabular Baseline= 36000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	267	268	267	266	263	259	256	255	252	249	246	242	242	241	240	237	240	248	254	258	261	262	263	265	
FEBRUARY	256	256	254	252	249	248	246	245	244	243	241	238	236	235	233	232	234	238	243	249	251	254	254	255	
MARCH	245	242	241	238	236	235	234	232	232	232	234	234	232	230	228	228	231	235	240	243	244	246	246	245	
APRIL	238	236	233	232	231	228	229	227	227	226	227	229	230	230	228	226	227	230	235	238	237	238	239	237	
MAY	231	230	231	228	224	224	221	221	221	224	226	228	228	228	227	227	229	230	232	231	231	231	230	230	
JUNE	218	218	217	216	214	213	211	212	214	214	215	217	217	217	217	216	217	218	219	219	218	217	217	218	
JULY	206	205	205	204	202	201	201	202	203	203	203	203	205	205	205	205	206	206	207	206	206	205	206	206	
AUGUST	197	198	197	195	193	192	192	192	193	193	194	195	195	195	192	190	191	193	195	198	199	198	198	198	
SEPTEMBER	193	192	190	185	184	184	183	182	183	183	185	185	185	182	179	178	179	182	186	190	192	192	191	191	
OCTOBER	188	186	185	184	181	179	179	178	176	175	175	175	173	169	167	166	169	174	181	186	189	190	190	189	
NOVEMBER	178	178	175	174	172	170	170	169	166	163	159	155	153	152	152	154	158	163	168	172	174	175	177	177	
DECEMBER	164	164	163	162	161	159	157	155	153	149	145	141	138	135	135	138	142	149	154	157	159	161	162	163	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	263	263	262	262	261	260	258	256	256	255	252	248	245	243	239	236	241	249	256	256	256	257	257	259	
FEBRUARY	254	254	253	252	252	251	250	248	248	247	246	243	240	238	236	233	237	243	249	251	251	251	253		
MARCH	241	240	239	239	238	237	236	233	233	235	236	235	233	230	228	228	231	233	236	239	240	240	241	240	
APRIL	233	233	232	231	230	230	230	229	229	229	229	229	229	229	227	226	230	230	233	233	233	232	231	230	
MAY	231	231	231	230	228	228	228	227	227	227	228	229	230	230	229	229	230	233	234	232	232	231	231	230	
JUNE	217	217	217	216	216	216	216	215	215	215	216	216	216	216	216	216	217	218	218	218	217	217	217	216	
JULY	204	204	204	203	203	202	201	201	202	202	202	202	203	203	202	202	202	203	204	204	203	203	203	202	
AUGUST	198	197	196	196	195	194	194	194	193	194	194	195	194	193	190	189	189	192	195	197	196	196	196	195	
SEPTEMBER	189	189	188	187	186	185	185	185	185	185	186	185	183	180	177	176	178	179	181	186	187	187	186	186	
OCTOBER	185	184	183	182	181	181	180	180	180	178	176	174	171	168	165	164	167	172	178	180	185	184	184	184	
NOVEMBER	176	175	173	173	172	172	172	171	169	165	160	156	153	151	149	151	156	161	169	172	174	171	172	172	
DECEMBER	163	163	162	161	159	158	157	155	153	148	144	140	136	134	136	138	142	147	150	153	154	154	156	158	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	269	273	270	269	263	248	244	247	243	232	229	227	237	240	239	235	239	252	262	270	274	275	276	275	
FEBRUARY	260	258	254	249	243	242	236	239	240	240	236	232	233	236	233	230	231	236	241	249	253	260	261	263	
MARCH	249	244	240	239	234	225	227	227	226	228	226	228	230	230	227	227	228	233	240	247	250	258	257	256	
APRIL	242	237	230	233	228	223	231	221	224	219	225	228	230	229	227	223	224	228	237	241	242	247	254	243	
MAY	232	229	233	226	212	214	212	215	214	205	218	225	228	229	227	224	229	230	235	235	237	236	233	232	
JUNE	222	220	218	217	211	207	202	208	220	215	215	221	221	222	221	222	222	223	225	224	226	224	223	225	
JULY	208	204	203	201	192	197	203	203	205	205	204	200	206	208	208	208	209	207	208	207	209	205	210	212	
AUGUST	197	201	199	194	191	183	185	186	186	187	191	194	193	197	194	191	193	197	197	197	201	202	202	201	
SEPTEMBER	197	197	191	175	181	177	178	173	175	174	176	180	181	179	175	175	179	184	189	196	191	192	189	191	
OCTOBER	188	189	186	185	181	175	172	171	172	168	171	174	171	166	167	165	170	172	182	190	193	196	192	194	
NOVEMBER	181	181	177	176	171	166	167	167	166	164	158	154	153	152	153	157	162	165	171	177	181	184	188	185	
DECEMBER	167	167	166	164	161	161	159	157	153	148	142	138	134	131	136	140	142	149	153	158	160	164	164	164	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1965

Tabular Baseline= 36000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	156	156	156	155	154	152	150	147	146	143	139	136	133	132	131	131	133	137	142	145	149	151	154	155	
FEBRUARY	147	147	147	145	142	140	138	137	137	137	134	130	128	126	123	123	126	132	138	142	145	146	147	146	
MARCH	141	141	139	138	137	133	130	129	128	129	132	132	130	127	123	122	124	127	133	139	143	143	142	141	
APRIL	133	132	131	128	125	124	115	115	120	121	126	128	129	127	124	122	124	128	131	134	134	133	132	132	
MAY	120	120	119	117	117	115	114	114	116	117	117	118	119	119	119	118	118	120	121	121	121	119	119	119	
JUNE	114	113	114	113	112	109	108	107	106	108	107	108	110	110	111	112	113	114	115	115	114	113	113	114	
JULY	103	104	103	101	100	98	97	98	98	99	100	100	101	102	101	102	102	104	104	104	103	103	102	102	
AUGUST	96	95	95	95	93	91	89	89	90	91	92	93	92	92	90	89	89	91	94	95	96	95	96	96	
SEPTEMBER	91	90	89	87	86	82	82	80	79	81	84	84	82	80	77	74	75	79	84	89	92	93	92	91	
OCTOBER	82	80	78	78	77	74	73	73	72	71	70	70	68	66	64	61	61	65	70	76	81	83	83	82	
NOVEMBER	74	73	72	70	69	68	67	66	63	59	55	53	49	48	49	50	53	58	62	66	69	71	72	73	
DECEMBER	66	66	65	64	61	59	58	56	52	47	43	40	39	38	37	38	39	45	52	58	62	65	66	66	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	154	154	153	154	153	151	150	149	147	145	142	139	136	134	133	133	134	138	143	146	149	150	153	152	
FEBRUARY	143	144	145	146	144	143	143	142	141	140	137	133	131	130	130	129	131	133	138	141	142	143	143	143	
MARCH	140	140	139	138	137	136	135	134	133	133															

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1966

Tabular Baseline= 35500 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	557	557	556	555	553	552	550	548	546	543	539	535	532	529	528	529	530	536	544	551	553	556	557	557	
FEBRUARY	548	548	546	545	542	539	538	536	536	535	533	531	527	524	521	522	525	532	540	546	548	550	549	549	
MARCH	545	544	542	540	537	535	533	531	532	532	530	531	529	527	524	522	524	530	536	543	548	548	547	545	
APRIL	533	533	531	530	528	526	525	525	525	526	527	527	526	526	523	521	523	526	530	532	534	534	534	534	
MAY	519	519	518	517	514	514	513	513	513	512	511	512	514	516	515	515	516	518	520	521	520	519	521	521	
JUNE	508	507	508	507	506	505	505	505	505	505	506	506	507	507	507	507	508	508	507	507	507	507	507	507	
JULY	495	495	495	494	489	488	484	487	489	490	493	493	494	496	495	494	494	496	496	497	497	495	495	495	
AUGUST	496	497	495	493	493	492	491	491	490	491	492	492	492	492	498	489	490	491	494	498	499	499	498	497	
SEPTEMBER	500	495	492	491	485	484	484	486	486	485	487	491	492	490	487	484	485	489	495	502	506	507	505	504	
OCTOBER	489	487	485	482	480	477	476	475	474	473	473	473	471	468	466	463	464	468	477	484	489	492	492	491	
NOVEMBER	475	474	474	471	469	466	464	462	460	456	452	450	448	446	445	445	450	458	464	469	473	474	474	476	
DECEMBER	466	464	464	462	459	455	453	449	445	442	438	433	429	427	426	427	432	438	447	455	460	463	465	466	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	556	556	555	554	553	551	551	550	547	544	540	536	531	529	528	528	528	533	543	550	552	553	555	555	
FEBRUARY	547	546	544	543	542	542	541	540	539	538	535	531	529	525	522	521	523	528	536	545	548	549	548	546	
MARCH	545	544	544	543	542	539	538	536	536	536	535	535	533	530	526	524	525	528	535	543	547	547	544	543	
APRIL	529	528	527	526	525	524	524	523	522	522	523	524	525	524	520	518	519	523	527	531	531	529	528	527	
MAY	515	515	514	513	513	512	512	512	512	512	513	513	513	513	513	514	517	518	518	517	516	516	515	514	
JUNE	507	507	507	506	505	505	506	505	505	505	506	506	506	507	507	506	507	507	507	508	507	507	506	506	
JULY	497	497	496	496	496	495	494	494	494	495	495	496	496	496	496	496	495	496	497	498	497	496	495	495	
AUGUST	491	492	491	491	491	491	490	489	489	490	491	491	491	490	487	484	485	488	492	495	495	494	492	491	
SEPTEMBER	499	499	497	496	494	492	492	491	493	494	495	496	495	492	487	484	484	489	494	501	503	503	501	499	
OCTOBER	485	483	482	481	481	480	480	479	477	476	474	473	471	468	465	463	464	470	476	482	486	487	487	485	
NOVEMBER	470	471	471	470	468	467	467	465	461	456	451	446	444	443	443	445	449	455	462	465	465	466	468	472	
DECEMBER	462	460	459	458	457	456	455	452	449	445	438	431	426	426	425	426	431	437	443	449	455	458	459	458	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	558	558	557	554	553	550	544	541	541	539	536	532	526	520	520	528	531	535	546	555	557	562	562	561	
FEBRUARY	551	550	548	547	539	528	527	524	524	524	525	531	527	524	522	523	525	535	543	547	548	557	553	552	
MARCH	548	546	542	539	531	527	520	510	514	514	505	512	514	523	520	520	526	535	541	551	557	560	555	553	
APRIL	538	538	534	530	532	528	523	524	524	526	526	527	526	522	520	521	521	525	530	534	539	542	543	544	
MAY	518	518	520	519	507	512	511	507	503	498	490	496	504	511	515	515	515	518	522	527	527	527	535	536	
JUNE	513	514	511	512	510	506	505	507	510	509	507	506	507	509	508	508	507	508	507	507	509	512	514	516	
JULY	497	495	494	494	468	470	456	459	474	477	490	487	492	498	500	500	500	501	502	502	502	499	500	503	
AUGUST	502	503	498	490	494	496	497	498	498	497	495	491	490	491	491	489	490	487	489	500	507	509	510	508	
SEPTEMBER	500	476	468	480	470	461	466	468	466	456	456	479	497	504	502	497	501	504	512	523	529	527	522	517	
OCTOBER	497	495	488	479	474	465	465	461	463	464	463	465	466	464	464	467	468	474	483	496	497	500	503	506	
NOVEMBER	477	473	473	470	467	462	453	448	449	445	440	441	444	445	444	440	445	453	463	470	482	483	481	482	
DECEMBER	467	469	467	465	455	444	444	440	439	435	433	430	426	424	417	414	426	438	451	463	470	470	472	476	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1967

Tabular Baseline= 35500 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	458	458	456	453	453	451	446	444	440	435	432	429	425	422	421	420	426	437	446	452	454	456	458	459	
FEBRUARY	453	452	449	447	445	442	441	439	438	435	432	426	423	421	419	420	422	427	435	443	447	449	452	452	
MARCH	439	438	436	434	432	430	429	428	428	428	427	424	424	419	415	413	414	419	427	434	439	440	440	440	
APRIL	429	427	425	422	421	420	419	418	417	416	418	419	420	417	414	412	413	418	423	427	428	429	429	428	
MAY	426	433	422	414	415	403	403	405	410	414	416	418	422	421	422	422	423	424	426	427	428	431	433	436	
JUNE	421	419	421	422	418	416	415	415	416	418	418	418	419	420	420	419	419	421	422	421	420	421	422	422	
JULY	404	405	404	403	401	399	400	400	400	400	401	402	402	403	402	402	403	404	405	405	405	404	403	404	
AUGUST	395	395	394	392	391	389	387	387	387	388	389	390	389	389	386	384	385	387	392	394	395	394	393	393	
SEPTEMBER	393	391	387	383	383	380	374	374	376	378	381	381	380	376	373	371	371	376	383	391	396	397	396	395	
OCTOBER	386	383	381	379	378	376	375	375	374	372	371	369	366	363	360	358	359	364	371	379	384	386	386	387	
NOVEMBER	376	374	372	370	369	367	364	363	361	357	354	350	348	346	346	347	350	354	360	368	374	375	377	376	
DECEMBER	371	367	364	363	359	356	354	350	346	343	340	336	332	329	327	330	334	343	352	360	367	370	373	372	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	451	451	451	451	449	449	447	445	443	441	436	428	423	420	421	419	423	429	437	442	445	448	448	447	
FEBRUARY	448	446	446	445	443	442	441	440	439	437	434	428	423	421	418	418	423	428	435	443	447	449	452	452	
MARCH	436	436	435	435	434	433	432	430	430	430	430	428	423	419	416	414	416	421	429</						

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1968

Tabular Baseline= 35500 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	372	368	365	363	360	357	353	350	347	342	339	336	333	329	326	325	329	336	345	354	362	368	372	372	
FEBRUARY	360	357	351	348	346	343	340	338	337	334	332	329	326	325	323	322	322	325	336	347	355	361	365	363	
MARCH	349	346	344	341	335	331	329	330	327	329	330	329	327	325	322	320	321	325	333	341	348	351	350	349	
APRIL	337	335	333	329	325	324	322	320	318	320	324	325	326	324	321	319	319	323	328	333	336	336	337	336	
MAY	325	322	321	319	317	312	310	310	311	313	315	317	318	319	318	316	317	320	323	325	326	324	324	325	
JUNE	316	314	311	307	303	302	300	299	296	299	302	304	307	310	310	311	312	314	316	316	316	315	314	315	
JULY	300	299	297	296	295	294	294	293	293	294	295	297	297	298	298	297	298	300	301	301	301	300	299	299	
AUGUST	290	288	288	287	283	281	281	281	282	283	284	286	286	284	281	279	280	284	289	293	293	292	291	290	
SEPTEMBER	291	288	284	280	278	275	275	274	276	277	278	279	278	274	268	265	267	274	282	289	292	292	291	291	
OCTOBER	286	282	279	276	275	270	271	270	268	268	266	265	262	257	252	254	258	263	273	281	287	290	289	288	
NOVEMBER	292	289	284	280	278	276	275	272	271	268	264	259	252	252	251	254	260	267	276	282	288	293	294	295	
DECEMBER	276	269	268	266	262	260	260	257	253	247	244	239	234	230	227	225	228	239	252	263	268	271	273	273	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	367	365	364	362	361	359	356	353	350	347	344	344	341	333	327	324	327	333	342	352	360	365	365	366	
FEBRUARY	350	349	340	346	346	345	344	342	343	342	338	332	328	325	322	321	321	323	331	339	347	349	351	346	
MARCH	349	348	346	343	341	338	338	337	335	335	335	332	328	326	324	321	322	325	334	340	344	346	345	344	
APRIL	332	331	330	328	326	325	324	324	324	324	324	325	325	322	319	316	317	321	326	330	332	330	329	328	
MAY	323	323	321	320	319	319	319	318	318	318	318	319	319	319	317	316	316	318	322	324	324	323	322	320	
JUNE	313	312	312	311	310	308	308	308	309	309	310	310	311	311	311	311	310	312	314	314	313	311	311	311	
JULY	296	296	297	296	296	294	292	292	293	294	295	295	295	296	295	294	295	298	299	299	297	296	295	295	
AUGUST	286	286	285	285	285	284	284	285	284	284	284	285	283	280	277	275	276	280	283	286	288	288	286	286	
SEPTEMBER	287	286	284	284	282	281	281	280	280	280	280	280	277	271	265	263	266	273	280	287	289	289	286	286	
OCTOBER	282	280	279	279	278	277	277	275	274	272	271	269	263	259	257	255	255	261	269	275	279	281	281	279	
NOVEMBER	277	277	276	276	274	273	271	270	268	265	260	256	252	249	246	246	249	255	264	271	275	274	276	278	
DECEMBER	264	265	264	264	263	262	261	259	257	252	246	239	234	230	226	226	231	243	256	265	270	268	267	264	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	382	380	375	372	365	363	356	348	343	333	329	324	330	329	326	329	338	346	350	359	367	378	383	381	
FEBRUARY	365	364	354	350	347	343	337	331	326	322	319	320	319	322	324	329	330	330	342	355	360	368	386	383	
MARCH	347	344	342	338	331	323	312	315	318	322	325	325	320	321	321	317	313	319	327	330	347	353	352	351	
APRIL	344	341	339	333	330	330	323	315	313	316	329	329	324	327	324	322	324	327	331	339	345	351	355	350	
MAY	324	317	318	321	315	298	285	291	301	302	307	312	317	319	320	321	321	325	329	331	329	329	331	333	
JUNE	328	318	309	293	276	283	285	281	261	264	200	205	296	307	314	319	324	327	328	327	326	328	327	329	
JULY	300	300	292	293	298	285	291	289	287	290	292	296	296	298	300	301	302	302	301	301	303	305	304	304	
AUGUST	294	290	294	290	278	269	268	269	274	275	281	285	285	285	283	281	284	288	294	302	301	298	299	298	
SEPTEMBER	298	286	272	262	268	261	263	258	263	265	271	276	274	274	269	262	271	281	289	298	304	302	300	299	
OCTOBER	297	280	279	277	270	252	255	258	257	268	260	255	253	247	234	252	267	268	283	297	306	310	301	302	
NOVEMBER	321	312	291	281	284	275	280	276	275	278	282	279	257	270	269	281	289	297	303	309	321	334	339	340	
DECEMBER	275	273	274	269	258	254	264	257	246	233	236	232	229	225	223	224	224	237	255	268	276	283	287	284	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1969

Tabular Baseline= 35000 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	774	772	770	768	766	764	763	760	757	753	750	747	744	739	734	728	727	735	745	755	763	767	770	770	
FEBRUARY	767	762	760	758	755	752	750	749	749	748	746	742	738	734	729	724	722	727	735	745	757	767	769	769	
MARCH	759	756	748	746	747	743	737	735	732	733	735	739	740	736	729	725	726	730	737	746	753	758	760	760	
APRIL	746	743	742	741	738	733	729	727	726	730	732	734	735	733	730	727	728	731	735	738	742	744	744	745	
MAY	732	731	728	725	723	719	717	718	717	717	717	720	722	724	724	722	723	726	729	731	731	731	731	732	
JUNE	720	720	719	718	717	714	713	713	712	713	715	715	716	717	717	716	716	715	716	718	719	720	719	719	
JULY	707	707	707	706	704	706	704	700	703	704	705	706	707	707	705	704	704	705	706	707	708	708	707	706	
AUGUST	700	700	699	697	695	695	695	695	694	694	694	695	696	695	692	690	689	691	695	698	700	700	700	700	
SEPTEMBER	696	695	692	690	689	688	689	685	681	680	682	686	683	682	676	673	674	676	682	688	695	698	699	698	
OCTOBER	694	692	689	687	686	683	681	680	680	679	678	678	674	670	667	663	661	665	673	682	691	694	696	694	
NOVEMBER	682	681	679	678	676	674	671	670	670	666	662	657	652	648	646	646	650	656	662	671	678	683	684	683	
DECEMBER	670	670	669	668	666	663	663	661	657	652	647	642	638	634	632	631	632	639	648	657	662	666	669	668	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	772	772	771	770	768	767	767	765	763	758	754	751	748	744	736	731	731	739	748	757	761	766	767	769	
FEBRUARY	756	755	753	751	751	749	748	748	749	746	744	741	736	729	725	720	719	724	733	741	747	753	757	756	
MARCH	754	751	750	749	747	745	744	744	745	744															

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1970

Tabular Baseline= 35000 nT

UT	All-days mean diurnal variation																								no of days excluded
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JANUARY	665	662	661	659	657	654	654	651	647	644	640	637	634	629	624	621	619	625	635	645	653	660	663	665	1
FEBRUARY	655	654	652	650	649	646	644	643	641	640	638	635	632	627	621	616	612	615	623	635	646	653	657	656	
MARCH	659	658	655	650	650	649	647	647	643	640	641	639	640	640	637	630	628	629	632	637	649	661	672	666	661
APRIL	651	650	648	645	639	640	638	637	637	634	635	638	640	638	636	633	633	635	640	645	650	651	651	652	
MAY	640	641	640	639	637	634	634	632	633	632	631	631	632	634	633	631	632	634	637	639	640	640	640	640	
JUNE	629	629	629	628	626	624	622	622	621	620	621	622	622	624	624	624	624	626	627	628	628	628	628	628	
JULY	622	623	622	620	616	612	607	607	606	607	609	612	615	616	616	616	617	619	620	621	622	621	621	621	
AUGUST	616	614	614	612	611	609	608	607	605	605	606	607	608	609	607	604	604	606	610	613	615	615	615	615	1
SEPTEMBER	609	608	606	604	601	598	597	596	595	595	597	598	598	594	590	586	587	591	595	600	605	608	608	608	
OCTOBER	603	601	599	596	593	593	592	589	589	589	587	587	585	581	577	572	572	577	585	593	600	604	606	605	
NOVEMBER	597	595	593	591	588	586	586	586	582	579	576	571	568	563	560	559	562	567	576	585	592	597	597	596	1
DECEMBER	582	581	580	578	576	576	574	572	569	565	561	557	553	548	547	546	547	554	561	567	572	576	579	581	1

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	659	658	658	657	657	655	654	652	649	644	642	640	634	627	621	617	617	624	634	642	651	659	661	664	
FEBRUARY	652	651	650	649	649	647	646	646	645	643	640	637	636	631	624	615	610	612	621	632	646	652	655	654	
MARCH	651	651	649	648	647	645	644	643	643	644	645	645	643	638	631	623	621	626	633	643	651	652	650	649	
APRIL	647	646	644	643	642	641	639	639	638	638	639	641	641	638	634	629	626	629	633	638	642	643	644	643	
MAY	639	638	637	636	636	634	634	634	634	634	635	635	635	635	633	631	631	634	637	639	640	640	639	638	
JUNE	627	627	627	626	626	626	625	625	625	626	626	626	625	626	625	625	625	626	628	628	628	628	627	625	
JULY	620	619	619	618	617	616	616	616	616	615	614	615	616	618	618	616	615	617	618	620	619	617	617	616	
AUGUST	616	616	615	614	613	612	612	612	611	610	611	611	611	611	608	606	606	608	611	615	616	615	615	614	
SEPTEMBER	607	606	604	604	603	598	597	597	597	599	600	602	601	597	592	587	587	589	592	598	603	605	607	605	
OCTOBER	597	596	595	594	593	593	593	593	592	592	591	588	586	581	576	570	570	576	584	592	596	596	595	595	
NOVEMBER	588	588	589	588	587	586	587	585	583	580	576	572	567	562	558	557	559	565	574	580	587	589	590	587	
DECEMBER	578	579	579	579	578	576	575	575	572	569	564	560	555	551	550	550	552	557	562	566	569	573	575	576	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	672	667	665	660	655	650	651	648	639	637	633	629	628	626	623	619	619	627	640	648	657	670	673	674	
FEBRUARY	654	654	654	651	646	644	642	639	636	632	631	631	628	622	619	620	618	619	626	637	645	653	661	660	
MARCH	665	665	657	645	652	653	650	635	624	629	620	625	634	633	616	631	644	648	645	665	698	744	706	683	
APRIL	652	650	646	638	615	637	639	638	636	630	627	628	634	632	633	634	636	639	645	656	660	658	661	662	
MAY	639	642	644	640	637	633	631	628	631	632	626	618	620	624	628	628	630	632	635	638	638	640	642	643	
JUNE	633	633	636	628	622	623	617	616	617	608	609	612	612	615	619	625	627	628	632	634	633	633	632	635	
JULY	630	635	634	622	609	604	590	584	580	583	584	590	600	603	607	615	622	625	624	623	623	628	630	633	
AUGUST	624	618	617	611	609	600	602	598	594	591	589	588	597	605	611	612	612	613	618	623	625	624	623	625	1
SEPTEMBER	608	608	604	603	602	597	592	587	582	584	589	591	591	588	586	586	586	593	595	600	604	612	615	615	
OCTOBER	613	609	604	598	594	599	598	593	590	591	591	588	586	582	578	573	575	583	595	602	613	621	625	623	
NOVEMBER	601	602	602	594	586	585	582	578	572	569	563	558	557	553	556	558	564	573	583	593	601	607	606	605	1
DECEMBER	591	590	582	577	575	576	574	572	569	567	564	559	554	548	549	547	549	557	564	569	579	585	587	588	1

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1971

Tabular Baseline= 35000 nT

UT	All-days mean diurnal variation																								no of days excluded
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JANUARY	581	578	577	574	572	569	567	565	561	558	556	552	549	546	541	540	543	550	558	565	572	578	580	582	
FEBRUARY	582	579	575	571	568	568	567	565	564	563	561	559	557	550	542	538	538	542	552	566	576	582	583	582	
MARCH	568	566	564	562	559	557	555	551	549	549	553	553	552	547	541	538	537	542	551	560	566	569	570	568	
APRIL	563	560	555	554	550	547	544	545	546	544	547	550	552	551	547	544	544	548	553	558	561	563	564	563	
MAY	547	545	545	541	538	538	533	533	535	535	537	538	541	541	539	538	540	543	545	546	545	546	546	546	
JUNE	534	534	534	533	530	528	526	525	525	526	526	527	527	529	530	531	533	534	534	535	534	534	534	534	
JULY	522	521	521	521	520	519	519	518	518	519	520	520	520	520	519	518	518	520	522	521	521	521	520	521	
AUGUST	516	517	516	514	512	510	508	509	510	510	511	511	511	510	509	507	507	509	512	515	516	515	515	515	
SEPTEMBER	515	514	509	508	506	505	503	501	499	501	503	504	505	502	497	494	495	498	503	508	513	515	515	515	
OCTOBER	509	507	503	499	498	496	496	496	496	495	495	495	493	489	485	482	480	483	489	496	503	508	510	510	
NOVEMBER	497	495	492	491	490	487	485	482	480	478	474	471	467	465	463	463	466	471	477	481	487	493	496	497	
DECEMBER	492	491	491	490	480	485	484	481	477	472	467	462	458	456	454	455	457	464	474	485	488	491	492	491	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	570	569	571	572	572	572	572	571	568	565	559	552	548	546	542	541	546	557	565	568	569	568	567	567	
FEBRUARY	576	576	573	571	567	566	566	565	561	560	558	555	552	547	542	537	536	540	552	564	572	575	574	572	
MARCH	563	562	560	559	559	558	556	555	554	554	556	556	554	548	543	541	543	548	55						

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1972

Tabular Baseline= 35000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	489	489	489	487	484	482	480	477	475	472	467	462	457	454	453	450	454	464	473	479	484	486	486	486	486
FEBRUARY	482	481	479	477	474	472	470	469	470	469	465	461	457	453	448	447	449	454	463	471	476	480	482	482	482
MARCH	477	475	472	469	467	464	463	461	461	463	463	462	460	457	452	447	447	452	460	467	475	479	478	478	478
APRIL	465	464	462	459	456	453	452	451	450	450	451	452	453	453	449	448	449	452	456	460	462	464	464	464	464
MAY	455	455	454	452	449	448	447	447	445	446	447	448	449	450	448	447	447	449	452	452	453	453	453	454	454
JUNE	445	441	436	441	441	436	435	434	437	436	437	438	439	441	441	441	443	443	445	446	445	443	443	444	444
JULY	438	439	438	436	434	434	431	431	432	433	433	433	434	435	434	433	433	434	436	437	436	436	435	436	436
AUGUST	446	442	436	429	425	413	414	422	428	427	424	426	435	434	430	428	430	432	435	439	443	443	443	444	448
SEPTEMBER	432	431	429	424	417	416	418	419	419	419	420	422	421	419	413	410	408	411	416	424	431	433	434	432	432
OCTOBER	426	423	421	417	415	414	410	409	409	405	405	406	404	401	397	394	395	400	408	416	424	428	430	427	427
NOVEMBER	418	418	413	404	403	403	402	399	396	394	390	387	385	383	381	381	385	390	398	405	410	413	415	418	418
DECEMBER	398	399	398	398	397	395	391	388	386	382	377	372	368	366	365	364	365	371	379	387	393	399	399	399	399

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	482	483	485	484	483	481	480	478	476	472	470	465	460	457	454	451	454	463	471	475	479	484	482	481	481
FEBRUARY	476	476	475	474	473	472	471	470	470	469	466	463	459	454	448	446	447	450	457	466	472	476	475	476	476
MARCH	475	472	470	469	467	465	465	464	464	464	464	465	463	460	454	450	448	451	458	466	473	477	475	473	473
APRIL	461	460	459	458	457	455	455	454	454	454	454	456	457	454	449	446	447	449	453	456	458	458	457	457	457
MAY	454	453	454	452	450	449	448	448	448	448	449	448	448	448	447	444	444	448	452	454	454	453	453	451	451
JUNE	441	441	441	441	439	438	437	436	437	438	438	438	439	440	439	439	439	441	442	442	442	440	439	439	439
JULY	436	436	435	435	435	434	434	434	434	435	434	435	435	434	433	431	432	434	436	437	437	436	435	435	435
AUGUST	435	434	434	433	433	430	429	429	428	428	429	430	431	429	425	423	423	426	431	436	438	437	436	435	435
SEPTEMBER	428	428	428	427	425	423	421	421	421	421	421	421	422	418	412	407	406	408	413	419	427	427	427	427	427
OCTOBER	422	421	419	418	418	417	415	415	415	414	413	414	412	409	404	400	399	402	407	414	422	426	425	423	423
NOVEMBER	413	411	410	409	408	407	407	407	404	401	395	391	387	385	383	384	385	388	395	402	406	410	411	411	411
DECEMBER	394	397	396	397	396	396	394	393	389	386	383	376	371	369	368	367	368	373	379	386	391	392	394	394	394

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	496	491	492	489	481	484	479	475	473	467	461	458	460	458	452	442	452	465	474	485	495	492	486	490	490
FEBRUARY	479	481	479	476	473	471	468	465	463	462	458	454	448	448	438	436	444	451	465	475	485	491	493	493	493
MARCH	481	478	471	462	463	463	461	458	462	464	465	459	456	455	452	448	449	456	465	471	479	485	484	482	482
APRIL	461	460	457	450	447	446	439	436	432	430	431	434	441	447	448	448	452	456	459	461	465	468	469	471	471
MAY	465	470	463	460	454	452	452	450	444	445	449	450	452	452	452	450	448	452	456	452	456	459	458	467	467
JUNE	449	429	397	436	440	414	412	413	432	422	424	430	431	437	437	442	440	446	449	452	449	447	452	457	457
JULY	442	444	442	438	432	433	424	419	423	426	426	426	429	431	431	431	431	433	437	439	438	437	438	442	442
AUGUST	482	457	437	407	387	325	340	385	418	403	385	388	440	439	430	437	446	450	448	453	460	469	470	499	499
SEPTEMBER	445	439	435	412	387	391	404	414	421	423	422	424	423	423	416	416	412	413	418	427	440	448	454	447	447
OCTOBER	431	423	421	413	410	413	404	399	398	390	394	400	401	398	391	391	396	403	413	418	428	429	436	430	430
NOVEMBER	426	428	413	375	381	387	388	379	373	375	376	379	382	383	382	388	397	400	408	414	420	426	430	437	437
DECEMBER	403	405	403	398	399	394	382	378	380	374	367	365	365	363	362	361	364	371	379	393	402	414	408	407	407

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1973

Tabular Baseline= 35000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	397	396	393	392	389	385	385	383	382	379	375	369	365	364	362	361	364	369	376	384	387	392	395	396	396
FEBRUARY	398	395	390	386	384	380	377	376	377	377	373	372	369	366	361	358	358	364	374	384	395	403	404	401	401
MARCH	388	386	383	378	374	374	367	370	370	368	369	371	370	366	363	362	362	366	375	386	392	396	395	393	393
APRIL	386	380	375	371	370	361	357	358	355	363	368	372	373	373	371	371	372	375	381	388	391	393	390	389	389
MAY	370	364	363	360	360	356	352	349	348	352	356	361	364	365	364	365	366	367	370	370	369	369	369	369	369
JUNE	354	355	352	348	347	346	345	342	341	345	347	348	350	352	351	352	353	354	355	354	354	355	354	354	354
JULY	343	344	343	341	338	337	336	333	335	337	337	339	340	341	341	341	342	343	344	344	344	345	344	343	343
AUGUST	336	336	335	334	331	329	328	325	326	327	331	330	332	333	331	329	329	331	333	336	338	337	336	336	336
SEPTEMBER	335	335	333	330	327	326	325	322	323	322	321	321	320	318	317	315	315	319	324	330	334	337	337	335	335
OCTOBER	330	327	324	322	320	318	314	314	314	313	312	312	312	310	310	308	305	305	315	323	329	334	335	333	333
NOVEMBER	322	321	320	316	316	315	313	310	307	306	304	300	297	295	293	293	295	299	304	310	315	320	321	322	322
DECEMBER	311	310	310	309	307	305	303	299	296	293	288	284	281	280	279	280	282	287	293	299	304	308	310	311	311

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	388	389	391	390	391	391	389	387	385	382	377	372	368	367	368	370	373	375	379	383	384	384	385	386	386
FEBRUARY	390	389	387	384	382	382	381	378	378	377	37														

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1974

Tabular Baseline= 35000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	303	302	300	298	297	295	293	289	289	287	285	281	277	274	272	272	276	282	288	293	298	301	301	303	
FEBRUARY	297	297	295	293	292	288	285	285	286	285	282	279	273	271	271	271	275	280	286	290	295	297	299	299	
MARCH	296	292	290	287	284	280	277	277	277	278	280	278	277	275	273	274	280	287	292	297	300	300	300		
APRIL	290	286	283	277	270	268	266	265	265	268	272	277	279	277	275	275	276	279	282	286	288	288	289	290	
MAY	278	276	274	270	268	266	264	260	259	262	265	268	271	272	271	271	272	273	276	276	277	276	277	277	
JUNE	264	265	263	258	256	253	251	252	254	255	257	258	260	261	261	262	263	264	265	264	265	265	265	265	
JULY	261	260	257	251	241	231	225	240	245	243	247	255	255	256	256	257	258	260	261	261	261	261	262	262	
AUGUST	247	243	244	242	237	233	232	233	234	235	236	238	240	242	240	237	239	241	244	247	248	248	247	247	
SEPTEMBER	243	239	237	232	230	226	227	227	227	223	225	229	229	227	224	223	224	227	234	239	245	246	246	246	
OCTOBER	238	232	226	219	217	212	209	211	211	211	212	213	212	208	206	207	208	213	223	231	236	241	242	240	
NOVEMBER	228	225	223	220	215	213	210	208	205	201	198	195	194	193	191	191	196	202	209	218	222	226	228	228	
DECEMBER	214	213	211	208	205	202	201	197	192	188	185	180	176	176	174	174	177	185	195	202	208	210	213	213	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	294	296	297	297	297	296	295	293	291	290	287	282	277	275	275	276	277	285	290	294	295	296	294	294	
FEBRUARY	291	289	291	291	290	289	288	288	288	288	286	281	279	277	275	275	280	282	287	291	293	293	293	292	
MARCH	295	294	293	292	290	285	283	284	286	287	288	288	286	281	277	273	275	280	285	290	292	293	291	291	
APRIL	281	281	281	279	278	277	278	277	276	276	277	278	278	277	274	270	270	273	277	281	281	280	280	281	
MAY	278	277	276	276	274	273	272	272	272	273	273	273	273	274	273	271	272	275	277	279	278	277	277	276	
JUNE	265	265	264	264	262	261	260	261	262	262	263	263	263	263	262	263	264	265	266	267	267	266	265	265	
JULY	252	252	253	251	251	250	249	246	245	247	247	249	250	250	249	248	249	250	250	251	251	251	250	249	
AUGUST	244	245	245	245	243	241	241	241	241	242	242	244	245	244	242	239	240	242	245	246	245	243	243	243	
SEPTEMBER	239	239	239	238	236	235	234	233	234	235	235	235	234	231	226	224	222	225	230	236	240	240	239	238	
OCTOBER	232	228	228	227	225	224	222	222	223	222	220	219	216	212	208	205	205	212	220	227	229	233	232	232	
NOVEMBER	217	218	218	218	217	215	215	214	211	206	203	199	197	194	190	188	192	197	205	213	215	215	216	215	
DECEMBER	207	208	208	208	207	207	206	204	200	196	190	184	178	175	173	173	176	187	194	201	205	208	209	210	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	311	307	300	295	294	294	292	280	279	278	280	285	281	275	274	271	275	281	291	299	307	313	312	315	
FEBRUARY	304	303	298	296	290	281	273	275	280	287	282	276	252	256	262	261	273	282	287	291	300	304	308	307	
MARCH	299	290	284	282	268	269	279	272	270	272	261	272	271	280	273	266	268	281	290	299	308	310	311	306	
APRIL	301	291	285	271	252	247	248	247	256	260	267	277	278	279	276	275	280	282	284	290	293	294	299	299	
MAY	282	282	273	263	252	264	263	254	241	244	254	261	269	270	270	275	273	276	278	278	279	279	285	285	
JUNE	262	266	261	249	238	237	236	238	237	235	242	250	254	258	261	264	263	264	265	261	266	265	269	268	
JULY	267	264	256	246	191	132	107	200	221	202	224	251	253	252	257	264	271	275	276	275	274	281	284	283	
AUGUST	244	232	241	243	228	221	212	215	220	214	220	227	229	236	236	235	238	243	248	250	251	253	250	249	
SEPTEMBER	252	237	236	226	228	211	219	221	222	211	220	227	218	224	216	224	228	227	241	247	258	261	264	265	
OCTOBER	251	232	214	208	196	186	178	189	173	169	182	195	201	200	210	212	214	221	240	246	251	256	258	254	
NOVEMBER	244	231	226	217	202	204	194	190	185	179	186	186	192	192	197	202	212	220	226	238	243	247	247	245	
DECEMBER	221	220	216	211	204	194	195	190	182	184	182	177	176	178	171	169	173	183	201	205	213	215	219	221	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1975

Tabular Baseline= 35000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	211	209	209	208	204	202	200	196	193	190	188	185	182	181	177	176	178	184	192	199	204	207	210	211	
FEBRUARY	203	201	198	195	192	187	183	182	183	184	180	177	177	176	174	173	173	176	184	192	197	201	202	203	
MARCH	195	194	190	186	184	183	179	176	175	176	178	179	178	177	175	174	174	181	188	194	198	200	200	199	
APRIL	187	185	180	178	175	171	170	169	172	172	172	176	178	178	175	173	175	177	181	184	187	186	185	186	
MAY	169	169	171	165	165	164	164	160	160	164	166	168	169	169	169	169	170	173	174	174	174	174	174	175	
JUNE	162	161	161	160	157	156	156	154	154	153	156	157	158	159	160	160	160	161	162	162	161	160	160	162	
JULY	156	155	155	152	150	147	145	141	143	146	148	150	150	151	151	152	153	154	155	155	154	153	154	155	
AUGUST	147	147	145	143	139	137	137	137	137	138	139	140	141	141	140	139	139	141	143	146	147	146	147	147	
SEPTEMBER	144	145	143	141	139	139	137	137	136	136	137	137	136	133	131	128	130	133	137	143	146	146	145	146	
OCTOBER	144	142	139	136	133	132	130	128	128	127	126	126	127	126	124	122	121	124	130	137	142	145	145	145	
NOVEMBER	150	148	145	142	139	138	135	132	129	124	121	119	117	117	117	115	117	123	134	142	148	149	151	152	
DECEMBER	142	142	140	138	136	133	130	127	124	122	117	112	108	108	108	110	114	119	125	130	134	138	139	140	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	204	204	204	204	202	201	199	197	196	194	192	189	185	181	175	173	174	183	194	199	200	200	201	203	
FEBRUARY	193	193	197	196	192	190	187	187	188	185	184	181	179	177	174	173	173	177	183	189					

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1976

Tabular Baseline= 35000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	134	132	133	131	130	127	125	124	121	116	114	109	104	103	102	100	104	112	121	132	131	135	135	134	
FEBRUARY	129	128	125	122	118	116	114	111	112	113	110	105	103	101	99	100	102	100	114	120	124	127	129	129	
MARCH	127	122	118	112	108	106	101	98	94	103	109	112	110	106	104	105	108	113	119	125	128	130	129	128	
APRIL	119	117	113	106	99	89	95	95	89	90	101	109	111	110	109	109	111	113	116	119	120	119	119	120	
MAY	109	105	101	97	96	95	96	95	92	94	97	98	101	103	103	101	102	103	104	106	106	106	107	107	
JUNE	93	93	92	90	89	89	87	85	85	87	86	88	90	91	91	91	92	93	94	93	91	91	92	92	
JULY	84	84	83	83	82	80	78	77	78	80	80	80	82	83	83	83	83	84	85	85	84	84	83	84	
AUGUST	77	77	76	75	74	73	71	70	70	71	71	72	73	73	71	71	71	73	76	78	79	78	77	77	
SEPTEMBER	74	73	72	70	66	61	58	60	60	62	63	64	64	62	59	57	57	61	65	70	75	76	76	75	
OCTOBER	65	64	62	59	56	54	52	52	53	51	50	52	50	46	43	42	43	48	55	61	65	66	68	68	
NOVEMBER	58	57	56	54	51	50	49	47	46	42	37	33	30	29	29	29	32	38	45	50	53	53	55	57	
DECEMBER	59	58	56	54	52	50	48	45	41	36	33	30	27	26	25	25	29	37	44	49	54	58	59	59	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	126	127	128	128	127	125	124	123	120	116	112	105	103	104	103	103	106	111	115	119	119	121	121	123	
FEBRUARY	121	121	120	119	119	119	116	113	113	113	112	108	107	106	102	100	103	107	115	116	118	118	119	118	
MARCH	114	113	113	112	112	111	109	108	107	108	109	109	107	103	100	99	101	103	106	111	115	115	115	114	
APRIL	112	111	111	109	108	108	107	106	106	106	105	105	106	105	103	102	104	107	110	112	113	112	111	110	
MAY	105	105	105	103	103	103	102	103	103	104	103	103	103	104	102	102	103	105	106	107	107	106	106	105	
JUNE	93	93	93	92	91	90	90	90	91	91	90	91	92	92	92	92	93	94	95	94	93	92	92	91	
JULY	82	82	82	82	83	82	81	79	79	80	81	81	82	82	82	82	82	83	84	84	83	82	80	79	
AUGUST	75	75	76	76	75	75	74	75	75	74	74	75	74	73	71	71	71	72	75	77	77	76	75	74	
SEPTEMBER	71	71	71	71	70	68	67	67	67	67	67	67	65	62	57	56	57	60	64	70	73	73	72	71	
OCTOBER	59	58	56	57	56	54	53	53	51	49	47	44	42	40	36	34	36	41	48	53	56	58	58	57	
NOVEMBER	52	53	53	52	50	49	48	48	46	43	39	33	30	28	28	28	30	35	42	46	46	48	49	50	
DECEMBER	56	55	56	55	54	54	54	52	49	46	40	36	33	31	31	31	34	37	42	46	51	55	58	57	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	148	133	136	132	133	128	129	131	123	115	112	108	101	94	97	96	101	107	122	168	154	172	166	161	
FEBRUARY	134	131	126	123	115	102	99	106	113	117	111	103	102	99	94	93	98	111	116	123	131	136	136	138	
MARCH	137	124	113	92	83	89	58	47	20	59	100	111	111	97	105	113	120	127	135	146	147	152	150	146	
APRIL	132	124	106	78	55	10	52	59	26	16	70	111	120	121	119	123	127	131	132	142	145	148	144	141	
MAY	125	107	86	81	75	65	80	85	70	78	88	85	95	104	106	103	105	105	102	112	115	119	121	121	
JUNE	90	91	92	83	86	87	84	74	67	76	68	74	81	87	90	94	96	96	98	97	96	93	96	96	
JULY	85	85	79	78	74	70	69	73	78	81	81	76	77	76	81	82	81	82	84	83	81	84	85	84	
AUGUST	78	78	76	72	70	70	63	65	62	57	59	59	69	71	65	66	70	73	75	80	83	82	83	83	
SEPTEMBER	74	74	76	70	57	39	25	34	37	42	45	53	56	60	60	59	58	63	68	73	79	83	83	80	
OCTOBER	71	67	63	56	45	37	25	26	42	41	42	50	48	43	44	46	51	54	59	65	72	76	79	78	
NOVEMBER	66	61	56	56	53	51	49	44	46	42	38	32	29	31	33	31	31	38	46	56	64	63	68	66	
DECEMBER	62	62	52	48	49	47	40	29	19	16	20	23	28	33	30	27	32	41	51	59	65	70	67	66	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1977

Tabular Baseline= 34500 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	556	554	551	549	546	543	540	537	535	533	531	527	524	521	519	518	520	525	532	538	545	549	553	554	
FEBRUARY	546	544	542	541	536	534	533	531	530	530	528	526	524	517	514	511	512	518	526	535	542	545	547	548	
MARCH	533	531	529	527	525	523	522	519	519	520	522	522	519	516	514	511	511	516	523	529	533	533	533	532	
APRIL	524	523	520	524	516	514	506	508	510	510	515	518	519	519	516	514	515	518	522	526	527	527	527	526	
MAY	521	520	520	518	516	511	512	512	512	513	514	514	517	517	517	516	516	519	520	521	521	521	521	521	
JUNE	509	508	509	508	507	505	505	504	506	507	507	507	507	508	508	507	508	509	510	509	509	508	508	508	
JULY	501	501	500	498	493	490	491	491	492	494	496	497	497	498	499	499	500	501	502	503	503	502	502	501	
AUGUST	499	498	497	494	490	487	487	485	484	486	487	490	491	491	490	489	489	491	494	497	498	498	498	498	
SEPTEMBER	493	491	489	484	481	479	481	478	479	478	478	481	481	477	474	473	475	478	484	490	495	495	495	494	
OCTOBER	492	489	485	482	480	480	477	475	475	476	475	474	472	469	466	464	465	470	478	485	492	494	495	492	
NOVEMBER	484	482	481	479	477	475	474	471	468	466	461	458	457	454	453	454	458	463	470	474	478	481	482	485	
DECEMBER	477	476	475	472	468	463	463	463	462	459	455	450	445	443	441	441	444	452	461	468	474	475	476	475	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	549	549	547	545	543	542	541	540	537	533	532	529	527	522	518	516	517	525	534	541	546	547	547	547	
FEBRUARY	544	541	540	540	537	534	532	531	531	530	529	527	524	519	514	514	514	518	527	534	538	540	539	539	
MARCH	528	527	527	526	525	522	521	520	520	520	518	516	515	511	507	505	506	512	518	523	525	525	523	521	
APRIL	521	520	520	520	519	517	516	513	514	514	516	517	518	516	512	511	514	518	521	524	524	523	522	520	
MAY	517	517	516	516	515	515	514	514	514	515	515	516	516	516	516	514	515	517	518	518	517	516	515	515	
JUNE	509																								

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1978

Tabular Baseline= 34500 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	472	470	469	465	464	461	458	455	452	449	447	443	440	439	437	438	442	448	457	464	465	470	471	471	
FEBRUARY	472	468	463	459	455	453	451	449	449	446	443	440	438	435	433	431	432	438	449	458	465	472	474	472	
MARCH	461	459	454	450	448	444	444	442	442	441	443	444	441	437	434	433	435	441	448	455	461	463	464	462	
APRIL	461	457	452	448	446	442	440	443	445	447	446	447	447	447	446	442	443	447	451	456	461	463	462	463	
MAY	455	452	447	444	438	431	423	417	420	430	433	437	438	440	445	445	446	449	451	454	454	455	457	457	
JUNE	442	441	437	433	431	427	425	426	427	427	428	429	433	435	434	435	435	436	438	439	440	438	437	439	
JULY	433	434	433	433	429	426	426	421	423	425	425	426	428	428	425	424	426	429	432	433	432	431	430	431	
AUGUST	419	418	418	415	410	404	399	398	396	399	403	404	410	408	408	408	409	410	413	417	419	419	418	419	
SEPTEMBER	424	422	421	417	412	406	403	394	389	394	398	401	401	404	401	397	398	402	409	418	425	427	426	426	
OCTOBER	418	415	412	408	405	402	399	400	399	398	398	397	392	388	383	381	381	387	396	406	416	420	420	420	
NOVEMBER	414	411	409	406	403	401	399	397	393	390	386	382	377	372	370	369	373	381	391	401	407	414	418	417	
DECEMBER	401	400	398	396	391	389	387	385	381	375	371	364	358	355	353	354	358	365	377	387	395	401	402	401	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	463	464	464	463	463	463	462	460	459	457	454	447	443	441	441	442	446	450	456	462	463	464	465	465	
FEBRUARY	468	465	461	460	458	456	455	454	452	451	448	446	441	436	431	429	431	438	448	456	462	463	460	461	
MARCH	457	455	454	453	452	450	448	448	447	448	448	447	443	439	435	434	437	442	449	454	457	457	456	453	
APRIL	456	455	454	452	450	447	447	447	447	447	447	449	449	446	444	443	445	447	450	455	456	457	457	455	
MAY	451	451	450	447	444	444	444	443	445	444	444	445	446	446	445	443	443	446	449	450	450	448	447	446	
JUNE	438	437	436	436	434	432	431	431	431	431	433	434	434	434	433	433	434	435	438	438	437	436	434	433	
JULY	422	422	423	422	421	421	420	419	419	419	419	419	420	421	419	417	417	420	423	425	424	422	421	420	
AUGUST	415	415	415	414	414	412	412	412	412	413	414	415	414	412	410	407	405	407	410	414	417	416	414	414	
SEPTEMBER	415	415	414	412	412	411	410	409	409	409	410	410	408	403	397	394	394	397	403	410	416	416	413	413	
OCTOBER	415	412	411	408	407	405	404	404	405	405	404	402	398	394	388	383	378	382	392	404	412	414	413	412	
NOVEMBER	410	407	405	403	402	402	403	401	397	394	389	384	378	373	369	366	368	377	387	393	399	406	408	410	
DECEMBER	393	394	394	394	395	394	393	391	386	379	370	361	356	356	357	361	364	368	375	384	391	395	395	393	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	477	469	467	443	446	438	431	423	422	422	422	421	425	427	430	436	447	450	467	479	472	478	476	477	
FEBRUARY	475	471	461	452	449	444	438	436	432	425	420	423	430	428	434	429	428	436	453	464	478	486	486	478	
MARCH	468	465	442	439	439	431	439	427	429	435	444	448	444	436	430	430	436	439	450	459	476	476	479	477	
APRIL	474	463	450	442	438	426	427	441	448	451	442	439	440	446	447	438	440	449	454	458	474	474	475	472	
MAY	474	461	437	443	427	390	345	311	315	362	378	400	407	414	449	456	460	466	470	478	481	488	499	492	
JUNE	451	447	432	422	418	407	400	402	411	411	415	418	429	437	433	435	437	438	440	444	445	443	444	446	
JULY	440	445	443	444	424	410	416	392	404	419	418	420	427	427	421	421	427	439	441	438	439	439	443	443	
AUGUST	430	422	419	407	386	357	338	343	326	335	356	365	404	396	404	413	419	418	419	426	430	434	436	435	
SEPTEMBER	432	419	424	417	397	381	377	337	308	328	335	353	352	387	398	397	399	409	419	431	441	450	451	444	
OCTOBER	424	417	411	406	397	390	395	381	373	375	378	386	385	383	388	382	384	393	405	417	427	435	434	431	
NOVEMBER	415	415	410	408	402	390	387	382	375	375	368	363	362	356	355	360	380	388	405	418	416	424	428	426	
DECEMBER	403	404	402	396	383	377	369	366	360	361	363	354	348	354	352	351	356	368	384	395	409	417	421	420	

Note:—The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1979

Tabular Baseline= 34000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	902	898	896	893	889	885	886	884	879	875	869	861	855	851	849	846	847	859	874	887	894	901	904	907	
FEBRUARY	889	887	885	881	876	873	870	866	868	871	868	864	860	853	845	839	840	849	863	876	886	891	891	891	
MARCH	884	881	877	873	869	865	862	859	856	855	857	858	857	852	845	838	838	843	855	868	881	887	889	888	
APRIL	881	877	869	868	862	856	854	855	849	855	857	859	863	863	857	852	850	854	861	869	875	879	880	880	
MAY	860	859	854	852	849	847	844	842	844	845	846	847	850	852	850	848	847	850	852	856	858	857	858	861	
JUNE	843	843	843	841	839	836	835	833	834	835	837	838	838	838	837	836	837	839	841	842	842	842	841	843	
JULY	834	833	831	829	829	828	827	826	826	826	826	827	828	828	826	825	827	829	831	832	832	831	831	832	
AUGUST	833	831	831	827	823	820	818	820	819	817	818	819	819	818	816	814	813	816	822	829	831	831	831	832	
SEPTEMBER	832	832	830	825	821	819	818	815	814	816	818	818	817	811	805	801	800	806	813	821	828	832	833	832	
OCTOBER	827	825	819	816	815	813	810	811	809	806	804	803	800	795	789	785	785	790	801	812	821	827	831	830	
NOVEMBER	817	815	813	809	805	804	803	801	798	794	791	785	779	775	773	771	773	780	790	800	810	815	817	817	
DECEMBER	801	800	799	797	794	791	789	787	782	778	773	766	761	757	755	754	755	762	772	783	793	801	804	804	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	889	889	891	890	889	888	886	883	877	874	867	860	852	847	846	844	841	852	868	878	882	889	888	891	
FEBRUARY	881	881	879	877	875	873	873	873	873	872	869	863	855	849	843	837	838	846	861	874	878	881	881	880	
MARCH	878	878	875	873	869	865	862	861																	

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1980

Tabular Baseline= 34000 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	796	793	792	790	787	786	785	783	780	776	769	760	753	749	747	747	750	759	770	781	790	798	799	798	
FEBRUARY	789	787	784	783	780	778	777	775	774	773	771	767	760	755	751	750	753	761	772	780	786	789	791	792	
MARCH	775	774	772	769	767	766	764	763	762	764	765	764	760	754	748	746	747	754	762	770	775	777	775	775	
APRIL	773	773	771	768	764	760	760	758	760	761	761	763	764	762	757	752	752	755	762	768	773	774	774	774	
MAY	761	759	757	755	754	753	752	750	749	749	749	750	752	753	751	749	751	753	755	760	761	760	760	761	
JUNE	757	756	755	754	752	750	748	747	744	744	745	745	748	751	752	751	751	754	755	756	757	757	757	757	
JULY	747	747	746	745	744	743	742	742	742	742	742	743	744	744	743	741	741	743	746	748	749	749	748	749	
AUGUST	736	736	736	735	734	731	731	729	728	728	730	731	732	732	728	724	724	727	731	735	738	738	737	737	
SEPTEMBER	733	733	731	728	726	725	723	722	722	723	724	724	722	718	712	706	705	709	716	725	732	735	734	734	
OCTOBER	734	731	728	726	722	720	714	713	711	711	713	710	708	704	699	696	696	700	709	720	729	736	738	737	
NOVEMBER	726	724	722	718	714	711	711	708	704	699	694	690	686	684	681	680	682	689	699	709	717	725	726	727	
DECEMBER	719	717	716	714	711	710	707	704	700	695	689	682	676	672	670	669	674	686	700	713	719	723	723	719	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	786	784	785	788	787	786	784	781	776	773	768	761	754	749	747	745	748	756	766	774	779	783	785	784	
FEBRUARY	782	782	782	782	781	780	778	778	777	773	765	755	749	745	746	750	756	764	770	775	777	777	777	779	
MARCH	773	773	772	771	769	768	767	767	767	769	768	767	763	755	749	744	744	750	758	768	773	776	773	772	
APRIL	776	776	775	771	769	768	766	766	765	765	766	768	769	765	758	756	756	758	764	769	773	774	774	775	
MAY	761	759	757	756	755	754	752	751	752	752	753	754	756	757	754	752	753	756	760	763	764	763	762	761	
JUNE	753	753	752	751	750	750	749	749	749	749	750	751	752	752	752	751	752	754	757	758	758	757	755	754	
JULY	746	747	747	746	745	744	744	743	744	745	744	744	745	746	745	743	743	745	747	749	748	747	745	744	
AUGUST	738	738	737	737	736	733	732	732	732	733	734	735	735	735	730	727	727	729	732	737	739	738	737	737	
SEPTEMBER	731	730	729	726	726	724	722	722	723	723	723	724	722	717	711	705	704	706	712	722	729	731	731	731	
OCTOBER	727	725	723	721	719	720	720	721	720	719	716	712	708	703	697	694	694	698	707	715	723	729	728	727	
NOVEMBER	725	723	722	718	715	714	715	714	713	707	702	697	691	687	684	685	686	690	694	702	710	715	719	719	
DECEMBER	712	711	711	711	710	711	709	707	704	699	693	686	679	673	672	671	675	686	699	707	712	712	711	709	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	800	794	791	788	786	784	786	785	779	776	769	758	749	744	741	740	743	755	774	791	811	836	839	834	
FEBRUARY	787	789	781	780	776	771	771	764	763	762	761	757	751	747	745	744	750	764	770	780	793	798	809	809	
MARCH	781	779	775	764	763	761	758	753	754	757	763	765	760	758	757	754	756	764	771	776	779	782	781	784	
APRIL	780	776	774	768	764	754	759	751	757	761	759	766	768	767	762	755	749	754	763	771	781	784	783	785	
MAY	769	762	759	756	752	756	754	750	740	738	735	737	743	749	752	753	755	758	756	763	769	768	768	770	
JUNE	767	764	762	758	753	748	739	738	727	727	728	730	737	749	755	755	755	758	758	761	770	771	771	770	
JULY	752	753	753	752	749	747	745	743	742	743	743	744	744	745	746	746	747	751	754	755	759	766	766	774	
AUGUST	738	736	733	734	735	730	727	724	723	719	723	724	727	730	727	720	722	727	733	734	737	740	739	739	
SEPTEMBER	742	740	737	731	726	725	723	717	716	718	721	723	722	719	715	707	708	713	721	730	737	741	741	743	
OCTOBER	737	733	729	726	718	715	696	689	689	690	696	697	698	696	690	694	700	698	706	719	729	735	740	741	
NOVEMBER	730	727	723	717	713	711	710	706	699	690	686	680	680	683	680	677	678	688	702	715	725	736	734	733	
DECEMBER	739	731	728	722	719	717	712	702	698	695	689	683	678	667	663	667	683	702	722	740	751	749	745	738	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1981

Tabular Baseline= 34000 nT

no of days excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	703	702	702	700	699	699	698	697	693	687	680	673	668	665	664	664	666	675	685	693	698	703	703	703	
FEBRUARY	711	707	702	698	695	691	690	691	690	689	685	680	676	670	665	663	663	668	681	693	705	714	717	716	
MARCH	707	704	700	699	695	690	687	687	686	686	683	683	680	676	672	669	672	678	690	700	708	712	710	709	
APRIL	708	702	696	694	680	678	674	672	678	683	682	684	686	686	683	680	680	685	691	697	703	704	706	707	
MAY	697	693	689	685	677	665	659	667	671	676	678	678	680	684	683	682	683	685	688	691	694	694	695	699	
JUNE	670	670	670	667	666	665	661	660	661	661	662	664	664	665	665	665	666	668	668	669	669	669	669	669	
JULY	668	664	661	658	658	656	650	654	655	655	656	658	658	657	656	661	661	663	665	667	668	667	666	669	
AUGUST	667	665	663	661	659	657	653	651	649	650	652	654	656	655	651	648	650	654	658	662	665	665	664	667	
SEPTEMBER	659	659	657	654	650	645	644	642	641	644	645	646	644	639	638	631	630	635	642	651	658	660	660	660	
OCTOBER	665	660	653	649	648	645	643	639	635	634	636	635	632	627	623	621	623	628	640	652	663	668	670	670	
NOVEMBER	654	649	646	641	636	634	632	630	626	621	618	614	611	607	606	607	611	618	628	637	645	650	652	655	
DECEMBER	633	631	631	629	626	622	619	615	609	603	596	589	585	584	585	586	589	596	606	617	627	632	636	634	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	698	698	699	698	698	697	697	695	693	689	681	674	668	665	663	660	664	674	684	692	694	694	693	694	
FEBRUARY	702	701	699	697	694	694	691	690	691	691	687	684	679	673	666	661	660	665	676	688	698	703	704	704	
MARCH	698	695	694	693	691	689	688	687	688	6															

ARGENTINE ISLANDS

Vertical intensity (Modulus of field)

1982

Tabular Baseline= 34000 nT

no of days
excluded

All-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	623	622	621	617	614	611	610	608	604	599	594	588	583	580	578	577	580	590	601	610	616	621	623	625	
FEBRUARY	652	643	634	625	613	608	605	605	605	609	610	603	596	595	590	592	593	600	611	626	640	651	662	657	
MARCH	628	624	616	610	606	605	604	600	602	600	602	605	603	597	592	588	588	594	603	613	620	624	627	631	
APRIL	625	622	618	613	607	602	598	598	600	598	599	605	608	608	605	604	605	608	613	619	623	625	626	626	
MAY	611	609	605	601	599	595	594	593	592	594	596	597	600	601	601	601	601	604	607	610	612	611	610	610	
JUNE	599	599	596	591	588	583	577	574	579	583	587	588	591	592	592	591	593	594	595	596	595	595	597	599	
JULY	588	604	588	585	580	577	571	574	579	578	582	587	589	592	591	590	591	592	594	599	602	598	598	597	
AUGUST	596	594	591	589	585	579	567	572	576	575	575	578	581	583	579	576	578	582	586	593	595	596	595	597	
SEPTEMBER	600	597	587	578	559	565	556	554	551	553	558	565	575	576	574	571	571	577	585	594	601	604	604	602	
OCTOBER	590	586	580	573	569	563	557	559	560	560	559	557	555	549	544	542	543	551	562	572	583	590	591	591	
NOVEMBER	581	577	571	567	561	558	553	551	549	547	543	539	534	528	526	528	532	540	551	562	573	580	583	582	
DECEMBER	578	577	572	563	558	556	551	547	540	531	524	514	510	508	508	515	522	534	549	563	571	578	579	578	

Quiet-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	617	616	615	615	615	614	613	611	607	602	595	588	580	579	577	575	578	587	600	609	612	614	615	612	
FEBRUARY	641	638	635	629	622	619	616	615	616	616	611	606	601	596	594	593	594	600	610	623	630	634	637	633	
MARCH	621	620	618	617	612	611	610	608	609	609	610	609	604	598	591	587	586	591	599	610	616	619	619	618	
APRIL	623	621	619	617	616	614	613	613	610	608	605	608	612	613	609	604	604	607	611	615	618	620	619	620	
MAY	606	605	605	603	603	603	602	602	601	601	601	601	602	603	601	600	601	604	607	608	608	607	605	604	
JUNE	595	595	596	593	592	588	586	590	592	592	593	593	593	593	594	591	592	593	597	597	595	592	591	591	
JULY	585	585	584	583	579	577	577	576	580	581	580	580	581	581	581	580	580	581	582	582	581	581	581	580	
AUGUST	595	593	591	592	589	587	588	588	589	588	588	588	588	588	583	579	579	583	588	593	602	602	600	600	
SEPTEMBER	593	591	588	583	583	582	581	579	573	567	568	574	574	571	567	562	560	565	573	583	595	596	596	594	
OCTOBER	583	581	581	579	575	573	572	571	569	564	560	559	557	552	544	539	538	545	558	568	578	584	581	582	
NOVEMBER	567	566	565	563	560	559	560	557	555	553	546	539	534	531	530	530	529	532	542	551	558	566	567	574	
DECEMBER	567	569	568	567	565	562	561	559	555	549	541	530	521	518	517	521	526	534	541	549	557	561	559	557	

Disturbed-days mean diurnal variation

UT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
JANUARY	630	632	625	622	614	601	602	601	597	593	587	583	580	575	574	574	574	586	601	610	620	630	633	637	
FEBRUARY	662	652	637	622	608	590	582	587	585	594	610	597	594	592	590	595	601	603	613	633	652	686	697	682	
MARCH	660	641	606	583	579	582	589	571	585	571	575	599	602	594	589	587	589	598	609	618	627	635	654	678	
APRIL	627	620	622	608	596	580	553	582	588	571	572	588	597	596	597	600	607	613	621	628	631	637	643	639	
MAY	622	612	600	591	586	564	565	569	563	572	584	589	592	593	594	600	598	602	609	615	619	617	612	617	
JUNE	598	605	602	583	570	562	557	547	573	595	598	592	591	594	592	591	597	598	596	604	604	606	609	612	
JULY	558	672	581	587	576	569	561	575	577	572	580	605	611	616	614	611	611	611	618	636	659	644	641	629	
AUGUST	610	605	600	597	579	563	517	544	562	555	549	559	569	581	580	580	590	593	593	600	602	605	602	603	
SEPTEMBER	605	601	552	482	451	504	466	457	423	433	461	491	544	571	589	599	596	606	610	634	636	640	640	624	
OCTOBER	588	584	567	549	553	537	520	534	533	541	546	547	549	547	541	542	546	558	572	578	593	606	606	602	
NOVEMBER	601	587	575	574	572	560	551	549	541	541	548	547	538	517	520	533	540	557	580	595	602	607	609	615	
DECEMBER	594	585	572	549	546	545	543	535	519	495	494	493	494	504	505	517	530	543	561	576	573	585	585	586	

Note:-The last column shows the number of days excluded from the calculation of the means because the days include missing hourly values.

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APPENDIX

1 Fixed-marks and determination of the true meridian

The first fixed-mark was a pole in a bucket of concrete over survey station no. 277 (Wynne-Edwards, 1959), which is on Grotto Island, and was known as the Grotto fixed-mark. Using sun-shots from the Kew pier, its true azimuth was determined in June 1957. Sun-shots were carried out by viewing the sun directly with the Kew declinometer telescope and noting contact times of the sun's limbs, timed so that the middle of the sun crosses the crosshairs at local apparent noon. The true azimuth was in doubt due to possible errors in the determination of the position of survey station no. 277; such errors were quantified and the necessary corrections made by Murray (1961) in 1960. The position of the Kew pier is at:

$$65^{\circ}14'58.7''\text{S}, 64^{\circ}15'33.0''\text{W}$$

Using the 1957 sun-shot, the azimuth of Grotto fixed-mark was $19^{\circ}15.4' \pm 0.2'$. Sun-shots in October 1960 gave, when reworked in 1972, $19^{\circ}15.8'$ (error unknown). Star-shots in June 1963 gave $19^{\circ}15.5' \pm 0.1'$ and, in January 1964, $19^{\circ}19.2'$. Using an azimuth of $19^{\circ}15.5'$ and a divided-circle reading of Grotto fixed mark, $16^{\circ}6.3'$ gave a divided circle reading for the true meridian of $175^{\circ}50.8'$.

From 1957 to 1973, observations were taken assuming that the divided-circle reading of the true meridian remained constant between observations. The true meridian readings were:

$$175^{\circ}50.8' \text{ for } 1957 \text{ to August } 1965$$

and

$$175^{\circ}56.1 \text{ for August } 1965 \text{ to } 1973.$$

Divided-circle readings of the fixed-mark were checked three or four times a year, increasing to twice monthly in 1966, and were taken at every observation after 1973.

The mean divided-circle readings of the Grotto fixed-mark were:

$$15^{\circ}5.3' \pm 0.2' \text{ for } 1957 \text{ to August } 1965$$

and

$$15^{\circ}10.8' \pm 0.1' \text{ for August } 1965 \text{ to } 1967.$$

The change in 1965 was due to the declinometer being knocked off its stand.

Large snow accumulation during 1967 covered the Grotto fixed-mark, so readings were taken from the top of the pole or using the new fixed-mark which was on Galindez Island. The Galindez fixed-mark is a white mark on a pole, erected approximately 100 m to the east of the main hut. Observations using this were less accurate as it was too close to the declinometer pier. On 22 March 1968, the Grotto fixed-mark was accidentally moved, as the bucket of concrete was no longer fixed to the ground. Divided-circle reading at Grotto fixed-mark gave a mean of:

$$15^{\circ}11.7' \pm 0.3' \text{ for the rest of } 1968.$$

As the Grotto fixed-mark was obscured and the Galindez one too close, a new fixed-mark was erected on Uruguay Island, termed Uruguay j. This was used from October 1969. The true azimuth of the Galindez and Uruguay fixed-marks were calculated assuming the Grotto fixed-mark azimuth and divided-circle readings were $19^{\circ}15.6'$ and $15^{\circ}11.7'$. This gave true azimuths of:

$$61^{\circ}3.8' \pm 0.3' \text{ for Uruguay j}$$

and

$$104^{\circ}32.9' \pm 0.3' \text{ for Galindez.}$$

Grotto fixed-mark was reconstructed over survey station 277 in 1976 when ice cleared. A sun-shot in June 1977 gave its true azimuth to be $19^{\circ}15.7' \pm 0.1'$, confirming the Grotto fixed-mark true azimuth and divided-circle readings used to calculate the azimuths of the other fixed marks in 1968.

After 1973, magnetic declination was calculated using a constant true azimuth of a fixed mark, and divided circle reading of the fixed-marks were taken at each observation.

True azimuths were:

$$\begin{aligned} &19^{\circ}15.6' \text{ for Grotto } \pm 0.1' \\ &61^{\circ}3.8' \text{ for Uruguay j } \pm 0.3' \end{aligned}$$

and

$104^{\circ}32.6'$ for Galindez $\pm 0.3'$ measured from the Kew pier.

After 1973, Uruguay j has normally been used for observations, except in poor visibility when Galindez has been used.

2 Asymmetry of the Z scale tests

After the new Z monad magnet was installed in July 1969, it was noticed that the Z scale tests were not symmetrical, one deflection being larger than the other. When scale tests were carried out with zero current between deflections, the trace was displaced in the direction of the first deflection. Checks for extraneous magnetic material were made and a small piece of wire removed from the thermometer; however, this did not affect the asymmetry. Disconnecting the coils between deflections or using the Z variometer coils while those on the H variometer were disconnected was also tried, but made no difference to the asymmetry. However, moving the coils from the H variometer to the Z variometer or changing the misorientation angle of the Z monad magnet did. After resetting up in 1971, it was found that the scale value decreased as the field com-

ponent trace moved up the magnetogram. In mid-1973, this asymmetry reversed so that the scale value increased with increasing trace ordinate but when the coils were moved from the H variometer, the scale value decreased for high or low ordinates. When the original coils were placed over the Z variometer, the scale value again increased with trace ordinate. After March 1979, this asymmetry was reduced and reversed in 1981. When the new monad magnet (no. 214) was installed in 1982 there was no variation of scale value with trace ordinate but, when it was reinstalled in October 1982, the asymmetry was again evident, the scale value increasing with trace ordinate.

This effect appears to be dependent on the position of the monad magnets, the asymmetry changes when the misorientation angle changes.

Plotting the amplitude of the deflections, which are inversely proportional to scale value, against magnetogram ordinate shows this variation in the asymmetry. Some adjustments to the La Cour magnetographs causes a reversal of the direction of the asymmetry.

Scale values were also evaluated from a graph of Z field component against magnetogram ordinate of absolute observations (see section 4). Assuming a linear relationship between them (that is, for a uniform scale value), the scale values evaluated are almost the same as the mean scale values from scale tests using the coils (± 0.1 nT/mm). However, this is not a conclusive test as the scatter is too large to detect a change in scale value with ordinate. So it is not certain that the apparent asymmetrical scale value is a real effect caused by an unknown problem with the Z variometer. It may be caused by the scale test method and the true scale value may be independent of ordinate.

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